

**Form-Based Zoning:**  
A research paper for the Town of Mammoth Lakes



Duany Plater-Zyberk & Company, Sky Florida

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November 2007

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## **Introduction**

The aim of this research paper was to produce an impartial analysis of form-based development standards. This paper explains what form-based zoning is and discusses various municipalities' experiences with form-based zoning. Focus was placed on municipalities that have recommendations for municipalities interested in form-based zoning. This paper also includes the community of Mammoth Lakes as a whole; however, particular focus was placed on areas in Mammoth Lakes where form-based zoning may be successful. The methods of research for this paper included Internet research, planning books and journals, personal communication with staff of various municipalities, magazine and newspaper articles, relevant conference notes, and an email survey of mountain resort communities.

## **Development Regulations**

Municipalities, such as towns, cities, and counties, regulate development within their jurisdiction. Development is regulated through a hierarchy of planning documents: a) the general plan, b) zoning code and specific plans, and c) master plans.

- a) A general plan is the basic planning document for future development. It represents and defines a community's future through goals and policies upon which all land use decisions are made.
- b) A zoning code is one of the primary means of implementing a general plan. It is the local law that identifies development standards and regulations for each property within a community's planning area. A zoning code must comply with the general plan. Specific plans are another primary means of implementing a general plan. Specific plans are different from zoning codes because specific plans regulate a defined smaller portion of a community's planning area. Specific plans contain development standards and regulations that supplement those of the general plan and may be used to address a single project or planning problem. If adopted by ordinance, a specific plan becomes the zoning code for the area covered by the plan.
- c) A master plan is an overall development concept for a defined smaller portion of a community's planning area. Master plans, like specific plans, may contain development standards and regulations that are used to address a single project or planning problem. Master plans are different from specific plans because master plans must comply with the zoning code's development standards and regulations.

The Town of Mammoth Lakes ("Town") regulates development within the town through a general plan, adopted on August 15, 2007, a zoning code and one specific plan (North Village Specific Plan), and five master plans (Snowcreek, Lodestar, Greyhawk, Juniper Ridge, and Shady Rest). The Snowcreek and Lodestar Master Plans are in the process of being updated. A new specific plan is being processed by the Town for the Clearwater project. In addition to processing a new specific plan and two master plan updates, the Town is or will be processing additional large development projects that include Mammoth Crossings, Hidden Creek Crossing/Shady Rest Parcel, Mammoth View, Holiday Haus, the Sherwins, Eagle Lodge, and others. These new projects can mean new

economic opportunities, changes in traffic, more homes, or a reduction in open space that can greatly impact the community. The development decisions made on these and future projects must be fairly balanced with the rights and responsibilities of property owners, neighbors, renters, developers, businesses, schools, governments, and taxpayers, who all feel these impacts (Smart Growth Network 10). Because of the change and influence these projects will have in Mammoth Lakes, the Town is researching various methods of regulating development in order to best address development for the benefit of the community.

### ***Form-based Zoning***

One method of regulating development is form-based zoning codes. Form-based zoning is based on and includes concepts such as smart growth, new urbanism, the transect, traditional neighborhood development, transit-oriented development, and many others. Form-based zoning, like conventional zoning, can be used by municipalities to regulate the form of the built environment. Unlike conventional zoning codes, form-based zoning codes primarily control physical form (building types, intensities, and character) and secondarily regulate use (residential, commercial, industrial, etc.) (Katz, FBCI). Conventional zoning, also called Euclidean zoning, primarily seeks to control use and density (dwelling units per acre), but does not regulate physical form beyond basic regulations, such as height, lot coverage, and setback limits. Form-based zoning is prescriptive, meaning that its regulations permit only what is desired. In contrast, conventional zoning regulations are proscriptive, focusing on what is prohibited. Form-based zoning can impose the same density limits as a conventional zoning code, but it requires specific building forms, building placement, and other standards not typically required by conventional zoning.

Form-based zoning concepts, such as walkable communities, have existed for many years. Form-based zoning concepts have been codified recently in response to increasing community concerns with conventional zoning and the need for development projects “that boost the economy, protect the environment and public health, and enhance community vitality and quality of life” (Smart Growth Network 2). Conventional zoning can be limiting since it encourages focus on areas of a single use. According to David Rouse and Nancy Zobl, the separation of uses required by conventional zoning has encouraged the development of suburban sprawl, which is low density development located outside of city centers, auto-dependent, land consumptive, and often designed without respect to its surroundings (2). For instance, parking standards in conventional zoning typically require parking to meet peak parking demand. Therefore, most of the time, parking spaces are not used, which has resulted in underutilized land and the encouragement of automobile use. Consequently, the California legislature adopted legislation specifically authorizing form-based codes. In July 2004, Assembly Bill 1268 was signed into law, clearly stating that form-based codes are allowed (Local Government Commission 2).

## Sprawl versus compact development



[http://science.nasa.gov/headlines/y2002/11oct\\_sprawl.htm](http://science.nasa.gov/headlines/y2002/11oct_sprawl.htm)



Duany Plater-Zyberk & Company, Downtown Dadeland, Florida

Form-based zoning focuses on elements that will last over time, such as building mass, site design, and architecture. While neighborhoods change over time, “the form of the buildings has remained fairly constant, while internal uses and activity patterns have been transformed” (Katz, *Form First*, 1). This is an important concept absent from conventional zoning. Also, form-based zoning enhances the public realm with specific requirements for building types and placement, frontages, streets, and parking, which is typically not addressed by conventional zoning codes. Contrary to conventional zoning, form-based zoning allows and encourages the development of mixed-use, pedestrian friendly centers and neighborhoods. Although mixed-use is emphasized, it does not mean prohibiting blocks of housing only or that industrial uses are located adjacent to residential uses. There still are use restrictions for incompatible uses.

In addition, market demands are encouraging the switch from conventional zoning to form-based zoning. According to Robert Charles Lesser & Co., LLC (RCLCo), a leading Real Estate Advisory firm, there is a market preference for compact, connected, and mixed-use neighborhoods in a variety of markets (Vieg, *Agenda Report*, 4). Every year RCLCo invites master planned communities to participate in an annual survey to determine the top selling master planned communities. RCLCo defines master planned communities as “large-scale developments featuring a wide range of housing prices and styles, an array of amenities and multiple non-residential land uses (such as commercial, hotels, and educational facilities) offering residents an attractive and convenient environment in which to live, work and play” (1). The tenth ranked top selling master planned community is Highland Ranch in Denver, Colorado (see photos below).



<http://www.city-data.com/city/Highlands-Ranch-Colorado.html>

Municipalities in California were among the first to adopt the concept of form-based zoning, including the City of Petaluma, which was the first city to adopt the “SmartCode,” one version of a form-based code (Boyle). However, form-based zoning concepts are now being used in many communities. Form-based regulations have been used most frequently in developing new planned communities, but are increasing in popularity for existing cities, particularly for encouraging infill development or preserving the existing character of a community (City of Farmer’s Branch 3). In some communities, the goal is to preserve open space or historic districts. In other communities, form-based zoning is being used for redevelopment and revitalization efforts in infill areas. Form-based zoning has been implemented in municipalities of all sizes and characteristics, as seen in the case studies discussed in this paper.

Form-based zoning concepts are being implemented through a variety of regulatory documents. These include general plans, zoning codes, specific plans, and design guidelines. Municipalities implementing form-based zoning are using it within specific geographic areas, such as specific plan areas. Some municipalities, such as Arlington County, Virginia, have applied form-based zoning as an overlay zone<sup>1</sup> option to conventional zoning for a defined portion of the community. A variety of incentives are offered to developers if they choose the form-based zoning option, including expedited permit processing, financial incentives, and relaxed parking requirements (Rouse and Zobl 3). This has facilitated the development of form-based projects in Arlington County, Virginia since after its approval, “the vast majority of development proposals have opted to use the new form-based code” (Madden 176). Typically single-family residential zones remain unchanged when form-based zoning concepts are applied. Only certain areas are appropriate for mixed-use type projects. To minimize political conflict, some municipalities have maintained their existing density and land use regulations when implementing form-based zoning concepts in a “hybrid” code (Rouse and Zobl 6). Hybrid codes can implement the design standards of form-based zoning, while keeping density and other standards the same as conventional zoning.

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<sup>1</sup> An overlay zone imposes a set of requirements in addition to those laid out by the underlying zoning regulations ([www.planning.arizona.edu/projects/proj\\_azcity\\_glossary.doc](http://www.planning.arizona.edu/projects/proj_azcity_glossary.doc)).

## Case Studies

The following case studies describe six municipalities' experience with form-based zoning. The municipalities are Hercules, California; Chico, California; Petaluma, California; Ventura, California; Aspen, Colorado; and Breckenridge, Colorado. These municipalities are unique in terms of demographics and location, and have had different experiences with the implementation of form-based zoning. Breckenridge and Aspen, Colorado, are examples of mountain resort towns similar to Mammoth Lakes that are implementing form-based zoning.

