City of Brisbane
Planning Commission Agenda Report

TO: Planning Commission   For the Meeting of 9/8/11

FROM: Ken Johnson, Associate Planner, via John Swiecki, Community Development Director

SUBJECT: STUDY SESSION: Introduction to Form-Based Codes

Purpose: This study session is to provide an introduction to Form-Based Codes, to address rezoning programs that were adopted with the 2007-2014 Housing Element. These programs are to establish the new R-SWB Southwest Bayshore Residential District and the new Crocker Park NCRO-3 Neighborhood Commercial District, in order to accommodate the State mandated Regional Housing Needs Allocation (RHNA). Included with this agenda report are a couple short articles and excerpts of other Cities' codes to provide a framework for understanding Form-Based Codes. Staff understands this is a new concept and it is not our intent to cover all the attached materials in one study session. The intent of tonight's study session is to provide a broad overview. Additional study sessions will be scheduled as needed.

Introduction to Form-Based Codes: Land use zoning in the United States largely began following the Industrial Revolution, in the early part of the 20th Century, and has been characterized by separation of uses, with the aim of protecting human habitations from dirty industry. This was coined Euclidean Zoning in 1926 (also called Conventional Zoning). In brief, Euclidean Zoning tends to be characterized by the following:

- Segregation of uses with the intent of human protection
- Emphasis on the definition of the upper limits of what may be developed (floor area ratios, lot coverage, height, etc.), or minimum development standards (setbacks, required parking, etc.)
- Uncertainty in the permitting process
- Ubiquitous suburban sprawl and associated concerns:
    - Automobile scaled places
    - Public realm as an incidental byproduct of development
    - Difficult to walk or bicycle between uses
    - Monotonous Places
    - Decline of public transportation
    - Decline of urban centers
    - Consumption of land
    - Global warming

While there are plenty of examples where Euclidean Zoning is still appropriate for human protection, the primary unintended consequence of ubiquitous Euclidean Zoning has been suburban sprawl. Homes, work, shopping and recreation all tend to be separated. The result is auto-centric, oversized places that tend to be monotonous, and unsafe or unattractive for pedestrians and bicyclists (either by sheer distance or design). Shopping malls and suburban housing tracts are classic examples of Euclidean Zoning.

One can find exceptions of enjoyable town centers where people can walk from home to work, to shopping and so forth, but these tend to be older (traditional) town centers that evolved to meet local needs prior to Euclidean Zoning.

Euclidean Zoning is predominant in Brisbane, although Visitacion Avenue is an example of a traditional neighborhood. Most of its development was completed by the 1940's as a result of local needs, and prior to its current zoning. Crocker Park, on the other hand, is a classic example of Euclidean Zoning, where the uses are trade commercial; that, combined with the building envelope limits established in the code, has resulted in a district entirely composed of warehouses and offices.

Form-Based Code Principals

Although Form-Based Codes are a relatively new tool for city planning, they hearken back to pre-Industrial Revolution traditional development, which evolved over long periods in response to the needs of the local communities. The key concepts behind Form-Based Codes are the following:

- o Emphasis on physical form, not land use, as an organizing principal
- o Proactively defines a community vision
  - Translates the community vision into a regulating code which defines physical form
  - Provides certainty for community and property owners – clear rules and standards developed up front
  - Enables incremental growth
- o Focused on revitalization or creation of urban centers to result in:
  - Human scaled places
  - Easy to walk or bicycle between uses
  - Focus on public transportation
  - Suited to parcel by parcel re-development of land
  - Higher quality public realm

As previously indicated, Form-Based Codes are not for all cases. However, in the case of the proposed Crocker Park NCRO-3 District, Form-Based Codes have been identified as a tool to complete the village by providing zoning to allow for development of a key connection between the Brisbane Village Shopping Center, Visitacion Avenue the Community Park and City Hall. For the proposed Southwest Bayshore R-SWB District rezoning to allow for redevelopment to residential uses would improve the overall appearance of the built environment at this southern gateway of the City. In both cases, Form-Based Codes will also afford the City control over future development while responding the State's mandate that cities include zoning to accommodate their share of the regional housing need without discretionary permits.

Form-Based Code Technical Elements

The technical elements of Form-Based Codes are divided into "minimum components" and "optional components". The City may develop any of the components it chooses as part of its code. If any of the so called minimum components are not included, the code would simply be considered a hybrid Form-Based Code. The components are as follows:

"Minimum Components"

- Regulating Plan – Map(s) that shows the assignment of the codes various regulations to actual physical locations.

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- Public Space and Street Standards - Regulations for elements within the public realm
- Building Form Standards – Regulations controlling the configuration, functions and features of the buildings
- Administration - Regulations for the project application and review process.
- Glossary

"Optional Components":
- Block Standards - Division of larger sites into walkable streets.
- Building Type Standards - Definitions of the forms and functions of the buildings, such as detached single family homes versus live/work units.
- Architectural Standards - Regulations controlling the physical character and quality of buildings.
- Landscape Standards - Control of the character and quality of the improved landscaping within private spaces.
- Green Building Standards - Regulations regarding the quality of the development with regards to its impacts on the environment.
- Other Standards - A Habitat Conservation Plan (HCP) Compliance component would be developed specifically for the proposed R-SWB District, to ensure that new development is consistent with the HCP.

Examples
Excerpts from the City of Benicia Downtown Mixed Use Master Plan, City of Livermore Development Code, and the Hercules Bayfront, LLC Waterfront District Master Plan are provided as examples of Form-Based Codes. Note that Hercules was added since the meeting of August 22nd to provide an example of a code that includes architectural styles. A common thread in the presentation style of each of these three codes can be seen in the standards, especially in the use of graphics and photographs to illustrate the standards.

