



Project description:

The project proposes a 978 square foot two story, three bedroom and two bath DADU that addresses the housing needs of large families.

Perspective
Not to scale

Project narrative

The project is designed to address the housing needs of large Seattle families. The home provides three bedrooms that are identical in size and layout for a single occupant or a couple. A bathroom and laundry space on each floor will create efficient and equitable bathing and the washing of clothes.

The project also explores the use of sleeping cabinets (or "cubbies") as a means of providing private sleeping space within a dense living space. Each bedroom is convertible into a space with two sleeping cubbies. I've illustrated this on several of the pages which follow.

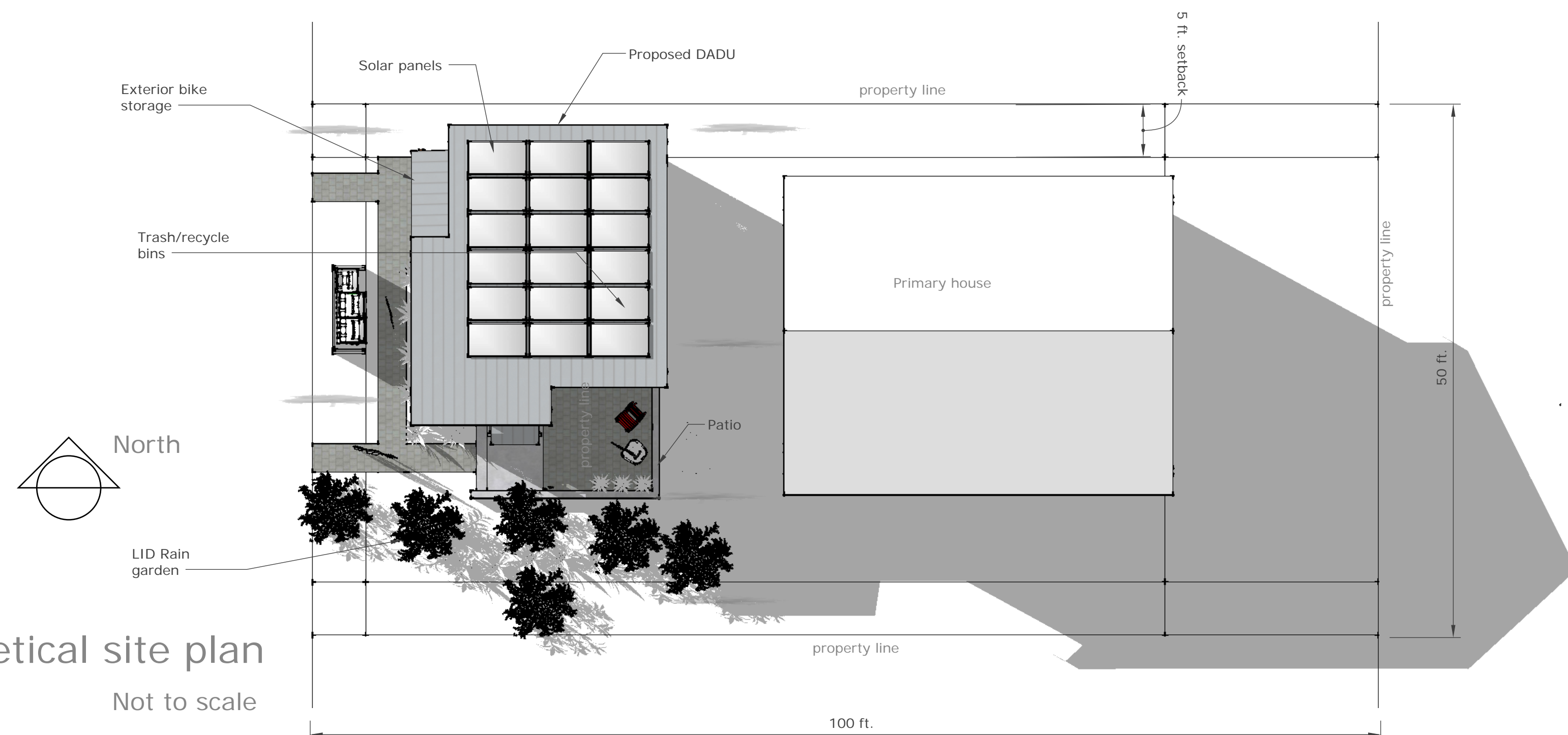
The house design is modern in style and fits with contemporary architecture that has been built in the city in recent years.

The primary exterior focus of the home is a patio space which would act as a kind of exterior social or "overflow" space for the inhabitants -- where they can possibly entertain or have time to themselves.

Solar panels are planned for the rooftop. A covered exterior bike storage area is illustrated for the back side of the building. Rain gardens are planned for the yard to deal with stormwater on-site.

Privacy is addressed through minimal windows on the side of the DADU facing the primary house on the lot.

Cost reduction measures, constructability, as well as sustainable design strategies have been taken into consideration and are discussed in detail on Sheet A8.