### *Case Study 1: Hercules, California*

#### ***Central Hercules Plan and Regulating Code***

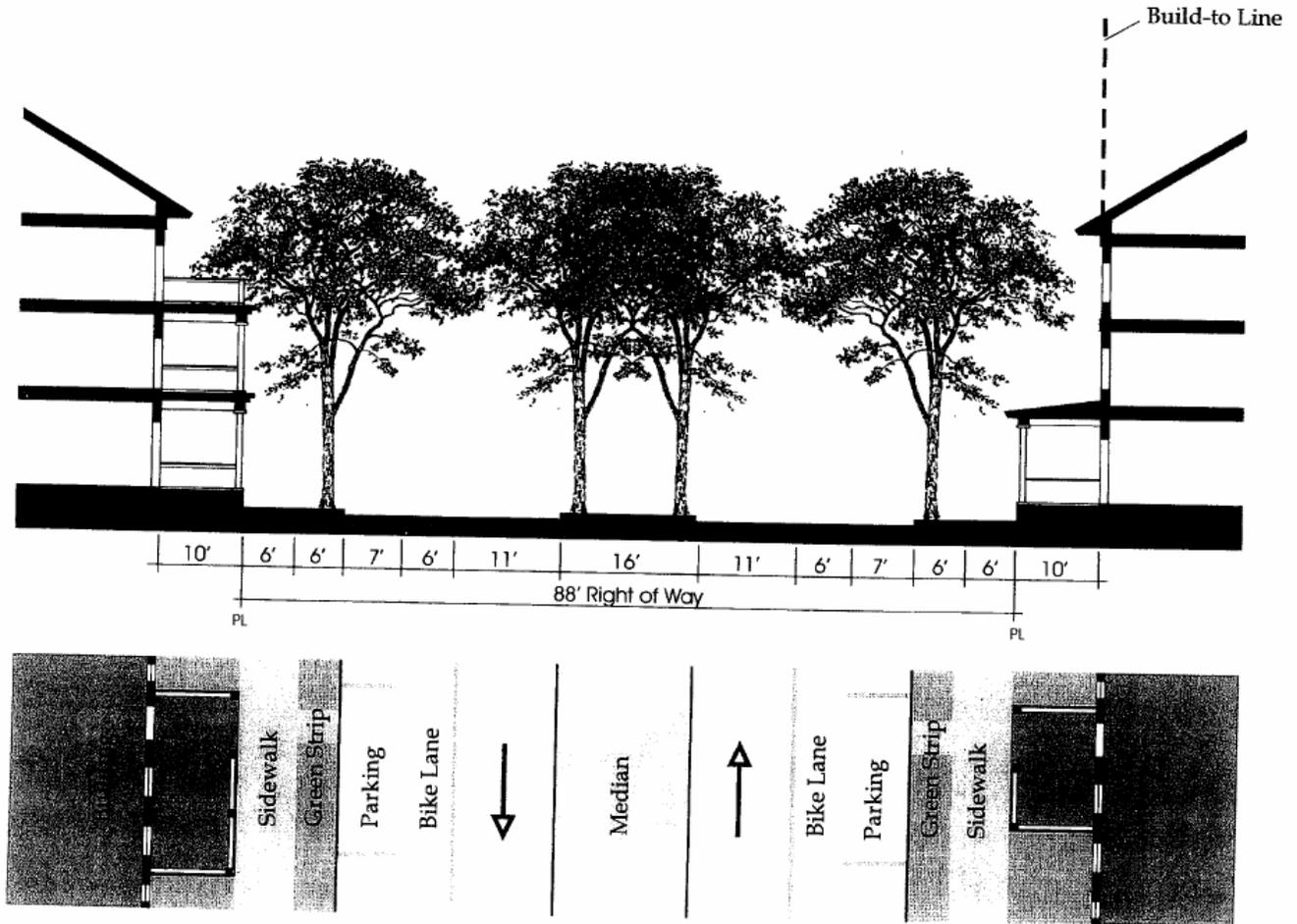
Hercules, California is a small town north of Oakland in the San Francisco Bay Area. The population of Hercules is approximately 19,500 people. Redevelopment efforts are underway in the town's 163-acre city center. A former industrial area, the city center was recognized as a Superfund site and cleaned up for redevelopment (Moore, J, 1). Design workshops and charrettes involving the community and design professionals resulted in a vision for the city center, culminating in a specific plan called the Central Hercules Plan. The Regulating Code for the Plan was adopted in 2001 and applies to four districts in the city center. According to James A. Moore, the Hercules Regulating Code is "one of the earliest and most comprehensive examples of a form-based code" (1-2).



Central Hercules Conceptual Plan (a portion)

Regulating Plan, City of Hercules, Ca

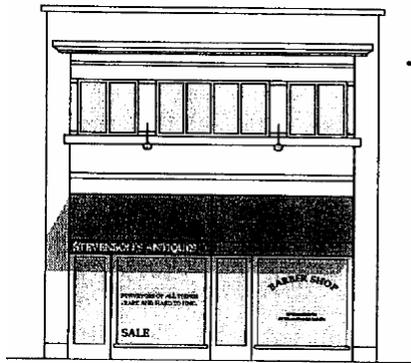
The Regulating Code for the Central Hercules Plan is organized as a street-based plan. This means that development within the specific plan area is regulated by street type. Nine street types are included and illustrated with street sections. Standards according to street type are building placement (distance from property line and space between buildings), building volume (building width, depth, and height), and street standards (width of sidewalk, on-street parking, and bike lanes). Hercules' Regulating Code requires specific standards of streets and buildings' relationship to the street so that "streets and buildings work together to create a desirable public realm – adding value to every property in the process" (Madden 175).



A Two Lane Avenue

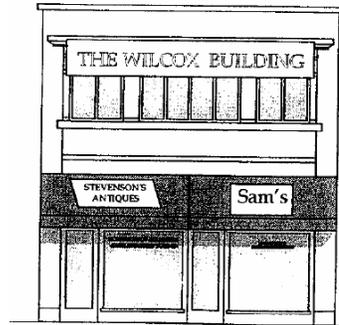
Regulating Plan, City of Hercules, Ca

A variety of architectural styles is required along all street types. Architectural requirements included in the Regulating Code describe permitted materials and configurations for building walls, facades, windows, doors, roofs, fences, and signs. These regulations are required according to building type and are illustrated graphically.



### Desirable

- Signs are coordinated in size and placement with the building and storefront



### Undesirable

- Building sign conceals the cornice
- Over-varied sign shapes create visual confusion
- Awning sign covers the masonry piers
- Sale sign too large for storefront and poorly placed in display window

Architectural Regulations - Signs

Regulating Plan, City of Hercules, Ca

A list of allowed uses allowed by right, uses allowed by permit, and prohibited uses according to district is contained in a four page table. An integration of commercial and residential uses is required along Main Street and Four-Lane Avenue and is expected to occur in all neighborhoods and blocks.

General provisions in the Regulating Code discuss requirements for block size, street trees, street lighting, street furniture, placement of utilities, civic sites, parking, and drive-throughs. On-street parking is permitted. To encourage shared use, parking is not required to be contiguous with the building or the uses it serves. Minimum parking requirements are listed per dwelling unit, square feet of retail, and square feet of office. Drive-throughs are permitted; however, they are only allowed “in the rear of buildings in mid-block and alley accessed locations provided that they do not substantially disrupt pedestrian activity or surrounding uses” (City of Hercules, VI-6).

An administrative section describes how to use the Regulating Code. This section discusses submission requirements, the review process, findings for approval of projects, the duration of the review process, and the approval body(ies). In addition, one of the first pages of the Regulating Code includes a section titled “How to Use the Regulating Code.” A clear five step process is listed to guide one through the Code’s application.

The Code also includes a section with detailed definition of terms. Lastly, simple graphics are incorporated into almost every page. These graphics clearly represent the intent of the Regulating Code and result in an easy-to-understand code.

The Local Government Commission states that the “Hercules’ new Regulating Code has clearly been a success. Since its adoption, development has flourished in the area it covers”(7).

Robert Reber, an Assistant Planner for the City of Hercules, was contacted to further investigate the success of the Central Hercules Plan and its Regulating Code. This correspondence revealed that there have not been many, if any, unforeseen problems that have resulted from the adoption of the Regulating Code for Central Hercules. However, Robert Reber states:

“There are more recent supplemental and supplanting documents [to the Central Hercules Plan and its Regulating Code]. For instance, Central Hercules consists of four distinct districts. The first of these to be developed, the Waterfront District, is governed by the Waterfront District Master Plan...which was based on the Central Regulating Code but tailored to the Waterfront. The master developer proposed this plan, which was then accepted as an ordinance by the City.” (email correspondence, May 8, 2007)

Therefore, the Central Hercules Plan and its Regulating Code were further refined through a master plan to identify more specific regulations for the Waterfront District. The Central Hercules Plan and Regulating Code provided guidance to the development of this Waterfront District Master Plan. As a result, the Waterfront District Master Plan incorporates the same form-based zoning concepts, but also includes sub-districts, more specific building types, and landscape regulations.



Waterfront District Master Plan, City of Hercules, Ca

### Sample Façade Designs

Robert Reber also gave advice to municipalities considering implementing a form-based code. His advice included the following:

- “Retain a highly-qualified town architect consultant to review both the regulating code and applications subject to the code.
- Include building department officials throughout the process to ensure City’s code complies with UBC and ADA requirements, especially for mixed developments and live-work units.
- Work closely with fire-department officials for developing street requirements.
- In commercial/mixed-use areas, design for horizontal flexibility of ownership at the street level, with separate rear or side access for the residential portion of mixed-use buildings.

