

Memo

Updated: September 2020

ANALYSIS OF ZONING BEST PRACTICES

City of Salisbury, MD – Zoning Code Rewrite





MEMO PURPOSE

This memo summarizes a few best practices that the City of Salisbury should consider in the process of updating the City's Zoning Code. This document is organized by the zoning element and provides information on the given element and some of the best practices and case study examples of the best practices in action.

Contents

MEMO PURPOSE	1
1. FORM-BASED CODE	3
General Overview	3
Implementing a Form Based Code	5
Innovative Examples	6
2. UPDATING A ZONING CODE	16
General Overview	16
Innovative Examples	16
3. HOUSING	25
Inclusionary Zoning	25
General Overview	25
Innovative Examples	26
Accessory Dwelling Units (ADUs)	30
General Overview	30
Innovative Examples	32
Cottage Housing	36
General Overview	36
Innovative Example	38
4. TRANSIT ORIENTED DEVELOPMENT	39
General Overview	39
Innovative Examples	40
5. CRITICAL AREA COMPONENTS	42
General Overview	42
Innovative Examples	43
6. ZONING FOR CANNABIS	46
General Overview	46
Comparing Cannabis Zoning Regulations in Maryland	46
7. GENERAL DEVELOPMENT REQUIREMENTS	49
General Overview	49
Landscape Requirements	49
Innovative Example	49
Lighting Requirements	53



Innovative Example	53
Signing Requirements	54
Innovative Example	54
8. ADAPTIVE REUSE	55
General Overview	55
Innovative Examples	56



1. FORM-BASED CODE

General Overview

A form-based code is a land development regulation aimed at creating and/or maintaining a specific urban form and generates a built environment that is predictable and aesthetically pleasing. A form-based code uses physical form, rather than separation of uses, as the organizing principle for land development making it an effective alternative to conventional zoning regulation. A form-based code is a regulation, not advisory. From a review of resources and guidance provided by the Form Based Code Institute (FBCI) this section of the report provides a brief overview of some components of form-based codes and the guiding principles that should be considered to implementing a form-based code.ⁱ

Form-based codes focus on the functional relationship of buildings and the public realm, the shape and massing of buildings in relation to each other, and the type and scale of streets or blocks. These codes usually contain elements such as:

- **Regulating Plan** - A plan or map that designates the locations, form, scale, and therefore, character of development, rather than land use.
- **Public Space Standards** - Specifications for the elements such as dimensions, walkways, landscape, furnishings, wayfinding, parking, etc.
- **Building Form Standards** - Regulations to control the configuration, features, and functions of buildings as they interact with the public realm.
- **Street Design Standards** - Guidelines or standards related to travel-lane width, bicycle lanes, on-street parking, medians, sidewalks, landscape, lighting, crosswalks, pedestrian refuge islands, bulbouts, and accessibility ramps.
- **Efficient Administration Process** - A clearly defined application and project review process.
- **Definitions** - A dictionary of terms to ensure the precise use of the technical terms in the code.
- **Annotation.** Text, diagrams, and illustrations explaining the intentions of specific code provisions.

Form-based codes also sometimes include:

- **Architectural Standards.** Regulations controlling external architectural materials and quality.
- **Landscaping Standards.** Regulations controlling landscaping on private property as they relate to public spaces. These include regulations about tree canopy, groundcover, stormwater management, screening, shading, maintaining sight lines, insuring unobstructed movements, etc.
- **Signage Standards.** Regulations controlling sign sizes, materials, color schemes, illumination, and placement.
- **Environmental Resource Standards.** Regulations controlling issues such as stormwater management and infiltration, development on slopes, resource protection, reforestation, environmental enhancements, solar access, etc.

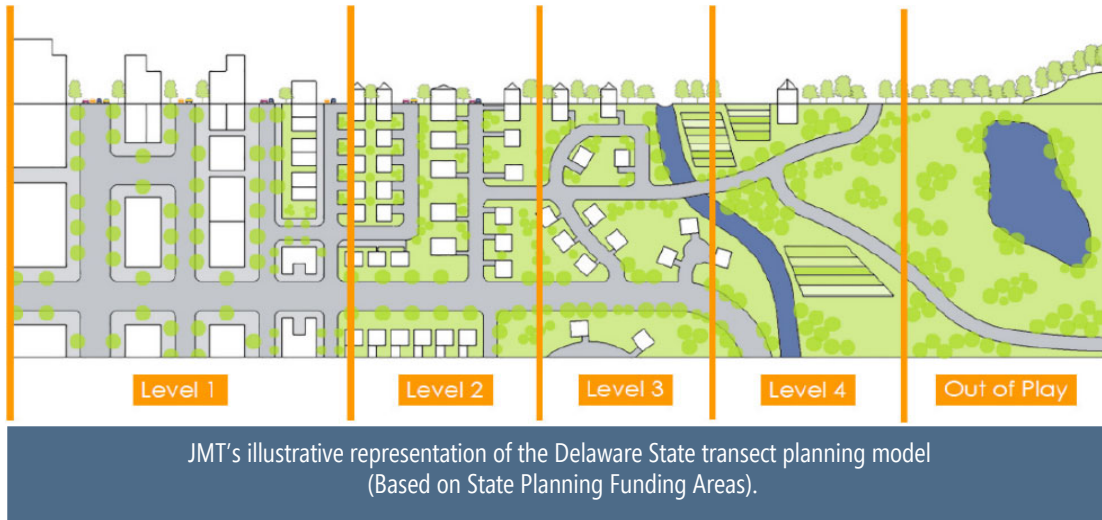


Organizing Principles

There are different approaches to regulating the type, scale, massing, form, and intensity of development in a form-based code. Some common approaches are:

Transect

Some form-based codes are organized using the concept of a rural to-urban “transects.” This model designates zones classified by the physical intensity of the built environment, the relationship between nature and the built environment, and the complexity of uses within the zone. Transects allow for a gradual transition between different areas of a community.



Building Type

Building Type organizes a form-based code by different building types, each defined by specific development standards regulating the configurations, features, and functions of buildings. The building types, and accompanying development standards, are applied to different blocks or districts within the planning area. This approach generally works best in smaller planning areas, particularly where infill development is a priority. It also works well in situations where ensuring compatibility of new development with existing buildings is a high priority, reinforcing the existing character of a community.

Street

Street-based form-based codes use street types as their organizing principle. The code will identify street types such as boulevards, arterials, or collectors. Each street type is defined by variety of factors including the amount and type of traffic a roadway is designed to accommodate, design speeds, pedestrian crossing treatments, the width of travel lanes, bicycle and pedestrian facility types, on-street parking configurations, the presence of medians, and other factors. Street-based codes include requirements for how buildings interact with the street in terms of height, frontage type, and build-to lines. Street-based codes are typically explained using section renderings.



Implementing a Form Based Code

There are several methods for introducing form-based codes into an established zoning ordinance. The suitability of a method depends upon the amount of change that is desired and political viability.

Typical Approach to Zoning Urban Form	Organizing Principle	Considerations for this Approach
Comprehensive Replacement of Existing Code	Form	The structure of the entire zoning code has been completely rethought. Code replaces the existing conventional zoning code for of the community and has been vetted for its applicability to the form-first system. All development within the area must abide by the regulations of the code.
Hybrid Zoning Code	Form	Combines form-based zoning districts, and other form-based standards, with a conventional zoning approach. All elements (administration, parking, landscaping, etc.) must be vetted and coordinated with the intent of the form-based code and replaced when the overlay is triggered.
Optional/Parallel Code	Form for the FBC section, use the rest of the pre-existing code	Code is standalone code but does not replace the existing conventional zoning code. Instead, in specific areas defined in the form-based code, the first developer is given the choice to follow conventional zoning or the form-based code. The property does not have to be rezoned, but once the developer chooses a code, the entire development project must follow it. All elements (administration, parking, landscaping, etc.) must be vetted and coordinated with the intent of the form-based code.

Composite Zoning

Composite zoning is a type of hybrid zoning that encompasses three components of development—use, building design, and site design to create a variety of flexible zoning districts. The ‘use’ component establishes what land uses are permitted within a zoning district, the ‘building design’ also referred to as the ‘form’ component establishes standards for buildings including height limits, entryway typologies, façade treatments, etc. The ‘site design’ component defines how the site is arranged. It sets standards for where buildings are placed in relation to the public realm, including setbacks, sidewalks, landscaping, open space, and building access spaces. These components all add up to create the character of the zoning district, meaning that zones are customizable to the unique needs of each community.

Composite Zoning integrates into the existing zoning code allowing continued control over land use. It also offers more opportunity to mix land uses by integrating compatible land uses into development patterns. The design standards within the zoning place higher priority on site and building standards creating a more cohesive transition between uses. The customizable zoning districts that are established with multiple components make it easier to zone property for compatibility with adjacent properties.



Innovative Examples

Downtown Chattanooga Form-Based Code Chattanooga, TN (Chattanooga-Hamilton County Regional Planning Agency)ⁱⁱ

- Chattanooga, TN Population: 179,000
- Adopted: June 21, 2016, Amended: May 1, 2018
- Hybrid Form-Based Code
 - Uses Zoning Overlays Focused on specific context zones
 - Combines conventional zoning with composite zoning
- Illustrative, simple, and concise
- Streamlined and transparent development approval process
- Promotes public engagement in zoning decisions

On-line link to code: <http://www.chattanooga.gov/images/FBC%2012%20Month%20Edits.pdf>

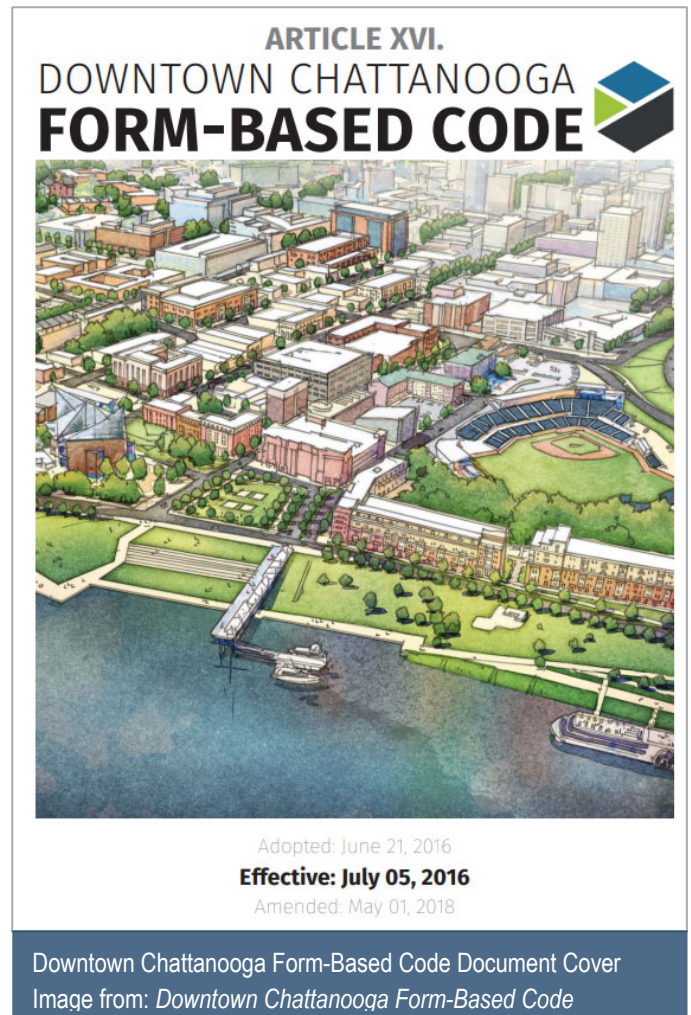
Overview

There are two types of zoning used in the City of Chattanooga. One is the conventional zoning that is found in most of the City Limits. The other type is a hybrid Form-Based Code that employees the use of composite zoning which categorize use, building design, and site design to create a wide variety of flexible zoning districts. The Form-Based Code is used for a small area covering the downtown core, riverfront and select parts of the Southside and North Shore areas. The goal of this zoning is to promote development downtown by improving transportation standards, improve continuity between old and new development (in terms of use and size), strengthen and maintain character, promote preservation and encourage public involvement in projects.

The Downtown Form Based Code defines four different context areas. There are some standard “Rules for all Zones” that apply to each of the zones. However, each context area additionally identifies multiple zones within their boundaries to identify different development types and patterns suited to the context of that zone. The code uses mainly illustrative graphics and diagrams to demonstrate setbacks, facades, public realm design, building massing, etc.

The form-based code is highly illustrative, making it possible for most development proposals to be approved by staff at the planning desk, avoiding lengthy review processes.

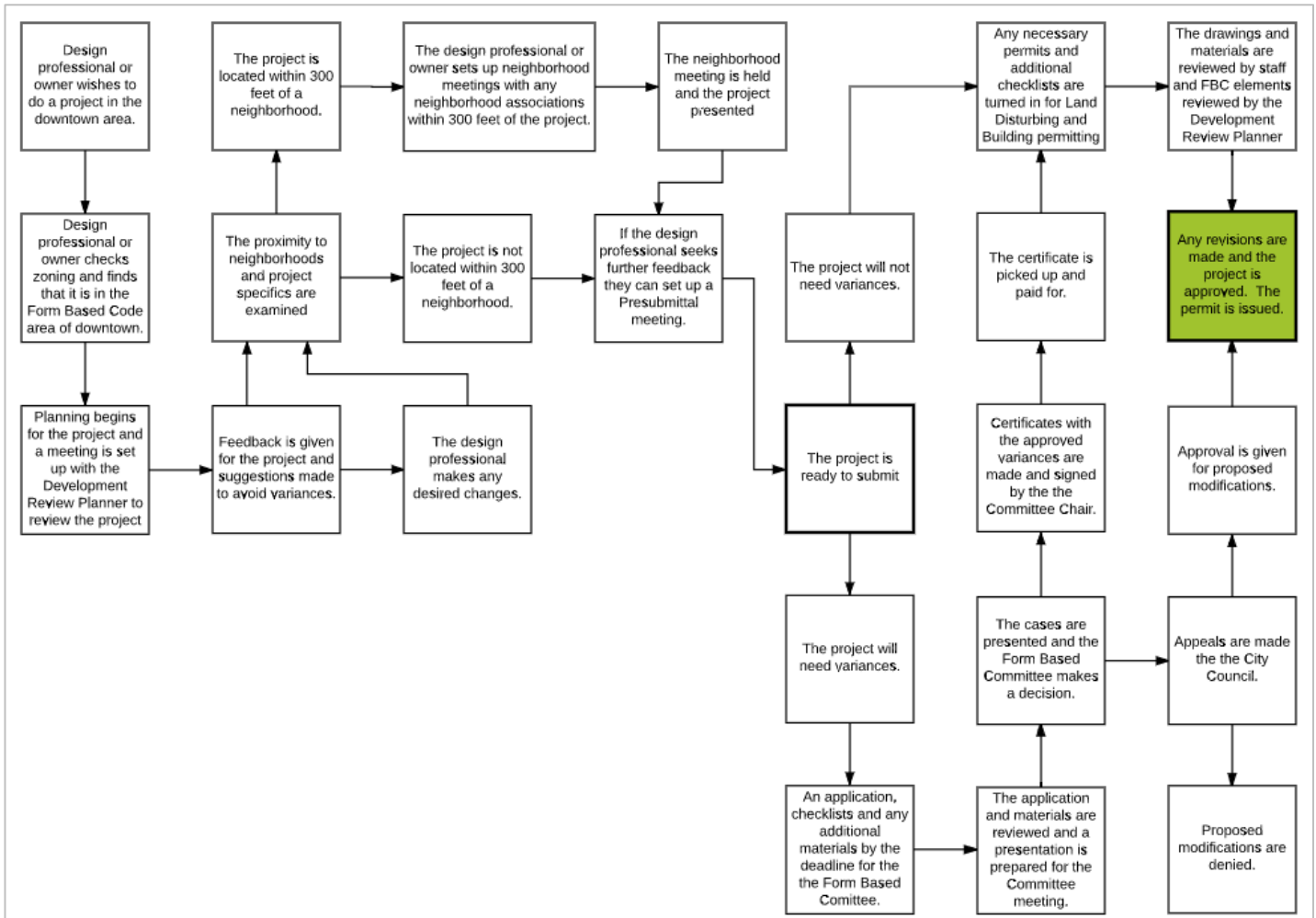
Any development proposal that deviates significantly from the code undergoes a review by a nine-person Form-Based Code Committee appointed by the Mayor and approved by the City Council. Members are selected from local architects, landscape architects, urban designers, civil engineers, bankers, realtors, developers, residents, business owners, and property owners. After the code has been adopted and used for a year, the code calls for a mandatory review of how it’s working and how well the Form-Based Code Committee process is working.



Downtown Chattanooga Form-Based Code Document Cover
Image from: *Downtown Chattanooga Form-Based Code*



The development process is detailed below in an excerpt from Chattanooga’s website. The flowchart demonstrates the process for development review. The City’s zoning website also has detailed information on who to contact and how the process works. The City has provided resources and checklists for anyone proposing a new development to explain and streamline the development approval process.



Development Approval Process Flowchart.
Image from: *Downtown Chattanooga Form-Based Code*

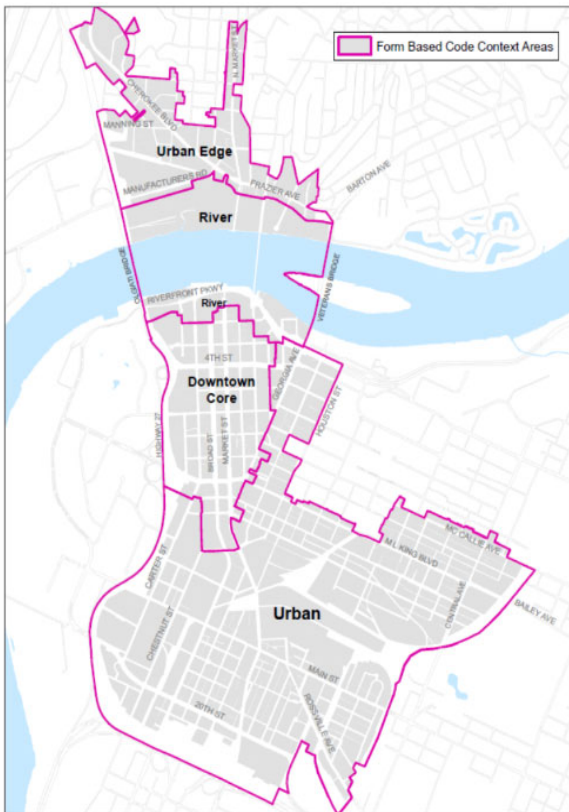


Organization of Code

The *Downtown Chattanooga Form-Based Code* establishes four different zones as follows:

- Downtown Core (D)
- River (R)
- Urban (U)
- Urban Edge (E)

Each of the Zones are organized by specific context. Each of these context zones have their own intent, allowable uses, lot parameters, building placements, building height and mass, access and parking guidelines, and public realm guidelines with different land uses permitted within them. The following section provides steps through these details using the River (R) Zone as an example of this hybrid code is laid out.



