ANNEXURES

MAPPING TEMPLATES

- Age and Gender survey
- Pedestrian count
- Vehicular count
- Parking count
- User group analysis
- Activity mapping
- Vendor mapping

SAMPLE STREET SECTIONS SHOWING PROPOSED TACTICAL URBANISM INTERVENTIONS

SAMPLE COST ESTIMATE FOR TACTICAL URBANISM

TACTICAL URBANISM IN INDIA

Case examples fact sheets

GLOSSARY OF TERMS

MAPPING TEMPLATES

AGE AND GENDER SURVEY

The age and gender survey can form an additional layer of information with the pedestrian counts to understand the social and demographic factors of space usage. It helps to provide a picture of who uses and moves through the city. The balance between different age groups and genders is an indicator of the quality, safety and integration level of public spaces.

WHAT TO SURVEY?

The Age and Gender survey can be conducted by observing passing pedestrians, and for each person, noting down the gender (M/F) and approximate age group:

- Children 0-17
- Adults 18-60
- Seniors above 60

This survey will have to be done for a target number of 100 pedestrians irrespective of the time it takes to reach this count. Pedestrians are recorded in the worksheet using the following abbreviations-

MC - Male child
MA - Male adult
MS - Male senior citizen
FC - Female child
FA - Female adult
FS - Female senior citizen

WHEN TO SURVEY?

This survey can be repeated four times a day, in sync with the morning and evening peak hours and lunchtime.

AGE AND GENDER SURVEY

Location		Surveyor Name	
Date		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

TIME	01	02	03	04	05	06	07	08	09	10
8 AM										
12 noon										
4 PM										
7 PM										

CALCULATIONS

MC	
MA	
MS	
FC	
FA	
FS	
TOTAL	

MC	
MA	
MS	
FC	
FA	
FS	
TOTAL	

MC	
MA	
MS	
FC	
FA	
FS	
TOTAL	

MC	
MA	
MS	
FC	
FA	
FS	
TOTAL	

legend - M - Male, F - Female, C - Child (0-17), A - Adult (18-60), S - Senior (above 60)

PEDESTRIAN COUNT

Pedestrian counts are useful in understanding the volumes and patterns of usage of the public realm across the site area / neighbourhood / city district. When collated, the data on number of people walking in the city can provide valuable insights on what places work well for pedestrian occupation, and factors that contribute to lively use of the public realm despite poor infrastructure or environmental quality.

The pedestrian environment audit again provides the framework for counting pedestrian activity. The following pointers will be useful in executing the pedestrian counting activity.

WHOM TO COUNT?

1. Count all pedestrians walking in each direction.
2. Count children, as well as children carried by their parents
3. Count people in wheelchairs and on rollerskates as pedestrians.
4. Count people riding bicycles separately, as their own category

WHEN TO COUNT?

1. You will need to take a pedestrian count for 10 minutes in every hour at each of the selected locations. This can then be extrapolated to an hourly count by multiplying by 6.
2. Ideally, counts spanning every hour from 7 am to 11 pm would be useful to understand the ebbs and flows in activity. If this is not practical, aim to capture atleast 2 hours of counts each in the morning and evening during rush hours and an additional 2 hours around lunch time (totally 6 hours of counts).

THINGS TO REMEMBER:

1. If you are using a counter/ clicker , reset to zero before each count
2. Count for exactly 10 minutes every hour. Use a stopwatch to monitor if necessary
3. Carry an official letter from the concerned authorities at all times during surveying

PEDESTRIAN COUNT

Location		Surveyor Name	
Date		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

TIME	NO. OF PEDESTRIANS		NOTES
	Direction 1	Direction 2	
07.00 - 07.10			
08.00 - 08.10			
09.00 - 09.10			
10.00 - 10.10			
11.00 - 11.10			
12.00 - 12.10			
13.00 - 13.10			
14.00 - 14.10			
15.00 - 15.10			
16.00 - 16.10			
17.00 - 17.10			
18.00 - 18.10			
19.00 - 19.10			
20.00 - 20.10			
21.00 - 21.10			
22.00 - 22.10			
23.00 - 23.10			

VEHICULAR COUNT

Vehicular counts helps in understanding the nature and volume of the floating population, traffic pattern and density in the stretch / site area. Data obtained from documenting the number of vehicles crossing a particular point at various time intervals can be compared with the standards to determine the width of the carriage way at various sections of the stretch, giving more space for pedestrians.

The following pointers will be useful in executing the vehicular counting activity.

WHAT TO COUNT?

1. Count all vehicles in each direction.
2. Each vehicle category is counted and tabulated separately.

WHEN TO COUNT?

1. You will need to take a vehicular count for 10 minutes in every hour at each of the selected locations. This can then be extrapolated to an hourly count by multiplying by 6
2. Ideally, counts spanning every hour from 7 am to 11 pm would be useful to understand the ebbs and flows in activity. If this is not practical, aim to capture atleast 2 hours of counts each in the morning and evening during rush hours and an additional 2 hours around lunch time (totally 6 hours of counts)

THINGS TO REMEMBER:

1. If you are using a counter/ clicker , reset to zero before each count
2. Count for exactly 10 minutes every hour. Use a stopwatch to monitor if necessary
3. Carry an official letter from the concerned authorities at all times during surveying

VEHICULAR COUNT

Location		Surveyor Name	
Date		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

TIME	CAR		TWO WHEELER		BUS		AUTO		SHARE AUTO		BICYCLE		LORRY	
	Direction													
	1	2	1	2	1	2	1	2	1	2	1	2	1	2
07.00 - 07.10														
08.00 - 08.10														
09.00 - 09.10														
10.00 - 10.10														
11.00 - 11.10														
12.00 - 12.10														
13.00 - 13.10														
14.00 - 14.10														
15.00 - 15.10														
16.00 - 16.10														
17.00 - 17.10														
18.00 - 18.10														
19.00 - 19.10														
20.00 - 20.10														
21.00 - 21.10														
22.00 - 22.10														
23.00 - 23.10														
TOTAL														

PARKING COUNT

Counting the vehicles parked along the stretch, gives information about the percentage of the road section used for parking. The number of vehicles parked at various instances at the same day helps in deducing the parking demand for the stretch, which can be considered while redisgning the stretch.

The following pointers will be useful in executing the parking counting activity.

WHAT TO COUNT?

