ITDP INDIA






Situational Analysis of Chennai Streets

Chennai | 2025

Acknowledgements

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Overview of the Study

Aim, Components and Principles of the Study

The study aims to assess the **current situation of pedestrian infrastructure in Chennai.** It seeks to create awareness and a dialogue surrounding successes and gaps in the infrastructure, prompting the identification of future areas of intervention. **This study looks at 14 streets in different parts of the city.**

The street Assessment comprises of three major components:

I. Design Mapping

II. Perception Surveys

III. Street Usage Observation Study

Each survey is designed based on the following guiding principles of pedestrian infrastructure design:

1

Ease of movement

2

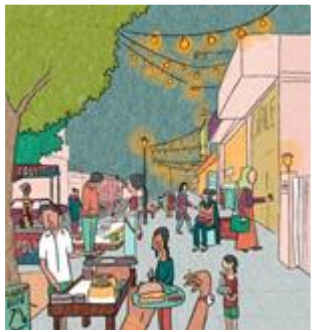
Safety

3

Universal accessibility

4

Liveability



Objectives of the Study

Identify positive impacts of existing infrastructure

For Expansion

Identify gaps of existing infrastructure

For Improvements

Develop scoring system

For Analysis

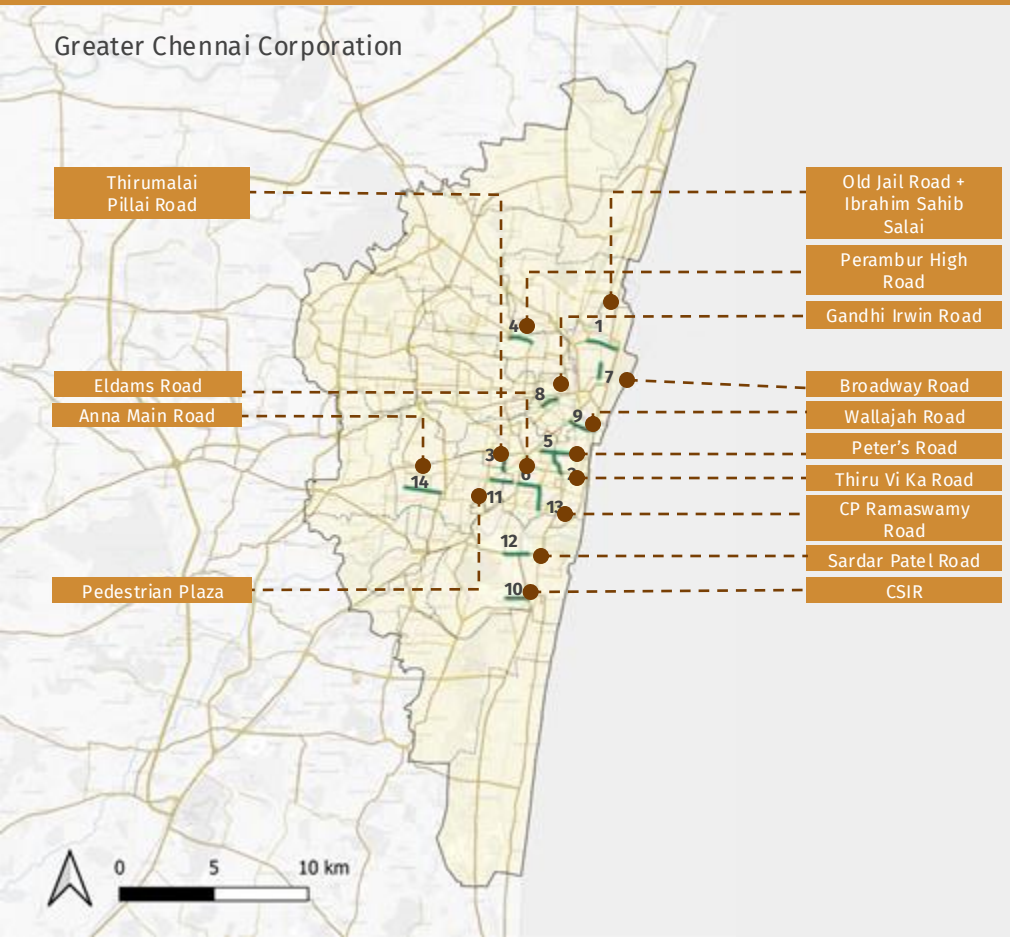
Collect good date

For Creating Database

Craft impactful narrative

For Awareness

Coverage of the Study



14 Streets Selected

32+ kms Mapped

1700+ Perception Surveys

830+ Female Respondents

870+ Male Respondents

250+ Children

300+ Vulnerable Users

Methodology

Data Collection Methods

I. Design Mapping

To assess efficiency and adherence to standards and guidelines.

II. Perception Surveys

To understand what vulnerable groups such as young and elderly pedestrians, cyclists, and public transport users feel about the walking and cycling facilities.

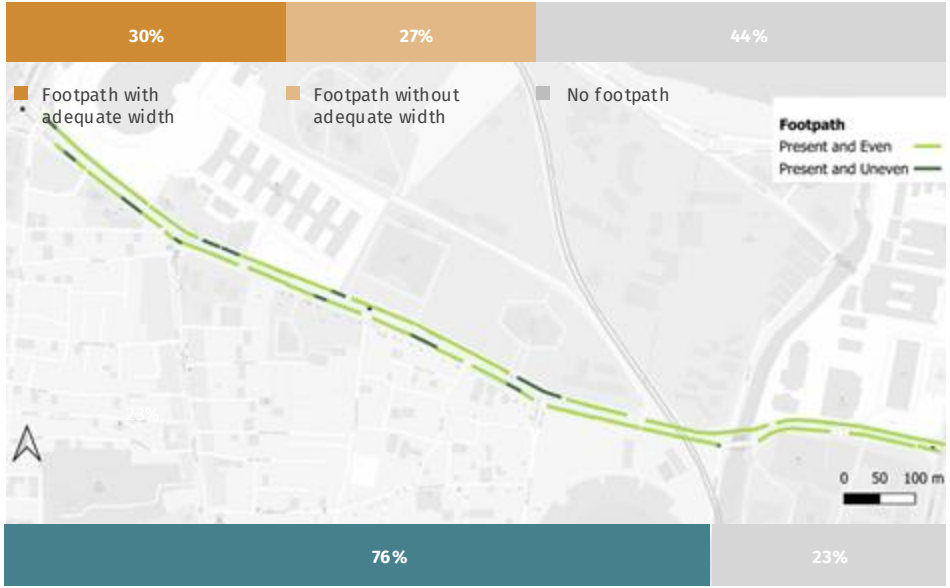
III. Use-Pattern Surveys

To understand the street usage and activities, through observation of user behaviour during different times of the day, which includes documenting traffic volume count.

Data Analysis Methods

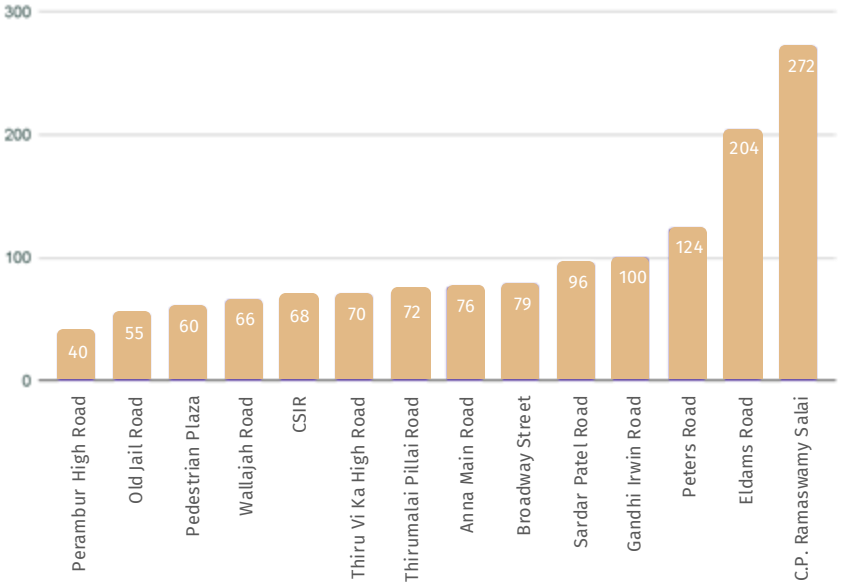
Situational Assessment

To understand the current condition of walking infrastructure on each of the 14 streets individually.



Comparative Analysis

To get a holistic view of the data and understand the differences between typologies of streets and their context, across different indicators.



Indicators of Assessment and Scoring Criteria

Method	Ease of Mobility	Safety	Universal Accessibility	Liveability	Scoring Classes	Survey Wise Scoring	Total Score
DESIGN MAPPING	1. Adequate pedestrian zone 2. Uniform surface 3. Adequate Height	1. Uniform carriageway 2. Traffic calming interventions 3. Pedestrian crossing 4. Lighting	1. Accessible crossing 2. Accessible information	1. Provision of seatings 2. Active edges 3. Provisions for street vending zone 4. Shading trees 5. Dedicated parking spaces/bays 6. Adequate public conveniences (toilets)	**Design** LoS A - **4** LoS B - **3** LoS C - **2** LoS D - **1** LoS E - **0**	**15 indicators** * MAX SCORE (8)=120 Convert score to 10	**Out of 30** **10+10+10**

Indicators of Assessment and Scoring Criteria

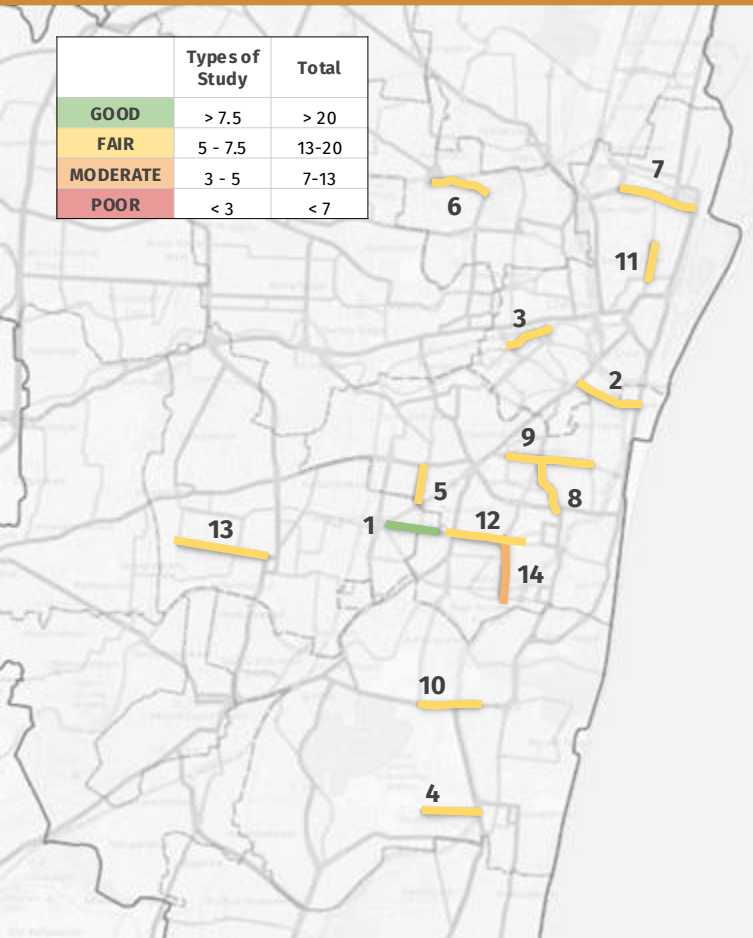
Method	Ease of Mobility	Safety	Universal Accessibility	Liveability	Scoring Classes	Survey Wise Scoring	Total Score
PERCEPTION SURVEY	1. Percentage of people saying there is sufficient space to walk continuously 2. Percentage of people saying there are no obstructions to walking	1. Percentage of responses that find it safe to cross the street 2. Percentage of people saying the streets are safe at night	1. Percentage of persons with disability/ vulnerability who find it safe to cross the street 2. Percentage of women saying the streets are safe at night	1. Percentage of people saying the street is adequately shaded 2. Percentage of people saying the street provides adequate/ usable rest spaces and conveniences like public toilets, seating	**Perception** 75%-100%-**4** 50%-75%-**3** 30%-50%-**2** <30%-**1** 0-**0**	**8 indicators** * MAX SCORE (4)=32 Convert score to 10	**Out of 30** **10+10+10**

Indicators of Assessment and Scoring Criteria

Method	Ease of Mobility	Safety	Universal Accessibility	Liveability	Scoring Classes	Survey Wise Scoring	Total Score
STREET USAGE OBSERVATION STUDY	1. Percentage of people using the footpath vs the carriageway 2. Presence of pedestrians (mode share)	1. Presence of anti-social activities during night time 2. Reduction of speed by the traffic calming elements	1. Presence of bollards 2. Percentage of women, and other genders using the space	1. Presence of parking violations/ haphazard parking 2. Presence of vending stalls promoting street social life 3. Availability of stormwater infrastructure	**Observation** 75%-100%-**4** 50%-75%-**3** 30%-50%-**2** <30%-**1** Absent-**0** Yes-**4** No-**0** In-Part-**2**	**9 indicators** * MAX SCORE (4)=36 Convert score to 10	**Out of 30** **10+10+10**

Comparative Analysis

Overall Performance of Streets

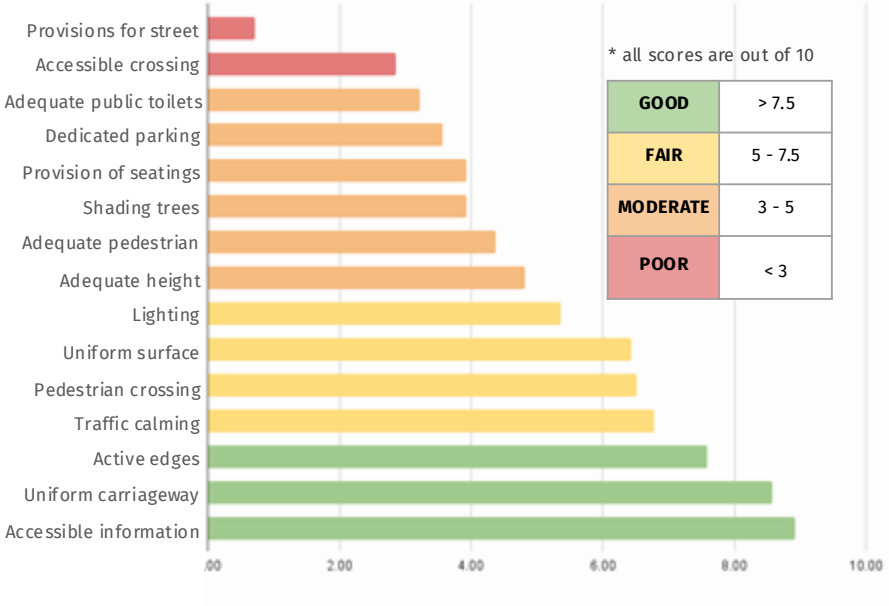


S. No.	Street Name	Design (Out of 10)	Perception (Out of 10)	Observation (Out of 10)	Total (Out of 30)
1	Pedestrian Plaza	7.83	6.56	9.44	**23.84**
2	Wallajah Road	6.83	5.00	7.78	**19.61**
3	Gandhi Irwin Road	6.08	5.63	7.78	**19.49**
4	CSIR	5.17	7.19	6.39	**18.74**
5	Thirumalai Pillai Road	4.58	4.69	8.06	**17.33**
6	Perambur High Road	5.67	4.38	5.56	**15.60**
7	Old Jail + Ibrahim Sahib Street	4.58	4.38	6.11	**15.07**
8	Thiru Vi Ka High Road	4.67	5.00	5.28	**14.94**
9	Peter's Road	4.50	3.44	6.67	**14.60**
10	Sardar Patel Road	4.92	5.31	4.44	**14.67**
11	Broadway	3.92	3.75	6.11	**13.78**
12	Eldams Road	4.42	4.06	5.28	**13.76**
13	Anna Main Road	4.50	5.31	3.61	**13.42**
14	C.P.Ramaswamy Salai	4.75	5.31	2.22	**12.28**

Performance of Design-based Indicators

Design Indicators

Presence of **accessible information (signages) and uniform carriageway** are among the highest scoring indicators while **accessible crossings and provision of vending zones** are among the lowest scoring indicators.
Adequate pedestrian zone scores moderately, while the provision of pedestrian crossing and traffic calming interventions have been fair.




Vending compromising walkability: Old Jail Road


Inadequate public convenience leading to open defecation: Broadway Road


Lack of safe pedestrian crossing: Anna Main Road


Uniform surface for walking: Pedestrian Plaza

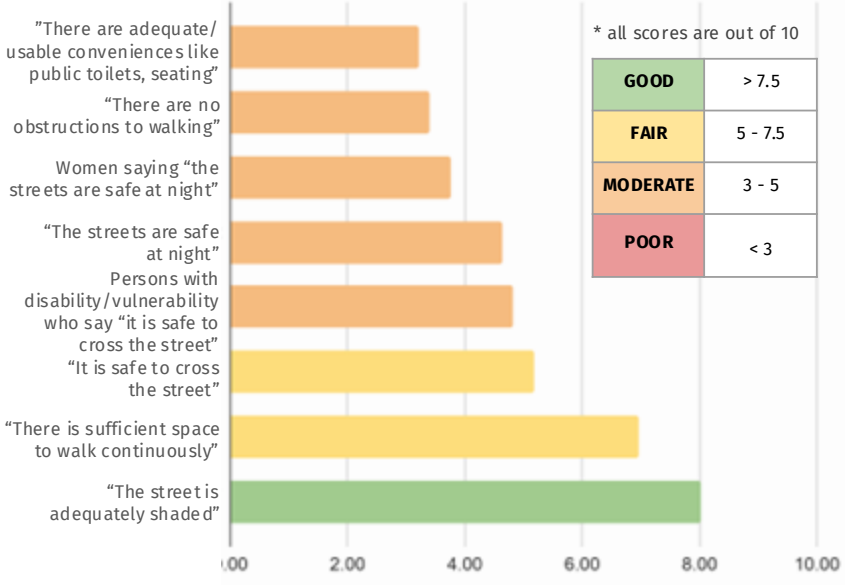

Active street edges: Thiru Vi Ka Road


Uniform carriageway: Thirumalai Pillai Road

Performance of Perception-based Indicators

Perception Indicators

The streets are perceived as being **adequately shaded as well as safe to use** by a majority of respondents with the corresponding indicators getting a high scores, while the low scoring indicators reflect the **presence of high number of obstructions to walking and inaccessible infrastructure** for the differently abled.




Absence of rest spaces: Eldams Road


Obstructions hindering walkability: Old Jail Road


Unsafe school zone crossings: Thirumalai Pillai Road


Discontinuous walking zone: Perambur High Road

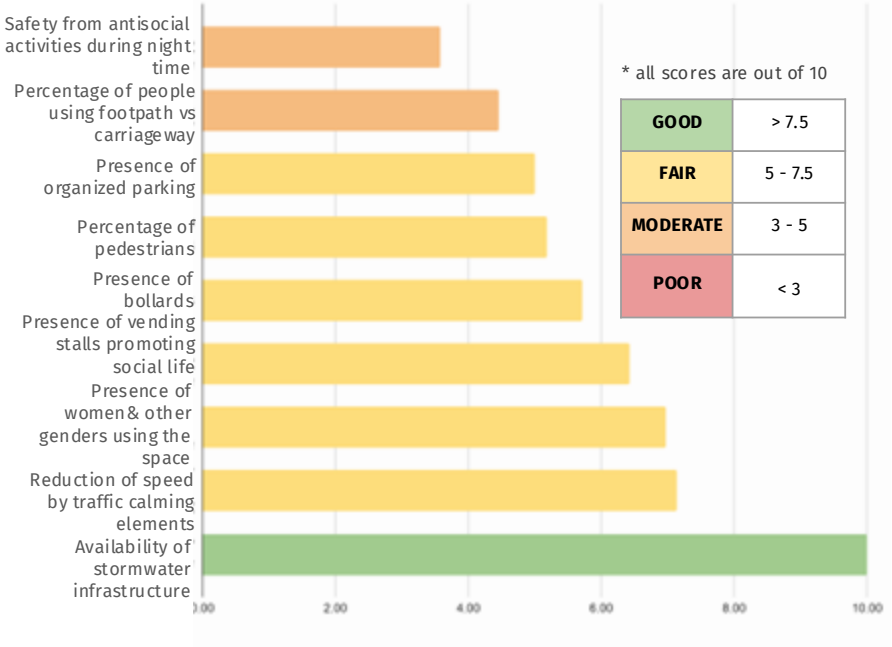

Unsafe access at night: Pedestrian Plaza


Adequate shade due to trees: C P Ramaswamy Road

Performance of Street-Usage-based Indicators

Observational Indicators

The streets are perceived as being **adequately shaded as well as safe to use** by a majority of respondents with the corresponding indicators getting a high scores, while the low scoring indicators reflect the **presence of high number of obstructions to walking and inaccessible infrastructure** for the differently abled.




Inaccessible footpath height: Gandhi Irwin Road


Haphazard parking: Perambur High Road


Walking on carriageway over footpath: C P Ramaswamy Road

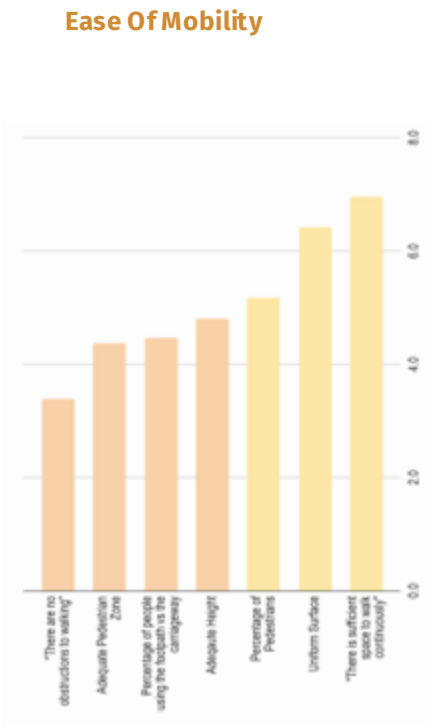

Absence of bollards leading to vehicle on footpath: Sardar Plaza Road

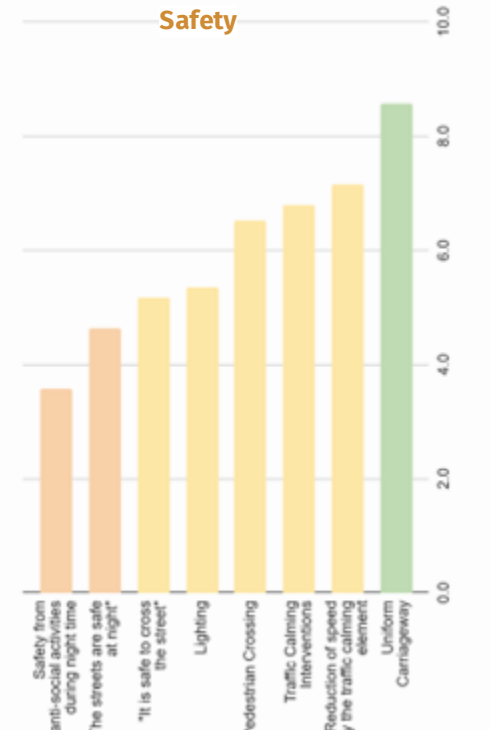

Street vending promoting street social life: Gandhi Irwin Road

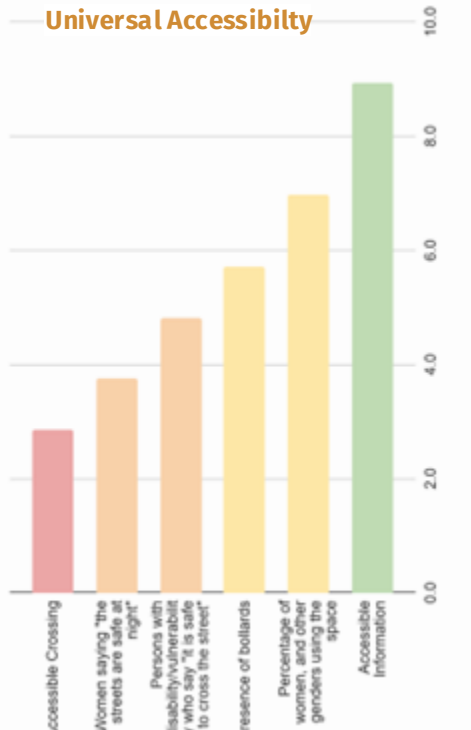

Stormwater drain left unfinished: Broadway Road

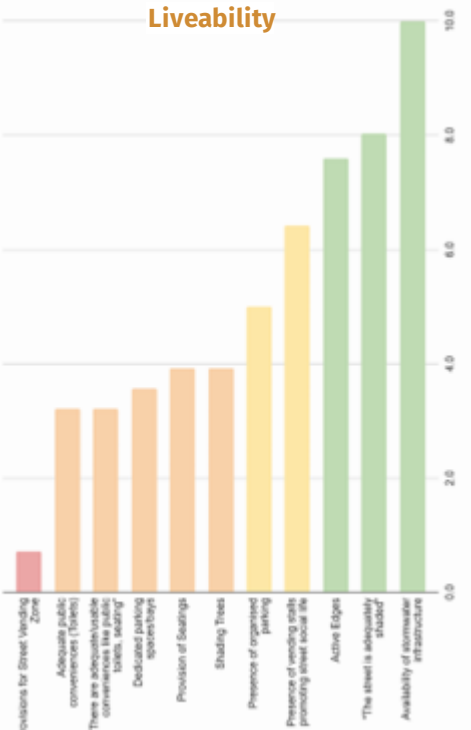
Performance of Guiding Principles

Ease of Mobility is the least performing principle, where all indicators have scored either moderately or fairly. Liveability and Universal accessibility also score less on average, due to the presence of poorly performing indicators such as presence of vending zones (encroachments) and accessible crossing respectively.



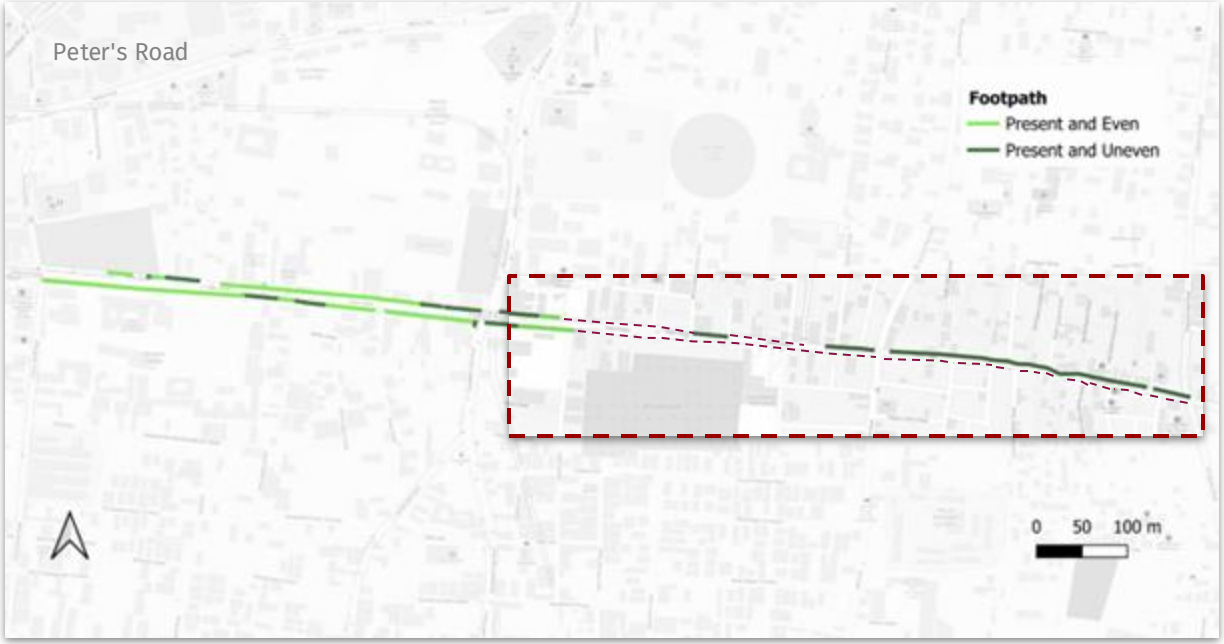






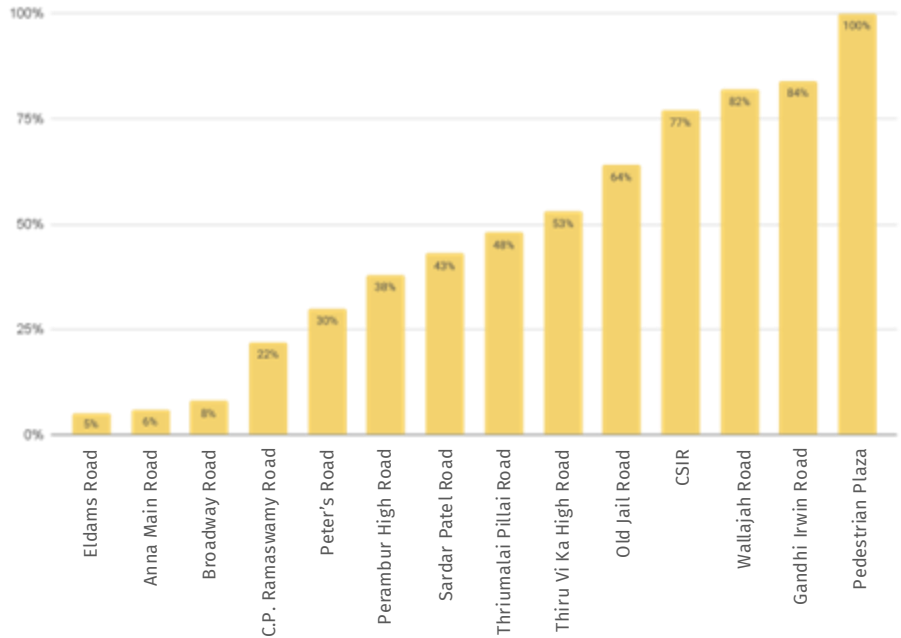
Performance based on Ease of Mobility

Continuous and consistent footpath standards across the entire street length are crucial for ensuring ease of pedestrian mobility.
Streets such as **Sardar Patel Road, Peter's Road** demonstrate that design and perception scores vary across different segments of the streets.



