



*November 2016*

# MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

- TIME-HONORED BUILDINGS FOR THE THOUGHTFUL SMALL DEVELOPER -



*Compiled by the Incremental Development Alliance for the  
Lyndhurst Foundation & Chattanooga Neighborhood Enterprise*



# MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

*A joint project of the Lyndhurst Foundation &  
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## *Introduction*

CITIES ACROSS AMERICA are facing the same challenge: a stark imbalance in housing supply, affordability, and demand. It is easy to see why this has become such a problem coast to coast. The majority of *housing* in the United States takes the form of single-family detached dwellings, yet the majority of *households* are steadily decreasing in size, with over 27% of households now just a single person.<sup>1</sup> At the same time, buyers with the financial freedom to choose are flocking to neighborhoods where they can walk to amenities and public transportation. Neighborhoods that wish to hold on to their residents and their value need to adapt to this reality.

This package is a toolkit to help Chattanooga adapt using a time-honored set of building types that fit comfortably into the scale of a traditional neighborhood while adding rental units to meet the changing needs of the population. These building types are henceforth referred to as the Missing Middle and they span the gap between single-family detached dwellings and large apartment

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<sup>1</sup> Dr. D Bauchman & Barua, A. (November 12, 2015) Single-person households: Another look at the changing American family. *Deloitte University Press*. Retrieved from: <http://dupress.com/articles/single-person-households-and-changing-american-family/>

## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

buildings. At one point, Chattanooga had plenty of Missing Middle buildings, providing a mix of housing options for all life-stages in one neighborhood. In the past few decades, Missing Middle buildings have become, well, *missing* because the old buildings - duplexes, triplexes, six-plexes, etc. - that retired were not replaced with new developments of the same nature. The entire real estate development system was so focused on producing single-family detached homes at high efficiency that many other useful and beloved building types were effectively sidelined from the development market.

Fortunately, there is still a built legacy of Missing Middle housing to learn from in Chattanooga, and that is where this project began. This package represents the results of a collaboration between local implementers and national coaches to help resurrect the Missing Middle, particularly in the well positioned Highland Park and Ridgedale neighborhoods of Chattanooga. At the local level, Chattanooga Neighborhood Enterprise (CNE) is a non-profit housing organization which provides residential loans, builds single and multi-family homes, and revitalizes neighborhoods in historically underserved parts of the city. With the support of the Lyndhurst Foundation, CNE enlisted a design team to study the target neighborhoods in Chattanooga and create a thoughtful set of building plans that local developers could operationalize.

This project is intended to pave the way for great infill development in Chattanooga. The goal is to make it easier to build multi-unit properties that improve their neighborhoods and allow the city to adapt to changing housing needs while honoring the best of Chattanooga's built heritage.

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*Chapter 1*

**THE MISSING MIDDLE**

*Missing Middle is a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable urban living.*

OPTICOS DESIGN<sup>2</sup>

PUT SIMPLY, THE MISSING MIDDLE means small-scale apartments, to own or for rent, that fit beautifully into traditional neighborhoods. This project considered buildings of 2 to 18 units and 1 to 3 stories that would blend into the existing neighborhood fabric of Highland Park and Ridgedale.



More specifically, the project focused on four categories of Missing Middle buildings: live-work, 2 to 4 unit residential, 6 to 12 unit residential, and 12 to 18 unit residential. Each of these categories is elaborated upon in the forthcoming pages, including bank packages, illustrating how each could serve as a worthy investment.

<sup>2</sup> As defined by Opticos Design, who coined the term, on <http://missingmiddlehousing.com/>

### WHY DO THESE BUILDINGS MATTER?

This project started with the premise that the housing supply needs to adapt and that development at a small scale is preferable on many levels to that on a large scale (a case supported throughout this document). To that end, Missing Middle buildings are perfect tools for adapting neighborhoods on a lot-by-lot basis. These buildings are well suited to the kind of infill lots available in areas like Highland Park and Ridgedale and allow neighborhoods to seamlessly add units in multi-family buildings without substantially changing the feel or scale of the street. Missing Middle buildings allow neighborhoods to keep their charm but grow their market. With more people living in the same land area, small businesses have a greater customer base. In order to sustain amenities like stores and restaurants nearby, there needs to be enough people around frequenting them.<sup>3</sup>

Missing Middle housing strengthens local economies. It is to real estate development what the small business is to commerce. The accessibility of Missing Middle housing to small-scale, neighborhood-based developers is a key asset, and scale makes all the difference. The small-scale developer is limited by their size to a certain scope of project. They don't have the team or the resources for mega-developments; they need to stick with small, simple buildings in a fairly concentrated area so they can easily keep an eye on things. Instead of large apartment blocks or a subdivision of single-family homes, small developers are more likely to build duplexes, triplexes, quadplexes, live-work buildings, backyard cottages etc. These buildings are too small for a conventional developer whose profits depend on an economy of scale. Small developers depend on economies of resourcefulness and relationships.

Across the country, communities are realizing that big developers cannot be induced to come build the neighborhoods they want. No one is coming to save them from the status quo. They've got to do it themselves.

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<sup>3</sup> Cortright, J. (August 29, 2016). Who Patronizes Small Retailers? *City Observatory*. Retrieved from: <http://cityobservatory.org/who-patronizes-small-retailers>

## *Chapter 2*

### **THE PROCESS**

THIS PROJECT IS BUILT FOR local, targeted application. There is a clear purpose and desired outcome for this work which the project team hopes Chattanooga's builders, city leaders, professionals, and advocates can push forward.

Chattanooga Neighborhood Enterprise (CNE) owns several properties in the Highland Park and Ridgedale neighborhoods, upon which they want to make it easier to build the best possible housing. The Lyndhurst Foundation has supported this goal by assembling a design team to essentially pre-package developments, from finance to floor plan, that would strengthen and beautify neighborhoods, be profitable for a builder, and meet housing demand.

The design team - Kronberg Wall Architects (KWA) from Atlanta, Brown Design Studio (BDS) from Savannah, and the national non-profit Incremental Development Alliance (IncDev) - set to work with local implementers to create workable plans, construction estimates and development finance models. The team surveyed Chattanooga to find precedents of much-loved Missing Middle type buildings which would fit nicely in the target neighborhoods. They met with locals in the building trades, visiting job sites and getting continuous feedback, to set a realistic baseline for construction costs, timelines, and processes. The team then held meetings with various administrative departments to clarify purpose and identify red flags in the existing sphere of regulation that may inadvertently preclude development projects. A summary of those findings and related technical issues are provided in *Chapter 6: Technical Considerations*. Finally, the team laid the groundwork for a Small-Scale Development Training Workshop, hosted on October 4, 2016, in which locals engaged in the first steps to make the Missing Middle their business.

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Throughout the process, the entire team was delighted by the enthusiasm of Chattanoogaans to build beautifully again. There was widespread understanding that the development status quo is not preparing the city for the present or the future. Even where the team encountered resistance, it must be noted that they are grateful for the time and thoughts of everyone that participated. For those that remain skeptical, the team hopes that this document will satisfy unanswered questions.





## *Chapter 3*

### **THE RESULTS**

DRAWING FROM LOCAL architecture and building precedents, the following building types are proposed as development options compatible with existing lot sizes and infrastructure in Highland Park and Ridgedale. While not all of these designs can presently be built “as-of-right” (within existing zoning rules), the team and the Chattanooga Regional Planning Agency (RPA) explored the possibility of a process that would pre-approve the necessary variances or create a zoning classification customized for this set of designs. It was noted during discussions that the city’s new zoning code for the downtown and near neighborhoods had provisions much friendlier to these proposed Missing Middle buildings, especially regarding parking and setback requirements.

None of these designs are exotic, unreasonable, or uneconomical. They represent the tried and tested habits of building that Chattanoogaans have cultivated over generations of delivering homes that work for people of all ages and circumstance. A key function of these buildings is flexibility. Many cherished historic buildings have gifted their communities with multiple lives - as a single-family home, then as a home with an accessory unit for an aging family member, perhaps subdivided and reunited, then housing a business or law office sometime in between. The following buildings are designed with that same flexibility and adaptability in mind. They are meant to change with the owner’s needs, but be durable enough to create a sense of timelessness in the neighborhood.

The following pages contain descriptions and elevation drawings for four building categories. Several iterations within those categories are illustrated in site plans and 3D models. Later in *Chapter 7: Bank Packages*, you can find more details on four example buildings, including floor plans, cost estimates, and pro formas.

LIVE-WORK

The live-work building has a long and storied historical precedent. Since the earliest cities, makers and doers of all kinds - the butcher, the baker, and the candlestick maker - have lived above, below, or alongside their shops for practical and economic reasons. The live-work building is a staple in the progress of both small businesses and urban neighborhoods. It reduces the risk of running a small business and is tremendously valuable to the neighborhood, filling in much-needed amenities without substantially changing the look and feel of an area. A business owner who can live on-site radically reduces their overhead by sharing home/work expenses and cutting out staffing needs. Lowering overhead makes it much easier to become a profitable, resilient, local business. If a small business owner chooses to rent out space in their live-work building, that rental income helps cushion the cash flow stresses inherent in running a business.

The live-work building can act as an incubator on an individual level, creating conditions for a small business to be successful. It also incubates the neighborhood in a way, acting as a transition between residential and commercial areas and testing what the neighborhood can and will support in terms of retail and services.

The live-work building illustrated below could be delivered as an addition to an existing residence or a new ground-up building.



*LIVE-WORK FRONT ELEVATION BY BROWN DESIGN STUDIO*

## 2 TO 4 UNIT RESIDENTIAL

The duplex, triplex, and quadplex are all approachable first steps for the rookie developer. Another way to include 2 to 4 units on a single or double lot is the addition of backyard cottages (termed Accessory Dwelling Units or ADUs by regulators). You can read more about the advantages of backyard cottages in *Chapter 5: The Logic*.

Each approach can result in a building that is nearly indistinguishable from single-family homes in a neighborhood. Many of the country's 2 to 4 unit buildings are the result of generations of tinkering, subdividing, and home renovation projects applied to single-family homes. Subtle addition of these units to a neighborhood works wonders for livability. Three generations of a family can reasonably live in the same neighborhood due to these housing options of various size, cost, and maintenance obligations. A 2 to 4 unit building can be financed with a common, federally insured mortgage, providing citizens with an opportunity to be responsible for the rental housing in their own neighborhood. Not only can these local landlords select and monitor tenants, but they can reap a financial reward from their stewardship of the neighborhood, forming a built-in feedback system. The 2 to 4 unit building is commonly owner-occupied making it the residential equivalent of the live-work, where the cost of a mortgage is offset by rental income.



DUPLEX FRONT ELEVATION BY BROWN DESIGN STUDIO

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6 TO 12 UNIT RESIDENTIAL

Beyond the scope of a standard 30-year mortgage for 1 to 4 units, a 6 to 12 unit building starts edging into the size of project where someone may do development for a living. The economics of a building tend to improve with more units, as the cost of the building approval process, financing, construction, and management is spread out over more revenue. Each of the presented 6 to 12 unit options are designed for a single lot which makes them an excellent transition from low intensity neighborhoods to higher intensity mixed use areas.



*EIGHT-PLEX FRONT ELEVATION BY BROWN DESIGN STUDIO*

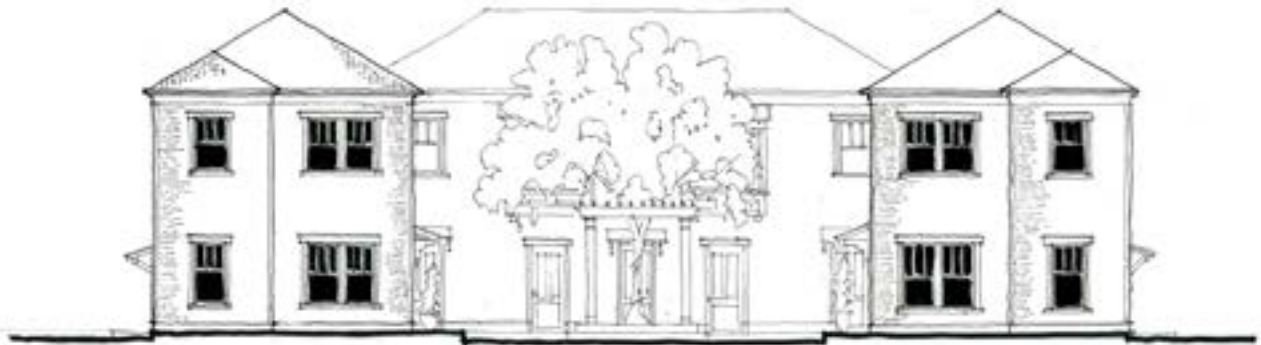
## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

### 12 TO 18 UNIT RESIDENTIAL

The 12 to 18 unit examples in this document are inspired by buildings in Chattanooga which the design team found were universally recognized and admired. These iconic buildings are a boon to the city tax base and have been for decades. When not constrained by excessive parking minimums, a 12 to 18 unit development provides an enormous amount of tax revenue per acre. At the same time, it is clear these developments can be so durable and elegant that they are loved by generation after generation of neighbors and tenants. Often designed in a classic courtyard layout, the 12 to 18 unit developments are simple and stately, shaping interior space on the lot and creating a visual destination on the street.

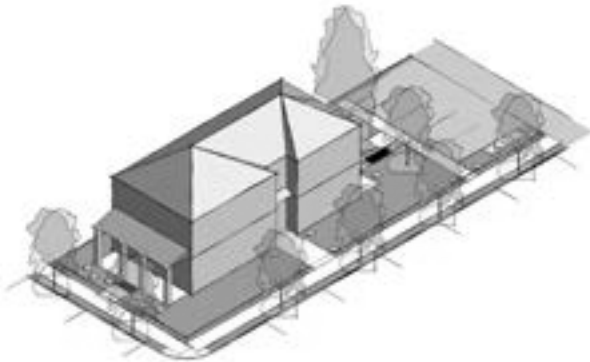


*THREE STORY WALKUP FRONT ELEVATION BY BROWN DESIGN STUDIO*

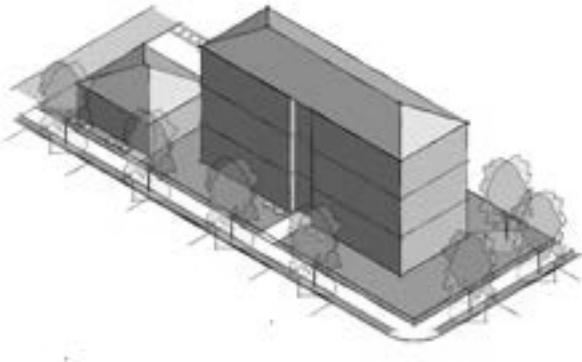


*QUADPLEX COURT FRONT ELEVATION BY BROWN DESIGN STUDIO*

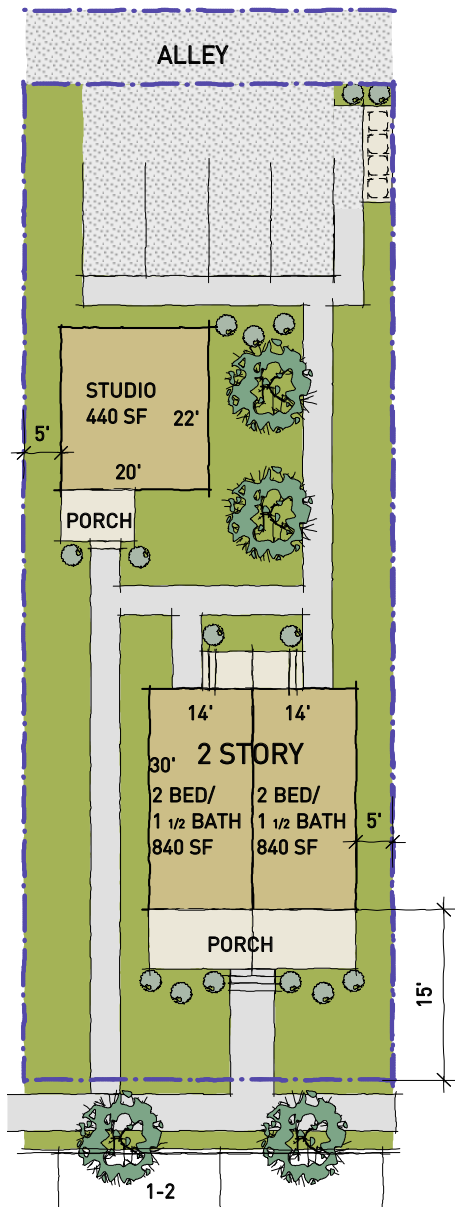
MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA



**BUILDING TYPE CATALOG**

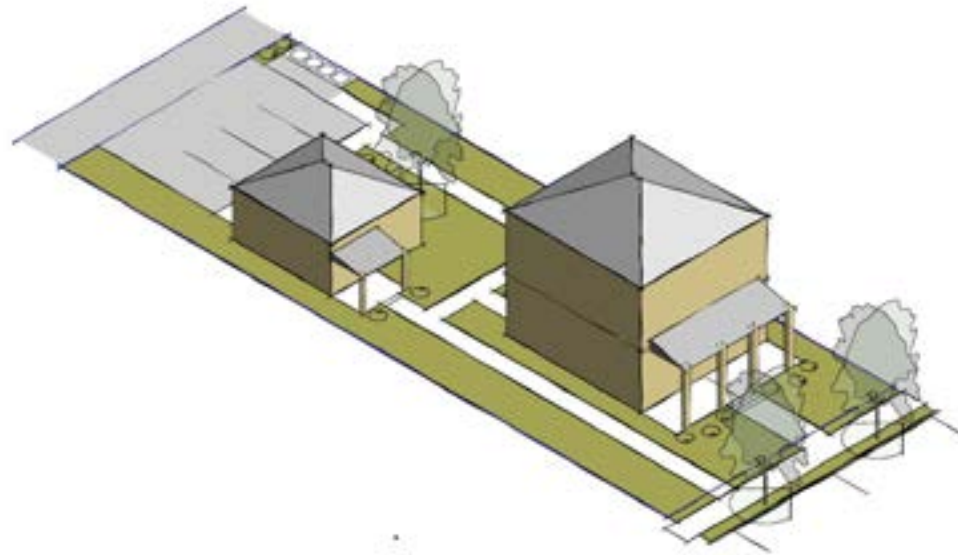


## Duplex

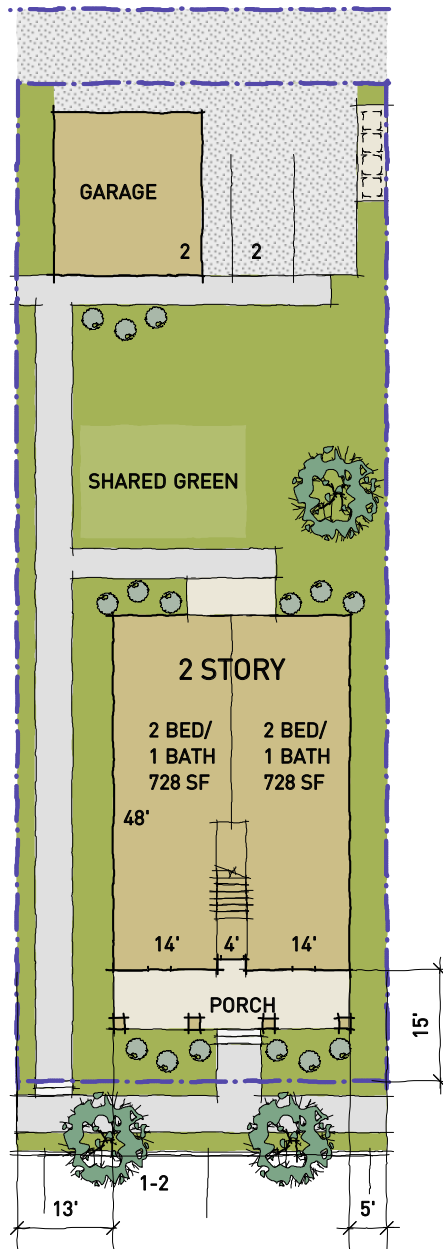


3 UNITS - 2,120 SF TOTAL	
2x 2-Bed, 1.5 Bath	840 sf
1x Studio	440 sf
PARKING - 6 SPACES	
On-street	2
Off-street	4
SITE	
Corner lot	Caution
Mid-block	Yes
Multi-lot required	No
International Residential Code	

The duplex has side-by-side two story units. The optional backyard cottage is a studio unit, which shapes the property's green space and screens the parking off the alley from view. This site plan is best suited for a mid-block location where its architectural elements can be concentrated on the facade facing the sidewalk. A corner lot is workable, but more attention and budget would need to be applied to the long side facade that would be exposed along an additional sidewalk. The duplex is an excellent owner-occupied building as the income from the second unit and the backyard cottage can contribute to or completely offset a monthly mortgage payment.



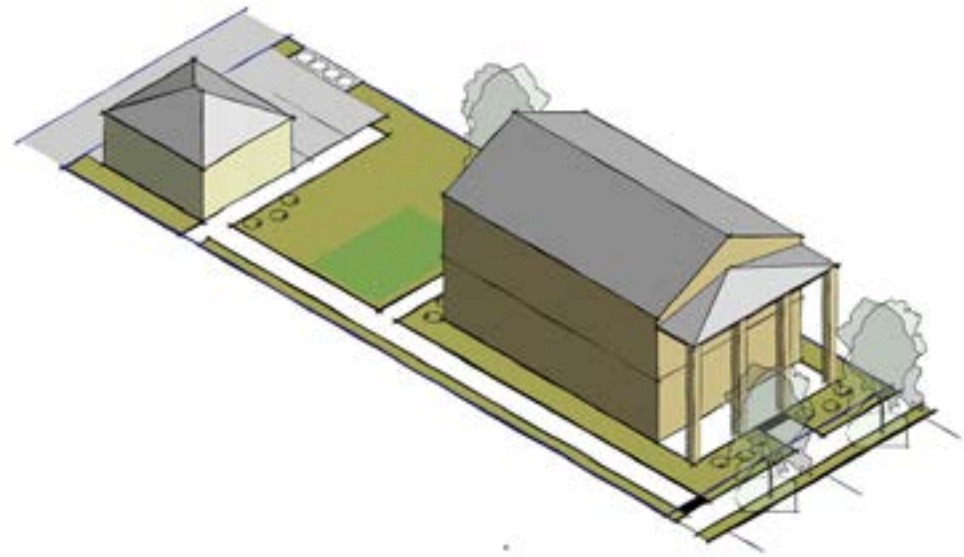
## Quadplex



4 UNITS - 2,912 SF TOTAL	
4x 2-Bed, 1 Bath	728 sf
PARKING - 6 SPACES	
On-street	2
Off-street	4
SITE	
Corner lot	Caution
Mid-block	Yes
Multi-lot required	No
International Building Code	

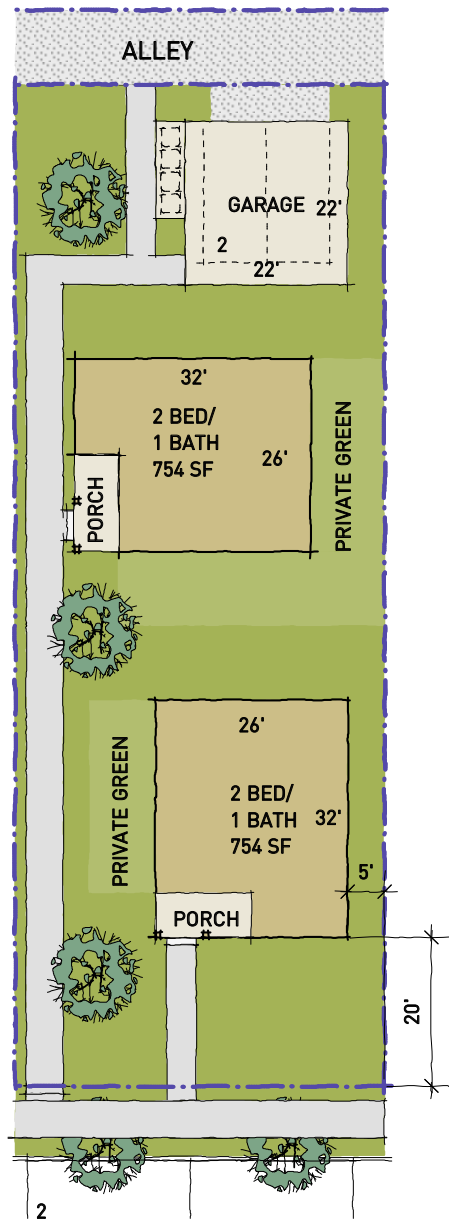
The quadplex has two units on each floor, four units total, and a small rear garage for two vehicles. The units are close to the smallest size desirable for a two bedroom, optimizing building cost versus rental income. This site plan is best suited for a mid-block location where its architectural elements can be concentrated on the facade facing the sidewalk. A corner lot is workable, but more attention and budget would need to be applied to the long side facade that would be exposed along an additional sidewalk.

The quadplex could be owner-occupied or an approachable first investment project for a small developer, as the four rental units provide a respectable return.



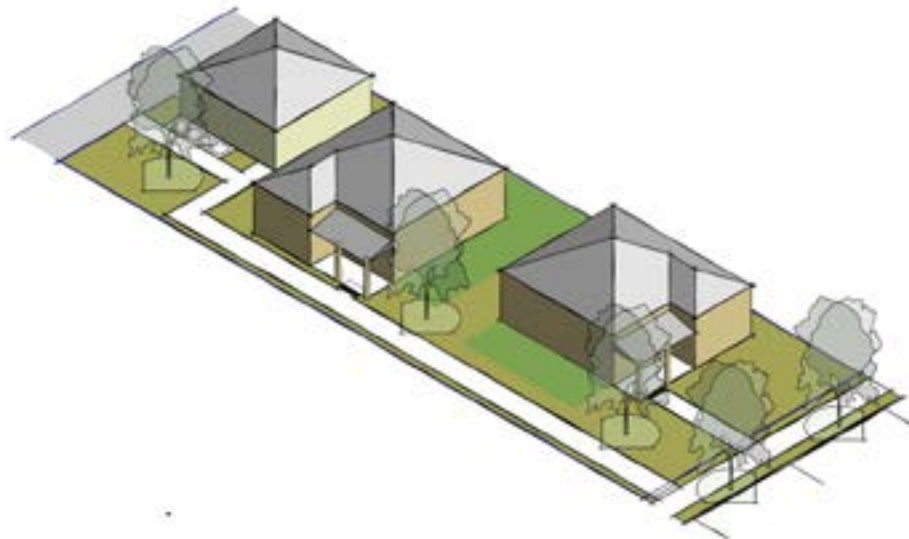


## Two Unit

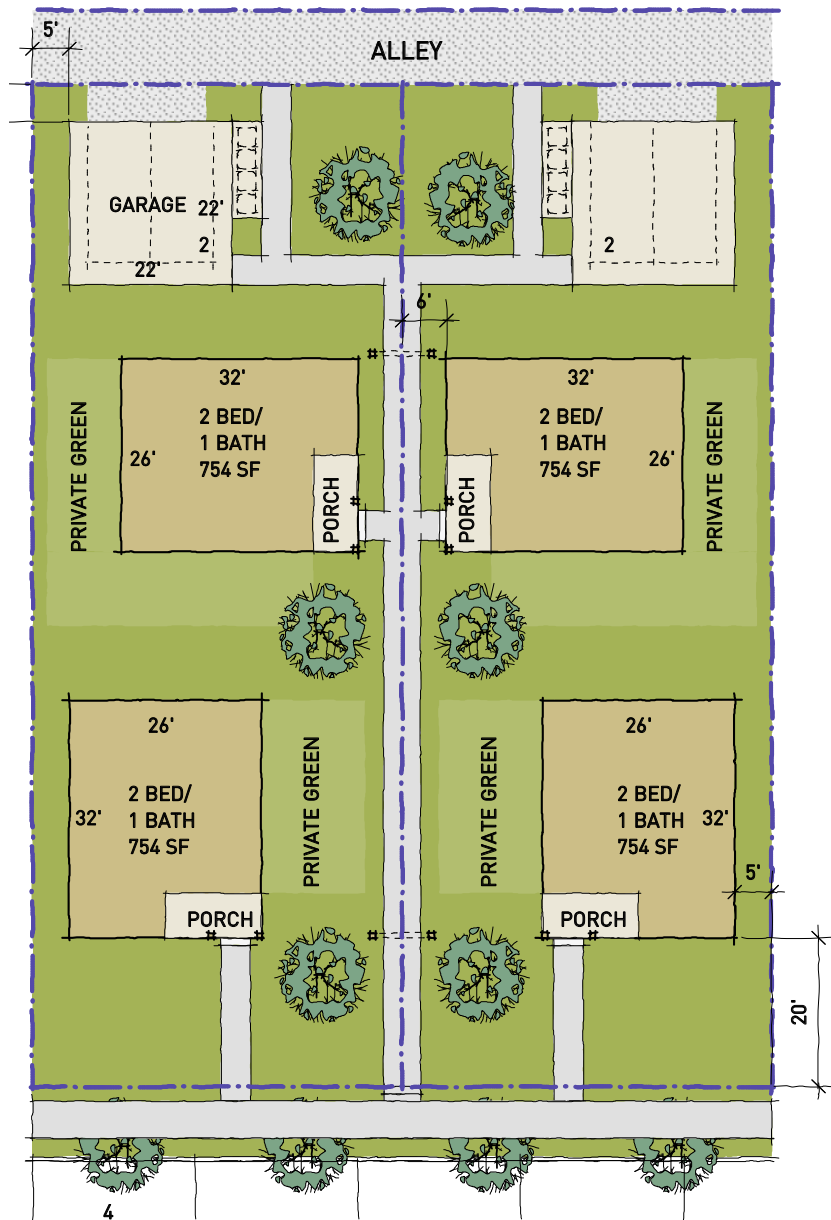


2 UNITS - 1,508 SF TOTAL	
2x 2-Bed, 1 Bath	754 sf
PARKING - 4 SPACES	
On-street	2
Off-street	2
SITE	
Corner lot	Caution
Mid-block	Yes
Multi-lot required	No
International Residential Code	

This plan features two standalone cottages and a two-car garage. The detached cottages create semi-private green space around each unit and appeal to individuals seeking a medium sized unit with direct access (no shared entry). The site layout is designed such that, when mirrored on a second lot, it forms a cottage court. This site plan is best suited for a mid-block location but could work on a corner lot so long as care is given to the sidewalk by orienting porches toward each street.



