

Form-Based Codes: Implementing Smart Growth



In the two years since the Local Government Commission's *Smart Growth Zoning Codes: A Resource Guide* was first published, the movement to reform zoning codes has gained momentum. Today, form-based codes have become an increasingly popular approach to achieve these reforms and create communities where people want to live, work and play.

The old adage "form follows function" describes the common approach behind land use regulation as it has been practiced in the past. Form-based codes turn that relationship on its head. Since the primary basis for regulation is the buildings, not the uses, "function follows form." These codes concentrate first on the visual aspect of development: 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.

As with other smart growth concepts, form-based codes have been applied in new growth areas, in existing neighborhoods, in limited situations to special districts, and in wholesale code revisions for entire communities.

▲ *Making zoning codes work for the community: Pocket parks and front porches help create livable places.*

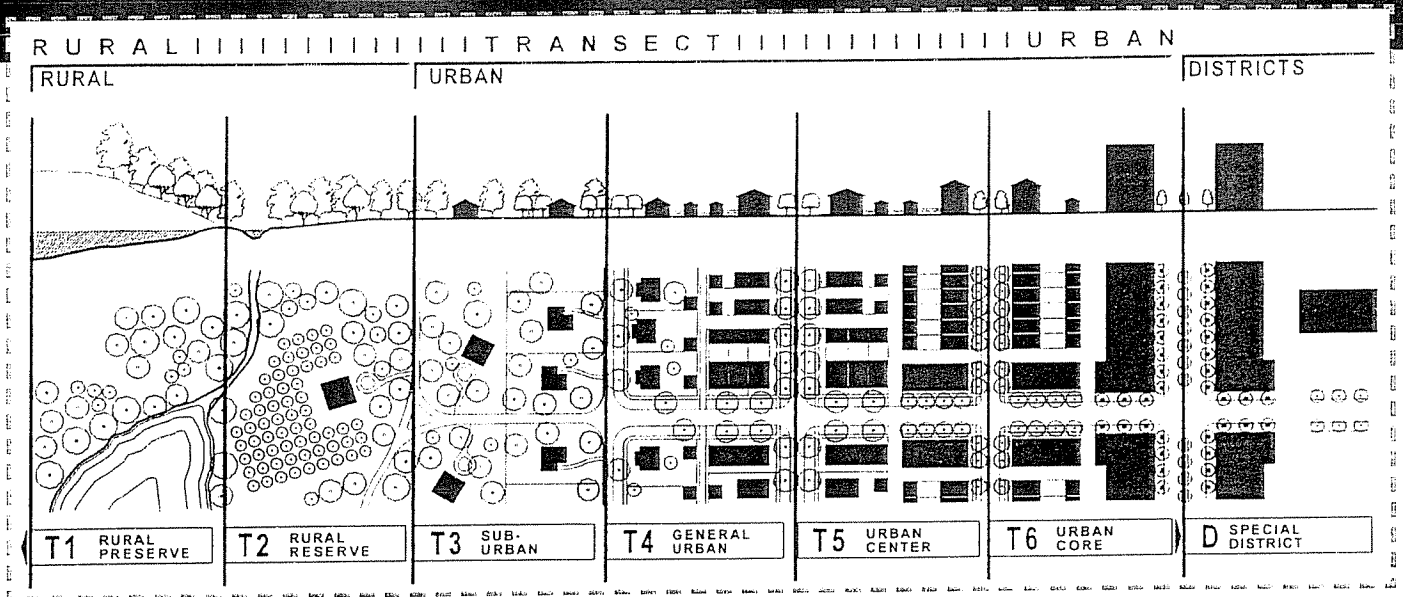
What are form-based codes?