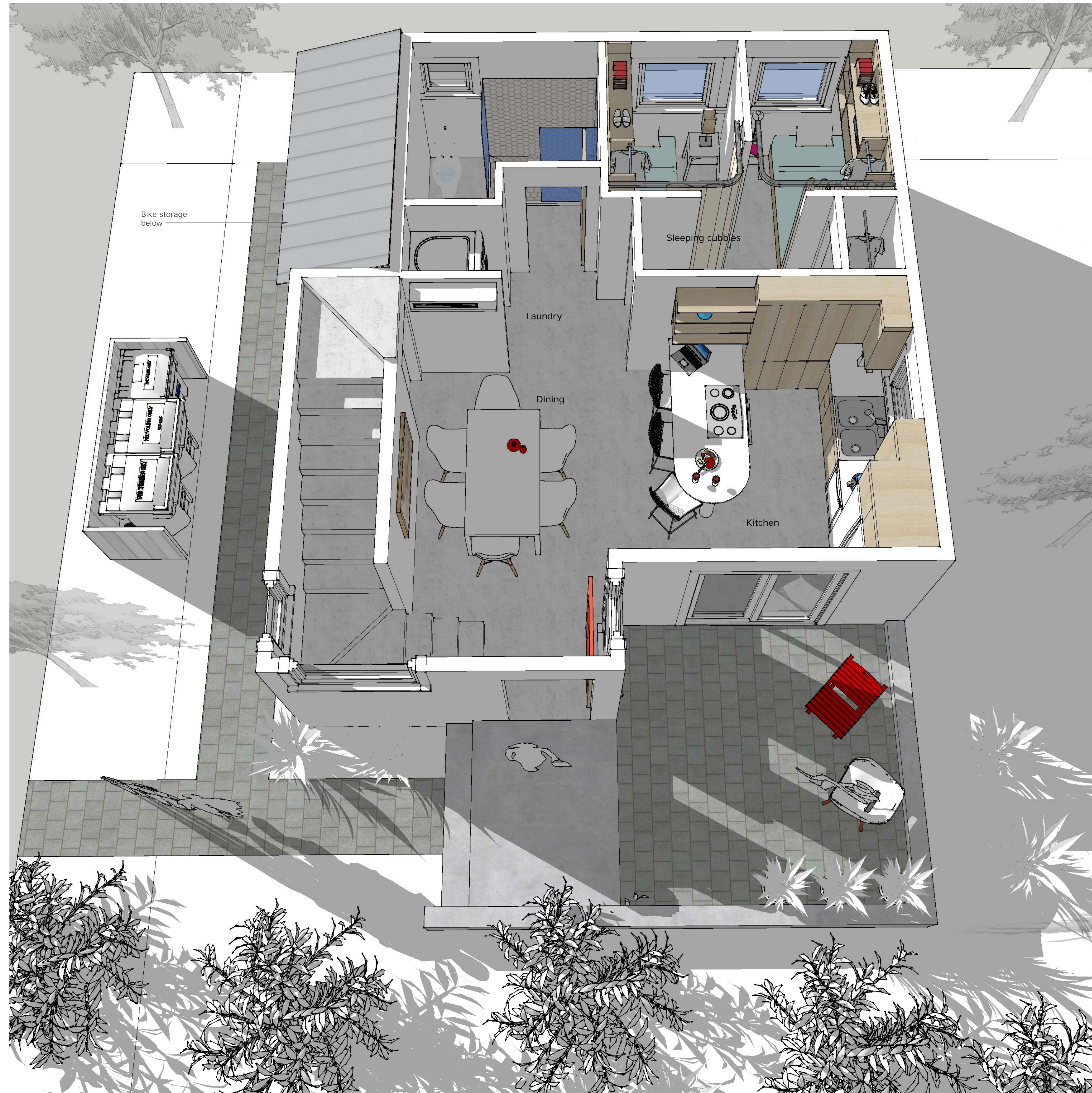
Theoretical site plan
Not to scale

Site perspective

Large Family DADU

A2

City of Seattle
D.A.D.U. PLANS



17th Century raised box bed.
Painting by Pieter de Hooch, 1658 -
1660, Dutch

First floor plan perspective

Not to scale



Capsule Hotel, Japan. Micro sleeping spaces.

