

PROJECT NUMBER 2022-419 A (1)

# Statewide Community Nursing Care Homes Predesign

PREDESIGN REPORT

05/05/2022



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# Statewide - Community Nursing Care Homes Predesign

DES/DSHS PROJECT No. 2022-419 A (1)

Agency: Department of Social and Health Services (DSHS)

Prepared by: BCRA/ SAGE

## DSHS Project Managers

Kristine Keller, Capital Projects Manager  
Department of Social and Health Services (DSHS)  
Phone: (509) 601-2370  
Email: kristine.keller@dshs.wa.gov

Robert J. Hubenthal, Director, Office of Capital Programs  
Department of Social and Health Services (DSHS)  
Phone: (360) 480-6935  
Email: robert.hubenthal@dshs.wa.gov

## Consultant Team

BCRA, Prime Architect  
SAGE Architectural Alliance, Nursing Home Specialist  
BCE Engineers, Mechanical Engineers, Net Zero Planning  
Sazan Group, Electrical Engineers  
ARC Cost Group, Cost Estimators  
Principle Allies, Staffing Consultants

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# Acknowledgments

## Workshop Client Team

### DSHS / Facilities, Finance and Analytics Administration

Bob Hubenthal, Director, Office of Capital Programs  
Larry Covey, Office Chief, Office of Capital Programs  
Kristine Keller, Capital Projects Manager, Office of Capital Programs  
Kellett Sayre, Director, Maintenance and Operations Division  
Pat Bockelman, Field Operations Manager, Maintenance and Operations Division  
Alice Huber, Assistant Director, Research and Data Analysis  
Jane Zerbe, DSHS / Facilities, Finance & Analytics / Research & Data Analysis

### DSHS / Developmental Disabilities Administration

Debbie Roberts, Assistant Secretary  
Shannon Manion, Deputy Assistant Secretary  
Joseph Tonik, Director, Strategic Planning and Quality Compliance Monitoring  
Amy Price, Director, State Operated Community Residential Programs  
Jeff Flesner, Language, Access and Logistics Administrator  
Shaw Seaman, Office Chief, Communications, Eligibility, Payment and Training  
Saif Hakim, Office Chief, Division of Field Services  
Doris Barret, Manager, Nursing Services Unit  
Christina Wells, RHC Program Manager

### DSHS / Aging and Long-Term Support Administration

Bett Schlemmer, Special Assistant to the Director, Residential Care Services

### Stakeholders and Advocates

Jeremy Norden-Paul, Executive Director, Developmental Disabilities Council  
Adrienne Stuart, Public Policy Director, Developmental Disabilities Council  
RCS Stacy Dym, Executive Director, The ARC of Washington State  
Jessica Renner, Advocate  
Julie Clark, Advocate  
Shawn Latham, Advocate

## Consultants

Jim Wolch, BCRA  
Lorraine Glynn, BCRA  
Amanda Brainard, BCRA  
Valerie Thiel, SAGE Architectural Alliance  
Grace Leong, SAGE Architectural Alliance

Elizabeth Perry, Principle Allies  
Tasha Irvine, Principle Allies  
Niels Fallisgaard, Sazan  
Joe Snyder, BCE  
Andy Cluness, ARC Cost Group

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# 1

## Executive Summary

### STATEWIDE COMMUNITY NURSING CARE HOMES

#### Problem Statement

The 2021 Legislature appropriated capital funding to DSHS in ESHB 1080, Section 2059, to explore alternatives for nursing care services in community settings outside the existing Residential Habilitation Centers. The proviso states:

1. It is the intent of the Legislature to further the recommendations of the December 2019 report from the Williams D. Rucklehaus center to redesign intermediate care facilities of the residential habilitation centers to function as short-term crisis stabilization and intervention by constructing smaller, nursing care homes in community settings to care for individuals with intellectual and developmental delays.
2. \$300,000 of the appropriation in this section is provided solely to complete a predesign of community nursing care homes to provide nursing facility level of care to individuals with intellectual and developmental disabilities. The predesign must include options for five individual facilities with a minimum of four beds in each and for an individual facility with a minimum of 30 beds.
3. The Department shall provide recommendations for where these community nursing care homes should be located geographically in the state and an analysis of the costs associated with operating these homes. The department shall submit a report of this information to the governor and the appropriate committees of the legislature no later than December 1, 2021.

This predesign document includes the following elements: an executive summary, analysis of alternatives, detailed analysis of preferred alternative, project schedule and budget including operational costs, and an appendix.

DSHS hired the architectural consultant team of BCRA/Sage Alliance to prepare the predesign and convened a stakeholder group to begin meeting in August 2021. The consultants facilitated the process and prepared the predesign report summarizing input received from a kickoff with the consultant team, six workshops, an interview session with stakeholders, and discussions with program leaders from similar programs in Tennessee and Oregon.

To better allow for side-by-side comparisons, the predesign explores to alternatives responsive to the proviso:

1. Five 6-bed nursing care homes located in different areas of the state
2. One 30-bed nursing care facility – assumed to be located on DSHS property in Clark County



## **A New Model**

Stakeholders providing input for this predesign included representatives of the DSHS Developmental Disabilities Administration (DDA), The Developmental Disabilities Council (DDC), The ARC of Washington State, and three clients with developmental disabilities residing in community settings. DSHS staff in the Developmental Disabilities Administration, Office of Capital Programs, Maintenance and Operations Division, and Research and Data Analysis also provided input and review.

A new model of housing is proposed as an option to the services provided in the Residential Habilitation Centers at Fircrest School in Shoreline, Lakeland Village in Medical Lake, and Yakima Valley School in Selah. The new model creates smaller living units that could potentially be placed in neighborhoods or other community settings close to family members. Many clients with developmental disabilities prefer housing options similar to those available to others and want to be more integrated with the community instead of living in residential settings serving only people with developmental disabilities. This new model would give DDA clients choices to live on their own or with others. The smaller setting gives individuals the ability to be grouped with people who are of a similar age and have similar interests, capabilities, and medical needs.

## **Universal Design Principles**

Universal design principles guided the design concepts for these facilities, not only to meet specific ADA requirements, but also to include key elements that support daily living tasks.

Areas with special emphasis include wider doors and doorways, including easy-to-operate hardware; sinks, faucets, showers, and tubs that are easy to operate, including enhancements for getting in and out of showers and tubs; non-slip flooring with minimum transitions to support the operation of wheelchairs; electrical devices and appliances with easy-to-operate switches; and enhanced intercom and safety alarms.

## **Social Component of Community-Based Living**

Our DDA client stakeholders expressed a desire for services near the community nursing care homes. These

include parks, churches, grocery stores, pharmacies, beauty salons, movie theaters, cafés, schools, medical offices, social and recreational facilities, and public transit. These services support independent, connected, and healthy living.

## **30-Bed Home**

A 30-bed alternative was studied to provide a cost comparison as required by the proviso.

All community stakeholders agreed that the 30-bed alternative is not the preferred option for community nursing care homes. Even if the 30-bed facility was divided into 10-person clusters, stakeholders were of the opinion the facility would still feel too institutional.

## **Regulatory Challenges**

The design team and stakeholders evaluated different models of DDA residential care. DSHS owns and operates four Residential Habilitation Centers (RHCs), with three RHCs providing nursing care. There would be many benefits for DDA clients if DSHS operated smaller nursing care homes in traditional residential zones.

However, currently there isn't a classification that covers a small, state-operated nursing facility in a residential neighborhood. Local zoning regulations do not typically allow Skilled Nursing Facilities in residential zones. The Adult Family Home model is designed to be run primarily by licensed live-in caregivers, not as a state-operated facility. DSHS currently operates the State Operated Living Alternatives (SOLA) program, where several DDA clients pool their financial resources to lease a home with state staff support, but few of these SOLAs include the level of nursing care typical in the RHCs.

It is likely that a new model - state-operated nursing care homes - would require modifications to the existing Certified Community Residential Services and Supports in Chapter 388.100 WAC, and Requirements for Providers of Residential Services and Supports in Chapter 388-101D WAC. A further discussion of building and zoning code challenges is included in Section 2.

## Project Types Studied

### The Green House Project

Dr. Bill Thomas, supported by the Robert Wood Foundation, created a new concept for nursing homes called the Green House Project. The key components are to create a smaller facility that resembles a family home, with home-like furnishings and interior design. The interior spaces are connected to gardens and nature. More control of daily living is given to residents. Resident-centered principles allow self-management (when residents get up, eat, what activities they participate in, etc.) Food is prepared on premises and medical equipment is tucked away out of sight.



Image from Green House at Traceway, Miss. by Methodist Senior Services and McCarthy Co. Based on Eden Principles by Dr. Bill Thomas



Image showing example of an Adult Family Home environment



Image from Green House at Traceway, Miss. by Methodist Senior Services and McCarthy Co. Based on Eden Principles by Dr. Bill Thomas

## Project Types Studied

### Adult Family Home

Another model discussed was the Licensed Adult Family Home. These facilities have historically provided care for up to six residents at a time. Recent regulations now allow these homes to expand to eight residents if the home has been in operation for several years.

Adult Family Homes specializing in services for people with developmental disabilities are currently available. The Adult Family Home designation does not currently provide licensed skilled nursing.



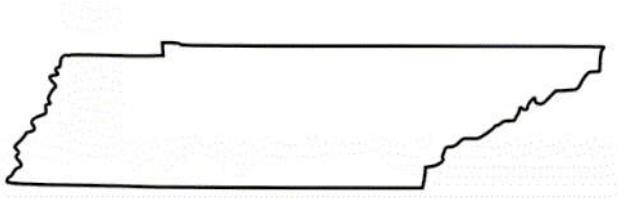
Example floor plan for reference



Image showing example of an Adult Family Home environment

## Lessons from Other State Models

The project team interviewed representatives from the State of Tennessee and the State of Oregon to discuss Nursing Care home models.

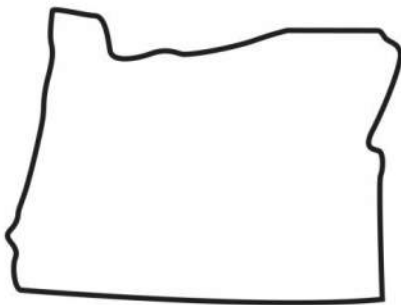


### **Tennessee Model**

The Tennessee program started 15 years ago, rising out of a lawsuit stating that children were being “incarcerated with elderly adults” in residential habilitation centers. The results of the lawsuit led to de-institutionalizing care. During the first five years, the state built 37 new 4-bedroom intermediate care facilities. The 4-bedroom homes are roughly 2,500-3,000 square feet each. Currently, most homes house three residents. All 16 of the homes operated by the East Tennessee Region are located within a sixty-mile radius of each other, which enables the program to share some centralized services. The program now houses approximately 128 residents.

Over the following 10 years, local agencies and third party providers started operating 3- or 4-bedroom homes funded by Tennessee’s Medicaid 1915 Waiver. Non-state homes are popular and offer high-quality care. 90% of the clients with developmental disabilities live in non-state operated homes.

Currently, there are no residential habilitation centers operating in Tennessee.



### **Oregon Model**

In Oregon, residents with developmental disabilities live in 5-bedroom homes. Residents are matched based on medical need and the culture of the home. This enables people with like interests and needs to live together. Centralized administration and maintenance is provided on a contract basis. The homes are privately operated and are licensed by the state.

There are tiers of services in the homes based on medical need with staffing designed to support what the residents require. Homes are clustered a few miles apart, but close enough so that several homes may share services. Residents feel a part of the community, as they live in neighborhoods as opposed to an institutional setting.

# Alternatives Considered

For the purposes of this Predesign Study, three alternatives have been evaluated. A staffing model and an associated operating cost model have been prepared for Alternative 2 and Alternative 3.

## **Alternative #1: No Action - Status Quo**

This option takes no action to provide community-based nursing care home options for state residents.

## **Alternative #2: 6-Bedroom Home**

This option creates five 6-Bedroom homes at five locations in Washington state.

## **Alternative #3: 30-Bed Community Nursing Care Facility**

This option creates a single new 30-Bedroom nursing facility. For planning purposes only, this facility is sited on state-owned land in Clark County.

There are certainly several options in the size and location of these alternatives. For simplicity in comparing Alternative 2 and Alternative 3, each alternative provides 30 beds of community nursing care.

## Alternative #1: No Action - Status Quo

### **Key Concepts of the No Action - Status Quo Alternate:**

- State residents with developmental disabilities will continue to request services from DSHS.
- The three existing RHCs will be the primary option for DDA clients requiring skilled nursing care.
- Because the need for skilled nursing beds is projected to grow as the state's population ages, delaying action to site and build community nursing care homes will likely increase construction costs.

## Alternative #2: 6-Bedroom Home

## Preferred Alternate

This option creates five 6-Bedroom homes at five locations in Washington State, owned and operated by the state of Washington.

### **Unique elements of this option:**

1. Goal is to create a lower capital cost option that could be placed in a residential neighborhood setting.
2. Residential Scale facility. Finishes proposed to be in the 20 to 30 year life span.
3. Minimal off-site costs.
4. LEED and Net Zero not included.
5. Designed to provide nursing care for less acute cases.

### **Key Concepts of the 6-Bedroom Model:**

- Designed on a residential scale to feel like a family home
- Incorporates Green House Concepts
- Abundant natural light and access to the outdoors
- Designed to skilled nursing standards
- ADA accessible and includes elements of Universal Design
- Bedrooms include Hoyer lifts
- Each pair of bedrooms share a jack-and-jill bathroom
- Tub and shower are available for residents in a separate bathing room
- Shared living room, dining room, and kitchen
- Covered outdoor porches
- Separate or attached van garage

# Alternative #2: 6-Bedroom Home

## 6-Bed Facility - Concept Floor Plan

Aproximately 5,000 SF an attached 1,000 SF Garage



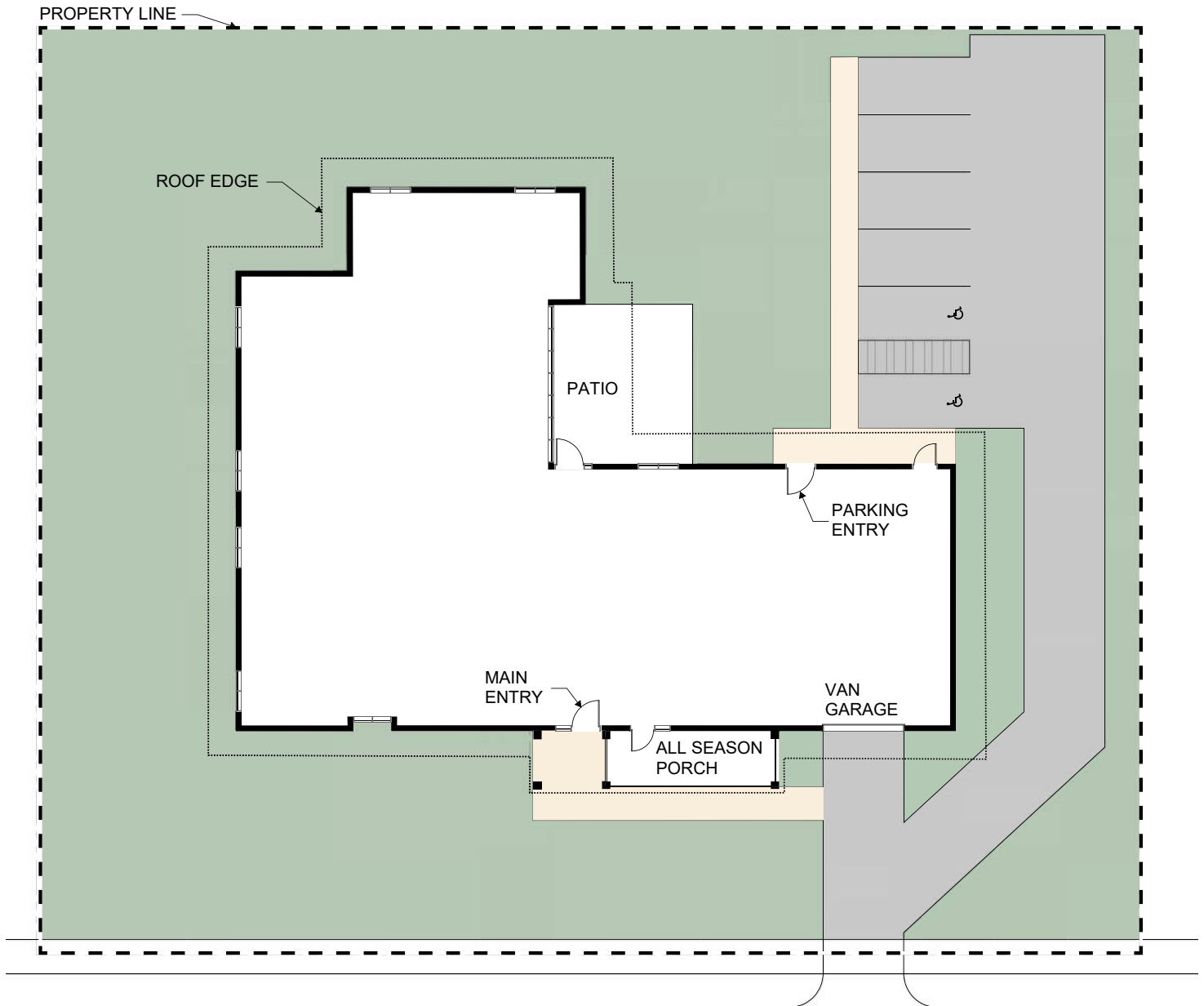
### LEGEND

- BEDROOMS
- COMMON SPACES & CIRCULATION
- SERVICE
- ADMINISTRATION OFFICE
- OUTDOOR SPACES

# Alternative #2: 6-Bedroom Home

## 6-Bed Facility - Concept Site Plan

0.5 ACRE SITE with public water and sewer utilities



### LEGEND

- PAVED DRIVEWAY & PARKING
- ACCESSIBLE PATHWAY
- LANDSCAPE
- BUILDING FOOTPRINT

# Alternative #3: 30-Bed Facility

This option creates a single new 30-Bedroom Nursing Facility

**Unique elements of this option:**

1. This option is modeled as a typical state operated skilled nursing facility.
2. It is likely to be developed in a traditional commercial or institutional zone with frontage improvements required.
3. It will have institutional level finishes designed for a 50 year life.
4. This option includes LEED silver and Net Zero Energy capability.
5. Designed to provide nursing care for more acute cases.