Form-based codes place a primary emphasis on building type, dimensions, parking location and façade features, and less emphasis on uses. They stress the appearance of the streetscape, or public realm, over long lists of different use types. These codes have the following characteristics:

- **Zoning Districts** – Form-based codes are defined around districts, neighborhoods and corridors where conventional zoning districts may bear no relationship to the transportation framework or the larger area.
- **Regulatory Focus** – Form-based codes de-emphasize density and use regulation in favor of rules for building form. They recognize that uses may change over time, but the building will endure.
- **Uses** – Form-based codes emphasize mixed use and a mix of housing types to bring destinations into close proximity to housing and provide housing choices to meet many individuals' needs at different times in their lives.
- **Design** – Greater attention is given to streetscape and the design of the public realm, and the role of individual buildings in shaping the public realm. Form-based codes recognize how critical these public spaces are to defining and creating a "place."
- **Public Participation** – A design-focused public participation process is essential to assure thorough discussion of land use issues as the code is created. This helps reduce conflict, misunderstanding and the need for hearings as individual projects are reviewed.

Modified from definition by Paul Crawford, AICP





▲ Seeing development and zoning codes as part of a land use continuum — an urban/rural “transect” or cross-section — helps us better understand where different uses and building types belong, and where they might be inappropriate.

The Transect: Seeing land uses in context

Communities differ greatly in size, topography, density and growth rates. In some areas, the primary concerns are about new development taking place on previously undeveloped land or “greenfields.” Other communities are mostly built out, and focus more on codes that guide infill or reshape and revitalize neglected neighborhoods. Still others need new codes to address development opportunities around new transit systems.

One of the beauties of form-based codes is that they can be applied in so many different communities and situations.

Andres Duany, one of the *Ahwahnee Principles*’ authors and a founder of the Congress for New Urbanism, has taken the idea of the “transect” from natural science and applied it to land use planning. The transect, as used in ecological studies, draws a cross-section through different habitats to better understand their inter-relationships along a continuum.

Applied to an urban/rural continuum, the transect helps us better understand where different uses and building types fit well or where they are inappropriate. 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 more highly urban. Likewise, there is less area devoted to greenery in the urban core than in the rural districts. Building heights, however, increase.

This unified development ordinance, or “SmartCode,” links all

commonly regulated dimensions and features, building bulk, street lighting, sidewalks, parking and landscaping to the different districts.

This framework allows for a common understanding that relates development characteristics to places within the urban fabric. This common language allows developers, planners and residents — even in different cities — to readily comprehend the context for different uses and building types.

In Petaluma, California (see next page), this shared comprehension overcame the confusion and conflicts that stood in the way of good intentions, and all too often, good projects. The graphical nature of the transect fits very well with form-based codes.

Duany Plater-Zyberk & Company has been instrumental in bringing this classification methodology into real-world application in form-based code projects across the country.

Form-based codes: Good vintage for wine country

■ Sonoma, California

One of California's oldest cities and located in the scenic wine country, the city of Sonoma had seen post-war suburbia grow into older neighborhoods built around its old pueblo that dates back to Spanish colonial times. This jumble of neighborhoods and building types represented a significant challenge to those developing a new code.

Adopted in 2001, the new form-based code covers the entire city. To break the daunting task of a wholesale code revision into more readily understood pieces, the city was divided into 13 planning areas in four categories – residential, commercial district, commercial corridor and open space. Within each area, the existing situation was inventoried and compared to the desired future state. This allows the code to recognize existing development while imposing a new regulatory framework on future development. Areas of special concern such as rural roads, the urban edge and creeks are highlighted, and subject to specified guidelines.

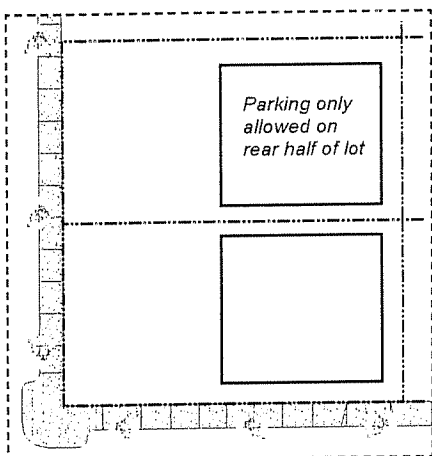
Code prepared by Crauford, Multari and Clark Associates

urban (T4), urban center (T5), urban core (T6) and special districts such as schools, civic centers or industry.