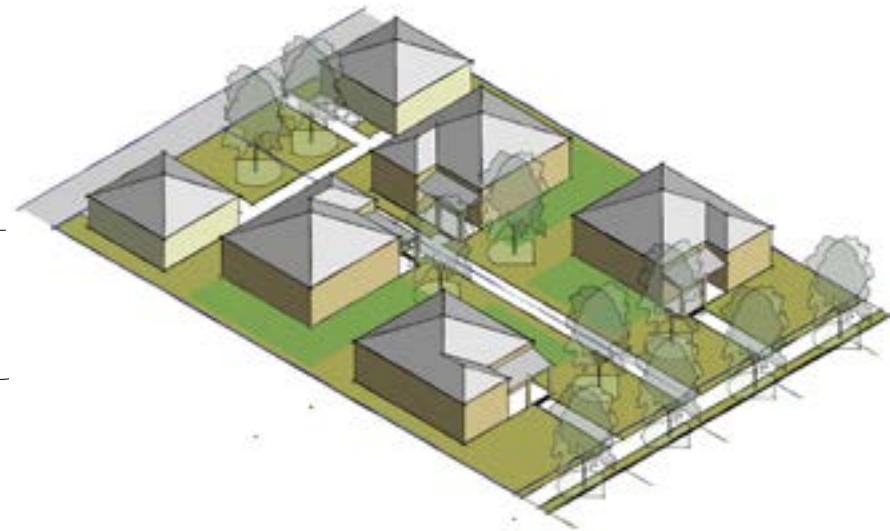
## Cottage Court



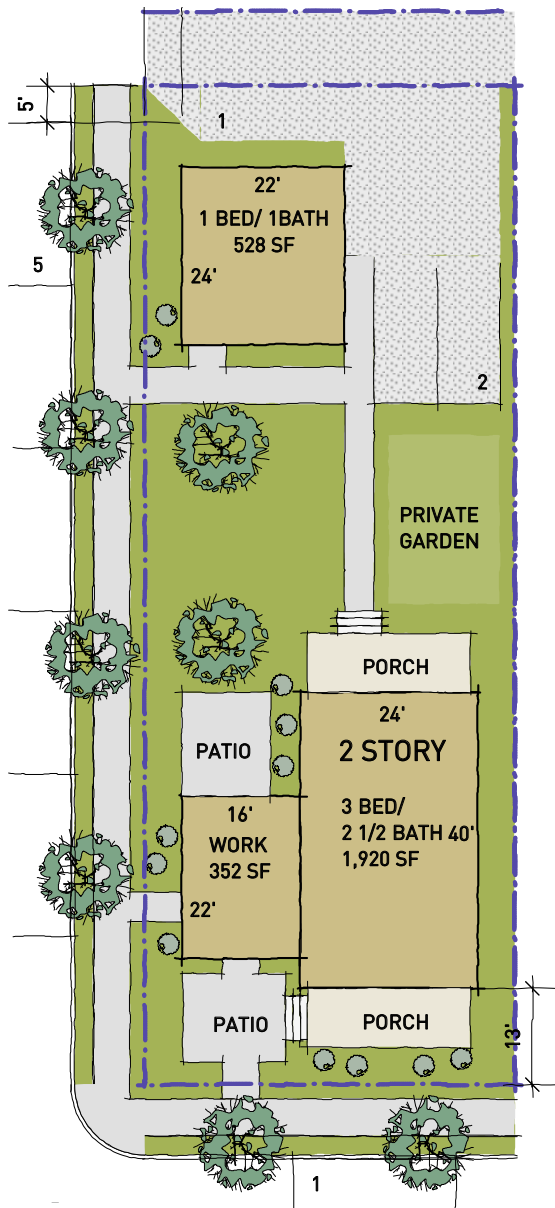
4 UNITS - 3,016 SF TOTAL	
4x 2-Bed, 1 Bath	754 sf
PARKING - 8 SPACES	
On-street	4
Off-street	4
SITE	
Corner lot	No
Mid-block	Yes
Multi-lot required	Yes
International Residential Code	

This four unit plan on two lots features four standalone cottages and two, two-car garages. The detached cottages create semi-private green space around each unit and appeal to individuals seeking a medium sized unit with direct access (no shared entry). The site plan is carefully designed to allow for the cottages to be permitted and built one lot at a time.

The four detached units could be financed with a conventional 30-year mortgage, making this another approachable starter project for a small developer. This site plan is best suited for a mid-block location since the buildings face each other in a courtyard layout and would thus have their backs facing the street on a corner lot.



## *Flex House*



2+ UNITS - 2,800 SF TOTAL	
1x 3-Bed, 2.5 Bath	1,920 sf
1x Non-residential	352 sf
1x Studio	528 sf
PARKING - 10 SPACES	
On-street	6
Off-street	3
SITE	
Corner lot	Yes
Mid-block	Caution
Multi-lot required	No
International Residential Code	

The flex house is a two story house with an attached one story work space that faces the street. This work space is classified under the live-work section of the building code and could be used as an office or general retail space. The rear of the lot features an accessory unit. This building type is ideal for a corner lot which affords more visibility to the retail frontage and also benefits from on-street parking. A mid-block setting would require a more creative parking solution.

The flex house is a great adaptation for an existing property, and one that can provide a convenient and cost-effective work space for a live-in business owner. The second residential unit can help offset the cost of a mortgage or even serve as the business owner's residence.

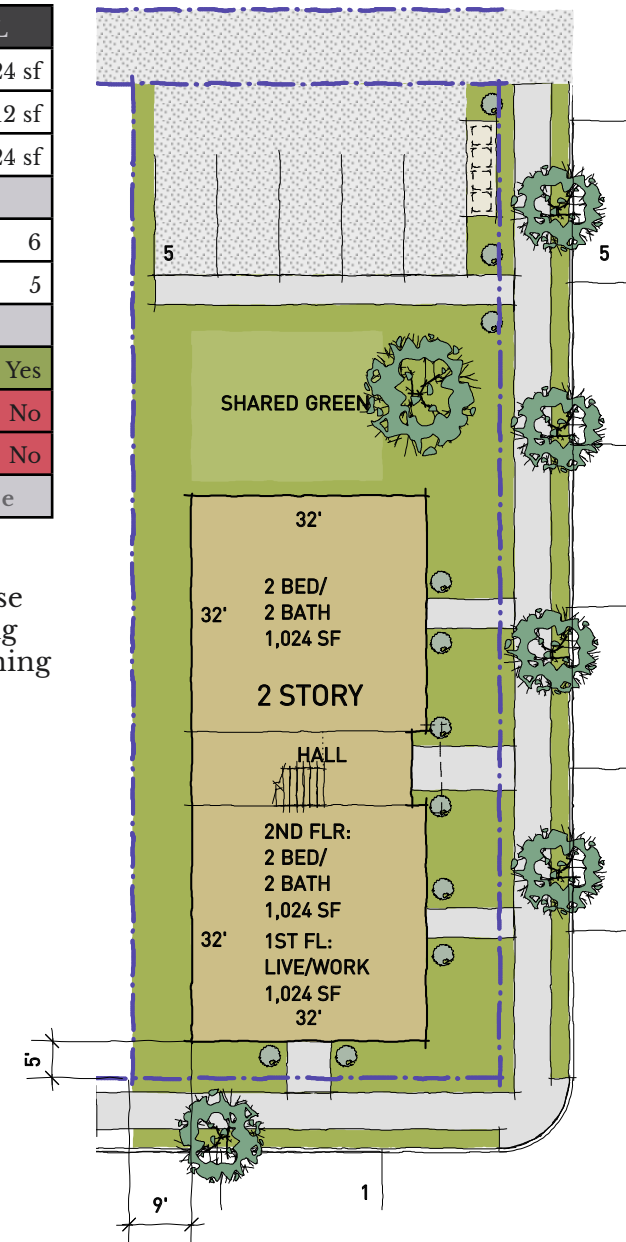
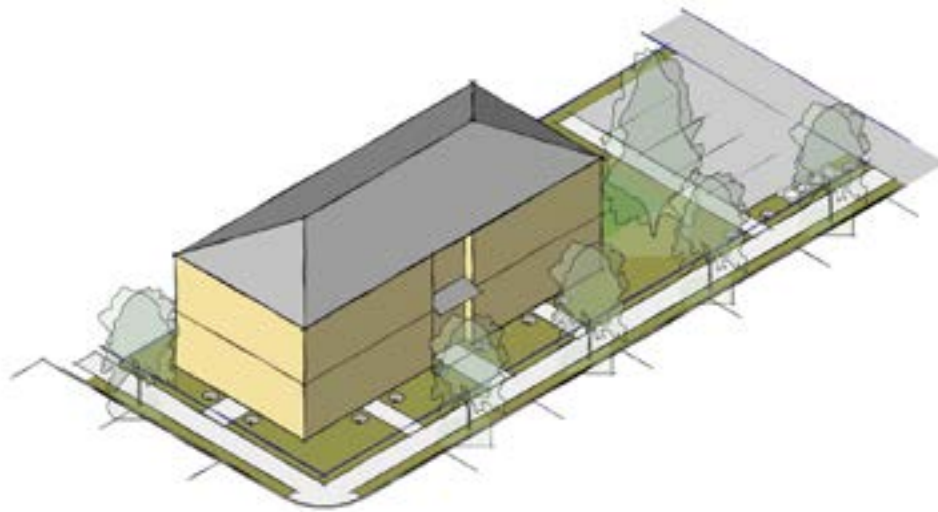


## 4F (Form Follows Finance Fourplex)

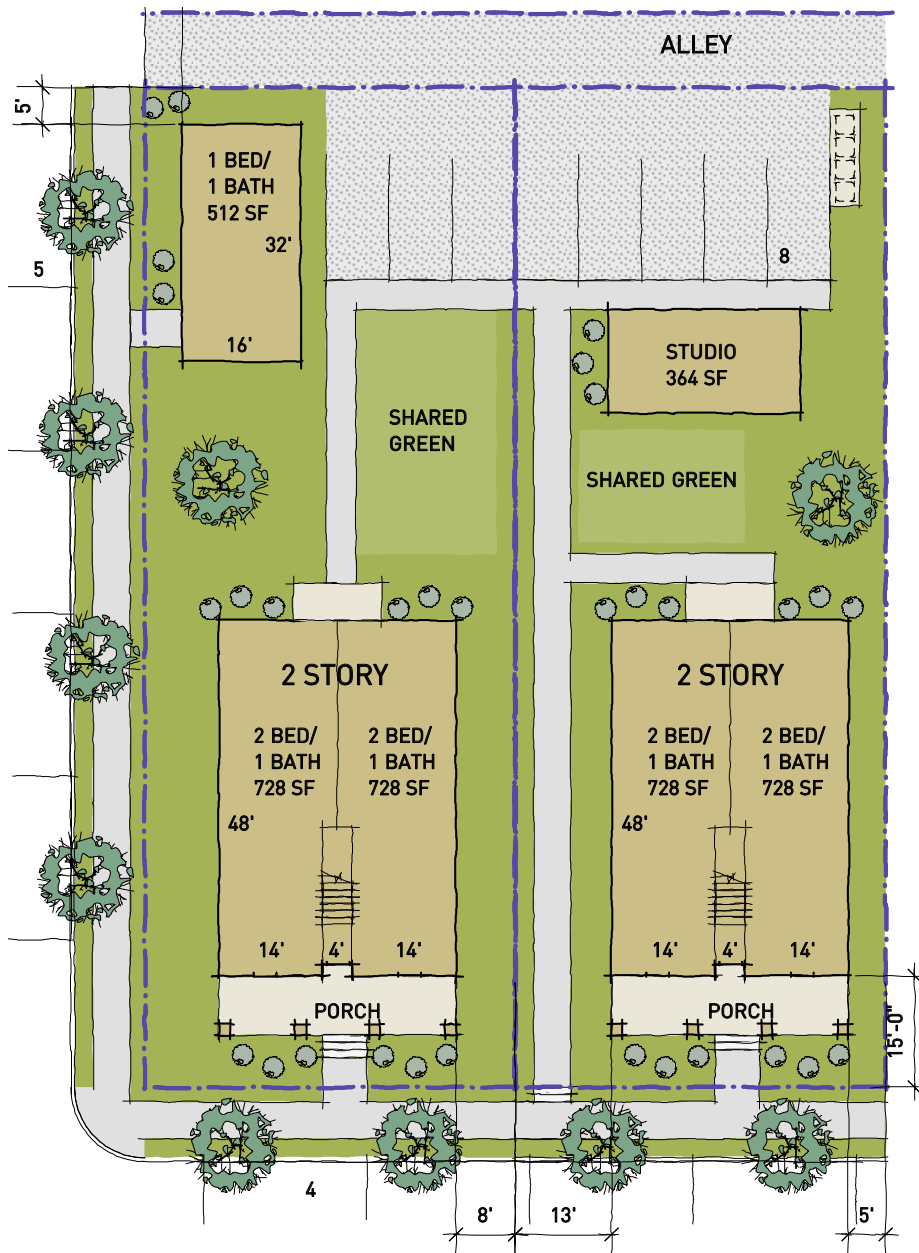
As the name suggests, the 4F maximizes the capacity of a conventional 30-year mortgage and avoids unnecessary expense through savvy navigation of building codes. Form follows finance. The building is home to four residential units and a ground floor flex space. The second floor units are accessed through a common central stair hall. This building is great for a corner lot as it is designed to have both short and long facades with doors to the street.

Each regulatory environment (building code, financial lending, zoning, etc.) has its own language to describe mixed uses and the rules that bound them. That is why a building can correctly be labeled many mutually inclusive terms referring to mixed use. In the case of the 4F, the flex space should be labeled 'live-work' to be considered a residential use under the building code, and 'non-residential' space for mortgage underwriting purposes, while yet a different label may be necessary to comply with local zoning requirements.

5 UNITS - 4,096 SF TOTAL	
2x 2-Bed, 2 Bath	1,024 sf
2x 1-Bed, 1 Bath	512 sf
1x Non-residential	1,024 sf
PARKING - 11 SPACES	
On-street	6
Off-street	5
SITE	
Corner lot	Yes
Mid-block	No
Multi-lot required	No
International Building Code	



## Quadplex + ADUs



10 UNITS - 6,700 SF TOTAL	
8x 2-Bed, 1 Bath	728 sf
1x 1-Bed, 1 Bath	512 sf
1x Studio	364 sf
PARKING - 17 SPACES	
On-street	9
Off-street	8
SITE	
Corner lot	Yes
Mid-block	Caution
Multi-lot required	Yes
International Building Code	

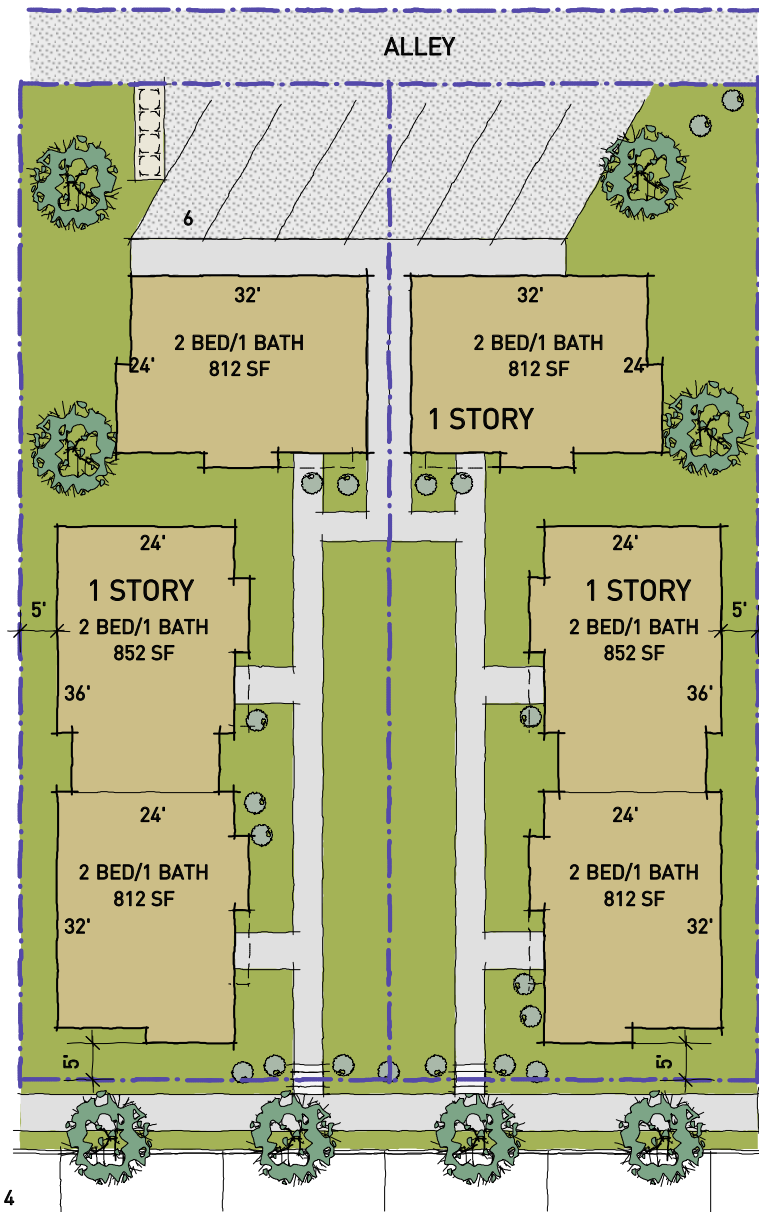
This two lot site plan builds on the single quadplex model which has two units on each floor. Adding an accessory unit to the rear of each lot shields the principal structures and public view from the parking area. These backyard units also help shape the shared green space into an informal courtyard. This site plan works well on a corner lot or can be carefully converted to a mid-block setting if not limited by parking minimums. Since the buildings look like large houses, they can gracefully incorporate multiple high-

quality housing units into areas that are predominately single or two family structures.

By configuring two lots in this manner, a small developer can build 10 units while still financing the project with two conventional 30-year mortgages. To conserve up-front capital, the accessory units can be added incrementally at a future date.



## Single Story Duplex Court

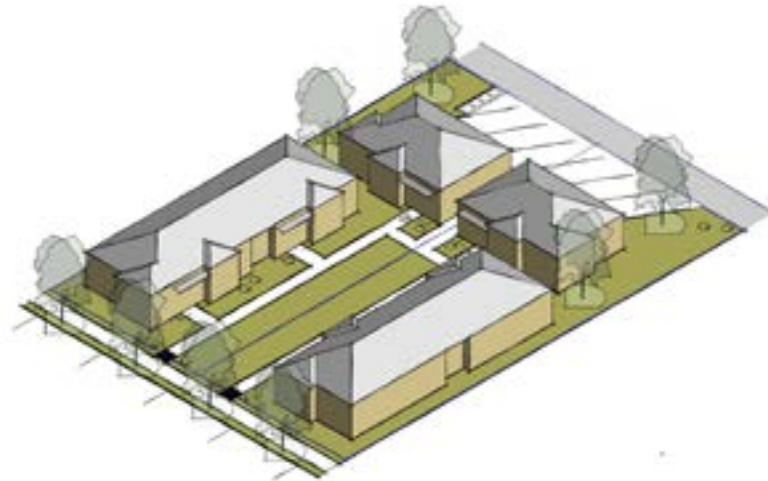


6 UNITS - 4,952 SF TOTAL	
4x 2-Bed, 1 Bath	812 sf
2x 2-Bed, 1 Bath	852 sf
PARKING - 10 SPACES	
On-street	4
Off-street	6
SITE	
Corner lot	No
Mid-block	Yes
Multi-lot required	Yes
International Residential Code	

This two lot site plan arranges three single story duplexes around a courtyard. Each unit has its own entry via the shared courtyard space. The rear duplex is shown as two separate buildings to allow for an incremental build-out (one lot at a time), and to meet local zoning requirements (which may allow three unit buildings on a single lot, but not six units on two lots). The rear buildings could be connected if no such constraints are present. Due to the courtyard configuration, this site plan should only be used in a mid-block location where buildings will not have their backs to the street. Since the buildings are similar in size and appearance to houses, they

are compatible with areas that are predominately single or two family structures.

By configuring two lots in this manner, a small developer can build more than four units on contiguous lots while still using conventional 30-year mortgages. There is flexibility to add additional units on the rear buildings by making each single cottage footprint a two story duplex instead, effectively creating two duplexes on each lot.

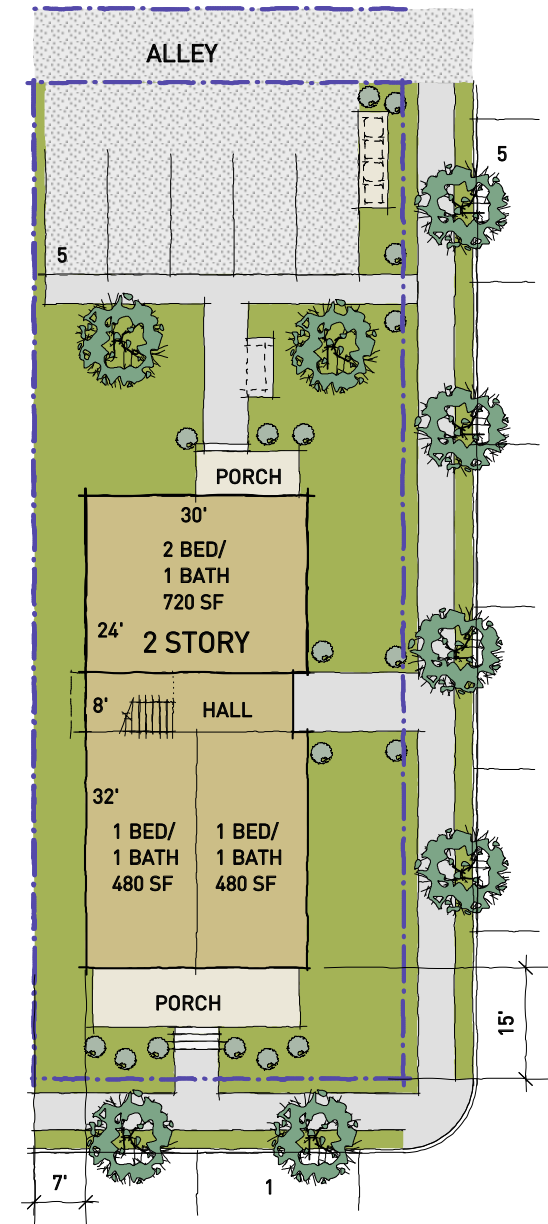


## Six-plex

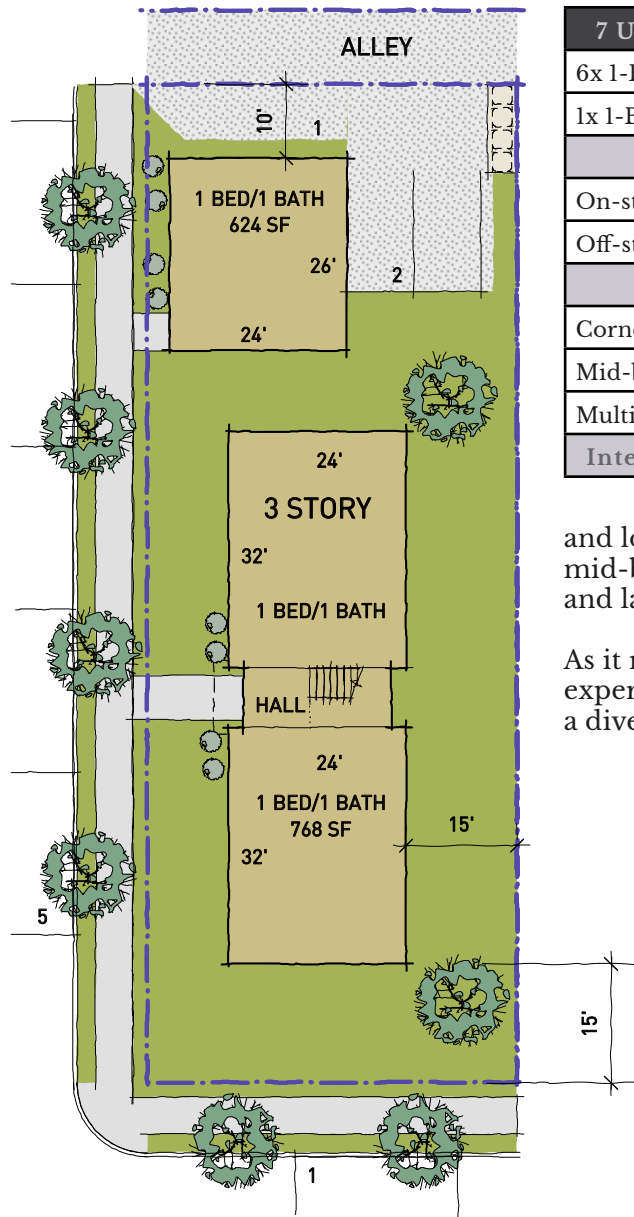
The six-plex has three units on each floor. The units are close to the smallest size desirable, optimizing building cost versus rental income. All units are accessible through a central stair hall, but the first floor units also have direct access from the street or parking area. This building is excellent for a corner lot as it benefits from on-street parking and is designed to have both short and long facades with doors to the street. A mid-block setting is workable, but additional sidewalk would be necessary in the side yard as well as careful attention to landscaping.

The six-plex requires commercial multi-family financing and so, despite its modest footprint, it is most appropriate for an experienced small developer or perhaps a non-profit housing agency looking to provide a diversity of units on a block with smaller structures.

