

# Form Based Codes for the Revitalization of Urban Roads with Cultural Context in Myilai-Teynampet Region, Chennai

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**Abstract:** Cities are today home to more than half the world's population. The crucial role of cities in promoting sustainable development focused on people and the respect of human rights is notably recognized in the 2030 Agenda for Sustainable Development which includes among its 17 goals a specific objective to 'make cities and human settlements inclusive, safe, resilient and sustainable' and identifies culture and creativity as one of the essential levers for action. In this context culture acts as an integral factor for sustainable urban development- towards a common objective: placing cultural industries at the heart of their development plans at the local level. In recent decades, a variety of strategies, movements, and ideas have been developed and put into practice for fostering and reviving cultural identity in cities. Most of them focused on local spines and main streets as the most priorities urban level for revitalizing action plans. Streetscape is an immediate vista of the city that people grasp and create the general image and identity of the city. The paper accepts the streetscape redesign as an urban aspect through this perspective in order to support and embrace the urban character and cultural identity of the cities. The paper aims at analyzing the development regulations for preserving and enhancing the local identity, uniqueness, and cultural assets of a community regarding in downtown urban streets. It presents a proposal of practical framework for streetscape redesign through Form based coding (FBC) –An approach for a cultural context specific development. Under this ideal this paper analyses the various factors, challenges, strengths and possibilities of the transformation of urban uses, facilitating new forms of social interactions and experience sharing and forging new urban narratives.

**Keywords:** Myilai- Teynampet region; Urban space; Culture; Vibrant; Urban; Local participation.

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## 1. INTRODUCTION

One of the essential requirements for achieving Sustainable Development Goal 11 and also, transversally, in other SDGs on social inclusion, job creation, urban resilience or environmental protection.—"*Make cities and human settlements inclusive, safe, resilient, and sustainable*"—is **culture**.

Culture have untapped potential to deliver social, economic, and spatial benefits for cities and communities and inclusion of these components should be the first step towards shaping the new development of an area.

Chennai, referred as the Cultural gateway of south India, continues to be traditional despite being a cosmopolitan city. The city's culture is a reflection of its multicultural population, which has produced a unique blend. The city has a very large following for Tamil Nadu's traditional music, dance, and other art forms. From traditional old temple architecture to contemporary high-rises, and from classical music and dance to the city's expanding nightlife, one may find a diverse range of cultural expressions.

The aim of this project is to create inclusive and context specific development in the Myilai-Teynampet region with culture as a strategic factor. The objectives are to create a vibrant live, work, play environment and high-quality public realm with economic, social and environmental sustainability. The scope is to enhance the characteristics of the area, conserve existing features, reflect environmental and cultural conditions, improve the local economy, coordinate infrastructure, built form, and public spaces, and create a healthy and vibrant neighborhood.

## 2. METHODOLOGY

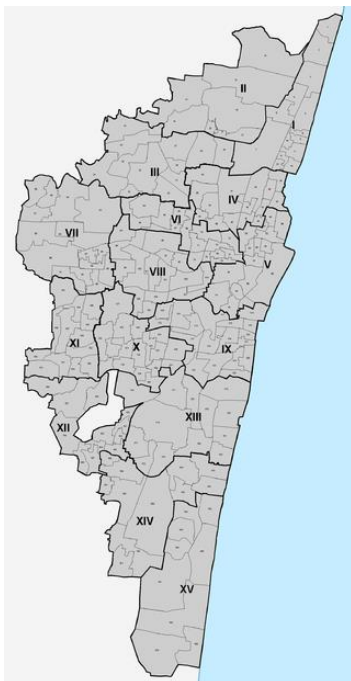
Traditional planning approach places a strong emphasis on strict land-use, zoning, and development rules, it ignores local contexts and fails to understand the distinctive urban fabric, potentials, and constraints of various locals. Therefore, it has become imperative to look at alternative ordinances, standards and best practices to adopt an approach that acts at the local level and involves the community; is transparent in its formulation and implementation; promotes predictability in outcome; and meets the development needs of the community and city.

The key difficulty is figuring out how to evaluate the social aspect of culture, which frequently takes place in the unorganised economy and involves no commercial exchanges. There are, however, a few widely used statistical standards that can be utilised to help an investigation into the societal aspect of culture and identify the appropriate indicators and definitions.

### Urban roads revitalization with cultural context

Central Chennai offers a variety of opportunity and scope in its urban realm, providing unique advantages due to its diverse character, highly accessible location in the city’s core, and multiple recent developments in its neighbourhood making it an ideal spot to take advantage of multiple opportunities.