Performance based on Ease of Mobility

Adequate Pedestrian Zone



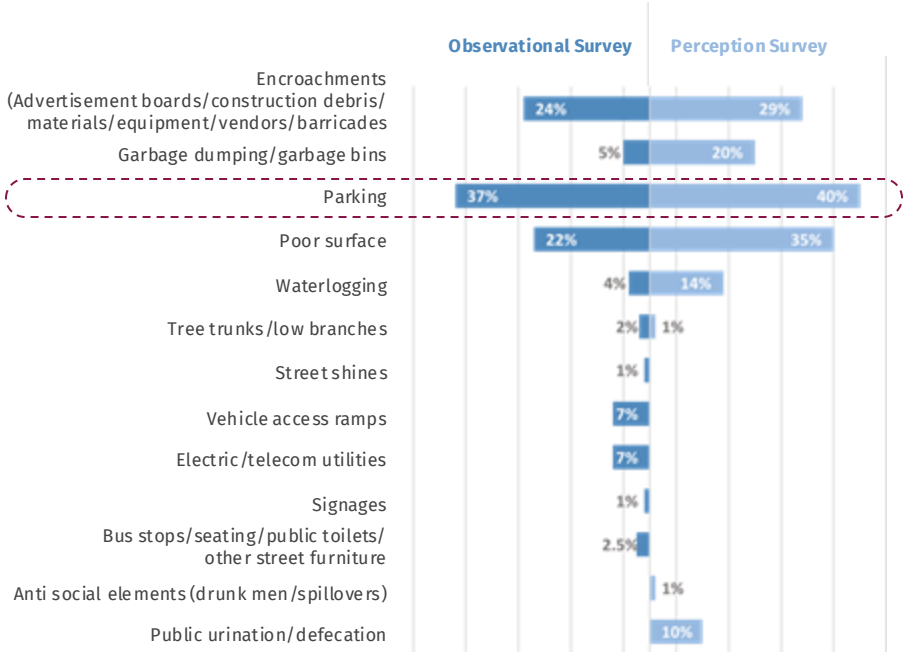
55% of footpaths across all streets was found to have **inadequate width.**

40% of the total length of all streets **did not have any footpath infrastructure**.

Sardar Patel Road

Performance based on Ease of Mobility

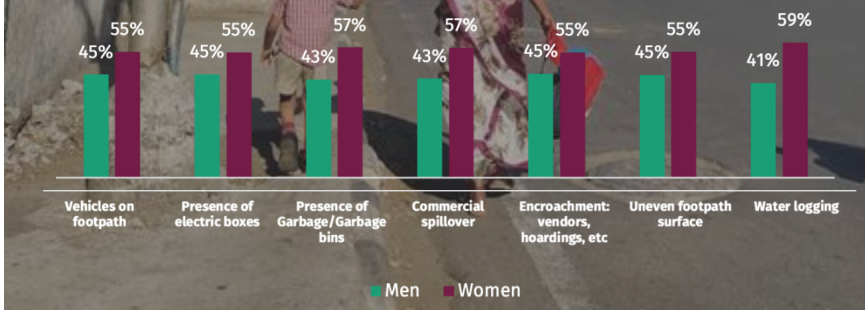
Obstructions Faced on the Streets



58% of those who reported that the footpath was not walkable are **women**

76% of all respondents found the streets to have several obstructions to walking on the footpath.

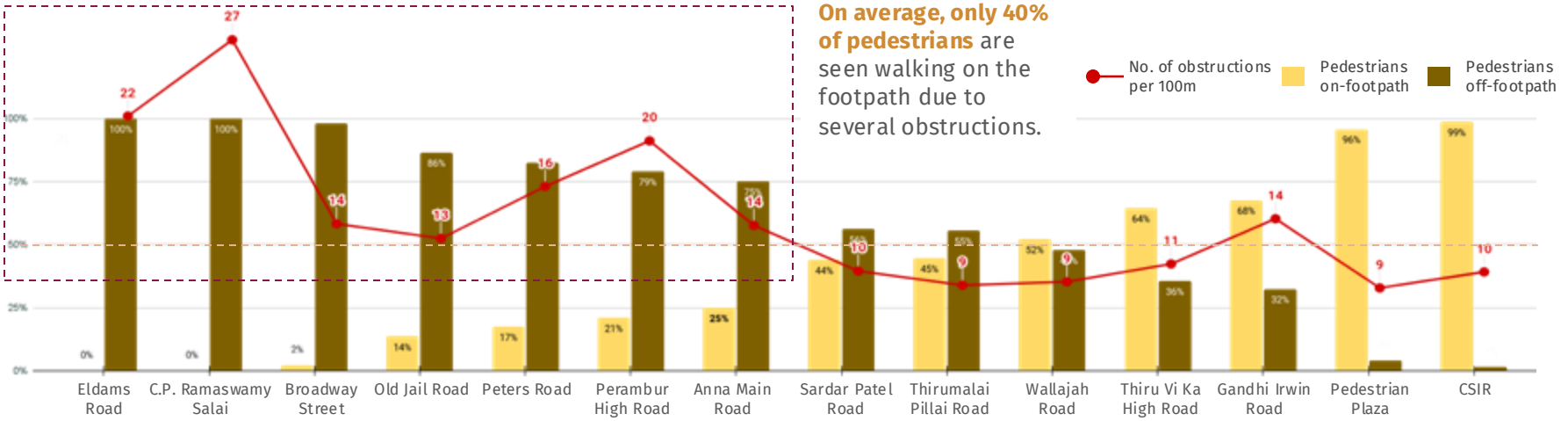
Perception of Obstructions on the Footpath– Men vs Women



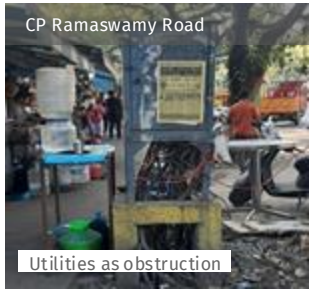
Old Jail Road + Ibrahim Salai

Performance based on Ease of Mobility

Number of obstructions on streets per 100m vs Number of pedestrians using the footpath



On average, only 40% of pedestrians are seen walking on the footpath due to several obstructions.



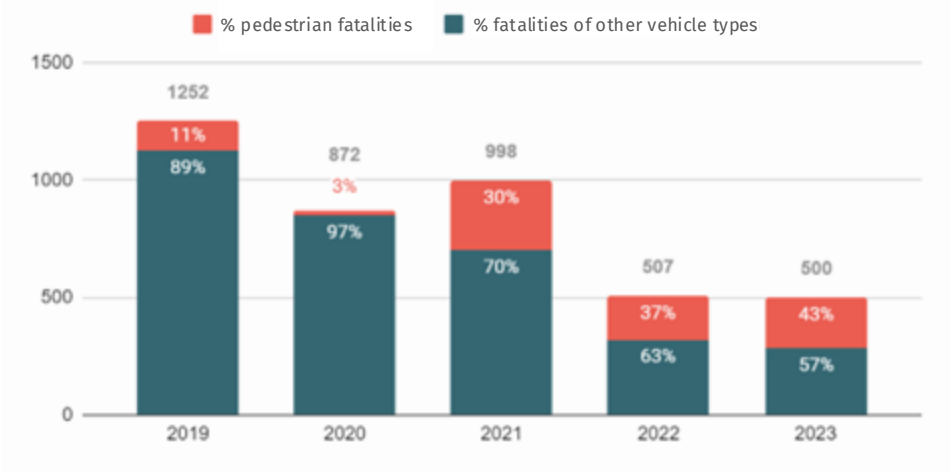
Performance based on Safety & Accessibility

Pedestrian crossings and traffic calming measures should be prioritised alongside footpath provision Despite adequate pedestrian infrastructure, streets like **Perambur High Road, Peter's Road, and Sardar Patel Road** show only moderate performance due to lack of safe crossing infrastructure.

Performance based on Safety & Accessibility

City Accident Profile

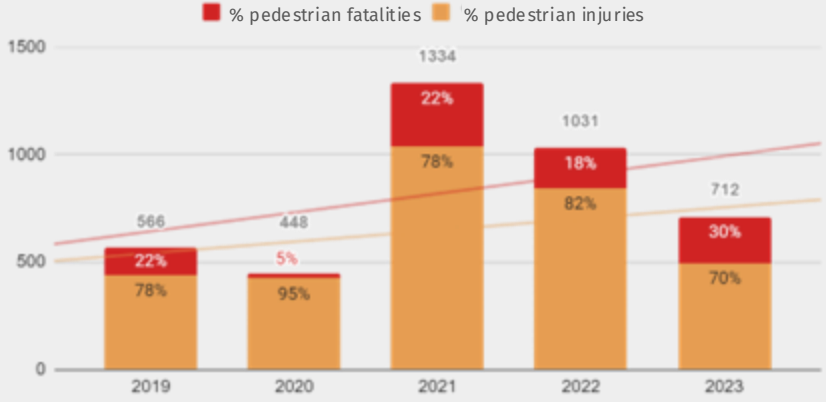
Fatalities



While Chennai has taken great measures to reduce the total number of accidents and fatalities, **the proportion of pedestrian fatalities saw an increase from 11% (2019) to 43% (2023)***

Road Accidents Reports (2019-2022), MoRTH & Road Accident Analysis in Tamil Nadu 2023 , TNSTC

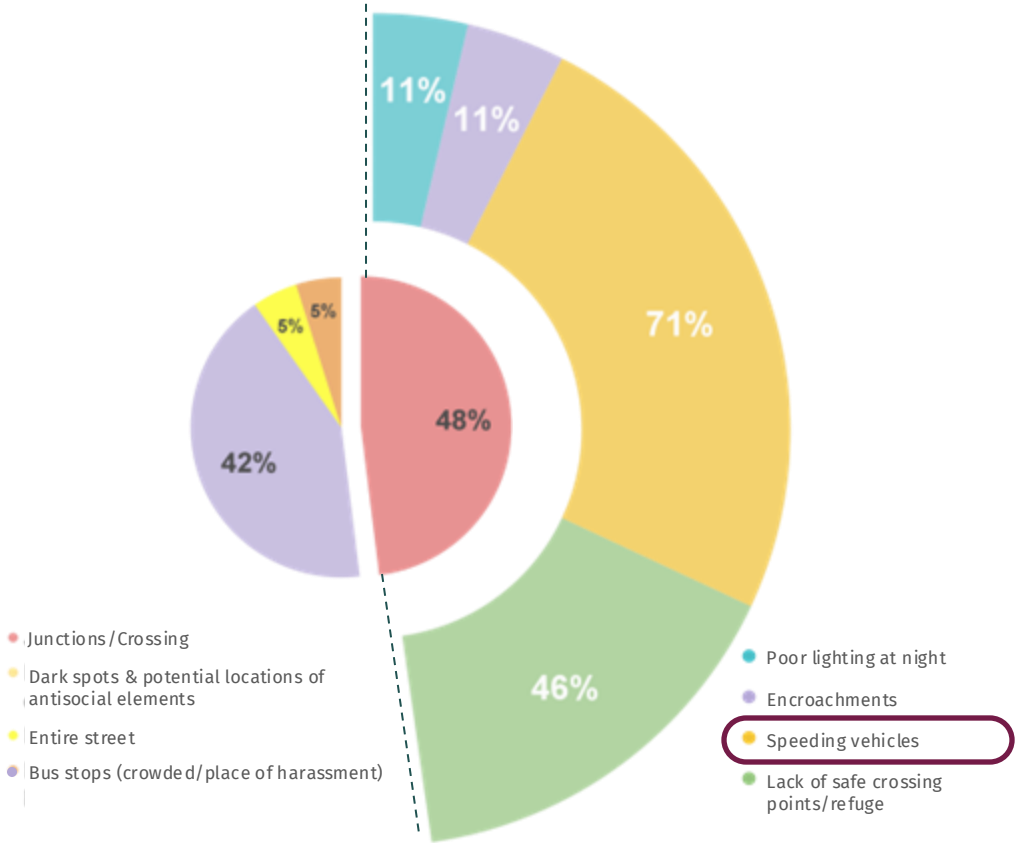
Pedestrian perspective



The number of accidents as well as fatalities of pedestrians have been increasing since the past 5 years.

Performance based on Safety & Accessibility

Concerns of Safety on Streets



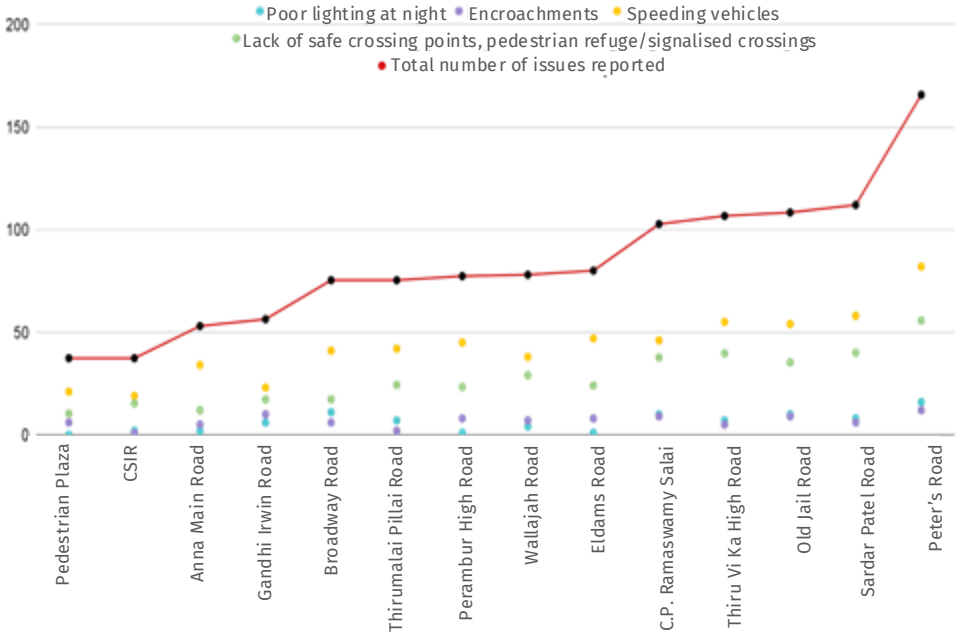
73% of respondents find the streets unsafe to

71% of those who felt unsafe identify **speeding vehicles** as the major concern while crossing


Pedestrian Plaza

Performance based on Safety & Accessibility

Issues Faced while Crossing

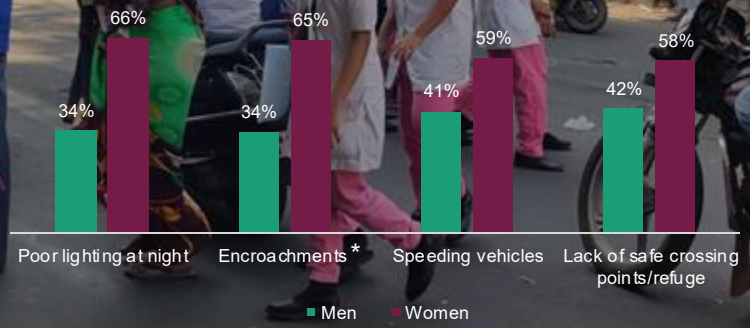


64% of women find it difficult to cross the road

84% of people with vulnerabilties report difficulty in crossing the road

The total number of pedestrian crossing points provided are **50%** less than the required number.

Reasons for feeling unsafe to cross the road– Men vs Women

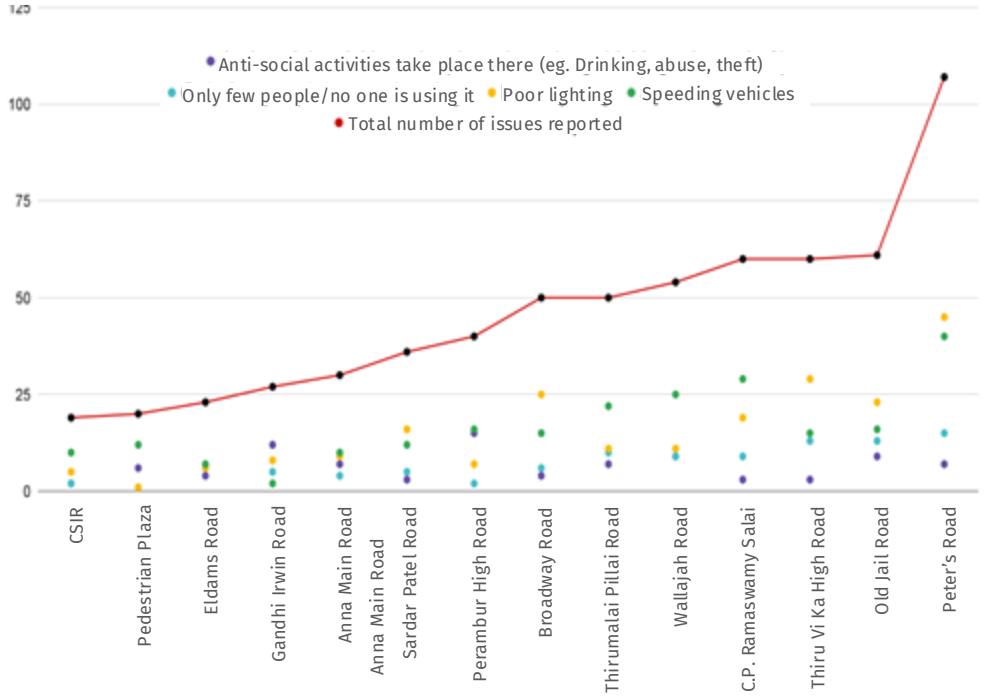


* - the last 1% of the responses came from gender-neutral persons

Old Jail Road +Ibrahim Salai

Performance based on Safety & Accessibility

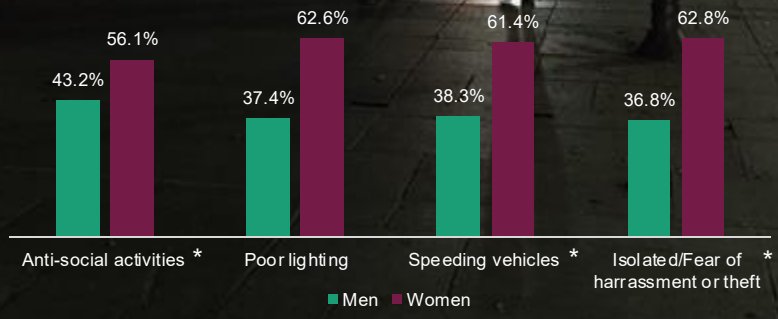
Issues Faced at Night



71% of women find the streets unsafe at night

Street lights illuminate only **61% of the streets**, on average. While some streets have no lights like Anna Main Road, and CSIR, some streets have several dysfunctional light poles.

Reasons for feeling unsafe at night – Men vs Women



* - the last 1% of the responses came from gender-neutral persons

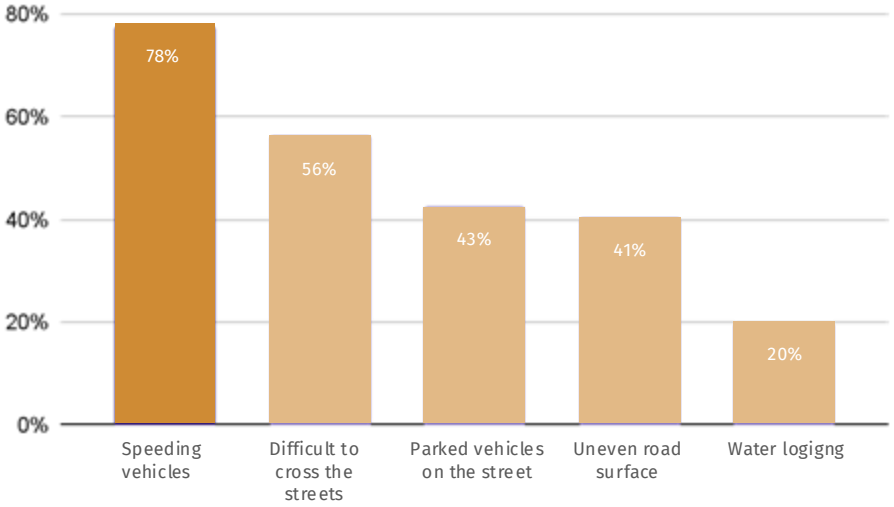
Pedestrian Plaza

Performance based on Safety & Accessibility

Cyclists, without exception, also report a lack of safe crossing points

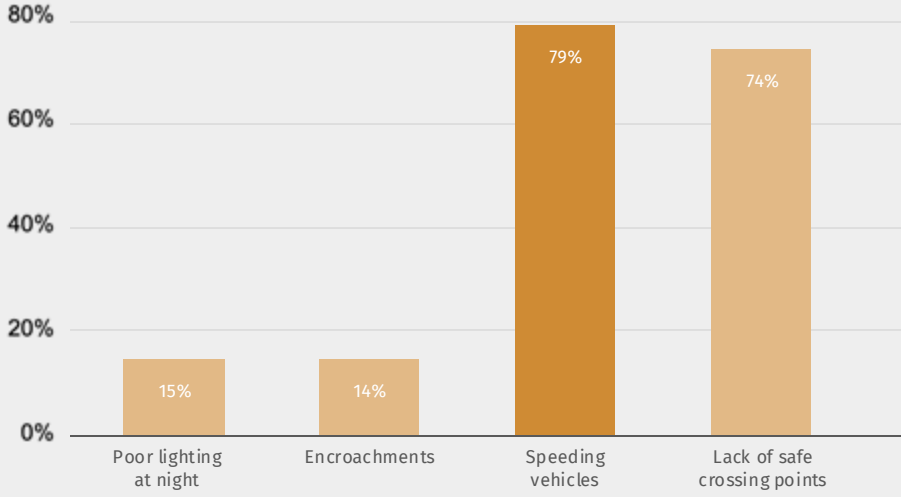
Do you face any obstructions while using the cycle on this street?

While accessing the street, **77% of cyclists** reported that they encountered obstructions



Do you feel this street is safe to cross?

While crossing the street, **63% of cyclists** reported that they felt unsafe

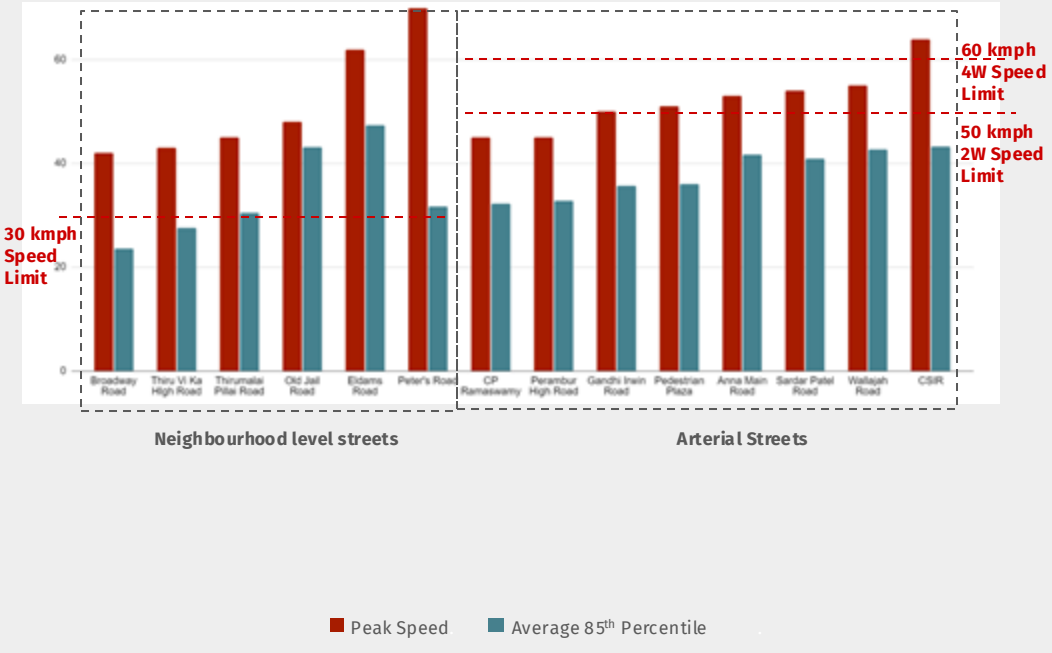


Performance based on Safety & Accessibility

Speeds of Vehicles

1. **It is a cause for concern that peak speeds in neighbourhood-level streets are able to go as high as 60kmph.**

2. The 85th percentile speeds (speed at which the majority of vehicles travel) on Old Jail Road and Eldams Road are well above the speed limit for neighbourhood level streets, indicating a need for more traffic calming measures in the streets.



* all speeds were measured during non-peak hours between 12 noon and 5pm

Performance based on Safety & Accessibility

Speeds of Vehicles

Traffic calming measures are more effective at reducing the speed of cars than that of two-wheelers. While speed bumps on Old Jail Road, Wallajah Road, CSIR, Anna Main Road, prove effective, their impact varies on other streets due to design parameters such as height, marking, and the lack of integration of various types of traffic calming measures.

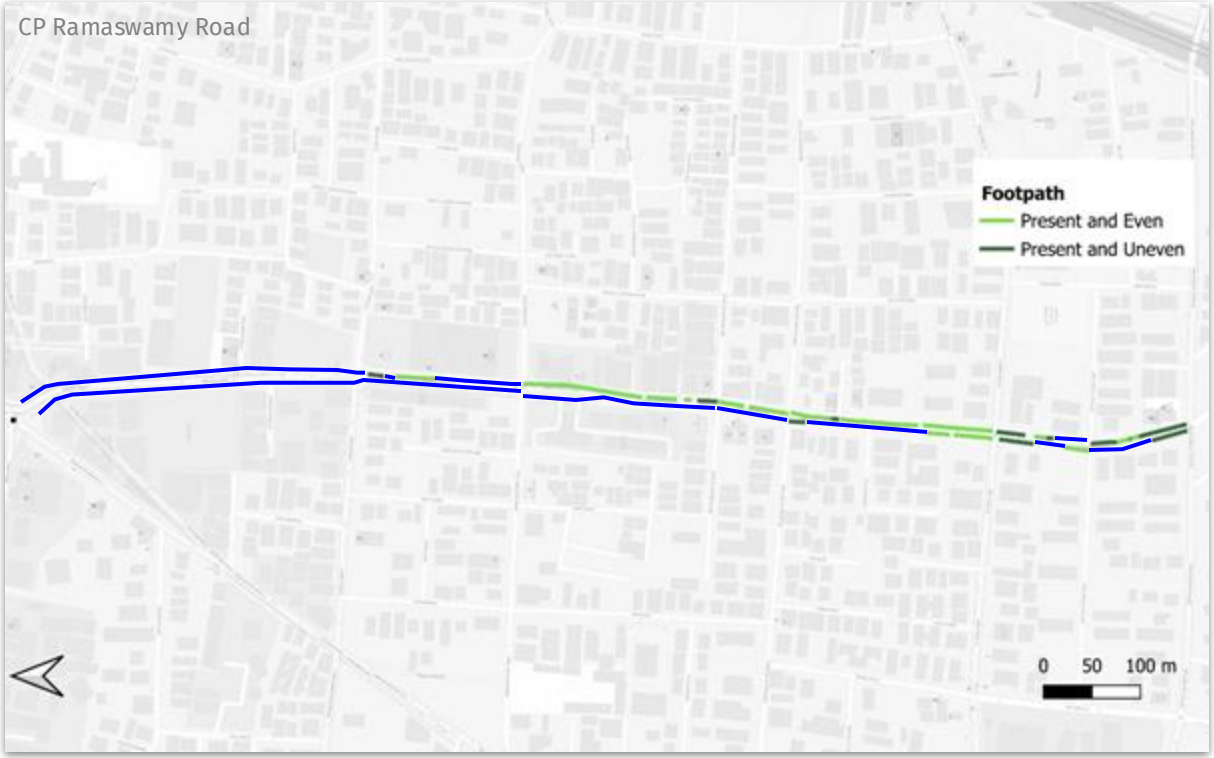
- Below 10%
- 10 – 19 %
- 20 – 29%
- 30 – 39%
- 40 -49%
- 50% and above

* all speeds were measured during non-peak hours between 12 noon and 5pm

S No	Streets	Speed calming measure	%Reduction of 2W speeds	%Reduction of 4W speeds
1	**Old Jail Road**	Speed Breaker	47%	52%
2	**Wallajah Road**	Speed Breaker + Roundabout	42%	44%
3	**CSIR**	Speed Breaker	41%	45%
4	**Anna Main road**	Speed Breaker + Median Breaks	41%	48%
5	**Pedestrian Plaza**	Table-top crossing	27%	34%
6	**Gandhi Irwin Road**	Speed Breaker + Roundabout	27%	32%
7	**Broadway street**	Speed Breaker + T junction	22%	19%
8	**Peters Road**	Speed Breaker	22%	28%
9	**Thirumalai Pillai Road**	Speed Breaker	17%	30%
10	**Perambur High Road**	Speed Breaker	15%	14%

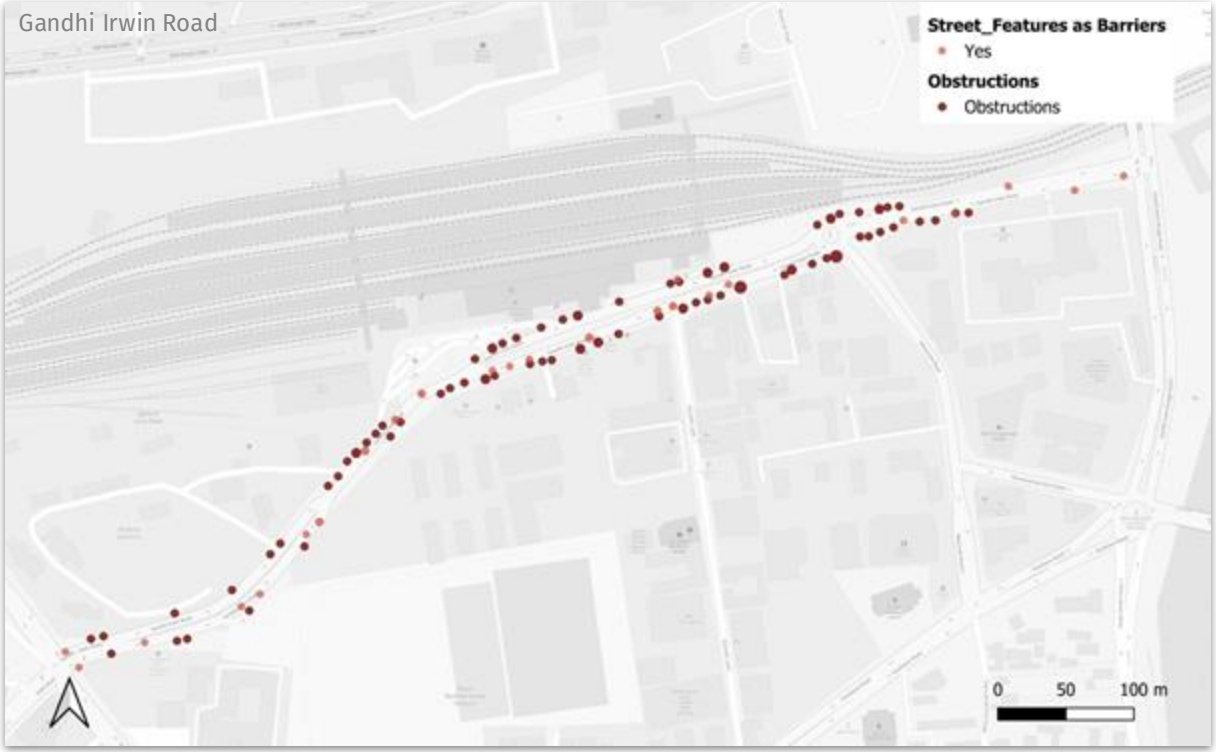
Performance based on Liveability

In streets without formal footpaths, stormwater drains double as walking zones but lack pedestrian safety and comfort. This necessitates efficient design of the drains for clear walking zone. This is evident in streets such as **C.P Ramaswamy Salai, Anna Main Road, Eldams Road, and Broadway.**



Performance based on Liveability

Absence of an enforcement/Operation and Maintenance framework results in **footpath encroachment and diminishing of clear walking zones** for pedestrians. Streets that otherwise perform fairly such as **Old Jail Road, Thirumalai Pillai, Gandhi Irwin, and Thiru Vi Ka High Road** illustrate this issue.