Second floor plan perspective

Not to scale

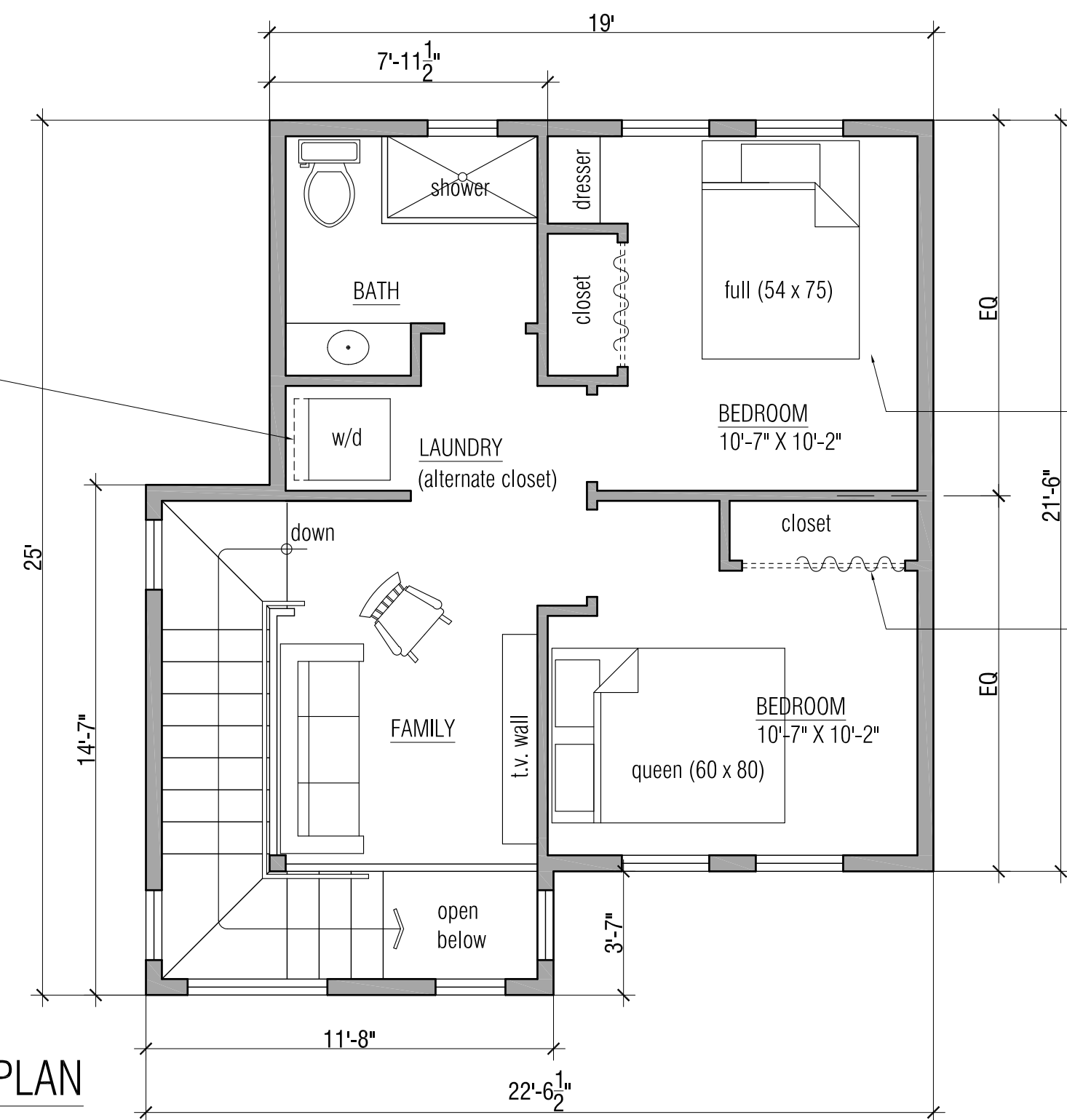
Large family DADU

A4

City of Seattle
D.A.D.U. PLANS

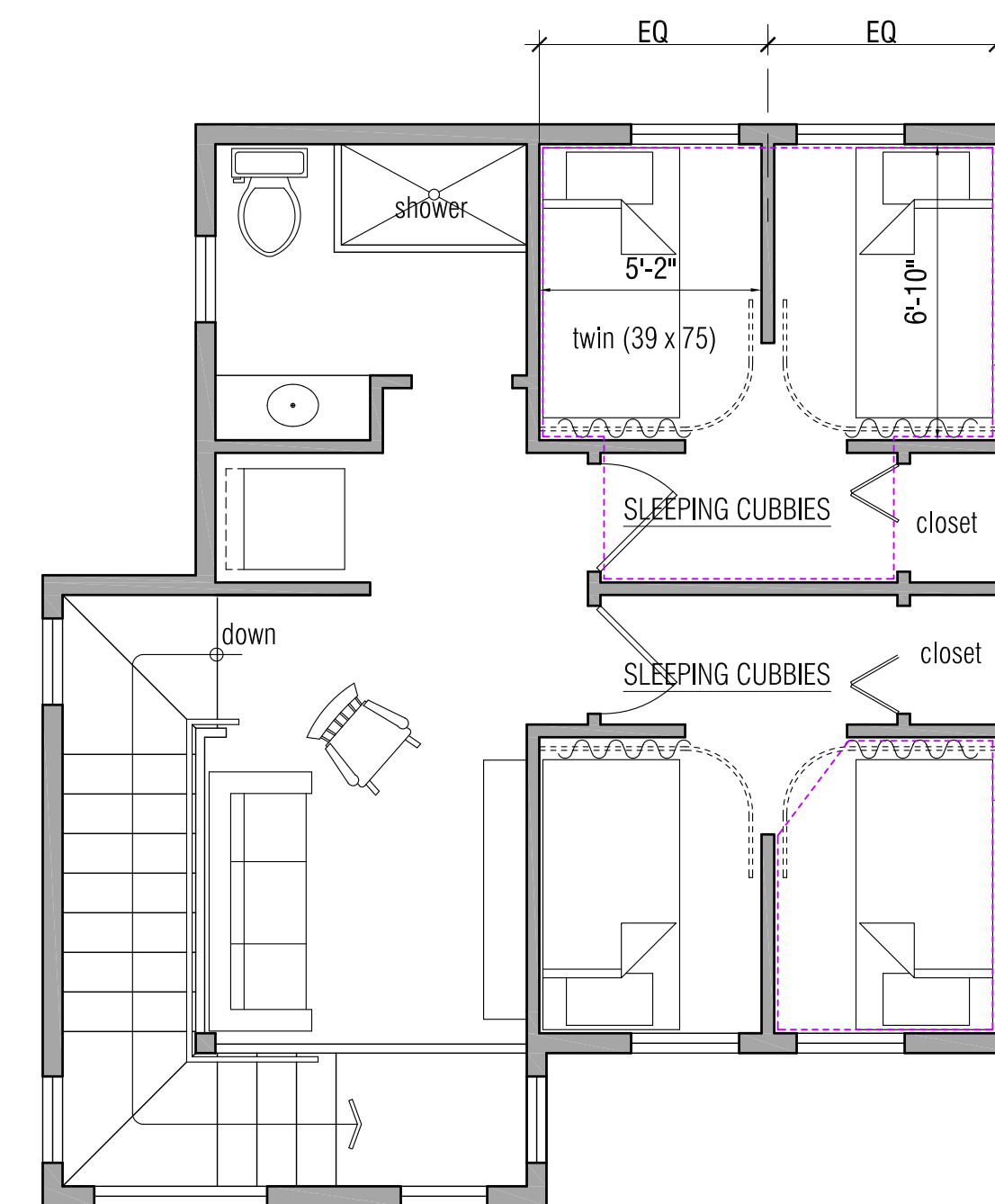
I've included two washer/dryer locations in the house (one on each level). This seems like a good strategy in a large household. Homeowners may opt for a single unit in order to gain a bit more closet storage