**Key Concepts of the 30-Bed Model:**

- Designed to feel like a family home with similar furnishings and interior design
- Incorporates Green House Concepts
- Abundant natural light and access to the outdoors
- Designed to skilled nursing standards

- ADA accessible and includes elements of Universal Design
- Bedrooms include Hoyer lifts
- Each pair of two bedrooms share a bathroom
- Tubs and showers are available for residents in separate bathing rooms
- Each 10-bedroom module shares a living room, dining room, and kitchen
- Covered outdoor porches
- All-season enclosed porches provided so residents sensitive to outdoor temperatures are protected from the wind and cold
- Central commercial kitchen
- Central shared large multi-purpose room, administration offices, therapy space, and activity room
- Separate 3-car garage and maintenance shop



**LEGEND**

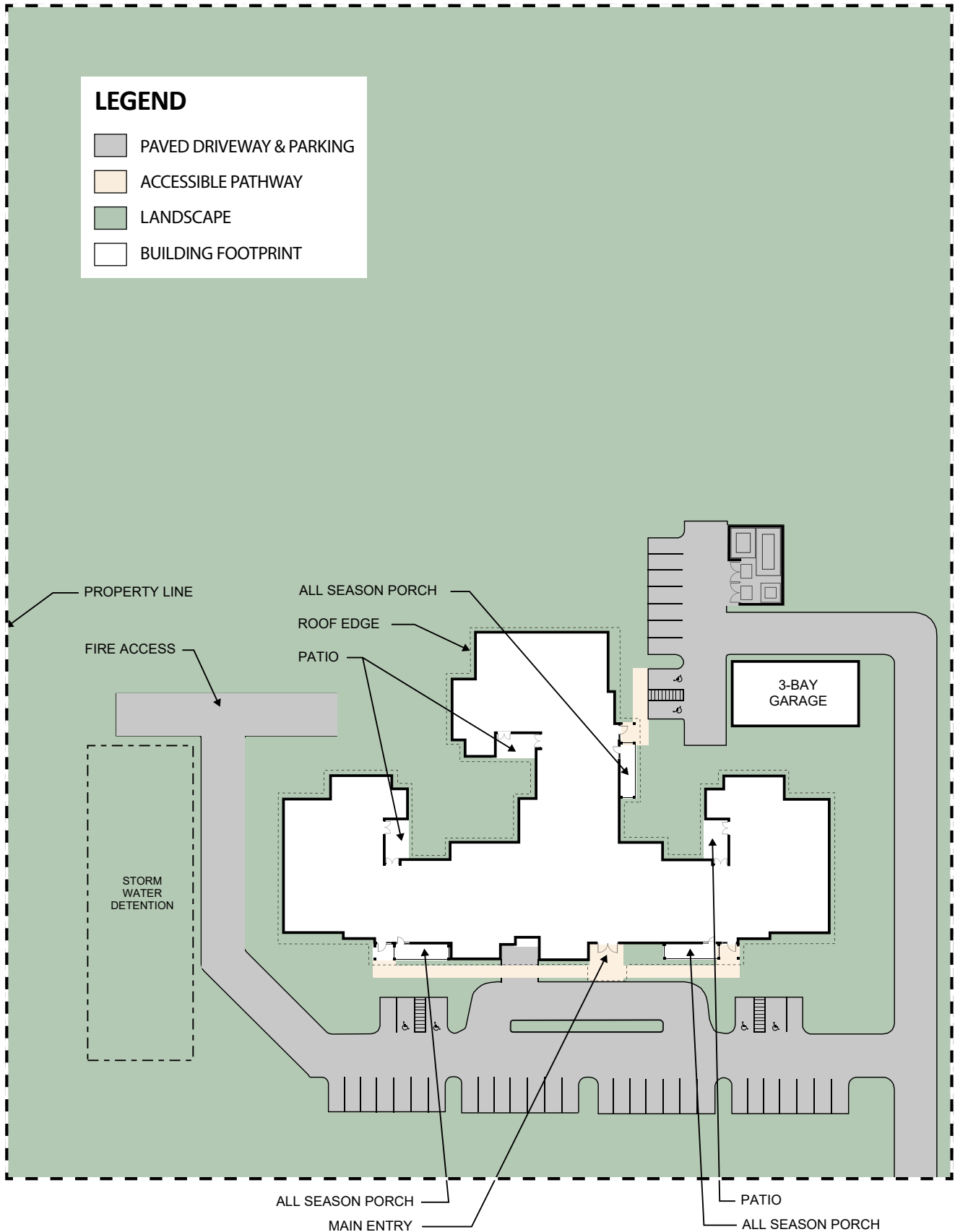
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| <span style="display:inline-block; width:15px; height:15px; background-color:#f9e79f; border:1px solid black;"></span> COMMON SPACES         | <span style="display:inline-block; width:15px; height:15px; background-color:#fff2cc; border:1px solid black;"></span> CIRCULATION          |
| <span style="display:inline-block; width:15px; height:15px; background-color:#a6c9ec; border:1px solid black;"></span> SERVICE               | <span style="display:inline-block; width:15px; height:15px; background-color:#80c0c0; border:1px solid black;"></span> STAFF SUPPORT SPACES |
| <span style="display:inline-block; width:15px; height:15px; background-color:#c0a0e0; border:1px solid black;"></span> ADMINISTRATION OFFICE |   |



# Alternative #3: 30-Bed Facility

## 30-Bed Facility - Concept Site Plan

2 ACRE SITE



## Project Schedule Summary

This project schedule assumes the project would be funded for design phases in the 2023-2025 biennium and construction would be funded in the 2025-2027 biennium.

Funds for land acquisition and design would be available in the fall of 2023.

Design and permitting would be completed by February of 2025.

Construction would begin in September of 2025.

Project would be complete and closed out by December of 2026.

This project schedule applies to both alternatives 2 and 3.

## Cost Summary

### **Estimated project cost for Alternative 2**

Five, 6-bedroom nursing care homes for a total of 30 residents:

**\$43,231,000**

### **Estimated project cost for Alternative 3**

30-bedroom nursing care facility is:

**\$51,539,000**

See Appendices

L. Cost Estimate: 6-Bed Facility

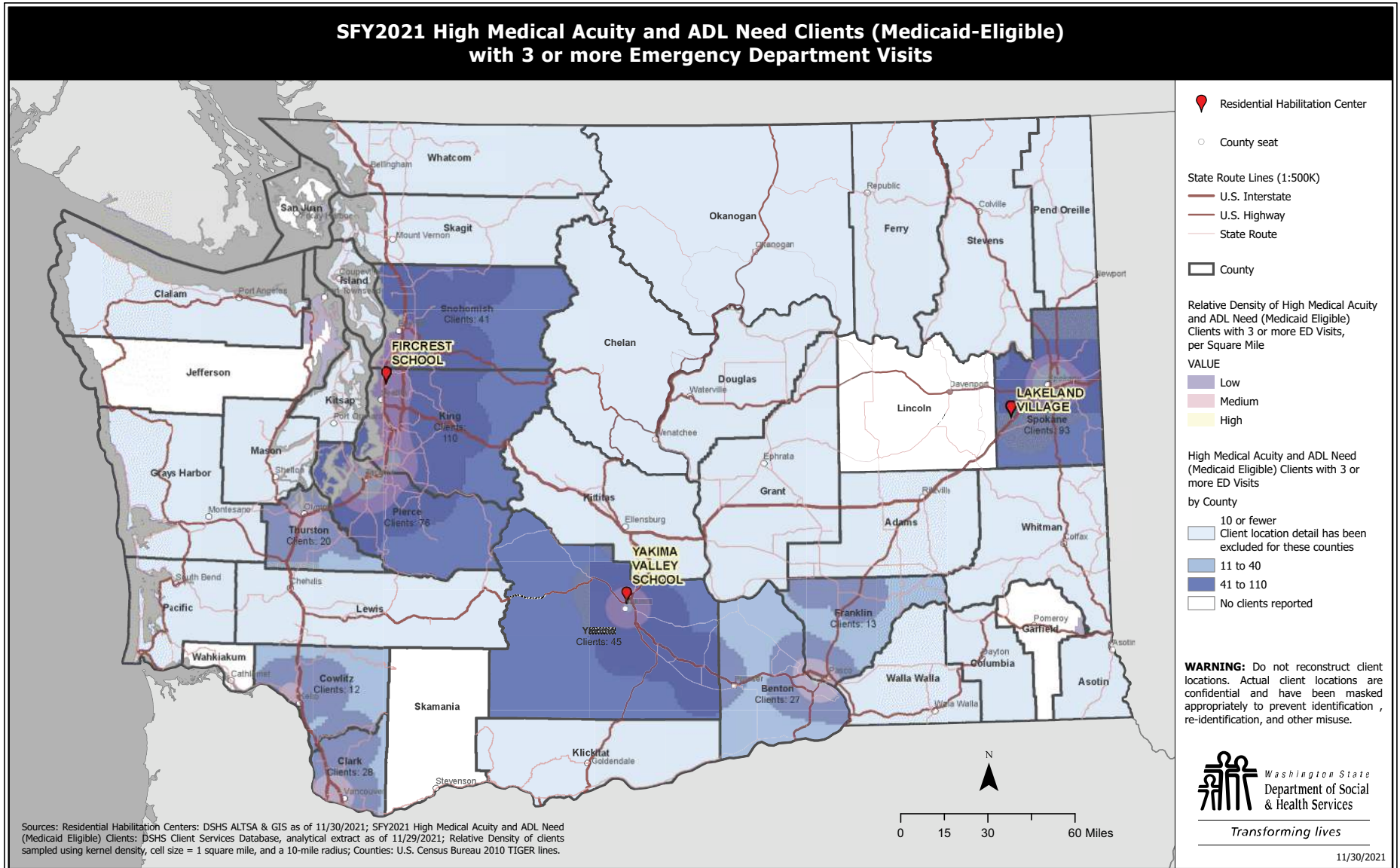
M. Cost Estimate: 30-Bed Facility

# Alternative Comparison Table

Alternative Description	Advantages	Disadvantages	Project Costs per 30 beds	Annual Operating Costs per 30 beds
<b>Alternative #1: No Action - Status Quo</b>				
This option takes no action to provide a community-based nursing care home option for state residents.	1. Other than being the least expensive option, there is no apparent service or programmatic advantages to this alternative for clients with developmental disabilities.	<ol style="list-style-type: none"> <li><b>1. Continue to have limited options.</b> Community-based residential nursing options will be very limited for state residents with developmental disabilities. DSHS will continue to provide skilled nursing care for DDA client primarily in the existing RHCs. Many states have moved away from an institutional approach for skilled nursing care and are providing community based options.</li> <li><b>2. Higher Costs:</b> The need for skilled nursing beds for DDA clients in Washington State is projected to grow; the state will need a variety of options to respond to this need. Delaying action in siting and building community nursing care homes will result in higher project and construction costs for these facilities.</li> <li><b>3. Litigation Risk:</b> There is a potential of litigation if Washington State does not provide a community based option. Other states have faced litigation challenging their lack of non-institutional care options as a civil rights issue.</li> </ol>	Not Applicable	Not Applicable
<b>Alternative #2: 6-Bedroom Home</b>				
This option builds 6-bedroom homes at five locations in Washington State.	<ol style="list-style-type: none"> <li>1. The 6-bedroom setting was highly preferred by the community stakeholders and advocates.</li> <li>2. This option enable people with developmental disabilities to live in neighborhoods close to desired community services.</li> <li>3. This option provides residents with more choice over who they live with. Homes can be structured around common interests and needs.</li> <li>4. Approximately 1.5 acres utilized, easier to acquire.</li> </ol>	<ol style="list-style-type: none"> <li>1. It is most advantageous to locate several homes in relatively close proximity to take advantage of shared resources. However, other than in the most populous counties, clustered locations don't serve people in the more remote portion of the state.</li> <li>2. It will take some time to develop enough facilities to benefit from shared services.</li> <li>3. Potential land use issues or project delays if not zoned outright.</li> <li>4. Doesn't serve well those with high medical acuity.</li> <li>5. Relies on contracted services for specialty care, maintenance, etc.</li> <li>6. Does not include provisions for net zero.</li> <li>7. The nursing care home will have a significantly higher value than neighboring homes. Potentially impacting resale, if desired.</li> </ol>	\$ 43,231,000	\$ 5,263,854
<b>Alternative #3: 30-Bedroom Nursing Care Facility</b>				
This option builds a new 30-bedroom skilled nursing facility.	<ol style="list-style-type: none"> <li>1. Because of a larger staffing model, this option could serve residents with high medical acuity.</li> <li>2. This option would support a higher level of direct employment of staff in lieu of contracted services.</li> <li>3. Would create additional state jobs.</li> <li>4. This option includes Net Zero Energy design and construction.</li> <li>5. Assumes project is developed on state owned property in Clark County. Actual site is underdetermined.</li> <li>6. If built in Clark County, maintenance could be shared with other state facilities nearby.</li> </ol>	<ol style="list-style-type: none"> <li>1. The 30-bedroom option was categorized by many stakeholders and advocates as a large institutional setting. Breaking the model into three 10-bedroom modules still felt too big and institutional.</li> <li>2. This option provides a basis to compare construction and operating costs. None of the study participants recommended the 30-bed model. It was perceived as a traditional nursing facility, although it is smaller than what the state currently operates.</li> <li>3. Larger lot size required. More difficult to locate near services.</li> <li>4. Potential land use issues or project delays if not zoned outright.</li> </ol>	\$ 51,539,000	\$ 5,391,778

# Site Analysis

The data in this section represents populations of adults with developmental disabilities in Residential Habilitation Centers and/ or having high medical acuity. The data shows that the highest concentration of these adults reside in King, Pierce, and Spokane Counties. This Predesign Study assumes these clients are most likely to benefit from a community nursing care home.



## Site Analysis

With information provided by DSHS, the project team identified five locations with a high number of people with developmental disabilities that would be logical places for a Community-Based Nursing Care Home. We focused our efforts on locating hypothetical properties in the following regions to develop new homes:

- Spokane County
- Tri-Cities Area
- Snohomish County
- Clark and Cowlitz Counties
- Pierce County

Originally, we looked at undeveloped parcels, but the stakeholder group desires homes near existing community services and amenities. Also, it is preferable to have any potential site served by public water and sewer services, as the cleaning chemicals used in nursing facilities do not work well with septic systems. We analyzed recent sales in the five target areas to understand likely land acquisition costs.