Recommendations How Chennai can fix its footpaths?

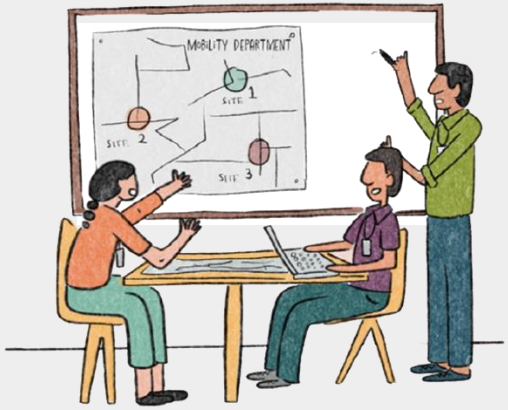
Planning Efficiency

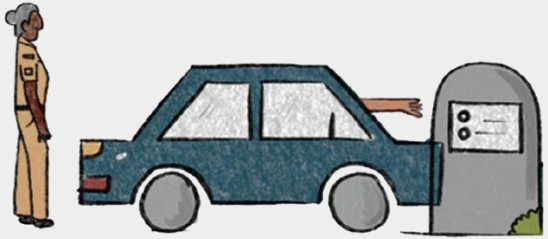
Create Networks - Networks are necessary to ensure safe and continuous access is provided to bus stops, transit nodes, schools, and other public spaces.

Prepare Phasing Plans - Phasing plans help identify priority stretches and budget accordingly

Conduct Regular Impact Assessments - A scoring based assessment of streets helps understand level of intervention, scope of budget as well as phasing of implementation. This will create a renewed focus on creating healthy streets.

Integrated Approach





Adopt a Coordinated Approach - Layout drawings and Good for Construction (GFC) drawings should be prepared in alignment with different line departments such as Stormwater, Electrical, Telecommunications, Water Supply and Sewage.

Incorporate Parking Management - Consultants and service providers who manage designated paid parking should be on-boarded and design should be vetted.

Integrate trees, and other contextual features - Contextual features, especially trees, property edges, entrances etc., should be integrated into the street.

Quality of Design

Follow Uniform Design Guidelines - The width and height of footpath, pedestrian signages, as well as other requirements of good pedestrian infrastructure should be designed as per guidelines across all projects, uniformly and holistically.

Provide Adequate Number of Pedestrian Crossings—Adequate numbers and types of pedestrian crossings need to be incorporated, and they must also be strategically positioned.

Provide Traffic Calming Measures - Design parameters such as height, marking, and the integration of various types of traffic calming measures are crucial for ensuring safety.

Ensure a Universally Accessible Footpath, Signage, and Other Public Amenities—Ramps, tactile pavers, and signage must be placed as per the guidelines.

Delineate designated parking space—Parking slots should be part of the design of footpaths, with clear blub-outs, on one side or both sides of the road, depending on the road space available.

Seamless Implementation

Distinguish Project Types - Repairs, modifications, and complete transformation should be identified based on the type of infrastructure and its impact.

Include Stakeholder Consultations - Users of the street should be involved in the process of implementation. Awareness shall be created around street rights and rules.

Adopt a Coordinated Approach of Implementation - Project timelines and schedules should be aligned with different departments. While the ownership may belong to one, a multi-stakeholder project status should be assigned.

Guiding Principles based Recommendations

Principles	Recommendations
Ease of Mobility	Streets which provide footpaths as stated in IRC:103 with clear, unobstructed and continuous walkways incorporating the adjacent land-use are evidently desirable by all. The use of materials, operation and maintenance of the infrastructure add to the ease of movement.
Safety	The data has shown that speed table with cobblestones have one of the highest reduction of vehicular speed along with providing safe walking space to pedestrians. Using pedestrians lights, adding buffer zones, identifying safe crossing spots will help to improve the safety on streets.
Universal Accessibility	Lack of ramps, discontinuity at junctions and uneven surfaces have been identified as key barriers for universal accessibility. Providing table-top crossings, filling the gaps in continuity, provision of safe buffer spaces, vertical and horizontal wayfinding signages and getting more eyes-on-street is the way forward.
Liveability	This necessitates efficient design of the drains, to be used as clear walking zone and to provide dedicated vendor zones, to enable effective usage of the pedestrian infrastructure.

Beyond Implementation

Regular Impact Assessments: BRR should follow the five-year horizon outcomes as stated in the NMT Policy. Assessments or performance audits such as this report should be carried out periodically and use the data to inform network planning, phasing as well as budget allocation.

Enforcement: As observed earlier, vehicular and vending encroachment has been biggest deterrent for ease of movement. Vehicular and vending enforcement needs to be done on priority to ensure good streets.

Operations and Maintenance: The operational costs of infrastructure such as public toilets, street lighting, and parking need to be integrated with the implementation framework. It is also important to undertake a lifecycle analysis of different materials such as paint marking, bollards, lighting fixtures, landscaping, tree pits, among others that are vulnerable to the vagaries of weather as well as load stress.

Scale Up: The city should introduce development of street-networks at a neighbourhood level, as opposed to streets in isolation. This can be achieved through projects like 'Safe Routes to School', 'Mega Streets', 'Metro Station Area Development', 'Multi-modal Integration' etc. for scale up.

Communications and Outreach: Citizens are unaware of the new infrastructure being developed, and hence many pedestrians still use carriageway instead of the footpath. Citizens need to be well informed, motivated and educated to used the new street infrastructure.

Cycling: Cyclists are almost invisible in the design of streets. They can be accommodated through the provision of cycle parking, dedicated cycle lane (in the case of arterial streets) as well as speed control measures. Cycling infrastructure still needs a lot of research to encourage people for cycling.

Improvements: Any modifications, repairs, and improvements shall be made as per standards. Such improvements shall be prioritise safety and accessibility-related interventions. Duplication or disturbance of existing infrastructure shall be avoided. However, existing infrastructure can be repurposed, especially in the case of stormwater drains.

Street-Specific Recommendations

Street Name	Recommendations
Pedestrian Plaza	**Need stricter parking enforcement to ensure parallel car parking. Commercial spillovers and parking encroachments on footpath should be removed.** Regular maintenance of street elements like lighting needs to be undertaken.
CSIR	**Broken/uneven footpath should be repaired** to ensure continuous footpath in street. **Adequate crossing infrastructure to be provided at intersections.** Bulb-outs should be constructed through the stretch to streamline parking. Bus shelter to be opposite Ascendas IT park.
Wallajah Road	**Uneven footpath surfaces should be repaired** to ensure continuity in walking. **Parking management is needed** from Omandurar Hospital till Quaid-E-Millath Road junction. **Tabletop crossings and at-grade crossings should be provided** for crossings near institutional buildings and intersections.
Gandhi Irwin Road	**Commercial spillovers in footpath opposite Egmore Railway Station should be cleared. Street vendors should be accommodated** without compromising the clear walking zone. **Pedestrian and vehicular conflict near entry/egress of Egmore Railway station should be managed by providing table top crossings. Footpath leading into the station to be made more accessible.**
Old Jail + Ibrahim Sahib Street	**Width and height of footpath needs to be made adequate and consistent** throughout the street, especially near Stanley Hospital and Vallalar Bus Terminus. Intermediate Public Transit (IPT)/**private vehicle parking to be planned and managed efficiently** from Stanley Hospital to Prakasam Salai Roundabout. Efficient crossing should be provided near high footfall zones.
Thirumalai Pillai Road	**Footpath should be made obstruction-free** through reconstruction of uneven surfaces and removal of encroachments. **Bus stop opposite Vidyodaya School should be given sufficient waiting space. Tabletop crossings should be provided for midblock crossings near school zones.**
Thiru Vi Ka High Road	**Maintenance of the footpath** to be put into place. **Encroachments, s**uch as parking, commercial spillover, **to be removed through enforcement. Garbage spillovers and public urination to be curtailed.** Utilities, like transformer, lighting poles, pillar boxes **to be moved away from walking zone.**

Street with a rating of 30 or more, can be improved through strict enforcement and minor repairs and interventions.

Streets with a rating of 25 to 30, would require enforcement to remove obstructions, improve footpath surface, and introduce accessible crossing infrastructure.

Street-Specific Recommendations

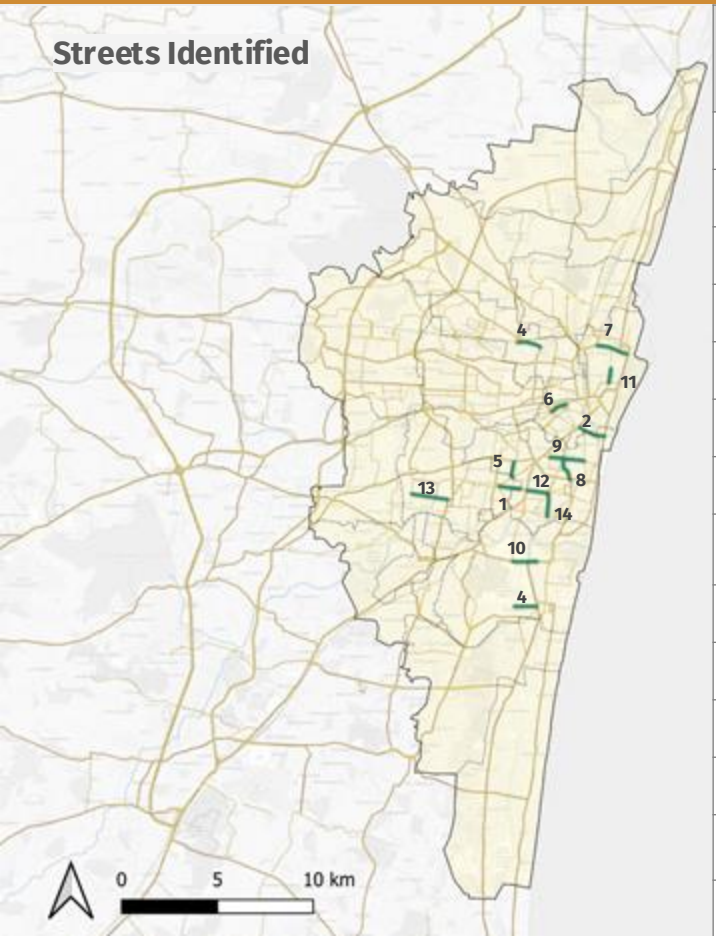
Street Name	Recommendations
Sardar Patel Road	**Uniform design guidelines to be followed for the footpath across. Provision of access ramps to be provided at points of crossing.** Safe, signalised crossing to be provided at CLRI Junction and at the entry to MRTS Station. Footpath width to be made sufficient from Cancer Institute to Madhya Kailash. Footpath in the service lanes to be made sufficient and obstruction free.
C.P. Ramaswamy Salai	**Footpath disturbed during storm water drain construction should be repaired/reconstructed.** Zebra crossings should be provided near junctions. Traffic calming elements need to be introduced. Efficient parking management under flyover is needed.
Peter's Road	**Footpath should be made obstruction free by reconstructing uneven surfaces, and removing encroachments** from Royapettah Government Hospital to Ice House Masjid. Tabletop crossings should be provided for midblock crossings near school zones and **traffic calming interventions (Speed tables) should be installed** to reduce vehicular speeds. Efficient parking management under flyover is needed.
Perambur High Road	**Encroachments to be removed through enforcement. Footpath width to be made adequate and accessible** near the entry into suburban railway station. **Public toilet and bus stop to be moved away from walking zone. Footpath** disturbed due to stormwater drain construction **to be finished for use by pedestrians. Speed bumps and pedestrian crossing to be highlighted through marking; crossings to be made accessible. Speed tables recommended near school.**
Anna Main Road	Stormwater drains to be converted to **act as continuous, obstruction free and accessible footpath. Pedestrian refuges to be created. Signalised crossing** to be introduced at main intersection.
Eldams Road	**Continuous, obstruction-free, and accessible footpaths should be constructed**. Safe and accessible crossings, along with the **installation of traffic calming measures (speed tables), are recommended for reducing vehicular speeds**.
Broadway	**Street should be redesigned** to include a footpath, accessible crossings and traffic calming as per IRC standards.

Streets with a rating of 20 to 25, would require repairs to improve continuity of footpath, remove obstructions and introduce safe midblock crossing infrastructure.

Streets with very poor rating (below 20), should be redesigned & restructured completely.

Situational Analysis of Individual Streets

Summary of Streets



S No	Street	Length (km)	ROW (m)	Nature of Landuse	Footpath Infrastructure
1	Ped Plaza (Sir Thyagaraya road)	1	29	Commercial	Available
2	Wallajah Road	1.37	29	Institutional	Available
3	Gandhi Irwin Road	0.86	20	Mixed Use	Available
4	CSIR	1.1	28	Institutional	Available
5	Thirumalai Pillai Road	0.82	12	Institutional	Available
6	Perambur High Road	0.85	21	Mixed Use	Disturbed
7	Old Jail Road + Ibrahim Sahib Road	1.3	12	Mixed Use	Available
8	Thiru Vi Ka high Road	1.2	15	Mixed Use	Available
9	Peters Road	1.73	14	Commercial	Disturbed
10	Sardar patel (AU to Madhya Kailash)	1.24	21	Institutional	Disturbed
11	Broadway street	0.94	12	Commercial	Disturbed
12	Eldams Road	1	15	Mixed Use	Not available
12	Anna Main road	1.8	20	Mixed Use	Not available
14	C.P.Ramaswamy Salai	1.26	18	Mixed Use	Not available

1. Pedestrian Plaza | An Overview

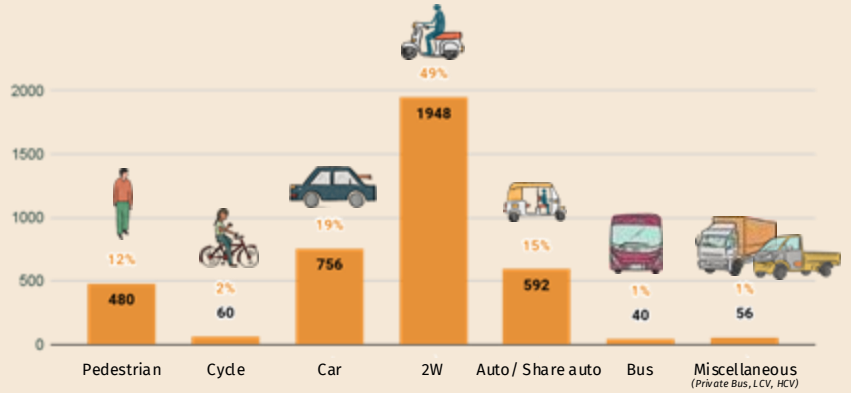
ITDP INDIA

Right of way:
30 m
Length of study:
1.0 km
Street character:
Commercial
Type of Infrastructure:
Available

About the stretch

This street was the first complete street transformation in Chennai, which prioritised pedestrian infrastructure in a busy commercial neighbourhood. It has created a wide footpath, streamlined underground and above-ground utilities, as well as reduced vehicular speeds by providing speed tables at mid-blocks and intersections.

Mode Share Data Captured During Evening Peak

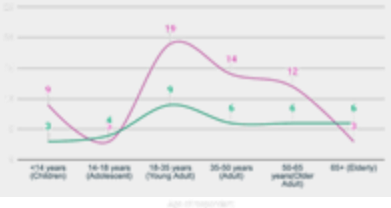


Survey Sample

94 Pedestrians

64% Women

36% Men



Design Score	7.83/10
Perception Score	6.56/10
Observation Score	9.44/10
Total score	25.91/30

1. Pedestrian Plaza | Ease of Walking

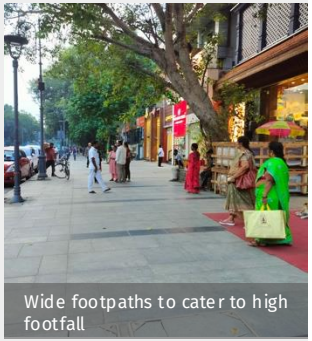
Continuity and Adequacy of Infrastructure

100% of the total street has footpath

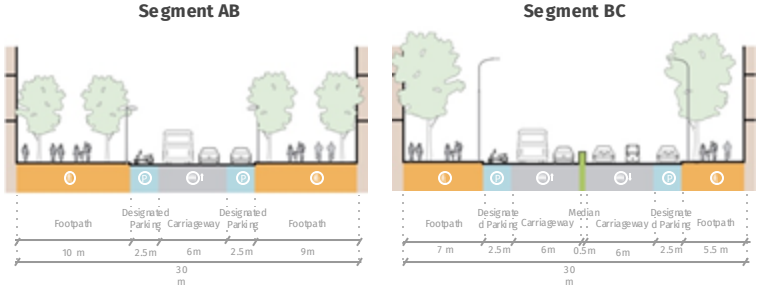
97% of footpath is greater than 150mm in height


Dedicated walking space

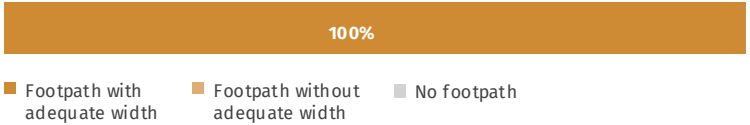

Bollards to restrict vehicular encroachments


Wide footpaths to cater to high footfall

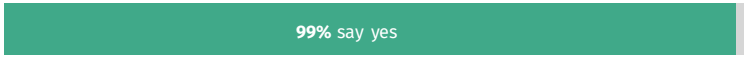
Typical Section



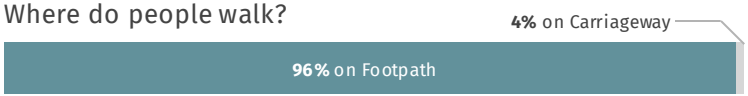
Width of Footpath



Is the footpath wide enough to walk?

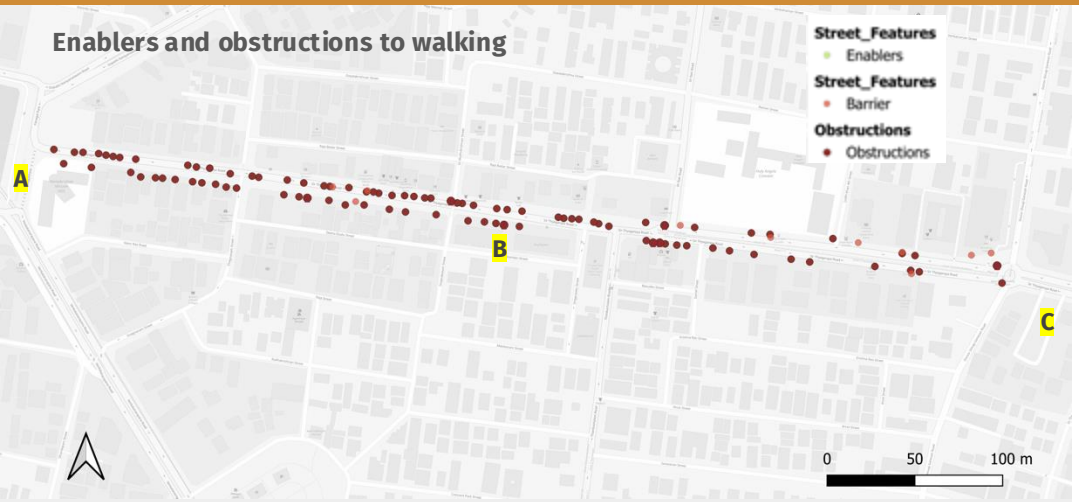


Where do people walk?



1. Pedestrian Plaza | Ease of Walking

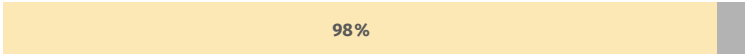
Enablers and obstructions to walking



Parking as Obstruction

Commercial spillovers and Advertisements

Type of Street Features




03 Vendors


119 Trees


06 Bus Stops


38 Waste Receptacles


39 Seating


46 Signages


01 Public Restroom

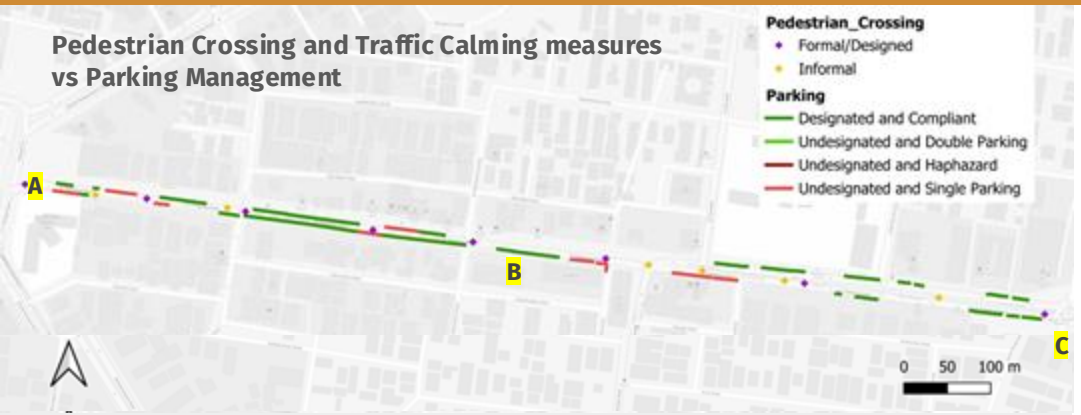
Do you face any obstructions while using the footpath?

08 Obstructions present every 100m of the street

Parking contributes to **83%** of all the obstructions

35% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

1. Pedestrian Plaza | Safety & Accessibility



30% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

2/3rd of the required number of pedestrian crossing points are implemented

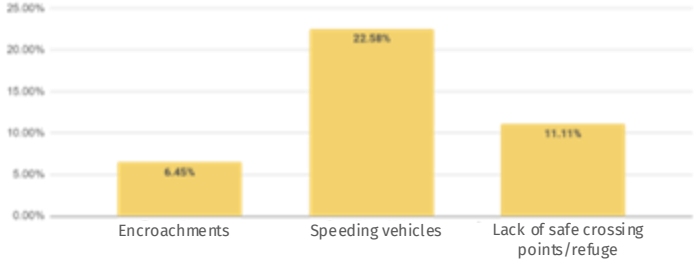

Lack of mid-block crossings


Lack of speed calming

Do you feel this street is safe to cross?

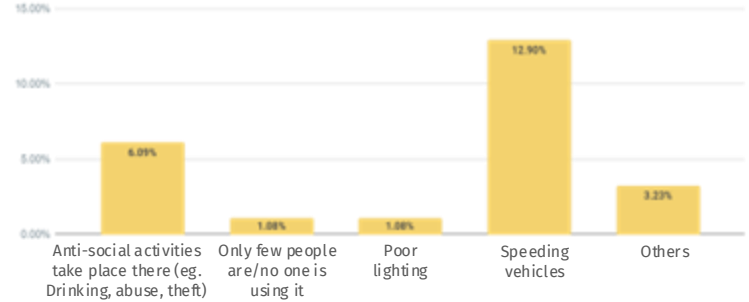
34% of the people feel unsafe to cross the street

23% of them feel **lack of safe crossing points** is the biggest concern



Do you face any problems on this road at night?

55% of women felt unsafe at night



2. Wallajah Road | An Overview

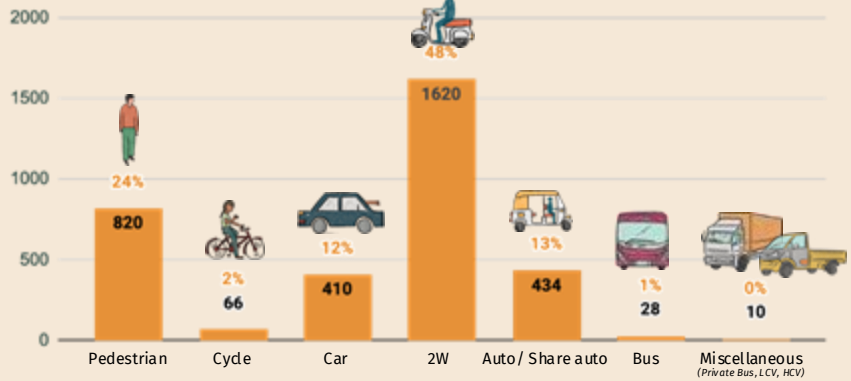
Key Map

Right of way:
27 m
Length of study:
1.37 km
Street character:
Institutional
Type of Infrastructure:
Available

About the stretch

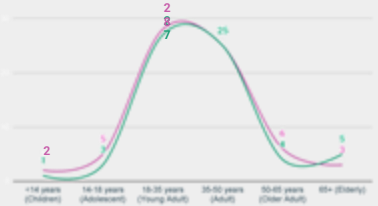
Wallajah Road sports the majestic Chepauk Stadium, the University of Madras, the Tamil Nadu Government Super Speciality Hospital, several government office complexes, including Ezhilagam, the Directorate of Horticulture, and several commercial establishments. This stretch also connects to the Metro Rail and MRTS, so it receives high footfall, especially at the two intersections.

Mode Share Data Captured During Evening Peak



Survey Sample

134	51%	49%
Pedestrians	Women	Men



Design Score	Perception Score	Observation Score	Total score
6.83/10	5/10	7.78/10	19.38/30

2. Wallajah Road | Ease of Walking

88% of the total street has footpath

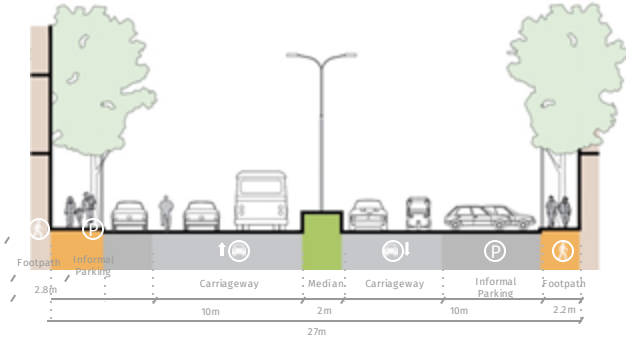
22% of the footpath Is greater than 150mm in height.


Guard rails at critical sections for safety

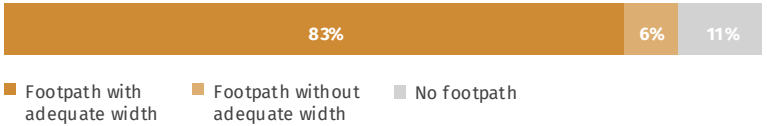

Wide footpaths


Bus stop pushed to the back

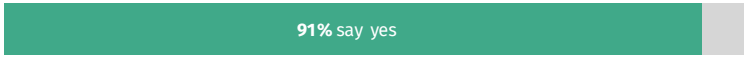
Typical Section



Width of Footpath

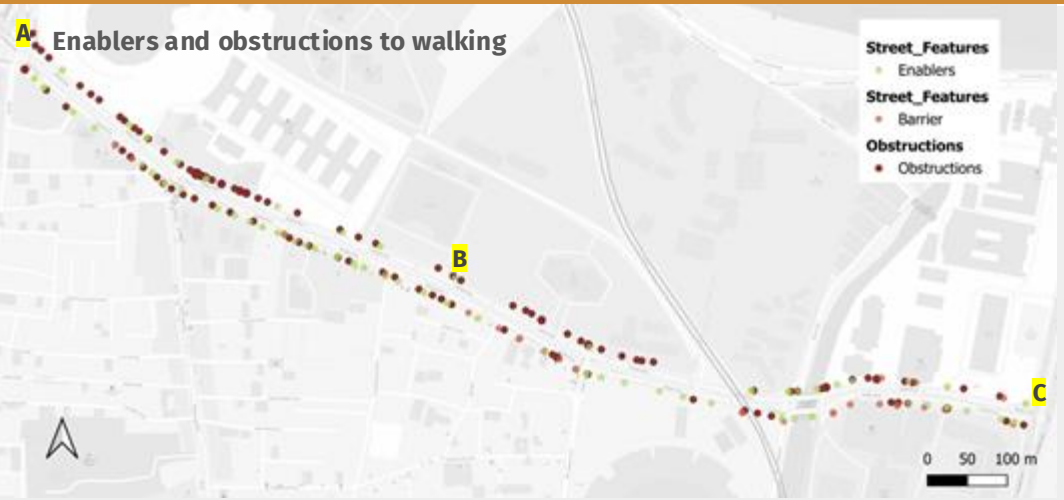


Is the footpath wide enough to walk?

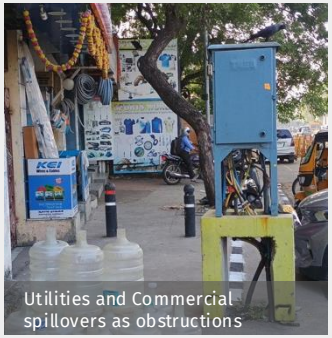


Where do people walk?

2. Wallajah Road | Ease of Walking



Enablers and obstructions to walking

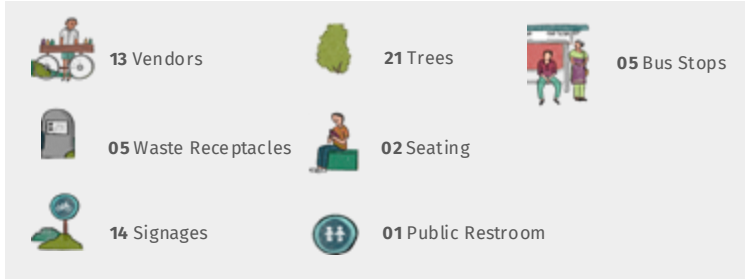


Utilities and Commercial spillovers as obstructions

Vendors on Footpaths

Lack of cleanliness as an obstruction

Type of Street Features



Do you face any obstructions while using the footpath?

07 Obstructions present every 100m of the street.

Construction Debris, Garbage dumping and barricade storing constitute **42%** of all the obstructions.

7% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

2. Wallajah Road | Safety & Accessibility

30% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

2/3rd of the required number of pedestrian crossing points are implemented


Lack of mid-block crossings

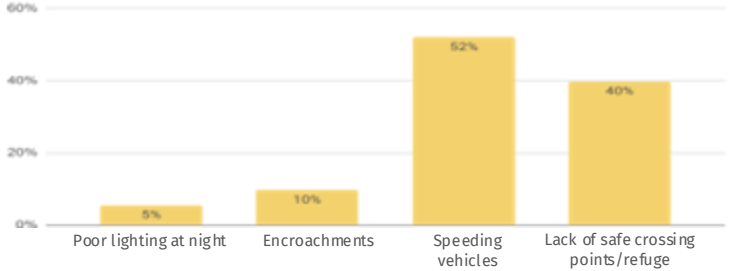

Lack of crossing point at intersection


Lack of refuge area where zebra crossing is provided

Do you feel this street is safe to cross?

