

BANDRA RECLAMATION

MT CARMEL ROAD

T.P.S. SCHEME

BANDRA VILLAGE PRECINCT

DNICA ROAD



WARODA ROAD

WARODA ROAD

A SUBURBAN VILLAGE RENEWAL & REVITALISATION SCHEME

ST. PETER'S
CHURCH

SHRI KRISHNA CHANDRA MARG / HILL ROAD

PREFACE

The Bandra Village Precinct is a heritage precinct within the city of Mumbai, listed under serial no. 612 of the 'Heritage Regulations For Greater Bombay- 1995'.

The character of the precinct is largely defined by the visual quality of its neighbourhood, consisting of low-rise family dwellings. A single building out of context with the surroundings can have a remarkably disruptive effect on the visual and physical character of the precinct. The need for a set of guidelines to control and channel future development is now crucial.

The aim of this document is to help the owners, occupiers, developers and architects, of new and existing buildings alike, to understand and help preserve the fundamental characteristics of the Bandra Village Precinct. The development control and design regulations laid down in this final phase of the report are intended to help generate new design work or retain the existing structures with alteration, resulting in buildings which are both appropriate and compatible with the character of the precinct.

ACKNOWLEDGEMENTS

We would like to thank the MMR Heritage Conservation Society and its Governing Committee Members, in particular Mr. Pantbalekundri (Secretary), and the Mumbai Heritage Conservation Committee, for inputs and advice towards compiling this document.

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'Skyscrapers co-exist, with cottages and bungalows. Not always peacefully, because the high-rise buildings and the consequent rise in population has brought in their train, the problems of water shortage, bad sanitation, heavy traffic, especially on the main roads, with the absence of any traffic controls. Shopping areas on Hill Road and Linking Road have made Bandra self-sufficient, even attracting people from the city.

But the old Bandra still exists beneath it all in the many churches that date back to Portuguese times.... in closely knit communities, in the little urban pockets formed by old villages that have not been stremrollered yet. And in the old families that have lived here for generations.... and are probably able to trace their histories to the mass conversions of the 1580s.' (from an article written by Olga Valladares)

PRECINCT PROFILE

HISTORICAL BACKGROUND

Up until 1867, Bandra was just another island made up of 25 tiny villages, some were entirely fishing villages, and others were agrarian. After Bandra was connected by rail that year, an influx of city dwellers in search of unpolluted air and open spaces, flocked to and pretty cottages erupted between coconut groves a few stand in some of the last villages of Bandra.

While many villages like Rauna , Parvar and Partawar were extinct by early 20s, a few like Malla, Sherly Rajan, Kantwadi and Ranwar are tottering to the last leg of extinction. Chimbai village used to be a thriving fishing village near St. Andrew's Church. Fishermen still go out to sea but their numbers are dwindling, as their educated children have no desire to be fishermen.

The Sherly Rajan village was formed way back in 18th century; the inhabitants were largely farmers and toddy tapers. Sherly Rajan and Malla formed a conglomeration of villages with the sea as the boundary on one side and acres of rice on the other, bordering once heavily polluted Pali Hill. Until the late 70's, these villages retained their quaint charm. Pigs foraged along the narrow streets, the cock crowing awakened the inhabitants and some homes still used their ancestral wells.

Historically these were Christian villages, but today, other communities have moved in large numbers, while local residents have moved in large numbers, while local residents have opted to settle in distant suburbs, and increasingly, abroad. Many locals who've saved their properties and moved to places like Vasai are in bad shape.

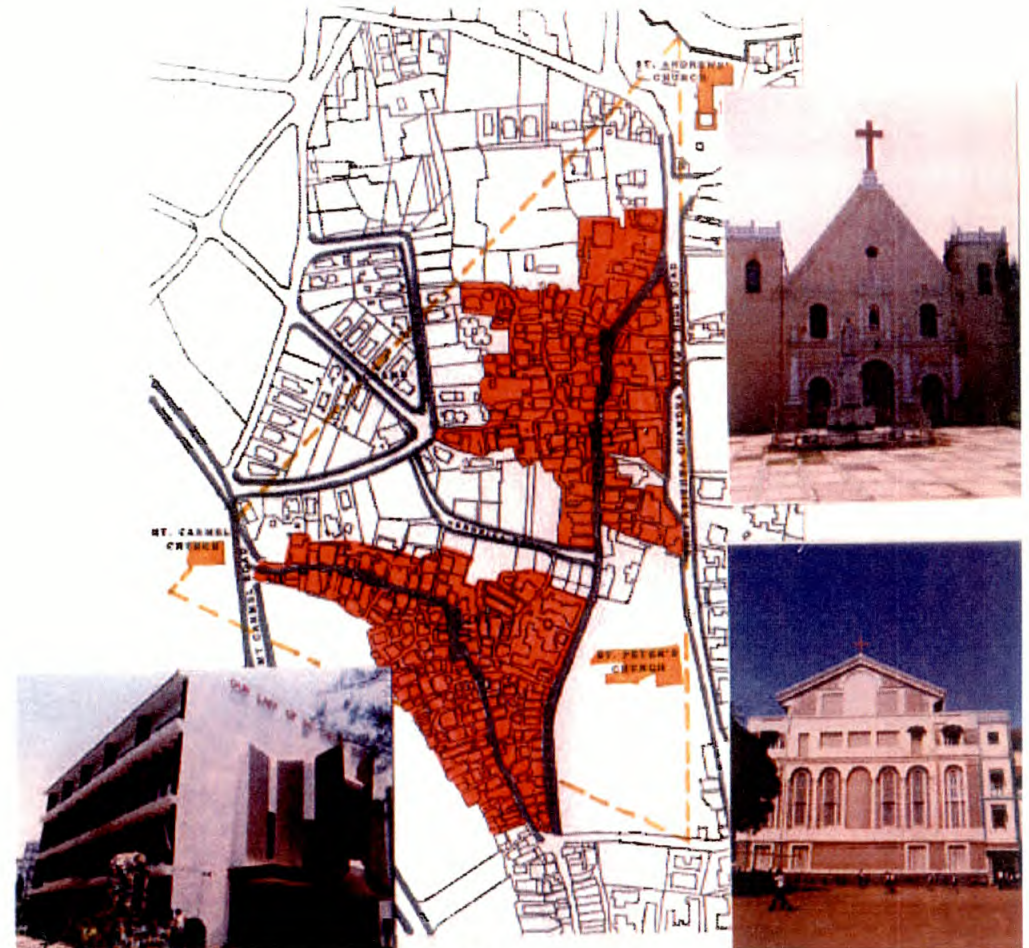
URBAN CONTEXT

Nestled within the triangle formed by the three listed heritage churches of St. Andrew's, St. Peter's and Mount Carmel in Bandra West in Bandra West lies the remnants of Bandra's traditional villages, today listed collectively as the "**Bandra Village Precinct.**" Listed as a heritage precinct under serial 612 Bandra Village falls under 'H West' Ward of the Mumbai Metropolitan Region.

The trio of churches- St. Andrew's and St. Peter's along Hill Road (Shri Krishna Chandra Marg) and Mt. Carmel's along Chapel Road serve as important landmarks to identify and locate the points of entry as well as boundaries of the Bandra Village Precinct. The demarcated precinct is usually separately identified as

- a) Development along Waroda Road
- b) Ranwar Village
- c) Development along Chapel Street.

Comprising predominantly of small-scale, low rise family dwellings, these unique structures with their sun-bleached lime washed walls, exquisitely detailed frontages and clay tiled roofs, are constantly under threat from the urban pressures of the big city development that lies just beyond their boundaries. Despite occupant negligence, a direct result of tenant/landlord squabbles under an ailing Rent Act, and the inroads of enterprising developers, several of these structures and the unique spaces they contain still manage to survive.



The three churches form entry nodes into the precinct.

PRECINCT AND ITS EXTENT

ARCHITECTURAL EXPRESSION

The development in Ranwar did not follow any planned scheme but was the outcome of organic growth following a self-evolved and response generated settlement pattern. This is apparent in case of the narrow, chiefly pedestrian, lanes which have just developed around the houses acting not only as thoroughfares but which have also become extensions of the living area and form spaces for community interaction. These along with the built-form together effectively constitute the character of the village. The village's amazing array of 19th century residential structures with a strong Portugese influence, are characterized by:

SLOPING ROOF LINE

The entire area is characterised by low-lying houses in conjunction with the human scale with pitched tiled roofs. This uniformity in form and scale as well as the material used, i.e. mangalore tile for roofing, along with elegant fascia boards lends a harmonious organized look to the otherwise unplanned Precinct.

THE FRONT PORCHES AND VERANDAHS

The houses open out onto the streets or the squares, the entrances to which are visually emphasized with a porch or a continuous verandah on the upper storey. These are rich in ornamentation including carved balustrades, coloured glass infill panels, wooden fret infill. Unfortunately at various locations, these have been replaced by infill parapet walls and modern jaalis.



Typical house with porch and sloping roof

THE SHAPE OR THE FOOT PRINT

The dense close knit built fabric of the Precinct results in structures that cover a small plinth area. The narrow frontage offered to the streets further accentuates the shape of the built form .

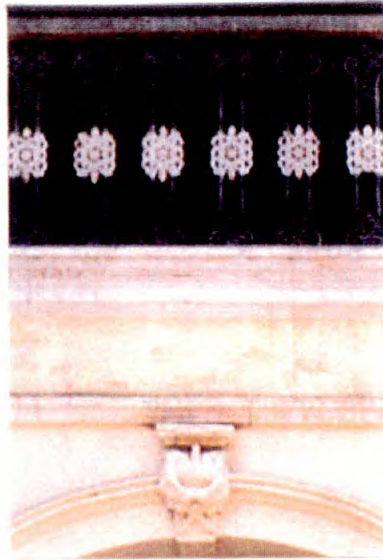
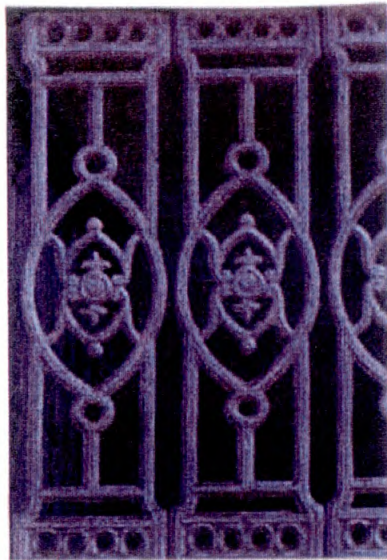
THE SQUARE AND THE NODE

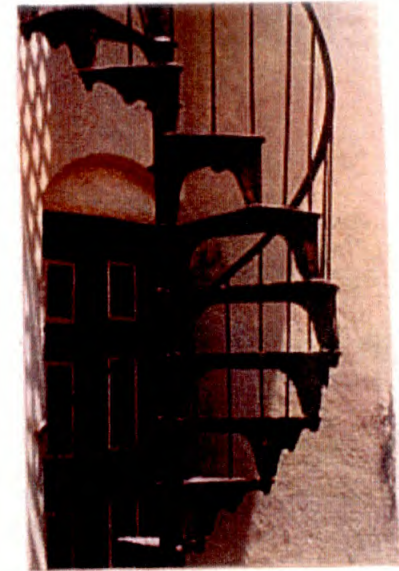
A typical feature that occurs in Ranwar is the widening of the narrow lanes into a square formed around houses often punctuated by a cross. These accidental spaces or public squares define a unique urban statement in which a variety of activities of interaction take place. Enmeshed into the social fabric and adding to the architectural merit, these spaces are an integral part of the precinct and the people.



Typical Ranwar square







DEFINING THE PRECINCT

The concentration of the typical traditional buildings along an organic street spine and the opening up of narrow streets to form squares has resulted in a distinct variety of styles and streetscape in different sections of the precinct. The physical transformations of the peripheral areas reflect the influence and the urban pressure of the surrounding commercial areas of Hill Road and Bandra Reclamation.

A hierarchy of zonal boundaries is created which divide the precinct into a central core zone, protecting buffer zones and a peripheral zone, creating a transition between the core and the areas beyond the precinct. The demarcation of the core zone, buffer and peripheral zones are shown in the adjoining map.

The Core Zone: This zone includes Chapel Road and Ranwar village up to Waroda Road. The predominant image is one of narrow streets with a vernacular scale of houses having porches and verandas abutting the street edge. As the settlement is organic, the edge is indistinct, resulting in a meandering street of varying widths. The core zone of Ranwar village consists of a series of squares created by the widening of narrow lanes and bound by edges of the houses.



The Core Zone



Typical square of Ranwar of the core zone

The Buffer Zone: The second zone, though originally featuring all the characteristics of the core zone, no longer reflects this same consistency. This is due to unchecked development. The absence of streets magnifies this problem, hence strict control in these areas is essential, so as to create an effective buffer to the core.

The Peripheral Zone: The third zone is mainly a peripheral zone between Hill road and the buffer of Waroda Road. The sub zone creates a transition between the urban scale north of Hill Road and the precinct.

REDEFINED PRECINCT BOUNDARIES

Deletions:

Some structures fringing the precinct are totally out of character with the precinct development but are often cited as examples by developers for future developments. Since these structures are peripheral and atypical to the character of the precinct, they are proposed to be left out of the precinct.

Additions:

Alternately the precinct is flanked by structures, which are not typical of the development but are compatible in scale and height, and act as an effective transitional buffer. One such area lies south of Ranwar along St. Roques Road. Such building are proposed to be included in the precinct.

The adjoining map shows areas to be deleted and those proposed to be included in the precinct.



