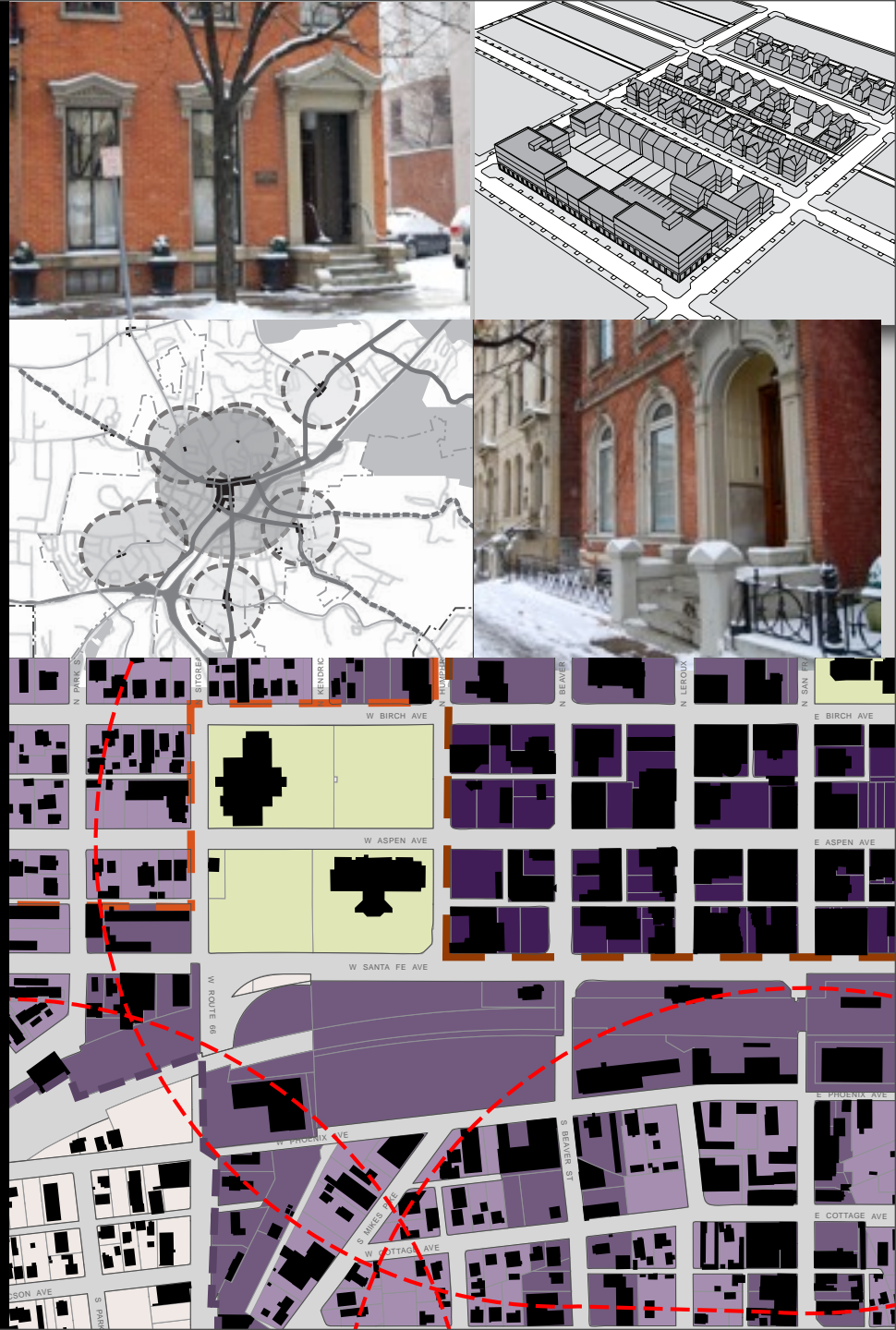


# Form-Based Codes: A Tool for Shaping Community Form and Smarter Growth

Daniel Parolek, AIA, CNU  
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Cincinnati, Ohio  
September 30, 2010



# **Why are Cities and Developers Using Form-Based Codes?**

# “Top 20 Ways to Make a Green, Smart City”

## #2 Replace Your Euclidean Zoning with Form-Based Codes

Rob Dixon, Albuquerque developer in his keynote  
presentation at the New Partners for Smart Growth  
Conference, January 2009

# Removing Obstacles for Urbanism (Illogical Zoning)

## Hurdles to Reuse Space for Pastry Shop:

- Zone: R7-Allows 75' tall residential, but not commercial
  - Two-part special use permit (\$560)
  - City Planning Board (meets once a month)- will likely deny application
  - Planning Board of Appeals-meets once a month (\$1,000)
- Nine space parking lot required for occupancy permit (det. by # of tables)  
Cost=\$20,000 (must tear down tree)
- Lost rent: \$2,000-\$4,000 min.



# Establishing an Economic Advantage



Making Place Matter



Form Based Codes

The Key to Greater Cincinnati's  
Competitive Future



A White Paper

Prepared by Candace S. Klein

Greenebaum Doll & McDonald PLLC

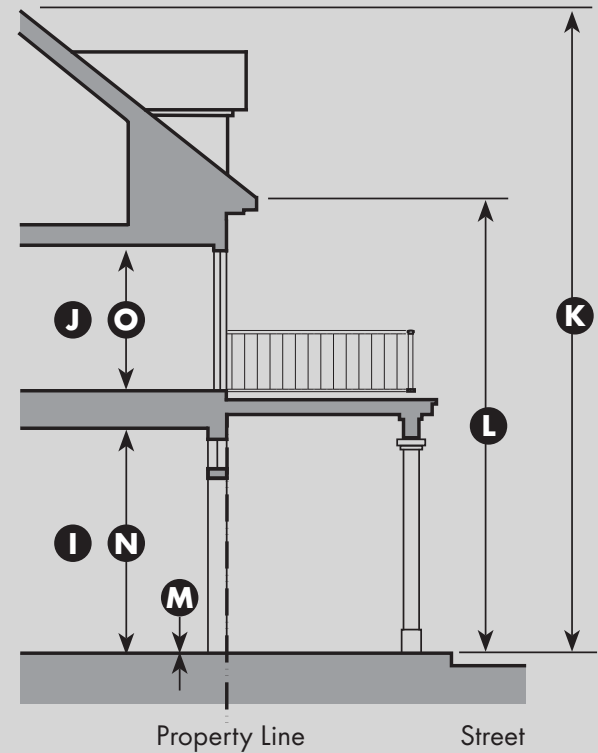


May 1, 2008



# Presentation Outline

1. Why do developers like FBCs?
2. Definition of an FBC
3. Components of an FBC
4. Process for creating an FBC
5. Q & A



Use	
Ground Floor	Service, Retail, or Recreation, Education & Public Assembly* <b>I</b>
Upper Floor(s)	Residential or Service* <b>J</b>

\*See Table 4.1 for specific uses. Ground floors that face the waterfront shall be nonresidential and shall not include parking, garages, or similar uses.

