Street4People
Cycle4Change
25.08.22

Street Transformations

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Indian streets...

































What our streets aspire to be...













All these streets are carefully designed and planned to be a great public space

What our Indian streets aspire to be...

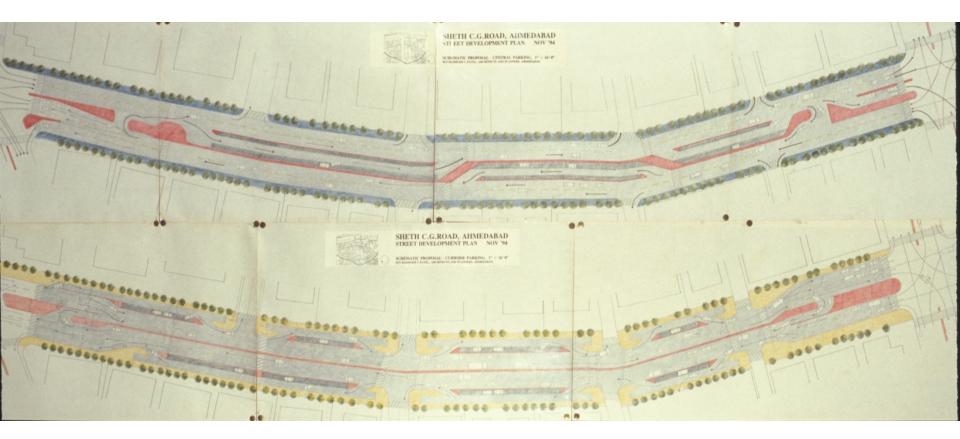
- 1. A better organized street
- 2. A street where it is easier to walk
- 3. A street that can be more easily (safely) crossed
- 4. A street that better accommodates public transport
- 5. A street where on-street parking is easily accessible
- 6. A street where vending is better managed
- 7. A street with memorable shade giving trees
- 8. A street that works in tandem with the cross streets
- 9. A street that can evolve with the city

What our approach should be...

- 1. Achieves a laminar flow of traffic
- 2. Organizes junctions
- 3. Addresses that infrastructure is built over a period
- 4. Coordinates the underground utilities with surface layout and functioning of the street
- 5. Responds to the multitude of activities and functions that streets perform
- 6. Ensures quality by standardizing basic elements/ details
- 7. Provides scope for further customization / responds well to the context

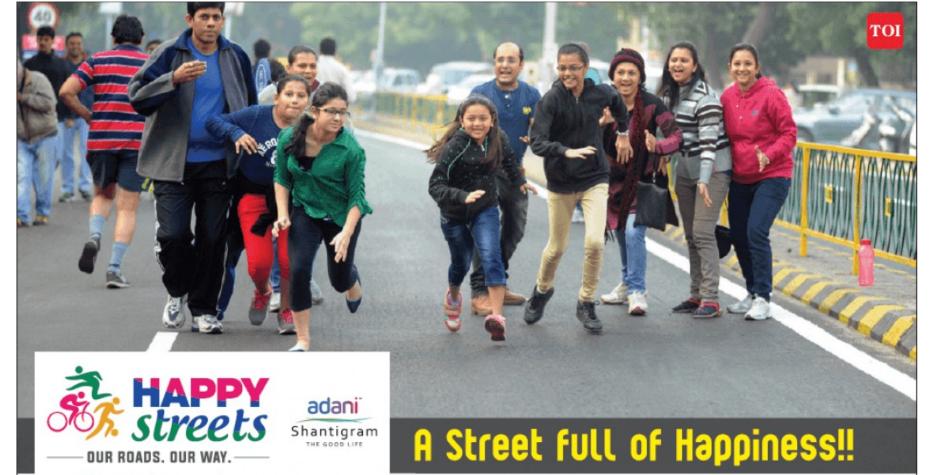
Design & Detail

























The shade is not consistent



Parking on Carriageway – there is not much traffic on the road!



Vending promotes parking and disturbs traffic



Shared space does not feel safe enough for pedestrians

Understanding the street & context

Immediate context

Land use study to understand adjacent building use





Observations:

- 1. Major Usage along street Commercial and Institutional (77%)
- 2. Other usages like Residential, Mixed Use and Public.
- 3. Informal vending activities on walkway

Inferences:

- 1. The commercial edge will require Parking
- 2. Need of Strict Vending strategy to accommodate vendors along street.

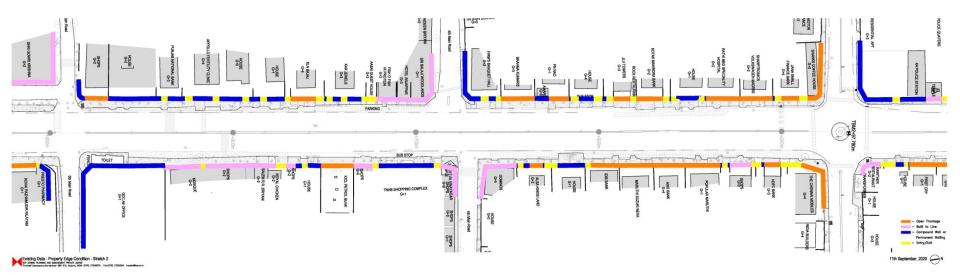
	Commercial	57%
	Residential	7%
	Institutional	20%
	Mixed Use Public	
	Vacant Land	5 %

Note : In above table, calculated numbers or figures are of 2.4 km long 3rd Avenue Road. Graphical map is for reference only.

Street frontage

Edge condition





Observations:

- 1. Maximum (85%) of properties have their building threshold as permanent compound wall or Built to Line Buildings.
- 2. Other 15% of building edge is open frontage

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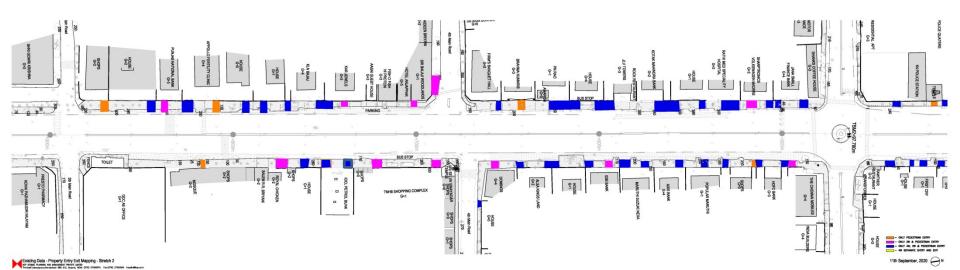
- 1. Need of Entry-Exit Strategies that will guide to allocate vehicular entries to property.
- 2. Also help to identify the locations for Toe Walls to restrict more than one vehicular access to open frontage.

Compound Wall or	
Permanent Railing-Gate	43%
Built to Line	42%
Open Frontage	15%

Note: In above table, calculated numbers or figures are of 2.4 km long 3rd Avenue Road. Graphical map is for reference only.

Property entrances

Entry & Exit to individual buildings / property





- 1. Variation in entries, types, sizes and condition.
- 2. Some property have open spaces in front.
- 3. Informally occupied walkway
- 4. Sizes of Gates are varying from 2.6 m to 6.3 m.

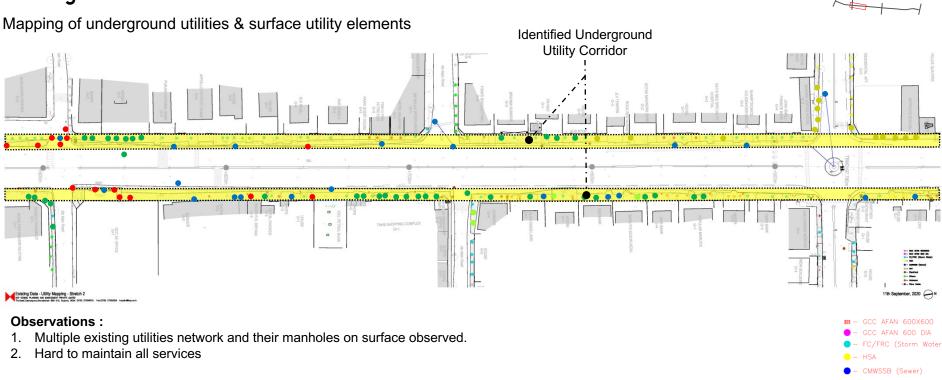
Inferences:

- 1. Need to identify the required entry numbers and types.
- 2. Raised Walkway Feasibility
- 3. Feasibility of Activity Pockets along streets
- 4. Standard Entry Policy that allows maximum possible parking.

Total Property Numbers	138
Total Entrances	166
Only Pedestrian Entries	30
Only 2w + Pedestrian Entries	
4w Entries	103

Note : In above table, calculated numbers or figures are of $2.4\ km$ long 3^{rd} Avenue Road. Graphical map is for reference only.

Underground utilities



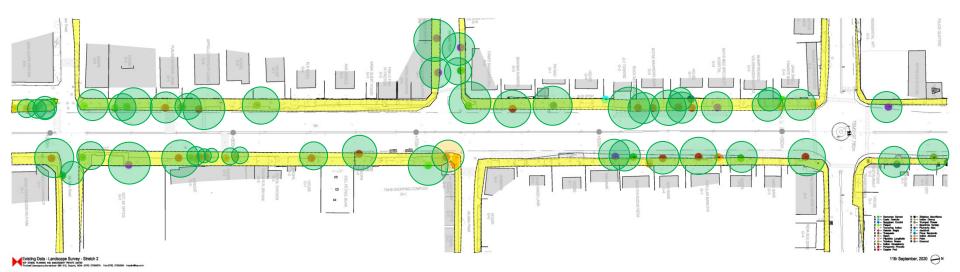
- Fibre Cable

Inferences:

- 1. Requirement of Strict Laying and Maintaining Underground Utilities Policy
- 2. Utility corridor must be easily accessible and dig able for maintenance purpose.
- 3. clubbing and reducing of supply or service lines.
- 4. This corridor must be located towards the property side to ease multiple connection to individual property.
- 5. Covered with pavement like pavers to allow maintenance.