Three roads of Zone 9 Teynampet is selected as the area of execution whilst their poor pedestrian environment alongside potential cultural precincts.



**Zone 9: Teynampet**  
**Wards in the zone: 109-126**  
**Total population: 767283**

Eldams road, Luz church road and TTK road connecting to major urban centres such as the cultural town of Mylapore, historic Royapettah and T nagar are the roads of revitalization. Cultural performance in these roads are measured by indicators (referred in table below) from the UNESCO 2030 cultural indicators.

Indicators	Features
Demographic data	<ul style="list-style-type: none"> <li>• Age</li> <li>• Gender</li> <li>• Resident type</li> <li>• Duration of stay</li> <li>• Type of Occupation</li> </ul>

Cultural venues and facilities	<ul style="list-style-type: none"> <li>• Popular culture</li> <li>• Presence of sectors</li> </ul>
Cultural participation and attractiveness	<ul style="list-style-type: none"> <li>• Visits to cultural venues</li> <li>• Cultural and social identification</li> <li>• Satisfaction with cultural facilities</li> </ul>
Openness, Tolerance & Trust	<ul style="list-style-type: none"> <li>• Migrant population</li> <li>• Sense of inclusivity</li> </ul>
Local connections	<ul style="list-style-type: none"> <li>• Mode of travel</li> <li>• Travel condition</li> </ul>

**Primary survey**

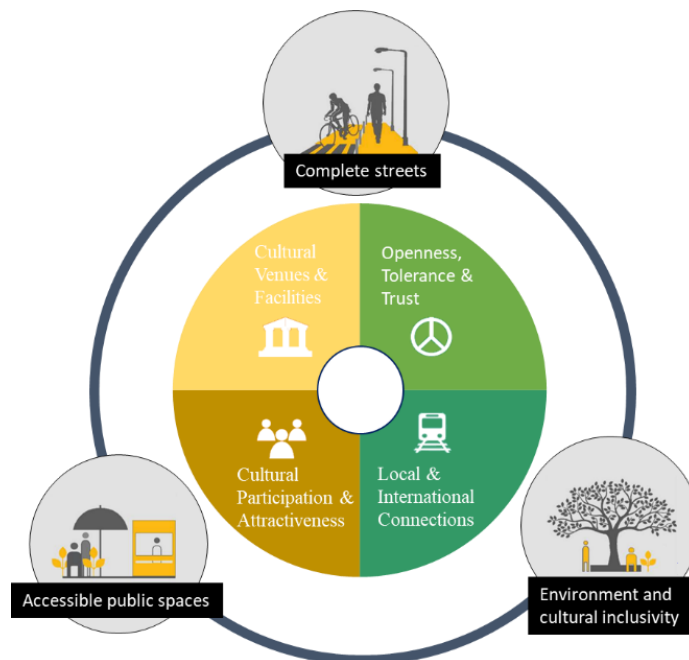
Primary survey is then carried out in the roads by Random sampling technique since, it is most apt when the main objective of a study is for its findings to be generalizable for a whole population. The sample size is arrived at using Taro yamane formula. The confidence level is assumed as 90% and the margin of error as 10%.

The sample size arrived for the total population is 96. With this sample size, the primary survey is carried out.

**Form based codes for a cultural context specific roads**

Form based codes are a planning and zoning tool for regulating development, using physical form as the organizing principle. They aim at contributing to a **better quality of life** by fostering predictable results in the built environment and a high-quality public realm. FBCs are **community vision based and prescriptive, to support the creation of ‘place’ as envisioned by the community.**

To help determine the planning components for a context specific development, form based coding aspects are contextualized. Three out of six organizing principles of FBC are calibrated to help achieve the cultural inclusion onto road planning. To ensure appropriate character of development, cultural indicators are combined in formulating the Form based coding of the area.



Below illustrates the merging of the cultural context with Forms based planning process aiming to combine with Metaphysical state. Here, the outcome will meet all social and physical prerequisites and desired outcomes.

