



## CHASE NEIGHBORHOODS PATTERN BOOK



WITH DESIGN AND DEVELOPMENT GUIDELINES







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## OVERVIEW WHY A PATTERN BOOK?

his Pattern Book represents one element of a larger effort by the District of Columbia Office of Planning to provide a strong basis for redevelopment within the Congress Heights, Anacostia, and Saint Elizabeths (CHASE) communities. It works in parallel with the Design Guideline and Maintenance Handbook, which provides information about typical architectural styles in the area and guidance on maintenance, repair, and replacement issues for existing housing. The *Pattern Book* is based on buildings in the Anacostia Historic District, but it has broad applicability in all the CHASE neighborhoods. It conforms to local zoning, which sets out the legal requirements for development, and it provides additional design guidance to encourage infill that respects existing neighborhood fabric. This document is intended primarily for developers planning to build infill housing on vacant lots, but it may also prove useful for homeowners interested in rehabilitating their homes.

The *Pattern Book* examines three representative building types in historic the CHASE neighborhoods:

Building type 1: Rowhouse

Building type 2: Semi-detached

• Building type 3: Detached

For each of these types the *Pattern Book* describes unit characteristics and provides sample floor plans and elevations that illustrate context-sensitive design principles for each type. It also discusses the potential benefits of modular construction for infill development on vacant lots.

The *Pattern Book* focuses on single-family houses and does not include multifamily and mixed-use types. A study of the existing neighborhood fabric found that the three building types described account for the great majority of neighborhood houses. These sample floor plans and elevations are intended to help shape designs for individual sites.













#### **USING THE PATTERN BOOK**

First, identify the neighborhood type and architectural style of the surrounding structures. Second, determine a building type (attached/row house, semi-detached/duplex, detached) for the infill site based on the surrounding neighborhood and street character. Use the site width and parcel location (corner or midblock) to find a floor plan to adapt for your project. The *Pattern Book* should provide this guidance. For additional assistance, the *Pattern Book* contains a photo guide to the character of front doors, porches, and windows.

As early as possible in the project (ideally before developing conceptual architectural drawings), developers should consult the modular construction section to learn more about this building technique. Developers who decide to explore this timeand money-saving method should plan on early consultation with a modular builder in order to make the process go smoothly and realize its full benefits.

#### **EXISTING NEIGHBORHOOD PATTERNS**

This book describes characteristic housing types in the CHASE communities, and the designs it presents have been tailored to reinforce the neighborhoods' historic urban fabric. The models fit typical lot sizes in the CHASE communities (from short and narrow to long and wide) and serve a variety of household types, from couples to families to multigenerational configurations.

The parameters defining these models grew out of a detailed survey of existing residential buildings and parcel sizes in the CHASE neighborhoods. Survey techniques included GIS geometric analysis and site photography. The survey placed particular emphasis on vacant parcels, as they will likely serve as the primary sites for redevelopment under these guidelines.



# OVERVIEW NEIGHBORHOOD PATTERN & HOUSING INVENTORY

## A Detailed Survey Shaped These Model Units

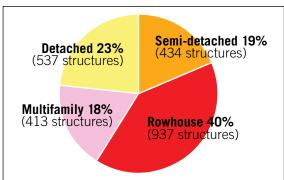
The Pattern Book's model units for infill development reinforce the historic urban fabric of the CHASE neighborhoods. The models fit the area's typical lots; can serve many household types; meet zoning requirements; and reflect market demand.

The models grew out of a detailed survey of existing residential buildings and parcel sizes that combined GIS geometric analysis and site photography. The survey documented existing housing patterns and identified vacant parcels that can move quickly into redevelopment.

