



## CITY OF EL PASO DE ROBLES

*"The Pass of the Oaks"*

### MEMORANDUM

**DATE:** MARCH 11, 2008

**TO:** PLANNING COMMISSION

**FROM:** SUSAN DECARLI, AICP  
PLANNING MANAGER

**SUBJECT:** FORM-BASED CODES

With all the new ideas in planning methods making their way into the planning profession, "Form-Based Codes" are at the forefront of buzzwords and theories. With this in mind, it is important to be familiar with and understand the theory and practice of new planning methods such as Form-Based Codes (FBCs).

FBC coding methods are included or will be included in several of the City's major planning documents, including: the Gateway Design Standards; Draft Olsen Ranch Beechwood Specific Plan; Town Centre/Uptown Specific Plan, and the proposed River Oaks II project.

Why use FBCs? The objective of FBCs is to have greater certainty on the desired outcome of design than can be achieved with conventional zoning ordinances. They are more prescriptive than conventional codes in establishing design requirements for development.

As discussed in the attached *Introduction to Form-Based Codes*, prepared by Paul Crawford, FAICP, the primary distinctions between conventional and FBCs is in the process by which they are prepared, the types of standards they contain, how they are implemented, and the results of the built form they produce.

Typical conventional codes simply note the different locations for various land use types or zones (e.g. residential, commercial and industrial zones), and some general development standards. FBCs differentiate the scale, form and intensity of development. This is done based on a mapping system referred to as a “transect”, which transitions a community from the rural landscape of outer areas to a more urban form toward the center of town (e.g. T2 – rural zone, to T4 – urban zone). The transect model is adapted for local conditions and may include specialized zones to reflect unique districts. Another approach to mapping FBCs references neighborhoods, districts and corridors. Both methods aim to capture the specific characteristics of a place.

The standards in FBCs closely regulate site layout and building design and take into consideration how buildings relate to those at the sides and rear of a site and especially how buildings relate to the street. For example, FBCs may include not only street frontage or thoroughfare requirements (e.g sidewalk widths, street widths, and building heights & setbacks), but also may provide appropriate choices of building openings, entrances and façade details to ensure the scale of development is in proportion to the desired character of the street and that buildings address or relate to the street to achieve the community’s vision of what a street is to become.

For instance, with conventional codes the standards set “minimums” for setback requirements. This requirement is satisfied so long as a building is setback the minimum standard, however, this allows for and results in variations of building placement. The problem is that this can result in not meeting overall design intentions for streetscape goals. For example, in a commercial district where pedestrian orientation is desired, buildings could be set back from the street at various distances, allowing for parking lots in the front or other streetscape variations. This won’t always result in a pedestrian oriented streetscape. With FBCs, buildings are intentionally required to be located at a “build-to” line, so that the streetscape will achieve a more uniform urban form. This encourages pedestrians to be motivated to walk from shop to shop instead of shop to a parking lot gap, driveway cuts, and then perhaps another building. Also, how and where building entrances are designed plays an important role in how appealing buildings are to pedestrians.

Attachments:

1. *A Brief Introduction to Form-Based Codes*, by Paul Crawford, FAICP
2. Transect Map
3. Sample Code Materials

# A Brief Introduction to Form-Based Codes

by Paul Crawford, FAICP, CNU

Form-based codes differ from conventional zoning codes in terms of the process by which they are prepared, the substance of the standards they contain, the mechanisms by which they are implemented, and the built form they produce. A global feature of those differences is that form-based codes are typically more prescriptive than conventional codes in establishing design requirements for development. That is, they provide more detailed regulations, and regulate certain features of development in addition to those covered by conventional codes. The following are some of the specific differences between form-based codes and conventional zoning codes.