Form-Based Code Context Area.
 Image from: *Downtown Chattanooga Form-Based Code*

Downtown Core Context



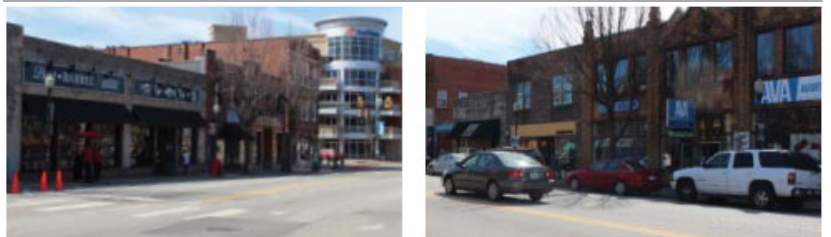
River Context



Urban Context



Urban Edge Context



Four Context Zones
 Images from: *Downtown Chattanooga Form-Based Code*



“Use Component” - River (R) Zone Example

The general character for the River (R) Zone Context consists of medium-to high intensity residential and tourist areas. Multi-family housing is predominant. Commercial activity is limited to mixed use in multi-family residential buildings and hotels. Priority is given to pedestrians and bicyclists. The River (R) Zone is organized into four zoning categories by context as follows:

- R-RF Riverfront
- R-RV River View
- R-CIV Civic
- R-PK Parks and Open Space

Each of these four context zones have their own intent, allowable uses, lot parameters, building placements, building height and mass, access and parking guidelines, and public realm guidelines.

The allowable uses for the River (R) Zone are organized by conventional zoning categories as follows:

- Residential
- Public/Institutional
- Commercial
- Industrial
- Outdoor
- Accessory

The categories are then further broken down by use. The table to the right provides the example of what the allowable use breakdown looks like.

Use Category Specific Use	River				Definition/ Standards
	R-RF	R-RV	R-CIV	R-PK	
Residential Uses					
Household Living					38-738.(1)A.1.
Single-unit living detached	--	--	--	--	
Single-unit living detached with accessory dwelling unit	--	--	--	--	
Two-unit living	--	--	--	--	
Single-unit living attached	--	--	--	--	
Single-unit living attached with accessory dwelling unit	--	--	--	--	38-738.(6)C.
Multi-unit living (up to 4 units)	--	--	--	--	
Multi-unit living (5+ units)	P	P	--	--	
Manufactured home, single-wide	--	--	--	--	
Manufactured home park	--	--	--	--	
Live/work unit	L	L	--	--	38-738.(1)A.2.
Group Living					38-738.(1)B.
Assisted living facility	SZ	SZ	--	--	38-568.(19)
Boarding house	P	P	--	--	
Dormitory	SZ	P	--	--	38-568
Fraternity/sorority	SZ	P	--	--	38-568
Medically assisted living facility	SZ	SZ	--	--	38-568.(19)
Nursing home	SZ	SZ	--	--	38-568.(19)
Residential home for handicapped or aged persons, commercial	SC	SC	--	--	38-523
Social Services	SZ	SZ	--	--	38-738.(1)C.
Public/Institutional Uses					
Civic, except as listed below:	--	--	P	--	38-738.(2)A.
Church or other place of worship	P	P	P	--	
Fire/police station	P	P	P	--	
Kindergarten, governmental or religious	P	P	P	--	
Non-profit heritage educational facility	SC	SC	SC	--	38-525
Publicly-owned building	P	P	P	P	
School	P	P	P	--	

KEY: P = Permitted L = Limited Use SZ = Special Exception from the Board of Zoning Appeals Required
SC = Special Exception from City Council Required -- = Not Permitted

River (R) Zone Allowable Uses Table Example
Image from: *Downtown Chattanooga Form-Based Code*



Using the R-CIV (Civic) Zone as an example; the following pages summarize how the zones are further organized and what attributing information is found within the code as it related to the zones. The intent of the R-CIV zone is to accommodate a variety of civic and public uses. The zone allows a reduced level of building form control in recognition of the special character of many civic buildings. The lot parameters and building placement is laid out as seen in the image below.

(2) LOT PARAMETERS

Lot Type	A Area	B Width
Public	n/a	n/a

Specifications	
C Building coverage	70% max

(3) BUILDING PLACEMENT

Building Setbacks (see Sec. 38-698.(2)C.2.)	
A Primary street	0' min/30' max
B Side street	0' min/30' max
C Side: common lot line	5' min
D Rear: common lot line	5' min
River*	100' min
*As measured from the "Floodway"	

Lot Frontage (see Sec. 38-698.(2)E.)	
E Primary street	50% min
F Side street	50% min

R-CIV: Civic Zone Lot Parameters and Building Placement
 Image from: *Downtown Chattanooga Form-Based Code*



The R-CIV (Civic) Zone site access and parking location and the height and massing is as follows:

(4) ACCESS/PARKING LOCATION

Access (see Sec. 38-698.(3)A.)

New street curb-cuts allowed per lot	Determined by Director of the Land Development Office
A Driveway width in setback	20' max

Parking Setbacks (see Sec. 38-698.(3)B.)

B Primary street	30' min
C Side street	10' min
D Side: common lot line	5' min
E Rear: common lot line	5' min

No on-site surface parking is allowed between buildings and the street

(5) HEIGHT AND MASS

Building Height

A Maximum height	
R-CIV-3	3 stories/45' max
R-CIV-4	4 stories/60' max
R-CIV-6	6 stories/90' max
B Minimum height	
	n/a

Building Mass

C Street-facing building length	n/a
--	-----

R-CIV: Civic Zone Lot Parameters and Building Placement
 Image from: *Downtown Chattanooga Form-Based Code*



The public realm design standards for the R-CIV (Civic) Zone are conveyed in the following illustration:

(6) PUBLIC REALM

The public realm standards below apply to all streets, unless noted otherwise.

Fenestration	
A Ground story	n/a
B Upper story	n/a
C Blank wall length	n/a
Story Height	
D Ground floor elevation	n/a
E Ground story, floor to floor	n/a
F Upper story, floor to floor	n/a
Pedestrian Access	
G Entrance facing primary street	Required
H Entrance spacing along primary street	n/a
Building Elements Allowed	
Awning/canopy	n/a
Balcony	n/a
Forecourt	◆
Gallery	n/a
Porch	n/a
Stoop	n/a

Riverside	
I River setback*	100' min
K Multi-purpose path width	12' min
*As measured from the "Floodway"	
Streetside	
L Primary/side street setbacks	0' min/30' max
M Clear pedestrian zone**	6' min
N Street tree/furniture zone depth**	6' min
Street tree planting type	Tree pit/verge
Tree spacing**	30' avg. on-center

**Where there is insufficient ROW to meet the minimum requirements, the Director of the Land Development Office may approve modifications (see Sec. 38-696(4)).

R-CIV: Civic Zone Public Realm Standards
Image from: *Downtown Chattanooga Form-Based Code*



Unified Development Code - Cambridge MDⁱⁱⁱ

Overview

The purpose of this Ordinance is to protect and promote the public health, safety and general welfare of the City of Cambridge, the orderly development of lands, and protection of natural resources and the environment. It is a comprehensive and unified set of regulations that govern the subdivision, development, and use of land. Error! Bookmark not defined.

- Population: 12,376 (2017 Census Data)
- Adopted: December 8, 2014, Most Recently Amended: November 7, 2019
- Unified Development Code – Form Based Code Regulating Plan for Specific Area, paired with Conventional Zoning
- Consolidated Land Use Zoning Districts and Allowable Uses
- Critical Area Overlay District Map
- Illustrative, simple, and concise
- Modern Minimums for Off-Street Parking

Online Link: <https://www.choosecambridge.com/306/Unified-Development-Code>

Organization of Code

The code is organized as follows:

- Article 1 General Provisions
- Article 2 Administration and Enforcement
- Article 3 Development Plan Approvals
- Article 4 Zoning Districts and Allowable Uses
- Article 5 Dimensional Requirements and Standards for Lots
- Article 6 Site and Building Design Standards
- Article 7 Community Design Standards
- Article 8 Critical Area Regulations
- Article 9 Terms and Definitions

Article 4 Zoning Districts and Allowable Uses establishes the zoning districts that are applied to property within the City and adopts the Official Zoning Map. There is a total of 10 Zoning Districts each with a unique purpose and land uses. The Form based component of the Code is primarily found in Articles 5 - 7. The code uses a variety of tables, charts, illustrations, and renderings to convey the building and site design standards.

The code takes a more modern approach to the parking requirements set by land use type offering modern minimums for off-street parking as well as requirements for bicycle parking and storage based on land use types. The bicycle parking and storage requirements apply to several specific land use types that meet specific criteria set by land use including number of employees, S.F., number of students, number of seats. The code gives specific design requirements to how and where the bicycle biking and storage must be included in developments. The zoning code uses multiple photographs to show examples of buildings with notable architectural elements, conforming site and building design, sidewalk transitions, etc.

The Official Critical Area Overlay District Map is maintained as part of the Official Zoning Map for Cambridge to delineate the extent of the Critical Area. Within the designated Critical Area Overlay District, all land is assigned a land management and development area classification, in which there are specific development standards and development activity requirements that are meant to minimization destruction of natural features. For more information on Cambridge's Critical Area Overlay District, see the best practice at the end of this memo.

Online Information Sharing

The online mapping component of Cambridge's zoning code is approachable for all users. The interactive interface allows the user a large-scale overview of all zoning districts in the city but also allows for a in-depth look at each parcel and corresponding permitted use. At the parcel level, users can view information regarding address, the zoning district in which it lies, and other tax map and parcel information. Additionally, a permitted uses hyperlink takes the viewer to specific tables that outline permitted uses by zoning district for Cambridge. This interactive component makes it very easy to gain knowledge needed about the zoning code in order to make informed decisions.



The Downtown Code for Lafayette, LA^{iv}

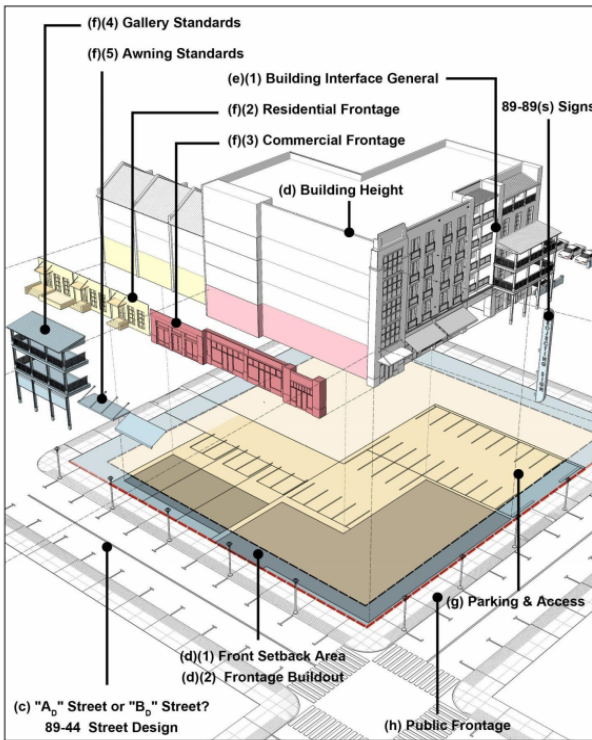
Overview

The City of Lafayette uses the Unified Development Code to regulate the use of property. It is used in conjunction with conventional zoning to help maintain the character and stabilize property values of residential neighborhoods and encourages orderly commercial development. Population: 126,000

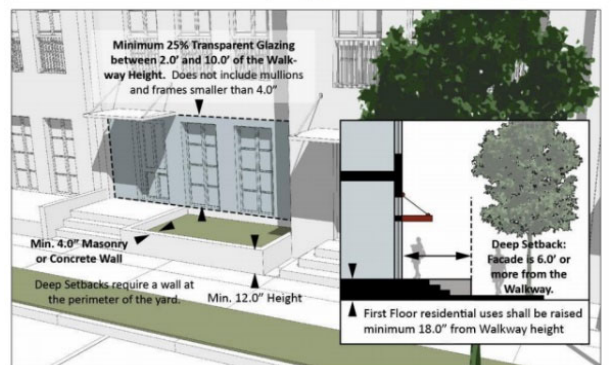
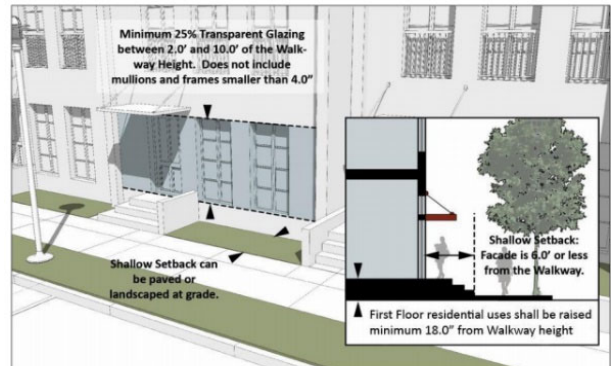
- Adopted: May 5, 2015, Amended: June 2018
- Unified Development Code paired with conventional zoning
- Illustrative, simple, and concise
- Online interactive zoning map

The Downtown Code for Lafayette, LA was recently named a winner of the Driehaus Form-Based Codes Award on behalf of the Form-Based Codes Institute (FBCI), a program of Smart Growth America. The code was adopted within one year of the city's Downtown Action Plan to stimulate development that would "enhance the convenience, vibrancy, and charm of outdoor rooms inherent to urban neighborhoods. The code was awarded for the following reasons: *"The downtown code is a simple, short, and well-illustrated model for downtown districts that serves as one chapter of a new, otherwise conventional, unified development code. It places emphasis on regulating what matters most in the urban context—building frontage—and promotes great urbanism through limited controls on height and an innovative parking policy. The document translates key elements for activating the downtown core into easily understood standards, while articulating roles for the private and public sectors to foster good development. The graphics are exceptionally concise, instructive, and elegant. This code offers an excellent example to any community for regulating a downtown with a form-based code, while providing Lafayette with a replicable approach, which can be applied in other neighborhoods"*. – Jury statement from the 2019 Driehaus

Award



Mixed-Use Development Diagram.
Image from: *The Downtown Code for Lafayette, LA*



Downtown Building Interface Options with Street Curb.
Image from: *The Downtown Code for Lafayette, LA*

Jury.^v



On-line link to code: http://www.lafayettela.gov/ComprehensivePlan/Documents/UDC_Amended_June_2018.pdf

Organization of Code

The code lays out numerous development standards using a variety of charts, illustrations, photos, and text to make it easy to use and understand in plain language. There is also an online zoning map available for use by the public at the following link: <https://lcq.maps.arcgis.com/apps/webappviewer/index.html?id=7a5890fd004b4c07911e3036f9d76131>

The code also dedicates an entire section to procedures. This section provides procedural guidance and information for any application for zoning or subdivision approval and Article establishes procedures for land development decisions. It provides definitions in plain language to make it easily understood and usable. It also provides tables and charts such as the one below to provide information on processes and what to expect.

Table 89-47-2 Process Summary

Process	Agency			Notice			Cross-Reference		
	Administrator / Staff	Hearing Examiner	Planning & Zoning Commission	City-Parish Council ("Council")	Board of Zoning Adjustment	Publication		Mail	Signs
<i>Annexation</i>	I			D-PHL		■			RS 33:151 et seq. and RS 33:171 et seq.
<i>Acceptance of improvements</i>	I		D			✓			89-59
<i>Appeal (Zoning)</i>	I				A	✓			89-68
<i>Appeal (Planning and Zoning Commission decision)</i>	I			D-PHA		■	■	■	89-69
<i>Boundary Adjustment</i>	D								89-63
<i>Conditional Use Permit</i>	I		D-PHA	A-PHA		✓	✓	✓	89-54
<i>Modifications</i>	I	⇔	⇔	⇔					89-67
<i>Comprehensive Plan Amendment</i>	I		D-PHL			✓			89-51
<i>Rezoning & Annexation Zoning Assignment</i>	I		D-PHL	A-PHL		✓	✓	✓	89-53
<i>Site Plan Review</i>	D								Art. 10
<i>Subdivision, Final Plat</i>	D*								89-58
<i>Subdivision, Minor Plat</i>	I	D-PHA	A-PHL	A-PHL		✓	✓	✓	(2)
<i>Subdivision, Plat Vacation</i>	I		D-PHL	A-PHL		✓	✓	✓	89-61
<i>Subdivision, Preliminary plat</i>	I		D-PHL	A-PHL		✓	✓	✓	89-57
<i>Subdivision, Re-subdivision</i>	I	D	D-PHL	A-PHL		✓	✓	✓	0
<i>Subdivision, Sketch Plan</i>	I								89-56
<i>Text Amendment</i>	I		D-PHL	A-PHL		✓			89-52
<i>Variance (Zoning)</i>	I				D	✓	✓	✓	89-68

Key: I = intake, review and referral R = Recommendation D = Decision A = Appeal
 PHL = public hearing (legislative) PHA = public hearing (administrative)
 ⇔ = the decision is tied to another process. The agency has a role only where noted in the procedures related to a specific process.
 ✓ = required ■ = specific notice depends on the situation – refer to the section reference

Process Summary Diagram.
Image from: *The Downtown Code for Lafayette, LA*



2. UPDATING A ZONING CODE

General Overview

There are two main approaches that a governing body can take to updating a zoning code. They can approach the update in an incremental fashion, where amendments are used to change the text of the ordinance or boundaries shown on a zoning map. This is a desirable option if the changes are minimal and require only small changes to the zoning language or zoning map. If multiple amendments have already occurred or if there is a desire to more drastically change a zoning ordinance or zoning map, then a comprehensive replacement of existing zoning may be the better alternative. Whichever route is identified as the most appropriate the process to implementing the update should be guided with public and stakeholder buy in from the earliest phases. Building support and consensus around sensitive community topics is vitally important to effectively implementing any kind of zoning change.

Incremental Zoning Update

Undertaking an incremental zoning update allows a community to create regulatory change in a single neighborhood or district before moving to the next update while building political will and community support. As a result, more walkable, prosperous, and equitable places for residents of all ages are developed. According to the Congress for the New Urbanism (CNU), who has championed this update type, the process *recognizes that communities possess their own unique qualities and characteristics, and the right regulations will help preserve these special places while also better positioning themselves to adapt to economic challenges and future opportunities.*^{vi}

Innovative Examples

Congress for the New Urbanism – The Project for Code Reform

Link to The Project for Code Reform Webpage: <https://www.cnu.org/our-projects/project-code-reform>

CNU's Project for Code Reform strives to streamline the code reform process by providing local governments place-specific incremental coding changes that address the most problematic barriers first and achieve the goals of an incremental zoning update. The incremental approach that the Project prescribes allows jurisdictions to set their own pace for code changes, which allows them to prioritize their coding efforts, respond to the community's vision and needs, and facilitate greater community learning and understanding.^{vii}

The CNU has developed *The User's Guide to Zoning Reform* to walk planners through the incremental code reform process, providing tools for governments lacking the capacity to develop a full form-based code. It responds to many of the common conditions found in towns and small cities and strives to simplify the challenge of changing zoning. The Guide is intended to help give momentum to the first step in the process, with the few essential code changes necessary in order to enable better places. The process for using the Guide, and thus implementing an incremental zoning update, is to first determine where you are, then assess local support and capacity. The final step is to select solutions based upon a combination of the first two criteria. The principles of code reform, as outlined in the Guide, are found on the next page.



PRINCIPLES OF CODE REFORM

Code reform is not a one-size-fits-all solution. This Guide will help you get started with an incremental process that is unique for each place and condition, yet built on a foundation of shared principles.

Know who you are.

Understand what is possible!

- What is the staff capacity to administer, or the political will to enforce proposed code changes?
- Does the local market support the changes?

Know where you are.

Localize solutions!

- Customize decisions about height and mapping for the local context.
- Pay attention to the local market – how much retail space or downtown housing can the community support?

Keep it simple.

Don't overcomplicate the effort!

- Don't regulate things that are addressed by other health and safety codes.
- Don't try to anticipate every possible situation.
- Don't attempt to predict future market demands.

