INTRODUCTION
Form-based zoning has a long history and is increasingly being used by municipal governments throughout the United States to influence the composition of urban areas. These regulations offer real estate developers flexibility in project size, allowable land uses and product mix in exchange for the imposition of specific controls on some of the external features of buildings that influence how these structures interact with the public realm.¹ There are reasons to believe both the public and private sectors can derive significant benefits from this approach when it is managed appropriately.² However, some policymakers and planning departments have an established record of implementing form-based zoning in a manner that is inconsistent with its underlying principles. Reluctance on the part of municipal governments to provide true by-right flexibility, coupled with cumbersome aesthetic requirements extending beyond controls on urban form, contribute to tenuous support for these regulations amongst real estate developers. The purpose of this article is to explore the potential advantages and disadvantages of form-based zoning in the hope of determining how it can be used more effectively to support development that is financially viable and socially beneficial. This is accomplished by first reviewing the features of this type of land use regulation, before shifting attention to the ways in which it can aid or frustrate real estate development initiatives. The analysis concludes with a summary of best practices that can be adopted by municipalities to maximize the value of form-based codes in an effort to make their jurisdictions more attractive for real estate development projects capable of stimulating economic activity.

THE FUNDAMENTALS OF FORM-BASED ZONING
Although the scope and purpose varies across jurisdictions, effective form-based codes contain two unifying principles. First, they impose relatively strict controls on the external form and scale of buildings in order to define the character of a neighborhood or district in a desired way. Second, they provide broad flexibility in allowable land uses and by-right entitlements to developers willing to construct projects in conformance with a community’s articulated vision. Both of these features represent sharp departures from traditional zoning ordinances that often discourage mixed-use development and subject developers to time-consuming and costly project entitlement processes.

A key to understanding form-based zoning is recognition that this type of land use regulation is primarily intended to enhance the “public good” derived from private sector development. This involves managing the siting, massing and frontage layout of buildings in ways that create public spaces promoting pedestrian interaction, usually through the incorporation of active streetscapes and squares.

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Walters is the author of two books on urban design and planning, Design First: Design-based Planning for Communities, co-authored with his wife Linda Luise Brown, and Designing Community: Charrettes, Masterplans and Form-based Codes.

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REFERENCES

¹ See, for example, the seminal work of Richard Florida on the importance of the “creative class” to economic development: Richard Florida, The Creativity Nexus: The Sources and Consequences of the Creative Class’s Geographic Concentration (2008).

² See, for example, the work of经济学家Reinhard Selten on the importance of trust and cooperation in economic development: Reinhard Selten, “The Consequences of Institutions,” in Institutions and Contracts, ed. Charles Sabel and Andrew Schankerman (2006).

³ See, for example, the work of urban designer Jane Jacobs on the importance of community engagement in urban design: Jane Jacobs, The Death and Life of Great American Cities (1961).
INSIDER’S PERSPECTIVE
Form-Based Zoning from Theory to Practice

Some basic examples include requiring buildings to be lined up along streets, with parking facilities moved to the rear, in order to create a pedestrian-friendly street edge. The objective is not to impose draconian aesthetic requirements upon real estate developers, but rather to better connect public spaces and reinforce the urban character of an area by incentivizing a specific type of built environment. Long before any specific development is proposed, stakeholders have the opportunity to help define the desired urban character by participating in design planning through public hearings and other forums for community engagement. Once consensus is reached through this pluralistic process and design codes are established, planning departments and policymakers are expected to entitle conforming projects. Examples of street design guidelines, district standards, and site and building standards from a prototypical form-based code can be found in Figures 1-3.

Form-based zoning encourages mixed-use development by providing real estate developers with broad discretion to horizontally or vertically integrate civic, commercial and residential space. Allowable use tables guide development within these zoning districts; with the authorized product mix becoming more permissive as locations become more urban in character. Building height is generally regulated by the number of stories, rather than the number of feet, to make differences in floor-to-floor heights less problematic across different product types. The ability to shift between allowable land uses over the course of a project is provided by-right in effective form-based codes, thereby providing the private sector with the ability to quickly respond to market forces without incurring rezoning costs that can mount into the hundreds of thousands of dollars in some jurisdictions. This predictability of the regulatory process reduces the time required to complete the project and the developer's risk exposure, thereby putting downward pressure on construction costs, rental rates and housing prices. The end result is a more affordable project that remains consistent with the urban character called for by community stakeholders. Examples of two projects completed using form-based zoning can be found in Figure 4.