6 UNITS - 3,360 SF TOTAL	
4x 1-Bed, 1 Bath	480 sf
2x 2-Bed, 1 Bath	720 sf
PARKING - 11 SPACES	
On-street	6
Off-street	5
SITE	
Corner lot	Yes
Mid-block	Caution
Multi-lot required	No
International Building Code	



## Three Story Walkup

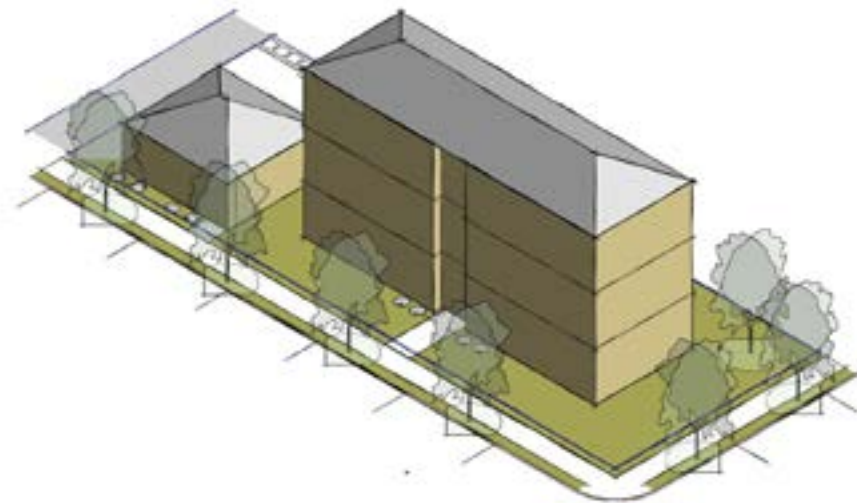


7 UNITS - 5,232 SF TOTAL	
6x 1-Bed, 1 Bath	768 sf
1x 1-Bed, 1 Bath	624 sf
PARKING - 9 SPACES	
On-street	6
Off-street	3
SITE	
Corner lot	Yes
Mid-block	Caution
Multi-lot required	No
International Building Code	

The three story walkup has a pair of units on each floor, plus an optional one story cottage to the rear of the site. Units are accessible through a central stair hall, but the first floor units also have direct access from the street or parking area. The three story walkup is an excellent option for a busy street that may yet lack the ingredients to support ground floor retail. The building massing can simultaneously protect smaller buildings to its interior side from noise and traffic, while providing private backyard space more compatible to residential neighbors. By providing accessible residential units on the ground floor, and a compact footprint which minimizes distance to the central stair, only one staircase (and no elevator) is required to comply with the Fair Housing Act. This building is excellent for a corner lot as it benefits from on-street parking and is designed to have both short

and long facades with doors to the street. The three story walkup is unlikely to fit into a mid-block setting and would require significant reworking to the side facade, sidewalks, and landscaping.

As it requires commercial multi-family financing, it is most appropriate for an experienced small developer or perhaps a non-profit housing agency looking to provide a diversity of units on a block with smaller structures.



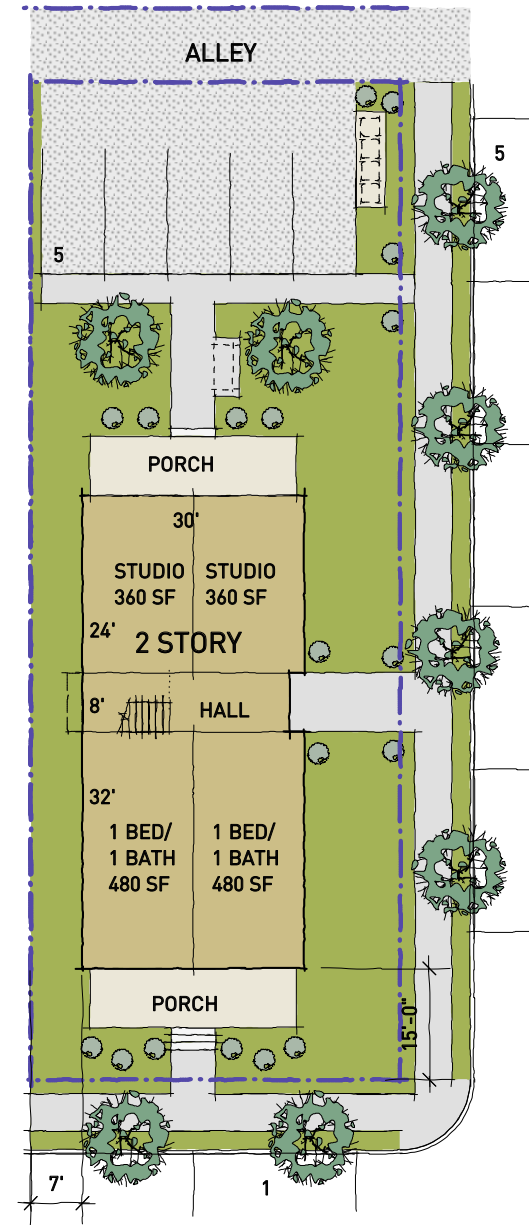
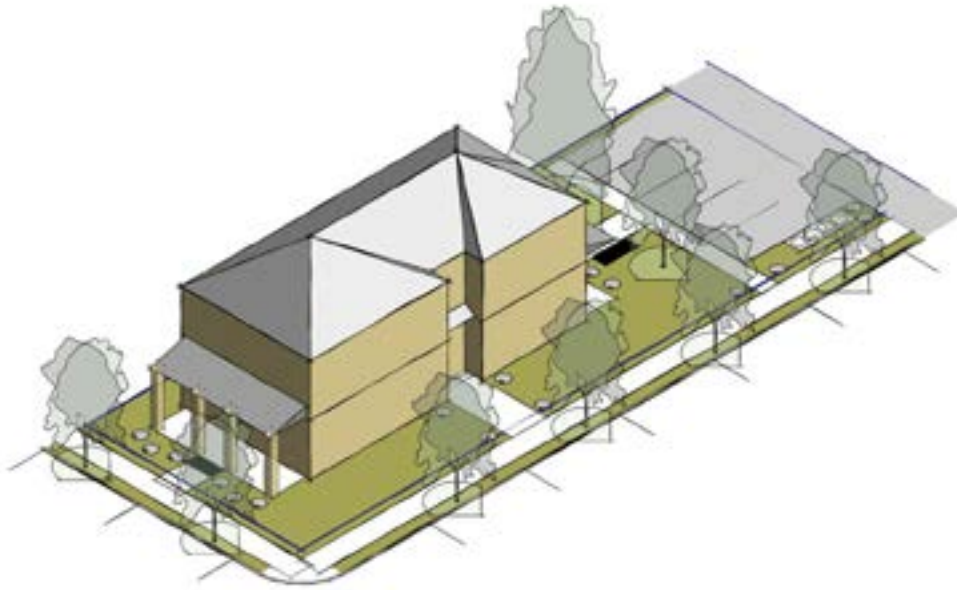


## *Eight-plex*

The eight-plex has four units on each floor. The units are close to the smallest size desirable, optimizing building cost versus rental income. All units are accessible through a central stair hall, but the first floor units also have direct access from the street or parking area. This building is excellent for a corner lot as it benefits from on-street parking and is designed to have both short and long facades with doors to the street. A mid-block setting is workable, but additional sidewalk would be necessary in the side yard as well as careful attention to landscaping.

As the eight-plex requires commercial multi-family financing, it is most appropriate for an experienced small developer or perhaps a non-profit housing agency looking to provide a diversity of units on a block with smaller structures.

8 UNITS - 3,360 SF TOTAL	
4x Studio	360 sf
4x 1-Bed, 1 Bath	480 sf
PARKING - 11 SPACES	
On-street	6
Off-street	5
SITE	
Corner lot	Yes
Mid-block	No
Multi-lot required	No
International Building Code	

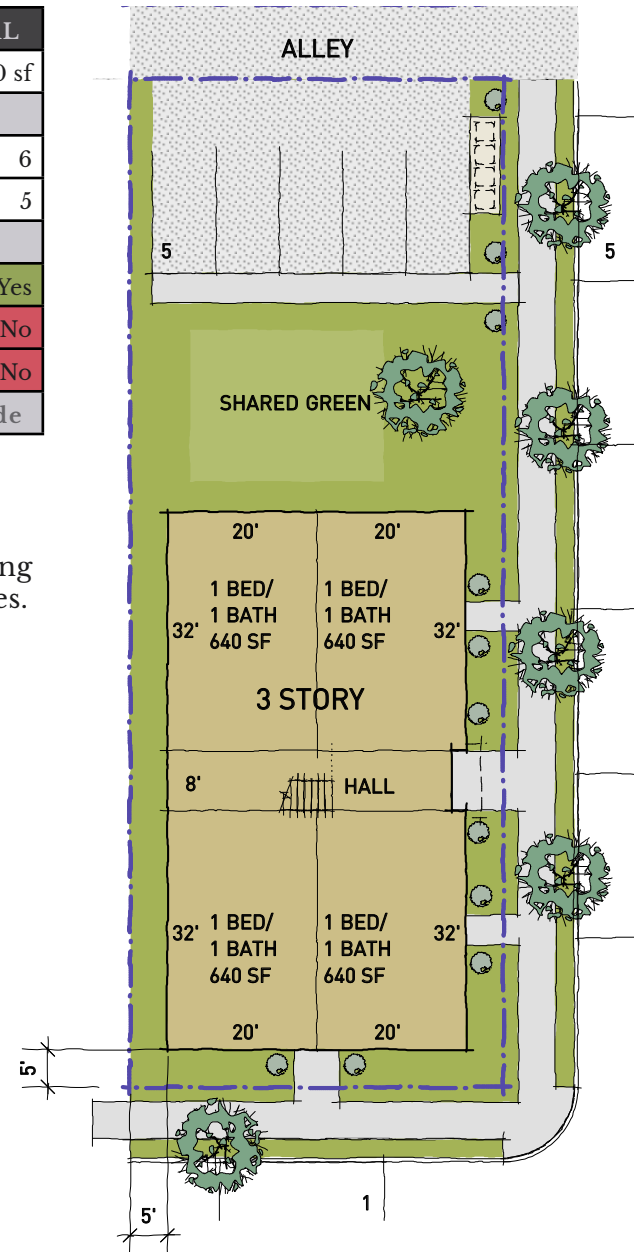
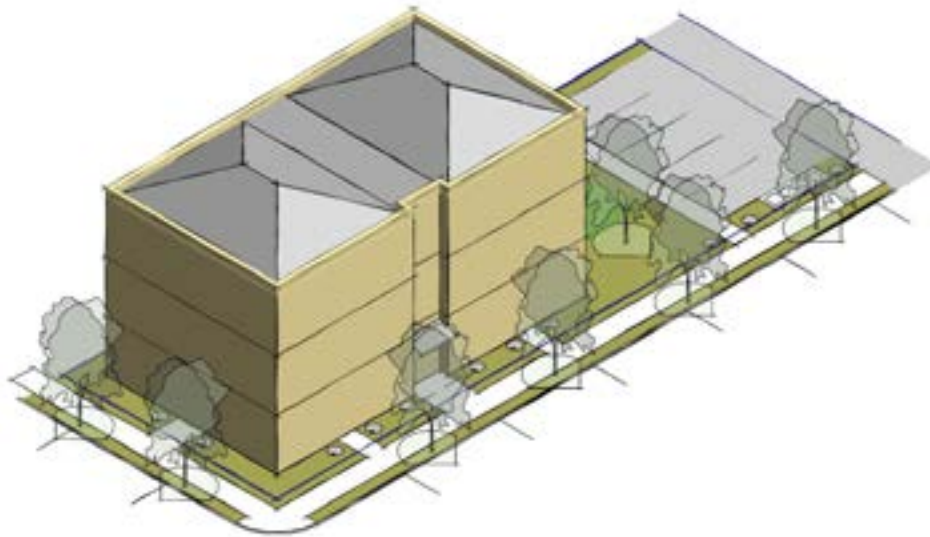


## 12-Plex Corner

The 12-plex has four units on each floor. All units are accessible through a central stair hall. The first floor units could also have direct access from the street or parking area. This building is excellent for a corner lot as it benefits from on-street parking and is designed to have both short and long facades with doors to the street. This building type should not be used in a mid-block context unless the lot is significantly wider than the typical 50' lots shown in this study. The best condition mid-block would be to turn the long facade of the building toward the front of an 80'-100' wide lot, shielding the sidewalk view from a rear parking lot which would be accessed via the alley.

12 UNITS - 7,680 SF TOTAL	
12x 1-Bed, 1 Bath	640 sf
PARKING - 11 SPACES	
On-street	6
Off-street	5
SITE	
Corner lot	Yes
Mid-block	No
Multi-lot required	No
International Building Code	

As the 12-plex requires commercial multi-family financing, it is most appropriate for an experienced small developer or perhaps a non-profit housing agency looking to provide a diversity of units on a block with smaller structures.

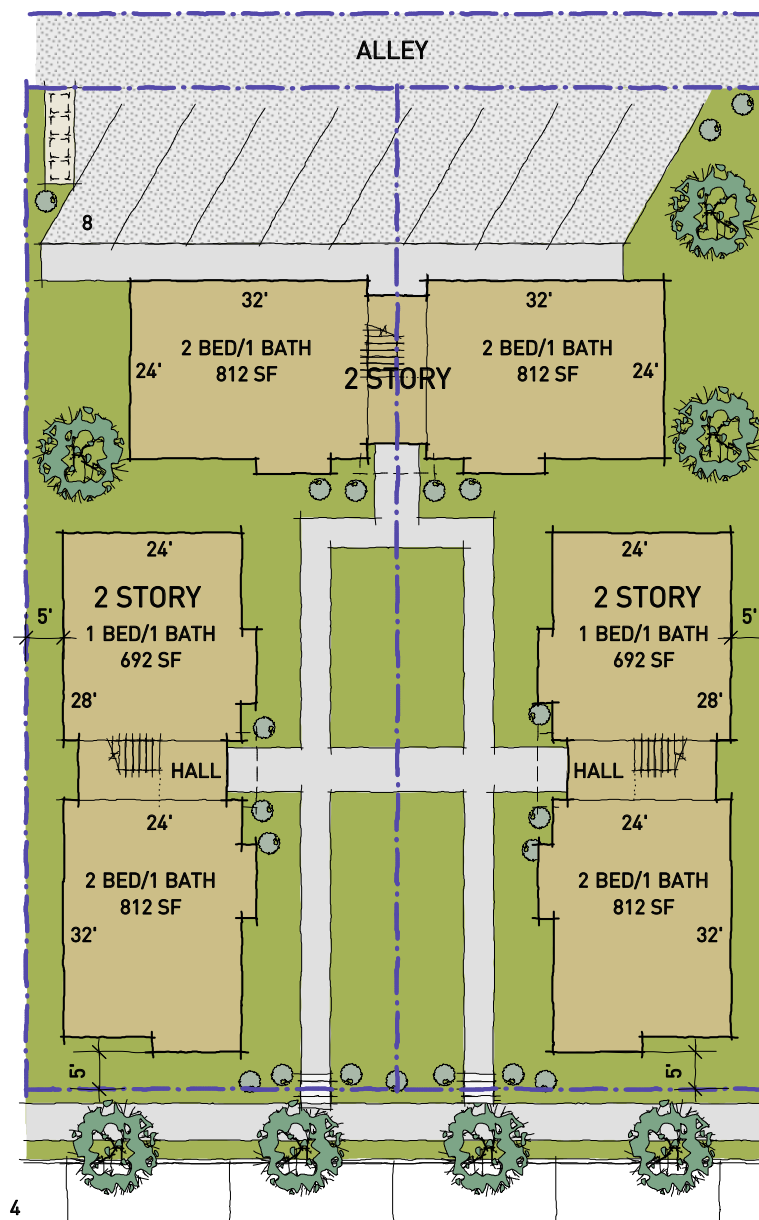
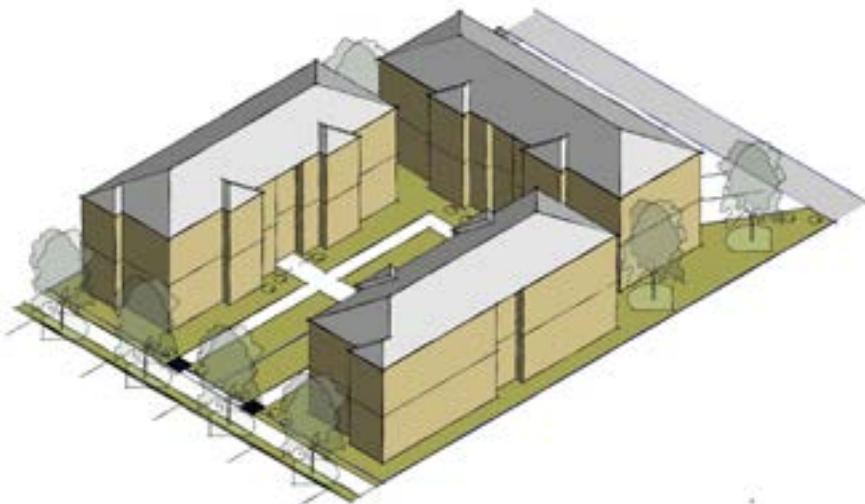


## Quadplex Court

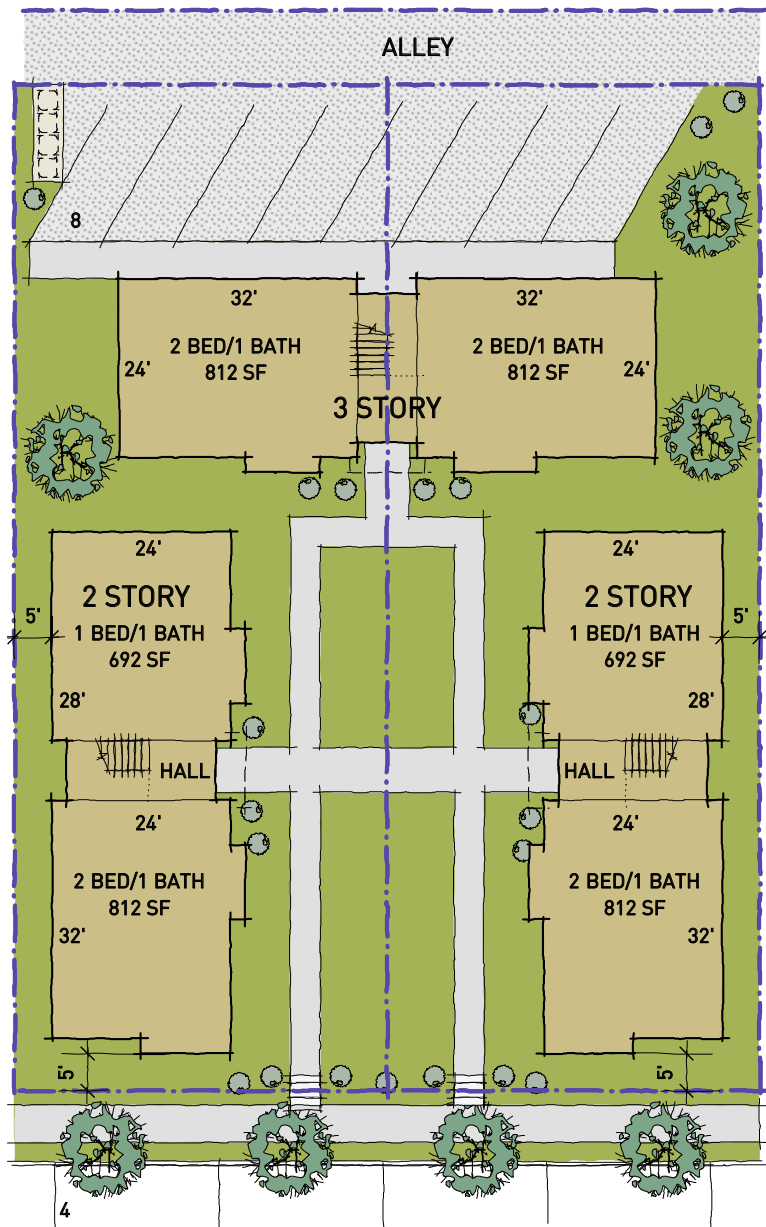
This two lot site plan arranges three, two story quadplexes around a courtyard. The rear quadplex could be carefully split into two separate buildings to allow for an incremental build-out, one lot at a time. Due to the courtyard configuration, this site plan should only be used in a mid-block location where buildings will not have their backs to the street. Since the two front buildings are similar in size and appearance to large houses, they can gracefully incorporate multiple high-quality housing units into low density areas.

12 UNITS - 9,264 SF TOTAL	
4x 1-Bed, 1 Bath	692 sf
8x 2-Bed, 1 Bath	812 sf
PARKING - 12 SPACES	
On-street	4
Off-street	8
SITE	
Corner lot	No
Mid-block	Yes
Multi-lot required	Yes
International Building Code	

This site plan enables a small developer to build more than four units on contiguous lots while still using conventional 30-year mortgages in a phased manner. One might add the rear building later using the front buildings (by then, stabilized and cash flowing) as partial equity. Built all at once, the quadplex court requires commercial multi-family financing and is best executed by an experienced small or non-profit developer.



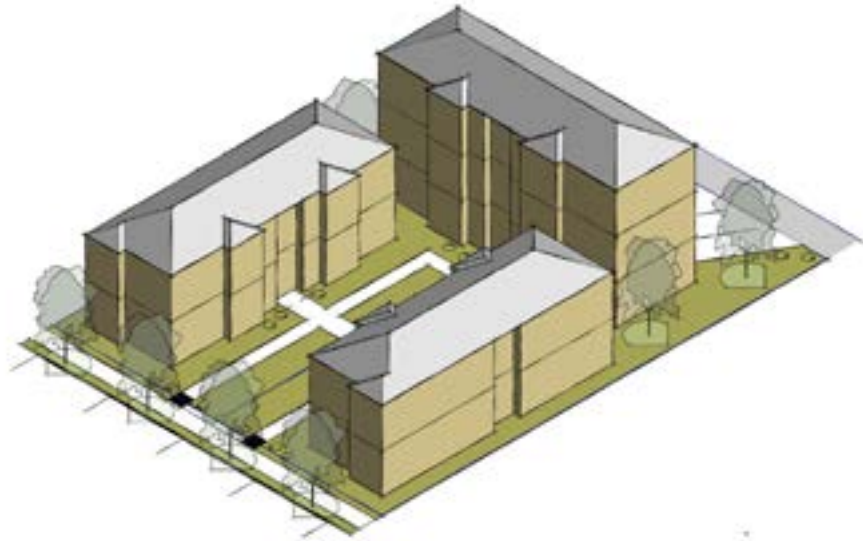
## 6+4 Court



<b>14 UNITS - 10,888 SF TOTAL</b>	
4x 1-Bed, 1 Bath	692 sf
10x 2-Bed, 1 Bath	812 sf
<i>PARKING - 12 SPACES</i>	
On-street	4
Off-street	8
<i>SITE</i>	
Corner lot	No
Mid-block	Yes
Multi-lot required	Yes
International Building Code	

This two lot site plan builds on the quadplex court by adding a third floor to the rear building. All units are accessed via the central stair hall in each building. Due to the courtyard configuration, this site plan should only be used in a mid-block location where buildings will not have their backs to the street. The 6 + 4 court is a great transition between large commercial or mixed use buildings and nearby smaller residential structures.

Built all at once, the 6 + 4 court requires commercial multi-family financing and is best executed by an experienced small or non-profit developer.

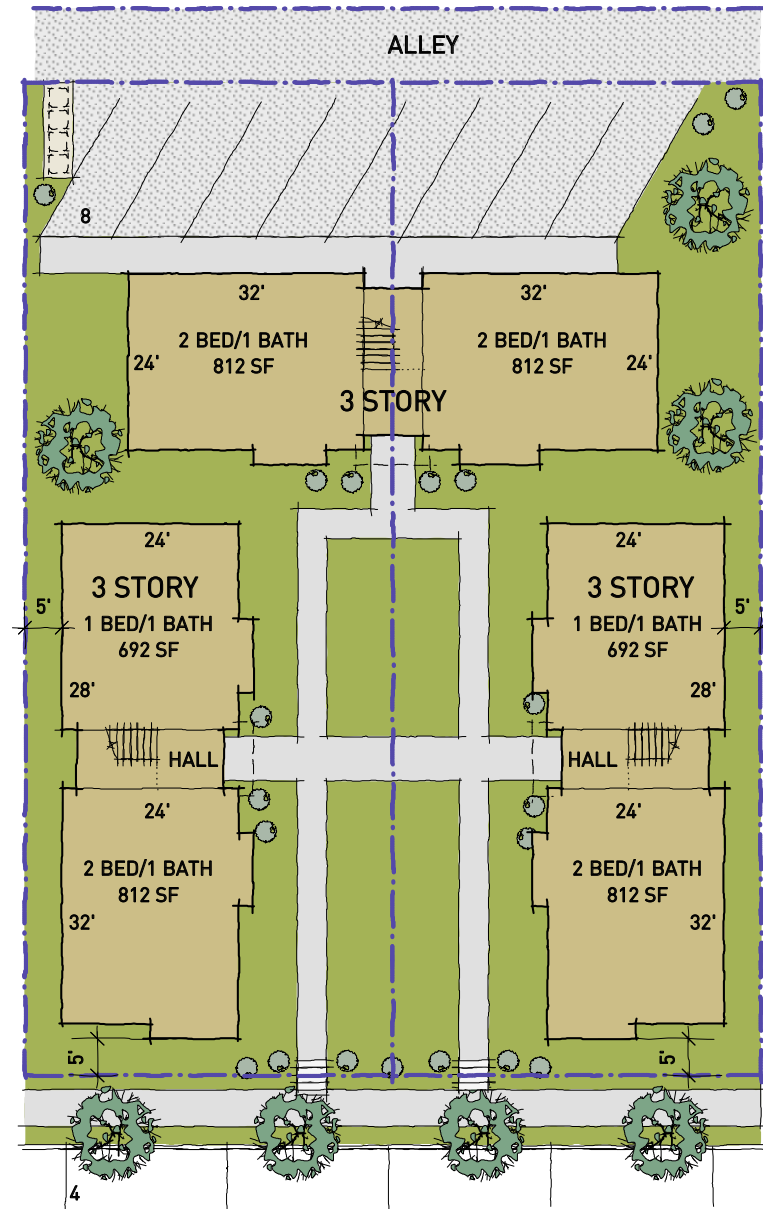
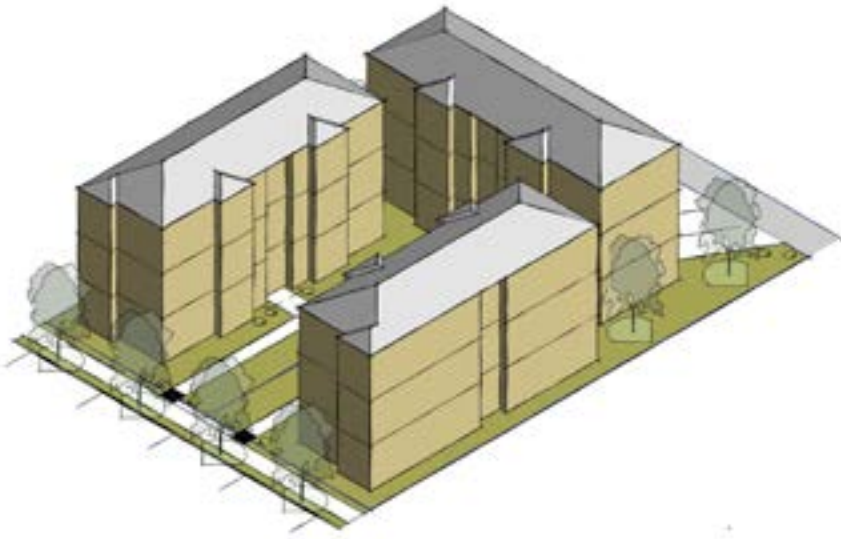


## Three Story Walkup Court

This two lot site plan incorporates 18 units by arranging three, three story buildings around a courtyard. All units are accessed via the central stair hall in each building. Due to the courtyard configuration, this site plan should only be used in a mid-block setting and is ideal for extra wide lots. It is a great candidate for a shared parking arrangement where there are under-utilized spaces nearby or on-street. The three story walkup court is a great transition between large commercial or mixed use buildings and nearby mid-sized residential or mixed use structures.

18 UNITS - 13,896 SF TOTAL	
6x 1-Bed, 1 Bath	692 sf
12x 2-Bed, 1 Bath	812 sf
PARKING - 12 SPACES	
On-street	4
Off-street	8
SITE	
Corner lot	No
Mid-block	Yes
Multi-lot required	Yes
International Building Code	

Since the three story walkup court should be built all at once and requires commercial multi-family financing, it is best executed by an experienced small developer or non-profit developer.



*Chapter 4*

**MATCHING BUILDINGS  
WITH AVAILABLE LOTS**

BUILDING PLACEMENT IS AT THE HEART of great city design. For the small developer, identifying the right building for the circumstances is just as critical to success. Depending on his or her financial situation and the type of lot in possession, one may find that a particular building provides the most financial opportunity or zoning flexibility.