Focus on the basics.

A little change can go a long way!

- Get quality buildings in the right places to define the public realm – the uses can and will change over time.
- Locate parking on the street or behind the buildings.
- Design for people; accommodate cars.

Use the correct tool.

Code reform is not a silver bullet!

- Don't expect zoning changes to fulfill every community aspiration or solve every community problem.

Change can be difficult.

Move forward together!

- Make sure the key players understand why code reform is being undertaken.
- Recognize that “business as usual” will produce the usual results.
- Let go of regulations that are no longer relevant. These may include legacy standards that were put in place to micromanage a specific use or to address a specific problem that no longer exists.

Don't bite off more than you can chew.

This is just a beginning!

- Focus on key areas – this Guide will not address your entire city or village.
- There are many other important issues that are not covered here, but may be important for you to consider now or in the future.

Principles of Code Reform. From: *The User's Guide to Zoning Reform* – Congress for the New Urbanism

The Guide used Michigan-specific conditions to illustrate applicability, however, the coding changes that are recommended are intended for compact urban areas.

For Michigan in particular, the Guide is aimed at three different Place Types common across the state: main streets, downtowns, and adjacent neighborhoods, recognizing that recommendations vary by character and location and where they should be applied. To narrow the scope of the project and acknowledge that code reform covers a broad range of topics, the Guide focuses on five key topics that have had the most significant impact on the success of Michigan main streets, downtowns, and adjacent neighborhoods. These topics include streetscape, form, use, frontage, and parking. From there, each place type has a series of zoning suggestions for each



topic area. The most prominent and essential recommendations by area of reform have been identified by the CNU and are as follows:^{viii}

Area of Reform	Recommendation
Form	Match historic lot size Match historic setback Match historic heights
Frontage	Set MAXIMUM front setback: improves the pedestrian experience Require a usable entry on the front sidewalk Require minimum transparency
Parking	Require parking lots behind buildings Provide on-street parking Eliminate or reduce parking minimums
Streetscapes	Establish or protect on-street parking Provide protected bike facilities Permit awnings and require street trees: improves the pedestrian experience
Use	Permit mixed-use Simplify uses: helps to keep storefronts full

The guide operates in a manner that encourages a “if you do nothing else, do this” approach, that gets jurisdictions and local governments to really think of the process incrementally. Doing so allows for momentum and political will to build and throughout the process.

Comprehensive Replacement of Existing Zoning

A comprehensive replacement of existing zoning is an overhaul of the jurisdiction’s entire zoning code. This is a lengthy process that requires input from many stakeholders. The process usually results in a consolidation of zones and uses, provides modern development standards, and allows for jurisdictions to better respond to the current timeframe in terms of regulations and development patterns.

Innovative Examples

Prince George’s County - Zoning Ordinance and Subdivision Regulations Rewrite^{ix}

Link to Zoning Rewrite Webpage: <http://zoningpgc.pgplanning.com/>

Prince George’s County is in the final phases of finalizing a comprehensive overhaul of their entire zoning code. This process has been underway since 2014. The County first performed a comprehensive rewrite of the text portion of the new Zoning Ordinance & Subdivision Regulations. The new text was written in plain language, formatted and designed for the internet and includes graphics and renderings to convey information instead of just text. The rewrite:

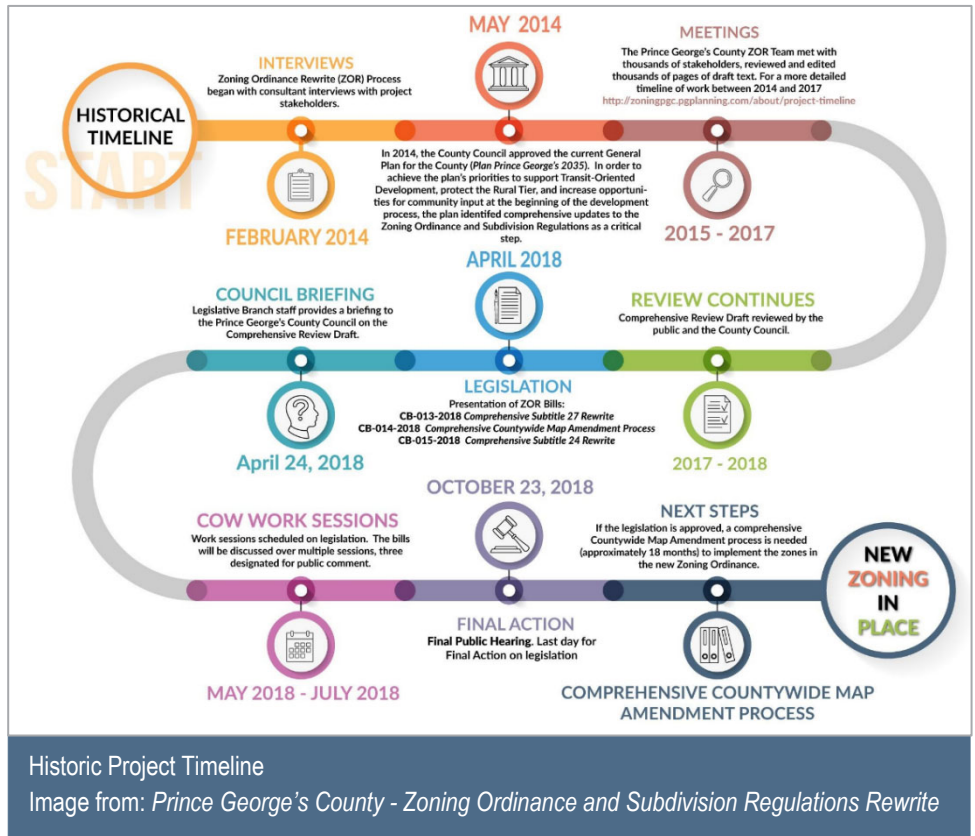
- consolidated 73 different zones to 43 zones with distinct purposes
- consolidated uses from ~1,200 to ~250
- provides modern development standards for open space, lighting, green infrastructure, form and design



The zoning rewrite included generous grandfathering/transition provisions for development to transition. It also clarified and streamlined development review procedures. The County implemented education efforts for stakeholders and the public before the code takes effect to ensure a successful transition.

After the new language of the zoning rewrite was approved the Prince George’s County Council authorized The Maryland-National Capital Park and Planning Commission to prepare a Countywide Sectional Map Amendment to implement the zones contained in a new Zoning Ordinance. The new Zoning Ordinance cannot be used until the new zones are applied to each property throughout the County which should be occurring soon.

The project timeline graphic shown below provides the history of how this project has progressed and the current stage of the project.





Zones Consolidation

Link to New Zones Guide: <https://pgccouncil.us/DocumentCenter/View/4054/Zoning-Rewrite-Decision-Matrix-Brochure>

Prince George's County's new zoning code consolidated 73 different zones to 43 zones, and consolidated uses from ~1,200 to ~250. To help residents and stakeholders understand the new zones the County Published the *New Zones Guide*^x. The guide shows how the Countywide Sectional Map Amendment (CMA) will determine the appropriate new zone for all properties in the County. This tool was created to help ensure that everyone is using the same rules and all conversions are transparent, fair, and equitable.

There are five sections in the guide that help property understand how and why their property will have a new zone. The guide is organized as follows:

Part 1: New Zone Conversion Chart

Property owners will use these charts to understand changes to their zone.

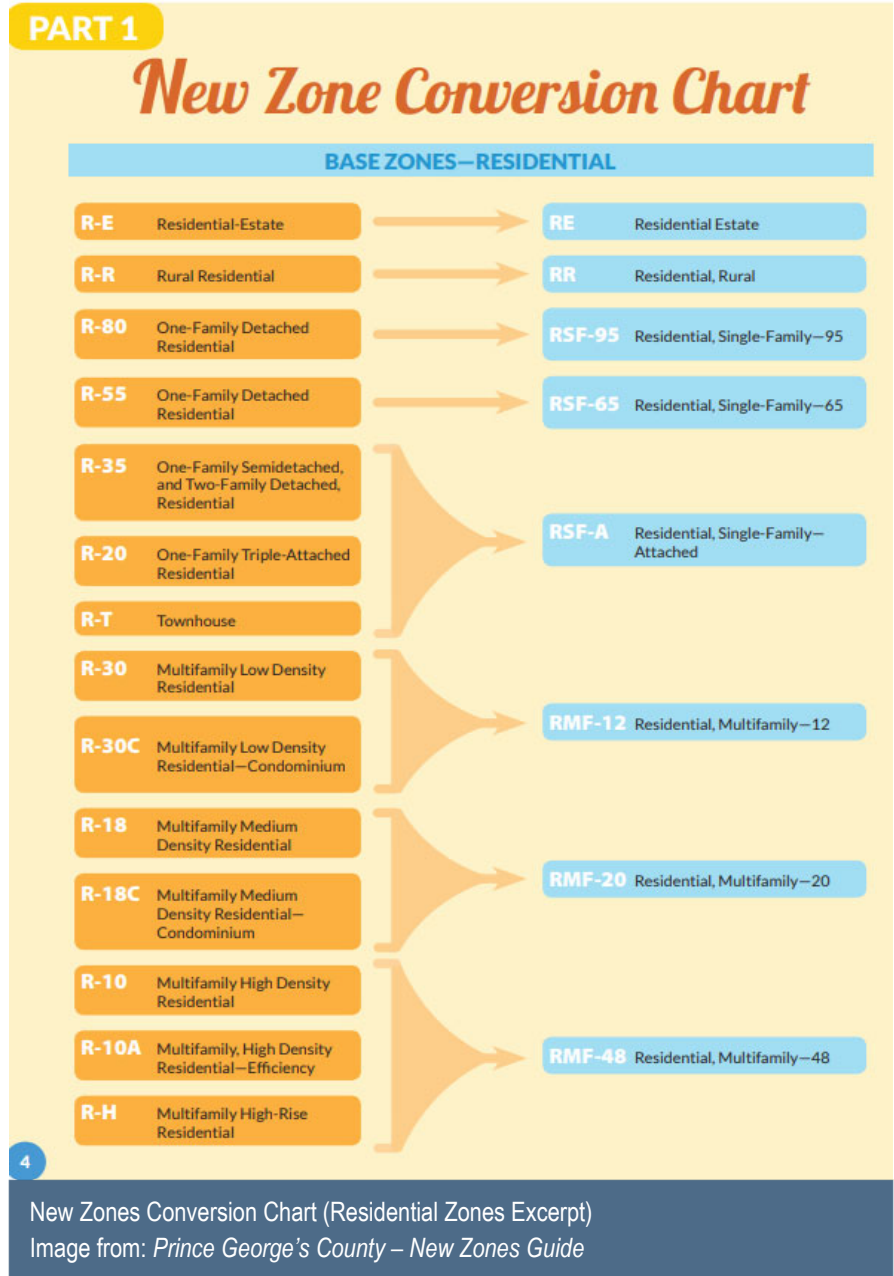
Part 2: Mixed-Use Zone Decision Matrix

For properties not located in a Plan 2035 designated Center and zoned M-X-T and M-U-I.

Part 3: Transit-Oriented/Activity Center Base Zones Decision Matrix

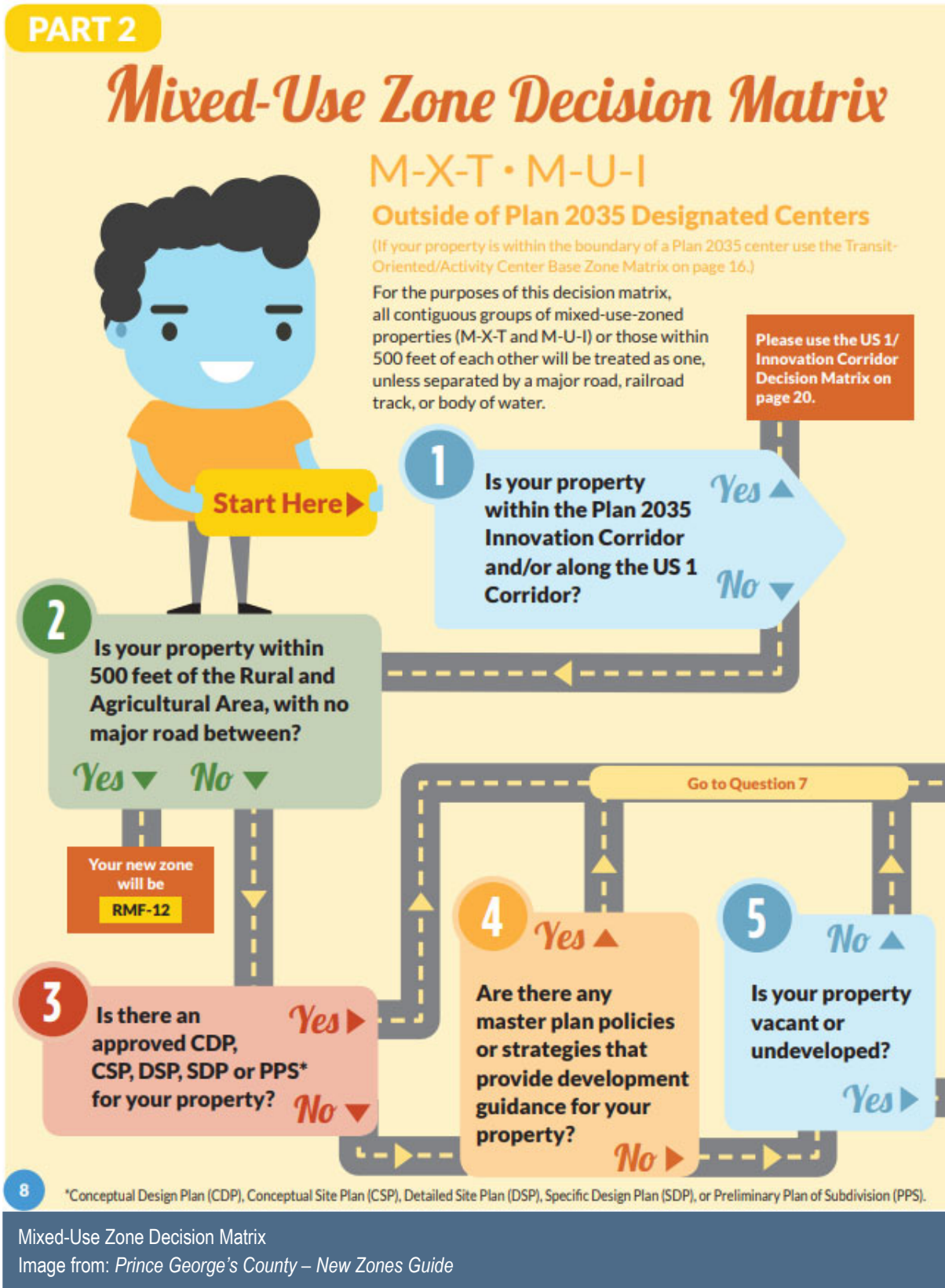
Part 4: US 1/Innovation Corridor

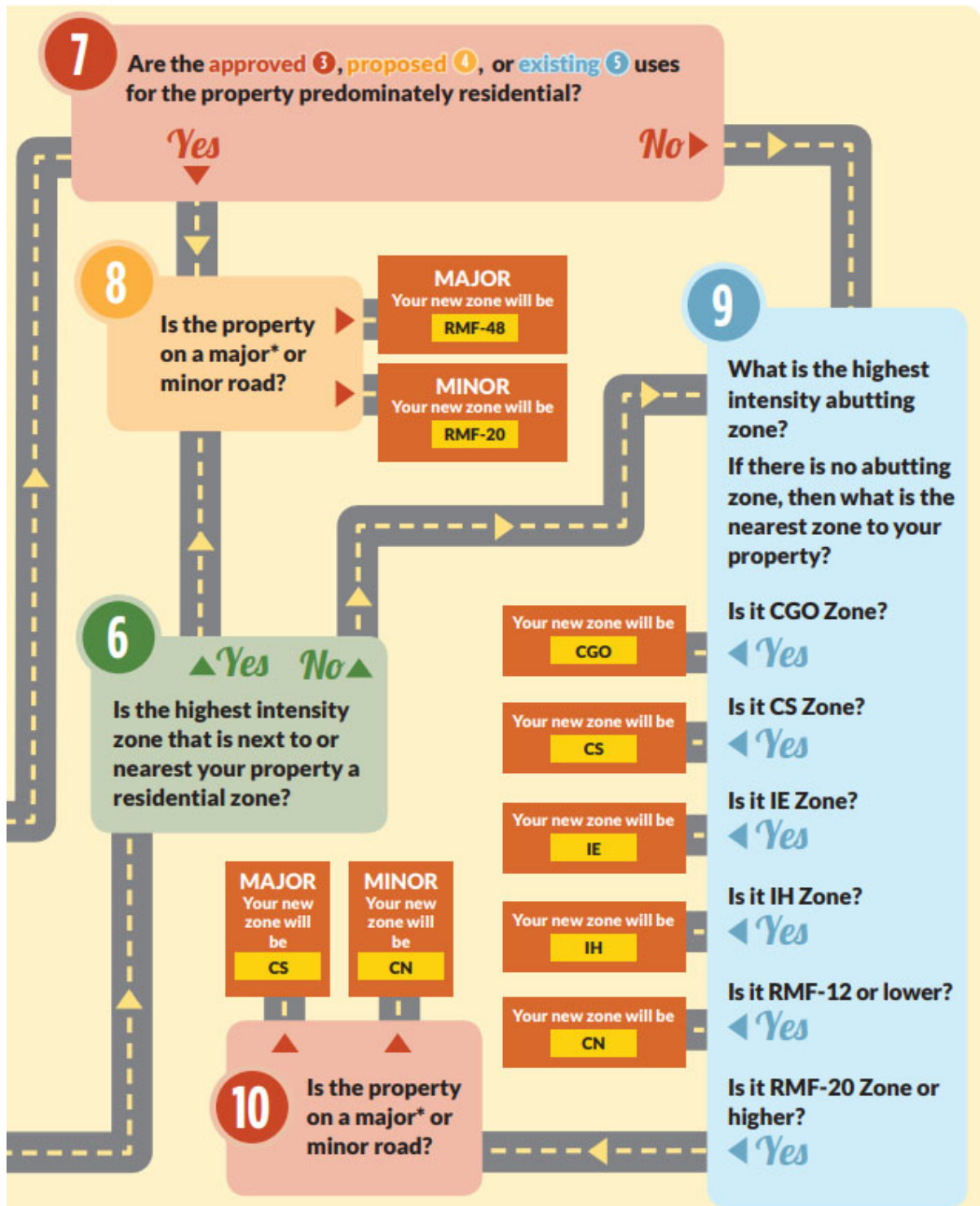
Part 5: Recently Approved Sector Plans





Part 2: Mixed-Use Zone Decision Matrix of the New Zones Guide developed by Prince George’s County provides a flowchart to explain new zones located within the Mixed-Use Zones. The flowchart uses a series of simple questions to guide property owners to identifying their property’s appropriate zone.





*For the purposes of this decision matrix, a major road is defined as a freeway, expressway, arterial, or major collector.




