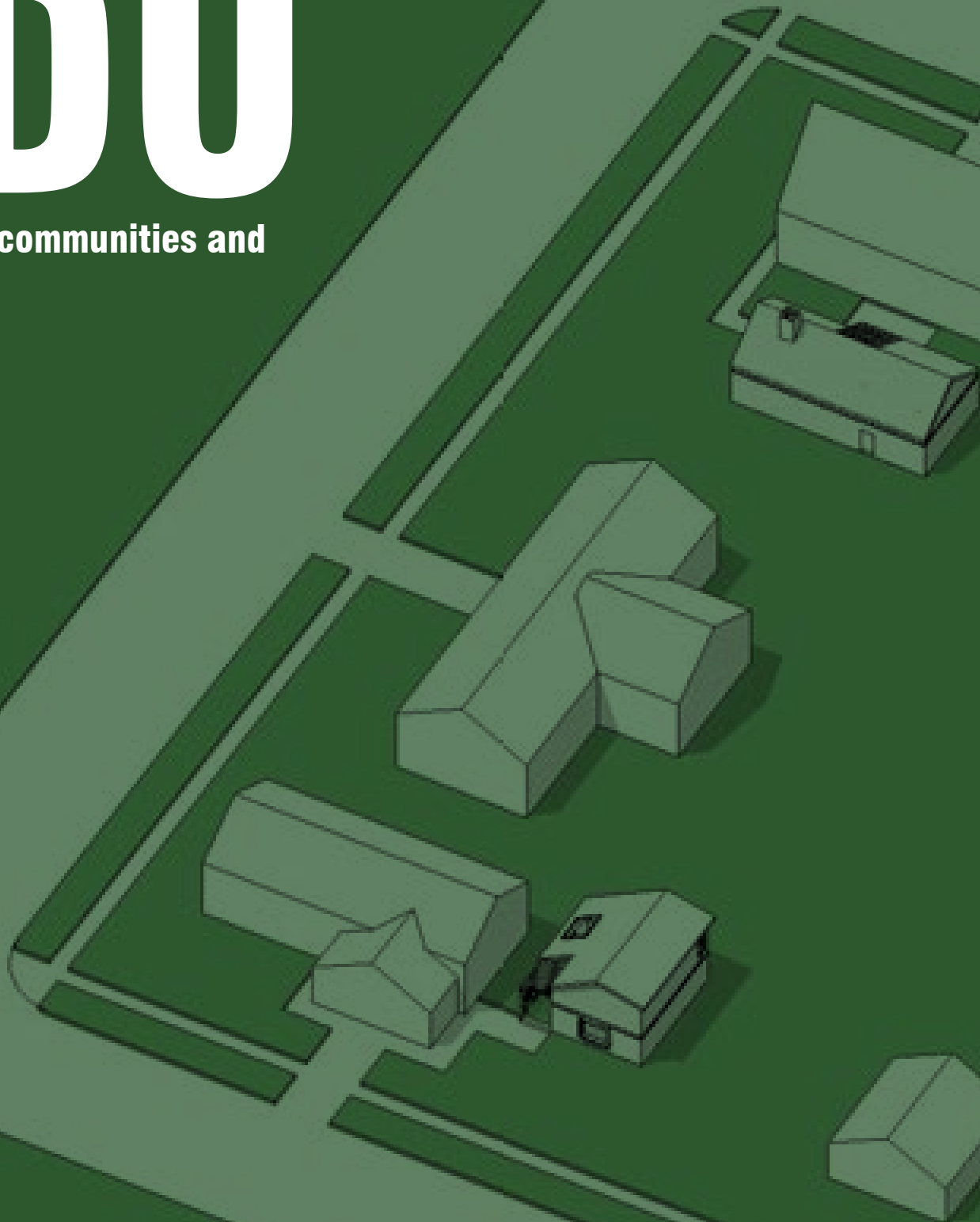


# FITTING IN: ADU

**prototypes for communities and  
individuals**

TEAM: JUDSON  
Elisa Arce  
Dominic LoGalbo  
Rebecca Rickert



# contents.

removing barriers.....	3
design intention.....	4
site design.....	5
design A - Multi-Generational Prototype.....	6
design B - Rental Prototype.....	10
design C - Small Lot Prototype.....	14
design D - Garage Prototype.....	18

# introduction.

Accessory Dwelling Units (ADUs) provide significant benefits to a community, property owners, and residents. ADUs expand housing options allowing seniors, service providers, teachers, civil servants, and vulnerable populations to live in the community they know and serve. For property owners, ADUs allow for multi-generational families to live close to and support each other as well as provide opportunities to build wealth. Residents have more affordable housing options that allow them to live near family and work.

Despite these benefits, some communities are unsure about the impact ADUs may have on their neighborhood and quality of life. To build public confidence in and support for the idea, designers and community leaders need to provide a full vision of how ADUs work – demonstrating the benefits while also addressing common concerns. When designed properly, ADUs can provide a positive living environment for residents and enhance the physical and social fabric of a neighborhood. This proposal attempts how the careful design of an ADU can do just that.

Regardless of the size, shape or type of housing, all of us want our home to support the way we live while providing a sense of delight and comfort. This proposal considers several design elements that meet the physical and emotional needs of residents.