## Height



# Why Do Developers Like Form-Based Codes?

1. Remove barriers for infill and Smart Growth
2. Can lead to quick entitlement
3. Predictability-neighbors not opposing every project
4. Flexibility in program in transition areas
5. Get sign off on details of plans from all City departments (Ex. Street Designs)
6. Could sell off parcels with detailed understanding of what was entitled
7. Variety of product types and intensities= Maximize value



# What is a Form-Based Code?

The Definition



# Definition

"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. They are adopted into city or county law. Form-Based Codes are an alternative to conventional zoning."

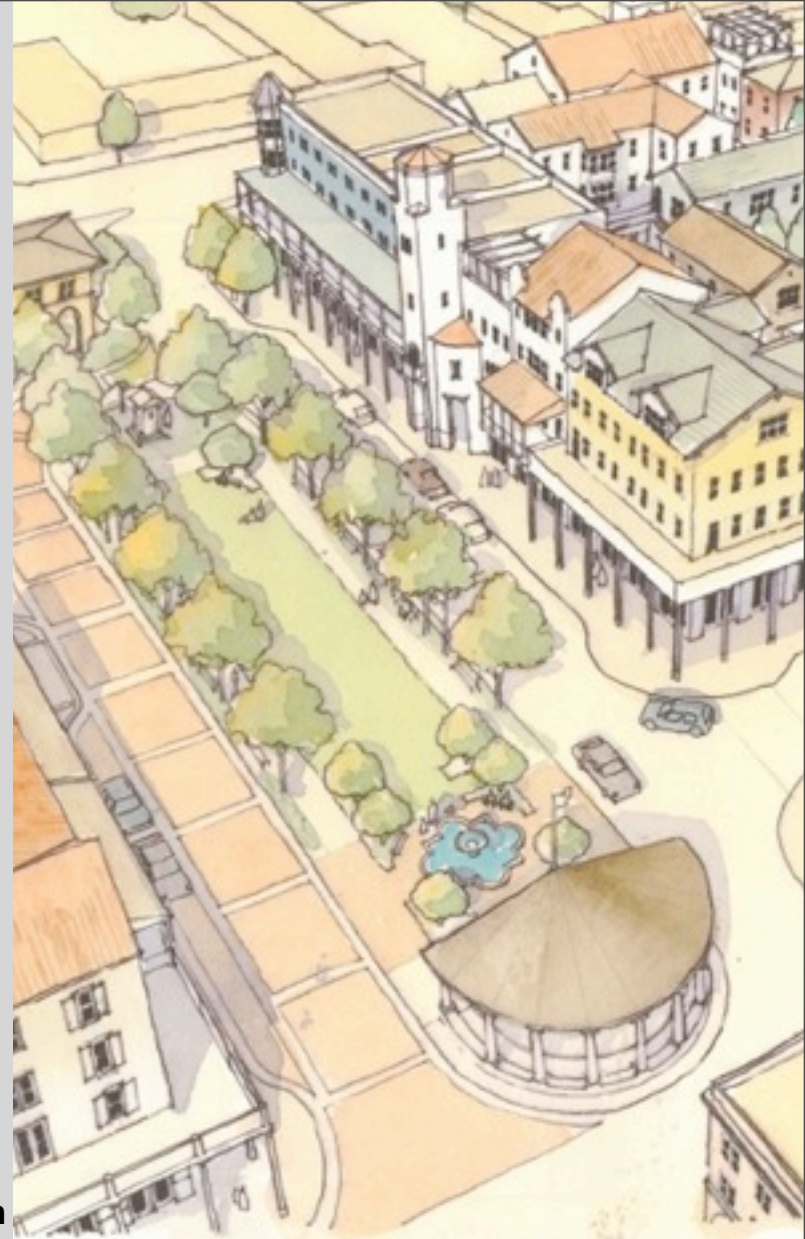
Form-Based Code Institute



# Diverse Applications:

1. Downtown Master Plans
2. Corridor Revitalization Plans
3. Neighborhood Revitalization Plans
4. Specific Plan Development Standards
5. New Walkable Neighborhoods
6. Historic Resource Preservation Planning
7. Transit Village Implementation
8. Greyfield Redevelopment
9. University/Community Interface Plans
10. Subdivision Ordinances
11. General Plan Implementation
12. Complete Development Code Updates
13. Model Codes
14. Regional Plan Implementation

Livermore Village: Opticos Design



# Two Different Types of Zones Cannot be Combined!

Form-Based Zones/  
Transect

Walkable Urban Areas



Lower parking requirements  
(More walking, access to transit)

Public realm = public space

Blended density (variety of types)

Mixed-use environments

Uses more flexible based on  
operational characteristics

Special Districts/  
Conventional Zones

Drivable Suburban Areas



Higher parking requirements  
(less walking and access to transit)

Larger public and private open space  
required due to isolation

“Podded” densities and uses

Specific uses allowed



# Components

The Parts That Make the Form-Based Code Work

# Every Good Recipe: Specific Ingredients and Process

[Email](#)

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[Print](#)

[A](#) [A](#) [A](#) Text Size

## Pork Ribs and Sauerkraut

[Recommend](#)

[f](#) One person recommends this.