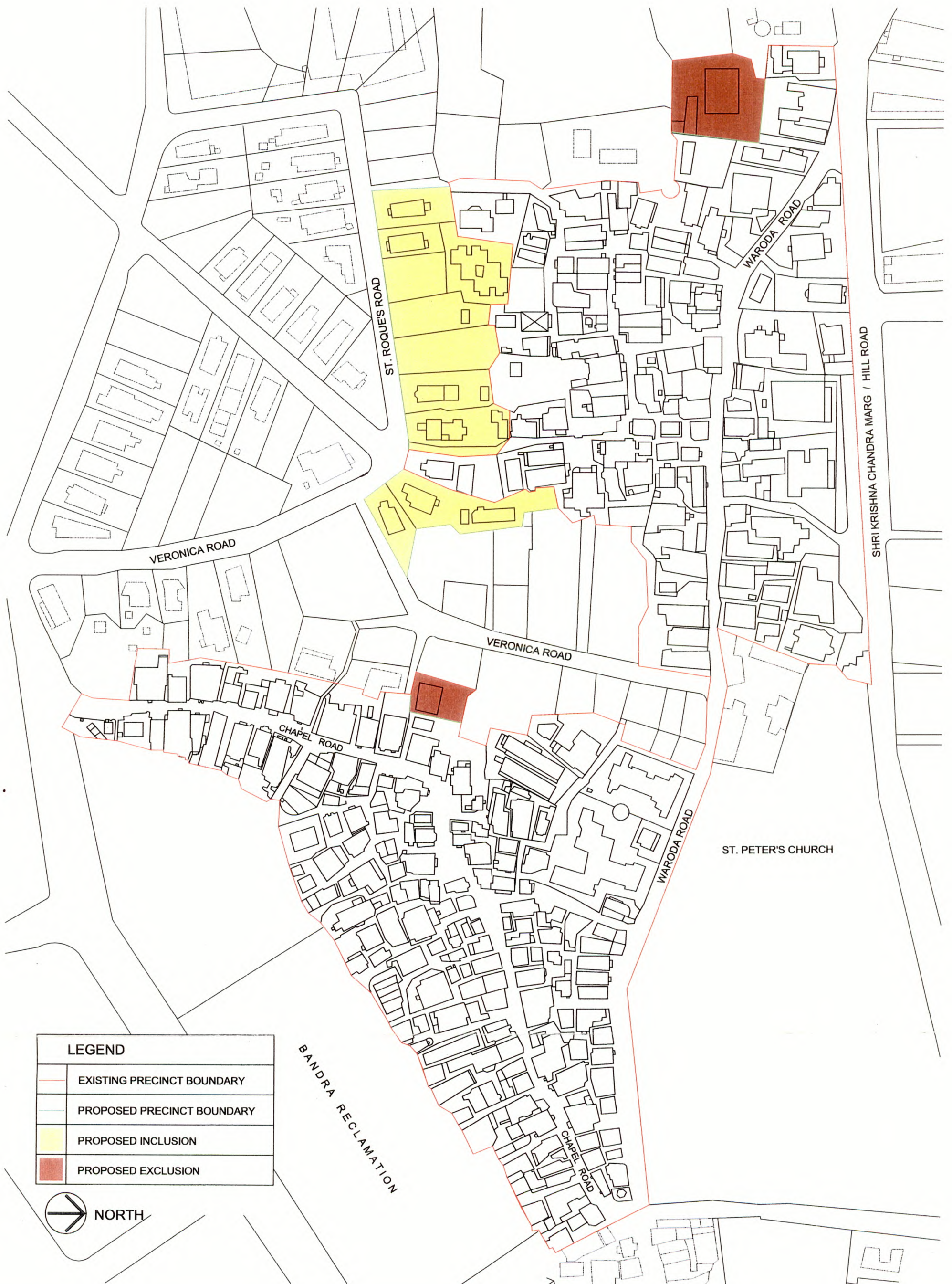
Redefined boundary inclusion of St. Roques Street







Peripheral Zone along Hill Road



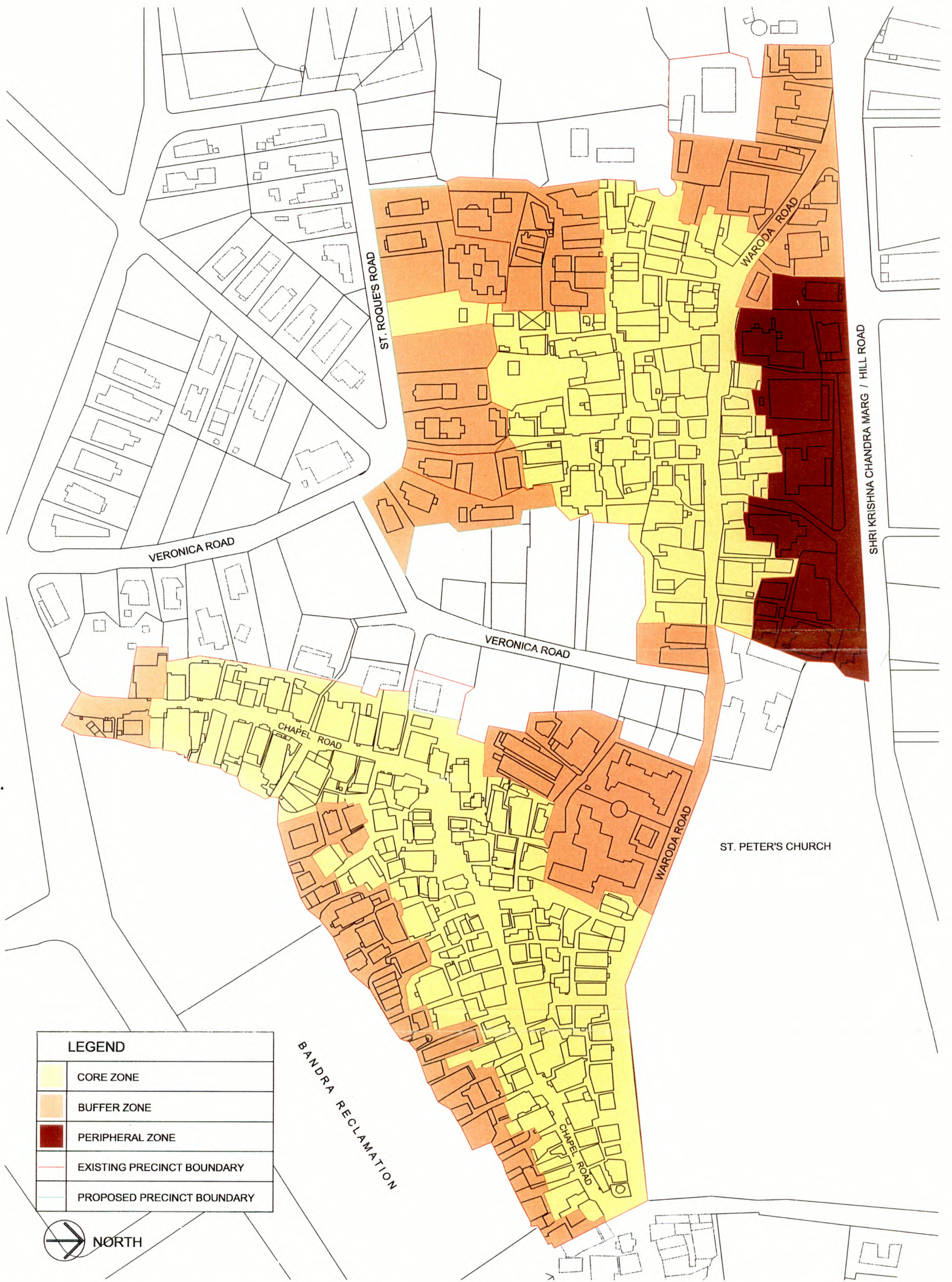
Structures of the Buffer Zone



LEGEND	
	EXISTING PRECINCT BOUNDARY
	PROPOSED PRECINCT BOUNDARY
	PROPOSED INCLUSION
	PROPOSED EXCLUSION



REDEFINING THE PRECINCT BOUNDARIES



LEGEND	
	CORE ZONE
	BUFFER ZONE
	PERIPHERAL ZONE
	EXISTING PRECINCT BOUNDARY
	PROPOSED PRECINCT BOUNDARY



DELINEATION OF SUB-PRECINCTS

BUILT FORM

FIGURE GROUND

The contrasting pattern that emerges between the built-up areas, the open spaces and the roads, makes evident the organic physical fabric of the precinct

The structures that line Waroda Road, are characterised by the lack of any distinct plot lines or compound walls (except in the case of few modern aberrations). The structures facing the road are setback at irregular intervals, which results in a staggering street line and the formation of pockets of small off-street open spaces, invariably marked by covered crosses. Similar structures lying in the interior are accessed by narrow criss-crossing by-lanes. In some cases, these by-lanes lead into square open spaces, marked by the trademark free-standing crucifix in the centre and surrounded by a group of structures facing the common square.

Some structures along Chapel Street are devoid of any setbacks. A staggering building line resulting in small off-set open spaces is a common feature along this street. Several turn-offs in the form of smaller by-lanes running perpendicular to the main street lead to organically formed interiors of the Precinct, terminating either at a structure or a dead end.

The buildings along Hill Road, off Veronica Road and perpendicular to 'Benthur Road' have larger footprints and it is apparent from their configuration that they were not part of consciously attempted urban development scheme i.e. TPS existing in the area.



FIGURE GROUND

BUILDING HEIGHTS

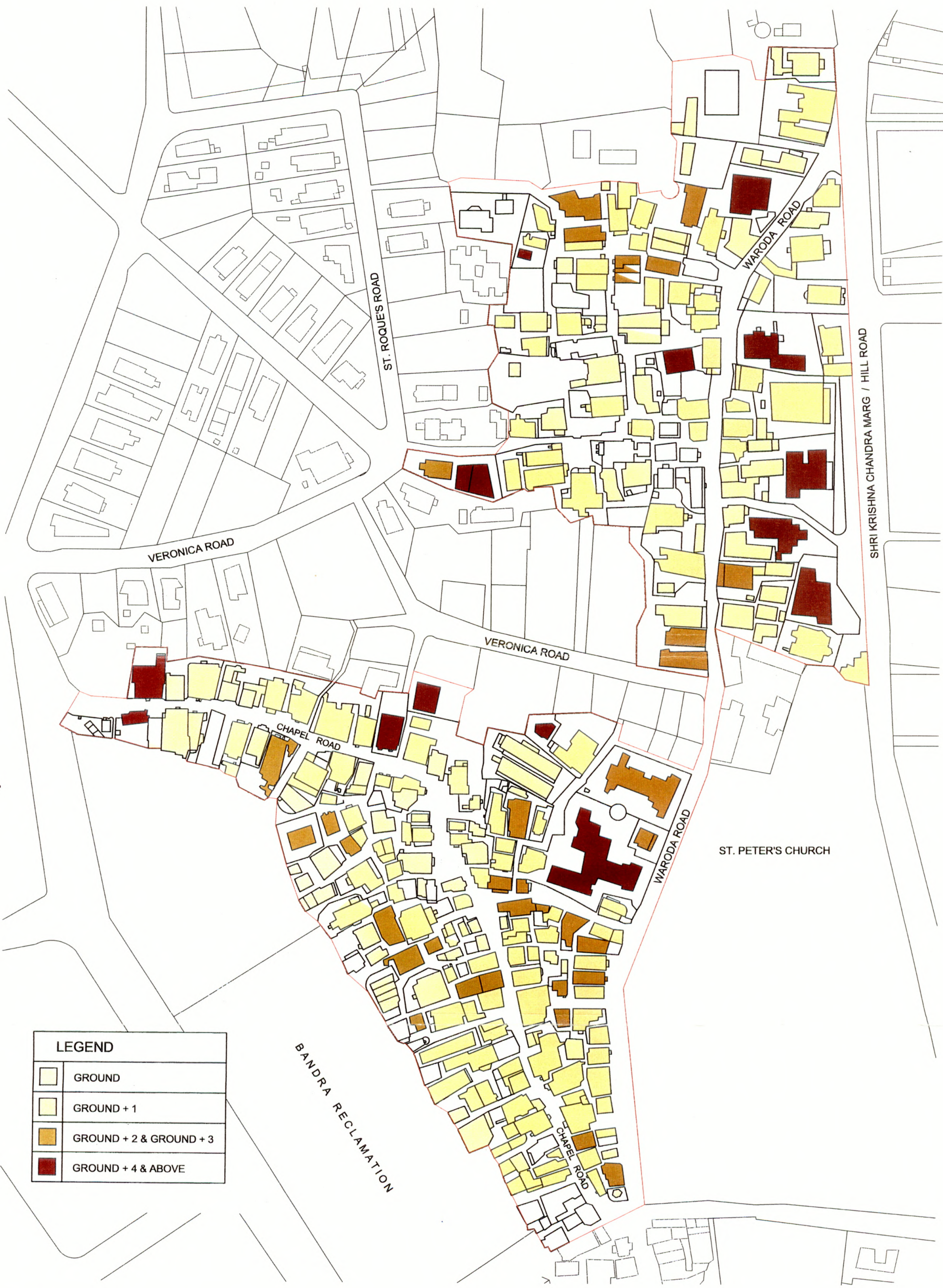
The topography of the area generally follows a homogeneous pattern of low-rise medium density buildings.

The structures in the interiors of Ranwar and the buildings on and around Chapel Road generally follow a low rise pattern and range from ground level to ground + 2 upper storeys, with tiled pitched roof. A few incongruous blocks in the form of taller modern apartment buildings interrupt this low-lying sloping roofline of the area.

The peripheral areas have witnessed an unchecked mushrooming of multi-storeyed buildings, which replaced the earlier bungalows on the same plots.



Tall structures disrupt the character of the core.



LEGEND	
	GROUND
	GROUND + 1
	GROUND + 2 & GROUND + 3
	GROUND + 4 & ABOVE



BUILDING HEIGHTS

LANDUSE

The landuse pattern in the Ranwar Precinct, which is predominantly residential, can be broadly classified as:

RESIDENTIAL

The close-knit existence of the original quaint Portuguese-type bungalows as well as the other residential buildings of hybrid / composite style or modern construction indicates the strong residential character.

MIXED USER

The structures that abutt the Waroda Road follow a pattern of mixed usage, several of them having commercial users on the ground floor i.e general stores, laundry, tailoring shops, etc. and residences on the upper floors.

RELIGIOUS

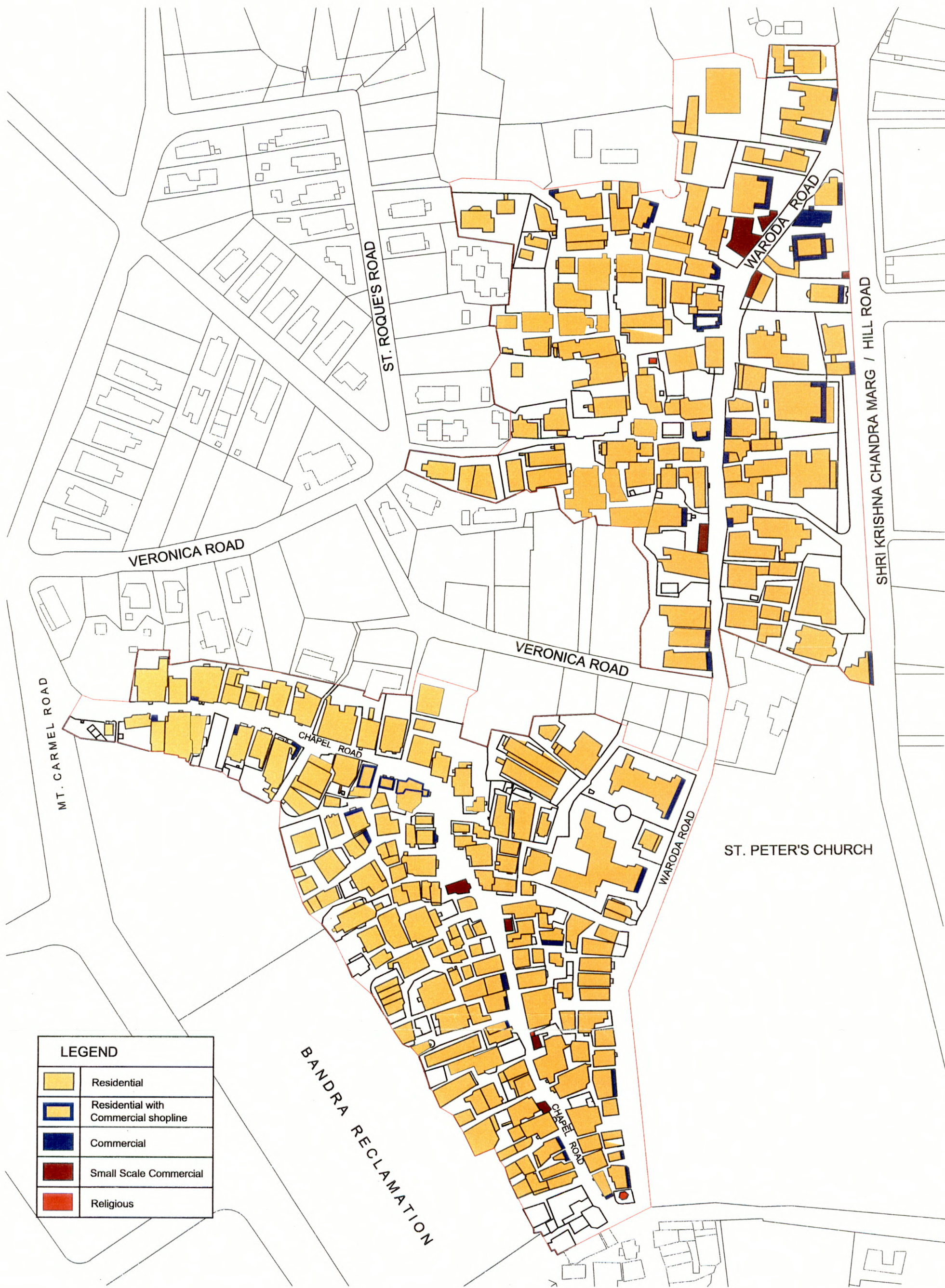
The entire area is dotted with numerous oratories and crosses, which is indicative of the predominance of the Christian / Catholic community in Ranwar.