- Establish homeowner associations and assessment districts that will provide a means of maintaining the standards of the regulating code.” (Reber, email correspondence, May 8, 2007)

### ***Case Study 2: Chico, California***

#### ***Traditional Neighborhood Development Code and Meriam Park Project***

Chico is located approximately ninety miles north of Sacramento, in Butte County, California. The total population of Chico’s urban area is approximately 105,080 (City of Chico). The Chico City Council recently approved a form-based zoning code, the Traditional Neighborhood Development Code, on March 27, 2007. The development of the form-based code and its approval were in response to community interest and a large infill development application, the Meriam Park project. The Meriam Park project is located on a 271-acre site for 2,300 to 3,200 dwelling units (11-15 dwelling units/acre), a maximum of 287,000 square feet of retail, a maximum of 900,000 square feet of commercial and civic buildings, and 68 acres of open space (Vieg, Council Agenda Report, 5). The applicant for the Meriam Park project is the New Urban Builders, a local advocacy group for New Urbanist principles on which form-based zoning is based (Vieg, phone interview, June 7, 2007). The New Urban Builders have increased Chico’s awareness of New Urbanist principles and form-based zoning concepts through public workshops and presentations. They have been the key driving force for the development and approval of Chico’s form-based code (Vieg, phone interview, June 7, 2007). The project, Meriam Park, is a mixed-used neighborhood development that incorporates elements such as walkability and sustainability.

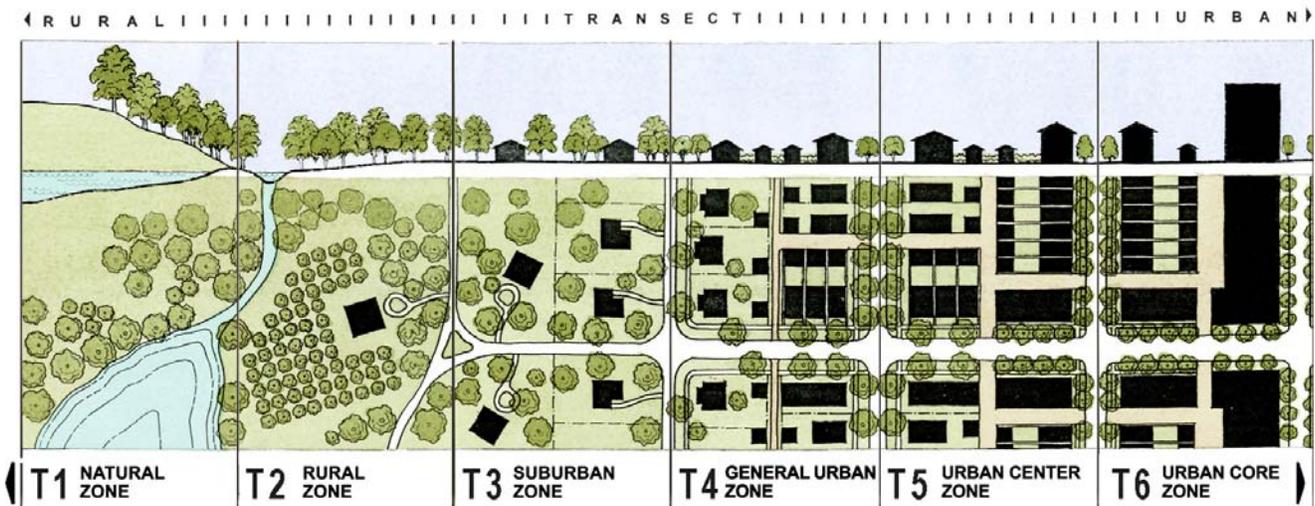
Chico’s Traditional Neighborhood Development Code is anticipated to facilitate traditional neighborhood development on a voluntary basis. Any property owner can choose to develop under the traditional neighborhood development standards if the subject property meets basic requirements. However, the property owner will be required to file a General Plan Amendment to allow for the subject property to be rezoned to the new “Special Mixed-Use” designation. The Special Mixed-Use designation is intended to achieve desired redevelopment along transit corridors and older large-scale commercial centers. The designation will allow for a mix of residential and non-residential uses subject to the approval of a form-based regulating plan and circulation plan that include a connected network of streets, block lengths that typically do not exceed 500 feet, relationship of building types to the street, and others. A minimum density of seven units to a maximum of 35 units per acre is required by the code to support transit (Vieg, Agenda Report, 5).

The Traditional Neighborhood Development (TND) code identifies and designates Traditional Neighborhood Development (TND) zones as Special Mixed-Use to foster the positive design features of traditional neighborhoods. According to the code, the purpose of TND zones is to:

- a. Create compact neighborhoods with one or more defined neighborhood centers, where the center is walkable from the neighborhood edge.
- b. Encourage a mix of residential and non-residential uses with a proximity that encourages walking between them.

- c. Promote a mixture of housing types.
- d. Establish an interconnected street network that minimizes traffic congestion by providing a variety of convenient routes for pedestrians and vehicles.
- e. Create a pedestrian friendly environment by providing streetscapes that shape the public space in an attractive manner.
- f. Create public plaza, park and open space areas within the neighborhood to provide opportunities for public gathering, recreation, and access to the natural environment (Section 20.10.010).

TND subzones are established within TND zones expressing the concept of a transect. The transect concept establishes a series of “transect zones” on a continuum from rural to urban that are distinguished by varying density and character of the built environment. It also incorporates the concept of mixed-uses, importance of public space, walkability, and connectivity. The transect of subzones provides for the allocation of building types, street types, and other aspects of design and use where they are most appropriate based on their form, intensity, and the density of population they accommodate. TND subzones include Neighborhood Edge, Neighborhood General, Neighborhood Center, CORE, and Special District. Permitted uses, uses requiring a permit, and prohibited uses are listed according to TND subzone (City of Chico, Draft Code Table 20-1).

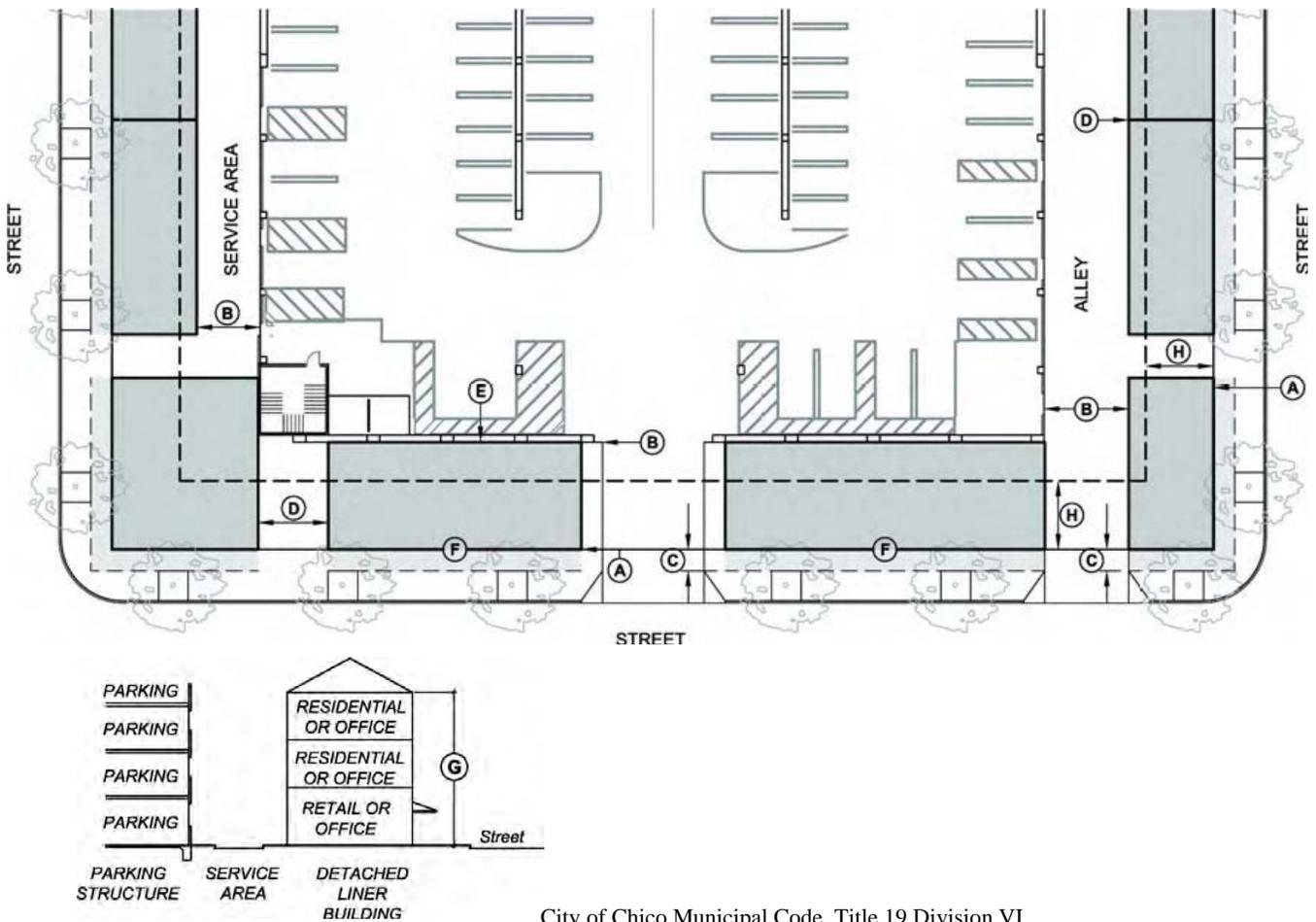


Duany Plater-Zyberk & Company, Transect 03-03-03

The TND code identifies requirements for building heights (in stories and in feet), frontage types, and access and visitability (location of frontage types), according to TND subzone. Building types are permitted according to TND subzone and are defined and described in detail with text and graphics. Minimum parking standards are identified by TND subzone. The CORE subzone has the least amount of parking required. Bicycle parking, open space standards, and sign standards are included in the draft code. Standards for streets, alleys, and other public ways are also identified and shown with street section graphics. In addition, the code identifies the procedures for applying the

TND standards. A glossary and simple graphics are incorporated into the code to clarify intent and purpose.