1. Count all the vehicles parked in the stretch.
2. Count vehicles parked on either side of the road and tabulate them separately.
3. Count the service vehicles parked during the exercise. Service vehicles include supply vehicles, cleaning trucks etc.

WHEN TO COUNT?

1. You will need to take a parking count for every hour at each of the selected locations. This can then be extrapolated to an hourly count by multiplying by 6.
2. Ideally, counts spanning every hour from 7 am to 11 pm would be useful to understand the ebbs and flows in activity. If this is not practical, aim to capture atleast 2 hours of counts each in the morning and evening during rush hours and an additional 2 hours around lunch time (totally 6 hours of counts)

Additionally, parking patterns can be marked on a map to better understand, where the vehicles are parked with respect to the context. The mapping exercise can be done in a single go if the considered stretch is less than 500m. If more, the stretch can be demargated into different segments and the exercise is carried out for each segment.

MAP OF SITE / STUDY AREA

Use survey drawing. If not available, use google maps.

PARKING COUNT

Location		Surveyor Name	
Date		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

TIME	CAR		TWO WHEELER		AUTO		BICYCLE		SERVICE VEHICLE	
	Side A	Side B	Side A	Side B	Side A	Side B	Side A	Side B	Side A	Side B
07.00 - 07.10										
08.00 - 08.10										
09.00 - 09.10										
10.00 - 10.10										
11.00 - 11.10										
12.00 - 12.10										
13.00 - 13.10										
14.00 - 14.10										
15.00 - 15.10										
16.00 - 16.10										
17.00 - 17.10										
18.00 - 18.10										
19.00 - 19.10										
20.00 - 20.10										
21.00 - 21.10										
22.00 - 22.10										
23.00 - 23.10										

TOTAL										

USER GROUP ANALYSIS

User group analysis is essential to understand the various stakeholders involved in the selected site area. This help in understanding the issues and needs of the various user groups, which can be translated into design considerations.

The following steps are to be followed in the user analysis:

1. List all the user groups involved in the site area based on their usage.
2. Categorize the users into primary, secondary and tertiary stakeholders based on the usage and amount of time they spend on the site.
3. Based on this categorisation, come up with means of engagement to understand the issues faced by each user groups and their needs.

SOME TYPICAL USER GROUP PROFILES

Pedestrians

School and college **students** from nearby institutions, **working population, religious institution visitors** and **shoppers** who use the street as well as transit users.

Motorists

Private vehicle drivers and **public transportation** drivers who frequently use the stretch as well as park the vehicles there.

Police Officers who guide the traffic at intersections and during the Tactical urbanism project.

Residents' Welfare Association (RWA) of nearby neighbourhoods.

Shopkeepers who own or work at shops in the stretch and temporory **street vendors** who keep tempory stalls/kiosks/vehicle stalls.

USER GROUP ANALYSIS

USER GROUP	6-7 AM	7-8 AM	8-9 AM	9-10 AM	10-11 AM	11-12 AM	12-1 PM	1-2 PM	2-3 PM	3-4 PM	4-5 PM	5-6 PM	6-7 PM	7-8 PM	8-9 PM	9-10 PM	10-11 PM	11-12 PM	12-1 AM
01.																			
02.																			
03.																			
04.																			
05.																			
06.																			
07.																			
08.																			
09.																			
10.																			
11.																			
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13.																			
14.																			
15.																			
16.																			
17.																			
18.																			

ACTIVITY MAPPING

This survey is intended to create a snapshot of the activities in a public space at a given moment. Walk through the space, look ahead of you and map the activities you are passing on your way. Do not turn around or double back. Mark each of the people on the map in the right location, and according to the legend to specify activity type.

WHAT TO MAP?

1. People standing still – looking in at windows, street performers, talking etc.
2. People waiting for transport / traffic
3. People sitting
4. People lying down
5. Children playing
6. People doing physical activities like play, exercise etc.
7. People doing cultural activities – performances etc.
8. People doing commercial activities – hawkers, street vendors etc

Note - During the mapping exercise, only the stationary activities are to be mapped and people walking along the stretch are to be ignored. The above mentioned activities are some of the common activities in a public space and the surveyors need not restrict themselves to these activities.

WHEN TO MAP?

The stationary activities mapping should be done every hour in parallel with the pedestrian counts. Subject to size considerations, mapping stationary activities should take no more than 10 – 15 minutes every hour.

Similar to parking counts, the activity mapping exercise can be done in a single go if the considered stretch is less than 500m. If more, the stretch has to be demarcated into different segments and the exercise is to be carried out separately for each segment.

MAP OF SITE / STUDY AREA

Use survey drawing. If not available, use google maps.

ACTIVITY MAPPING

Location				Surveyor Name	
Date		Time		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

ACTIVITY	SYMBOL	NUMBER
Standing	●	
Waiting for transport	○	
Sitting	■	
Lying down	□	
Children playing	×	
Physical Activities	⊠	
Cultural activities	▲	
Commercial activities	△	
Total		

VENDOR MAPPING

Vendors are an important aspect of street activity. Mapping the vendors in a stretch will give a holistic image of the various vendors operating in the zone and include them as part of the new proposal.

WHAT TO MAP?

1. Only the street vendors are to be marked. This does not include the commercial establishments along the stretch.
2. Document the type of shop - Permanent or Temporary, Movable or Immovable, etc.
3. Document the type of goods sold by the vendors.
4. Document the time period for which the vendor is present on the street
5. Also, document the time interval at which a particular vending activity is at its peak.
6. Document the number of vendors present at a particular vending activity.

WHEN TO MAP?

The vending activities mapping should be done every hour in parallel with the pedestrian counts. Subject to size considerations, mapping stationary activities should take no more than 10 – 15 minutes every hour.

The vendors mapping exercise can be done in a single go if the considered stretch is less than 500m. If more, the stretch has to be demarcated into different segments and the exercise is to be carried out separately for each segment.

MAP OF SITE / STUDY AREA

Use survey drawing. If not available, use google maps.

