

Form-Based Codes in New England Small Towns

Benefits, Challenges and Seven Key Strategies for Success

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SNEAPA 2019

RETHINK REINVEST RENEW

springfield ma

Form Based Codes in New England Background

- Communities are often small
- All zoning at municipal level (limited county gov't)
- Zoning is often seen as a fiscal impact tool or sacred document
- Many communities operate under local town meeting
- Many communities do not have full-time planners
- Great local urbanism but zoning does not reflect NE
- Everything here takes longer to develop – even in good times

New England Rules: The Challenges / Myths / Lessons

- New England towns can't afford to do a Form-based code
- New Englanders are too suspicious of a fast charrette
- New England small towns won't let outsiders lead their zoning
- Form-based codes are not allowed under my state enabling laws
- Form based codes work best in new developments and don't work here
- We can't throw out our traditional zoning
- Our current rules are fine . . . After all, we are getting good results

New England Challenges: The Myths

Political Challenges:

- There is a reactionary trend in our town that does not believe in change
- Our residents are suspicious of charrettes
- Form-based codes are not allowed under my state enabling laws

Addressing Design:

- We can't get consensus over design
- We can't give up our design review
- Our current rules are fine . . . After all, we are getting good results

Role of Consultants and RFPs:

- Our town won't let outsiders lead these efforts

Financing:

- We can't afford to do a Form-based code

7

Strategies
for
Success

1

1

Remember:
FORM
FOLLOWS
REGULATIONS

Form Follows Regulation: New England Towns



Form Follows Regulation: New England Towns



Form Follows Regulation: New England Towns



Form Follows Regulation: New England Towns



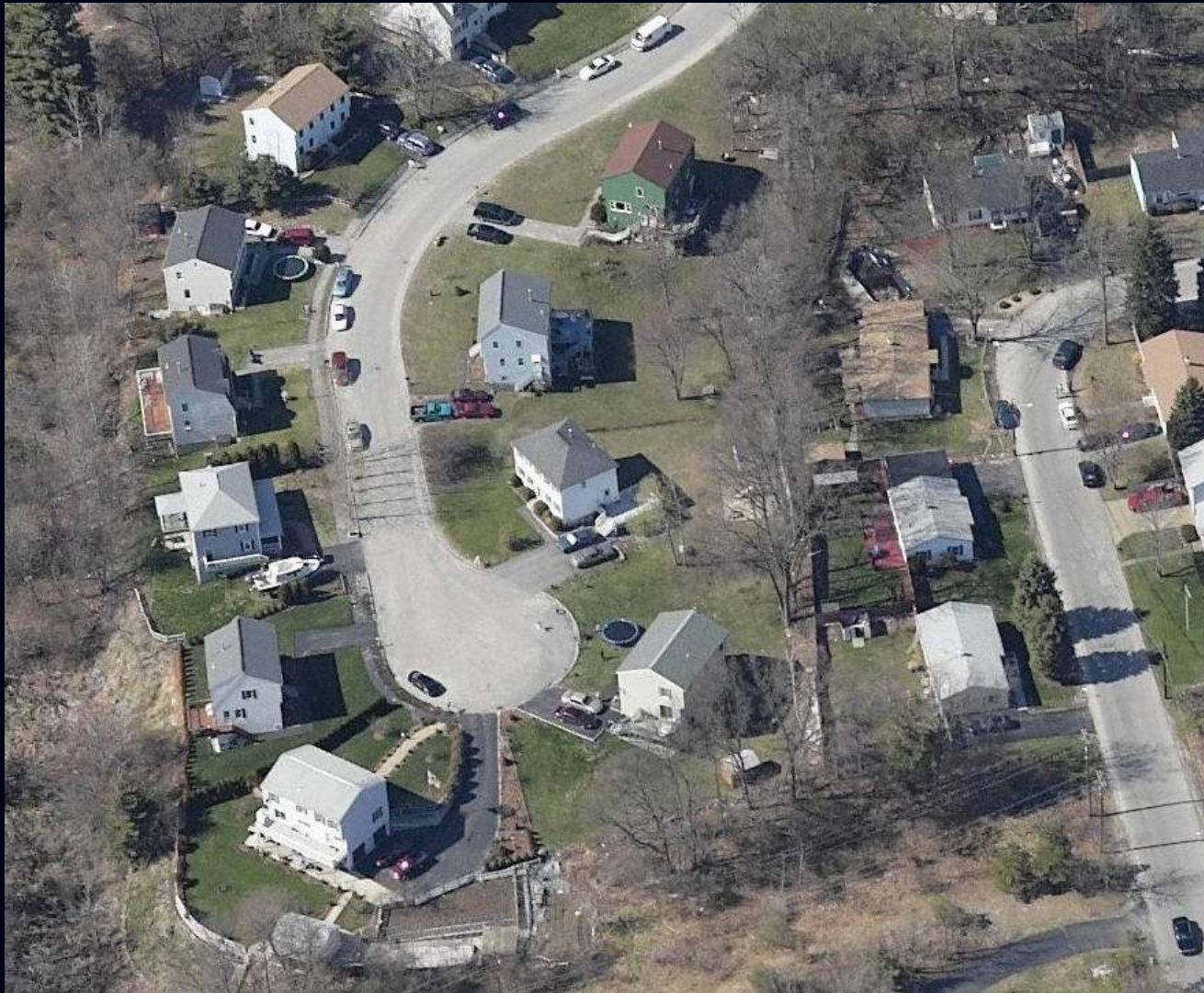
Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England Towns



Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England Towns



Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England Towns



Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England: Recent Development



Form Follows Regulation: New England Towns



Form Follows Regulation: New England: Recent Development



Form Based Codes in New England

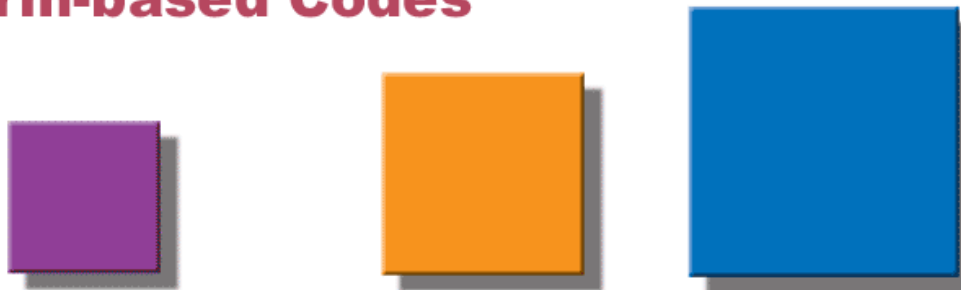
- 19. Baths, Turkish
- 25. Boxing arena
- 28. Chinchillas, retail sales
- 41. Eleemosynary institutions
- 42. Embalming business
- 95. Physical culture institution
- 109. Potato chip manufacturing
- 127. Tombstones, retail sales
- 135. Turkish Baths

The Form Based Code: Where Regulation follows Form

Conventional Zoning



Form-based Codes



Use

Management

Form

2

2 SUCCESSFUL CODES CONNECT TO POWER GRIDS

The Appliance and The Grid



"We know what the appliance is

- Christopher Alexander

The Appliance and The Grid



"We know what the appliance is

Now we need to find the plugs to connect it to the existing power grids."

- Christopher Alexander

The Appliance and The Grid

- Villages, towns and cities
- Good designs
- High quality mixed use projects
- Transit-oriented development
- Smart growth
- New urbanism



- Town meeting
- Zoning Board
- Planning Board
- Conservation Commission
- Town Engineer
- Fire Chief
- State Regulators
- Etc.

“We know what the appliance is

Now we need to find the plugs to connect it to the existing power grids.”