Posted: Jun 16, 2010 2:44 PM

Updated: Sep 15, 2010 9:52 AM

Prep: 30 minutes

Cook Time: 3 hours

Servings: 8

### Ingredients:

- 1-1/2 lbs sauerkraut, well drained
- 1 onion, diced
- 2 cups canned stewed tomatoes
- 1/3 cup brown sugar, packed
- 2-1/2 lbs country style pork ribs

### Instructions:

1. Preheat oven to 325 degrees.

### Featured Video

[Pork Ribs and Sauerkraut](#)



Ingredients available at Homeland

[Enlarge this picture](#)

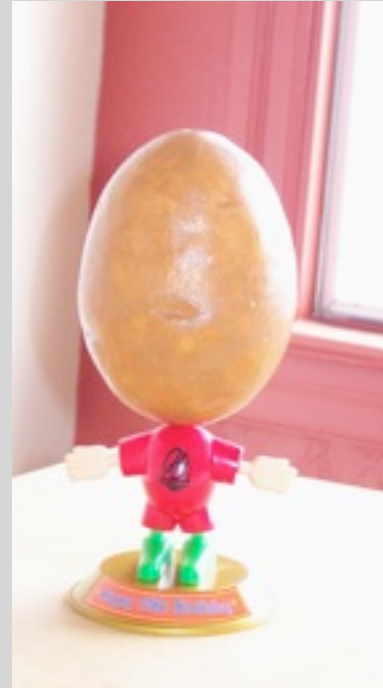


Form-Based Codes

What is a Form-Based Code?

## Form-Based Code Components

1. Regulating Plan
2. Building Form Standards
3. Public Space Standards  
(Thoroughfares & Civic Spaces)
4. Frontage Type Standards
5. Block and Lot Subdivision  
Standards



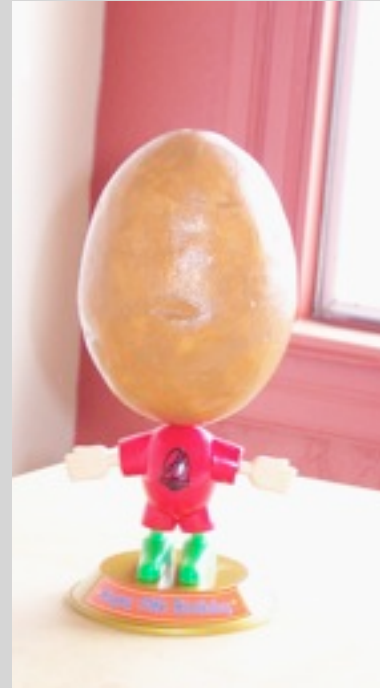
Form-Based Code  
defines this



This is the  
architecture

## Form-Based Code Components

1. Regulating Plan
2. Building Form Standards
3. Public Space Standards  
(Thoroughfares & Civic Spaces)
4. Frontage Type Standards
5. Block and Lot Subdivision  
Standards
6. Building Type Standards
7. Sustainability Standards
8. Green Building Standards
9. Architecture & Landscape  
Architecture Standards