We refined our search criteria to the following:

- 0.5 to 1.5 acre parcels near community amenities with public sewer
- Sites where tearing down an existing structure (manufactured home, mobile home, or poorly maintained house) is an option, providing the neighborhood character was an appropriate fit for the project.
- Residential areas, not commercial
- Zoning- Areas where Adult Family Homes are permitted

## Zoning Study

Residential structures occupied by persons with handicaps, as defined by 42 U.S.C. Sec. 3602, may not be treated differently than a similar residential structure occupied by a family. Cities and counties cannot enact or maintain any ordinance, development regulation, zoning regulation, or official control, policy or administrative practice that conflicts with this per state law under RCW 36.70A.410 and RCW 36.70.990.

Consequently, land use entitlements should not be required if the address is located within a zone where residential uses are allowed. Although state law supersedes local code, many codes are not up to date.

As a part of the property due-diligence, it is recommended that a meeting with the planners from the AHJ is held. This meeting will enable the planners to understand the project prior to purchase. Letters of support from providers and human services can assist the process.



2

# Detail Analysis - Preferred Option

STATEWIDE COMMUNITY NURSING CARE HOMES

# Alternative #2: 6-Bedroom Home

Programming Study

## ALTERNATIVE 2: 6-BEDROOM HOME PROGRAM

Room/Area	Requirements (if any)	Num.	SF	NSF
<b>Resident Areas (Private)</b>				<b>1,745</b>
Bedroom (Single occupant)	Window with min 19 SF	6	215	1,290
Bathroom (shared)	Sliding door with 3-6" min clear	3	75	225
Bathroom (with roll in shower and tub)	Toilet included	1	230	230
<b>Resident Areas (Shared)</b>				<b>1,440</b>
Entry		1	100	100
Living Room	Off of Dining	1	450	450
Kitchen		1	320	320
Dining	12 seats	1	270	270
Multi-purpose / Den Room	6-8 Meeting	1	225	225
Restroom		1	75	75
Season Porch	Outdoor	0	200	0
Covered Courtyard	Outdoor	0	485	0
<b>Staff Administration</b>				<b>190</b>
Administrative Office	At Main Entry	1	120	120
Public Toilet Room	Off main living areas	1	70	70
<b>Support Areas</b>				<b>625</b>
Storage	25 SF per bed	6	25	150
Emergency Food Storage		1	70	70
Medical Storage		1	80	80
Pantry		1	160	160
Resident Laundry		1	80	80
Laundry		1	85	85
<b>Bldg Services - Unconditioned</b>				<b>1,000</b>
Garage	2 bays; accessible van parking	1	730	730
Mechanical/FSR/Storage		1	130	130
Generator Room	Access from outside	1	80	80
Electrical/PV		1	60	60
<b>Subtotal House</b>				<b>5,000</b>
<b>Garage</b>				<b>1,000</b>
<b>Total</b>				<b>6,000 GSF</b>

## CNCH (Community Nursing Care Homes)

## Alternative #2: 6-Bedroom Home

### ENGINEERING SUMMARY

#### General

The 6-Bedroom home will be a single-story wood-frame building. The exterior siding will be hardi-plank with some brick veneer. The roofing will be asphalt shingles. Interior finishes will include solid surface countertops, sheet vinyl and carpet flooring. Walls and ceilings will be painted gypsum wallboard. Interior doors will be a stained birch veneer. Exterior doors will be painted metal.

The residents may be non-ambulatory, but will not require electrical life support for survival. This will be a long term care facility.

#### Electrical Service

As the intent of the facility is to locate in residential neighborhoods, incoming electrical service availability must be assumed to be residential style service at common residential voltage.

Incoming electrical service will be assumed to be 120/240V, 1 phase, 3 wire service with an overhead service drop from a pole mounted transformer. Some locations may allow for underground service. Currently a 600 Ampere service will be planned for.

Normal power will be distributed from an electrical room or service area inside the building and branch circuits will supply power to all electrical fixtures and devices from this room or area.

#### Essential Power

Per WAC 388-97, a permanently fixed in place, on-premises emergency power generator with on-site fuel supply is required to provide power for a minimum of (4) four hours.

Current planning is for a 150kVA, 120/240V, 1 Phase generator with a 72 hour fuel tank to allow for a longer outage time.

Though NEC 517 will allow for a single automatic transfer switch for Life Safety and Equipment Branch loads, an additional automatic transfer switch may be required for any optional loads. Two Automatic Transfer Switches will be planned for the facility.

The Life Safety Branch will provide power for Exit and Egress Lighting, Fire Alarm Systems, Communications Systems needed during emergency conditions, task lighting and power at the generator set location and generator accessory equipment required for proper operation of the generator.

The Equipment Branch will provide power for task lighting and select receptacles in Patient Care spaces and Staff spaces. Mechanical Systems for supply, return and exhaust ventilation, sump pumps, kitchen supply and exhaust, and heating for general patient rooms will be supplied power from this branch.

All other power on the emergency power systems will be considered optional connections to the Equipment Branch.

Uninterruptable Power Supplies (UPS) will be provided for select medical equipment, security systems, and all computers in the building.

#### Lighting

Lighting will be accomplished using LED lighting fixtures with features that allow dimming and in specific locations may be tunable for light color. Fixtures will be a mixture of recessed and surface mounting, located on wall and ceiling locations, and linear and round sources as best selected for the purpose and location.

Amber night lights will be provided in Patient bedrooms. Exterior lighting LED fixtures will be a mix of pedestrian oriented poles, bollards, wall sconces, and possibly parking site lighting pole mounted fixtures. All exterior lighting will be designed to blend in with the site location selected.

Lighting controls will vary from fully automatic lighting in public spaces using occupancy sensors and daylighting controls to (manual dimming) lighting control in Patient rooms. All controls will be localized to the area of use.

Wireless lighting controls may be provided and will be decided during building design.

Site lighting controls will be based on photocells and lighting intensity variation based on occupant sensing controls. Some controls will likely include time of day control.

#### Power Distribution

Individual building power panels will be provided to serve lighting, receptacles, HVAC connections, kitchen equipment connections, and miscellaneous equipment connections. All distribution panels will be of door-in-door construction.

All receptacles in the building will be tamper-resistant. Patient Rooms will have a minimum of four duplex receptacles (NFPA 99).



# Alternative #2: 6-Bedroom Home

## ENGINEERING SUMMARY

### Telecommunications

The building will have a main distribution data/voice cabinet with locking door located in a conditioned space. Where possible DSHS Enterprise Technology, Telecommunications Infrastructure Standards will be followed. Cable will be based on CAT-6A cabling.

Patient Rooms will have telephone/data jacks.

Public area phones for patients will be determined during building design.

Wireless connectivity will be available to Residents, Staff, External Providers (Doctors), and Visitors over multiple wireless networks.

Telecommunications outlets will be provided at each telephone, computer, printer, monitor and every equipment reporting location, such as medical refrigerator alarms, if provided.

### Audio / Visual

A Building Ambient Audio/Visual system may be provided for the building. Requirements will be determined during building design.

### Television

Television (TV) outlets will be provided in Patient Rooms. Select public areas will be provided with TV outlets. TV outlets will be provided with cable TV (where available) and internet connections.

### Fire Alarm

The Fire Alarm system will consist of a local main fire alarm panel centrally located in the building with a remote annunciator located at the front door.

Initiation devices will consist of smoke detectors in corridors, electrical rooms, mechanical rooms, and other sensitive areas where smoke detection warnings would be beneficial to the resident and staff population. Manual pull stations will be provided in the Staff Office. Duct Smoke Detectors will be provided if required. Heat Detectors will be provided in specific areas where having a high heat alarm signal before the sprinkler heads activate is advantageous, such as cooking and laundry areas. The sprinkler system will be fully monitored through the fire alarm system.

Notification appliances will consist of a coded alarm system and visual alerting devices (Chime/strobes). Voice alarm is not required but may be considered for use during design. Visual devices will need to be carefully coordinated so as to not be disruptive in the environment.

It is likely the fire alarm system will need to be closely coordinated with the local Fire Marshal's office to provide a system that provides for a safe environment and is the least disruptive to the residents and staff.

### Security

Security will include intrusion detection, and access control.

Intrusion Detection will be provided at all exterior doors and will be used to monitor and report door activity and door position to the Staff Office. This type of system could be (but is not planned for) use in monitoring window activity of operable windows.

Access control using card or badge readers will be used at specific staff entry points to the building. DSHS Standard for Access Control utilizes Lenel S2 Access Control systems.

### Site Design

The area around each building will be designed to provide adequate storm water treatment and/or retention. The topography will be modified as minimally as required to provide proper drainage and natural landscaping elements.

### Heating, Ventilation and Air Conditioning

The mechanical system will be composed of a multi-head split system with an Energy Recovery Ventilator (ERV) for ventilation air.

Ceiling-mounted ductless cassette units will be utilized to provide space heating and cooling for the bedrooms and the office. A ducted fan coil will be utilized to provide space heating and cooling for the living/dining/kitchen/den. The ducted fan coil will be remotely located in the ceiling space or a mechanical platform for ease of access and serviceability. Each fan coil will be provided with a filter rack and MERV-13 filter. The heat pump unit(s) for the system will be outdoor, ground-mounted units.

## Alternative #2: 6-Bedroom Home

### ENGINEERING SUMMARY

There will be one ERV unit to serve the entire building. The ERV unit will be located in the ceiling space or in the garage. The ERV unit will have a plate heat exchanger to capture waste heat from the building to precondition the ventilation air, MERV-15 air filter on the outside air inlet, MERV-13 filter on the return inlet, and supply and exhaust fans with Electronically Commutated Motors (ECMs). There will be an electric heating coil downstream of the ERV supply. The ERV unit will deliver tempered ventilation air to each space. Return back to the ERV unit will be ducted to each space. Return from bedrooms will be through the bathrooms. ERV intake and exhaust will routed to louvers along the exterior wall or roof hoods.

The Mechanical and Electrical spaces will be provided with electric heaters for space heating and exhaust fans for ventilation. Both the unit heater and exhaust fan will be thermostatically controlled.

The multi-head split system will be controlled by the manufacturer provided thermostats. Each of the six bedrooms will be individually controlled through temperature sensors located within each zone. The ERV will operate continuously with a manual override switch accessible to occupants to allow unit to be turned off in the event there is unhealthy outdoor air conditions.

It is assumed that the kitchen will require a Type 1 hood.

#### Plumbing

The building will have one central heat pump water heating system to produce and store 140F hot water for service to the building fixtures. Water will be circulated between indoor tanks in the mechanical room and an outdoor, ground-mounted heat pump. The indoor tanks will have electric resistance backup heat. A recirculation pump will keep hot water readily available at the fixtures. Individual point of use mixing valves will be provided at all lavatories, hand washing sinks, and shower heads to provide tempered water at 105F.

Lavatories will be provided with low flow 0.5 gpm non-aerator faucets with gooseneck spouts and wrist blade, single-lever controls. Water closets will be low flow 1.28 gallon per flush.

Shower heads will utilize 1.5 gpm flow cartridges.

Sanitary waste and vent piping above and below ground will be cast iron. All bathrooms, mechanical room, and fire riser room will be provided with floor drains. All floor drains will have trap primers installed.

The domestic water piping will consist of Type L copper or PEX for all above ground pipe and PVC Type C-900 for below ground cold water pipe. The domestic water meter and reduced pressure backflow assembly (RPBA) will be located on the site, exterior to the building.

The building will have a grease trap as required to serve the kitchen 3 compartment sink. The grease trap will be located directly below the sink in the kitchen.

#### Fire Protection

The facility will be required to be sprinkled with an automatic fire protection sprinkler system in accordance with NFPA 13. Exterior canopies and other areas subject to freezing will be provided with dry-type sprinklers or dry-pipe distribution system. All other areas will be served by a wet-pipe distribution system.

A mix of prescriptive and performance-based design specifications will be issued as part of the contract documents. The final design will be provided by the installing contractor.

All aspects of the fire protection systems will be in accordance with NFPA 13 and will comply with the requirements of the local jurisdiction.

Low-profile sprinklers with white finish are to be utilized for all areas throughout the building including Staff/Service areas. Sprinklers shall be centered within ceiling tiles (where applicable), and coordinated to avoid conflicts with light fixtures, HVAC grilles, etc. The double check valve assembly (DCVA) and fire department connection (FDC) will be located on the site, exterior to the building.

# Delivery Method

DSHS has studied different delivery methods for this project. The following is a summary of options.

## How the Project will be Managed within the Agency

The DSHS Office of Capital Programs (OCP) will provide project management to coordinate all phases of the project's siting, acquisition, design, and construction.

### Design-Bid-Build Method

This is the traditional delivery method for public works projects. The designers develop the design documents and estimate for the project. The project is then bid to multiple general contractors.

This method usually achieves a lower first cost than other methods, but change orders are usually higher because the contractor has little time to familiarize themselves with the project. This creates a risk for the owner and tends to create opportunities for conflict over scope. There is also the risk that the low-bidder failed to account for a significant item, which can also put stress on the project. These challenges can be mitigated by high-quality bidding documents. This is an effective method for smaller projects under \$5 million, where the risk is easier to manage.

### General Contractor / Construction Manager (GC/CM) Alternative Method

The GC/CM method selects the contractor during the schematic design phase, which allows the owner to have a direct contract with the design team and a direct contract with the contractor. The owner selects both the architect and contractor directly. The contractor is selected based on qualifications and overhead pricing. The contractor has an extended time period to plan construction and provide input into the design on constructability issues. This method promotes risk mitigation with active budget management by the contractor during the design phase. The contractor can provide feedback to design as it is being developed. Approval from the Capital Projects Advisory Review Board (CPARB) is required for this method.

### Design-Build Alternative Method

This model creates a single contract for design and construction, with the design team under contract to the contractor. Using the progressive design build model, the contractor/design team is selected together at the beginning of the project based on qualifications, overhead pricing, and experience. The Design/Builder responds to a Request for Qualifications and participates in proprietary meetings and interviews. This method inserts the contractor into the process from the beginning and gives the owner greater price certainty as the project develops. A Maximum Allowable Construction Cost (MACC) is set at design development and adhered to for the duration of the project. This method promotes teamwork between the owner, contractor and architect. Approval from the Capital Projects Advisory Review Board (CPARB) is required for this method.

#### Recommendation

For this project, our design team recommends the traditional design-bid-build process. The 6-bedroom homes will be located throughout the state and it is unlikely that a single contractor would be able to build all five. This negates some of the benefits of a GC/CM approach and Design-Build because it would require multiple contractors during the design phases.

# Planning Discussion

## **Water Rights and Water Availability**

Water availability will be confirmed prior to property purchase.

## **Storm Water Requirements**

Project design will comply with state and local storm water management requirements.

## **Easements and Setback Requirements**

Research of easements and setback requirements will be completed prior to land acquisition.

## **Potential Issues with the Surrounding Neighborhood, during Construction and Ongoing**

Pro-active outreach to the neighbors in advance of any land use process and construction will be part of the project outreach strategy. Multiple forms of contact including public meetings and informational mailers will be considered.

## **Potential Environmental Impacts**

All efforts will be made to be good stewards of the local ecosystem through low impact development methods.

## **Parking and Access Issues, Including Improvements Required by Local Ordinances, Local Road Impacts and Parking Demand**

The project use estimates the need for 6 parking stalls. This small number should not trigger significant road improvements.

## **Impact on Surroundings and Existing Development with Construction Lay-Down Areas and Construction Phasing**

Construction limits and contractor use areas will be maintained on the project site.

## **Consistency with Applicable Long-Term Plans (such as the Thurston County and Capitol Campus Masterplans and Agency or Area Master Plans) as Required by RCW 43.88.110**

The project team will work with the local jurisdictions to develop and coordinate any applicable long-term plans.

## **Other Compliance Requirements**

This project will comply with Greenhouse Gas Emissions Reduction Policy as per RCW 70.235.070; Archeological and Cultural Resources as per Executive Order 05-05 and Section 106 of the National Historic Preservation Act of 1966; and planning under Chapter 36.70A RCW, as required by RCW 43.88.0301.

