Form Controls for the Real World

The Rules That Shape Urban Form

PAS Report 570

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Donald L. Elliott, FAICP
Matthew Goebel, AICP
Chad Meadows, AICP

Clarion Associates
Form Controls for the Real World

What is it (from a new angle)?

How is it being used?

What are we learning?
Form Controls for the Real World

First . . .

There were nuisances
  • From WAY back

Then there was zoning
  • Remember Euclid

Then zoning got too rigid
  • Too many districts and uses

Then zoning got too flexible
  • PUDs and performance zoning reduce predictability

Then zoning got form-based
The Path of Zoning Evolution

Predictability

Flexibility

Early Use-based Zoning

Post-war Use-based Zoning

Performance Zoning

PUDs

Form-based Zoning
What is Form-based Zoning?

Myth 1: Traditional zoning is based on use separation.
False: It is based on use regulation – but mixes are always allowed.

Myth 2: Form-based zoning ignores uses – anything goes anywhere.
False: Uses are regulated – just more lightly – and secondarily.
What is Form-based Zoning?
What is Form-based Zoning?

**FBCI Core Elements List**

- Building Form Standards
- Building Type Standards
- Frontage Type Standards
- Public Space Standards
- Block and Subdivision Standards
- Regulating Plan
What is Form-based Zoning?

Building Forms & Types

Downtown Building

<table>
<thead>
<tr>
<th>Building Types</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS-1 (Main Street)</td>
</tr>
<tr>
<td>Storefront Building</td>
<td>●</td>
</tr>
<tr>
<td>General Stoop Building</td>
<td>●</td>
</tr>
<tr>
<td>Cottage Commercial</td>
<td>●</td>
</tr>
<tr>
<td>Civic Building</td>
<td>●</td>
</tr>
<tr>
<td>Row Building</td>
<td>●</td>
</tr>
<tr>
<td>Parking Structure</td>
<td>●</td>
</tr>
</tbody>
</table>

○ = Permitted within district
● = Permitted only on corner parcels
○ = Permitted on secondary street only

Table 1129.40 (1). Permitted Building Types by District.
What is Form-based Zoning?

Frontage Types

Storefront Frontage
What is Form-based Zoning?

Public Space Standards
What is Form-based Zoning?

Public Space Standards

Sometimes Include Thoroughfare Standards
What is Form-based Zoning?

Block and Subdivision Standards

Table 153.060-A. Maximum Block Dimensions

<table>
<thead>
<tr>
<th>BSC DISTRICTS</th>
<th>LENGTH (FT)</th>
<th>PERIMETER (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>425</td>
<td>1,450</td>
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<tr>
<td>Office Residential</td>
<td>500</td>
<td>1,750</td>
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<tr>
<td>Office</td>
<td>500</td>
<td>1,750</td>
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<tr>
<td>Commercial</td>
<td>500</td>
<td>1,750</td>
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<tr>
<td>Historic Residential</td>
<td>200</td>
<td>800</td>
</tr>
<tr>
<td>Historic Core</td>
<td>200</td>
<td>800</td>
</tr>
</tbody>
</table>

“T” Configuration

“H” Configuration

Principal Frontage Street

Principal Frontage Street
What is Form-based Zoning?

Regulating Plan
What is Form-based Zoning?

Regulating Plan
What is Form-based Zoning?

By-right Development?

Not Really – All New Codes Try to Do That

- All code reforms simplify uses
- Most code reforms try to define permitted shapes, forms, or types development to avoid site plan hearings whenever possible
- Form-based controls are a good way to sell use simplification
The Rules That Shape Urban Form
The Rules That Shape Urban Form
The Rules That Shape Urban Form

Austin TX

1-POINT OPTIONS

Achieve City of Austin Green Building Program 1-star rating.

Provide for liner stores in building façade.

Provide facade articulation meeting specified standards.

Provide primary entrance design meeting specified standards.