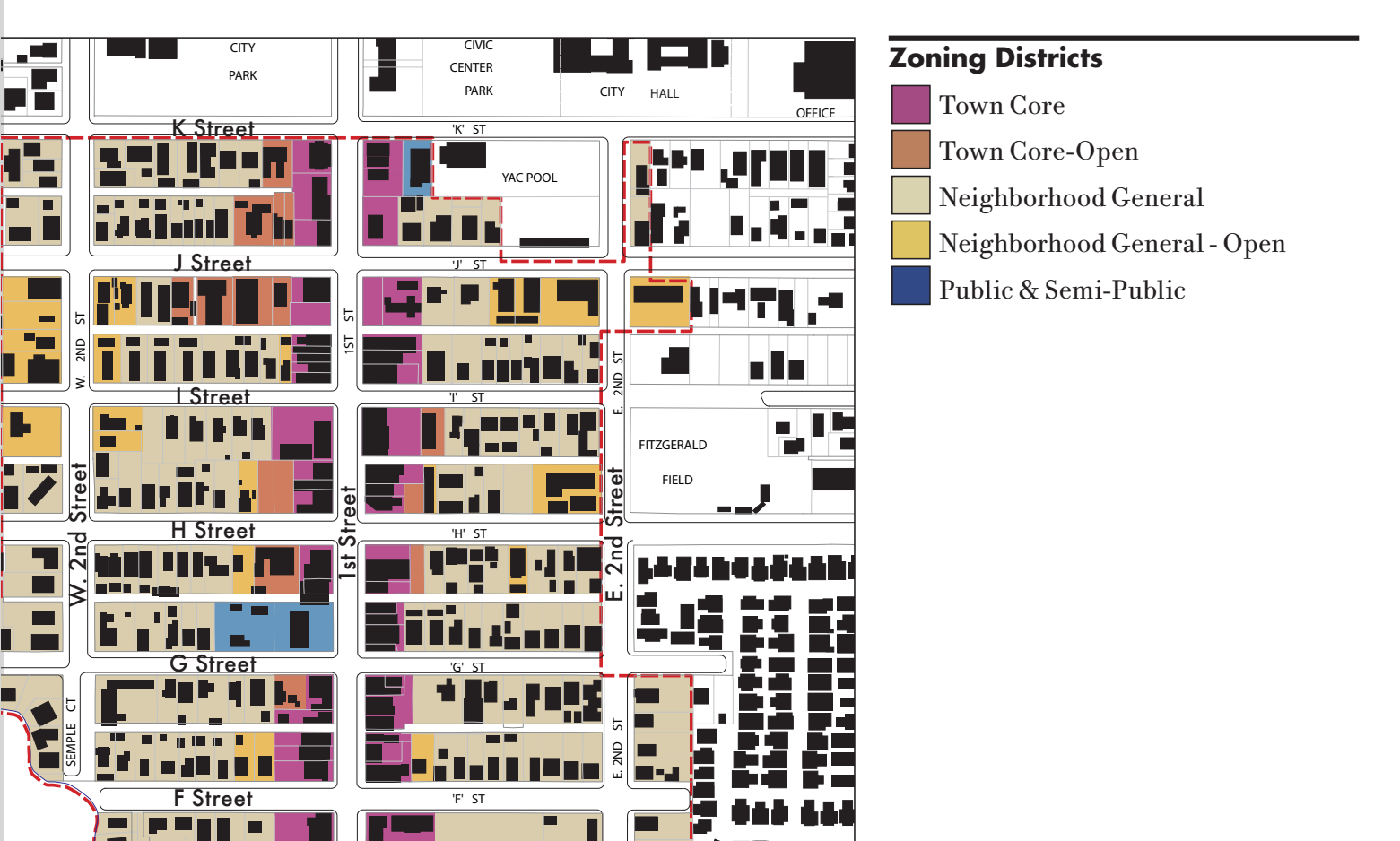


Form-Based Code  
defines this



This is the  
architecture

# Regulating Places, Not Uses

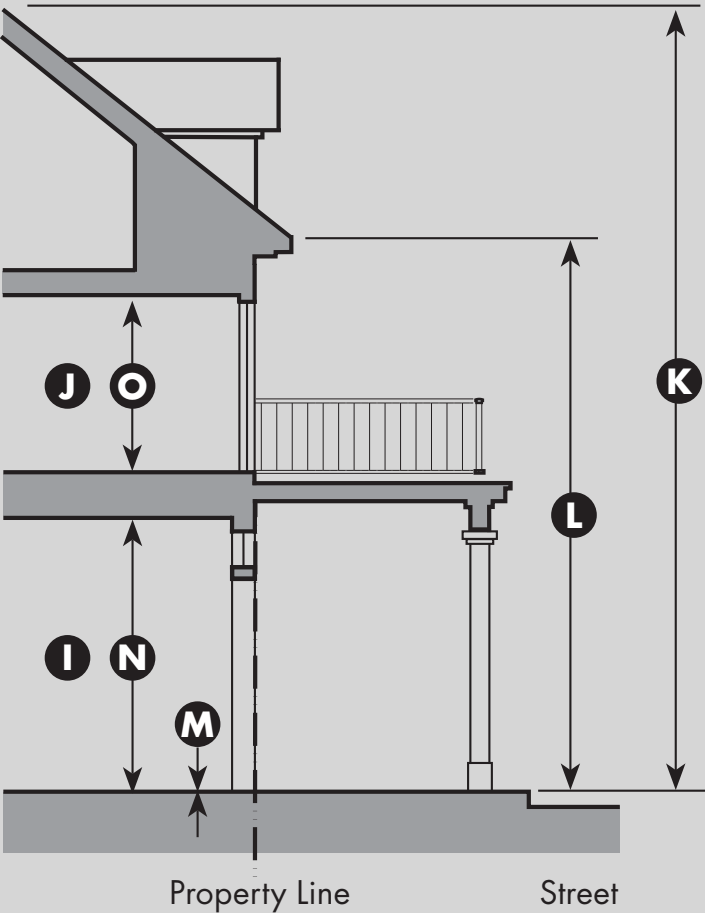


Benicia Downtown Mixed-Use Master Plan (Opticos Design and Crawford, Multari & Clark)





# Graphic and Easy to Understand



## Use

Ground Floor	Service, Retail, or Recreation, Education & Public Assembly*	<b>I</b>
Upper Floor(s)	Residential or Service*	<b>J</b>

\*See Table 4.1 for specific uses. Ground floors that face the waterfront shall be nonresidential and shall not include parking, garages, or similar uses.

## Height

Building Min.	22'	<b>K</b>
Building Max.	2.5 stories and 40'	<b>K</b>
Max. to Eave/Top of Parapet	35'	<b>L</b>
Ancillary Building Max.	2 stories and 25'	
Finish Ground Floor Level	6" max. above sidewalk	<b>M</b>
First Floor Ceiling Height	12' min. clear	<b>N</b>
Upper Floor(s) Ceiling Height	8' min. clear.	<b>O</b>

Benicia Downtown Mixed-Use Master Plan (Opticos Design and Crawford, Multari & Clark)



# This is a Design Exercise: Testing the Code

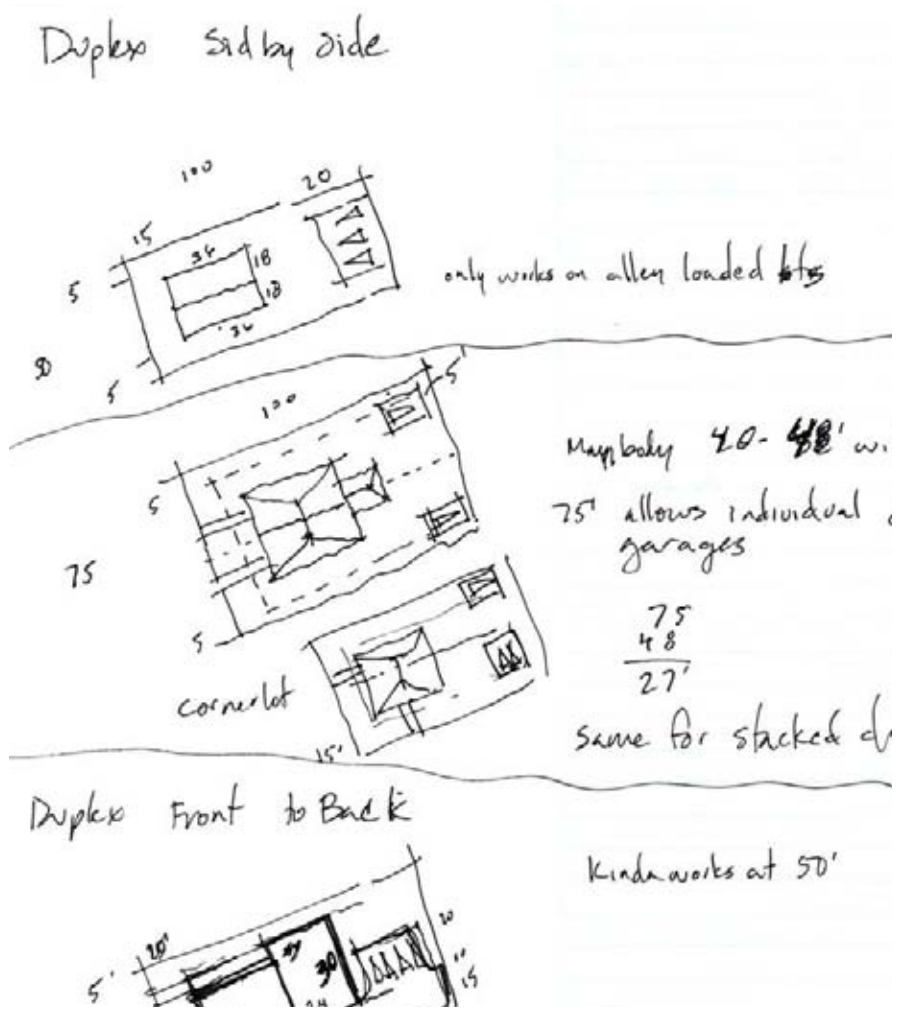
Building Placement		
<b>Build-to Line (Distance from Property Line)</b>		
Front	0'	<b>A</b>
Side Street, corner lot	0'	<b>B</b>
<b>Setback</b>		
Side	0'	<b>C</b>
Rear		
Adjacent to residential	10'	<b>D</b>
Adjacent to any other use	5'	<b>D</b>
<b>Building Form</b>		
Primary Street built to BTL	80% min.*	<b>E</b>
Side Street, Corner Lot built to BTL	30% min.*	<b>F</b>
Lot Width	75' max.	<b>G</b>
Lot Depth	150' max.	<b>H</b>

\* Street facades must be built to BTL within 30' of every corner.

