

# Revisiting History

- Heritage Walk Proposal in Old City Pune, India.



# Revisiting History : Heritage Walk Proposal in Old City Pune, India.

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Thesis submitted to the faculty of Virginia polytechnic institute and state university in partial fulfilment of the requirements for the degree of  
Master of Science  
In  
Architecture.

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February 24th 2017  
Alexandria, VA

Keywords : Heritage Walk, Historic District, Streetscape, Urban Design, Pune, India

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Over the centuries, cities have gained limelight and have significantly grown powerful with an increased level of importance. The rapid growth and urbanization posing a fatally critical threat to the future as the population is growing with each day. The development from the rural to urban life and the journey to an urban civilization has left the city in tatters. It has had adverse impacts on both social and environmental frontiers. Such rapid growth has led to the uncontrolled growth of population in countries that are in the process of development, and this growth is interpreted by means of concrete structuring with no apparent thought given to fundamentals such as feasibility, aesthetics, health, safety, road network or transportation. This leaves a very small window for even accommodating places for recreation in unplanned cities. Such spaces use shared spaces for recreation. Spaces like markets or public squares or streets.

The cultural heritage of India lies solely in its old cities, towns and ancient settlements. Due to globalization and groundbreaking pace of urbanization in the recent times, the historic fabric has been radically altered. As cities have evolved through aspirations and ideas only, with no functional thought whatsoever, it is vital for a developing country like India to recognize that without regard for its heritage it cannot build a future, or that a development without its heritage would be only unsustainable.

## Revisiting History : Heritage Walk Proposal in Old City Pune, India

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Over the centuries, cities have gained spotlight and have grown powerful with an increased level of significance towards infrastructure. There exist countries that are still in the process of development, which get influenced with the idea of rapid development due to the growing populations they face each day. The quick growth and the process of building up have led to danger to the future of the cities as the growth is unplanned and uncontrolled. Such uncontrolled growth has affected the city fabric, having no considerate thought given to the future of the city, social wellbeing, aesthetics, transport, safety or road network it has left the fabric in tatters. These factors even let go of the smallest window for spaces for recreation leaving the developing countries with thoughtless great towns. Spaces like markets, public squares or streets act as spaces for recreation in such overcrowded cities.

India is one such developing country with its cultural heritage lying solely in its old cities, towns and ancient settlements. Globalization struck India and radically affected its old cities as the fabric was disrupted with an addition of new structures alongside historic structures. Overcrowding led to disability in the functioning, leaving no spaces for recreation. However, in this hodgepodge, India needs to realize and recognize the importance of its old city fabric as without considerate regards to the heritage one cannot build a sustainable future.

## Acknowledgements

I would like to express my sincere gratitude to my Committee Chair, Susan C. Piedmont-Palladino, whose patience, understanding, motivation and immense knowledge added considerably to my graduate experience.

I am also grateful to my committee members, Elizabeth Morton and Nathan Heavers for their valuable guidance and encouragement extended to me.

A very special thank you to Gangadhar, Kalyani and Harshada Ambekar for their constant support, love, affection and always believing in me. Thank you Sourav Mukherjee for pushing me when I thought I couldn't be pushed anymore.

The ones who stayed up nights with me, thank you Smakshi Singh and Saanika Lokre.

In conclusion, WAAC, thank you for showing me what I was capable of. But most of all, thank you for letting me meet some of the most awesome, hilarious and truly inspirational people ever.

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# Pune: The City and its evolution through the years

Indian cities and towns have been under tremendous pressure in terms of the growing population and rapid urbanization; directly and indirectly impacting the society and the social wellbeing of the people as well as the built fabric.

The municipal bodies in India have recognized some of these issues, but have not been capable of implementing solutions which has led to a negligence towards the commonplace and historic quarters.

The municipal bodies being ill-equipped fail to notice that historic structures too require the attention in terms of protection that archaeological sites receive.

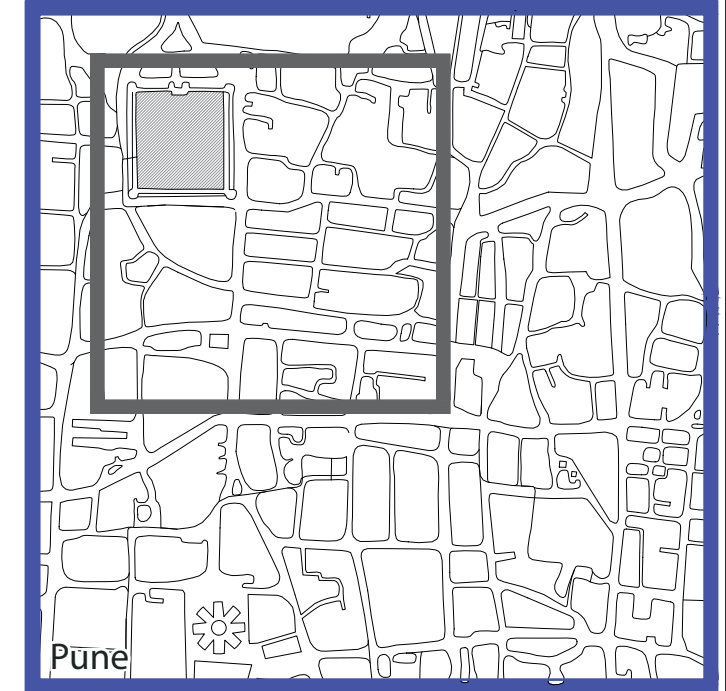
INTACH, the Indian Trust for Art and Cultural Heritage, which is usually concerned with the protection of specific historic zones, unfortunately, does not see heritage protection as district protection. Rather it focuses on protecting a heritage building or structure.

Pune, is the second largest city in the state of Maharashtra, India. Sprawling, is what has been observed in the past decade. The city has grown to huge proportions under the influence of globalisation.

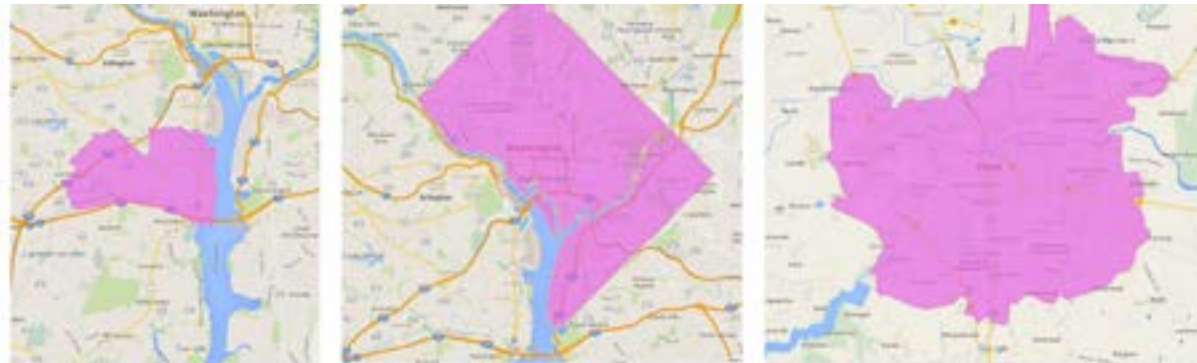
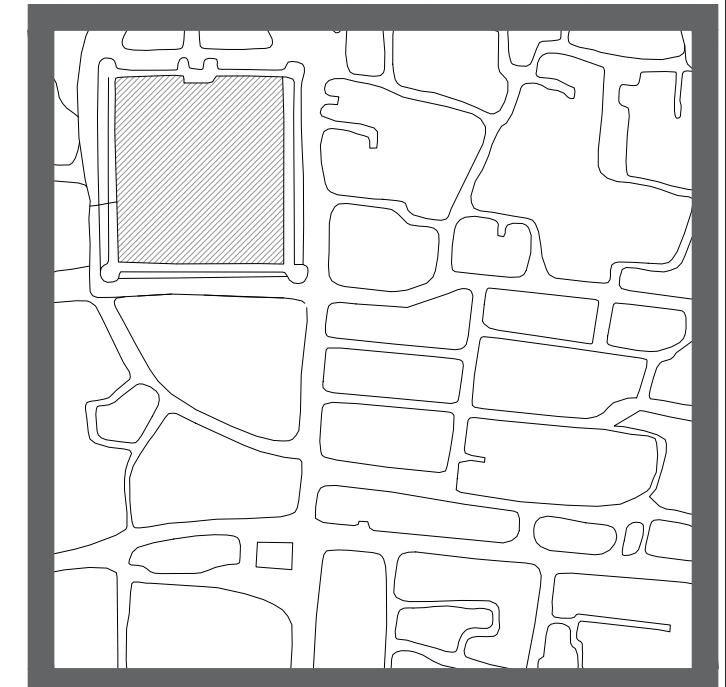
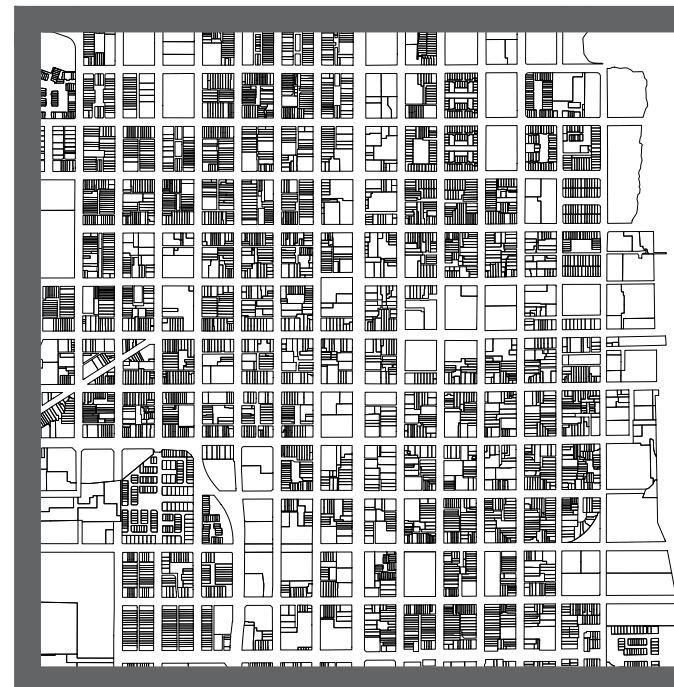
Pune being an unplanned city has a very organic fabric, block formation is seen wherever two streets meet; formation of blocks in the city of Pune is unplanned and emergent as India tends to have an irregularly shaped street pattern. Whereas, blocks in a city like Alexandria, VA which is based on a grid system are a much more regular arrangement. A block like formation in Pune can accommodate up to three blocks of Old Town Alexandria.



