

# Freedom POD dWELLing Collection

A Healthy Barrier-Free and Accessible Home for All

### **Categories**

Accessible DADU Small Footprint DADU Low-Cost DADU

# **Project Description**

The Freedom POD is a small DADU designed for comfortable barrier-free living and, when needed, ready for high-level care giving for disabled or elder residents. Family can truly age-in-place through hospice in this home.

The Freedom Pod has been vetted and certified by the Veteran's Association for a housing grant for disabled veterans to live independently. Exacting ADA standards have been applied. The energy-efficient structure and maintenance-free exterior, all chosen for a healthy environment, are designed for LEED and Built-Green Certification. We consider this the minimum standard for this home as it intends to be nurturing and sustainable in all ways.

The Pod DADU enables other lives and uses until assistance may one day be needed. Options include use as a rental guesthouse or home office/business. The simple open design provides maximum flexibility by using modular furnishings as interior walls.

# FREEDOM POD DADU

### **ACCESSIBLE FEATURES**

- Zero ht. threshhold at entry.
- Wide doorways (36") and sliding doors with lever handles
- Modular furniture for flexibility
- European-style wet-room bath w/ wall-mounted fixtures, curbless shower, 5' turn radius
- Kitchen and laundry area are approachable to wheelchairs. Buildout can include lower work hts and knee space.

### PROJECT STATS

Land Use Type: DADU or SFE

Building Type: SIPS construction on foundation Details: Studio home with one bath

Net Living Area: 320 sf Total Footprint: 360 sf

### TABLE OF CONTENTS

Cover and Project Information	. '
Floor Plan / Project Narrative	. 2
Elevations	. ;
Elevations	. 4
Sections	. (
Sections / Bldg System	. (
Images	. 7
Options	
•	



Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686 merrill@greenpod.design 425.280.3776

SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

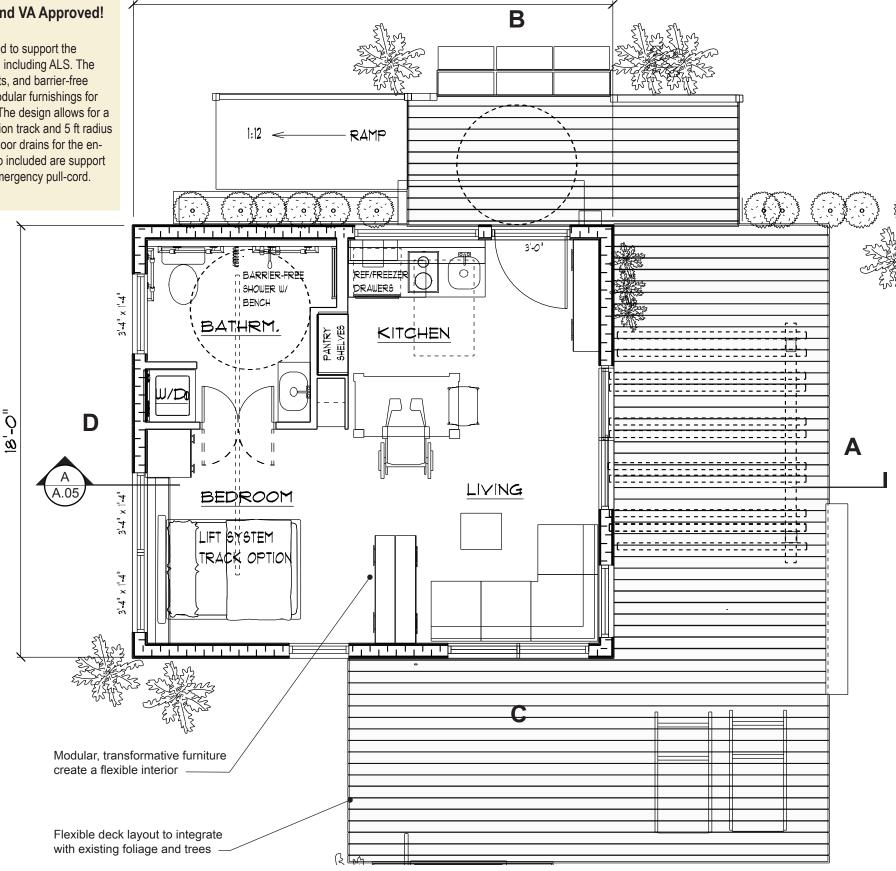
SCALE:

Cover

General Project Information

1

© 2020 Greenpod Development LLC All Rights Reserved This home is designed to support the highest level of need, including ALS. The 4 ft wide aisles. 2 exits, and barrier-free environment uses modular furnishings for flexible open space. The design allows for a ceiling lift & mobilization track and 5 ft radius bathroom with flush floor drains for the entire bathing area. Also included are support rails and a shower emergency pull-cord.