<b>Building Placement.</b>	
Front build-to-line: The front façade of the mixed-use liner buildings shall be placed at the back of the sidewalk.	<b>A</b>
The parking structure shall be either attached to the rear of the liner building, or detached with an alley or a 10 to 20 foot service lane in between.	<b>B</b>
Encroachment over the sidewalk may be allowed for some frontage types.	<b>C</b>
Side setbacks: None required; 10 feet minimum if provided.	<b>D</b>
Rear setback: None required; 5 feet from an alley if provided.	<b>E</b>
<b>Building Size and Massing.</b>	
When attached, liner buildings shall cover a minimum of 70 percent of the parking structure perimeter fronting the public street.	<b>F</b>
Building height: The parking structure shall be a maximum of four stories. Liner buildings shall be two or three stories.	<b>G</b>
<b>Parking.</b>	
Parking spaces shall be located a minimum of 16 feet behind the back of the sidewalk.	<b>H</b>



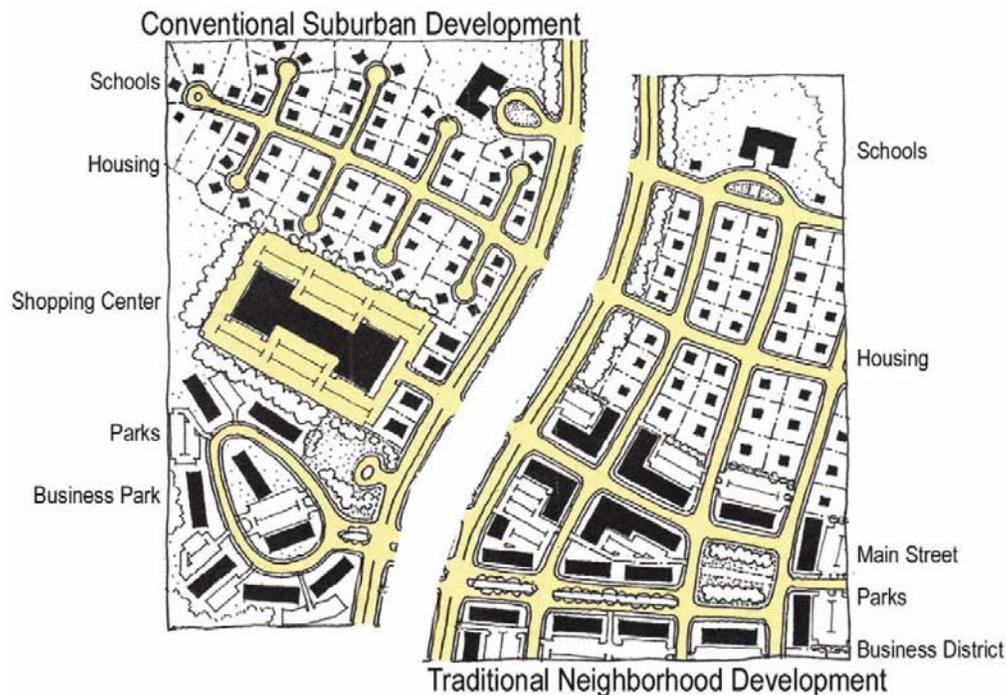
City of Chico Municipal Code, Title 19 Division VI

Chico's TND code was reviewed by the Planning Commission, Architectural Review Board, City Attorney's Office, Planning, Engineering, Building, Police, Fire, Parks, and Code Enforcement, and peer reviewed by the Local Government Commission. When changing from a conventional code to a form-based code, there is a significant need for cooperation between City departments and other agencies since a form-based code promotes development standards which may change current standards. In addition, all legal requirements must be met when developing and implementing a new code. For instance, a Final Program EIR (FPEIR) was prepared for the Meriam Park project including the analysis of a General Plan Amendment to incorporate the Special Mixed-Use designation and an amendment to the Chico Municipal Code to add the Traditional Neighborhood Development zone. The FPEIR was certified with the approval for the TND code and the Meriam Park project.

***Case Study 3: Petaluma, California***  
***SmartCode for Central Petaluma Specific Plan***

Located in Sonoma County, California, the City of Petaluma has a population of approximately 55,000 people. The heart of Petaluma is bisected by the Petaluma River. The City of Petaluma is implementing a specific version of form-based codes, called the "SmartCode," through the Central Petaluma Specific Plan.

The SmartCode is a model code prepared and released by Duany Plater-Zyberk and Company (DPZ). According to DPZ, "the SmartCode is the only unified transect-based code available for all scales of planning...As a form-based code, it keeps towns compact and rural lands open, while reforming the destructive sprawl-producing patterns of separated-use zoning."



Duany Plater-Zyberk and Company, SmartCode6.5

The SmartCode is available for municipalities to purchase and use as a template to build upon and tailor to their individual needs. Sample design standards are included, such as building height, frontage, and street design for each transect zone. Transect zones, like other forms of form-based zoning, “regulate use in a limited capacity to encourage mixed-use development” (Rouse and Zobl 5).

Discussions on the Central Petaluma Specific Plan started in the late 1990’s and involved much public participation. The subject area included 400 acres adjacent to the historic downtown and Petaluma River. Citizens of Petaluma were made aware of the SmartCode and invited a consultant group to speak about it to the City Staff and community. From that presentation, the city’s interest in the SmartCode grew and Petaluma adopted the Central Petaluma Specific Plan and SmartCode together in 2003, making Petaluma the first city to purchase and implement the SmartCode (Phil Boyle, phone interview, May 2007). According to the City of Petaluma, “The Central Petaluma Specific Plan envisions Central Petaluma to be a place where a wide range of new employment, housing, shopping, and entertainment activities develop in relative proximity to one another within a lively urban environment adjacent to the historic downtown and the Petaluma River” (City of Petaluma). The Petaluma SmartCode promotes narrower streets, wider sidewalks, and minimum building heights to create urban character near the historic downtown” (Madden 177).

According to Phil Boyle, Associate Planner for the City of Petaluma, there have been various problems associated with the use of the SmartCode that were not foreseen. These include that the SmartCode was not necessarily more user-friendly than a conventional zoning code. It did not result in faster processing times for applications, and is difficult to implement with existing infrastructure, such as streets and buildings. Although Phil Boyle felt that the SmartCode appears to be better suited for greenfield development (development of vacant lots), the application of the Central Petaluma Specific Plan to greenfield development has also been difficult due to the specific requirements imposed.

Boyle also gave advice to municipalities considering implementing a form-based code. His advice included the following:

- “Be sure you (the municipality) have enough time to customize the SmartCode to your community and fine-tuned it to what the community needs and desires.
- Schedule a “test run” where staff can review a current application against the regulations of the SmartCode and see how it works. Staff should then present their findings to the public, elected and appointed officials, and developers to discuss the result.” (phone interview, May 2007).

The Central Petaluma Specific Plan has been in effect for four years. In Spring 2006, Michael Moore, the Community Development Director for the City of Petaluma, wrote an article titled, “Form-based zoning is not the (whole) answer” in APA’s Northern News. In the article Moore states:

“The emphasis of a form-based code on physical relationships between people, buildings, and public spaces (streets, sidewalks, parks, etc.) is an important element missing from traditional zoning regulations. But that emphasis, in our experience, has not always been enough to overcome two forces that often dramatically affect development regardless of the type of zoning in effect: the market and political will.” (1)

An important lesson learned from Petaluma’s experience with form-based zoning is that even when form-based policies are in place, developers may be unable or unwilling to build what is required.

***Case Study 4: Ventura, California  
SmartCode for Downtown Specific Plan***

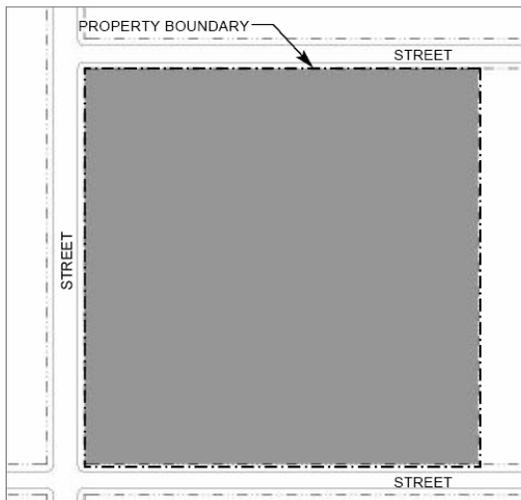
Ventura is a beach town located south of Santa Barbara, California. The population of Ventura is over 100,000 people. Ventura decided on pursuing a form-based code in 2002 while the City was in the midst of preparing a General Plan update that incorporated the transect concept. It was decided that the entire city would be re-coded using form-based codes (Nicole Horn, email correspondence, May 15, 2007). At this time, Ventura has implemented form-based zoning in only one area of the city, downtown Ventura, through the Downtown Specific Plan that was adopted by the City Council in March 2007. Before completing the Downtown Specific Plan, the City of Ventura completed an Economic Development Strategy 2005-2010.