- Christopher Alexander

Politics and Design

- Charrettes can be customized
- Code projects can and must transcend the political spectrum
- State enabling laws rarely make it impossible to do what needs to be done
- The need for project-specific review can be locally calibrated
- More models are forming for FBCs in existing community fabric
- FBCs do cause responsible developers to select a community
- There is no substitute for local knowledge
- New finance strategies are emerging

Consultants, Proposals, and Finances

- Sources:
 - Grants
 - State funds
 - Sustainable Communities / Fed Funds
 - Local developers
 - Local funding
- Models . . . The consultant role
 - Designer for the planning phase
 - Public meeting coordinator
 - Stakeholder manager
 - Code writer
 - Advisor
- See model RFPs

3

3 PLAN FIRST:
THEN CODE

Form Based Codes in New England Hamilton Canal District



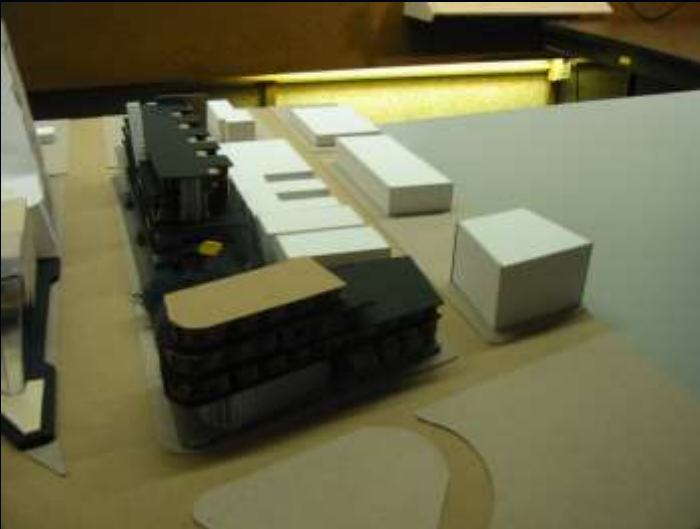
Form Based Codes in New England

Hamilton Canal District

| | |
|------------------------|---|
| Site: | Brownfield, TOD adjacent to downtown |
| Size: | Community of 100K, 16 sq miles |
| Project: | New district development |
| Developed by: | Master Developer & City |
| Type of code: | Mandatory – Street Based |
| Project approval body: | HCD Review Group for FBC Historic Board for Arch. Review |
| Adopted: | February 24, 2009 |
| Build-out to date: | First building under construction |

Charrette

- Standard Charrette Phases:
 - Research, Education, and Preparation
 - Charrette
 - Plan Implementation



Form Based Codes in New England Hamilton Canal District Charrette

- NCI Charrette
 - At least four consecutive days
 - Allowing for at least three design feedback loops
 - Open process including all interested parties
 - Creates a feasible product with minimal work



Form Based Codes in New England Hamilton Canal District Charrette



- **Lowell Charrette**
 - Same preparation and implementation steps
 - Four days of design and public participation spread over four months
 - Feedback loops



Form Based Codes in New England Hamilton Canal District Charrette

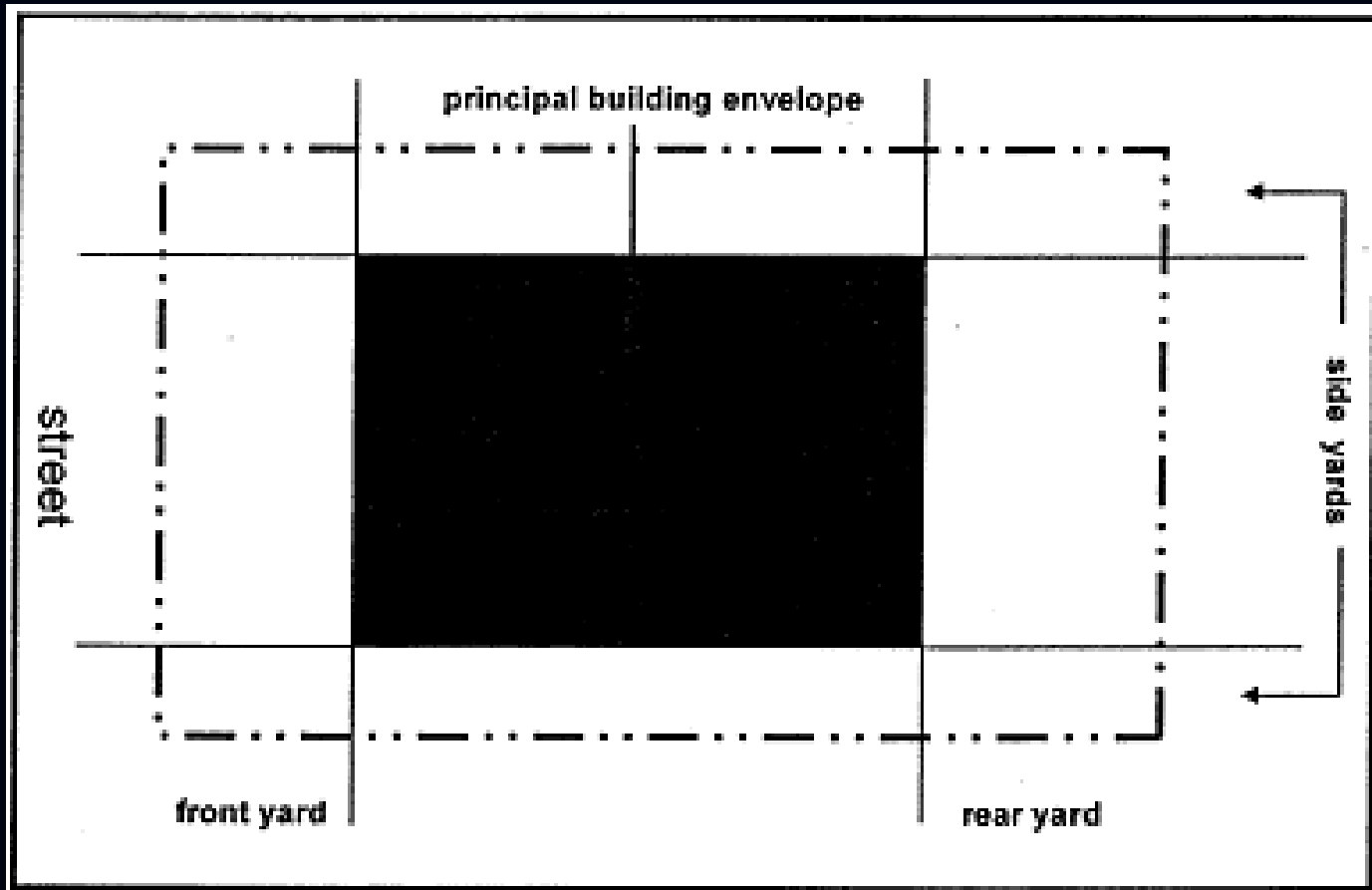
- Lowell Charrette
 - Months of outreach before first session
 - Early listening sessions
 - Cross functional collaborative team
 - Feasible outcome that is embedded in the code
 - Design as the basis for the shared vision
 - No opposition to FBC and universal political support for the plan



