**Form-Based Codes: An Alternative Method for Development Regulation**

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**Abstract**

Considering the general status of development patterns and urban form of the cities and towns in India, primarily regulated through the traditional tools of zoning and development control regulations, it is time that alternative methods for regulating land development are explored. In this article, an attempt is made to share the concept of form-based codes as an alternative method of development regulation - developed as applied in USA for several of its cities and towns since its conception in 1980s, and where this alternative regulation is felt to be better for a desirable built-form, even though there are some concerns attached with the same.

1 **INTRODUCTION**

Effects or rigidity of conventional zoning and development control regulations i.e. the traditional tools for urban regulation in India is clearly reflected in the provision of urban infrastructure as far as its spatial allocation and distribution and overall urban form is considered i.e. including the built-forms or streetscape for all the categories of land uses. The statement by Nasser Munjee (2008) very succinctly covers this fact in our country i.e. ‘India in its cities and small towns have become a metaphor of anarchy, strip development, lack of any urban enforcement, a bewildering array of transport devices operating with no known concept of rules governing public movement of vehicles or pedestrians. They have shed all known architectural forms inherited from the past in favor of concrete boxes constructed side by side along main arteries in and out of towns’.

Maintaining heritage, open spaces, promenades, pubic conveniences and all other trappings of civilized living have largely been the result of intense citizen mobilization against a bureaucracy adamant on making ones efforts as difficult as possible.

Traditional tools were planned predominantly with the concept of form that follows function. Thus, in most of the cases of urban India, the form inevitably got developed over time in an unguided manner due to the absence of any pattern as rather prescribed (that can be promoted), instead being prescribed (that needs to be controlled), when it followed the function i.e. the strict segregation of land use categories across zones.

Such scenarios were also observed elsewhere in planning pattern of even developed nations. For example, in USA the conventional zoning (also referred to as Euclidian...
Zoning after the US Supreme Court decision of 1926 in the case of Village of Euclid, Ohio versus Ambler Realty Co.) established the separation of land uses among other restrictions to manage nuisances and protect the public welfare. However, it has come under attack as an inadequate tool for dealing with today’s seemingly endless growth management conflicts. Critics of conventional zoning believe that the time has passed for strictly promoting the segregation of residential, office, retail, civic and other land uses separated by pedestrian-unfriendly roadways and poorly designed open space buffers. They claim that this degrades social interaction, quality of life and the natural environment. They say developers should be allowed to create compact, walkable and diverse mixed use communities, and that these can benefit both the community and the developer’s bottom line. Has conventional zoning outlived its usefulness? Proponents of form-based codes say yes (Sperber, 2005).

2 DEFINITION AND SCOPE OF FORM-BASED CODES (FBC)

What is a form-based code or FBC? Form-based codes turn the earlier concept in reverse to function that follows form. It is so because the “primary basis for regulation is the buildings, and not the uses”. These codes concentrate first on the visual aspects of development i.e. building height and bulk, façade treatments, the location of parking, and the relationship of the buildings to the street and to one another. Simply put, form-based codes emphasize the appearance and qualities of the public realm, the places created by buildings. The Form-Based Codes Institute (FBCI) of USA defines the said concept as “A method of regulating development to achieve a specific urban form. Form-based codes create a predictable public realm by controlling physical form primarily, with a lesser focus on land use, through city or county regulations... Not to be confused with design guidelines or general statements of policy, form-based codes are regulatory, not advisory. Form-based codes are drafted to achieve a community vision based on time-tested forms of urbanism. Ultimately, a form-based code is a tool; the quality of development outcomes is dependent on the quality and objectives of the community plan that a code implements”.

Andres Duany of Duany Plater-Zyberk and Company, FL, USA and a founder of the Congress for New Urbanism in the USA has through his work on taking the idea of the ‘transect’ from natural science and applying it to land use planning, have developed this new concept of form-based codes suitable for smart growth over a period of time since the start of such work in the case of planning of new town of Seaside, FL in 1980s. Seaside, a beach community has earned acclaim largely because of the charming small-town planning principles, strong architectural guidelines, and the creative design work of several architects under that framework of planning principles and guidelines. Transect as used in ecological studies, which draws a cross section through different habitats to better understand their interrelationships along a continuum. Applied to an urban rural continuum, Duany found that the transect helps us better understand where different uses and building types fit
well or where they are inappropriate. He says, seen from this perspective, we learn that a controversial use or development project is not inherently bad, but may simply have been proposed for the wrong location. Duany codes all the features and concepts that guide communities, neighborhoods and development into six different districts along the transect (T1 to T6), from rural-preserve districts to those in the urban core. He also includes a special district for uses such as a university campus, airport or stadium. Setbacks, for instance, shrink as development progresses from the rural to the highly urban. Likewise, there is less area devoted to greenery in the urban core than in the rural districts, while building heights increase.