## Mapping

Form-based codes typically map a community into zones that differentiate the scale, form, and intensity of development they allow, rather than simply noting differences in allowable land use types. The organizing principle for the “zoning map” (typically called a *Regulating Plan* in a form-based code) is most frequently the *Rural/Urban Transect*, rather than the residential, commercial, and industrial land use distinctions of conventional zoning. The Transect is used to identify specific areas within a community according to their existing and/or desired character using a continuum of zones ranging from the least urban to the most urban conditions within the community. The model Transect provides six zones (Natural (T1), Rural (T2), Sub-urban (T3), General Urban (T4), Urban Center (T5), and Urban Core (T6)), together with a Special District (SD) designation for areas with particularly specialized purposes (e.g., industrial, transportation, entertainment, or university districts, among others). Transect zones must be calibrated to local conditions and intentions, and can be expanded into subsets (e.g., T4a, T4b, etc.) to address differing urban design intentions in different areas with essentially the same intensities of development (i.e., the same mix of allowed land uses and residential densities). Some form-based codes use the Transect as the basis for mapping an area being coded, but assign zone names and map symbols to the zones that are different from those listed above. The model Transect as used in urban planning and form-based coding was initially defined by Andres Duany of the architecture and town planning firm Duany Plater-Zyberk of Miami.

Depending upon the size of an area being coded and the differences in desired urban design outcomes in discrete parts of the overall area, some form-based coding practitioners use methods other than the Transect to identify areas of differing design and development standards. These include differentiating standards according to individual neighborhoods, districts, and corridors; relating differences in urban development standards to the type of street fronting a site and showing only street types on the regulating plan; and identifying specific named zones (e.g., “Sunset District”) where special rules for development apply. Some form-based codes combine some or all of the above methods as appropriate and useful to distinguish the varied design intentions of a particular community.

## Scope and coordination of standards

Both conventional zoning codes and form-based codes include design and development standards for the placement of buildings on property, the maximum height of buildings, and other features of development. And form-based codes (contrary to popular misunderstanding) also regulate allowed land uses (though typically with more flexibility than conventional codes). But form-based codes then differ from conventional codes as follows.

§ Each of the standards in a form-based code regarding site layout and building design (for example, setback requirements, height limits) is formulated with consideration of how it will interact with other standards to collectively determine how a building relates to those at its sides and rear, and how a building relates to those across a fronting street to define the public realm of the street. The standards for development on private property are also carefully coordinated with a city's design standards for the public streets fronting private property.

The standards are coordinated in order to collectively ensure that each increment of private development, and each feature and improvement within the public right-of-way all work together to produce a specific desired urban design outcome, or "community vision" over time. Coordination means, for example, that building height limits may be set based on (among other factors) the effect they will have on the pedestrian's experience of walking along of the street, with concurrent consideration of the total width of the street right-of-way, the sidewalk width, whether street trees exist or will be provided, and whether buildings are to be placed at the back of the sidewalk or set back further on the property. This type of coordination reflects the typical emphasis of form-based codes on the character of the public realm.

§ In regulating the location of buildings on property, form-based codes sometimes replace front and street side setback requirements with *build-to lines*. As most people know, setbacks are *minimum* distances for the separation of buildings from property lines, which typically establish no maximum. While this approach may be appropriate in certain areas of a city, it provides no predictability about building placement relative to streets and sidewalks, and therefore cannot reliably produce development supportive of a pedestrian-oriented neighborhood center or downtown. So build-to lines instead specify the required location of a building facade relative to a property line (e.g., "At least 70 percent of the facade must be at the back of the sidewalk, with the remainder set back no more than 10 feet.").

§ Also in the interest of creating a public realm with a particular intended character, form-based codes regulate details of building design related to form and mass beyond maximum height, placement on property (through setbacks), and maximum site coverage, but typically stop short of regulating architectural style. These additional regulations typically cover the *frontage types* allowed within the various zones defined by a regulating plan and the details of their design, and also often determine the *building types* allowed in each zone and the details of their design. Some codes address both allowable frontage types and building types, while others cover only one or the other.

A frontage type is the manner in which a building addresses the public street in terms of its public entrance, and the distance of the public entrance from the sidewalk. Frontage types are defined locally, but common types include: the *Front Yard and Porch*, which is the typical frontage type of a detached single dwelling; *Stoop*, which places the entrance of a building such as townhouse two or more feet above the public sidewalk and provides access to the entrance by a few steps or a stairway; and *Shopfront*, which is a main street-style pedestrian-oriented store facade, typically with display windows, a public entrance recessed three or more feet to the rear of the facade line, and the facade line at the back of the public sidewalk. Form-based codes then address design details of each frontage type such as the minimum usable depth of a front porch, the minimum height of a stoop, and the minimum percentage of a shopfront ground floor facade that must have transparent windows to attract pedestrian interest by allowing them to observe the shop interior.