# removing barriers.

Many people that see the benefits of ADUs may not pursue building one because they fear the process. The complexity of design, permitting, construction all can be a barrier to ADU production. A community, however, can provide expertise and simplify the process.

## **Cost**

Many people choose to build an ADU and rent it out as a source of income. A community can provide educational opportunities for residents that include financial tools and rental income.

Specific cost reduction suggestions include:

- Allow submeters for domestic water and electricity so that existing utilities can be extended to the ADU and avoid the cost of new utility services.
- Reduce construction permit fees and review time by allowing prequalified architects to self-certify that building plans comply with zoning and building codes.
- Eliminate construction permit fees and review time with automatic approval of prototype ADU designs created in conjunction with a licensed architect and the building code official.
- Reduce or eliminate parking off-site parking requirements for ADU units especially in locations within ¼ mile of a public transportation route.

## **Expertise**

Another barrier to residents creating ADUs is the fear of the process of planning, permitting, bidding and building. Communities can minimize this barrier by simplifying some steps of the development process.

Specific recommendations include:

- Create a pool of pre-qualified architects and contractors that have the expertise, insurance, and bonding capacity that property owners can choose from with confidence.
- Provide financial templates and educational opportunities that demonstrate to property owners how to develop a project that will produce positive cash flow.
- Develop realistic timelines and checklists for property owners to help them navigate the process without missing key steps.
- Create cohorts of property owners that can work through the development process together with guidance from municipal staff.

# design intention.



## privacy

Our home sometimes needs to be our refuge. A place where we can disconnect from our busy public life and be with the people and things that we value most. In a small dwelling, creating the privacy we need to focus on the important things can be a challenge. The ADU maintains privacy by providing access and daylight while screening views. The entry is pulled back from the perimeter and out of the direct view of neighbors. A small patio provides a threshold where the public and the private can interact without disrupting either.



## light

Regular exposure to daylight is essential for our physical and emotional well-being. In a small house with close neighbors providing access to daylight while maintaining privacy requires thoughtful planning. The ADU locates windows in the private areas of the house in a way to minimize the view in while allowing light to enter. The bedroom window is set back from the façade. The bathroom window is located high on the wall above regular sight lines. A skylight brings daylight into the center of the home creating a balance of light without harsh contrast.



## adaptability

Our dwellings need to adapt to the changing needs of a person or family. Our homes need to support us as we face changes in our physical mobility, how and where we earn our living, and even our hobbies and interests. The ADU provides this flexibility by including spaces of different sizes, orientation, and privacy. Small work areas are focused away from shared spaces creating a degree of both physical and perceived separation needed for focused work. A seat wall in the dining area can seat a few guests or a single person reading a book with a cup of coffee. The variety of space sizes and types allows the ADU to adapt to our changing needs.

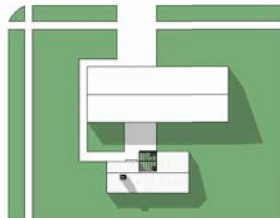
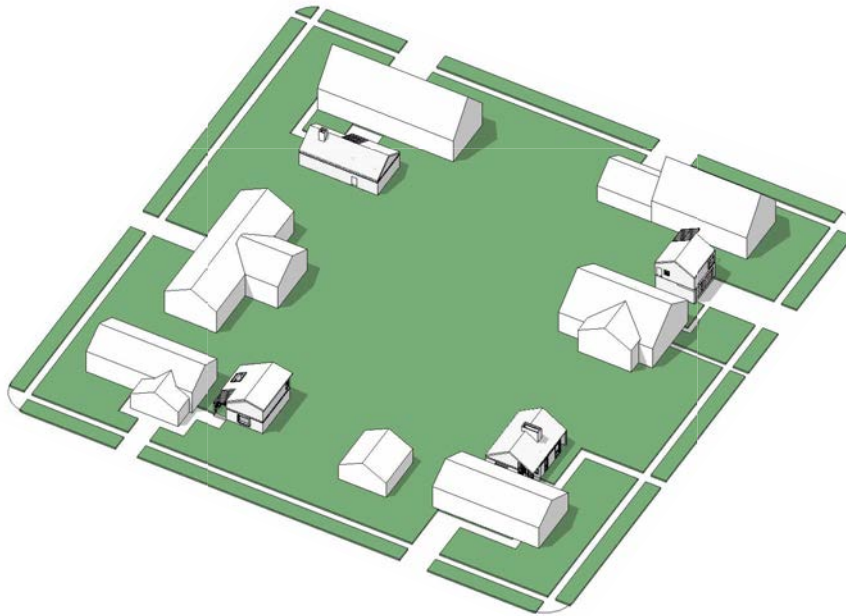


## personalization

For the place we live to become a home, we need to see and feel that it is truly ours. We need to be embraced by the people and things that shape who we are. To support this connection the ADU includes several open screen walls that can hold images and objects. We can embed the things that make us happy, help us remember, or encourage us everywhere in the house – making it feel like it is our own.

# site design.

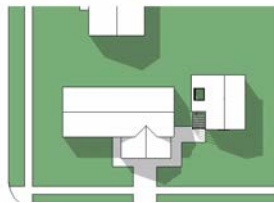
Part of “fitting in” is developing ADU prototypes that work with the physical context of the community they will live in. The residential core of Altoona is based on a typical block size, parcel size, and existing home sizes. We have developed multiple ADU prototypes that fit within these common sizes. In addition, corner lots provide flexibility in ADU design as they support access from two directions.