### Notes

All floors must have a primary ground-floor entrance which faces the street.

Rear facing buildings, loading docks, overhead doors, and other service entries are prohibited on street facades.



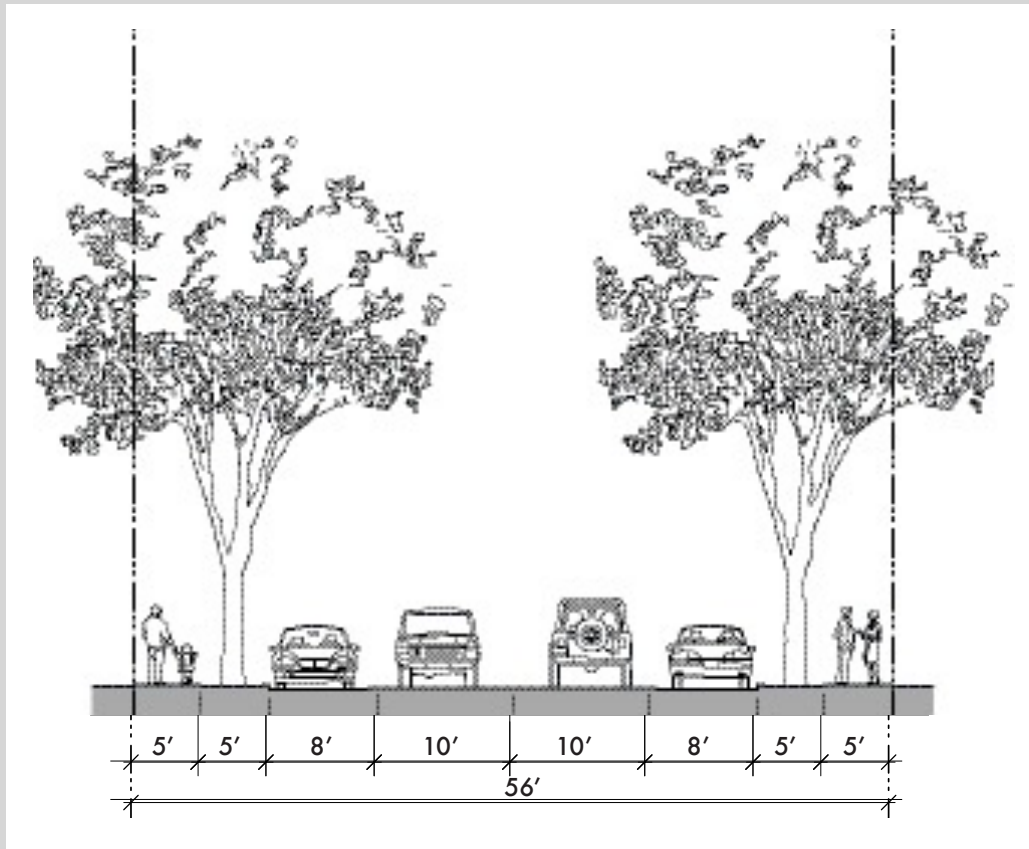
# Thoroughfare Standards: Good Places Need Good Streets



Form-Based Codes

Thoroughfare Standards

# Thoroughfare Standards



## Design Standards

Design Speed:	20 mph
R.O.W. Width:	56'
Width of paving:	36'
On-Street Parking:	8'
Travel Lane Width:	10'
Bicycle Lane Width:	N/A
Drainage Type:	Open
Width of Sidewalk:	5' (typical)
Sidewalk Easement:	N/A
Width of Planter:	5' (typical)
Type of Trees:	Medium
Spacing of Trees:	40'

Benicia Lower Arsenal Mixed Use Specific Plan (Opticos Design and Crawford, Multari & Clark)



# Building Types

# Building Types

1. Single Family
2. Carriage House
3. Bungalow Court
4. Duplex
5. Townhouse
6. Fourplex & Sixplex
7. Mansion Apartment
8. Live-Work
9. Stacked Units
10. Courtyard Apartments
11. Commercial Block
12. Liner Buildings

Live/Work



Commercial Block



Detached Single-Unit



Bungalow Court



Townhouse



Duplex, Triplex, Fourplex



# Live Work



Form-Based Codes

Building Types

# Live/Work: Flexible Buildings



Form-Based Codes

Building Types



# Rowhouses



Form-Based Codes

Building Types

# Missing Middle Residential



Form-Based Codes

Building Types

# Rowhouses



Form-Based Codes

Building Types

# Building Type Standards

5.xx.xxx

Fourplex & Sixplex

## Chapter 5.XX: Fourplex & Sixplex

General Note: the drawings and photos below are illustrative.



A grouping of fourplex units that have the scale and character compatible with large single-family houses.



A newly constructed sixplex that is of an appropriate scale and character to be integrated into a primarily single-family neighborhood.



A grouping of fourplex units that have the scale and character compatible with large single-family houses.

### 5.xx.xxx Description

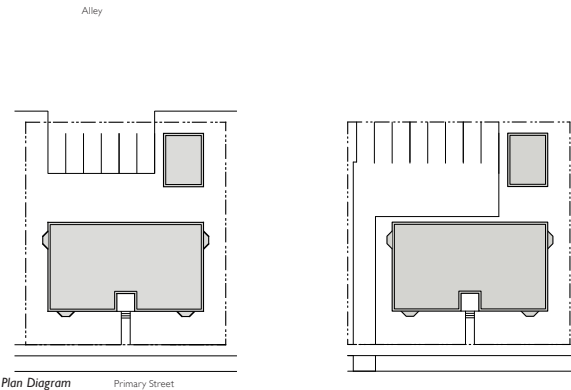
The Fourplex & Sixplex building type consists of structures that contain four to six side-by-side and/or stacked dwelling units with one shared entry. This building type has the appearance of a medium to large single-family home, and is typically integrated sparingly into single-family neighborhoods or more consistently into neighborhoods with other medium-density types such as duplexes, fourplexes, or courtyard apartments. This building type enables the incorporation of high-quality, well-designed density within a walkable neighborhood.