4

4 MEASURE WHAT MATTERS

Conventional Zoning: Setbacks





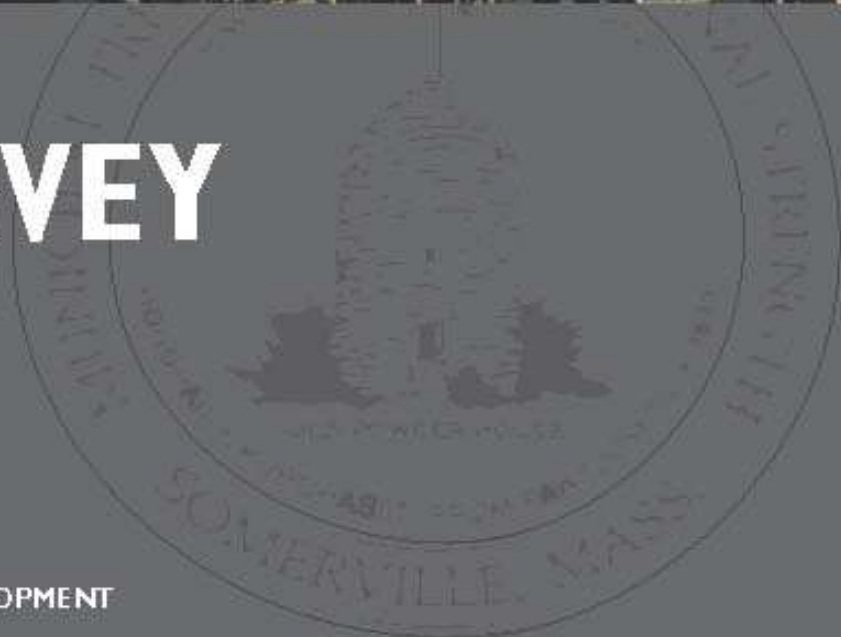






RESIDENTIAL SYNOPTIC SURVEY

OFFICE OF STRATEGIC PLANNING AND COMMUNITY DEVELOPMENT
JOSEPH A. CURTATONE, MAYOR

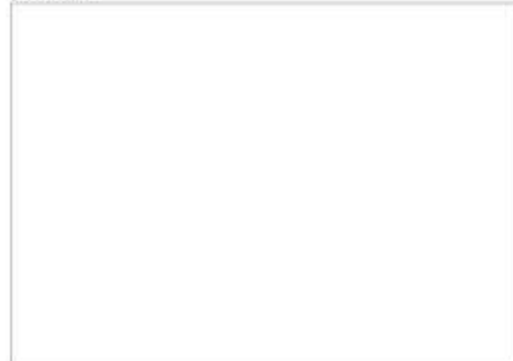


17-19 LEWIS ST

ELEVATION



LOT PATTERN



FRONTAGE



LOT/BUILDING INFO

| | |
|---|-----------------|
| Lot Width | 41' 7" |
| Lot Depth | |
| Lot Area | |
| Number of Buildings | 1 |
| Principal Building Height (Stories) | 3 Stories |
| Principal Building Width | 24' 4" |
| Principal Building Depth | 45' 4" |
| Principal Building Disposition | Edgeyard |
| First Floor Above Grade | 4' 9" |
| Actual Front Setback | 13' 9" |
| Actual Left Side Setback | 8' 9" |
| Actual Right Side Setback | 8' 8" |
| Lot Coverage | |
| Additions? | |
| Number of Units | 6 |
| Parking Location (Access) | Side (Driveway) |
| Number of Spaces | |
| Roof Type | Flat |
| FRONT ENCROACHMENT TYPE(S) | |
| <input type="checkbox"/> Door Canopy | |
| <input type="checkbox"/> Door Surround | |
| <input type="checkbox"/> Stoop | |
| <input type="checkbox"/> Portico | |
| <input checked="" type="checkbox"/> Porch (3/4) | 8' 5" |
| <input checked="" type="checkbox"/> Bay | 3 ft. |

DETAILS



STREETSCAPE



THOROUGHFARE INFO

| | |
|--------------------------------|----------|
| Adjacent Public Frontage Width | 6' 4" |
| Sidewalk | |
| Furnishing Zone | 3' 7" |
| Planting Technique | |
| Tree Sequence | |
| Movement Lanes/Width | |
| Parking Lanes/Width | 2x 7 ft. |
| Traffic Flow | |
| Total Laneway Width | 26' 4" |
| Total Right of Way Width | |

7 BERKLEY ST

ELEVATION



LOT PATTERN

| | | |
|-------------------------------------|---------------|-------|
| FRONT ENCROACHMENT TYPE(S) | | DEPTH |
| <input type="checkbox"/> | Door Canopy | |
| <input type="checkbox"/> | Door Surround | |
| <input type="checkbox"/> | Stoop | |
| <input checked="" type="checkbox"/> | Portico | 6 ft. |
| <input type="checkbox"/> | Porch | |
| <input type="checkbox"/> | Bay | |

FRONTAGE



LOT/BUILDING INFO

| | |
|-------------------------------------|------------------------|
| Lot Width | 34' 6" |
| Lot Depth | |
| Lot Area | |
| Number of Buildings | 1 |
| Principal Building Height (Stories) | 2.5 Stories |
| Principal Building Width | 20' 5" |
| Principal Building Depth | 46 ft. |
| Principal Building Disposition | Sideyard |
| First Floor Above Grade | 42" |
| Actual Front Setback | 21' 5" |
| Actual Left Side Setback | 0 |
| Actual Right Side Setback | 13' 6" |
| Lot Coverage | |
| Additions? | |
| Number of Units | 2 |
| Parking Location (Access) | Rear Garage (Driveway) |
| Number of Spaces | 2 |
| Roof Type | Pitched - Front Gable |

DETAILS



STREETSCAPE



THOROUGHFARE INFO

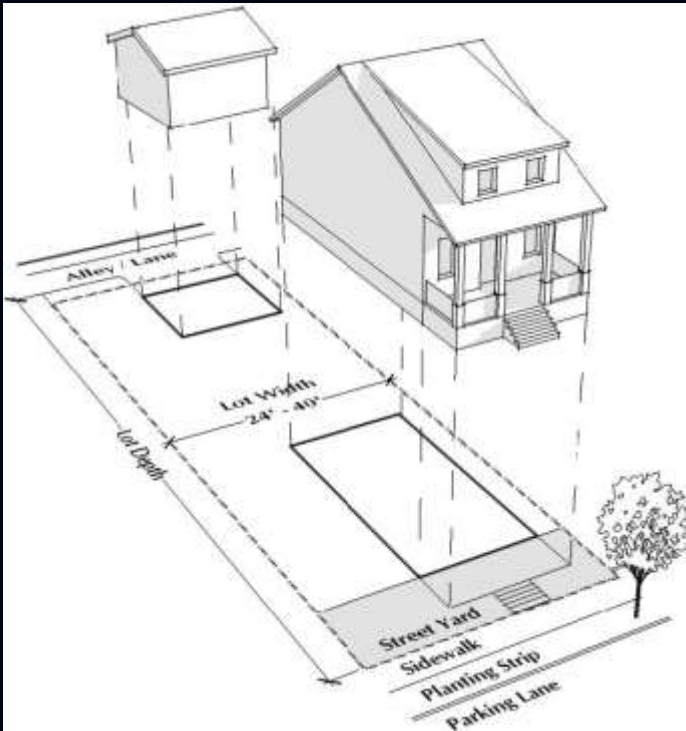
| | |
|--------------------------------|-------------|
| Adjacent Public Frontage Width | 6 ft. |
| Sidewalk | 3 ft. |
| Furnishing Zone | 3 ft. |
| Planting Technique | Tree Pit |
| Tree Sequence | 17' 6" o.c. |
| Movement Lanes/Width | 1x 12 ft. |
| Parking Lanes/Width | 2x 7 ft. |
| Traffic Flow | Yield |
| Total Laneway Width | 26 ft. |
| Total Right of Way Width | 38 ft. |