Alexandria



Pune



ALEXANDRIA, VA  
Area: 15.48 sq miles  
Population: 1,48,892

Washington, D.C.  
Area: 68.34 sq miles  
Population: 6,58,893

Pune, Maharashtra, India  
Area: 270.3 sq miles  
Population: 5.7 million

Image 1: Maps comparing scales of cities.

# Birth and Evolution of the City..

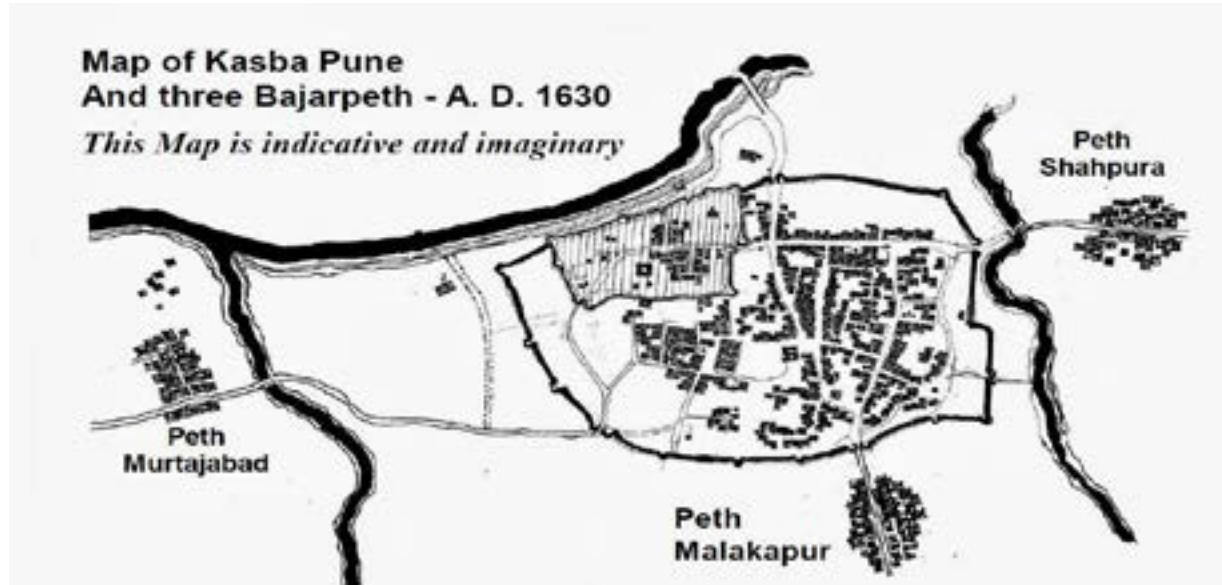


Image 2: Map 1

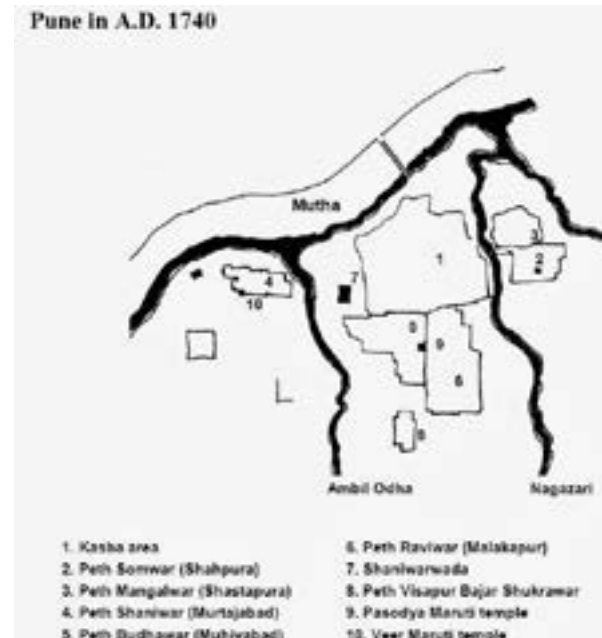


Image 3: Map 2



Image 4: Map 3

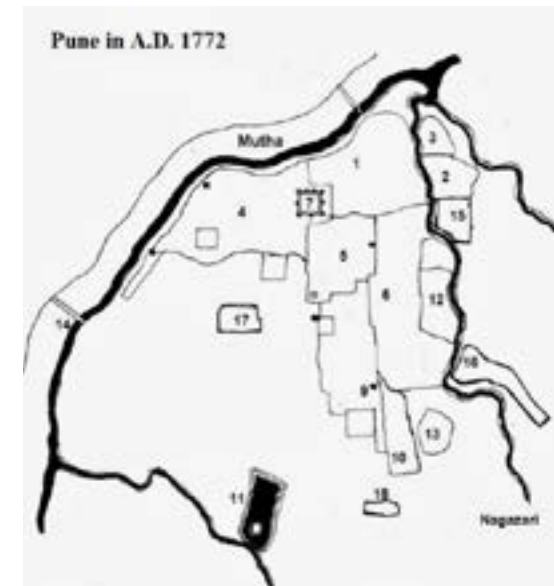


Image 5: Map 4



Image 6: Map 5

The maps show the birth and evolution of the city of Pune in India.

Map 1 is based on the initial settlements that were observed around the fortress of Shaniwar Wada (The only structure in Pune dating back to the 1600s. The fort functioned as a residence to one of the ministers of the Emperor as a result the city flourished around the fortress). The Shaniwar Wada is the focal point in all the maps and it is the only structure with some other structures that have not moved or changed location.

Map 2 (1740): The movement of settlements as the river branches into tributaries and starts flowing through the newfound city.

Map 3 (1761): Formation of quarters is observed, which were later assigned to people with different occupations.

Map 4 (1772): The evolution and multiplication of quadrants that led to the expansion of the city boundaries

Map 5 (1805): Marks the final city line, which was the old city of Pune with designated Peths (quadrants and their respective markets)

The figure indicates the state of structures in the Old city of Pune. Apart from the Shaniwar Wada, most of the structures that date back to structures older than 60 YRS, are dilapidated and need maintenance.

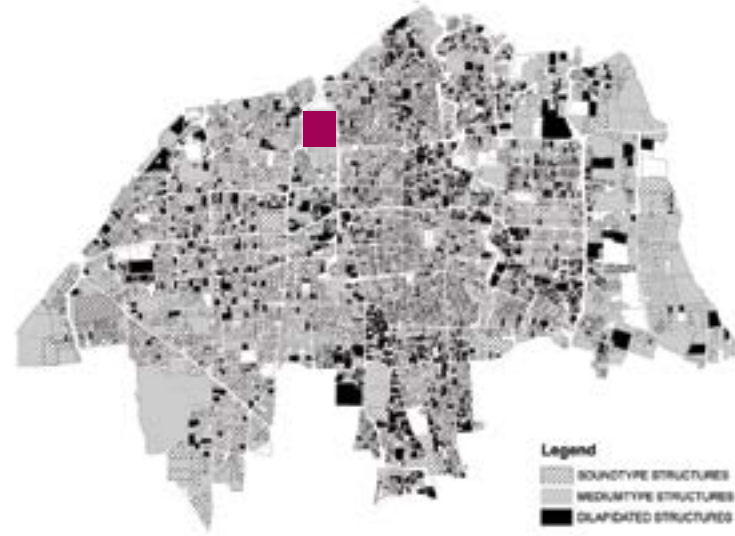


Image 7: Types of structures

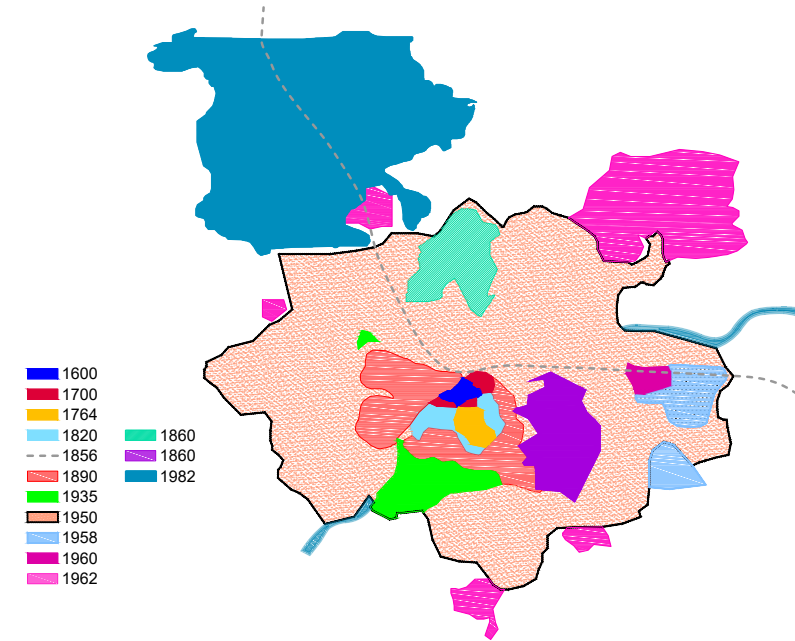
■ Shaniwar Wada (built in the 1600s)



Image 8: Age of structures

The oldest of structures date back to the 1600s. The figure shows the ages of structures in the Old City of Pune.