Trees inventory

Tree survey



Observations:

- 1. Existing virtual corridor also accommodate fully grown trees with good foliage to shade the street.
- 2. Total 21 tree species have been identified with trees diameter ranging from 0.15 m to 1.3 m.
- 3. Range of Existing Foliage of trees: 8m to 12 m

Inferences:

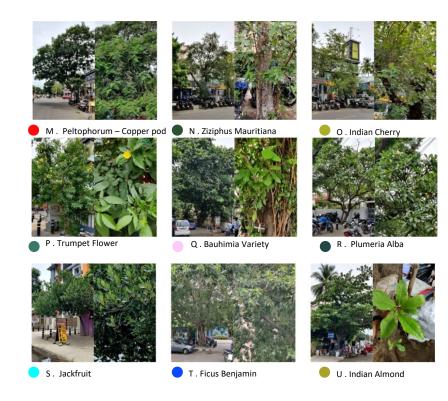
- 1. Need to preserve existing trees in its original state.
- 2. Also, need to add the series new trees to shade street.



Trees inventory

Tree survey – Tree species & tree girth





Parking Study - Day

Survey During Morning Peak (11am)



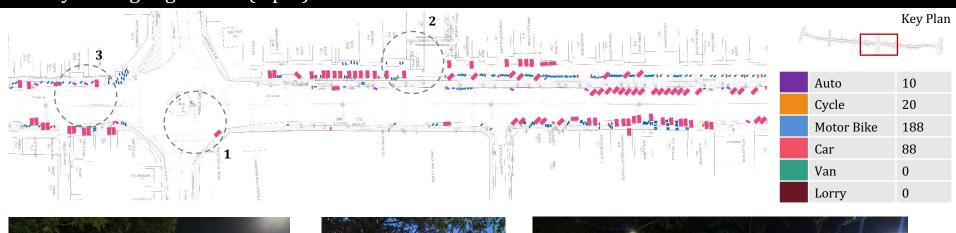
Delivery agent bikes beside the service road.

Vehicles parked in shade.

Bikes parked on pavement.

Parking Study

Survey During Night Peak (7 pm)





Cars parked in front of the Bus stand in 3rd Avenue.



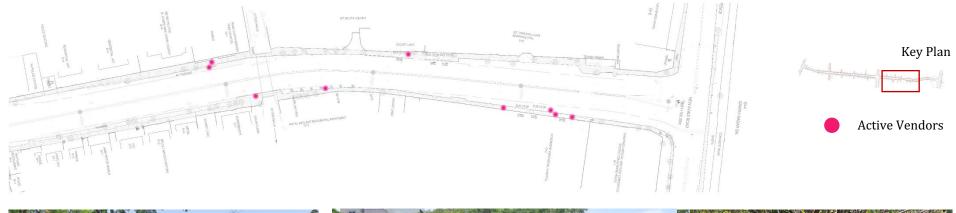
Cars parked along 3rd Avenue



Cars parked in front of super market

Vendor Study

Survey During Morning Peak (11am)







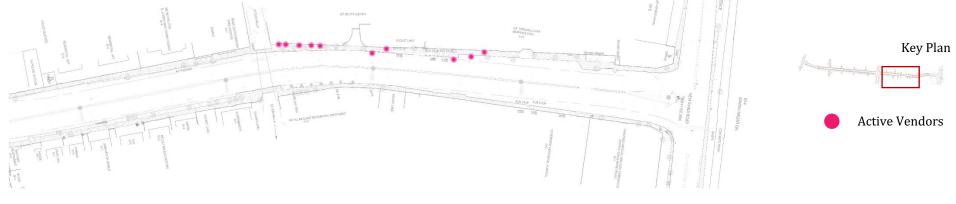
Carts closed during day time.

Carts on service road.

Tender coconut cart.

Vendor Study

Survey During Night Peak (7 pm)









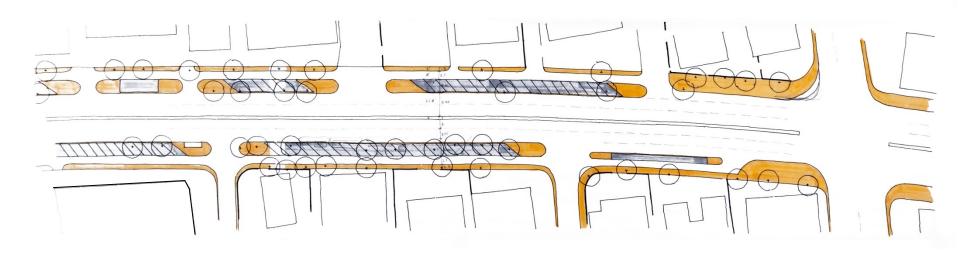
Sugarcane vendors closed during night.

Flower and tea vendor.

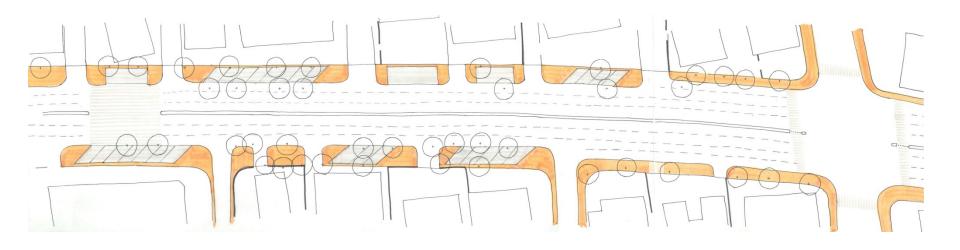
Tea shop near petrol bunk

Planning and trying out options / testing

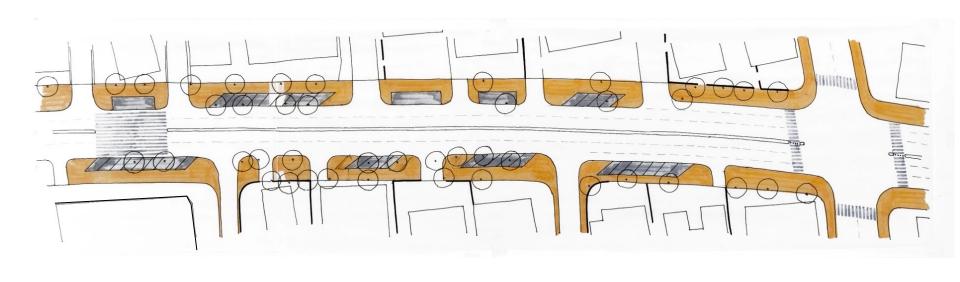
Existing condition- Diagonal parking from inside with Local Access lane



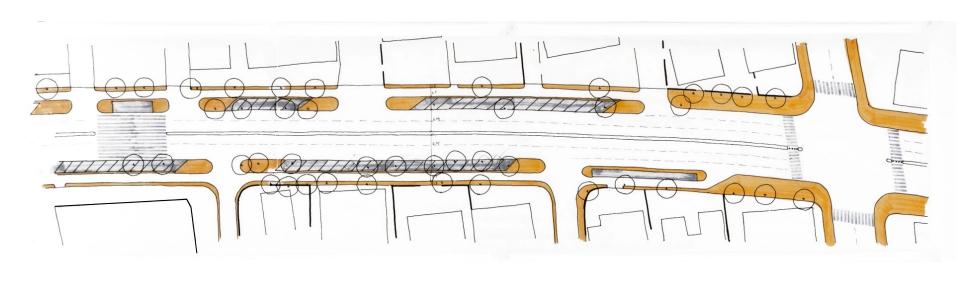
Alternative 1- Widening with 3 Lanes + Diagonal Parking from outside w/o Local Access Lane



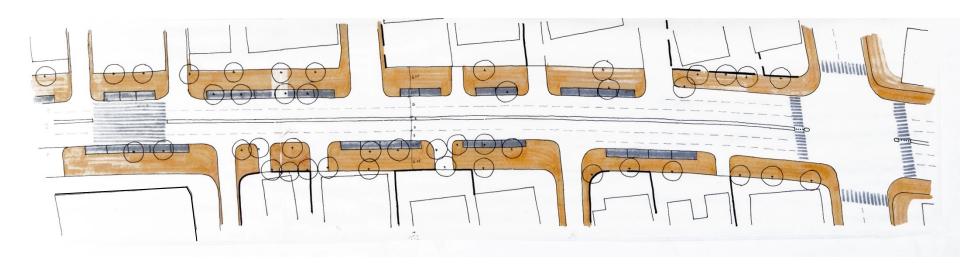
Alternative 2- Diagonal parking from outside w/o Local Access lane