UPPER FLOOR PLAN



Each of the three bedrooms is identical in dimension and each is sized so that it can be converted with two sleeping cubbies as illustrated.

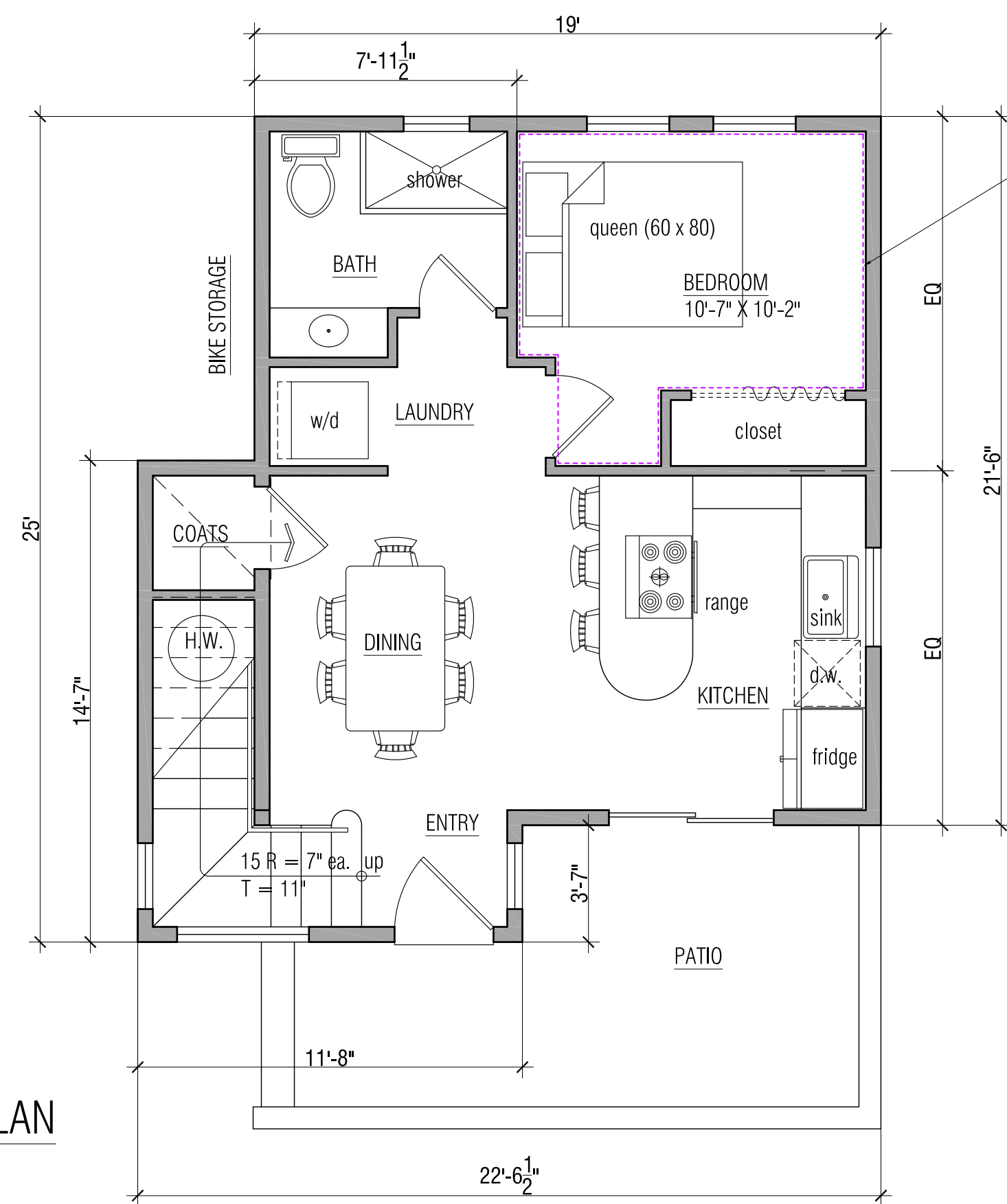
Rod & curtain at closets, typ. Improves access & conserves space (no out-swing)