VENDOR MAPPING

Location				Surveyor Name	
Date		Time		Note	

This survey was conducted on ☐ a weekday ☐ a weekend

ACTIVITY	SYMBOL	TYPE OF SHOP	TYPE OF GOODS	TIME DURATION	PEAK TIME INTERVAL	NUMBER OF PEOPLE
Total						

SAMPLE STREET SECTIONS SHOWING PROPOSED TACTICAL URBANISM INTERVENTIONS

18 METRE RIGHT OF WAY

18 metre RoW *EXISTING SECTION*

Existing Sidewalk

Proposed Sidewalk

Cycle lanes

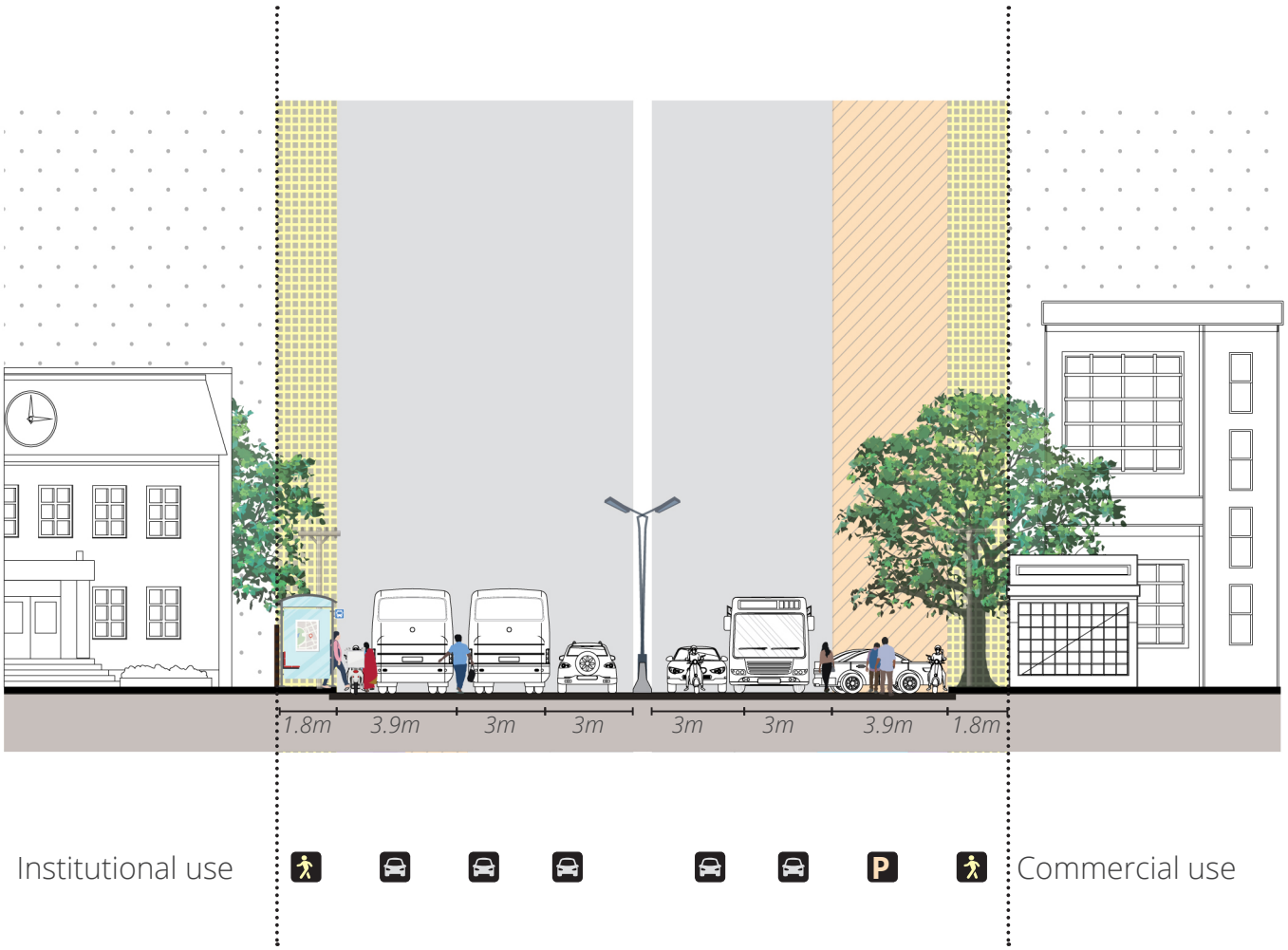
Carriage way

Parking Lane

18 metre RoW *PROPOSED SECTION - I*

18 metre RoW *PROPOSED SECTION - II*

24 METRE RIGHT OF WAY



24 metre RoW *EXISTING SECTION*

Existing Sidewalk

Proposed Sidewalk

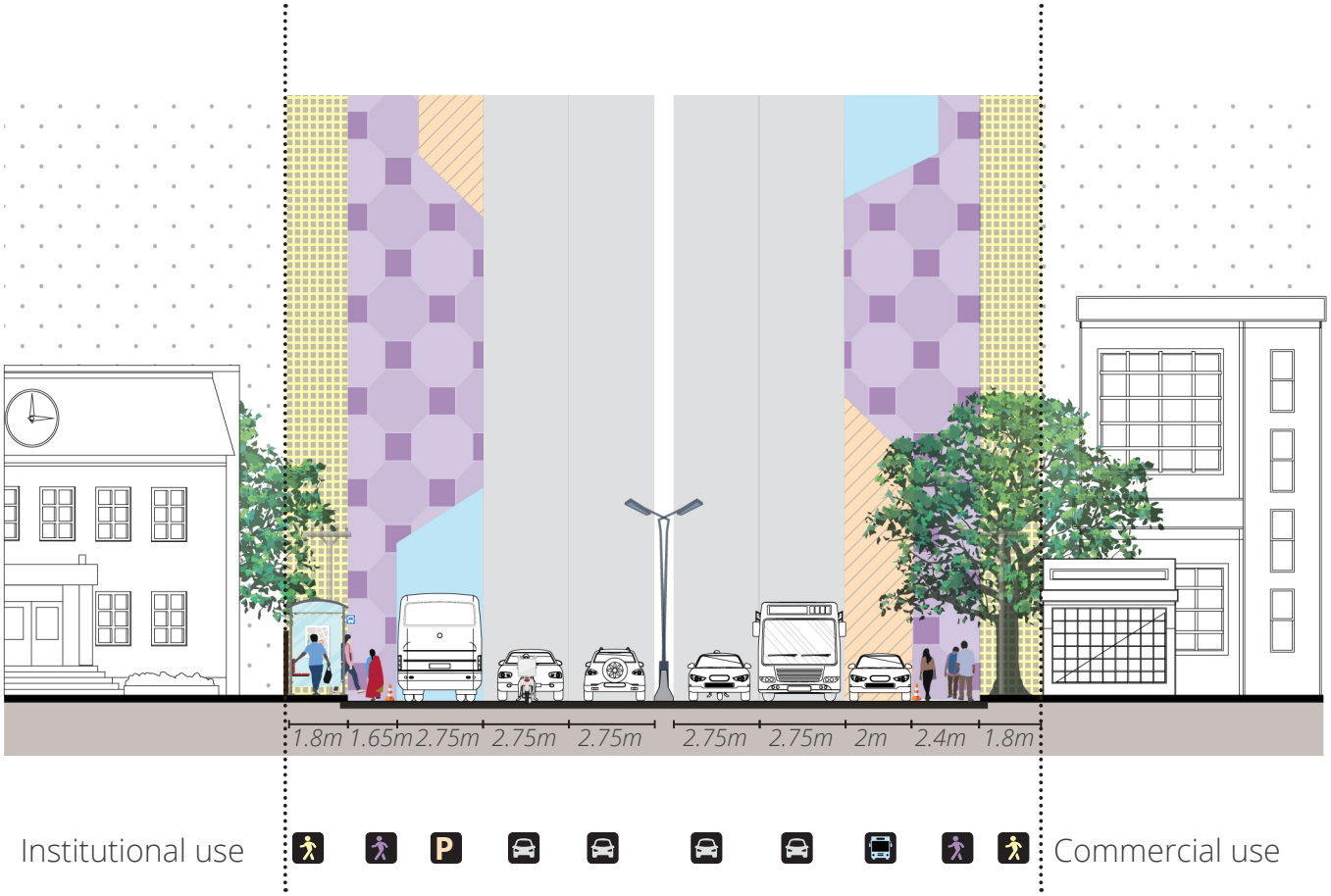
Cycle lanes

Bus bay

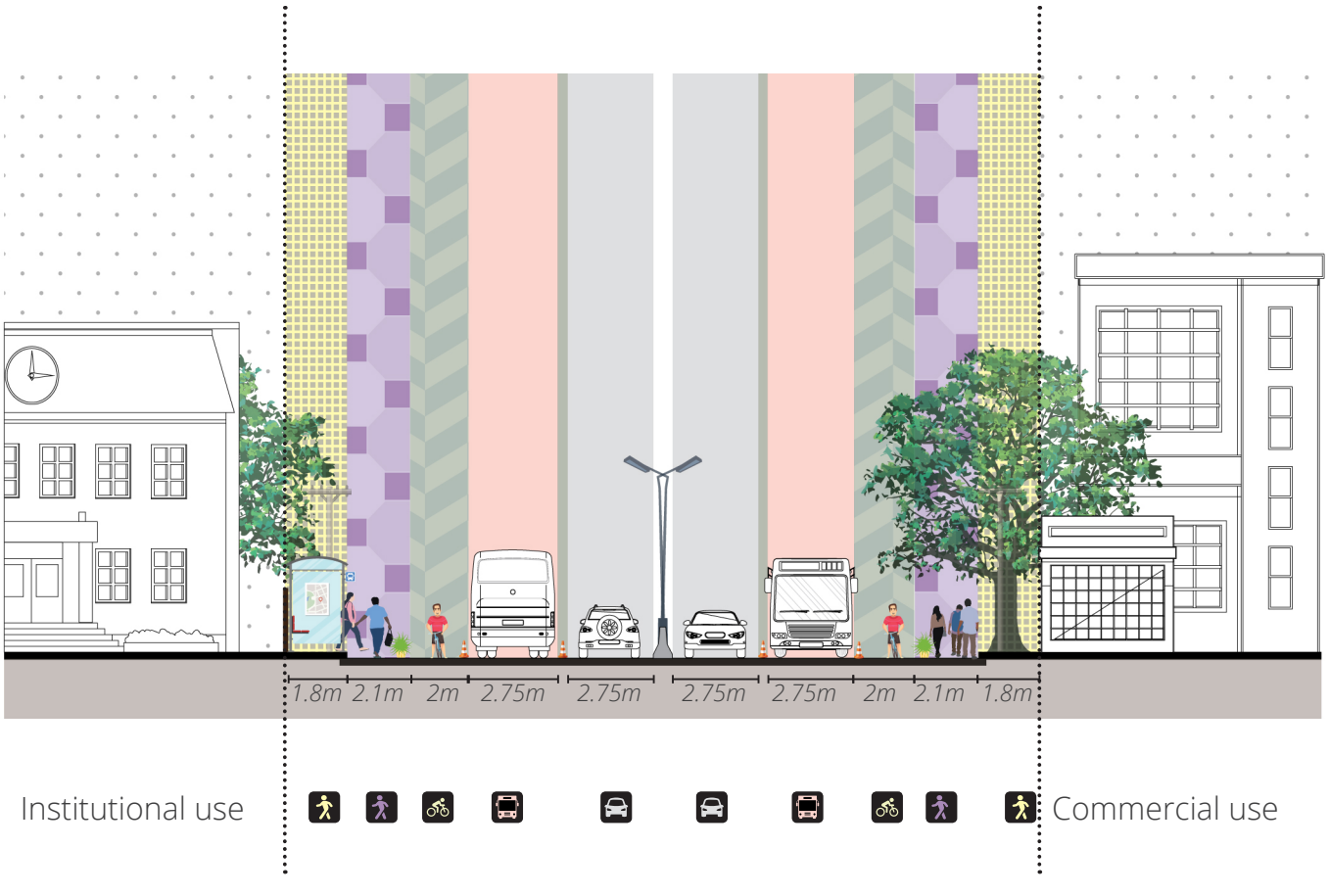
Carriage way

Parking Lane

Bus Lane

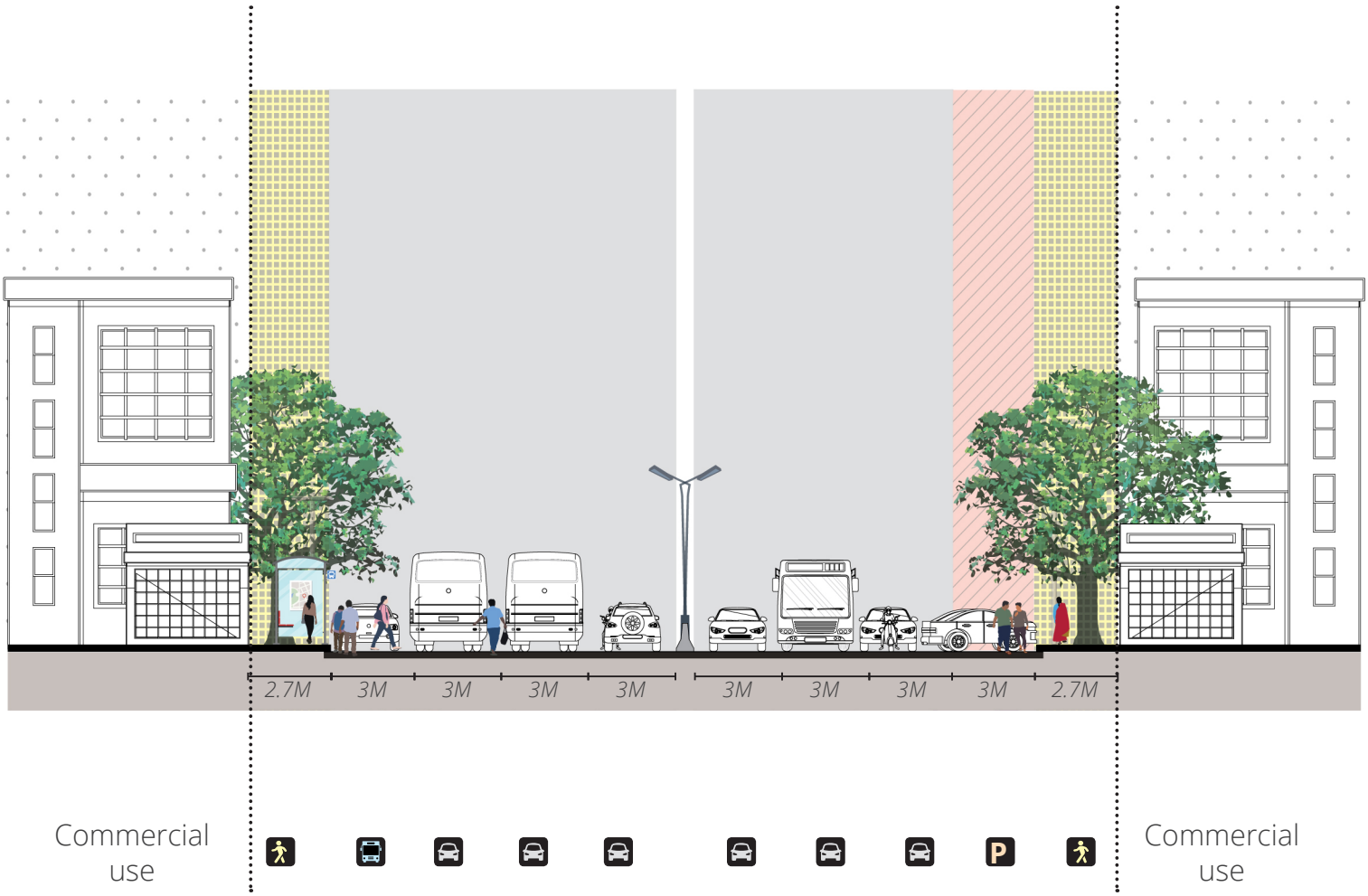