## **Information Required by RCW 43.88.0301(1) - Capital Budget Instructions—Additional Information—Staff Support from Office of Community Development**

There will be preliminary communication with local agencies to coordinate this development. There will not be any local funds leveraged. Without a specific site, no study has yet been undertaken to determine environmental outcomes and the reduction of adverse environmental impacts. Problems that Require Further Study. Evaluate Identified Problems to Establish Probable Costs and Risk.

## **Site Analysis**

Further site investigation is needed. Topographic surveys, environmental reports, detailed utility analysis, and pre-development meetings with authorities having jurisdiction will be conducted once final site selection is confirmed.

## **Land Use Approvals**

A land use process is required at all sites considered.

## **Implementation**

Confirmation/Study of process to select private operators and confirm reimbursements are adequate to operate the program.

## **Significant or Distinguishable Components, Including Major Equipment and ADA Requirements in Excess of Existing Code**

There are no significant ADA requirements in excess of existing codes that are not already provided for. The facility will be welcoming and accommodating to all physical capabilities. This is not a medical facility servicing significant physical health needs; those patients will be served in an alternate setting.

## **Planned Technology Infrastructure and Other Related IT Investments that Affect the Building Plans**

IT space will be provided within the facility.

## **Planned Commissioning to Ensure Systems Function as Designed**

Project will be commissioned prior to occupancy ensuring electrical, mechanical systems, and building envelope will function as designed.

## **Future Phases or Other Facilities that will Affect this Project**

No future phases are expected on any particular site, however, it is likely that the construction of each house will be considered a new phase. For the purpose of this predesign, it is reasonable to expect that the (5) houses will be constructed in five phases across the State of Washington.

## **Identify when the Local Jurisdiction will be Contacted and Whether Community Stakeholder Meetings are part of the Process**

Once a site has been selected and funding has been allocated, the project team will engage with the local community to partner with the local authorities and will comply with all required

# Proposed Funding Source

## **Identify the Fund Sources and Expected Receipt of the Funds**

The funding is expected to be provided through the State Building Construction Account.

## **If Alternatively Financed, such as through a COP, Provide the Projected Debt Service and Fund Source. Include the Assumptions used for Calculating Finance Terms and Interest Rates**

Not Applicable.



# 3

## Project Schedule and Budget

STATEWIDE COMMUNITY NURSING CARE HOMES

### Project Cost Assumptions

The Construction Costs are based on today's dollars with a twenty percent construction contingency and five percent inflation contingency. This is in addition to the five percent contingency and 3.28 inflation rate that is factored in the C-100. The project will be delivered using the traditional Design-Bid-Build method.

Alternate 2 building sites are assumed to be five individual 1/2-acre sites located throughout the state. The site for Alternate 3 is assumed to be on a undetermined site in unincorporated Clark County.

Buildings are assumed to be constructed of single-story wood framed walls and roofs, concrete slab on grade, with a mix of Hardi-panel siding and brick veneer. The roofing is either composition asphalt shingles or standing seam metal roofing.

### Furniture and Equipment

A budget of \$125,000 has been established per home. This would includes beds, bedroom and common area furniture, kitchen equipment, and other miscellaneous items not attached permanently to the building structure.



# C-100 - Alternative #2: 6-Bedroom Home

STATE OF WASHINGTON AGENCY / INSTITUTION PROJECT COST SUMMARY <i>Updated June 2021</i>		
Agency	Department of Social and Health Services	
Project Name	Statewide Community Nursing Care Homes Predesign	
OFM Project Number	92000042	

Contact Information	
Name	Jim Wolch BCRA/ARC Cost
Phone Number	253-627-4367
Email	<a href="mailto:jwolch@bcradesign.com">jwolch@bcradesign.com</a>

Statistics			
Gross Square Feet	30,000	MACC per Square Foot	\$849
Usable Square Feet	25,000	Escalated MACC per Square Foot	\$968
Space Efficiency	83.3%	A/E Fee Class	B
Construction Type	Nursing homes	A/E Fee Percentage	6.92%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	3.28%	Higher Ed Institution	No
<a href="#">Sales Tax Rate %</a>	10.30%	Location Used for Tax Rate	Tacoma
Contingency Rate	5%		
Base Month	March-22	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	September-21	Predesign End	April-22
Design Start	September-23	Design End	January-25
Construction Start	September-25	Construction End	December-26
Construction Duration	15 Months		

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Project Cost Estimate			
Total Project	<b>\$38,387,227</b>	Total Project Escalated	<b>\$43,230,925</b>
		Rounded Escalated Total	<b>\$43,231,000</b>

C-100 - Alternative #2: 6-Bedroom Home

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Updated June 2021		
Agency	Department of Social and Health Services	
Project Name	Statewide Community Nursing Care Homes Predesign	
OFM Project Number	92000042	

**Cost Estimate Summary**

Acquisition			
<b>Acquisition Subtotal</b>	<b>\$2,275,000</b>	<b>Acquisition Subtotal Escalated</b>	<b>\$2,275,000</b>

Consultant Services			
Predesign Services	\$456,560		
A/E Basic Design Services	\$1,276,385		
Extra Services	\$925,000		
Other Services	\$598,448		
Design Services Contingency	\$262,820		
<b>Consultant Services Subtotal</b>	<b>\$3,519,213</b>	<b>Consultant Services Subtotal Escalated</b>	<b>\$3,824,544</b>

Construction			
Construction Contingencies	\$1,272,938	Construction Contingencies Escalated	\$1,454,459
Maximum Allowable Construction Cost (MACC)	\$25,458,760	Maximum Allowable Construction Cost (MACC) Escalated	\$29,032,271
Sales Tax	\$2,753,365	Sales Tax Escalated	\$3,140,134
<b>Construction Subtotal</b>	<b>\$29,485,063</b>	<b>Construction Subtotal Escalated</b>	<b>\$33,626,864</b>

Equipment			
Equipment	\$1,108,500		
Sales Tax	\$114,176		
Non-Taxable Items	\$0		
<b>Equipment Subtotal</b>	<b>\$1,222,676</b>	<b>Equipment Subtotal Escalated</b>	<b>\$1,397,031</b>

Artwork			
<b>Artwork Subtotal</b>	<b>\$215,079</b>	<b>Artwork Subtotal Escalated</b>	<b>\$215,079</b>

Agency Project Administration			
Agency Project Administration Subtotal	\$970,197		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$0		
<b>Project Administration Subtotal</b>	<b>\$970,197</b>	<b>Project Administration Subtotal Escalated</b>	<b>\$1,108,547</b>

Other Costs			
<b>Other Costs Subtotal</b>	<b>\$700,000</b>	<b>Other Costs Subtotal Escalated</b>	<b>\$783,860</b>

Project Cost Estimate			
Total Project	<b>\$38,387,227</b>	Total Project Escalated	<b>\$43,230,925</b>
		Rounded Escalated Total	<b>\$43,231,000</b>



C-100 - Alternative #2: 6-Bedroom Home

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Updated June 2021		
Agency	Department of Social and Health Services	
Project Name	Statewide Community Nursing Care Homes Predesign	
OFM Project Number	92000042	

**Cost Estimate Details**

Acquisition Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Purchase/Lease	\$2,000,000			
Appraisal and Closing	\$25,000			
Right of Way				
Demolition	\$250,000			
Pre-Site Development				
Other				
Insert Row Here				
<b>ACQUISITION TOTAL</b>	<b>\$2,275,000</b>	NA	<b>\$2,275,000</b>	

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C-100 - Alternative #2: 6-Bedroom Home

**Cost Estimate Details**

Consultant Services				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Pre-Schematic Design Services</b>				
Programming/Site Analysis				
Environmental Analysis	\$20,000			
Predesign Study	\$286,560			
Other	\$150,000			Includes feasibility study of potential sites post appropriation. This includes preliminary layout, land use code analysis, pre-app meeting and others studies prior to land purchase or design start.
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$456,560</b>	<b>1.0497</b>	<b>\$479,252</b>	Escalated to Design Start
<b>2) Construction Documents</b>				
A/E Basic Design Services	\$1,276,385			69% of A/E Basic Services
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$1,276,385</b>	<b>1.0726</b>	<b>\$1,369,051</b>	Escalated to Mid-Design
<b>3) Extra Services</b>				
Civil Design (Above Basic Svcs)	\$250,000			
Geotechnical Investigation	\$150,000			
Commissioning	\$100,000			
Site Survey	\$100,000			
Testing	\$100,000			
LEED Services	\$0			
Voice/Data Consultant	\$25,000			
Value Engineering	\$25,000			
Constructability Review	\$25,000			
Environmental Mitigation (EIS)	\$0			
Landscape Consultant	\$100,000			
Septic system Design	\$50,000			If unable to locate site with sewer
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$925,000</b>	<b>1.0726</b>	<b>\$992,155</b>	Escalated to Mid-Design
<b>4) Other Services</b>				
Bid/Construction/Closeout	\$573,448			31% of A/E Basic Services
HVAC Balancing	\$25,000			
Staffing				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$598,448</b>	<b>1.1426</b>	<b>\$683,788</b>	Escalated to Mid-Const.
<b>5) Design Services Contingency</b>				
Design Services Contingency	\$162,820			

# C-100 - Alternative #2: 6-Bedroom Home

Other	\$100,000			Additional services to cover extended project duration, potentially 4 years of services.
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$262,820</b>	<b>1.1426</b>	<b>\$300,298</b>	Escalated to Mid-Const.
<b>CONSULTANT SERVICES TOTAL</b>	<b>\$3,519,213</b>		<b>\$3,824,544</b>	

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C-100 - Alternative #2: 6-Bedroom Home

**Cost Estimate Details**

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Site Work</b>				
G10 - Site Preparation	\$411,215			
G20 - Site Improvements	\$617,855			
G30 - Site Mechanical Utilities	\$404,095			
G40 - Site Electrical Utilities	\$862,835			
G60 - Other Site Construction				
Other				Includes 5 sites
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$2,296,000</b>	<b>1.1198</b>	<b>\$2,571,061</b>	
<b>2) Related Project Costs</b>				
Offsite Improvements	\$200,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				Includes 5 sites
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$200,000</b>	<b>1.1198</b>	<b>\$223,960</b>	
<b>3) Facility Construction</b>				
A10 - Foundations	\$854,125			
A20 - Basement Construction	\$0			
B10 - Superstructure	\$1,583,665			
B20 - Exterior Closure	\$2,614,745			
B30 - Roofing	\$1,106,965			
C10 - Interior Construction	\$1,412,815			
C20 - Stairs	\$0			
C30 - Interior Finishes	\$912,000			
D10 - Conveying	\$0			
D20 - Plumbing Systems	\$675,000			
D30 - HVAC Systems	\$1,400,000			
D40 - Fire Protection Systems	\$203,775			
D50 - Electrical Systems	\$2,133,050			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions	\$1,825,700			
Estimating Contingency	\$6,888,480			Includes 20% estimating contingency plus 5% escalation to start of construction
Fees & Insurances	\$1,352,440			
<b>Sub TOTAL</b>	<b>\$22,962,760</b>	<b>1.1426</b>	<b>\$26,237,250</b>	
<b>4) Maximum Allowable Construction Cost</b>				
<b>MACC Sub TOTAL</b>	<b>\$25,458,760</b>		<b>\$29,032,271</b>	

C-100 - Alternative #2: 6-Bedroom Home

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**7) Construction Contingency**

Allowance for Change Orders	\$1,272,938		
Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$1,272,938</b>	<b>1.1426</b>	<b>\$1,454,459</b>

**8) Non-Taxable Items**

Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.1426</b>	<b>\$0</b>

**Sales Tax**

<b>Sub TOTAL</b>	<b>\$2,753,365</b>		<b>\$3,140,134</b>
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<b>CONSTRUCTION CONTRACTS TOTAL</b>	<b>\$29,485,063</b>		<b>\$33,626,864</b>
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C-100 - Alternative #2: 6-Bedroom Home

**Cost Estimate Details**

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$191,000			
E20 - Furnishings	\$292,500			
F10 - Special Construction				
Other	\$625,000			Specialized Furniture, Beds, Desks, Technology for 5 Houses
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$1,108,500</b>	<b>1.1426</b>	<b>\$1,266,573</b>	
<b>1) Non Taxable Items</b>				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.1426</b>	<b>\$0</b>	
<b>Sales Tax</b>				
<b>Sub TOTAL</b>	<b>\$114,176</b>		<b>\$130,458</b>	
<b>EQUIPMENT TOTAL</b>	<b>\$1,222,676</b>		<b>\$1,397,031</b>	

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**Cost Estimate Details**

Artwork				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Project Artwork	\$215,079			0.5% of total project cost for new construction
Higher Ed Artwork	\$0			0.5% of total project cost for new and renewal construction
Other				
Insert Row Here				
<b>ARTWORK TOTAL</b>	<b>\$215,079</b>	<b>NA</b>	<b>\$215,079</b>	

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C-100 - Alternative #2: 6-Bedroom Home

**Cost Estimate Details**

Project Management				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$970,197			
Additional Services				
Other				
Insert Row Here				
<b>PROJECT MANAGEMENT TOTAL</b>	<b>\$970,197</b>	<b>1.1426</b>	<b>\$1,108,547</b>	

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**Cost Estimate Details**

Other Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Mitigation Costs				
Hazardous Material Remediation/Removal	\$100,000			
Historic and Archeological Mitigation				
Utility Connection fees	\$250,000			Utility allowance for five sites
Permit Fees	\$350,000			Permits for five sites
<b>OTHER COSTS TOTAL</b>	<b>\$700,000</b>	<b>1.1198</b>	<b>\$783,860</b>	

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# C-100 - Alternative #2: 6-Bedroom Home

<b>C-100(2021) Additional Notes</b>
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<b>Tab A. Acquisition</b>
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<b>Tab B. Consultant Services</b>
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<b>Tab C. Construction Contracts</b>
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<b>Tab D. Equipment</b>
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<b>Tab E. Artwork</b>
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<b>Tab F. Project Management</b>
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<b>Tab G. Other Costs</b>
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# C-100 - Alternative #3: 30-Bedroom Home

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Updated June 2021		
Agency	Department of Social Health Services	
Project Name	Statewide Community Nursing Care Homes Predesign	
OFM Project Number	92000042	

Contact Information	
Name	Jim Wolch BCRA/ARC Cost
Phone Number	253-627-4367
Email	<a href="mailto:jwolch@bcradesign.com">jwolch@bcradesign.com</a>

Statistics			
Gross Square Feet	28,000	MACC per Square Foot	\$1,153
Usable Square Feet	22,000	Escalated MACC per Square Foot	\$1,313
Space Efficiency	78.6%	A/E Fee Class	B
Construction Type	Nursing homes	A/E Fee Percentage	6.63%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	3.28%	Higher Ed Institution	No
<a href="#">Sales Tax Rate %</a>	7.70%	Location Used for Tax Rate	Clark County
Contingency Rate	5%		
Base Month	March-22	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	September-21	Predesign End	April-22
Design Start	September-23	Design End	January-25
Construction Start	September-25	Construction End	December-26
Construction Duration	15 Months		

Green cells must be filled in by user

Project Cost Estimate			
Total Project	<b>\$45,613,519</b>	Total Project Escalated	<b>\$51,538,792</b>
		Rounded Escalated Total	<b>\$51,539,000</b>

C-100 - Alternative #3: 30-Bedroom Home

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Updated June 2021		
Agency	Department of Social Health Services	
Project Name	Statewide Community Nursing Care Homes Predesign	
OFM Project Number	92000042	

**Cost Estimate Summary**

Acquisition			
<b>Acquisition Subtotal</b>	<b>\$1,075,000</b>	<b>Acquisition Subtotal Escalated</b>	<b>\$1,075,000</b>

Consultant Services			
Predesign Services	\$356,560		
A/E Basic Design Services	\$1,551,243		
Extra Services	\$1,000,000		
Other Services	\$721,935		
Design Services Contingency	\$281,487		
<b>Consultant Services Subtotal</b>	<b>\$3,911,225</b>	<b>Consultant Services Subtotal Escalated</b>	<b>\$4,257,257</b>

Construction			
Construction Contingencies	\$1,614,723	Construction Contingencies Escalated	\$1,844,983
Maximum Allowable Construction Cost (MACC)	\$32,294,454	Maximum Allowable Construction Cost (MACC) Escalated	\$36,763,002
Sales Tax	\$2,611,007	Sales Tax Escalated	\$2,972,815
<b>Construction Subtotal</b>	<b>\$36,520,183</b>	<b>Construction Subtotal Escalated</b>	<b>\$41,580,800</b>

