FORM-BASED CODES

An Introduction and Lessons from Oklahoma

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ADG, Oklahoma City
While FBCs are 36 years old, 88% of the adopted codes were 2003 to now.

387 form-based codes were adopted from 1981 to now.

Source: Codes Study: Hazel Borys with Emily Talen and Matt Lambert as of February 2017, Creative Commons NonCommercial ShareAlike License
HOW WE GOT HERE

Separation of land uses leading to hyper-segregation

Review functions within cities also became segregated
  • Based on abstract numerical tools

Communities began to realize they couldn’t even build back their historic downtowns

Consequences
  • Auto dependence
  • Cookie cutter development with little thought to context
  • Overly focused on private realm with little thought to the public realm
CONVENTIONAL ZONING

• Separates uses
• Promote low-density development and limited housing choices
• Encourage excessive land consumption and auto dependency
• Focused on what isn’t allowed, as opposed to community vision
• Regulates private development, with little thought to the public realm

FORM-BASED CODES

• Encourage mixed uses
• Promotes a mix of housing types
• Is “proactive,” focusing on what the community wants and not what it dislikes
• Results from a public design process which creates consensus
• Addresses the design of the public realm and how buildings define public space
“Conventional zoning treats every property within each use-based zone the same, regardless of specific geographic location. Paradoxically, built results of properties within the same zone can be different and largely unpredictable.”

Matt Lawlor, Robinson + Cole
COMPARING STANDARD APPROACHES

**Conventional Zoning**
Density use, FAR (floor area ratio), setbacks, parking requirements, maximum building heights specified

**Zoning Design Guidelines**
Conventional zoning requirements, plus frequency of openings and surface articulation specified

**Form-Based Codes**
Street and building types (or mix of types), build-to lines, number of floors, and percentage of built site frontage specified.
Comprehensive Replacement of Zoning Code

Hybrid Zoning Code

Optional/Parallel Code
Five Main Elements of Form-Based Codes

1. Regulating Plan
   A plan or map of the regulated area designating the locations where different building form standards apply.

2. Public Standards
   Specifies elements in the public realm: sidewalk, travel lanes, on-street parking, street trees and furniture, etc.

3. Building Standards
   Regulations controlling the features, configurations, and functions of buildings that define and shape the public realm.

4. Administration
   A clearly defined and streamlined application and project review process.

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

Optional Elements

6. Architectural Standards – External architectural materials and quality
7. Landscaping Standards – Design and materials on private property
8. Signage Standards – Allowable signage sizes, materials, illumination, and placement
9. Environmental Resource Standards – Storm water drainage, infiltration, tree protection
10. Annotations – Text and illustrations explaining intent of specific provisions

Form-Based Codes Institute
Organizing Principle

1. Transect-Based Codes
2. Building Type-Based Codes
3. Street-Based Codes

CMAP Form-Based Codes
TRANSECT-BASED CODES

T1 NATURAL ZONE
T2 RURAL ZONE
T3 SUB-URBAN ZONE
T4 GENERAL URBAN ZONE
T5 URBAN CENTER ZONE
T6 URBAN CORE ZONE
SD SPECIAL DISTRICT
THE TRANSECT OF NORMAN ROCKWELL
BUILDING TYPE-BASED CODES

PROPOSED BROKEN ARROW BUILDING TYPES

- **SINGLE-FAMILY A**
  - Freestanding
  - 1 to 2.5 stories
  - Set back from street & neighboring lots
  - Curb cut aligned with street

- **SINGLE-FAMILY B**
  - Freestanding
  - 1 story
  - Set back from street & neighboring lots
  - Wide facade aligned with street

- **TWO-FAMILY**
  - Two family building
  - 1 to 2.5 stories
  - Set back from street & neighboring lots
  - Each unit has a street entrance

- **COTTAGE COURT**
  - Series of detached units around common courtyard
  - 1 to 2.5 stories
  - Shared open space in lieu of private yard
  - Each unit has a court or street facing entry

- **6-PLEX**
  - Multiple units in one building
  - 1 to 3 stories
  - May appear similar in form to single-family home
  - Set back from street & neighboring lots
  - Entries and yard are shared