A building type is a way of describing and coding the urban behavior of individual buildings in terms of building size and massing, access, parking, on-site open space, landscaping, and

exposure to light and air. Typical building types identified by form-based codes include single dwellings, duplexes, townhouses, stacked flats, commercial blocks, and liners (structures that can “line” the street-facing edges of a parking structure or other large floor plate building to provide short-depth retail or office space at sidewalk level and office space above, to effectively screen the parking structure and maintain a desired pedestrian orientation at street level), among others. By identifying allowable building types and providing detailed standards for individual types as desired, a community can provide applicants and designers more advance detail about its expectations for the character and quality of development. And through building type standards, the community can more effectively address citizen concerns about specific types (for example, apartments) by detailing how a project must be designed to consider neighboring development and play its role in creating an attractive street.

### **Code formulation and adoption process**

The process of preparing and adopting a form-based code differs from that of a conventional code in that it is more deliberately focused on urban design issues (the desired "look and feel" of the place), and educates and engages the public in defining the community's "vision" regarding critical urban design issues. This often occurs through various community outreach exercises including charrettes, together with the presentation of illustrations throughout the process showing how development will appear when in compliance with proposed standards, so that citizens can react to and comment on the standards with a clear understanding of their effect on individual projects and the public realm.

### **Code administration**

In most respects, the administration of a form-based code is typically similar to the administration of a conventional code. That is, in designing or reviewing a development project, the applicant and city staff determine at the appropriate time whether a proposed use type is allowed, and then identify and apply the code's design and development standards applicable to the project. However, form-based code exceptions to the conventional review process include that development standards in addition to those in conventional codes, (as described above), must be applied to the project, and that (depending upon community preferences), more land-use types may be "permitted" without discretionary review (e.g., by a planning commission or staff zoning administrator), justified by the fact that form-based code standards more reliably and predictably produce structures of more compatible character where there is less need to focus on the minute details of the land use types allowed within them. These factors often also provide for a development review process that is more efficient and brief than that experienced under a conventional code.

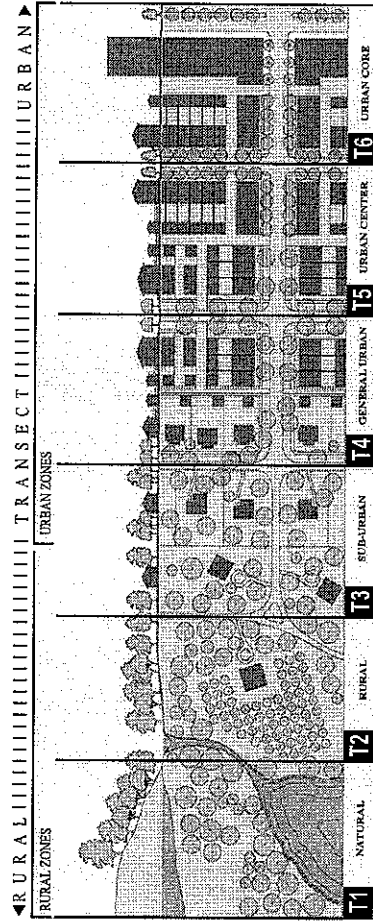
# Paso Robles Transect

The Transect, in its origins (Von Humboldt 1790), is a geographical cross-section of a region used to diagram a sequence of environments. Originally, it was used to analyze ecologies, showing varying characteristics through different zones such as shores, wetlands, plains and uplands. For human environments, this cross-section can be used to identify a set of habitats that vary by their level and intensity of urban character, a continuum that ranges from rural to urban. In Transect-based planning, this range of environments is the basis for organizing the components of the built environment: building, lot, land use, street, and all of the other physical elements of the human habitat.

One of the key objectives of transect planning is the creation of integrated environments that are internally coherent, and which transition seamlessly one to the next. Successful integrated environments are based on the selection and arrangement of all the components that contribute to a particular type of environment. Each environment, or Transect zone, is composed of elements that support and intensify its local character.