**A Multigenerational Prototype**  
For existing house with lateral massing, emphasizes shared outdoor space for all generations.



**B Rental Prototype**  
Privacy for both renter and owner is preserved with a perpendicular orientation and recessed entry/windows.



**C Small Lot Prototype**  
For parcels with limited free area, a loft prototype provides full living spaces in a smaller footprint



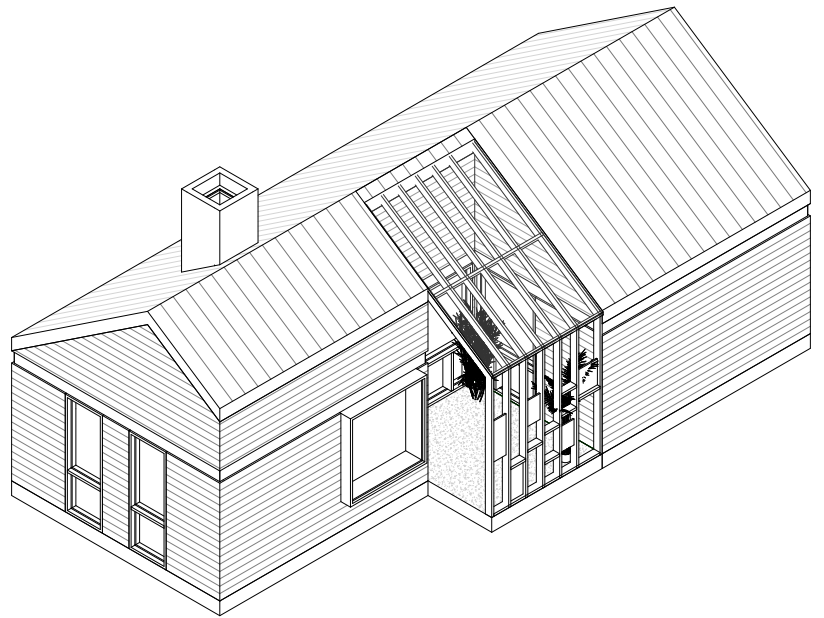
**D Garage Prototype**  
For parcels with limited rear yard space, places the ADU above an existing garage.