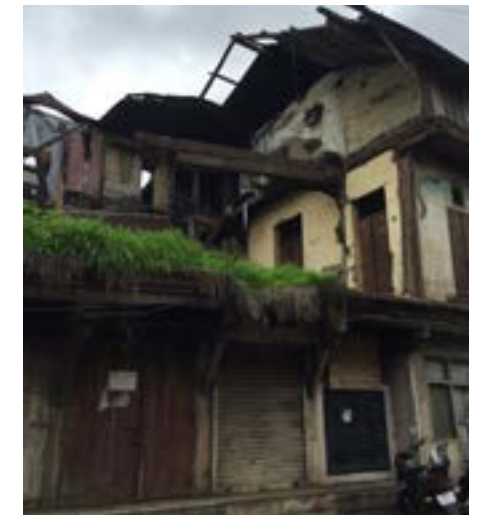
The documentation was only done for structures as old as 60 years, as in the 1960s Pune was destroyed by a flood, the only structures that survived are on the map as 'Above 60 YRS'



The figure above shows the emergence and the year that part of the city evolved.



Shaniwar Wada was built in the 1700s and is the only structure standing strong, from that era.



One of the dilapidated houses dating back to 1780s. This house stands in the 500m radii around the Shaniwar Wada.

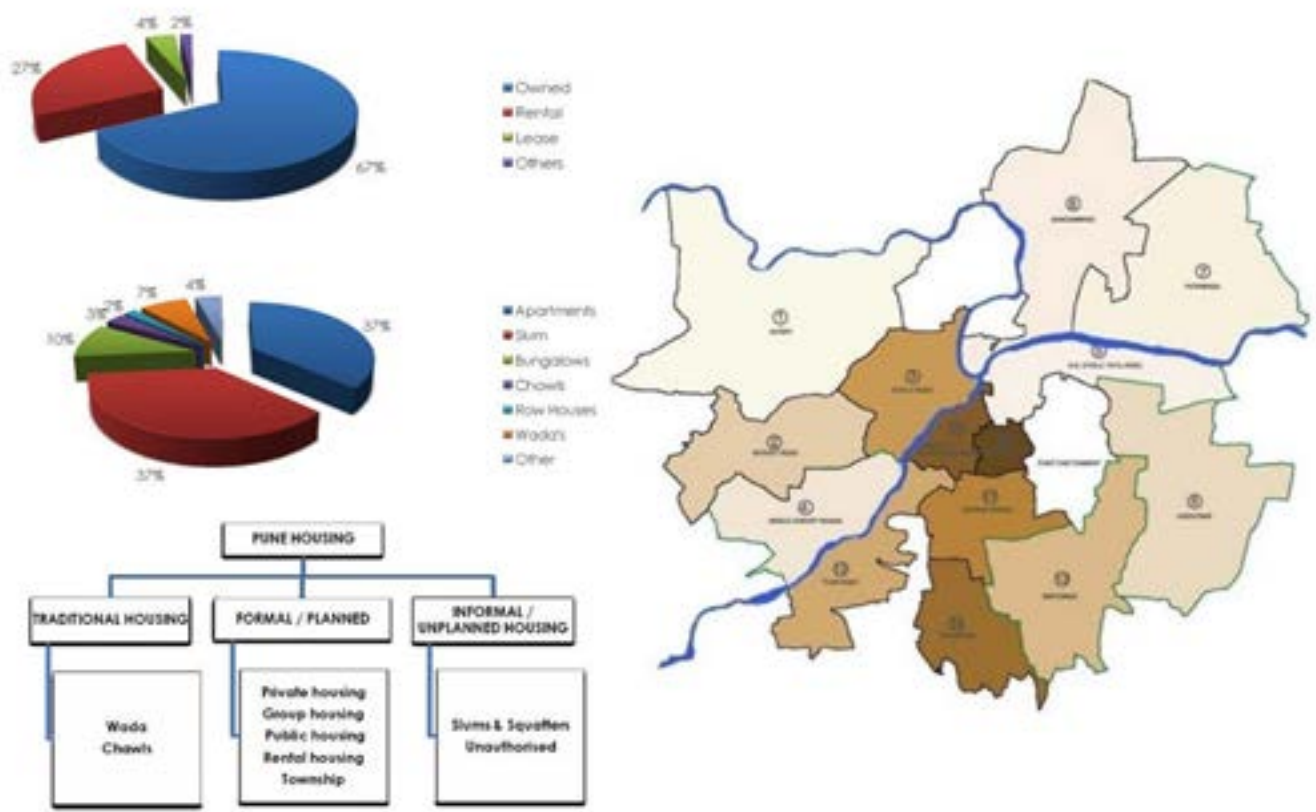
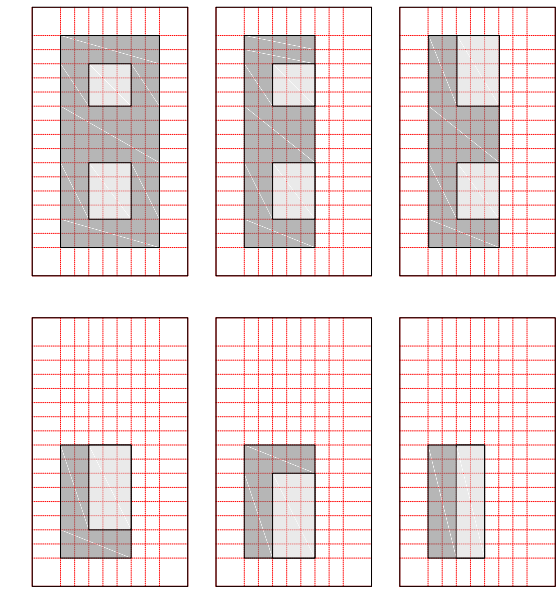


Image 9: Demographics

The data provided by the Municipal Corporation of Pune, according to a survey done in 2012, Old City Pune has the highest density than all the other parts of the City.

The rent control act adds to the distress of the residents as eighty percent of the housing in the old city is rental. This act was passed in the 1900s and has frozen the rents to unreasonably low amounts - many times lower than the cost of a single meal. Through such low rents, maintenance of the old buildings becomes highly difficult for the property owners; hence making the old structure nothing but a liability to them which they are happy selling off to a developer; as that is the only way they can turn it into a profitable situation. The tenants too suffer in this scenario as they must live in a dilapidated structure as the owners do not carry out any repairs. The owners don't let tenants pay for repairs as they fear the tenant might claim a share in the property.



The modules of housing, light grey being the open spaces in houses (courtyards) and dark grey being the building or the houses.





Pune being the second largest city in India has sprawled in an unplanned manner, which has jumbled the road network tremendously, giving rise to too many one-way streets, due to lack of space and planning. The streets were made one-way as there was no space to expand in width. Hence, there are too many streets that lead you to point B but to come back to point A, you must reroute multiple times.