Attachments:
- "Form-Based Codes – New Approach to Zoning", smart Growth Tactics, Michigan Association of Planning, Issue 28, 1/16/07
- "Conventional Zoning vs Form Based Coding", an excerpt from "An Introduction to Sustainable Form-Based Codes", by Steve Coyle
- " A New Theory of Urbanism", Scientific American Volume 283, by Andres Duany, 12/2000
- "What Are Form-Based Codes?" Form-Based Codes Institute webpage
- "Checklist for Identifying and Evaluating Form-Based Codes", Form-Based Codes Institute webpage
- City of Benicia Form-Based Code Excerpts, September 2007
- City of Livermore Form-Based Code Excerpts, May 1, 2010
- Hercules Bayfront, LLC, Waterfront District Master Plan, May 27, 2008

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Issue Number 28:
Form-based Codes

SmartGrowthTactics

Putting the MLULC Recommendations into Action—A How to Series for Local Leaders

RELIANCE ON DESIGN CONCEPTS AND PATTERNS TO PRESERVE COMMUNITIES

The Michigan Land Use Leadership Council (MLULC) recognizes the importance of training, education, and knowledge as the means and methods of managing land use change and community development.

The MLULC's 2003 final report includes recommendations for planning and development regulation and encourages a public education campaign that includes concepts to help citizens better understand the implications of the continuation of land use trends and the benefits of better planned development in general. Additionally, it includes the specific benefits of alternative design schemes that focus on density rather than minimum lot sizes including: density-based zoning, new urbanism, and diverse socio-economic development patterns.

In an effort to continue the momentum and application of the MLULC's recommendations, this issue of *Smart Growth Tactics* focuses on form-based codes (an outgrowth of new urbanism). A form-based code is a land development regulatory tool that places primary emphasis on the physical form of the built environment with the end goal of producing a specific type of "place." The base principle of form-based coding is that design is more important than use. Where conventional zoning controls land use and focuses on separating land uses, form-based coding focuses on form as it relates to streetscape and adjacent uses.

This issue will provide: an overview of the principles associated with form-based codes; a discussion on the differences between conventional zoning and form-based codes; and introduce the structure of form-based codes and the process to developing form-based codes. The article will additionally provide examples of Michigan communities utilizing form-based codes and the potential pitfalls associated with their use.

Form-based codes – new approach to zoning

FORM-BASED CODES AN EFFECTIVE TOOL FOR SMART GROWTH

As part of Smart Growth strategies, communities are examining development regulations to determine the extent to which the existing regulations may be posing an obstacle to Smart Growth. A great deal of attention is paid towards how development regulations have shaped our communities.

An evaluation of development trends and the zoning requirements of many communities identified serious problems associated with uncontrolled urban sprawl and the loss of community character in suburban communities. In many instances, conventional zoning regulations are the major contributors towards creating the sprawling, automobile-oriented environment that dominates many Michigan communities.

Zoning was created in the early 20th century as a response to problems associated with overcrowding in central cities and the intrusion of heavy industry into retail and residential areas. Developed in the later years of the industrial revolution, zoning sought

Communities such as Grand Rapids are using form-based codes to document the urban fabric of their community and develop regulations that ensure that the most valuable qualities of the community are not only retained, but that new development fits into the character of the neighborhood, as well.

to address these problems through separating incompatible uses and limiting residential density. However, the evolution of zoning in concert with rapid suburbanization has had the effect of dispersing suburban development over large areas of land and creating a host of problems such as loss of farmland, increased environmental impacts, greater auto-dependency, inefficient provision of public services, and loss of community character within the suburbs. While there is a resurgence of interest in older, more traditional urban communities, existing zoning regulations make redevelopment of urban communities more difficult by applying suburban zoning standards.

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A new urbanist development in Beverly Hills, Michigan includes traditional homes on small lots and pedestrian-oriented streetscape.

Larger setbacks and excessive parking requirements make many cherished urban buildings and spaces nonconforming.

Form-based codes focus land use regulation towards creating more livable communities. The approach uses traditional community character to create and maintain a more human-scale environment. Unlike conventional zoning that focuses on separating land uses, form-based code focuses on building form as it relates to streetscape and adjacent uses. Form-based codes allow for a mixture of land uses based upon the context of building form. As a result, compatibility of uses is achieved through design and orientation, instead of strict land use separation. Where conventional zoning focuses on use and development of an individual lot, form-based codes focus on the role that individual buildings serve in shaping the public streetscape. Form-based codes rely on design concepts and patterns intended to preserve the assets of a community, creating more livable environments and spaces.

PROBLEMS WITH EUCLIDEAN ZONING

The conventional form of zoning currently used throughout Michigan and the United States is what is commonly referred to as Euclidean

zoning. This name is derived from the 1926 United States Supreme Court decision in *Euclid v. Ambler Realty Co.* (272 U.S. 365) to uphold the constitutional validity of zoning. Euclidean zoning has been in place in Michigan since 1921 with the City and Village Zoning Act, Public Act 207 of 1921. Enabling legislation for townships and counties soon followed in 1943.

When the city of Detroit adopted its first zoning ordinance in 1920, the city sought to address different problems than those of today. In 1920, overcrowded tenement housing and the intrusion of heavy industrial uses into commercial and light industrial areas created serious public health and welfare problems. These problems are at the root of land use separation and density limits which are the core of virtually all zoning ordinances today.

Michigan communities have experienced many changes over the past 80 years. With this, a new set of challenges in how to regulate development resurrects. Instead of concerns with overcrowding in cities, the focus is now on the negative impacts that uncontrolled sprawl has on the landscape of Michigan. And while the need to separate housing from heavy industry is still a valid concern, planners are now concerned with use-segregated

suburbs, where it is not possible to walk to the corner store or for children to walk to school.