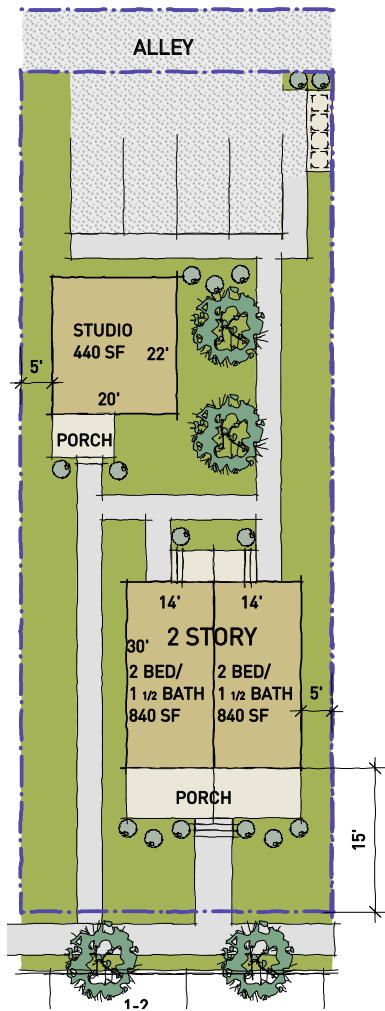
Whether financing a development with a standard 30-year residential mortgage, a small business loan, a commercial mortgage, or private investment, there are building and lot solutions to match. The key thing to note when reviewing the following pages is that not all buildings and lots are created equally. Some have advantages that are especially suited to non-residential uses or owner-occupation. In most cases, lot considerations revolve around parking. It is advantageous to make use of the on-street parking afforded by a corner lot. This in turn allows one to build more units on that property.

In any case, there are financial and regulatory thresholds to be aware of and this chapter walks through the basics of what to build where and how to finance it. If a developer is thoughtful about the resources he or she has available, those resources can be transformed into the optimal contribution to a neighborhood and his or her own financial security.

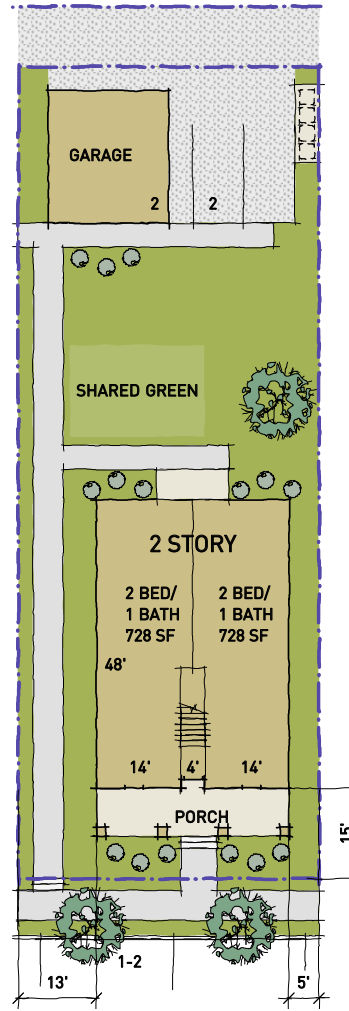
## 1 to 4 Residential Dwelling Units on Single Lots

This collection of attached, multi-unit building types can all be financed through conventional 30-year mortgages and placed on a single 50' wide lot that is serviced by an alley. The duplex and flex house can use the less stringent International Residential Code and thus avoid the cost of fire sprinklers. The accessory structures could be constructed incrementally over time.

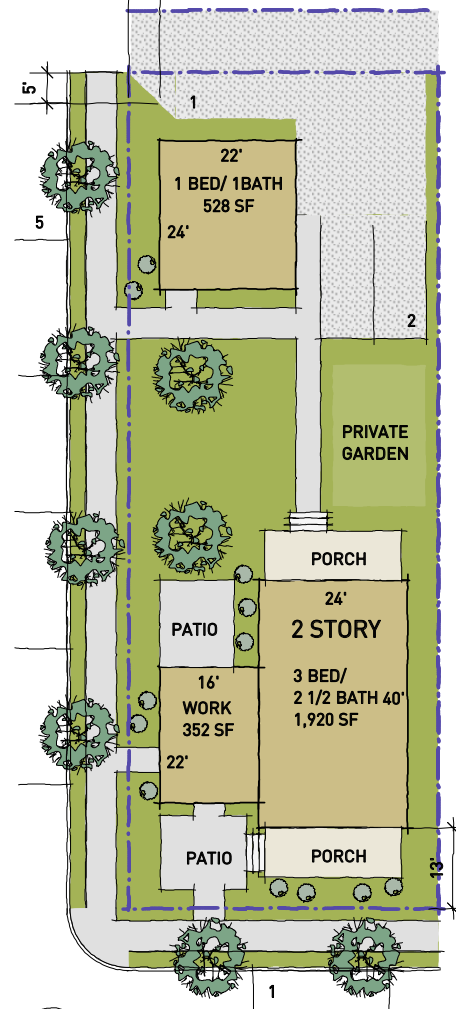
The flex house and 4F both feature non-residential space, making them great for owner-occupants or small business owners looking to offset their personal rent and build wealth as a landlord. They benefit from the extra visibility and on-street parking of a corner lot. The duplex, quadplex and 4F are great for small developers embarking on their first real estate project.



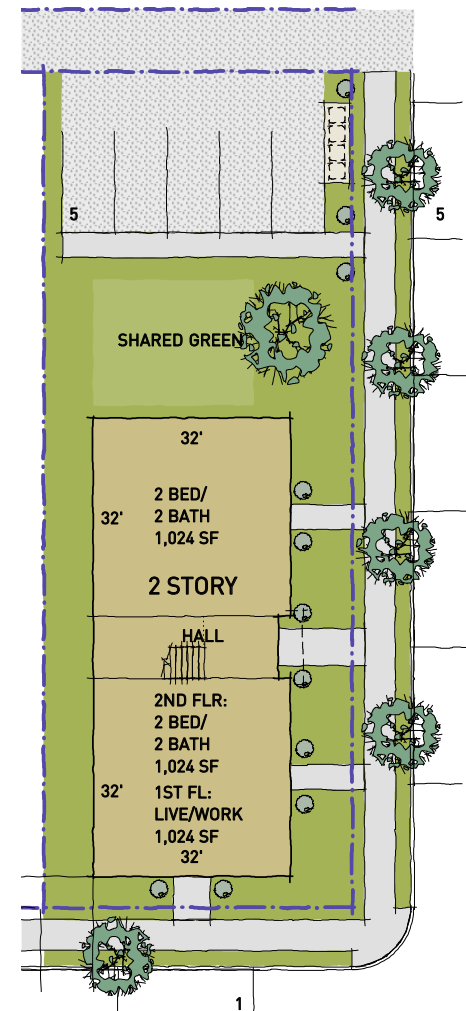
DUPLEX FROM PG.14



QUADPLEX FROM PG.15

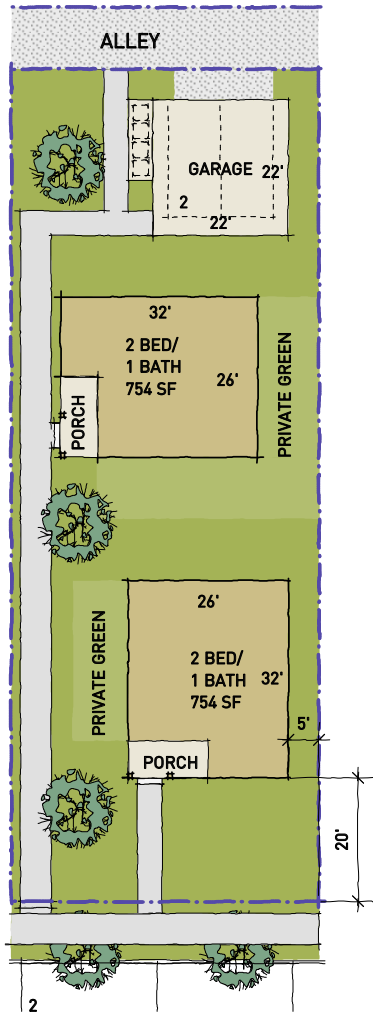


FLEX HOUSE FROM PG.18

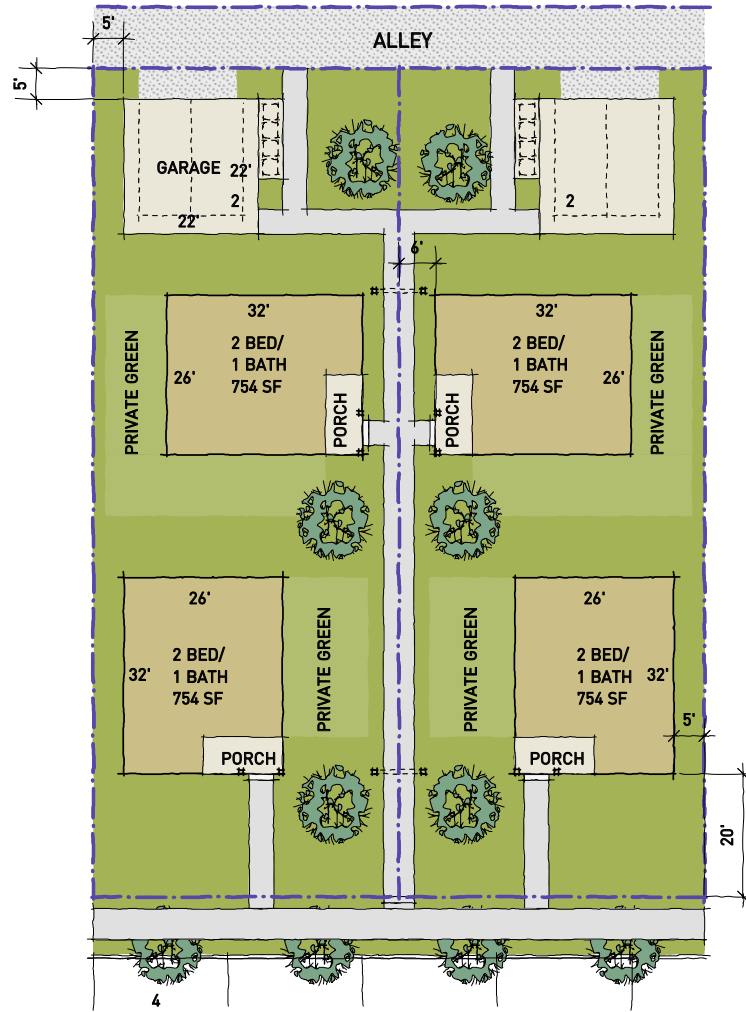


4F FROM PG.19

## Cottages: Single and Double Lots



TWO UNIT FROM PG.16



COTTAGE COURT FROM PG.17

These sibling options for detached, one story cottages can both be financed through conventional 30-year mortgages. Placed on a single 50' wide lot or double 100' lot serviced by an alley, the cottages could be phased one building at a time or one lot at a time. These cottages fall under the less stringent International Residential Code and thus avoid the cost of fire sprinklers. Garages are provided along the alley and could be enlarged if deemed necessary or desirable.

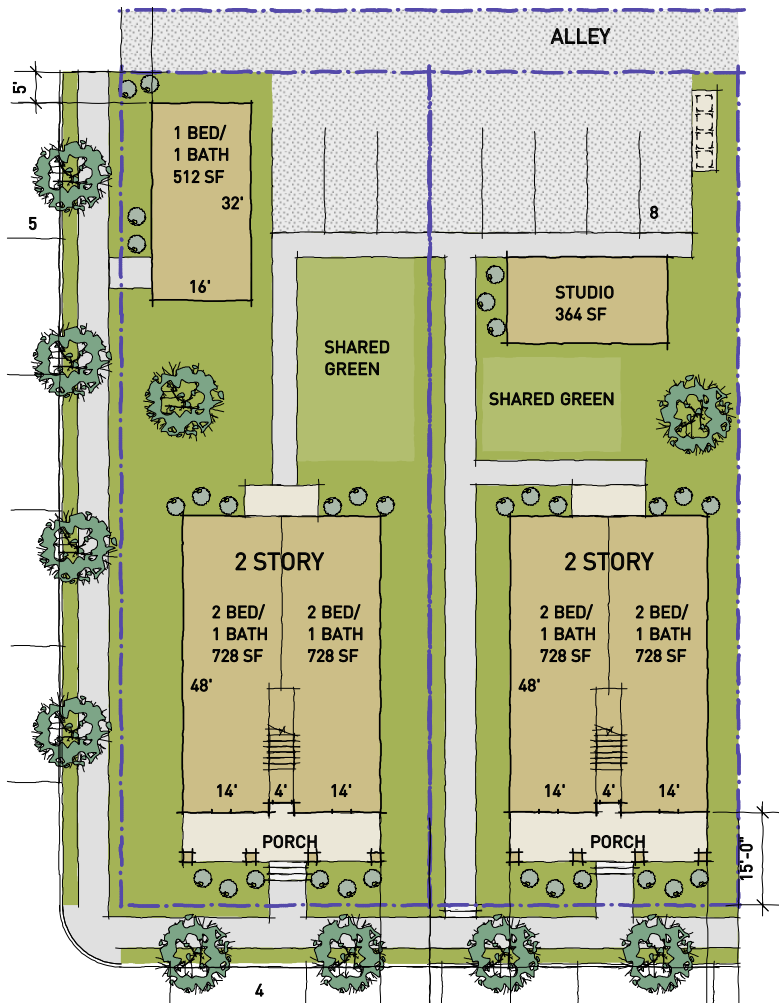
The cottage courts appeal to single person households who are looking for a cozy, detached unit, a small yard and direct, ground floor access. They are great for the small developer who is working in a neighborhood of one to two story buildings where two units per lot are allowed by right.



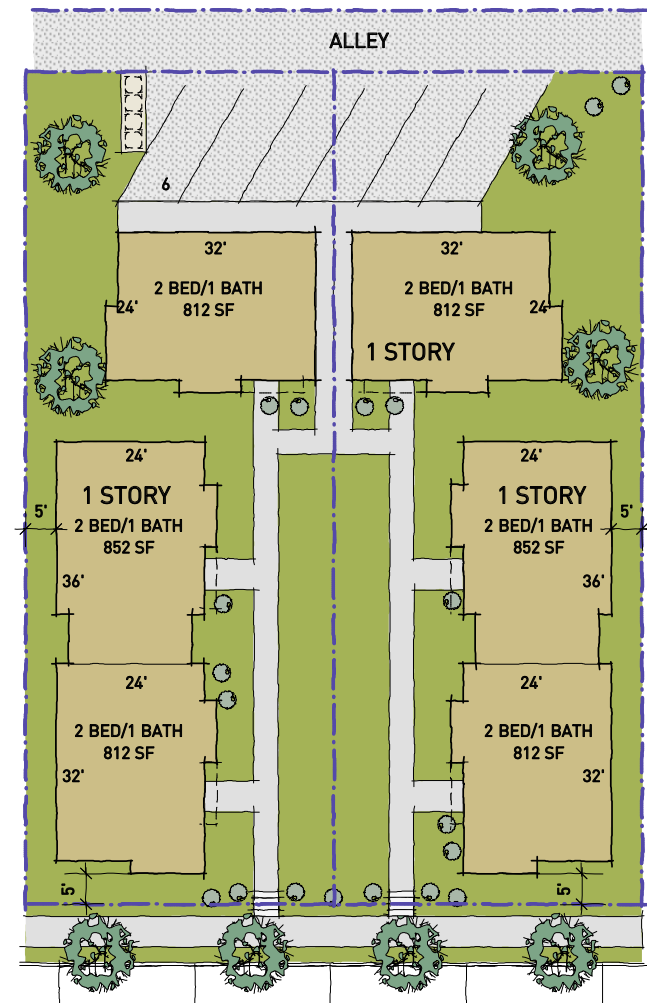
## Multiplexes on Two Lots

With two lots, a developer can build these six to ten unit options using humble 30-year residential mortgages. They could be phased one building at a time or one lot at a time. These buildings would be constructed under the International Building Code and thus require residential (13-R) fire sprinklers.

The duplex court is a solid choice for a mid-block setting and the quadplex + ADUs is the best solution for a corner. These types are great for a small developer who is working in a neighborhood zoned to allow for two to four units per lot by right, and needs space for off-street parking.



QUADPLEX + ADUS FROM PG.20

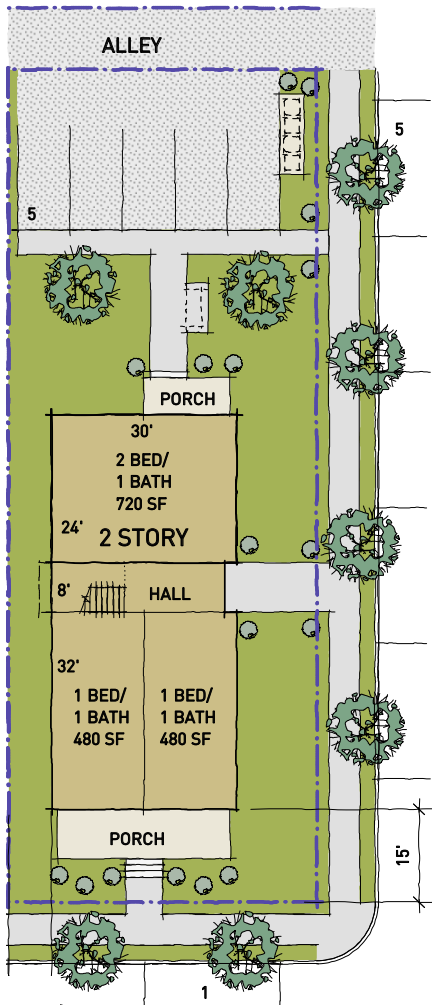


SINGLE STORY DUPLEX COURT FROM PG.21

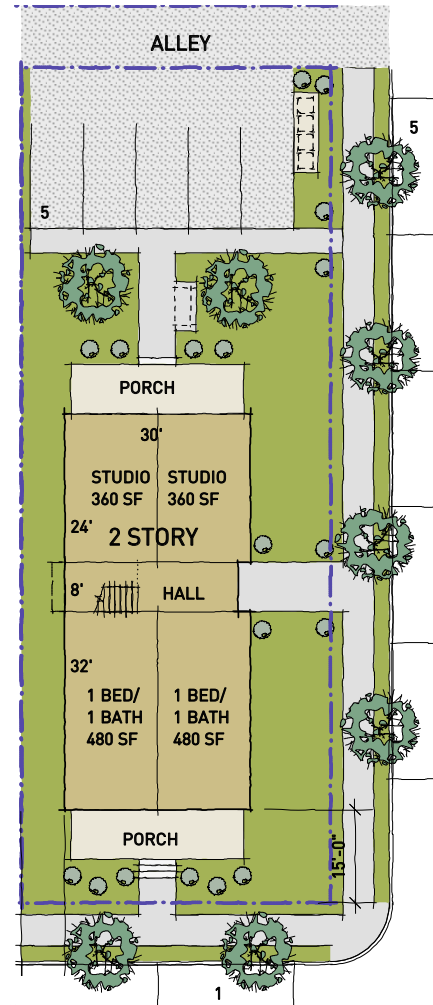
## 6 to 12 Residential Dwelling Units on Corner lots

With a corner lot and access to commercial financing for multi-family residential buildings, this trio of multiplexes can provide a range of unit types on a compact building footprint. These buildings would be constructed under the International Building Code and thus require residential (13-R) fire sprinklers. Corner lots with on-street parking are ideal because only five off-street parking

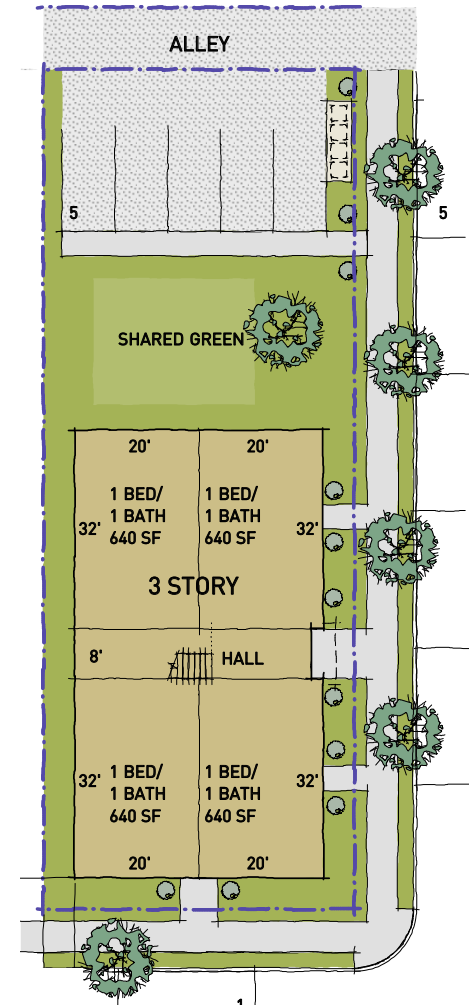
spaces can fit on a 50' wide single lot. If additional off-street parking is not required, plans can be carefully adapted for mid-block use. These types are great for an experienced small developer who has access to capital or a non-profit developer trying to provide a diversity of housing and unit types on single lots.



SIX-PLEX FROM PG.22



EIGHT-PLEX FROM PG.24

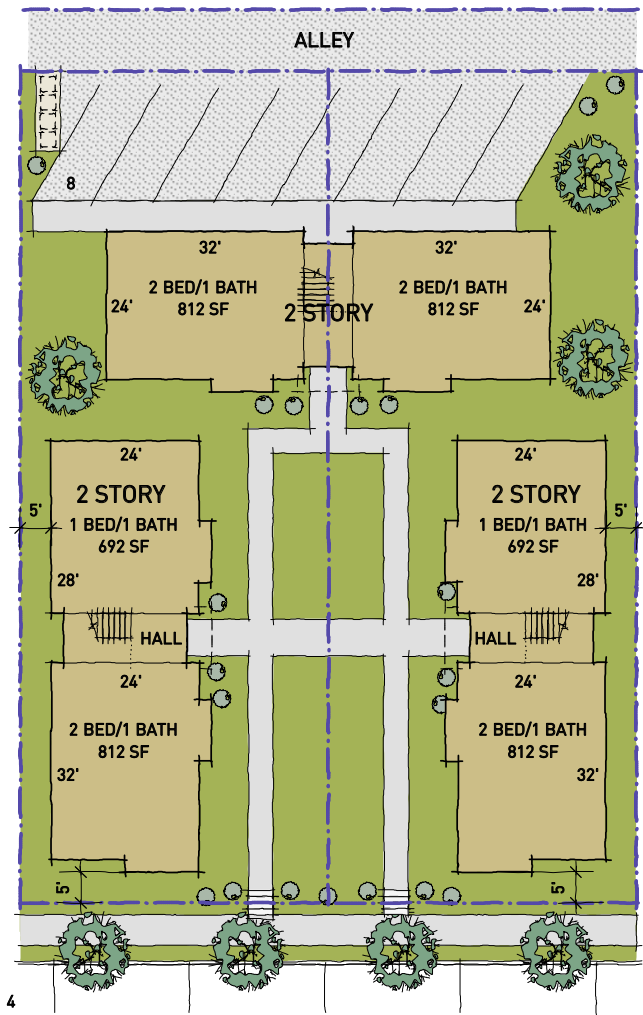


12-PLEX CORNER FROM PG.25

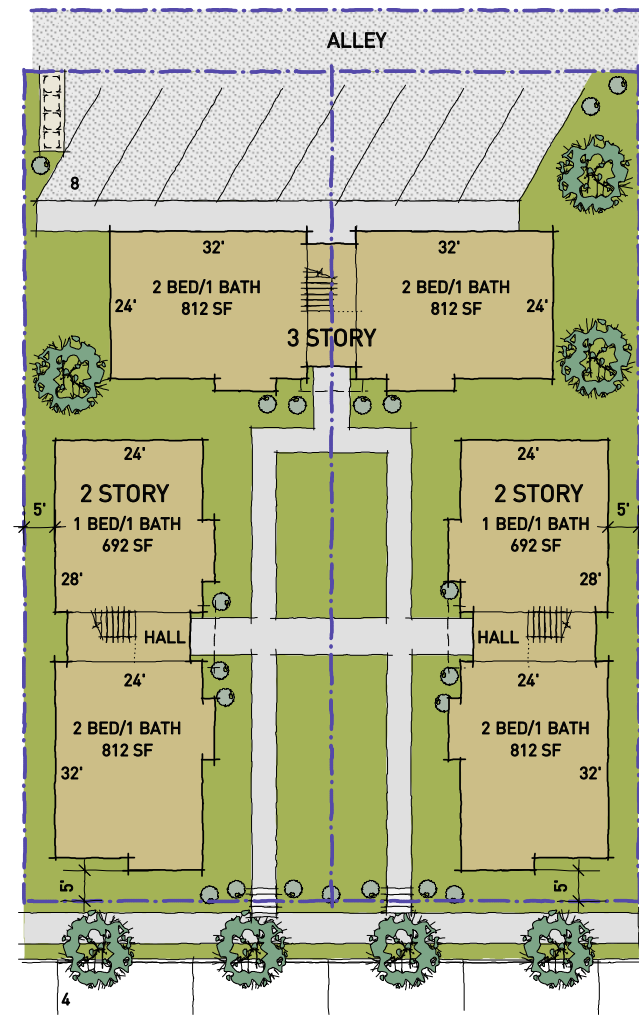
## Quadplex Courts on Two Lots

These two lot courtyard housing options illustrate how to deliver a higher density project compatible with a neighborhood of two story homes. They provide 12 to 14 units and a mix of bedroom counts. While the unit count is high, the buildings still resemble large houses and are compatible with a neighborhood setting.

These types are great to transition between larger neighboring buildings and smaller single-family and multiplex buildings. This building configuration enables an experienced small or non-profit developer to employ contractors familiar with residential construction methods.