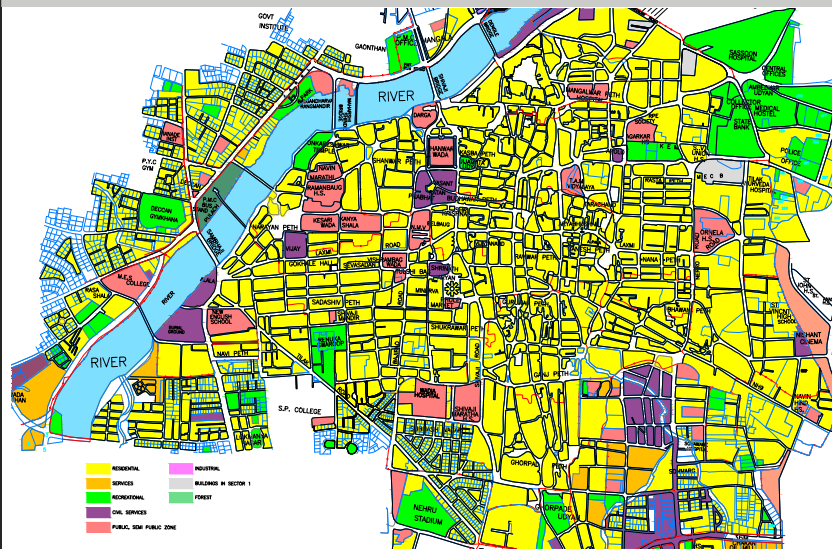
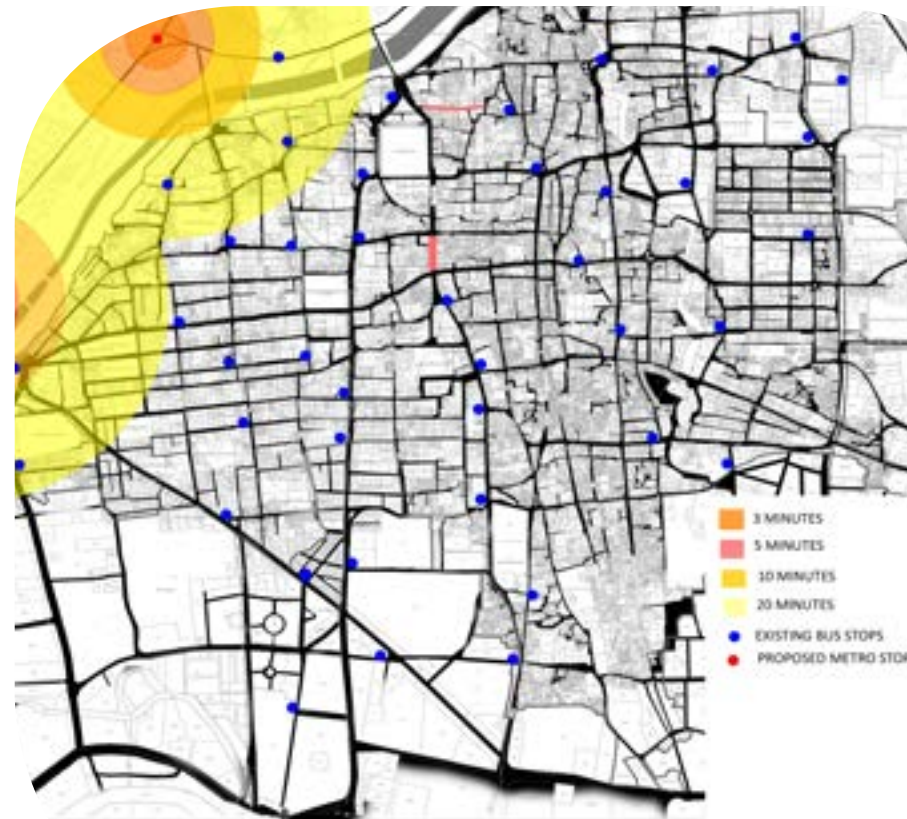


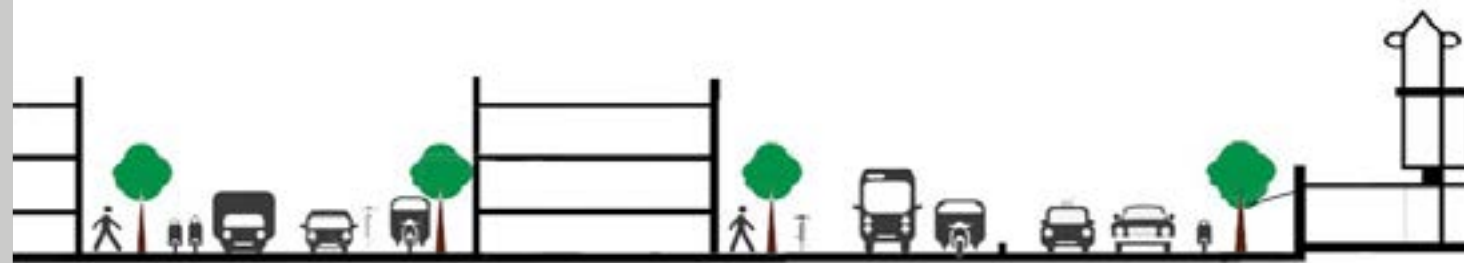
Image 10: Existing Development Plan, Pune



The figure on the left is a documentation of the existing transit stops in The Old City of Pune, leading to the chosen site. The proposed metro stops would provide a faster and better access to the Old City. Pune being a city with only road transport has no rail or waterway transit, leading to poor frequency of bus transportation making the limited transit overcrowded at all times of the day. Tourists repel the road transit and hence Old City loses out on its visitors, giving the municipal corporation an excuse to not take interest in the district as it has only been acting as a residential/commercial zone for the past decade.

The existing Development Plan of the city of Pune displays the city to be mostly residential (area marked in yellow), which is not what is observed with the part surveyed (refer map on pg. 12)

Source : <http://www.punecorporation.org/>



A schematic section of the street culture in Pune

# Proposal



The proposed Heritage Walk would evoke a sense of history and heritage giving a glimpse of Pune's glorious history, tradition and its living architecture; beginning at the Shivaji Bridge (the oldest bridge in Pune) the walk would explore the majestic fortress of Shaniwar Wada, leading to the quiet residential Sardar Majumdar Marg which is the secondary proposed street housing the Majumdar Wada (1800s). Covering the in between proposed structures on the trail the walk would lead on to the Shivaji Road, proposed primary street. A journey through the public plaza adjacent to the Dagdusheth Ganpati Temple the walk would make its way to Tulshi Baug later covering Vishrambaug Wada and Mandai concluding at the Burud Ali. The walk shall end in the vicinity of public transit, to make return for tourists easier.

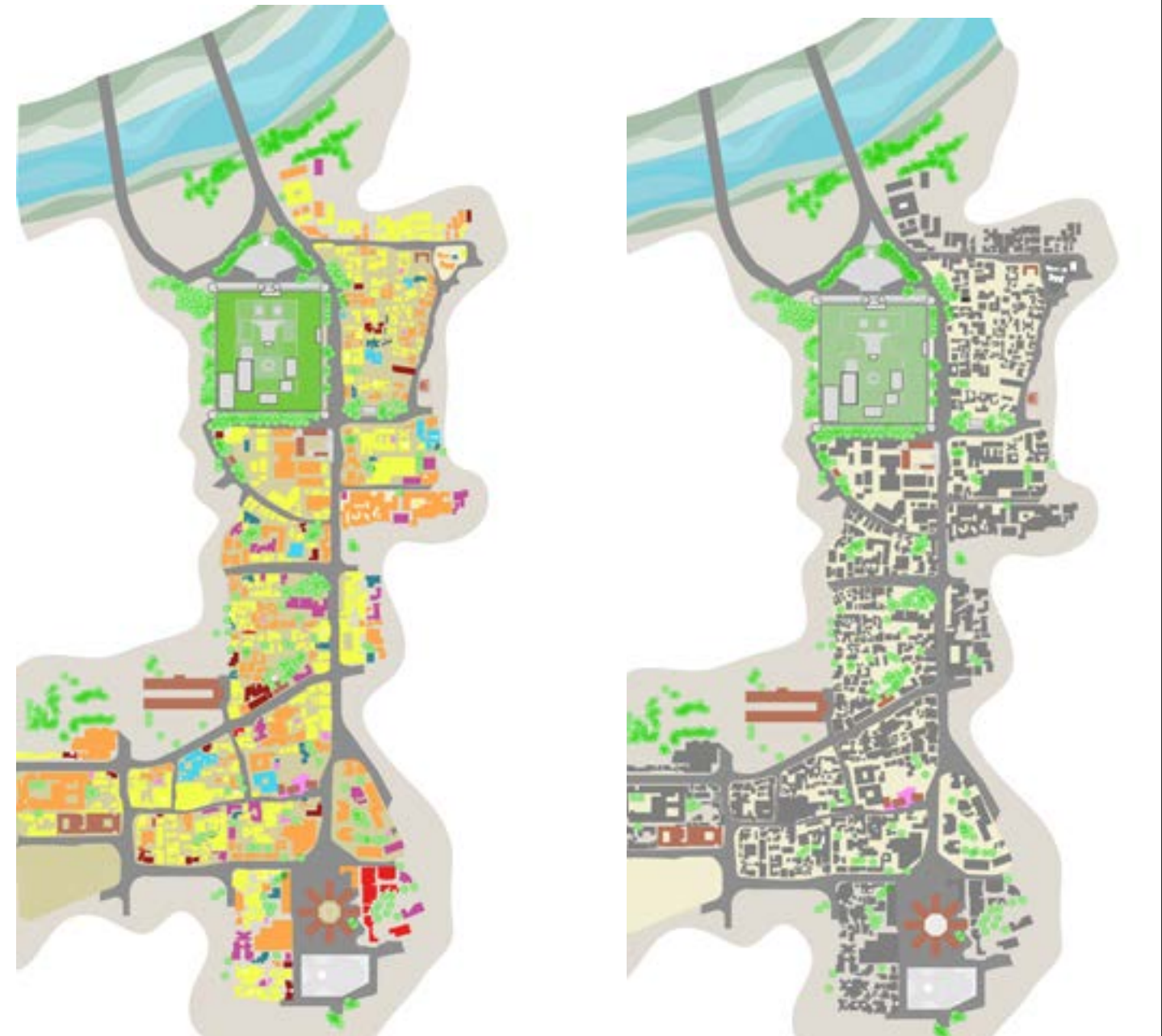


In Pune city core (old city) there is just one monument that has been regarded as the only legally protected heritage structure- the fortress of Shaniwar Wada, having a 100-300 meter of a buffer zone around it with higher protection towards the fortress.

The other historic buildings are in a dilapidated and decayed state as there are no programs designed towards their conservation, even if they are a part of the formation of the historic premise.

Pune and its working municipal bodies need to realize that heritage architecture is not just in structures but it could be an entire premise which has been a part of a very important historical time, it is seldom a monument and contributes in forming the identity and character of the place and its people, it is an integral part of the whole.