#### **Existing Housing Types**

A GIS inventory using data provided by the District of Columbia's Office of Planning shows that rowhouses are the most common housing type in the CHASE neighborhoods, constituting about 40% of all residential lots in the study area. Detached housing units account for 23% of all lots; semi-detached units account for 19%; and multi-family structures occupy the remaining 18% of residential lots. (Exhibit 1)

Exhibit 1 Existing Housing Types Across The CHASE Neighborhoods

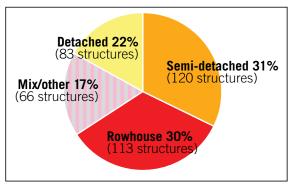


The map on the facing page suggests how these housing types vary in just one section of Anacostia. The appendix includes map tiles for the full CHASE study area, but the mix shown here is typical.

## Opportunity Sites for Housing

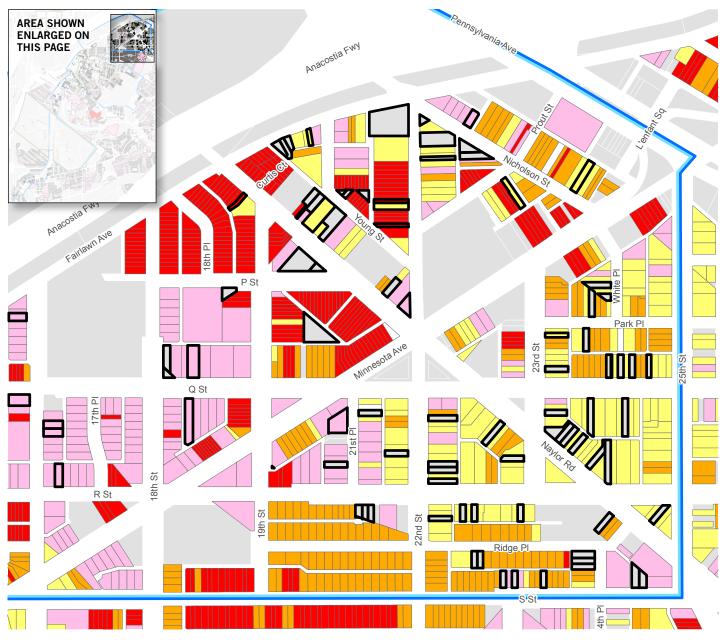
This pattern book provides a range of housing prototypes that respond to different contexts and lot sizes throughout the CHASE neighborhoods. These prototypes can guide redevelopment of nearly 400 vacant and blighted opportunity sites in residential areas, especially in the near term. These opportunity sites vary in size, and different sizes can support different types of new housing construction: 30% could accommodate rowhouses; 31% could support semi-detached houses, and 22% are large enough for detached houses. The remaining 17% of sites could accommodate a range of housing types, from multiple detached houses to groups of semi-detached houses and rowhouses to multifamily structures.

Exhibit 2 **Suitable Housing Types Based on the Size of Vacant Parcels** 



Parcels in the "Mix / other" category are large enough to accommodate may different housing types.







NOTE: Vacant sites combines parcets designated vacant in the assessor's database; other unimproved sites potentially eligible for redevelopment; and sites (both exempt and non-exempt) designated vacant by the DC Office of Tax and Revenue (OTR). "Blighted" parcels include sites (both exempt and non-exempt) designated blighted by OTR.

#### A Rich Mix of Housing Types And Lot Sizes

This map of part of the CHASE study area shows a rich and varied mix of existing housing types and lot sizes. Even within a single block, housing can range from detached houses to multifamily buildings. Vacant and blighted sites offer opportunities for development based on the prototypes in this pattern book. (The Appendix contains a complete set of maps for the entire CHASE study area.)

0 100 200 400 Feet





## **OVERVIEW**

## LOT SIZES & HOUSING TYPES

Analysis of Vacant Lots Yielded House Models Tailored for the CHASE Neighborhoods

This inventory of housing-lot dimensions draws on GIS data provided by the District's Office of Planning. Analyzing the data helped define the typical dimensions of parcels for each housing type, and these dimensions in turn shaped the housing models presented in this *Pattern Book*.