Zoning Visual Guide

Visual Guide to Zoning Categories: <https://pgccouncil.us/DocumentCenter/View/4056/Guide-to-Zoning-Categories->

The *Visual Guide to Zoning Categories*^{xi} was developed to provide a comprehensive overview of the new zoning categories and explain the different purposes of each zone and provide high level information on minimum lot size and maximum dwelling units per net acre. The guide also provides floor area ratios and principal structure height maximums for the Transit-Oriented/Activity Center Base Zones. The guide is organized into the following zones:

- **Rural and Agricultural Base Zones**
- **Residential Base Zones**
- **Nonresidential Base Zones**
- **Transit-Oriented/Activity Center Base Zones**
- **Other Base Zones**
 - Legacy zones, properties that developed under a different set of rules than exist today, these zones ensure smooth transitions between obsolete zones and the new Zoning Ordinance.
- **Planned Development Zones**
 - Provide flexibility for innovative land use and site design concepts to enhance the quality of life and support high quality development, strengthen environmental stewardship, encourage energy efficiency, ensure connected and multimodal places, improved community services and facilities, and meet other goals and objectives for mixed-use development.
- **Overlay Zones**
 - Superimposed over other zones and may modify uses permitted and standards for development.

																																																																																								
NAC	TAC	LTO																																																																																						
Neighborhood Activity Center	Town Activity Center	Local Transit-Oriented																																																																																						
<p>Provides for lower-density, small-scale, mixed-use centers intended to serve surrounding neighborhoods. Vertical mixed-use development, with ground-floor retail, service, or office uses and residential above, is encouraged.</p> <table border="0" style="width: 100%;"> <tr> <td>Minimum net lot area</td> <td></td> </tr> <tr> <td>• In general</td> <td style="text-align: right;">5,000 sq. ft.</td> </tr> <tr> <td>• Townhouse</td> <td style="text-align: right;">1,200 sq. ft.</td> </tr> <tr> <td>Dwelling units per net acre (all dwellings)</td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">10</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">30</td> </tr> <tr> <td>Floor area ratio (nonresidential development)</td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">0.25</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Principal structure height (maximum)</td> <td style="text-align: right;">50 ft.</td> </tr> </table>	Minimum net lot area		• In general	5,000 sq. ft.	• Townhouse	1,200 sq. ft.	Dwelling units per net acre (all dwellings)		• Minimum	10	• Maximum	30	Floor area ratio (nonresidential development)		• Minimum	0.25	• Maximum	2	Principal structure height (maximum)	50 ft.	<p>Provides for moderate-density and intensity, more automobile-accessible, mixed-use centers serving larger neighborhoods and communities. Vertical mixed-use development, with ground-floor retail, service, or office uses and residential above, is strongly encouraged in the core area of the zone and encouraged in the edge area.</p> <table border="0" style="width: 100%;"> <tr> <td>Minimum net lot area</td> <td style="text-align: center;"><u>Core</u></td> <td style="text-align: center;"><u>Edge</u></td> </tr> <tr> <td>• In general; square feet</td> <td style="text-align: right;">1,500</td> <td style="text-align: right;">3,000</td> </tr> <tr> <td>• Townhouse</td> <td style="text-align: right;">1,200</td> <td style="text-align: right;">1,200</td> </tr> <tr> <td>• Other dwellings; square feet</td> <td style="text-align: right;">1,500</td> <td style="text-align: right;">5,000</td> </tr> <tr> <td>Dwelling units per net acre (all dwellings)</td> <td></td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">15</td> <td style="text-align: right;">5</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">80</td> <td style="text-align: right;">60</td> </tr> <tr> <td>Floor area ratio (nonresidential development)</td> <td></td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">0.5</td> <td style="text-align: right;">0.25</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">2.5</td> <td style="text-align: right;">1.5</td> </tr> <tr> <td>Principal structure height (maximum)</td> <td style="text-align: right;">80 ft.</td> <td style="text-align: right;">70 ft.</td> </tr> </table>	Minimum net lot area	<u>Core</u>	<u>Edge</u>	• In general; square feet	1,500	3,000	• Townhouse	1,200	1,200	• Other dwellings; square feet	1,500	5,000	Dwelling units per net acre (all dwellings)			• Minimum	15	5	• Maximum	80	60	Floor area ratio (nonresidential development)			• Minimum	0.5	0.25	• Maximum	2.5	1.5	Principal structure height (maximum)	80 ft.	70 ft.	<p>Provides for moderate-intensity, vibrant, transit-rich mixed-use centers incorporating walkable urbanism and robust connectivity for pedestrians, bicyclists, transit-riders, and drivers. Often well-connected to regional transit. Vertical mixed-use development, with ground-floor retail, service, or office uses and residential above, is strongly encouraged.</p> <table border="0" style="width: 100%;"> <tr> <td>Minimum net lot area</td> <td style="text-align: center;"><u>Core</u></td> <td style="text-align: center;"><u>Edge</u></td> </tr> <tr> <td>• In general; square feet</td> <td style="text-align: right;">1,500</td> <td style="text-align: right;">3,000</td> </tr> <tr> <td>• Townhouse</td> <td style="text-align: right;">1,000</td> <td style="text-align: right;">1,000</td> </tr> <tr> <td>• Other dwellings; square feet</td> <td style="text-align: right;">1,500</td> <td style="text-align: right;">5,000</td> </tr> <tr> <td>Dwelling units per net acre (all dwellings)</td> <td></td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">20</td> <td style="text-align: right;">10</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">80</td> <td style="text-align: right;">40</td> </tr> <tr> <td>Floor area ratio (nonresidential development)</td> <td></td> <td></td> </tr> <tr> <td>• Minimum</td> <td style="text-align: right;">0.5</td> <td style="text-align: right;">0.25</td> </tr> <tr> <td>• Maximum</td> <td style="text-align: right;">3</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Principal structure height (maximum)</td> <td style="text-align: right;">80 ft.</td> <td style="text-align: right;">70 ft.</td> </tr> </table>	Minimum net lot area	<u>Core</u>	<u>Edge</u>	• In general; square feet	1,500	3,000	• Townhouse	1,000	1,000	• Other dwellings; square feet	1,500	5,000	Dwelling units per net acre (all dwellings)			• Minimum	20	10	• Maximum	80	40	Floor area ratio (nonresidential development)			• Minimum	0.5	0.25	• Maximum	3	2	Principal structure height (maximum)	80 ft.	70 ft.
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Countywide Map Amendment

Online map of existing and proposed zoning comparison: <http://zoningpgc.pgplanning.com/zoning-swipe-tool/>

The Countywide Map Amendment^{xiii} replaces the current zone on each property with a similar new zone based on the new zoning ordinance. This activity did not substitute for comprehensive planning or make any drastic use changes, which enabled a quick implementation of the new zones. To make sure that the zoning conversions were objective, transparent, fair, and equitable the County provided an online public story map that allows users to quickly see the zoning conversions all the way down to the property level using a swipe tool to compare the old zoning map to the new zoning map.

PROPOSED ZONING | **EXISTING ZONING**

USING THE SWIPE TOOL

- DRAG the grey bar in the center of the screen to the **RIGHT** to see **PROPOSED** zoning
- DRAG the grey bar **LEFT** for **EXISTING** zoning
- **CLICK** on an individual lot to get additional information about the property

+ OTHER MAPS

+ DISCLAIMER

esri A Story Map

M-NCPPC, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Countywide Map Amendment Online Story Map - Proposed New Zone Comparison Map
Image from: *Prince George's County - Zoning Ordinance and Subdivision Regulations Rewrite*



3. HOUSING

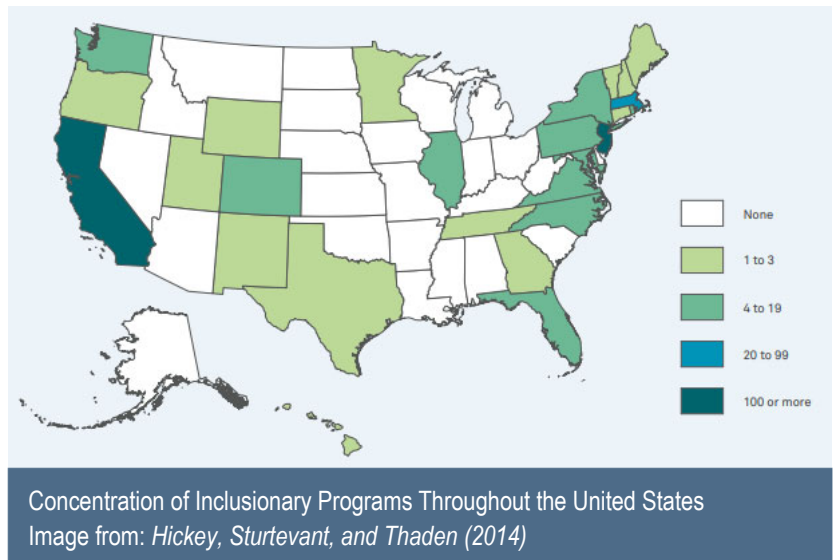
Inclusionary Zoning

General Overview

Inclusionary zoning (IZ), is a popular way for cities to produce affordable housing through the private market. Sometimes criticized for only producing enough units for a few low- and moderate-income households, inclusionary zoning remains a primary tool for cities to maintain neighborhood diversity and keep high-opportunity areas affordable.

Inclusive zoning policies are generally customized to address local housing needs and market conditions but adhere to a similar structure. IZ policies commonly specify:

- whether participation is mandatory or voluntary
- the geographic scope of the policy (e.g. jurisdiction-wide or targeted at specific neighborhoods)
- the types of developments subject to the policy (e.g. rental housing, for-sale housing)
- the size of developments subject to the policy (e.g. 10 units or more)
- the percentage of units to be made affordable
- the incomes served by the affordable units
- the required affordability-period
- whether density bonuses or other cost-reducing benefits are offered
- the availability of alternative compliance options (e.g. building the affordable units offsite, paying a fee in-lieu, or donating land)
- the process for appealing for a waiver to the inclusionary requirements



Mandatory or Optional

Inclusionary zoning requires or incentivizes private developers to designate a certain percentage of housing units as below market rate, meaning they are cheaper than their value on the market and often less than the cost to produce them. Inclusionary zoning laws aim to provide housing to low-income residents who would not be able to afford it otherwise. According to a study completed in 2015, *“The vast majority of local IZ programs are mandatory. More than 80 percent of existing IZ programs are mandatory policies, requiring developers to comply with affordability requirements as part of the approval process for market rate projects. However, most inclusionary housing programs provide some type of cost offset to developers and many offer alternative ways to comply with affordability requirements, including options to build affordable units off-site or to contribute to a local affordable housing fund.”*^{xiii}

The Urban Land Institute performed a study in 2016 titled *“The Economics of Inclusionary Development.”*^{xiv} One of the key takeaways from this study was that the most important factor for an IZ policy to achieve its goals is a significant and sustained level of market-rate development in the local market. Meaning, if a community is not already currently experiencing a substantial amount of new development, an IZ policy will not generate a meaningful number of new workforce housing units simply by its existence.

The study also found that jurisdictions typically need to provide development incentives to ensure the feasibility of development projects affected by an IZ policy. The principal incentives used are direct subsidies, density bonuses, tax abatements, and reduced parking requirements. Individually or combined these incentives can considerably enhance the feasibility of development projects affected by an IZ policy. Each incentive has strengths and limitations that derive from the local real estate development environment. Furthermore, in the right market conditions and with the optimal availability of development incentives, IZ policies can generate development of new



workforce housing units that would not otherwise be built. In such optimal situations, IZ at its most effective is only one tool in what must be a broad-based toolbox available to local governments to meet their workforce housing needs.

Geographic Focus

Some inclusionary zoning programs apply the same requirements uniformly across an entire jurisdiction, while some apply geographically focused IZ programs. The geographically focused programs are typically used for areas expected to experience significant growth or where affordable housing is a significant community issue. Some IZ programs used by local governments apply both jurisdictional wide and targeted areas simultaneously. According to a 2015 study by the Lincoln Institute of Land Policy, Burlington, Vermont, requires 15 percent affordable units citywide, but it requires 25 percent of units to be affordable in higher-cost waterfront areas. On the other hand, a few cities such as Chapel Hill, North Carolina, have done the opposite and lowered their requirements in the highest-density areas because higher-density construction can be significantly costlier. Using a different approach, Fairfax County, Virginia, varies requirements by construction type rather than by neighborhood. The requirements range from 5 percent in developments with structured parking to 12.5 percent in single-family and low-rise multifamily developments with a sliding-scale density bonus.^{xv}

Innovative Examples

Moderate Income Housing Unit (MIHU) Program – Howard County, MD^{xvi}

- Howard County Population: 321,113 (2017)
- Updated: 2018
- Specific Residential Zones Designations
- Includes Alternative Compliance Methods

On-line link to ordinance: <https://www.howardcountymd.gov/Departments/Housing/Home-Ownership-Opportunities/Moderate-Incoming-Housing-Unit-Program-MIHU>

Applicability

- Age-restricted adult housing
- Mixed-use developments
- Planned senior communities
- Residential mobile home developments
- Any development for which the provision of moderate-income housing is proffered by the petitioner and made a condition of approval in a preliminary development plan approved by the Zoning Board
- Residential developments in the R-SA-8, R-A-15, CCT, POR, R-SI, TOD, CAC Zoning District

On-site & Off-site Building Requirements:

The MIHU Program is an inclusionary zoning program that requires developers of new housing in specific zoning districts to sell or rent a portion (generally 10-15%) of the dwelling units to households of moderate income. The code does not set any minimum threshold, so it's unclear if a residential development of less than 10 units, for example, would qualify. MIHU homes should be integrated as part of the overall development. Meaning that homes must be on the same site, using the same types of units as the rest of the development, and evenly distributed throughout the development. However, developers may request permission for options to build off site or at a different ratio. This allows for developers to purchase and rehab additional properties to meet the MIHU requirement

This program does not provide any Low-Income housing unit requirements. It is targeted at moderate income, which is defined as household income less than 80% of the Howard County median income for units for sale and household income less than 60% of the Howard County median income for rental units. Income caps are updated periodically, and most recently updated in January 2020.

MIHUs are sold or rented at affordable prices and rents set by Howard County Housing. Open enrollment periods for the MIHU homeownership program are held quarterly. Any person or family can apply to buy an MIHU, provided their household income does not exceed the program maximums. Tenants must apply to the County DHCD, and if no units are available will be placed on a waitlist or into a lottery.



Alternative Compliance Methods

Substitute Housing - A developer may provide substitute units by purchasing, rehabilitating, and offering for sale existing housing units that are located throughout the County.

Offer to Low-Income Purchasers - A developer may substitute units by offering one-third of the moderate-income housing units required under this subtitle to eligible low-income purchasers who shall have an annual household income of up to 60 percent of the median income.

Fee In-Lieu - A developer may also pursue a Fee In-Lieu as an alternative compliance method.

Montgomery County Moderately Priced Dwelling Unit (MPDU) Program

- Montgomery County, MD Population: 1.059 million (2017)
- Moderately Priced Housing Law Adopted: 1974

On-line link to ordinance: <https://www.montgomerycountymd.gov/DHCA/housing/singlefamily/mpdu/index.html>

Montgomery County's Moderately Priced Dwelling Unit (MPDU) Program offers affordably priced townhomes and condominiums - both new and resale - to first-time homebuyers who have a moderate household income. The County Council passed the Moderately Priced Housing (MPH) Law in 1974. A provision of the MPH Law requires that between 12.5% and 15% of the houses in new subdivisions of 20 or more units be moderately priced dwelling units (MPDUs). The MPH Law requires that 40% of the MPDUs be offered to the Housing Opportunities Commission (HOC) and other non-profit housing agencies for use by low- and moderate-income families.

Recent bills have been approved that could alter impacts:

- One makes it easier for developers to avoid the requirement altogether by paying an in-lieu fee, locating affordable units nearby instead of onsite, or coming to another arrangement with the county housing department. This same bill also requires developers of small to medium projects to pay into the county's Housing Initiative Fund.
- The other aims to promote economic integration and raises the inclusionary requirement in certain affluent parts of the county from 12.5 to 15%

Applicability

Included in the MPDU program are detached and semi-detached homes (duplexes), townhouses, garden condominiums and high-rise condominiums and apartments. Under the present sales price limits, a three-bedroom townhouse has a sales price of approximately \$165,000. Sales prices and rental limits are reviewed annually and are revised to reflect changes in construction costs.



Interim Planning Overlay District for the Inclusionary Housing Interim Planning Overlay District – Lawrenceville Neighborhoods Pittsburgh, PA – (IPOD-6)^{xvii}

- Lawrenceville Neighborhoods Population: ~9,600
- Temporary Overlay District - Adopted: July 2019
- Mandatory Requirement

On-line link to ordinance: <https://pittsburgh.legistar.com/LegislationDetail.aspx?ID=3865418&GUID=0D62C278-2F4F-4618-9720-51F3C766105F&Options=ID%7CText%7C&Search=2019-1415&FullText=1>

Pittsburgh implemented an Interim Planning Overlay District (IPOD) in Lawrenceville as a temporary zoning control to increase affordable housing using Inclusionary Zoning. The City of Pittsburgh uses IPODs in specific areas of the City where existing zoning don't provide sufficient standards for an area's current activities. An IPOD does not replace an area's base zoning. It can add more controls, but it cannot add incentives. Once an IPOD is approved by City Council, it is in place for 18 months. It can be extended an additional six months by Council. The intent is for the IPOD to be replaced by permanent zoning that is informed by the results of the pilot and additional study.

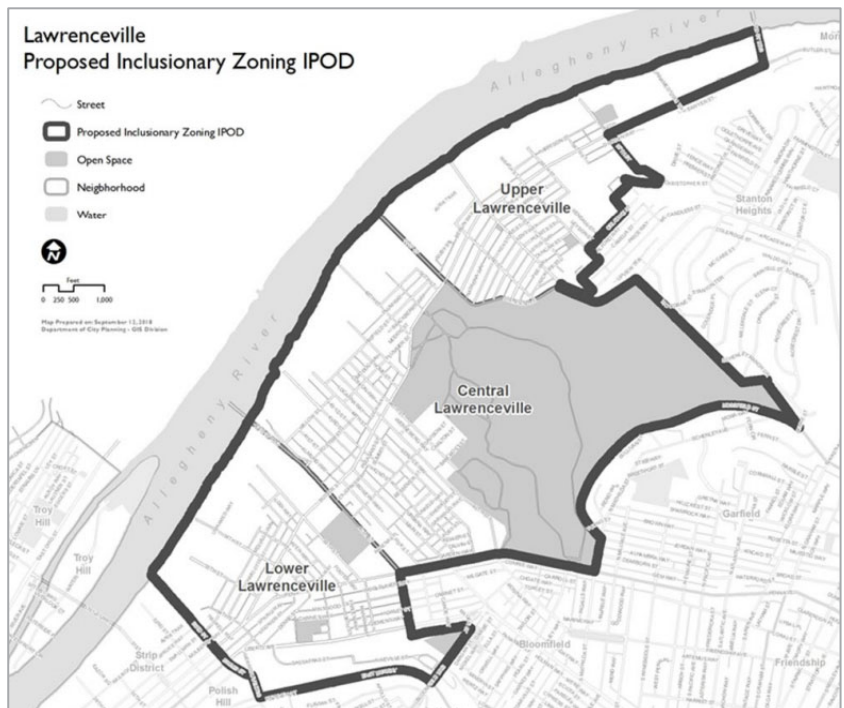
The IPOD for Lawrenceville covers three neighborhoods including: Upper Lawrenceville, Central Lawrenceville, and Lower Lawrenceville. This IPOD has been named *Inclusionary Zoning in Lawrenceville: Interim Planning Overlay District (IPOD-6)*.

Applicability:

- IPOD-6 applies to every new construction, substantial rehabilitation, or adaptive reuse project with 20 or more residential units for sale or for rent.
- Units will remain affordable for a minimum of 35 years. Term renews automatically for an additional 35 years if the Inclusionary Unit or any property containing an Inclusionary unit is sold during the Affordability term.