- **ROWHOUSE**
  - Series of attached units
  - 1 to 3 stories tall and narrow
  - Articulation methods can help distinguish units from each other
  - Street facing individual entries

- **FLATS**
  - Stacked units of apartments with interior common hallways
  - 2 to 6 stories, depending on the area
  - At least 1 shared entry on the street

- **MIXED-USE A**
  - Mixture of residential and office with limited neighborhood level retail
  - 2 to 4 stories
  - At least 1 shared entry for upper floors on street

- **MIXED-USE B**
  - Office or residential on upper floors
  - Active retail storefronts on ground floor
  - 2 to 6 stories
  - At least 1 shared entry for upper floors on street
STREET-BASED CODES

1. Two-Lane Avenue

A two-lane avenue is characterized by two connected sidewalks separated by a strip of greenery or property line. Two-lane avenues are typically found in suburban and office parks.

Notes:
1. Appurtenances may extend beyond the height limit.
2. Building fronts are required to provide street level access to the sidewalk by means of at least one of the following: arcades, colonnades, piers, or ground-floor balconies.
3. The alignment of Two Lane heights of abutting buildings is encouraged in order to maintain a sense of continuity.

A. Building Placement

- Width to the front line: 40 ft. from property line
- Front setbacks: 10 ft. of detent
- Front setbacks: 20 ft. of detent

B. Building Variations

- 100% maximum
- 150% maximum
- 125% maximum

- Building heights:
  - 1-story minimum
  - 3-story maximum
  - The first floor shall be a minimum of 10 ft. in height

Street Types: Two Lane Avenue, Central Hercules Plan (2007), City of Hercules, California. Credit: Dover, Kohl & Partners.

DOWNTOWN DEVELOPMENT FRAMEWORK

POLICY FRAMEWORK

2-1 Street Typologies

Street Typologies categorize streets in a more holistic way than the traditional classification system. The traditional system of Arterials, Collectors, Local Streets, etc. is useful in determining the number of lanes necessary for efficient automobile travel. However, this system is not very effective at describing other parts of the circulation network, particularly the importance of incorporating alternative modes of transportation, on-street parking, and the design of the pedestrian zone. The system of Street Typology focuses primarily on the movement and experience of the pedestrian as opposed to the automobile. By incorporating anticipated land uses from the Future Development Plan, the Street Typologies system brings land use and transportation issues closer together when considering how streets can be most effectively designed for all users. In turn, the Street Typologies influence the other components of the Transportation Framework.

FIGURE 2.1a

Street Typology

- Storefront
- High Intensity
- General Urban
- Neighborhood
- Boulevard
- TBD
# DOCUMENT STRUCTURE

<table>
<thead>
<tr>
<th>Land Use Types</th>
<th>Building Types</th>
<th>Frontage Types</th>
<th>Thoroughfare Types</th>
<th>Civic Space Types</th>
</tr>
</thead>
</table>

## CMAP Form-Based Codes

### Building Types

- **Building Type:** [Image] Building Types, City of Cincinnati, Office of Planning and Design.

### Frontage Types

- **Frontage Type:** [Image] Frontage Types, City of Cincinnati.

### Thoroughfare Types

- **Thoroughfare Type:** [Image] Thoroughfare Types, City of Cincinnati.

### Civic Space Types

- **Civic Space Type:** [Image] Civic Space Types, City of Cincinnati.
RESOURCES
FORM-BASED CODES
An Introduction and Lessons from Oklahoma
FBC in Stillwater, OK

October 9, 2017

Paula J. Dennison, AICP
Development Services Director
City of Stillwater, OK
Why FBC?

C³ Plan
Corridor Redevelopment Plan
Form Based Codes

Standard FBC?
Hybrid of true FBC and Euclidean zoning
Projects: Issues

- 3 “high-rise” student housing complexes; 2 additional complexes on drawing board
- Wesley Foundation rebuild
- Beer Garden/Restaurant
- OSU Performing Arts center
- Little to no retail or office space included
- Combination of private & public obligations
- Center of the Street parking
- Large national developer v. local hobby developer
Thoroughfares
Do-Over?