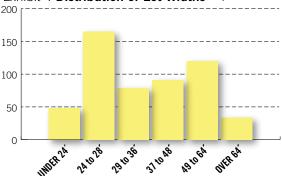
#### Lots for Detached Houses

Detached houses in the CHASE neighborhoods typically occupy lots that measure between 24 and 64 feet wide. Within that range, they follow no clear pattern; lot widths vary relatively evenly. Very few lots with detached houses measure less than 80 feet deep, and nearly three-quarters measure more than 100 feet deep (Exhibit 4).

Exhibt 3 **Dimensions of Lots With Detached Houses** 

COUNT	DISTRIBUTION -	
48	9%	
165	31%	
79	15%	
91	17%	
120	22%	
34	6%	
COUNT	DISTRIBUTION	
32	6%	
108	20%	
397	74%	
	48 165 79 91 120 34 count 32 108	

Exhibit 4 **Distribution of Lot Widths**





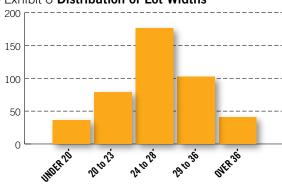
## Lots for Semi-Detached Houses

Most semi-detached houses in the CHASE neighborhoods occupy lots between 20 and 36 feet wide, and most of those widths fall near the center of this range, as Exhibit 6 shows. Lot depths range more evenly, with about half above and half below 100 feet deep.

Exhibt 5 **Dimensions of Lots With Semi-Detached Houses** 

 WIDTH	COUNT	DISTRIBUTION
Under 20´	36	8%
20' to 23'	79	18%
24' to 28'	176	41%
29' to 36'	102	24%
Over 36'	41	9%
DEPTH	COUNT	DISTRIBUTION
Under 70´	25	6%
70' to 79'	94	22%
80' to 99'	70	16%
Over 99'	245	56%

Exhibit 6 Distribution of Lot Widths

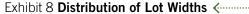


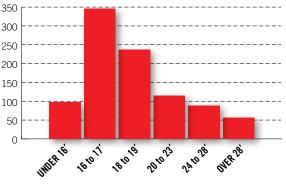
#### Lots for Rowhouses

About three-quarters of all rowhouse lots in the CHASE neighborhoods measure less than 20 feet wide, primarily because rowhouses often lack side yards, which means they can occupy narrow lots. About 60% of rowhouse lots measure between 70 and 100 feet deep.

Exhibt 7 Dimensions of Lots With Rowhouses

10% 37%
37%
25%
12%
9%
6%
DISTRIBUTION
7%
21%
41%
31%





## **OVERVIEW**

## SUSTAINABLE DESIGN

#### Lots for Detached Houses

Sustainable design principles for housing should emphasize the "triple bottom line." That means they should successfully address social, environmental, and economic needs and issues, including:

- Social
  - > A fair mix of affordable, workforce, and market-rate housing
  - > Universal design
  - > Safe and secure
- Environmental
  - > Resource efficiency
  - > Waste efficiency, meaning producing of minimal amounts of waste during construction and occupancy and maximum reuse or recycling of what is produced
  - > Maximize use of existing materials and infrastructure
- Economic
  - > Cost efficiency over time

Both rehabilitation of existing housing and new construction can reach even aggressive sustainability goals. For example, effective use of skylights can deliver more natural light to the interior of new construction, making these units more energy-efficient than historic prototypes without altering massing or façade composition. The use of skylights are particularly effective for row houses, which frequently share interior walls with adjacent units.



Rehabilitating an existing home takes advantage of materials already built into the structure (which are often of better quality than their modern replacements would be) and cuts down on of construction debris sent to landfills.



Skylights can deliver natural sunlight into the interior of a rowhouse, reducing the cost of interior lighting and improving summertime ventilation.





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#### Introduction

This section summarizes the major architectural styles found in houses in the Anacostia Historic District, but these styles appear throughout the CHASE neighborhoods. The table on this page notes basic construction patterns (attached, semi-detached, or detached) for each style and identifies the range of dates in which the styles flourished in the neighborhoods.