Downtown Ventura contains several historic buildings and districts. The Downtown Specific Plan is not intended for the development of vacant land, but for the historic areas of the downtown. According to Nicole Horn, Associate Planner for the City of Ventura:

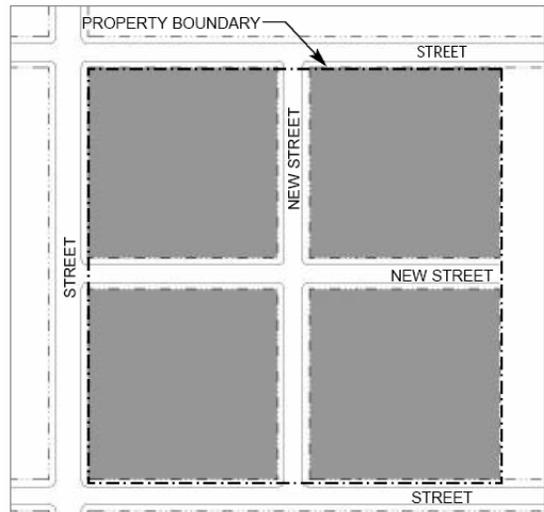
“the [Downtown Specific Plan] is meant to preserve the existing character of downtown Ventura while achieving [Ventura’s] redevelopment goals, which means new investment and new economic opportunities are desired as well. [The Downtown Specific Plan] preserve[s] the old buildings and the historic lot pattern (setbacks, etc.), but at the same time, [it] encourage[s] denser infill development. [Ventura] want[s] both and the code can achieve both.” (email correspondence, May 15, 2007)

The Downtown Specific Plan includes requirements for ground floor retail in certain areas, permitted and prohibited uses, building placement, parking, and building types, which are allowed according to transect zone. Well-illustrated Design Guidelines and a Streetscape Plan are also included. A parking management plan allows for reduced parking to encourage a “park once” strategy.

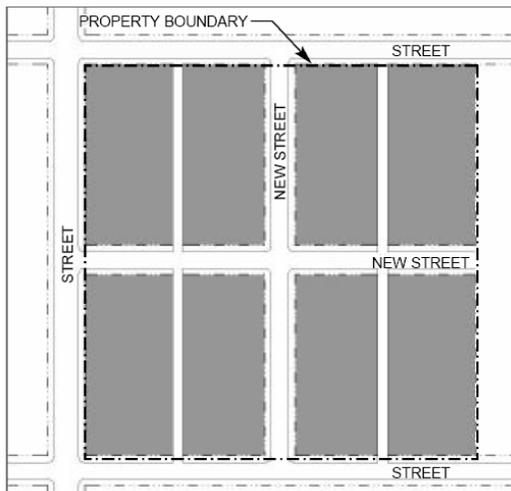
### 1. Original Site



### 2. Introduce Streets



### 3. Introduce Alleys



### 4. Introduce Lots



### 5. Introduce Building Types



City of Ventura, Downtown Specific Plan,  
Mixed Type Development Standards

Nicole Horn also gave advice to municipalities considering implementing a form-based code through email correspondence on May 15, 2007. Her advice was to talk to other cities that have adopted form-based codes and identify exactly what problems you're trying to solve and focus on solutions to these problems.

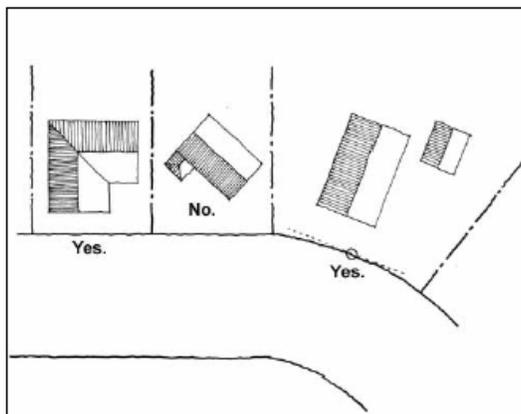
### ***Case Study 5: Aspen, Colorado***

#### ***Development Review Standards and Procedures***

Aspen, Colorado is located in Pitkin County, Colorado and is a popular ski resort destination. Aspen has a population of approximately 6,000 people, but the daily population increases to up to 27,000 people during peak tourist seasons. Similar to Mammoth Lakes, Aspen has an elevation of approximately 8,000 feet and much of the area surrounding the community is National Forest land (Aspen Chamber Resort Association).

Aspen's Land Use Code is a conventional zoning code that incorporates form-based zoning concepts in appropriate locations. For example, the Land Use Code includes a Mixed-Use Zoning District located in downtown Aspen. The purpose of this zone is to provide a variety of lodging, residential, and mixed-use buildings with commercial uses serving the daily or frequent needs of the surrounding neighborhood (City of Aspen Municipal Code 26.710.180 A). This zone also provides a transition from commercial to residential uses and regulates building design to be compatible with neighborhood character.

Aspen's Land Use Code also includes development standards. Development standards for residential development include building orientation, build-to lines, building form, and parking. All of the standards are applied to development within infill areas, while only some of these standards are applied to multi-family housing. Commercial development standards include building relationship to the street, pedestrian amenity space, street-level building elements, parking, and utility, delivery and trash service provision. The Code also includes "Suggested Design Elements" that describes building practices suggested by the City of Aspen for item such as architectural features and window displays. These standards include easy-to-read diagrams that illustrate the form-based zoning requirements. Requirements for building design and materials are also included in the Land Use Code.



City of Aspen, Municipal Code 26.410.040,  
Residential Design Standards

Other sections of Aspen’s Land Use Code discuss the requirements for off-street parking and public amenities. The off-street parking section includes form-based zoning concepts such as locating parking in the rear of buildings, prohibiting surface parking in certain areas, and lower parking requirements and/or the provision on in-lieu fees for infill areas (currently \$30,000 per space). The public amenities Code section requires twenty-five percent of each parcel in commercial and lodging zones to be provided as public amenity (City of Aspen Municipal Code 26.575.030). Land provided for public amenity must comply with provisions and limitations stated in the Code. Alternative methods to satisfy this requirement are available, such as off-site provision and in-lieu fees. Although the Town of Mammoth Lakes has design guidelines expressing many of these ideas, they are not coded as policy, and therefore, are not required.

***Case Study 6: Breckenridge, Colorado  
Design Guidelines for Historic District***

Breckenridge, Colorado is located 98 miles west of Denver in Summit County. Breckenridge is similar to Mammoth Lakes in that it is a winter resort town. The permanent year-round population of Breckenridge is 3,335, and the peak population is 35,026. The town is approximately 4.68 square miles (Breckenridge Central Reservations). Breckenridge utilizes design standards to preserve the character of their historic district. The design standards for the historic district are essentially form-based and were adopted in 1992 and updated in 1998 (Chris Neubecker, email survey, May 22, 2007). Breckenridge’s Handbook of Design Standards for the Historic and Conservation Districts reflects historic development patterns, setbacks, scale and materials. The Town of Breckenridge also has flexible zoning, so almost any use would be allowed if the impacts are mitigated through a point analysis. This mixing of uses is consistent with form-based zoning.

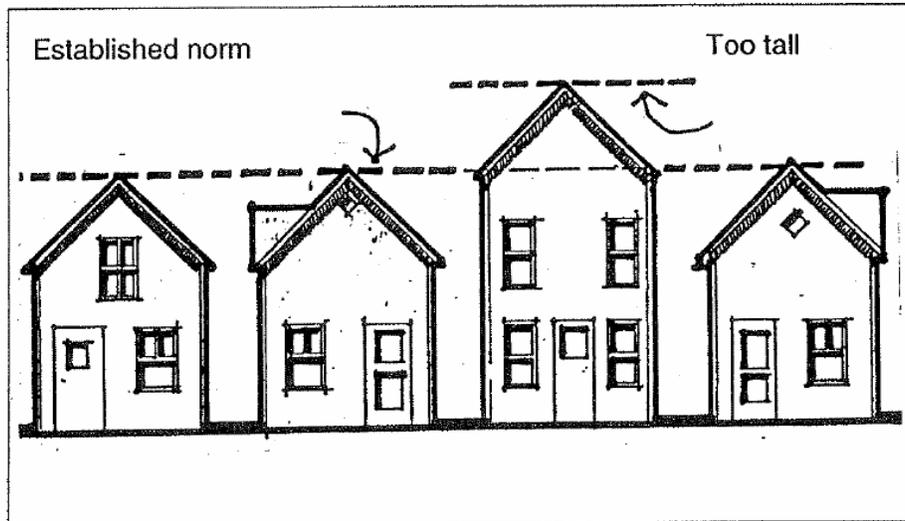
The reason for the historic district design standards is to preserve the historic character of Breckenridge “and assure that the attraction of Breckenridge as a genuine Colorado mining town will remain strong” (Town of Breckenridge 3). It is recognized that the town’s image is extremely important to its economy.