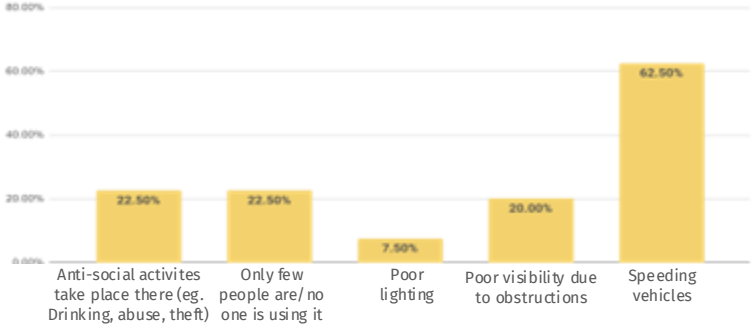
54% of the people feel unsafe to cross the street

52% of them feel **speeding vehicles** is the biggest concern

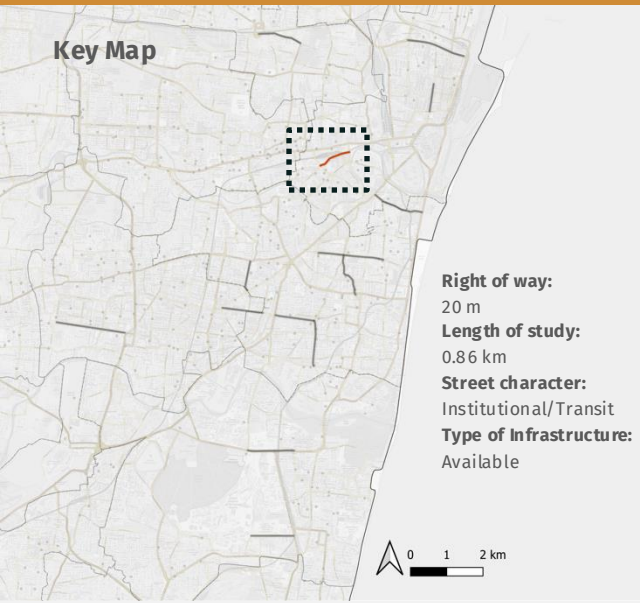


Do you face any problems on this road at night?

77% of women felt unsafe at night



3. Gandhi Irwin Road | An Overview

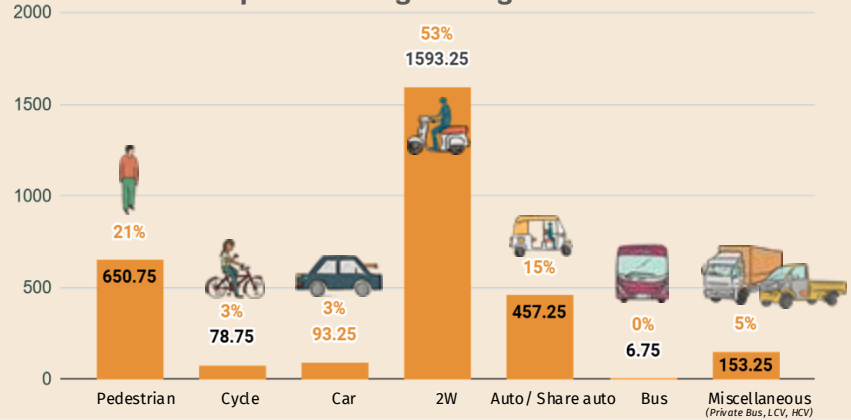


Right of way:
20 m
Length of study:
0.86 km
Street character:
Institutional/Transit
Type of Infrastructure:
Available

About the stretch

Gandhi Irwin Road is the main access road to the Egmore Railway Station, one of the four intercity railway terminals in the city, which carries nearly 25,000 passengers daily. Besides this landmark destination, this stretch also hosts government institutional complexes such as CMDA and small to medium commercial complexes.

Mode Share Data Captured During Evening Peak

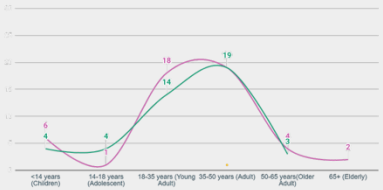


Survey Sample

95 Pedestrians

53% Women

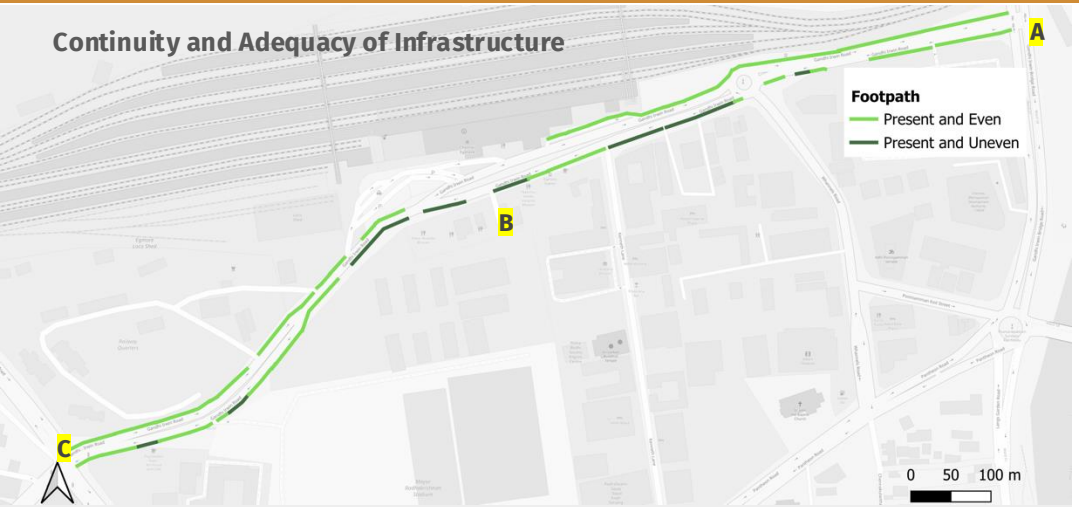
47% Men



Design Score	Perception Score	Observation Score	Total score
6.08/10	5.63/10	7.78/10	18.63/30

3. Gandhi Irwin Road | Ease of Walking

Continuity and Adequacy of Infrastructure



86% of the total street has footpath

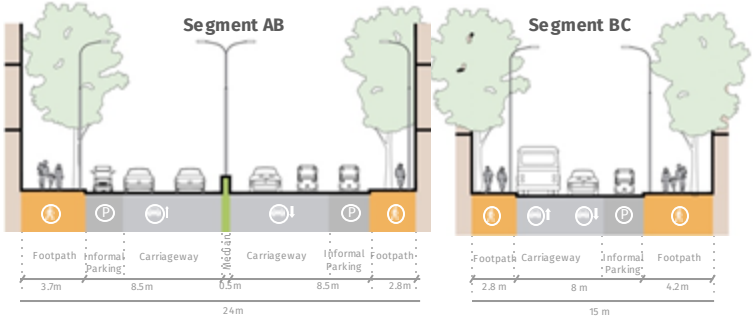
83% of the total length of footpath is higher than 150mm


Discontinuous Footpath


Lack of walking space behind bus stop


Height of the footpath is more than 150mm

Typical Section



Width of Footpath

- Footpath with adequate width
- Footpath without adequate width
- No footpath

Is the footpath wide enough to walk?

Where do people walk?

3. Gandhi Irwin Road | Ease of Walking

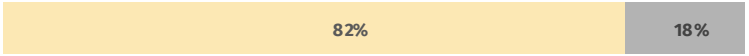
Enablers and obstructions to walking


Parking as Obstruction


Trees as Obstructions


Shops and Barricades as obstructions

Type of Street Features



Enablers Barriers


22 Vendors


26 Trees


08 Bus Stops


14 Waste Receptacles


0 Seating


24 Signages


02 Public Restroom

Do you face any obstructions while using the footpath?

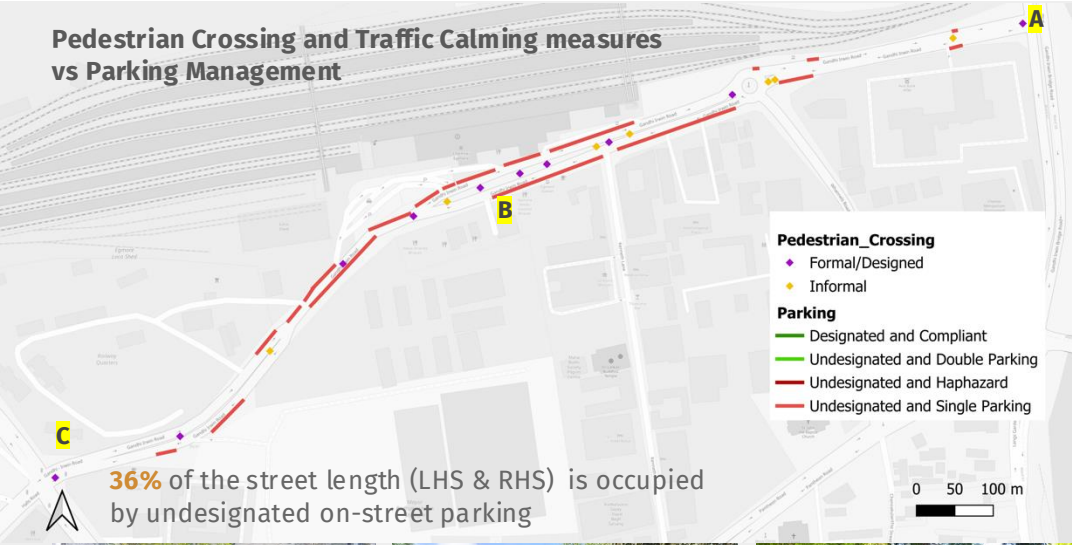
10 Obstructions present every 100m of the street.

Poor surface & parking contribute to **50%** of all the obstructions

19% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

3. Gandhi Irwin Road | Safety & Accessibility

Pedestrian Crossing and Traffic Calming measures vs Parking Management



36% of the street length (LHS & RHS) is occupied by undesignated on-street parking


Pedestrian crossing points have been provided

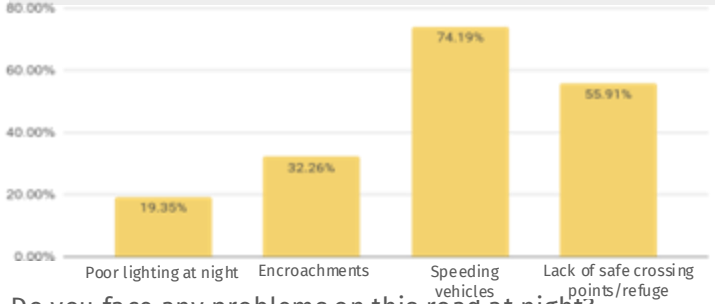

There is no designated/organised parking space for IPT


There are no signs or tactile markers for the visually challenged

Do you feel this street is safe to cross?

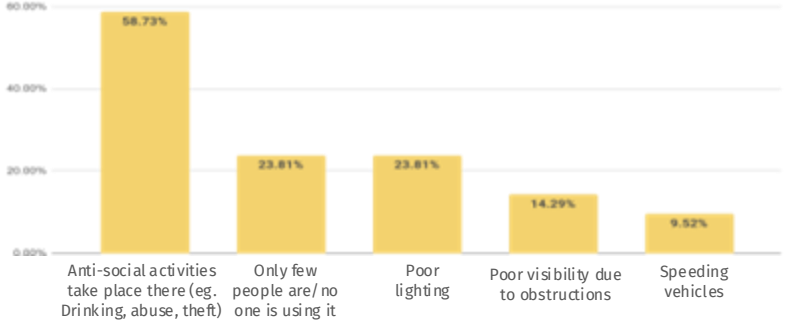
33% of the people feel unsafe to cross the street

74% of them feel **speeding vehicles** is the biggest concern

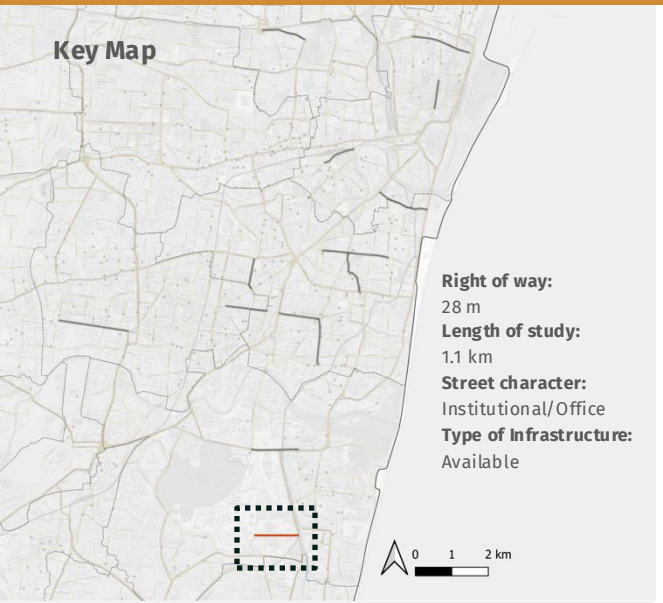


Do you face any problems on this road at night?

76% of women felt unsafe at night



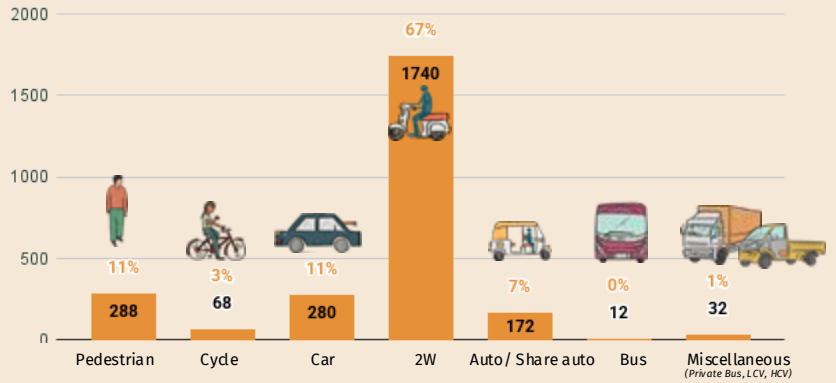
4. CSIR | An Overview



About the stretch

CSIR is a wide link road connecting the Rajiv Gandhi IT Expressway to neighbourhoods like Taramani and Velachery. It provides access to the Council of Scientific & Industrial Research (CSIR) campus, the National Institute of Technical Teachers Training and Research (NITTTR) and Ascendas IT Park.

Mode Share Data Captured During Evening Peak

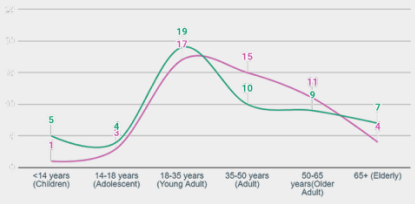


Survey Sample

90 Pedestrians

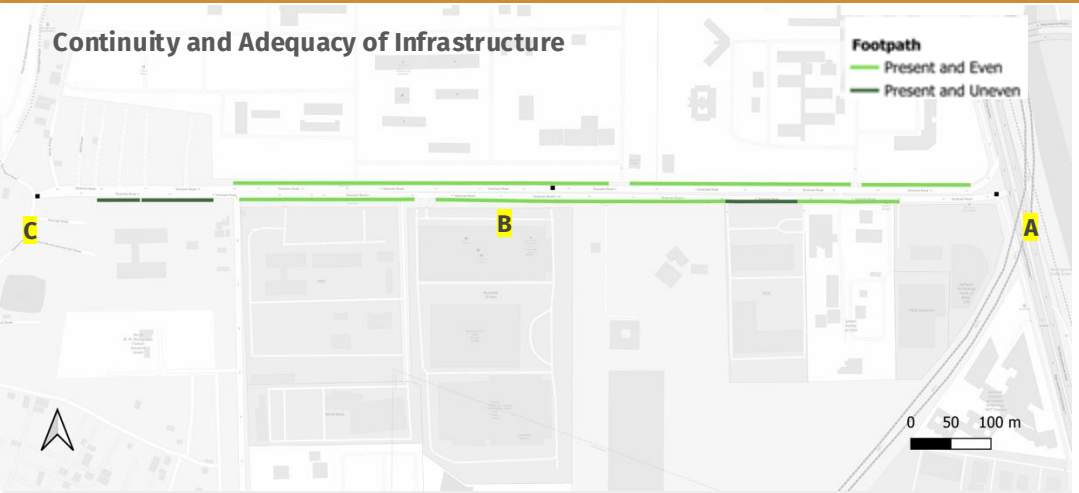
40% Women

60% Men



Design Score	**5.17**/10
Perception Score	**7.19**/10
Observation Score	**6.39**/10
Total score	**18.38/30**

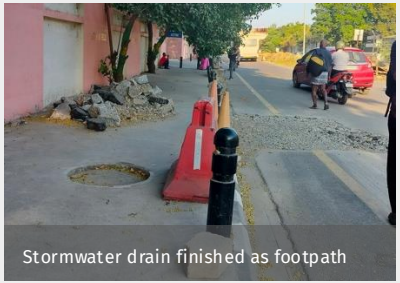
4. CSIR | Ease of Walking



79% of the total street has footpath

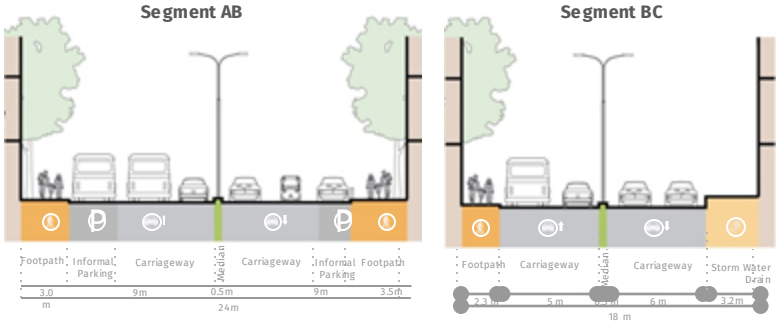
97% of the total length of the footpath is higher than 150mm


Clear walking space

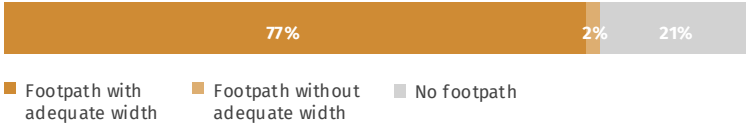

Stormwater drain finished as footpath


Height of footpath is inaccessible

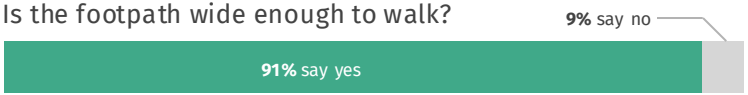
Typical Section



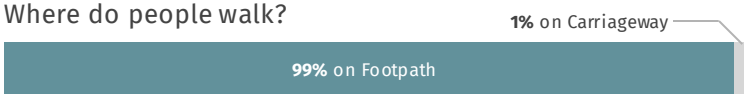
Width of Footpath



Is the footpath wide enough to walk?

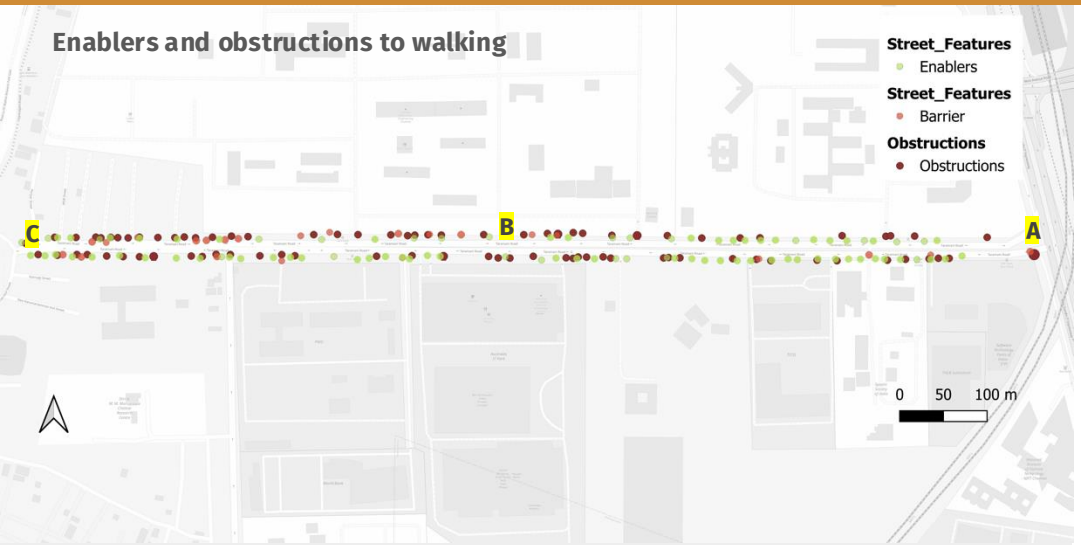


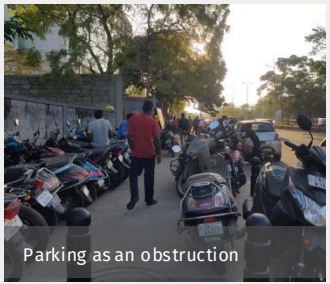
Where do people walk?



4. CSIR | Ease of Walking

Enablers and obstructions to walking

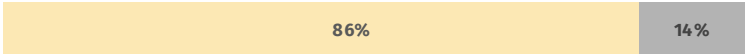



Parking as an obstruction


Obstruction due to utilities


Obstruction due to vendors

Type of Street Features



Enablers Barriers


11 Vendors


99 Trees


03 Bus Stops


02 Waste Receptacles


0 Seating


41 Signages


01 Public Restroom

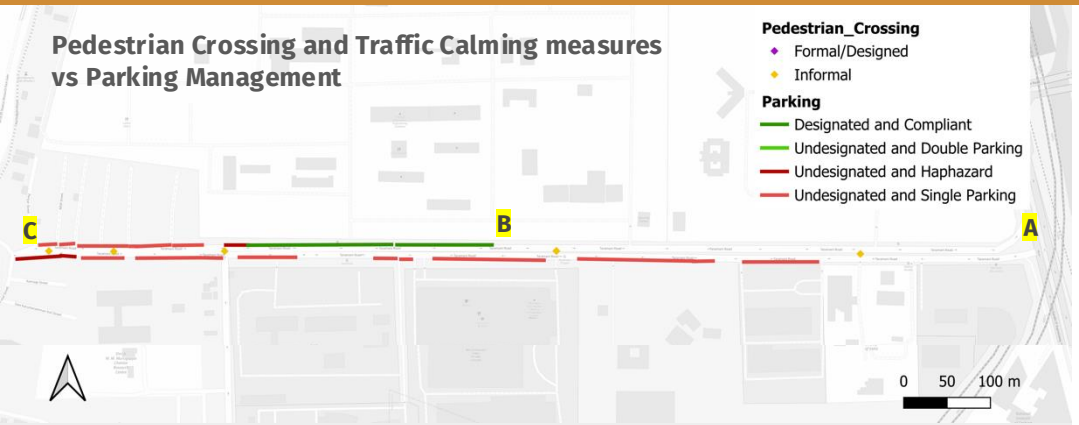
Do you face any obstructions while using the footpath?

07 Obstructions present every 100m of the street

Poor surface and construction debris contribute to **75%** of all the obstructions

27% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

4. CSIR | Safety & Accessibility

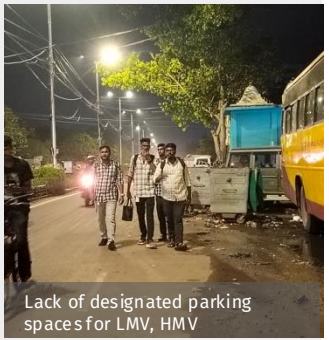


4% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

None of the required number of pedestrian crossing points are implemented


Lack of crossing points at intersections

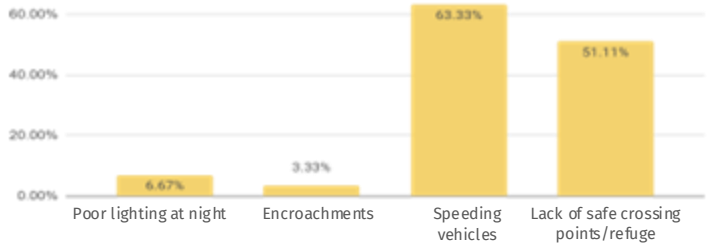

Lack of mid-block crossings


Lack of designated parking spaces for LMV, HMV

Do you feel this street is safe to cross?

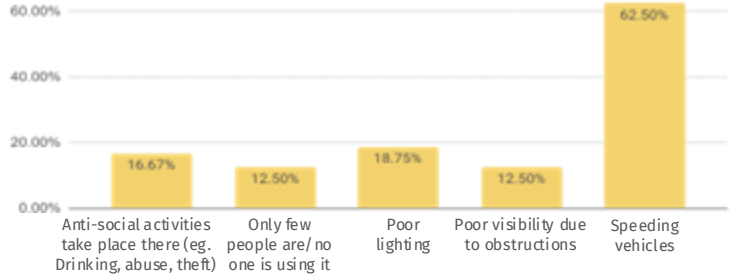
33% of the people feel unsafe to cross the street

63% of them feel **lack of safe crossing points** is the biggest concern



Do you face any problems on this road at night?

69% of women felt unsafe at night



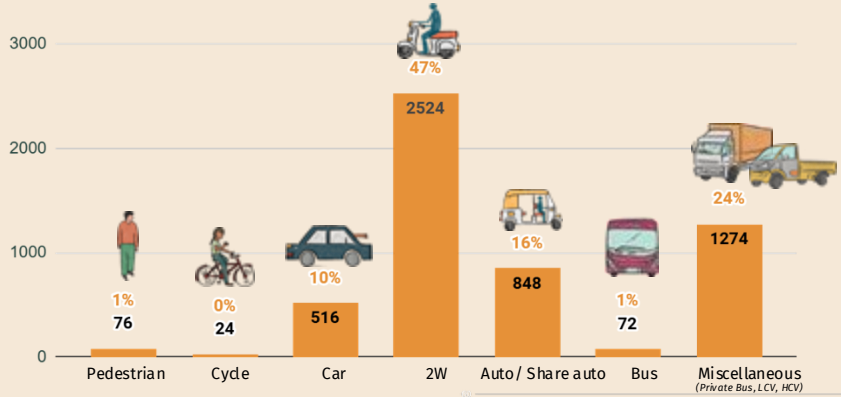
5. Thirumalai Pillai Road | An Overview

Right of way:
12 m
Length of study:
0.82 km
Street character:
Commercial
Type of Infrastructure:
Available

About the stretch

Thirumalai Pillai Road is a neighbourhood-level street connecting Kodambakkam High Road and GN Chetty Road. It has several commercial establishments and schools, which makes it receive a high footfall as well as passing through vehicular traffic.

Mode Share Data Captured During Evening Peak

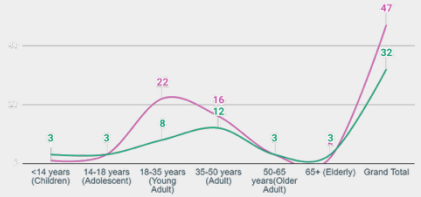


Survey Sample

80 Pedestrians

60% Women

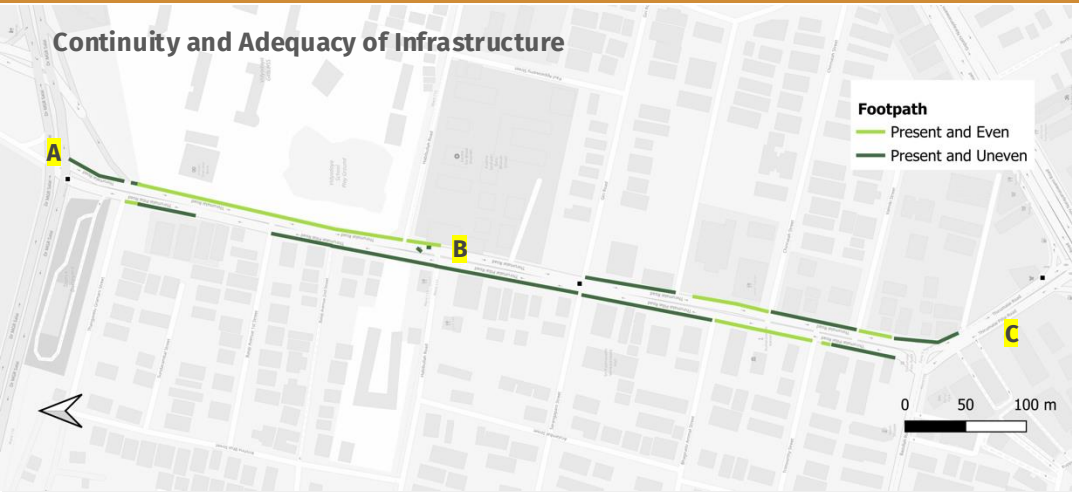
40% Men



Design Score	**4.58**/10
Perception Score	**4.69**/10
Observation Score	**8.06**/10
Total score	**17.12/30**

5. Thirumalai Pillai Road | Ease of Walking

Continuity and Adequacy of Infrastructure



71% of the total street has footpath

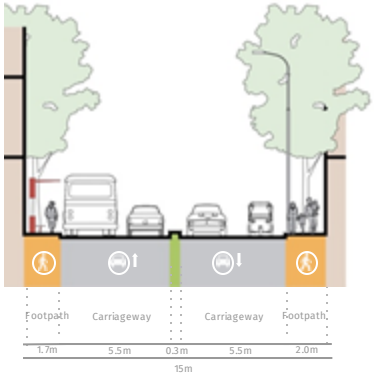
29% of the total length of the footpath is higher than 150mm


Footpath with uneven surface

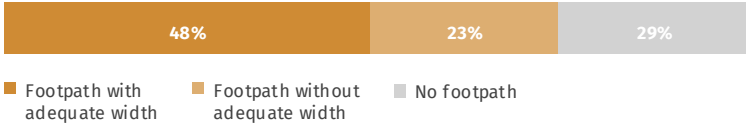

Discontinuous at intersections


Footpath with even surface

Typical Section



Width of Footpath

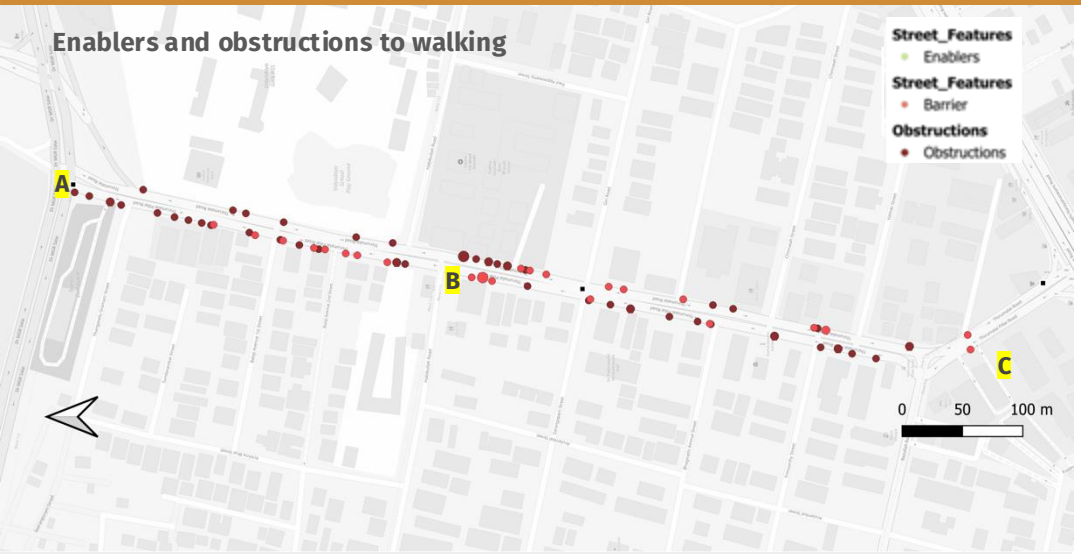


Is the footpath wide enough to walk?