Equipment			
Equipment	\$1,351,400		
Sales Tax	\$104,058		
Non-Taxable Items	\$0		
<b>Equipment Subtotal</b>	<b>\$1,455,458</b>	<b>Equipment Subtotal Escalated</b>	<b>\$1,663,007</b>

Artwork			
<b>Artwork Subtotal</b>	<b>\$256,412</b>	<b>Artwork Subtotal Escalated</b>	<b>\$256,412</b>

Agency Project Administration			
Agency Project Administration Subtotal	\$1,058,115		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$0		
<b>Project Administration Subtotal</b>	<b>\$1,058,115</b>	<b>Project Administration Subtotal Escalated</b>	<b>\$1,209,003</b>

Other Costs			
<b>Other Costs Subtotal</b>	<b>\$1,337,125</b>	<b>Other Costs Subtotal Escalated</b>	<b>\$1,497,313</b>

Project Cost Estimate			
Total Project	<b>\$45,613,519</b>	Total Project Escalated	<b>\$51,538,792</b>
		Rounded Escalated Total	<b>\$51,539,000</b>

C-100 - Alternative #3: 30-Bedroom Home

**Cost Estimate Details**

Acquisition Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Purchase/Lease	\$1,000,000			
Appraisal and Closing	\$25,000			
Right of Way				
Demolition	\$50,000			
Pre-Site Development				
Other	\$0			
Insert Row Here				
<b>ACQUISITION TOTAL</b>	<b>\$1,075,000</b>	<b>NA</b>	<b>\$1,075,000</b>	

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C-100 - Alternative #3: 30-Bedroom Home

**Cost Estimate Details**

Consultant Services				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Pre-Schematic Design Services</b>				
Programming/Site Analysis				
Environmental Analysis	\$20,000			
Predesign Study	\$286,560			
Other	\$50,000			Feasibility Study prior to Land purchase
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$356,560</b>	<b>1.0497</b>	<b>\$374,282</b>	Escalated to Design Start
<b>2) Construction Documents</b>				
A/E Basic Design Services	\$1,551,243			69% of A/E Basic Services
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$1,551,243</b>	<b>1.0726</b>	<b>\$1,663,864</b>	Escalated to Mid-Design
<b>3) Extra Services</b>				
Civil Design (Above Basic Svcs)	\$250,000			
Geotechnical Investigation	\$150,000			
Commissioning	\$100,000			
Site Survey	\$75,000			
Testing	\$100,000			
LEED Services	\$0			
Voice/Data Consultant	\$25,000			
Value Engineering	\$25,000			
Constructability Review	\$25,000			
Environmental Mitigation (EIS)	\$0			
Landscape Consultant	\$100,000			
Wetlands Consultant	\$50,000			Potentially needed on future site
Land Use Planning	\$100,000			Budget for CUP approval
<b>Sub TOTAL</b>	<b>\$1,000,000</b>	<b>1.0726</b>	<b>\$1,072,600</b>	Escalated to Mid-Design
<b>4) Other Services</b>				
Bid/Construction/Closeout	\$696,935			31% of A/E Basic Services
HVAC Balancing	\$25,000			
Staffing				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$721,935</b>	<b>1.1426</b>	<b>\$824,884</b>	Escalated to Mid-Const.
<b>5) Design Services Contingency</b>				
Design Services Contingency	\$181,487			
Other	\$100,000			Additional Services for four year project duration.
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$281,487</b>	<b>1.1426</b>	<b>\$321,627</b>	Escalated to Mid-Const.
<b>CONSULTANT SERVICES TOTAL</b>				
	<b>\$3,911,225</b>		<b>\$4,257,257</b>	

C-100 - Alternative #3: 30-Bedroom Home

**Cost Estimate Details**

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
<b>1) Site Work</b>				
G10 - Site Preparation	\$700,000			
G20 - Site Improvements	\$683,000			
G30 - Site Mechanical Utilities	\$450,000			
G40 - Site Electrical Utilities	\$750,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$2,583,000</b>	<b>1.1198</b>	<b>\$2,892,444</b>	
<b>2) Related Project Costs</b>				
Offsite Improvements	\$1,500,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Net zero	\$1,910,120			Frontage improvements included in off-site
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$3,410,120</b>	<b>1.1198</b>	<b>\$3,818,653</b>	
<b>3) Facility Construction</b>				
A10 - Foundations	\$864,537			
A20 - Basement Construction	\$0			
B10 - Superstructure	\$1,490,660			
B20 - Exterior Closure	\$2,476,322			
B30 - Roofing	\$1,152,485			
C10 - Interior Construction	\$1,564,315			
C20 - Stairs	\$0			
C30 - Interior Finishes	\$1,041,175			
D10 - Conveying	\$0			
D20 - Plumbing Systems	\$1,316,000			
D30 - HVAC Systems	\$1,921,961			
D40 - Fire Protection Systems	\$236,178			
D50 - Electrical Systems	\$2,511,880			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions	\$2,126,615			
Estimating Contingency	\$8,023,853			
Fee & Insurances	\$1,575,353			
<b>Sub TOTAL</b>	<b>\$26,301,334</b>	<b>1.1426</b>	<b>\$30,051,905</b>	
<b>4) Maximum Allowable Construction Cost</b>				
<b>MACC Sub TOTAL</b>	<b>\$32,294,454</b>		<b>\$36,763,002</b>	

C-100 - Alternative #3: 30-Bedroom Home

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<b>7) Construction Contingency</b>			
Allowance for Change Orders	\$1,614,723		
Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$1,614,723</b>	<b>1.1426</b>	<b>\$1,844,983</b>
<b>8) Non-Taxable Items</b>			
Other			
Insert Row Here			
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.1426</b>	<b>\$0</b>
<b>Sales Tax</b>			
<b>Sub TOTAL</b>	<b>\$2,611,007</b>		<b>\$2,972,815</b>
<b>CONSTRUCTION CONTRACTS TOTAL</b>	<b>\$36,520,183</b>		<b>\$41,580,800</b>

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C-100 - Alternative #3: 30-Bedroom Home

**Cost Estimate Details**

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$327,400			
E20 - Furnishings	\$399,000			
F10 - Special Construction				
Other	\$625,000			Furniture, Beds, Desks, Tables
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$1,351,400</b>	<b>1.1426</b>	<b>\$1,544,110</b>	
<b>1) Non Taxable Items</b>				
Other				
Insert Row Here				
<b>Sub TOTAL</b>	<b>\$0</b>	<b>1.1426</b>	<b>\$0</b>	
<b>Sales Tax</b>				
<b>Sub TOTAL</b>	<b>\$104,058</b>		<b>\$118,897</b>	
<b>EQUIPMENT TOTAL</b>	<b>\$1,455,458</b>		<b>\$1,663,007</b>	

Green cells must be filled in by user

**Cost Estimate Details**

Artwork				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Project Artwork	\$256,412			0.5% of total project cost for new construction
Higher Ed Artwork	\$0			0.5% of total project cost for new and renewal construction
Other				
Insert Row Here				
<b>ARTWORK TOTAL</b>	<b>\$256,412</b>	<b>NA</b>	<b>\$256,412</b>	

Green cells must be filled in by user

C-100 - Alternative #3: 30-Bedroom Home

**Cost Estimate Details**

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$1,058,115				
Additional Services					
Other					
Insert Row Here					
<b>PROJECT MANAGEMENT TOTAL</b>	<b>\$1,058,115</b>		<b>1.1426</b>	<b>\$1,209,003</b>	

Green cells must be filled in by user

**Cost Estimate Details**

Other Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Mitigation Costs	\$0				
Hazardous Material Remediation/Removal	\$100,000				
Historic and Archeological Mitigation					
Utility connection fees	\$400,000				Utility connection fees
Permit Fees	\$837,125				Permit plus impact fees
<b>OTHER COSTS TOTAL</b>	<b>\$1,337,125</b>		<b>1.1198</b>	<b>\$1,497,313</b>	

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# C-100 - Alternative #3: 30-Bedroom Home

<b>C-100(2021) Additional Notes</b>
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<b>Tab A. Acquisition</b>
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<b>Tab B. Consultant Services</b>
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<b>Tab C. Construction Contracts</b>
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<i>Insert Row Here</i>

<b>Tab D. Equipment</b>
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<b>Tab E. Artwork</b>
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<b>Tab F. Project Management</b>
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<b>Tab G. Other Costs</b>
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# Staffing Plan Analysis - Overview

## Overview

This Healthcare Staffing Services Plan outlines the staffing operations expenses for the Department of Social & Health Services (DSHS) Statewide Community Nursing Care Homes Predesign (Project Number 2022-419). Two alternatives were considered as part of the predesign: 1) Five 6-Bedroom Community Nursing Care Homes (CNCH) and 2) One 30-Bedroom Facility. The objective was to compare the relative costs of several smaller versus one larger facility. For the purposes of this analysis, the new model of several smaller homes is called the CNCH model.

## Project Background

The Community Nursing Care Home (CNCH) model is a response to the identified need to offer the ID/DD community more home-like, longer term, person-centered living options that are integrated in the community. It is designed to serve people with ID/DD who also have high medical acuity and require ongoing or intermittent nursing care, rehabilitation care, and assistance with activities of daily living (ADLs). The goal of the proposed staffing plan is to offer the support needed to help residents manage short-term and chronic medical conditions through collaborative support from their community healthcare providers and in-home care.

The 6-bed CNCH model is informed by feedback from the DSHS Community Nursing Care Home Predesign Project Workgroup, review of the existing ID/DD models in Washington state, and review of relevant literature and reports. Additionally, members of the project team met with leadership from East Tennessee Homes and Oregon's "24-Hour Residential Programs", managed by the nonprofit Community Access Services. Both states have already transitioned to smaller, community-based homes and provided insight on replicable best practices. The CNCH model is similar to an Adult Family Home (AFH), or State Operated Living Alternative (SOLA), but does not currently exist in Washington state.

The 30-bed model is based on existing Washington Residential Habilitation Centers and serves as a comparison between the current facilities available to the ID/DD population and the proposed alternative CNCH model.

## Staffing & Operations Costs

The following table provides an overview of the Staffing & Operations Costs for the two options. These projections include salaries and related benefits as well as food and operational costs (i.e. maintenance, utilities and housekeeping). The two options have similar cost profiles.

### Summary of Staffing & Operations Costs

	CNCH Model (Five 6-Bedroom Homes)	30-Bed Facility
Total Residents	30	30
Total Project Net Present Value (5 Biennia)	\$ 45,941,130	\$ 46,553,475
Annual Cost/Resident (2022)	\$ 169,228	\$ 171,404
Daily Rate/Resident (2022)	\$ 464	\$ 470

## Total FTEs & FTEs Per Resident

The table below is an overview of the total number of FTEs needed for both models, and FTEs per resident, broken down by category. Nursing & Other Clinical FTEs includes positions such as nursing, certified nursing assistants or attendant counselors, physical or speech therapists and other clinical roles. Admin & Support FTEs include management and other indirect care positions. Please see appendices for more details.

### Summary of FTEs

	CNCH Model (Five 6-Bedroom Homes)	30-Bed Facility
Total Residents	30	30
Nursing & Other Clinical FTEs	69	37
Nursing & Other Clinical FTE per Patient	2.3	1.2
Administration & Support FTEs	6.3	9.5

## Comparison Analysis

Based on the analysis in this report and findings from the workgroup and from other states, the CNCH presents as a model that will offer the flexibility to meet individual care needs through a robust staffing plan focused on maximizing independence. It also presents as a cost-effective option for individuals who want to live in a smaller community setting.

The estimated annual cost per resident for the 30-bed nursing facility model of \$171,404 is similar to the cost per resident for the 6-Bed CNCH model of \$169,228. However, the staffing ratios between the models are significantly different due to the differences in care team composition. The 30-bed model includes more medical personnel, clinical leadership, environmental and food services and has higher administrative costs. Similar to the existing models in Oregon and East Tennessee, the 6-bed CNCH model offers a higher staff to patient ratio without increasing costs by utilizing more certified nursing assistants/attendant counselors. In addition to providing medical support under the supervision of a nurse or physician, certified nursing assistants/attendant counselors are typically a flexible role that can provide additional services such as assistance with activities of daily living, food preparation, housekeeping, and facilitating recreational activities.

## See Appendices

- E. Detailed Staffing Plan
- F. Project Staffing & Operations Budget
- G. Staffing Plan: 6-Bed Home
- H. Staffing & Salaries Projections: 6-Bed Home
- J. Staffing Plan: 30-Bed Home
- K. Staffing & Salaries Projections: 30-Bed Home



# 4

## Appendices

- A. Pre-Design Checklist
- B. Life Cycle Cost Model
- C. 30-Bed Facility - Programming
- D. 30-Bed Facility - Engineering Summary
- E. Detailed Staffing Plan
- F. Project Staffing & Operations Budget
- G. Staffing Plan: 6-Bed Home
- H. Staffing & Salaries Projections: 6-Bed Home
- J. Staffing Plan: 30-Bed Home
- K. Staffing & Salaries Projections: 30-Bed Home
- L. Cost Estimate: 6-Bed Facility
- M. Cost Estimate: 30-Bed Facility



# Pre-Design Checklist

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## APPENDIX 1: PREDESIGN CHECKLIST AND OUTLINE

A predesign should include the content detailed here. OFM will approve limited scope predesigns on a case-by-case basis.

### Executive summary

- Problem statement, opportunity or program requirement
  - Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished.
  - Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated caseload projections (growth or decline) and assumptions, if applicable.
  - Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity or program requirements.
  - Describe in general terms what is needed to solve the problem.
  - Include any relevant history of the project, including previous predesigns or budget funding requests that did not go forward to design or construction.
- Analysis of alternatives (including the preferred alternative)
  - Describe all alternatives that were considered, including the preferred alternative. Include:
    - A no action alternative.
    - Advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis that compares the alternatives, including the anticipated cost for each alternative.
    - Cost estimates for each alternative:
      - Provide enough information so decision makers have a general understanding of the costs.
      - Complete OFM's Life Cycle Cost [Model](#) (RCW [39.35B.050](#)).
    - Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.
- Detailed analysis of preferred alternative
  - Nature of space – how much of the proposed space will be used for what purpose (i.e., office, lab, conference, classroom, etc.)
  - Occupancy numbers.
  - Basic configuration of the building, including square footage and the number of floors.
  - Space needs assessment. Identify the guidelines used.
  - Site analysis:
    - Identify site studies that are completed or under way and summarize their results.
  - N/A  Location.

- Building footprint and its relationship to adjacent facilities and site features. Provide aerial view, sketches of the building site and basic floorplans.
- Water rights and water availability.
- Stormwater requirements.
- Ownership of the site, easements, and any acquisition issues.
- Property setback requirements.
- Potential issues with the surrounding neighborhood, during construction and ongoing.
- Utility extension or relocation issues.
- Potential environmental impacts.
- Parking and access issues, including improvements required by local ordinances, local road impacts and parking demand.
- Impact on surroundings and existing development with construction lay-down areas and construction phasing.
- Consistency with applicable long-term plans (such as the Thurston County and Capitol campus master plans and agency or area master plans) as required by RCW [43.88.110](#).
- Consistency with other laws and regulations:
  - High-performance public buildings (Chapter [39.35D](#) RCW).
  - State efficiency and environmental performance, if applicable (Executive Order [20-01](#)).
  - State energy standards for clean buildings (RCW 19.27A.210).
  - Compliance with required vehicle charging capability for new buildings that provide on-site parking (RCW 19.27.540).
  - Greenhouse gas emissions reduction policy (RCW [70.235.070](#)).
  - Archeological and cultural resources (Executive Order [05-05](#) and [Section 106](#) of the National Historic Preservation Act of 1966). If mitigation is anticipated, please note this in the predesign with narrative about how mitigation is worked into the project schedule and budget.
  - Americans with Disabilities Act (ADA) implementation (Executive Order [96-04](#)).
  - Compliance with planning under Chapter [36.70A](#) RCW, as required by RCW [43.88.0301](#).
  - Information required by RCW [43.88.0301](#)(1).
  - Other codes or regulations.
- Identify problems that require further study. Evaluate identified problems to establish probable costs and risk.
- Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.
- Identify planned technology infrastructure and other related IT investments that affect the building plans.
- Identify any site-related and/or physical security measures for the project.
- Describe planned commissioning to ensure systems function as designed.
- Describe any future phases or other facilities that will affect this project.
- Provide a comparative discussion of the pros and cons of the project delivery methods considered for this project, and offer a recommendation of proposed procurement method for the preferred alternative. The proposed method of project delivery must be justified.