The heritage walk would help create awareness amongst the people and the municipal bodies that the disruption of the old fabric should be stopped and the entire core city area should be declared as a heritage zone. The 15 proposed structures are some of the oldest structures in the district and still stand in a very preserved state, being reason enough for the corporation to take a step forward in maintaining what is left and not letting these deteriorate too.



The actual conditions of land use on site differ from what has been indicated in the Pune Development plan. The Pune DP states that most of old core is residential, whereas, it has turned to being a mixed development. The image on the right shows the structures on the heritage trail (brown roofs). The heritage district of Pune is functioning as a mixed-use land, with no attention given to how the development is hampering the fabric of the old city.

The following set of drawings indicate the analysis of the chosen site and the nature of development around it. The chosen site, the Shivaji road (Primary Street) would connect the proposed metro station to the old city, and is the hub of activities in Pune.

The diagrams show the functions of the street and what makes it dysfunctional.

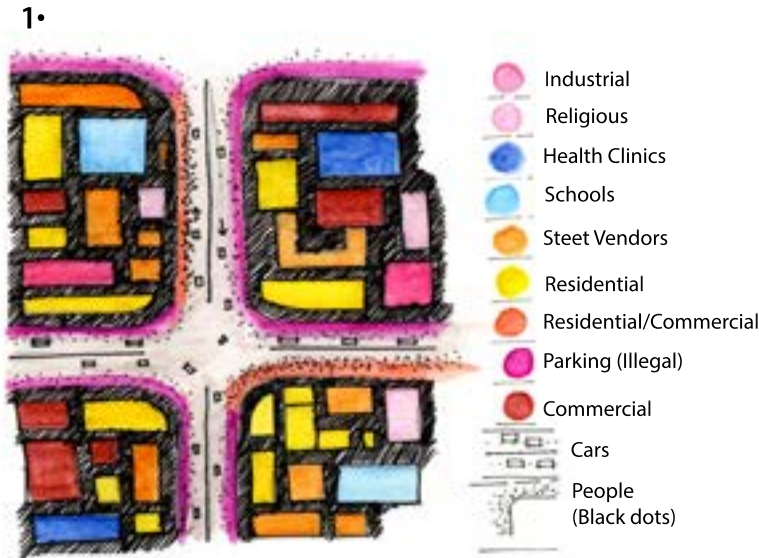
Diagram 1 explains the diversity of land use in Pune, Shivaji Road has a designated residential land use (refer to existing Development Plan), which has turned into mixed land use due to major urbanization.

The diagram also indicates the shared street culture followed in India, having no designated sidewalks, lacking proper provisions for crosswalks, leading to accidents due to rash driving and not yielding to the pedestrians. Being an unplanned city, the plan is very organic, thus not having a gridiron pattern or blocks. As there is not any proper provision made, people drive at their desired speed and park illegally along the street, Shivaji road being one of the market streets in Pune, attracts a massive crowd every day. It houses the famous Dagdusheth Ganpati Temple, which also brings in the devotees. This busy street observes overcrowding on a regular basis.

The chosen section of the street displays two nodes, a major difference is observed in the pedestrian patterns.

Diagram 6 displays the two nodes marked in blue and red respectively, blue denotes a calmer area with lesser pedestrian and vehicular movement; whereas, red signifies a chaotic movement the junction.

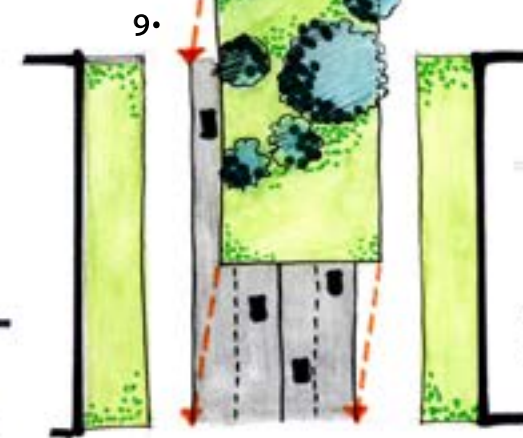
As the market street begins from the red node, the vehicular and pedestrian crowd observed is in a greater number. To relieve the chaos, the street has been narrowed in the proposed layout (as it would be a slow street, people will prefer taking another route allowing the street to serve as a pedestrian zone), with the introduction of a public plaza, off the node at the mouth of the market street an opportunity for recreation has been introduced. The plaza would be an integral part of the heritage walk as it would also make space for the local artists to come and display their work.



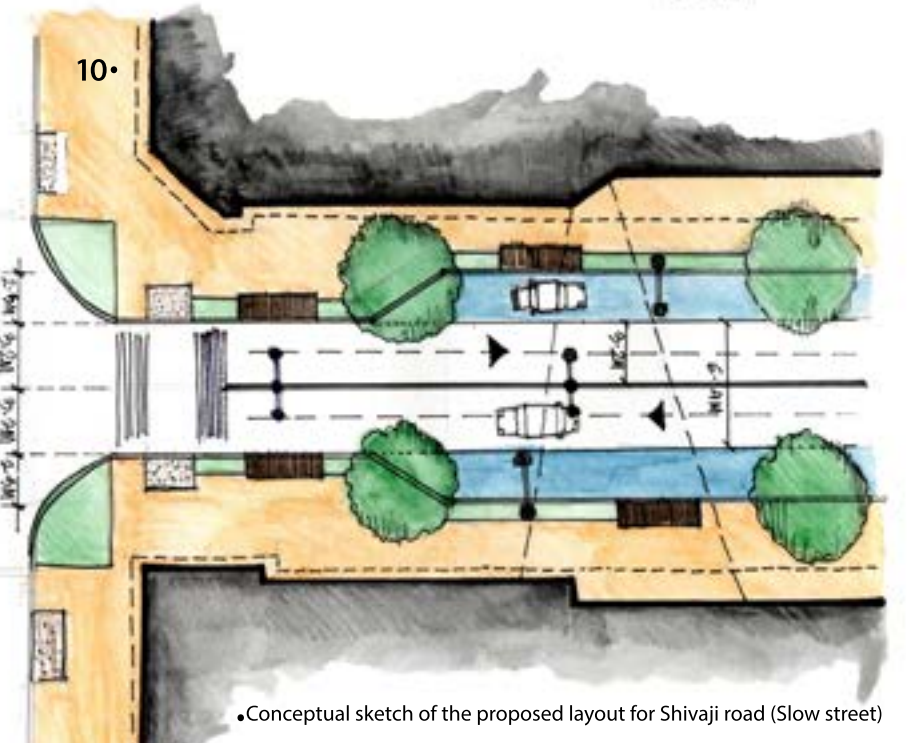
### 8• Quality



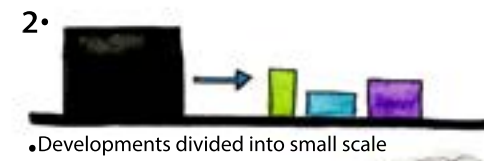
•Street oriented block typologies



•Streets could function as a valuable Public Space if a slow street concept is implemented.



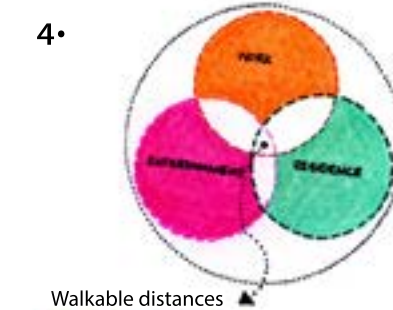
•Conceptual sketch of the proposed layout for Shivaji road (Slow street)



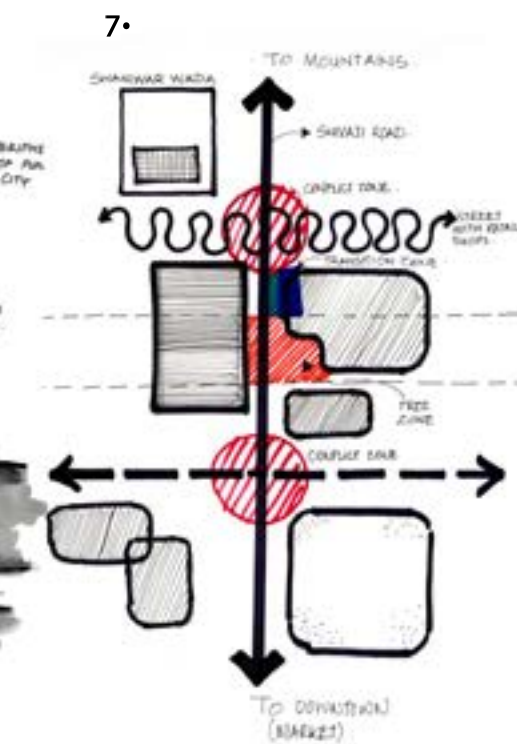
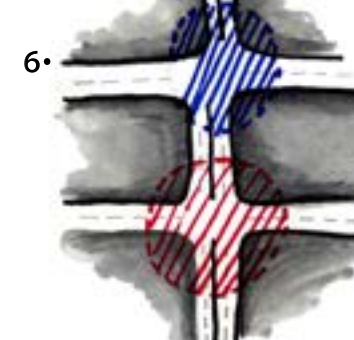
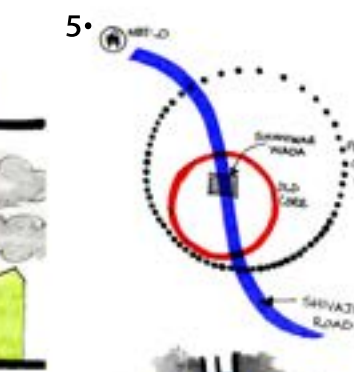
•Developments divided into small scale



•Different characters and typologies



Walkable distances





Street 1:

1. The amount of parking on the Sardar Majumdar Street with no clearance left for pedestrians when vehicles move.
2. Benches put in front of houses, lack of recreational spaces.
3. Narrow street with illegal parking on both sides.
4. RCC structure built right next to an old house. Destruction of fabric.
5. Empty plots, after clearance of debris from the dilapidated houses are being used as illegal parking lots.
6. Houses that can't be restored as they stand within a five-hundred-meter radius from the Shaniwar Wada.
7. One of the dilapidated houses. The debris cannot be cleared as it is in the five hundred meter radius.