Provide roof design meeting specified standards.

Provide building materials meeting specified standards.

2-POINT OPTIONS

Achieve City of Austin Green Building Program 2-star rating.

75% of facade facing principal street consists of storefronts with at least 2 separate entrances facing principal street.

Provide sustainable roof meeting specified standards.

Integrate solar power generation into building design.

3-POINT OPTIONS

Develop VMU building.
The Rules That Shape Urban Form

Mooresville NC

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Use Type [2]</th>
<th>R-2</th>
<th>R-3</th>
<th>R-5</th>
<th>RMX</th>
<th>RMX-MH</th>
<th>TND-C</th>
<th>NMX</th>
<th>CMX</th>
<th>HB</th>
<th>VC</th>
<th>TC</th>
<th>GI</th>
<th>EI</th>
<th>PC-C</th>
<th>Additional Requirements</th>
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<tr>
<td>Restaurant</td>
<td>Restaurant without Drive-Through Service</td>
<td>C</td>
<td>SF</td>
<td></td>
<td>SF</td>
<td>P</td>
<td>SF</td>
<td>SF</td>
<td>WR</td>
<td>P</td>
<td>SF</td>
<td>WP</td>
<td>CR</td>
<td>P</td>
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<td>C</td>
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<tr>
<td></td>
<td>Restaurant with Drive-Through Service</td>
<td>C</td>
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<td>SF</td>
<td>P</td>
<td>SF</td>
<td>SF</td>
<td>WP</td>
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<td>SF</td>
<td>WP</td>
<td>CR</td>
<td>C</td>
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<tr>
<td>Bar, Nightclub, or Similar Establishment</td>
<td>Bar, Nightclub, or Similar Establishment</td>
<td>C</td>
<td>SF</td>
<td></td>
<td>CV</td>
<td>SF</td>
<td>P</td>
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<td>C</td>
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<tr>
<td>Crematory</td>
<td>Crematory</td>
<td>C</td>
<td>CV</td>
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<td></td>
<td>C</td>
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<tr>
<td>Retail Sales and Services</td>
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<td>P</td>
<td>SF</td>
<td>WP</td>
<td>C</td>
<td>SF</td>
<td>P</td>
<td>SF</td>
<td>CR</td>
<td>P</td>
<td>SF</td>
<td>CR</td>
<td>P</td>
<td>C</td>
<td></td>
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<tr>
<td>Type I Retail Use</td>
<td>Type I Retail Use</td>
<td>C</td>
<td>DH</td>
<td>AR</td>
<td>SF</td>
<td>C</td>
<td>DH</td>
<td>AR</td>
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<td>DH</td>
<td>AR</td>
<td>CV</td>
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The Rules That Shape Urban Form

Mooresville NC

<table>
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<th>R-3</th>
<th>R-5</th>
<th>RMX</th>
<th>RMX-MH</th>
<th>TND-C</th>
<th>NMX</th>
<th>CMX</th>
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<tbody>
<tr>
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<td>C</td>
<td>SF</td>
<td>P</td>
<td>C</td>
<td>SF</td>
<td>SF</td>
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<td>Crematory</td>
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<td></td>
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<td></td>
<td>Retail Sales and Services with Gasoline Sales</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>Type I Retail Use</td>
<td>C</td>
<td>DH</td>
<td>C</td>
<td>DH</td>
<td>P</td>
<td>P</td>
<td>P</td>
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<th>USE TYPE [2]</th>
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<th>R-3</th>
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<th>RMX</th>
<th>RMX-MH</th>
<th>TND-C</th>
<th>NMX</th>
<th>CMX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial/Retail</td>
<td>Restaurant without Drive-Through Service</td>
<td>C</td>
<td>SF</td>
<td>C</td>
<td>SF</td>
<td>P</td>
<td>SF</td>
<td>WR</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>Restaurant with Drive-Through Service</td>
<td>C</td>
<td>SF</td>
<td>C</td>
<td>SF</td>
<td>P</td>
<td>SF</td>
<td>WR</td>
<td>P</td>
</tr>
</tbody>
</table>