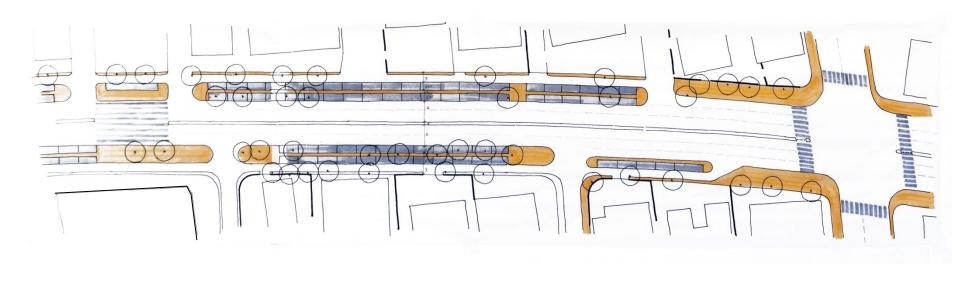
Alternative 3- Diagonal parking from outside + Local Access Lane



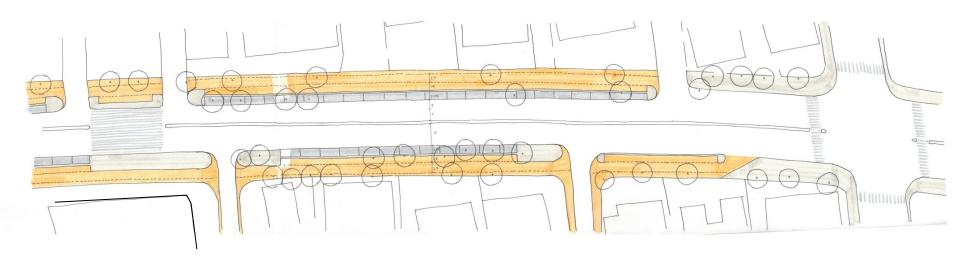
Alternative 4- Parallel Parking from Outside w/o Local Access Lane



Alternative 5- Parallel Parking from Outside and Inside + Local Access Lane



Alternative 6- Parallel Parking from Outside & 2W parking from Inside + Local Access Lane



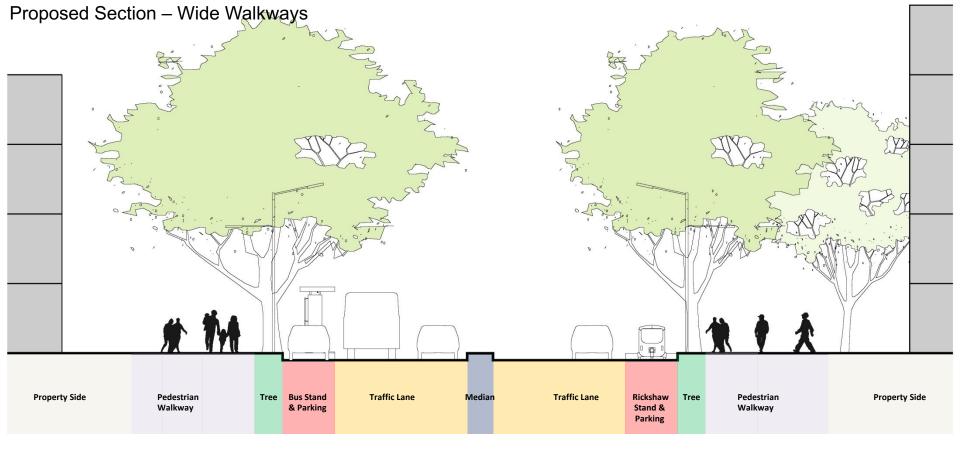
Various Alternatives

	Existing	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5	Alternate 6
	0				2 through lanes	2 through lanes	2 through lanes
	"	Diagonal Parking Mix Parking	Diagonal parking Mix Parking		Parallel parking Mix Parking	Parallel parking Mix Outside &	Parallel parking 4W Outside, 2W
	Mix Parking Inside	outside	ouside		outside	Inside	Inside
	Access Lane	No Access lane	No Access lane	Access lane	No Access lane	Access lane	Access lane
1Through Traffic lanes							
a. Design provides for long lengths of unobstructed lanes for flow of through traffic	•	•	•	•	•	•	•
b. Design provides for adequate number of lanes for through traffic	•	•	•	•	•	•	•
2Junctions 2							
a. Design provides an extra lane to accommodate traffic build up at stop sign	•	•	•	•	•	•	•
b. Design provides adequately wide pedestrian crossings	•	•	•	•	•	•	•
c. Corner designed for slow turning of vehicles	•	•	•	•	•	•	•
3Vehicular entry into plots							
a. Design accommodates existing points of entry	•	•	•	•	•	•	•
b. Design ensures ease of access points of entry from through lanes	•	•	•	•	•	•	•
4Parking							
a. Design discourages parking in undesignated spaces	•	•	•	•	•	•	•
b. Design makes it easy to park in designated parking spaces	•	•	•	•	•	•	•
c. Design makes it easy to egress from parking space	•	•	•	•	•	•	•
d. Design makes it safe to egress from parking space	•	•	•	•	•	•	•
e. Design provides for ample parking	•	•	•	•	•	•	•
5Pedestrian Realm							
a. Design provides for long lengths of easy to walk on leveled sidewalks	•	•	•	•	•	•	•
b. Design provides for comfortable shaded sidewalks	•	•	•	•	•	•	•
c. Design segregates sidewalk for pedestrians alone	•	•	•	•	•	•	•
d. Design provides for wide sidewalks	•	•	•	•	•	•	•

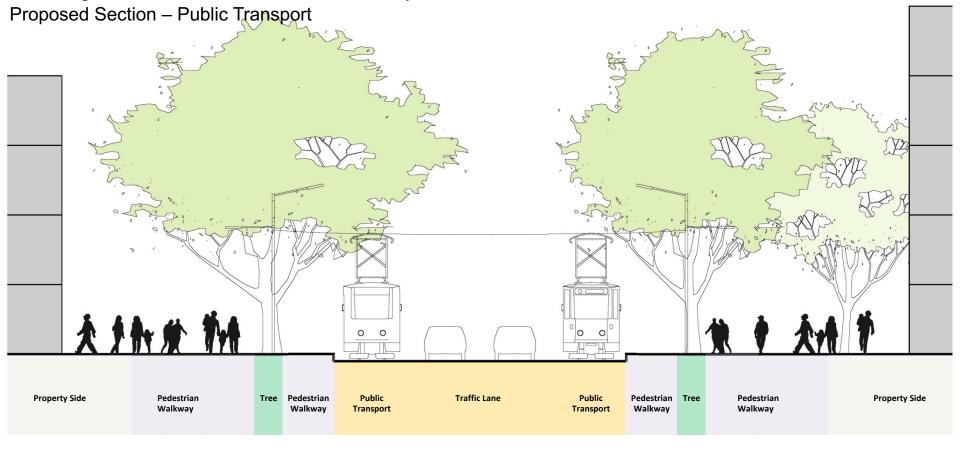
Various Alternatives

	Existing	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5	Alternate 6
	2 through lanes	_	2 through lanes	2 through lanes	2 through lanes	2 through lanes	2 through lanes
	Diagonal Parking		Diagonal parking			Parallel parking	Parallel parking
	Mix Parking Inside	Mix Parking outside	Mix Parking ouside	Mix Parking outside	Mix Parking outside	Mix Outside & Inside	4W Outside, 2W Inside
	Access Lane	No Access lane	No Access lane	Access lane	No Access lane	Access lane	Access lane
6Trees							
a. Design accommodates existing trees	•	•	•	•	•	•	•
b. Design gives a Place of Pride to Trees	•	•	•	•	•	•	•
7Bus Stop, Auto Stands and Vendors							
a. Design provides ample space for Bus stops, Auto Stands and Vendors	•	•	•	•	•	•	•
 b. Design provides vending space in a way that minimizes obstruction to through traffic flow 	•	•	•	•	•	•	•
8Architecture							
a. Design makes CG road distinct when compared to other streets	•	•	•	•	•	•	•
b. Design privileges pedestrian over vehicles	•	•	•	•	•	•	•
c. Street is design to evolve with expansion of public transport in the city	•	•	•	•	•	•	•
9Strom water drains							
 a. Design uses the present well functioning storm water drainage system (will not require modifying the present system) 	•	•	•	•	•	•	•