- Describe how the project will be managed within the agency.
- Schedule.
  - Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy and full operation.
  - Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW [43.88.110\(5\)\(c\)](#).
    - Describe factors that may delay the project schedule.
    - Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.
    - Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are a part of the process.
- Project budget analysis for the preferred alternative
  - Cost estimate.
    - Major assumptions used in preparing the cost estimate.
    - Summary table of Uniformat Level II cost estimates.
    - The [C-100](#).
  - Proposed funding.
    - Identify the fund sources and expected receipt of the funds.
    - If alternatively financed, such as through a COP, provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates.
  - Facility operations and maintenance requirements.
    - Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs) and moving costs.
    - Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repair, replacement and maintenance.
    - Identify the agency responsible for ongoing maintenance and operations, if not maintained by the owner.
  - Clarify whether furniture, fixtures and equipment are included in the project budget. If not included, explain why.

### Pre-design appendices

- Completed Life Cycle Cost [Model](#).
- N/A  A letter from DAHP.
- N/A  Title report for projects including proposed acquisition.



# Life Cycle Cost Model

## Project and Existing Facility Information Sheet

* <b>Requires a user input</b>	<b>Green Cell</b> = Value can be entered by user.	<b>Yellow Cell</b> = Calculated value.
* <b>Agency</b>	DSHS	
* <b>Project Title</b>	DSHS Community Nursing Care Homes	
* <b>Date of Analysis:</b>	3/8/2022	
* <b>Analysis Period</b>		
<b>Years of Analysis (If not 30 or 50)</b>		

<b>Existing Facility Description</b>	Comparing ownership of five 6 bedroom homes versus a single 30 Bed Nursing Home
--------------------------------------	---

<b>Existing Lease Information</b>	<b>Lease 1</b>	<b>Lease 2</b>	<b>Lease 3</b>	<b>Lease 4</b>	<b>Lease 5</b>	<b>Lease 6</b>	<b>Total</b>
Existing Square Feet							-
Lease Start Date / Last Lease Increase							
Lease End Date							
Lease Rate per Month							\$ -
Lease Rate per SF per Year at End Date							
Additional Operating Costs per Month	\$ -						\$ -
Total Lease Costs per Month							\$ -
* Persons Relocating							-
SF per Person Calculated							
Estimated Lease Renewal Rate - 5 Year							\$ -

# Site Analysis

## Lease Option 1 Information Sheet

\* **Requires a user input**      Green Cell = Value can be entered by user.      Yellow Cell = Calculated value.

\* **New Lease Option 1 Description**

New Lease Information	
* Lease Location	<span style="background-color: #d9ead3;">Market Area:</span>
* Lease Square Feet Type	<span style="background-color: #d9ead3;"></span>
* New Facility Square Feet	<span style="background-color: #d9ead3;"></span>
* New Lease Start Date	<span style="background-color: #d9ead3;"></span>
SF per Person Calculated	<span style="background-color: #fff2cc;"></span>

New Lease Costs	Years of Term	Rate / SF / Year	Rate / Month	Adjusted to FS Rate	Total FS Rate / Month	Estimated FSG Market Rate	Estimated FSG Rate / Month	Real Estate Transaction Fees for Term
* Year	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #fff2cc;"></span>	\$ -	\$ -	\$ -	<span style="background-color: #fff2cc;"></span>	<span style="background-color: #fff2cc;"></span>
Years	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #fff2cc;"></span>	\$ -	\$ -		<span style="background-color: #fff2cc;"></span>	<span style="background-color: #fff2cc;"></span>
Years	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #fff2cc;"></span>	\$ -	\$ -		<span style="background-color: #fff2cc;"></span>	<span style="background-color: #fff2cc;"></span>
Years	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #fff2cc;"></span>	\$ -	\$ -		<span style="background-color: #fff2cc;"></span>	<span style="background-color: #fff2cc;"></span>
Years	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #d9ead3;"></span>	<span style="background-color: #fff2cc;"></span>	\$ -	\$ -		<span style="background-color: #fff2cc;"></span>	<span style="background-color: #fff2cc;"></span>
Total Length of Lease	<span style="background-color: #fff2cc;">0</span>							\$ -
Transaction Fee for first 5 Years	<span style="background-color: #d9ead3;">2.50%</span>	<i>of total rent for first 5 years of term</i>						
Transaction Fee for Additional Years	<span style="background-color: #d9ead3;">1.25%</span>	<i>of total rent for term beyond 5 years</i>						

*Note: Real estate transaction fees calculated on base lease - not full service rate including added services and utilities.*



# Site Analysis

Added Services	New Lease Operating Costs (Starting in current year)	Known Cost / SF / Year	Estimated Cost / SF / Year	Total Cost / Year	Cost / Month	<i>Escalated to lease start date</i>
<input type="checkbox"/>	Energy (Electricity, Natural Gas)	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Janitorial Services	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Utilities (Water, Sewer, & Garbage)	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Grounds	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Pest Control	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Security	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Maintenance and Repair	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Management	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Road Clearance	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/>	Telecom	\$ -	\$ -	\$ -	\$ -	
	Additional Parking	\$ -	\$ -	\$ -	\$ -	
	Other	\$ -	\$ -	\$ -	\$ -	
	<b>Total Operating Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

	New Lease One Time Costs	Current Estimate	Calculated (for reference)	
*	Real Estate Transaction Fees		\$ -	<i>Per Std %</i>
*	Tenant Improvements		\$ -	<i>\$19 per SF</i>
*	IT Infrastructure		\$ -	<i>\$1500 per Person</i>
*	Furniture Costs		\$ -	<i>\$7000 per Person</i>
*	Building Security and Access Systems			<i>\$450 per person</i>
*	Moving Vendor and Supplies		\$ -	<i>\$300 per Person</i>
	Other / Incentive			
	<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	

Biennium Budget Impacts for New Lease	Biennium Time Period		Existing Lease Option	New Lease Option 1	Biennium Impact:
	Start	Finish			
23-25 Biennium Lease Expenditure	7/1/2023	6/30/2025	\$ -	\$ -	\$ -
25-27 Biennium Lease Expenditure	7/1/2025	6/30/2027	\$ -	\$ -	\$ -
27-29 Biennium Lease Expenditure	7/1/2027	6/30/2029	\$ -	\$ -	\$ -
29-31 Biennium Lease Expenditure	7/1/2029	6/30/2031	\$ -	\$ -	\$ -
31-33 Biennium Lease Expenditure	7/1/2031	6/30/2033	\$ -	\$ -	\$ -

# Site Analysis

## Lease Option 2 Information Sheet

\* **Requires a user input**      **Green Cell** = Value can be entered by user.      **Yellow Cell** = Calculated value.

\* **New Lease Option 2 Description**

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New Lease Information	
Lease Location	Market Area:
Lease Square Feet Type	
New Facility Square Feet	
New Lease Start Date	
SF per Person Calculated	

New Lease Costs	Years of Term	Rate / SF / Year	Rate / Month	Adjusted to FS Rate	Total FS Rate / Month	Estimated FSG Market Rate	Estimated FSG Rate / Month	Real Estate Transaction Fees for Term
Year				\$ -	\$ -	\$ -		
Years				\$ -	\$ -			
Years				\$ -	\$ -			
Years				\$ -	\$ -			
Years				\$ -	\$ -			
Total Length of Lease	0							\$ -
Transaction Fee for first 5 Years	2.50%	<i>of total rent for first 5 years of term</i>						
Transaction Fee for Additional Years	1.25%	<i>of total rent for term beyond 5 years</i>						

*Note: Real estate transaction fees calculated on base lease - not including added services and utilities.*

# Site Analysis

Added Services	New Lease Operating Costs (Starting in current year)	Known Cost / SF / Year	Estimated Cost / SF / Year	Total Cost / Year	Cost / Month
<input type="checkbox"/>	Energy (Electricity, Natural Gas)	\$ -	\$ -	\$ -	\$ -
<input checked="" type="checkbox"/>	Janitorial Services	\$ -	\$ -	\$ -	\$ -
<input checked="" type="checkbox"/>	Utilities (Water, Sewer, & Garbage)	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Grounds	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Pest Control	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Security	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Maintenance and Repair	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Management	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Road Clearance	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/>	Telecom	\$ -	\$ -	\$ -	\$ -
	Additional Parking	\$ -	\$ -	\$ -	\$ -
	Other	\$ -	\$ -	\$ -	\$ -
	<b>Total Operating Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

*Escalated to lease start date*

New Lease One Time Costs	Current Estimate	Calculated (for reference)
Real Estate Transaction Fees		\$ -
Tenant Improvements		\$ -
IT Infrastructure		\$ -
Furniture Costs		\$ -
Building Security and Access Systems		
Moving Vendor and Supplies		\$ -
Other / Incentive		
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>

*Per Std %  
\$19 / RSF  
\$1500 / Person  
\$7000 / Person  
\$450 / Person  
\$300 / Person*

Biennium Budget Impacts for New Lease	Biennium Time Period		Existing Lease Option	New Lease Option 2	Biennium Impact:
	Start	Finish			
23-25 Biennium Lease Expenditure	7/1/2023	6/30/2025	\$ -	\$ -	\$ -
25-27 Biennium Lease Expenditure	7/1/2025	6/30/2027	\$ -	\$ -	\$ -
27-29 Biennium Lease Expenditure	7/1/2027	6/30/2029	\$ -	\$ -	\$ -
29-31 Biennium Lease Expenditure	7/1/2029	6/30/2031	\$ -	\$ -	\$ -
31-33 Biennium Lease Expenditure	7/1/2031	6/30/2033	\$ -	\$ -	\$ -

# Site Analysis

## Ownership Option 1 Information Sheet

\* **Requires a user input** Green Cell = Value can be entered by user. Yellow Cell = Calculated value.

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<b>Project Description</b>	5 - 6-Bedroom Homes located thru-out the State
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\* 

<b>Construction or Purchase/Remodel</b>	Construction
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\* 

<b>Project Location</b>	Tacoma	Market Area = Pierce County
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Statistics	
* Gross Sq Ft	25,000
* Usable Sq Ft	22,500
Space Efficiency	90%
Estimated Acres Needed	2.00
MACC Cost per Sq Ft	\$1,161.29
Estimated Total Project Costs per Sq Ft	\$1,650.74
Escalated MACC Cost per Sq Ft	\$1,373.55
Escalated Total Project Costs per Sq Ft	\$1,952.47

\* 

<b>Move In Date</b>	1/1/2027
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Interim Lease Information	Start Date
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced (\$/SF/Year)	
One Time Costs (if double move)	

# Site Analysis

Construction Cost Estimates (See Capital Budget System For Detail)				
	Known Costs	Estimated Costs	Cost to Use	
	\$ 2,275,000	\$ 500,000	\$ 2,275,000	
A & E	<b>Consultant Services</b>			
	A & E Fee Percentage (if services not specified)	6.92%	6.61% Std	6.92%
	Pre-Schematic Design services	\$ 479,252		
	Construction Documents	\$ 1,369,051		
	Extra Services	\$ 992,155		
	Other Services	\$ 683,788		
	Design Services Contingency	\$ 300,298		
	<b>Consultant Services Total</b>	<b>\$ 3,824,544</b>	<b>\$ 1,839,997</b>	<b>\$ 3,824,544</b>
MACC	<b>Construction Contracts</b>			
	Site Work	\$ 2,571,061		
	Related Project Costs	\$ 223,960		
	Facility Construction	\$ 26,237,250		
<b>MACC SubTotal</b>	<b>\$ 29,032,271</b>	<b>\$ 9,047,000</b>	<b>\$ 29,032,271</b>	
	Construction Contingency (5% default)	\$ 1,454,459	\$ 1,451,614	\$ 1,454,459
	Non Taxable Items		\$ -	
	Sales Tax	\$ 3,140,134		\$ 3,140,134
	<b>Construction Additional Items Total</b>	<b>\$ 4,594,593</b>	<b>\$ 1,451,614</b>	<b>\$ 4,594,593</b>
	<b>Equipment</b>			
	Equipment	\$ 1,266,573		
	Non Taxable Items			
	Sales Tax	\$ 130,458		
	<b>Equipment Total</b>	<b>\$ 1,397,031</b>		<b>\$ 1,397,031</b>
	<b>Art Work Total</b>		<b>\$ 145,161</b>	<b>\$ 145,161</b>
	<b>Other Costs</b>			
	<b>Other Costs Total</b>	<b>\$ -</b>		<b>\$ -</b>
	<b>Project Management Total</b>			<b>\$ -</b>
	<b>Grand Total Project Cost</b>	<b>\$ 41,123,439</b>	<b>\$ 12,983,772</b>	<b>\$ 41,268,600</b>

# Site Analysis

Construction One Time Project Costs		
One Time Costs	Estimate	Calculated
Moving Vendor and Supplies		\$ -
Other (not covered in construction)		
<b>Total</b>	\$ -	\$ -

*\$300 / Person in FY22*

Ongoing Building Costs					
Added Services	New Building Operating Costs	Known Cost /GSF/ 2027	Estimated Cost /GSF/ 2027	Total Cost / Year	Cost / Month
<input checked="" type="checkbox"/>	Energy (Electricity, Natural Gas)	\$ -	\$ 1.21	\$ 30,273	\$ 2,523
<input checked="" type="checkbox"/>	Janitorial Services	\$ -	\$ 1.79	\$ 44,645	\$ 3,720
<input checked="" type="checkbox"/>	Utilities (Water, Sewer, & Garbage)	\$ -	\$ 0.81	\$ 20,182	\$ 1,682
<input checked="" type="checkbox"/>	Grounds	\$ -	\$ 0.09	\$ 2,141	\$ 178
<input checked="" type="checkbox"/>	Pest Control	\$ -	\$ 0.15	\$ 3,669	\$ 306
<input checked="" type="checkbox"/>	Security	\$ -	\$ 0.11	\$ 2,752	\$ 229
<input checked="" type="checkbox"/>	Maintenance and Repair	\$ -	\$ 6.89	\$ 172,160	\$ 14,347
<input checked="" type="checkbox"/>	Management	\$ -	\$ 1.08	\$ 26,910	\$ 2,242
<input checked="" type="checkbox"/>	Road Clearance	\$ -	\$ 0.11	\$ 2,752	\$ 229
<input checked="" type="checkbox"/>	Telecom	\$ -	\$ -	\$ -	\$ -
	Additional Parking	\$ -	\$ -	\$ -	\$ -
	Other	\$ -	\$ -	\$ -	\$ -
	<b>Total Operating Costs</b>	\$ -	\$ 12.22	\$ 305,485	\$ 25,457

# Site Analysis

## Ownership Option 2 Information Sheet

Requires a user input

Green Cell = Value can be entered by user.

Yellow Cell = Calculated value.