Uniontown and Griswold's Addition, the first areas settled in present-day Anacostia, were subdivided in 1854 and 1879, respectively. Establishment

of transportation corridors to nearby neighborhoods and across the Anacostia River fueled the area's growth: a rebuilt and improved Navy Yard Bridge in 1874, a horse-drawn rail line in 1875, and an electrified streetcar line in 1898 all spurred development. As a result, most residential construction in what are now the CHASE neighborhoods took place in the last two decades of the nineteenth century and the

first two of the twentieth.

Consistent with the area's modest and semiurban character, the Cottage and Italianate styles enjoyed great popularity. Apart from decorative details, strong formal qualities defined these houses, often repeating across multiple units to create architecturally cohesive blocks. Later styles, like the Queen Anne and Washington Row, tended to appear only in larger and more elaborate houses. Parcels' sizes and immediate topographical features often dictated decisions about the size and organization of houses.

STYLE	ATTACHED/ Row	SEMI- Detached	DETACHED	APPROXIMATE Date range
Cottage	Х	Х	Х	1880s-1910s
Italianate Frame	Х	Х	Х	1890s-1900s
Italianate Masonry	Х	Х	Х	1890s-1910s
Villa Subtype			Х	1850s-1870s
Washington Row	Х	Х		1910s-1920s
Queen Anne		Х	Х	1890s-1900s
American Foursquare			Х	1910s-1920s
Craftsman			Х	1910s-1920s







#### Characteristics

Cottage-style houses rank as the most common housing type in Anacostia. Borrowing from Gothic Revival, Stick, Eastlake, and Folk Victorian influences, Cottage-style frame houses defined the modest, vernacular character of the neighborhood.

#### **SIZE AND ORGANIZATION**

Two stories tall and two or three bays wide, depending on lot and house size.

#### **ROOF FORM AND DETAIL**

Cottage-style houses came in one of three plans:

- 1. Rectangular plan with front-facing gable
- 2. Rectangular plan with side-facing gable or mansard, usually with a small, centered gable on the main elevation
- 3. L-shaped plan with cross gables

Houses also usually featured one- or two-story rear extensions.

#### **CLADDING**

Cottage-style houses usually had clapboard siding. Shingles or board-and-batten siding were sometimes applied for a varied effect.

#### **PORCH AND DETAILS**

One-story porches spanning the entire width of the house were most common. On L-shaped examples, porches wrapped around to meet the recessed bay. Often the sole source of decoration on a building, porches sported a wide variety of detailing, including brackets, spindlework, turned or free classic columns, and railings with square-section, turned, or jigsaw-cut balusters.

#### **DOORS**

Located on end bays, doors usually featured upper transoms. Built of wood, doors featured four to six panels and occasionally incorporated glazing in their upper panels.

#### **WINDOWS**

Evenly spaced and set in rectangular openings, windows generally featured 1/1 or 2/2 glazing patterns. They rarely included ornate hoods or surrounds.



# COTTAGE







Layout with front-facing gable

Layout with L-shaped plan





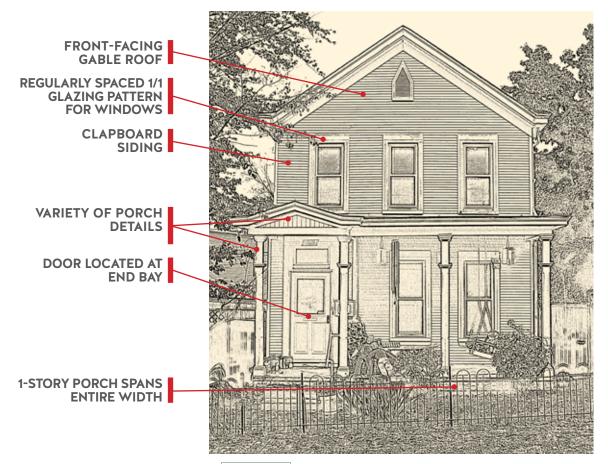




Layout with side-facing gable, mansard roof, and front-facing center gables

Less-common masonry examples

## What Makes It Cottage Style?







#### Characteristics

The Italianate style enjoyed immense popularity in the second half of the nineteenth century. Highly adaptable in form and material, the style produced houses ranging from modest farmhouses to imposing villas to urban rowhouses.