Cultural indicators	Guiding elements
<p>Gallery/ Art centre</p> <p>Performance venues</p> <p>Open public space</p> <p>Traditional cultural space</p> <p>Educational institutions</p> <p>Visits to cultural venues</p> <p>Satisfaction with cultural facilities</p> <p>Openness, Tolerance and trust</p> <p>Presence of migrant population</p> <p>Representation of different cultural perspectives</p> <p>Local connections</p> <p>Mode of travel</p> <p>Travel condition</p>	<p>Street network and linkages</p> <p>Street typology</p> <p>Right of Way (ROW)</p> <p>Carriage way</p> <p>Traffic and bicycle lanes</p> <p>On street parking spaces</p> <p>Landscaping</p> <p>Walk ways (sidewalks, footpaths)</p> <p>Street furniture &amp; lighting</p> <p>Creating universal access</p> <p>Safe access</p> <p>Location of public spaces</p> <p>Allowable uses</p> <p>Local context</p> <p>Accessibility to public space</p> <p>Public space furniture</p> <p>Streets as public space</p> <p>Vending</p> <p>Heritage buildings</p> <p>Urban character</p> <p>Natural elements(Trees and landscapes)</p> <p>Place identity</p>

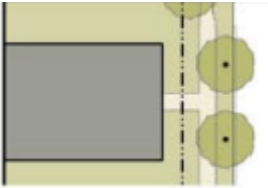

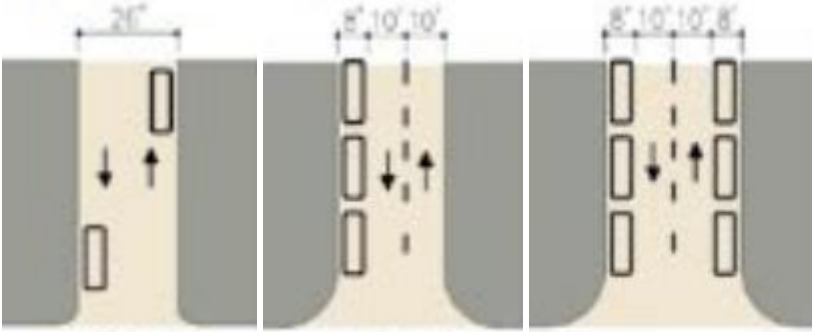

### Development model

#### Formulation of form based coding in Myilai Teynampet region

Form-based codes are created for the selected area, replacing existing guidelines. This approach generally offers the widest range of opportunities for transforming a targeted area of a community while maintaining its established character.

➤ Scale	- 3 urban roads of the city
	<ul style="list-style-type: none"> <li>• Eldams road</li> <li>• Luz church road</li> <li>• TTK road</li> </ul>
➤ Implementation method	- Site Specific Plan
➤ Context	- Culture
➤ Area extent (in length)	- 3.6 kms
➤ Organizing principle	- Transect
➤	

The code adopted Transect, primarily because of ease of understanding for further scope of development in the intermediate collecting urban roads for creating a culture based growth of cities.

	Eldams road	Luz church road	TTK road
Transect code	T4	T4	T4
Suggested categories of change	Preserve and enhance	Preserve and enhance	Preserve
Community specific needs	Signboards and event displays	Weekly community gathering events	Preserve the existing conditions
Private Frontages	-	Porch and fence Gallery	Porch and fence
Public frontages	Rear alley is required		
	 <p>Raised curbs and narrow sidewalks separated from the vehicular plane with parking on one or both sides</p>		 <p>Raised curbs and wide sidewalks separated from the vehicular plane with parking on both sides</p>
Travel lane width	10 ft, Min 9ft		
Parking lane width	7 ft		
	 <p style="text-align: center;">Yield parking      one side parallel      both side parallel</p>		
Encroachments	At building frontage 8ft max	At building frontage 8ft max	At building frontage 8ft max
Streetlight type	 <p style="text-align: center;">Post      Column</p>		

**Proposal**

To strengthen the cultural context of the Myilai- Teynampet region, Form based code is formulated that outlines a framework that aligns with the unique characteristics, needs, and aspirations of the community.

	<b>Eldams road</b>	<b>Luz church road</b>	<b>TTK road</b>
Road type	Collector road	Collector road	Sub arterial road
Movement	free	Slow	Free
Median	None	Landscaped median; none	Raised median; none
Traffic lane	2; 1 each way	2; 1 each way	4
Parking	One side parallel	Both sides.	one side parallel

**Outcomes**

- (1) Access to variety of cultural services such as art galleries, theatres, live music, and museums, as well as consumer goods such as manufactured goods;
- (2) Aesthetics and physical settings, which include green and open spaces, and quality architecture;
- (3) quality public services like schools, libraries, parks, community centres, and basic infrastructure and services, where cultural activities can be undertaken; and
- (4) Ease of mobility to nearby urban centres.

**3. CONCLUSION**

Culture in urban planning ensures a vibrant and healthy quality of living for all, while also promoting sustainability, social cohesion, citizen well-being and inter-cultural dialogue. Involving local community in urban planning and implementing changes at the grass-roots level ensures that diversity is respected and championed. This is achieved through Form based coding practices and in this way, municipalities can create inclusive cities where every citizen feels part of a shared culture.

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