20'-0"

FLOOR PLAN 320 net sf.

Scale: 1/4" = 1'-0"

## **Project Narrative**

(LOW COST) The initial design was developed for an \$80,000 build budget per the VA certification requirements. (Building only) Labor and material cost to build may vary. We also offer a "shell option" design.

This home can be built so that the completed shell with SIP construction can be finalized by the Owner as a DIY. They will have an energy-efficient shell and the ability to take their time to complete the interior to suit their needs and budget.

(GREEN DESIGN) A system of pre-fabricated building components (SIPS panels) are constructed quickly with little neighborhood disturbances or site waste. Energy efficiency is enabled with the building envelope, simple HVAC systems and low-use fixtures. We are focused on the site planning and core home construction first, while providing direction for solar collectors, car charging, composting, greenhouse additions and bike storage to be implemented by the home-owner, when able, to further sustainable living.

(PRIVACY) The DADU design is applied to the site by rotating or mirroring the plan, ensuring easy access, sun tempering, and privacy. Lower windows can be shaded while the transoms provide ambient light. We landscape strategically to provide as much privacy as possible.

(CONTEXT) Roofline options, window grids and material/trim choices can be made to complement the existing residence and surrounding community at large.

(CULTURAL RESPONSIVENESS) Since cultural needs can be specific, this DADU allows for family to live near each other. The two door flexibility can provide room to open to outside spaces. The "L" sofa is a bed too.

(CONSTRUCTABILITY)See Bldg. Systems p.6.



**Greenpod Development LLC** 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design

merrill@greenpod.design 425.280.3776

SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

SCALE:

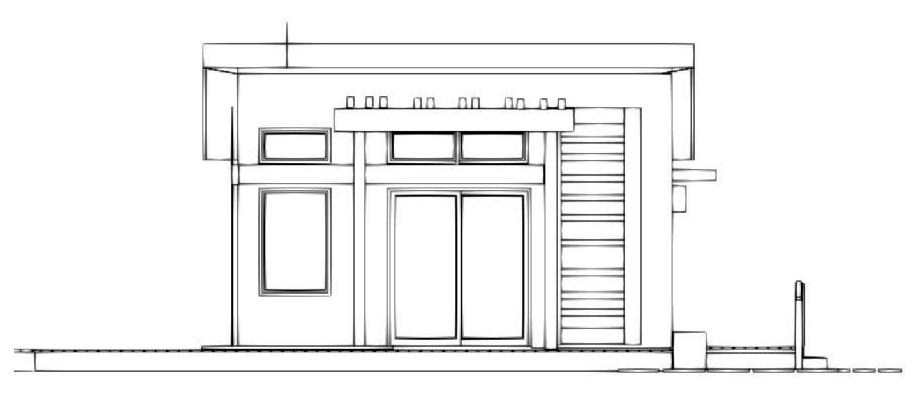
DADU

POD

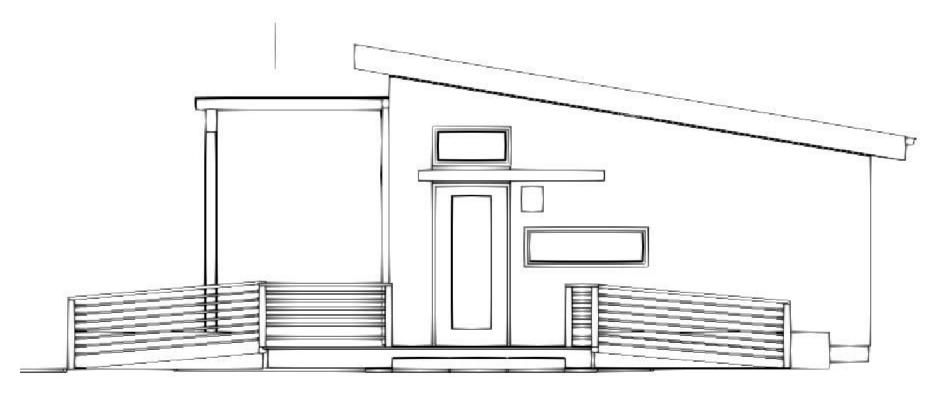
REEDOM

Floor Plan **Project Narrative** 

© 2020 Greenpod Development LLC



**ELEVATION A** Scale: 1/4" = 1'-0"



ELEVATION B Scale: 1/4" = 1'-0"



Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686

merrill@greenpod.design 425.280.3776

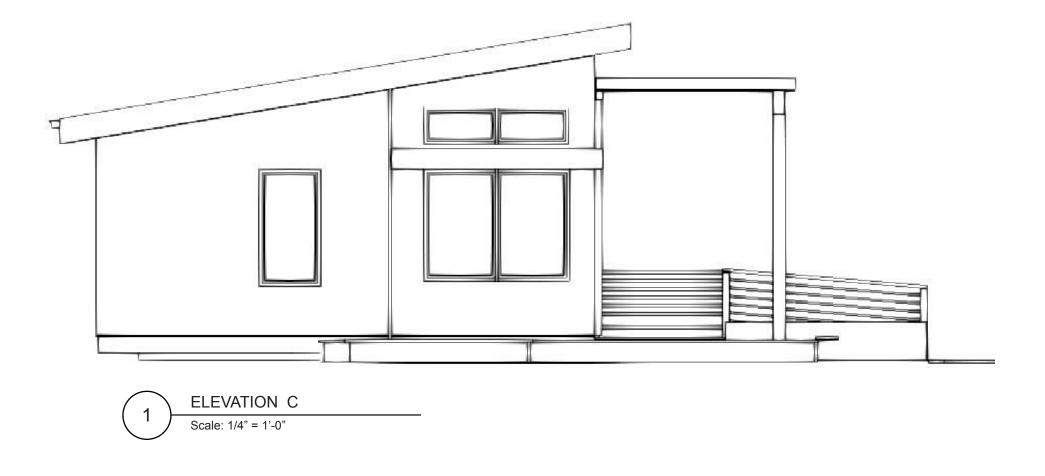
SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

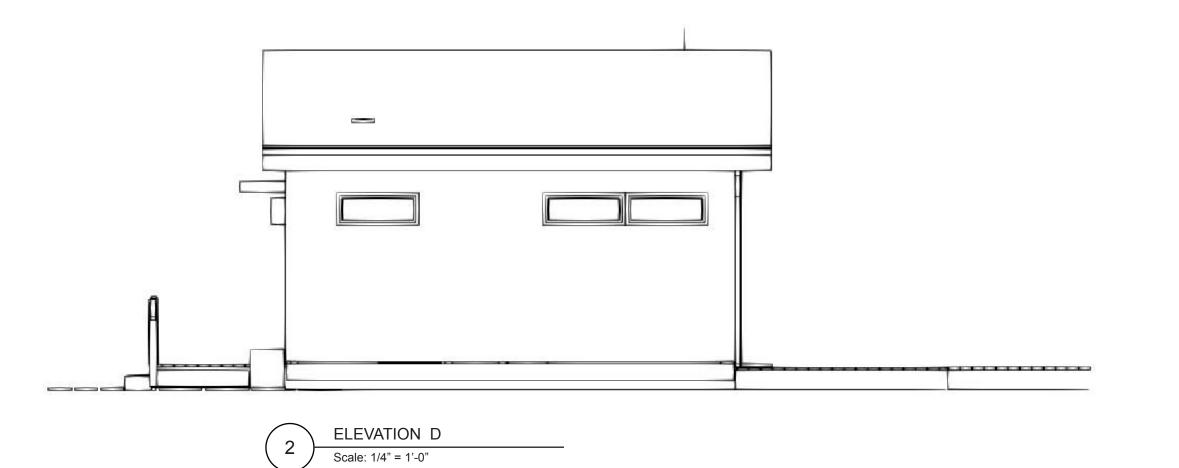
SCALE:

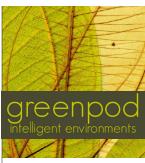
FREEDOM POD DADU

**ELEVATIONS** 

© 2020 Greenpod Development LLC All Rights Reserved







Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686 merrill@greenpod.design 425.280.3776

SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

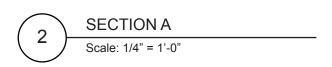
FREEDOM POD DADU

SCALE:

**ELEVATIONS** 

4

© 2020 Greenpod Development LLC All Rights Reserved





Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686 merrill@greenpod.design 425.280.3776

SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

SCALE:

FREEDOM POD DADU

SECTIONS

5

### **CORE BUILDING SYSTEM**

### **ENVELOPE**

SIP Construction is the core building system we recommend. This includes Graphite Structural Insulated Panels for wall, roof, and possibly floor panels depending on the foundation and site conditions. We rely on the rolled-on emulsion Enviro-Dri as an effective WRB. Cementitious siding and trim (often Hardi Color Plus) round out the low maintenance materials. For the interior, we apply gyp board or wood panels. Our goal is to simplify the construction process using quality materials that meet and exceed Built Green standards.

### **SIP Panels**

Structurally Insulated Panels (SIP) ensure a well-insulated and tight building envelope. The construction is stronger, and straighter with no off-gassing. The OSB sandwiched-filled cavities do not allow mold or rodents. The new GPS (graphite polystyrene) SIPS are made with BASFs Neopar which has earned the Greenguard gold certification and allows higher R-values. Panels built offsite and delivered just in time limit construction storage issues.

### **Enviro-Dri**

This WRB system is effective and permanent, protecting the sheathing from moisture and air infiltration. It requires no fasteners. It is part of the triple seal around the windows.

### **Windows and Doors**

Sierra Pacific Windows adhere to the environmental protection standards of the Sustainable Forestry Initiative® (SFI) and go beyond the forestry regulations in California and Washington - the highest standards in the world.

Andersen 100 Series budget-friendly windows and patio doors are available in rich colors and are made with our revolutionary Fibrex® composite material and can be painted.

### Roofing

Taylor Metal roofing, unlike other roofing material, is 100% recyclable at the end of their long life, with a minimum of 25% content in them already. Metal roofs are excellent insulators saving energy up to 40% and weigh less. The longevity is 40-60 years with a 40year paint warranty. They have a class A fire rating. Solar panels are compatible.

### **Siding and Trim**

HardiePlank® siding is made from natural and sustainable raw materials: cement, sand, wood fiber, and water. It has no asbestos, glass fibers, or formaldehyde, which makes it a safe building product as well. The materials are low in toxicity; therefore, it does not harm the environment.

### **INTERIORS**

All interior finishes are chosen to promote indoor air quality, avoiding any products that might out-gas volatile organic compounds. The fabrics and dyes are made from organic natural plant fibers, naturally antimicrobial, that won't support the growth of mildew or mold. Our open plans utilize modular furnishing and sliding walls/doors, using local craftsmen wherever possible.

### **COST CONSIDERATIONS**

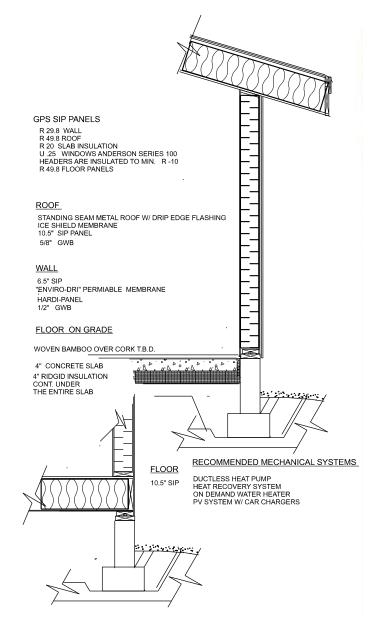
The SIP system is not the least expensive program in terms of building cost. We believe that as that system becomes ubiquitous in our area, the cost will come down and contractors will prefer their use. The preconfigured panels are up to 55% faster to install with no job waste. Traditional framing has 7 steps- SIP has 3. As time becomes more precious, these faster hybrid systems will become the standard, especially with the ever increasing demands of the Wa. State Energy Code.