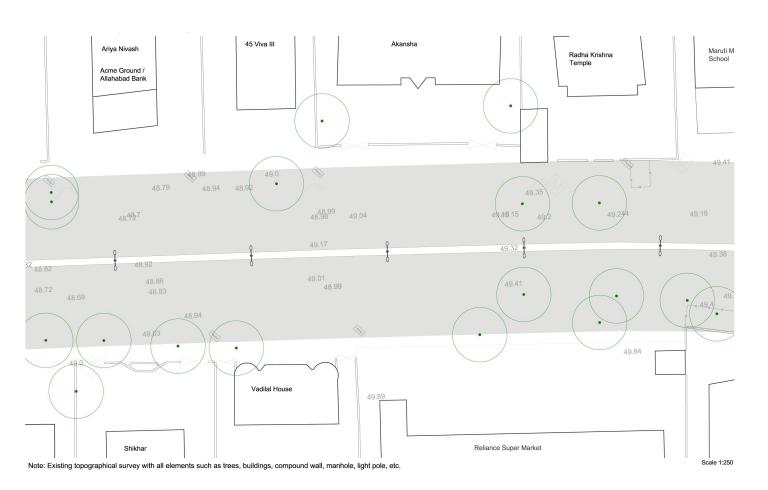
A design that can evolve with the city



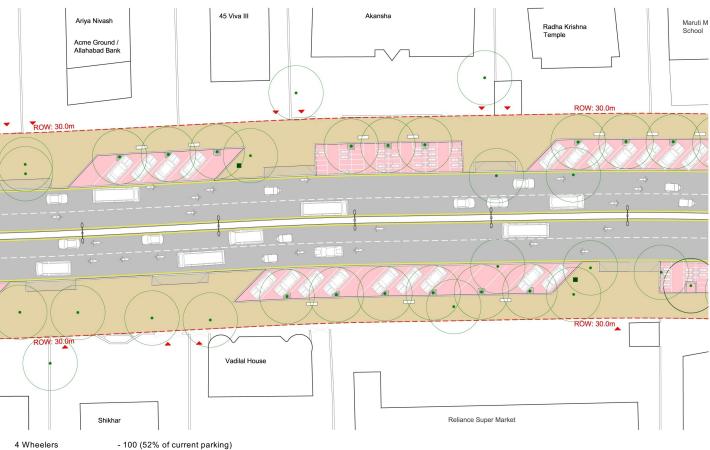
A design that can evolve with the city



Topographical Survey



Parking Plan – Complete Street Development



2 Wheelers

- 100 (52% of current parking

Auto Rickshaw Vendors - 08 - 25

Parking Plan – Current Stage







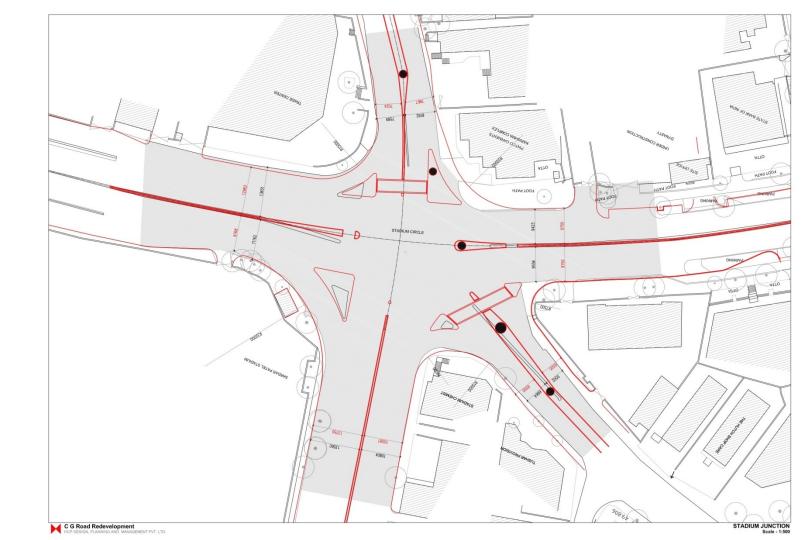


Drone Survey

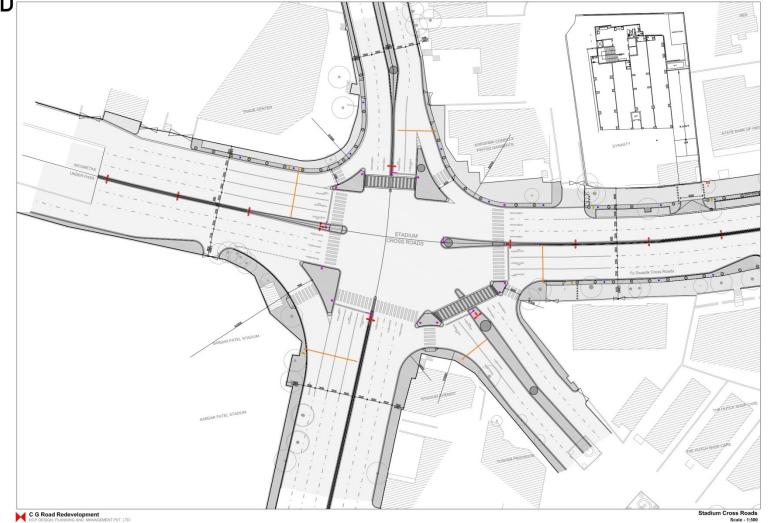


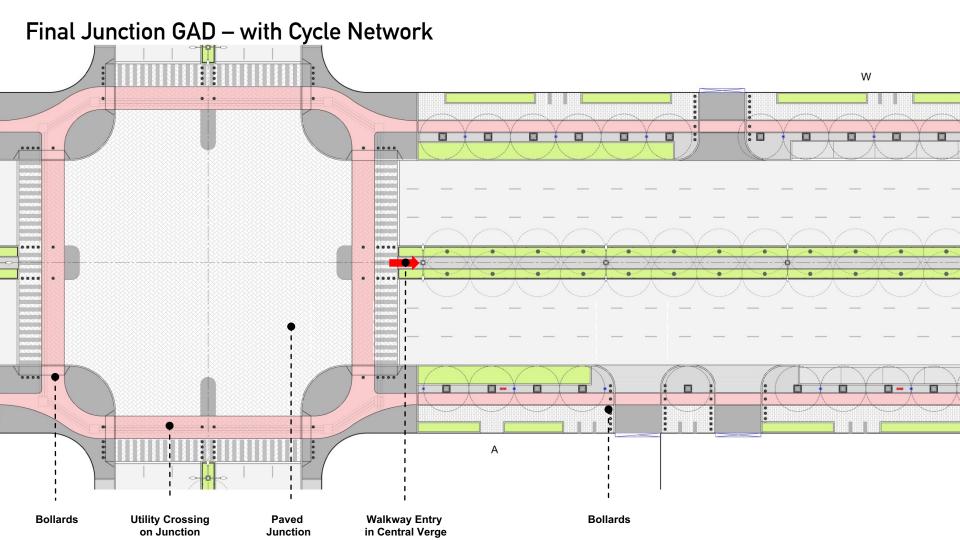
Total-station Survey HTA9 TOO9 STADIUM CIRCLE C G Road Redevelopment
HCP DESIGN, PLANNING AND MANAGEMENT PVT. LTD.

Check Lines



Final Junction GAD



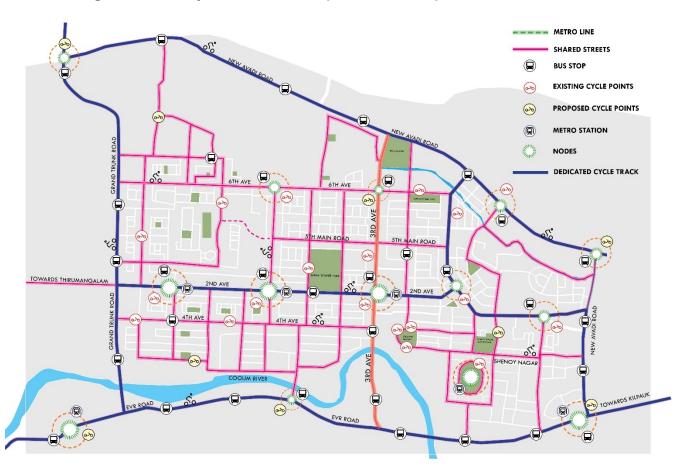


Cross Streets



Network Planning

Connecting streets, cycle network, public transport



Underground Infrastructure (existing and future)

Mapping of Existing Utilities

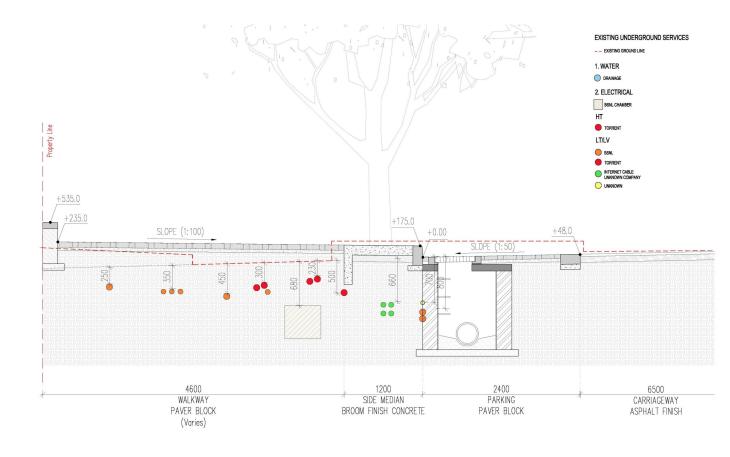








Integrating with Design



Integrating with Design



Simple and Robust Detailing

Street Elements: Categorized by typology

UTILITY	SOFTSCAPE	HARDSCAPE	ON-STREET
Storm water Network (Catchpit & Cover) Underground / Overhead Utilities Augmentation Utility Structures (Section Feeder Pillars)	Tree Pit Tree Guards Pre-cast Planters Tree Species Plant Species	Kerbing Boundary Wall Paving Railing Cycle Lane Pedestrian Crossing Thermo-Plast Paint	Bollards Public Transport Shelter Bench Vending Kiosks Dustbin Smart Pole Light Poles Advertising Boards Light Fixtures Signages Gantry Structure

Street Elements: Sequence / Priority

1

2

3

4

Kerbing

Boundary wall

Paver blocks

Bollards

Storm water Network (Catch Pit & Drain)