24 metre RoW *PROPOSED SECTION - I*



24 metre RoW *PROPOSED SECTION - II*

30 METRE RIGHT OF WAY



30 metre RoW *EXISTING SECTION*

Existing Sidewalk

Proposed Sidewalk

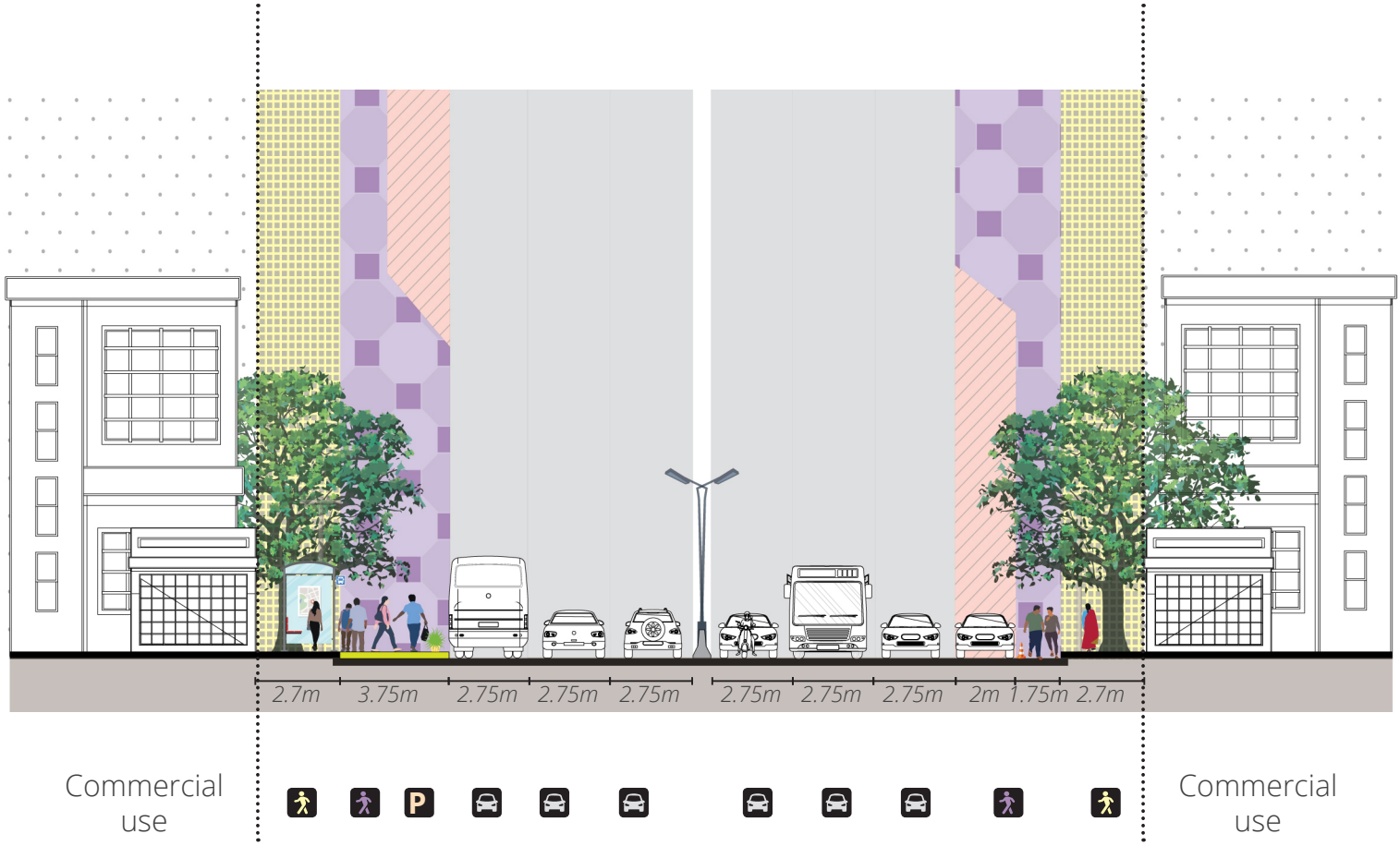
Cycle lanes

Bus bay

Carriage way

Parking Lane

Bus Lane



30 metre RoW *PROPOSED SECTION - I*

30 metre RoW *PROPOSED SECTION - II*

SAMPLE COST ESTIMATE FOR TACTICAL URBANISM

A rough per kilometre cost estimate for a tactical urbanism project assuming the bare minimum intervention for it to qualify as a tactical urbanism project - ***an extended sidewalk/ pop-up bike lane on both sides of the street*** - and assembled using cones, rope and thermoplastic paint would be as per the table below:

S. no.	*Particulars*	*Unit*	*Per unit cost*	*Units required per kilometre*	*Cost estimate per kilometre*