5

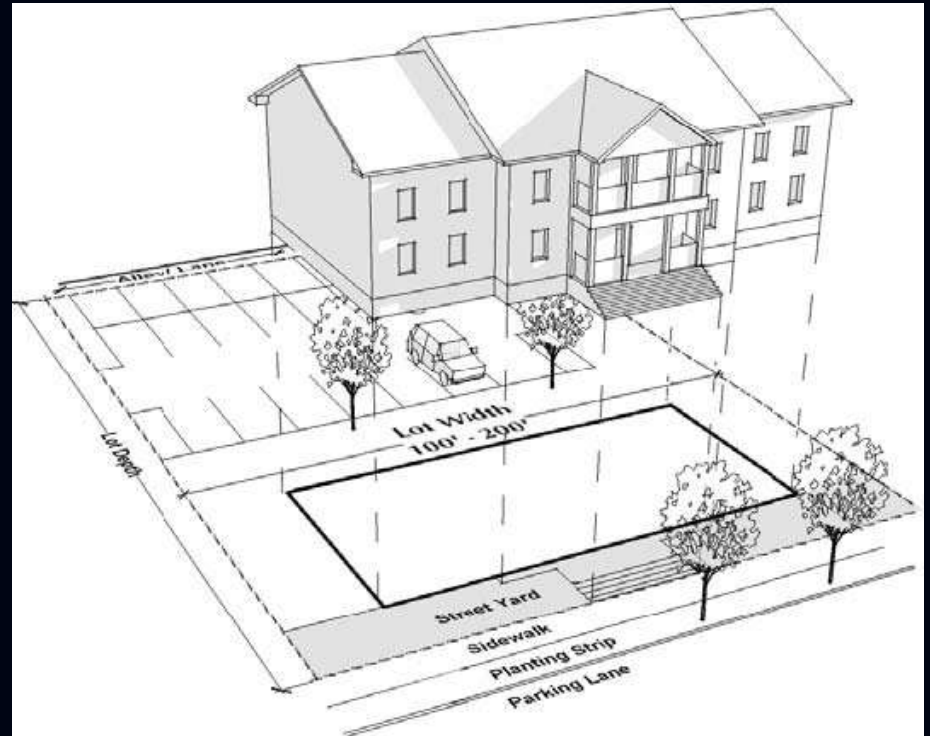
5

GET THE
BASICS RIGHT

BUILDING TYPES



COTTAGE



**APARTMENT
BUILDING**

TABLE 3.1 Buildings Types



Apartment Building

A large floor plate, multi-story, residential building type with more than six dwelling units.



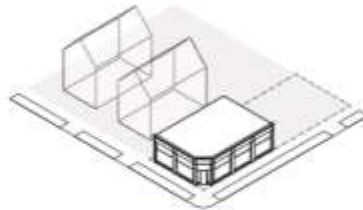
Row Houses

A moderate to large floor plate, residential building type consisting of three (3) to ten (10) side by side dwelling units.



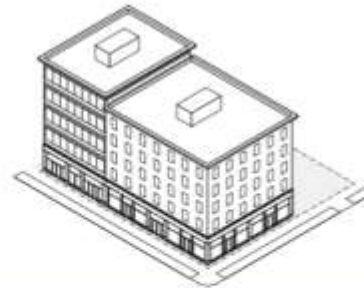
Shop House

A house building type with the ground story converted for commercial use and the residential appearance of upper stories maintained.



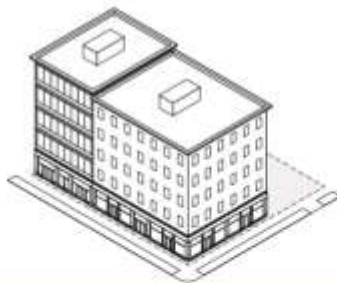
Neighborhood Store

A moderate floor plate, single story building type designed for commercial purposes.



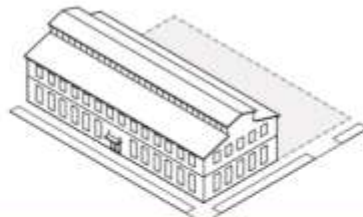
Mixed-Use Building

A multi-story building type with ground floor commercial and upper story residential uses with six or more dwelling units.



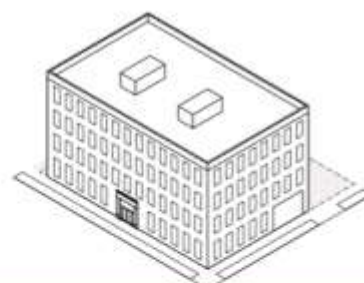
Commercial Building

A multi-story building type limited to commercial uses.



Production Building

A moderate to large floor plate, up to two story building type, often naturally lit with a monitor, clerestory, or sawtooth roof.



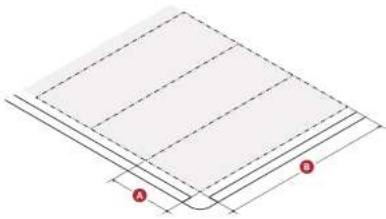
Fabrication Loft

A moderate to large floor plate, multi-story building type subdivided for multiple tenants, often designed with tall ceilings, expansive windows, wide corridors, and service elevators.

2. HOUSE

A moderate floor plate, detached, residential building type with up to two vertically stacked dwelling units.

a. Lot Standards



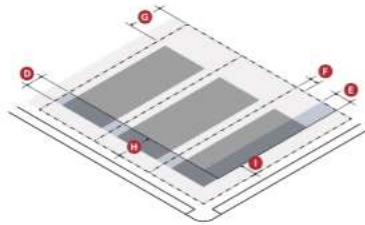
LOT DIMENSIONS

| | |
|---------------|---------|
| 1 Width (min) | 32 feet |
| 2 Depth (min) | 80 feet |

LOT COVERAGE

| | |
|-------------------------|-----|
| Permeable Surface (min) | 35% |
| Landscape (min) | 25% |

b. Placement



BUILDING SETBACKS

| | |
|--|-----------------|
| Contextual Front Setback (see § 3.B.2.b) | Required |
| 3 Primary Front Setback (min/max) | 10 feet 20 feet |
| 4 Secondary Front Setback (min/max) | 10 feet 20 feet |
| 5 Side Setback (min) | 5 feet |
| 6 Rear Setback (min) | 20 feet |

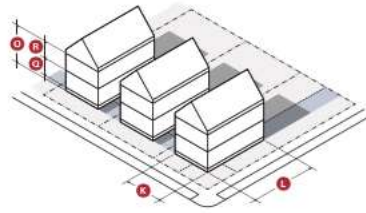
PARKING SETBACKS

| | |
|---------------------------------|---------|
| 7 Primary Front Setback (min) | 20 feet |
| 8 Secondary Front Setback (min) | 10 feet |

HOUSE (cont.)