Underground / Overhead Utilities Augmentation

Utility Structures (Section Feeder Pillars) Tree Pit Tree Guards Tree Species

Bench

Dustbin

Light Poles

Light Fixtures

Pedestrian Crossing

Thermo-Plast Paint

Pre-cast Planters Plant Species

Railing

Signages

Public Transport Shelter Cycling Lane

Vending Kiosks

Smart Pole

Advertising Boards

Gantry Structure

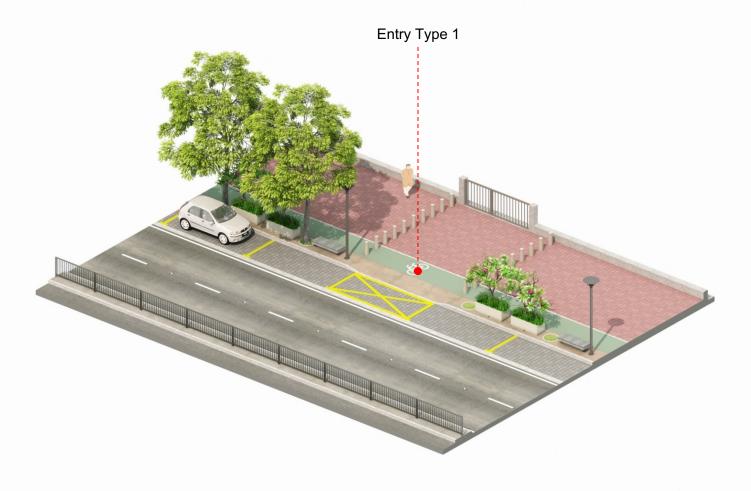
Property Entrance



Property Entrance



Property Entrance



Property Entry: Policies

Regulations for vehicular entry to Individual/ Private Plots for C G Road 4 In case of separate In and Out for vehicles Refurbishment Project at Ahmedabad

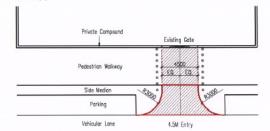
The following strategies shall be followed:

1 Entry to Individual Property

Each Plot and Building shall have at least one dedicated hindrance-free entry of clear 4.5 m

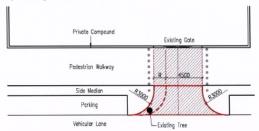
2 Size and Alignment of Entry

The entry to every individual/ private plot of clear 4.5m shall be aligned to the center line of the existing gate.

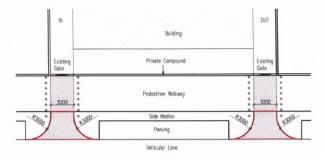


3 In case of Vertical, Immovable Element

In case of any vertical and immovable element such as tree, the dedicated hindrance-free entry shall be given of clear 4.5 m.

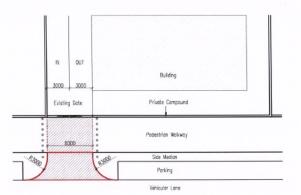


In case of individual entry (In) and exit (Out) to parking, individual dedicated entry of 3.0m and exit of 3.0m shall be given for vehicular movement.



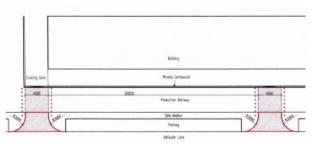
5 In case of combined In and Out for vehicles

In case of combined entry (In) and exit (Out) to parking, the entry shall be given of clear 6.0m for vehicular movement.

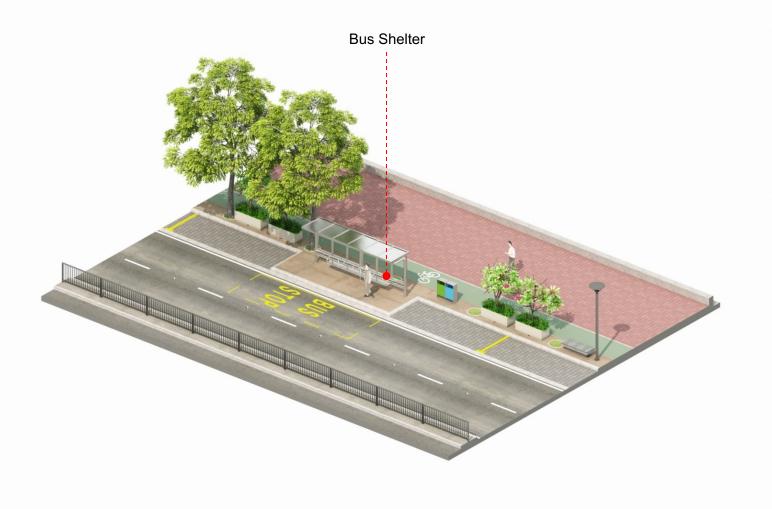


6 In case of requirement of second entry to the plot

In case of longer frontage of the building, the minimum distance between two entries shall be