# design A

## 800 sf ADU

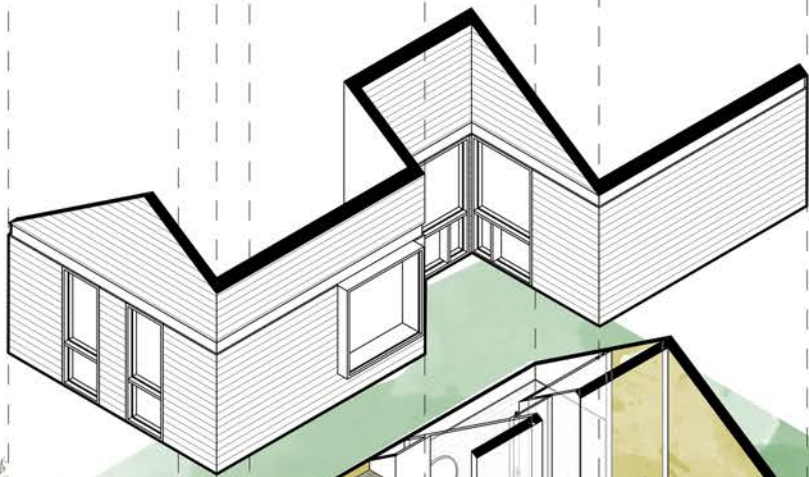
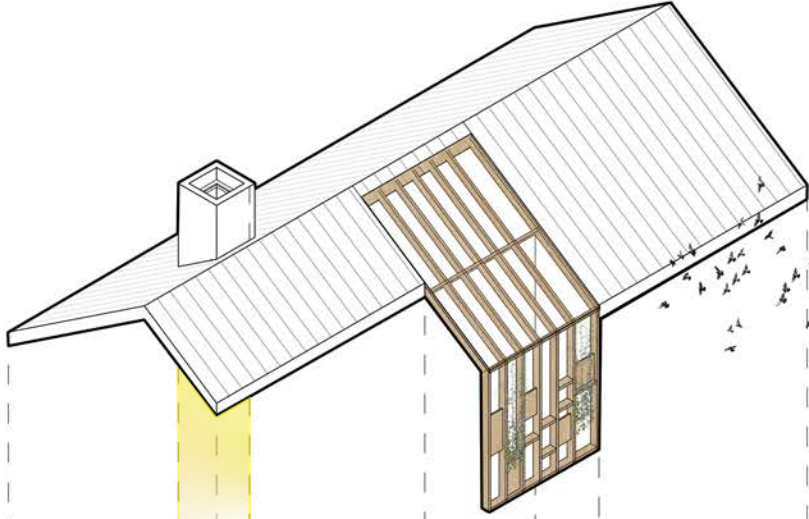
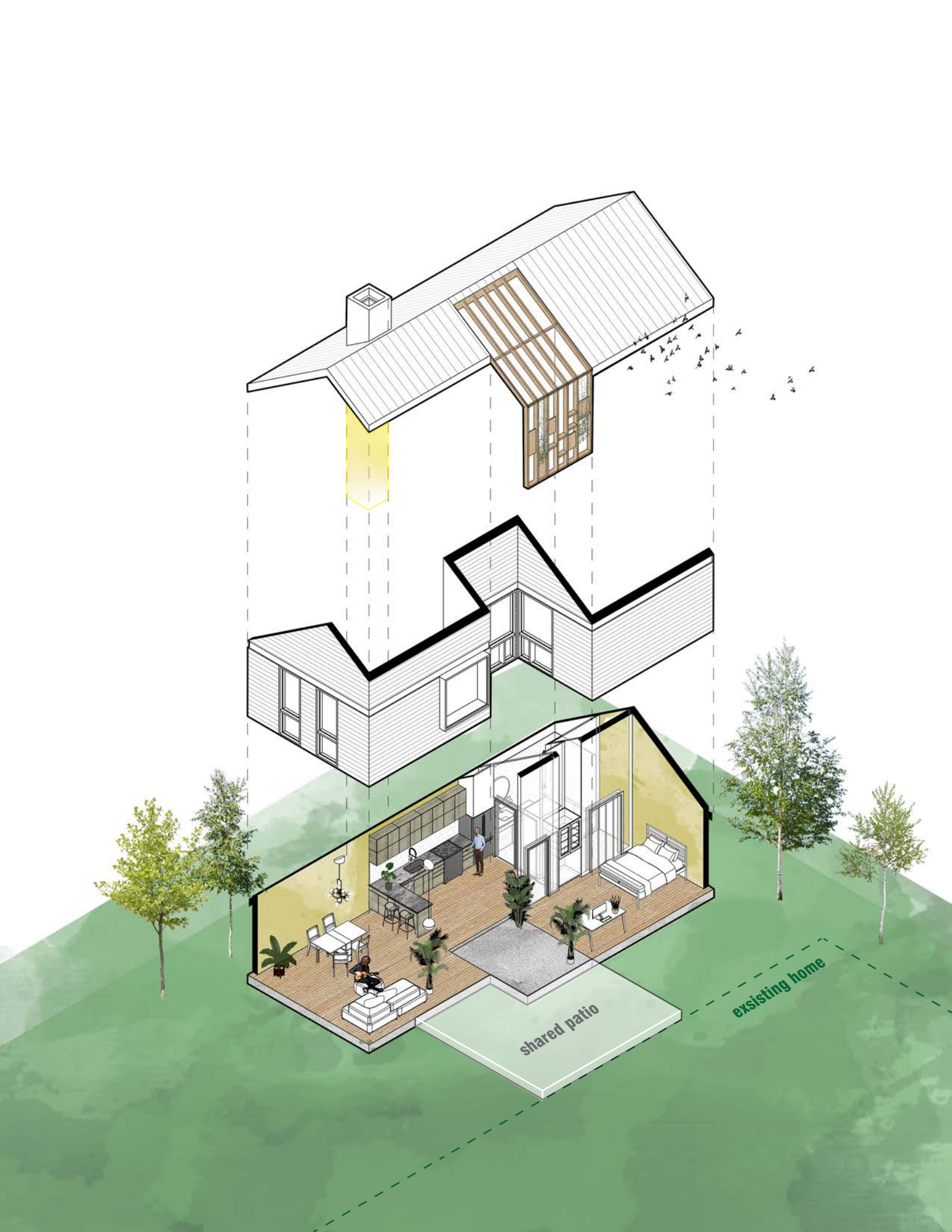
### Multi-Generational Prototype

This prototype supports a tenant that is related to the property owner. The longer proportion of this prototype allows for it to be set back from the existing house to create a shared outdoor space. The patio becomes a meeting place for the two generations to gather.



Floor Plan lvl1  
Scale: 1/8" = 1' - 0"