The New Urbanism movement (1980 to present) has attracted a great deal of interest in re-creating walkable, mixed-use neighborhoods. As an outgrowth of this movement, form-based codes are the latest technique to re-examine the underlying zoning principle of separating uses and instead provide new means to develop vibrant mix-use communities. This is accomplished by placing a strong focus on the creation of proper urban form, wherein a mixture of uses can flourish.

DESIGN STANDARDS AND OTHER ATTEMPTS TO IMPROVE LAND USE REGULATION

In response to the limitation of Euclidean zoning, a number of zoning techniques have been created with varied levels of success. These include mixed-use planned unit developments, cluster development, performance zoning, and design standards.

Planned unit developments (PUD) have been used for many years as an effective means of developing coordinated larger sites. (The first evidence of a PUD was created in 1949 in Prince Georges County, Maryland.) However, in many instances, what is intended to be a "mixed-use" development actually ends up being "multiple-use," where there are separate and distinct areas of land uses that are not truly integrated into a mixed-use development. The other limitation of a PUD is that it is designed primarily for the development of larger sites, and with few exceptions, is not well suited for use on individual lots in an urban environment.

Clustered open space developments have had success in preserving open space and natural features. This type of development tends to offer recreational amenities not available in conventional subdivisions. While open space developments are a significant improvement

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Design standards **can improve the** appearance **of the** building and **site** landscaping, but **are not effective in** changing **the** underlying form.

from conventional zoning, the developments still tend to be separated, single-use tracts of land.

Many communities have adopted design standards in a variety of forms. Some have adopted separate design guidelines or relied on the guidelines contained within the master plan. However, recent court decisions have held that a community cannot enforce requirements that are not specified in the ordinance.

Instead of guidelines, design standards for architectural and landscaping requirements are now becoming more common place within zoning ordinances. Some communities have adopted architectural regulations that require use of high-quality building materials. Others include discretionary standards whose result can be unpredictable and run the risk of inconsistent application. While these design standards have been effective in improving the appearance of buildings and landscaping, the standards fail to create meaningful change in the urban form – the end result is usually aesthetically-pleasing sprawl.

PRINCIPLES ASSOCIATED WITH FORM-BASED CODES

The Form-Based Codes Institute defines form-based codes as "[a] method of regulating development to achieve a specific urban form. Form-based codes create a predictable public realm by controlling physical form primarily, and land uses secondarily." Form-based codes go beyond conventional zoning

by addressing the relationship of the building to the streetscape and the proper relationship between buildings in order to define a desired urban form.

First and foremost, form-based codes are place-based. The codes are adapted to fit the unique characteristics of a community and intended to require that new development fit within the context of the existing community and reinforce a unique sense of place.

Next, form-based codes allow for the unique ecology of a community by permitting a mixture of uses. The codes reflect the importance of the relationship between various uses

and building types to one-another, as part of an integral neighborhood and overall community.

Form-based codes are purposeful and not reactive. Conventional zoning tends to be reactive in that it restricts and focuses on preventing development that would be damaging to neighboring properties or the community (i.e. zoning tells you what you cannot do). Form-based codes, on the other hand, document the desired form of development and prescribe building form requirements to achieve the desired community vision.

Form-based codes connect the urban form and land use by providing for specific building types that are suited for the appropriate land use. They also relate the use and building type to the streetscape to comprehensively address the desired urban form for the neighborhood.

Form-based codes provide for development that is compact, mixed-use, and pedestrian friendly to create livable neighborhoods and healthy vibrant communities.

Farmington **has adopted a form-based code as part of the** central **business district that** reflects **the traditional urban fabric that the community** values.

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And finally, form-based codes are graphic and designed to be easy to use and understand.

KEY DIFFERENCES BETWEEN CONVENTIONAL ZONING AND FORM-BASED CODES

1. Conventional zoning is use-based, with a community divided into zoning districts which segregate land uses. Form-based codes de-emphasize use and divide a community into neighborhoods or specific street corridors, that have a distinct and consistent character, while allowing a mixture of compatible uses.

2. Conventional zoning attempts to create uniformity throughout a district by applying uniform intensity parameters such as setback, height, density, and floor area ratios. Form-based codes embrace diversity in neighborhoods by reflecting different standards for different types of buildings. Because use and building type are tied together, the standards ensure the building form relates properly to the streetscape and adjacent uses.

3. Where conventional zoning focuses on use and dimensional requirements, form-based codes focus more on the building form and how it relates to the public streetscape. In order to define the streetscape, form-based codes often prescribe build-to-lines where buildings are required to be set a specific distance from the front

Example of a mixed-use building with retail on the first floor and residential on the upper floors. Specific design elements for retail along the sidewalk include window articulation and treatment at the corner.

lot line. Conventional zoning uses minimum setbacks to create building envelopes; however, the ultimate location and form of the building within the envelope is unpredictable. As a result, conventional zoning has a primary focus on the lot and pays little to no attention to the streetscape. Form-based codes take a more holistic approach by considering the building form as it relates to the streetscape.

4. Conventional zoning has limited ability to effect change, as it tends to prohibit development that is determined to be inappropriate. Form-based codes are more

prescriptive and do a better job of describing the desired urban form. The result is the development of a neighborhood that encourages pedestrian activity, social interaction, and local investment.

WHAT IS REGULATED

An underlying premise of form-based codes is that the public realm (i.e. the streetscape) is defined by the buildings that line it. Because of this, building placement and site orientation are paramount in the form-based code. The front building line location is based upon the type of street frontage. In a traditional downtown setting, there would be a "zero front lot line" or "build-to" requirement with all parking required to be at the rear of the building. In a residential neighborhood, there would be a requirement that the front of a residence be placed at a specific setback from the front lot line.
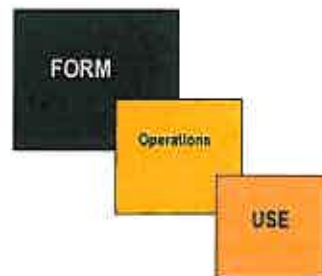
Once the streetscape has been defined by the building placement, the building elements can be considered to ensure that the building relates properly to the streetscape and adjacent buildings. In a business district, this would include requirements for doors and windows

Conventional Zoning

Focused on use

Form-Based Codes

More focus on design and form

along the sidewalk, window articulation on upper floors, building expression lines, and other details such as cornices. In residential areas these may be requirements for front porches or a limitation on front-loaded garages.