Bus Shelter



Bus Shelter



2.b. Project Design

Transformer Transformer

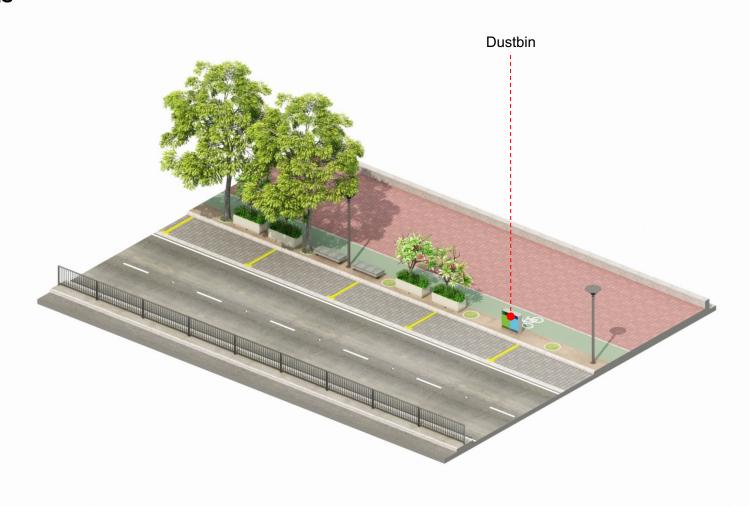
Utility Control Boxes



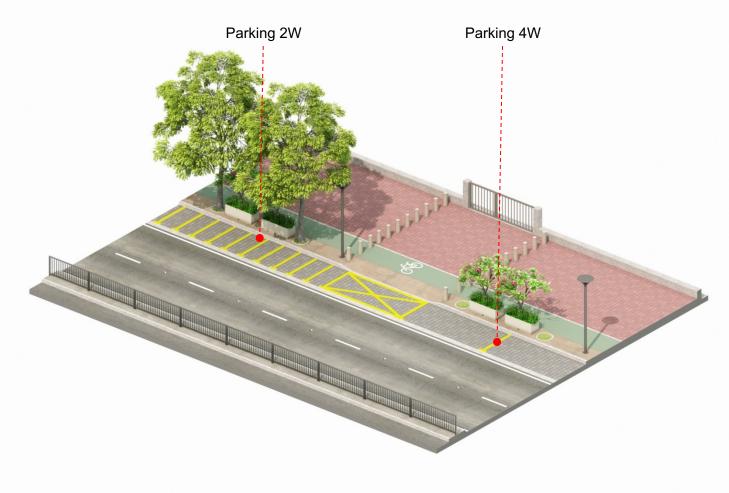
Utility Control Boxes



Dustbins



Parking / No Parking



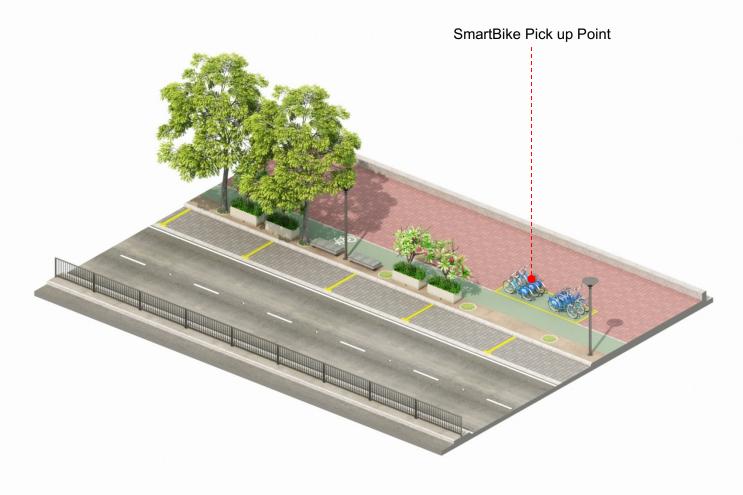
Entry to Connecting Street



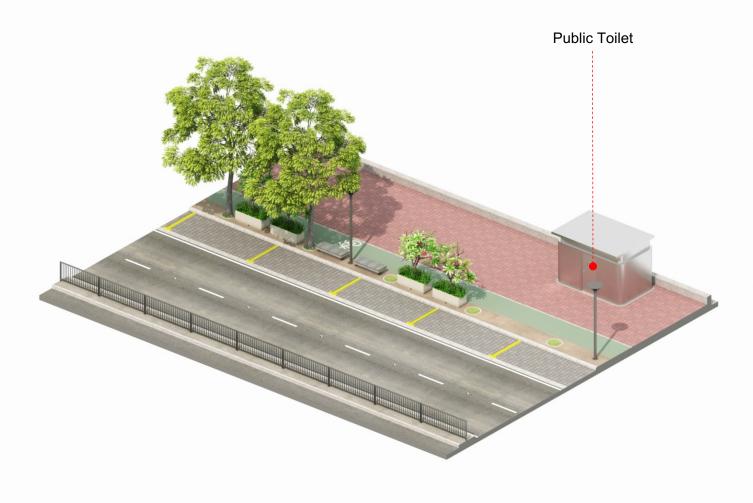
Mid-block Pedestrian Crossing



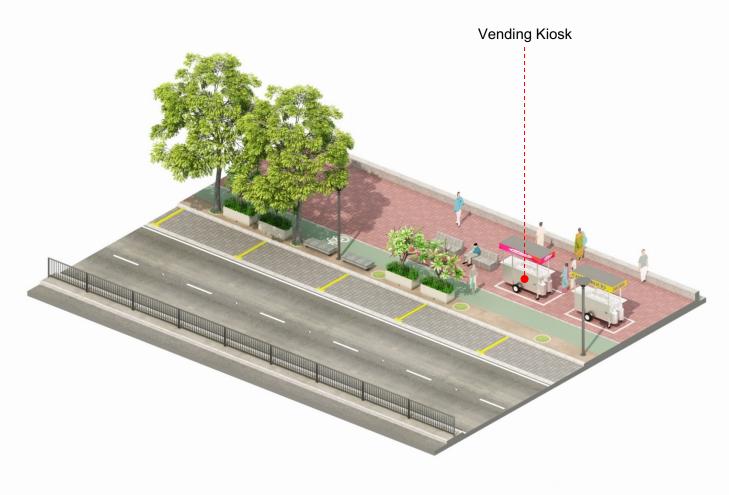
Cycle Parking



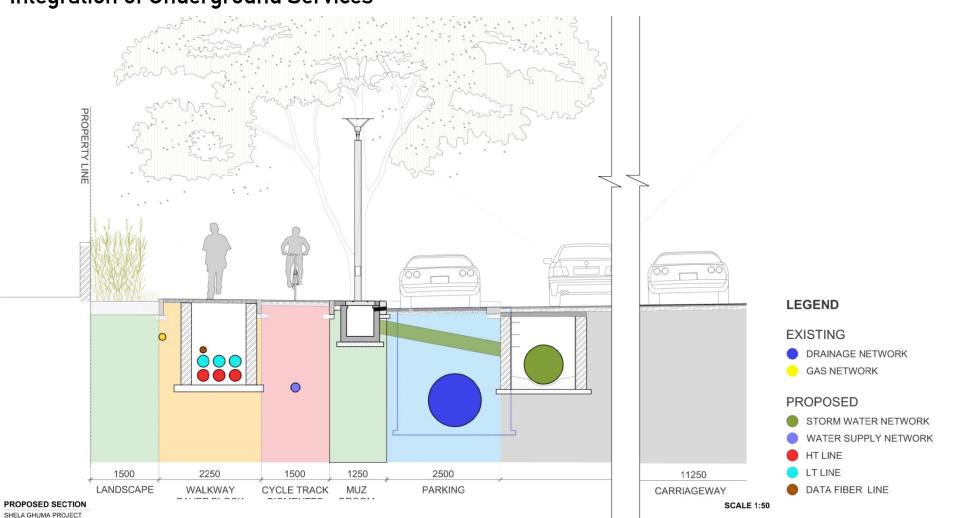
Public Toilet



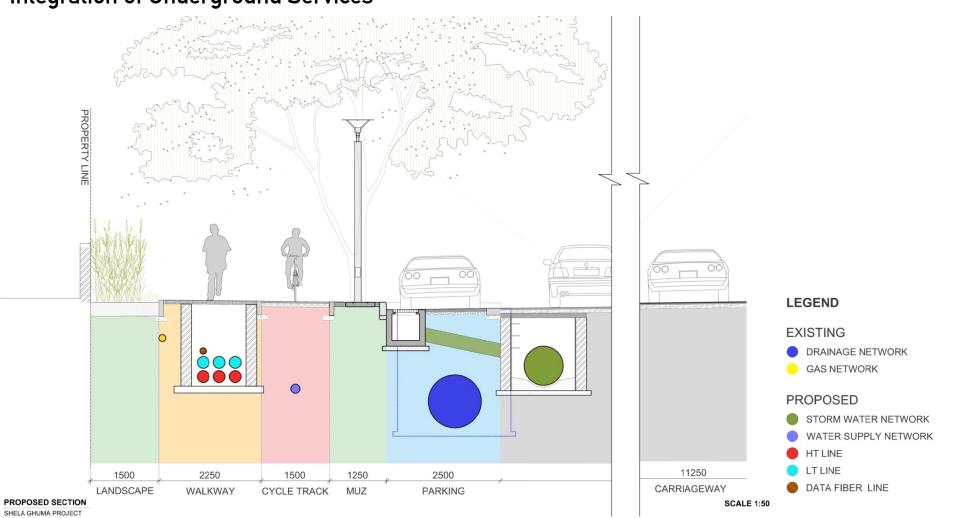
Vending Kiosk

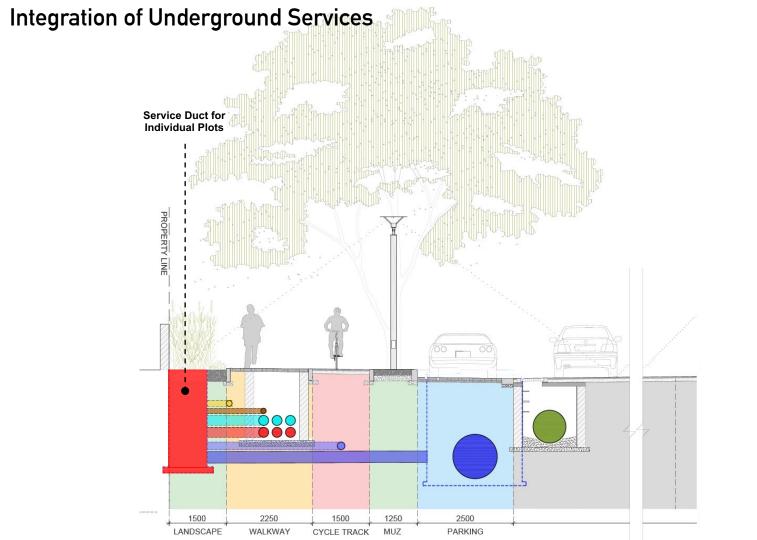


Integration of Underground Services



Integration of Underground Services







7 Way Multi Duct



DWC Spacers

LEGEND

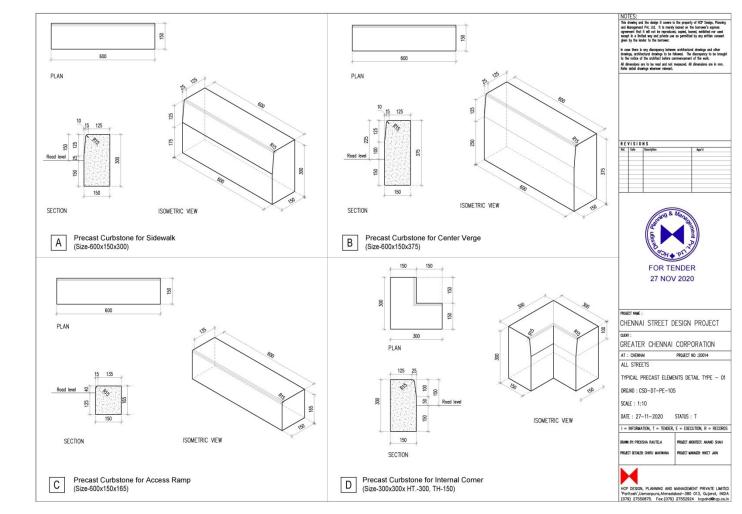
EXISTING

- DRAINAGE NETWORK
- GAS NETWORK

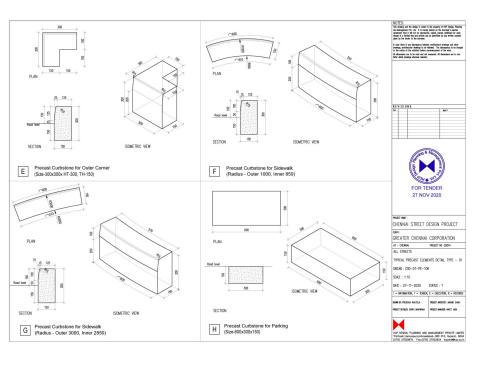
PROPOSED

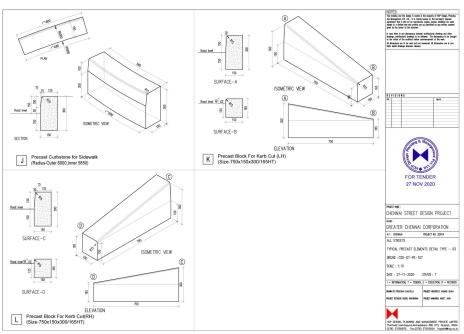
- STORM WATER NETWORK
- WATER SUPPLY NETWORK
- HT LINE
- LTLINE
- DATA FIBER LINE