TEMPORARY STRUCTURES

Temporary structures in the form of tin-sheds are seen lining Waroda road as well as encroaching upon some of the open spaces in the interior of the core area of Ranwar. These are mainly used for informal small-scale commercial activities such as tyre repair shops etc. Most of them have been around too long to qualify as non- permanent establishments.

OPEN SPACES

Though there is no formal recreational playground within Ranwar, its otherwise close-knit physical fabric has several pockets of small open spaces. The narrow criss-crossing by-lanes quite suddenly open into square shaped open area, around which are organised groups of houses. These common central squares serve as marvellous spaces for community meeting places and miniature playgrounds.



LEGEND	
	Residential
	Residential with Commercial shopline
	Commercial
	Small Scale Commercial
	Religious



LAND USE

AMALGAMATION OF PLOTS

The houses in the village are often built directly on the plot boundary with minimum setbacks, and are of ground or ground plus one height, with an average plot size ranging from 65 to 80 sq.m. On applying the regulations as existing in the rest of Bandra, the resultant developments are inevitably setback, high-rise structures which totally disrupt the character of the precinct.

Core and Buffer Zone:

Small plots would ensure that the height of the new construction would conform to the precinct height line. Thus amalgamation of plots will not be permitted in these zones.

Peripheral Zone:

In the peripheral zone along Hill Road amalgamation will be permitted as per existing Development Control Regulations.



High rise development in an amalgamated plot



Amalgamation of plots results in incongruous form and scale.

T.D.R AND F.A.R**F.A.R**

A major part of the heritage precinct consists of small property holdings where the building either sits directly over the plot boundary or has minimum marginal open space on one or two sides. With buildings being usually of ground and one upper level, the F.A.R of most of the buildings exceeds the F.A.R of 1.0, which is the standard for development elsewhere in Bandra. This factor alone is an incentive for owners to retain and maintain their indigenous structures in their original form.

Core and Buffer Zones:

Based on the above incentive the owners of structures identified as indigenous within the core and buffer zones are permitted to reconstruct retaining the existing higher F.A.R. provided they retain the overall form profile and heights of the original structure.

Any new construction shall maintain an FSI of 1.0 as per the rest of Bandra. In such new buildings the porch will be allowed free of FSI provided it is of a visually transparent nature and limited to a depth of 2m and 1/3 the length of the external facade.

Peripheral zone:

F.A.R in the peripheral zone shall be applied as per existing D.C. Regulations as applicable to the rest of Bandra.

T.D.R

With the development potential of plots exceeding 2.0 on applying T.D.R. component, the pattern of development will be unacceptably altered should T.D.R. be allowed to be applied within the precinct. Hence while T.D.R. shall be allowed to be transferred outside the precinct it cannot be applied within. Accordingly no plot within the precinct including those in the peripheral zone will be permitted to apply additional T.D.R to the F.A.R.

In case of listed buildings having balance F.A.R to be utilised we will allow the balance F.A.R. component to be converted to a transferable development right (T.D.R.) to enable the owner to retain the original structure in its original setting without losing out on his development rights. Conditional to this facility will be the restoration of the original structure under the advice of a competent architect and the sanction of the heritage committee.

Note: The recommendation would require changes in DCR 32/33/34 and Appendix VII A of the present DC Regulations.

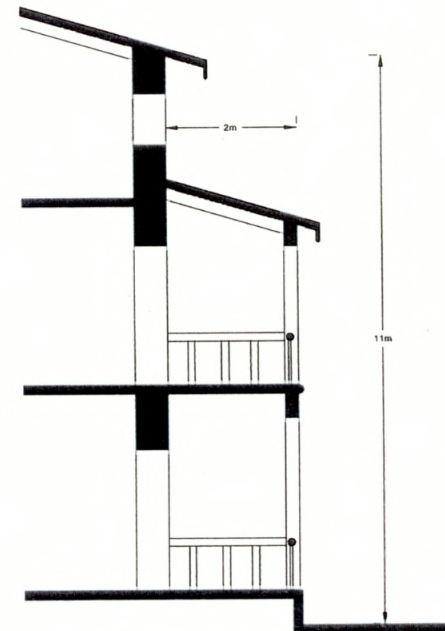
HEIGHT RESTRICTIONS

The character of Bandra village is defined by the visual quality of the scale of the structures. Restricting the height of future development is imperative. The restrictions would apply as per the sub-zone.

Core Zone and Buffer Zone:

The core area in Bandra village is that of a low-rise cluster of ground and ground plus one-storied cottages. Therefore, in keeping with this pattern, construction of G+1 is recommended in the core zone.

An additional floor may be provided to consume balance FSI. However, the height restriction for structures in the core and buffer zone is a maximum of G+2 with 11m maximum height permissible at the junction of wall and roof or 13m to the top of the ridge. The second floor would only be permitted with a minimum setback of 2.0m from the front building line.



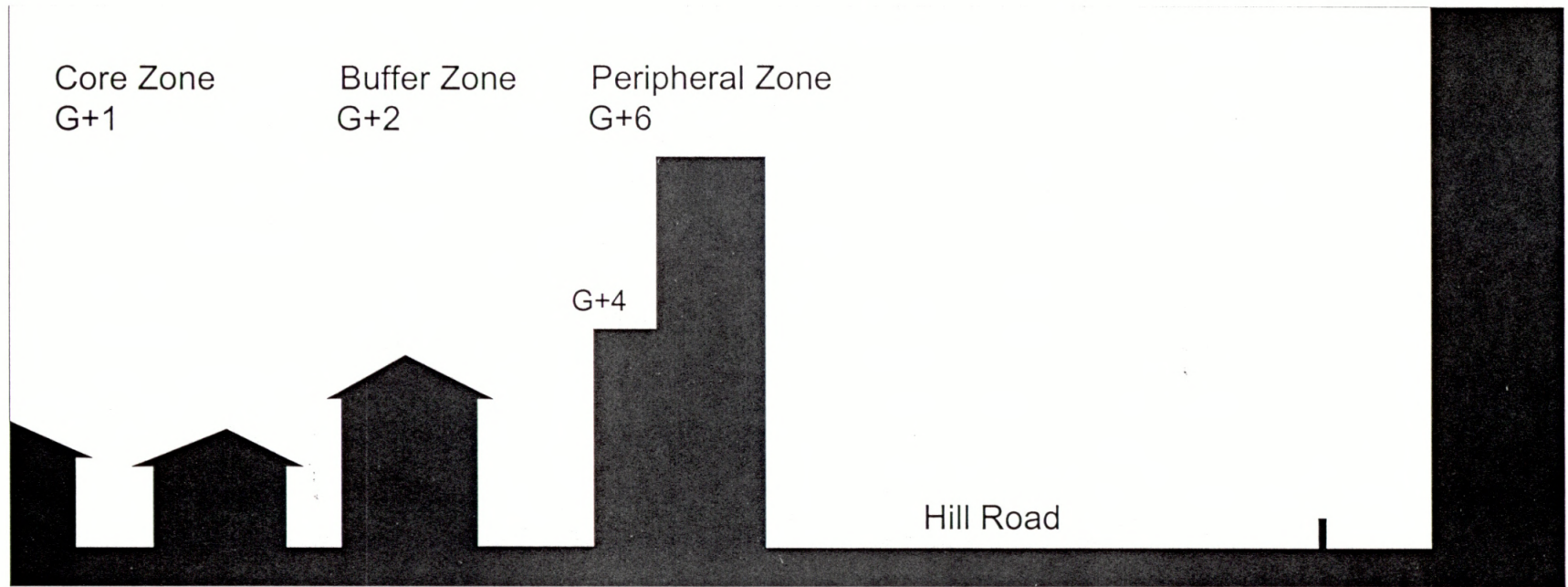
Increase in height permitted if additional floor is set back 2m from the front building line



Incongruous structures disrupt the character of the core.

Peripheral Zone: This zone acts as a transitional zone between the core of the precinct and the urban development north of Hill Road. The height restriction will be a maximum of G+6, with a drop in volume provided along the South façade (i.e. Waroda Road) of G+4, creating a gradual transition of height from the core of the precinct to the urban development beyond.

Note: The recommendation would require changes in DCR 31 of the present DC regulations.



Hierarchy in height to create a visual transition towards Hill Road

STREET PATTERN AND TRAFFIC STUDIES

The street pattern can be broadly discerned to follow a general hierarchy:

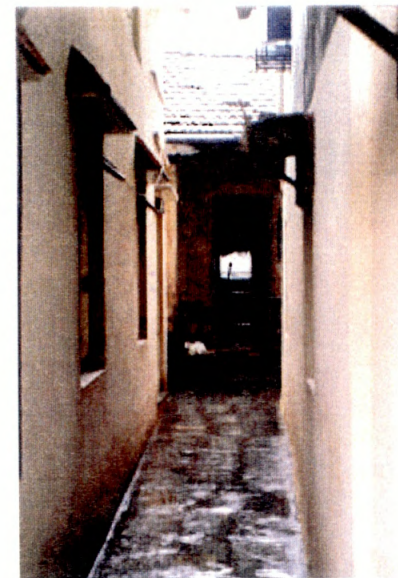
THE PRIMARY ROAD being the Waroda Road that forms the main spine along which is the major vehicular thoroughfare within the Ranwar precinct. Several small off-street open spaces, formed by the alternate set back in the building line of a few structures along the road, serve as substitute cul-de-sacs. Although it is used as a 2-way road, the varying widths along its length prevent traffic jamming and bottlenecking at various places. Vehicle owners as an alternate faster route to Hill Road often use Waroda Road in order to reach Bandra Reclamation. Hence it has been proposed (by Government legislation) to be widened. Unfortunately, this would probably lead to the demolishing of many of the abutting structures meriting conservation and a heritage listing.

THE SECONDARY ROAD are the 3 - 3.5m wide internal access lanes. Where the width allows, off-street parking is possible on the otherwise single-lane streets.

THE TERIARY STREETS are less than 2m wide and often have dead ends or lead into the square open spaces. These narrow criss-crossing by-lanes allow for only two-wheeler and pedestrian access.



Street



Tertiary street

OPEN SPACES

The square open spaces in the interior of Ranwar precinct form one of its most unique characteristics. Formed as a result of the conscious organization and planned placement of the structures such as a group of 4 – 5 bungalows face the common central square

There are 4 such open squares found within the demarcated precinct. The biggest one goes upto 15m X 15m and is accessed by a wider vehicular lane whereas the smallest measures 9m X 9m and can only be reached by pedestrian pathways. The presence of a cross in each open square adds to the quiet, at the same time inviting ambience of the neighborhood. These are commonly used as plain sit-outs and play areas for children or just as daily meeting places for the community, affording the right balance of public use as well as privacy.

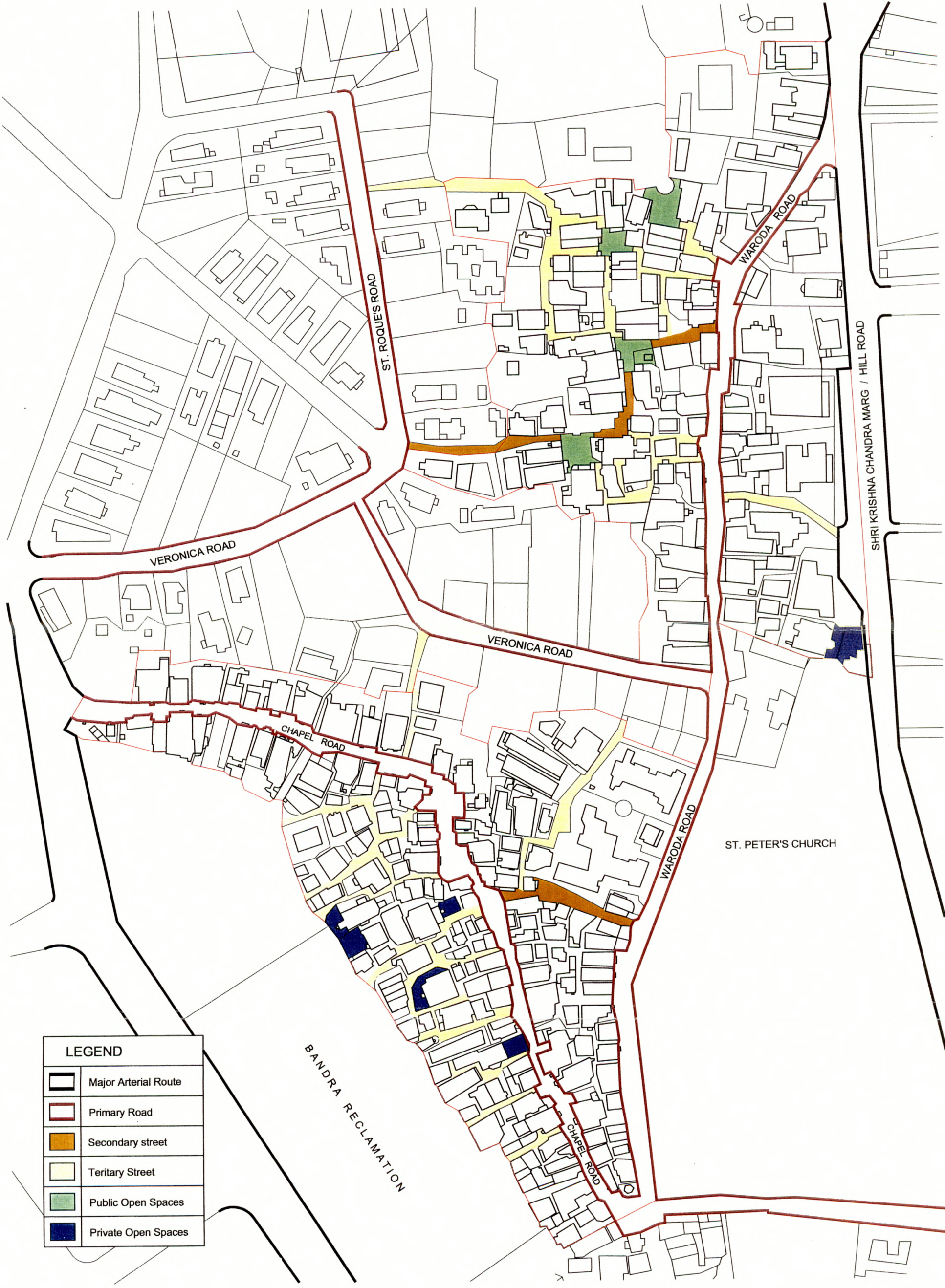
Unfortunately, the addition of new compound walls outside the bungalows facing the open squares disturbs the quality of the existing space and mars its special character.

Other open spaces of any consequence are the few empty plots that stand resulting from the demolishing of the earlier bungalows that stood on them. Presently unbuilt upon, these are covered with overgrown vegetation and are not maintained. Some are used as playgrounds, while the others have generated into dumping grounds.