The Historic District design standards include standards for rehabilitation of existing buildings and for new construction. Priorities in the design standards include form-based zoning concepts such as respecting historic settlement patterns, preserving the historic town grid, and reinforcing the visual unity of the block. Specific form-based concepts that the design guidelines encourage are:

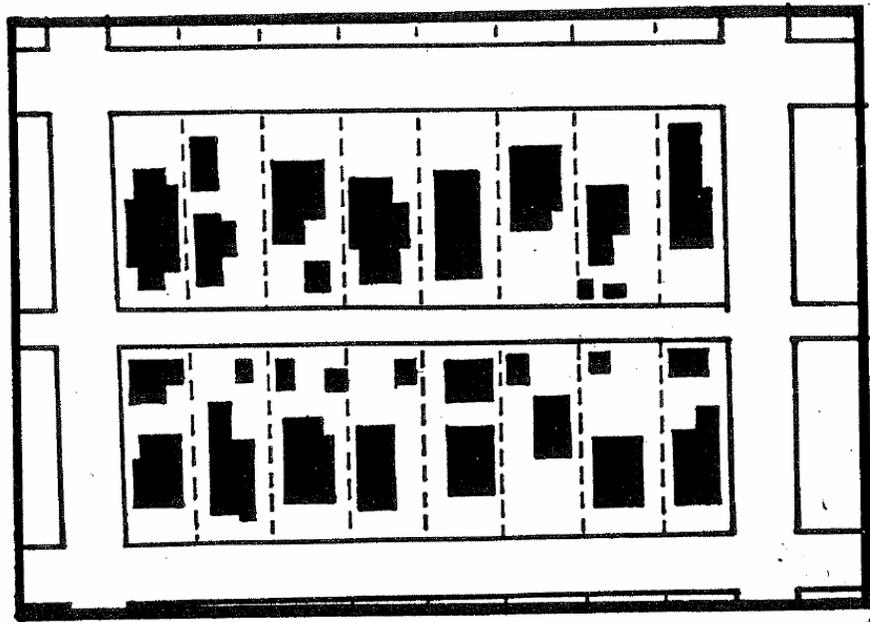
- parking should be located to the rear and/or screened with landscaping
- the pattern of street trees should be maintained
- maintain a clear separation between the sidewalk and the site (e.g. residential fences, front yards, etc.)
- use landscape buffers to define pedestrian paths (Town of Breckenridge)

The design guidelines require that new construction in the Historic District use the basic scale, form, and materials of the existing historic buildings. For example, a building cannot be taller or longer than the established historic height and length of surrounding

buildings. The design guidelines use very simply graphics to illustrate these guidelines. The design standards also discuss building styles, materials and architectural details such as facades, windows, and doors.



New buildings should not overwhelm historic structures in terms of height.



The historic arrangement of streets and the orientation of buildings to lots should be respected.

Town of Breckenridge, Handbook of Design Standards for the Historic and Conservation Districts

The regulatory hierarchy of Breckenridge's regulations and policies place the Historic District design standards at the bottom. The Master Plan, Land Use Guidelines, and Development Code are above the Historic District design guidelines. However, Chris Neubecker (of Breckenridge's Planning Staff) states:

“We have not had much difficulty enforcing our design standards. They are a requirement, so all projects in the historic and conservation district must follow them. For projects to be approved, they must meet all Priority policies...and be in substantial compliance with all other policies in the handbook. If they don't meet this, we don't issue a permit. There are always a few cases where people do development without a permit, or make deviations from approved plans, but for the most part we get compliance...developers know that if they want their project approved, they need to do good design.” (email correspondence, July 19, 2007)

Breckenridge has strong political and community-wide support for the Historic District design guidelines. This support is necessary since guidelines are not enforceable like policies.

### ***Conclusion from Case Studies***

There are a variety of ways to implement form-based zoning concepts: specific plans (Hercules), a parallel or optional form-based code (Chico and Arlington County), transect-based codes/SmartCode (Petaluma and Ventura), required form-based standards (Aspen), or design guidelines (Breckenridge). The case studies describe positive and negative results from form-based zoning. The following list identifies advantages and disadvantages of form-based zoning.

#### Advantages

- Form-based codes are graphic and easy to understand and use. They are often more readily understood by the public, which reduces code interpretations and can shorten the review process over the long term (Local Government Commission).
- Because form-based zoning is prescriptive (they state what you want), it creates a desired “place” unlike conventional zoning codes (Katz, FBCI).
- Form-based codes can deliver predictability for both the developer and the community. This saves time and money for all involved in the development process (Madden 177).
- Form-based zoning encourage walkable communities and transit-oriented development.
- Form-based zoning focuses on the quality of the pedestrian environment while still accommodating the automobile (Vieg, Agenda Report, 4).
- By primarily focusing on building form, and secondarily on use, form-based codes result in a high quality built environment.
- Private developments are integrated with the public realm since form-based codes address the character of public streets and public places.

- Form-based codes are successful in established communities since they define and codify community or neighborhood's character. Thus, traditional and desirable building types are encouraged, promoting infill that is compatible surrounding development (Katz, FBCI).
- Form-based zoning concepts can be applied to many different communities and situations (Local Government Commission).
- Form-based zoning is very detailed, providing a thorough approach to development. This creates predictability and can eliminate the need for design guidelines, which are difficult to enforce (Katz, FBCI).

#### Disadvantages

- Implementing form-based codes without adequate coordination and thorough review can result in discrepancies between the zoning standards and others such as Public Works, the Municipal Code, and Fire District standards.
- Although form-based codes are more graphic and considered easier to use than conventional zoning codes, there is a learning curve for planners, the public and developers to fully understand and implement new regulations.
- Form-based zoning may not be successful in all areas within a municipality. Therefore, a variety of form-based standards may be needed to address specific problems and areas.
- Since every form-based code is unique to each municipality or area, it can be very expensive and time consuming to create form-based codes especially with the amount of graphics needed.
- Building monotony or an overly homogeneous "themed" look may arise since form-based zoning identifies specific building types that are allowed. Some codes have included a large number of permitted building types to avoid this (Katz 3).
- Although form-based zoning encompasses the characteristics of traditional development, it has only recently been codified. There may be issues associated with the implementation of these types of codes that have not been recognized yet. Thus, impacts of form-based zoning are not yet fully measurable and there is potential for unanticipated problems.
- Form-based codes can lack flexibility to address existing conditions because the standards are absolute (City of Petaluma, PowerPoint).
- The adoption and implementation of form-based codes require considerable political will to overcome skepticism (Heitzer 2).
- Form-based zoning may be environmentally insensitive since the regulations tend to ignore natural features and topography (Burdette 46).

Every case study acknowledges some issues and/or concerns with form-based zoning, primarily, the need for adjustments or revisions to address unforeseen problems and site-specific circumstances.

#### **Mammoth Lakes**

Mammoth Lakes, California is a mountain resort town located in the Eastern Sierra. The permanent population of Mammoth Lakes is approximately 8,000 with an average peak

population of approximately 34,000 (Town of Mammoth Lakes). Approximately 4.6 acres of land is within the Town’s urban growth boundary, which is where the majority of development occurs. In 2005 the Sierra Business Council described Mammoth Lakes as a town “dominated by separated uses...and strip development and malls as the commercial area. Without a car, it is difficult to get around...[but] Mammoth Lakes is now undertaking a number of projects to boost the pedestrian-friendly nature of its commercial district” (15). These projects include sidewalks and the North Village development.



Bill Taylor, Town of Mammoth Lakes

### ***Current Regulatory Documents***

Mammoth Lakes General Plan was adopted in 1987 and updated in 2007. The Town’s Vision Statement was adopted in 1992, and was updated in conjunction with the 2007 General Plan. Both the 2007 General Plan and Vision Statement include form-based zoning concepts including mixed-use districts, pedestrian friendly neighborhoods, and the enhancement of public spaces. The 2007 General Plan provides a strong foundation for creating and implementing form-based standards.

The Town’s zoning code is a conventional zoning code. It identifies parcels according to use and imposes prescriptive regulations such as setbacks, lot coverage, and building height. The zoning code was inherited by the Town from Mono County when the Town incorporated in 1984. Therefore, the zoning code is actually older than the town itself.

Mammoth Lakes’ current Design Guidelines were adopted in 2005. The Design Guidelines include standards for site planning, architecture, landscaping, and public space. These Design Guidelines include some form-based zoning concepts such as

placing parking in areas least visible to the public right of way, stepped building heights, defining specific building types, and integrating pedestrian facilities and amenities into projects. However, the strict implementation of these guidelines is often impeded by the Town's outdated zoning code. For instance, building height is limited by the zoning code, discouraging developers from designing stepped buildings. Also, the Town does not have streetscape standards, resulting in a less attractive pedestrian environment along public rights-of-way.

The North Village Specific Plan was adopted in 2000 and contains many elements of form-based zoning. These elements are mixed-use districts, pedestrian friendly design, public plaza spaces, and density supported by transit and amenities. The implementation of the North Village Specific Plan has been somewhat successful; however there have been some issues, such as inadequate parking, circulation and layout, unsuccessful retail animators/services and amenities, and poor and limited shoulder season use.

The Juniper Ridge Master Plan was updated in 2007 for a new project, Eagle Lodge. The revised Juniper Ridge Master Plan now includes some form-based zoning concepts to allow for the Eagle Lodge project, which will be a mixed-use ski portal. Currently, the Lodestar (1992) and Snowcreek (1981) Master Plans are being updated. The Shady Rest Master Plan (1991) is also expected to be updated shortly. These updated master plans, while not adopted, intend to include mixed-use components. The Greyhawk Master Plan was adopted in 2001 for a single-family subdivision and has not been revised since adoption. It is not expected to be revised in the near future.