While uses are secondary to building form, they are nonetheless still important. Similar to a conventional zoning ordinance, different uses are allowed in each zone or district. Form-based codes allow a greater mixture of uses, but tie the use to the required building form. Unlike most conventional zoning ordinances, form-based codes also regulate use on the vertical plane. In a downtown setting, there may be a requirement for retail uses on the first floor and an allowance for residential or office on upper floors. There may also be a requirement along a downtown "Main Street" for mandatory retail frontages on the first floor to create a strong synergy between retail uses and an interesting environment for shoppers.

Form-based codes also contain regulations for accessory structures and uses. This includes specific requirements for the placement and design of parking lots. Other elements such as accessory buildings, loading areas, waste receptacles, screening walls, landscaping, and lighting are also addressed.

Another major improvement in the form-based code approach is that it goes beyond just regulating the site, by tying together the site and the public realm (i.e. the streetscape). Building regulations relate to design requirements for streets, sidewalks, on-street parking, street trees, and public spaces such as plazas.

An important aspect of a form-based code is that all of the regulations be tied together. The use is tied directly to the building type. The building type in-turn dictates form and building elements. The building form also relates to the street frontage, tying all of the elements together.

HOW FORM-BASED CODES ARE STRUCTURED

The form-based code is based upon a regulating plan. A regulating plan is analogous with and functions similarly to a zoning map, except that it provides a greater amount of specificity to the street types, block dimensions, and building lines. Regulating plans may also indicate the locations for parks, squares, and plazas. For downtown shopping districts, the regulatory plan may indicate a mandatory retail frontage.

The zone on the regulating plan permits specific uses and corresponding building types. Building types may include single family dwellings, townhouses, live-work units, retail buildings, and others. The underlying principle is that the use, building, and street are interrelated.

Based upon the zone and the building type proposed, there are specific placement and building envelope requirements. These graphically depict building lines, setbacks, building height, and parking lot location. These requirements can be compared to the schedule of area and bulk requirements in a conventional zoning ordinance, except that they rely more on graphics to depict requirements and tend to be more prescriptive (e.g., building lines state exactly where the front of the building is required to be placed, instead of stating minimum setbacks). Building height is often defined in both minimum and maximum measurements to ensure that the building is tall enough to define the streetscape, but not so tall that they overwhelm other buildings.

Building elements are required relative to the type of building proposed. These include standards for building materials, doors and windows, building expression lines, front porches, etc. Note that most form-based codes do not regulate architecture – if the building has the proper form, then the architectural style of the building is less important. However, it may be appropriate to include architectural regulations in a

POTENTIAL PITFALLS WITH FORM-BASED CODES

While form-based codes are effective tools that can help realize a community's vision, they are not a panacea that will cure all problems. There are some limitations of form-based codes and some problems that the codes may present to local communities:

Form-based codes tend to cost two to four times that of a conventional zoning ordinance. This is because of the upfront effort required to complete a detailed inventory of the community's existing urban form, the additional public involvement, and design work that goes into creating the regulating plan and the code.

Form-based codes require an illustrative regulating plan that is often based upon some form of urban design plan. This type of plan tends to be more involved than a zoning map.

Since Michigan streets are often regulated by separate authorities, there may be limited ability for a form-based code to regulate existing public streets. This may be more of a problem in townships, where all of the roads fall under the jurisdiction of the road commission, and less of a problem in cities that control their own city streets.

Form-based codes are prescriptive and very rigid, which may be viewed by developers as a limitation on what they can do with their property and a limitation on an architect's creativity.

There is a lack of specific enabling legislation as the Michigan Zoning Enabling Act (Public Act 110 of 2006) does not specifically provide for form-based codes. However, these types of codes are being developed throughout the United States and in other states, without specific enabling legislation.

A criticism of new-urbanism (which form-based codes are closely tied to) is that it is not environmentally sensitive; however, by developing more compact communities, the amount of land consumed by urban sprawl and dependence on the automobile is reduced. And unlike much of the new-urbanist developments that are "new towns," advocates of form-based codes have used form-based codes more as a tool to facilitate infill and redevelopment within existing urban communities.

How do form-based codes work in the real world?

Form-based codes have been adopted by communities throughout the country. Some applications in Michigan are as follows:

Downtown Farmington: As part of the City of Farmington's Downtown Development Plan, there is a detailed urban design plan that includes specific downtown design standards. The city wanted to promote redevelopment within the existing downtown while ensuring that the zoning regulations would be reflective of the existing community character and the recommendations of the plan.

A form-based code was prepared for the Downtown Zoning District to encourage redevelopment that embraces the historic character of Farmington, including traditional storefronts and a pedestrian scale environment. The form-based code requires buildings be built to the front lot line and parking lots be located in the rear. In order to maintain a well-defined streetscape, maximum and minimum building heights are included. Detailed building design standards to ensure that buildings relate properly to the streetscape at a pedestrian scale are included. Not only does the ordinance permit a vertical mixture of uses, but it builds in incentives to encourage mixed-use developments.