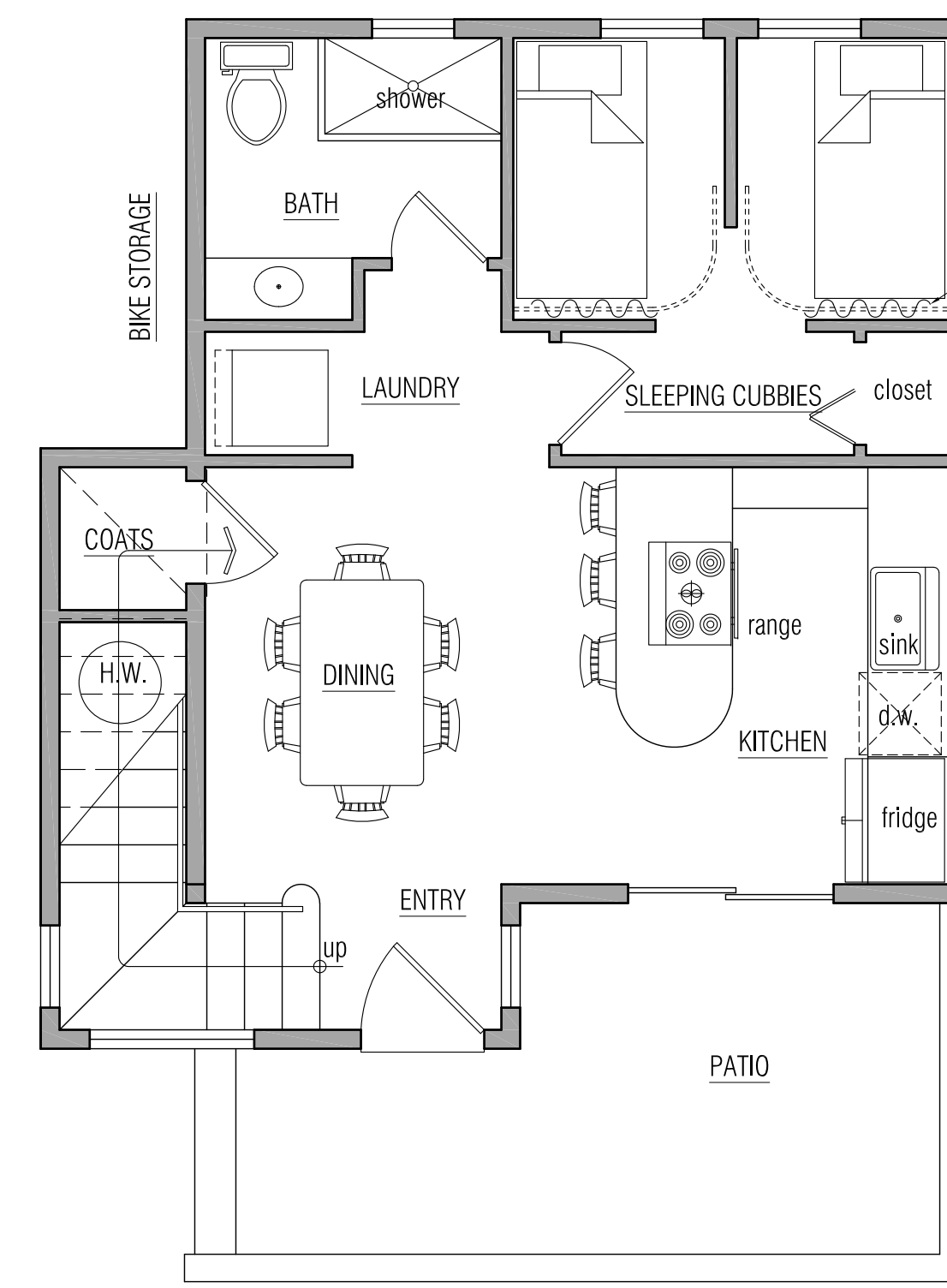
97 s.f. overall bedroom area w/ cubbies

33 s.f. personal space area with cubby

UPPER FLOOR PLAN (w/ sleeping cubby option)



89 s.f. typical bedroom area

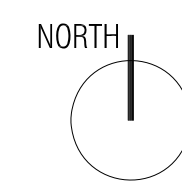


Privacy curtain w/ overhead track, typ.