Participation Based on Area Medium Income (AMI):

- To rent, a household can't earn more than 50% AMI.
- To own, a household can't earn more than 80% AMI.



IPOD-6 Overlay District Map
Image from: *Inclusionary Zoning in Lawrenceville: Interim Planning Overlay District (IPOD-6)*



On-Site Building Requirements:

- A minimum of 10% of units shall be inclusionary if they are provided on-site. When this yields a fraction, the number of units shall be rounded up to the nearest whole unit.
- Inclusionary housing units must be integrated within, and distributed throughout, each building, except for:
 - (1) They are not required to be placed on the top floor in buildings of less than six (6) stories.
 - (2) In buildings of six (6) stories or more, units are not required to be placed on the top three (3) floors.
- On-site inclusionary units shall be equivalent to market-rate units within the building in all ways, including appliances, finishes, and square footage.
- Core building amenities, such as a gym, pool or parking space, must be shared with residents of inclusionary housing units, with no additional charges unless any resident could subtract those charges from their rent.
- The percentage of inclusionary units that are also family-sized shall be equal to or greater than the percentage of market-rate units that are family-sized.

Off-Site Building Exception:

- Only allowed to be constructed off-site as a Special Exception, if it is not feasible to provide them on-site.
- A minimum of 12% of the subject property's number of units shall be Inclusionary Units.
- The off-site units shall be located no more than one quarter (1/4) mile from the subject site, and within City limits.
- The off-site property must have comparable transit service as the subject site, evaluated by distance from transit stop(s) via networked walkshed, number of routes available and frequency of service.

Fee In-Lieu:

- There is no Fee In-Lieu alternative to the provision of Inclusionary units.

Inclusionary Zoning Examples

5 Story Building

- 40 Unit Apartment Building with 4 affordable units
- Top floor without affordable units

Affordable Units
Market Rate Units

Inclusionary Zoning Building Unit Example
Image from: *Inclusionary Zoning in Lawrenceville: Interim Planning Overlay District (IPOD-6)*



Accessory Dwelling Units (ADUs)

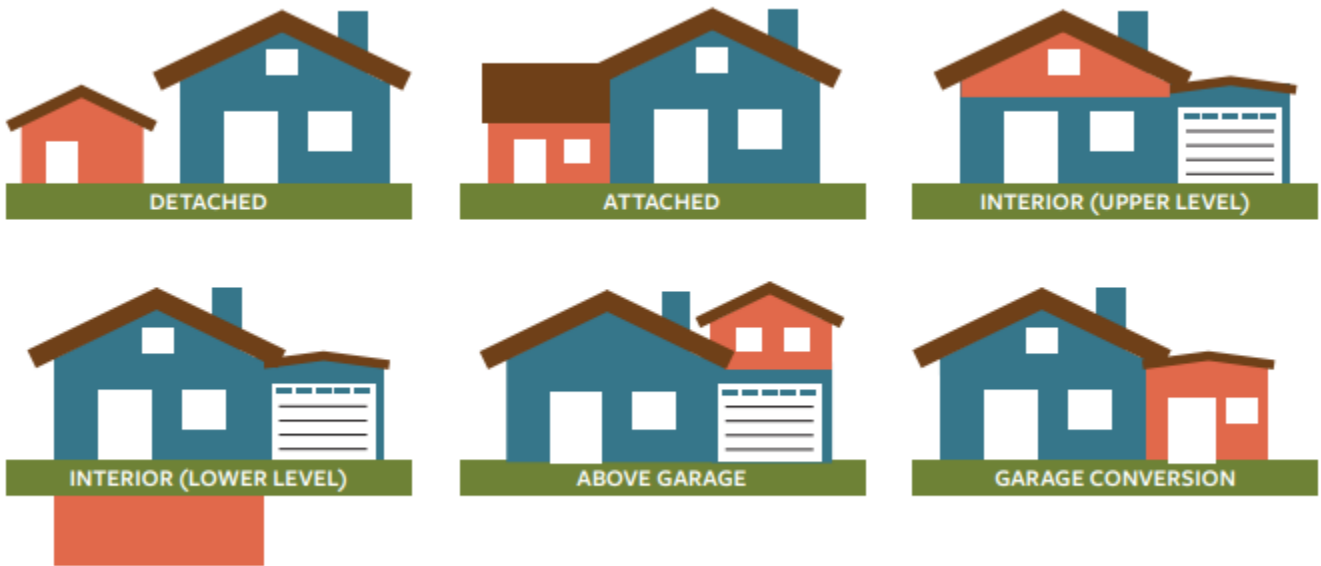
General Overview

Accessory dwelling units – also referred to as accessory apartments, second units, or granny flats – are smaller, independent residential dwelling units located on the same lot as a stand-alone (i.e., detached) single-family home. ADUs can provide supplementary housing that can be integrated into existing single-family neighborhoods to provide a typically lower priced housing alternative with little or no negative impact on the existing neighborhood character. ADUs also give the homeowner of the principal unit a means of collecting rental income and obtaining companionship and security.

Types of ADUs

An ADU can be an apartment created within an existing house, added onto a house or above a garage, or built as a freestanding unit. There are different types of ADUs:

- Interior – using an interior part of an existing dwelling
- Interior with modifications – where the outside of the existing dwelling is modified to accommodate a separate unit (such as adding an ADU above a garage or a garage conversion)
- Detached – construction of a structure on a residential lot that is separate from the main dwelling. This structure would be smaller than the main unit.



Accessory Dwelling Units come in many shapes and sizes.

Image from: *The ABCs of ADUs: A guide to Accessory Dwelling Units and how they expand housing options for people of all ages* (AARP)

Benefits of ADUs

ADUs offer many benefits to communities. Not only do they offer the potential to increase housing affordability for both homeowners and tenants, they also help to increase a community’s housing supply. ADUs also allow for elderly and/or disabled persons to stay near family as they age while also facilitating better use of the existing housing fabric in established neighborhoods. Many cities and counties across the country are realizing the benefits of ADUs and are indicating support of ADUs in their plans by adopting zoning regulations that permit ADUs in low-density residential areas.



Components of ADU Programs

- **Housing:** Policymakers should determine the current need and demand for rental units in general, as well as ADUs in particular, when beginning to craft an ADU ordinance. Conducting a housing needs assessment can provide information that will help policymakers evaluate zoning alternatives for ADUs.
- **Zoning Definitions:** Policymakers should establish a concrete definition of ADUs in their area. A universal definition helps establish basic requirements and limitations of ADUs. For example, many ADU ordinances highlight the existence of separate kitchens and bathrooms as distinguishing ADU requirements.
- **Locations Permitted:** It must be decided where ADUs will be permitted and what, if any, are minimum lot size requirements.
- **Design and Appearance:** A common criticism of ADU programs is the fear that ADUs will visually affect the overall neighborhood character. However, elements can be built into ADU programs that make govern the design and appearance of homes with ADUs that would preserve the visual and single-family character of neighborhoods.
- **Procedures for Review and Approval:** ADUs can be regulated as a permitted use, with an administrative review, or as a conditional use, subject to a public hearing.^{xviii}
- **Type:** In developing ADU programs, policymakers must consider whether they are going to allow attached units, detached units, or both, depending on established zoning regulations.

Differences in ADU Programs

ADU standards vary from state to state and even jurisdiction to jurisdiction. It is important to note some of the main regulatory areas that differ among ADU programs:

- Owner-occupancy requirements
- Design standards
- Dimensional restrictions, such as ADU height limits, size limits, or property setback requirements
- Charges and fees to obtain building permit, etc.



Innovative Examples

Moscow, Idaho

- 2010 Census Population: 23,800
- Approved by City Council in 2015
- Defining Characteristics: Home to the University of Idaho; the county seat and largest city of Latah County

On-line link to ordinance: <https://www.ci.moscow.id.us/DocumentCenter/View/5686/2015-06---T04C02-C06-C11-12-Accessory-Dwelling-Units-PDF>

Since approval in 2015, eight ADUs have been constructed throughout Moscow. However, many of the lots did not meet the minimum lot area of the zoning district they are in, which prompted several inquiries to city staff regarding establishing ADUs on lots with nonconforming sizes. Many of these nonconforming lot sizes were located in traditional neighborhoods close to downtown and where the city is promoting infill development.

In response to these inquiries, the Moscow City Council chose to eliminate the minimum lot size requirement in December 2019. This allows greater opportunities for all residential properties to have the option of developing units. The current ADU ordinance states:

- The ADU must be no more than 600 feet in size, or 40 percent of the gross floor area of the principal dwelling, whichever is less
- Occupancy of the ADU is limited to two people
- The owner must live in the ADU or in the principal dwelling on the property
- One off-street parking space is required
- ADUs are allowed to have separate electric and water meters, if desired
- The ADU must preserve the character of existing home and neighborhoods and allow for efficient use of the City's existing housing stock and infrastructure



Attached ADU located about the garage of a single-family home in Moscow, Idaho. Image from: *trulia.com*



Portland, Oregon

- 2010 Census Population: 585,340 – and rapidly growing
- Defining Characteristics: Portland has been recognized as one of the most successful ADU programs in the country due to its high single-family housing stock, flexible requirements, and applicant assistance.
- Oregon HB 2001: local jurisdictions may not mandate off-street parking nor require owner-occupancy.

Rising housing costs, a growing population, and ordinance characteristics in Portland have helped shape rapid ADU growth in the city. From 2000-2009, Portland issued an average of 27 ADU permits a year. From 2016-2018, the average was 621 permits a year.^{xix} Current market conditions have caused the development rate to remain ~600 units a year, however, Portland is home to roughly 2,900 ADUs and counting. In recent years, private and public initiatives have stepped up to assist those who cannot afford the up-front cost of building an ADU but have the space and desire to do so.

Notably, Portland is one of the few cities in the country that does not have owner-occupancy requirements for ADUs. This varies significantly from most other ordinances that require the owner of the property to occupy one of the residences on site. Additionally, the program:

- Allows for short-term rentals
- Requires no additional parking for accessory units
- Offers fee waivers
- Does not require a land use review for ADUs that meet all standards and are permitted by right
- Provides a guide as to how to bring existing nonconforming units into compliance.
- The maximum size of an ADU may be no more than 75% of the living area of the house or 800 square feet, whichever is less.



Example of an attached ADU in Portland, Oregon. Image from: <https://www.portlandoregon.gov/hps/article/630137>



This ADU used to be an underutilized garage in Portland, Oregon. Image from: hammerandhand.com/residential/



Santa Cruz County, California

- 2017 Census Population: 275,897
- Defining Characteristics: New state laws went into effect January 1, 2020 that make it even easier to construct ADUs. These new laws cover streamlined project reviews, reduced fees, more lenient development standards, lower parking requirements, Junior ADUs, multi-family dwelling ADUs, owner occupancy requirements, short-term rentals, nonconformities, and code enforcement.

General Overview

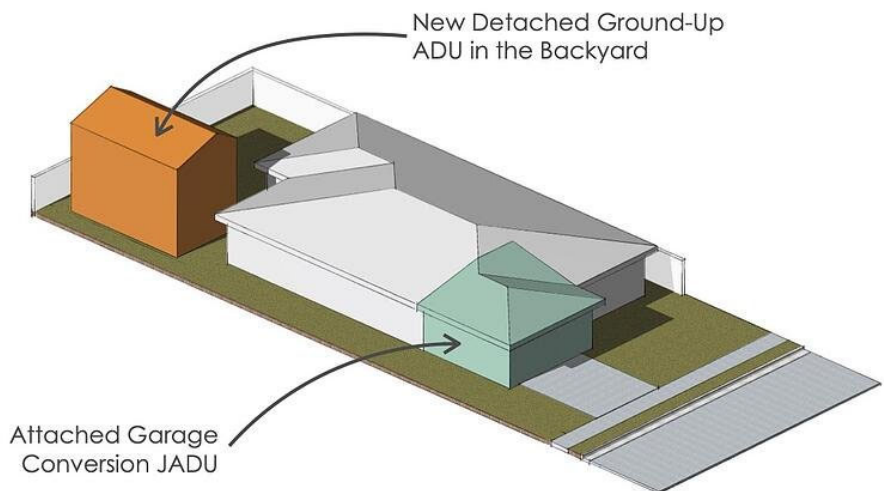
The County of Santa Cruz, California has maintained an ADU ordinance since 1983. In September 2019, the California State Legislature passed multiple bills to amend California Government Code section 65852.2, 65852.22, 65852.26 and Health and Safety Code Section 17980.12, which updated many statewide ADU regulations such as ministerial review, fees, development standards, parking requirements, Junior ADUs, multifamily dwelling ADUs, owner occupancy, short-term rentals, zoning nonconformities, code enforcement, and separate sale of ADUs.

Changes in ADU Policy

Recent law changes have influenced edits to the Santa Cruz County Code. It is important to note that the new state laws will not be in effect within the Coastal Zone until the Coastal Commission certifies the County's ordinance, which is expected to take place in Spring 2020. In the meantime, ADUs in the Coastal Zone are subject to the County's previously adopted ADU rules. New regulations per the County of Santa Cruz are as follows:

ADU Regulation Changes^{xx}

- **Location:** ADUs are now allowed on parcels in all zone districts and General Plan designations that allow single-family or multi-family residential development or mixed-use residential and non-residential development.
- **Junior ADUs:** are now permitted. JADUs are 150-500 square feet and have been converted from living areas in single family dwelling units. These units have an efficiency kitchen and a bathroom that is either independent or shared with the primary dwelling unit.
- **Number of ADUs allowed:** Single family dwellings may now have one ADU and one JADU. Lots with multi-family dwellings may now have up to two new construction detached ADUs plus up to 25% of



In this example, the attached garage or spare bedroom has been converted to a JADU and a new detached ADU has been added to the backyard. This is now legal per updated California law. Image from: modative.com

- units can have conversion ADUs created from areas that are not currently livable space (such as storage rooms).
- **Owner Occupancy:** Owner occupancy of the primary dwelling unit is required for JADUs, but not required for ADUs that are first permitted during the five-year period from January 1, 2020 – January 1, 2025.
- **Fees:** Overall fee structure has been reduced. Impact fees are not charged for ADUs less than 750 square feet, and impact fees for larger ADUs are proportional to ADU size.



ADU Development Standards have been relaxed^{xx}

- **ADU Size:** Minimum ADU size is 150 square feet, while conversion ADUs still have a maximum size of 50% of the primary dwelling unit. For new construction, ADUs on properties less than one acre - maximum sizes are now 850 square feet for studios and one-bedroom ADUs and 1,000 square feet for multiple bedroom ADUs. On properties greater than one-acre, maximum size for detached new construction ADUs is 1,200 sf and maximum size for attached new construction ADUs is 50% of the main dwelling unit.
- **Setbacks and Height:** Interior side and rear setbacks for ADUs are now four feet. ADU height standard remains the same as the zone district standard except for detached new construction ADUs within the urban services line shall be maximum 16 feet and ADUs above detached garages shall be 24 feet.
- **Parking:** ADUs are now exempt from parking requirements if they are within a half-mile walking distance from any transit stop, except in certain Coastal designated areas. Outside the Coastal Zone, no parking replacement is required for the main dwelling unit when ADUs are converted from existing covered parking.

Nonconforming Conditions: the County does not require the correction of most nonconforming conditions when approving a building permit for an ADU or JADU.^{xx}

Legalizing ADUs

Recent changes in the ADU Ordinance have addressed items that previously prevented people from legalizing their ADUs. Elements such as reduced costs, and changes to things like parking requirements, setbacks, building heights, lot size, and whether the ADU was owner-occupied or not made legalization impossible for some. Santa Cruz has made it easy for property owners to now legalize their ADU through a simple four-step process:^{xxi}

1. Contact Santa Cruz Government with any questions regarding property, the legalization process, general fees, and typical timeframe.
2. Site Visit (Optional): A Special Inspection conducted by a City Building Inspector and Planner can meet with the property owner to examine the unpermitted dwelling unit. This step is intended to allow property owners to make an informed decision as to the feasibility of the project.
3. Plan Submittal and Fee: Seven sets of plans and other required documentation are then submitted at the building counter. Plans are due within 90 days of the decision.
4. Inspections: Once a building permit is issued, the City Building Inspector will determine the inspection process. Features of the unpermitted ADU may be required to be exposed for verification of installation and design per minimum code standards “destructive analysis.”



Cottage Housing

General Overview

A cottage housing community is defined as a grouping of small, single-family dwelling units clustered around a common area and developed with a master plan for the entire site.^{xxii} These communities have gained popularity in recent years as a type of infill development on small sites within existing developed areas and encourage sustainable community development. Cottage communities provide connected backyards, create a pedestrian friendly environment, and are designed to encourage community involvement and social interaction. Cottage communities are suitable for all ages but are particularly attractive for the aging population because they are small and easy to maintain, energy efficient, and are suited for those with mobility limitations.

The following table compares exemplifies how a model cottage housing ordinance is set up versus “conventional” housing.^{xxiii}

Characteristic	“Conventional” Housing	Cottage Housing
Density	Typically, less than eight units per acre	Double underlying zone density
Unit Orientation	Typically facing out on a public access street or cul-de-sac	Facing in on a common open space, in a cluster of 4-12 units
Floor Area	Typically, 2,500 sq. ft. and up	No more than 1,200 sq. ft.
Common Open Space	Typically, either provided on-site or a fee is paid to the municipality for improvements to parks off-site.	Per-unit common open space requirement. Cottages are required to be cluster around the open space.
Design Restrictions	Few	Design standards are needed to make cottages more acceptable to neighbors.
Ownership	Typically, fee-simple.	Fee-simple or condominium association
Parking	Typically, garage facing the street; two spaces per unit.	Shared parking or individual garages permitted but buffered from public view and accessed via alleys or private driveways. Parking requirements can be reduced for smaller cottages.
Zoning	Single-family	Medium density single-family to medium density multi-family.
Footprint	Maximum lot coverage	850 sq. ft. maximum footprint.
Second Floor	Typically, up to 35 ft. overall height.	Cottages limited to two stores. Height restricted to 25 ft.
Porches	Not required.	Required.



Benefits and Obstacles to Cottage Housing Development

While the appropriateness of cottage housing developments will vary depending on the location, there are a variety of benefits and challenges that set this type of housing apart from other types of development.

Benefits

- **Flexibility:** Cottage homes are a great way to make underutilized spaces more effective or more desirable and serve the needs of different populations. For example, the size, cost, and customization potential make them great units for the elderly or those with special needs, for families seeking to downsize, younger households, and the workforce. As an infill type of development, they can maintain a spacious feeling with open courts. As higher density development, they offer privacy by having detached units.^{xxiv}
- **Cost:** As a smaller unit requiring less materials to construct, cottage housing may be a more affordable option when considering new construction. Additionally, the upkeep of a cottage home is generally less than that of a larger unit. For example, cottages tend to be more energy efficient, particularly in the fact that there is less space to heat and cool. Depending on location and various other factors, a cottage home may also come with lower insurance and mortgage costs.

Obstacles

- **Parking:** The site may have limited space available for sufficient parking, which is required to mitigate excessive spillover to on-street parking.
- **Locational Suitability/Zoning Restrictions:** Availability of lots with sizes capable of accommodating development may be low. Allowable density on a potential lot generally needs to be higher to allow for economically feasible projects and some neighborhoods may be resistant to denser development.