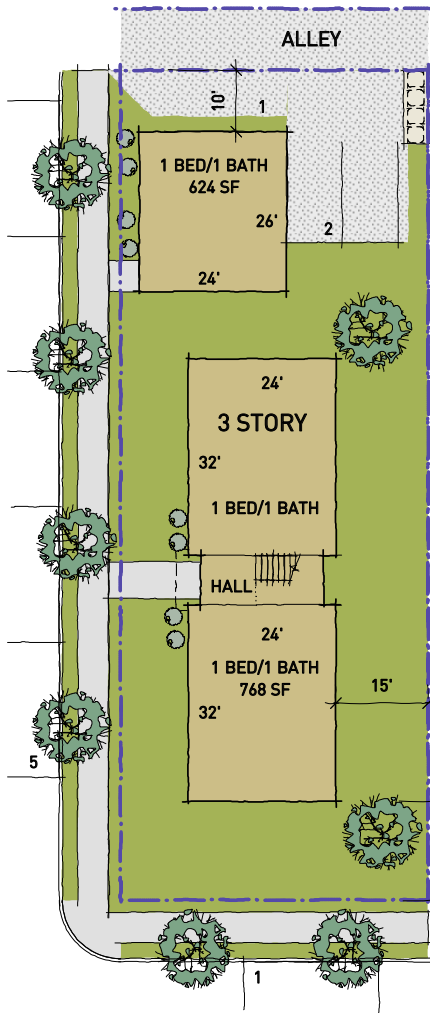


QUADPLEX COURT FROM PG.26

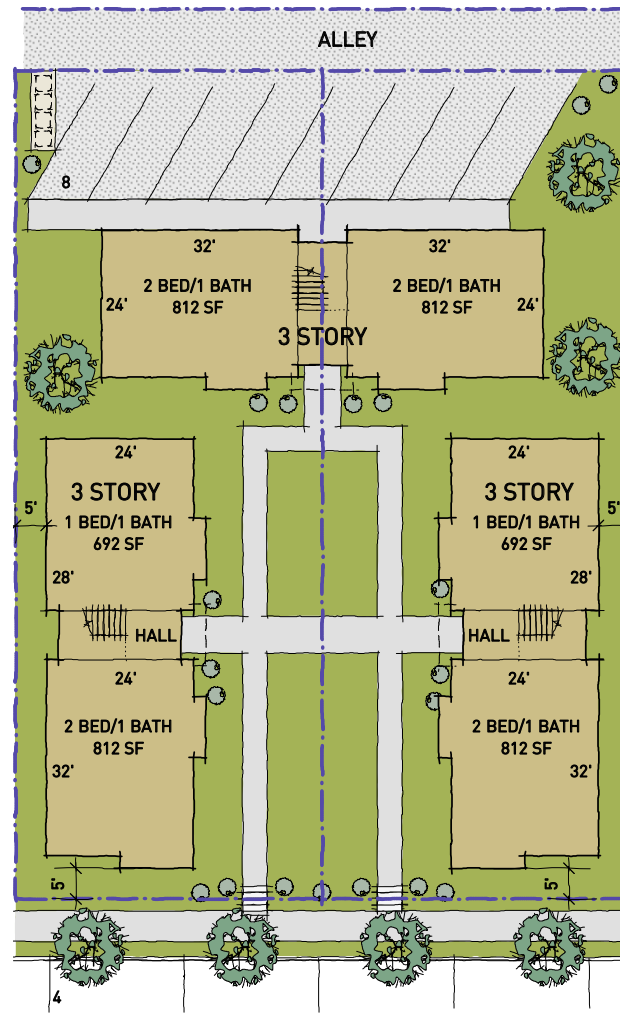


6-4 COURT FROM PG.27

## Three Story Walkup Buildings: Single and Double Lots



THREE STORY WALKUP FROM PG.23



THREE STORY WALKUP COURT FROM PG.28

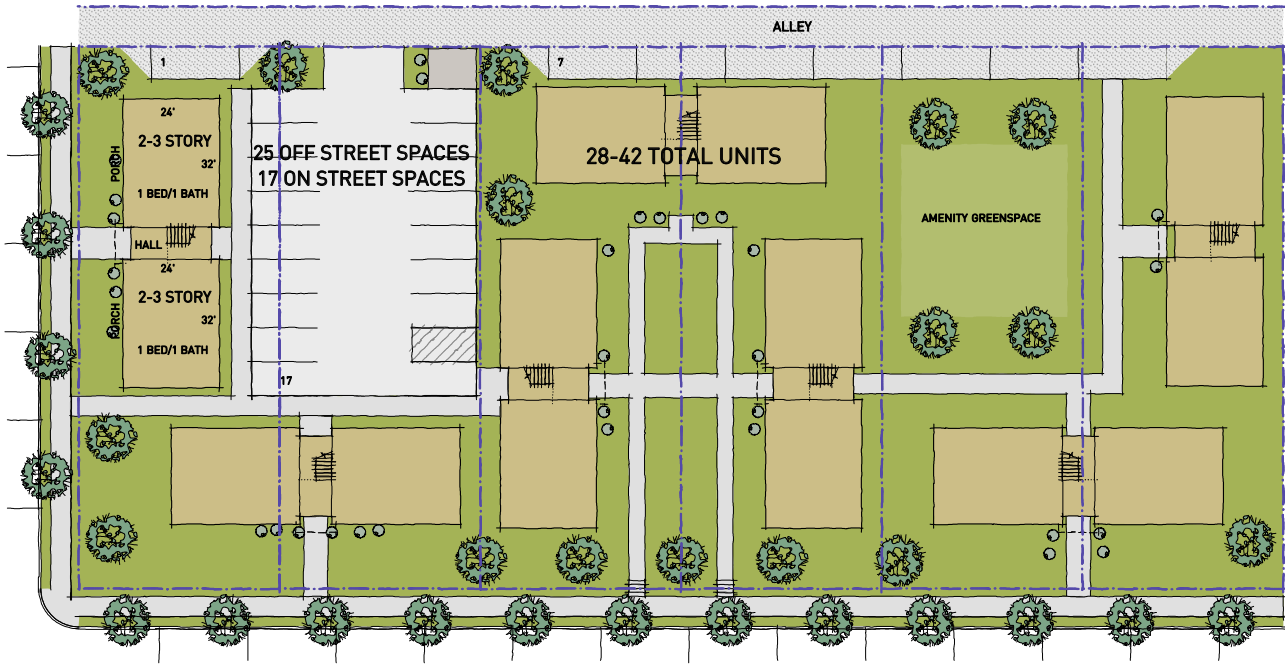
Three story walkups provide a method to maximize the number of units on a site without the need to install and maintain a costly elevator. All the while, they complement smaller buildings on the block and provide high quality green space to residents. These buildings are especially good for extra wide lots or those with unique widths. They are great candidates for shared parking arrangements if there are under-utilized spaces nearby or on-street.

Three story walkups require commercial multi-family financing and are best executed by an experienced small developer or non-profit developer.

## Three or More Lot Configurations

There are myriad ways to mix and match building types in this catalog to meet different conditions in a block, street, or neighborhood. The example below shows how by manipulating massing, building use, off-street parking, green

space that doubles as stormwater management, and proper building frontages to the street, you can have it all - including a development project that makes money.



## *Chapter 5*

### **THE LOGIC**

THE DESIGNS PROPOSED in this package follow building traditions of the southeast. The perennial challenge with traditions is that they become so familiar and repetitive that we may forget why they exist in the first place. Architecturally, many people prefer a traditional aesthetic, making the above homes a marketable choice, but there is much more to the designs than “we’ve always done it this way.” This section attempts a short explanation of “we do it this way because...”

#### *A DISTINCTIVE FRONT*

There should be no question where the front of a well designed building is, and that front should be facing the street.

#### **A clear main entry**

When a person approaches a building from the street, they should see the door and know where to enter without even thinking about it.

The automobile age has ushered in an era of garages and parking lots that take over building frontages and conceal or confuse the main entry. If there is a discrepancy between the designated main entry (front door) and the effective main entry (garage door), the flow of a house is disrupted, and psychological comfort of a building reduced.

#### **Put effort and budget into the front where it counts most**

A building affects more than its owner; it frames the street and complements its neighbors. When the facades along the street are thoughtful and complementary, the comfort and value of the entire neighborhood increases. The front public face of a building is where effort counts most and where limited resources should be focused if the budget does not allow uniform treatment to the whole exterior. One must think of the building facade as a billboard for the units within and ensure that it is not discounted with unattractive materials, parking, or unsightly utilities.

**Why porches?**

Looking at nothing but marketability, few things say “home” louder than a rocker on a porch, but the ubiquitous front porch serves many more important functions. It is a climate control feature, a precious “in-between” space, and a driver for social interaction.

In hot months when the sun is high, the porch can reflect or absorb heat rather than letting the interior house bake. It protects windows from direct sunlight and provides a sheltered place outside to enjoy a breeze. Historically, many families slept on porches at night on the hottest days to escape the still air indoors. A porch can reduce the energy consumption of a house significantly.

The elevation of the porch (slightly above street level), and the enclosure of a railing creates a unique space in-between private and public from which to view the world. A well designed porch adds an entire outdoor room, livable square footage where a person can interact with their neighborhood from the comfort and safety of their home.

- -

Altogether, creating a clear building front with doors, windows, and a porch benefits the street as much as the house by providing “eyes on the street,” the comfort of walking in a place where you know there is natural surveillance. When buildings are oriented to the street and have entries and porches from which to interact with the street, the neighborhood feels safer and more convivial.

## BUILDINGS SHAPE THE STREET

*Good* streets have what is called a “street wall,” a consistent setback and repetition of buildings which work together to form walls as if in an outdoor room. *Great* streets even have a psychological ceiling, formed by things like street trees, lighting, and awnings. The feeling of enclosure is what makes a street feel charming, cozy, and comfortable.

Often, people will disparage a neighborhood because “all the houses look the same.” In fact, there are plenty of famously popular streets around the world where the buildings are quite uniform. Repetition is unlikely to be the root problem with unlikable streets; it is composition that makes the difference. Every building on the street is contributing to the whole picture, and the composition of a street needs to create a sense of interest and enclosure.

### **Interesting streets depend on scale, speed, and engagement**

When driving, the world outside the window flies by so fast that one cannot absorb small details and the distance between buildings matters little. That is why drive-to places are built at the large scale of billboards and big box stores. One can imagine how boring it would be to walk across a big box parking lot, or how large a highway sign would look standing beneath it. The scale of the city is determined by the speed at which it is experienced. Residential and traditional retail streets need to be designed for slow speeds to be charming as their success depends on people wanting to be out on porches, patios, and sidewalks.

At a walking pace, the scale shrinks significantly because there is time to absorb much finer detail. It follows that one of the best ways to ensure an interesting street is to have narrow lots. That way, a walking person encounters new scenery every few seconds, enjoying displays and idiosyncrasies, the mark of the occupant on each building. Long building frontages can become monotonous due to their scale, but detail can compensate for size. If a large building is detailed well (has lots going on at the street level), it can still be visually interesting to people strolling by.



Streets also become more engaging when they are “permeable” - meaning there are many views and pathways in and out of the street. In practice, this means doors and windows at high frequency, reinforced by having narrow lots.

### **Enclosed streets depend on proportion and placement**

Buildings need to be properly proportioned and placed with respect to the street and each other. Too great a distance from one facade to the street wall opposite leaves a person feeling exposed. Inconsistency in the setback of buildings makes the street wall jagged and incomplete. Large and inconsistent gaps between buildings create a feeling of “missing teeth.” The goal is to create a row of buildings on either side of the street that have a similar position (setback and spacing) and massing (perceived shape and size). Where the pattern must change, err on doing so gradually.

Great streets often follow a pattern: they are as narrow as possible without blocking light, they have a consistent street wall on either side with narrow lots, there is a sidewalk (or slow-speed shared space which everyone on feet or wheels can use comfortably), and a consistent row of street trees or street lights. On streets with both a road and a sidewalk, the street trees and lights belong in the space between the *road* and the sidewalk, not between the *house* and the sidewalk. The purpose of this is to create a visual and physical barrier between vehicles and pedestrians. On-street parking also serves this purpose and should be encouraged where space allows. On-street parking also has the effect of narrowing the street which further slows speeds, thereby increasing the safety and overall pleasantness.

The value of street trees cannot be overstated. A mature row of street trees has a measurable and enduring impact on home values, stormwater management, and climate control among other benefits. More information on the role of street trees can be found here: [https://www.michigan.gov/documents/dnr/22\\_benefits\\_208084\\_7.pdf](https://www.michigan.gov/documents/dnr/22_benefits_208084_7.pdf)

## ACCESSORY DWELLING UNITS

Accessory dwelling units (ADUs) go by many names: backyard cottages, in-law suites, granny flats, and mortgage helpers. They are making a resurgence now with the trend of tiny-home living, but these units have always played an important role in traditional neighborhoods.

First and foremost, ADUs increase affordability and adaptability for a property owner. As their household shrinks and grows, an ADU can absorb those changes and help the homeowner ride out economic challenges. ADUs offer the ability for a home to generate income without sacrificing comfort or privacy since the cottage becomes a self-contained unit. At the same time, having the cottage on-site bakes in a level of casual surveillance, encouraging good tenant behavior. The cottage dweller, in turn, offers casual surveillance to the alley behind the homes, leading to more of that “eyes on the street” effect.

ADUs are also a gentle, subtle way to add more housing options to a neighborhood. By virtue of their small size, backyard cottages can remain affordable even with high quality finishes. Around the country, people even pay a premium for high quality “tiny” designs following something architect Steve Mouzon calls the Teddy Bear Principle, “which basically states that the smaller something gets, the more charming and lovable it becomes.”<sup>4</sup> ADUs have a lot of upside, and little downside.

## CORNER, MID-BLOCK, MULTI-LOT

Not every house works on every lot. A thoughtful building design is often so responsive to its environment that it would look off-kilter in another context. The designs in this package are no different. They are labeled red, yellow, or green for certain lot settings.

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<sup>4</sup> Mouzon, S. (October 17, 2014). The lean silver bullet: Single-crew workplaces like the Rum & Bean. *Better Cities & Towns*. Retrieved from: <http://bettercities.net/news-opinion/blogs/steve-mouzon/21329/lean-silver-bullet-single-crew-workplaces-rum-bean>

## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

- **Green:** A good match for the indicated lot setting.
- **Yellow:** It might work, but it's best to proceed with caution.
- **Red:** This is the wrong development for this context.

For example, a building that gets a green light for corner lots is one that has two frontages, with a door facing each street. The building wraps around the street to conceal parking behind. Several of the proposed designs get a red light for multiple lots, as they would not fill the space and instead leave the street feeling like it has lost its sense of enclosure.

## BUILDING MATERIALS

A wise developer uses building materials that are natural when possible, and either durable or easily replenished. Reviewing materials used in historical vernacular architecture (*vernacular* meaning the everyday, practical buildings created by locals) offers wisdom into what materials meet those standards in one's local ecosystem.

The benefit of natural materials goes beyond aesthetics; they are easy to repair or repurpose and tradespeople have centuries of experience doing so. One of the key attributes of natural materials is that even as part of a building they are somewhat alive. For example, wood clapboard will visibly change over seasons and time making a house swell and creak and gain the patina of age. In doing so, it reveals more clearly when it needs maintenance, inspection, or replacement, than a synthetic alternative like vinyl. Brick and stone are also forgiving, aging gracefully and revealing their weaknesses in plain sight. Author Stewart Brand values these natural materials because they “look bad before they act bad,” giving the owner a chance to intervene and maintain the building before too much damage has been done.<sup>5</sup>

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<sup>5</sup> Brand, S. (1994). *How Buildings Learn: What Happens After They're Built*. Penguin Books: Toronto.

The value of durable materials is as ingrained as the story of the three-little-pigs, but replaceable materials have a place too. Since buildings benefit from being flexible and adaptable, a developer may want his or her building to learn from its uses and be reshaped over time. In this case, the ideal material is not simply that which will last the longest, but that which can be assembled, disassembled, and reused.

### OTHER DESIGN WISDOM

#### **Build in Rectangles**

The rectangle is the most forgiving and flexible of building layouts. Rectangular spaces are easiest to build, grow, subdivide, roof, repair, furnish, and organize on an also rectangular building lot. One can rarely predict how a building will be used over the long term but building in rectangular units allows for it to adapt and age well.

#### **Sloped Roof**

A roof should prevent leaks and a slope is the surest way of shedding water quickly. Different climates have grown into different pitches that make for the most reliable roof so it is a good idea to follow the pattern of local buildings that have survived for generations.

#### **Transition**

Urban areas evolve around nodes of high intensity commerce. Between those nodes there is a somewhat linear transition from highest intensity to lowest. For example, blocks of high-rises transition to mid-rises, then to two to four story buildings, etc. The further away from the high intensity node, the more space emerges between buildings and the number of units per building declines until you are in the countryside. Neighborhoods are a microcosm of the city and should be organized the same way so that buildings and uses transition from high intensity to low. Often neighborhood opposition to a project arises when there is too abrupt a jump from low intensity to high. An 18 unit building probably won't please a neighbor in a single-family house, but it would provide a great customer base to a two story live-work neighbor and transition well beside a 12 unit building.

TIMELESS QUALITY

Some neighborhoods just feel right. This timeless quality is often the product of many great traditions working in harmony and the interaction between buildings. In essence, timelessness is simply a product of... time. The incremental development of a place makes it feel natural. This is how some of the most postcard perfect places have been built by regular people without architecture degrees or codebooks. They are the “best-of” ideas curated through generations of trial and error. As tempting as it is to say there is a formula to create a great neighborhood, the most important feature is the *process*. Timelessness cannot be rushed. It is the work of many neighbors building, adapting, or loving their place that results in the feeling of homeyness.

## *Chapter 6*

### **TECHNICAL CONSIDERATIONS**

The project team met with officials from the City of Chattanooga throughout this project to better understand the key technical aspects under review during the land development process. While this document does not have the capacity to provide guidance in great detail, there were several items of note which trigger key cost considerations or decision points.

#### ZONING

In summary, a majority of the building types in this study are in violation of one or more typical provisions of the Residential Zones R2, R3, R3-MD, and R4. The Urban General Commercial (UGC) zone appears to be the only zone amenable to the proposed buildings. The UGC zoning classification does a good job fulfilling its intention to create nice Main Street style buildings, mostly with retail fronts. However, due to the relatively recent creation of the UGC zone, there are few lots already designated UGC. The downside to *rezoning* properties to UGC in a residential neighborhood is that the process is likely to face opposition from residents who fear the wide range of uses permitted by right within the classification thereafter. Until a more flexible residential zoning option is available, Missing Middle projects would in most cases have to go through a rezoning process, requiring the time, cost, and uncertainty of such an endeavor.

The lots represented in the site plans of this document (50' x 135') are representative of the actual existing lots in Highland Park and Ridgedale. However, these are the product of a bygone era - the standard (read: minimum) lot size in the city is now 7,500 sf, which renders all of the plans here non-conforming at 6,750 sf. If a lot retains its 'Lot of Record' status (meaning it was platted before 1961 - see City Code Section 38-502), then requirements are relaxed and uses are grandfathered in to allow for development. However, in most

## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

cases the minimum site area requirements in R zones disallow more than two dwelling units on a lot of 6,750 sf. Accessory dwelling units are also currently not allowed in any zone in the city.

### STORMWATER

There is a key threshold for stormwater management: if more than 5,000 sf of soil is disturbed, then the developer is responsible for both infiltration and on-site retention requirements. If less than 5000 sf is disturbed, then the project is exempt from any stormwater management. Since area soils are heavy in clay, the City requires a percolation test of the soil on the property to evaluate stormwater management techniques. For the purpose of calculating impervious surface on a site, gravel is considered an impervious paving material.

Fortunately, building types with under four units and a compact footprint may be able to fall under the 5,000 sf disturbance threshold. Above this threshold, a developer may incur considerable expense - enough to potentially sink the viability of a project. Without official City guidance on stormwater management techniques for small lot sites, preliminary engineering must be done to evaluate retention solutions. Add to that the cost of implementation and it becomes clear that depending on project size and soil condition, the costs of stormwater management can make or break a project.

### PARKING

The approach for this study was to accommodate as many parking spaces as could reasonably be situated on a site via alley access and no more. Where zoning demanded additional parking, the project team sought creative ways to satisfy or rethink requirements. They saw potential in permitting by “staff level review,” where city staff can authorize changes without needing to push applications through the slow process of committee approval. After gathering feedback from the City Land Development Advisory Team, the project team designed the parking solutions featured in this document with the following assumptions:

## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

- Permission to stripe parallel parking spaces along an alley (22' long);
- Ability to pursue compact sized parking spaces via staff level review; and
- Permission to count on-street parking toward required parking minimums via staff level review (however there is no process or guidelines for that staff level review yet).

Still, the building types in this study fall short of existing parking minimums except on sites zoned UGC, which can be granted parking discounts in exchange for better bicycle/pedestrian/transit access. For example, with enough bicycle parking spaces provided, UGC automobile parking requirements can essentially be reduced to zero.

Outside of the UGC scenario, some of the building types with eight or fewer units nearly meet requirements *if* on-street parking can contribute to the count. If the parking ratio of one space per unit were used (which is the adopted ratio in the City's new form based code districts), *all types* with eight units or fewer would comply as long as on-street parking spaces are counted.

## LANDSCAPE

It is important to note two key exceptions to landscape requirements:

- One, two, and three unit residential structures residing on their own lots are exempt from landscaping requirements.
- Lots of 150' or less or 15,000 sf have reductions in landscape yard depths and planting requirements, which are outlined in Sec 38-592 (5).

Combined, the first provision exempts the duplex, two unit, flex house, duplex court and cottage court if buildings on separate lots are permitted separately. Since all the lots shown in this study are 150' or less, all types qualify for the reductions referenced in the second requirement.

While interpretations varied greatly, the conservative definition of a parking lot that triggered landscape review was an impervious surface of three or more spaces that is not otherwise covered. From the



## MISSING MIDDLE HOUSING TYPES FOR CHATTANOOGA

landscape code perspective, the stated purpose of trees near parking areas is to reduce heat island effect. A reliable and space-efficient way to satisfy this intent on tight single lot sites is to provide some kind of shade structure over the parking area. However, it is likely acceptable to provide shade trees in directly adjacent back yard areas, staying as close to the parking spaces as possible.

### BUILDING AND FIRE CODES

There are two major provisions of note relating to building and fire codes. Chattanooga has a specific ordinance that requires two doors and egress out of any non-sprinklered residential building, such as buildings governed by the International Residential Code. For example, the duplex with a studio accessory unit fits within the International Residential Code (does not require a sprinkler) and must abide by Chattanooga's ordinance for two doors and egress.

In mixed use buildings covered by the International Building Code, the existence of a dwelling unit triggers the need for a sprinkler. Once a sprinkler is on the lot, all buildings must then have at least a 13-R system installed.<sup>6</sup>

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**6** “NFPA 13-R is a residential sprinkler design standard focused on low-rise residential occupancies. The Standard’s intent is to provide a sprinkler system that aids in the control of residential fires and provides improved protection against injury and life loss in multi-family dwellings.” - <http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards?mode=code&code=13R>

## *Chapter 6*

### **BANK PACKAGES**

BY THIS POINT, ONE MAY WONDER how an individual can turn one of these concepts into a physical project that improves his or her neighborhood. To that end, here are some template pitch packages to help readers understand the mechanics of presenting a project to potential backers. Before approaching a local bank or an investor with a pitch, it's important to pull together evidence that the applicants have done their homework and that the project will make money. A *local* bank may be more likely to see the extended value of a project, that beyond making money, a building can improve the value, comfort, and potential of the wider neighborhood.

The following bank packages are only to be used as templates and must be adapted and supplemented to better advocate a reader's development project. While the packages have been customized for Chattanooga, **the information within must be supported and confirmed using one's own calculations and due diligence.** The numbers provided here are intended for illustration and are not a substitute for one's own research and judgment.

A bank package is only as useful as one's relationship with the bank. **Creating a personal relationship with someone at a bank who has the authority to champion a project is essential.** It is the job of the developer to provide that champion within the bank with every confidence in the development team and the project *before* a paper bank package even lands on his or her desk. That said, this package can be used as a prompt for the kind of supporting documentation that helps make the case for a development project.

# BANK PACKAGE CHECKLIST:

## BANK PACKAGE CONTENTS:

- **Cover letter:** Use this to give an overview of your project and explain the competence of your team. Your cover letter should quickly convey that you have put considerable thought into the project and can be trusted with money.
- **Project overview:** This page should be a snapshot of all the most important information pertaining to your project. Supplement it with details on income sources, expected returns, building uses, committed tenants, location, and graphic representation of the project.
- **Site plan, floor plan, and building elevation drawing:** Submit some preliminary drawings of your project. These do not need to be official plans - they are there to help fill in the gaps in your lender's imagination, not to dictate construction.
- **Project pro forma:** Include a spreadsheet that spells out the income and expenses of your project. The fundamentals of a pro forma spreadsheet are costs, revenue, and cash flow. Use this to demonstrate how you will pay the lender back.
- **Construction estimate:** Validate your hard cost assumptions by including a construction estimate, broken down by trade.
- **Market data:** Validate your rent assumptions by providing comparable rent figures in Chattanooga. The Market Data section included here is a good starting point for this research.

## SUPPORTING DOCUMENTS YOU SHOULD INCLUDE:

- Purchase agreement and tenancy agreements if available.
- Appendix I: Guarantor's financial statement and two years' tax returns.
- Appendix II: Developer's financial statement and two years' tax returns.
- Appendix III: Short (one page) summary resumes of team (developer, guarantor, architect, builder, leasing & property management).

These packages are a result of the Missing Middle Housing Charrette in Chattanooga, sponsored by Chattanooga Neighborhood Enterprise and the Lyndhurst Foundation. The following content was generated by a joint effort of the following:



For more information, please visit: <http://www.cneinc.org/missingmiddle>

# MARKET DATA

The pro formas in this Missing Middle housing study target rents of \$650 to \$800 per month for one bedroom units and \$800 to \$1100 per month for two bedroom units. This works out to an average rent of about \$1.23 per sf. Underlying these figures is the assumption that qualitative factors discussed throughout this study will be more valuable to some tenants than raw square footage. The table below summarizes how the rents assumed in the attached bank packages compare to existing housing alternatives. The three eras of housing are further explained in the following pages.

In short, rents for Missing Middle housing in Highland Park and Ridgedale are expected to fall slightly below those of Early Century buildings that benefit from downtown locations, slightly above rents of New Construction buildings at the edge of downtown or near neighborhoods, and significantly above rents of Mid-Century buildings found throughout the core of Chattanooga.

COMPARISON TABLE				
EXISTING HOUSING AVERAGES VS. PROPOSED MISSING MIDDLE HOUSING				
<i>ONE BEDROOM UNITS</i>		<i>UNIT SF</i>	<i>PRICE/UNIT</i>	<i>PRICE/SF</i>
Early Century		690	\$875	1.27
Mid-Century		675	\$600	0.89
New Construction		700	\$650	0.93
<b>Average</b>		<b>688</b>	<b>\$708</b>	<b>1.03</b>
<b>Proposed Missing Middle One Bedroom Units</b>	Quadplex Court	692	\$800	1.16
	Six-plex	480	\$650	1.35
	Duplex Studio	440	\$500	1.14
<i>TWO BEDROOM UNITS</i>		<i>UNIT SF</i>	<i>PRICE/UNIT</i>	<i>PRICE/SF</i>
Early Century		1000	\$1,300	1.30
Mid-Century		850	\$625	0.74
New Construction		1050	\$700	0.67
<b>Average</b>		<b>967</b>	<b>\$875</b>	<b>0.90</b>
<b>Proposed Missing Middle Two Bedroom Units</b>	Duplex Main	840	\$1,100	1.31
	Quadplex Court	812	\$1,025	1.26
	Quadplex	728	\$900	1.24
	Six-plex	720	\$800	1.11
<i>BLENDED AVERAGE OF ALL UNITS</i>		<i>UNIT SF</i>	<i>PRICE/UNIT</i>	<i>PRICE/SF</i>
Early Century		700	\$950	1.36
Mid-Century		825	\$625	0.76
New Construction		1115	\$725	0.65
<b>Average</b>		<b>880</b>	<b>\$767</b>	<b>0.92</b>
<b>Proposed Missing Middle Units on Average</b>		<b>712</b>	<b>\$875</b>	<b>1.23</b>

# MARKET DATA

Apartment buildings in the downtown and core neighborhoods of Chattanooga were largely built in three eras: 1900 to 1930, 1945 to 1975, and 2000 to 2016. Missing Middle housing is similar in form to the earliest era and similar in features and condition to the latest.

- -

## 1900 TO 1930 ERA BUILDINGS - “EARLY CENTURY”

These century old structures are three to four stories tall and average between 25 to 35 units per building, 70% of which are studio or one bedroom, 30% are two or more bedrooms. Vacancy rates are 7%, which in buildings of this size works out to about two vacant units per building.

### Average unit sizes and rents:

- The blended average for all units is 700 sf in size with an asking price of \$950 or \$1.36 per sf.
- One bedroom units average 690 sf with an asking price about \$875 or \$1.27 per sf.
- Two bedroom units average 1,000 sf with an asking price about \$1,300 or \$1.30 per sf.

Unit amenities are basic by modern standards, but interiors often carry historic finishes or charm not found in post-war apartment offerings. Air conditioning is typically provided through window units. At most, one parking space per unit is provided on-site; many buildings have fewer than that. The main amenity of Early Century buildings is walkable proximity to major downtown employment, restaurants,

retail and cultural assets. Many of these buildings have beloved architectural features or are well known and valued by the community, which may also contribute to market desirability.

The proposed Missing Middle buildings are *similar* to Early Century buildings in unit size, unit access (i.e. stairs), on-site parking ratios and the use of traditional architecture styles.

Missing Middle buildings *differ* from the Early Century era in the use of new construction finishes and central air conditioning, both of which command a rent boost. In locations such as Highland Park and Ridgedale, the proposed Missing Middle housing will not have the same quality or quantity of employment opportunities and amenities close by, although many are available within a short bike or drive. Depending on the neighborhood preferences of an individual, the pros and cons may position the proposed Missing Middle housing at a market rent close to or even higher than Early Century buildings.

## 1945 TO 1975 ERA BUILDINGS - "MID-CENTURY"

These post-war housing complexes are largely comprised of two story buildings that range from 50 to 130 units. The mix of units in these buildings is about 25% one bedroom, 60% two bedroom, and 15% three bedroom. Vacancy is 4%, which represents two units in a 50 unit building or five units in a 130 unit building.

### Average unit sizes and rents:

- The blended average for all units is 825 sf in size with an asking price of \$625 or \$0.76 per sf.
- One bedroom units average 675 sf with an asking price about \$600 or \$0.89 per sf.
- Two bedroom units average 850 sf with an asking price about \$625 or \$0.74 per sf.

For amenities, most buildings provide air conditioning (usually individual unit ventilators through the wall), on-site laundry and on-site parking lots accommodating one to two spaces per unit. Unit interiors are modest and

often minimally maintained. This era provides the bulk of naturally occurring affordable housing in the city. Buildings that have specific subsidies or price controls have been removed from this data set to focus analysis on market rates.