shared patio

existing home







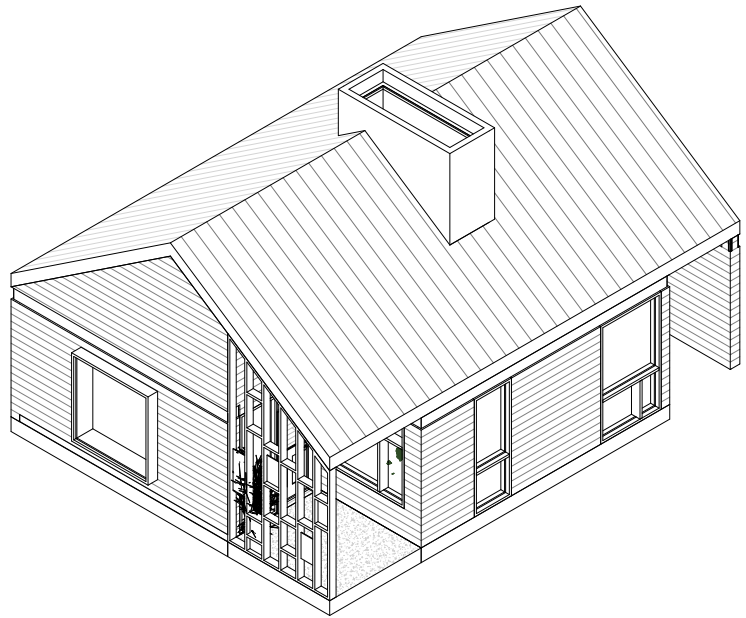


# design B

## 800 sf ADU

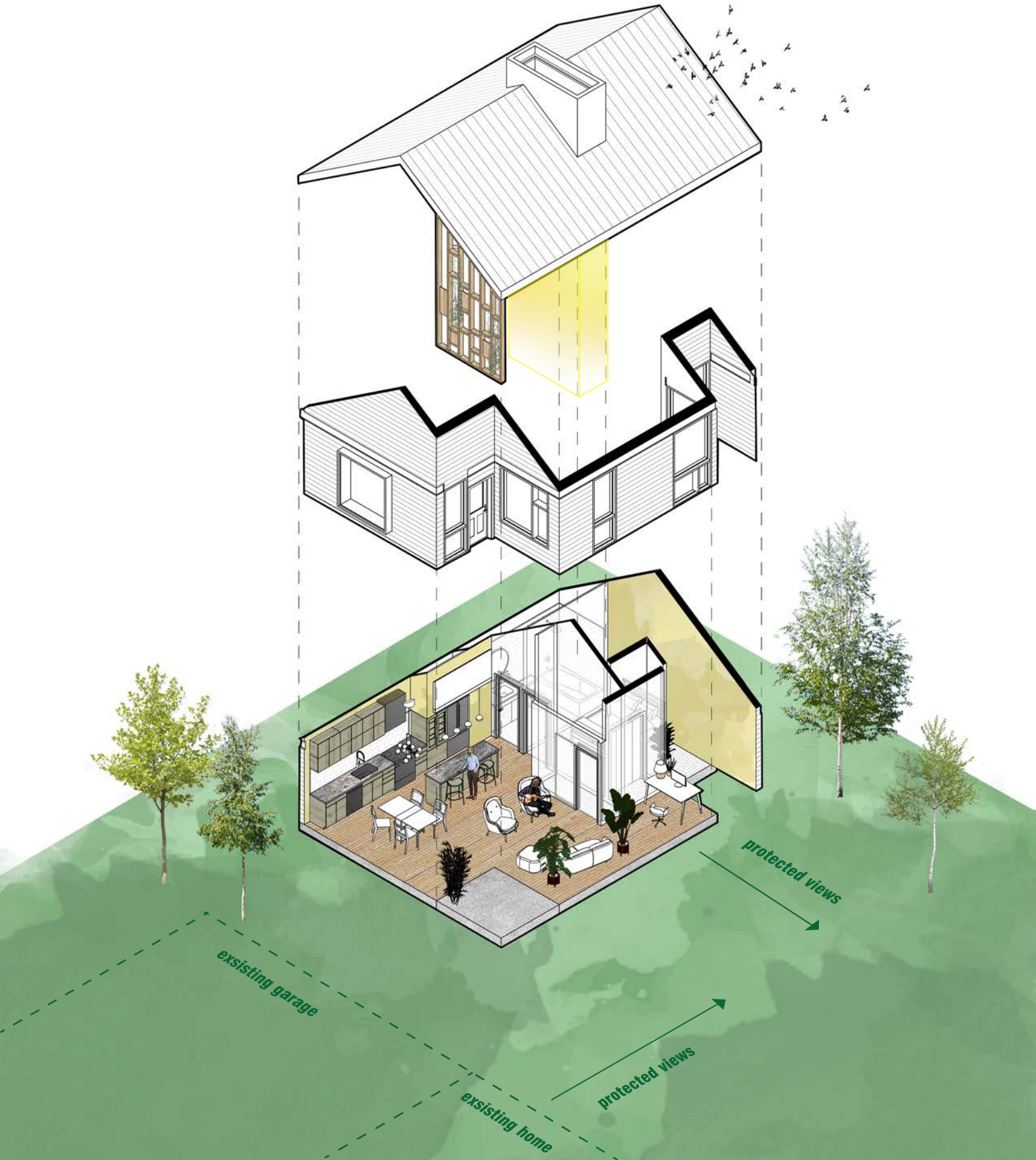
### Rental Prototype

The shorter length of this prototype allows it to be placed perpendicular the original house on the site. Because the ADU and the main house are oriented in different directions, they both can capture the view and daylight from the rear yard without while maintaining the privacy of each unit.



Floor Plan lvl1  
Scale: 1/8" = 1' - 0"