The majority of Italianate-style houses in the Anacostia Historic District are modest, flat-fronted, frame examples, either in row, semi-detached, or detached configurations. The district also features several detached or semi-detached masonry examples.

The oldest Italianate-style houses in Anacostia also tend to be the largest and most ornate. Classified as villas, these houses were free-standing with hipped roofs (sometimes incorporating central gables or cupolas), symmetrical principal elevations, and more elaborate details.

#### Wood-Framed Italianate

#### **SIZE AND ORGANIZATION**

Two stories tall and two or three bays wide, depending on lot and house size.

#### **ROOF FORM AND DETAIL**

Projecting cornices conceal sloped roofs from the principle elevation so that Italianate-style houses appear nearly flat. Cornices—made of wood or sheets of metal—feature decorative brackets, modillions, and dentils. These roofs and cornices often stand out as the most highly articulated feature of a building's principal elevation.

#### **CLADDING**

Wood-frame Italianate houses usually had clapboard siding. Siding sometimes featured decorative profiles, but the main elevation rarely incorporated more than one material. Stucco, sometimes applied after construction, was not a typical feature.

#### PORCH FORM AND DETAIL

One-story porches most commonly spanned the entire width of the house. Porches rested on masonry piers but were built entirely of wood. Porch detailing included brackets, spindlework, turned or free classic columns, and railings with square-section, turned, or jigsaw-cut balusters.





■ Window configurations range from simple to elaborate (two left images). ■ Characteristic door configurations (two right images).

#### **DOORS**

Located on end bays generally with transoms. Built of wood, doors featured four to six panels; upper panels occasionally incorporated glazing.

#### **WINDOWS**

Evenly spaced and set in rectangular openings, windows sometimes featured decorative hoods, surrounds, and louvered wood shutters. Sashes generally featured 1/1 or 2/2 glazing patterns.

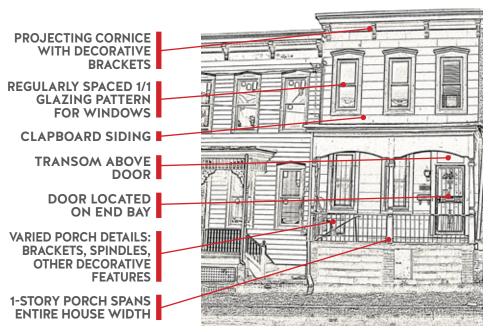
Cornices concealed roofs and featured brackets and dentils.



Moderately elaborate cornice details



#### What Makes It Wood-Framed Italianate?



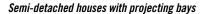


Detailing on three porches: Turned posts and carved brackets (top); jigsaw-cut balusters (middle); elaborate spoked brackets and spindlework frieze (bottom).



#### MASONRY ITALIANATE







Attached, flat-fronted houses

#### Masonry Italianate

#### **SIZE AND ORGANIZATION**

Two stories tall and usually three bays wide, some houses featured asymmetrically placed, rectangular projecting bays.

#### **ROOF FORM AND DETAIL**

Houses featured sloping roofs concealed behind masonry parapets. Houses without projections featured cornices similar to frame types. Houses with projections had parapets with decoratively corbelled brick.

#### **CLADDING**

Red brick (sometimes painted) laid in running or common bonds.

#### **PORCH AND DETAILS**

Porches on these houses included rounded columns, often with less detail. In some cases, houses featured open, cast-iron stairs that spanned only a single bay.

#### **DOORS**

Doors on these houses looked similar in to their frame counterparts. Houses with projecting bays had doors located in the recessed bay.

#### **WINDOWS**

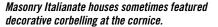
Arranged singly or in pairs within a single masonry opening, windows often featured segmental arches and decorative hoods formed from beaded or molded brick.