The proposed Missing Middle buildings are *similar* to those of the Mid-Century era in unit size and location, as many are in or adjacent to the Highland Park or Ridgedale neighborhoods.

The proposed Missing Middle housing *differs* from the Mid-Century era in build quality and curb appeal due to new construction and finishes, building materials, and modern air conditioning, all of which command a rent boost. The Missing Middle buildings should command higher rents coupled with lower upfront and operating costs than their neighboring Mid-Century alternatives.

## 2000 TO 2015 ERA BUILDINGS - "NEW CONSTRUCTION"

These recently constructed multi-family buildings are two to four stories ranging from 40 to 60 units. The unit mix is roughly 15% one bedroom, 60% two bedroom, and 25% three bedroom. Vacancy is 1% or less in buildings that are more than two years old. Vacancy rates for buildings less than two years old are unreliable, as they may still be in a lease up phase. New buildings are clearly in high demand, likely because they offer a much different combination of quality, size and location than alternatives.

### Average unit sizes and rents:

- The blended average for all units is 1,115 sf in size with an asking price of \$725 or \$0.65 per sf.
- One bedroom units average 700 sf with an asking price about \$650 or \$0.93 per sf.
- Two bedroom units average 1,050 sf with an asking price about \$700 or \$0.67 per sf.
- Three bedroom units average 1,250 sf with an asking price about \$825 or \$0.66 per sf.

These medium to large multi-family complexes are typically clusters of two story townhomes or apartments on a large single lot, arranged around parking areas. They feature a high percentage of two or three bedroom

units. The units have modern heating and cooling controls, newer finishes, in-unit laundry and often other resources shared by all residents. These housing complexes are most often located right off major streets and near employment or activity centers like a shopping district.

Missing Middle buildings are *similar* to those of the New Construction era in location, heating and cooling, and in-unit amenities.

The proposed Missing Middle housing *differs* from New Construction buildings in the provision of usable green space for residents and qualitative measures like charm. Missing Middle housing will complement a historic neighborhood setting, with buildings that protect curb appeal by locating parking off alleys at the rear of the site. Missing Middle buildings prioritize quality over quantity, and could accommodate the same types of units (one, two, and three bedroom) in thoughtful layouts with a smaller total square footage than New Construction housing complexes. Still, the Missing Middle housing units would be larger than their Early Century counterparts which command a rent premium nonetheless.

## 2016 LOCAL REAL ESTATE MARKET TRENDS STUDY

The Chattanooga-Hamilton County Regional Planning Association sponsored a Real Estate Market Trends Study prepared by Bleakly Advisory Group. Below are highlights from the preliminary presentation of results presented on August 25, 2016 as downloaded from the RPA website.

- Rent in apartment units averages \$824 a month, \$0.91 per sf. Since 2011, rent growth has increased to 3.9% annually. Annual Potential Demand for rental units for 2016 to 2026 is at least 4,750 Market Rate Apartments and 6,250 Affordable Apartments in the region for a total of 11,000 units.
- The demand for market rate apartments is strong in the Downtown and South & East Neighborhood market segments. Conservatively, Downtown has potential growth for over 1,000 units and South & East for over 350 units. There is also demand for Owner-Occupied Townhomes and Condos: approximately 290 downtown and 130 in South & East.
- The Ridgedale and Highland Park neighborhoods were specifically identified as target areas where mixed use development and medium intensity multi-family buildings could be supported.

*Editor's Notes:* The form and intensity of buildings in this Missing Middle housing report match the characteristics detailed in the market study forecast for the area.

- The study cites a report by the national real estate trade group, the Urban Land Institute, which documented in consumer surveys that 70% of those in the housing market place high value on walkability when choosing a place to live and 61% would accept a smaller home in exchange for a shorter commute.

*Editor's Notes:* Both these trends underscore opportunities for properties in Highland Park and Ridgedale to differentiate themselves as walkable places to grow, particularly because the other major projected areas of growth in Hamilton County are far on the edge, where walkability is not nearly as achievable.



# DUPLEX BANK PACKAGE

Your Name  
Your Title  
Company  
Street Address  
City, State, Zipcode  
Email Address / Phone

Date

---

Name  
Title  
Company  
Street Address  
City, State, Zipcode

Dear [Name],

Thank you for considering my enclosed proposal for a duplex with accessory unit on 1010 Union Street in the Old East Side neighborhood of Ourtown. I am looking for construction financing of \$252,000 to build the project to be refinanced after completion with a typical 30-year mortgage product.

I have a contract to purchase the lot for the project site, a transaction that will proceed once project financing is secured. With the required down payment in hand, construction can proceed immediately upon closing led by my general contractor who has been involved since the project's inception. I plan to be an owner-occupant of the site upon completion of the project and will oversee the project management.

The location of the project is ideal for a few reasons. First, the bus corridor on Wellington Street and quiet of Harbor Street combine to create excellent walkability and access to the city core. Second, the master plan for the Old East Side neighborhood calls for intensification of the area through multi-unit properties such as this which fit into the existing building mix in the neighborhood. And third, our market research shows demand for two bedroom rental units in the area.

Our pro forma reflects an annual net operating income of \$23,000, yielding a 7.35% return on estimated project costs and debt service coverage ratio of 1.43. The included materials provide detailed information about the project site and building design, a market summary, development pro forma, initial hard cost estimate, parcel purchase agreement, personal financial information and tax returns.

Please let me know if you have additional questions regarding the proposal. I look forward to meeting with you in person to discuss further.

Sincerely,

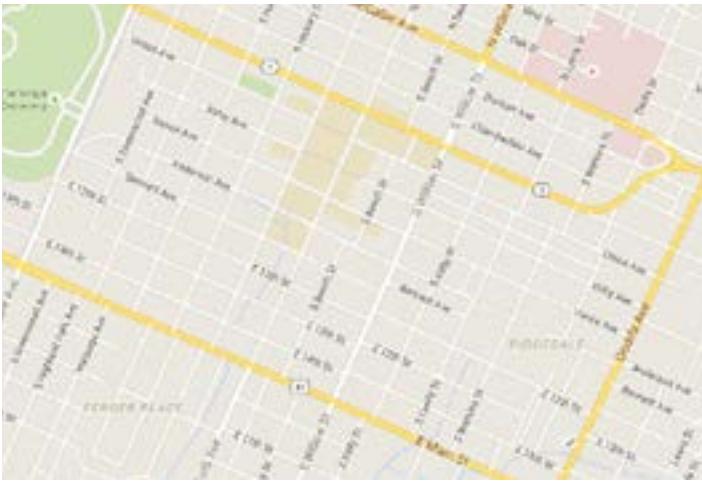
[Your Name]

# OVERVIEW

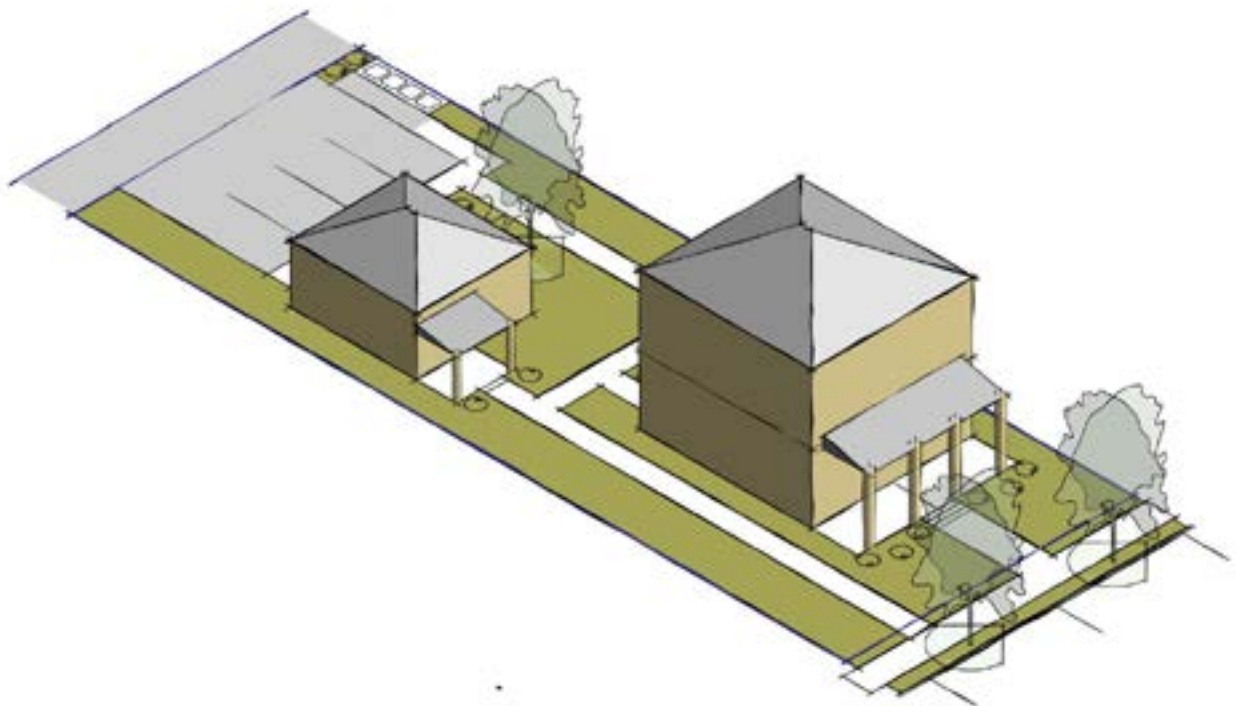
## PRODUCT:

This side-by-side style duplex consists of 840 sf two story units, each with two bedrooms and one and a half bathrooms. There is an optional one story accessory dwelling unit cottage to the rear of the site with a porch that faces the street. A total of four parking spaces are provided on-site, with additional on-street spaces available.

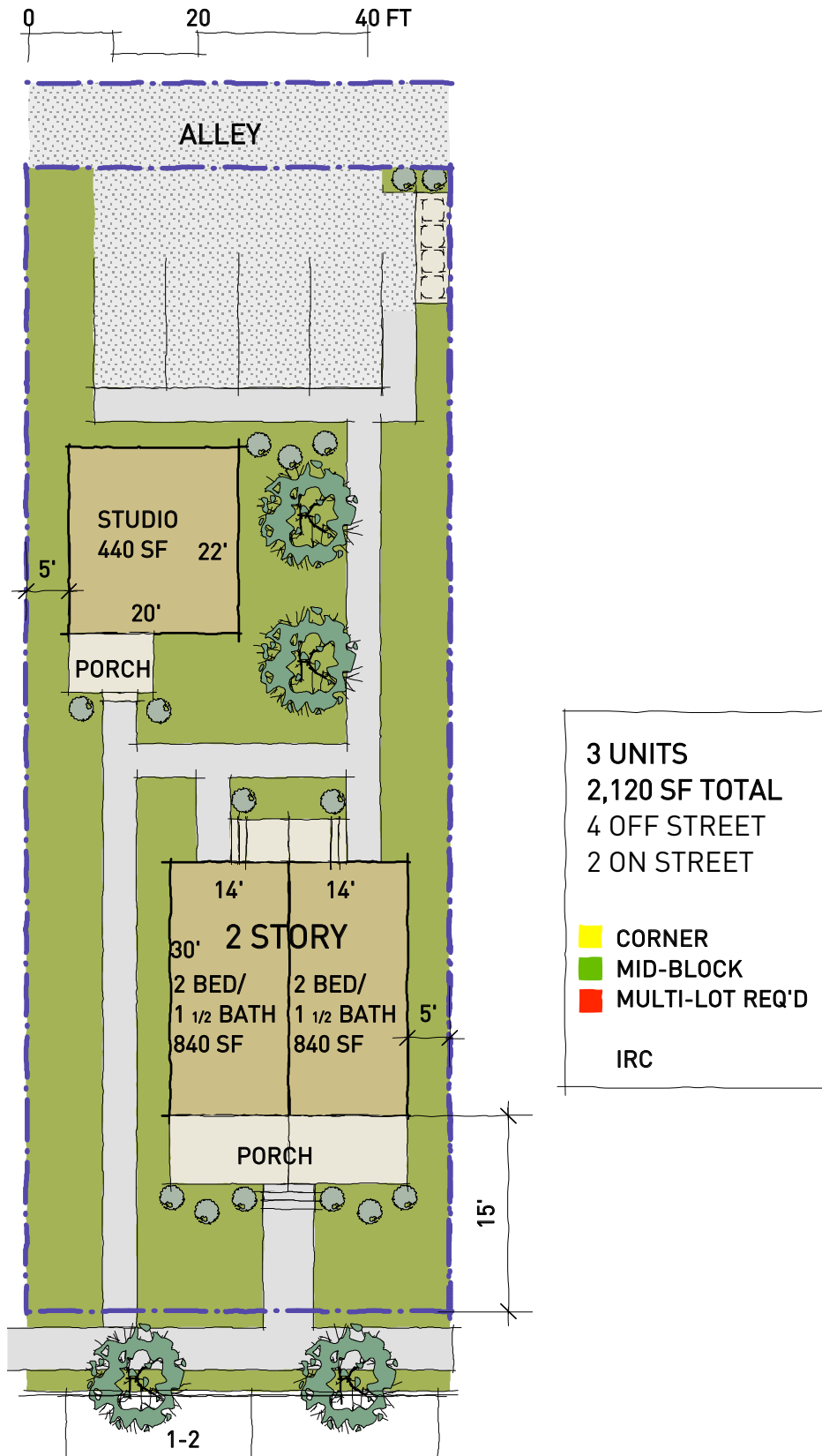
## LOCATION MAP:



## PRECEDENT IMAGE:



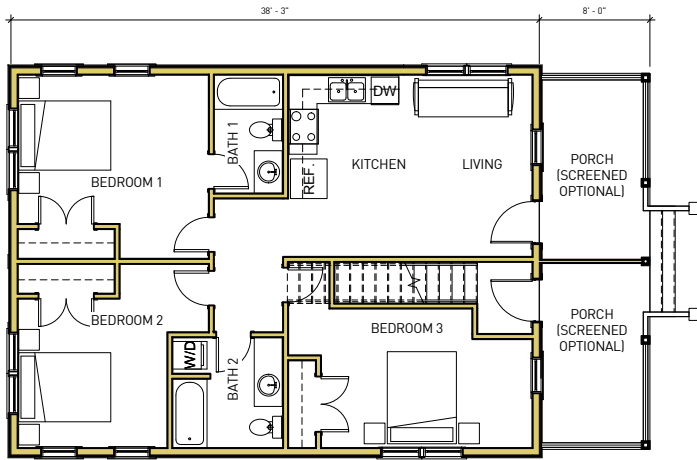
# SITE PLAN



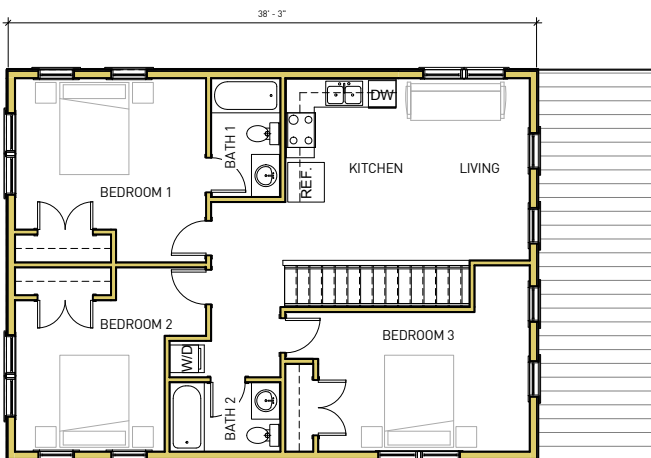
# PLANS + ELEVATIONS



FRONT ELEVATION



FIRST FLOOR PLAN



SECOND FLOOR PLAN

# PRO FORMA

## Assumptions:

New construction building  
 Construction loan at 80% LTC  
 Current rents at \$1.10 to \$1.35 per SF for existing 1 and 2 BR apartments  
 Wood Frame TYPE V construction, walk-up buildings, w/o elevators, surface parking.  
 Refinance once a certificate of occupancy is granted (FHA, VA, Fannie Mae, Freddie Mac 30 yr fixed)  
 This building is an excellent owner-occupied type option, as rental units provide income to cover mortgage payment

## Project Costs

<b>Land Cost</b>	\$45,000	6,750 SF parcel	\$6.67 per parcel SF	14.3% of project costs
<b>Hard Construction Costs</b>				
Residential Conditioned SF	\$222,600		\$105 per conditioned SF	
Unconditioned SF	\$0		\$45 per SF	
<i>Hard Cost Subtotal:</i>	\$222,600			70.8% of project costs
<b>Soft Construction Costs</b>	\$46,640		\$22 per building SF	14.8% of project costs
<i>Hard and Soft Costs Subtotal:</i>	\$269,240			
<b>Total Project Costs</b>	<b>\$314,240</b>			<b>100.0% Project Costs</b>

## Net Operating Income

	Rate (per BSF)	Cond. SF	Uncond. SF	Monthly Rent	Annual Rent		
<b>Flex House with Studio over Garage</b>							
2 Bedroom 1 Bath	\$1.31	840		\$1,100	\$13,200	<b>Building Count:</b>	1
2 Bedroom 1 Bath	\$1.31	840		\$1,100	\$13,200	<b>Total Conditioned SF:</b>	2,120
Studio	\$1.14	440		\$500	\$6,000	<b>Total Unconditioned SF:</b>	-
					\$0	<b>Total Building SF:</b>	2,120
					\$0	<b>Floor Area Ratio (FAR):</b>	0.31
					\$0	<b>Annual Rent:</b>	\$32,400
<b>Total</b>		<b>2,120</b>	<b>0</b>	<b>\$2,700</b>	<b>\$32,400</b>		
<b>Building SF</b>		2,120		<b>\$32,400</b>	<b>Gross Potential Income (GPI)</b>		
				(\$1,620)	5% Vacancy Rate		
				<b>\$30,780</b>	<b>Gross Operating Income (GOI)</b>		
<i>formula: GOI less Operating Expenses</i>				(\$7,695)	Operating Expenses (25% of GOI)		
				<b>\$23,085</b>	<b>Net Operating Income (NOI)</b>		
<i>formula: NOI divided by the Project Cost</i>				\$314,240	Project Cost		
				<b>7.35%</b>	<b>Cash Return on Project Costs (no leverage)</b>		

## Cash Flow & Debt Service

Project Cost: 100%	\$314,240		
Down Payment / Equity: 20%	\$62,848		
Debt: 80%	\$251,392	<b>Loan Term:</b>	30 Years
		<b>Interest Rate:</b>	5.0%
Monthly payment P&I:	(\$1,350)		
Annual NOI:	\$23,085		
Annual Debt Service:	(\$16,194)	<i>Note: 1.25 min. typ.</i>	
<b>Annual Cash Flow above debt service and operating expenses:</b>	<b>\$6,891</b>	<b>Debt Service Coverage Ratio (DSCR):</b>	<b>1.43</b>
		<b>Pre-tax Return on Equity:</b>	<b>10.96%</b>
<i>Annual depreciation @ 27.5 years</i>	\$8,570		
<i>Note: Residential Depreciation Expense Rate Used</i>			

# HARD COST ESTIMATE

Scope (Using the NAHB Cost Breakdown Structure)		% allocation of Construction Cost per SF	Subtotal	Cost per SF with local trade input	Notes
<b>I.</b>	<b>General Conditions and Superintendent</b>	4.0%	<b>4.0%</b>	<b>\$4.20</b>	Assumes a finished serviced lot with no off-site improvements required
<b>II.</b>	<b>Permits and Site Work</b>		<b>6.0%</b>		
	A. Plan Check and Building Permit Fees	0.5%		<b>\$6.30</b>	Assumes initial Plan set with repeat fees
	B. Impact Fees	1.0%			
	C. Water & Sewer Fees and Taps	1.5%			Fire sprinklers w/one dedicated water tap
	D. Architecture & Engineering	1.5%			
	E. Erosion Control, SWWP	1.5%			Assumed less than 5,000 SF total disturbance w/ siltfence or waddles. Check disturbance amount, greater than 5,000 SF install drywell
<b>III.</b>	<b>Foundations</b>		<b>10.0%</b>		
	A. Excavation, Foundations, Concrete, Retaining Walls, and Backfill	10.0%		<b>\$10.50</b>	Slab ground floor, sanded and sealed concrete
<b>IV.</b>	<b>Framing and Trusses</b>		<b>17.1%</b>	<b>\$17.96</b>	
	A. Framing (including Roof)	15.0%			10' Ground Floor Plate w/ 9' 2nd Floor.
	B. Trusses if not in above	1.0%			
	C. Sheathing	0.4%			
	D. General metals	0.4%			
	E. Other	0.3%			
<b>V.</b>	<b>Exterior Finishes</b>		<b>14.0%</b>	<b>\$14.70</b>	
	A. Exterior Wall Finishes	5.0%			Hardie Lap Siding and Trim
	B. Roofing	4.0%			Composition Roofing
	C. Windows and Exterior Doors	4.0%			
	D. Other	1.0%			
<b>VI.</b>	<b>Major Systems and Rough In</b>		<b>15.3%</b>	<b>\$16.07</b>	
	A. Plumbing (w/o fixtures or trim)	4.3%			
	B. Electrical (w/o fixtures)	7.0%			
	C. HVAC	4.0%			
	D. Fire Sprinkler	N/A			
<b>VII.</b>	<b>Interior Finishes</b>		<b>26.7%</b>	<b>\$28.04</b>	
	A. Insulation	2.0%			
	B. Drywall	4.0%			
	C. Interior Trim, Doors, Hardware, and Mirrors	4.4%			Tiled surround and bathroom wainscoat
	D. Painting	3.1%			
	E. Lighting	1.2%			
	F. Casework, Cabinets, and Countertops	5.0%			
	G. Appliances	1.5%			
	H. Flooring	4.0%			Vinyl Plank or Carpet Floor, tile floor in bathrooms
	I. Plumbing Fixtures and trim	1.5%			Builder Grade Cast Iron tubs or composite shower pans
<b>VIII.</b>	<b>Final Steps</b>		<b>6.9%</b>	<b>\$7.25</b>	
	A. Landscaping	2.5%			
	B. Outdoor Structures, Deck, Patio, Fencing	1.0%			
	C. Driveways, Curb Cuts, Sidewalks, Parking	2.0%			Gravel parking pads assumed
	D. Cleaning	0.7%			
	E. Other	0.7%			
<b>TOTAL:</b>			<b>100.0%</b>	<b>\$105</b>	

Total Conditioned Area: 2,120 SF  
 Estimated Hard Cost: \$105 per SF

**Total Cost for Conditioned Area: \$222,600**

# QUADPLEX BANK PACKAGE

Your Name  
Your Title  
Company  
Street Address  
City, State, Zipcode  
Email Address / Phone

Date

---

Name  
Title  
Company  
Street Address  
City, State, Zipcode

Dear [Name],

Thank you for considering our enclosed proposal for a quadplex on 1010 Union Street in the Old East Side neighborhood of Ourtown. My capital partner and project guarantor, Dr. Kelly Maxwell, will be contributing the equity capital. Dr. Maxwell owns this lot and the veterinary clinic in the neighboring lot. We are looking for construction financing of \$323,000 to be refinanced upon completion with a typical 30-year mortgage product.

The location of the project is ideal for a few reasons. First, the bus corridor on Wellington Street and quiet of Harbor Street combine to create excellent walkability and access to the city core. Second, the master plan for the Old East Side neighborhood calls for intensification of the area through multi-unit properties such as this which fit into the existing building mix in the neighborhood. And third, our market research shows demand for two bed/one bath rental units in the area.

Our financial pro forma suggests that we could expect an annual net operating income of about \$29,000, yielding a 6.67% return on estimated project costs and a debt service coverage ratio of 1.38. I will be coordinating the project and acting as property manager, supported by my six years of experience as a realtor and certified project manager. The included materials provide detailed information about the project site and building design, a market summary, a development pro forma, and an initial hard cost estimate. Also included for both myself and Dr. Maxwell are personal financial statements and tax returns. In addition to the project information, you will find resumes for myself, architect Anna Korakianitis and general contractor James Wrigley.

Please let me know if you have additional questions regarding the proposal. I look forward to meeting with you in person to discuss further.

Sincerely,

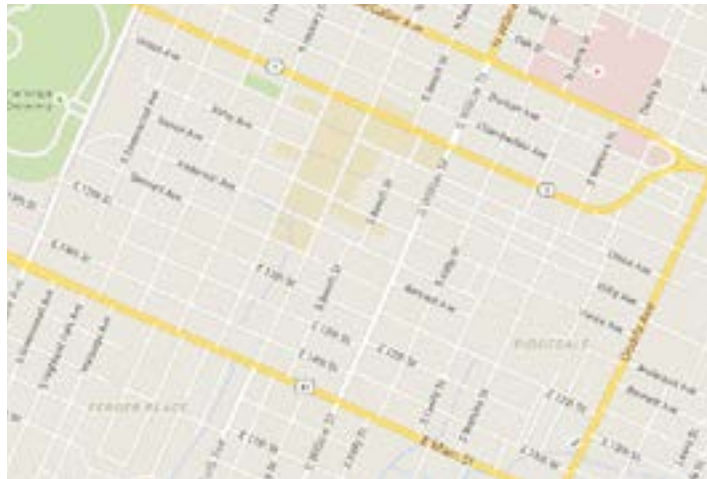
[Your Name]

# OVERVIEW

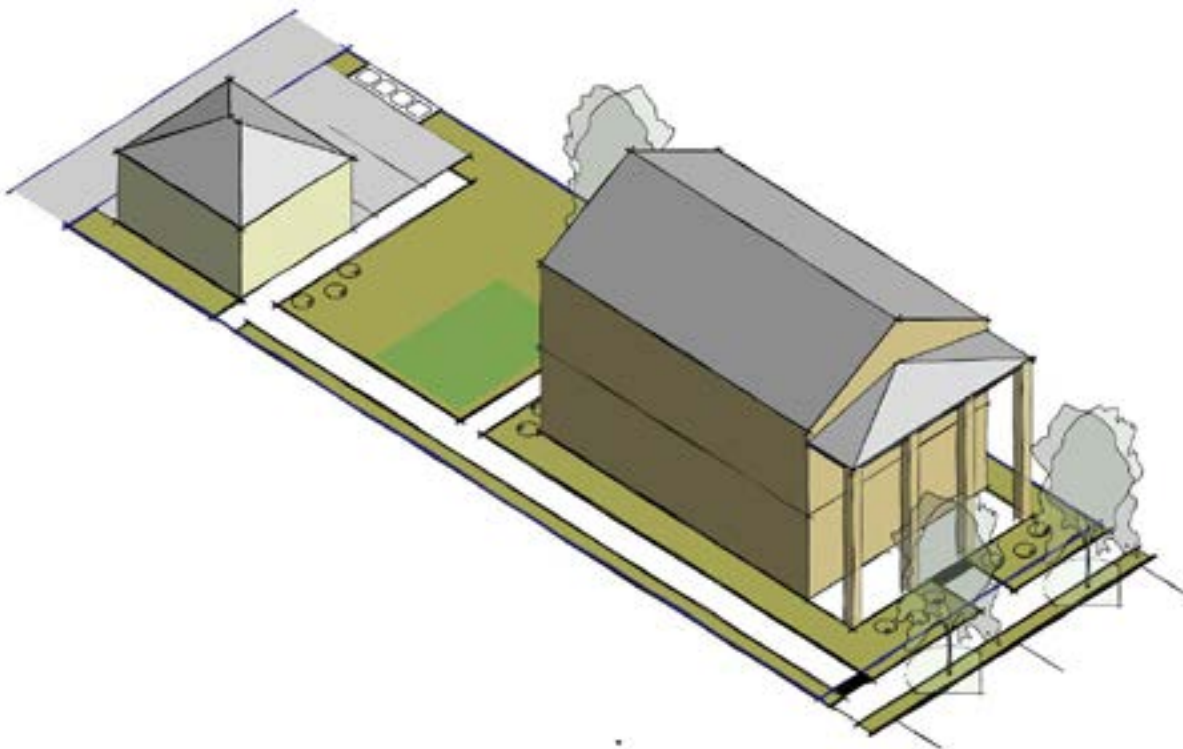
## PRODUCT:

The quadplex has two units on each floor, four units total, and a small rear garage for two vehicles. Each 728 sf unit has two bedrooms, one bathroom, and direct access to the outdoors via a two story porch. The first floor units have their own front and rear doors and the second floor units are accessible from a central staircase at the front of the building. Four parking spaces are provided off the alley, one per unit.