There have been various issues associated with Mammoth Lakes' regulatory documents. The main issue is that they are outdated and are not achieving the community's vision. The Town's Zoning Code uses dense legal language, is land use focused, and is silent on what is desired (Town of Mammoth Lakes, WRT PowerPoint). The majority of documents, such as the Town's Design Guidelines, lack useful place specific standards. Because of these reasons and others, the Town's regulatory documents are not successful in achieving the community's vision. Some of the Town's regulatory documents have or are being updated to address these and other issues. In addition to updating regulatory documents, the political will for change must be strong in order for the community to achieve desired development projects. Desired development in the community will preserve Mammoth Lakes' small town character, promote "feet-first" mobility (pedestrian oriented design), and be economically and environmentally sustainable.

If form-based zoning is pursued, the Town will need to be sure that all regulatory documents are consistent. For instance, public work street standards would need to be updated to consistent with form-based standards so they are not an impediment to implementation.

### ***Mammoth Lakes and Form-Based Zoning***

Form-based zoning may be a tool that could help Mammoth Lakes achieve the community's goals and vision. The concepts promoted by form-based zoning, including

mixed-use districts, parking strategies, attractive streetscapes, and building design requirements, are consistent with the community’s vision.

If Mammoth Lakes pursued form-based zoning, it would be expected that the most appropriate areas would be where mixed-use and transit oriented development is desirable. In Mammoth Lakes, these areas would include Main Street, Old Mammoth Road, Shady Rest, Civic Center, North Village, and portions of some other areas (Sierra Star and Snowcreek village areas). Form-based zoning standards such as pedestrian friendly streets and building placement and orientation may also be used in single-family residential areas.

### Main Street

Form-based zoning could improve Main Street through revitalization. Currently, Main Street is developed with a strip commercial pattern that placed large surface parking lots and a frontage road in front of storefronts. Form-based standards would require buildings to be closer to the street and would relocate parking behind the buildings and/or underground. This would frame the street and reduce the amount of pavement in front of buildings, thereby improving the visibility of the storefronts and businesses. The architectural and design requirements of form-based zoning would promote consistent building styles, reducing the hodgepodge of building forms and styles over time. Although there are some residential uses on Main Street, a greater mix of residential and commercial uses would promote feet-first mobility and reduce automobile use. Residents could walk to the post office, restaurants, and a variety of retail. Density on Main Street would also encourage transit use since there are many transit stops along the street. However, the implementation of form-based zoning concepts on Main Street would be a challenge because of Caltrans ownership and operation of the right-of-way. There are also many property owners along Main Street that would need to accept form-based zoning in order for it to be successful and continuous along Main Street. Revitalization also takes many years to achieve desired results.



View of Main Street and Frontage Road

Wallace, Roberts and Todd,  
Realizing the Vision powerpoint

### Old Mammoth Road

Old Mammoth Road, like Main Street, could implement form-based zoning through revitalization efforts. Similar to Main Street, Old Mammoth Road also has a strip commercial development pattern. Old Mammoth Road has a mix of residential and commercial uses, but this is generally horizontally mixed rather than vertically mixed. Examples of vertically mixed buildings include the Starbuck’s building and the Bradmont building next to the police station. These buildings have residential uses on the top floor and commercial on the ground floor. Vertically mixed developments are successful in providing amenities and services that support the residents above. However, it has been difficult to keep commercial spaces occupied in Mammoth Lakes due to high rents and other issues. Form-based revitalization efforts on Old Mammoth Road may be difficult because of the existing development and existing infrastructure such as roads and utilities.

Old Mammoth Road looking north from Sierra Nevada Road



Wallace, Roberts and Todd, North Old Mammoth Road District Special Study

### Shady Rest Parcel

The Shady Rest Parcel located south of Main Street and west of Old Mammoth Road is a vacant 25-acre lot. It is currently zoned for affordable housing. Form-based zoning could be applied on this parcel through a form-based specific plan. The community has stated its desire for the future development on this parcel to be a locals’ workforce neighborhood. With the incorporation of form-based zoning not only could this parcel achieve the community’s desire, but also could be a leading example of a mixed-use, compact, pedestrian oriented development. However, there are challenges for implementing form-based zoning on the Shady Rest Parcel. These include that the parcel

is land-locked and as a result is constrained by surrounding development. This infill development would need to be consistent with a variety of uses and development surrounding the site. Lastly, the property owner and developer must find that the concepts of form-based zoning are desirable and result in a profitable venture.



Site photo and aerial image of the Shady Rest site



2006 Hidden Creek Crossing conceptual site plan (not approved)

### North Village

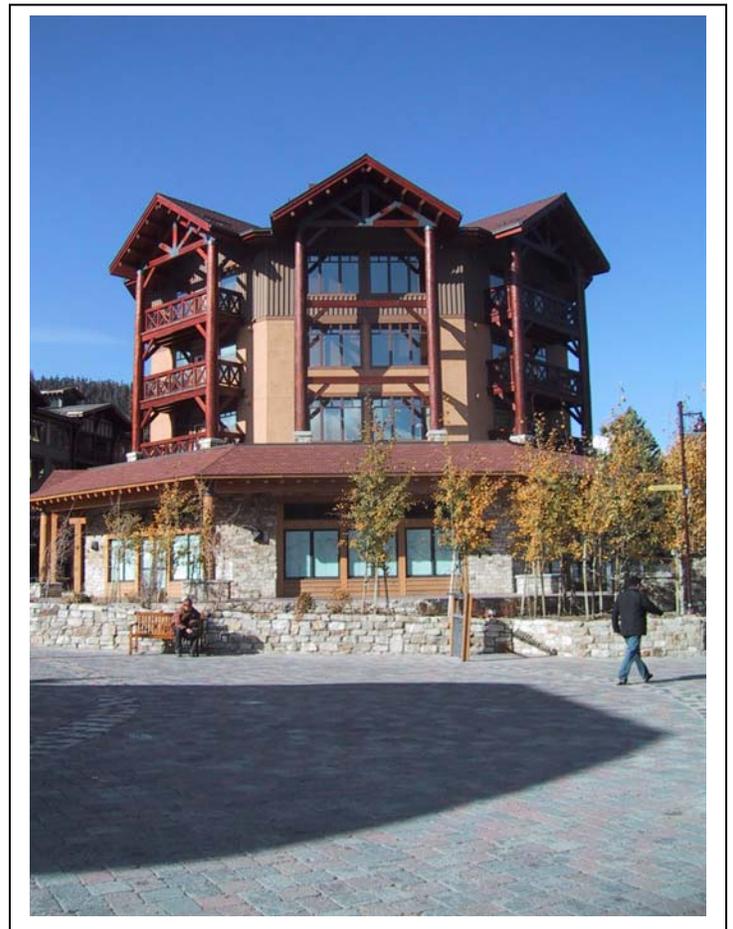
The North Village is already implementing some form-based zoning concepts through the North Village Specific Plan (NVSP). These include a mix of uses, public spaces, architectural and design requirements, and transit oriented development. The NVSP was adopted in 2000 and there has been considerable development in the North Village since then. Although the NVSP incorporates some form-based zoning concepts, there have been substantial issues and concerns with development that has occurred under the NVSP regulations. These issues include inadequate parking facilities, proximity of incompatible uses (i.e. late night bars with condominium units above), and lack of a critical mix and mass of entertainment, retail and commercial uses. The issues relate to non-existent and unclear street pattern, streetscape and public realm standards, vague policies within the NVSP, and inconsistencies within the NVSP including building massing and height standards. The NVSP could now be refined to address current issues and community concerns to improve future development projects and enhance the existing developments in the North Village.