MAIN FLOOR PLAN (w/ sleeping cubby option)

BUILDING AREAS:

- PROPOSED UPPER FLOOR (MEASURED TO EXTERIOR OF WALLS) = 489 S.F.
- PROPOSED MAIN FLOOR (MEASURED TO EXTERIOR OF WALLS) = 489 S.F.
- TOTAL FLOOR AREA PROPOSED = 978 S.F. < 1000 S.F. ALLOWED



MAIN FLOOR PLAN
1/4" = 1'-0"

THREE BEDROOM HOME W/ SLEEPING CUBBY OPTION FOR EACH BEDROOM

2/17/2020

p: 206.679.8025
eric@ericdennyarchitecture.com

eric denny
ARCHITECTURE

Large Family DADU



Jet Blue Airlines -- sleep while aloft

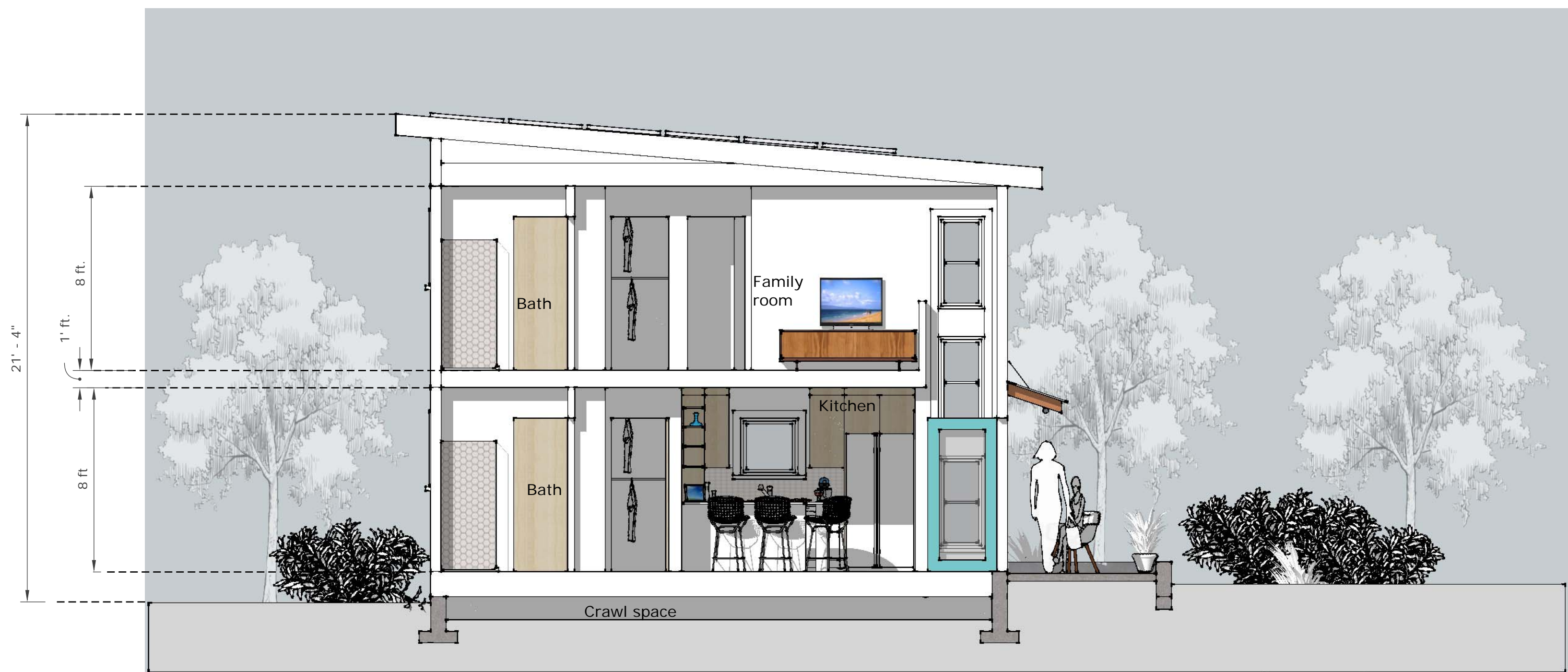
Sleeping cubbies -- Perspective

Not to scale

Large Family DADU

A6

City of Seattle
D.A.D.U. PLANS

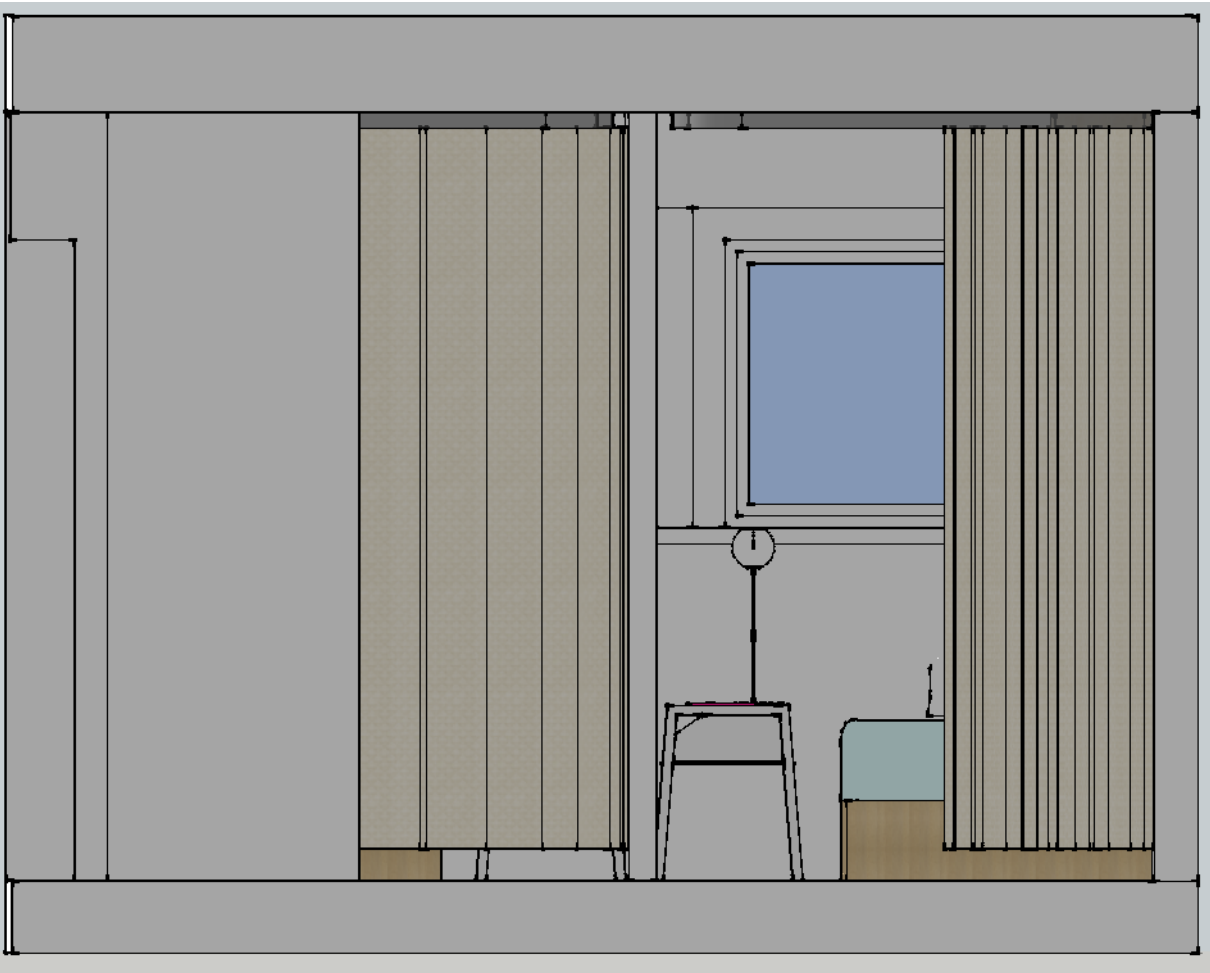
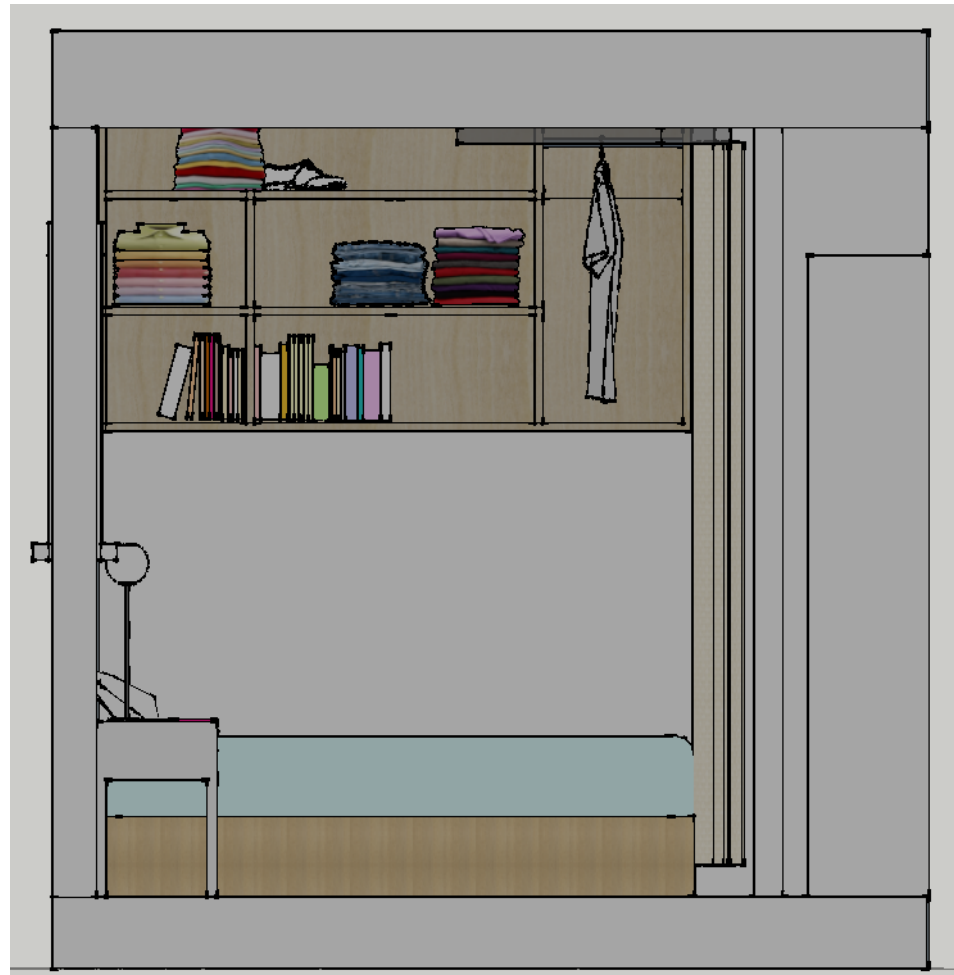


Building section A-A

Scale: 1/4" = 1 Ft.