Considerations for Development Standards

A cottage housing ordinance is key to ensuring that the development fits within the parameters of the neighborhood. While an ordinance of this type may not be something that every jurisdiction will incorporate into their code, examples of cottage housing regulations provide a basis to review and evaluate proposed projects within a community. Some elements that should be considered when developing a cottage housing ordinance could include:

- **Units and Lot Sizes:** It is important to define minimum and maximum number of units and lot sizes.
- **Floor Area and Coverage:** Setting parameters for maximum floor area and coverage. It is also important to analyze the appropriateness of density bonus examples.
- **Setbacks and Height:** Consider setting average setbacks to provide flexibility and set standards for building separation parameters and the number of allowable stories/their height.
- **Parking:** Setting the number of required spaces and their arrangement.
- **Overall Design:** For example, setting standards for color schemes, orientation, porches, and sidewalks to stay cohesive with the surrounding community.
- **Common Space and Amenities:** The amount of common space could depend on the number of units on site.
- **Integration into the Community:** Standards could be set for outreach and education opportunities in the community. Additionally, the development could operate under a trial period where benchmarks must be set to ensure that regulations are working as intended.



Innovative Example

Cottage communities have been implemented in jurisdictions across the country. The following is an example that involved much collaboration with local planning officials to successfully integrate a mix of housing types within a one-acre site.

Cottages on Greene: East Greenwich, Rhode Island

Located in historic downtown of East Greenwich, Rhode Island, Cottages on Greene is a privately financed infill development composed of mixed income housing. Prior to construction, the one-acre site had set abandoned for years. A team led by 620 Main Street Associates proposed a concept in 2009 that leverage the site's walkable location and an emerging demand for scaled-down, urban-style living. The result was a 15-unit cottage housing development that includes affordable units and incorporates sustainable design.

Design and Implementation

The development team's vision for the project was achieved through a partnership with the town officials. Due to design elements and the proposed housing density, the proposal did not comply with several of the town's existing codes, including zoning and fire safety. However, local planning officials supported the concept because five units (33 percent of the total proposed units) would have deed restrictions for low income housing. These affordable units met state and local zoning requirements and helped it qualify as a comprehensive project which then expedited the approval process based on the capacity to address a range of socioeconomic needs.^{xxv} The project engineers and architects used detailed renderings and site plans to illustrate how the project would fit within the existing fabric and architectural style of the surrounding neighborhood. In collaborating with local officials, the team was able to proactively address potential hurdles and gain approval for the project.

Cottages on Greene is designed in a way that successfully integrates the development with the surrounding neighborhood. The existing neighborhood consists of low-density residential areas on the northern border of the site and commercial areas are located along the eastern and southern borders. In response to this, the cottages are arranged in two rows around community spaces with parking to the south that creates a buffer between the cottages and the commercial uses nearby. The developers design the cottages as high-quality living spaces. Floor plans were designed to minimize sight lines between cottages and the low- and moderate-income units are scattered throughout the site and are indistinguishable from the market rate units. To help foster a sense of community, there is a central communal vegetable and cutting garden, which is a part of the larger environmentally sustainable development strategy.



The site plan responds to the neighborhood context by locating parking adjacent to the commercial uses on the southeastern portion of the property while the housing abuts the existing residential areas to the north and west. Image courtesy of Union Studio.



The design includes a combination of community gardens and front porches that create a mix of public and semi-public spaces. Image courtesy of Union Studio.

4. TRANSIT ORIENTED DEVELOPMENT

General Overview

According to the Transit Oriented Development Institute, transit oriented development (TOD) is *the creation of compact, walkable, pedestrian-oriented, mixed-use communities (residential, office, retail, and entertainment) centered around high-quality train systems.*^{xxvi} Successful TOD projects also address ways to ensure personal safety and security, encourage economic and community development, respect the area's cultural history, and strengthen the connections between transit and surrounding neighborhoods. TOD makes it possible to live a lower-stress life without complete dependence on a car for mobility and survival.

Components of TOD

Successful transit orientated development relies on the integration of many different urban design elements at different scales. Main components of TOD include:

- Pedestrians as the central focus of walkable design
- Train station that fronts a public square and is the prominent feature of the town center
- A regional node containing a mixture of uses in close proximity (office, residential, retail, and civic)
- A high-density, walkable district within a 10-minute walk of the train station
- Supporting transit systems including streetcar, light rail, buses, etc.
- Varied infrastructure to support bicycle and scooter as main mode of transport
- Bikeshare rental system, bikeway network, and proper storage facilities
- Specialized retail at stations that support commuters and locals: cafes, grocery, dry cleaners, etc.

Factors Driving TOD

Changing demographics are causing fundamental shifts in housing and transportation wants and needs. The Transit Oriented Development Institute cites the following as factors that are driving the TOD trend across the country:^{xxvi}

- Rapidly growing traffic congestion
- A shift away from suburbia and strip development
- A growing desire for a quality urban lifestyle
- A growing desire for more walkable lifestyles that are not dependent on a motor vehicle
- Changes in family structure: more singles, empty nesters, etc.
- Growing national support for Smart Growth



To understand the relationship between transport and the urban environment, ITDP (Institute for Transportation & Development Policy) developed eight basic principles of sustainable and equitable transport in urban life which form the core definition of TOD

Image from: *Our Cities Ourselves: Principles for Transport in Urban Life*, ITDP (<https://www.itdp.org/2011/08/29/our-cities-ourselves-principles-for-transport-in-urban-life/>)

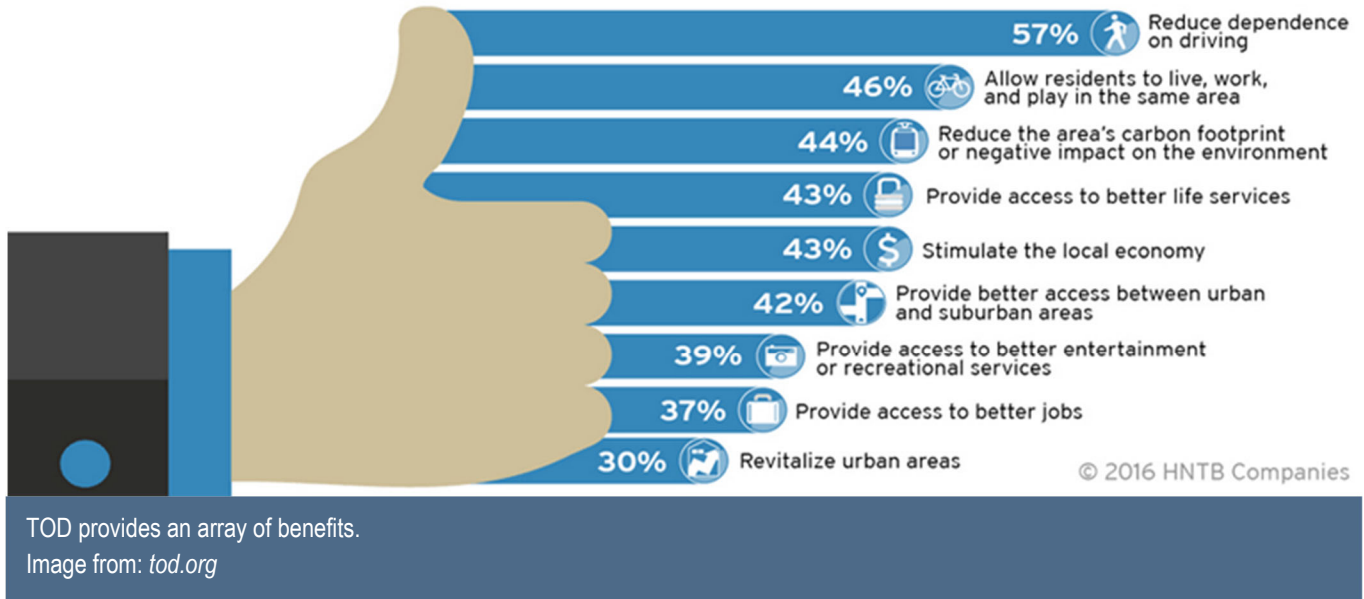


Benefits of TOD

There are many benefits to TOD that have the potential to span communities and diverse groups of citizens. A recent survey from HNTB Companies showcases the array of benefits that Americans believe are associated with TOD:

BENEFITS OF TRANSIT ORIENTED DEVELOPMENT

Americans believe transit oriented development provides an array of benefits ranging from lifestyle to environmental to economic.



Innovative Examples

Aberdeen, Maryland: Advancing Transit Oriented Development Using Form-Based Code

- 2017 Population: 16,049
- Aberdeen MARC Station was designated a state TOD site in 2010: the official area is identified as properties within one-half mile of the MARC Station
- In 2012, City Council passed a master plan that called for a new set of zoning regulations around the station to promote a walkable center with dining, retail, and residential opportunities.
- Aberdeen City Council members adopted new zoning designed for transit oriented development in early 2014 to encourage redevelopment and help implement the Aberdeen Transit Oriented Development Master Plan (adopted May 2012).
- The Transit Oriented Development zoning district took effect 2014.

On-line link to TOD Master Plan: <https://www.aberdeenmd.gov/sites/aberdeenmd/files/uploads/tod.pdf>

Overview

The City of Aberdeen was awarded a small demonstration grant in 2013 through the *Opportunity Collaborative for a Greater Baltimore Region* to prepare a form-based code and corresponding zoning code amendments to implement and enable TOD within the TOD concept areas identified in Aberdeen's TOD Master Plan.



Among key recommendations that the TOD Master Plan identifies was to *encourage development by developing and adopting a form-based development code for the Aberdeen TOD area.*^{xxvii} The TOD form-based code was to specifically address:

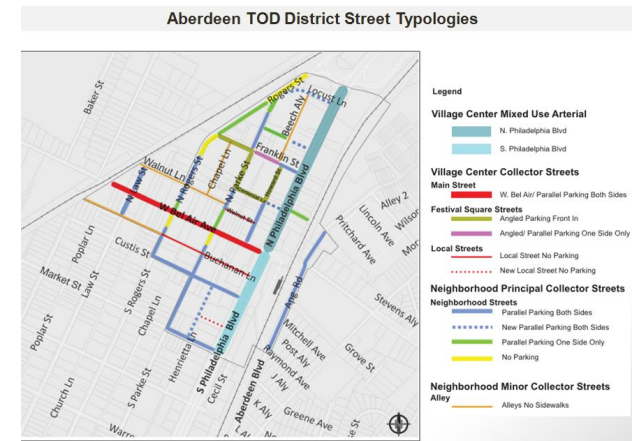
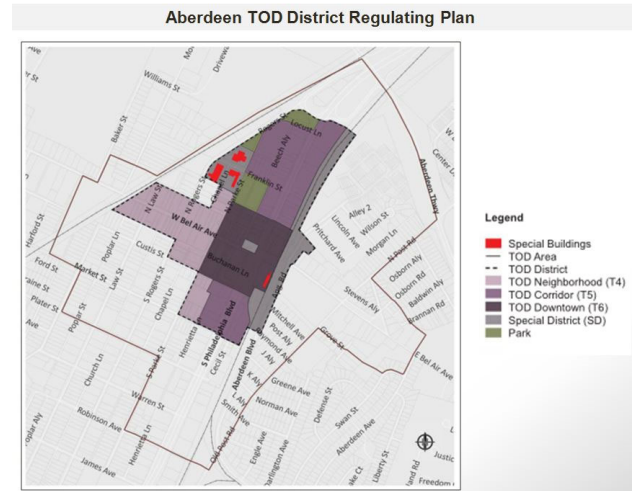
- Pedestrian friendly design
- Building setback/build to lines
- Parking Requirements
- Building Height Restrictions
- Allow and encourage mixed-use development
- TOD and pedestrian-friendly stormwater treatment strategies
- Changes and updates to landscaping, lighting, security features, and signs

TOD Master Plan & TOD District

Aberdeen used the TOD District to regulate development to achieve the urban form that was identified in the TOD Master Area Plan areas, which include Station Square, Festival Square, and Residential Square. The TOD District is transect-based, meaning there is a corresponding regulating plan that prescribes permitted uses, building heights, site design, building type, building frontage types, pedestrian environment, and streetscape within the TOD District, based on the parcel's location and street frontage type. The first priority was to adapt the City Code to envision, enable, and encourage development consistent with concepts in the Master Plan.

The Aberdeen TOD District was born from a demonstration grant through an Opportunity Collaborative for the Greater Baltimore Region in 2013. The TOD District code's Regulating Plan goes hand in hand with the TOD Master Plan, fostering a mix of land uses, emphasizing storefronts and commercial uses at street level, promoting a walkable environment and multi-modal streets, and parking standards.

Using a form base code to develop the TOD District was valuable for the Aberdeen government who may have been more comfortable with traditional overlay districts. Ultimately, the plan was developed using code transects and street frontage types, adapted in a way to fit in with the context and requirements of the existing development code.



TOD boundary and street typology map in Aberdeen.
Image from: Maryland Dept. of Planning
<https://planning.maryland.gov/Pages/OurWork/tod/bpaberddeen.aspx>



5. CRITICAL AREA COMPONENTS

General Overview

In addition to examining best practices that surround the built environment, it is vital to look at elements of the natural environment that influence zoning and the design of cities. An environmental program that has had great influence on many counties and jurisdictions since its inception is the Chesapeake Bay Critical Area Protection Act. This Act has been instrumental in the influence of design and preservation of the lands that surround Maryland's valuable water resources.

The Chesapeake Bay Critical Area Protection Act was enacted in 1984 to help reverse the deterioration of the Chesapeake Bay and the surrounding environment. The Act included the creation of a unique partnership between Maryland government and the 64 jurisdictions surrounding the Bay. In 2002, it was amended to include the Atlantic Coastal Bays and portions of Worcester County and Ocean City. Consequently, each jurisdiction has adopted its own local Critical Area Program based on criteria endorsed by the Critical Area Commission.

Defining the Critical Area

The land immediately surrounding the Chesapeake and Atlantic Coastal Bays and their tributaries has the greatest potential to affect the water quality and wildlife habitat of these resources. As a result, all lands within *1,000 feet of the edge of tidal waters, or from the landward edge of adjacent tidal wetlands, and all tidal waters and lands under those waters and wetlands* are designated as a "Critical Area."^{xxviii} Under this definition, some 680,000 acres of land are encompassed. This is equal to approximately 10 percent of the total land area of Maryland, including 64 local political subdivisions (16 counties, 47 municipalities, and Baltimore City).

Goals of the Critical Area Act

The purpose of the 1984 Law was to establish a "resource protection program" that would foster more sensitive development activity and minimize damage to water quality and natural habitats. Within the Law, it was stated that each local jurisdiction must develop and implement its own Critical Area Program that would help accomplish the overall goals of the State^{xxix}:

- Minimize adverse impacts on water quality from pollutants that are discharged from point sources or runoff from surrounding lands.
- Conserve fish, wildlife and plant habitat in the Critical Area.
- Establish land-use policies for development that accommodate growth, yet address the environmental impacts associated with the number and activities of people in the Critical Area.

It is important to note that the Critical Area Act does not prohibit development within the designated territory, instead, it regulates and restricts land development.

Critical Area Land Use Classifications

All land in the Critical Area is categorized into one of three land use classifications. Note: the classifications are based on the land use that existed at the time a local government adopted its Critical Area Program.

Resource Conservation Areas (RCAs)

These areas have the most restrictive land-use classification and are designated only for resource protection or utilization, as well as low-intensity residential development. RCAs are characterized by natural environments or by resource-based activities (agriculture, aquaculture, commercial forestry, fishing).

Restrictions:

- New commercial and industrial facilities are prohibited
- Residential development is limited to one dwelling unit per 20 acres
- No forest cover may be removed without replacement
- Impervious surface cover is based on the lot size when created.



Limited Development Areas (LDAs)

These areas have the middle land-use classification and are designated for moderate intensity residential development and limited commercial development. LDAs must conserve existing areas of natural habitat and incorporate wildlife corridors to ensure continuity of wildlife and plant habitat.

Restrictions:

- Housing densities are based on local zoning regulations
- No forest cover may be removed without replacement
- Impervious surface cover is based on the lot size when created.

Intensely Developed Areas

These areas have the least restrictive land-use classification and are designated for high-intensity development. IDAs are defined as areas of twenty or more adjacent acres where residential, commercial, institutional, or industrial land uses are predominant. Development is encouraged to minimize forest destruction and impervious surface cover, but no require limitations exist.

Restrictions:

- New development/redevelopment must reduce pollution from stormwater runoff by at least 10% below that of existing land use through best management practices.

The following case studies examine the Critical Area Programs of two locations: Baltimore City (Chesapeake Bay) and Worcester County, Maryland (Atlantic Coastal Bay).

Innovative Examples

Baltimore City: Critical Area Management Program (CAMP)

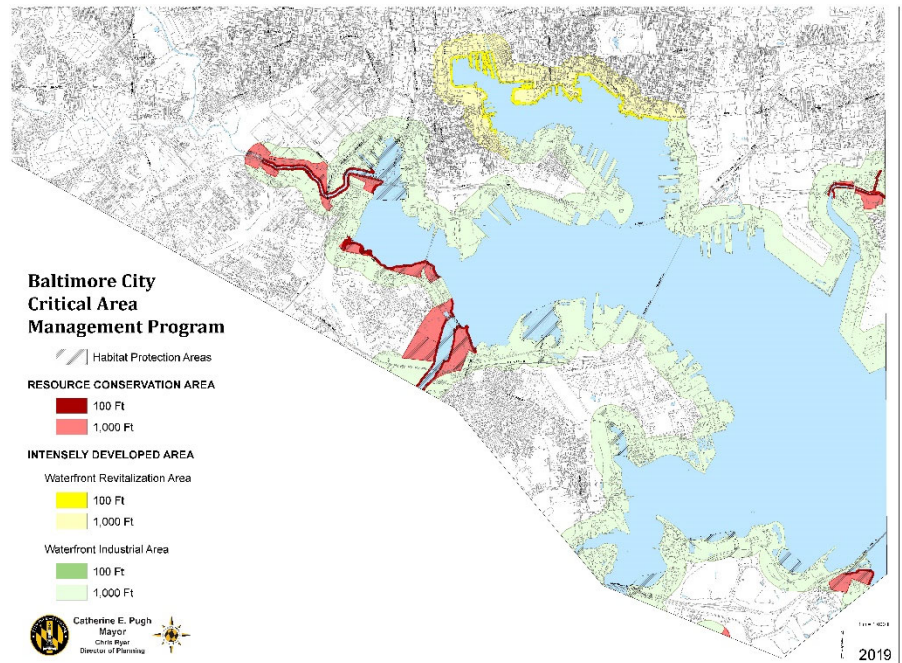
On-line link to the CAMP: <https://www.baltimorecity.gov/sites/default/files/CAMP2002.pdf>

Overview

The Baltimore CAMP establishes guidelines for development of properties within the first 1,000-feet of land measured from the mean high tide line along the shoreline or bulkhead. Per the CAMP, development in the Critical Area is subject to Critical Area review and requirements when and each time that the activity requires one or more of the following public actions:

- Subdivision
- Rezoning
- Zoning Variance
- Conditional Use or Special Exception
- Building/Grading Permit

Once one of the above actions triggers the Critical Area Review Process, the Department of Planning will evaluate the project to determine whether the project is “significant development.” This means that the project disturbs land in the Buffer (the first 100 feet and a Habitat at Protection Area), disturbs



Map of Critical Areas in Baltimore City. Image from: *Baltimore City Dept. of Planning*
https://planning.baltimorecity.gov/sites/default/files/CriticalArea_2019.pdf



10,000 or more square feet of land in the Critical Area, results in any disturbance, caused by use, development or destruction of vegetation, to land in an area designated under the CAMP as a Habitat Protection Area, or involves expenditure for improvements to the property equal to or greater than 50% of the Base Full Cash Value of the property. If found to be significant, the applicant must meet all requirements of the CAMP: plans, worksheets, etc.