Where do people walk?

5. Thirumalai Pillai Road | Ease of Walking

Enablers and obstructions to walking

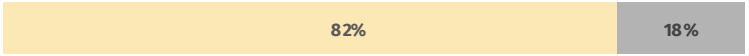



Poor Surface of Footpath


Parking as Obstructions


Access Ramps as Obstructions

Type of Street Features




05 Vendors


26 Trees


02 Bus Stops


01 Waste Receptacles


0 Seating


30 Signages


0 Public Restroom

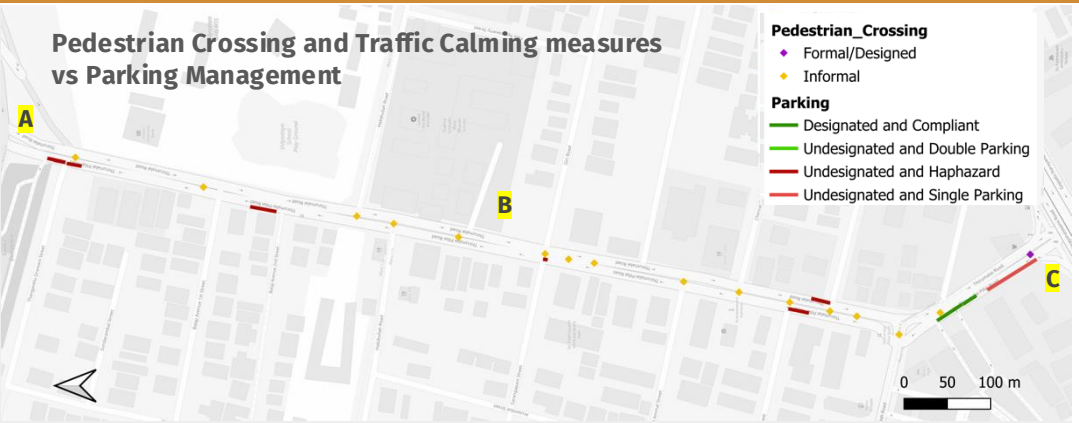
Do you face any obstructions while using the footpath?

06 Obstructions present every 100m of the street

Poor surface contribute to **45%** of all the obstructions

20% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

5. Thirumalai Pillai Road | Safety & Accessibility



7% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

None of the required number of pedestrian crossing points are implemented

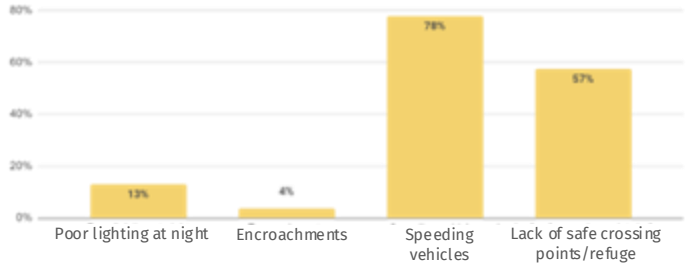

Lack of designed crossing points at high footfall locations


Parking as encroachments

Do you feel this street is safe to cross?

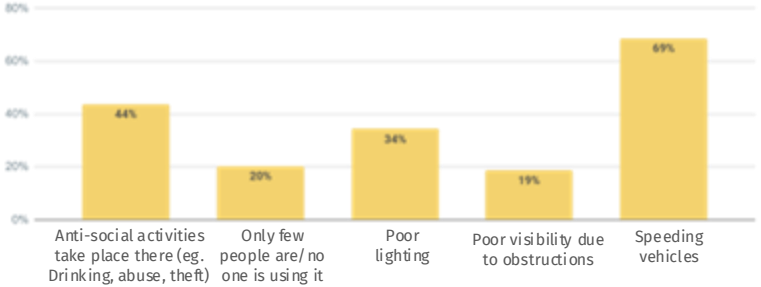
68% of the people feel unsafe to cross the street

78% of them feel **lack of safe crossing points** is the biggest concern



Do you face any problems on this road at night?

70% of women felt unsafe at night



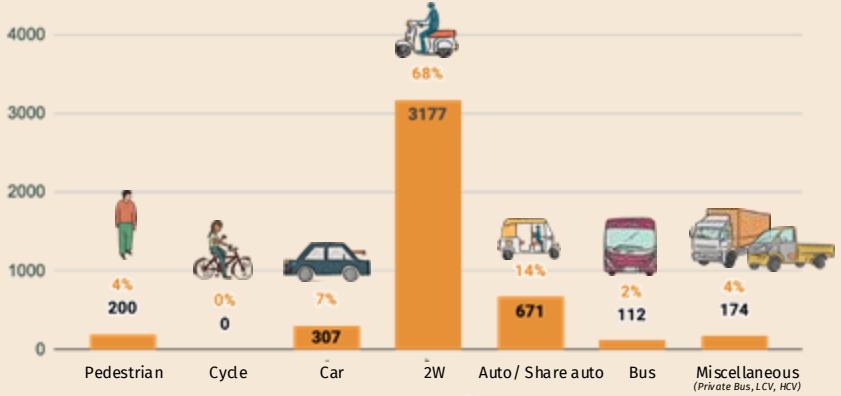
6. Perambur High Road | An Overview

Right of way:
21 m
Length of study:
0.85 km
Street character:
Mixed use
Availability of footpath:
Lack of/disturbed

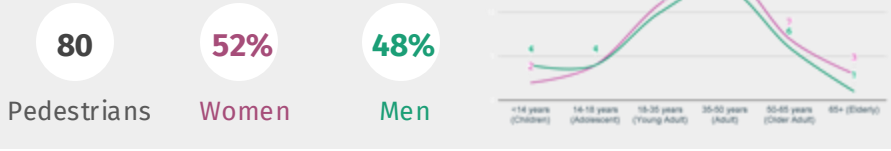
About the stretch

Perambur High Road links Vyasarpadi and Purasawalkam, spanning from the morning park to the railway station. Lined with commercial buildings and shops, it is bustling all day. Efficient transit systems, including bus stops and the railway station, make it a key transportation hub for the area.

Mode Share Data Captured During Evening Peak



Survey Sample



Design Score	5.67/10
Perception Score	4.38/10
Observation Score	5.56/10
Total score	16.3/30

6. Perambur High Road | Ease of Walking

Continuity and Adequacy of Infrastructure

65% of the total street has footpath

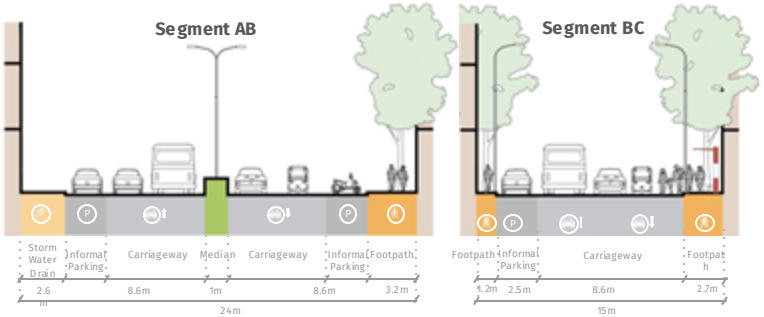
31% of the total length of the footpath is higher than 150mm


Stormwater drain being used as a sidewalk


Lack of footpath


Insufficient width and poor surface

Typical Section



Width of Footpath

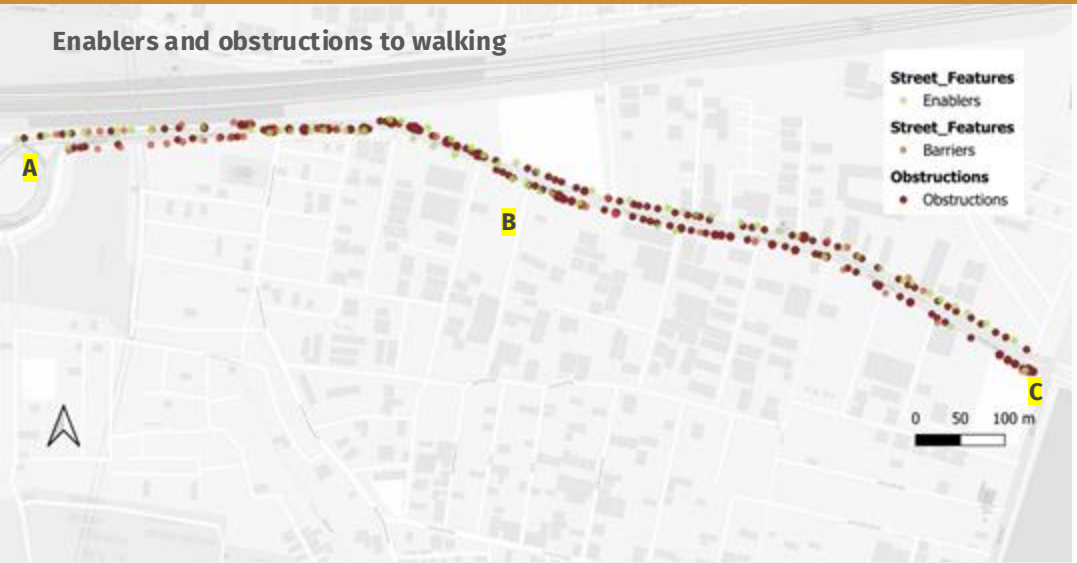
- Footpath with adequate width
- Footpath without adequate width
- No footpath

Is the footpath wide enough to walk?

Where do people walk?

6. Perambur High Road | Ease of Walking

Enablers and obstructions to walking




Parking and Commercial Spillover


Utilities and broken footpath


Shrine as obstruction

Type of Street Features


10 Vendors


67 Trees


06 Bus Stops


10 Waste Receptacles


0 Seating


14 Signages


01 Public Restroom

Do you face any obstructions while using the footpath?

15 Obstructions present every 100m of the street

Parking contributes to **40%** of all the obstructions

15% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

6. Perambur High Road | Safety & Accessibility

Pedestrian Crossing and Parking Management

50% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

None of the required number of pedestrian crossing points are implemented


Lack of mid-block crossings

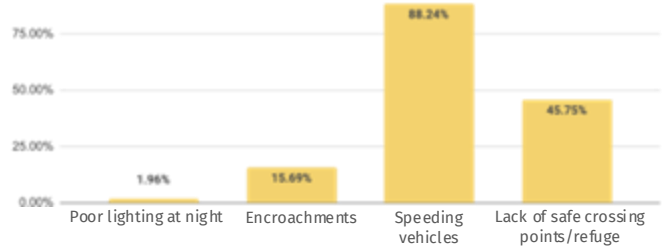

Lack of crossing points at high footfall locations


Lack of designated parking spaces

Do you feel this street is safe to cross?

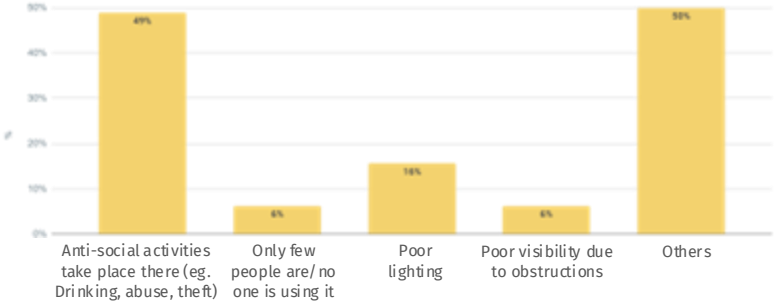
64% of the people feel unsafe to cross the street

88% of them feel **speeding vehicles** is the biggest concern

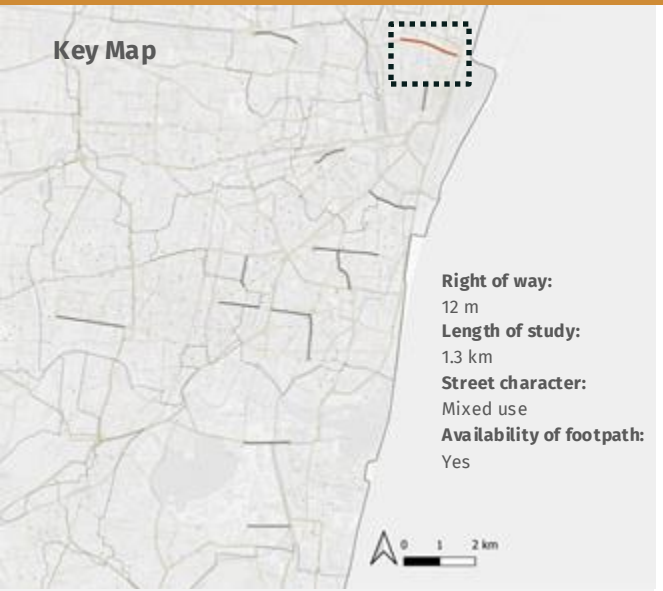


Do you face any problems on this road at night?

79% of women felt unsafe at night



7. Old Jail Road+Ibrahim Road | An Overview

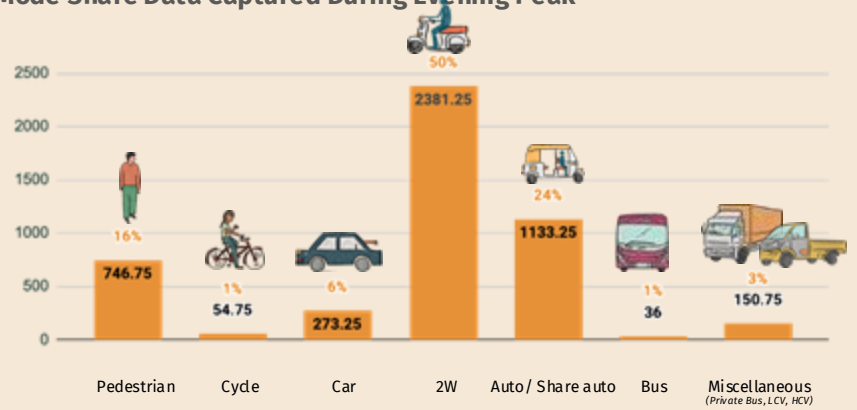


Right of way:
12 m
Length of study:
1.3 km
Street character:
Mixed use
Availability of footpath:
Yes

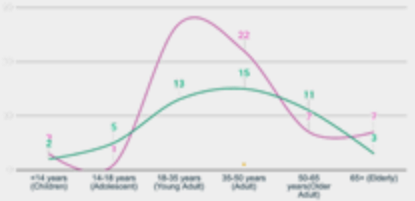
About the Stretch

Old Jail Road and Ibrahim Salai are vital bus routes in North Chennai, with Vallalar Nagar Bus Terminal and Washermanpet metro facilitating multi-modal integration. The Stanley Medical College and Hospital is also located on this road, which adds to a very high footfall, necessitating high-quality pedestrian infrastructure.

Mode Share Data Captured During Evening Peak



Survey Sample



117	57%	42%
Pedestrians	Women	Men

Design Score	Perception Score	Observation Score	Total score
4.58/10	4.38/10	6.11/10	14.76/30

7. Old Jail Road+Ibrahim Road | Ease of Walking

Continuity and Adequacy of Infrastructure

98% of the total street has footpath

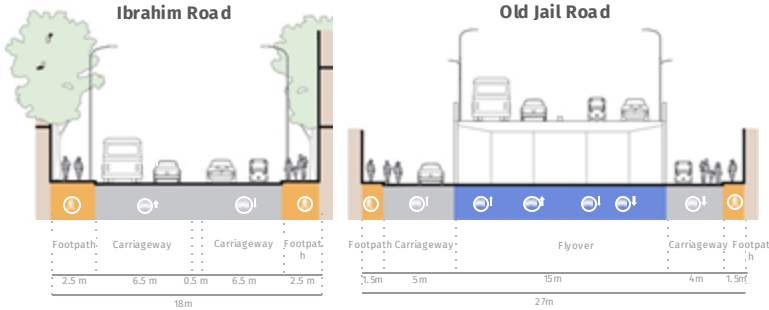
73% of the total length of the footpath is higher than 150mm


Varying width and surface material


Height of footpath is greater than 150mm


Narrow footpath

Typical Section



Width of Footpath

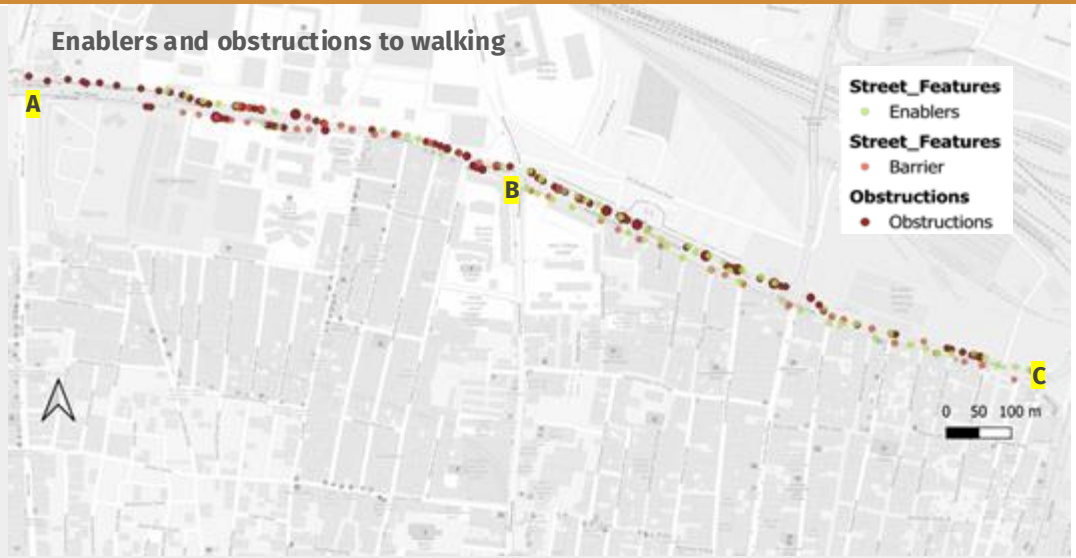
- Footpath with adequate width
- Footpath without adequate width
- No footpath

Is the footpath wide enough to walk?

Where do people walk?

7. Old Jail Road+Ibrahim Road | Ease of Walking

Enablers and obstructions to walking




Discontinuous footpath


Stormwater drain being used as a sidewalk

Type of Street Features


07 Vendors


85 Trees


07 Bus Stops


07 Waste Receptacles


0 Seating


24 Signages


02 Public Restroom

Do you face any obstructions while using the footpath?

07 Obstructions present every 100m of the street

Poor surface contributes to **36%** of all the obstructions

20% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

7. Old Jail Road+Ibrahim Road | Safety & Accessibility

Pedestrian Crossing and Parking Management

23% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

1/4th of the required number of pedestrian crossing points are implemented


Lack of mid-block crossings

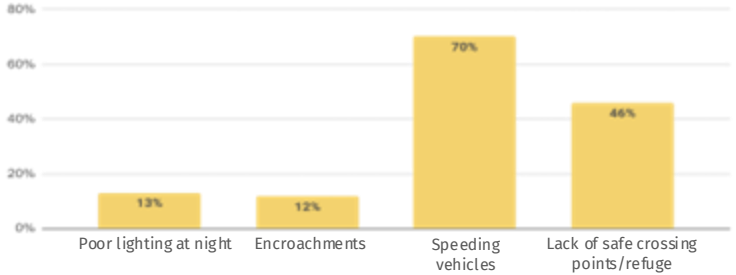

Lack of crossing points at high footfall locations


Lack of designated parking spaces

Do you feel this street is safe to cross?

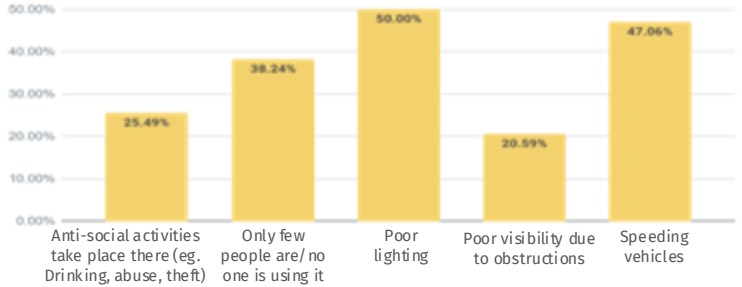
66% of the people feel unsafe to cross the street

70% of them feel **speeding vehicles** is the biggest concern



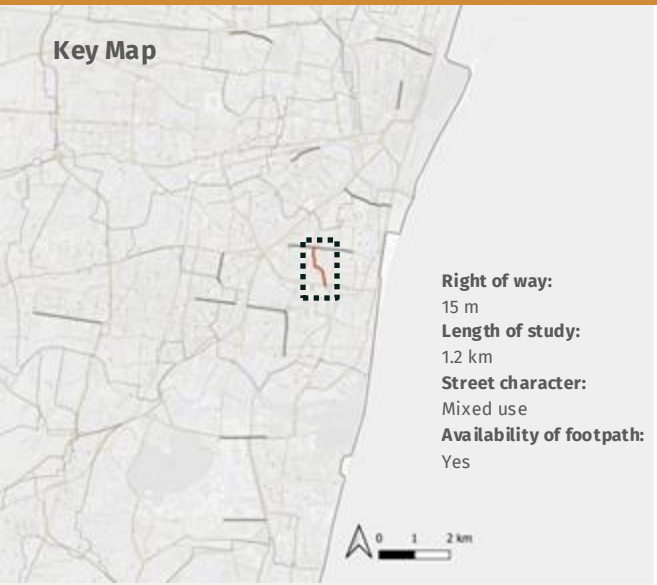
Do you face any problems on this road at night?

78% of women felt unsafe at night



8. Thiru Vi Ka High Road | An Overview

Key Map

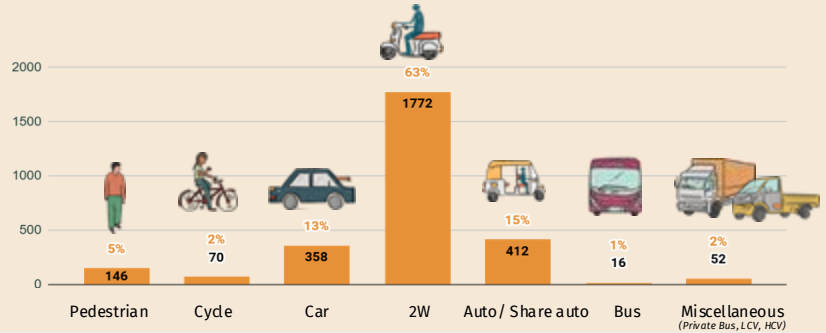


Right of way:
15 m
Length of study:
1.2 km
Street character:
Mixed use
Availability of footpath:
Yes

About the Stretch

Thiru Vi Ka High Road connects Peter's Road to Luz Church Road in Mylapore, spanning a total length of 2.0 kms. Length of the study covers of 1.5 kms of the road, predominantly sporting commercial fronts, hospitals and offices, and is intersected by Dr.Radhakrishnan Salai on the southern end.

Mode Share Data Captured During Evening Peak

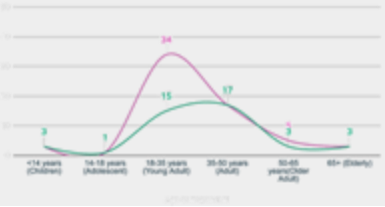


Survey Sample

105
Pedestrians

60%
Women

40%
Men



Design Score	**4.67**/10
Perception Score	**5**/10
Observation Score	**5.28**/10
Total score	**13.92/30**

8. Thiru Vi Ka High Road | Ease of Walking

Continuity and Adequacy of Infrastructure

62% of the total street has footpath

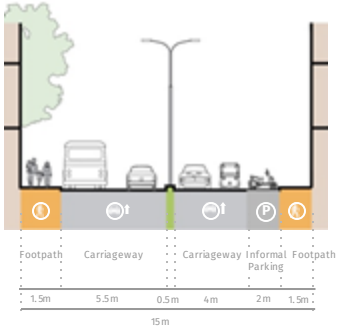
100% of the total length of footpath is higher than 150mm

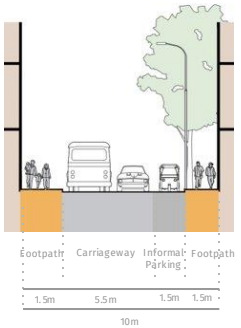

Discontinuous footpath


Wide Footpath


Encroached Footpath

Typical Section





Width of Footpath

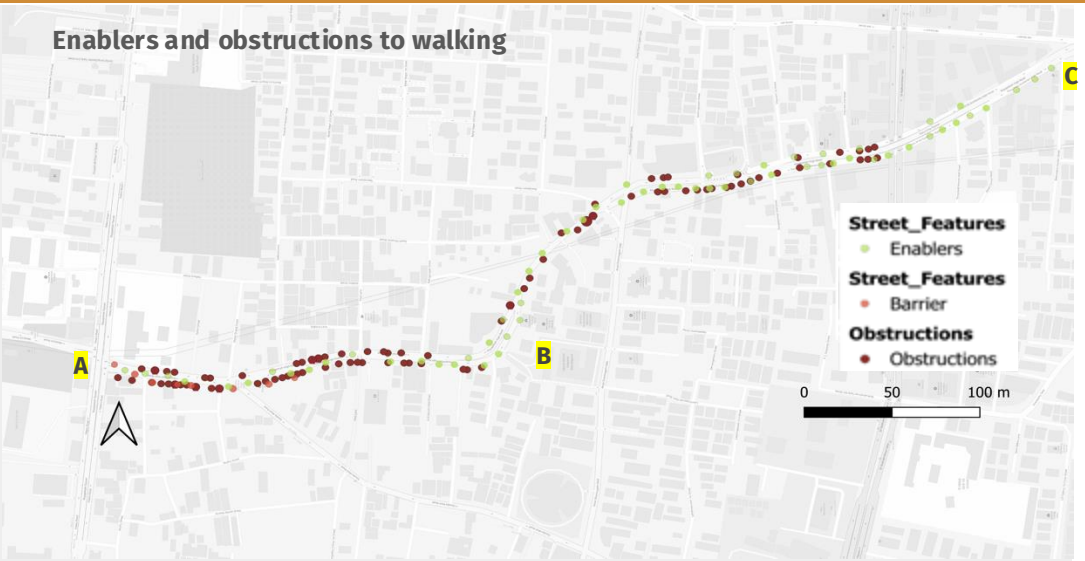
- Footpath with adequate width
- Footpath without adequate width
- No footpath

Is the footpath wide enough to walk?

Where do people walk?

8. Thiru Vi Ka High Road | Ease of Walking

Enablers and obstructions to walking



Parking as an obstruction


Poor Surface


Utilities as obstruction

Type of Street Features


15 Vendors


34 Trees


03 Bus Stops


03 Waste Receptacles


0 Seating


63 Signages


0 Public Restroom

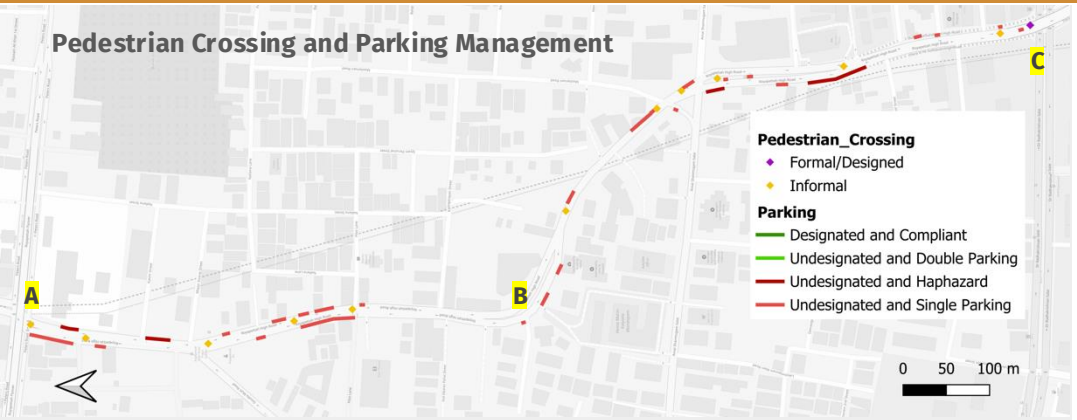
Do you face any obstructions while using the footpath?

08 Obstructions present every 100m of the street

Parking contributes to **54%** of all the obstructions

12% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

8. Thiru Vi Ka High Road | Safety & Accessibility



15% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

None of the required number of pedestrian crossing points are implemented


Lack of designated parking spaces

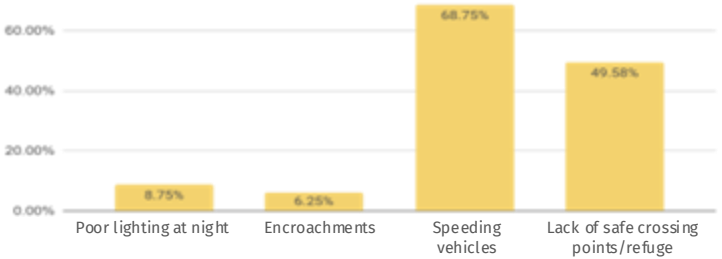

Lack of safe crossing points to access bus stops

Parking as encroachment

Do you feel this street is safe to cross?

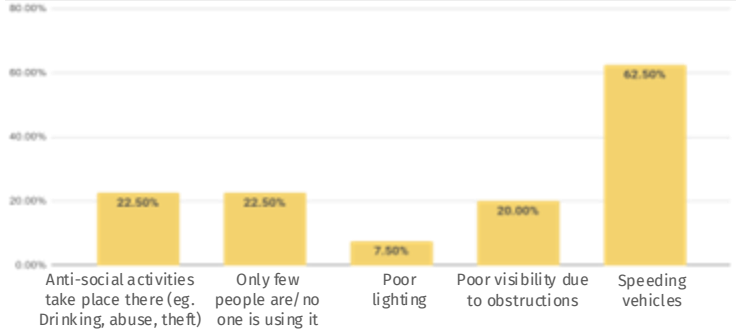
76% of the people feel unsafe to cross the street

69% of them feel **speeding vehicles** is the biggest concern



Do you face any problems on this road at night?