Through the Transect, planners are able to specify different urban contexts that have the function and intensity appropriate for their locations. For instance, a farmhouse would not contribute to the integrated quality of an urban core of a large city, whereas a high-rise apartment building would. Wide streets and open swales find a place on the Transect in more rural areas while narrow streets and curbs are appropriate for urban areas. Ideally, open country remains open and compact neighborhoods remain compact. Based on local practices, most elements can be locally calibrated to contribute to the regional and vernacular character of place.

The continuum of the Transect, when subdivided, lends itself



areas. Planting is naturalistic with setbacks relatively deep and blocks are typically large. Public realm design and building and site development currently are oriented almost exclusively to the automobile. Some roads are of irregular alignment to accommodate natural conditions.

The T-4 Zone is mixed-use but primarily residential urban fabric. It has a wide range of building types, setbacks and landscaping are variable, and streets typically define medium-sized blocks. This is the dominant existing urban condition to the west of the Salinas River, where the oldest neighborhoods of Paso Robles are located.

The T-5 Zone includes higher density mixed-use building types that accommodate retail, offices, row houses and apartments. It has a tight network of streets, with wide sidewalks, steady street tree planting and buildings set close to the frontages. This is usually called the Urban Center Zone and most closely characterizes the condition of Downtown Paso Robles.

Typically, the T-6 Zone is the highest density urban core

The map that shows the location and distribution of the various T-zones is called the Regulating Plan. A conceptual Regulating Plan diagram has been prepared, showing the transect zones for Paso Robles (p. 5). It provides the basis for analyzing and classifying the various Gateways.

In every case, a person approaching a Gateway is in a T2 environment, whether on a country road or on the 101 Freeway. And the environment that one experiences at the Gateway is either T3 (Suburban) or T4 (Traditional Neighborhood). The Central Gateways are (or should become) transitions from T2 directly to T4, without intervening T3. The existing conditions at most of the Town and Country Gateways is T2 to T3, but it is recommended that in many cases this evolve to a T2 to T4 transition as the City expands over time.

## Elements of Town Design

Building types, thoroughfare types, and frontage types are among the primary elements that define the locational character of each Transect zone. It is recommended that each gateway be characterized by a set of allowed building, thoroughfare and frontage types.

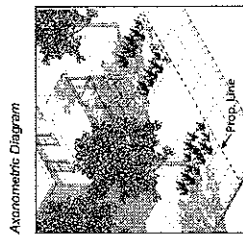
**Building types:** The character of a T defined by the position of the private the configuration of the building, or the position and configuration together which supports the intended uses of urbanity. Building typology is an urbanism.

**Thoroughfare types:** Thoroughfares structuring devices of urbanism. The mobility, accommodating both pedestrian forms of transportation. Thoroughfare part of the public realm, typically occ

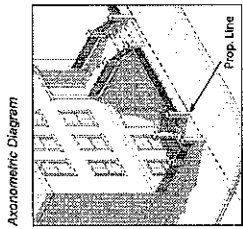
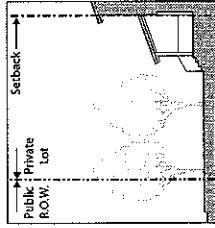


# Frontage Types - T4 General Urban

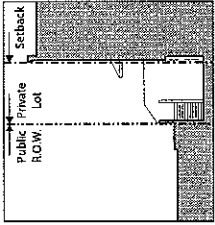
## The following frontage types are appropriate for the T4 zone.



Axometric Diagram

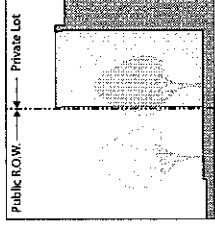
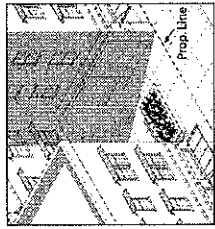
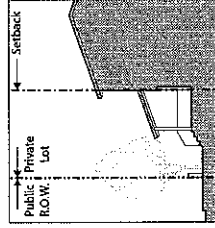
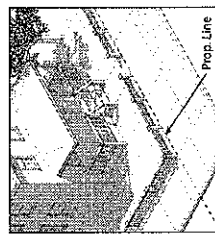