Modular Pre-cast Curb Stones

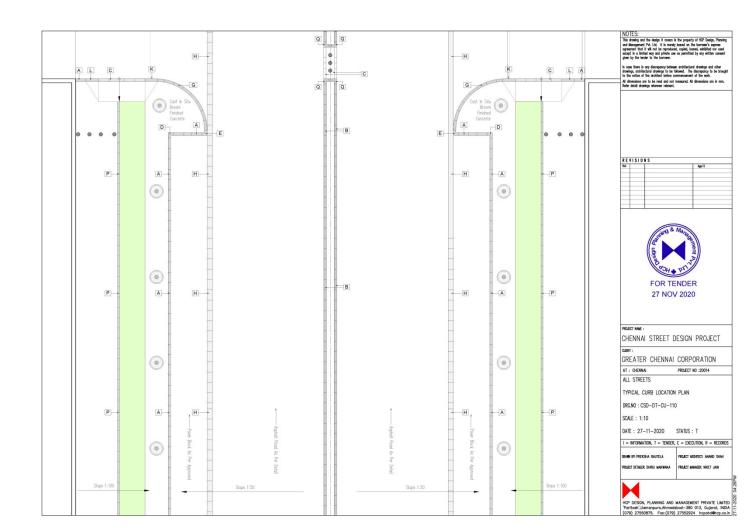


Modular Pre-cast Curb Stones





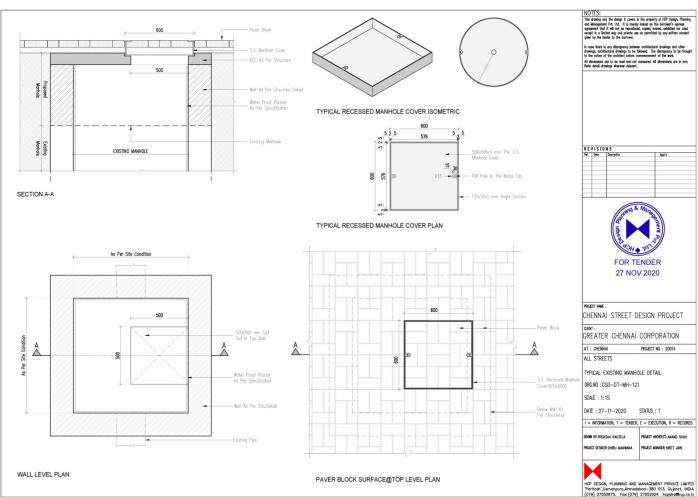
Assembly



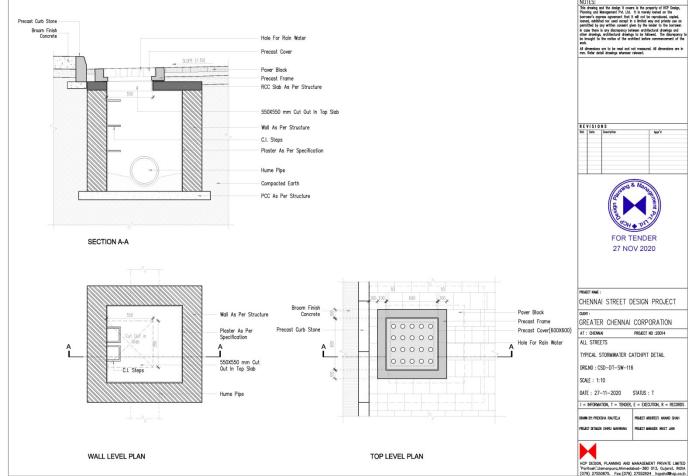
Chamber Covers





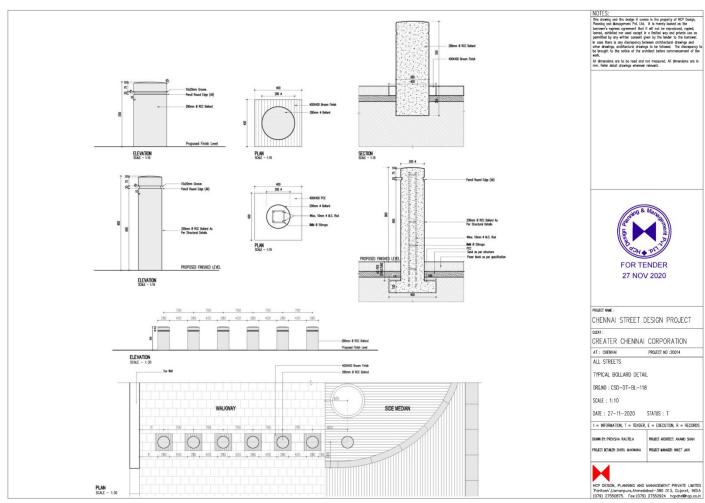


Chamber Covers





Bollards





Tree Pits

Hume pipe in two parts for Tree pit



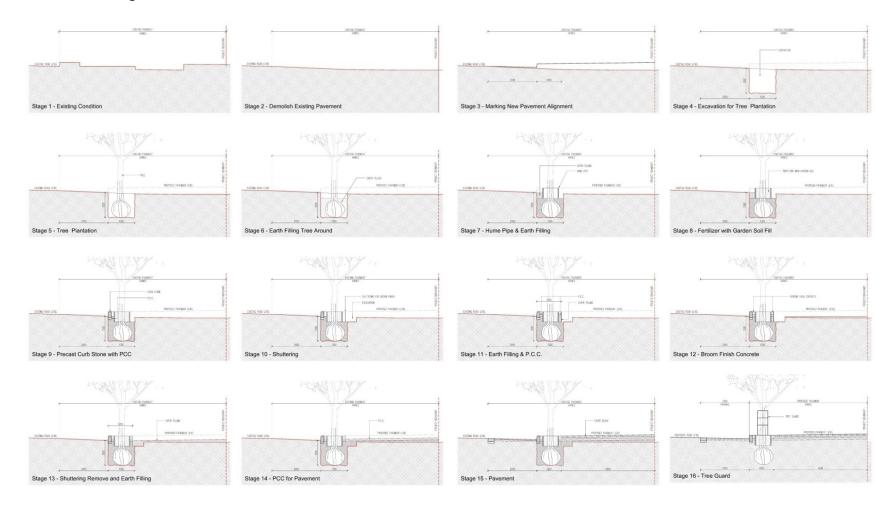
Tree Guard



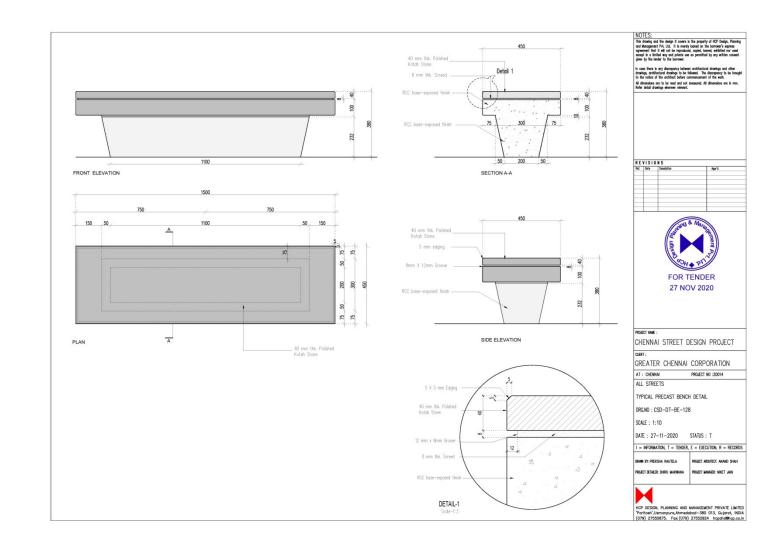
Planting mature Tree on Site



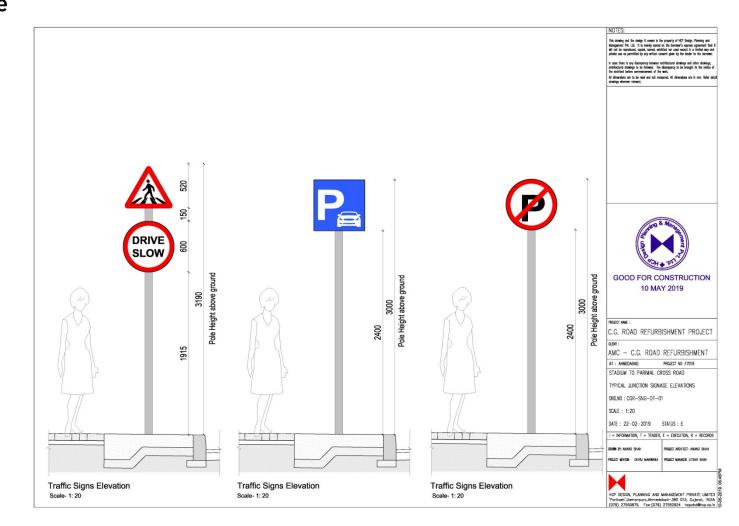
Tree Planting Method



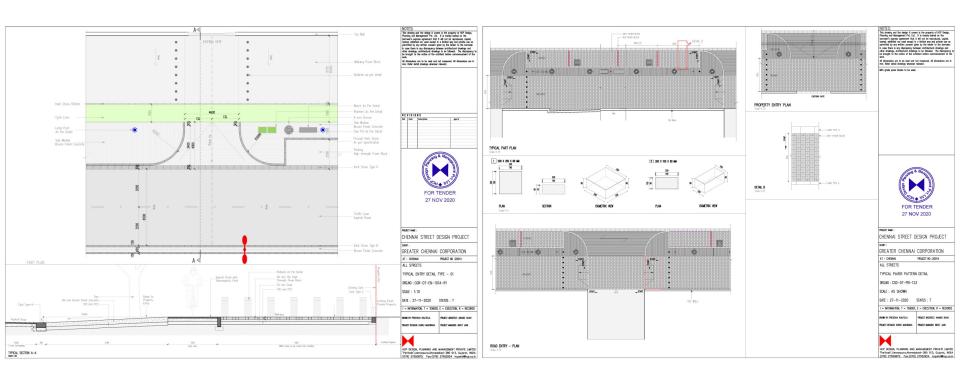
Seating



Wayfinding & Signage



Assembly













Smart Bike Spots

Demarcated Vending Zones

Dedicated Cyle Track

Prototype and Execution

Pre-cast Curbs









Pre-cast Curbs - Assembly







Paving Material

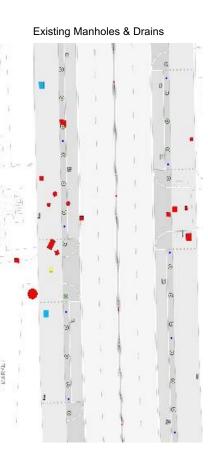




Utility Augmentation



Maintainable Utility Covers



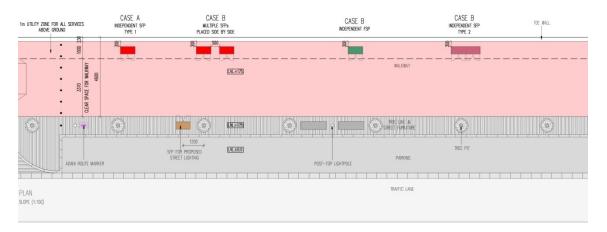
Proposed Drains Executed



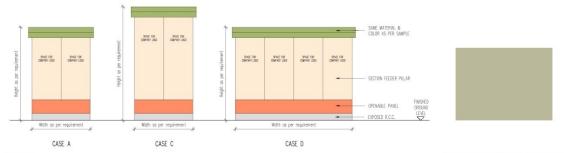
Proposed FRP Manholes Executed