52% of women felt unsafe at night



9. Peter's Road | An Overview

ITDP INDIA

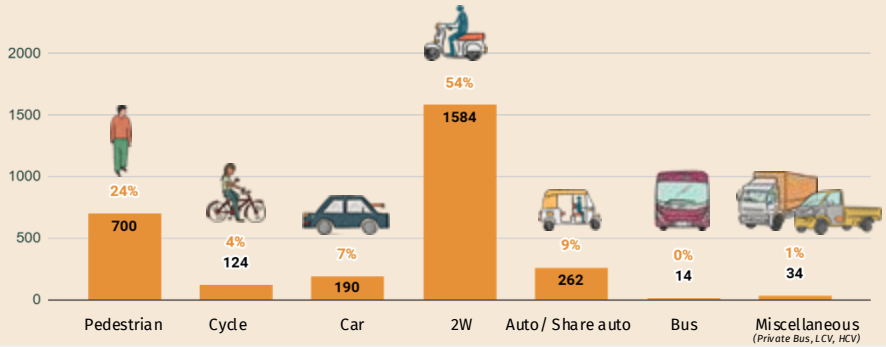
Key Map

Right of way:
14 m
Length of study:
1.73 km
Street character:
Commercial
Availability of footpath:
Lack of/disturbed

About the Stretch

Peter's Road is well-known city-wide for the presence of New College, MEASI (School of Architecture), the Meesapet Market, Biryani Shops, Furniture and Automobile shops, and the Ice house Mosque. It covers a total length of 1.6 kms with Anna Salai on the West and Triplicane on the East.

Mode Share Data Captured During Evening Peak

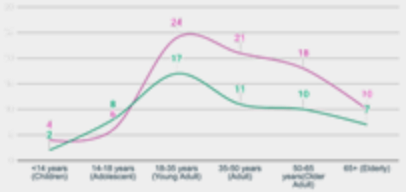


Survey Sample

138 Pedestrians

60% Women

40% Men



Design Score	Perception Score	Observation Score	Total score
4.5/10	3.44/10	6.67/10	14.47/30

9. Peter's Road | Ease of Walking

Continuity and Adequacy of Infrastructure

56% of the total street has footpath

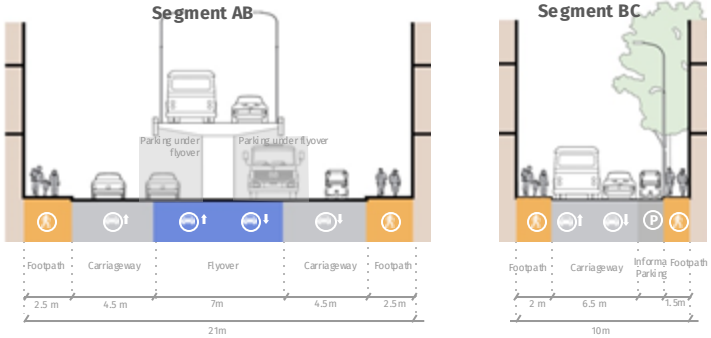
97% of the total length of footpath is higher than 150mm


Discontinuous footpath

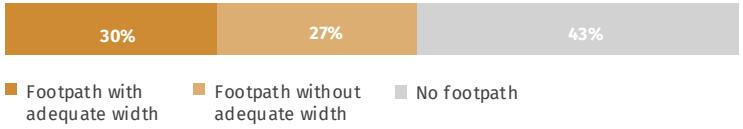

Wide footpath in some portions


Encroached footpath

Typical Section

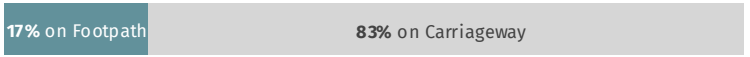


Width of Footpath

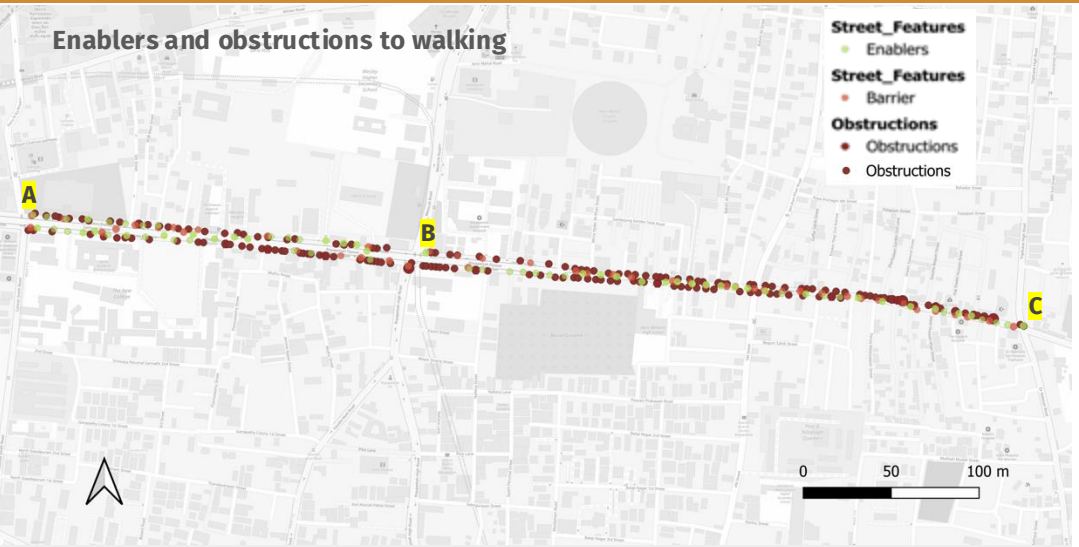


Is the footpath wide enough to walk?

Where do people walk?

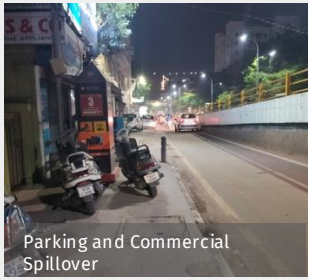


9. Peter's Road | Ease of Walking




Public Toilet as an obstruction


Poor Surface as obstruction


Parking and Commercial Spillover

Type of Street Features


15 Vendors


20 Trees


04 Bus Stops


06 Waste Receptacles


0 Seating


18 Signages


01 Public Restroom

Do you face any obstructions while using the footpath?

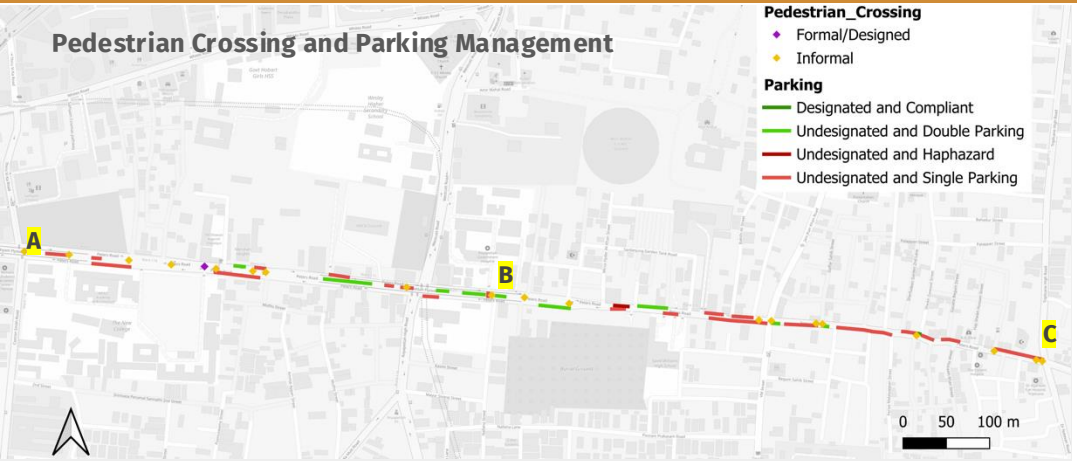
11 Obstructions present every 100m of the street

Parking contributes to **27%** of all the obstructions

18% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

9. Peter's Road | Safety & Accessibility

Pedestrian Crossing and Parking Management



31% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

None of the required number of pedestrian crossing points are implemented


Lack of safe crossing points at mid-block

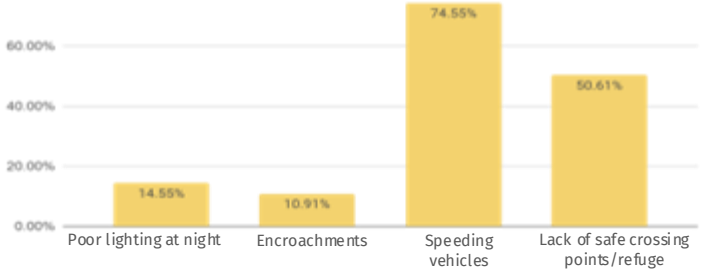

Lack of safe crossing points at intersections


Lack of designated parking spaces

Do you feel this street is safe to cross?

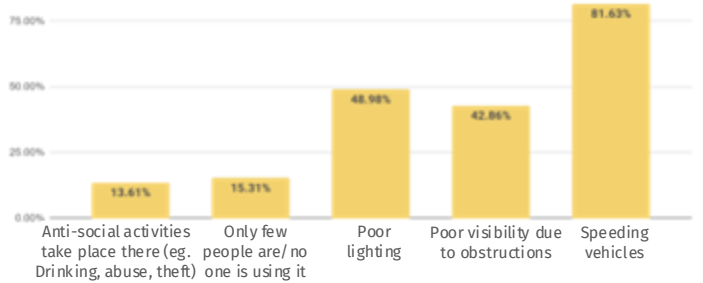
80% of the people feel unsafe to cross the street

75% of them feel **speeding vehicles** is the biggest concern



Do you face any problems on this road at night?

82% of women felt unsafe at night



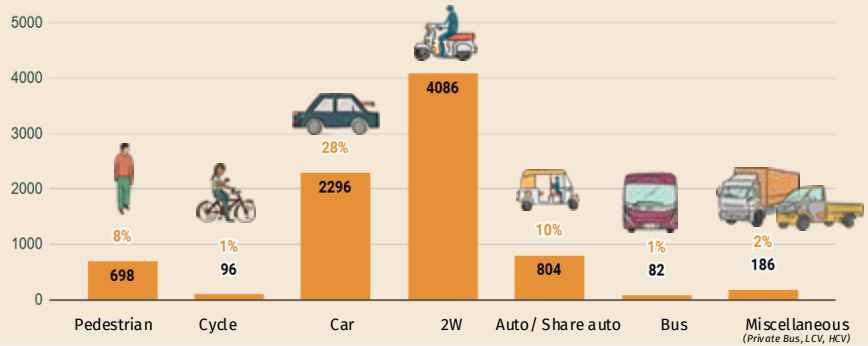
10. Sardar Patel Road | An Overview

ITDP INDIA

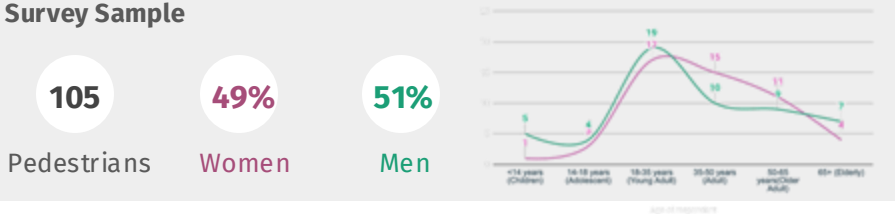
About the stretch

Sardar Patel Road is one of the arterial roads of the city, providing access to the Raj Bhavan, Anna University, Central Leather Research Institute (CLRI), IIT Madras and several commercial establishments, which stretches over a length of 2.5 km. Only a portion of this road has been taken up for this study.

Mode Share Data Captured During Evening Peak



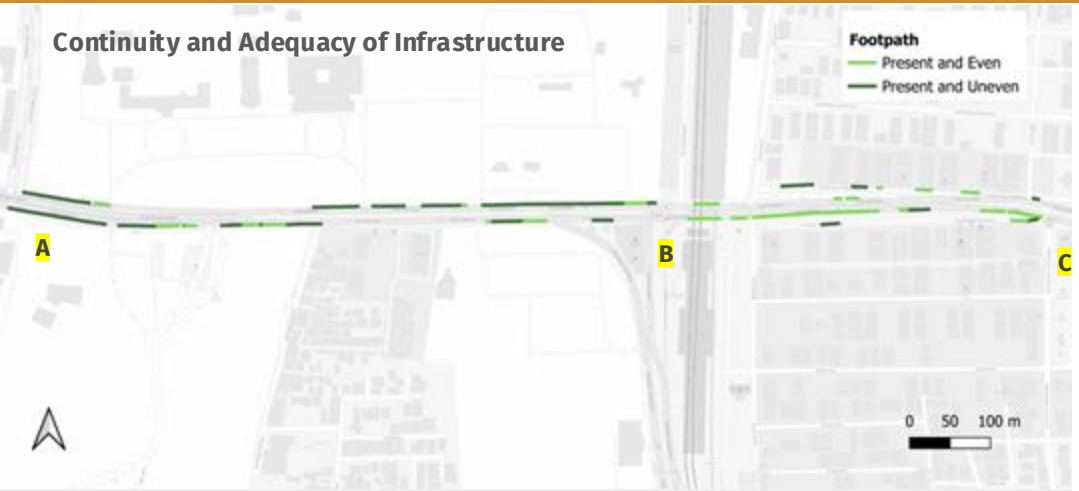
Survey Sample



Design Score	4.92/10
Perception Score	5.31/10
Observation Score	4.44/10
Total score	14.49/30

10. Sardar Patel Road | Ease of Walking

Continuity and Adequacy of Infrastructure



65% of the total street has footpath

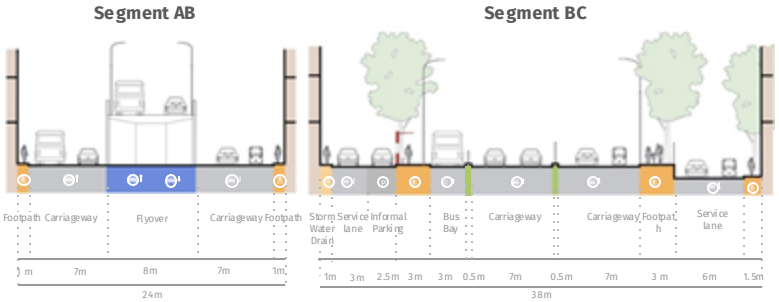
46% of the total length of footpath is higher than 150mm


Inadequate width

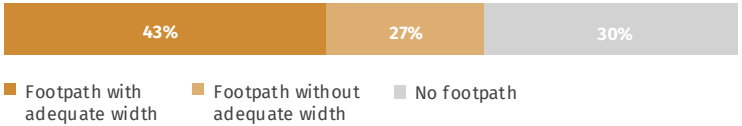

Uneven Surfaces


Discontinuous Footpath

Typical Section



Width of Footpath



Is the footpath wide enough to walk?

Where do people walk?

10. Sardar Patel Road | Ease of Walking

Enablers and obstructions to walking


Commercial Spillover


Vendors stalls and equipment


Poor Surface

Type of Street Features


07 Vendors


104 Trees


13 Bus Stops


04 Waste Receptacles


10 Seating


23 Signages


02 Public Restrooms

Do you face any obstructions while using the footpath?

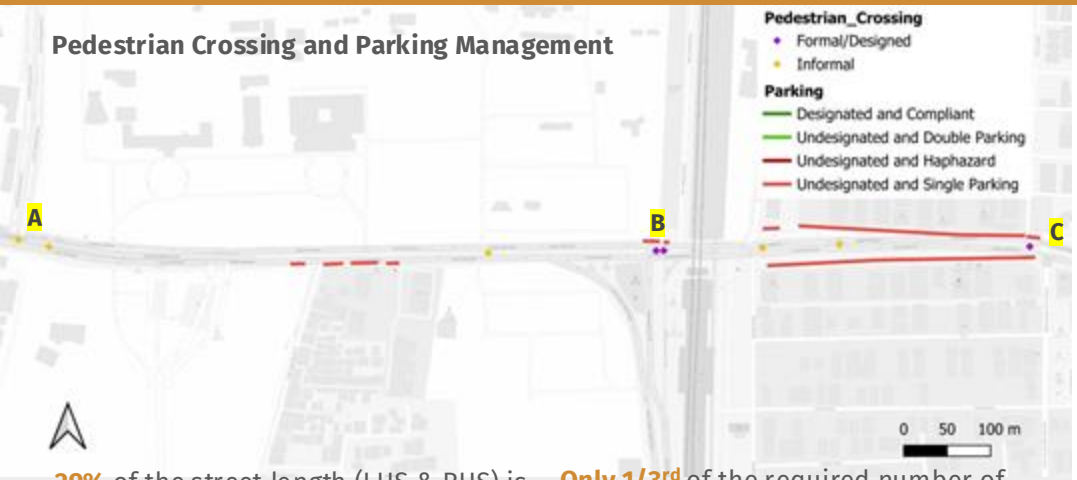
06 Obstructions present every 100m of the street

Poor surface contributes to **32%** of all the obstructions

34% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

10. Sardar Patel Road | Safety & Accessibility

Pedestrian Crossing and Parking Management



29% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

Only 1/3rd of the required number of pedestrian crossing points are implemented


Undesignated Parking

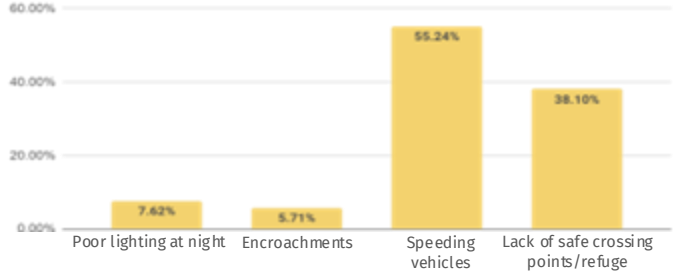

Lack of Pedestrian Refuge at Signalised Crossing


Lack of Safe Crossing Points

Do you feel this street is safe to cross?

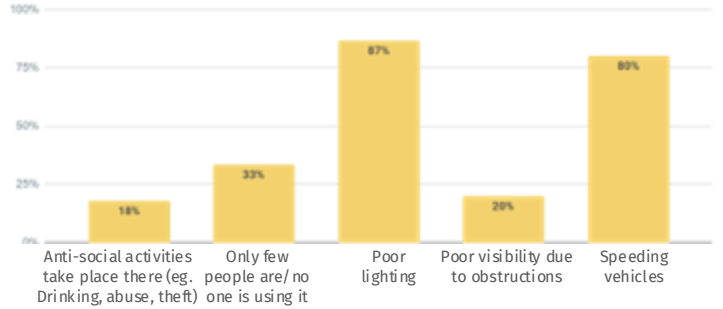
68% of the people feel unsafe to cross the street

55% of them feel **speeding vehicles** is the biggest concern



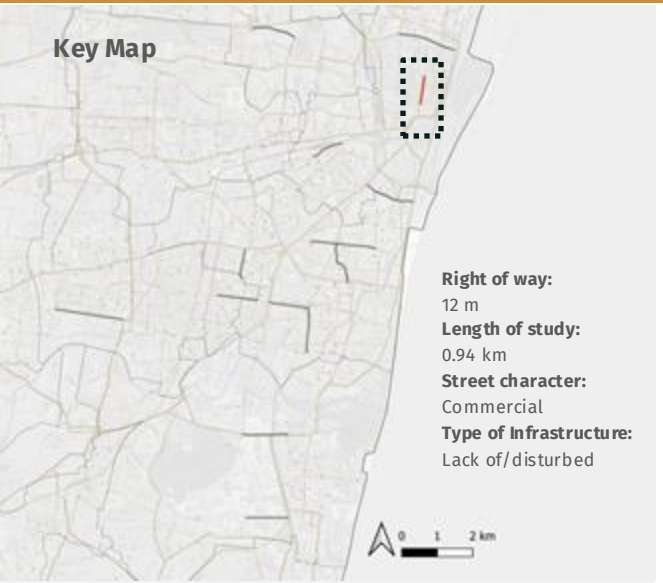
Do you face any problems on this road at night?

75% of women felt unsafe at night



11. Broadway Road | An Overview

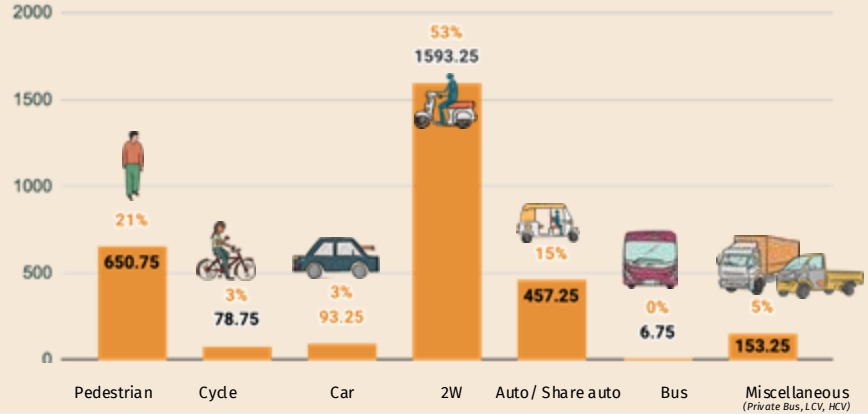
ITDP INDIA



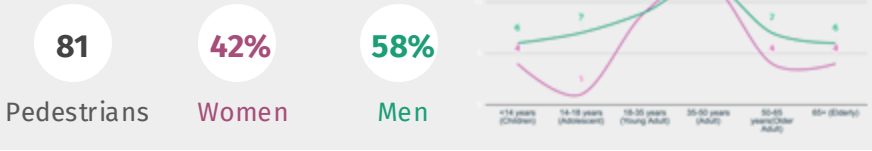
About the stretch

Broadway Road is an important link between Old Jail Road and Netaji Subhash Chandra Bose Road in North Chennai, providing access to the High Court Metro Station as well as the Mannadi Metro Station. It is predominantly commercial in nature, with a few schools and churches that add to the mix of the footfall. It stretches over a length of 1.75 km, but only 0.95km of it is considered for this study.

Mode Share Data Captured During Evening Peak



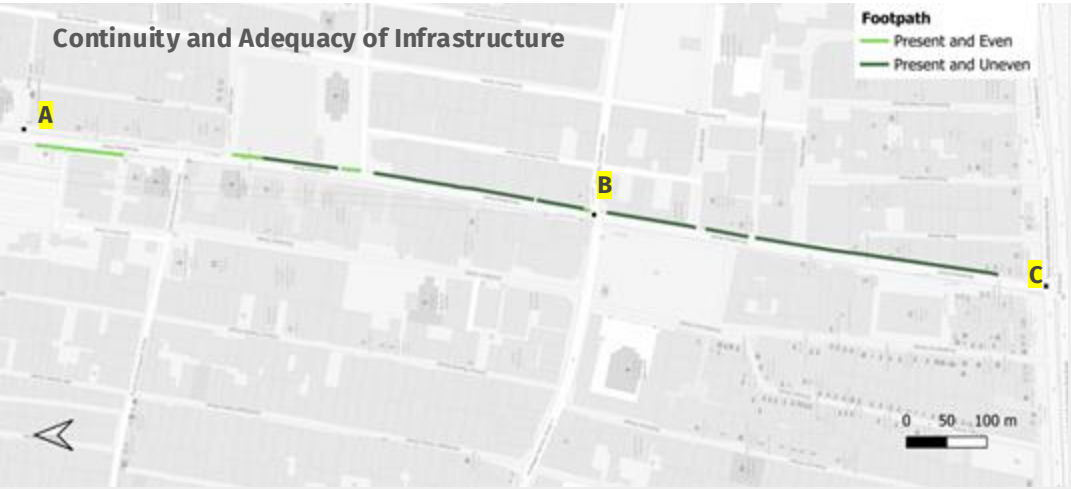
Survey Sample



Design Score	3.92/10
Perception Score	3.75/10
Observation Score	6.11/10
Total score	12.59/30

11. Broadway Road | Ease of Walking

Continuity and Adequacy of Infrastructure



42% of the total street has footpath

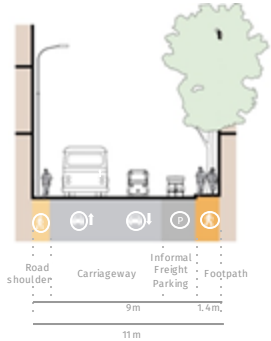
36% of the total length of footpath is higher than 150mm


Stormwater drain being used as a sidewalk

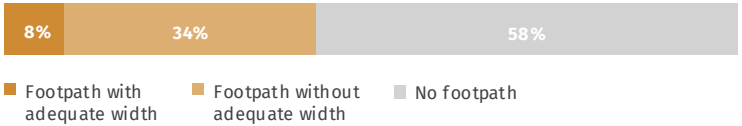

Height of footpath is greater than 150m


Lack of Safe Space for walking/cycling

Typical Section

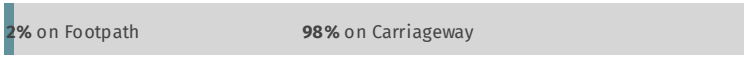


Width of Footpath



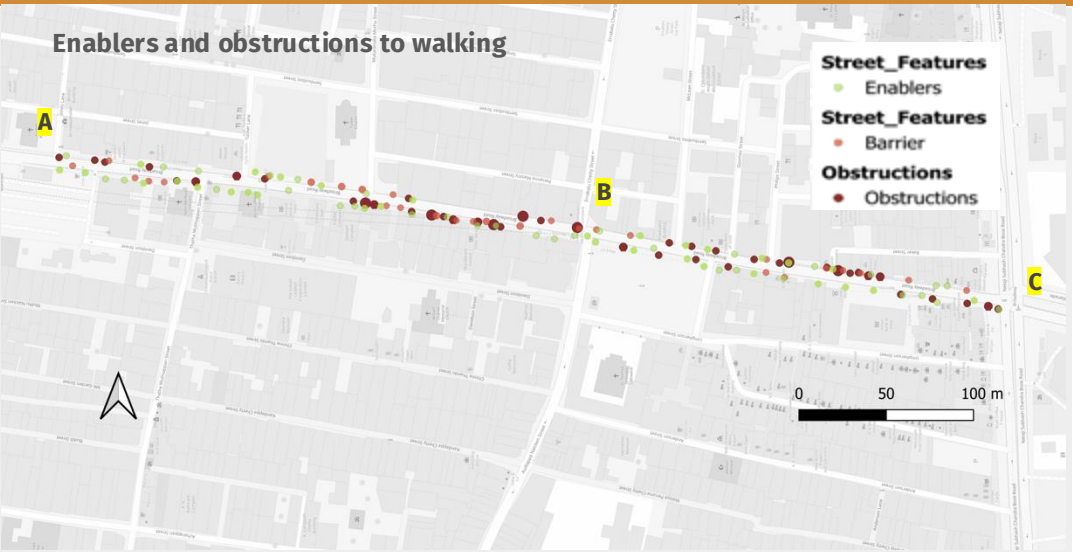
Is the footpath wide enough to walk?

Where do people walk?



11. Broadway Road | Ease of Walking

Enablers and obstructions to walking




Construction Material as an Obstruction


Parking as obstruction


Unclean footpath as obstruction

Type of Street Features


18 Vendors


12 Trees


03 Bus Shelters


02 Waste Receptacles


0 Seating


12 Signages


0 Public Restrooms

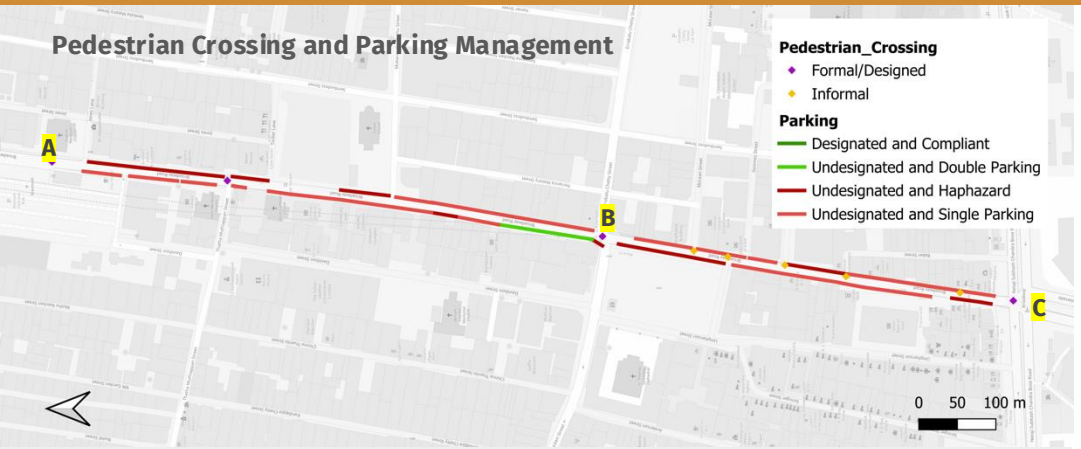
Do you face any obstructions while using the footpath?

09 Obstructions present every 100m of the street

Parking contributes to **42%** of all the obstructions

22% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

11. Broadway Road | Safety & Accessibility



66% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

Lack of Speed Calming elements

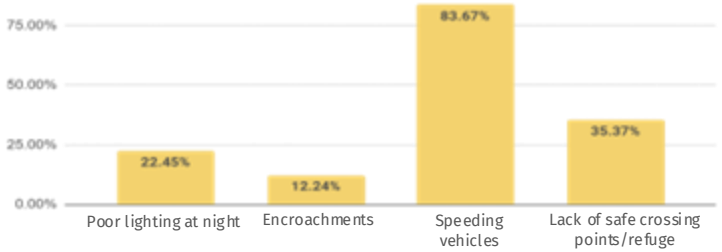
Only 1/4th of the required number of pedestrian crossing points are implemented


Lack of Pedestrian Crossing points

Do you feel this street is safe to cross?

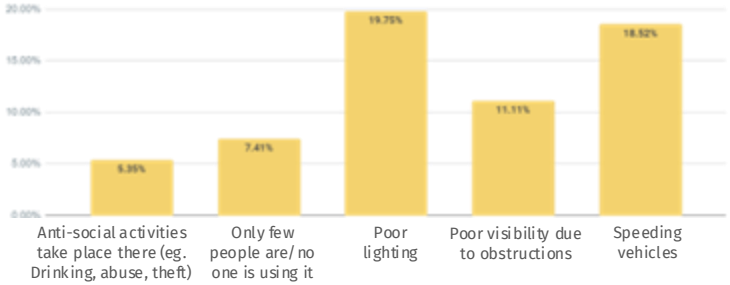
60% of the people feel unsafe to cross the street

84% of them feel **speeding vehicles** is the biggest concern



Do you face any problems on this road at night?