Chapel Street is however completely devoid of any such squares either planned or accidental.



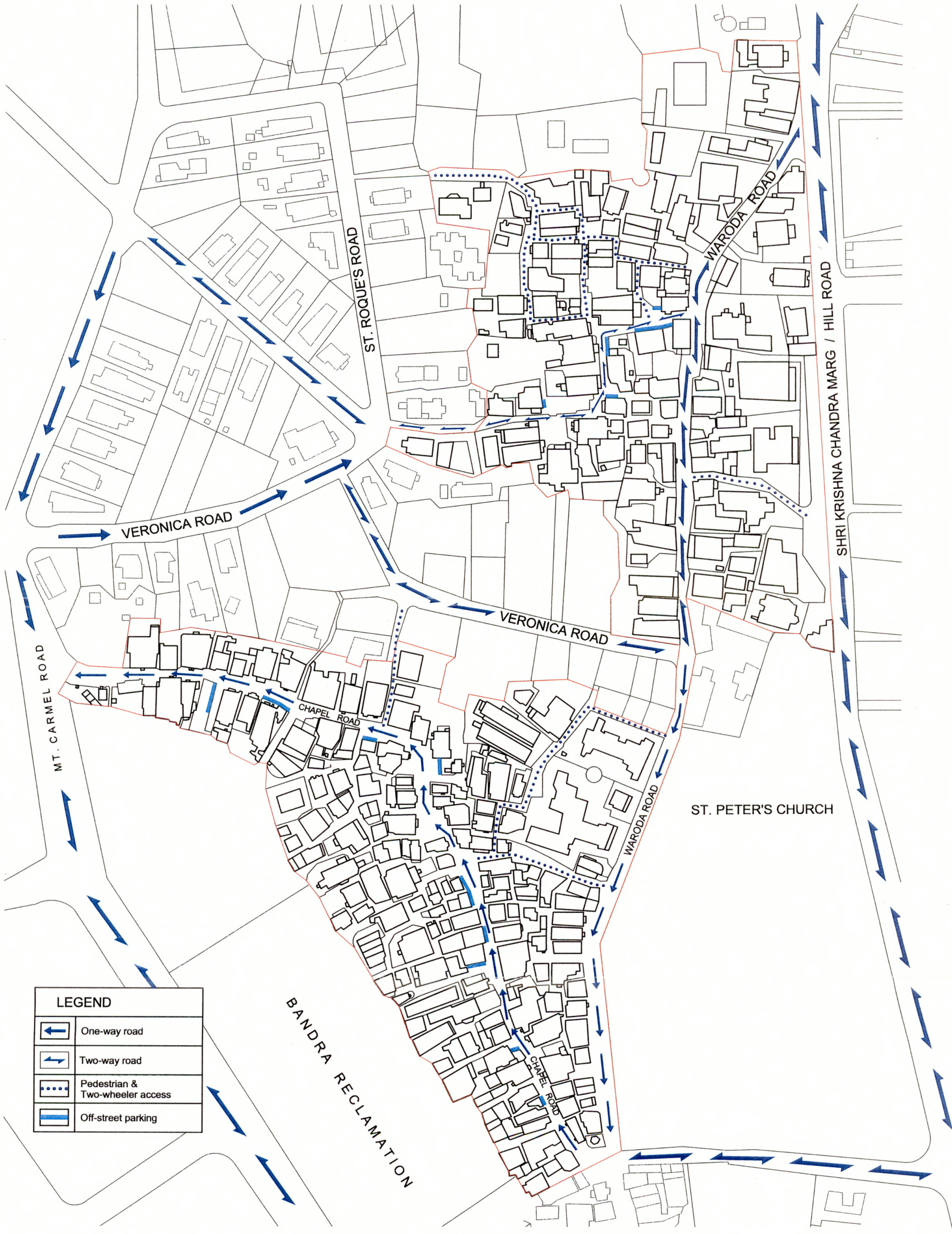
Rest Ranwar



LEGEND	
	Major Arterial Route
	Primary Road
	Secondary street
	Tertiary Street
	Public Open Spaces
	Private Open Spaces



STREETS & OPEN SPACES



LEGEND	
	One-way road
	Two-way road
	Pedestrian & Two-wheeler access
	Off-street parking



TRAFFIC PATTERN

STREET FURNITURE

STREET LIGHTS AND LAMPPOSTS :

These are in sufficient in number and too far apart to be completely effective

ELECTRIC METER BOXES :

The incongruous placement of some meter boxes mars the façade of the structures, in front of which they are placed.

FIRE HYDRANTS :

Most of them are old, out of use and in need of attention

TREES AND PLANTERS :

A few trees present are concentrated in the central area.

ROADSIDE SHRINES :

The entire area is dotted with emblems representing the Christian faith. Many of these are found to be embedded within the compound walls or seen at the various intersections and minor nodes within the precinct.

PAVING :

The paving is almost every part of the precinct, presently exist in state of complete disrepair, both vehicular and pedestrian access ways.

BUILDING NUMBER / BUILDING NAME :

Some of the buildings within the precinct have their name prominently displayed. The building numbers alone identifies others that bear no name. Hence, it is necessary that the building number be distinctly seen

STREET WIDENING, SETBACKS AND OPEN SPACES

Street Widening:

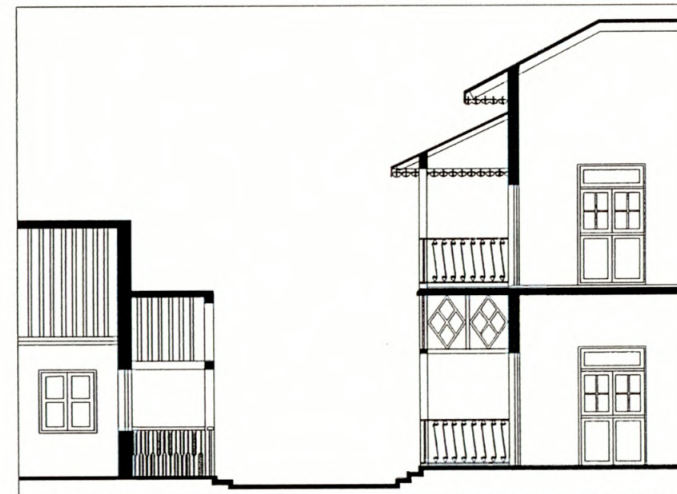
The narrow meandering street edges are intrinsic to the character and scale of the village and should be retained. The open porches and verandas create transitional spaces between the streets and homes, lending an illusion of apparent width to the street. In some sections of the street the buildings have characteristic features that unify the row of buildings. A sudden change in such a stretch would be visually disruptive. Such sections identified as unified street edges shall not be permitted any setback from the street for the purpose of front open space or for road widening. These stretches are indicated on the accompanying maps and the treatment of their facades will be closely monitored by the MHCC for reconstruction or new developments.

Setbacks:

To avoid through traffic and prevent the destruction of porches and verandas, continuous setback lines along the street are to be avoided. Widening for traffic lay-bys and street parking shall however be permitted in sections of Waroda Road and towards the edge of the precinct along Veronica Road and St. Roques Road as houses along this street already are at a setback and have space between building and boundary walls.



Typical meandering street



Typical street section

Such setback lines for road widening have been demarcated on the adjoining map. In areas other than those marked on the maps, where the architectural style is mixed, setbacks may be permitted at the discretion of the Heritage Committee, such that they are compatible with the meandering nature of the street.

Within the Core Zone of Ranwar village, setbacks may be provided only if it enhances the character of the squares.

Street widening and setbacks along Hill Road of the peripheral Zone may be permitted as indicated in the adjoining maps, in keeping with the urban nature of the street.

Open Spaces:

Open spaces on all sides of the structure except the front shall be a minimum of 1.5m for a G+1 and 2m for a G+2 structure in new developments in the core and buffer zones. In the peripheral zone open spaces shall be as per the prevailing DC regulations.

Note: The recommendation would require changes in DCR 28 and 33 of the present DC regulations.

TRAFFIC AND PARKING

The DP plan proposes the extension of St. Peter's Street to directly connect to Bandra Reclamation. However, since this has not materialised, the overflow of traffic from Hill road cuts through the precinct along Chapel Road to reach Bandra Reclamation. Despite this, the meandering nature of the street supports both pedestrian and vehicular traffic. However with the entry for the Bandra-Worli sea link proposed at Bandra Reclamation, the future volume of traffic through the precinct would be overwhelming and destructive. Hence a strong recommendation to enforce the proposal of extension of St. Peter's street into the Reclamation should be made in order to safeguard the precinct.

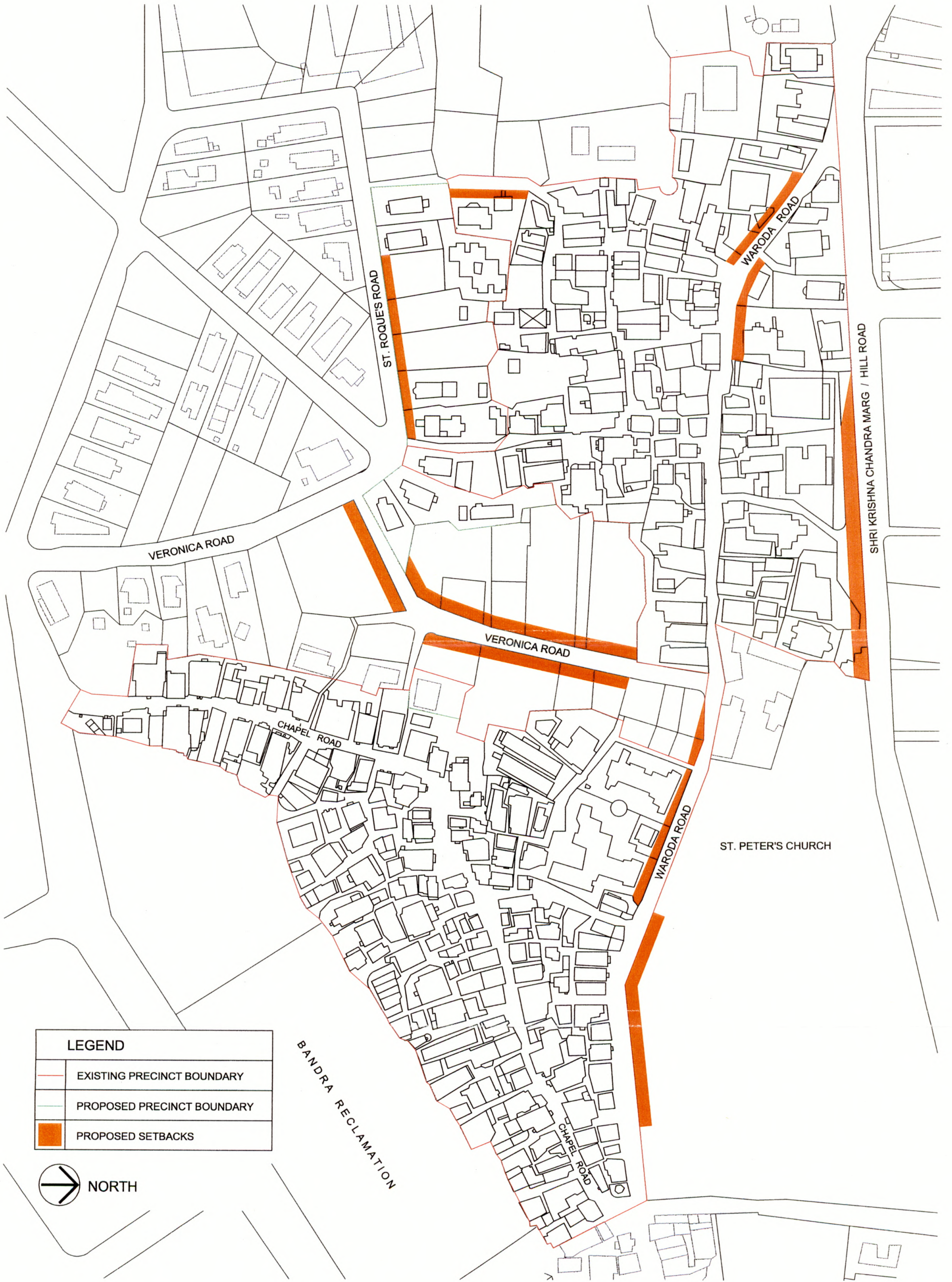
The proposed DP plan also suggests widening of all streets within the precinct ostensibly to permit more vehicular traffic. This would result in the destruction of the indigenous architectural features i.e. the porches and verandas. Also the pedestrian nature of the streets would diminish drastically. Hence, setbacks in general will not be insisted upon except where specifically permitted as indicated on the maps.




The precinct due to its scale and organic development pattern is even today largely negotiated by pedestrians and two-wheeler traffic only. Attempts to encourage entry of cars would completely mar the character of the precinct. Accordingly, with the exception of the Peripheral Zone, stilts and basements for car parking are prohibited and off-street car parking will not be insisted on in the core and buffer zones. However, street parking will be permitted along Waroda, Veronica and St Roques Roads where setbacks are proposed particularly for this purpose.

Note: The recommendation would require changes in DCR 36 of the present DC regulations.



Street parking on Chapel Road layby



LEGEND	
	EXISTING PRECINCT BOUNDARY
	PROPOSED PRECINCT BOUNDARY
	PROPOSED SETBACKS



PROPOSED ROAD SETBACKS

SIGNAGE, SERVICES AND STREET FURNITURE

The entrances to the precinct should be adequately highlighted and identified by way of sensitively designed signage.

Road names should appear at the ends of the streets, clearly demarcating one-way roads from others by way of entry signboards. These and other municipal signs shall be designed such that they emulate the character of the precinct.

Building names and numbers should be standardised, appropriately designed and displayed on the main façade of the building or at the entrance of the house.

With increasing commercialisation many of the ground floor sections of the houses that face the street are changing into convenience shops, and commercial signage is fast becoming an issue in the precinct. All such signs shall not exceed 10% of the front façade area and shall be located on black masonry sections or within the gable line of the structures. Commercial signage, which mars or covers the architectural detailing, will be disapproved. Fluorescent colours and flashing signs will not be permitted.

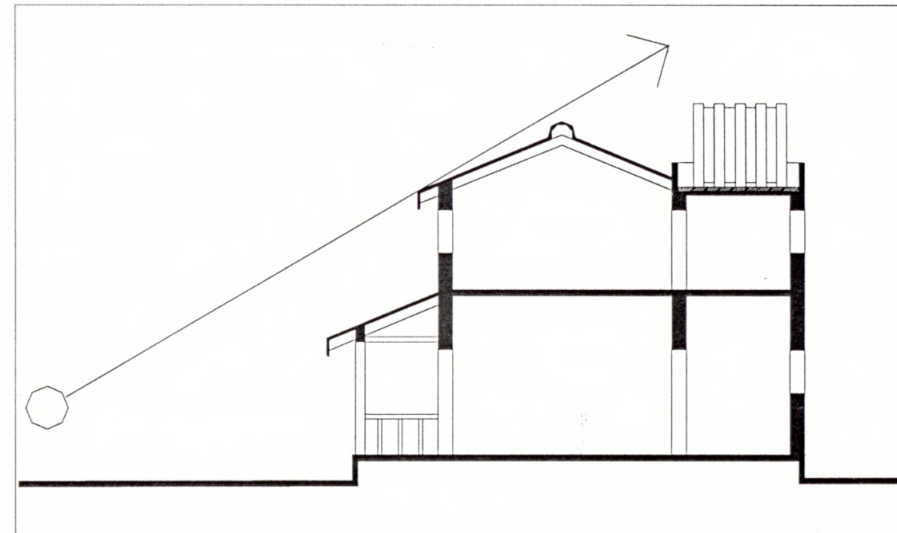


Fire hydrants are not only integral to the character of the precinct but are functionally essential, as most of the streets are pedestrian in scale and a fire fighting tanker would not be able to easily enter in case of an emergency. Existing hydrants are identified and need to be maintained. However the number of existing hydrants is inadequate and there is an urgency to place more hydrants in the precinct.