5-20

Livermore Planning and Zoning Code

Fourplex & Sixplex

5.xx.xxx



Typical Plan Diagram Primary Street

5.xx.xxx Lot	
Lot Size	
Width	75' min., 150' max.
Depth	100' min., 150' max.
5.xx.xxx Pedestrian Access	
Main Entrance Location	Primary street
Each unit may have an individual entry	
5.xx.xxx Frontages	
Allowed Frontages	
Porch	
Stoop	
Forecourt	
5.xx.xxx Vehicle Access and Parking	
Parking spaces may be enclosed, covered or open	
Garages may be detached or tuck-under.	

5.xx.xxx Open Space	
Width	8' clear min.
Depth	8' clear min.
Open Space Area	100 sq ft/unit min.
Required street setbacks and driveways shall not be included in the common open space area calculation.	
5.xx.xxx Building Size and Massing	
Main Body	
Width	50' max.
Depth	40' max.
Secondary Wing	
Distance from front facade	10' min.
Width	15' max.
Depth	35' max.
Detached Garage	
Width	22' max.
Depth	25' max.

Livermore Planning and Zoning Code

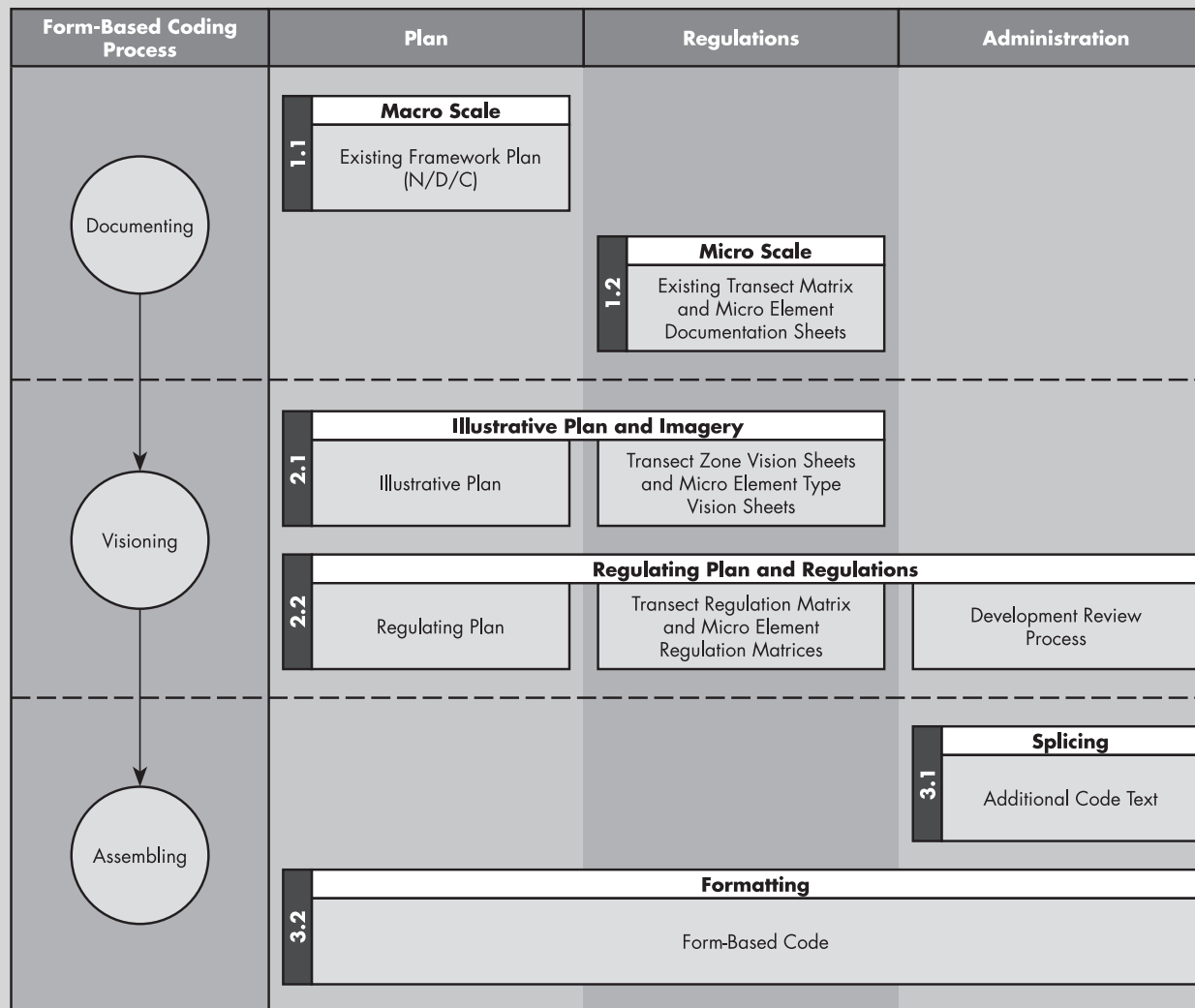
5-21



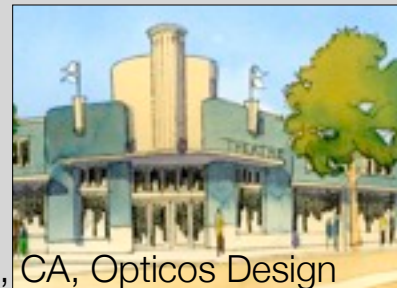
# Process

Three Required Steps for an Effective Code

# Three-Step Process



# Study and Illustrate Detailed Options to Inform Code



23rd Street Corridor Master Plan and FBC: Richmond, CA, Opticos Design



# Charrette Schedule: Ways to Participate

**Opening Presentation**  
Monday 4:30 pm - 6:00 pm

**Open Studio**  
Tuesday & Wednesday 12:00 pm - 1:00 pm

**Brown Bag Lunch Presentation**  
Tuesday & Wednesday 9:00 am - 4:00 pm

**Final Presentation**  
Thursday 6:00 pm - 8:00 pm

	Monday	Tuesday	Wednesday	Thursday
9:00 AM				
10:00 AM		Open Studio	Open Studio	
11:00 AM				
12:00 PM		Brown Bag Lunch Presentation: Building Types and Density	Brown Bag Lunch Presentation: Pedestrian Oriented Street Design	
1:00 PM				
2:00 PM		Open Studio	Open Studio	
3:00 PM				
4:00 PM				
5:00 PM	Opening Presentation			
6:00 PM		Public Open House	Public Open House	Final Presentation
7:00 PM				
8:00 PM				