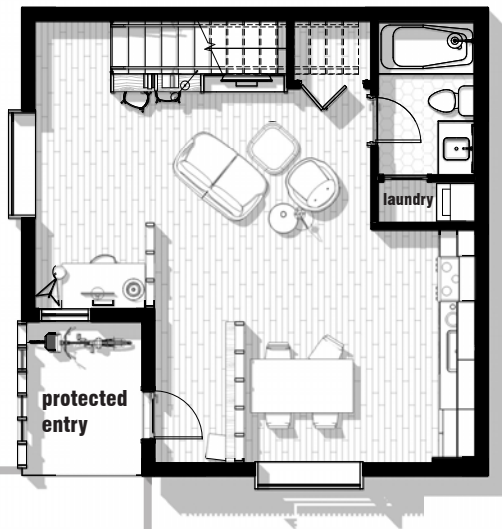
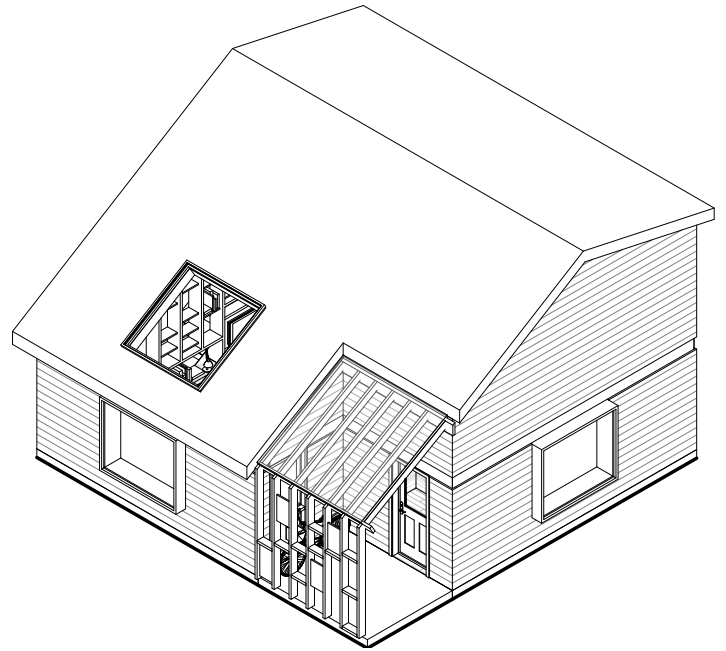