Typical window configurations. Paired windows may sit in a single opening with brick detailing above or below

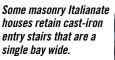






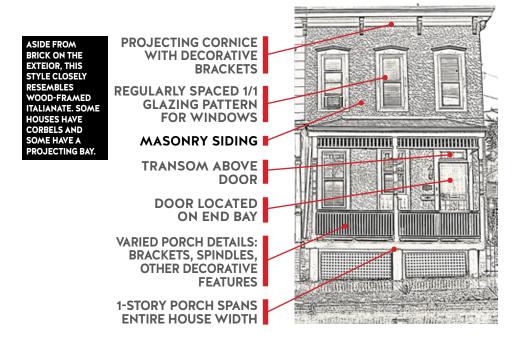
These houses have asymmetrical projecting bays.







## What Makes It Masonry Italianate?









#### Characteristics

Popular in the late nineteenth century, the Queen Anne style eschewed flat surfaces and symmetry and embraced irregular forms with a multitude of decorative details.

#### **SIZE AND ORGANIZATION**

Two stories tall and multiple bays wide, these houses often featured three-sided bay windows. Gabled roofs sometimes incorporated habitable attic spaces.

#### **ROOF FORM AND DETAIL**

Queen Anne-style houses usually featured central hipped roofs with lower cross gables. Nearly always asymmetrical, these roofs also sometimes incorporated towers or dormers.

#### **CLADDING**

Queen Anne houses in Anacostia featured a mix of wood cladding, usually clapboard and shingles.

#### **PORCH AND DETAILS**

Houses most often featured partial or wraparound porches built of wood members, including turned or free classic columns and spindlework.

#### **DOORS**

Doors generally had incised panels and a single, large pane of glass in the upper portion. Sidelights and transoms were common.

#### **WINDOWS**

Windows tended to combine simple decoration with diverse sizing and placement. Common elements included beveled glass, stained glass, and arched and Palladian windows.

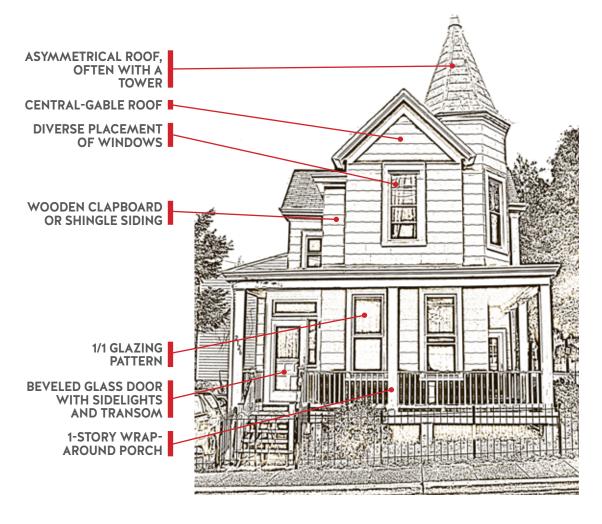




A rare, semi-detached masonry example

Houses usually featured three-sided bays and partial or wraparound porches.

#### What Makes It Queen Anne?







#### Characteristics

A distinctively Washingtonian style, these houses began appearing in many neighborhoods during the early twentieth century. A developer would commonly build several units at once.

#### **SIZE AND ORGANIZATION**

Two stories tall and three bays wide. Dormers, a common feature, were decorative and did not lead to habitable floors.

#### **ROOF FORM AND DETAIL**

Houses featured sloping roofs, often concealed behind false mansards. Mansard roofs featured slate shingles, twin gables, and projecting cornices, sometimes with decorative brackets or dentils.

#### **CLADDING**

Red or brown brick laid in Flemish or common bond.

#### **PORCH AND DETAILS**

One-story porches commonly ran the full width of the house. Unlike those on Italianate houses, these porches sat on masonry foundations and often featured concrete slab flooring. Porches had masonry piers or free classic columns and otherwise spare detail.