Minaret Road frontage



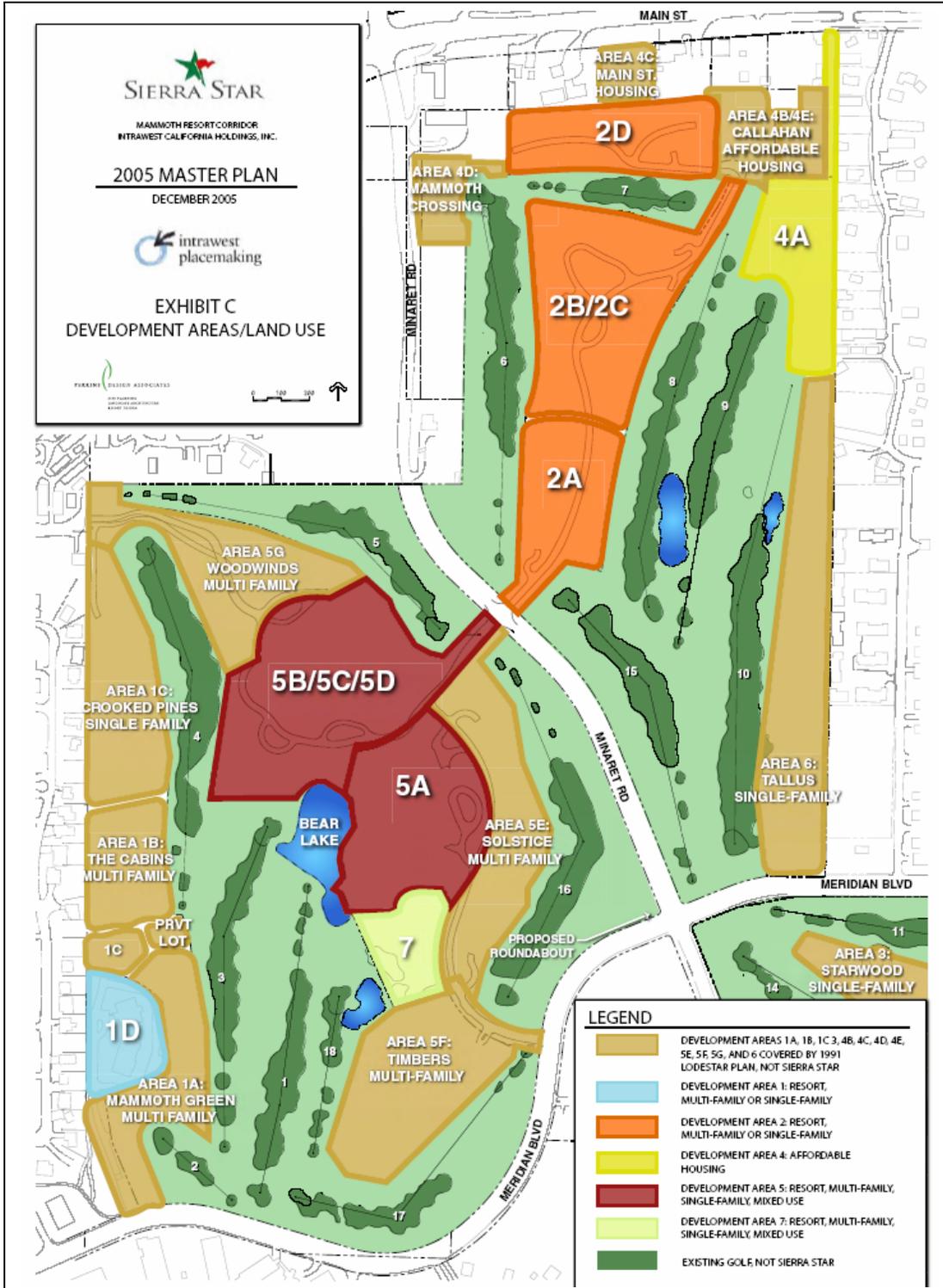
Wallace, Roberts and Todd,  
Realizing the Vision powerpoint

North Village condominiums and plaza



Other Areas

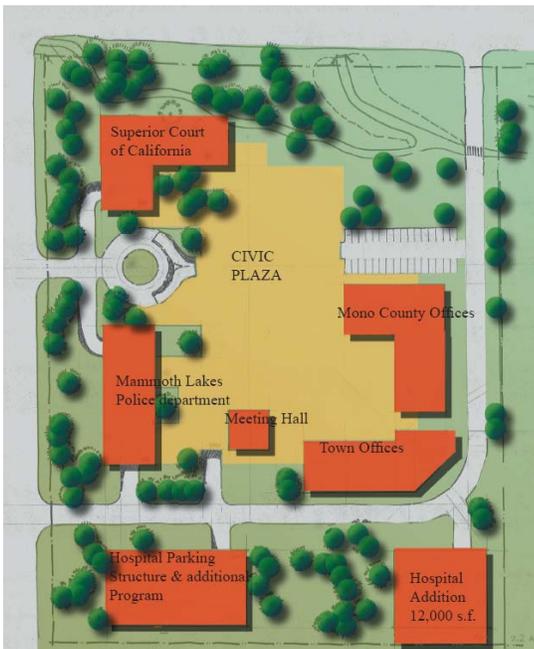
Other areas within Mammoth Lakes such as the future village centers in the resort districts of Sierra Star and Snowcreek might also benefit from the implementation of form-based zoning concepts. These village centers are expected to include a mix of uses, should be appropriately designed and sited, be pedestrian-oriented, and transit-oriented.



Sierra Star Master Plan (not approved)



Snowcreek VIII Master Plan (not approved)



Civic Center conceptual site plan, Design Workshop

Also, the future Civic Center on the corner of Main Street/203 and Sierra Park Road might also benefit from public realm and streetscape standards of form-based zoning since this project is expected to include a large public plaza that is access by an extension of Tavern Road.

## Conclusion

Although the 2007 General Plan emphasizes form-based zoning ideas, the community will have to look at form-based zoning in detail and answer the following questions:

- What is the place we want to create?
- What standards or other methods will make this a reality?
- Are there any unintended consequences?

As many communities that have implemented form-based zoning recommend, Mammoth Lakes should pick an area or project to be a “test” to determine if form-based zoning can adequately address community concerns prior to implementation. Mammoth Lakes is a unique community and the “test” should analyze how form-based development patterns function with Mammoth Lakes’ snowfall and associated impacts, topography, seasonal population fluctuations, and the town’s isolated location.

It must also be noted that while form-based zoning can help a community achieve desired development, it is not a solitary solution. As stated by Chrisanne Beckner, “The notion is really that you just adopt one of these things and get all these great developments...It doesn’t really create a different environment in terms of what the market is driving.” A community’s success is dependent on factors other than just zoning. These factors include policy basis through General Plan and specific plans, public-private partnerships, political will, and using changing market conditions to achieve desired outcomes (City of Petaluma, PowerPoint). Form-based codes that implement minimum and maximum ranges have been used to allow for economic flexibility.

Mammoth Lakes will need to coordinate a strategy of public investment, economic development, and land use policy that can effectively deal with all aspects of urban development, not just the design and form of buildings. Communities should not rely just on a form-based code to revitalize areas in town. Michael Moore states, “form-based zoning should be thought of as an evolutionary step in zoning that puts use and form in their proper perspective, rather than an end-state.” Therefore, Mammoth Lakes would need to correlate potentially new form-based zoning standards with an economic development strategy to assure that the new standards would be feasible and create a desired product. For example, the economic development strategy should carefully analyze whether retail uses are economically viable before requiring them.

The next steps for Mammoth Lakes to study form-based zoning are:

1. Continue the district planning process to vet form-based zoning concepts.
2. Complete the ERA economic study to understand the market.
3. Hold community charrettes or use other public visioning methods to explain form-based zoning and show what it could help to achieve (the use of an expert in form-based zoning is recommended). This should take into consideration the products produced from steps 1 and 2.
4. Hold Planning Commission and Town Council workshops to determine community and political views on form-based zoning (e.g. how and where

should form-based zoning be used). These workshops should expand on the discussions and outcomes of the public charrettes (step 3).

5. Pursue Planning Commission and Town Council recommendations with a professional planning or design firm that has experience with form-based zoning. This may be to draft a form-based zoning code, revise the design guidelines to incorporate more form-based zoning standards, or other.
6. Continue with public input and agency collaboration as work evolves.

Form-based zoning is still a new concept, but has produced desired results in a variety of places. As stated by Mary E. Madden, “[Form-based codes] are ideal for jurisdictions seeking a fundamental change in urban form and character” (176). If this is what the community desires, Mammoth Lakes should take the opportunity to thoroughly research and explore form-based zoning to determine if it can help the community achieve its vision.

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## **Appendices**

- A.** Steps to Prepare a Form-Based Code
- B.** Euclidean Zoning Consequences versus Form-Based Codes
- C.** Central Hercules Plan and Regulating Code

## Appendix A

### Steps to Prepare a Form-Based Code:

1. Existing conditions analysis and inventory (street types, block types, building types, open space types, parking types and locations, and natural features)
2. Public visioning and charrette (gather community input early in the process; “Charrette” is a collaborative planning process that brings together residents and design professionals in an intensive multi-day process that typically includes focus group meetings, workshops, presentations, and public engagement exercises to develop a feasible plan for future revitalization and development)
3. Determine appropriate spatial basis for regulation (district, transect, streets, or special zones)
4. Develop urban standards (streets, blocks, building placement, height, land uses, etc.) – result will be a set of diagrams for each zone that clearly establish standards for street and sidewalk width, building placement, height, parking, etc.
5. Develop architectural standards (building or frontage typologies, etc.)
6. Allocate and illustrate standards (graphics)

(Local Government Commission)

## Appendix B

### Euclidean Zoning Consequences versus Form-Based Codes

<b>Euclidean Zoning Consequences</b>	<b>Form-Based Codes</b>
Separates land uses	Allows for the mixing of uses. Considers use a secondary factor in regulating development. Separates noxious uses as directed by the community vision and the market.
Leapfrog development	Permits and encourages compact, contiguous development based on community vision.
Commercial strip development	Enables vertical development, as opposed to long, single-story buildings.
Low-density development	Allows for increased development density where appropriate.
Poor accessibility	Encourages compact, walkable developments. Enables community to plan for the pedestrian, as opposed to planning for the automobile.
Lack of functional open space	Enables communities to mandate civic-oriented places like parks and plazas.
Incomprehensible ordinances	The use of simple, graphic-based guidelines with minimal text allow for a more complete understanding of the regulation.
Inflexible uses	Regulations are flexible in that they permit use to change or adjust as needed over time without regulatory approval.
Promotes exclusion	While aiming to include all community stakeholders, once development/ redevelopment take place, certain populations could remain excluded as building equity increases.
Unpredictable development	Use is largely predictable, and is often delineated in the Building Envelope Standards. Building form is entirely predictable.
Lack of stakeholder input	Generally, stakeholders are involved from the very beginning through the charrette and community visioning processes.
Command and Control	Employs a “bottom-up” approach. Although local authorities generally initiate

	the process, stakeholders develop a vision for their community that planners later codify.
Poor urban design	This is largely subjective. However, regulations facilitate compatible and diverse community design.

(Burdette 54-55)

**Appendix C**  
(see attached Central Hercules Regulating Code)