Street 2:

1. The famous Dagdu Sheth Temple on Shivaji Road.
2. A parking lot a street away from the site. Where people don't park and park illegally on the site.
3. Traffic on the site on a weekday, with no accommodation for pedestrian movement.
4. Vendors on the side of the street, sit on the street even when it is raining.
5. The state of old architecture on the site.
6. Dilapidated buildings still functioning as offices opposite the temple.
7. Market along the street.

The proposed redesign for the secondary street stretches along the Sardar Mujumdar Marg (Majumdar Wada built in the 1800s lies at the end of this street and would be the third structure on the Heritage trail), this street lies to the east of the Shaniwar Wada and houses some of the oldest houses, a few of which are in ruins, and a few abandoned. The street has a mixed land use pattern with commercial and residential activities occurring in the same building. This is one of the narrowest streets on the site, the street is a branch of the Shivaji road and so functions as a secondary/tertiary street.

Having a mixed land use pattern, illegal parking is observed on both sides of the street, giving a clear distance of hardly 3.5 meters. Which is occupied by passing vehicles not leaving any space for pedestrian movement. Clogging due to vehicles allows no means of recreation for the residents.

**Design Proposal:**

- The street would be paved with the Deccan trap (a regionally quarried stone, cheap and found in abundance in the state of Maharashtra), which would provide a bumpy surface making people avoid getting cars or bikes on the street.
- The stone surface and the staggered alignment of the trees would help the street function as a slow street, giving a shared street character.
- The green pockets created along the edges of the street are rain gardens which would also act as recreational spaces for both visitors and residents.
- The streets are aligned with neem trees, being evergreen Neem trees survive at low water tables.
- Deccan trap has a pervious surface and hence would help in water catchment.



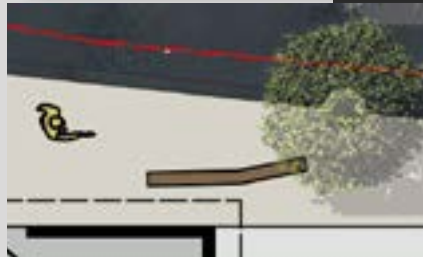
A. Rain gardens with stone benches serving recreational purposes on the street.

A



B. Feature walls: these walls will provide with information regarding the site and the Heritage walk, defining the era structures were built in.

B



C. The area opposite Majumdar Wada has been kept open with a Plaza-like design so that tourists can come and spend time observing its architecture. The provided carriageway (marked with dotted red lines) is kept away from the structure, to give clearance for visitors.

C

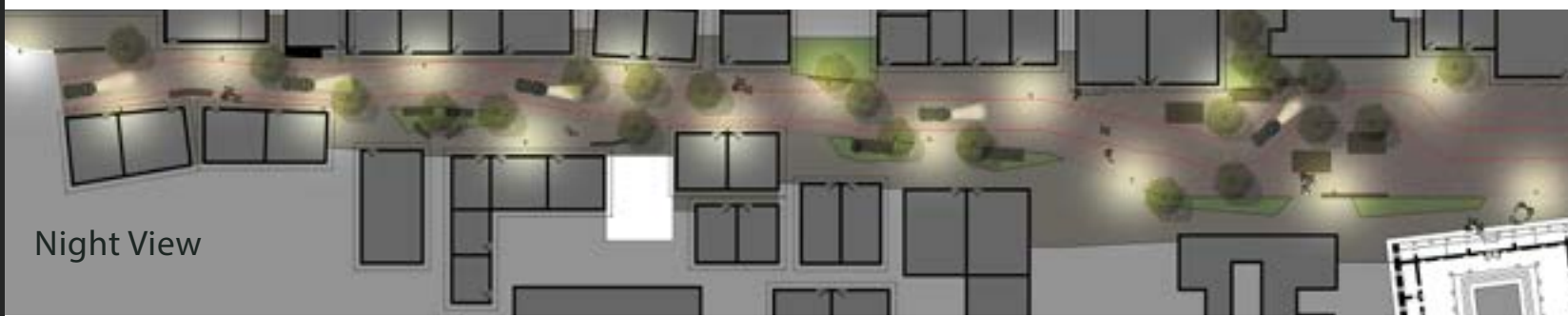


**Redesign Proposal for Secondary Street (Sardar Majumdar Marg)**



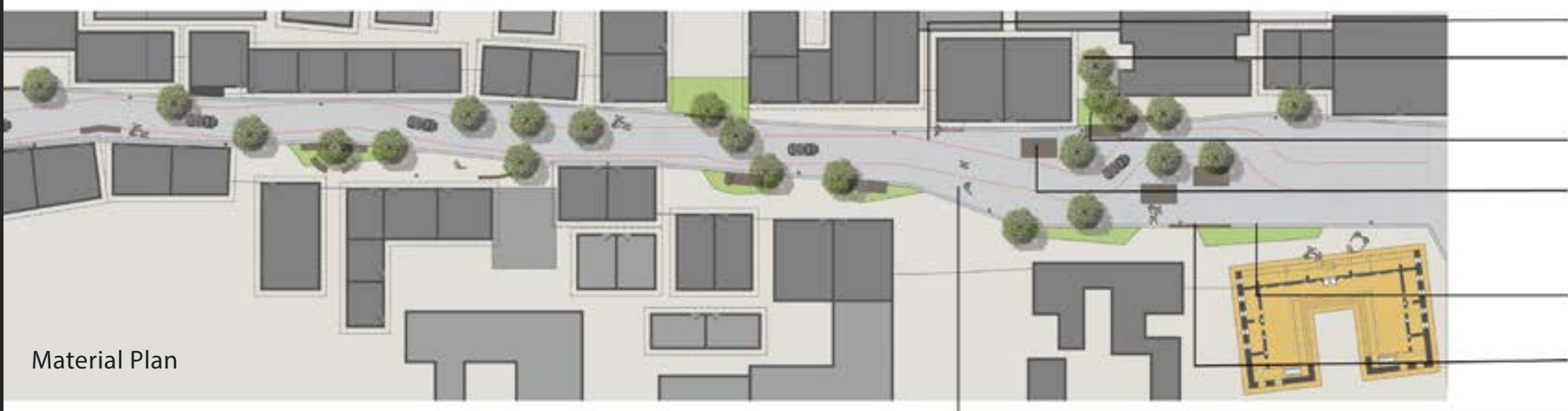
Storm Water Layout  
Slope 1:60

The arrows indicate the flow of rain water. Storm water catchment is provided for the following reasons:  
 Water table is high as the city is close to the sea, so flooding is observed sometimes.  
 Drainage systems are old and clogged leading to flooding whenever it rains.  
 Water from the rain gardens and the highly percolative paving stones would go to underground water tanks which would be connected to the main water filtration unit of the Municipal corporation.



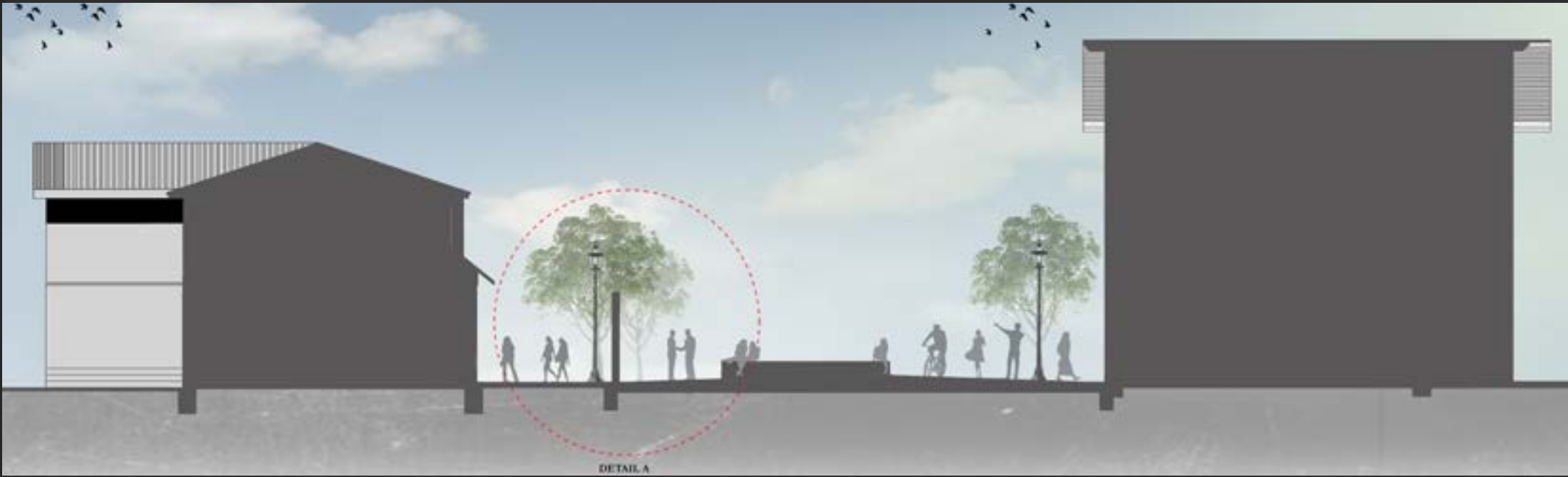
Night View

The street would be evenly lit for night walks too.  
 Properly lit as the street has been lined with trees, and crime rates can go up at night.  
 To avoid accidents as the carriageway is narrow and staggered.  
 The Heritage structure would be lit up with LED lights to have its elements highlighted