## LOCATION MAP:

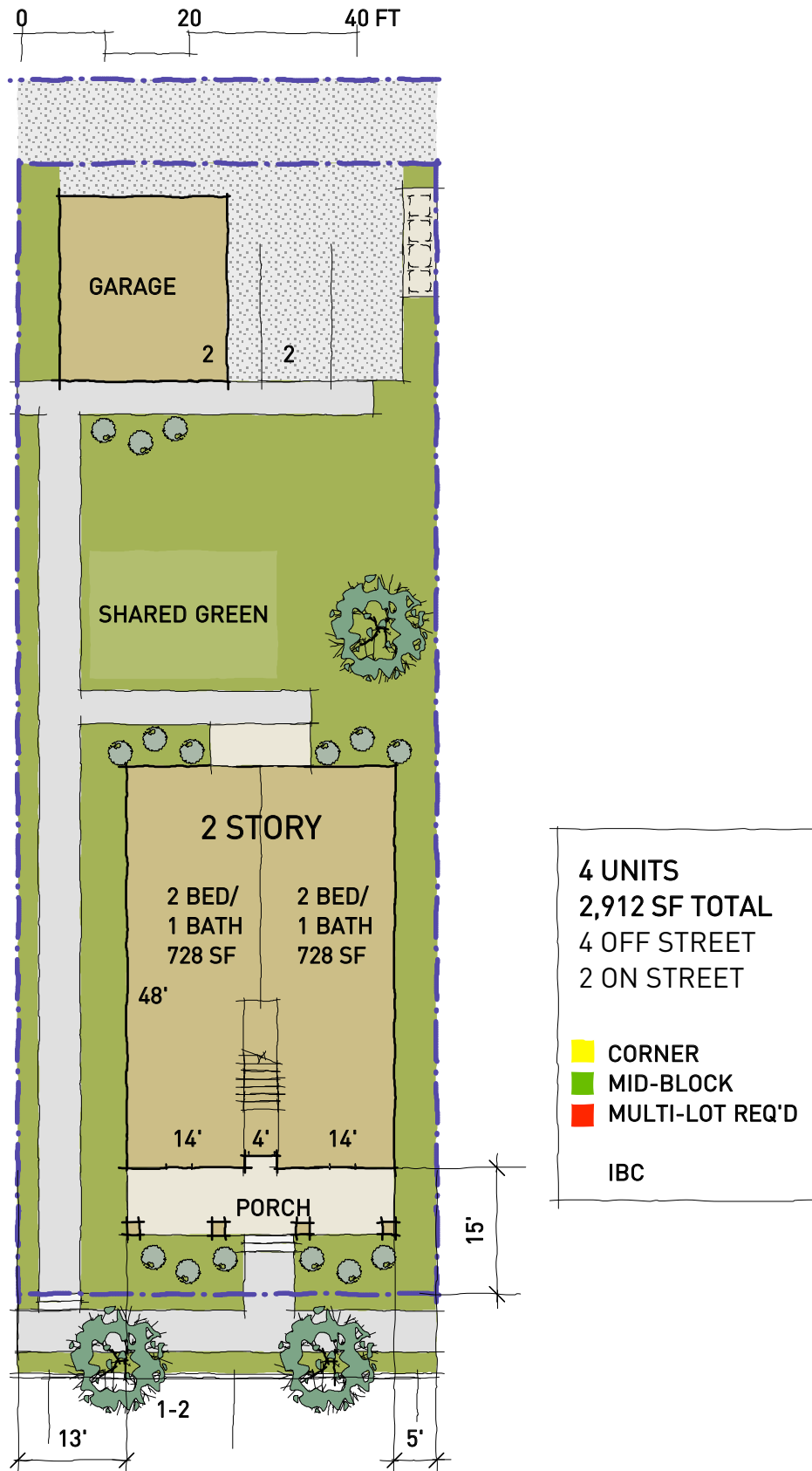


## PRECEDENT IMAGE:





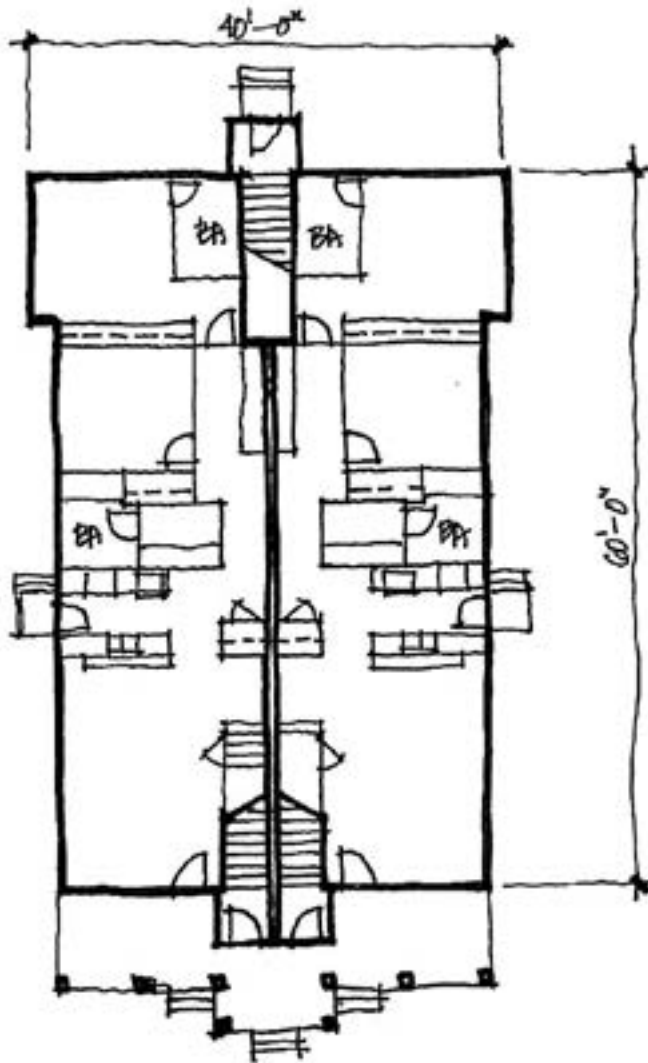
# SITE PLAN



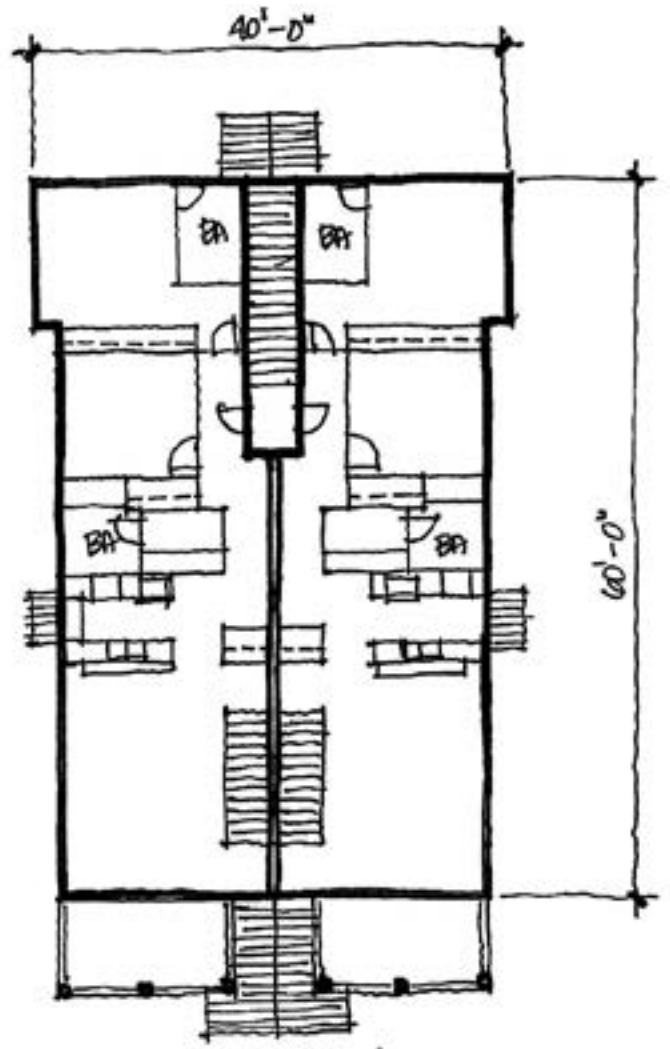
# PLANS + ELEVATIONS



FRONT ELEVATION



FIRST FLOOR PLAN



SECOND FLOOR PLAN

# PRO FORMA

## Assumptions:

New construction building  
 Construction loan at 75% LTC  
 Current rents at \$1.10 to \$1.35 per SF for existing 1 and 2 BR apartments  
 Fire sprinklers required  
 Wood Frame TYPE V construction, gravel parking off alley and on-street  
 Refinance once a certificate of occupancy is granted using a 30 year mortgage

## Project Costs

<b>Land Cost</b>	\$30,000	6,750 SF parcel	\$4.44 per parcel SF	7.0% of project costs
<b>Hard Construction Costs</b>				
Residential Conditioned SF	\$320,320		\$110 per conditioned SF	
Unconditioned SF	\$6,750		\$45 per SF	
<i>Hard Cost Subtotal:</i>	\$327,070			76.0% of project costs
<b>Soft Construction Costs</b>	\$73,488		\$24 per building SF	17.1% of project costs
<i>Hard and Soft Costs Subtotal:</i>	\$400,558			
<b>Total Project Costs</b>	<b>\$430,558</b>			<b>100.0% Project Costs</b>

## Net Operating Income

	Rate (per BSF)	Cond. SF	Uncond. SF	Monthly Rent	Annual Rent		
<b>2 story breezeway building with 6 units</b>							
2 Bedroom 1 Bath FL 1	\$1.24	728		\$900	\$10,800	<b>Building Count:</b>	1
2 Bedroom 1 Bath FL 1	\$1.24	728		\$900	\$10,800	<b>Total Conditioned SF:</b>	2,912
2 Bedroom 1 Bath FL 2	\$1.24	728		\$900	\$10,800	<b>Total Unconditioned SF:</b>	150
2 Bedroom 1 Bath FL 2	\$1.24	728		\$900	\$10,800	<b>Total Building SF:</b>	3,062
						<b>Floor Area Ratio (FAR):</b>	0.45
Stairway	\$0.00		150			<b>Annual Rent:</b>	\$43,200
<b>Total</b>		<b>2,912</b>	<b>150</b>	<b>\$3,600</b>	<b>\$43,200</b>		
<b>Building SF</b>		3,062		<b>\$43,200</b>	<b>Gross Potential Income (GPI)</b>		
				(\$2,160)	5% Vacancy Rate		
				<b>\$41,040</b>	<b>Gross Operating Income (GOI)</b>		
<i>formula: GOI less Operating Expenses</i>				(\$12,312)	Operating Expenses (30% of GOI)		
				<b>\$28,728</b>	<b>Net Operating Income (NOI)</b>		
<i>formula: NOI divided by the Project Cost</i>				\$430,558	Project Cost		
				<b>6.67%</b>	<b>Cash Return on Project Costs (no leverage)</b>		

## Cash Flow & Debt Service

Project Cost: 100%	\$430,558		
Down Payment / Equity: 25%	\$107,640	<b>Loan Term:</b>	30 Years
Debt: 75%	\$322,919	<b>Interest Rate:</b>	5.0%
Monthly payment P&I:	(\$1,733)		
Annual NOI:	\$28,728	<i>Note: 1.25 min. typ.</i>	
Annual Debt Service:	(\$20,802)	<b>Debt Service Coverage Ratio (DSCR):</b>	<b>1.38</b>
<b>Annual Cash Flow above debt service and operating expenses:</b>	<b>\$7,926</b>	<b>Pre-tax Return on Equity:</b>	<b>7.36%</b>
<i>Annual depreciation @ 27.5 years</i>	\$11,742		
<i>Note: Residential Depreciation Expense Rate Used</i>			

# HARD COST ESTIMATE

Scope (Using the NAHB Cost Breakdown Structure)		% allocation of Construction Cost per SF	Subtotal	Cost per SF with local trade input	Notes
<b>I.</b>	<b>General Conditions and Superintendent</b>	4.0%	<b>4.0%</b>	<b>\$4.40</b>	Assumes a finished serviced lot with no off-site improvements required
<b>II.</b>	<b>Permits and Site Work</b>		<b>5.5%</b>	<b>\$6.05</b>	
	A. Plan Check and Building Permit Fees	0.5%			Assumes initial Plan set with repeat fees
	B. Impact Fees	1.0%			
	C. Water & Sewer Fees and Taps	1.5%			Fire sprinklers w/one dedicated water tap
	D. Architecture & Engineering	1.5%			
	E. Erosion Control, SWWP	1.0%			Assumed less than 5,000 SF total disturbance w/ siltfence or waddles. Check disturbance amount, greater than 5,000 SF install drywell
<b>III.</b>	<b>Foundations</b>		<b>9.0%</b>		
	A. Excavation, Foundations, Concrete, Retaining Walls, and Backfill	9.0%		<b>\$9.90</b>	Slab ground floor, sanded and sealed concrete
<b>IV.</b>	<b>Framing and Trusses</b>		<b>17.1%</b>	<b>\$18.81</b>	
	A. Framing (including Roof)	15.0%			10' Ground Floor Plate w/ 9' 2nd Floor.
	B. Trusses if not in above	1.0%			
	C. Sheathing	0.4%			
	D. General metals	0.4%			
	E. Other	0.3%			
<b>V.</b>	<b>Exterior Finishes</b>		<b>13.5%</b>	<b>\$14.85</b>	
	A. Exterior Wall Finishes	4.5%			Hardie Lap Siding and Trim
	B. Roofing	4.0%			Composition Roofing
	C. Windows and Exterior Doors	4.0%			
	D. Other	1.0%			
<b>VI.</b>	<b>Major Systems and Rough In</b>		<b>18.2%</b>	<b>\$20.02</b>	
	A. Plumbing (w/o fixtures or trim)	4.2%			
	B. Electrical (w/o fixtures)	7.0%			
	C. HVAC	4.0%			
	D. Fire Sprinkler (confirm in Assumptions)	3.0%			NFPA 13R \$2.50 per SF, \$8K add if dedicated tap is required
<b>VII.</b>	<b>Interior Finishes</b>		<b>26.2%</b>	<b>\$28.82</b>	
	A. Insulation	2.0%			
	B. Drywall	4.0%			
	C. Interior Trim, Doors, Hardware, and Mirrors	4.4%			Tiled surround and bathroom wainscoat
	D. Painting	3.1%			
	E. Lighting	1.2%			
	F. Casework, Cabinets, and Countertops	4.5%			
	G. Appliances	1.5%			
	H. Flooring	4.0%			Vinyl Plank or Carpet Floor, tile floor in bathrooms
	I. Plumbing Fixtures and trim	1.5%			Builder Grade Cast Iron tubs or composite shower pans
<b>VIII.</b>	<b>Final Steps</b>		<b>6.5%</b>	<b>\$7.15</b>	
	A. Landscaping	2.5%			
	B. Outdoor Structures, Deck, Patio, Fencing	1.0%			
	C. Driveways, Curb Cuts, Sidewalks, Parking	2.0%			Gravel parking pads assumed
	D. Cleaning	0.7%			
	E. Other	0.3%			
<b>TOTAL:</b>			<b>100.0%</b>	<b>\$110</b>	
Total Conditioned Area:				2,912 SF	
Estimated Hard Cost:				\$110 per SF	
<b>Total Cost for Conditioned Area:</b>				<b>\$320,320</b>	

# SIX-PLEX BANK PACKAGE

Your Name  
Your Title  
Company  
Street Address  
City, State, Zipcode  
Email Address / Phone

Date

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Name  
Title  
Company  
Street Address  
City, State, Zipcode

Dear [Name],

Thank you for considering our enclosed proposal for a six-plex on 1010 Union Street in the Old East Side neighborhood of Ourtown. My capital partner and project guarantor, Dr. Kelly Maxwell, will be contributing the equity capital. Dr. Maxwell owns this lot and the veterinary clinic in the neighboring lot. We are looking for construction financing of \$386,000 to develop and stabilize the project, then to refinance with a permanent loan, such as a Freddie Mac Small Balance loan.

The location of the project is ideal for a few reasons. First, the bus corridor on Wellington Street and quiet of Harbor Street combine to create excellent walkability and access to the city core. Second, the master plan for the Old East Side neighborhood calls for intensification of the area through multi-unit properties such as this which fit into the existing building mix in the neighborhood. And third, our market research shows demand for both one and two bedroom rental units in the area.

Our financial pro forma suggests that we could expect an annual net operating income of about \$33,500, yielding a 6.51% return on estimated project costs and a 1.24 debt service ratio. I will be coordinating the project and acting as property manager, supported by my six years of experience as a realtor and certified project manager. The included materials provide detailed information about the project site and building design, a market summary, a development pro forma, and an initial hard cost estimate. Also included for both myself and Dr. Maxwell are personal financial statements and tax returns. In addition to the project information, you will find resumes for myself, architect Anna Korakianitis and general contractor James Wrigley.

Please let me know if you have additional questions regarding the proposal. I look forward to meeting with you in person to discuss further.

Sincerely,

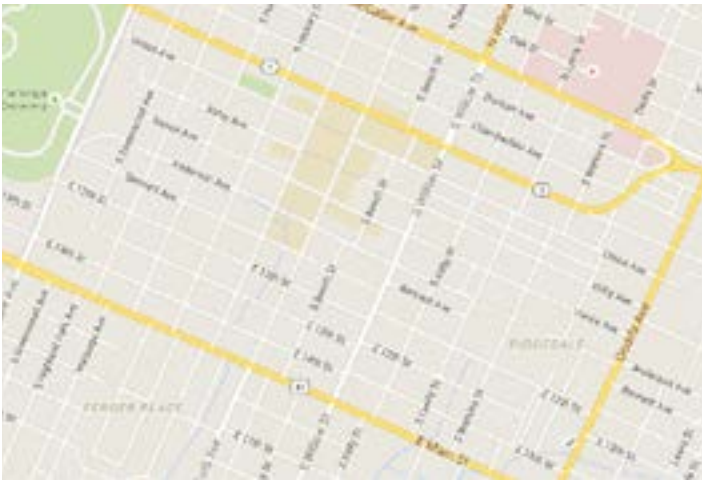
[Your Name]

# OVERVIEW

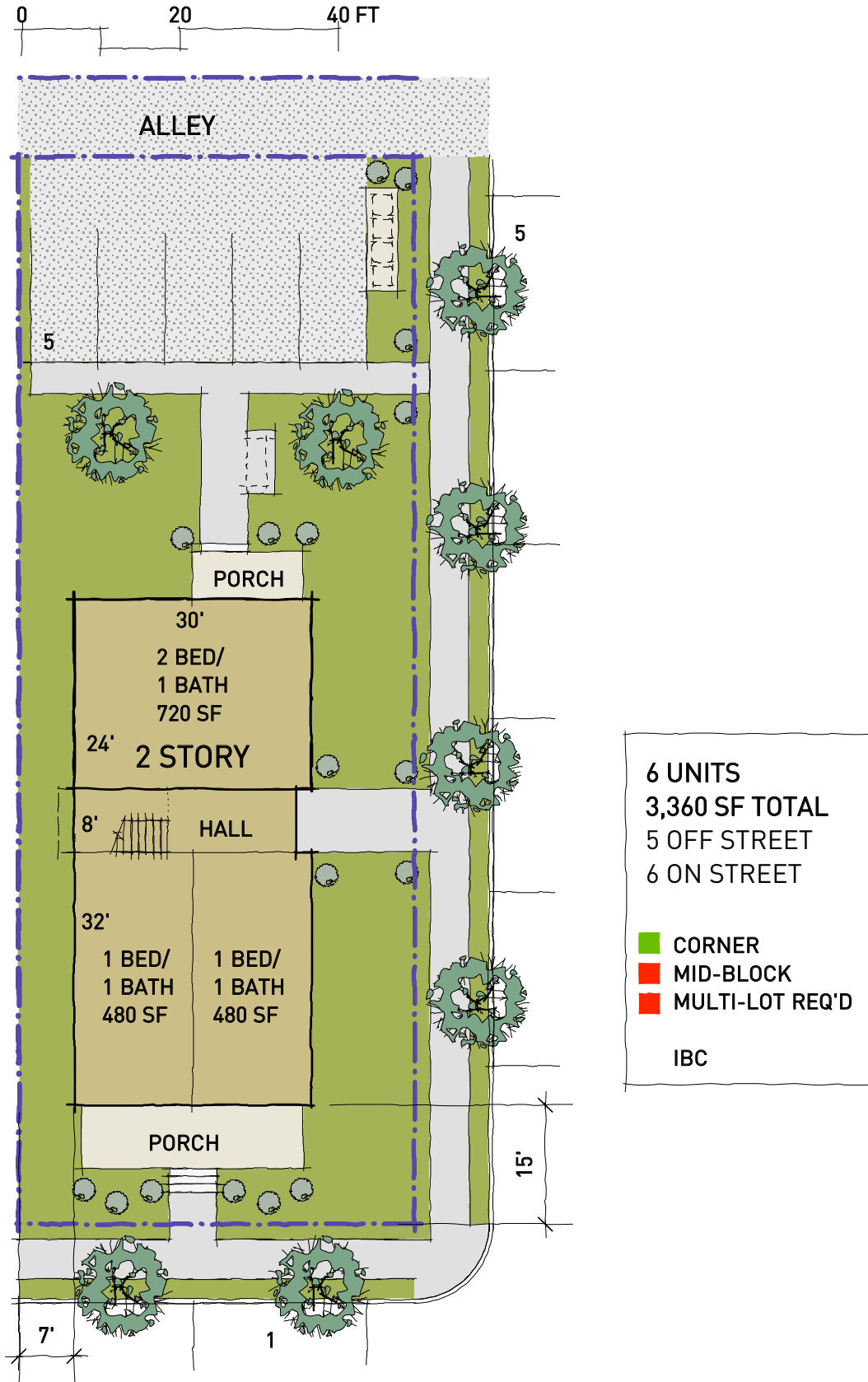
## PRODUCT:

The six-plex has three units on each floor: a 720 sf two bedroom/one bathroom unit, and two 480 sf one bedroom/one bathroom units. All units are accessible through a central stair hall, but the first floor units also have direct access from the street or parking area. Five parking spaces are provided off the alley, with additional spaces parked on-street.

## LOCATION MAP:



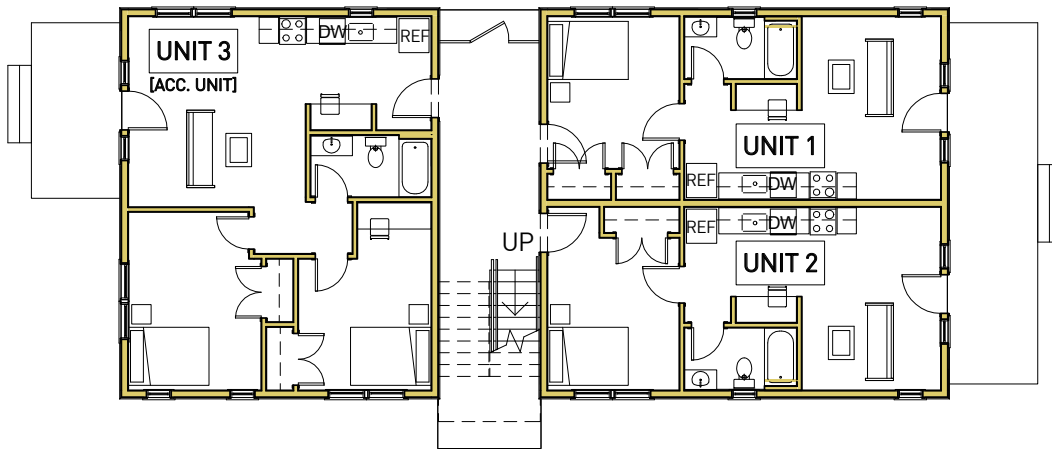
# SITE PLAN



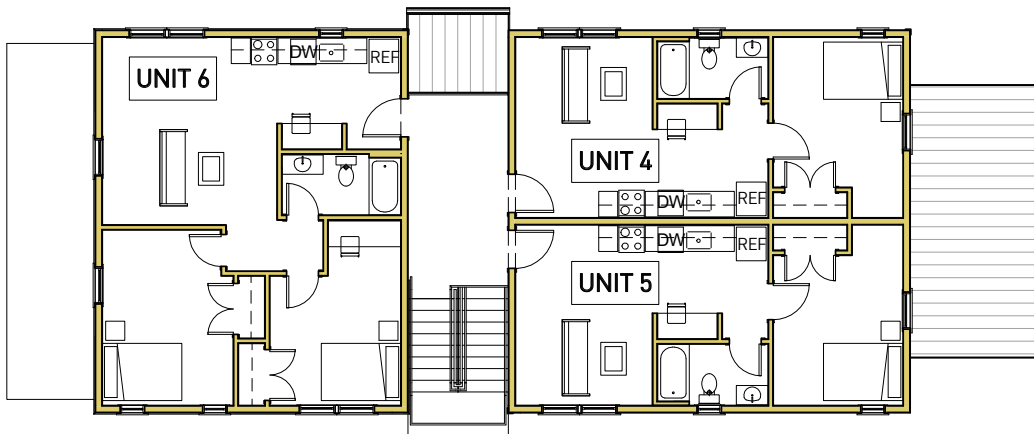
# PLANS + ELEVATIONS



FRONT ELEVATION



FIRST FLOOR PLAN

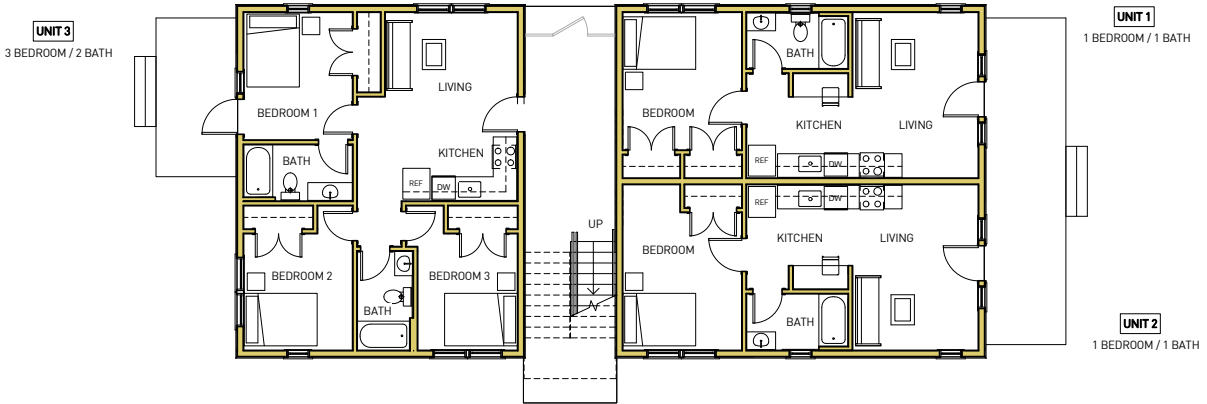


SECOND FLOOR PLAN

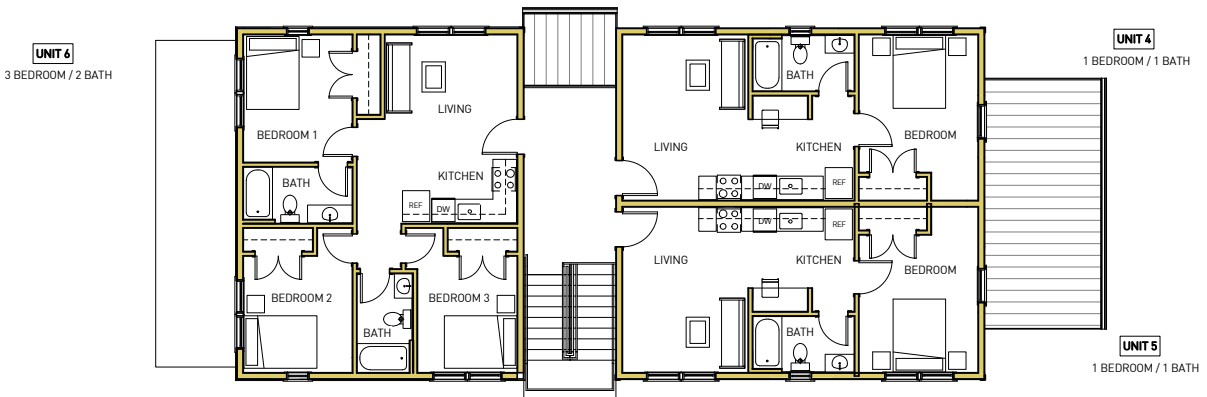


# ALTERNATIVE FLOOR PLANS

## THREE BEDROOM ALTERNATIVES



FIRST FLOOR PLAN



SECOND FLOOR PLAN

# PRO FORMA

## Assumptions:

New construction building  
 Construction loan at 75% LTC  
 Current rents at \$1.10 to \$1.35 per SF for existing 1 and 2 BR apartments  
 Fire sprinklers required  
 Wood Frame TYPE V construction, walk-up buildings, w/o elevators, surface parking.  
 Refinance in year 3 with Freddie Mac Small Balances Loan Program or local bank portfolio loan.