Overhead water tanks are recommended to be placed within the volume of the sloped roof. If this is not possible then the overhead water tank shall be placed in the rear 1/3 of the structure such that its profile does not project beyond the roofline.

The traditional high tiled roof, double shutters with louvers and thick walls result in cool interiors. However if **Air-conditioning units** are to be installed, they shall be placed on the side or rear façade with a minimum setback of 1m from the corner. Similarly in case of split units the outdoor units, should be placed over the rear 1/3 section of the structure.

Note: The recommendation would require changes in DCR 43 and 48 of the present DC regulations.



Placement of water tank in rear 1/3 of the roof

AESTHETICS

BUILDING TYPOLOGY

The development of Ranwar village was characterised by the growth of residential bungalows along Waroda Road and then spreading inwards. The original structures display a strong Portuguese influence with architectural elements such as porches, tiled pitched roofs and ornamentation such as fascia boards, balustrades, wooden fretwork panels etc. For the purpose of our study, these original residential structures have been classified further on the basis of their facades and style:

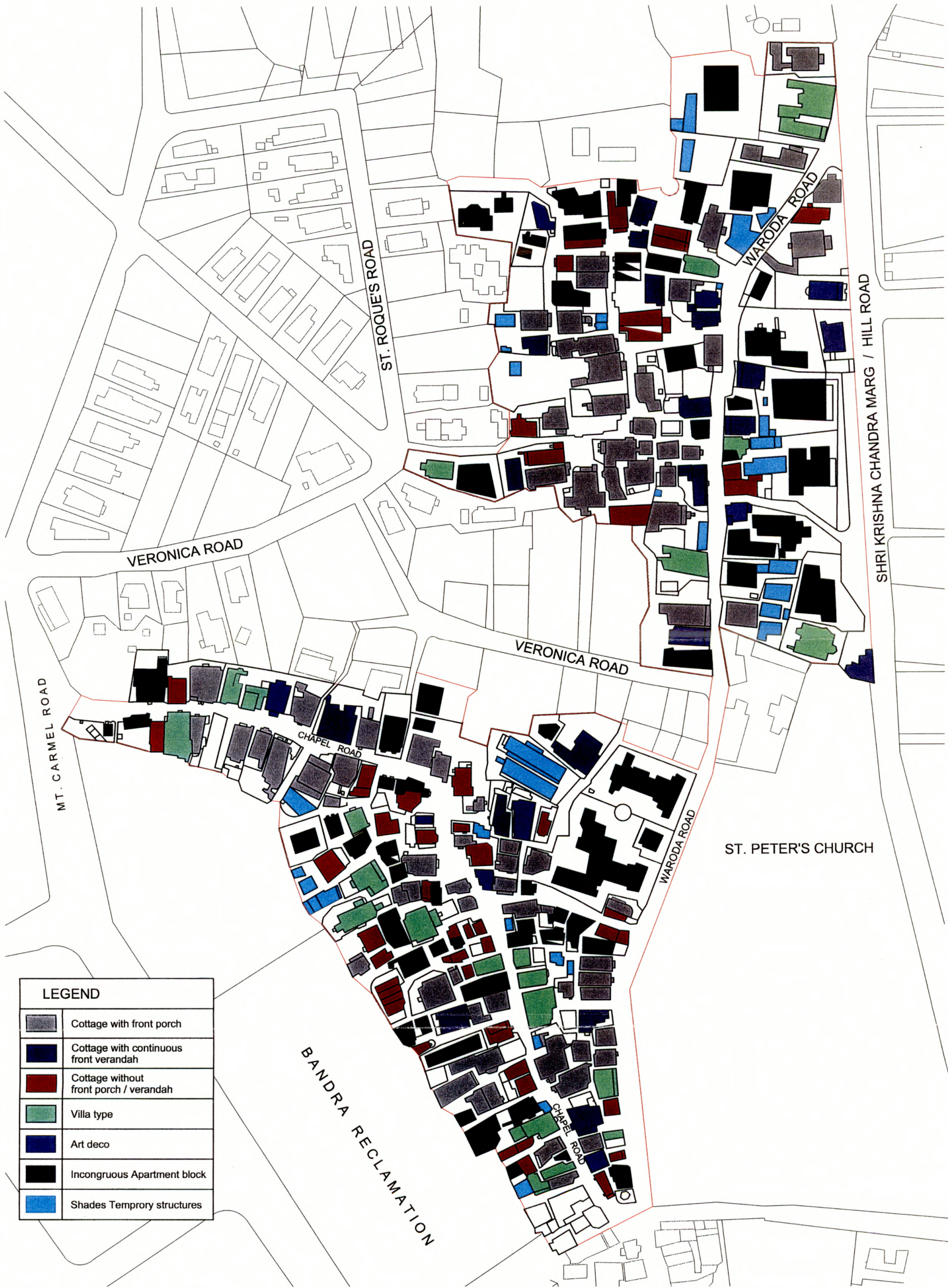
- a) Bungalows 1 – with front porches
- b) Bungalows 2 – without porches
- c) Bungalows 3 – with continuous front verandah on all the floors.

The hybrid character of the architecture in Ranwar is highlighted by the buildings such as Homecoming (57) and Remi Ville (10G).

There are a number of G+1 storied blocks, arising from the demolition of older bungalows, modern and made of concrete with box grills and Al. Sliding windows.

Also standing out in sheer contrast to the other vernacular bungalows around, are the modern multi-storied apartment buildings that threaten to destroy the very character of the precinct. The area is also dotted with numerous temporary innocuous-looking tin sheds





LEGEND	
	Cottage with front porch
	Cottage with continuous front verandah
	Cottage without front porch / verandah
	Villa type
	Art deco
	Incongruous Apartment block
	Shades Temprry structures



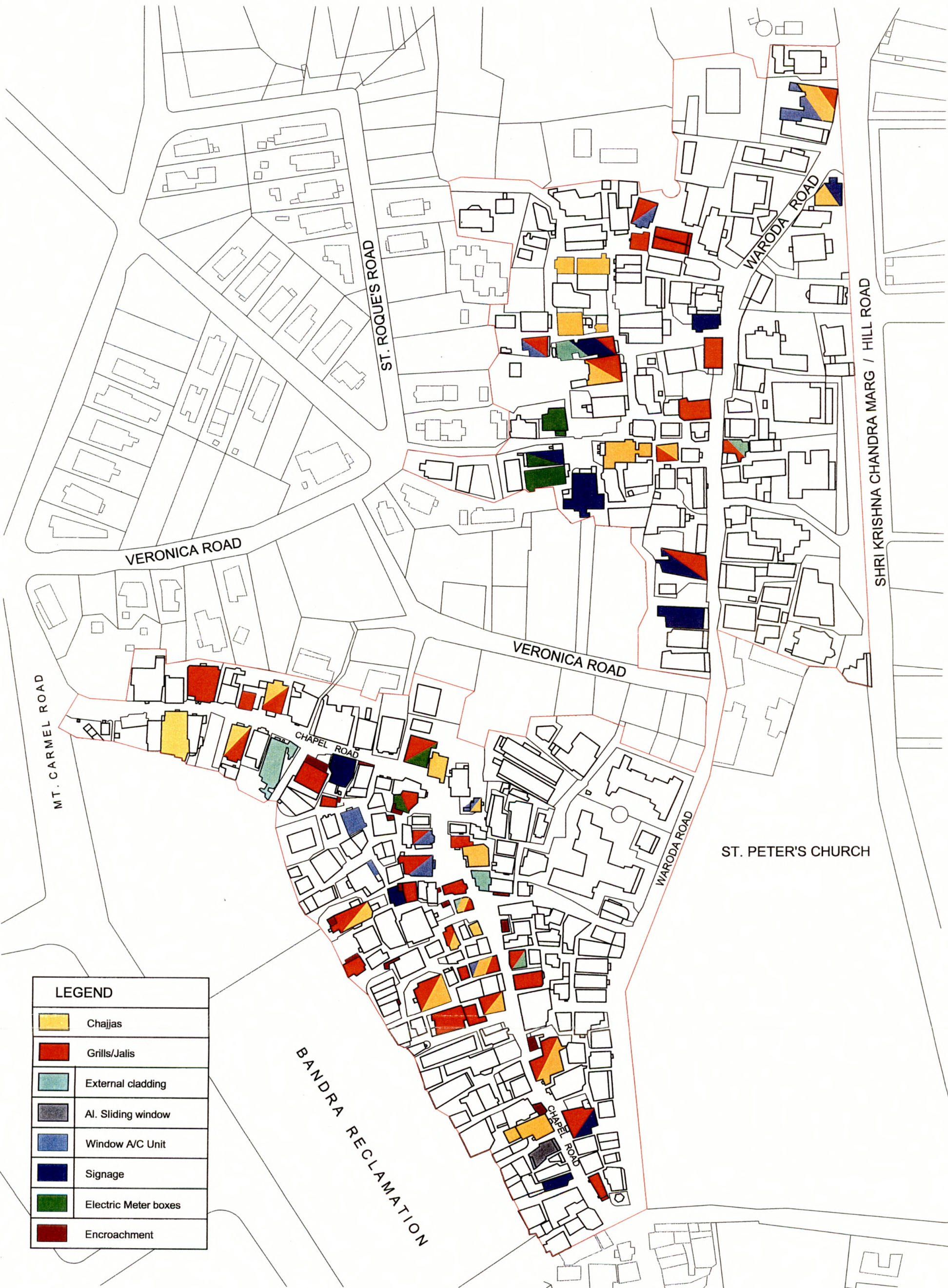
BUILDING TYPOLOGY

INCONGRUOUS FAÇADE TRANSFORMATION

The present scenario in the Bandra Village is sadly one of the rapidly diminishing special original 'village' character of the area. One of the main reasons for this is the many insensitive and rather tasteless embellishments to the elevation design of the structures.

- The encroachments on the porches and the balconies through enclosing them by building walls around them.
- The addition of Al. Sliding windows on the enclosed porches and balconies.
- The incongruous modern jalis and box grills that are fitted on external openings, including the front porches.
- The replacing of the original wooden / cast-iron decorative balusters on the porches and staircases by brick parapet walls.
- The accretions in the form of windows air-conditioning units on the front façade.
- The innocuous cladding material like mosaic tiles or granite added on the facades.
- Addition of tin chajjas on the window openings.
- The positions of the meter boxes lying exposed on the front walls.
- The displaying of gaudy signage and advertising boards on the shop front of the commercial establishments that line the ground floor of many buildings.





LEGEND	
	Chajjas
	Grills/Jalis
	External cladding
	Al. Sliding window
	Window A/C Unit
	Signage
	Electric Meter boxes
	Encroachment



FACADE TRANSFORMATIONS

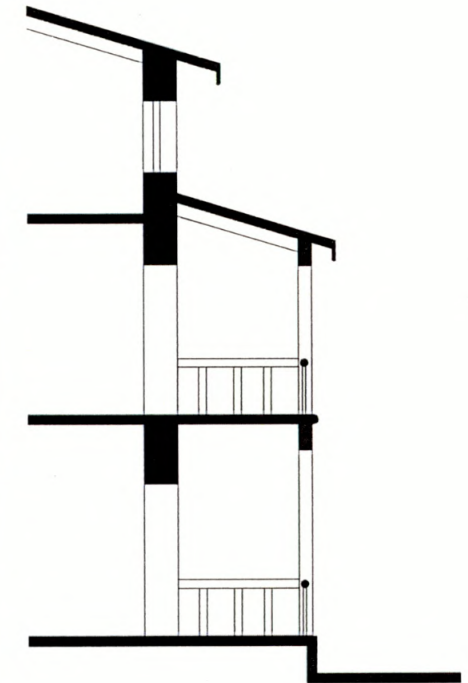
FORM AND COMPOSITION

VOLUME AND MASS

Volumes are three-dimensional forms of the building while mass is created by their spatial arrangement and surface treatments. Together they define a building weight, bulk and depth. The appearance of volume and mass influences how people perceive the buildings as they pass by. When there is an inconsistency due to an adjacent building being taller the existing fabric and pattern gets rudely disrupted.

Bandra village has a strong sense of volume and mass, as the main structures are load bearing and seem solidly rooted to the ground. In contrast the porch and veranda as transitional open elements, help reduce the effect of the solid mass. The architectural detailing such as the balusters and railing are transparent and add visually and spatially to the street width.

Core and Buffer Zone: Any alteration remodelling or new construction made within the core zone shall ideally retain the original mass and volume derived of the footprint with minimum setbacks and a porch and/or veranda. The height recommendation of G+1 shall help maintain the volume control. As mentioned earlier, in case of an additional floor to consume FAR a minimum setback of 2m or the depth of the porch will ensure a change in the volume, such that it is compatible with the character of the precinct.



Additional floor set back to retain the street front scale

In the case of new construction a porch/veranda fronting the street will be insisted upon with a setback for the second floor as outlined earlier in the section on 'Heights'.

Peripheral Zone: This zone is a transition between the core and the urban development north of Hill Road. The existing character is largely urban high rise apartment blocks of G+6/7 height. In keeping with the existing character within this zone structures may go up to a height of G+6. However, the volume would overpower that of the rest of the precinct. Hence these structures shall be designed such that the façades facing Waroda Road shall have a lowered height of G+4 creating a variation in the volume of the building. The height restriction of G+2 in the core on the south side will then ensure a gradual spatial transition from core to periphery.



Konarak Classic- G+6 structure showing volume step-down towards the precinct

ROOFLINES

Core and Buffer:

The structures within the village predominantly have tiled sloping roofs, of traditional pitch or hip type. To maintain this consistency the roofline of all structures within the core and buffer shall be sloping with a minimum 20-degree slope and an overhang of minimum of 50cm.

The sloped roof shall be applicable up to a minimum of 2/3 of the depth of the structure from the front façade with a flat roof to the rear for placement of a water tank.

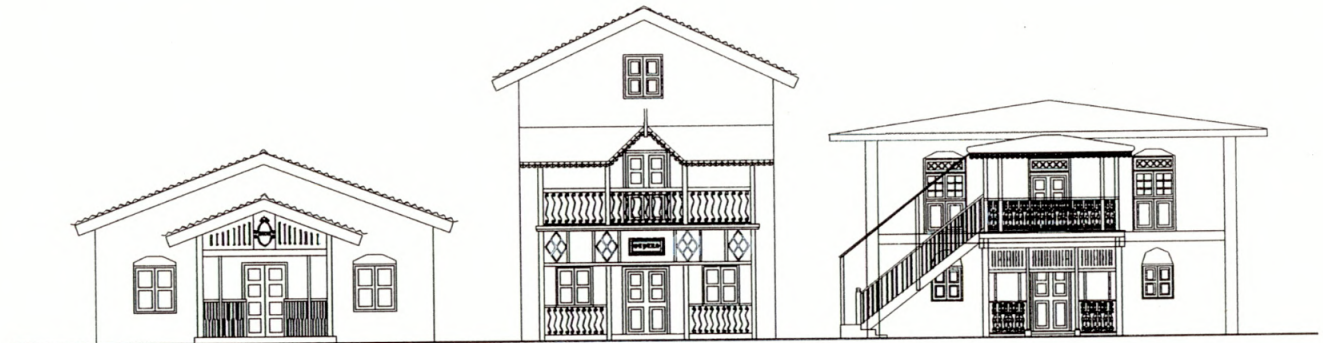
Water Tanks shall not be allowed to project above the maximum (ridge) height of the roof.