There are several ways in which municipalities can implement form-based zoning to achieve the aforementioned goals. Some communities regulate all development within their jurisdiction in this manner, while others have opted for application in much smaller geographies. The latter approach is more common, and is typically accomplished through the use of form-based overlays adopted for specific corridors or activity nodes. As opposed to the broad-reaching aesthetic requirements typically imposed through the conditional rezoning process, form-based overlays tend to focus primarily on factors influencing how buildings interact with streetscapes and public areas. This provides real estate developers with a higher level of predictability throughout the entitlement process.

At its very best, form-based zoning offers a means of liberating real estate markets and providing developers with the ability to respond to consumer preferences by delivering pedestrian-oriented, mixed-use projects that reflect the aspirations of a community. This can be illustrated by example. Consider a real estate developer interested in constructing a mixed-use project with residential units over ground floor retail. Regulatory entitlements are obtained by satisfying siting, massing and building frontage requirements clearly articulated in an existing form-based overlay. Should market conditions change, the developer has the by-right ability to alter the product mix to satisfy the existing tenant demand so long as the form and arrangement of buildings continues to meet the requirements of the code. A costly and time consuming rezoning is not necessary to modify the project in this manner. The predictability of the regulatory process reduces the time required to complete the project and the developer's risk exposure, thereby putting downward pressure on construction costs, rental rates and housing prices. The end result is a more affordable project that remains consistent with the urban character called for by community stakeholders. Examples of two projects completed using form-based zoning can be found in Figure 4.
### Insider's Perspective

Form-Based Zoning from Theory to Practice

#### Subdivision & Infrastructure Standards - I 6.8 Street Design & Classification (adapts 9.1.1, 11.1 and 11.2)*

**Figure 1.**

- **G. Urban Avenue/Boulevard:** Urban Avenues/Boulevards are urban in character and provide low-speed, pedestrian-friendly access to neighborhoods and mixed-use areas. They serve as a primary neighborhood connector, often terminating at prominent buildings or plazas. On-street parking is provided on both sides of the street. *(Previously “High Density Street Options A & B,” and “Wage Infll Street”)*

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1. **Right of Way Width:** 60-100 ft  
2. **Pavement Width:** 34-64 ft (including optional median (bank of curb to curb of curb)  
3. **Traffic Lanes:** 2 lanes at 15 ft each (or up to 14 ft with sharrows) - Marked  
4. **Median Width:** 8-14 ft (optional - where provided, must be planted with street trees at least 40 ft on-center)  
5. **Design Speed:** 20-25 mph  
6. **Parking Lanes:** Both sides, Parallel (7 ft) or back in angle (16 ft) parking - previous pavement preferred  
7. **Sidewalk:** Both sides - 5 ft min (12 ft min if located next to Mixed-Use/Storefront building)  
8. **Planter Type:** 6 ft min planting strip  
9. **Bicycle Facilities:** Bicycle lanes - 6 ft min OR Sharrows - 12 ft min shared lane (as indicated on Bicycle Master Plan)  
10. **Curb Type:** Vertical curb and gutter (2 ft width for curb and gutter pan)**

**H. Town Center Street:** Town Center Streets are designed to accommodate the highest density of residential and commercial uses and the greatest concentration of pedestrian activity. They are urban in character and carry diverse traffic volumes at low to moderate speeds. Sidewalks are wide to support vibrant pedestrian environments, outdoor displays, and/or café seating. On-street parking enables convenient access to storefronts.