Review Process

Once all materials are received, the Baltimore City Department of Planning sends a copy of the application to the Critical Area Commission in Annapolis. The Department of Public Works checks the applicant’s compliance with all runoff pollution reduction requirements and best management practices. All other requirements (Buffer establishment, etc.) are the responsibility of the Department of Planning. If the project meets all requirements, the Department of Planning will sign off on the building permit application plan sets.

The City’s CAMP is established as an overlay zone within the Baltimore City Zoning Code under Title 8 Subtitle 3, which establishes definitions, use restrictions, and administrative processes for conditional uses and variances within the Critical Area.

Development in the Critical Area – Intensely Developed Areas (IDA)

The land within Baltimore City’s Critical Area falls into just two of the three Land Use Classification categories as outlined in the Critical Area Act: Intensely Developed Areas and Resource Conservations Areas. Baltimore has no Limited Development Areas. Furthermore, as most of the City’s Critical Area falls into the Intensely Developed Area category, the diversity of the existing land uses in this area has necessitated the area to be broken down into two sub-areas: the Waterfront Revitalization Area and Waterfront Industrial Areas. Each sub area has its own requirements for runoff pollution reduction, buffer establishment and offset, and tree replacement.

Guideline		Waterfront Revitalization Area	Waterfront Industrial Area
Runoff Reduction	Pollution	Developer is required to meet 10% of runoff pollution reduction (must be done onsite unless infeasible due to site conditions)	
Buffer Establishment*		If encroached upon, developer must plant vegetation on as much of the buffer as possible. Properly vegetated areas within the Buffer portion of the site may be counted against the developer’s Buffer establishment requirement. In addition, properly vegetated areas outside the Buffer may be credited toward the Buffer requirement provided they are contiguous to vegetated areas within the Buffer and are not less than 25 feet in width and depth.	Water Dependent Use: developer offset only for the land area within the Buffer, which has been disturbed for new construction, or paving associated with the water dependent use. The developer is required to compensate (either on-site or through the offset program) for any existing vegetation disturbed by the development and to correct any shore erosion problems. Non-Water Dependent Use: Development limited to 50% of the total Buffer area.
Buffer Offset Fund		For any portion of the Buffer, which is not vegetated in an approved manner, the developer is required to contribute to the Buffer Offset Fund or otherwise offset for any development in the Buffer	N/A
Additional Provisions		Total liabilities for Buffer offsets shall not exceed 2% of the cost of the proposed development.	
Tree Replacement		Replacement of all such trees or woody plants shall be on a 1:1 basis. Any tree cut, removed or destroyed without prior approval must be replaced and maintained on a 2:1 basis. Any tree or woody plant cut in the Buffer, regardless, must be replaced on a 3:1 basis.	



Development in the Critical Area – Resource Conservation Areas (RCA)

The remainder of the City’s Critical Area falls under the Resource Conservation Area category. This area is almost exclusively floodplain areas and shoreline parks. RCA’s have specific requirements such as impervious surface limitations, variance allowances, requirements for development outside of the buffer, requirements for development within the buffer, and tree replacement guidelines.

Guideline	Requirement
Impervious Surface Limitation	<ul style="list-style-type: none"> ▪ Man-made impervious surfaces must be limited to 15% of a parcel or lot in the Resource Conservation Area, unless it existed before Dec. 1, 1985 – then man-made impervious surfaces are limited to 25% of parcel or lot ▪ CAMP outlines other provisions regarding subdivisions and lot requirements
Variances	Variances from these provisions may be requested in accordance with the provisions established in the CAMP
Development Outside the Buffer	Limited to open space and public natural resource oriented recreational, cultural and educational facilities. If vegetation is disturbed by an impervious surface, an offset for the total vegetated area displaced by such development is required. The overall acreage of forest or woodland within these areas cannot be lessened by development.
Development Inside the Buffer	Limited to areas for passive recreation. Developer is required to offset 3:1 for total buffer area disturbed.
Tree Replacement	Replacement of all such trees or woody plants shall be on a 1:1 basis. Any tree cut, removed or destroyed without prior approval must be replaced and maintained on a 2:1 basis. Any tree or woody plant cut in the Buffer, regardless, must be replaced on a 3:1 basis.



6. ZONING FOR CANNABIS

General Overview

Cannabis laws in Maryland and across the country have undergone a significant overhaul in recent years as there has been a gradual but consistent shift in public attitude toward the use of cannabis. As a result, the cannabis industry has become one of the fastest growing industries in the nation and is seen as an attractive investment vehicle for property owners, and real estate developers/investors. With the growing demand for cannabis and cannabis related industries, states and local jurisdictions are being forced to re-examine their individual land use controls and regulations and potentially adapt them to the industry.

The state of Maryland has established the Natalie M. LaPrade Maryland Medical Cannabis Commission (MMCC) that is charged with the development of policies, procedures, and regulations to implement programs that ensure medical cannabis is available to qualifying patients in a safe and effective manner.^{xxx} The MMCC oversees all licensing, registration, inspection, and testing measures pertaining to Maryland’s medical cannabis program.

However, laws in Maryland state that local municipalities shall determine the zoning and planning requirements of marijuana facilities.^{xxxi} This has resulted in a patchwork of different zoning rules and regulations across the state, ranging from “open arms” policies of Washington County in western Maryland to prohibitive and strict limitations of Anne Arundel County in central Maryland.^{xxxii} The following matrix compares zoning code regulations as it pertains to cannabis across similar jurisdictions in Maryland.

Comparing Cannabis Zoning Regulations in Maryland

Under Maryland Cannabis Laws, updated January 2020, the following definitions apply:^{xxxiii}

- A **“Dispensary”** means an entity licensed under this subtitle that acquires, possesses, transfers, transports, sells, distributes, dispenses, or administers cannabis, products containing cannabis, related supplies, related products containing cannabis including edible cannabis products, tinctures, aerosols, oils, or ointments, or educational materials for use by a qualifying patient or caregiver.
- A **“Grower”** means an entity licensed under this subtitle that cultivates or packages medical cannabis and is authorized by the MMCC to provide cannabis to a processor, dispensary, or independent testing laboratory.
- A **“Processor”** means an entity that transforms medical cannabis into another product or extract and packages and labels medical cannabis.

Jurisdiction	DISPENSARIES		GROWING & PROCESSING FACILITIES	
	Zones Permitted	Notes	Zones Permitted	Notes
Anne Arundel County	<ul style="list-style-type: none"> ▪ Special Exception use in Highway Commercial Districts (C1, C2, C3, C4) ▪ Special Exception as a principal use in Industrial districts W1 & W3 ▪ Conditional use as a principal use in Industrial district W2 ▪ Special Exception in a business complex in Industrial districts W1, W2, W3 	<ul style="list-style-type: none"> ▪ Must be 750 ft from public or private school, 500 ft from residential unit (except for industrial districts/ N of US 50) ▪ Except for facilities in Industrial districts, vehicular access must be from arterial road ▪ “No Loitering” signs must be posted in all parking areas ▪ Facility cannot be located within 1 mile of other dispensaries ▪ Displays and depictions of cannabis cannot be visible to general public ▪ Facility may not have onsite physician for purposes of issuing certifications 	<ul style="list-style-type: none"> ▪ Conditional use in RA, Highway Commercial district C3, C4, ▪ Conditional use in Industrial districts W1, W2., W3 (indoor cultivation only) 	<ul style="list-style-type: none"> ▪ Facilities may not be within 750ft of public or private school, property owned by BOE, or residentially zoned property (except in RA District) ▪ Growing facility must be on at least 10ac parcel in RA district ▪ No visible light can emanate from facility from dusk to dawn (other than security lights) ▪ Processing is an accessory use to a growing facility.



Jurisdiction	DISPENSARIES		GROWING & PROCESSING FACILITIES	
	Zones Permitted	Notes	Zones Permitted	Notes
Baltimore County ^{xxxiv}	Business Districts, by right: B.R., B.M., B.L., B.L.R., M.L., & O-3. <i>*Special exception needed if these zones are located within a Commercial Revitalization District.</i> <i>**Not permitted in M.L. Zone if located in a Chesapeake Enterprise Zone.</i>	<ul style="list-style-type: none"> May NOT be located within 500 ft of a public/private school or day care center, or within 2,500 ft of another dispensary. 	Industrial Districts, by right: R.C.2., S.E., & M.L.- I.M. <i>*By Special Exception in certain rural zones: R.C.7 or R.C.8</i> <i>**By Special Exception if within Chesapeake Enterprise Zone: M.L.- I.M.</i>	<ul style="list-style-type: none"> A person/entity licensed as both a grower & processor may operate a licensed medical cannabis dispensary at its growing and processing facility located in an M.L.- I.M. Zone
City of Cambridge ^{xxxv}	CMU and Industrial Zones Districts	<ul style="list-style-type: none"> Cannot be located within 1,000 ft of a school or drug rehab facility Cannot be located within 2,500 ft of another dispensary Signage no larger than 4 ft., externally lit, located on building frontage in a discreet manner, must be reviewed 	Industrial Zone District	<ul style="list-style-type: none"> Cannot be located within 1,000 ft of a school Signage no larger than 4 ft., externally lit, located on building frontage in a discreet manner, must be reviewed
Frederick County ^{xxxvi}	Listed as a use permitted by right in the PB, GC, DB, MU, and MXE Districts	No other detailed information regarding specific regulations exists in current zoning code.		
Prince George's County ^{xxxvii}	M-U-I & M-X-T Zones, with the following restrictions: <ul style="list-style-type: none"> Boundaries must be 300 ft away from R-A, R-E, R-L, R-R, R-S, R-80 or R-55 Zone. Must be 500 ft away from any land owned by the MNCPPC Must be 500 ft away from and day care center, including day camps Must be 500 ft away from school land uses 	<ul style="list-style-type: none"> Dispensary must be located within 500 ft of a medical facility. Parking requirements must be at least the min. parking requirements of medical facility. Not permitted as an accessory use. Boundaries must be at least 1 mile from other dispensaries. 	O-S Zone, with the following restrictions: <ul style="list-style-type: none"> Boundaries must be 500 ft away from R-A, R-E, R-L, R-R, R-S, R-80 or R-55 Zone. Must be 500 ft away from any land owned by the MNCPPC Must be 500 ft away from and day care center, including day camps Must be 500 ft away from school land uses 	<ul style="list-style-type: none"> Parking requirements must be at least the min. parking requirements of a wholesale establishment. Not permitted as an accessory use. Min. lot area of 10 ac. Cultivation can be outside (100' from the street) but all other aspects must be indoors Outdoor signage limited to building mounted signs



Jurisdiction	DISPENSARIES		GROWING & PROCESSING FACILITIES	
	Zones Permitted	Notes	Zones Permitted	Notes
Queen Anne's County ^{xxxviii}	<ul style="list-style-type: none"> Conditional use in the Urban Commercial (UC), subject to additional standards Permitted use in the Gransonville Gateway and Medical Center (GGMC) district, subject to additional standards 	<p>Conditions to be met:</p> <ul style="list-style-type: none"> Cannot abut an existing residential use. Must be 500 ft away from church, school, or correction facility Must be 100 ft away from residential dwelling Designated sewer system must be S-1 or S-2 Must take access from public ROW Must be 2,500 ft from another dispensary Must not have on-site physician for purpose of issuing certifications 1 sign permitted, internally illuminated, no larger than 12sf 	<ul style="list-style-type: none"> Growing: conditional use in the Agricultural (AG) district Processing: conditional use in the Light Industrial Highway Service (LIHS), Suburban Commercial (SC) Suburban Industrial Business Employment (SIBE), Urban Commercial (UC), and Suburban Industrial (SI) districts – all subject to additional standards 	<p>Conditions to be met:</p> <ul style="list-style-type: none"> use shall not be located within 1000 ft of any institutional, school, church, or municipal use. If proposed in the Critical Area, property to be listed as Intensely Developed Area Growers must be located on a property that is more than 20 acres.

Jurisdictions / Counties Without Cannabis Zoning Regulations

It is important to note that if a jurisdiction is listed as not having addressed zoning and planning requirements specific to medical marijuana in the table below, it does not mean that cannabis operations (dispensaries) are not present in that area. For instance, in Baltimore City, dispensaries are considered “retail goods establishments” and can be set up in any area zoned for commercial use may also be occurring elsewhere. Likewise, there are a number of dispensaries in operation in Howard County, although mention of cannabis is not made within their current zoning code. The following is a list of counties or jurisdictions within Maryland that have not yet addressed zoning and planning requirements specific to medical marijuana in their zoning codes:

- | | |
|---|--|
| <ul style="list-style-type: none"> Baltimore City Chesapeake Beach / Calvert County Chestertown / Kent County Cumberland / Allegany County Easton / Talbot County Elkton / Cecil County | <ul style="list-style-type: none"> Hagerstown / Washington County Howard County Montgomery County Ocean City / Worcester County Wicomico County |
|---|--|



7. GENERAL DEVELOPMENT REQUIREMENTS

General Overview

Cities and states often include in their zoning code a section of general development requirements, which establish minimum design and improvement standards that are required for approval of a site plan within a zone. Examples of these requirements include landscape standards, lighting standards, and signing standards. These standards help to ensure a cohesive character across all development and promote the health, safety, and welfare of residents.

Landscape Requirements

Landscape requirements set minimum standards for quantities, sizes, location, and installation of landscaping on properties. The intent of these standards is to preserve property values, preserve and strengthen the character of communities, and improve water and air quality. Often included as a part of landscape requirements are screening requirements, which ensure appropriate landscape screening between different building types and uses.

Innovative Example

Montgomery County Zoning Ordinance: General Landscaping Requirements

Montgomery County’s zoning ordinance lays out strict guidelines regulating where property owners can and cannot place plant material, who must prepare landscape plans and required documentation, and what types of plants may not be used for landscaping. According to Section 6.4.3.A.(4-6), of the code, property owners may not place plant material in any utility, stormwater management, or other easement that may result in the removal of plantings, must have all plans and documentation prepared by a licensed landscape architect, and may not use any plant species included on the Maryland Invasive Species Council’s list of invasive aquatic or terrestrial plants for landscaping.^{xxxix}

The following chart lays out appropriate landscaping elements and their sizes, as defined in Section 6.4.3.B of the zoning code.^{xxxix}

Landscape Element	Definition	Size at the Time of Planting
Canopy Trees	A canopy tree is a large deciduous tree, typically 40 to 70 feet tall at maturity, with a minimum spread (canopy) of 30 feet. A canopy tree typically has only a single trunk	Any canopy tree within an open space area, screening area, or surface parking lot must have a minimum caliper of 2 inches or a minimum height of 14 feet when planted.
Understory Trees	An understory tree is a small deciduous tree, typically less than 30 feet tall at maturity. Many understory trees have multiple trunks	<ul style="list-style-type: none"> i. Any single trunk understory tree located in an open space area, screening area, or surface parking lot must have a minimum caliper of 1.5 inches or a minimum height of 10 feet when planted. ii. Any multi-trunk understory tree located in an open space area, screening area, or surface parking lot must have a minimum of 3 main stems, each with a minimum caliper of 1.5 inches per stem, or a minimum height of 10 feet, when planted.
Evergreen Trees	An evergreen tree (conifer), typically more than 40 feet tall at maturity.	Any evergreen tree located in an open space area, screening area, or surface parking lot must be a minimum of 8 feet in height when planted, measured from the top of the root ball to the tip of the highest branch.



Landscape Element	Definition	Size at the Time of Planting
<p>Shrubs</p>	<ul style="list-style-type: none"> i. A large shrub must be of a species that is expected to grow to a minimum height of 8 feet. ii. A medium shrub must be of a species that is expected to grow to a minimum height of 4 feet. iii. A small shrub must be of a species that is expected to grow to a minimum height of 2 feet 	<ul style="list-style-type: none"> i. A large shrub located in an open space area, screening area, or surface parking lot must be in a container with a minimum volume of 5 gallons or be balled and burlapped. ii. A medium shrub located in an open space area, screening area, or surface parking lot must be in a container with a minimum volume of 3 gallons or be balled and burlapped. iii. A small shrub located in an open space area, screening area, or surface parking lot must be in a container with a minimum volume of one gallon.

Additionally, Montgomery County has set forth guidelines for parking lot landscaping. In particular, these guidelines pertain to surface lots containing 10 or more spaces, structured parking facilities, or a property with a conditional use requiring 5 to 9 spaces that abuts an Agricultural, Rural Residential, or Residential Detached zoned property that is vacant or improved with an agricultural or residential use.

For properties with a conditional use requiring 5 to 9 parking spaces (and abutting an eligible zoned property), the lot must have a perimeter planting area that satisfies the minimum parking setback or is at least 8 feet wide if not specified. It must also contain a hedge, fence, or wall with a minimum of 4 feet high, and have a minimum of 1 understory or evergreen tree planted every 30 feet on center.

For surface parking lots with more than 10 spaces, there must be landscaped islands in places that are over 100 feet each and cover 5% of the lot, with 25% tree canopy coverage (after 20 years) and a perimeter planting that has a minimum width of 10 feet wide and a specified number of canopy and understory trees based on the site. A structure garage must have a living green wall or public artwork along 50% of the ground floor of any garage wall facing a right-of-way, residential property, or open space.



Example of early stages of a green wall parking garage screen at the Census Bureau Headquarters in Suitland, Maryland. Image from: Greenscreen <http://greenscreen.com/dew/?galleries=custom>

Landscape Screening

However, parking structures are not the only instance that screening must be in place. In Montgomery County, any standard method development must have a landscape screen. Applicability is based on zone, the abutting zone, and building type, as the following chart describes:

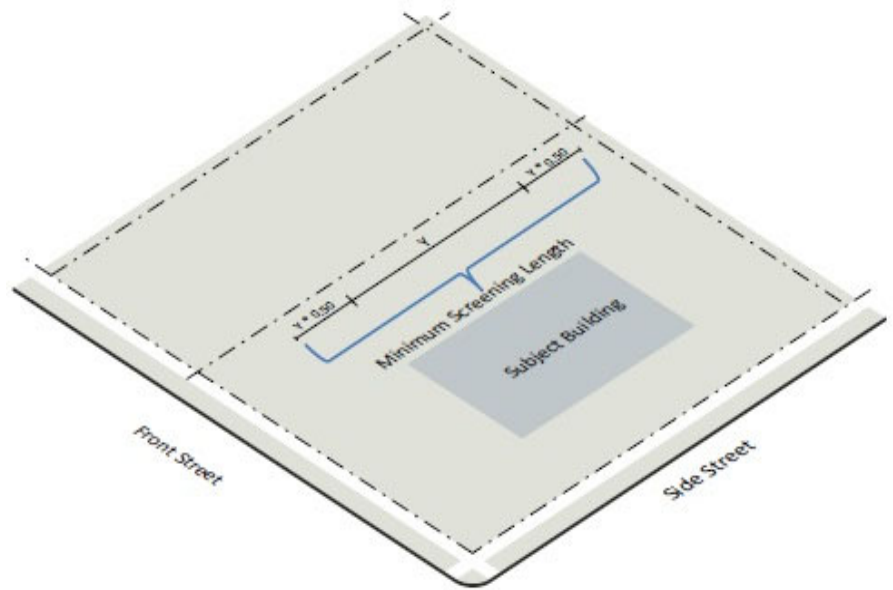


Is Screening Required?