Genoa Town Center: As part of its master plan, Genoa Township identified a location for a new Genoa Town Center. The new town center location was centered on one

A form-based code was **developed for** Downtown Farmington **to encourage** infill development while **preserving** the traditional pedestrian-friendly character of the city.

of the few remaining large vacant areas along the Grand River Avenue corridor between Brighton and Howell. The township wanted to see a high quality, mixed-use development for this site that would create a new town center and also serve as a catalyst for redevelopment of the older commercial properties in the immediate area. As part of the master plan process, the township developed a detailed urban design plan for the new town center area.

The Genoa Town Center is planned to become a mixed-use town center with local businesses, neighborhood service establishments, and traditional residential neighborhoods. Residential uses will provide a variety of housing types including apartments on upper floors above commercial uses, traditional townhouses, and single family homes on smaller lots. This area will be integrated into a pedestrian-friendly, walkable area with sidewalks connecting all uses and community parks and plazas.

To implement the Genoa Town Center, a form-based code overlay zoning district was adopted that requires all new development to follow strict requirements for a more traditional form of development that is more characteristic of a small town. The overlay zone not only allows for a mixture of uses, but has incentives to encourage truly integrated mixed-use development. The overlay zone includes building placement requirements that create traditional, pedestrian-friendly streetscapes and reduce the dominance of the automobile. It also includes detailed design standards for buildings, streetscapes, and public open spaces.

Grand Rapids: The City of Grand Rapids is nearing completion of an ambitious project to convert its 1967 zoning ordinance to a modern form-based code. It was clear that simply updating the original ordinance would not further the goals of the city's new Master Plan: a Plan that emphasizes neighborhood preservation while transforming the landscape

in critical areas.

An extensive public outreach effort revealed the desire of neighborhood groups, business associations, and others, to develop flexible, user-friendly land use regulations. Accordingly, the code includes a number of unique elements: increased use of administrative approvals, flexible nonconforming use and building regulations,
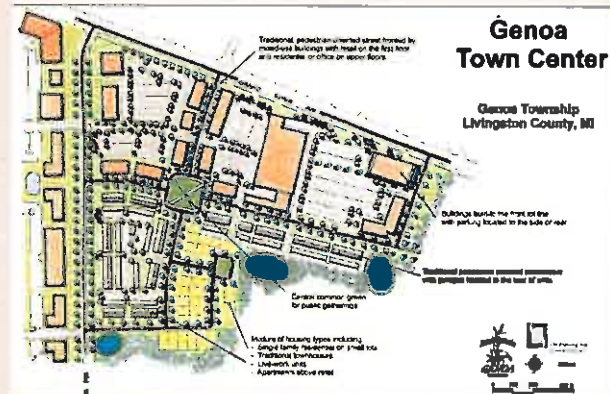
and incentives for quality design and development.

The language of form-based codes is developed with an eye toward the specific physical plan. This includes a broad range of regulations that encompass building alignment toward the street (setbacks, building orientation), spaces between buildings (side setbacks, separation between disparate uses), and heights, each of which can be described in ranges of acceptable values.

This effort represents the most significant attempt to introduce form-based codes for a city the size of Grand Rapids in the state of Michigan, and in much of the country as well.

IS A FORM-BASED CODE RIGHT FOR YOUR COMMUNITY?

Form-based codes can be an effective tool that can be used in most communities. Some communities are appropriate for a community-wide form-based code, while others should utilize this new technique for certain subareas. Most importantly, the community must have a commitment to create a better place and undergo the process of gaining consensus on the desired urban form of the community. Form-based codes can be an effective tool in

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form-based code for a historic district.

Because building form and streetscape are interrelated, form-based codes include requirements for the streetscape, such as on-street parking, sidewalk width, and street trees.

Form-based codes also include many of the other regulations of conventional zoning ordinances such as definitions, administrative procedures, zoning board of appeals, nonconforming, etc.

9.04.03   Neighborhood Street Frontage. Sites with frontage along Neighborhood Streets shall meet the following dimensional requirements.

Lot Area/Density	Single family: Minimum 5,000 square foot lot area; minimum 4,500 square feet for lots with rear alley. Townhouses: Up to 14 units per acre permitted-by-right; the Township Board may grant special land use approval for up to 20 units per acre.	
Lot Width	Single family: Minimum 50-foot lot width; minimum 45 foot lot width for lots with driveway access to a rear alley. Townhouses: No minimum.	
Front Yard Requirements	Single family: Minimum 20-foot front yard setback. Townhouses: Minimum 5-foot front yard setback.	
Building length	Maximum 180 feet.	
Side Yard	Single family: Minimum 5-foot side yard setback with a total of 15 feet on both sides; a total of 10 feet on both sides where garage access is from a rear alley. Townhouses: No side yard between units. Minimum 15-foot setback from single family lot and 15 feet spacing between groups of buildings.	
Rear Yard	Minimum 25-foot rear yard setback for principal buildings.	
Building Height	Minimum 2 stories. Maximum 3 stories – not including ½ stories. Maximum 35-foot building height.	
Accessory Buildings	Detached garages and other accessory buildings shall be located in the rear yard only and shall be setback a minimum of 3 feet from the rear and side lot lines. Attached garages shall be permitted, provided the garage is setback at least 5 feet behind the front building line of the living portion of the dwelling and the garage wall facing the street is less than 50% of the total length of the street-facing building facade. Accessory buildings shall be subject to the regulations of section 11.04; except accessory buildings may be up to 2 stories, and 25 feet in height and may include an accessory apartment in the second floor.	
Parking Lot Location	On-street parking shall be permitted and may be credited towards meeting off-street parking requirements. Parking shall be in the side or rear yard. For single family residential, parking shall be permitted in a front yard driveway; provided the garage does not project into the front yard.	