Material Plan

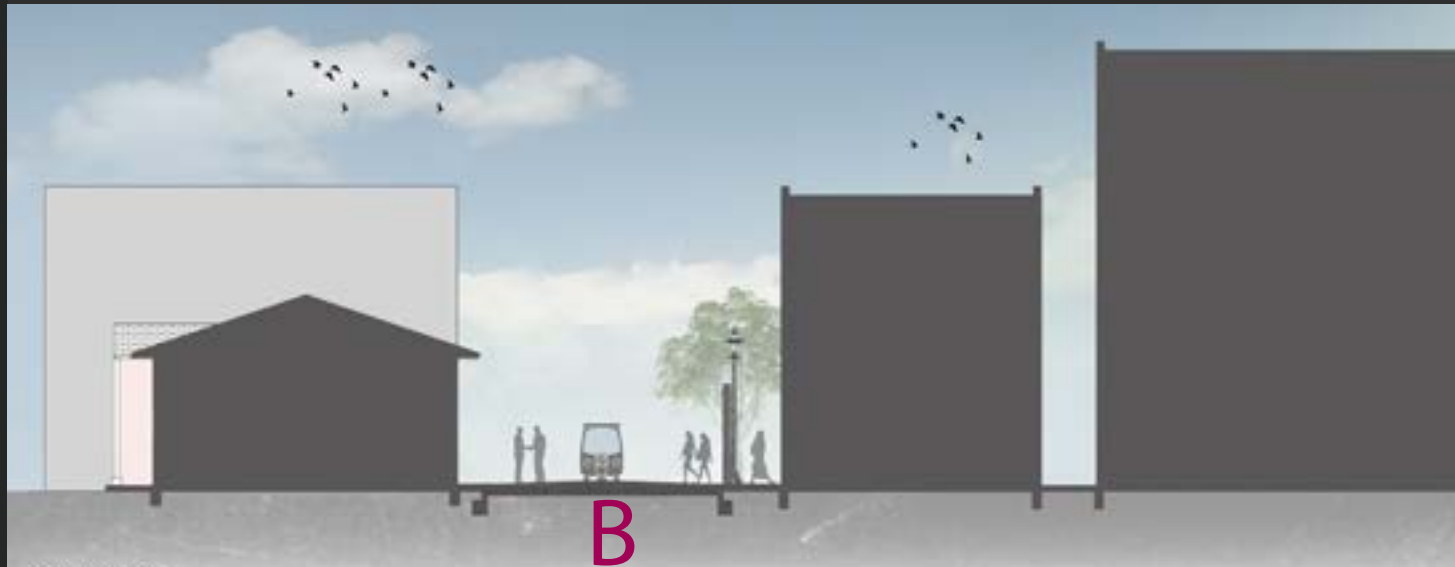
- Schematic projection of carriageway
- Neem Trees
- Raingardens at a drop of 0.25 m
- Low seating in Jaisalmer stone
- Gutter Line
- Feature walls
- Regional stone – Deccan Trap, used throughout the street



Section AA'



DETAIL A

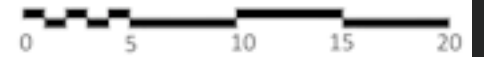


Section BB'



Detail B

# Sections



Scale 1:100



View through the plaza opposite the Majumdar Wada showing a staggered alignment of trees and seat-ings proposed on the Sardar Majumdar Marg





Plaza in front of the Majumdar Wada on Sardar Majumdar Marg.



Small recreational pockets (rain gardens) provided for the residents as well as the visitors along the pathway towards the Majumdar Wada.



Entrance to the Sardar Majumdar Marg, showing the feature wall engraved with informative text about the street and its history.



Flat and low stone seats provided, as old Pune had such seatings around trees.



Shivaji road transects through the city and is a primary street. Being a Market street it attracts pedestrian and vehicular traffic in enormous numbers, leading to illegal parking and accidents. Due to its function as a shared street, pedestrian flow is hampered with speeding vehicles.

The design would concentrate on inducing maximum interaction between people and the street.

Elevated crossings and sidewalks have been proposed for an easy access for people who are differently abled. The recessed street level would ensure pedestrian safety, as cars and pedestrians would not move on the same level. Retaining the shared street concept. The street and the sidewalks are separated by bike lanes, and the bike lanes and carriageways are separated with trees and lamp posts.

As bike lanes are proposed it would not leave room for parking on both sides of the street. Hence, illegal parking on the site will be eradicated.

The carriageway is staggered and kept narrow to slow cars down. A crossing is provided after every four trees, 20 meters (well-connectedness would ensure a shared street experience) making it a slow street.

There are no red lights on the street as the cars will anyway move slowly because of the staggering and narrowness of the street. Seating has been provided at regular intervals, as some would just come to stroll and would not want to travel along the entire stretch

A Public Plaza has been proposed at the start, to induce more usage of the street. The street would have a closed access on days that would promote heritage significance to raise awareness into conserving historic districts.



The tree pits act as rain gardens and would help in water catchment.

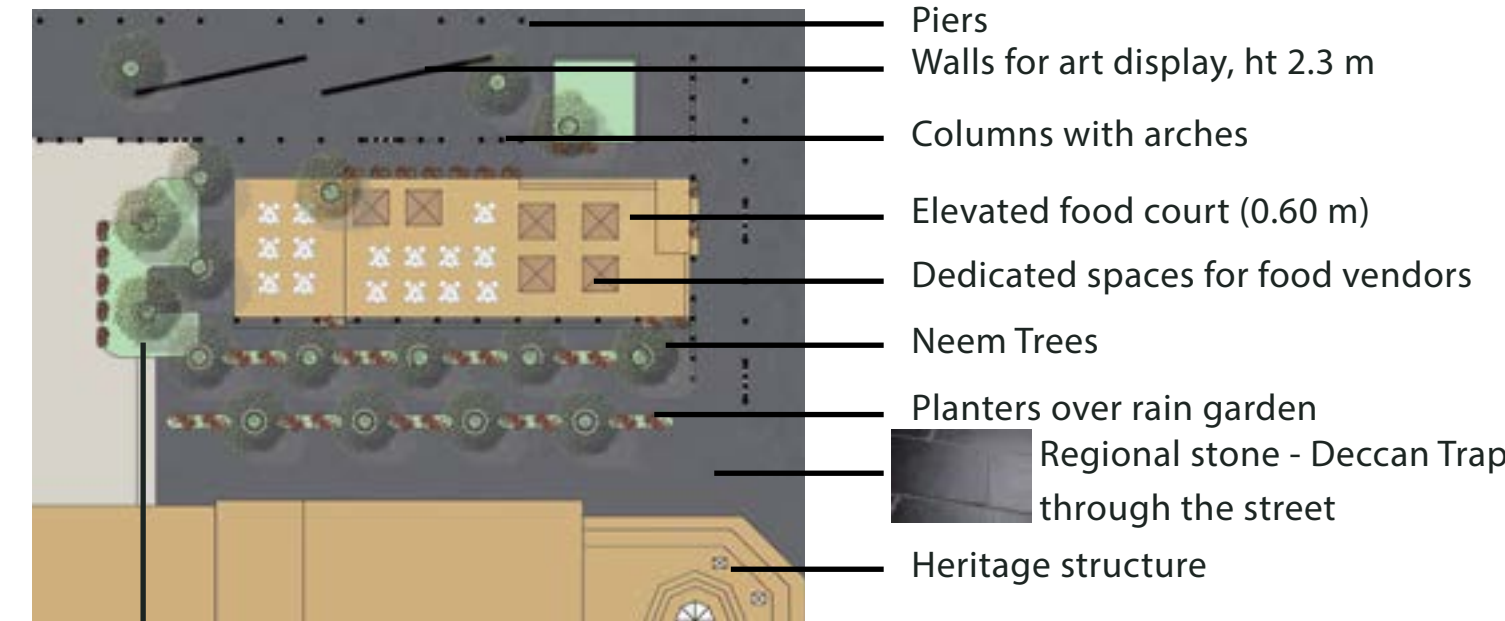
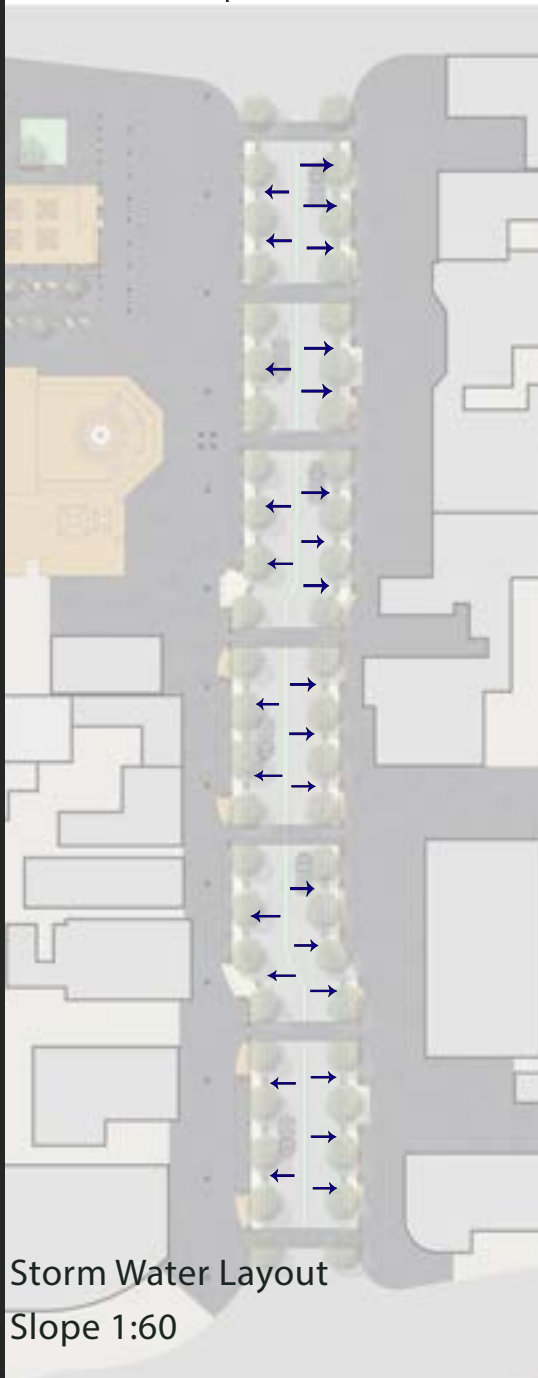
The temple receives huge crowds; hence the plaza would help in distributing the crowd as there is a huge line observed outside the temple to get in, every day.