<b>Project Description</b>	Construct a single 30 Bed Nursing facility in Vancouver Wa
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* <b>Construction or Purchase/Remodel</b>	Construction
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* <b>Project Location</b>	Vancouver	Market Area = Southwest Washington
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<b>Statistics</b>	
* Gross Sq Ft	28,000
* Usable Sq Ft	26,000
Space Efficiency	93%
Estimated Acres Needed	2.00
MACC Cost per Sq Ft	\$1,312.96
Estimated Total Project Costs per Sq Ft	\$1,741.42
Escalated MACC Cost per Sq Ft	\$1,552.95
Escalated Total Project Costs per Sq Ft	\$2,059.72

* <b>Move In Date</b>	1/1/2027
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<b>Interim Lease Information</b>	<b>Start Date</b>
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced (\$/SF/Year)	
One Time Costs (if double move)	



# 30-Bed Facility - Program

ALTERNATIVE 2: 30-BED SPACE PROGRAM						
Room/Area	Requirements (if any)	Num.	SF	Total	Bldg Total	NSF
<b>Resident Areas (Private)</b>						<b>7,770</b>
Bedroom (Single occupant)	Window with min 19 SF	10	200	2000	3	6,000
Bathroom (shared)	Sliding door with 3-6" min clear	5	60	300	3	900
Bathroom (shared)	Roll-in shower and tub	1	290	290	3	870
<b>Resident Areas (shared)</b>						<b>4,275</b>
Entry	Separate for each cluster	1	120	120	3	360
Living Room	Off of Dining	1	450	450	3	1,350
Kitchen	Prep and Warming	1	275	275	3	825
Dining	12 seats	1	245	245	3	735
Multi-purpose Room	6-8 Meeting	1	335	335	3	1,005
Season Porch		1	200	200	3	n/a
Covered Courtyard		1	600	600	3	n/a
<b>Staff Administration</b>						<b>1,155</b>
Administrative Office	At Main Entry	1	645	645	1	645
Office	Per wing	1	120	120	3	120
Public Toilet Room	Off main living areas	1	60	60	3	60
Staff Break		1	330	330	1	330
<b>Shared Services</b>						<b>3,903</b>
Physical Therapy		1	500	500	1	500
Entry Lobby		1	120	120	3	360
Service Kitchen		1	590	590	1	590
Food Storage	Walk in Freezer/Cooler	2	200	400	1	400
Receiving/Storage		1	385	385	1	385
Trash		1	88	88	1	88
Community room		1	900	900	1	900
Activity Room		1	500	500	1	500
Emergency Food Storage		1	60	60	3	180
<b>Support Areas</b>						<b>4,365</b>
Storage	25 SF per bed	30	25	750	3	2,250
Storage		1	150	150	1	150
Medical Storage	Locked space each wing	1	120	120	3	360
Pantry		1	150	150	3	450
Clean Linens		1	90	90	3	270
Soiled Linens		1	90	90	3	270
Housekeeping/Janitor		1	90	90	3	270
Laundry		1	115	115	3	345
<b>Bldg Services</b>						<b>2,100</b>
Garage	3 bays plus storage area	1	900	900	1	900
Generator		1	200	200	1	200
Maintenance		1	100	100	3	300
Mechanical/FSR		1	100	100	3	300
PV Room		1	200	200	1	200
Electrical		1	200	200	1	200
<b>Subtotal</b>						<b>23,568</b>
Non-assignable space						4,432
<b>Total</b>						<b>28,000 GSF</b>





# 30-Bed Facility

## Alternative #3: 30-Bed Facility

### ENGINEERING SUMMARY

#### General

A (30) thirty bed facility will be located in a rural area of Washington state and will assimilate the look and feel of a residential building. The residents may be non-ambulatory but will not require electrical life support for survival. This will be a long term care facility.

#### Electrical Service

Incoming electrical service will be assumed to be 120/208V, 3 phase, 4 wire service with underground service on the property through a Power Company pad mounted transformer. Currently a 1600 Ampere service will be planned for.

Normal power will be distributed from electrical rooms inside the building and branch circuits will supply power to all electrical fixtures and devices from this room or area.

#### Essential Power

Per WAC 388-97, a permanently fixed in place, on premises emergency power generator with on-site fuel supply is required to provide power for a minimum of (4) four hours.

Current planning is for a 500kVA, 120/208V, 3 Phase generator with a 72 hour fuel tank to allow for a longer outage time.

Automatic Transfer Switches will be provided for the Life Safety branch, for the Equipment Branch, and an additional automatic transfer switch may be added for any optional loads. Three Automatic Transfer Switches will be planned for the facility.

The Life Safety Branch will provide power for Exit and Egress Lighting, Fire Alarm Systems, Communications Systems needed during emergency conditions, task lighting and power at the generator set location and generator accessory equipment required for proper operation of the generator. Should a fire pump be required for the facility it will be directly connected between the generator and the fire pump transfer switch.

The Equipment Branch will provide power for nurse call systems as well as task lighting and select receptacles in Patient Care spaces, Medication Preparation, Pharmacy Dispensing and Nurse Stations. Mechanical Systems for supply, return and exhaust ventilation, sump pumps, smoke control, kitchen supply and exhaust, and heating for general patient rooms will be supplied power from this branch.

All other power on the emergency power systems will be considered optional connections to the third transfer switch.

Uninterruptable Power Supplies (UPS) will be provided for select medical equipment, security systems, and all computers in the building.

#### Lighting

Lighting will be accomplished using LED lighting fixtures with features that allow dimming and in specific locations, will be tunable for light color. Fixtures will be a mixture of recessed and surface mounting, located on wall and ceiling locations, and linear and round sources as best selected for the purpose and location.

Tunable lighting will be provided in Quiet Rooms. Amber night lights will be provided in Patient bedrooms.

Exterior lighting LED fixtures will be a mix of pedestrian oriented poles, bollards, wall sconces and parking site lighting pole mounted fixtures.

Lighting controls will vary from fully automatic lighting in public spaces using occupancy sensors and daylighting controls to (manual dimming) lighting control in Patient rooms. All controls will be localized to the area of use. Wireless lighting controls may be provided and will be decided during building design.

Site lighting controls will be based on photocells and lighting intensity variation based on occupant sensing controls. Some controls will likely include time of day control.

#### Power Distribution

Individual building power panels will be provided to serve lighting, receptacles, HVAC connections, kitchen equipment connections, and miscellaneous equipment

## Alternative #3: 30-Bed Facility

### ENGINEERING SUMMARY

connections. All distribution panels will be of door-in-door construction.

Building level metering will be provided to achieve LEED Energy and Atmosphere Prerequisite 3 for Building Level Metering, as well as net zero energy requirements in alignment with Executive Order 20-01. Responding to these project requirements will be best accomplished by separating loads (lighting, power, mechanical, etc.) into specific panels for distribution, metering, load shed and/or Power Company Demand Shedding.

All receptacles in the building will be tamper-resistant. Patient Rooms will have a minimum of four duplex receptacles (NFPA 99).

#### Telecommunications

Each building will have a main distribution facility (MDF) as required by DSHS Enterprise Technology, Telecommunications Infrastructure Standards. Cable will be based on CAT-6A cabling.

Patient Rooms will have telephone/data jacks.

Public area phones for patients will be determined during building design.

Wireless connectivity will be available to Residents, Staff, External Providers (Doctors), and Visitors over multiple wireless networks.

Telecommunications outlets will be provided at each telephone, computer, printer, monitor and every equipment reporting location, such as medical refrigerator alarms.

#### Television

Television (TV) outlets will be provided in Patient Rooms.

Conference and Break rooms will be provided with TV outlets in all facilities.

TV outlets will be provided with cable TV (where available) and Internet connections.

#### Audio / Visual

A Building Ambient Audio/Visual system may be provided for the building. Requirements will be determined during building design.

#### Fire Alarm

The Fire Alarm system will consist of a local main fire alarm panel centrally located in the building with a remote annunciator located at the front door.

Initiation devices will consist of smoke detectors in corridors, electric rooms, data rooms, and other sensitive areas where smoke detection warnings would be beneficial to the resident and staff population. Manual pull stations will be provided at each Nursing Station. Duct Smoke Detectors will be provided if required. Heat Detectors will be provided in specific areas where having a high heat alarm signal before the sprinkler heads activate is advantageous, such as cooking and laundry areas. The sprinkler system will be fully monitored through the fire alarm system.

Notification appliances will consist of voice alarm speakers and visual alerting devices (Speaker/strobes). Voice alarm is not required but considering the patient population, voice notification will be more calming. Visual devices will need to be carefully coordinated so as to not be disruptive in the environment.

It is likely the fire alarm system will need to be closely coordinated with the local Fire Marshal's office to provide a system that provides for a safe environment and is the least disruptive to the residents and staff.

#### Security

Security will include intrusion detection, access control, panic alarms, and wander control. Security features for lockdown may also be utilized.

Intrusion Detection will be provided at all exterior doors and will be used to monitor and report door activity and door position to staff members. This type of system could be (but is not planned for) use in monitoring window activity of operable windows. Additional monitoring could be accomplished with motion sensors to monitor traffic in specific hallways.

Access control using card or badge readers will be used at specific staff entry points to the building. Readers will also be provided in high security areas such as Medical Preparation rooms and Data rooms. Additional readers will be provided in areas that have access needs restricted to specific staff. DSHS Standard for Access Control utilizes Lenel S2 Access Control systems.

# Alternative #3: 30-Bed Facility

## ENGINEERING SUMMARY

Panic Alarms will be provided in Nurse Station areas. Portable, worn on Staff, alerting and alarming systems will be provided as part of a Real Time Locator System. DSHS standard for Real Time Locator Systems utilizes Actall Corporation systems. Wander Control will be provided at select doors to keep residents from leaving the premises without staff knowledge.

### Nurse Call

A Nurse Call System will be provided for the building. A wired vs. wireless system will be determined during design. The system will provide a light and tone signal communication between each Patient bed and the Nurse Station serving the bed. Bath, Shower and Toilet rooms will be equipped with assistance callcords. Select Common area rooms will have staff assist stations. Medication preparation, Clean and Soil rooms, Break rooms and other heavily trafficked Staff rooms will have staff duty stations. If desired, a two-way voice communication system can also be provided. The nurse call system will also utilize portable Staff devices that will allow the staff to receive nurse calls while away from the Nurse Stations. Other possible features can include staff and equipment location tracking.

### Solar Power - Net Zero Alternate

To accommodate the possibility of Zero Net Energy design, lighting fixtures will be designed to be 20% more efficient than the current Washington State Energy Code. Connection to the building electrical system for photovoltaic panel (PV) distribution back to the electric utility will be provided.

### Site Design

The area around each building will be designed to provide adequate storm water treatment and/or retention. The topography will be modified as minimally as required to provide proper drainage and natural landscaping elements.

### Heating, Ventilation and Air Conditioning

The mechanical system will be composed of a Variable Refrigerant Flow (VRF) system with Dedicated Outdoor Air Systems (DOAS) for ventilation air.

Ceiling-mounted VRF cassette units will be utilized to provide space heating and cooling for most spaces. Ducted VRF fan coils will be utilized to provide space heating and cooling for larger spaces (living/dining, community multipurpose, etc.). Ducted VRF fan coils will be remotely located in the ceiling space or a mechanical platform for

ease of access and serviceability. Fan coils located in the ceiling space will be accessed by fire rated access panels (where required) and the unit layout will be optimized to minimize the number of access panels required. Each fan coil will be provided with a filter rack and MERV-13 filter. Condensing units for the VRF system will be outdoor, ground-mounted units.

There will be a DOAS unit to serve each wing and one for the Admin/Community core area. Each DOAS unit will be located on a mechanical platform. The DOAS units will have a plate heat exchanger to capture waste heat from the building to precondition the ventilation air, MERV-15 air filter on the outside air inlet, MERV-13 filter on the return inlet, refrigerant heating/cooling coil, and supply and exhaust fans with Variable Frequency Drives (VFDs). The refrigerant coil will be served by the VRF system and associated condensing units. The DOAS units will deliver tempered ventilation air to each space. The Admin/Community DOAS unit will supply and return air via Variable Air Volume (VAV) boxes. Return back to the DOAS units will be ducted to each space. Return from bedrooms will be through the bathrooms. DOAS intakes will be located on the roof, elevated 3 ft above the roof level, and 25 ft from all points of building exhaust.

The Mechanical and Electrical spaces will be provided with electric unit heaters for space heating and exhaust fans for ventilation. Both the unit heater and exhaust fan will be thermostatically controlled.

A BACnet direct digital control (DDC) system will be provided for the control of all HVAC components. There will be a single network controller and operator workstation. The system will be capable of optimal start/stop, time and holiday scheduling, and after-hours override. Each of the 30 bedrooms will be individually controlled through temperature sensors located within each zone. The BACnet control system will meter building power, and domestic water consumption. The DDC system will incorporate monitoring and control points necessary for scheduling and control.

### Plumbing

Each wing (total of 3) will have a central heat pump water heating system to produce and store 140F hot water for service to the building fixtures. Water will be circulated between indoor tanks in the mechanical room and an

## Alternative #3: 30-Bed Facility

### ENGINEERING SUMMARY

outdoor, ground-mounted heat pump. The indoor tanks will have electric resistance backup heat. A recirculation pump will keep hot water readily available at the fixtures. Individual point of use mixing valves will be provided at all lavatories, hand washing sinks, and shower heads to provide tempered water at 105F.

Lavatories will be provided with low flow 0.5 gpm non-aerator faucets with gooseneck spouts and wrist blade, single-lever controls. Water closets will be low flow 1.28 gallon per flush. Shower heads will utilize 1.5 gpm flow cartridges.

Sanitary waste and vent piping above and below ground will be cast iron. All bathrooms, mechanical room, and fire riser room will be provided with floor drains. All floor drains will have trap primers installed.

The domestic water piping will consist of Type L copper or PEX for all above ground pipe and PVC Type C-900 for below ground cold water pipe. The domestic water meter and reduced pressure backflow assembly (RPBA) will be located on the site, exterior to the building.

Each of the three kitchens within the building will have a type 1 hood and 3 compartment sink with grease waste system. Grease waste will be routed to one exterior grease interceptor located on the exterior of the building.

#### **Fire Protection**

The building will be provided with an automatic fire protection sprinkler system. Exterior canopies and other areas subject to freezing will be provided with dry-type sprinklers or dry-pipe distribution system. All other areas will be served by a wet-pipe distribution system. A mix of prescriptive and performance-based design specifications will be issued as part of the contract documents. The final design will be provided by the installing contractor. All aspects of the fire protection systems will be in accordance with NFPA 13 and will comply with the requirements of the local jurisdiction.

Low-profile sprinklers with white finish are to be utilized for all areas throughout the building including Staff/Service areas. Sprinklers shall be centered within ceiling tiles (where applicable), and coordinated to avoid conflicts with light fixtures, HVAC grilles, etc. The double check valve assembly (DCVA) and fire department connection (FDC) will be located on the site, exterior to the building.



# Detailed Staffing Plan

## **Oversight, WACs, and Licensing**

Oversight for the project will be provided by DSHS Residential Care Services. Because this is a new residential program, a modification of the existing WACs for Residential Care Services (388-101 and 388-101D) will be required to detail the delivery of “person-centered care” including nursing care. These homes will be similar to State Operated Living Alternatives (SOLAs), but slightly larger with the ability to address higher levels of medical acuity and increased activities of daily living (ADL) support. For the purposes of this report, it is assumed the initial five, 6-bed homes will be individually located around in the state in areas with the greatest community need.

Licensure and/or certification for the homes should be tailored to meet the unique needs of the residents. For the purposes of this project, several different licensure and certification options and the supporting WACs and RCWs were reviewed including Nursing Facility (NF), Adult Family Home (AFH), State-Operated Living Alternative (SOLA), and Group Training Home (GTH). Similar to the East Tennessee model, the project workgroup determined that the existing WACs, 388.101 and 388.101D, will need to be amended to include the unique structure of the proposed CNCH model. It is critical that the amended WACs offer the flexibility to optimally meet individual resident needs while also providing the appropriate level of regulatory oversight needed to ensure the provision of safe and quality care.

# Detailed Staffing Plan - CNCH 6-Bed Model

## Staffing Projections for CNCH 6-Bed Model

The staffing plan is intended to meet the holistic needs of the residents including nursing and personal care, with the goal of maximizing resident independence, safety, and well-being. For the purposes of this project, it is assumed the homes will be individually located around the state. Under this assumption, the model proposes employing nursing and certified nursing assistants/attendant counselors, contracting for medical and rehabilitation personnel, and centralizing indirect services that are not required to be on site. Examples of resident medical issues that could be managed in the CNCH model include, gastrostomy and jejunostomy tubes for artificial nutrition, diabetes including insulin support, catheter and colostomies, and other common conditions including aspiration, constipation, and dehydration.

### Nursing

A mix of Registered Nurses (RN) and Certified Nursing Assistants (CNA)/Attendant Counselors (AC) will provide care in each home 24/7. Based on similar models, it is assumed that an RN will be on call 24/7 and in the home intermittently with care delegated to the CNA/AC. CNAs/ACs will assist residents with activities of daily living, recreation, transportation, food preparation and housekeeping. In contrast to a nursing facility, this model assumes admissions and care planning will be managed by the head nurse, rather than a physician.

### Rehabilitation, Medical & Other Clinical Care

Rehabilitation care, including physical therapy (PT), occupational therapy (OT), speech language pathology (SLP), and dietary care will provide support to the residents at home in order to maintain maximum functioning and independence. It assumed that a 0.1 FTE for each role will be sufficient to meet resident needs as not all residents will require ongoing therapy. The 0.1 FTE contracted Advanced Practice Registered Nurse (ARNP) will collaborate with community providers to address medication management and other medical needs. The 0.1 FTE social worker will collaborate with the care team to meet residents' behavioral health needs.