Single family residential placement

Townhouse building placement

Genoa Town Center Overlay District

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HOW APPROVALS ARE PROCESSED

Because the regulating plan sets forth detailed and predictable building form requirements, approvals that are in accordance with the regulating plan can be approved administratively. This is possible because the unpredictability and greater discretion typically involved with conventional zoning does not exist with form-based codes. The idea is that if a developer is willing to follow all of the detailed requirements of the regulating plan and the form-based code, there should be little, if any, room for discretion, and the approval should be handled administratively. However, if the developer wants to deviate, then approval is required before the planning commission. Essentially, form-based codes make it easy to do the right thing, and harder to deviate from the code and regulating plan.

Because the regulating plan and form-based code are so detailed, the code must also anticipate situations that don't fit requirements or where unique development forms are proposed. Typically, a form-based code can allow for three levels of departure. Administrative departures would be minor in nature and can be approved as part of the administrative approval process. The authority for administrative departures needs to be specifically spelled out in the code, such as allowing the planning director to substitute landscaping in place of a screening wall. Major departures that deviate from the regulating plan would require approval by the planning commission, such as allowing a front façade that does not meet the building design requirements. This could be evaluated by the planning commission based upon a set of standards that relate to the regulatory intent. A third level of deviation should also be built into the code that requires a variance from the zoning board of appeals, such as departures from the build-to line or exceeding height

limits. The variances would have to be reviewed based upon the standard tests of practical difficulty.

PROCESS IN DEVELOPING A FORM-BASED CODE

When embarking on a significant change in how a community regulates development, the first step is to have a commitment to creating better places. This should go beyond just a desire for change – the desires of the community should be articulated through the master plan or other document, such as a downtown plan, so that there is an underlying basis to move forward.

A determination needs to be made on the type of code desired and the geographic area to be covered. The form-based code could be integrated into a community-wide ordinance, or perhaps applied to a specific corridor, neighborhood, or business district.

Next, there needs to be an inventory and analysis of existing conditions to document the existing "forms" of

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the community. This inventory can be fairly labor intensive and involves detailed analysis of lot widths, setbacks, building heights, etc. With a good understanding of the existing "forms" of the community, a public process should then be conducted to gain a consensus on the existing community quality that should be maintained or new ones to be achieved. This is often done through a design charrette or workshop.

From the inventory, analysis, and public process, detailed urban standards are developed for features such as streets, blocks, building placement, and land use. Building form standards will also be developed for the various building types within the community. These standards are then developed into an ordinance and applied to a regulating plan.

APPLICATIONS OF FORM-BASED CODE
Form-based codes can be applied to a variety of geographic areas, from a specific subarea, such as a downtown, to the entire community. Form-based codes can also be used as tools to preserve the character

of an area or as mechanisms of change to transform an area.

The most common application of form-based codes has been to subareas. The codes are used in existing downtowns and historic districts in order to preserve and enhance the traditional character. They are also used to preserve the character of specific neighborhoods and insure that new infill development is compatible with existing homes. Additionally, they are being used as effective tools to transform outdated strip commercial corridors into new town centers.

While form-based codes have been applied most often to specific subareas, more communities are looking to adopt form-based codes on a community-wide basis. National experts in form-based code have recognized that a pure form-based approach is not going to be the best application in all areas of a community – there will still need to be zoning districts for industrial uses such as truck terminals, foundries, and

hazardous uses. There may also be areas within the community that are more appropriate for automobile-oriented uses such as dealerships and fast-food restaurants. For this reason, community-wide form-based codes are going to be a hybrid, with some areas regulated by form-based zoning districts and other areas by more conventional zoning districts.

Conclusion
Form-based codes are land development regulatory tools that places primary emphasis on the physical form of the built environment with the end goal of producing a specific type of 'place.' The codes assert more control over a community's form and lead to improvements in the way the community functions. For more information on form-based codes visit www.formbasedcodes.org.

By Jeffrey R. Purdy, AICP, Partner at LSL Planning, Inc.

Smart **Growth** Tactics

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Conventional Zoning
vs
THE DIFFERENCES
Form Based Coding

Green FORM BASED CODES

for

Buildings

+

Blocks & Streets

=

Neighborhoods

+

Sustainability

Conventional

Single-Use zoning legalizes separated, non-integrated places, and decreases walkability

F.A.R. - dominated, single use codes incentivize drive-to big boxes and parking lots - commercial sprawl

Focusing on use instead of form creates unsustainable subdivision pods

Conventional coding by zoning map and text results in "cookie cutter" places

Coding for the car produces a car-oriented environment like the strip center

Form-Based

Green-oriented mixed-use coding helps create walkable, sustainable places

The right choice of form, character, and uses yields place-making

Focusing on form and sustainable functions helps create new or reinvigorate existing green neighborhoods
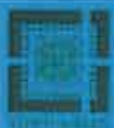
Form-based coding by graphics and text produce diverse and adaptable places

Coding for buiness, transit, pedestrians, bikes, and cars produces Active Green Streets

I.2.12

A New Theory of Urbanism

New Urbanists are best known for redesigning conventional suburban developments as small towns. But their principles are equally important for urban, rural and regional planning

by Andrés Duany

The word "growth" once had positive connotations for Americans: better jobs, better shops, better education, a better quality of life. But mention the word these days, and you are likely to hear fulminations about congested traffic, higher taxes, crowded schools and the paving-over of the landscape. How did it come to pass that a nation proud of three centuries of growth, one whose people built the constellations of beautiful villages, towns and cities across a continent, should have so radically changed its outlook?

The reason is that the urban pattern has shifted. Before World War II, when a green field was lost, a hamlet, village or town was gained. It was an even trade. But today when an open space is built on, a housing subdivision, a shopping center or a business park replaces it. For most Americans, it seems like a losing transaction. Whereas prewar developers were generalists—they set out to build entire villages or urban neighborhoods—today's developers are specialists. One builds only shopping centers, another office parks, another houses. Traffic engineers design only the roads; environmental analysts worry only about the open space. An armature of zoning codes minutely describes the details of this process, but no one looks out for the big picture. The result is a collection of monocultures: a disaggregation of the elements of community into specialized areas.