See [www.charretteinstitute.org](http://www.charretteinstitute.org)



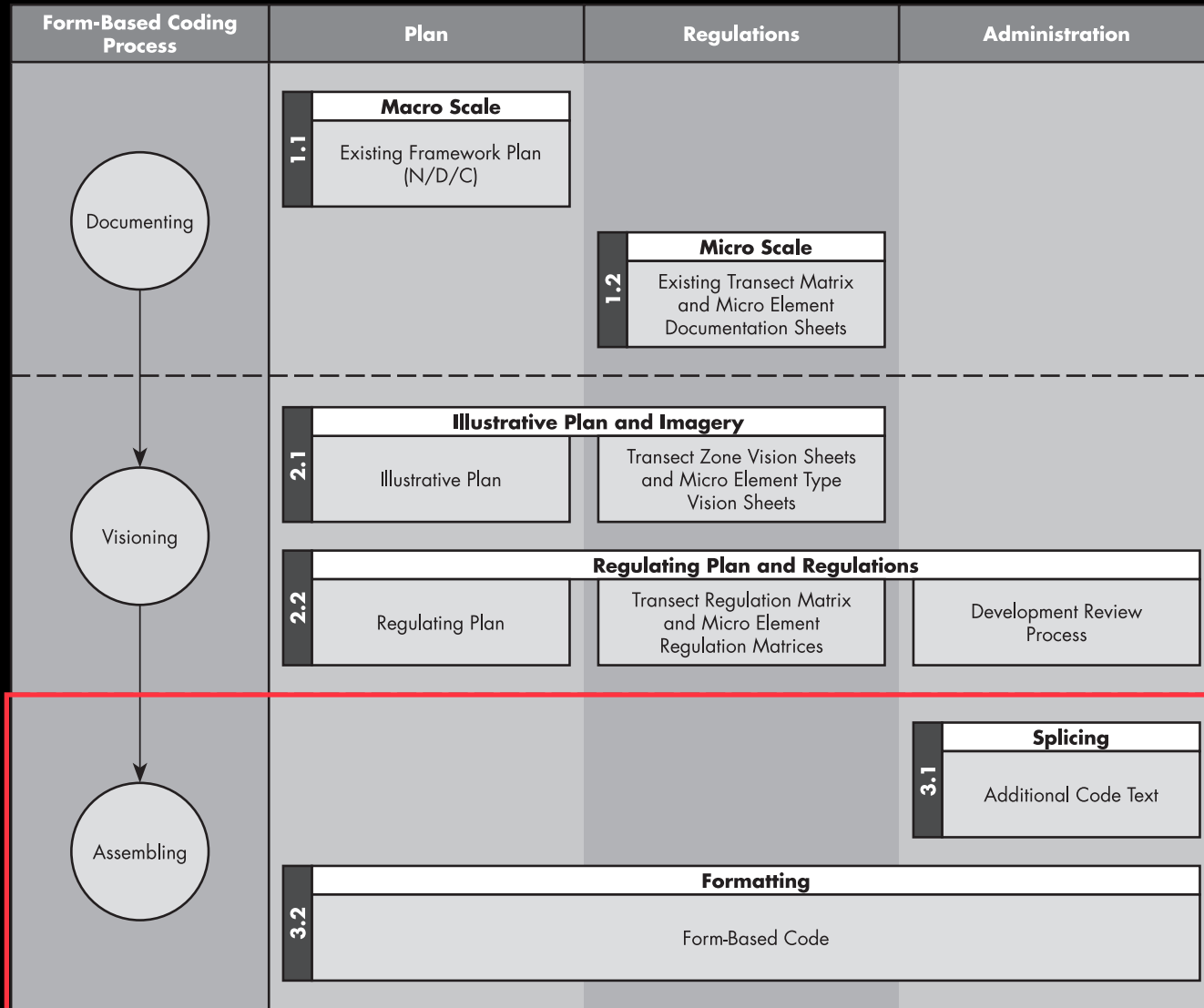
# How is This Different? Several Days of Consistent Engagement