4 Develop urban standards (streets, blocks, building placement, height, land uses, etc.)

The next step is to define and code the urban standards for the different parts of the community mapped in Step 3. The results will be a set of diagrams for each zone that clearly establish standards for some of the following key ingredi-

▼ *Step 4: Form-based codes show where parking must be located.*



Building Type	Lot Width at Street Frontage				
	50'	75'	100'	150'	200'
Single-Family	Shaded	Shaded	Shaded		
Triplex				Shaded	
Quadruplex				Shaded	
Single-Mansion					Shaded
Other Single					Shaded
Townhouse					Shaded
Other Multi-Units					Shaded

▲ *Step 5: A simple lot-width table shows how Ventura's code regulates building profiles.*

ents of an urban place: street and sidewalk widths, building placement, building height and profile, and, if relevant, location of on-site parking.

5 Develop architectural standards (building or frontage typologies, etc.)

The inventory conducted in Step 1 and the public visioning and charrette process in Step 2, help to identify the different types of buildings and how they front the street to define the public realm.

The form-based code builds on this information to define what types of buildings fit into different parts of the community. The

form-based code for the City of Ventura, California, for example, identifies the following types of buildings as appropriate for different parts of the community: single family, carriage house, duplex, triplex, quadplex, mansion apartment, bungalow court, townhouse, sideyard housing, live/work, courtyard, stacked flats, commercial block, and blended development.

The code then lays out very clearly which types of buildings are appropriate in the different districts for different lot widths through a table on the left.

6 Allocate and illustrate standards

The final step in the process is to prepare the standards in a format that is graphic, well-illustrated, jargon-free, and easy to understand.

This format should include all information and regulation relevant to a particular district (street type, neighborhood, etc.) in one concise piece. This avoids the confusion that cross-referencing, scattered requirements, and obscure terms can introduce.

Code for a new town center

■ Hercules, California

The “Regulating Code,” adopted for the small city of Hercules across the bay from San Francisco in the summer of 2001, is similar to another prepared by the same firm for the City of Winter Springs, in Florida.

Intended to foster smart growth development in newly created town centers, both codes have been extremely successful, immediately triggering development projects conforming to the principles and details embodied in the code.

The Hercules code covers four districts in the central part of town. It includes eight street types, though not all will appear in each zone. The use table is a mercifully short three pages, with a half-page of footnotes. Four times that number of pages are devoted to façade details and architectural standards.



▲ Attractive new homes in Hercules look out onto the San Francisco Bay.

This architectural material features photographs and drawings of desired and unwelcome features, signs, porches, trim and so on. These details precede the use tables in the code, consistent with form-based codes’ emphasis on building form and the public realm.

One page is devoted to each street type, detailing streetscape features such as pavement width, curbs, on-street parking, landscaping, corner radii, sidewalks, building setbacks, eaves, awnings and balconies.

This format allows the user to quickly access all the most relevant requirements and standards for a piece of property, just by referencing the street type that fronts the property.

Hercules’ new Regulating Code has clearly been a success. Since its adoption, development has flourished in the area it covers. Several traditional-appearing

residential projects have been built, with a total of 300 units, and construction is under way on the first phase of the main street area of the Waterfront District.

That main street building includes fifteen 2,700-square-foot ownership units with commercial space on the ground floor and two-story townhouse units above. The single-family projects include a number of creatively designed duplex, triplex, and fourplex units that blend in very well with the surrounding housing. Building styles are varied.

The structures, landscaping, street design, and even the street lamps have design details specified in the code. This thorough approach to the details can make all the difference in the finished appearance and appeal of a project.

*Code prepared by
Dover, Kohl & Partners*