Various known applications of form-based codes as examples of alternative land development regulations in USA for reference are like, Central Petaluma Specific Plan, City of Petaluma, CA; Central Hercules Plan, City of Hercules, CA; The New Pleasant Hill BART Station Property Code, CA; Miami 21, The City of Miami, FL; etc.

Unlike traditional documents of conventional zoning and development control regulations, which are lengthy and may use repetitive text, the form-based code documents are said to be concise with emphasis on the graphical representation of the code.

Thus, as defined by FBCI, form-based codes commonly include the following elements:

- **Regulating Plan**: A plan or map of the regulated area designating the locations where different building form standards apply, based on clear community intentions regarding the physical character of the area being coded;

- **Building Form Standards**: Regulations controlling the configuration, features, and functions of buildings that define and shape the public realm. Minimum values are also mandated apart from maximum values of measures for provision of various features, in the regulating code in this context of shaping a public realm output as perceived by various stakeholders, when the regulating plans are implemented;

- **Public Space/Street Standards**: Specifications for the elements within the public realm e.g. sidewalks, travel lanes, street trees, street furniture, etc. are provided;

- **Administration**: A clearly defined application and project review process; and

- **Definitions**: A glossary to ensure the precise use of technical terms;

Form-based codes also sometimes include:

- **Architectural Standards**: Regulations controlling external architectural materials and quality; and

- **Annotation**: Text and illustrations explaining the intentions of specific code provisions.
Fig. 1 City of Hercules, CA, USA - Regulating Code for Central Hercules Plan, 2001 (Plans and a Typical Section)

Two-Lane Avenue
A wide median and plentiful street trees make the Two-Lane Avenue a quiet address especially well suited to residential and office uses.

Notes:
1. Appurtenances may extend beyond the height limit.
2. Building fronts are required to provide shelter to the sidewalk by means of at least one of the following: arcade, colonnade, marquee, awning, or second-floor balcony.
3. The alignment of floor-to-floor heights of abutting buildings is encouraged to allow for shared use of elevators.

A. Building Placement
Build-to-line location: 0 - 10 ft. from property line
Space Between Buildings: 0 ft. if attached, 6 - 10 ft. if detached

B. Building Volume
Bldg. Width: 16 ft. minimum, 160 ft. maximum
Bldg. Depth: 125 ft. maximum
Bldg. Height: 2 stories minimum, 4 stories maximum 55 ft. maximum (The first floor shall be a minimum of twelve (12) feet in height.)

Maps Not to Scale
3 ADVANTAGES AND CONCERNS

The FBCI of USA highlights the various advantages of form-based codes over conventional zoning as below:

- Because they are prescriptive (they state what you want), rather than proscriptive (what you don’t want), form-based codes can achieve a more predictable physical result. The elements controlled by FBCs are those that are most important to the shaping of a high quality built environment;
- FBCs encourage public participation because they allow citizens to see what will happen and where, whether greater density would lead to a higher comfort level;
- Because they can regulate development at the scale of an individual building or lot, FBCs encourage independent development by multiple property owners. This obviates the need for large land assemblies and the megaprojects that are frequently proposed for such parcels;
- Results of FBCs often reflect a diversity of architecture, materials, uses, and ownership that can only come from the actions of many independent players operating within a communally agreed upon vision and legal framework;
- FBCs work well in established communities because they effectively define and codify a neighborhood’s existing DNA. Vernacular building types can be easily replicated promoting infill that is compatible with surrounding structures;
- Non professionals find FBCs easier to use than conventional zoning documents because they are much shorter, more concise, and organized for visual access and readability. This feature makes it easier for non-planners to determine whether compliance has been achieved;
- FBCs obviate the need for design guidelines, which are difficult to apply consistently, offer too much room for subjective interpretation, and can be difficult to enforce. They also require less oversight by discretionary review bodies, fostering a less politicized planning process that could deliver huge savings in time and money and reduce the risk of takings (land parcel or property acquired through eminent domain or substantial devaluation of land or property due to government regulations) challenges; and
- FBCs may prove to be more enforceable than design guidelines. The stated purpose of FBCs is the shaping of a high quality public realm, a presumed public good that promotes healthy civic interaction. For that reason, compliance with the codes can be enforced, not on the basis of aesthetics but because a failure to comply would diminish the good that is sought. While enforceability of development regulations has not been a problem in new growth areas controlled by private covenants, such matters can be problematic in already urbanized areas due to legal conflicts with first amendment rights.