Peripheral Zone:

In structures of the peripheral zone the sloped roofline is recommended.



Characteristic roofline in the precinct

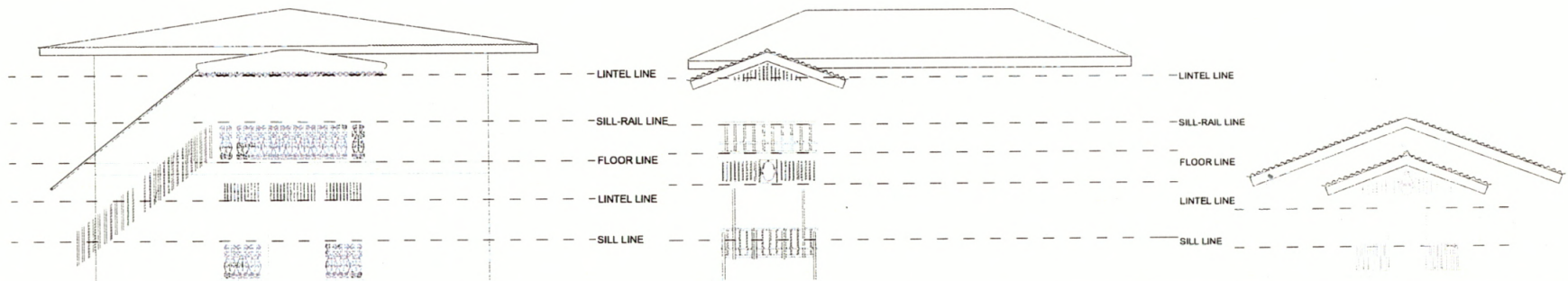


SCALE AND FAÇADE EXPRESSION

Human scale in architecture is based on the human body. Normally we depend on visual clues to relate to the overall size of a building e.g. steps, doors. The appeal of the precinct lies in its consistent human scale throughout the building, so that people relate comfortably not only to the structure but the entire streetscape. Hence maintaining the size and detailing of elements like porch, steps, railing, which articulate the scale of the building, should be retained.

The elevations are defined not only by the mass and volume but also the architectural elements of the façade. These may be perceived through sill and lintel lines, columns, stringer courses and balusters. The floor to floor height and the overall height of the buildings are invariably different. However, as a result of traditional building techniques and consistent human scale, there exists a strong horizontal expression or architectural control lines.

The new construction need not adhere to neighbouring expression lines however the essence of the neighbouring facades should be maintained.



PROPORTION

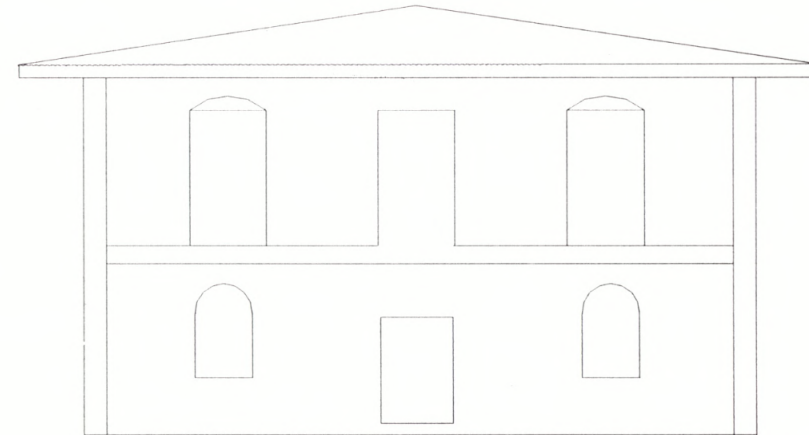
SOLID TO VOID RATIO AND RHYTHM

The structures in the precinct are largely load bearing, hence the mass dominates the façade. In such structures large window openings are not structurally possible. Openings are always flanked by masonry. Hence the wall to window ratio is a contributing factor to the character of the precinct. The percentage of the voids, on the front façade or any other façade visible from the main access street, shall be 20% to 30% of the wall area in the core and buffer zones.

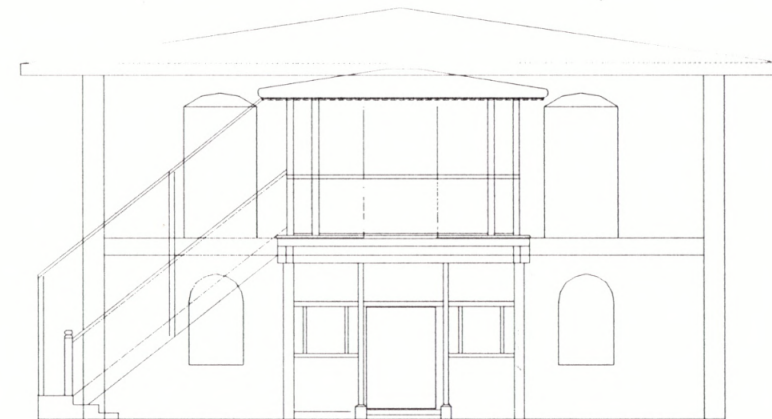
Further the facades of the houses of the precinct have a definite sense of rhythm derived from the structure's load bearing nature. The resultant rhythm is equal parts of alternating solid and void ending with a solid wall at the edges. This rhythm shall be followed in new developments in the core and buffer zones.

PORCH-VERANDA TO FAÇADE RATIO

The porch and veranda are integral elements of the precinct's style and will be insisted upon for structures in the core zone and recommended for structures in the buffer zone. Porches have transitional quality, which function well both spatially and climatically. The repetitive sense of rhythm is again reflected in the baluster detailing. The porch/veranda should cover a minimum of 25% of the front façade in new developments.



The area of windows and doors are 20-30% of the wall area



The porch is a minimum of 25% of the wall area in elevation

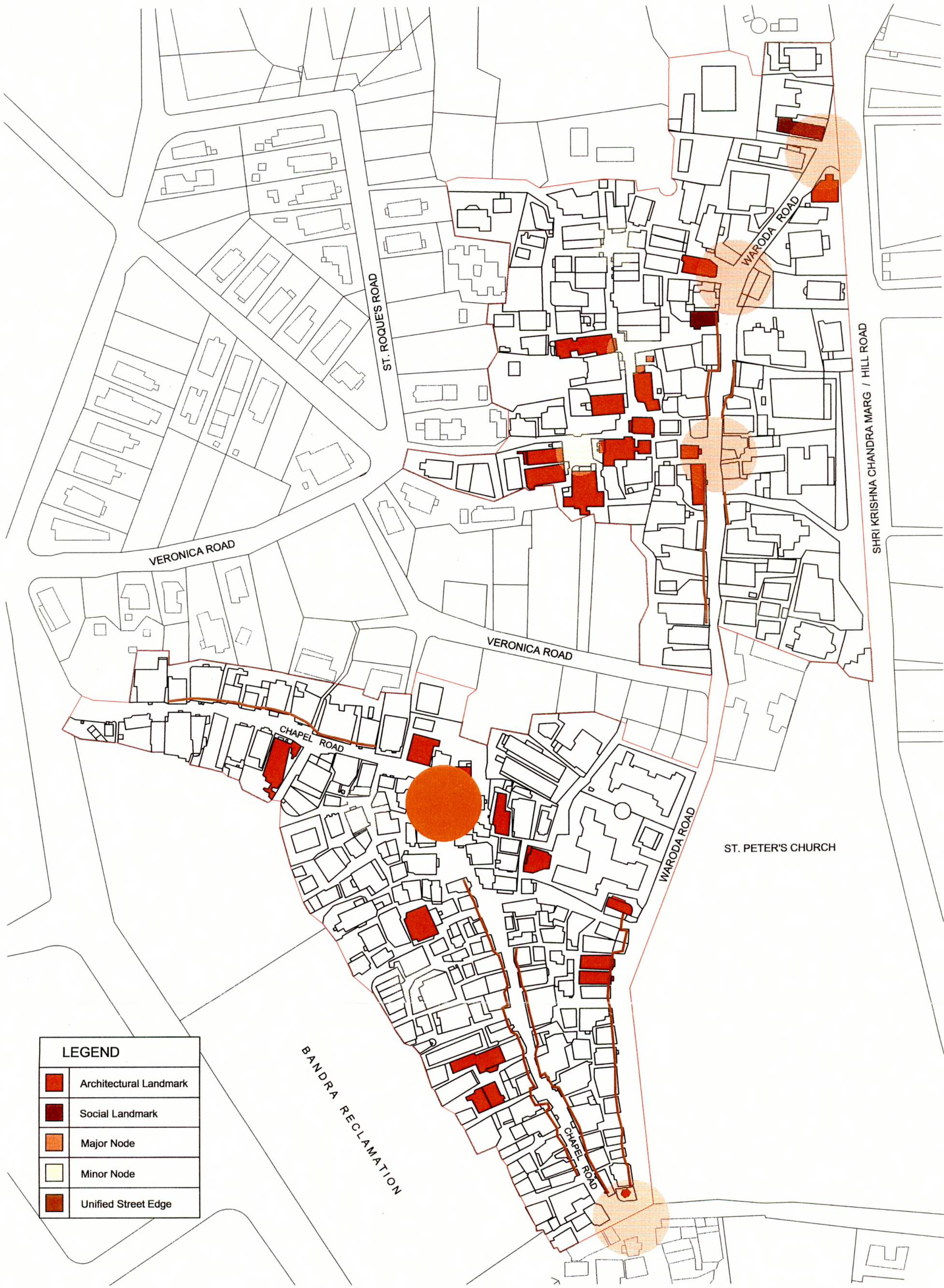
LANDMARKS AND NODES






The trio of churches i.e. St. Peter's, St. Andrews' and Mt. Carmel's serve as distinguishing landmarks and identify the entry points into the Bandra Village precinct.

Within the Precinct, itself there are various prominent structures that visually delineate the different areas. Building no. 25A on Chapel Street is a fine bungalow with an impressive ornamental front porch and a relatively large setback from the street edge, which has been maintained as a neat conspicuous landscaped garden. Building nos. 40 and 42 are good examples of well-preserved bungalows occupying salient corner locations. Building no. 59 on Chapel Street is significant due to the fact that it is a structure that has been sensitively built over by congruous upper floor addition; thus it serves as a bench mark for any other new development.

The junction of the main Hill Road, and the western end of Waroda Road, with the V-shaped plot of Mary Ville (Building no. 91) at the prominent intersection. The 'Benhur' chemist shop, on the ground floor of Fernandez villa (Building no. 93) serves as a well-known local landmark.

The junction of turn-off from Hill Road i.e. St. Peter's Road,, Waroda Road and Chapel Street marked by the Police Chowky and popularly known as the 'Jeff Caterers' junction after the establishment which occupies a frontal position on this node.



LEGEND	
	Architectural Landmark
	Social Landmark
	Major Node
	Minor Node
	Unified Street Edge



LANDMARKS & NODES

CONDITION OF BUILDINGS

An aesthetic study of the original bungalows in the Ranwar Precinct to evaluate their condition shows that a majority of the structures are in a fair condition and only a handful of them, totalling 12 out of 67 (approx.) can be considered to be in good condition. The remaining buildings, mainly the older bungalows are in a poor condition on account of no maintenance or because they remain unoccupied.

The general condition of buildings on Chapel Street are seen as aesthetically deteriorating. This largely due to unchecked insensitive and indiscriminate changes to the facades. These include additions of box grills, collapsible jaalis on entrances, front porches and windows, protrusions of chajjas, infilling of brick or tin-sheets to wooden balustrades and replacing Mangalore tiles with AC or tin sheet roofing.

PROPOSED LISTED BUILDINGS AND SPACES

Though the entire precinct has been listed as Grade III, no individual structure or open space within the precinct has been listed.

The documentation has resulted in a vast amount of data regarding the architectural heritage of the precinct. On the basis of this documentation, the present listing is revised in order to include buildings and spaces of singular and collective architectural value within the precinct that are not presently included in the heritage list.

The following structures, artefacts and spaces are proposed to be included in the heritage list:

Chapel Road

Police Chowki and Cross

Mary Lodge, 21/A Chapel Road

25/A Chapel Road

25/B Chapel Road

Philomena Cottage

D'souza Family House, 42, Chapel Road

54 Chapel Road



Police Chowki and Cross



Mary Lodge



25B Chapel Road



D'souza House



25/A Chapel Road



54 Chapel Road



Philomena Cottage

Waroda Road

Rebbeca Cottage, 25, Waroda Road

Olpers, 23, Waroda Road

Gregory House, 21, Waroda Road

Amara, 33, Waroda Road

Lewis Cottage, Waroda Road

Cottage No.49, Waroda Road

Philips House, 59, Waroda Road

Hyacinth Pereira House, 59A, Waroda Road

D'sa House, 73/B Ranwar

Mary Ville, 91 Hill Road



Rebbeca Cottage, Olpers and Gregory House



Mary Ville



Lewis Cottage and 49 Waroda Road



Amara House



73b, D'sa House



Philips House



59A Waroda Road

Veronica Street

Edward House, 45, Veronica Street

Dias House, 19, Veronica Street

Reggie Cottage, 41, Veronica Street

Pereira House, 42, Veronica Street

Rodrigues House, 17, Veronica Street

Rodrigues House, 14 Veronica Street

BMC Code 425 (dated 1841)

The Trellis

Open spaces

Restaurant Ranwar, St. Roques Road

Minor square enclosed by structures:
469,470,471 and 488

Major Square enclosed by: Edward House
Dias House, and Reggie Cottage
Chapel (450)



Edward House



Dias House



Reggie Cottage



The Trellis



BMC 425, Veronica Road



Chapel (450)



Minor Square: 469,470,471 and 488



Rest Ranwar



Major Square: Edward House, Dias House and Reggie Cottage

IDENTIFIED INDIGENOUS AND INCONGRUOUS STRUCTURES

Few structures within the precinct are incongruous in style, scale and elevation. Unfortunately, these are often cited as examples to allow similar developments in other parts of the precinct. These buildings have been identified and marked as aberrations to prevent them from being quoted as examples for future development.