# design C

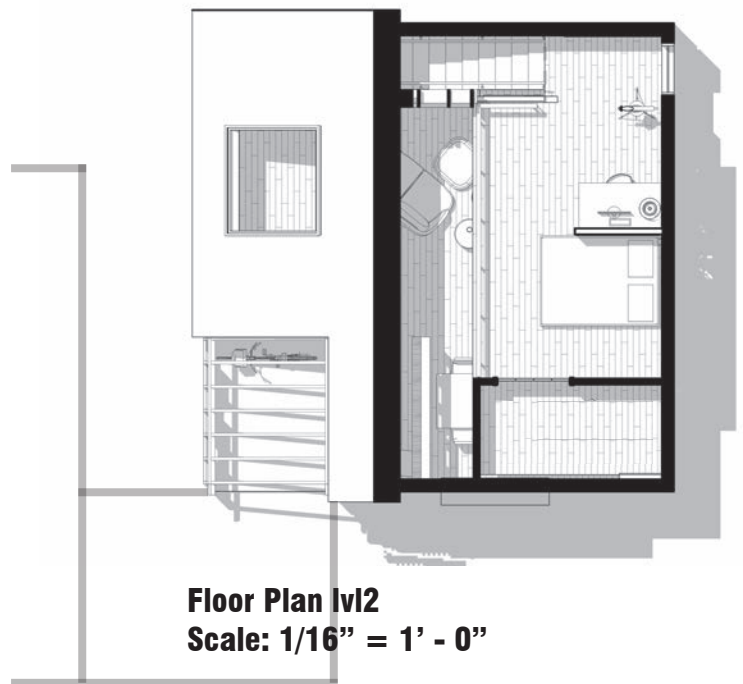
## 700 sf ADU

### Small Lot Prototype

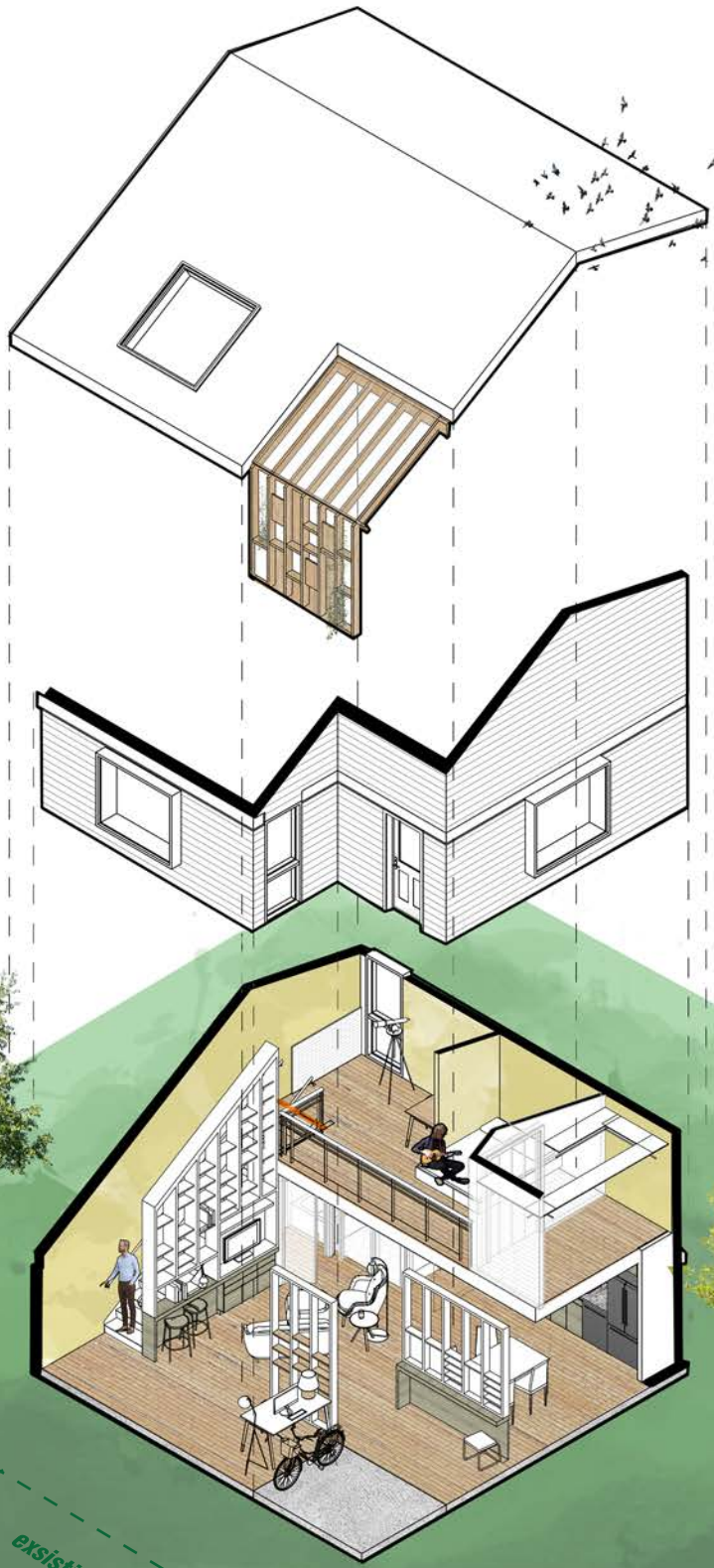
The compact footprint of this prototype allows for the ADU to fit within a smaller lot. Whether the back yard is impacted by a garage, large tree, or a larger main house, this prototype is able to provide a quality living environment.