- Must outline the entire package, especially the financing component
- Use of PC for Warrants and Alternative Compliance requests works well
- Educating public before the beginning – YES
- Involving citizen group - YES
Resources

- FBCI (http://formbasedcodes.org/)
- PPS (https://www.pps.org/)
- Place Makers (http://www.placemakers.com/how-we-teach/codes-study/)
- Form-Based Codes: A Step-by-Step Guide for Communities
Resources, cont:

- San Marcos, TX
- Knoxville, TN
- Conway, AR
- Lawrence, KS
- Starkville, MS
- Woodford County, KY
Thank You!

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APA Oklahoma Chapter
• www.okplanning.org
NORMAN, OK CENTER CITY FORM
BASED CODE

October 9, 2017

Susan F. Connors, AICP
Planning and Community Development Director
City of Norman, OK
CENTER CITY FORM BASED CODE

• Jointly funded by the City of Norman and the University of Oklahoma
• The contract was approved with the National Charrette Institute, with sub-consultants Opticos and Ferrell-Madden
• Code was generated through a Steering Committee of 15 members
• Steering Committee held 14 meetings over two years
Why a Visioning Charrette?

• Current zoning regulations can’t handle growing, modern demand for infill development in Norman’s Center City area.

• Significant community disagreement about market-driven proposals for infill development in the past.

• Professional charrette process is best technique available to articulate community-supported vision.

• Building community support for a vision followed closely by development of land use regulations that allow achievement of vision will provide both community and investors confidence and certainty.
What Did We Hope to Achieve?

• Host several public meetings and use diverse, hands-on techniques to gather community input on a vision for the future of Norman’s Center City area.

• Host intensive, week-long visioning charrette to maximize hands-on participation, opinion polling, and relationship-building around the future of the Center City.

• Community input becomes foundation for an illustrated, well-articulated, community-supported vision for the future of the Center City area.

• Vision lays groundwork to develop land use regulations that allows the vision to be built.
the visioning process

May

“on-site” studio

Charrette Vision: Convert Main St. to Two-Way Traffic

Figure 2.6 Existing Main Street with one-way traffic

Figure 2.7 View of proposed Main Street transformed into a two-way street with center median, on-street parking interrupted by occasional “parklets”
Charrette recommendations

New rules for development... think different!

- Center City isn’t the same as the rest of Norman
- Promote mixed-use in key locations
- Increase pedestrian and bike-friendly character
- Create a “park once” environment—structures & management strategy
- Provide a range of housing options
- Promote connections between Downtown and Campus Corner
- Make small scale infill development easier
Creating a form-based code: art & science

- Build on the vision
- Incorporate knowledge of good urban form & experiences from other communities
- Aim high
- Practical idealism – you can’t ignore the law or the market!
What is a form-based code?

• First and foremost – a tool

• A method of regulating development (zoning) to achieve a specific type of place.

• Holistic – not just parcel by parcel
FORM BASED CODE COMPONENTS

- How to Use the Code
- Administration
- Regulating Plan
- Building Form Standards
- Urban Space Standards
- Parking and Loading Standards
- Building Functions
- Definitions
Building Form Standards (BFS)

- Urban General
- Urban Storefront
- Urban Residential
- Townhouse/Small Apartment
- Detached
Regulating Plan
Note: These are provided as illustrations of intent. The illustrations and statements on this page are advisory only and do not have the power of law. Refer to the standards on the following pages for the specific prescriptions and restrictions of this Building Form Standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

Urban General is the basic urban street frontage, once common across the United States. The purpose of this frontage is to develop multi-story buildings placed directly at the sidewalk or behind small doorways, and with one or more entrances and windows across the facade. The uses range from commercial to residential, municipal to retail and restaurants—and combinations of all of the above. There could be several buildings lined up shoulder to shoulder, filling out a block, or on smaller blocks, a single building might fill the block face. This frontage is designated in the most intense areas of the Center City District and it is anticipated that there will be significant pedestrian traffic along these blocks.
406. Detached Frontage

Note: These photos and statements are provided as illustrations of intent and are advisory only. They do not have the power of law. Refer to the standards on the following pages for the specific prescriptions and restrictions of the Detached Building form standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

The Detached frontage is represented by the traditional single family house with small front, side, and rear yards along a tree-lined street. Structures are 1 to 2 stories in height with pitched roofs and front porches. Its purpose is to protect the character of existing single family neighborhoods.
Importance of Street Space in Placemaking
Main Street at Santa Fe: Incubating Local Business

Photo of Existing Condition
Main Street at Santa Fe: Incubating Local Business

Photo of Illustrative Vision
THANK YOU!