91% of women felt unsafe at night



12. Eldams Road | An Overview

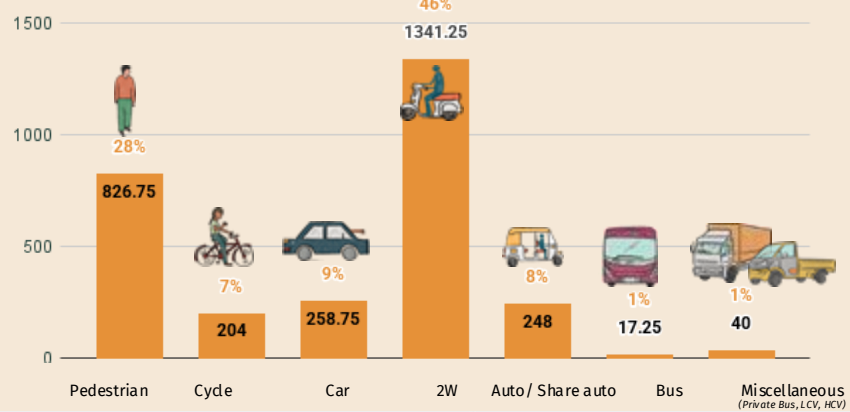
Key Map

Right of way:
15 m
Length of study:
1 km
Street character:
Mixed use
Availability of footpath:
Lack of/disturbed

About the Stretch

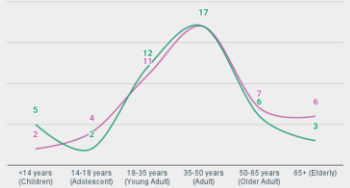
Eldams Road serves as a crucial link for both vehicular traffic and public transportation, functioning as a significant Bus Route Road. Its strategic location and proximity to key landmarks make it an indispensable thoroughfare.

Mode Share Data Captured During Evening Peak



Survey Sample

92	51%	49%
Pedestrians	Women	Men



Design Score	Perception Score	Observation Score	Total score
4.42/10	4.06/10	5.28/10	12.91/30

12. Eldams Road | Ease of Walking

Continuity and Adequacy of Infrastructure

Only **10%** of the total street has footpath

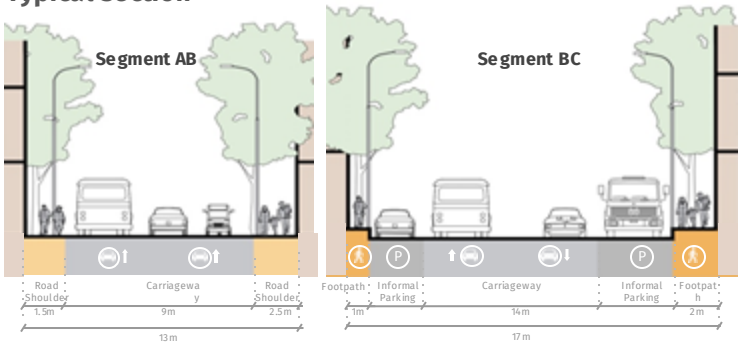
10% of the total length of footpath is higher than 150mm


Discontinuous footpath

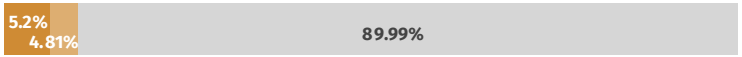

Stormwater drain being used as a sidewalk


Lack of safe space for walking/cycling

Typical Section



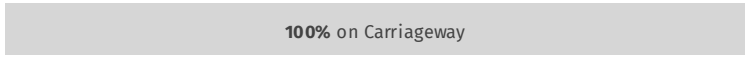
Width of Footpath



- Footpath with adequate width
- Footpath without adequate width
- No footpath

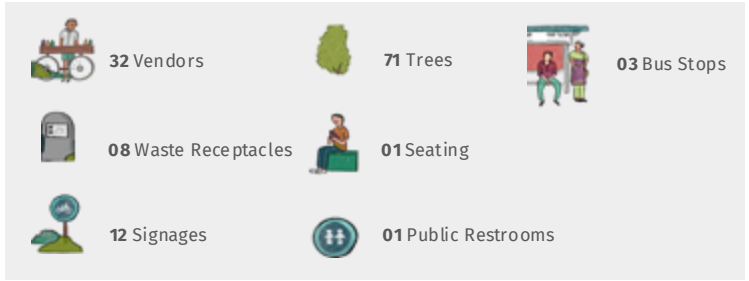
Is the footpath wide enough to walk?

Where do people walk?



12. Eldams Road | Ease of Walking

Type of Street Features



Do you face any obstructions while using the footpath?

09 Obstructions present every 100m of the street

Parking contributes to **47%** of all the obstructions

16% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities


Public toilet as obstruction


Vendors as obstructions


Broken footpath as obstruction

12. Eldams Road | Safety & Accessibility

18% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

Only 1/4th of the required number of pedestrian crossing points are implemented


Lack of mid-block crossings

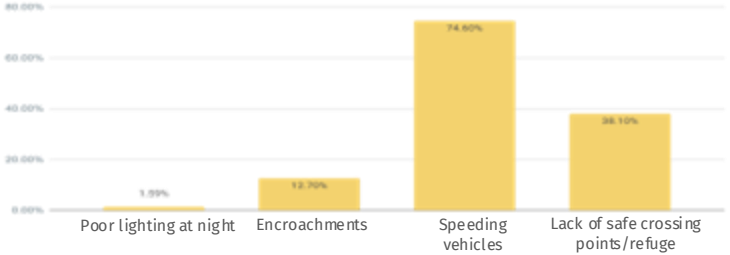

Lack of crossings to access bus stops


Lack of crossing at intersections

Do you feel this street is safe to cross?

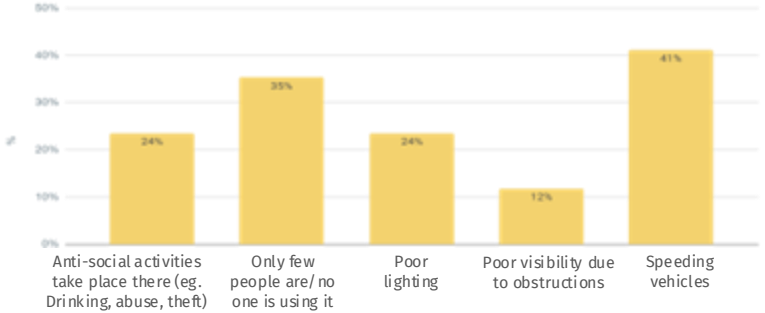
68% of the people feel unsafe to cross the street

74% of them feel **speeding vehicles** is the biggest concern

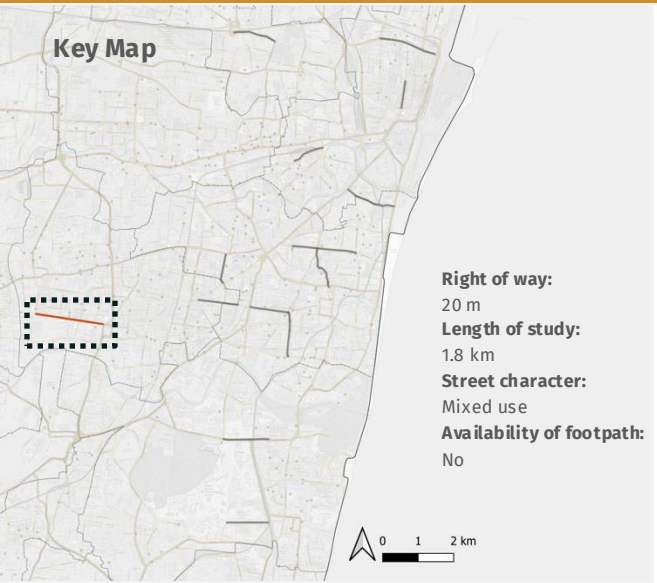


Do you face any problems on this road at night?

62% of women felt unsafe at night



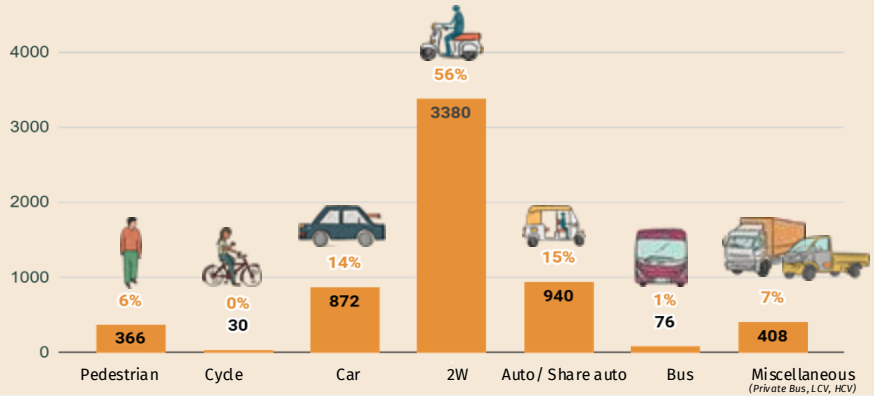
13. Anna Main Road | An Overview



About the Stretch

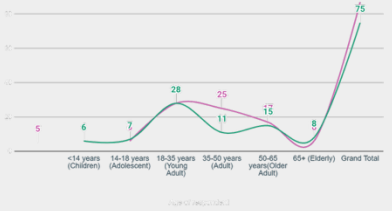
Anna Main Road is a main spine connecting Ashok Nagar and K.K Nagar, a planned neighbourhood of the city. It serves as access to the K.K. Nagar Bus Terminus and the Ashok Nagar Metro Station. Several commercial establishments and residential apartments line the edges of this road, including the iconic Udhayam Theatre.

Mode Share Data Captured During Evening Peak



Survey Sample

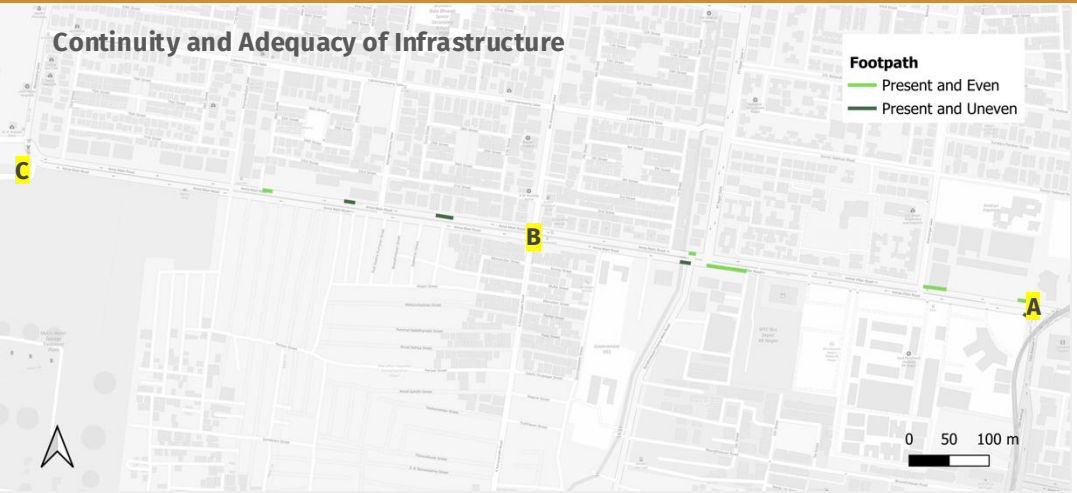
162	54%	46%
Pedestrians	Women	Men



Design Score	Perception Score	Observation Score	Total score
4.5/10	5.31/10	3.61/10	13.19/30

13. Anna Main Road | Ease of Walking

Continuity and Adequacy of Infrastructure



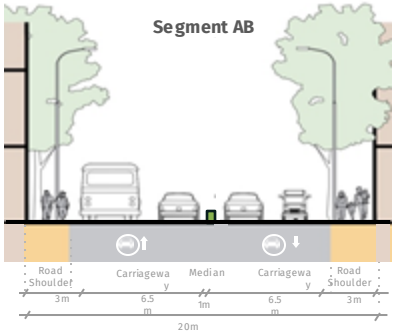
6% of the total street has footpath


Encroached footpath

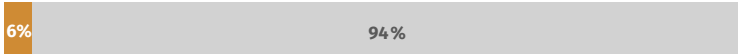

Stormwater drain being used as a sidewalk


Broken Footpath

Typical Section



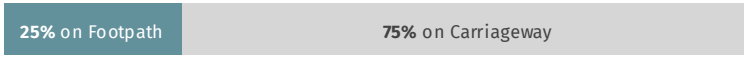
Width of Footpath



- Footpath with adequate width
- Footpath without adequate width
- No footpath

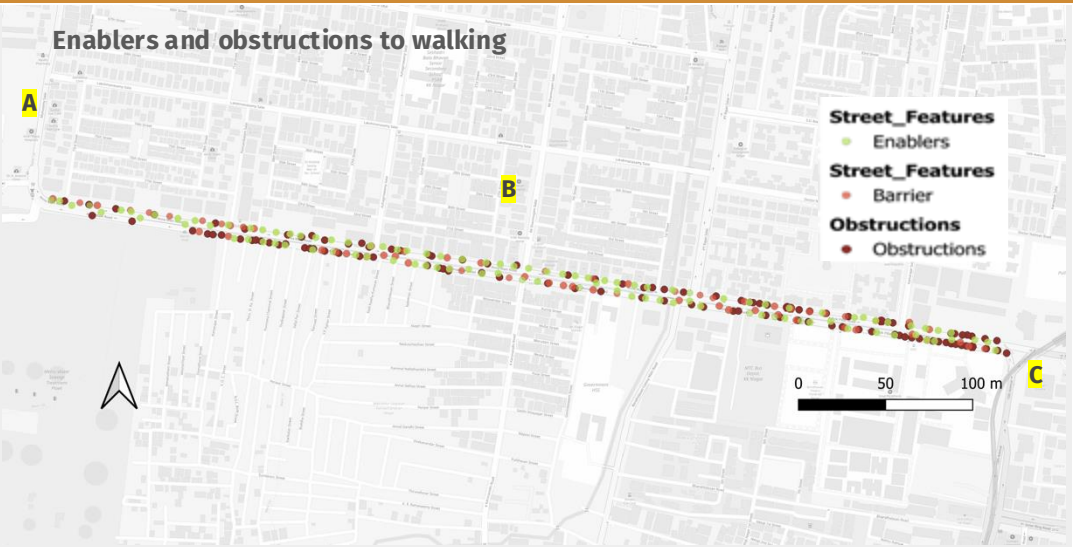
Is the footpath wide enough to walk?

Where do people walk?



13. Anna Main Road | Ease of Walking

Enablers and obstructions to walking



Commercial Spillover as obstruction


Stormwater drain being used as a sidewalk


Utilities as an obstruction

Type of Street Features


72 Vendors


242 Trees


09 Bus Shelters


15 Waste Receptacles


02 Seating


31 Signages


02 Public Restrooms

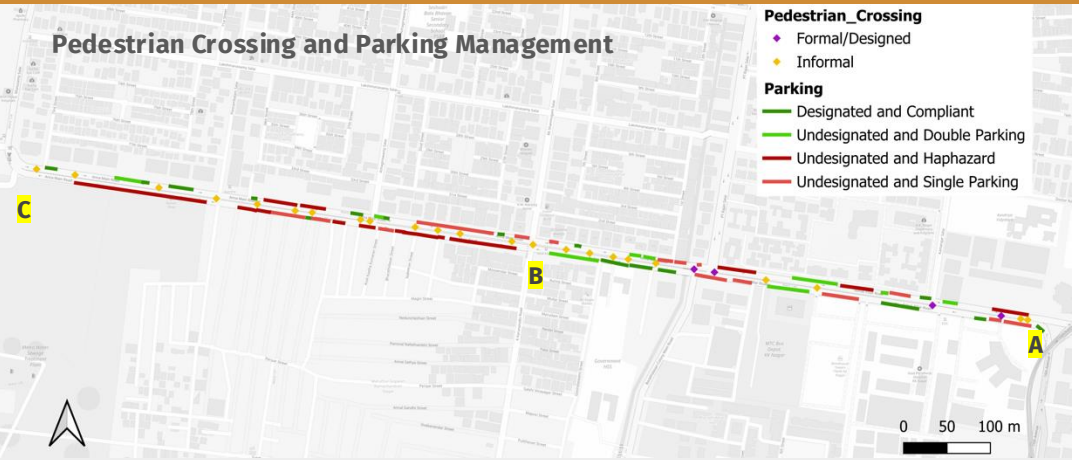
Do you face any obstructions while using the footpath?

06 Obstructions present every 100m of the street

Parking contributes to **44%** of all the obstructions

35% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

13. Anna Main Road | Safety & Accessibility



48% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

Only half of the required number of pedestrian crossing points are implemented


Lack of mid-block crossings

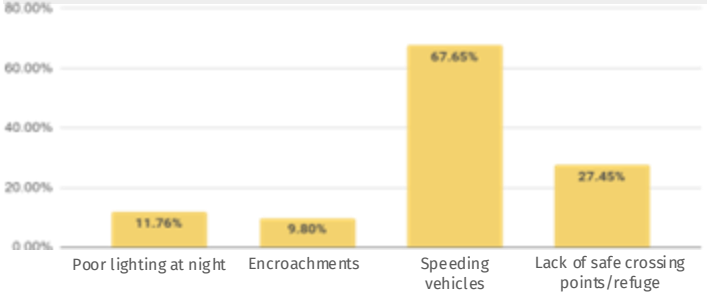

Lack of signalised crossing at intersections


Lack of signalised crossing at intersections

Do you feel this street is safe to cross?

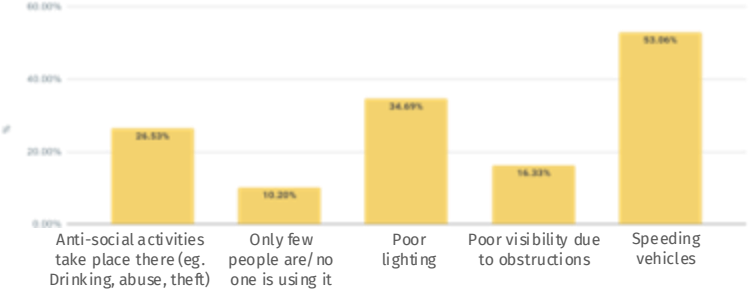
63% of the people feel unsafe to cross the street

68% of them feel **speeding vehicles** is the biggest concern

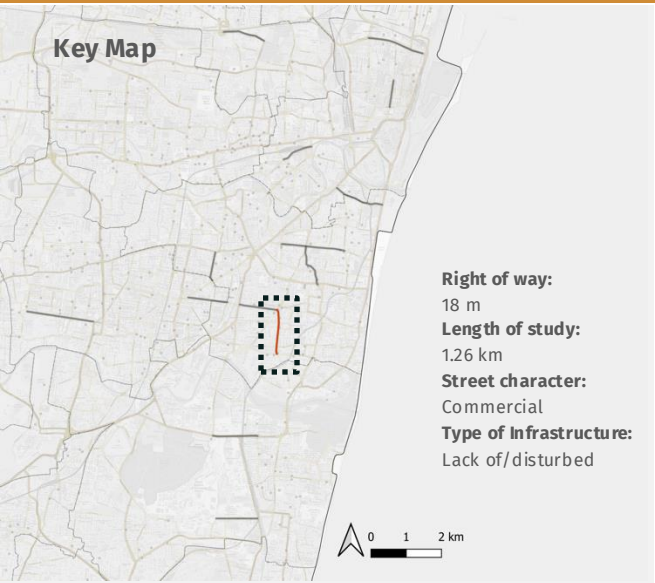


Do you face any problems on this road at night?

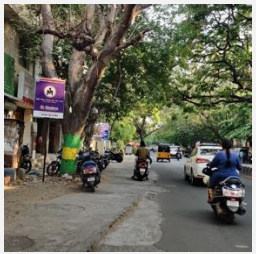
61% of women felt unsafe at night



14. C.P.Ramaswamy Salai | An Overview



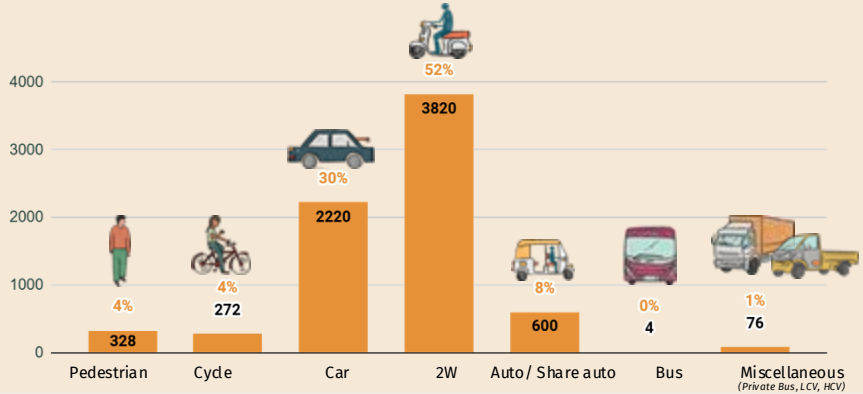
Right of way:
18 m
Length of study:
1.26 km
Street character:
Commercial
Type of Infrastructure:
Lack of/disturbed



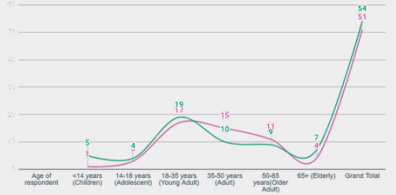
About the stretch

C.P. Ramaswamy Salai is predominantly commercial, with several high-end restaurants dotting the edges of the road. The two ends of this stretch are important nodes, with city-level hospitals. It is wide and sports several avenue trees, but lacks a dedicated walking path, making it unsafe for pedestrians.

Mode Share Data Captured During Evening Peak



Survey Sample

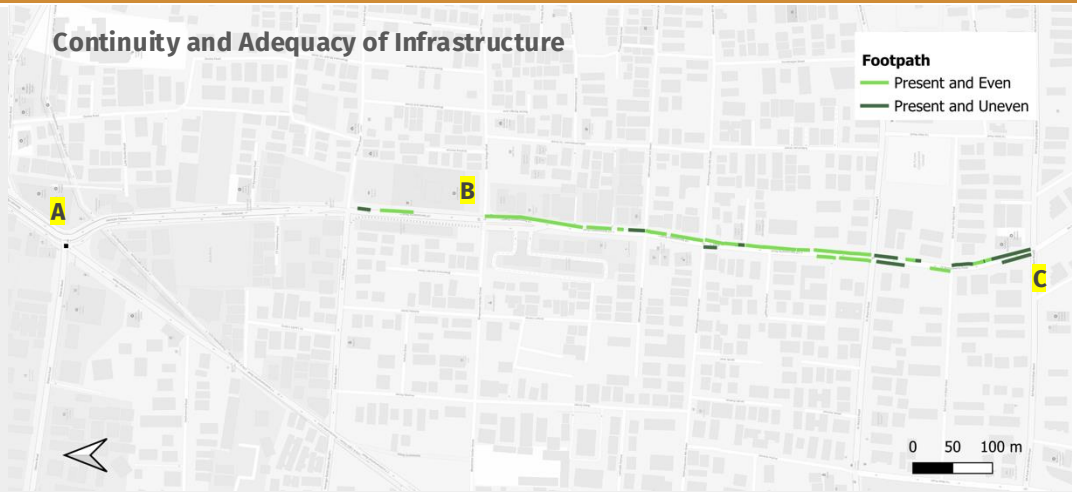


105	49%	51%
Pedestrians	Women	Men

Design Score	Perception Score	Observation Score	Total score
4.75/10	5.31/10	2.22/10	12.45/30

14. C.P.Ramaswamy Salai | Ease of Walking

Continuity and Adequacy of Infrastructure



28% of the total street has footpath

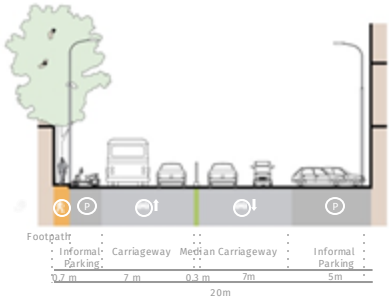
11% of the total length of footpath is higher than 150mm

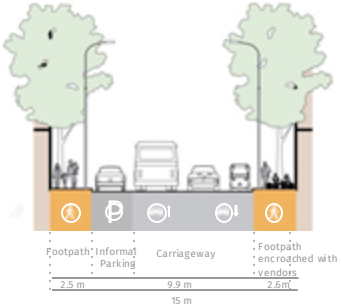

Stormwater drain being used as a sidewalk


Discontinuous Footpath


Uniform Footpath

Typical Section



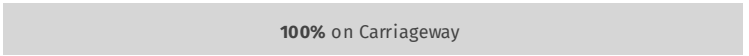


Width of Footpath

- Footpath with adequate width
- Footpath without adequate width
- No footpath

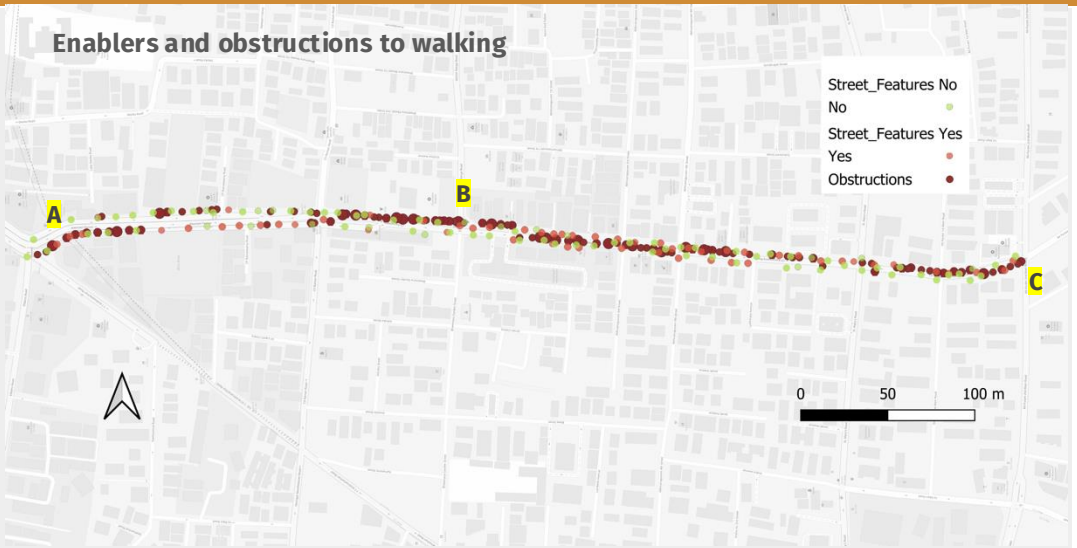
Is the footpath wide enough to walk?

Where do people walk?



14. C.P.Ramaswamy Salai | Ease of Walking

Enablers and obstructions to walking




Construction material as obstruction


Vendors as obstruction


Parking as Obstruction

Type of Street Features


07 Vendors


60 Trees


02 Bus Shelters


15 Waste Receptacles


0 Seating


38 Signages


0 Public Restrooms

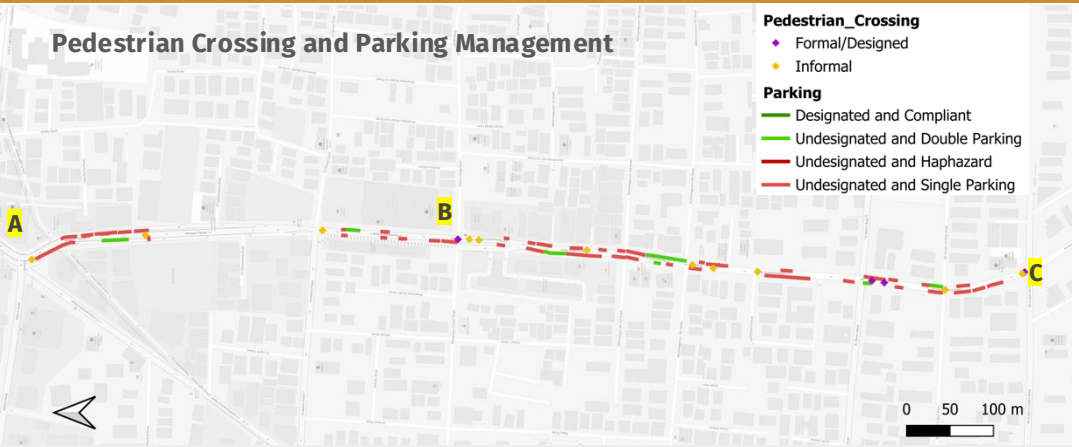
Do you face any obstructions while using the footpath?

15 Obstructions present every 100m of the street

Parking contributes to **34%** of all the obstructions

23% of all pedestrians that reported difficulty in walkability, were persons with vulnerabilities

14. C.P.Ramaswamy Salai | Safety & Accessibility



22% of the street length (LHS & RHS) is occupied by undesignated on-street parking *

Only half of the required number of pedestrian crossing points are implemented

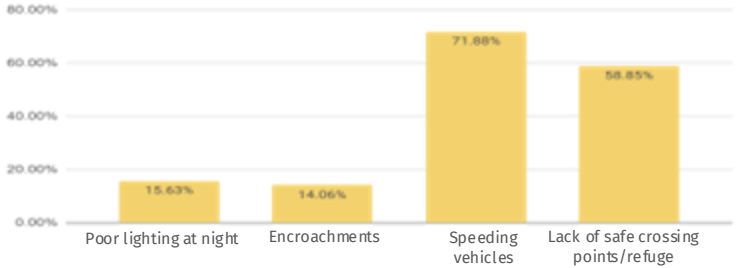

Zebra- Crossing provided at critical intersections


Mid-block crossings have not been provided

Do you feel this street is safe to cross?

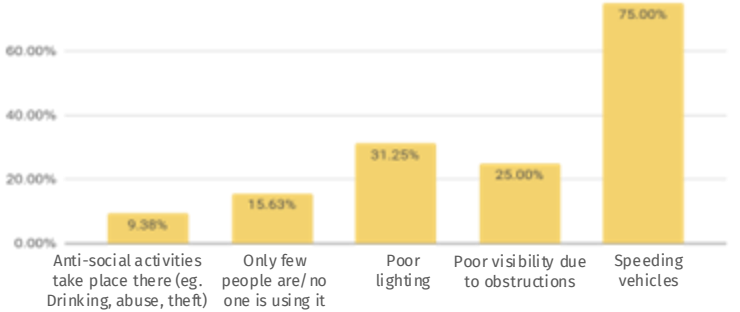
62% of the people feel unsafe to cross the street

72% of them feel **speeding vehicles** is the biggest concern



Do you face any problems on this road at night?