There has been space allocated for vendors along the partition created along the sidewalk between the bike lane and the sidewalk, lattice anchored with the help of brick piers acts as the partition.

The podium at the center of the plaza would serve as a food vendor space.

The stone used throughout the street is the Deccan Trap, and the trees are Neem trees as they are evergreen and don't require much water to sustain.

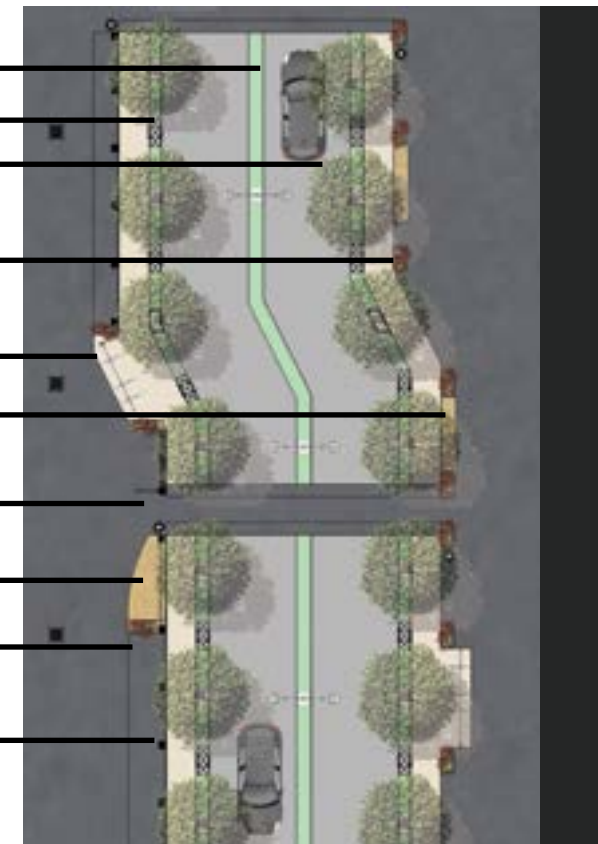
The material used helps differentiate between the new and old entities.

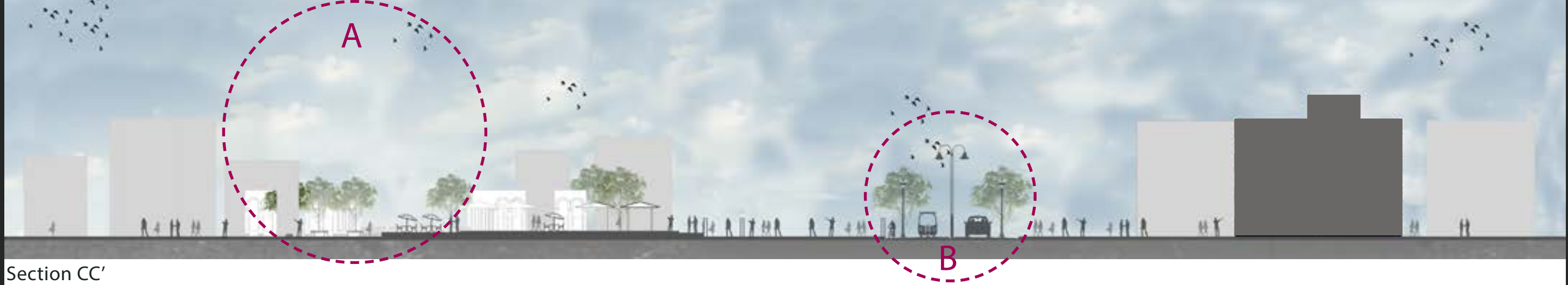


Rain gardens (drop of 0.25 m)  
Lamp post (5 m c/c spaced between two trees)  
Neem trees (5 m c/c)

Planters  
Bicycle parking  
Sidewalk seating in Jaisalmer stone  
Elevated crossing (0.15 m)  
Sidewalk seating in Jaisalmer stone  
Dedicated space for the vendors (1.5 m)

Piers and lattice as a backing to the vendors



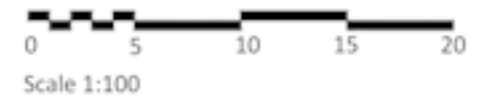


Section CC'



Section DD'

# Sections



Detail A



Detail B

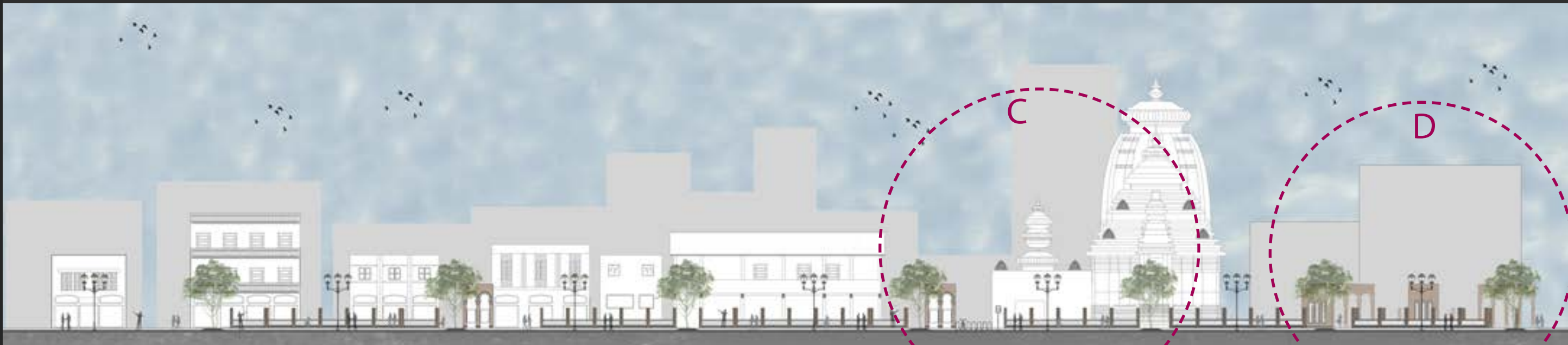


Detail C



Detail D

# Elevation



Elevation of the market street (Shivaji Road)



View of the Plaza from the Temple entrance.



View of the provisional space provided on a podium in the Plaza to the food vendors for sale of their goods



An array of trees with circular seatings around, provided adjacent to the Temple, would serve as a recreation spot for the devotees as well as the visitors at the plaza





Tree plantations next to the temple for the visitors to sit and relax.



View from the entrance of the street, temple in the background.



View of the market street lined with Neem trees, showing the low seating and the vendors by the partition



View of the street opposite the temple, where stone benches are provided as it acts as a commercial street throughout the day, but does not see many visitors. The partitions have not been provided here, as there is no market set up. This street would help in relieving the overcrowding observed on the Temple street.



Trees and lampposts over the rain garden acting as a buffer between the bike lane and carriageway, eradicating the possibilities of illegal parking on Shivaji Road.



Vendor space provision along the partition on the Shivaji Road



View of the arches provided along the sidewalk for information regarding the street and the heritage trail



View of the arches provided along the Shivaji Road to guide people through the heritage trail.

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Image 8. <http://www.punecorporation.org/> (accessed 5th February 2016)

Image 9. <http://www.punecorporation.org/> (accessed 5th February 2016)

Image 10. <http://www.punecorporation.org/> (accessed 5th February 2016)