Building Type	Abutting Zone		
	Agricultural, Rural Residential, Residential Detached	Residential Townhouse	Residential Multi-Unit
Townhouse	Yes	No	No
Apartment or Multi-Use Building	Yes	Yes	No
General Building, with a non-industrial use	Yes	Yes	No
General Building, with an industrial use	Yes	Yes	No

The location of the screening depends on the dimensions of the lot and may be placed within any required setback. Additionally, landscape screening must be placed between the lot line and subject structure or use and extend along the lot line. It must also extend along the full length of the structure or use plus an additional 50% in length in each direction or to the end of the shared lot line, depending on whichever is less. If the subject building is separated from the lot line by a surface parking lot, then screening is not required. Instead, landscaping must be provided under the standards set by parking lot landscape design.

Additionally, the zoning code sets forth requirements for landscape screening based on the building type. Plant materials are specified for each 100 linear feet of screening area, and the applicant is able to choose from different options when selecting the style of screen based on their building type. While screening for a townhouse use is very linear and compact in type, each building type has its own set of requirements, as seen in the differences between townhouse and general building with an industrial use:

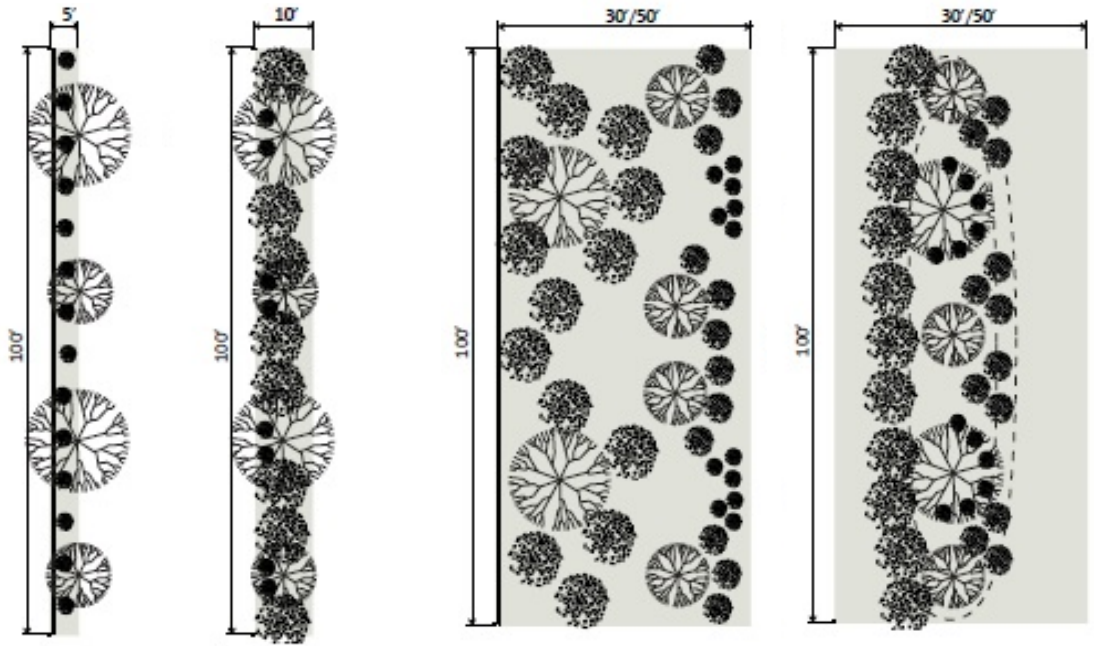


Configuration of landscape screening in relation to subject lot. Image: Article 59-6, Section 6.5.3 Screening Requirements

<http://library.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal.montgomeryco.md.mc>



Landscape Screening for a Townhome vs a General Building with an Industrial Use



Townhome

General Building with an Industrial Use

	Option A	Option B
Dimensions (min)		
Width	5'	10'
Planting & Screening Requirements		
<i>Trees (minimum per 100')</i>		
Canopy	2	2
Understory or Evergreen	2	2
<i>Shrubs (minimum per 100')</i>		
Large	--	8
Medium	--	--
Small	16	8
Wall, Fence, or Berm (min.)	4' fence or wall	--

	Option A	Option B
Dimensions (min)		
Depth for all zones except IH Zone	30'	30'
Depth for IH Zone	50'	50'
Planting & Screening Requirements		
<i>Trees (minimum per 100')</i>		
Canopy	2	2
Understory or Evergreen	4	3
<i>Shrubs (minimum per 100')</i>		
Large	14	11
Medium	12	12
Small	12	12
Wall, Fence, or Berm (min.)	6' fence or wall	6' berm

It is important to note that alternative compliance options exist. The deciding body can approve an alternative to any requirement of the landscape standards if it finds that a unique site or development constraint exists. The alternative design must satisfy the intent of the applicable Division, modify the functional results the minimum amount necessary, provide the necessary mitigation, and be in the public interest. There are also options for a variance, but this must be approved by the Board of Appeals.



Lighting Requirements

Lighting requirements, particularly those for outdoor lighting, are often included as part of general design guidelines. Lighting regulations serve to provide lighting in outdoor public spaces where public health, safety, and welfare are potential issues and protect drivers and pedestrians from the glare of non-vehicular light sources that shine into eyes and may impair safe travel. Additionally, they protect from nuisance glare and stray light from poorly shielded or maintained light sources, promote efficient design and operation, and protect and retain the established character of the community in which they are enacted.^{x1}

Innovative Example

Calvert County, Maryland: Non-Residential Requirements for Outdoor Lighting

As part of their Non-Residential Development requirements, Calvert County, Maryland has written into their zoning ordinance outdoor lighting regulations that serve the following uses: residential developments for multi-family dwellings or single-family attached dwellings, commercial, industrial, public-recreational and institutional. Additional outdoor lighting may be required by other uses or locations as they are deemed necessary by the Planning Commission.

The design guidelines set glare control requirements for the above uses and pertain to sign, architectural, landscape, recreational, and marine facility lighting.^{x1} However, there are exemptions to these rules. According to the Calvert County zoning code, they include:

- Temporary use of low wattage lighting
- Temporary emergency lighting used by public safety officials
- Temporary lighting for County or State public works projects
- Outdoor lighting for single-family detached dwellings
- Temporary lighting used for construction
- Temporary lighting for community events
- Flagpole lighting

Design Guidelines

The zoning ordinance mandates the lighting fixture design as well as the illumination level. Lighting intensity must follow the current recommended practices of the Illuminating Engineering Society of North America (IESNA), while the particular fixture must be of type and design appropriate to the lighting application.^{x1}

For lighting horizontal tasks such as sidewalks, roadways, paths, entrances, and parking areas, fixtures must be aimed straight down and have flat lenses or must meet the design standards of the Town Center Zoning Ordinance. The Planning Commission must approve all use of floodlighting, spotlighting, wall-mounted fixtures, internally illuminated decorative globes and spheres and other fixtures that do not meet IESNA criteria.^{x1} Additionally, all fixtures must be equipped with light directing and/or shielding devices such as shields, visors, skirts, or hoods to redirect offending light distribution and/or to reduce direct or reflected glare.

Controlling Nuisance Lighting and Glare

To ensure that no residential properties are unfairly affected by an adjacent light source, there are guidelines in place so that no illumination cast by a light source onto a residential property exceed 0.1 horizontal footcandle measured line-of-site, from any point on the residential property.^{x1} Additionally, externally illuminated signs and billboards must be lighted by fixtures that are mounted at the top of the sign and aimed downward or can also be ground mounted if there are glare shields in place. It is also clearly stated in the guidelines that vegetation screens may not be used as the primary means for controlling glare. Other measures, such as shields, cutoff fixtures, and appropriate application of fixture mounting height, wattage, aiming angle, and fixture placement must be used instead.^{x1}

Lighting Plans

Wherever site lighting is required or proposed, a lighting plan must be submitted and approved by the Department of Planning and Zoning. This must take place before the approval of a site plan, plot plan, or building permit. Elements that must be included in the lighting plan include a site plan, description of all proposed equipment (including any light poles, fixtures, mounts, etc.) and an illuminance-grid that demonstrates compliance with light intensity and uniformity requirements.



Signing Requirements

It is important for design guidelines to include requirements that regulate the use, style, number, and maintenance of signs in a community. These limitations and requirements serve to ensure signs safely attract and direct persons to various destinations and protect public and private property values and investment. Additionally, sign requirements help to reduce hazards to motorists, bicyclists, and pedestrians that result from excessive, confusing, or distracting signs, and protect and preserve the aesthetic and historic quality of the community.

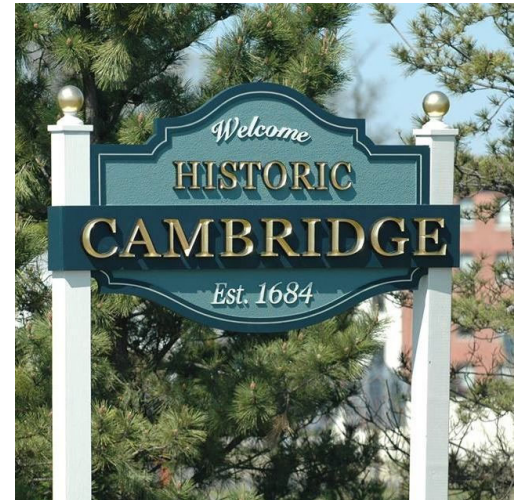
Innovative Example

City of Cambridge, Maryland: Unified Development Code

The City of Cambridge, Maryland has outlined a comprehensive guide to the safe design and installation of signs in the city within their Unified Development Code. Effective January 1, 2015 and last updated November 7, 2019, the signage guideline outlines administrative tasks for signs, including the permit and application process, the development of a sign program for tenants and users of a complex, center, or development site, and guidelines for application approval. Additional sections include descriptions of prohibited signs, signs that do not need a permit, general sign standards, standards specific to districts within the zoning code, nonconforming signs, and how violations are to be handled.^{xii}

Prohibited Signs

Section 6.5.3 of the Unified Code outlines signs that are prohibited in relation to location, character, safety, condition, and neglect, and billboards. Under these guidelines, prohibited signs include those that are attached to utility poles, traffic control posts, trees, etc. if they are visible from the public right of way, signs that are located on any part of a roof structure, or those that are placed above the first floor of a building.^{xii} Additionally, these guidelines restrict the use of flashing and rotating signs and the use of materials and language on the sign. In relation to safety, condition, and neglect, these guidelines ensure that signs are maintained and removed in an appropriate fashion when need be.



Historic Cambridge, Maryland. Source:
www.choosecambridge.com

Signs Permitted Without a Permit

These signs include those official traffic and parking signs as long as they are erected by a governmental agency, and on-site flags for commercial properties. This includes a maximum of three flags to a property as long as they are not distracting or obstruct site distance.^{xii} Conditions for temporary signs are also outlined in detail in this section by the zoning district for the proposed sign.

General Sign Standards

General sign standards outline the maximum area, height and sight visibility guidelines that any proposed sign must follow. Additional information includes regulations on the illumination and lighting of signs. For example, an electronic message on a sign may comprise no more than 35 percent of the face area of the sign.^{xii}

District Specific Sign Standards

More specific sign standards are outlined in the Unified Code based on the zoning district of the proposed sign. In general, the NC district, Residential district, and the Neighborhood and Gateway subdistricts of the Downtown/Waterfront Development district are grouped together with their own standards, while all other districts are under a different set of regulations. These regulations can include anything from the height of the letters permitted on the sign, overall sign height, and the amount of landscaping that is required to be in place around the sign.^{xii} Additionally, if part of the Historic Area Overlay district, any sign must have a certificate of approval from the Historic Preservation Commission and must be in compliance with guidelines set forth by the Historic Preservation Commission's design guidelines for signs.



8. ADAPTIVE REUSE

General Overview

Adaptive reuse is the process of repurposing old structures and sites for new uses and modern functions, other than those originally intended to address present-day needs. Adaptive reuse principles allow for the continued use of a building and strengthens its place as a viable community asset.

Most often, adaptive reuse is associated with the preservation of historically or architecturally significant buildings in a community. However, adaptive reuse can also provide renewed vitality to buildings that are underused, abandoned, vacant, dilapidated, or functionally obsolete. Examples of older and newer underused structures that can be brought together and repurposed through reuse include empty warehouses, vacated former schools, abandoned department stores, large historic homes, and dilapidated strip malls. These structures have become senior housing, apartments, banks, restaurants, municipal buildings, and many other uses.^{xiii}

Advantages and Challenges of Adaptive Reuse

There are many advantages to the adaptive reuse of existing structures, including:

- **Enhancement of Community Character** – Historic resources and community character can be retained through reuse of structures. Such building reuse allows for the creation of a link between the community’s history and its present and future while incorporating up-to-date needs.
- **Promotes Sustainability and Energy Conservation** – Reusing existing structures promotes the reduction of building materials needed to transform a space. Additionally, repurposing a structure significantly reduces the energy consumption that is associated with the demolition and construction of a new one to replace it. When a community invests in adaptive reuse, they can meet the needs of the growing population while conserving land and reducing the expansion of urban sprawl. It also saves time, as initial municipal approval and permitting can occur quicker and less expensively than new construction.
- **Environmental Benefits** – Reuse can help to remediate contaminants that are associated with some older building materials as well as former commercial or industrial sites.
- **Encourages Investment** – Adaptive reuse encourages investment, development, and revitalization in areas and structures that might otherwise remain vacant or underused. This investment and development can lead to employment opportunities and tax generation for the community.
- **Potential Tax Advantages** – Property owners and developers who undertake an adaptive reuse project may be eligible for federal tax credits or other incentives in exchange for rehabilitation and investment in older or historic buildings.
- **Increases Market Value** – By preserving aesthetically-appealing building features and architectural elements characteristic of older buildings, property values can be increased. It would be economically possible to recreate materials and quality of construction of the past.

Adaptive reuse can also present challenges, including:

- **Physical Limitations** – Flexibility is required in many cases when working to fit a new use into an existing building. Structural constraints may make it difficult to retain historical or architectural features.
- **Regulatory Constraints** – Existing structures may pre-date zoning building permit, and other local development regulations. This may make the rehabilitation of these buildings to meet modern standards challenging.
- **Potential Environmental Hazards** – Many older buildings may contain environmental contaminants such as asbestos and lead. Their presence requires costly mitigation efforts to clear the issue.



Innovative Examples

Each adaptive reuse project is physically unique but many share common elements.

Assembly Apartments at Clipper Mill: Baltimore, Maryland

Historic Clipper Mill was once a bustling manufacturing center full of brick buildings and cobblestone roads. The area dates to the 1700-1800s when it was established as a center of cotton mills and machine shops. The Assembly Apartment building was once a part of the Poole & Hunt Foundry complex, which manufactured items such as parts for steam engines and railroad cars, battleship turret rings, cannon barrels and cannon balls. While the original Machine Shop was destroyed by a fire in 1995, the other buildings that made up the Poole & Hunt Foundry were restored by developers in the early 2000s.

Throughout the complex, many of the original features from the historic mill have been retained and restored lending to a unique look and feel. The apartments feature towering arched windows, granite accents, and other historic architectural features to match the original structure. Additionally, a state-of-the-art swimming pool and private residential courtyard was retrofitted into the existing infrastructure.

Also situated into the historic infrastructure of Clipper Mill Park are many amenities and services that draw in consumers from around the area. These include the highly acclaimed Woodberry Kitchen restaurant, Gutierrez Art Studios, the Corradetti Glass Studio, an art museum, office space, and more. Each of these services utilized principles of adaptive reuse to integrate as much of the existing historic infrastructure into the overall design.



Aerial view of the Poole & Hunt Foundry complex, circa 1800s. Source: <http://www.baltimoreindustry tours.com/poole-hunt.php>



Clipper Mill Park (formerly Poole & Hunt Foundry Complex) in 2013. Source: <http://www.baltimoreindustry tours.com/poole-hunt.php>



Community space and functionality is blended seamlessly with the original architecture. Source: www.clippermillapartments.com/baltimore/clipper-mill-apartments/photos

The Village at Grand Traverse Commons: Traverse City, Michigan



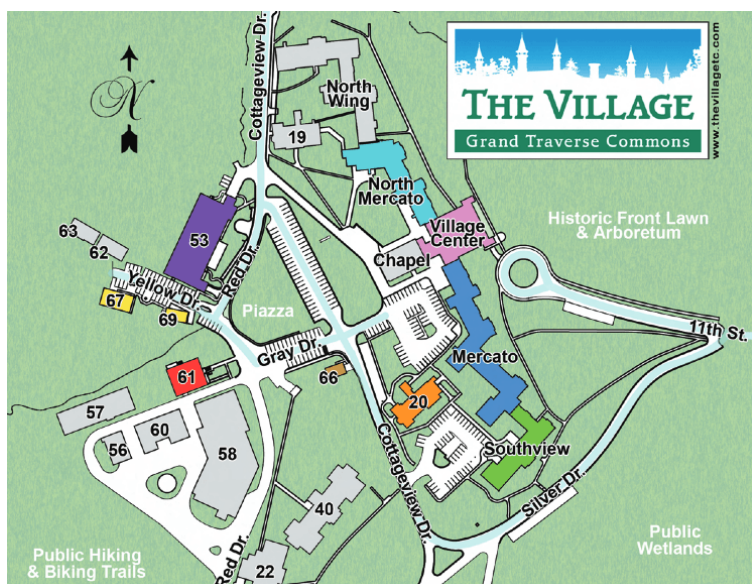
The main building of the former Traverse City State Hospital in Traverse City, Michigan. Source: <https://www.thevillagetc.com/history/>

The Village at Grand Traverse Commons got its start in 1881 when construction started on the Northern Michigan Asylum (later changed to the Traverse City State Hospital). When it opened in 1885, it was a self-sufficient operation, where crops were grown, livestock was raised, and its own electricity was generated. The State Hospital was not only an asylum for the mentally ill, but it also served as a hospital for patients who had contracted various diseases during outbreaks, offered treatment for drug addicts, was a home for the elderly, and offered training to nurses.^{xliii}

The main building was large and advanced for the region – it was almost a quarter mile long, over 300,000 square feet, and employed central heating and electric lighting. It was built in a way that each patient room had a window and a view to the outside which afforded each patient the opportunity to enjoy a view of the campus even if they were not able to leave the building. Within five years of operation, standalone cottages were constructed away from the main building to serve the increasing patient population. The Traverse City State Hospital was in operation for just over 100 years; it closed in 1989 and sat abandoned for the next 10 years before it was set for demolition.

In 2002, developer Ray Minervini and his team the Minervini Group assumed ownership of the property and renamed it The Village at Grand Traverse Commons. Minervini and his group set to work the Commons into a buzzing community hub, gradually preserving and re-using the main building as a residential and commercial development.

The Village at Grand Traverse Commons has been transformed into a thriving economic center and diverse, multi-generational residential community. It is a place to live, work, play, shop, dine, and explore. Examples of new uses that have been retrofitted into the community include a local food market, workforce apartments, office suites, restaurants, a public



Site overview. Redevelopment at Grand Traverse Commons has been broken into smaller, manageable projects. Source: www.thevillagetc.com



The main building, post redevelopment. Source: www.thevillagetc.com



charter middle school, a senior living facility, and additional retail and office spaces. Projects that are planned for the future include the creation of additional condos and apartments to encourage live-work, a hotel and banquet space, and a brewpub.

The key to this transformation is in the way that adaptive reuse was approached. The Village at Grand Traverse Commons is one big redevelopment, but it has been improved one project and one building at a time. As of 2015, 460,000 square feet (60% of the property) had been redeveloped, with a total investment of over \$130 million. At this point, more than 450 jobs had been created, 93 new and expected business spaces developed, and 238 residential units completed. In the pipeline are plans to develop 250 more residential units, create 200 more jobs, and an investment of another \$90 million. This process has involved many public and private partners, ambassadors and advocates, co-owners, residents, jobs, and small businesses, all working together to make this redevelopment a success.^{xliv}



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