A moderate floor plate, detached, residential building type with up to two vertically stacked dwelling units.

c. Height & Massing



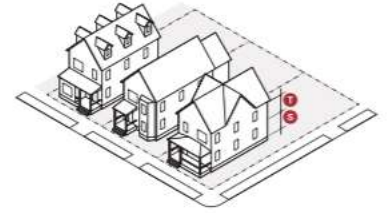
MAIN BODY

| | |
|-----------------------------|----------------------|
| 9 Facade Build Out (min) | 50% |
| 10 Width (min/max) | 22' min. 28' max. |
| 11 Depth (min/max) | 28' min. 48' max. |
| 12 Building Height (max) | 2.5 stories (28 ft.) |
| 13 Story Height (min/max) | 9 ft. 12 ft. |
| First Floor Elevation (min) | 2 ft. |

PERMITTED BUILDING COMPONENTS

| | |
|---------------|--------------|
| Awning | See § 3.D.2 |
| Entry Canopy | See § 3.D.3 |
| Bay | See § 3.D.4 |
| Balcony | See § 3.D.5 |
| Deck | See § 3.D.6 |
| Dormer Window | See § 3.D.8 |
| Cross Gable | See § 3.D.9 |
| Side Wing | See § 3.D.10 |
| Rear Addition | See § 3.D.11 |

d. Uses & Features



FACADE COMPOSITION

| | |
|--|-------------------|
| 14 Ground Story Fenestration (min/max) | 20% min. 50% max. |
| 15 Upper Story Fenestration (min/max) | 20% min. 50% max. |

PERMITTED BUILDING FRONTAGE

| | |
|-------------------|--------------|
| | (1 required) |
| Stoop | See § 3.E.2 |
| Portico | See § 3.E.3 |
| Porch, Projecting | See § 3.E.4 |
| Porch, Engaged | See § 3.E.5 |

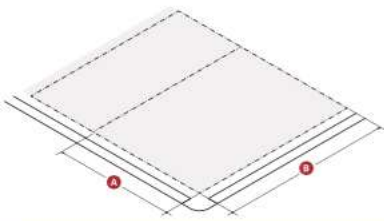
USE & OCCUPANCY

| | |
|-----------------------------|------------------|
| Use Category | Residential |
| Dwelling Units (max) | 2 |
| Outdoor Amenity Space (min) | 1/ Dwelling Unit |

15. COMMERCIAL BUILDING

A multi-story building type limited to commercial uses.

a. Lot Standards

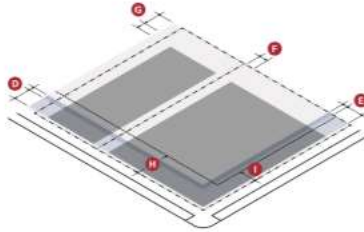
**LOT DIMENSIONS**

| | | |
|--------------------------|----------------|---------|
| A Width (min/max) | | |
| 3MU, 4MU, FAB, CI | 30 ft. | 150 ft. |
| 5MU - 10MU | 30 ft. | 200 ft. |
| B Depth (min) | | |
| 3MU, 4MU, & FAB | 40 ft. | |
| 5MU - 10MU | 100 ft. | |
| C Area (max) | | |
| 3MU & FAB | 20,000 sq. ft. | |
| 4MU & CI | 28,000 sq. ft. | |
| 5MU | 40,000 sq. ft. | |
| 7MU & 10MU | 45,000 sq. ft. | |

LOT COVERAGE

| | |
|-------------------|-----|
| Permeable Surface | 10% |
|-------------------|-----|

b. Placement

**BUILDING SETBACKS**

| | | |
|--|----------|---------|
| Contextual Front Setback (see § 3.3.B.2.b) | Required | |
| D Primary & Secondary Front Setback | | |
| 3MU & 4MU (min/max) | 2 feet | 12 feet |
| 5MU - 10MU (min/max) | 2 feet | 15 feet |
| FAB & CI (min/max) | 2 feet | 12 feet |
| F Side Setback (min) | 0 ft. | |
| Side Setback Abutting NR (min) | 5 ft. | |
| G Rear Setback (min) | 10 ft. | |
| Rear Setback Abutting NR (min) | 15 ft. | |

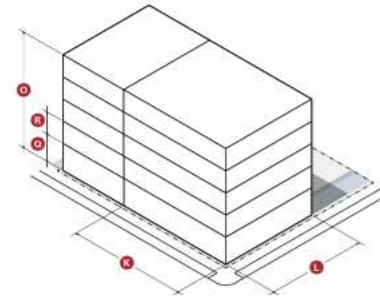
PARKING SETBACKS

| | |
|--|---------|
| A Primary Front Setback (min) | — |
| 3MU & FAB | 20 feet |
| 4MU - 10MU, CI | 30 feet |
| F Secondary Front Setback (min) | — |
| Surface Parking | 10 feet |
| Structured Parking | 2 feet |
| 3MU - 5MU, FAB, CI | 2 feet |
| 7MU & 10MU | 30 feet |

COMMERCIAL Building (cont.)

A multi-story building type limited to commercial uses.

c. Height & Massing

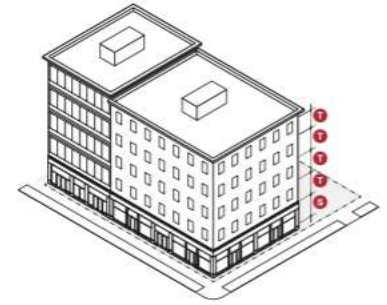
**MAIN BODY**

| | |
|------------------------------------|----------------------|
| J Facade Build Out (min) | 80% |
| M Floor Plate (max) | — |
| 3MU & FAB | 15,000 sq. ft. |
| 4MU & CI | 22,000 sq. ft. |
| 5MU | 30,000 sq. ft. |
| 7MU & 10MU | — |
| Up to 5 stories | 36,000 sq. ft. |
| Above 5 stories | 20,000 sq. ft. |
| N Building Height (min) | — |
| 3MU - 10MU | 2 stories |
| O Building Height (max) | — |
| 3MU & FAB | 3 stories (45 ft.) |
| 4MU & CI | 4 stories (55 ft.) |
| 5MU | 5 stories (70 ft.) |
| 7MU | 7 stories (100 ft.) |
| 10MU | 10 stories (135 ft.) |
| P Ground Story Height (min) | — |
| 3MU & FAB | 12 ft. |
| 4MU - 10MU, CI | 14 ft. |
| Q Upper Story Height (min) | 9 ft. |

PERMITTED BUILDING COMPONENTS

| | |
|--------------|-------------|
| Awning | See § 3.D.2 |
| Entry Canopy | See § 3.D.3 |
| Bay | See § 3.D.4 |
| Balcony | See § 3.D.5 |

d. Uses & Features

**FACADE COMPOSITION**

| | |
|---|------------------|
| S Ground Story Fenestration (min) | — |
| 3MU, 4MU, FAB, & CI | 60% |
| 5MU - 10MU | 70% |
| T Upper Story Fenestration (min/max) | 20% min 50% max. |
| Blank Wall (max) | 20 ft. |

PERMITTED BUILDING FRONTAGE

| | |
|----------------|--------------|
| (1 required) | |
| Forecourt | See § 3.E.7 |
| Lobby Entrance | See § 3.E.8 |
| Storefront | See § 3.E.9 |
| Terrace | See § 3.E.10 |
| Lightwell | See § 3.E.11 |

PEDESTRIAN ACCESS

| | |
|----------------------------------|--------|
| Principal Entrance Spacing (min) | 30 ft. |
|----------------------------------|--------|

USE & OCCUPANCY

| | |
|--------------------------|-------------------------------|
| Tenant Space Depth (min) | — |
| 3MU & FAB | 20 ft. |
| 4MU - 10MU, CI | 30 ft. |
| Permitted Use | See Article 5: Use Provisions |