Individually, the decisions that these specialists make are quite plausible, but collectively they lead to a pattern that is dysfunctional. Wide residential streets, for example, seem like a reasonable way to speed emergency vehicles on their way. Yet wide streets are more dangerous for pedestrians, particularly children, and often allow for fewer road interconnections, which may actually make it more difficult for fire trucks to get where they need to go. Whether it is street width, housing density, building placement or landscape layout, no design decision should come in isolation. This is the fundamental insight of the New Urbanists: paying careful attention to how the urban design coheres, drawing on the lessons of prewar developers.

Some have criticized New Urbanism as too suburban; they do not want to live in a modern version of the traditional American small town. They may also prefer the bustle of city or the quiet of the countryside. But New Urbanism is now general enough to take in a diverse range of human habitats. It has a comprehensive design strategy that works for the full continuum of development, from remote wilderness to dense downtown. The system, known as the transect, now guides many new towns and is in the process of being adopted as code by several counties in the U.S.

The transect is a concept drawn from ecology. It is a geographical cross section through a sequence of environments—for example, from wetland to upland, or tundra to foothill.
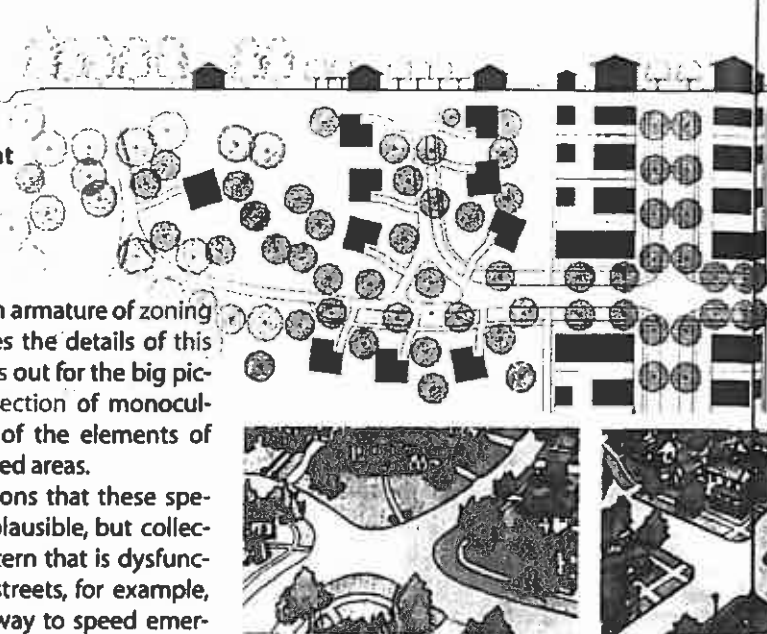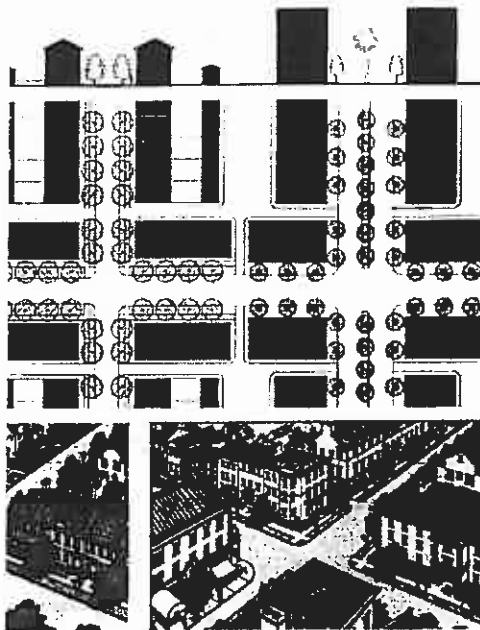
TRANSECT is an idealized geographical slice from the countryside to the city, shown in cross section (*top row*) and plan view (*bottom row*). A set of design principles applies to each increment in density.

Less Density	More Density
Primarily Residential	Primarily Commercial
Smaller Buildings	Larger Buildings
Most Buildings Detached	Most Buildings Attached
Deep Setbacks	Shallow Setbacks
Road & Lane Sections	Street & Alley Sections
Paths & Trails	Sidewalks & Passages
Open Swales	Raised Curbs
Mixed Tree Clusters	Single Tree Species

The transect extends the natural environments to the human habitat by increasing density and immersive urban character. The gradient spans from the villa in the woods to the large suburban lots in a common lawn served by a spare network of roads and on to urbanized sectors of ever greater complexity and continuity. Villages and towns are composed, in varying measures, of these environments. Cities extend the range to an urban core made of buildings, with little if any nature. All sections fulfill the set of human needs and desires. Based on our observations of vibrant communities, we find a commonality among the design principles for each section of the transect. At the boundaries between sections, including that from the natural to the man-made, an overlap of the envisioned characteristics allows them to fit together smoothly.

The transect does not eliminate the standards embodied in present zoning codes. It merely assigns them to the sections of the transect where they belong. Thus, the existing requirements for street width are not deemed to be right or wrong but rather correctly or incorrectly allocated. Wide streets may be appropriate where speed of movement is justified, even at the expense of the pedestrian environment. Similarly, current standards for closed drainage systems are not wrong; it is just that they are appropriate only for urban areas with curbs and sidewalks. In rural areas, rainwater can infiltrate through deep, green setbacks and swales. In fact, the transect widens the range of design options. Under conventional codes, for example, front setbacks must either be a 25-foot grass yard or a paved parking lot. The transect offers at least six more options.