#### **DOORS**

Located on end bays and built of wood, doors usually featured glazed transoms and sidelights.

#### **WINDOWS**

Set in rectangular openings, windows had flush lintels and sills. Sashes generally featured 1/1 or 6/1 glazing patterns. Windows only rarely featured shutters.



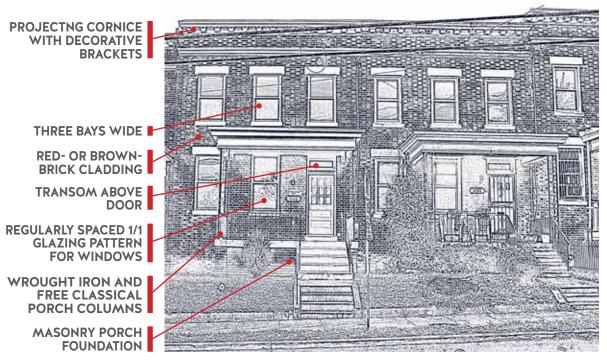


Developers usually built houses of this style in multi-unit rows, creating architecturally continuous blocks.



Projecting cornices with prominent decorative brackets.

## What Makes It Washington Row?









#### Characteristics

The American Foursquare is generally considered a building type that differs in form, not style, borrowing from diverse influences that include the Craftsman and Colonial or Georgian Revival styles. This very recognizable type appeared throughout the CHASE neighborhoods.

#### **SIZE AND ORGANIZATION**

As the name suggests, houses generally had a 2x2 configuration of rooms. Exteriors were two stories tall and three or four bays wide.

#### **ROOF FORM AND DETAIL**

Roofs were hipped, almost always incorporating dormers on the main elevation.

#### **CLADDING**

Cladding was simple, generally brick, clapboard, or stucco, depending on the house's construction type.

#### **PORCH AND DETAILS**

Porches spanned the entire width of the house and had shallow, hipped roofs. Square or free classic columns rested on squat masonry piers.

#### **DOORS**

Doors were located on end bays, and their appearance varied to match a house's style.

#### **WINDOWS**

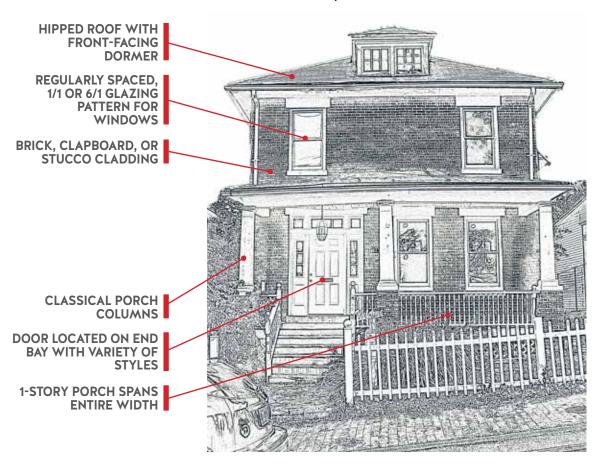
Windows featured simple surrounds and 1/1 or 6/1 glazing configurations. Windows were either arranged singly or in symmetrical pairs.





Despite stylistic differences, the strong formal qualities of Foursquare houses distinguish them as a recognizable type.

## What Makes It American Foursquare?









#### Characteristics

Popular in the first decades of the twentieth century, Craftsman-style houses are less common in the CHASE neighborhoods. Although they took a wide variety of forms, the most recognizable was the single-story bungalow.

#### **SIZE AND ORGANIZATION**

One or two stories, often with no clearly defined bays. Craftsman-style houses also tended to have greater front-yard setbacks than their earlier counterparts.

#### **ROOF FORM AND DETAIL**

Usually simple in form, roofs often featured single or cross gables and exposed rafters.

#### **CLADDING**

Wood clapboard and shingles were popular. More than other styles in the neighborhood, Craftsmanstyle homes mixed masonry and wood cladding.