6

6 UP FRONT
EXPENSE =
LONG-TERM
SUCCESS

Form Based Code: Livermore

2011
Driehaus
Form-Based Codes
Award

Winner



Development Code
City of Livermore, CA

LIVERMORE
CALIFORNIA

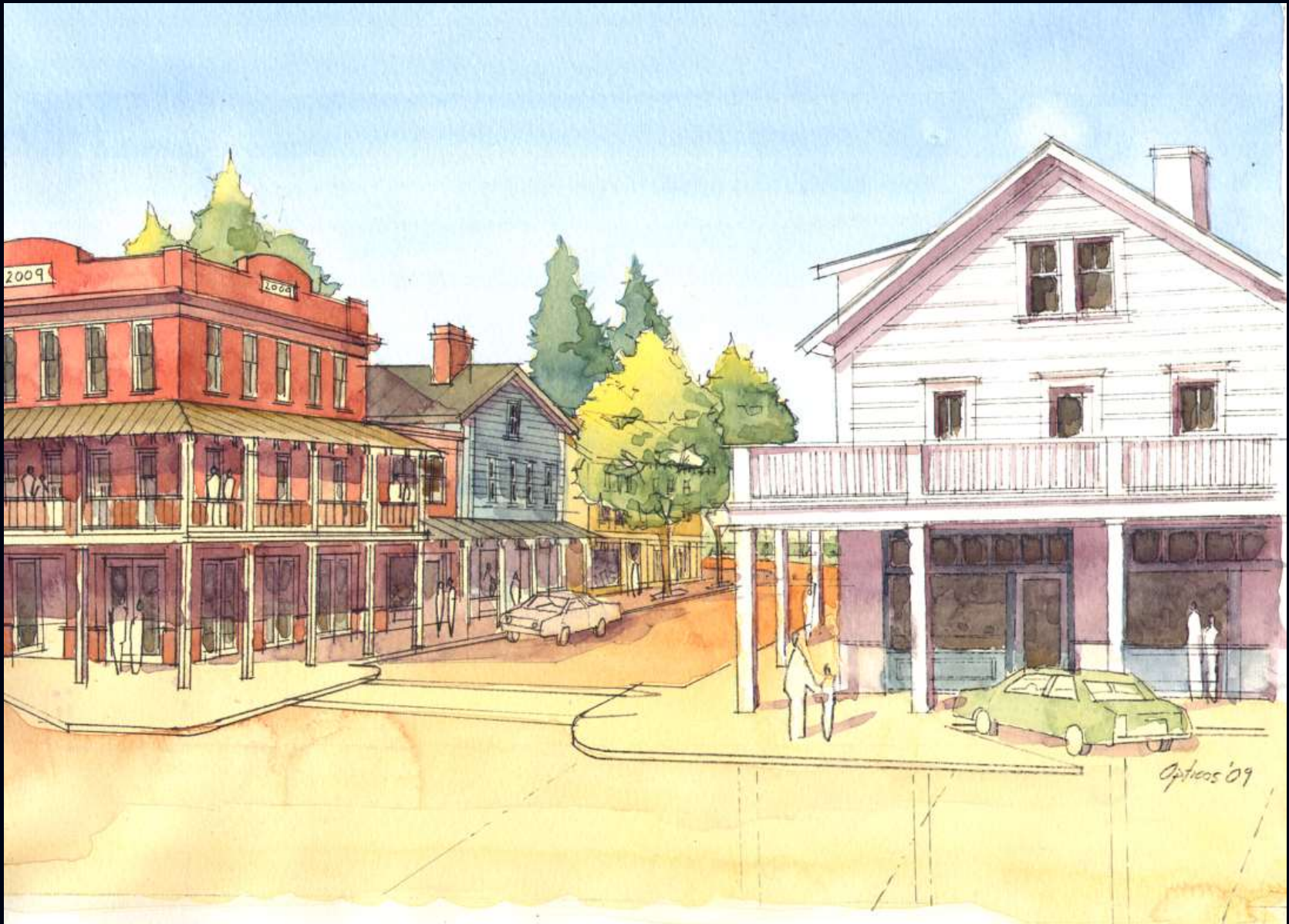
Effective: May 1, 2010

From Mall to Neighborhood Main Street





Illustrate Specific Build Out to Get Consensus



CAYUGA DR

PINE ST

CRANE AV

RINCON AVE

- T4 - Main Street
- T4 - Neighborhood Open
- T4 - Neighborhood



Livermore Development Code: Hybrid Model

The Livermore Transect Zones and Intent

| T3N | T4N | T4N-O |
|---|---|---|
|  |  |  |
| T3-Neighborhood | T4-Neighborhood | T4-Neighborhood-Open |
| Desired Form | Desired Form | Desired Form |
| Residential | Residential | Residential |
| Intent | Intent | Intent |
| This zone's primary intent is to allow additions and new development that respect and protect the integrity and quality of the neighborhoods adjacent to downtown. | This zone's primary intent is to build upon the unique characteristics of Livermore's walkable downtown neighborhoods while allowing them to evolve. A mixture of different small-footprint, medium-density building types such as bungalow courts, duplexes, and courtyard apartments help reinforce the walkable nature of the neighborhood and support neighborhood-serving commercial uses adjacent to this zone. | The primary intent of this zone is to provide an appropriate transition from a neighborhood main street or downtown environment into residential areas, and to provide flexible buildings in a residential form that allows neighborhood-serving commercial and service uses to expand as the market desires. |
| This zone allows for new additions and single-family houses to be built in the scale and character of the existing neighborhood. Carriage house units provide additional housing opportunities within these walkable neighborhoods. | | |

| T4MS-O | T4MS |
|---|---|
|  |  |
| T4-Main Street-Open | T4-Main Street |
| Desired Form | Desired Form |
| Commercial/Shopfront | Commercial/Shopfront |
| Intent | Intent |
| The primary intent of this zone is to provide an appropriate transition from the neighborhood main street into residential areas, and to provide flexible ground-floor spaces in a commercial form that can allow the ground-floor "shopfront" environment to expand as the market desires. | The primary intent of this zone is to integrate vibrant main street commercial and retail environments into neighborhoods that will provide day-to-day commercial amenities within walking distance, reinforce an existing or potential transit stop, and serve as a focal point for the neighborhoods. |

T3, T4 modified zones are established in the code . . . for now

Livermore Development Code: Hybrid Model

Part 3: Specific to Zones

| | |
|---|-------------|
| Chapter 3.01: Establishment and Designation of Zones | 3-3 |
| 3.01.010 Purpose | 3-3 |
| 3.01.020 Official Zoning Map and Zones | 3-3 |
| 3.01.030 Transect Zones | 3-4 |
| 3.01.040 Non-Transect Zones | 3-5 |
| 3.01.050 Zoning - Annexation | 3-5 |
| 3.01.060 Change of Zoning Designation | 3-5 |
| Chapter 3.02: Transect Zones | 3-7 |
| 3.02.010 Purpose | 3-7 |
| 3.02.020 Applicability | 3-7 |
| 3.02.030 Intent | 3-8 |
| 3.02.040 Neighborhood Mixed-Use (NMU) Zone | 3-9 |
| 3.02.050 T1 Natural Standards | 3-12 |
| 3.02.060 T2 Rural Standards | 3-12 |
| 3.02.070 T3 Neighborhood (T3N) Standards | 3-13 |
| 3.02.080 T4 Neighborhood (T4N) Standards | 3-17 |
| 3.02.090 T4 Neighborhood-Open (T4N-O) Standards | 3-21 |
| 3.02.100 T4 Main Street-Open (T4MS-O) Standards | 3-25 |
| 3.02.110 T4 Main Street (T4MS) Standards | 3-29 |
| 3.02.120 T5 Urban Center | 3-33 |
| 3.02.130 T6 Urban Core | 3-33 |
| Chapter 3.03: Non-Transect Zones | 3-35 |
| 3.03.010 Purpose | 3-35 |
| 3.03.020 Applicability | 3-35 |
| 3.03.030 Residential Rural (R-R) Zone | 3-37 |
| 3.03.040 Suburban Residential (R-S) Zone | 3-39 |
| 3.03.050 Residential Low Density (R-L) Zone | 3-41 |
| 3.03.060 Multiple Family Residential (MFR) Zone | 3-43 |
| 3.03.070 Suburban Multiple Residential (RG) Zone | 3-45 |
| 3.03.080 Commercial Service (CS) Zone | 3-49 |