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1. **Right of Way Width:** 70-100 ft  
2. **Pavement Width:** 36-50 ft (bank of curb to curb of curb)  
3. **Traffic Lanes:** 2 lanes at 10 ft each (or up to 14 ft with sharrows) - Marked  
4. **Median Width:** None  
5. **Design Speed:** 15-20 mph  
6. **Parking Lanes:** Both sides, Parallel (7 ft) or back in angle (16 ft) parking - previous pavement preferred  
7. **Sidewalk:** Both sides - 16 ft min  
8. **Planter Type:** Vehicular (6 ft by 6 ft) within sidewalk  
9. **Bicycle Facilities:** Bicycle lanes - 6 ft min OR Sharrows - 12 ft min shared lane (as indicated on Bicycle Master Plan)  
10. **Curb Type:** Vertical curb and gutter (2 ft width for curb and gutter pan)**

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*31*
**INSIDER’S PERSPECTIVE**

**Form-Based Zoning from Theory to Practice**

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**Figure 2.**

**District Standards 2.2 District Standards**

**EXAMPLE: BUILDING HEIGHT**

![Building Height Diagram](image)

**MAXIMUM HEIGHT**

*Measured in stories (see Section 4.2)*

**EXAMPLE: LOT COVERAGE**

![Lot Coverage Diagram](image)

\[
\left( \frac{\text{PRINCIPAL BUILDING FOOTPRINT}}{\text{TOTAL LOT AREA}} \right) + \frac{\text{ACCESSORY BUILDING FOOTPRINT}}{\text{LOT COVERAGE}}
\]

**EXAMPLE: BUILDING SETBACKS**

![Building Setback Diagram](image)

**EXAMPLE: FRONTAGE BUILOUT**

![Frontage Buildout Diagram](image)

**FRONTAGE BUILOUT**

Frontage Buildout is the percentage of the lot width where the front elevation of the building is located between the minimum and maximum front setbacks established for the district.

Driveways and pedestrian use areas (such as walkways, plazas and sidewalk cuts) within the minimum and maximum front setbacks shall be exempt from Frontage Buildout requirement. The width of such areas shall be subtracted from the total lot width for the purpose of calculating Frontage Buildout.

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INSIDER’S PERSPECTIVE
Form-Based Zoning from Theory to Practice

Figure 3.
Site & Building Design Standards I 4.6 General Building Design Requirements*

<table>
<thead>
<tr>
<th>Building Types</th>
<th>MINIMUM FACADE TRANSPARENCY</th>
<th>Ground Floor Facade*</th>
<th>Upper Facades**</th>
<th>Total Facade Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Buildings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detached House</td>
<td></td>
<td>-</td>
<td>-</td>
<td>10%</td>
</tr>
<tr>
<td>Attached House (Duplex, Triplex, Quadplex)</td>
<td></td>
<td>-</td>
<td>-</td>
<td>10%</td>
</tr>
<tr>
<td>Townhouse</td>
<td></td>
<td>-</td>
<td>-</td>
<td>10%</td>
</tr>
<tr>
<td>Apartment</td>
<td></td>
<td>-</td>
<td>-</td>
<td>15%</td>
</tr>
<tr>
<td>Mixed-Use &amp; Commercial Buildings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live/Work Unit</td>
<td></td>
<td>50%</td>
<td>30%</td>
<td>-</td>
</tr>
<tr>
<td>Mixed-Use/Storefront</td>
<td></td>
<td>65%</td>
<td>30%</td>
<td>-</td>
</tr>
<tr>
<td>Suburban Campus (Commercial, Industrial)</td>
<td></td>
<td>25%</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>Civic/Institutional</td>
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</table>

*Minimum percentage applies to the area of the facade between 3 feet and 8 feet above the finished first floor.
**Minimum percentage applies to the lineal footage of the facade with some type of window or fixed glass.

RESIDENTIAL FACADE TRANSPARENCY
(Transparent facade area / total facade area) ≥ min. % from table

MIXED-USE & COMMERCIAL FACADE TRANSPARENCY
Ground Floor: transparent facade % between 3 ft and 8 ft above finished floor ≥ min. % from table
Upper Floors: [(A + B + C + D + E + F) / total facade width] ≥ min. % from table

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INSIDER'S PERSPECTIVE
Form-Based Zoning from Theory to Practice

Development Projects Completed Using Form-Based Zoning:
Rosedale and Birkdale Village in Huntersville, North Carolina*

Rosedale is a multi-use development project horizontally integrating multifamily housing and grocery-anchored retail.

Birkdale Village is a mixed-use development project with office space and multifamily units over street level retail.