# How is This Different? Several Days of Consistent Engagement



# Step III: Assembling

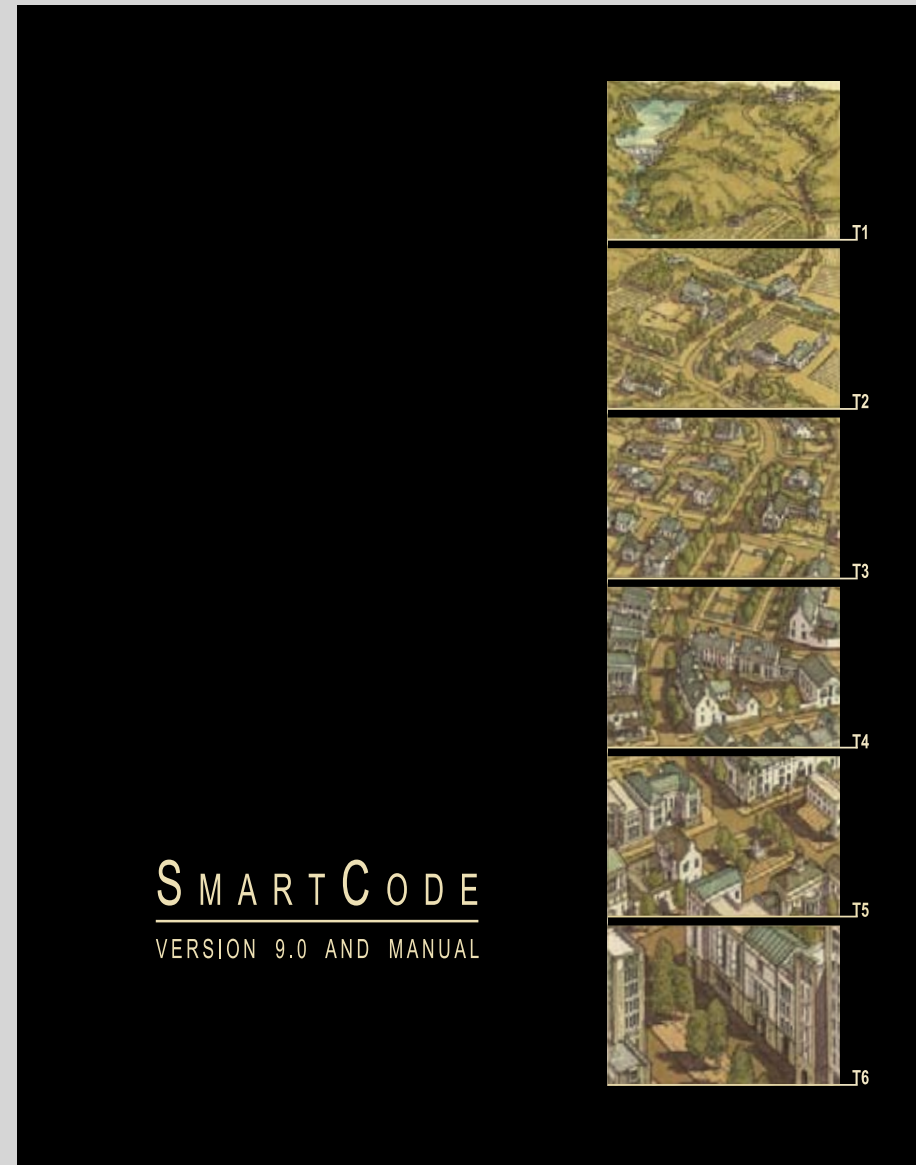


# Summary/Conclusion

# What is the SmartCode?

Transect-based model  
Form-Based Code

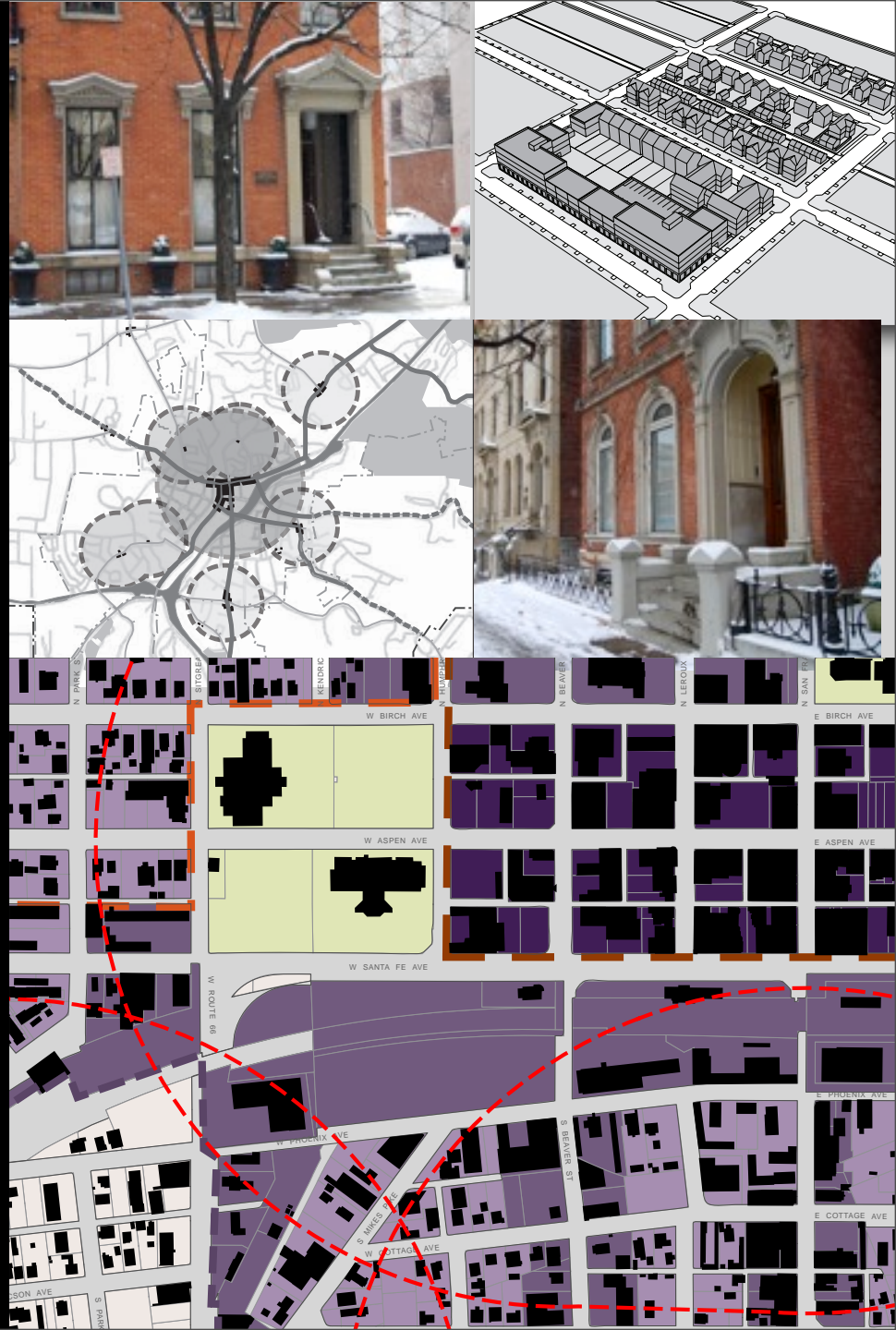
[smartcodecentral.com](http://smartcodecentral.com)



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Cincinnati, Ohio  
September 30, 2010



## Resources:



[www.formbasedcodes.org](http://www.formbasedcodes.org)

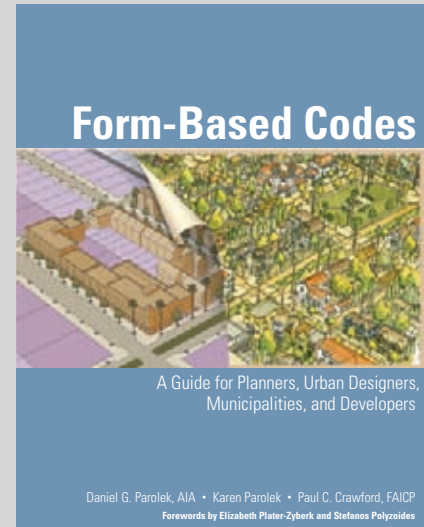
[www.opticosdesign.com](http://www.opticosdesign.com)

## Day Long Course:

**ABCs of Form-Based Codes in Covington, KY**  
**November 10, 2010**

**“Form-Based Codes” Available on Amazon.com  
or at [opticosdesign.com](http://opticosdesign.com)**

*“The Most  
Comprehensive  
Source for  
Form-Based*



Q & A



Form-Based Codes

Cincinnati, Ohio