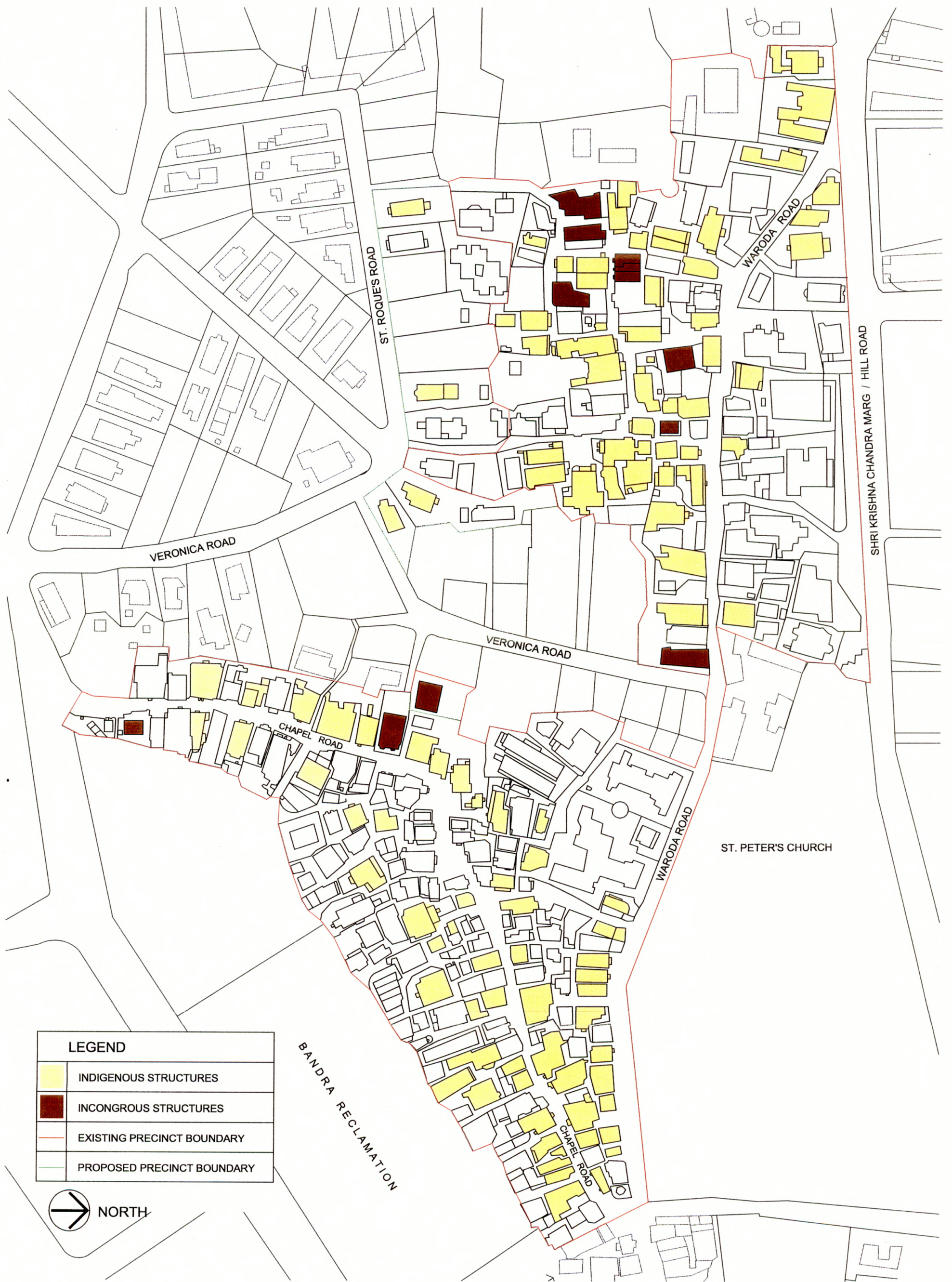
Additionally, many structures have unauthorised and/or incongruous additions. Those structures which are unaltered or retain original characteristics, with or without additions, have been identified as being indigenous or "true to type". Structures identified as indigenous shall be allowed to retain the existing FAR of more than 1.0 if reconstructed with the existing mass and height. These have been identified on the adjoining map.







Indigenous Structure



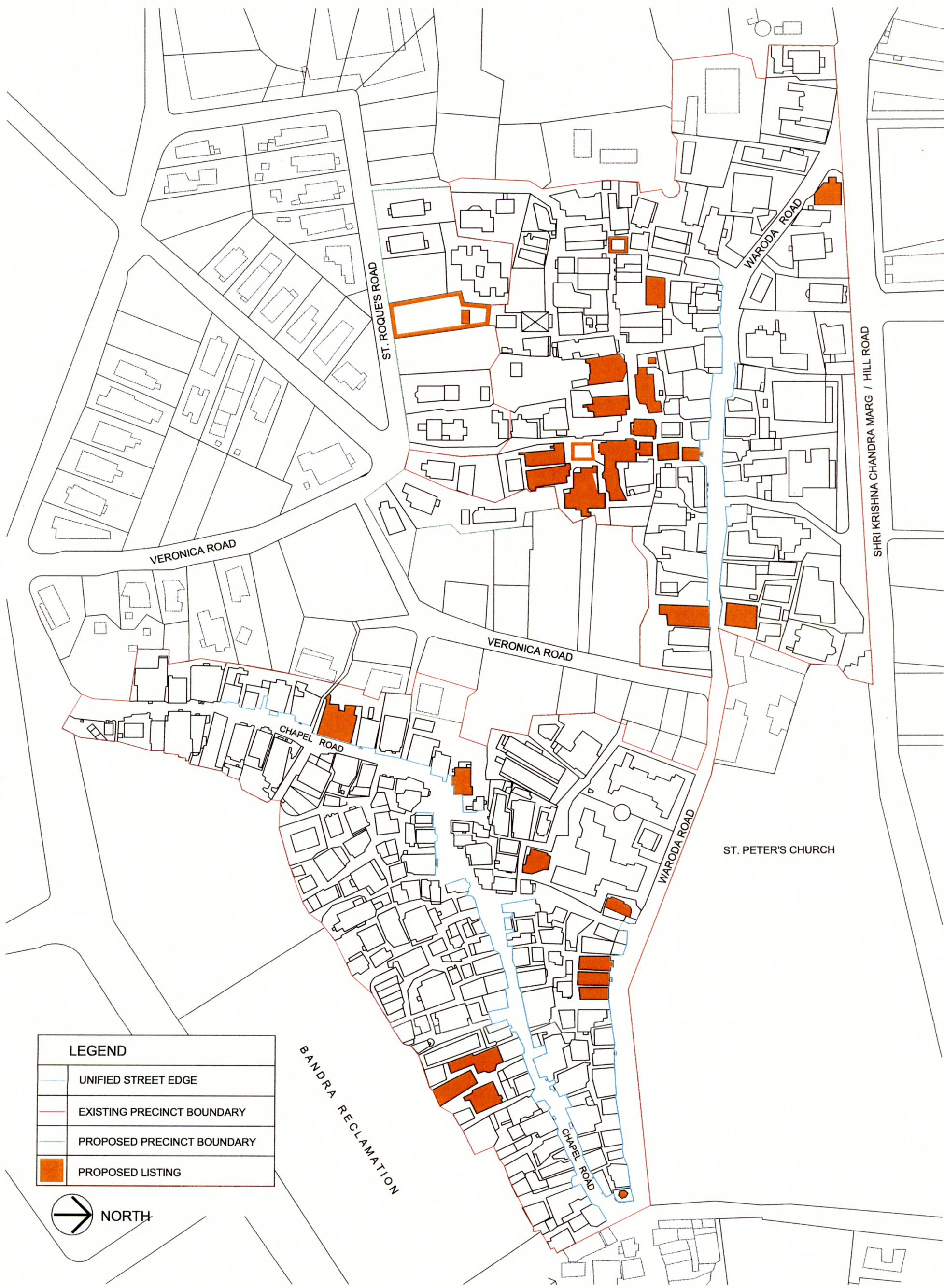
Incongruous Structure







LEGEND	
	INDIGENOUS STRUCTURES
	INCONGRUOUS STRUCTURES
	EXISTING PRECINCT BOUNDARY
	PROPOSED PRECINCT BOUNDARY



INDIGENOUS & INCONGRUOUS STRUCTURES



LEGEND	
	UNIFIED STREET EDGE
	EXISTING PRECINCT BOUNDARY
	PROPOSED PRECINCT BOUNDARY
	PROPOSED LISTING



UNIFIED STREET EDGES & PROPOSED LISTINGS

CHAPEL STREET

Bldg Name / No.	STRUCTURAL CONDITION									FACADE CONDITION						ROOF CONDITION							
	PORCH			STRUCTURE						Remarks	Plaster	Cornice or Pilaster	Fenestration	Balus trade	Panels	Additions	Remarks	Purlins	Boarding	Tiles	Tiles to AC	Fascia	Remarks
	Roof	Frame	Balus trade	Floor	Col.	Beam	Ext. Wall	Stair case															
29B											NA			NA		Clour							
30	Not Applicable							NA	S		NA			NA		S	Not Applicable						
32	Not Applicable							NA			NA		NA	NA		C, E	Not Applicable						
33	Not Applicable							NA			NA		NA	NA		J, C, W, Ac							
33A	Not Applicable										NA		NA	NA		J, C, E		NA					
33B														NA				NA					
37D								NA	E		NA			NA		J, Floor		NA					E
38									I		NA					I, C							
39	Not Applicable							NA			NA		NA			C		NA					G, I,
39A											NA			NA									
40									I, Steel support		NA					I, C,		NA					Staircase
41A																							Unoccupied
42									I		NA							NA		NA			
44	Not Applicable							NA			NA		NA			W, J, C		NA		NA			
50								NA			NA			NA		C							Porch removed
52									Ficus Growth							J, W, E, St				NA			
54																J, W, C							
55								NA			NA			NA									
57								NA			NA			NA		E, J		NA					
59														NA		J, Ext.							
60	Not Applicable							NA					NA	NA		J							C
62	Not Applicable										NA		NA	NA				NA					
63									C					NA		J, W, C, S							
64											NA					S			NA	NA	NA		
66	Not Applicable										NA		NA	NA				NA					
67	Not Applicable													NA		S							
69/71	NA	NA	NA											NA		C, P							Part Flat, G
Anacleto Hse.	Not Applicable							NA	RCC		NA			NA		J, C		Not Applicable					
Enid's	Not Applicable							NA			Not Applicable						Not Applicable						
Black Jail									J, St. frame, R		NA		NA			J, F		Not Applicable					RCC

W - Wiring / Electric Meter Boxes † J - Jalis / Modern grills † C - Chajjas † A - Addition of Upper Floor † E - Extensions on ground floor † I - Brick Infill † S - Signage / Shopline †
 Al - Aluminum windows † G - Roof gutter added † P - Service pipes added † F - External finish altered / Cladding † R - Replaced by RCC † AC - AC Sheet added † A/C - Air conditioners added
 † M - Missing † D - Rising damp † F - Ficus growth

RANWAR

Bldg Name / No.	STRUCTURAL CONDITION									FACADE CONDITION						ROOF CONDITION					
	PORCH			STRUCTURE				Remarks	Plaster	Cornice or Pilaster	Fenestration	Balus trade	Panels	Additions	Remarks	Purlins	Boarding	Tiles	Tiles to AC	Fascia	Remarks
	Roof	Frame	Balus trade	Floor	Col.	Beam	Ext. Wall														
5										N.A			N.A	N.A							
7																					
8																					AC, I
8C			NA																		C
9/6D																					C
10/Avlin																					W
10A																					J, F, I
10C																					N.A
10H			Not applicable																		J, A/C, I
10J																					C
12																					N.A
13/Dias Hse.																					I
14																					sagging
18																					M
20			NA																		sagging
28																					N.A
41/ReggieCottage			not applicable																		W
42/Perreira Hse																					C
44			not applicable																		F, J
45/Edward hse																					A, M, C
49																					I
50																					N.A
51																					D, F, A, I
55																					I, J
57/58 JenuJanal																					disrepair
59/Phillips cottage																					AC
59A																					C
61																					AC, M, W, I
63																					AC

W - Wiring / Electric Meter Boxes † J - Jalis / Modern grills † C - Chajjas † A - Addition of Upper Floor † E - Extensions on ground floor † I - Brick Infill † S - Signage / Shopline †
 Al - Aluminum windows † G - Roof gutter added † P - Service pipes added † F - External finish altered / Cladding † R - Replaced by RCC † AC - AC Sheet added † A/C - Air conditioners added
 † M - Missing † D - Rising damp † P - Ficus growth

RANWAR

Bldg Name / No.	STRUCTURAL CONDITION								FACADE CONDITION							ROOF CONDITION					Remarks	
	PORCH		STRUCTURE						Remarks	Plaster	Comice or Pilaster	Fenestration	Balus trade	Panels	Additions	Remarks	Purlins	Boarding	Tiles	Tiles to AC		Fascia
	Roof	Frame	Balus trade	Floor	Col.	Beam	Ext. Wall	Stair case														
67	concrete porch							concrete					N.A		A, AC, J, W							
69/Judee's	not applicable						N.A			N.A			N.A		I, C, F, W		N.A	N.A				
75B													N.A		J							
77A													N.A		F, I					N.A		
77 C & D	porch infilled						N.A						N.A		J					N.A		
77E/Pleasant Villa										N.A			N.A		J, AC							
78G/Firdaus Manzil	not applicable						N.A						N.A	N.A	I						canopy	
84/Ailington							N.A						N.A									
85/46													N.A		J, S						M, Ver	
91/Mary Ville													N.A		M, J, S						Flat	
93/Fernandez Villa	not applicable												N.A		J, AC, S							
The Trellis							N.A								D							
Philomena cottage	not applicable							tank load					N.A	N.A	N.A							
Martin Lodge	concrete porch												N.A		C						rear	
Wildamerez	concrete porch												N.A			not applicable						

W - Wiring / Electric Meter Boxes † J - Jalis / Modern grills † C - Chajjas † A - Addition of Upper Floor † E - Extensions on ground floor † I - Brick Infill † S - Signage / Shopline †
 † Al - Aluminum windows † G - Roof gutter added † P - Service pipes added † F - External finish altered / Cladding † R - Replaced by RCC † AC - AC Sheet added † A/C - Air conditioners added
 † M - Missing † D - Rising damp † F - Ficus growth

WARODA ROAD

Bldg Name / No.	STRUCTURAL CONDITION									FACADE CONDITION							ROOF CONDITION						
	PORCH				STRUCTURE					Remarks	Plaster	Cornice or Pilaster	Fenestration	Balus trade	Panels	Additions	Remarks	Purlins	Boarding	Tiles	Tiles to AC	Fascia	Remarks
	Roof	Frame	Balus trade	Floor	Col.	Beam	Ext. Wall	Stair case	Remarks														
1	Not Applicable							NA			NA		NA	NA				NA					
5	Not Applicable							NA			NA		NA	NA		E, J		NA					
7	Not Applicable												NA	NA				NA					
7 / 38C	Not Applicable							NA			NA		NA	NA		G, C							
11	Not Applicable							NA			NA		NA	NA		I		NA				Porch on G fl.	
13 / 34	Not Applicable							NA					NA	NA		E, S, G		NA					
15A								NA					NA	NA		E, T, G		NA					
19, Manovile													NA			I, St. frame							
21 Rebecca Villa														NA				NA					
23, Olpers													NA			G, E		NA					
25, Gregory Hse.										Sagging													
31	Not Applicable												NA	NA	NA		G						
33													NA				C, J						

W - Wiring / Electric Meter Boxes † J - Jalis / Modern grills † C - Chajjas † A - Addition of Upper Floor † E - Extensions on ground floor † I - Brick Infill † S - Signage / Shopline †
 Al - Aluminum windows † G - Roof gutter added † P - Service pipes added † F - External finish altered / Cladding † R - Replaced by RCC † AC - AC Sheet added † A/C - Air conditioners added
 † M - Missing † D - Rising damp † F - Ficus growth

REPAIRS AND RECONSTRUCTION OF EXISTING BUILDINGS

Listed Buildings:

No building listed or non-listed, within the precinct shall be repaired, remodelled or demolished without prior consent of the Heritage Conservation Committee. Further, **demolition of listed buildings** shall not be permitted unless the Heritage Committee is satisfied that these are dangerous from a structural point of view and demolition is the only alternative.

Reconstruction of listed buildings will not be permitted unless structurally essential or when the existing features are being restored. This will be done with the express permission of the MHCC.

Core and Buffer Zone:

Within these zones, if demolition is essential due to structural distress, the same shall be reconstructed as per the precinct guidelines. Repairs carried out to structures within the core zone shall be strictly scrutinised and should follow the prescribed guidelines for design and materials. Structures requiring repairs within the buffer zone shall reflect the architectural features of the precinct.