Not all possible environments fit into the transect. Civic buildings such as religious, educational, governmental and cultural institutions often demand special treatment. Airports, truck depots, mines and factories are also better off in their own zones. But the transect does away with other, unjustified forms of single-use zoning whereby any attempt to unite the places of daily life—the dwellings, shops and workplaces—is considered an aberration that requires variances. In this regard, a transect-based code reverses the current coding system, forcing the specialists to integrate their work. It is a new system that, as Modernist architect Le Corbusier said in a different context, makes the good easy and the bad difficult. And in so doing, it may reconcile the American public to the growth that has become inevitable.

ANDRÉS DUANY is one of the most influential town planners in the U.S. With his wife, Elizabeth Plater-Zyberk, he is a founder of the Congress for the New Urbanism. He says he was introduced to the concept of the transect in 1983 by his brother, Douglas, who showed him a natural transect on the beach at Grayton, Fla.

Search

What Are Form-Based Codes?

Definition of a Form-Based Code

Form-based codes foster predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. They are regulations, not mere guidelines, adopted into city or county law. Form-based codes offer a powerful alternative to conventional zoning.

Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The regulations and standards in form-based codes are presented in both words and clearly drawn diagrams and other visuals. They are keyed to a *regulating plan* that designates the appropriate form and scale (and therefore, character) of development, rather than only distinctions in land-use types.

This approach contrasts with conventional zoning's focus on the micromanagement and segregation of land uses, and the control of development intensity through abstract and uncoordinated parameters (e.g., FAR, dwellings per acre, setbacks, parking ratios, traffic LOS), to the neglect of an integrated built form. Not to be confused with design guidelines or general statements of policy, form-based codes are regulatory, not advisory. They are drafted to implement a community plan. They try to achieve a community vision based on time-tested forms of urbanism. Ultimately, a form-based code is a tool; the quality of development outcomes depends on the quality and objectives of the community plan that a code implements.

Elements of a Form-Based Code

Form-based codes commonly include the following elements:

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

• *Public Space Standards.* Specifications for the elements within the public realm (e.g., sidewalks, travel lanes, on-street parking, street trees, street furniture, etc.).

• *Building Form Standards.* Regulations controlling the configuration, features, and functions of buildings that define and shape the public realm.

• *Administration.* A clearly defined application and project review process.

• *Definitions.* A glossary to ensure the precise use of technical terms.

Form-based codes may also include:

• *Architectural Standards.* Regulations controlling external architectural materials and quality.

• *Landscaping Standards.* Regulations controlling landscape design and plant materials on private property as they impact public spaces (e.g. regulations about parking lot screening and shading, maintaining sight lines, ensuring unobstructed pedestrian movement, etc.).

• *Signage Standards.* Regulations controlling allowable signage sizes, materials, illumination, and placement.

• *Environmental Resource Standards.* Regulations controlling issues such as storm water drainage and infiltration, development on slopes, tree protection, solar access, etc.

• *Annotation.* Text and illustrations explaining the intentions of specific code provisions.

Examples:

The Form-Based Codes Institute gathers good examples of form-based codes from communities across the U.S. and abroad. You will find these examples useful in your own research and plan making. Please also see the Sample Codes (/samplecodes) and the Driehaus Award (/driehaus-award) pages on this website.

Image Comparing Zoning, Guidelines and Form-Based Codes (/files/Image-Comparing-Zoning-Guidelines-and-FBC.pdf)

Kendall Illustrative Plan (/files/Kendall-Illustrative-Plan.pdf)

Peoria Regulating Plan (/files/Peoria-Regulating-Plan.pdf)

Shopfront Code Example (/files/Shopfront-Code-Example-BART.pdf)

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FBCI Form-Based Codes Institute

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Checklist for Identifying and Evaluating Form-Based Codes

Identifying Form-Based Codes

A well-crafted form-based code is the most effective form of development regulation for shaping pedestrian-scaled, mixed use and fine-grained urbanism. How does one determine if a development regulation is a form-based code and a well-crafted one? Form-based codes generally receive affirmative answers to all of the following questions:

Is it a Form-Based Code?

- Is the code's focus primarily on regulating urban form and less on land use?
- Is the code regulatory rather than advisory?
- Does the code emphasize standards and parameters for form with predictable physical outcomes (build-to lines, frontage type requirements, etc.) rather than relying on numerical parameters (FAR, density, etc.) whose outcomes are impossible to predict?
- Does the code require private buildings to shape public space through the use of building form standards with specific requirements for building placement?
- Does the code require private buildings to shape public space through the use of building form standards with specific requirements for building placement?
- Does the code promote and/or conserve an interconnected street network and pedestrian-scaled blocks?
- Are regulations and standards keyed to specific locations on a regulating plan?
- Are the diagrams in the code unambiguous, clearly labeled, and accurate in their presentation of spatial configurations?

Evaluating Form-Based Codes

The following lists of questions reflect best practices of form-based coding. Effective form-based codes usually receive affirmative answers to these questions:

Is the code enforceable?

- Does the code implement a plan that reflects specific community intentions?
- Are the procedures for code administration clearly described?
- Is the form-based code effectively coordinated with other applicable policies and regulations that control development on the same property?

Is the code easy to use?

- Is the overall format and structure of the code readily discernable so that users can easily find what is pertinent to their interest?
- Can users readily understand and execute the physical form intended by the code?
- Are technical terms used in the code defined in a clear and understandable manner?
- Does the code format lend itself to convenient public distribution and use?
- Are the intentions of each regulation clearly described and apparent even to planning staff and citizens who did not participate in its preparation?

Will the code produce functional and vital urbanism?

- Will the code shape the public realm to invite pedestrian use and social interaction?
- Will the code produce walkable, identifiable neighborhoods that provide for daily needs?
- Are parking requirements compatible with pedestrian-scaled urbanism?
- Is the code based on a sufficiently detailed physical plan and/or other clear community vision that directs development and aids implementation?

I.2.16