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APA Oklahoma Chapter
www.okplanning.org
public input

Will residents here want to live above shops?

76%

8%

16%
visual preference survey

12%  88%
Yukon

code

CITY OF YUKON
URBAN GATEWAY SMART CODE
AS ADOPTED
03-17-2015
<table>
<thead>
<tr>
<th>Sign Type</th>
<th>Max Height</th>
<th>Max Width</th>
<th>Max Number</th>
</tr>
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<tbody>
<tr>
<td>A-frame</td>
<td>3’6”</td>
<td>3’0”</td>
<td>N/A</td>
</tr>
<tr>
<td>Blade</td>
<td>8’0”</td>
<td>12’0”</td>
<td>2 per lot</td>
</tr>
<tr>
<td>Awning</td>
<td>28’0”</td>
<td></td>
<td>N/A</td>
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<tr>
<td>Architectural</td>
<td>3’6”</td>
<td>3’0”</td>
<td>1 per lot</td>
</tr>
<tr>
<td>Window</td>
<td>Min 0’0”</td>
<td>16’0”</td>
<td>20% of windows</td>
</tr>
</tbody>
</table>
Existing parking

Minimum (5 per 1000 sf)

61% parking
39% building

FBC parking

Maximum (2 per 1000 sf)

39% parking
61% building
Wheeler

code

WHEELER

Wheeler District

PREPARED BY:
Williams Box Freshes & Bullard PC
327 Colcord Drive
Oklahoma City, OK 73102
405-236-0080
405-236-8814 fax

datbbox@whbplaw.com
The Transect Map assigns a Transect Zone to each Block segment of the plan. These zones regulate building form and intensity.

Legend

- T6 (The Urban Core Zone)
- T5 (The Urban Center Zone)
- T4-O (The Neighborhood General/Open Zone)
- T4-R (The Neighborhood General/Restricted Zone)
- T2 (The Rural Zone)
- Civic Space
(CB) COURTYARD APARTMENT BUILDING

Courtyard Apartment Buildings accommodate multiple residential units above and beside each other, sharing a common entry accessed directly off of the street when the building occupies the boundaries of its lot, while internally defining one or more private patios. Units may be managed as a rental property or a condominium where each unit is privately held. The first floor may also accommodate commercial uses.

GENERAL REQUIREMENTS

APPURTEANCES
First floor commercial: protection for pedestrians with Awnings, Colonnades, or second floor Balconies is required, and may occur forward of the Build-to Line or Zone.

First floor residential: a front Porch, Stoop or Courtyard Terrace is encouraged and may occur forward of the Build-to Line or Zone.

STORIES
1st Floor: For commercial - 12’ minimum finish floor to finish ceiling.
1st Floor: All other uses - 9’ minimum finish floor to finish ceiling.
Upper Floors: 8’ minimum finish floor to finish ceiling.

FIRST FLOOR ELEVATION
If residential, the first finished floor shall be a minimum of 24” above the adjacent sidewalk grade.

For all other uses, the first finished floor may be at the same level as the adjacent sidewalk.

PARKING
Parking shall be behind a layer of habitable space, out of view from primary streets, and shall not be allowed within 20’ of the sidewalk along the primary frontage. Parking may also be located within 1/4 mile of the building site, either on-street or in a common parking structure or lot. The primary entrance for ADA accessibility should generally be in the front, convenient to on-street parking. Refer to Chapter 4 for additional parking standards.

UTILITIES
Loading docks, service areas and trash disposal facilities shall not directly face any streets, parks, squares or significant pedestrian spaces and should be screened from all public areas.

ACCESSORY BUILDINGS
Accessory Dwelling Units are not permitted.
prescriptive
architectural
code
outcomes
**Yukon**

- City led
- Feedback from survey
- Zoning done before master plan
- Derived from Smartcode
- City approves master plan but not building design
- Driven by transects

**Wheeler**

- Developer led
- Feedback from charrette
- Zoning and master plan done at same time
- Original code
- Developer approves all buildings
- Driven by building types and transects