The form-based codes are said to be effective administratively as well, as the focus on building and street design in form-based codes allows graphics and pictures instead of lengthy, repetitive text that is normally used to explain the details of
zoning requirements. While the graphical representations of plans and sections tell the story in very clear manner, the code document itself can become concise due to limited and easy to understand text supported by these pictures. The mix of uses wherever required is also possible to be planned and easily illustrated with the zoning provisions thus being flexible, instead of being with strictly separate uses. The review formats also becomes easier and like permit procedural type. With the easier understanding possible to all, the pre-approved form-based code document with different mix of uses permissible in zoning also facilitates in faster process of municipal approvals. Because, normally when uses from different categories are proposed by project developers, extra processes and additional hearings are often required in a strict zoning case, and thus, if the proposed project meets all of the code’s requirements clearly (avoiding well any guessing game of uses and standards), the application can be approved administratively with ease. Obviously, this reduces time, expense and uncertainty for the developer, but it also reduces processing and hearing costs for the jurisdiction involved. This can free up municipal staff time for more proactive planning and enforcement on ground.

3.1 Concerns about FBCs

As mentioned earlier the form-based codes may contain architectural standards, however, some may have reservations to include the architectural regulations based on the argument that they are the most objectionable from a legal standpoint. Also, from the perspective of implementation of such a new concept, the concern of clarity from the legislative perspective on the following issues needs to be looked at appropriately, and reforms if necessary may be required to be undertaken (Stokowski, and Ohm, 2006):

- Authority or grant of power provided under necessary Town Planning Acts as form-based approach might be difficult to implement in the short term since the primary legal problem with this approach is that most state enabling statutes take land use, and not form of development as their touchstone. So suitable legislative amendments and reforms in such governing policies, acts, regulations would thus be imperative;

- Discretion and prescription continuum i.e. they must contain sufficiently detailed and meaningful standards in order to alert applicants to what is expected of them while allowing sufficient discretion in the decision making body to determine the approval of an application. Otherwise, these regulations may fall prey to the void of vagueness doctrine; and

- Adequate delegation of powers viz. creation of ‘Review Board’ involving a ‘Town Architect’ to implement the plans with due consultations with ‘Planning Commission’ (in Indian context the concerned planning/development authority or municipal body) when and where necessary as provisioned in the code.

The alternative approaches require to pass several tests and meet many challenges like consensus building (e.g. developers, who stand to benefit from the new system
often may remain silent or even block the new code's path if they are focused only on their current projects rather than long term vitality of the community. Developers who are locked into old development patterns may also object to form-based codes as change can be difficult i.e. developers of conventional strip centers may admire more intense mixed-use buildings, but fear the risk of a different development pattern or fear out-of-town competitors with more experience with mixed-use buildings or traditional neighborhood development techniques; coming up of inevitable naysayers at the last minute when codes are being formulated, etc. Also it is important to make the incentives of alternative approaches genuinely worth it on the bottom line, and then an equally determined effort including necessary capacity building to administer such codes with ease is required on the part of the governing authority, municipal body to promote and implement the alternative standards.

4. CONCLUSIONS

Undertaking some studies or pilot cases for revising the existing development control regulations may be worthwhile to see the feasibility of and understand true advantages and any concerns about the FBCs in the Indian context. It may be then we may also call them as form-based codes or codes for smart growth or development promotion regulations - that prescribe what is permitted and can be promoted, instead of knowing them as development control regulations that normally are proscriptive and indicate what can be controlled or what needs to be controlled. When such alternate forms of regulations are implemented through necessary legislative provisions and zoning reforms, we may get to see improvements in the pattern of urban development and urban form i.e. achieving development patterns that are desirable and sustainable to provide and manage infrastructure in due phases of development growth and achieving aesthetics of built-form and visual appeal of living environment through provision of quality, efficient, and easy to manage urban streetscapes of our cities, towns, and neighborhoods in India.

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