**Floor Plan lvl1**  
Scale: 1/16" = 1' - 0"

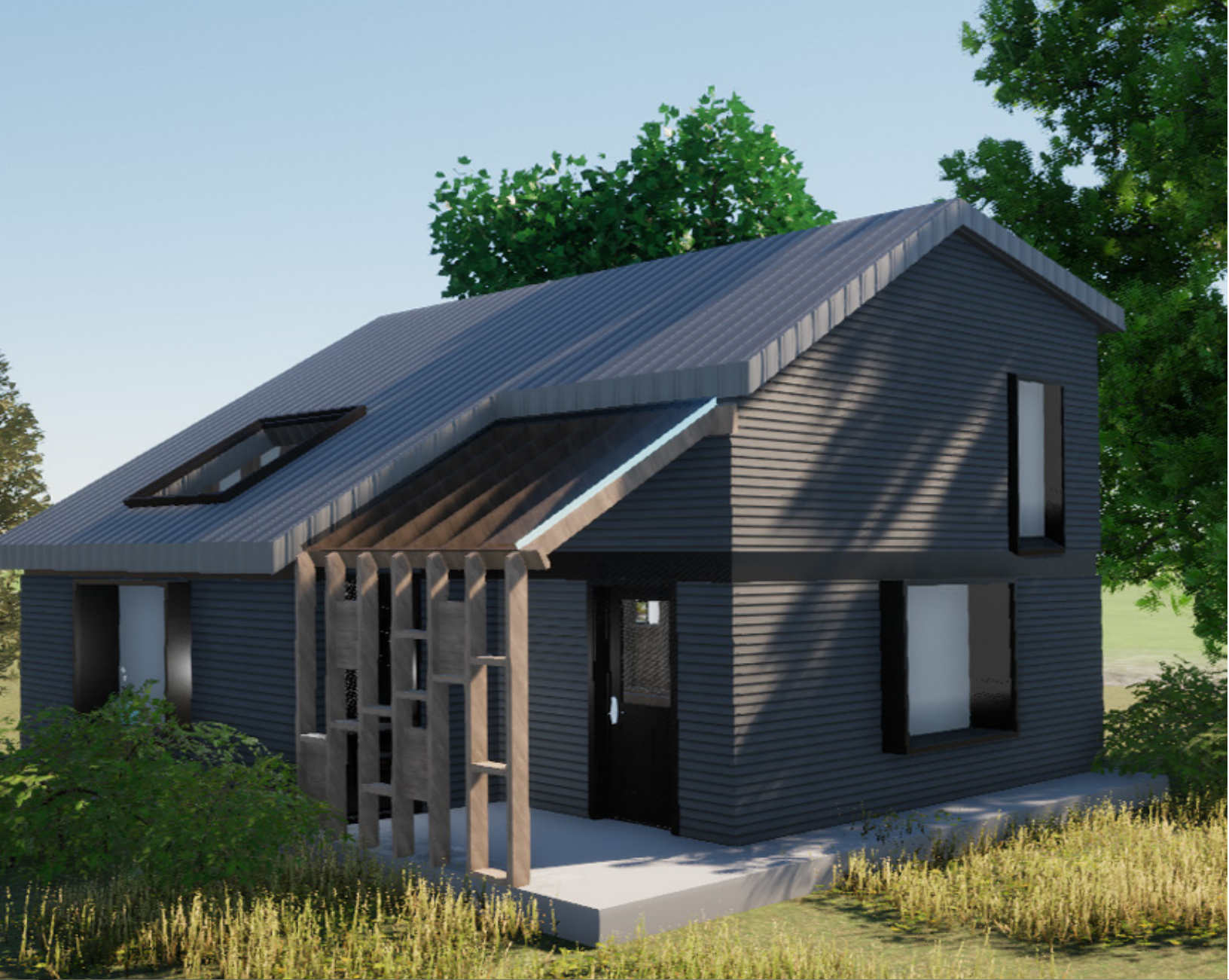


**Floor Plan lvl2**  
Scale: 1/16" = 1' - 0"



*existing home*







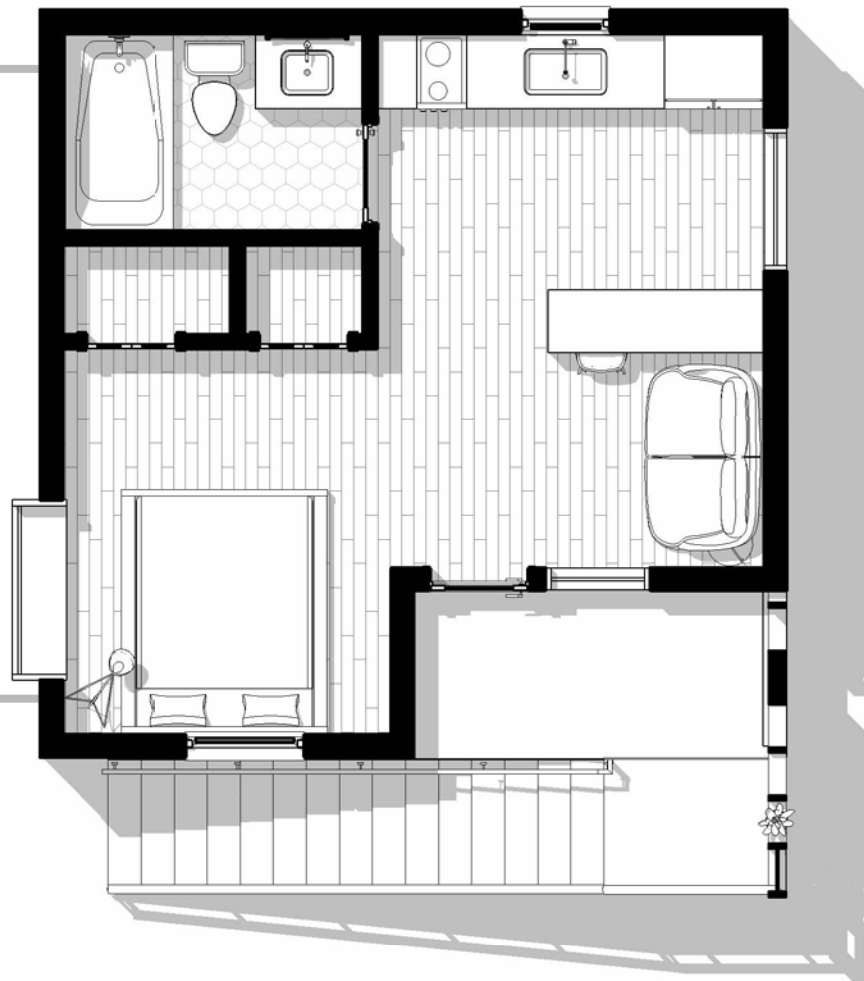
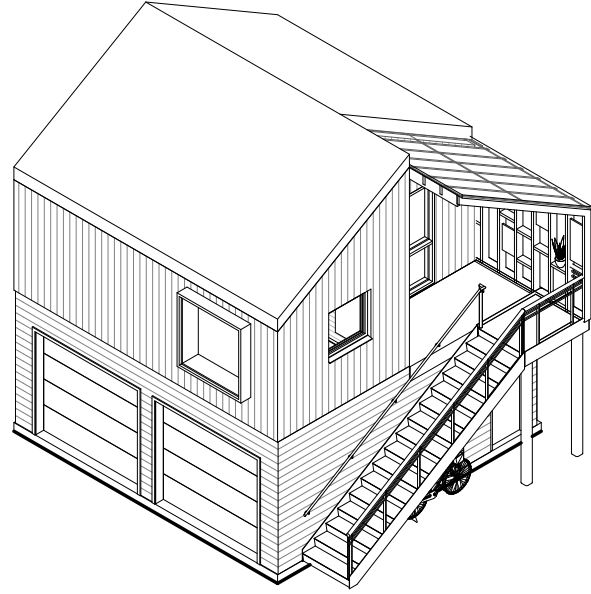


# design D

## 400 sf ADU

### Garage Prototype

The garage prototype places the ADU on top of an existing or new garage. On a parcel with a small back yard, this option allows for the unit to be constructed while keeping the windows of the existing house to remain clear. The garage prototype also provides an addition option that minimizes the disruption to daily life in the main house.



**Floor Plan lvl1 (above garage)**  
**Scale: 1/8" = 1' - 0"**