#### **PORCH AND DETAILS**

Wide, deeply sheltered porches were a defining style characteristic. Porch supports, usually masonry, extended directly to the ground. Porch roofs often simply continued the main roof surface.

#### **DOORS**

Doors were wood with multi-unit glazed openings in the upper portion.

#### **WINDOWS**

Individual, 1/1 windows often combined in row of multiple units.



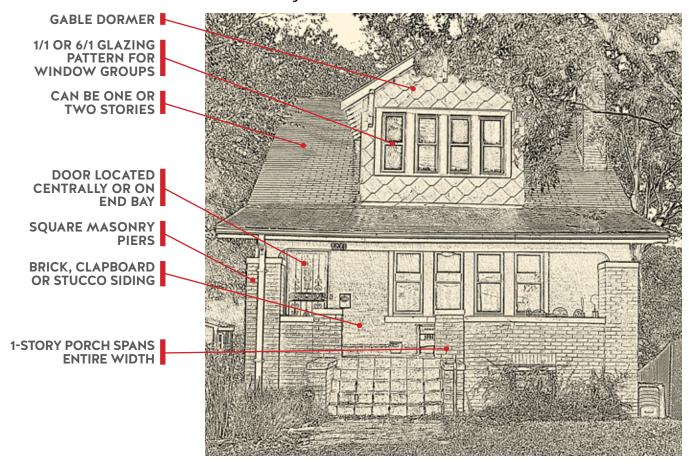






Relatively few Craftsman-style houses were built in the CHASE neighborhoods.

## What Makes It Craftsman Style?





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## HISTORIC FLOORPLANS

PLANS FOR HISTORIC
HOUSE TYPES IN THE CHASE
NEIGHBORHOODS, WITH IDEAS
FOR WAYS OWNERS CAN UPDATE
HISTORIC LAYOUTS TO MEET THE
NEEDS OF TODAY'S HOUSEHOLDS.



## HISTORIC FLOORPLANS

#### INTRODUCTION

The design of houses in the Anacostia Historic District depended on many factors: the availability of funds, the size and orientation of each building lot, the method of construction, the lifestyles of the inhabitants, and the period in which a particular house was built. Given the slim footprint of most building sites (some parcels were only fourteen feet wide) and the modest nature of the houses built on them, there existed little variation in the size and orientation of rooms. Most houses were two rooms wide and two deep, with off-center entrances leading directly to stair halls. Public and gathering rooms (living and dining spaces) were placed near the front of the house; kitchens and pantries were placed near the rear; and bedrooms (between two and four, with a single bathroom) were located on the second story. Only in rare cases did houses have occupied basement or attic stories.

#### **CONFIGURATION AND ILLUMINATION**

Many houses were built in rows or semi-detached pairs, limiting the potential for natural light to the front and rear elevations. Even for freestanding buildings, narrow lots and privacy concerns precluded extensive glazing on side elevations. In an era before electricity was common, builders of these houses were forced to give great care to the placement and orientation of rooms. Skylights and glazed transoms often supplemented exterior fenestration and helped light interior corridors. Larger, freestanding houses on more spacious lots were more likely to feature windows on all sides. The distribution of rooms throughout these houses was more organic and more closely tied to the style of the house and orientation of its site rather than to dependence on natural light.

#### **ADDITIONS AND RECONFIGURATIONS**

Small building parcels made expansion difficult. However, where additions were made to existing buildings, they overwhelming occurred at the rear. Some houses were originally built with rear ells, named for the L-shaped configuration they gave a building in plan. An ell could be easily added to a house built without one without completely obscuring existing light sources at the rear. Similarly, confined spaces made reconfiguration of rooms uncommon, although most houses have been updated over time to reflect changes in tastes, convenience, and technology.

Note that the floorplans and elevations shown on these pages are prototypical samples, derived from relevant literature and based on the average building and lot size for the most common house styles found in Anacostia. They are not intended as precise or exhaustive representations of houses found in the neighborhood.

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