Sensitive structural alterations in concrete

Structures, identified as indigenous, if altered or demolished shall ideally be restored or reconstructed to the original form, volume and height of the original structure with architectural elements consistent with the precinct's character as recommended in the guidelines.

Such indigenous structures that are reconstructed as per the original status shall be allowed to continue to abut the plot line and retain the existing F.A.R, even though this exceeds the F.A.R of Bandra, which is set at 1.0. Alterations to identified unified street edges will be carefully scrutinised.

Peripheral zone:

Repairs to buildings in this zone shall be permitted as per existing Development Control Regulations.

**ADDITIONS, ALTERATIONS AND
NEW CONSTRUCTION**

Listed Buildings:

Buildings individually listed shall not be added to or altered except where features are being restored to the original on express permission of the MHCC.

Core and Buffer:

Any additions, alterations or new constructions shall strictly apply the prescribed guidelines for that zone, such that it is compatible with the character of the precinct.

Unenclosed visually transparent porches and verandas will be encouraged through concessions in the F.A.R.

Basements and stilts are strictly prohibited as they completely destroy the character of the precinct. Front boundary wall will be permitted only where previously existing.

Peripheral Zone:

Those buildings which lie within the peripheral zone shall reflect the architectural character of the precinct. In case of alterations and remodelling they shall comply with the design guidelines recommended in the precinct guidelines.

Note: For any reconstruction, remodelling, or new construction drawings of all floor plans, roof plan, and all elevations should be submitted for approval to MHCC. These shall include placement of water tanks, and other services. Absence of any of the above shall render the proposal unacceptable.

ARCHITECTURAL FEATURES AND FINISHES

WALL SURFACES

The structures of the precinct are largely load bearing resulting in large wall areas. These are traditionally treated with a lime plaster coloured with natural pigments. Such plastered wall surfaces form the norm and will be encouraged in new developments in the core and buffer zones.

Natural and synthetic cladding of any kind such as stone facing, sheet glass, metal siding etc. is not typical of the precinct and hence will not be permitted. Some structures have plastered trims or pilasters defining the interior structural elements. Such detailing will be preferred in redevelopment.

Finishes in natural colour scheme are preferred and recommended. Metallic reflective and fluorescent colours are prohibited.

For structures in the peripheral zone, sheet glazing and metal cladding will not be permitted on the façade.



ROOFS AND CHAJJAS

The traditional roofs were covered in a variety of clay tiles with eaves and fascia boards forming decorative wood trims along the edge of the roofline. These are not only decorative elements but are essential for the protection of the beams and rafter ends. Roof slopes and designs shall be as specified for each zone. However within the core zone the roof shall essentially be covered in clay tiles with a protective eaves board.

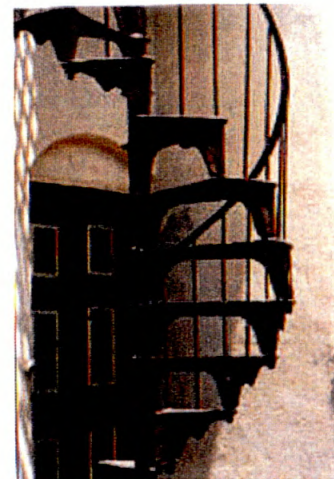
Chajjas were not common in the traditional structures of the precinct where the thick walls provided adequate setback for protection. However, increasingly these are being added onto the structures. Hence, if chajjas are to be provided they should be sloping within the buffer and core zone. The core zone chajjas should be finished in clay tiles.



Sensitively designed Chajja added to entrance

STAIRCASES

Most of the houses with an upper storey have externally placed staircases. In the case of a long continuous porch and veranda the staircase is often placed within the porch. This facilitates separate entry for the upper and lower occupant. The staircase is often detailed like the porch and veranda with traditional balusters and grilles and is designed as an open transparent structure. Accordingly as with the porch and verandah, walling up the balustrade and closing up the staircase will not be permitted.



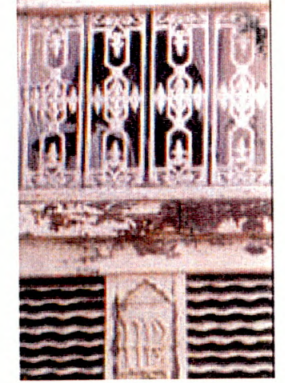
External staircase

PORCH AND VERANDA

The porch and veranda are not only integral to the character of the precinct but also function as transitional spaces between street and dwelling and add to the visual width of the street.

The traditional ornamentation of balusters on the porch and veranda create a vocabulary, which defines the edge of the street and provides spatial continuity. The material used - wood or wrought iron- articulates the plain stuccoed façade and creates a continuous rhythm. Hence any alteration to these in terms of enclosing by a solid wall or replacing original balusters with those of synthetic material or inappropriate design will not be permitted.

In some houses wrought iron or wooden brackets support an upper cantilevered veranda. Because of their location they form highly visible design elements of the streetscape. Replacement of these with steel sections completely destroys the original architectural character. Hence replacement with such inappropriate materials will not be permitted.



Typical baluster and bracket detailing in the precinct

WINDOWS DOORS AND GRILLS

The windows follow a rhythmic pattern in the load bearing walls, and do not have large spans. To retain this inherent character of the precinct, corner windows, strip or ribbon windows shall be prohibited.

The recommended windows shall be double-dutch, side hung and vertically oriented in keeping with the precinct pattern for windows. All doors and windows will be setback with a minimum 3" rebate from the external wall.

The original glazing used was primarily clear or frosted glass, hence these will be encouraged while reflective glass or mirror windows will not be permitted.

The structures of the precinct originally did not need grills for protection. In some houses at the lower floor vertical steel rods were placed within the frame as security bars. Such a system should suffice even today.

However the increasing urban crime rate may necessitate the use of modern day security grills. These should be provided within the rebate of the opening and not allowed to project out of the façade as box grills, which mar the original features and proportions of the openings and obstruct the narrow streets when used at ground level.



Typical double dutch windows



Box grills mar the façade and the precinct's character

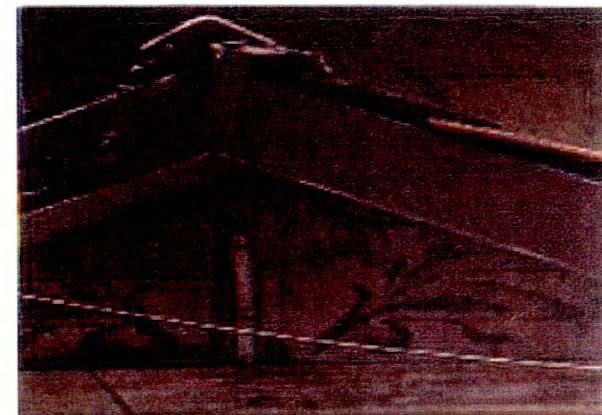
ORNAMENTATION

Ornamentation is the refinement of detail and the application of decorative elements with the purpose of enhancing the buildings appearance.

The richness and level of detail of ornamentation in the surrounding area should be used as a guide for new developments without resorting to copying the neighbouring façade.

Characteristically the ornamentation is largely concentrated towards the detailing of the porch and front facade with respect to railings, eaves and fascia boards.

The wall surfaces are largely unadorned. Occasionally, shallow trims are used to define structural elements like corners, stringer courses, floor changes and plinth and are recommended in new developments.



Ornamentation detailing at various locations throughout the structures

REPAIRS AND MAINTAINANCE

With up to 70% of the properties being tenant occupied the question of repairs is often one of too little too late. This is an unfortunate situation because if repairs are carried out in time to these old structures they are not as expensive as compared to costs for repairs to conventional RCC structures. Also, very often, when repairs are carried out the materials methods and processes are those suitable for cement based modern construction. Such repairs are often not only unsuitable, but in fact detrimental to the older structures. And sadly in almost all cases, the owner or contractor is unaware that the repair is incorrect. To remedy this situation we have outlined below some of the proper procedures to be followed while carrying out repairs to the older properties of the precinct.

PLASTER AND MORTAR REPAIR

Most of the older buildings are not only built with lime mortar but the building blocks for the walls themselves are of limestone. Lime requires constant interaction with air and walls require to “breathe”.

Most repairs to these traditional walls are done with cement mortar, which is a mistake. Cement forms a hard impervious layer that seals off the wall for some time. Eventually however the pressure behind the cement work builds up and causes the cement plastered patch to be thrown off, taking with it some of the original material of the wall itself.

The solution is to carry out repairs in lime mortar and avoid the use of cement for general mortar and plaster repairs to lime based walls.



Effect of cement plaster on limestone

STONEMWORK

This is not a common typology of the precinct. However the plinth of some structures and sections of the superstructure are sometimes constructed or faced with natural stone. Such stonework should not be painted over but cleaned with soft brushes and water using a non-ionic detergent for removing stubborn stains. Where the original stonework is in lime mortar, lime pointing should be insisted upon when carrying out surface repairs.

WOODWORK

Whenever possible existing damaged woodwork should ideally be replaced by similar woodwork using old durable timber that has already weathered, to ensure a proper fit between old and new woodwork. However the increasing costs of good quality timber may make this option, prohibitive. Steel is one option that is increasingly being used as a replacement for timber sections. Where steel is the only choice, box sections of a size similar to the original wooden members should be used. These could be filled with concrete to act both as a protection from internal corrosion as well as to increase the fire resistance of the steel.



Stonework plinth covered over in plaster



Traditional tiled roofing on wooden batters

ROOFING

Traditionally the roofs consist of mangalore tiles fixed on horizontal battens that often sit directly on the wooden rafters and beams sometimes without any boarding in between. Increasingly these original roofs are being replaced by steel and asbestos constructions on account of the tendency of such roofs to leak and the increasing cost of replacement timber. However repairing such traditional roofs need not always be costly or complicated.

One of the problems is that very often horizontal battens sit directly over the boarding. In such cases providing a vertical set of battens below the horizontal provides a free passage for the water down the roof and eliminates most of the leakage.

In cases where boarding does not exist, providing corrugated G.I or asbestos sheeting to act as boarding below the tiles ensures a well insulated, water proof interior, while maintaining a pleasing aesthetic exterior roof.

Traditional eaves boards and finials should be carefully preserved and repaired when required and refixed when structural repairs of the roof are effected. This is a much cheaper option than total replacement particularly as such elements contribute immensely to the aesthetics of the structure and using them even in an old condition will not compromise the structural stability of the roof.



PAINTING AND FINISHES

As explained earlier the older lime based structures need to breathe. Modern paints, which form an impervious barrier, are not suited to such buildings and often prove both costly and ineffective because the lime within causes the paint to blister and peel within a few months.

Traditional finishes such, as lime washes are ideal for such structures proving both inexpensive and effective.

Modern additives such as plastic based fevicol binders should not be used with lime washes. Traditional natural resins provide the same effect at half the cost and more important provide a binding effect without decreasing the "breathability" of the paint.

PROPOSED DEVELOPMENT CONTROL REGULATIONS FOR BANDRA VILLAGE PRECINCT

ZONE	AMALGAMATION	REPAIR, AND RECONSTRUCTION DCR 3	ALTERATION, ADDITION, NEW CONSTRUCTION	SETBACKS AND OPEN SPACES DCR 28	STREET WIDENING DCR 33	HEIGHT DCR 31	TDR/FAR DCR 32/33/34 APP. VII A	SIGNAGE AND SERVICES DCR 48
LISTED BUILDINGS	Not applicable	Reconstruction permitted only on approval of MHCC. Demolition permitted only if structurally unsound.	Not permitted except where features are being restored to original with the express permission of the MHCC.	As existing	No setbacks for street widening permitted	As existing	TDR on balance FAR permitted. No TDR applied onto the building	Restricted signage only with express permission of MHCC
CORE ZONE	Not permitted	Reconstruction permitted as per footprint, form, volume and height of original structure as per existing FAR more than 1.0 for buildings listed indigenous (true to type) Remodelling to incorporate the architectural character of the precinct.	G+1 recommended. To utilize balance FAR, a second floor is permitted at a setback of 2m or depth of porch Basement and Stilts not permitted.	In reconstruction as existing. In additions, new construction and alterations 1.5m for G+1 and 2m for G+2 for front, sides and rear open spaces except for the front open space along the unified street edges where the existing front space will be retained as is.	No setback permitted except where indicated in the proposed setback plan. Off street parking not to be insisted upon.	G+1 recommended If G+2 then max height is 11m to eaves or 13m to ridge.	No TDR transfer into the zone. Porches free of FAR up to 1/3 length of facade and max.2m depth Indigenous buildings are permitted existing FSI more than 1.0 only if reconstructed	Signage to be located on blank masonry wall or within porch elements and covering not more than 10% of the façade. Water tank, outdoor unit of split A/C, etc. to be accommodated in the rear 1/3 rd of the flat section of the structure but not over ridgeline of the roof.
BUFFER ZONE	Not permitted	As per core zone	As per core zone	As per core zone	As per core zone	As per core zone	As per core zone	As per core zone
PERIPHERAL ZONE	Permitted	Permitted as per existing DC regulations	Permitted as per existing DC regulations with max.G+4 height along Waroda Road and G+6 overall. Basement and stilts permitted.	Permitted as per existing DC regulations	Permitted as per proposed setback line. Parking as per DC Regulations	Height of G+6 permitted on Hill Road face Step-down to G+4 on Waroda Road face.	No TDR transfer into the zone FAR as per existing DC regulations	Permitted as per existing BMC bylaws.

PROPOSED DESIGN REGULATIONS FOR BANDRA VILLAGE PRECINCT (DCR 37 General Building Requirements)

ZONE	VOLUME AND MASS	ROOFLINE	P R O P O R T I O N		EXTERIOR WALLS	ROOF AND CHAJJAS	PORCH/ VERANDA	STAIRCASE	WINDOWS	GRILLS
			Solid : void ratio	Porch: façade ratio						
LISTED BUILDINGS	Retain as existing	As per original construction	As per original construction	As per original construction	As per original construction	Sloping tiled roof with eaves	As per original construction	As per original construction	As per original construction	Within the rebate of the window
CORE ZONE	Original footprint with min. setback recommended with porch along street. No stilts or basement permitted.	Min. 2/3 rd sloping with 20-degree pitch and min. 0.5m overhang in the front section of the street. Rear 1/3 rd portion of structure may be flat to accommodate a water tank	Openings shall be not more than 20-30% the area of the front façade.	Porch in elevation shall be a minimum of 1/4 th the length of the front façade.	Plain stucco, or with pilaster trim. Finish in natural pigments and not in metallic, fluorescent colours	Tiled sloping roof up to a minimum depth of 2/3 from the front façade. Chajjas sloping with a min. 20 degree slope with clay tiles	Porch free of FAR up to a depth of 2m, and 1/3 the façade length. Porch to be unenclosed and visually transparent.	Staircase if external or with porch shall not be enclosed. Baluster should be visually transparent.	Vertically oriented side hung, with clear glazing. No mirror finish, strip or ribbon windows permitted	Within the rebate of the window
BUFFER ZONE	As per core zone	As per core zone	As per core zone	As per core zone	As per core zone	Sloping roof to a minimum depth of 2/3 from the front façade.	As per core zone	As per core zone	As per core zone	As per core zone
PERIPHERAL ZONE	Reducing volume, and breaking up of mass towards Waroda Rd.	Sloping roofs recommended	As BMC bylaws	As per BMC bylaws	Glazed walling and metal cladding prohibited	Sloping roof on G+4 block and recommended over G+6 block	As per DC regulations	As per DC regulations	Strip and ribbon windows with mirror glazing prohibited	As per BMC bylaws