1	Cones	Nos.	INR 180-300	1000	INR 1,80,000 to 3,00,000
2	Nylon heavy duty rope	Metres	INR 25-40	2000	INR 50,000 to 80,000
3	White thermoplastic paint applied with 1.6mm thickness	Kg	INR 38- 70	800	INR 30,400 to 56,000
	Total				**INR 2,60,400 to 4,36,000**

Note: Rates are as per market values for the year 2020 and may vary in each city/ state.

TACTICAL URBANISM IN INDIA

Case example fact sheets

Coimbatore, Tamil Nadu

Big Bazaar Street

November 2019

TYPE OF INTERVENTION

- Reducing carriageway width
- Intersection redesign
- Adding pedestrian crossing points
- Seating and shade structures
- Games for children on the sidewalk

STREET CONDITIONS ADDRESSED

- Inadequate pedestrian infrastructure
- Lack of shading and seating
- Irregular street parking
- Varying carriageway widths along the street

Coimbatore City Municipal Corporation, Coimbatore Traffic Police, GIZ India, GFA Consulting Group, Urban Design Collective, Eventia, Residents Awareness Association of Coimbatore (RAAC)

Udaipur, Rajasthan

Outside Vidhyabhawan Pre-Primary School

October 2019

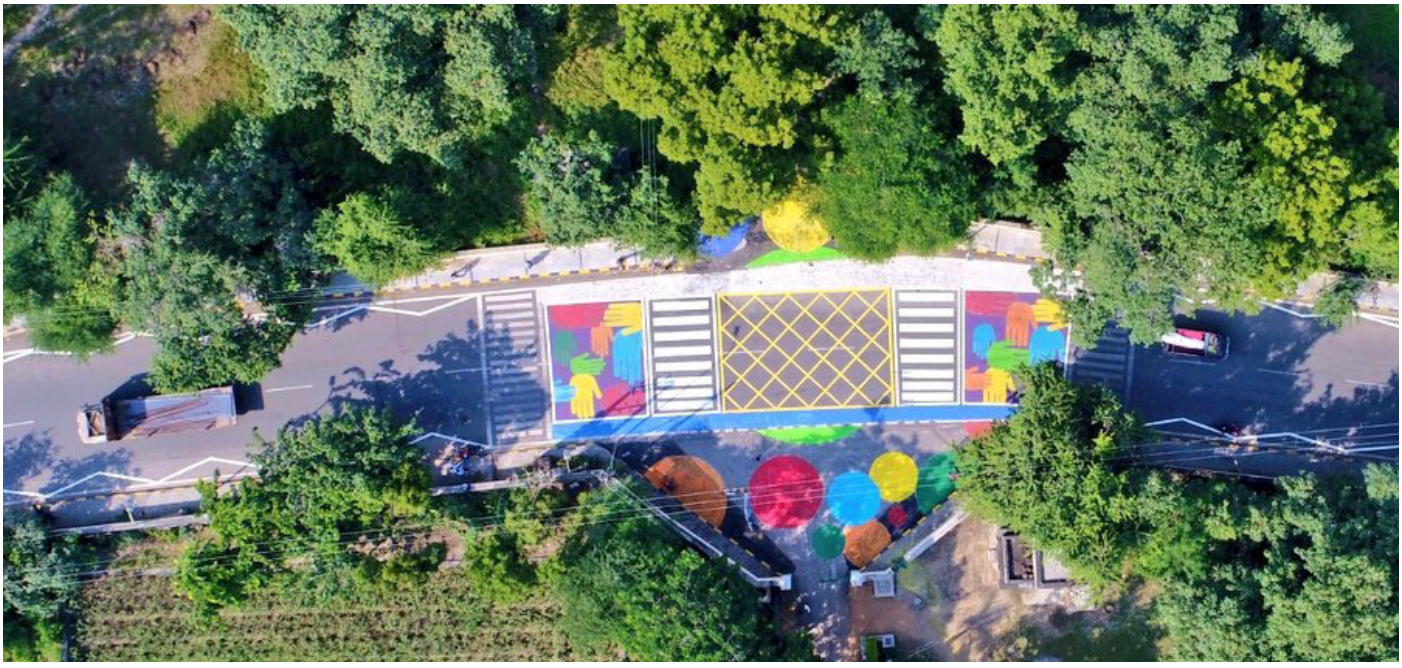
Source: Yougal Tak, ICLEI
https://udaipurtimes.com/administration/implementation-begins-first-tactical-intervention-under/c74416-w2859-cid170496-s10702.htm

TYPE OF INTERVENTION

- Reducing Vehicular Speed
- Child friendly pedestrian crossing
- Reducing carriageways for pedestrian safety

STREET CONDITIONS ADDRESSED

- Inadequate pedestrian infrastructure
- Lack of road safety for children



Bernard Van Leer Foundation, ICLEI South Asia, Udaipur Muncipal Corporation, Vidhya Bhawan College, Udaipur