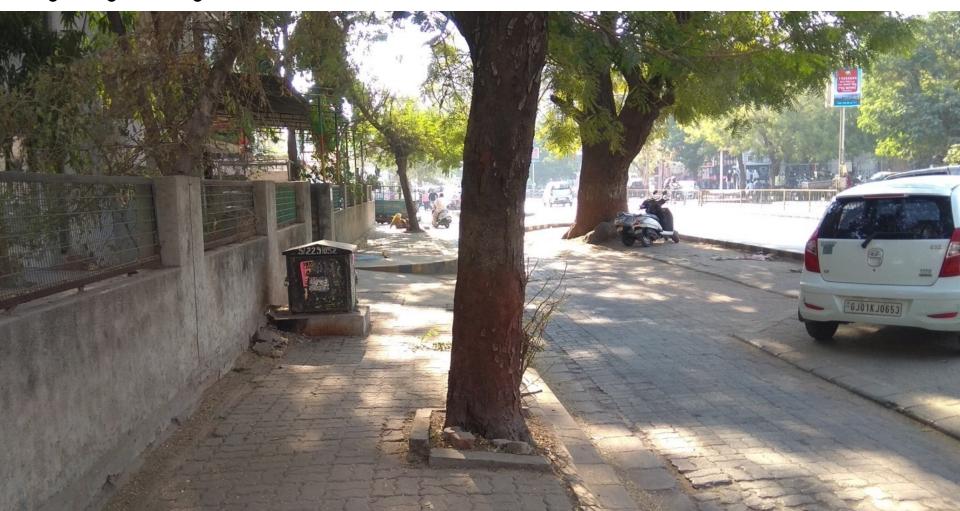




ELEVATION SLOPE (1:25)

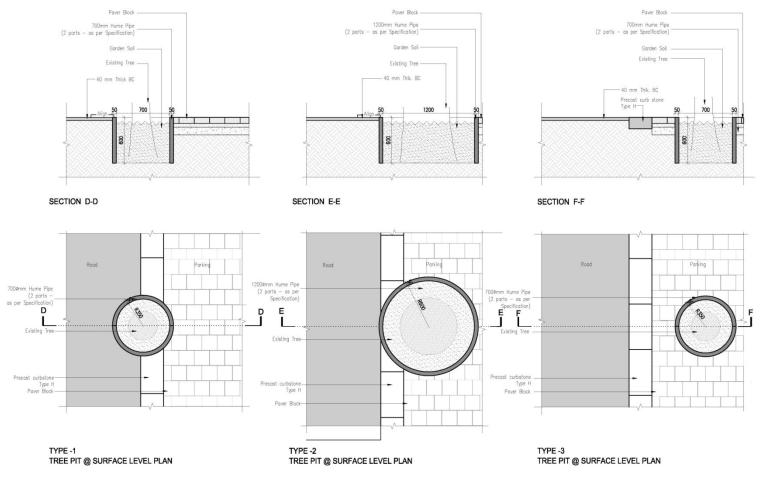
COLOR CODE FOR SECTION FEEDER PILLAR RAL - 7032 - Siemence Grey

Integrating Existing Trees

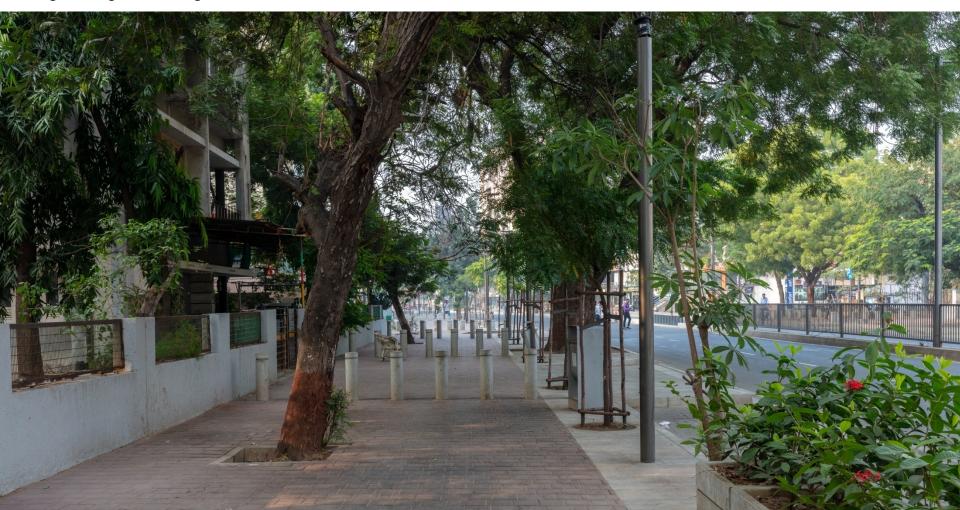


New Tree Plantation

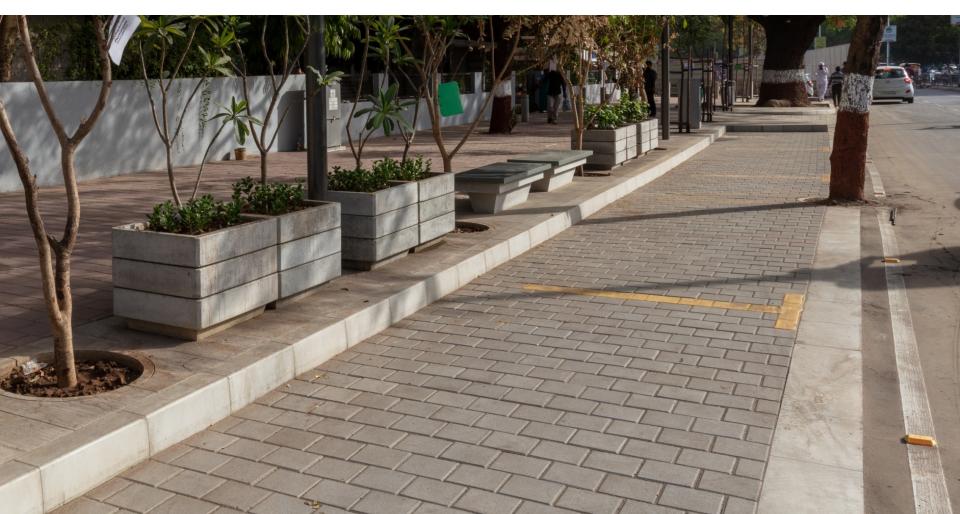
Construction sequence for mature tree: Tree Pit



Integrating Existing Trees



New Plantation

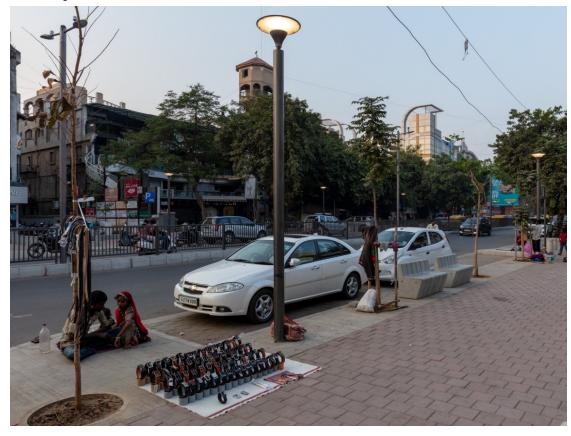


Lights

Installing Light Poles



Installed Light Poles



Light Options



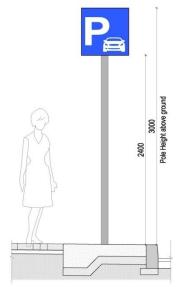






Wayfinding & Signages

Typical Details



Traffic Signs Elevation Scale- 1: 20

Installed Signage Pole



Dustbins

Available Readymade Dustbins



Discussion with Design Team to develop a Robust option







Dustbins

Installed Dustbins on Site





Bus Shelter









The Outcome...















Learnings...

















910 views · Liked by rishav_k.r

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31 January



Street4People Cycle4Change

Thank You

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