Transect Zones have their own development regulation section

Livermore Development Code

| Transect Zones | 3.02.130 |
|---------------------------------|---------------|
| | T6 Urban Core |
| 3.02.120 T5 Urban Center | |
| Reserved | |
| 3.02.130 T6 Urban Core | |
| Reserved | |
| Livermore Development Code | 3-33 |

Room for expansion

Livermore Development Code

Chapter 3.03: Non-Transect Zones

Sections:

| | |
|----------|---|
| 3.03.010 | Purpose |
| 3.03.020 | Applicability |
| 3.03.030 | Residential Rural (R-R) Zone |
| 3.03.040 | Suburban Residential (R-S) Zone |
| 3.03.050 | Residential Low Density (R-L) Zone |
| 3.03.060 | Multiple Family Residential (MFR) Zone |
| 3.03.070 | Suburban Multiple Residential (R-G) Zone |
| 3.03.080 | Commercial Service (CS) Zone |
| 3.03.090 | Highway Service Commercial (CHS) Zone |
| 3.03.100 | Neighborhood Business Commercial (CNB) Zone |
| 3.03.110 | Commercial Office (CO) Zone |
| 3.03.120 | Professional Office (CP) Zone |
| 3.03.130 | Research and Development (I-I) Zone |
| 3.03.140 | Light Industrial (I-2) Zone |
| 3.03.150 | Heavy Industrial (H-I) Zone |
| 3.03.160 | Education and Institution (E) Zone |
| 3.03.170 | Open Space (OS) Zone |
| 3.03.180 | Airport (AIR) Zone |

3.03.010 Purpose

This chapter provides regulatory standards governing land use and building form within the Non-Transect-based zoning areas. The Code is a reflection of the community vision for implementing the intent of the General Plan. These standards are intended to ensure that proposed development is compatible with existing and future development on neighboring properties, and produces an environment of desirable character, consistent with the General Plan and any applicable specific plan.

3.03.020 Applicability

The requirements of this Chapter shall apply to all proposed development within Non-Transect-based zones, and shall be considered in combination with the standards for the applicable zone in Part 4 (General to Zones) and those in Part 6 (Specific to Uses). If there is a conflict between any standards, the provisions of Part 3 (Specific to Zones) control over Part 4 and the provisions of Part 6 control over Parts 3 and 4.

3.03.140 Light Industrial (I-2) Zone

A. Purpose

The I-2 (Light Industrial) zone is applied to areas of the City that are appropriate for professional and administrative facilities, research institutions, manufacturing operations, and green technology facilities not proposed to be located in a "campus" type environment. It is intended to provide an optimum general industrial environment by providing an alternate choice for industrial land uses that are compatible with adjacent residential uses and buffered from them.

B. Building Placement Requirements

Setback^{1,2}

Front and Side Streets

| | |
|-------------------|----------|
| Major streets | 35' min. |
| All Other Streets | 25' min. |

Rear

| | |
|-------------------------|------------|
| Lots adjacent to R zone | 25' min. |
| All Others ¹ | No minimum |

Side

| | |
|-------------------------|------------|
| Lots adjacent to R zone | 25' min. |
| All Others ¹ | No minimum |

¹All required setbacks adjacent to streets shall be landscaped, except for driveways and sidewalks that are found to be necessary for the efficient use of the property. Where a building front is visible from the street, a minimum five-foot wide landscape strip abutting the foundation shall be included, allowing for necessary entrances.

²A landscaped strip of land, at least 25' wide, shall be maintained along any property line where a I-2 zone abuts a residential area.

³20' min. rear and side setbacks for structures with height greater than 40'.

C. Building Form Requirements

| | |
|------------------------------|----------|
| Building Height ⁴ | 45' max. |
|------------------------------|----------|

| | |
|--------------|-----|
| Lot Coverage | 45% |
|--------------|-----|

⁴The height may be increased up to a maximum of 100' with a Conditional Use Permit.

D. Parking Requirements

See Chapter 4.04 (Parking Standards).

E. Lot Requirements

| | |
|------------------|-----------|
| Minimum Lot Size | 20,000 sf |
|------------------|-----------|

F. Miscellaneous Requirements

Site Plan and Design Review is required prior to the development of any site, including the construction of any structure and the establishment of any open land use (Section 9.07).

No use shall be permitted that creates vibration, heat, glare or electrical disturbance beyond the boundaries of the site.

The rest of the code is separate

Livermore Development Code

Part 4: General to Zones

| | |
|---|-------------|
| Chapter 4.01: Introduction | 4-5 |
| 4.01.010 Purpose | 4-5 |
| 4.01.020 Applicability | 4-5 |
| Chapter 4.02: Development Standards | 4-7 |
| 4.02.010 Calculation of Residential Density and Units | 4-7 |
| 4.02.020 General Development Standards | 4-8 |
| 4.02.030 Accessory Structures | 4-11 |
| 4.02.040 Special Height Regulations | 4-16 |
| 4.02.050 Development Standards Related to the Seismic Hazard Mitigation Program | 4-18 |
| 4.02.060 Transferable Development Credits Regulations | 4-20 |
| 4.02.070 Interstate 580 Plan Lines | 4-25 |
| 4.02.080 Grading Activities | 4-26 |
| 4.02.090 Public Utility Undergrounding | 4-26.1 |
| Chapter 4.03: Frontage Standards | 4-27 |
| 4.03.010 Purpose | 4-27 |
| 4.03.020 Applicability | 4-27 |
| 4.03.030 Porch: Projecting | 4-28 |
| 4.03.040 Porch: Engaged | 4-29 |
| 4.03.050 Porch: Integral | 4-30 |
| 4.03.060 Stoop | 4-31 |
| 4.03.070 Forecourt | 4-32 |
| 4.03.080 Shopfront | 4-33 |
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| Chapter 4.04: Parking Standards | 4-37 |
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| 4.04.020 Number of Parking Spaces Required | 4-38 |
| 4.04.030 Bicycle Parking | 4-42 |
| 4.04.040 Adjustment of Parking Requirements | 4-42 |
| 4.04.050 Parking Alternatives | 4-43 |
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(Revised 8/1/0)

General development standards identify those that apply in transect zones and those that apply in non-transect zones

Livermore Development Code

Part 4: General to Zones

| | |
|---|-------------|
| Chapter 4.01: Introduction | 4-5 |
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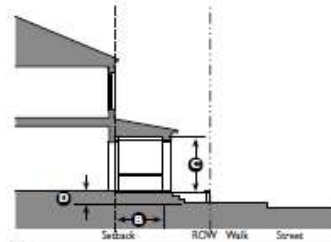
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4-1

(Revised 8/10)

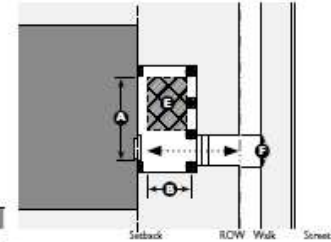
4.03.030

Frontage Standards



Key

--- ROW / Property Line
— Setback Line



4.03.030 Porch: Projecting

Description

The main facade of the building typically has a small-to-medium setback from the property line. The resulting front yard is typically very small and may or may not be defined by a fence or hedge to spatially maintain the edge of the street. The projecting porch is open on three sides and has a roof form that is separate from the main house.

Size

| | | |
|-----------------------------|--------------|-----|
| Width, clear | 10' min. | (A) |
| Depth, clear | 8' min. | (B) |
| Height, clear | 8' min. | (C) |
| Finish level above sidewalk | 18" min. | (D) |
| Furniture area, clear | 4' x 8' min. | (E) |
| Path of travel | 3' wide min. | (F) |

Miscellaneous

Porch may be one or two stories.

Projecting porches are open on three sides and must have a roof.



Full-length projecting porch with stairs perpendicular to street.