Building section B-B



Sleeping cubby sections

Scale: 1/2" = 1 Ft.



Sleepbox Nap Lounge, micro hotel, Dulles International Airport



Elevation south
Scale: 1/4" = 1 Ft.



Elevation west



Elevation north



Elevation east

Large family DADU

A8

City of Seattle
D.A.D.U. PLANS

Built green design:

The project proposes to meet the Built Green standards for a 4-Star rated project. Sustainable strategies employed include the following:

- Energy Efficiency + Renewable Energy:** A 20% energy use improvement above current WA State Code is proposed for the project. Additional insulation is proposed as well as triple pane windows (if affordable). A high efficiency heat pump and mini-split system will heat the space. Solar panels are proposed for the roof.
- Site + Water:** Low-impact development (LID) is proposed as a strategy for managing on-site stormwater run-off. Water collected from impervious surfaces to be directed to a rain garden (subject to permeability testing) and/or a drywell system. The goal is to keep run-off on-site.
- Health + Air Quality:** A heat recovery ventilation system (HRV) is proposed to help maintain healthy indoor air quality while at the same time helping to save energy.
- Materials Efficiency + Green Materials Selection:** The materials needed for this project can be quantified in detail partly because it may be a repeat project and its all new construction (versus a remodel). This will improve construction efficiency and thereby help reduce construction waste. Where possible (and affordable) sustainable materials such as forest certified lumber and green interior finishes will be utilized. Exterior siding to be cement board siding such as Hardie lap and panel siding.

List of major materials:

Pre-fabricated wood walls, floors, and roof.

Hardie cement siding

Milgard vinyl or fiberglass windows

Standing seam metal roofing

MDF interior trim

Pre-manufactured cabinets

Linoleum and carpet flooring

List of mechanical systems:

Heat pump and mini-split system (one per floor) for heating and cooling

Heat recovery ventilation connected to household fans (kitchen, bath, laundry spaces)

On demand hot water (if gas is available). Hot water tank proposed if electric powered

Solar panels for electrical generation

Cost savings:

The project proposes to reduce construction cost through the following strategies:

- Pre-manufactured roof trusses and wall panels:** Pre-manufactured framing parts offer the advantage of speed and efficiency of construction over traditional stick framing. The project proposes that the DADU exterior shell be constructed with pre-manufactured wood stud walls and roof. This would allow the contractor or potentially the home owner to erect the exterior of the building quickly, efficiently, and with the confidence that the framed product matched the design that they purchased.

Pre-manufactured stud panels are a better approach than structurally insulated panels (SIPS) because they don't require trades-people (or homeowners) with specialized knowledge since they're installed and plumbed for mechanical, electrical and plumbing more like conventional wood framing.

Advantages of pre-manufactured wood components:

- Engineered solutions ensure quality and efficiency
- Components are designed and constructed per approved building codes
- Allow for faster installation and require less skilled labor
- Reduced jobsite waste
- Reduced cost, improved efficiency and speed
- Panels are assembled in a controlled environment, which provides consistent quality.

- Efficient project construction:** Contractors can save project money (and thereby offer savings to their clients) by working more efficiently. Because this type of project is new construction and because it is potentially a repeat kind of project, all of the material and labor can be easily quantified. This offers contractors the opportunity to avoid cost overruns and stay on budget and this in turn offers homeowners more confidence and assurance that their DADU project is more likely to be on-time and on budget.

The primary reasons for cost overruns are: inaccurate project estimates, design errors, change orders, admin. errors and poor site management. These can be addressed with a project such as this because it is a small project and because material quantities will be defined in detail as a part of the design. As a part of the permit/construction document phase (if accepted) all materials for this project will be listed in detail for efficient costing.

This project differs somewhat from conventional architect design and the contractor build projects in that consumers are purchasing a pre-designed product up front. This means that there are fewer unknowns which should give both builder and homeowner increased assurance that project costing can be more accurately anticipated from the get-go. The added security that this provides should mean that contractors should be more comfortable offering meaningful price reductions.

Cost estimate:

PROJECT COST ESTIMATE TABLE

CONSTRUCTION ITEM:	PROJECTED COST:
General conditions	unknown
Site work	unknown
Concrete	\$30,000
Carpentry (pre-manufactured wood panels)	\$65,000
Finish carpentry	\$10,000
Cabinetry	\$20,000
Insulation	\$10,000
Exterior cladding + roofing	\$60,000
Windows + doors	\$35,000
Drywall	\$40,000
Floor + wall finishes	\$30,000
Painting	\$30,000
Bath + kitchen specialties	\$20,000
Mechanical + plumbing	\$35,000
Electrical	\$30,000

TOTAL (building only) COST ESTIMATE: \$385,000