## Project Costs

<b>Land Cost</b>	\$35,000	6,750 SF parcel	\$5.19 per parcel SF	6.8% of project costs
<b>Hard Construction Costs</b>				
Residential Conditioned SF	\$369,600		\$110 per conditioned SF	
Unconditioned SF	\$14,400		\$45 per SF	
<i>Hard Cost Subtotal:</i>	\$384,000			74.6% of project costs
<b>Soft Construction Costs</b>	\$95,680		\$26 per building SF	18.6% of project costs
<i>Hard and Soft Costs Subtotal:</i>	\$479,680			
<b>Total Project Costs</b>	<b>\$514,680</b>			<b>100.0% Project Costs</b>

## Net Operating Income

	Rate (per BSF)	Cond. SF	Uncond. SF	Monthly Rent	Annual Rent		
<b>2 story breezeway building with 6 units</b>							
2 Bedroom 1 Bath FL 1	\$1.11	720		\$800	\$9,600	<b>Building Count:</b>	1
1 Bedroom 1 Bath FL 1	\$1.35	480		\$650	\$7,800	<b>Total Conditioned SF:</b>	3,360
1 Bedroom 1 Bath FL 1	\$1.35	480		\$650	\$7,800	<b>Total Unconditioned SF:</b>	320
2 Bedroom 1 Bath FL 2	\$1.11	720		\$800	\$9,600	<b>Total Building SF:</b>	3,680
1 Bedroom 1 Bath FL 2	\$1.35	480		\$650	\$7,800	<b>Floor Area Ratio (FAR):</b>	0.55
1 Bedroom 1 Bath FL 2	\$1.35	480		\$650	\$7,800		
Stairway	\$0.00		320			<b>Annual Rent:</b>	\$50,400
<b>Total</b>		<b>3,360</b>	<b>320</b>	<b>\$4,200</b>	<b>\$50,400</b>		
				<b>\$50,400</b>		<b>Gross Potential Income (GPI)</b>	
				(\$2,520)		5% Vacancy Rate	
				<b>\$47,880</b>		<b>Gross Operating Income (GOI)</b>	
<i>formula: GOI less Operating Expenses</i>				(\$14,364)		Operating Expenses (30% of GOI)	
				<b>\$33,516</b>		<b>Net Operating Income (NOI)</b>	
<i>formula: NOI divided by the Project Cost</i>				\$514,680		Project Cost	
				<b>6.51%</b>		<b>Cash Return on Project Costs (no leverage)</b>	

## Cash Flow & Debt Service

Project Cost: 100%	\$514,680		
Down Payment / Equity: 25%	\$128,670		
Debt: 75%	\$386,010	<b>Loan Term:</b>	25 Years
		<b>Interest Rate:</b>	5.00%
Monthly payment P&I:	(\$2,257)		
Annual NOI:	\$33,516		
Annual Debt Service:	(\$27,079)	<i>Note: 1.25 min. typ.</i>	
<b>Annual Cash Flow above debt service and operating expenses:</b>	<b>\$6,437</b>	<b>Debt Service Coverage Ratio (DSCR):</b>	<b>1.24</b>
		<b>Pre-tax Return on Equity:</b>	<b>5.00%</b>
<i>Annual depreciation @ 27.5 years</i>	\$14,037		
<i>Note: Residential Depreciation Expense Rate Used</i>			

# HARD COST ESTIMATE

Scope (Using the NAHB Cost Breakdown Structure)		% allocation of Construction Cost per SF	Subtotal	Cost per SF with local trade input	Notes
<b>I.</b>	<b>General Conditions and Superintendent</b>	4.0%	<b>4.0%</b>	<b>\$4.40</b>	Assumes a finished serviced lot with no off-site improvements required
<b>II.</b>	<b>Permits and Site Work</b>		<b>5.5%</b>		
	A. Plan Check and Building Permit Fees	0.5%		<b>\$6.05</b>	Assumes initial Plan set with repeat fees
	B. Impact Fees	1.0%			Fire sprinklers w/one dedicated water tap
	C. Water & Sewer Fees and Taps	1.5%			Assumed less than 5,000 SF total disturbance w/ siltfence or waddles. Check disturbance amount, greater than 5,000 SF install drywell
	D. Architecture & Engineering	1.5%			
	E. Erosion Control, SWWP	1.0%			
<b>III.</b>	<b>Foundations</b>		<b>9.0%</b>		
	A. Excavation, Foundations, Concrete, Retaining Walls, and Backfill	9.0%		<b>\$9.90</b>	Slab ground floor, sanded and sealed concrete
<b>IV.</b>	<b>Framing and Trusses</b>		<b>17.1%</b>	<b>\$18.81</b>	
	A. Framing (including Roof)	15.0%			10' Ground Floor Plate w/ 9' 2nd Floor.
	B. Trusses if not in above	1.0%			
	C. Sheathing	0.4%			
	D. General metals	0.4%			
	E. Other	0.3%			
<b>V.</b>	<b>Exterior Finishes</b>		<b>13.5%</b>	<b>\$14.85</b>	
	A. Exterior Wall Finishes	4.5%			Hardie Lap Siding and Trim
	B. Roofing	4.0%			Composition Roofing
	C. Windows and Exterior Doors	4.0%			
	D. Other	1.0%			
<b>VI.</b>	<b>Major Systems and Rough In</b>		<b>18.2%</b>	<b>\$20.02</b>	
	A. Plumbing (w/o fixtures or trim)	4.2%			
	B. Electrical (w/o fixtures)	7.0%			
	C. HVAC	4.0%			
	D. Fire Sprinkler (confirm in Assumptions)	3.0%			NFPA 13R \$2.50 per SF, \$8K add if dedicated tap is required
<b>VII.</b>	<b>Interior Finishes</b>		<b>26.2%</b>	<b>\$28.82</b>	
	A. Insulation	2.0%			
	B. Drywall	4.0%			
	C. Interior Trim, Doors, Hardware, and Mirrors	4.4%			Tiled surround and bathroom wainscoat
	D. Painting	3.1%			
	E. Lighting	1.2%			
	F. Casework, Cabinets, and Countertops	4.5%			
	G. Appliances	1.5%			
	H. Flooring	4.0%			Vinyl Plank or Carpet Floor, tile floor in bathrooms
	I. Plumbing Fixtures and trim	1.5%			Builder Grade Cast Iron tubs or composite shower pans
<b>VIII.</b>	<b>Final Steps</b>		<b>6.5%</b>	<b>\$7.15</b>	
	A. Landscaping	2.5%			
	B. Outdoor Structures, Deck, Patio, Fencing	1.0%			
	C. Driveways, Curb Cuts, Sidewalks, Parking	2.0%			Gravel parking pads assumed
	D. Cleaning	0.7%			
	E. Other	0.3%			
<b>TOTAL:</b>			<b>100.0%</b>	<b>\$110</b>	

Total Conditioned Area: 3,360 SF

Estimated Hard Cost: \$110 per SF

**Total Cost for Conditioned Area: \$369,600**

# QUADPLEX COURT BANK PACKAGE

Your Name  
Your Title  
Company  
Street Address  
City, State, Zipcode  
Email Address / Phone

Date

---

Name  
Title  
Company  
Street Address  
City, State, Zipcode

Dear [Name],

Thank you for considering our enclosed proposal for a 12 unit quadplex court on 1010 Union Street in the Old East Side neighborhood of Ourtown. My capital partner and project guarantor, Dr. Kelly Maxwell, will be contributing the equity capital. Dr. Maxwell owns this lot and the veterinary clinic in the neighboring lot. We are looking for construction financing of \$1,033,000 to develop and stabilize the project and then to refinance with a permanent Freddie Mac Small Balance loan.

The location of the project is ideal for a few reasons. First, the bus corridor on Wellington Street and quiet of Harbor Street combine to create excellent walkability and access to the city core. Second, the master plan for the Old East Side neighborhood calls for intensification of the area through multi-unit properties such as this which complement the existing building mix of the neighborhood. And third, our market research shows demand for both one and two bedroom units in the area.

Our development pro forma projects an annual net operating income of about \$100,000, yielding a 6.61% return on estimated project costs and a 1.26 debt service ratio. I will be coordinating the project and acting as property manager, supported by my six years of experience as a realtor and certified project manager. The included materials provide detailed information about the project site and building design, a market summary, a development pro forma, and an initial hard cost estimate. Also included for both myself and Dr. Maxwell are personal financial statements and tax returns. In addition to the project information, you will find resumes for myself, architect Anna Korakianitis and general contractor James Wrigley.

Please let me know if you have additional questions regarding the proposal. I look forward to meeting with you in person to discuss further.

Sincerely,

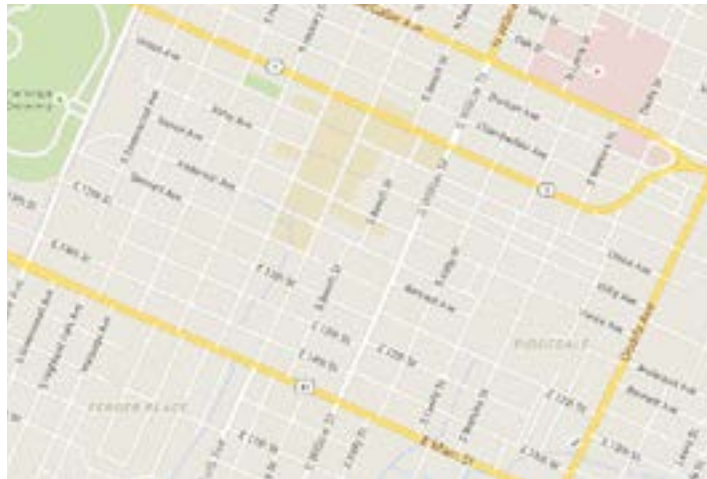
[Your Name]

# OVERVIEW

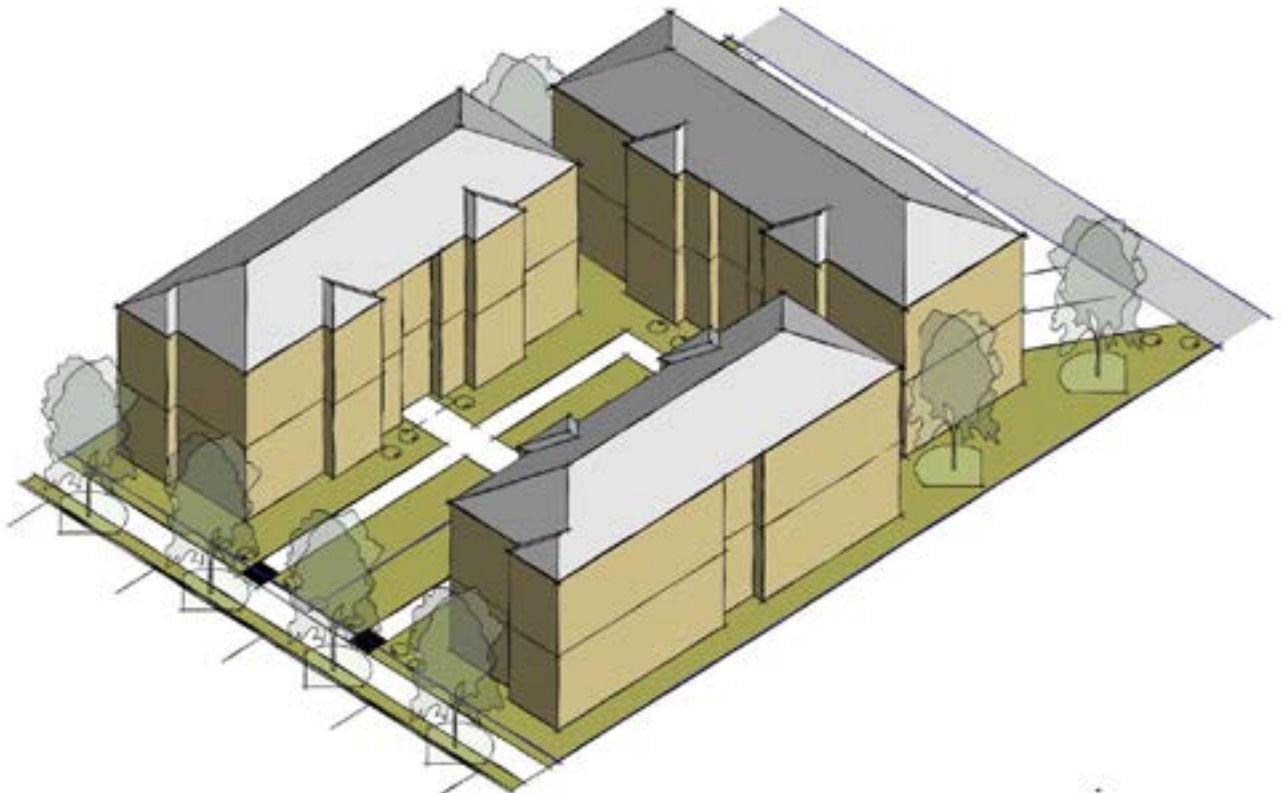
## PRODUCT:

The quadplex court consists of three separate buildings, each containing four units, sited in a U-shaped court on two 50' wide lots. The front buildings have stacked units: a 692 sf one bedroom/one bathroom and an 812 sf two bedroom/one bathroom on each floor. Second floor units are accessible from a central stair hall. The rear building has four 812 sf two bedroom/one bathroom units, all accessed from the central stair hall. Eight parking spaces are provided off the alley, with four additional spaces parked on-street, one per unit.

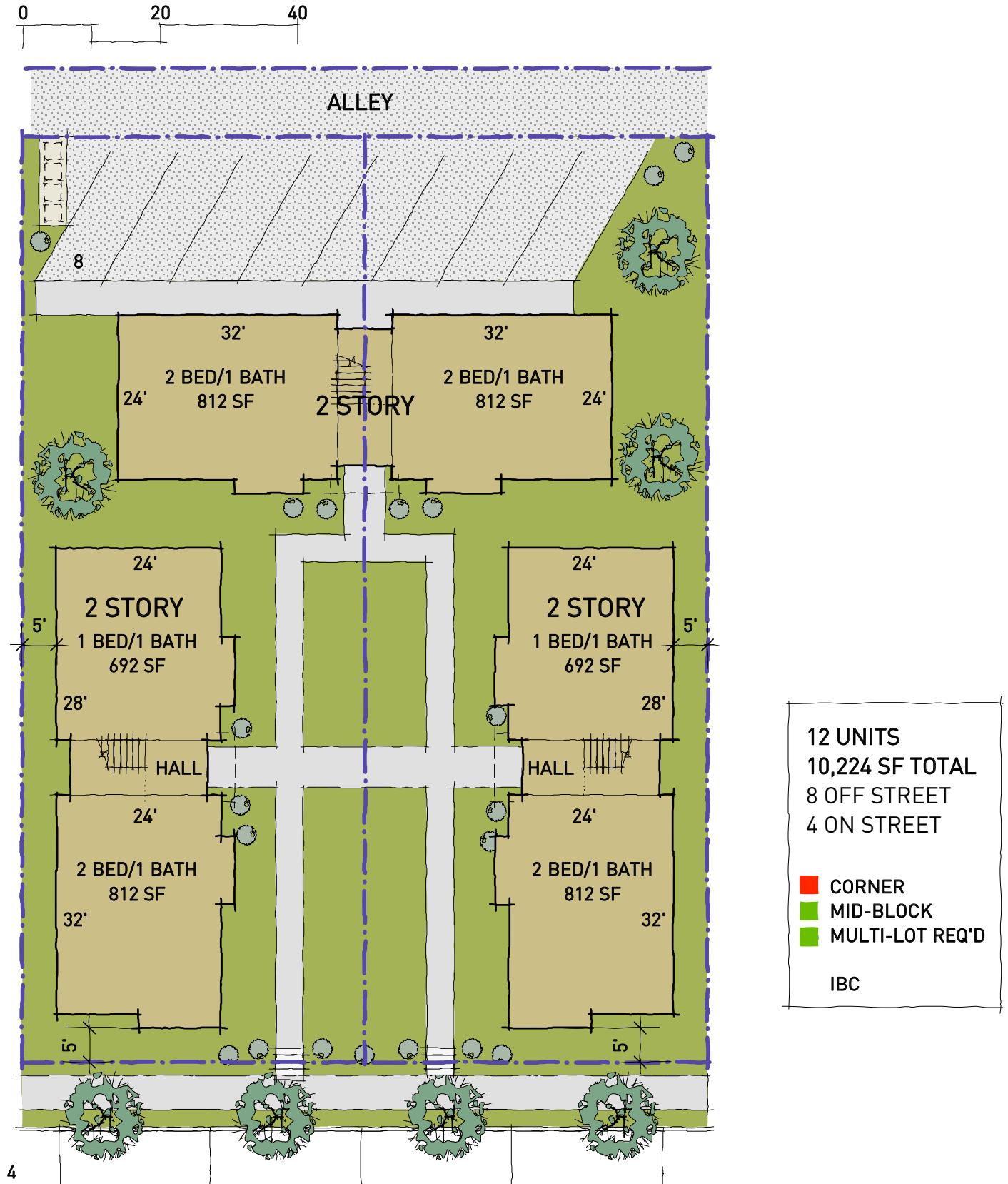
## LOCATION MAP:



## PRECEDENT IMAGE:

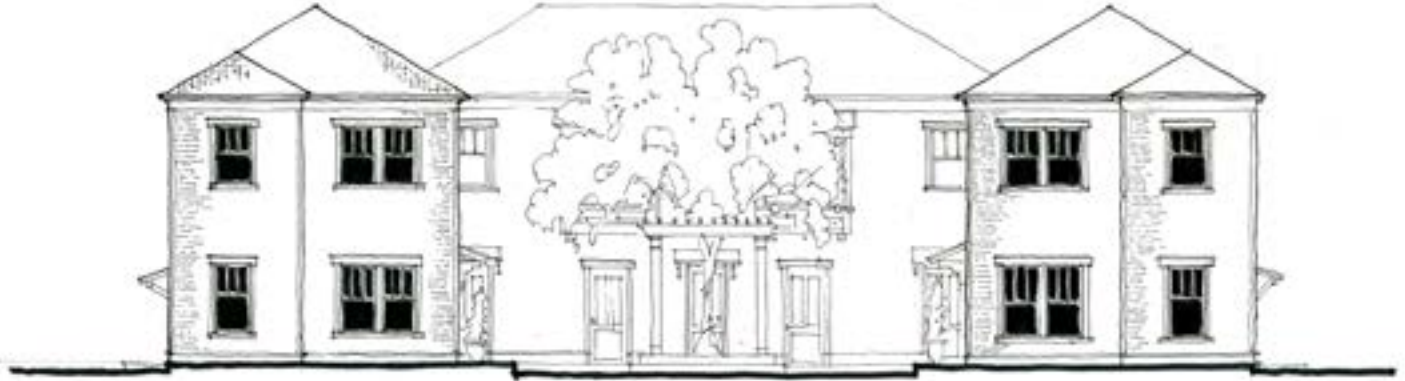


# SITE PLAN

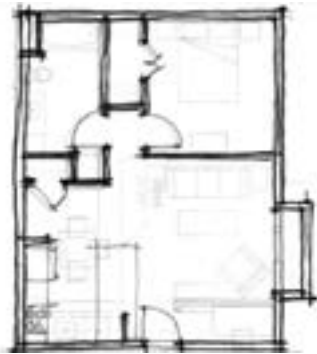


4

# PLANS + ELEVATIONS



*FRONT ELEVATION*



*UNIT 1 FLOOR PLAN (692 SF)  
SCALE: 1/16" = 1'-0"*



*UNIT 2 FLOOR PLAN (812 SF)  
SCALE: 1/16" = 1'-0"*

# PRO FORMA

## Assumptions:

New construction building

Construction loan at 75% LTC

Current rents at \$1.10 to \$1.35 per SF for existing 1 and 2 BR apartments

Fire sprinklers required

Wood Frame TYPE V construction, walk-up buildings, w/o elevators, surface parking.

Refinance in Year 3 with Small Balance OR plat in three lots with 30 yr fixed loan and refinance once a certificate of occupancy is granted

## Project Costs

<b>Land Cost</b>	\$90,000	13,500 SF parcel	\$6.67 per parcel SF	6.5% of project costs
<b>Hard Construction Costs</b>				
Residential Conditioned SF	\$1,019,040		\$110 per conditioned SF	
Unconditioned SF	\$43,200		\$45 per SF	
<i>Hard Cost Subtotal:</i>	\$1,062,240			77.1% of project costs
<b>Soft Construction Costs</b>	\$224,928		\$22 per building SF	16.3% of project costs
<i>Hard and Soft Costs Subtotal:</i>	\$1,287,168			
<b>Total Project Costs</b>	<b>\$1,377,168</b>			<b>100.0% Project Costs</b>

## Net Operating Income

	Rate (per BSF)	Cond. SF	Uncond. SF	Monthly Rent	Annual Rent		
<b>Side Buildings: 2 story breezeway building with 4 units</b>							
2 Bedroom 1 Bath FL 1	\$1.26	812		\$1,025	\$12,300	<b>Building Count:</b>	2
1 Bedroom 1 Bath FL 1	\$1.16	692		\$800	\$9,600	<b>Total Conditioned SF:</b>	6,016
2 Bedroom 1 Bath FL 2	\$1.26	812		\$1,025	\$12,300	<b>Total Unconditioned SF:</b>	640
1 Bedroom 1 Bath FL 2	\$1.16	692		\$800	\$9,600	<b>Total Building SF:</b>	6,656
Stairway	\$0.00		320				
<b>Sub-Total</b>		<b>3,008</b>	<b>320</b>	<b>\$3,650</b>	<b>\$43,800</b>		
<b>Rear Building: 2 story breezeway building with 4 units (All 2 BR)</b>							
2 Bedroom 1 Bath FL 1	\$1.26	812		\$1,025	\$12,300	<b>Building Count:</b>	1
2 Bedroom 1 Bath FL 2	\$1.26	812		\$1,025	\$12,300	<b>Total Conditioned SF:</b>	3,248
2 Bedroom 1 Bath FL 1	\$1.26	812		\$1,025	\$12,300	<b>Total Unconditioned SF:</b>	320
2 Bedroom 1 Bath FL 2	\$1.26	812		\$1,025	\$12,300	<b>Total Building SF:</b>	3,568
Stairway	\$0.00		320				
<b>Sub-Total</b>		<b>3,248</b>	<b>320</b>	<b>\$4,100</b>	<b>\$49,200</b>	<b>Annual Rent:</b>	\$136,800
<b>Total SF</b>		9,264	960				
<b>Grand Total All Buildings SF</b>		<b>10,224</b>		<b>\$136,800</b>	<b>Gross Potential Income (GPI)</b>		
Single Side Building SF		3,328		(\$6,840)	5% Vacancy Rate		
Single Rear Building SF		3,568		<b>\$129,960</b>	<b>Gross Operating Income (GOI)</b>		
<b>Floor Area Ratio (FAR):</b>		0.76					
<i>formula: GOI less Operating Expenses</i>				(\$38,988)	Operating Expenses (30% of GOI)		
				<b>\$90,972</b>	<b>Net Operating Income (NOI)</b>		
				\$1,377,168	Project Cost		
<i>formula: NOI divided by the Project Cost</i>				<b>6.61%</b>	<b>Cash Return on Project Costs (no leverage)</b>		

## Cash Flow & Debt Service

Project Cost: 100%	\$1,377,168		
Down Payment / Equity: 25%	\$344,292		
Debt: 75%	\$1,032,876	<b>Loan Term:</b>	25 Years
		<b>Interest Rate:</b>	5.0%
Monthly payment P&I:	(\$6,038)		
Annual NOI:	\$90,972		
Annual Debt Service:	(\$72,457)	<i>Note: 1.25 min. typ.</i>	
<b>Annual Cash Flow above debt service and operating expenses:</b>	<b>\$18,515</b>	<b>Debt Service Coverage Ratio (DSCR):</b>	<b>1.26</b>
		<b>Pre-tax Return on Equity:</b>	<b>5.38%</b>



# HARD COST ESTIMATE

Scope (Using the NAHB Cost Breakdown Structure)		% allocation of Construction Cost per SF	Subtotal	Cost per SF with local trade input	Notes
<b>I.</b>	<b>General Conditions and Superintendent</b>	4.0%	<b>4.0%</b>	<b>\$4.40</b>	Assumes a finished serviced lot with no off-site improvements required
<b>II.</b>	<b>Permits and Site Work</b>		<b>5.5%</b>		
	A. Plan Check and Building Permit Fees	0.5%		<b>\$6.05</b>	Assumes initial Plan set with repeat fees
	B. Impact Fees	1.0%			Fire sprinklers w/one dedicated water tap
	C. Water & Sewer Fees and Taps	1.5%			Assumed less than 5,000 SF total disturbance w/ siltfence or waddles. Check disturbance amount, greater than 5,000 SF install drywell
	D. Architecture & Engineering	1.5%			
	E. Erosion Control, SWWP	1.0%			
<b>III.</b>	<b>Foundations</b>		<b>9.0%</b>		
	A. Excavation, Foundations, Concrete, Retaining Walls, and Backfill	9.0%		<b>\$9.90</b>	Slab ground floor, sanded and sealed concrete
<b>IV.</b>	<b>Framing and Trusses</b>		<b>17.1%</b>	<b>\$18.81</b>	
	A. Framing (including Roof)	15.0%			10' Ground Floor Plate w/ 9' 2nd Floor.
	B. Trusses if not in above	1.0%			
	C. Sheathing	0.4%			
	D. General metals	0.4%			
	E. Other	0.3%			
<b>V.</b>	<b>Exterior Finishes</b>		<b>13.5%</b>	<b>\$14.85</b>	
	A. Exterior Wall Finishes	4.5%			Hardie Lap Siding and Trim
	B. Roofing	4.0%			Composition Roofing
	C. Windows and Exterior Doors	4.0%			
	D. Other	1.0%			
<b>VI.</b>	<b>Major Systems and Rough In</b>		<b>18.2%</b>	<b>\$20.02</b>	
	A. Plumbing (w/o fixtures or trim)	4.2%			
	B. Electrical (w/o fixtures)	7.0%			
	C. HVAC	4.0%			
	D. Fire Sprinkler (confirm in Assumptions)	3.0%			NFPA 13R \$2.50 per SF, \$8K add if dedicated tap is required
<b>VII.</b>	<b>Interior Finishes</b>		<b>26.2%</b>	<b>\$28.82</b>	
	A. Insulation	2.0%			
	B. Drywall	4.0%			
	C. Interior Trim, Doors, Hardware, and Mirrors	4.4%			Tiled surround and bathroom wainscoat
	D. Painting	3.1%			
	E. Lighting	1.2%			
	F. Casework, Cabinets, and Countertops	4.5%			
	G. Appliances	1.5%			
	H. Flooring	4.0%			Vinyl Plank or Carpet Floor, tile floor in bathrooms
	I. Plumbing Fixtures and trim	1.5%			Builder Grade Cast Iron tubs or composite shower pans
<b>VIII.</b>	<b>Final Steps</b>		<b>6.5%</b>	<b>\$7.15</b>	
	A. Landscaping	2.5%			
	B. Outdoor Structures, Deck, Patio, Fencing	1.0%			
	C. Driveways, Curb Cuts, Sidewalks, Parking	2.0%			Gravel parking pads assumed
	D. Cleaning	0.7%			
	E. Other	0.3%			
<b>TOTAL:</b>			<b>100.0%</b>	<b>\$110</b>	

Total Conditioned Area: 9,264 SF

Estimated Hard Cost: \$110 per SF

**Total Cost for Conditioned Area: \$1,019,040**