Partial-length projecting porch with stairs parallel to street.

4-28

Livermore Development Code

For example . . . Frontage standards identifying porch, stoop, forecourt, shopfront and gallery apply in transect zones

Livermore Development Code

5.01.070

Building Types

5.01.070 Duplex, Stacked

General Note: the drawings and photos below are illustrative.



The entry to the right opens to a stair leading to the upper unit, which takes up the entire upper floor. The door to the left opens directly into the lower unit, which takes up the entire lower floor.

A. Description

This Duplex building type consists of structures that contain two units, one on top of the other. This building type has the appearance of a medium to large single-family home. This type is typically integrated sparingly into single-family neighborhoods or more consistently into neighborhoods with other medium-density types such as bungalow courts, fourplexes, or courtyard apartments. This building type enables the incorporation of high-quality, well-designed density within a walkable neighborhood.

This is the preferred type of duplex on 50' wide lots in Livermore neighborhoods not zoned for single-family because it is capable of accommodating two units in a smaller footprint, thus maximizing compatibility in size and privacy to the rear of adjacent units.



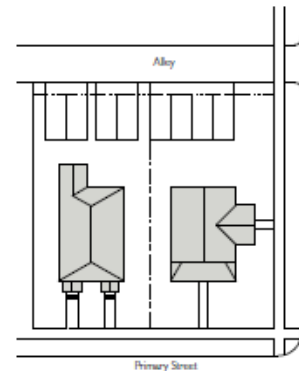
The scale of this duplex makes it compatible with adjacent single-family homes.

5-12

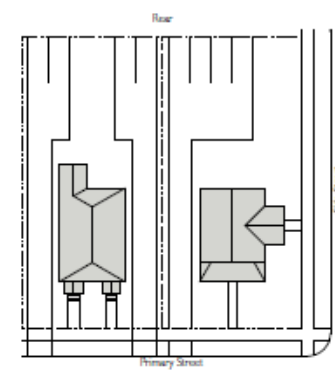
Livermore Development Code

Building Types

5.01.070



Typical Alley Loaded Plan Diagram



Typical Front Loaded Plan Diagram

Key

— ROW / Property Line ■ Building Area

B. Lot

Lot Size

Width 50' min., 75' max.
Depth 100' min., 150' max.

C. Pedestrian Access

Main Entrance Location Primary street

On corner lots each unit shall front a different street.

D. Frontages

Allowed Frontages

Porch

Stoop

E. Vehicle Access and Parking

Parking spaces may be enclosed, covered, or open.

F. Open Space, Usable

Width 15'/unit min.
Depth 15'/unit min.
Open Space Area 300 sf min.
Required street setbacks and driveways shall not be included in the open space area calculation.

G. Building Size and Massing

Main Body

Width 36' max.

Secondary Wing

Width 24' max.

Detached Garage

Width 36' max.

Depth 25' max.

H. Miscellaneous

Both units shall have entries facing the street no more than 10' behind the front façade.

Livermore Development Code

5-13

Building types established for transect zones

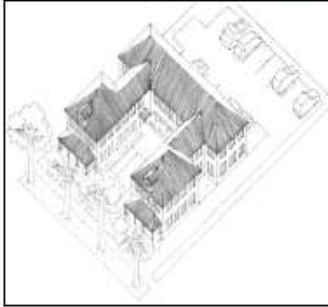
Livermore Development Code

5.01.110

Building Types

5.01.110 Courtyard Apartment

General Note: the drawings and photos below are illustrative.



C-shape courtyard building with short wall defining the threshold for the sidewalk into the courtyard, from which all units are entered.

A. Description

The Courtyard Apartment building type consists of structures that contain multiple attached and stacked units, accessed from a courtyard or series of courtyards. Each unit may have its own individual entry, or up to three units may share a common entry. This type 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.



Entries from units engaging and activating the courtyard.



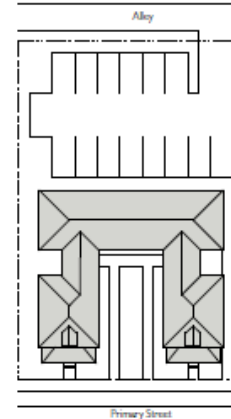
Courtyard building with stooped entries and seating area as the focal point for the shared space.

5-20

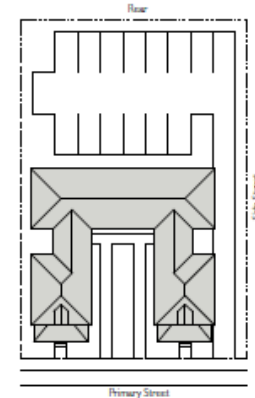
Livermore Development Code

Building Types

5.01.110



Typical Alley Loaded Plan Diagram



Typical Front Loaded Plan Diagram

Key

--- ROW / Property Line ■ Building Area

| B. Lot | |
|--|----------------------|
| Lot Size | |
| Width | 100' min., 150' max. |
| Depth | 100' min., 150' max. |
| C. Pedestrian Access | |
| Main Entrance Location | Public Courtyard |
| No more than 3 units may enter from one stoop or corridor. | |
| D. Frontages | |
| Allowed Frontages | |
| Porch | |
| Stoop | |
| E. Vehicle Access and Parking | |
| Parking spaces may be enclosed, covered or open. | |
| Garages may be detached or tuck-under. | |

| F. Open Space, Usable | |
|--|----------|
| Courtyard | |
| Width/depth/height ratio | 1:1 |
| Width/depth | 20' min. |
| % of width of building | 50% max. |
| Edge of courtyard not defined by building shall be defined by 2'-6" to 3' tall wall. | |
| No private open space is required. | |
| G. Building Size and Massing | |
| Main Body | |
| Width | 80' max. |
| Secondary Wing | |
| Width | 30' max. |
| Detached Garage | |
| Depth | 30' max. |

Livermore Development Code

5-21

Building types established for transect zones

7

7 GOOD CODES=
GREAT RESULTS

The Form Based Code

What Do People Say About It?

“It shortens the review time for projects and gives developers a better idea of what the city requires”

Mike Moore, City of Petaluma, CA

The Form Based Code

What Do People Say About It?

“(Form Based Codes) will provide a consistency of how neighboring properties will be improved.”

Michael Arendt, Luther Burbank Savings Bank

The Form Based Code

What Do People Say About It?

“The easiest way to facilitate . . . projects is for municipalities to conduct and complete the environmental review, establish the desired land use, proscribe design guidelines and expedite the application review.”

Frank Denney, Home Builders Assoc. of Northern CA

The Form Based Code

What Do People Say About It?

“We can’t tell if the (form-based code) is a radical, green left-wing document or a developer-friendly, market based right-wing one”

Jose Sanchez, Santa Rosa Press-Democrat

The Form Based Code

Achieving Outcomes

The Form Based Code

- A tool to achieve a desired outcome
- One of a number of tools
- One of the more integrated tools

The Form Based Code

- A tool to achieve a desired outcome
- One of a number of tools
- One of the more integrated tools
- Benefits to the community
 - Codes the outcome of a planning process
 - Helps the community understand outcomes in physical form
 - Facilitates high-value development in areas where feasible

The Form Based Code

- A tool to achieve a desired outcome
- One of a number of tools
- One of the more integrated tools
- Benefits to the community
 - Codes the outcome of a planning process
 - Helps the community understand outcomes in physical form
 - Facilitates high-value development in areas where feasible
- Benefits to property owners:
 - Certainty on development options
 - Development ideas tested in the planning process
 - Confidence that neighbors will be held to same high standards



(Re)coding communities for smart growth

There's a secret weapon available to communities that want to modernize their zoning codes and help make smarter growth the norm.

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