DH = Detached House
MA = Mansion Apartment
AR = Attached Residential
NA = Not Applicable
CV = Civic
SF = Shopfront

TABLE 5.1.4: TABLE OF ALLOWED USE ALLOWABLE BUILDING FORMS
The Rules That Shape Urban Form

Denver Main Street
The Rules That Shape Urban Form

Arlington County VA Columbia Pike

COLUMBIA PIKE
General Land Use Plan

Legend
- Low Res. 1-10 units/acre
- Low Res. 11-15 units/acre
- Low Medium Res. 16-36 units/acre
- Medium Res. 37-72 units/acre
- High Medium Res. 3.24 F.A.R. Residential
- High Res. 4.8 F.A.R. Residential
- 3.5 F.A.R. Hotel
- High Office Office-Apt.-Hotel
- Service Commercial
- Public
- Semi-Public
- Government & Community Facilities
- General Land Use Plan Proposed Changes
- Special Revitalization District
- Open Space Symbol

Note: These areas were designated a “Special Revitalization District” at Columbia Pike on 11/15/69 and amended on December 17, 2002; Lee Highway/Cherrydale area on 4/1995.
The Rules That Shape Urban Form

Arlington County VA Columbia Pike

Very Detailed Standards

- Blocks and Alleys,
- Streetscape,
- Parking,
- Retail,
- Historic Preservation,
- Public Improvements, and
- Buildings

- Height,
- Use Requirements,
- Building Placement,
- Building Elements,
- Architecture

- Building
- Walls
- Roofs and Parapets
- Street Wall Required
- Windows and Doors
- Lighting
- Signage
- Mechanical Equipment
The Rules That Shape Urban Form

Livermore CA Hybrid Code

Smart Code Structure for Entire Mandatory Code

Form controls only for T3 and T4 areas

Form controls apply to <5% of land

Remainder left in traditional /PUD zoning
The Rules That Shape Urban Form

Miami 21
The Rules That Shape Urban Form

The Take-aways

<table>
<thead>
<tr>
<th></th>
<th>Austin</th>
<th>Mooresville</th>
<th>Denver MS</th>
<th>Arlington</th>
<th>Livermore</th>
<th>Miami</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frontage Types</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Public Space Standards</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Block &amp; Subdivision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulating Plans</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>By Right Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Rules That Shape Urban Form

The Take-aways
The Rules That Shape Urban Form

Form-based controls and other planning goals

• Sustainability

• Demographic change

• Housing affordability

• Historic preservation
Sustainability

• No widely accepted definition of sustainability

• Zoning-related elements
  – Air quality / climate change
  – Energy conservation
  – Water conservation
  – Food supply
  – Community health
### Do form controls aid in promoting sustainability?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air quality / climate change</strong></td>
<td>Yes</td>
<td>Mixed-uses and alternate modes reduce VMT &amp; CO2, but slower vehicle speeds increase emissions</td>
</tr>
<tr>
<td><strong>Energy conservation</strong></td>
<td>Somewhat</td>
<td>Shading from street trees and controls favor walking over driving</td>
</tr>
<tr>
<td><strong>Water conservation</strong></td>
<td>No</td>
<td>Higher intensity and lot coverages prevent infiltration &amp; increase run off</td>
</tr>
<tr>
<td><strong>Food supply</strong></td>
<td>No</td>
<td>Dense development patterns reduce the land availability for planting</td>
</tr>
<tr>
<td><strong>Community health</strong></td>
<td>Yes</td>
<td>Encourage walkability and civic areas foster human interaction</td>
</tr>
<tr>
<td><strong>Limit sprawl</strong></td>
<td>Somewhat</td>
<td>“Locking” T2 prevents sprawl, but locking T3 prevents density increases</td>
</tr>
</tbody>
</table>
Demographic Change