Section Diagram



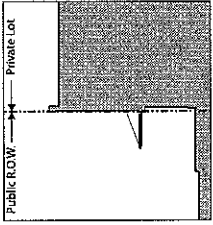
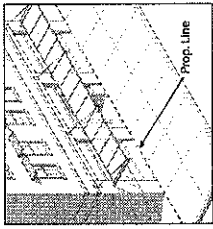
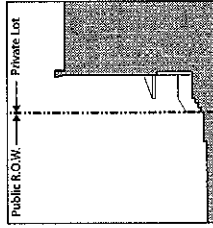
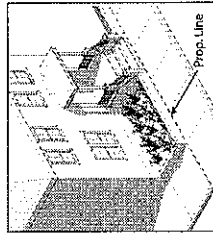
### Common Yard

A frontage wherein the facade is set back substantially from the property line/footage line. The front yard created remains unfenced and is visually continuous with adjacent yards, supporting a common landscape. The deep setback provides a buffer from the highest speed thoroughfares.



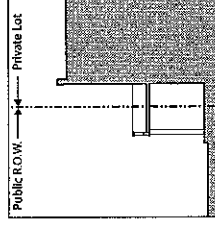
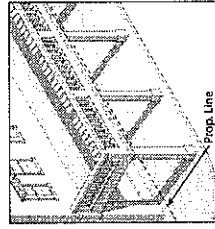
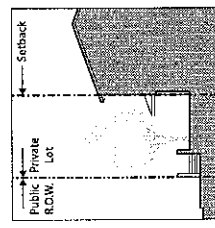
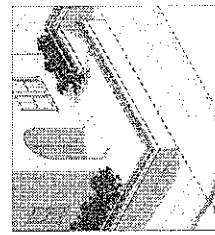
### Porch

Fences are common frontages associated with single family houses, where the facade is setback from the right-of-way with a front yard. A fence or wall of the property line may be used to define the private space of the yard. An encroaching porch may also be appended to the facade. A great variety of porch and fence designs are possible including a raised front yard with a retaining wall at the property line with entry steps to the yard.



### Stoop

Stoops are elevated entry porches/stairs placed close to the footage line with the ground story elevated from the sidewalk, securing privacy for the windows and front rooms. The stoop is suitable for ground-floor residential use at short setbacks. A shed roof may also cover the stoop. This type may be interspersed with the Shopfront & Awning frontage type.



### Dooryard / Terrace

Dooryards are elevated gardens or terraces that are set back from the footage line. This type can effectively buffer residential quarters from the sidewalk, while removing the private yard from public encroachment. The terrace is also suitable for restaurants and cafes as the eye of the street is level with that of the standing passerby.

### Light Court

Lightcourts are frontages wherein the facade is set back from the footage line by a sunken light court. This type buffers residential use from urban sidewalks and removes the private yard from public encroachment. The lightcourt is suitable for conversion to outdoor cafes.

### Forecourt

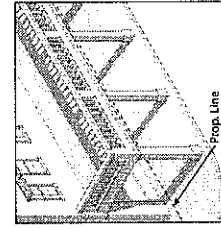
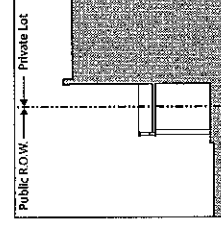
Forecourts are uncovered courts within a storefront, gallery or arcade frontage, wherein a portion of the facade is recessed from the building footprint. The court is suitable for gardens, vehicular drop-offs, and utility off-loading. A fence or wall may be used to define the property line. The court may also be raised from the sidewalk, creating a small retaining wall at the property line with entry steps to the court. This type should be used sparingly and in conjunction with Storefronts.

### Storefront

Storefronts are facades placed at or close to the right-of-way line, with the entrance at sidewalk grade. They are conventional for retail frontage and are commonly equipped with overhead awnings. Recessed ground floor precludes the ground floor facing the street would be appropriate above the storefront. This type should be used sparingly and in conjunction with Storefronts.

### Gallery

Galleries are storefronts with an overhang that projects over the sidewalk, encroaching into the public right-of-way. This type is ideal for retail use but sidewalk is fully absorbed within the storefront so that a pedestrian cannot bypass the storefront for private use of the right-of-way is required.



GATEWAY DESIGN PLAN

City of Paso Robles

DRAFT