Ranchi, Jharkhand

M.G Road, Ranchi

September 2019

Source: https://www.itdp.in/tag/tactical-urbanism/

TYPE OF INTERVENTION

- Reducing carriageway
- Clear division for pedestrians and vehicular movement
- Pedestrian Safety
- Reducing traffic congestion

STREET CONDITIONS ADDRESSED

- Traffic congestion due to mixed use of road by pedestrians and vehicles
- Lack of pedestrian space and infrastructure
- Irregular Parking and Carriageway
- Pedestrian Safety

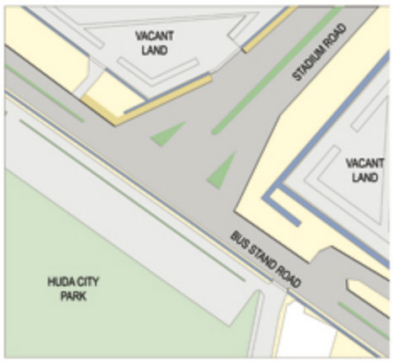
Ranchi Municipal Corporation, Ranchi Traffic Police, ITDP India Programme

Rohtak, Haryana

Bus Stand Road and Stadium Road Intersection

February 2019

Existing Design



Proposed Design

Source: https://wri-india.org/blog/creating-safer-child-friendly-streets

TYPE OF INTERVENTION

- Reducing carriageway
- Reducing pedestrian crossing widths
- Creating refuge islands for pedestrians along the medians
- Reducing vehicular speeds

STREET CONDITIONS ADDRESSED

- Excessive carriageway widths
- Lack of road safety for children
- Speeding
- Lack of pedestrian infrastructure
- Irregular usage of RoW excess - such as drop off points, parking.

Municipal Corporation of Rohtak, Rohtak Police, WRI India, NASSCOM foundation

Mumbai, Maharashtra

Mithchowki, Malad

Source: https://globaldesigningcities.org/2018/05/31/making-mumbai-streets-safer-and-cooler-2/

May 2017

TYPE OF INTERVENTION

- Curb extension
- Narrowing of free turning lanes
- Tightening corner radii to reduce speeding
- Shortening pedestrian crossings
- Lane alignment

STREET CONDITIONS ADDRESSED

- Inadequate pedestrian infrastructure
- Lack of road safety for pedestrians,
- Unutilized road space
- Inconsistent carriage-way width

Municipal Corporation of Greater Mumbai (MCGM), Mumbai Traffic Control Branch (MTCB), NACTO - GDCI, Kamla Raheja Vidyanidhi Institute for Architecture

Mumbai, Maharashtra

HP junction

2017

TYPE OF INTERVENTION

- Tighter corner radii
- Improved pedestrian space
- Median refuge islands to shape the street geometry

STREET CONDITIONS ADDRESSED

- Large turning radii
- Lack of road safety for pedestrians
- Lack of pedestrian infrastructure

Photos by Saurabh Jain/WRI ; Source: https://wri-india.org/blog/how-tactical-urbanism-can-improve-road-safety

Municipal Corporation of Greater Mumbai (MCGM), Mumbai Traffic Police (MTP), WRI India and a coalition of 'street-fighters' under the Bloomberg Philanthropies Initiative for Global Road Safety (BIGRS).

GLOSSARY OF TERMS

Accessibility	The ease with which a building, place or facility can be reached by people and/or goods and services. Accessibility can be shown on a plan or described in terms of pedestrian and vehicle movements, walking distance from public transport, travel time or population distribution.
Active Edges/Frontages	Ground floor uses which accommodate activities and provide a level of interaction between pedestrians and the building uses including cafes/ restaurants, shops, library etc. Active frontages/edges increase casual surveillance and improve the vitality and safety of an area.
Amenity	Design, aesthetic or other features of a development (building or public space) that increase its marketability or usability to the public. Examples of amenities include: good architecture, open space, landscaping, street furniture, an outdoor amphitheater, public art etc.
Barrier-Free Design/ Universal design	Building and site design which is accessible to all people, regardless of age and abilities.
Block	The area bounded by a set of streets and undivided by any other significant streets carrying vehicular traffic. A block may be designed to be cut through by pedestrian thoroughfares.
Buffer	A strip of land identified on a site plan or by a zoning ordinance established to provide separation between land uses that are incompatible. Normally, the area is landscaped and kept as open space.
Building access	The entry / exit points of a building for pedestrians & vehicles
Building line	The line formed by the frontages of buildings along a street. The building line can be shown on a plan or section.
Building orientation	The positioning of the building on site with respect to the street and the cardinal directions.
Bulb-Out	Widened sidewalk areas at intersections or mid-block crossings, often in place of on-street parking, thereby narrowing the pedestrian crossing distance over a right-of-way.
Bus priority lane	A highway or street lane reserved primarily for buses, either all day or during specified periods. It may be used by other traffic under certain circumstances, such as making a right or left turn, or by taxis, motorcycles, or carpools that meet specific requirements described in the traffic laws of the specific jurisdiction. Bus priority lanes reduce travel time and improve the quality and reliability of bus commute
Circulation	Movement patterns of people and goods. Includes pedestrians, cyclists, vehicular traffic, transit systems and freight.

Eyes on the street	People whose presence in adjacent buildings or on the street make it feel safer. Jane Jacobs' refers to the 'eyes on the street' concept in her book, The Death and Life of Great American Cities (1961) in the chapter where she discusses safety and the sidewalk. She notes that 'there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street'.
Footpath	Is defined by the area between the kerb and the property boundary used to support pedestrian movement along the street. Footpaths in some locations can support activities such as footpath dining. Wider footpaths improve pedestrian amenities, ease of movement and connectivity by allowing the provision of street furniture, shade trees and landscaping.
Frontage	The width of a single lot, measured parallel to the right-of-way.
Frontage zone	The area adjacent to the property line where transitions between the public sidewalk and the space within buildings occur. (also dead width)
Landmark	buildings, structures and spaces which create distinct visual orientation points that provide a sense of location to the observer within the neighbourhood or district, such as that created by a significant natural feature or by an architectural form which is highly distinctive relative to its surrounding environment
Mapping	Technique used for communicating information about the physical environment. Maps may represent physical features such as land and climate conditions or abstract concepts such as view corridors and pedestrian nodes.
Mid-Block Connections	Linkages between two streets with the purpose of breaking up large blocks. The new connection provides an alternative way to the footpath/street grid and can be either a road or a pathway. It improves connectivity and accessibility through a precinct by adding to the choice of routes. They should ideally be designed to have uses other than as mid-block pedestrian links e.g. laneway or library/gallery galleria.
Mixed Use	A mix of uses within a building, or a site, or within a particular area, possibly including employment, residential, commercial, live/work, or retail. As an example, mixed use development can have shops on the ground floor with residential apartments above (vertical mix) or an office next to a residential apartment building within the same development (horizontal mix).
Modal Split	How the total number of trips in an area or to a destination is split between different means of transport, such as train, bus, car, walking and cycling. A change in modal split is referred to as modal shift and multi-modal refers to several different means of transport.