- Average age increasing
- # of kids decreasing
- Household size decreasing
- Ethnic diversity increasing
- Multi-generational households increasing
- Average home size decreasing
- Income decreasing
- Percentage of renters increasing
- Telecommuting increasing
<table>
<thead>
<tr>
<th>Demographic Change</th>
<th>Form Controls Aid</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slower growth rate</td>
<td>Somewhat</td>
<td>Place-making attracts talent which can foster innovation and economic output</td>
</tr>
<tr>
<td>Aging population</td>
<td>Somewhat</td>
<td>Fosters housing diversity in T3-T6, but limits on first floor residential can impede mobility</td>
</tr>
<tr>
<td>Declining household size</td>
<td>Yes</td>
<td>Smaller lots and units</td>
</tr>
<tr>
<td>Changing ethnic composition</td>
<td>No</td>
<td>Higher home prices and emphasis on urban locations</td>
</tr>
<tr>
<td>Changing locational preference</td>
<td>Somewhat</td>
<td>Favors urban housing, but seldom applied in suburban contexts</td>
</tr>
<tr>
<td>Reductions in retail/office uses</td>
<td>No</td>
<td>Mixed-use requirements can foster oversupply</td>
</tr>
</tbody>
</table>
Housing Affordability

• Average market prices of housing have been rising faster than average wages for the last 50 years
  – % of income spent on rent:
    • 1960: 19%
    • 2005: 29%
  – From 2001-2005:
    • Home ownership costs rose 18%
    • Median income rose by 11%
  – Real income declined during the 2000’s for the first time in nation’s history
Do form controls aid in addressing housing affordability?

<table>
<thead>
<tr>
<th>Housing variety</th>
<th>Somewhat</th>
<th>Multi-story and mixed use requirements foster variety, but these units are often expensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of evolution</td>
<td>Yes</td>
<td>Decreased emphasis on use allows upper-story conversion and by-right development removes procedural obstacles</td>
</tr>
<tr>
<td>Controlling building costs</td>
<td>No</td>
<td>Façade design elements and minimum heights increase costs</td>
</tr>
<tr>
<td>Increasing density</td>
<td>Somewhat</td>
<td>Smaller units, but few bonuses and reduced over-supply of residential land</td>
</tr>
<tr>
<td>Lowering other costs</td>
<td>Yes</td>
<td>Reduced auto dependence and transportation costs</td>
</tr>
</tbody>
</table>
Historic Preservation

- The desire for historic preservation is becoming more pronounced
- The range of tools available for preservation is limited
- There can be significant opposition to district designation
- Form controls can help address these problems
## Do form controls aid in addressing historic preservation?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforce historic patterns</td>
<td>Protects character but avoids opposition stemming from district designation</td>
</tr>
<tr>
<td>Tailored building forms</td>
<td>Clarifies acceptable infill and redevelopment parameters up front</td>
</tr>
<tr>
<td>Ease of administration</td>
<td>By-right approvals simplify the process and encourage preservation</td>
</tr>
<tr>
<td>Ease of establishment</td>
<td>Significant effort to codify context</td>
</tr>
<tr>
<td>Application to other techniques</td>
<td>Potentially useful in neighborhood conservation overlays</td>
</tr>
</tbody>
</table>
The Rules That Shape Urban Form

When using form controls, “unpack” the concepts and use only the pieces you need.
Six Questions to Consider
Before Preparing Form Regulations...
1. Will the form controls cover the entire community, or just certain areas?
2. If applied to a particular area, has a place-based plan been prepared?
3. Will the regulations be mandatory or optional?
4. Are the regulations for greenfield, major redevelopment, or small infill?
5. Will the form controls be “contextual” or “prescriptive”? 
6. How will you handle nonconforming development?
Form Controls for the Real World

Questions?

Clarion Associates