* "Rosedale." Photo courtesy of David Walters and the Town of Huntersville
* "Birkdale Village." Photo courtesy of David Walters, Shook Kelley and Crosland Inc.
FORM-BASED ZONING FROM THEORY TO PRACTICE

The analysis presented to this point appears to suggest real estate developers should largely embrace form-based zoning, but this is not always the case, for a variety of reasons. Most concerns stem from an application of this regulatory tool in a manner inconsistent with its core principles or in conflict with market realities. Some of the most common criticisms found throughout the planning literature are summarized in this section to inform both policymakers and real estate developers.

Form-based zoning is widely praised for its ability to reduce the amount of uncertainty faced by real estate developers in the entitlement process. This outcome is, however, largely dependent upon the structure of local regulation. Municipalities enacting form-based codes often take different approaches when balancing their need for predictability and flexibility. Some codes authorize by-right development so long as stringent design standards are satisfied, while others favor a more discretionary approach recognizing “design sensibilities” and evolving stakeholder demands. The latter strategy is problematic because it amplifies regulatory uncertainty as form-based zoning effectively devolves into negotiated zoning. Even when established form-based standards are rigorously enforced, there is some concern that predictability may come at the cost of creativity in urban design. This critique has been raised by architects and planners alike who fear municipalities will seek out uniformity as a second-best alternative to thoughtful regulation.

Form-based zoning is also criticized for seeking to recreate urban environments from the past, which developed in response to economic issues and technological constraints that may or may not continue to exist. This can result in the imposition of shape and bulk restrictions that do not reflect evolving consumer preferences, financial considerations or tenant demands. Consensus building activities and stakeholder participation throughout the policymaking process help ensure form-based codes reflect community interests, but there is no reason to believe the resulting design standards will be economically viable from the perspective of the private sector. Such is the risk of allowing social and political agendas to dictate regulatory standards, as opposed to market realities. This concern can be addressed by ensuring form-based codes do not seek to recreate pastiche historical settings; rather they should rely on time-tested types of urbanism, such as public streets, squares, alleys and urban parks as the armatures of space-making for contemporary civic and economic life.

By emphasizing external design features, as opposed to use restrictions, form-based zoning can clearly provide real estate developers with greater flexibility to respond to market forces. Nonetheless, the magnitude of these benefits is mitigated by the amount of discretion a municipality is willing to grant the private sector. It is not uncommon for codes purported to be “form-based” to include use restrictions similar to those found in conventional zoning ordinances. This is problematic because it may stifle innovation and discourage market-driven solutions throughout the development process. It also effectively eliminates any intended development incentives that are derived from a by-right entitlement process. When up-front design requirements are subject to being arbitrarily expanded upon during a lengthy negotiated zoning process, the result is comparable to taking away a carrot and hitting the developer with two sticks.

Finally, and arguably most important, there appears to be considerable disagreement in the private sector regarding the economic merits of form-based zoning. This is evidenced by the fact that many jurisdictions have found it necessary to impose mandatory form-based regulations, as opposed to voluntary ones allowing developers to opt into form-based restrictions in exchange for more latitude in allowable uses. Those in favor of mandatory codes argue that they provide regulatory predictability; encourage improvements to the public realm that are capitalized into rental rates; and safeguard a developer’s investment by ensuring nearby property owners conform to form-based design requirements. Those opposed to mandatory codes contend that developers throughout a market should voluntarily embrace shape and bulk restrictions if they do in fact increase flexibility and property values. Additional research is needed to assess the economic merits of both of these positions.
CONCLUSIONS
Despite the concerns, form-based zoning has extraordinary potential to align the interests of the public and private sectors when it is implemented in a thoughtful and productive way. Municipalities considering this approach should assess their willingness to provide real estate developers with meaningful by-right flexibility, as well as their resolve to stand by adopted development standards in the face of the inevitable political pressure from neighborhood groups. Furthermore, municipalities must balance their desire for a defined urban character against the needs of the tenants who make neighborhoods and districts economically viable. This is necessary to ensure design codes do not unduly impinge on the marketability of buildings or simply price otherwise desirable tenants out of the market. Finally, municipalities must fight the urge to impose extensive aesthetic building design requirements upon real estate development projects in ways that go beyond the urban design issues of how buildings interact with the surrounding public space. This is essential to preserve the legitimacy of this regulatory approach in the eyes of the private sector. All of these steps are anticipated to help ensure form-based codes contribute to economic development at the local level by making a jurisdiction a more attractive place for private sector real estate investment.

ACKNOWLEDGMENT
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ENDNOTES