Node	A place where activity and routes are concentrated; a point of interchange in a transport network. Kevin Lynch defines nodes as 'points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is travelling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may simply be concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square'. (also hotspot)
Para transit	Forms of transportation services that are more flexible and personalized than conventional fixed-route, fixed-schedule service. The vehicles are usually low- or medium-capacity vehicles, and the service offered is adjustable in various degrees to individual users' desires. Its categories are public, which is available to any user who pays a pre-determined fare (e.g., autos, share autos) and semi-public, which is available only to people of a certain group, such as the elderly, employees of a company, or residents of a neighbourhood (e.g., vanpools, subscription buses). These services are usually informal and oftentimes fill the gaps in the public transport network.
Parking demand	Refers to the amount of parking that is estimated to be used at a particular time, place, and price.
Pedestrian	All people on foot or moving at walking speed, including those who use mobility aids (wheelchairs, scooters, etc.), persons with strollers and buggies, and frail elderly persons.
Pedshed	The area within a 10-minute walk band around a train station. Pedsheds are ideal locations for relatively dense housing development.
Placemaking	Placemaking involves the planning, design, management and programming of public spaces. It addresses how we collectively shape our public realm to maximize shared value. Placemaking facilitates creative patterns of activities and connections (cultural, economic, social, ecological) that define a place and support its ongoing evolution. Placemaking is rooted in community-based participation and in concerned with building both the settlement patterns and the communal capacity for people to thrive with each other and our natural world.
Plaza	A community gathering space, sometimes called a square, usually designed with seating areas, and with a variety of ground-plane finishes such as hard-surfaces, lawn and landscaping. It is often designed as a focal point with an amenity such as a fountain, and it may be bounded on one or more sides by a civic or commercial use in the neighborhood or commercial center.
Precinct	An urban quarter; a distinct local area; an area with a defined boundary.

Primary Streets	Active for all modes of transport, but have less vehicular traffic than do avenues, so they are the most balanced streets downtown. Used to move people within the downtown.
Public Art	Site specific artwork created to enhance and animate publicly accessible spaces through artistic interpretations that range from individual sculpture to integrated architectural and landscape features and treatments.
Public Realm	The public and semi-public spaces of the city, especially the street spaces of the city from building face to the opposite building face (including the façade, front yard, sidewalk and streets) and open space such as parks and squares. These spaces are available, without charge, for everyone to use or see and are also called the public domain.
Right-of-way (RoW)	That part of the street space including the space above and below the surface that is publicly owned and lies between the property lines. This space is generally established for the use of pedestrians, vehicles, or utilities.
Road hierarchy	A classification of roads and streets. Road hierarchy for highway engineers includes access roads, distributor roads, collector roads and arterial road according to their role in the network as carriers of traffic and to the volume of traffic they can carry whereas road hierarchy for urban designers includes mews, residential streets, high streets and boulevards according to their scale and to their role in relation to people on foot.
Spine	A street or streets along which a specific activity is concentrated.
Square	An urban space, landscaped or paved, and enclosed wholly or partly by buildings. Also referred to as a piazza, quadrangle, courtyard or plaza.
Stakeholder	A stakeholder is any person, organization, institution, social group, or society at large that has a stake of a particular space
Street furniture	A collective term for the various elements installed on streets and roads. It includes seating, bollards, bus shelters, fountains, signage, light fixtures, fire hydrants, telephones, trash receptacles, mailboxes, newspaper boxes, kiosks.etc. all of which contribute to the street scene.
Street reclaiming	Reusing the space saved through reduced car use to enhance the social, cultural and economic life of a neighbourhood.
Streetscape	The distinguishing elements and character of a particular street as created by its width, degree of curvature, paving materials, design of the street furniture, pedestrian amenities and setback and form of surrounding buildings.

Traffic claming	Measures to reduce the speed of motor traffic, particularly in residential areas. They include education, enforcement and engineering (the three Es).
Transit	A system of conveyance (typically bus, train or tram) provided collectively- by the public sector or the private sector, or a mixture of the two.
User group	The different group of people who use the space
Visual preference survey	A technique, patented by the American urban designer Anton Nelesson, that involves showing people slides of places and asking them to rate them on a scale of plus 10 to minus 10.
Walkability	A condition of a system of routes which are barrier free, interesting, safe, well-lit, comfortable and inviting to pedestrian travel. Essentially, the ease with which it is possible to walk around an area, from one point to another.
Way finding	The information which orients users of an area to ensure their ability to navigate through an area. This information includes but is not limited to signs, graphic communications, streetscape elements, building design and the street network.

Ministry of Housing and Urban Affairs (MoHUA) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH are jointly implementing the technical cooperation project "Integrated Sustainable Urban Transport Systems for Smart Cities (SMART-SUT)", commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The project works with the three Smart Cities of Bhubaneshwar, Coimbatore, and Kochi and respective state governments of Odisha, Tamil Nadu, and Kerala to promote low carbon mobility planning, and to plan and implement sustainable urban transport projects in the fields of public transport, non-motorised transport and modal integration.

India and Germany have agreed on a strategic partnership; **Green Urban Mobility Partnership (GUMP)** between MOHUA and BMZ and other relevant actors on the German and Indian sides. Within the framework of the partnership, EUR 1 billion is to be committed by the German side over 5 years for the implementation of corresponding projects within the framework of technical and financial cooperation. In the course of the intergovernmental consultations in November 2019, the German Government promised the Indian Government in particular support for the expansion of public transport. Projects with various executing agencies in the field of multimodal integration, using low-emission or zero-emission technologies and non-motorised transport are going to be promoted. The implementation of this agreement is to be accompanied by a corresponding policy dialogue between the Indian and German sides. In this way, India and Germany want to jointly achieve effective international contributions to fighting climate change.

Ministry of Housing and Urban Affairs
Government of India