64% of women felt unsafe at night



Annexures

Data Collection and Assessment Framework

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Ease of Mobility	Design Mapping	Percentage of total length having/not having continuous footpath alongwith uniform surface/non-slippery surface	Line data in meters	Mergin Maps	Design Mapping Volunteers	To understand if even and non-slippery footpath has been provided for the entire length of the street, and on both sides
		Percentage of total length having/not having adequate clear width of footpath for walking as per IRC/CSG (every 50m. Point of narrowest width and broadest width. At the mid-block (20-30m) or every 50m)	Line data in meters	Mergin Maps		To understand if the footpath provided has adequate width for ease of mobility both sides, as per guidelines. - Barrier free Footpath having width > 3 m (High Intensity commercial) - Barrier free Footpath having width > 2.5 m (Commercial/Mixed Use) - Barrier free Footpath having width 1.8 - 2.5 m (Residential) - Barrier free Footpath having width < 1.8 m
		-No. of instances or clusters of street elements as obstructions to mobility				
		-Instances where the footpath is damaged or slippery for walking		Mergin Maps		To understand how much of the footpath is devoid of unnevenness
	Street Usage Observation	Percentage of people using the footpath vs the carriageway	Number	15min peak hour video	Design Mapping Volunteers	To understand how likely it is, for people to use the footpath
		Percentage of Pedestrians	Number	15min peak hour video		To understand how many pedestrians use the street during peak hours

Data Collection and Assessment Framework

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Ease of Mobility	Perception Survey	Percentage of people saying there is sufficient space to walk continuously	Yes/No	Perception Survey	Design Mapping Volunteers	To understand if the given width of footpath is sufficient for use
		-Percentage of people saying there are obstructions. -List of obstructions. -Frequency distribution of different types of obstructions faced by people.	Descriptive answer categorised under any one element in a List of options in a drop-down	Google Form		To understand what obstructs the usability of the footpath
		List of recommendations	Descriptive answer categorised under any one element in a List of options in a drop-down	Google Form		To enable bottom-up solutions to address local issues faced by pedestrians
	Street Usage Observation	Percentage of Cyclists	Number	15min peak hour video	Design Mapping Volunteers	To understand how many cyclists use the street during peak hours
	Perception Survey	-Percentage of people saying there are obstructions. -List of obstructions. -Frequency distribution of different types of obstructions faced by people.	Descriptive answer categorised under any one element in a List of options in a drop-down	Google Form	Design Mapping Volunteers	To understand
		- List of shortcuts - Frequency distribution of types of shortcuts	Descriptive	Google Form		To understand the design needs of cyclists
		List of recommendations	Descriptive answer categorised under any one element in a List of options in a drop-down	Google Form		To enable bottom-up solutions to address local issues faced by cyclists

Data Collection and Assessment Framework

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Safety	Design Mapping	Percentage of total length having uniform carriageway as per IRC/CSG	Line data in meters at intersections on two ends and mid-block	Mergin Maps	Design Mapping Voulnteers	To understand if the traffic flow is regulated through proper alignment of carriageway, following the "One-street-One-width" principle
		-Instances of traffic calming -Types of traffic calming measures	Point data with Type attribute	Mergin Maps		To understand if street is designed with traffic calming elements, as per guidelines. Examples include, speed humps, speed tables, narrowing of. carriage way, chicanes etc.
		-Instances of crossing the street and interval at which it occurs -Types of crossings provided -Instances of signalised crossings -Instances with safe waiting space /refuge	Point data with Type attribute	Mergin Maps		To understand whether pedestrian crossing is designed for safety
		Percentage of no. of instances having/not having safe waiting space				To understand if the street is designed for the incident of waiting before crossing
		-Instances of Bollards/Railing/landscape	Line data	Mergin Maps		To understand whether necessary buffer is provided between pedestrian and vehicular traffic
		- No. and location of light poles working/not working - No. of Dark Spots (lighting insufficiency/lack of)	Point data with attributes such as functionality, sufficiency if available and attribute such as requirement if not available as per IRC	Mergin Maps		To understand if the street is provided with lighting infrastructure, as required
	Street Usage Observation	- No.of accidents - Black spot data - FIR accounts of accidents - Vehicular speed? (No.s before and after/ No.s on streets with good footpath and those without)	Numbers pertaining to pedestrians	Secondary Source	ITDP team	To understand difficulties faced by people while crossing the street

Data Collection and Assessment Framework

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Safety	Street Usage Observation	-Percentage of people using the refuge vs people using the carriageway	Number	Field Notes and photographs	Observation Volunteers	To understand if the design for safety promotes universal accessibility
		- Type/design of light (light source and height of poles)	Itemised Description	Field Notes and photographs	ITDP team	To understand if the street is sufficiently lit, as per guidelines
		-No. and types of vehicles using the road	Numbers / PCU	15min peak hour video	Design Mapping Volunteers	To understand how many vehicles play on the street during peak hours
	Perception Survey	- Percentage of responses that it is difficult/easy to cross the street	Yes/No	Google Forms	Design Mapping Volunteers	To understand what people determine to be difficult in navigating the streets
		- If parents are comfortable with their children using the street any time of the day and why?	Yes/No	Google Forms		To understand if the street if caregivers feel safe for children to navigate the streets alone
		-Frequency distribution of issues faced at night	Descriptive answer categorised under any one element in a List of options in a drop-down	Google Forms		To understand if the street is safe for use at night by all groups of people (especially, women, children, elderly etc.)
		-Most unsafe or unused sections/spots of the street	Descriptive answer with location attribute	Google Forms		To understand if the streets are usable throughout their length safely at all times of the day

Data Collection and Assessment Framework

ITDP INDIA

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Universal Accessibility & Inclusivity	Design Mapping	Does the length of the road have the following: 1. Tactile paving with warning tiles 2. Signage (as per IRC with at least 80% levels) 3. Any other measures	Line data for tactile tiles + Point data for Signage with type attribute + Point data with type attribute for any new measures	Mergin Maps	Design Mapping Voulnteers	To understand if the street provides sufficient information for wayfinding to all
		Number of accessible mid-block crossings at every 500m segment of the street(at-grade zebra crossing with ramps or table-top crossings)		Mergin Maps		To understand if the crossings are adequately designed for universal accessibility
	Street Usage Observation	-Presence of railings/bollards/landscape -Distance between bollards	Length in meters	Field Notes and Photographs	Observation Volunteers	To understand if the design for safety promotes universal accessibility
		Percentage of toodlers,women, children, elderly, other genders using the space comfortably	Qualitative description	Field Notes and Photographs	ITDP team	To understand if the street is inclusive
	Perception Survey	Percentage of persons with disability who report difficulty	Yes/No	Google Forms	Design Mapping Voulnteers	To understand difficulties faced by vulnerable/marginal groups of people in navigating the street
		Percentage of people reporting difficulty disaggregated by age and gender	Yes/No	Google Forms		To understand difficulties faced in accessing a transit destination comfortably

Data Collection and Assessment Framework

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Liveability	Design Mapping	- No. and type of designated/designed parking spots (4 wheeler/2 wheeler, parallel/perpendicular/angular) - No. of designated auto-rickshaw stands - No. of designed pick-up/drop-off bays - No. and type of informal parking spots (single/double, 4 wheeler/2 wheeler) -Distance of the designated parking bays from intersections and transit nodes - No. of instances where parking obstructs mobility	Point and Line Data with Type Attributes	Mergin Maps	Design Mapping Volunteers	To understand if parking is adequately managed through design
		- Percentage of designated parking bays having signage	Point data	Mergin Maps		to understand if the street has adequate signage to communicate on-streetparking arrangements
		- No. of seaters, and instances where it obstructs mobility	Point data with Attributes	Mergin Maps		To understand if resting spaces are provided as part of design to improve liveability
		- No. of trees with/without tree pits and instances where it obstructs mobility	Point data with Attributes	Mergin Maps		To understand if trees are adequately integrated with the street
		- Type and no. of Utilities and no. of instances where it obstructs mobility	Point data with Attributes	Mergin Maps		To understand if above-ground utilities are well-aligned by design
		- Instances of vending and those that obstruct usability of the footpath	Point data with Attributes	Mergin Maps		To understand if street vending promotes usability of the footpath
		-No. and location of toilets	Point data with Attributes	Mergin Maps		To understand if the street is comfortable and provides basic conveniences
		-Location of bus stops and distance of the same from intersection, if it obstructs mobility	Point data with Attributes	Mergin Maps		To understand if bus stops are integrated with the design of footpath as per guidelines

Method of Assessment of Indicators

Principles	Type of Study	Indicators	Unit of measure	Tool Used	Who records the data	Rationale
Liveability	Design Mapping	- Interval between ramps at entry/exit points to the properties - Instances where ramps are at a higher level than the footpath (presence of ramps for universal accessibility/wheelchair access)	Line data with type attribute	Mergin Maps	Design Mapping Volunteers	To understand if the access ramps are seamlessly integrated with the design of the footpath
	Street Usage Observation	-Types of parking violations	Description	Photographs and notes	ITDP team	To understand the need for parking management and regulation
		-Instances where vending stalls promote street social life	Qualitative description	Photographs and notes		To understand if street vending promotes usability of the footpath
		-Availability of stormwater infrastructure -Availability of water conservation strategies like water recharge pits, drip irrigation, underground recharge tanks etc - Any innovative design solutions like permeable pavers, recycled materials, plastic in asphalt etc. - Availability of soft-scaped areas	List of items	Field notes and photographs		To understand if the street design includes Sustainable parameters
	Perception Survey	- Percentage of people saying the street is adequately shaded	Yes/No	Google Forms	Design Mapping Volunteers	To understand if the presence of trees promotes a shaded footpath
		- Percentage of people saying the street provides adequate/usable rest spaces and conveniences like public toilets, seating	Yes/No	Google Forms		To understand if the street design includes sufficient space for usable public convenience
			Yes/No	Google Forms		To understand if the street design includes street vending /informal enterprises
			Yes/No	Google Forms		To understand if parking causes major hindrance to pedestrian mobility

Design Mapping Recording Template

ITDP INDIA

FOOTPATHS (LINE ITEMS)

S.No.	FP_Type	FP_Widthmeter	FP_Height	Tactile Pavers	Photo	Remarks	Surveyor
1	*Present but uneven surface*			Present			
2	*Present and even surface*			Absent			

EDGE CONDITION (LINE ITEMS)

S.No.	Feature Type	Photo	Remarks	Surveyor
1	*Porous and Active*			
2	*Porous and Inactive*			
3	Opaque and Blank			
4	Opaque and Interactive (in case of wall murals)			

PARKING (LINE ITEMS)

S.No.	Type of of parking	Type of Vehicles	No. of parking spots / Parked vehicles	Photo	Remarks	Surveyor
1	*Designated and compliant*	*Cycle*				
2	*Designated and non-compliant*	*Two wheelers*				
3	*Undesignated and single line parking*	*Four wheelers*				
4	*Undesignated and double line parking*	*LMV*				
5		*HMV*				
6		*Mixed*				

Design Mapping Recording Template

ITDP INDIA

AUTO STAND (POINT ITEMS)

S.No.		Photo	Remarks		Surveyor
1					
2					

WALKING OBSTRUCTIONS (POINT ITEMS)

S.No.	Feature Type	Photo	Remarks		Surveyor
1	*Poor surface*				
2	*Street shrines*				
3	*Parking*				
4	*Vehicle access ramps*				
5	*Advertisements*				
6	*Barricades*				
7	*Garbage dumping*				
8	*Water logging*				
9	*Construction material/Equipment*				

Design Mapping Recording Template

Street features (point items)

S.No.	Feature Type	Obstruction	Photo		Remarks	Surveyor
1	*Trees with treepits*	*Yes*				
2	*Trees without treepits*	*No*				
3	*Planter box*					
4	*Seating*					
5	*Dustbin/Garbage bins*					
6	*Toilets*					
7	*Light poles working*					
8	*Light poles not working*					
9	*Bus-Stop*					
10	*Signage - Pedestrian Crossing*					
11	*Signage - Parking*					
12	*Signage - No Parking*					
13	*Signage - Speed Limit*					
14	*Other signages*					
15	*Other street feature*					
16	*Pillar box*					
17	*Transformers*					
18	*Utility poles*					
19	*Vending*					

Design Mapping Recording Template

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Crossings (line items)							
S.No.	Typeofcrossing	SubType	Ramps	RefugeIslands	Photo	Remarks	Surveyor
1	*Table top crossings*	Signalised	*Present and usable*	*Present and usable*			
2	*Zebra crossing*	non Signalised	*Present but unusable*	*Present but unusable*			
3	FOB/Subway		*Not present*	*Not present*			
4	*Informal crossing (median gap)*						
5							
6							
Carriageway (line items)							
S.No.	Width				Surveyor		
1							
Traffic calming (point items)							
S.No.	Feature Type	Photo	Remarks		Surveyor		
1	*Speed bumps*						
2	*Table top*						
3	*Rumble strips*						
4	*Raised intersection*						
5	*Roundabouts*						
6	*Chicanes/Bends*						
7	*Barricades*						

Perception Survey Questionnaire

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QUESTIONNAIRE					
S.No.	**Questions**	**Options**			
General Questions					
1	**What is your current purpose of visiting this street?**	❑ I stay/ work/ study nearby	❑ Exercise: Walking/Jogging/Cycling	❑ Recreational activities: Shopping/ Strolling/ Children's play/ Socializing	
2	**How do you commute everyday to and from this street?**	❑ Walk	❑ Cycle	❑ Public Transport	❑ Private van/bus
Questions for Pedestrians					
1	**Do you think this footpath is wide enough to walk?**	❑ Yes	❑ Yes, but not walkable	❑ No	❑ No footpath
2	**What do you like about walking on this street?**	❑ Well shaded	❑ Feels safe to walk	❑ Well connected to shops/ bus stops/ railway stations	❑ Others

Perception Survey Questionnaire

ITDP INDIA

QUESTIONNAIRE										
S.No.	**Questions**	**Options**								
Questions for Pedestrians										
3	**Do you face any obstructions while using the footpath on this street? If yes, what are they?**	❑ No obstructions on footpath	❑ Vehicles on footpath	❑ Presence of electric boxes	❑ Presence of Garbage/ Garbage bins	❑ Commercial spillover	❑ Encroachment- vendors, hoardings etc.	❑ Uneven footpath surface	❑ Water logging	❑ Other
4	**Do you face any problems on this road at night?**	❑ I did not visit the street at night	❑ No problems at night	❑ Poor lighting	❑ Inactive edges	❑ Teasing	❑ Fear of crime	❑ Low visibility due to obstructions	❑ Speeding vehicles	❑ Other
5	**Is there any part of the street you feel unsafe? If yes mention where and why**									
6	**How safe is the street to cross?**	❑ I feel safe while crossing the street	❑ Poor lighting at night	❑ Encroachments	❑ Lack of safe crossing points	❑ Lack of safe pedestrian refuge	❑ Speeding vehicles	❑ Others		
7	**Is the street well-shaded?**	❑ Yes	❑ No							
8	**Do you find public conveniences on the street like seating/toilets that are usable? If yes, would you use them?**	❑ Yes, I would use them	❑ Yes but I wouldn't use them	❑ No						
9	**Do you have any recommendations to improve pedestrian experience?**									

Perception Survey Questionnaire

QUESTIONNAIRE							
S.No.	**Questions**	**Options**					
[Internal] Questions for the surveyor							
To be answered by the surveyor through observation.							
1	**Gender of the respondent**	Male	❑ Female	❑ Transgender	❑ Other		
2	**Age**	<14 years (Children)	❑ 14-18 years (Adolescent)	❑ 18-35 years (Young Adult)	❑ 35-50 years (Adult)	❑ 50-65 years (Older Adult)	❑ 65+ (Elderly)
3	**User type/Vulnerability**	❑ Not applicable	❑ Differently abled - Visual impairment	❑ Differently abled - Locomotor disability	❑ Pregnant	❑ Elderly	❑ Caregiver-with a child
4	**If the user is vulnerable, how did they access / navigate the street?**	❑ Not applicable	❑ Needed support of a family member / friend / caretaker	❑ Managed independently but with difficulty	❑ Managed independently without any difficulty		
5	**Street name**						
6	**Segment name**						
7	**LHS/RHS**						
8	**Name of person administering the question**						
9	**Remarks**						

Perception Survey Questionnaire

ITDP INDIA

QUESTIONNAIRE								
S. No.	**Questions**	**Options**						
General Questions								
1	**What is your current purpose of visiting this street?**	❑ I stay/ work/ study nearby	❑ Exercise : Walking/ Jogging/ Cycling	❑ Recreational activities: Shopping/ Strolling/ Children's play/ Socializing				
2	**How do you commute everyday to and from this street?**	❑ Walk	❑ Cycle	❑ Public Transport	❑ Private van/bus			
Questions for Cyclists								
1	**What do you like about cycling on this road?**	❑ Good road (Even surface)	❑ Less traffic	❑ Well shaded	❑ Slow vehicular movement	❑ Others		
2	**Do you face any obstructions while cycling on this street? If yes, what are they?**	❑ No issues cycling on the street	❑ Speeding vehicles	❑ Difficult to cross the streets	❑ Parked vehicles	❑ Uneven road surface	❑ Others	
3	**Is there any part of the street you feel unsafe? If yes mention where and why**							
4	**How safe is the street to CROSS?**	❑ I feel safe while crossing the street	❑ Poor lighting at night	❑ Encroachments	❑ Lack of safe crossing points	❑ Lack of safe pedestrian refuge	❑ Speeding vehicles	❑ Others
5	**Do you feel there is a need for a dedicated cyle tracks/lanes?**	❑ Yes	❑ No					

Perception Survey Questionnaire

ITDP INDIA

QUESTIONNAIRE							
S.No.	**Questions**	**Options**					
Questions for Cyclists							
6	**Is the street well-shaded?**	❑ Yes	❑ No				
7	**Do you find public conveniences on the street like seating/toilets that are usable? If yes, would you use them?**	❑ Yes, I would use them	❑ Yes but I wouldn't use them	❑ No			
8	**Do you have any recommendations to improve your cycling experience?**						
[Internal] Questions for the surveyor							
To be answered by the surveyor through observation.							
1	**Gender of the respondent**	❑ Male	❑ Female	❑ Transgender	❑ Other		
2	**Age**	❑ <14 years (Children)	❑ 14-18 years (Adolescent)	❑ 18-35 years (Young Adult)	❑ 35-50 years (Adult)	❑ 50-65 years (Older Adult)	❑ 65+ (Elderly)
3	**User type/Vulnerability**	❑ Not applicable	❑ Differently abled - Visual impairment	❑ Differently abled - Locomotor disability	❑ Pregnant	❑ Elderly	❑ Caregiver-with a child
4	**If the user is vulnerable, how did they access / navigate the street?**	❑ Not applicable	❑ Needed support of a family member/friend / caretaker	❑ Managed independently but with difficulty	❑ Managed independently without any difficulty		

Perception Survey Questionnaire

QUESTIONNAIRE		
S.No.	**Questions**	**Options**
[Internal] Questions for the surveyor		
To be answered by the surveyor through observation.		
5	**Street name**	
6	**Segment name**	
7	**LHS/RHS**	
8	**Name of person administering the question**	
9	**Remarks**	

Perception Survey Sampling Method

30

Minimum sample size per 500m stretch

50

Ideal sample size per 500m

100

Minimum sample size per km

10

Minimum sample size per enumerator

Pedestrians, Cyclists, Differently-abled

Across User Type

Male, Female, Third gender

Across Genders

Below 18, 18-35, 35-50, Above 50

Across Age Groups

Walking, Cycling, Vending, Sitting, Playing, etc

Engaged in different activities

Every **10** surveys shall be selected in the following manner:

4

Women (2 Pedestrians - 1 Elderly, 1 cyclist)

3

Men (2 Pedestrians -1 Elderly, 1 cyclist)

2

Children (1 Pedestrian and 1 cyclist)

1

Differently Abled (any one)

Street Usage Observation Study Methods

Traffic Volume Study

15 min Video

+

Mid-Block

+

Hand-Held or using Tripod

Speed Survey

50

2 wheelers, autos

50

4 wheelers (includes, LMVs,HMVs and buses)

Per street

Scoring Matrix

Design Mapping

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah Road	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	DESIGN OUT OF 20	9	9	9	11	9	9	8	12	14	10	16	10	10	9
	DESIGN OUT OF 10	5	5	5	6	5	4	4	6	7	5	8	5	5	5
	EASE OF MOBILITY														
1	Adequate Pedestrian Zone	LOS C	LOS C	LOS C	LOS C	LOS D	LOS D	LOS D	LOS B	LOS B	LOS C	LOS A	LOS D	LOS D	LOS D
SCORE		4	4	3	3	2	2	2	5	6	4	8	2	2	2
2	Uniform Surface	LOS A	LOS A	LOS D	LOS C	LOS D	LOS D	LOS D	LOS A	LOS A	LOS A	LOS A	LOS D	LOS A	LOS D
SCORE		8	8	2	4	2	2	2	8	8	8	8	2	8	2
3	Adequate height of footpath	LOS C	LOS D	LOS B	LOS B	LOS D	LOS A	LOS C	LOS D	LOS A	LOS D	LOS D	LOS B	LOS D	LOS E
SCORE		4	2	6	6	2	8	4	2	8	2	2	6	2	0
	OUT OF 10	6.7	5.8	4.6	5.4	2.5	5.0	3.3	6.3	9.2	5.8	7.5	4.2	5.0	1.7
	ROAD SAFETY														
1	Uniform Carriageway	LOS E	LOS A	LOS A	LOS A	LOS A	LOS A	LOS E	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A	LOS A
SCORE		0	8	8	8	8	8	0	8	8	8	8	8	8	8
2	Traffic Calming Interventions	LOS B	LOS C	LOS B	LOS A	LOS B	LOS D	LOS B	LOS B	LOS A	LOS B	LOS B	LOS D	LOS D	LOS A
SCORE		6	4	7	8	6	2	6	6	8	5	6	2	2	8
3	Pedestrian Crossing	LOS B	LOS D	LOS D	LOS A	LOS D	LOS D	LOS A	LOS A	LOS A	LOS B	LOS B	LOS B	LOS B	LOS A
SCORE		5	2	2	8	2	2	8	8	8	5	5	5	5	8
4	Lighting	LOS B	LOS C	LOS C	LOS B	LOS C	LOS A	LOS C	LOS A	LOS D	LOS D	LOS C	LOS D	LOS C	LOS D
SCORE		6	4	4	6	4	8	4	8	2	2	4	2	4	2
	OUT OF 10	5	6	7	9	6	6	6	9	8	6	7	5	6	8

				LHS+ RHS
SCORING SYSTEM	**LOS A**	75-100%	4	8
	LOS B	50-75%	3	6
	LOS C	25-50%	2	4
	LOS D	<25%	1	2
	LOS E	0	0	0

Scoring Matrix

Design Mapping

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah Road	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	DESIGN OUT OF 20	9	9	9	11	9	9	8	12	14	10	16	10	10	9
	DESIGN OUT OF 10	5	5	5	6	5	4	4	6	7	5	8	5	5	5
	UNIVERSAL ACCESSIBILITY														
1	Accessible Crossing	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS C	LOS C	LOS C	LOS D	LOS D	LOS D	LOS D	LOS D
SCORE		2	2	2	2	2	2	4	3	3	2	2	2	2	2
2	Accessible Information	LOS A	LOS A	LOS A	LOS A	LOS A	LOS B	LOS B	LOS A	LOS A	LOS B	LOS A	LOS A	LOS A	LOS B
SCORE		8	8	8	8	8	5	5	8	8	5	8	8	8	5
	OUT OF 10	6	6	6	6	6	4	6	7	7	4	6	6	6	4
	LIVEABILITY														
1	Provision of Seatings	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS D	LOS A	LOS A	LOS B	LOS D	LOS D
SCORE		2	2	2	2	2	2	2	2	2	8	8	6	2	2
2	Active Edges	LOS B	LOS A	LOS B	LOS B	LOS B	LOS A	LOS B	LOS B	LOS B	LOS C	LOS B	LOS B	LOS B	LOS B
SCORE		6	8	5	5	6	8	6	5	7	3	7	6	6	7
3	Provisions for Street Vending Zone	LOS E	LOS E	LOS E	LOS E	LOS E	LOS E	LOS E	LOS E	LOS E	LOS E	LOS A	LOS E	LOS E	LOS E
SCORE		0	0	0	0	0	0	0	0	0	0	8	0	0	0
4	Shading Trees	LOS D	LOS D	LOS C	LOS D	LOS D	LOS D	LOS D	LOS C	LOS A	LOS D	LOS A	LOS D	LOS D	LOS D
SCORE		2	2	4	2	2	2	2	4	8	2	8	2	2	2
5	Dedicated parking spaces/bays	LOS D	LOS D	LOS D	LOS D	LOS C	LOS D	LOS D	LOS D	LOS D	LOS C	LOS A	LOS C	LOS D	LOS D
SCORE		2	2	2	2	4	2	2	2	2	4	8	4	2	2
6	Adequate public conveniences (Toilets)	LOS E	LOS E	LOS E	LOS C	LOS C	LOS E	LOS E	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C	LOS C
SCORE		0	0	0	4	4	0	0	4	4	4	4	4	4	4
	OUT OF 10	3	3	3	3	4	3	3	4	5	4	9	5	3	4

				LHS + RHS
SCORING SYSTEM	**LOS A**	75-100%	4	8
	LOS B	50-75%	3	6
	LOS C	25-50%	2	4
	LOS D	<25%	1	2
	LOS E	0	0	0

Scoring Matrix

Perception Survey

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah Road	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	Perception Survey score (Final score out of 10)	4	5	5	4	3	4	4	6	5	7	7	5	5	5
	Ease of Mobility														
1	Percentage of people saying there is sufficient space to walk continuously	71%	71%	74%	65%	70%	13%	46%	82%	91%	91%	11%	63%	47%	64%
	SCORE	3	3	3	3	3	1	2	4	4	4	1	3	2	3
2	Percentage of people saying there are no obstructions to walking	21%	9%	9%	19%	14%	13%	16%	22%	34%	67%	55%	27%	21%	17%
	SCORE	1	1	1	1	1	1	1	1	2	3	3	1	1	1
	OUT OF 10	5	5	5	5	5	3	4	6	8	9	5	5	4	5
	Safety														
1	Percentage of responses that find it safe to cross the street	34%	24%	33%	36%	20%	32%	40%	67%	46%	67%	67%	32%	38%	37%
		2	1	2	2	1	2	2	3	2	3	3	2	2	2
2	Percentage of people saying the streets are safe at night	25%	30%	40%	42%	26%	69%	16%	32%	49%	34%	49%	68%	42%	40%
	SCORE	1	1	2	2	1	3	1	2	2	2	2	3	2	2
	OUT OF 10	4	3	5	5	3	6	4	6	5	6	6	6	5	5

SCORING SYSTEM	**A**	75-100%	4
	B	50-75%	3
	C	30-50%	2
	D	<30%	1
	Absent	0	0

Scoring Matrix

Perception Survey

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah Road	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	Perception Survey score (Final score out of 10)	4	5	5	4	3	4	4	6	5	7	7	5	5	5
	Universal Accessibility and Inclusivity														
1	Percentage of persons with disability/vulnerability who find it safe to cross the street	34%	38%	20%	10%	20%	15%	12%	58%	-250%	57%	89%	30%	52%	36%
	SCORE	2	2	1	1	1	1	1	3	1	3	4	2	3	2
2	Percentage of women saying the streets are safe at night	22%	55%	30%	21%	18%	38%	9%	24%	23%	31%	45%	25%	36%	39%
	SCORE	1	3	1	1	1	2	1	1	1	2	2	1	2	2
	OUT OF 10	4	6	3	3	3	4	3	5	3	6	8	4	6	5
	Liveability														
1	Percentage of people saying the street is adequately shaded	67%	76%	89%	56%	48%	46%	59%	42%	58%	84%	98%	71%	88%	87%
	SCORE	3	4	4	3	2	2	3	2	3	4	4	3	4	4
2	Percentage of people saying the street provides adequate/usable rest spaces and conveniences like public toilets, seating	21%	10%	28%	20%	23%	28%	17%	34%	13%	31%	42%	33%	24%	27%
	SCORE	1	1	1	1	1	1	1	2	1	2	2	2	1	1
	OUT OF 10	5	6	6	5	4	4	5	5	5	8	8	6	6	6

SCORING SYSTEM	**A**	75-100%	4
	B	50-75%	3
	C	30-50%	2
	D	<30%	1
	Absent	0	0

Scoring Matrix

Street Usage Observation Study

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	Observational Survey score (Final score out of 10)	7	6	9	6	8	6	7	8	8	7	10	5	2	4
	Ease of Mobility														
1	Percentage of people using the footpath vs the carriageway	14%	64%	45%	16%	22%	0%	2%	46%	52%	99%	96%	44%	0%	25%
	SCORE	1	3	2	1	1	0	1	2	3	4	4	2	0	1
2	Percentage of Pedestrians*	16%	5%	24%	6%	24%	28%	21%	19%	24%	11%	12%	8%	4%	7%
	SCORE	2	1	3	1	3	4	3	3	3	1	2	1	1	1
	OUT OF 10	3.75	5.00	6.25	2.50	5.00	5.00	5.00	6.25	7.50	6.25	7.50	3.75	1.25	2.50
	Safety														
1	Safety from anti-social activities during night time	Yes	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes
	SCORE	0	4	4	0	0	0	4	4	0	0	4	0	0	0
2	Reduction of speed by the traffic calming element	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes
	SCORE	4	0	4	4	4	0	4	4	4	4	4	0	0	4
	OUT OF 10	5.00	5.00	10.00	5.00	5.00	0.00	10.00	10.00	5.00	5.00	10.00	0.00	0.00	5.00

Scoring System		
	4	75-100
	3	50-75
	2	30-50
	1	<30
	0	0
*	4	25-100
	3	18-25
	2	12-18
	1	0-12
	0	0
**	4	50-100
	3	35-50
	2	20-30
	1	0-20
	0	0

	4	YES
	0	NO

Scoring Matrix

Street Usage Observation Study

		Old Jail + Ibrahim Sahib Street	Thiru Vi Ka High Road	Thirumalai Pillai Road	Perambur High Road	Peter's Road	Eldams Road	Broadway	Gandhi Irwin Road	Wallajah	CSIR	Pedestrian Plaza	Sardar Patel Road	C.P. Ramaswamy Salai	Anna Main Road
	Observational Survey score (Final score out of 10)	**7**	**6**	**9**	**6**	**8**	**6**	**7**	**8**	**8**	**7**	**10**	**5**	**2**	**4**
	Universal Accessibility & Inclusivity														
1	Presence of bollards	Yes	Yes	Yes	Yes	In Part	No	No	No	Yes	Yes	Yes	In Part	No	No
	SCORE	**4**	**4**	**4**	**4**	**2**	**0**	**0**	**0**	**4**	**4**	**4**	**2**	**0**	**0**
2	Percentage of women, and other genders using the space *	46%	38%	70%	32%	32%	39%	26%	35%	27%	26%	56%	39%	48%	49%
	SCORE	**2**	**2**	**3**	**2**	**2**	**2**	**1**	**2**	**1**	**1**	**3**	**2**	**2**	**2**
	OUT OF 10	**7.50**	**7.50**	**4.50**	**3.75**	**5.00**	**2.50**	**1.25**	**2.50**	**3.25**	**6.25**	**8.75**	**5.00**	**2.50**	**1.25**
	Liveability														
1	Presence of organised parking	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
	SCORE	**0**	**0**	**0**	**4**	**4**	**4**	**4**	**4**	**4**	**0**	**4**	**0**	**0**	**0**
2	Presence of vending stalls promoting street social life	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
	SCORE	**4**	**0**	**4**	**0**	**4**	**4**	**0**	**4**	**4**	**4**	**4**	**4**	**0**	**0**
3	Availability of stormwater infrastructure	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SCORE	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
	OUT OF 10	**6.75**	**3.25**	**6.75**	**6.75**	**10.00**	**10.00**	**6.75**	**10.00**	**10.00**	**6.75**	**10.00**	**6.75**	**3.25**	**3.25**

Scoring System		
	4	75-100
	3	50-75
	2	30-50
	1	<30
	0	0
*	4	25-100
	3	18-25
	2	12-18
	1	0-12
	0	0
**	4	50-100
	3	35-50
	2	20-30
	1	0-20
	0	0

	4	YES
	0	NO

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Thank you