### **Strategies to Reduce Cost to Build**

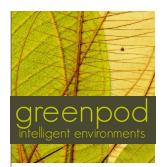
We design simple low maintenance, non-toxic and energy-efficient building shells and focus on the interior experience. Alot can be done inside with less expensive materials and creativity for less money. The owner attitude predicts the extent of a low cost solution.

### Other strategies include:

- Simplified building shell design will help contractors reduce the fear factor percentage on the job.
- Hand the completed building shell over to the Owner to complete DIY.
- Design with recycled or reused doors, cabinets and plumbing
- Pier foundation or Pin foundation might be a more cost effective solution on some site than monopour slabs and stem walls.
- Gang service & plumbing infrastructure in one area or along one wall.
- Source less expensive materials. Consider painting or troweling a finish directly on the OSB interior shell rather than use gyp board.
- Build in locations that are easily accessed, flat site, utility connections via the existing residence easier said than done.







Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686 merrill@greenpod.design 425.280.3776

FREEDOM POD DADU

SDCI Submission for Pre-Approved ADU Gallery February 17,

SCALE:

**BLDG SYSTEMS** 

6

© 2020 Greenpod Development LLC All Rights Reserved







Greenpod Development LLC 606 Roosevelt Street Port Townsend, Wa. 98368 ann@greenpod.design 360.301.9686 merrill@greenpod.design 425.280.3776

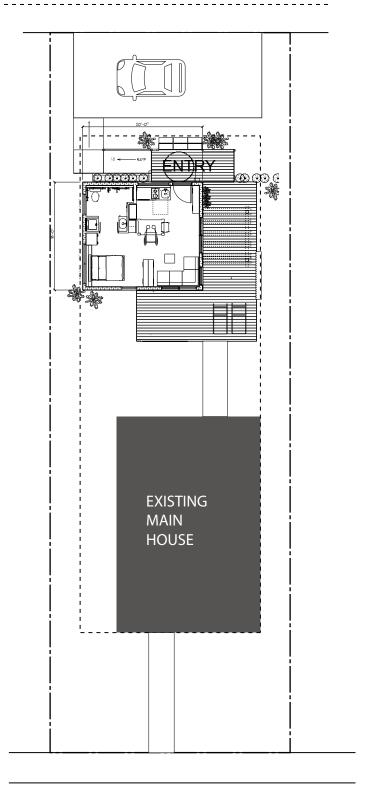
SDCI Submission for Pre-Approved ADU Gallery February 17, 2020

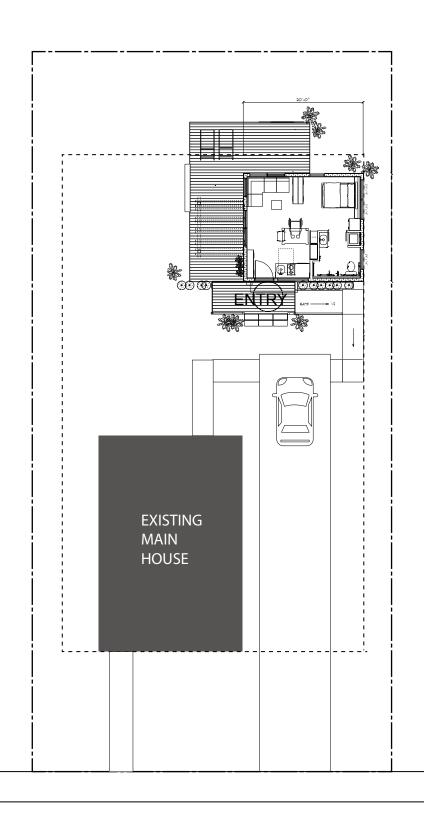
SCALE:

FREEDOM POD DADU

**IMAGES** 

© 2020 Greenpod Development LLC All Rights Reserved







FLAT ROOF OPTION W/ VERTICAL GARDEN SCREEN AND ROOFTOP GARDEN



606 Roosevelt Street Port Townsend, Wa. 98368

ann@greenpod.design 360.301.9686

merrill@greenpod.design 425.280.3776

SCALE:

FREEDOM POD DADU

**OPTIONS** 

© 2020 Greenpod Development LLC All Rights Reserved

Street Street