### Administration & Other Support Services

Each home will be supported by a part-time house manager. This staffing plan has an attendant counselor in the role of house manager and an RN to provide clinical consultation and support as needed. An alternative model would be an RN serving as the house manager and clinical consultant.

CNA/AC				11.2	0.7
RN	.5	.5	.5	2.1	0.26

Days/Shift	7am-3pm	3pm-11pm	11pm-7am	FTEs 40hr/week	FTE/Bed
Nursing Services - Each CNCH 6-Bed	4.7	4.7	3.3	*HPPD 12.7	2.7
Nursing Hrs/Bed/Day	3	3	2		0.7
CNA/AC				11.2	0.7
RN	.5	.5	.5	2.1	0.26
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>2.5</b>	<b>13.3</b>	<b>1.23</b>
Hrs/Shift	8 hrs	8 hrs	8 hrs		
Nursing Hrs/Bed/Day	4.7	4.7	3.3	*HPPD 12.7	

\*Hours per Patient Day (HPPD) (Total number of nursing staff x 8 hours/Beds)

Contracted Rehabilitation & Other Clinical Care - Each CNCH	FTEs	FTEs/Bed
Advance Practice Nurse Practitioner (ARNP)	0.1	0.02
Dietician	0.1	0.02
Occupational Therapist (OT)	0.1	0.02
Physical Therapist (PT)	0.1	0.02
Social Worker (MSW/LICSW)	0.1	0.02
Speech Language Pathologist (SLP)	0.1	0.02
<b>Total Medical &amp; Behavioral Health FTEs</b>	<b>0.6</b>	<b>0.12</b>
Physical Therapist (PT)	0.1	0.02

Total Nursing & Other Clinical Roles - Each CNCH			
Nursing FTEs	13.3	Nursing FTEs/Bed	2.21
Other Clinical FTEs	0.6	Other Clinical FTEs/Bed	0.1
<b>Total FTEs</b>	<b>13.9</b>	<b>Total FTEs/Bed</b>	<b>2.32</b>

Nursing FTEs 13.3      Nursing FTEs/Bed 2.21

Administration & Other Support Staff	FTEs
Attendant Counselor Manager	0.5
Nursing Consultation Advisor	0.05
Developmental Disabilities Administrator	0.1
Secretary	0.2
Quality Assurance/Safety	0.1
Human Resource Consultant 2	0.1
IT System Administration	0.1
Accounting/Billing	0.1
<b>Total FTEs</b>	<b>1.25</b>

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# Detailed Staffing Plan - 30-Bedroom Nursing Facility Model

Nursing Consultation Advisor	0.05
Developmental Disabilities Administrator	0.1
Secretary	0.2
Quality Assurance Society	0.1
Human Resource Consultant 2	0.1
IT System Administration	0.1
Accounting/Billing	0.1

## Staffing Projections for 30-Bed Nursing Facility Comparison Model

The 30-bed nursing facility comparison staffing plan is modeled on the existing Residential Habilitation Center Nursing Facilities.

### Nursing

A mix of Registered Nurses (RN), and Certified Nursing Assistants (CNA)/Attendant Counselors (AC) will provide care in the facility 24/7.

Direct Nursing Services - 30-Bed Facility	7am-3pm	3pm-11pm	11pm-7am	FTEs 40hr/week	FTE/Bed
CNA/AC	7	7	4	25.2	.84
RN	2.5	1.5	1.5	7.7	0.26
<b>Total</b>	<b>9.5</b>	<b>8.5</b>	<b>1.5</b>	<b>32.9 Total FTEs</b>	<b>1.1</b>
Hrs/Shift	8 hrs	8 hrs	8 hrs		
Nursing Hrs/Bed/Day	2.5	2.5	1.5	*HPPD 6.3	

\*Hours per Patient Day (HPPD) (Total number of nursing staff x 8 hours/Unit Beds)

### Medical, Rehabilitation & Other Clinical Care

Medical personnel, including a physician and advanced registered nurse practitioner, will be on-call 24/7 and on-site intermittently for admissions, treatment planning and physical care. Rehabilitation staff will provide therapies including physical therapy (PT), occupational therapy (OT), speech language therapy (SLP), and dietary support.

Medical, Rehabilitation & Other Clinical Care - 30-Bed Facility	FTEs	FTEs/Bed
Advanced Registered Nurse Practitioner (ARNP)	0.5	0.02
Advanced Registered Nurse Practitioner (ARNP)	0.5	0.02
Dietician 1	0.5	0.02
Dietician 1	0.5	0.02
Occupational Therapist 2	1.0	0.03
Occupational Therapist 2	1.0	0.03
Physical Therapist	1.0	0.03
Physical Therapist	1.0	0.03
Physician 3	0.2	0.01
Physician 3	0.2	0.01
Social Worker	0.5	0.03
Social Worker	0.5	0.03
Speech Pathologist 1	0.5	0.02
Speech Pathologist 1	0.5	0.02
<b>Total Medical, Rehab &amp; Other Clinical Care FTEs</b>	<b>4.2</b>	<b>0.15</b>

Total Nursing, Medical & Behavioral Health FTEs - 30-Bed Facility			
Nursing FTEs	32.9	Nursing FTEs/Bed	1.1
Other Clinical FTEs	4.2	Other Clinical FTEs/Bed	0.15
<b>Total FTEs</b>	<b>37.1</b>	<b>Total FTEs/Bed</b>	<b>1.25</b>

### Administration & Other Support Services

The facility is supported by a full-time administrator, part-time director and clinical leadership provided by a full-time nurse manager and full-time nurse educator.

Administration & Other Support Staff	FTEs
Director/Administrator	1.0
Assistant Administrator	0.5
Assistant Director	0.5
Nurse Manager	1.0
Nurse Specialist/RN Educator	1.0
Recreation Specialist/Therapist	1.0
Recreation Coordinator/Therapist or SW Assistant	1.0
Admissions/Transition Coordinator or SW Assistant	2.0
Unit Secretary/Spot Desk	2.05
Clinical Quality Specialist	0.5
Human Resource Consultant 2	0.5
Accounting/Billing	0.5
IT System Administration	0.5
<b>Total FTEs</b>	<b>9.5</b>

### Dietary & Environmental Services

Dietary & Environmental Services - 30-Bed Facility	FTEs	FTEs/Bed
Custodian 2	0.5	0.02
Food Service Worker	0.5	0.02

# Detailed Staffing Plan - Assumptions

The plan includes several important assumptions that can be adjusted as the project progresses:

## Salary Benchmarks

Salaries were estimated based on the Office of Financial Management's Salary Schedules. Based on the expertise required in these positions, and workforce shortage, we used the mid to higher end in the salary range.

## Employee Benefits & Non-Productive Time Factor

Employee Benefits have been estimated based on public employment compensation: 13.4% of salary for retirement benefits and \$11,282 healthcare benefit per FTE. In addition, we have included a 5-week (9.6%) factor for non-productive time in the budget. This allocation covers time essential healthcare staff may be absent due to sick-leave, vacation and continuing education when substitute or temporary staff will need to be employed.

## Cost of Living Adjustments

An annual escalation of 3% is factored in the current model based on wage adjustment trends from the Office of Financial Management.

## Contract Pay Adjustment

Because some staff will be needed at fractional FTEs, such as 0.1 FTE for a physical therapist, we have planned that these positions will be filled by contract staff. We've added a 20% premium to the anticipated contract staff positions to account for the higher cost of contract staffing.

## Discount Rate

For the purposes of the Net Present Value Analysis, we have used a discount rate of 5%, which allows for inflation of approximately 2% and cost of capital at 3%, a rate appropriate for a long-term, government-funded project.

## Operating Costs

Facility operating costs such as maintenance, utilities and housekeeping have been estimated at a cost of \$9.35/square foot.

## Food Services

Nutrition services and food preparation will be handled by on-site staff. Food costs have been budgeted at a cost of \$4 per meal, which allows for special supplies and nutrition preparations that may be required in a nursing home setting.

## Contingent Staffing Agency Support

Because of minimum staffing requirements, there will be times when an operator needs temporary staffing to fill gaps when staff are sick, on vacation or pursuing continuing education. It is common to use a contingent staffing agency to fill this need, and a line-item has been added to cover this professional service under vendor operations expense.

## Transportation

Although transportation was not included in this estimate, providers we interviewed in both Oregon and Tennessee recommended homes consider including an accessible van purchase or lease as part of an ongoing program. Access Washington runs basic van services, but stakeholders we interviewed suggested the timing and availability is challenging. If CNCHs are sited in more remote locations of the state, public transportation services may also be limited.





# Project Staffing & Operations Budget

## Long Term Care Homes Preredesign Staffing Plan & Operations Budget

FACILITIES	Cost per SF includes:										Budget Variables									
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	13.4% Retirement Benefits	\$11,282 Healthcare per FTE	3.0% Cost-of-Living Increase	9.6% Non-Productive Time Factor	20% Contract Pay Adjustment	\$18.70 Operating Costs/Sq Ft	\$4.00 Average Meal Cost - Food Only	5.0% Discount Rate	30 Residents	
ent	Housekeeping	\$ 3,233,211	\$ 3,330,207	\$ 3,430,113	\$ 3,533,016	\$ 3,635,907	\$ 3,748,177	\$ 3,860,622	\$ 3,976,441	\$ 4,095,734	\$ 4,218,606									
	Sewer Water	\$ 1,073,504	\$ 1,099,889	\$ 1,127,880	\$ 1,157,577	\$ 1,189,082	\$ 1,215,547	\$ 1,242,012	\$ 1,268,477	\$ 1,294,942	\$ 1,321,407									
	Energy	\$ 310,388	\$ 329,291	\$ 339,170	\$ 349,045	\$ 358,920	\$ 368,795	\$ 378,670	\$ 388,545	\$ 398,420	\$ 408,295									
	Telecom	\$ 32,382	\$ 34,301	\$ 36,220	\$ 38,139	\$ 40,058	\$ 41,977	\$ 43,896	\$ 45,815	\$ 47,734	\$ 49,653									
	Contract maintenance and repair	\$ 4,649,435	\$ 4,769,710	\$ 4,893,594	\$ 5,021,194	\$ 5,152,622	\$ 5,287,993	\$ 5,427,425	\$ 5,571,040	\$ 5,718,964	\$ 5,871,325									
ent	DSHS Community Nursing Care Homes Preredesign Staffing Plan & Operations Budget	\$ 161,605	\$ 166,454	\$ 171,447																
ent	ALTERNATIVE 1: 60-BED FACILITY	\$ 5,263,854	\$ 5,402,562	\$ 5,545,431	\$ 5,688,287	\$ 5,841,143	\$ 6,000,924	\$ 6,165,674	\$ 6,336,289	\$ 6,512,792	\$ 6,695,003									13.4% Retirement Benefits
ent	Staff Compensation	\$ 189,753	\$ 194,805	\$ 200,009	\$ 205,369	\$ 210,890	\$ 216,576	\$ 222,433												\$11,282 Healthcare per FTE
ent	Salaries & Wages	\$ 493	\$ 506	\$ 520	\$ 533	\$ 546	\$ 559	\$ 573	\$ 587	\$ 601	\$ 615									3.0% Cost-of-Living Increase
ent	Employee Benefits	\$ 1,073,504	\$ 1,086,501	\$ 1,099,889	\$ 1,113,678	\$ 1,127,880	\$ 1,142,509	\$ 1,157,577	\$ 1,173,097	\$ 1,189,082	\$ 1,205,547									9.6% Non-Productive Time Factor
ent	Non-Productive Time Adjustment	\$ 310,388	\$ 319,700	\$ 329,291	\$ 339,170	\$ 349,345	\$ 359,825	\$ 370,620	\$ 381,738	\$ 393,190	\$ 404,986									20% Contract Pay Adjustment
ent	Contract Pay Adjustment	\$ 32,332	\$ 33,302	\$ 34,301	\$ 35,330	\$ 36,390	\$ 37,482	\$ 38,606	\$ 39,764	\$ 40,957	\$ 42,186									\$18.70 Operating Costs/Sq Ft
ent	Total Compensation Expense	\$ 4,649,435	\$ 4,769,710	\$ 4,893,594	\$ 5,021,194	\$ 5,152,622	\$ 5,287,993	\$ 5,427,425	\$ 5,571,040	\$ 5,718,964	\$ 5,871,325									5.0% Discount Rate
ent	Other Operations Expense																			30 Residents
ent	Food & Nutrition Supplies	\$ 131,400	\$ 135,342	\$ 139,402	\$ 143,584	\$ 147,892	\$ 152,329	\$ 156,898	\$ 161,605	\$ 166,454	\$ 171,447									
ent	Maintenance, Utilities & Housekeeping	\$ 467,500	\$ 481,525	\$ 495,971	\$ 510,850	\$ 526,175	\$ 541,961	\$ 558,219	\$ 574,966	\$ 592,215	\$ 609,981									
ent	Contingent Staffing Agency Support	\$ 15,519	\$ 15,985	\$ 16,465	\$ 17,991	\$ 18,531	\$ 19,087	\$ 19,660	\$ 20,249	\$ 20,858	\$ 21,477									
ent	Total Operations Expense	\$ 614,419	\$ 632,852	\$ 651,838	\$ 671,393	\$ 691,534	\$ 712,280	\$ 733,649	\$ 755,658	\$ 778,328	\$ 801,678									
ent	Total Budget 2023	\$ 2,026,854	\$ 2,040,562	\$ 2,054,531	\$ 2,069,587	\$ 2,084,743	\$ 2,099,999	\$ 2,115,355	\$ 2,130,811	\$ 2,146,367	\$ 2,162,023									
ent	Annual Cost per Resident	\$ 175,462	\$ 180,085	\$ 184,848	\$ 189,753	\$ 194,805	\$ 200,009	\$ 205,369	\$ 210,890	\$ 216,576	\$ 222,433									
ent	Average Daily Rate per Resident	\$ 3,635,672	\$ 3,744,742	\$ 3,857,084	\$ 3,972,797	\$ 4,091,985	\$ 4,214,748	\$ 4,341,602	\$ 4,473,158	\$ 4,609,972	\$ 4,751,602									
ent	Annual NPV	\$ 1,074,246	\$ 1,087,621	\$ 1,101,398	\$ 1,115,587	\$ 1,130,203	\$ 1,145,257	\$ 1,160,762	\$ 1,176,733	\$ 1,193,183	\$ 1,210,126									
ent	Total - Five Biennium NPV	\$ 4,720,808	\$ 4,843,580	\$ 4,970,035	\$ 5,100,284	\$ 5,234,440	\$ 5,372,621	\$ 5,514,947	\$ 5,661,543	\$ 5,812,537	\$ 5,968,061									
ent	Square Feet per Resident	\$ 139,402	\$ 143,584	\$ 147,892	\$ 152,329	\$ 156,898	\$ 161,605	\$ 166,454	\$ 171,447											
ent	Total Square Feet	\$ 64,347	\$ 581,278	\$ 598,719	\$ 616,678	\$ 635,178	\$ 654,233	\$ 673,860	\$ 694,076	\$ 714,898										
ent	ALTERNATIVE 2: 30-BED FACILITY	\$ 5,416,088	\$ 5,559,718	\$ 5,707,658	\$ 5,860,035	\$ 6,016,984	\$ 6,178,641	\$ 6,345,148	\$ 6,516,651	\$ 6,693,298	\$ 6,875,245									
ent	Staff Compensation	\$ 508	\$ 521	\$ 535	\$ 549	\$ 564	\$ 579	\$ 595	\$ 611	\$ 628										
ent	Salaries & Wages	\$ 3,327,155	\$ 3,426,969	\$ 3,529,778	\$ 3,635,672	\$ 3,744,742	\$ 3,857,084	\$ 3,972,797	\$ 4,091,985	\$ 4,214,748	\$ 4,341,602									
ent	Employee Benefits	\$ 506,085	\$ 519,248	\$ 532,411	\$ 545,574	\$ 558,737	\$ 571,900	\$ 585,063	\$ 598,226	\$ 611,389	\$ 624,552									
ent	Non-Productive Time Adjustment	\$ 319,407	\$ 328,989	\$ 338,859	\$ 349,024	\$ 359,495	\$ 370,280	\$ 381,388	\$ 392,830	\$ 404,615	\$ 416,753									
ent	Total Compensation Expense	\$ 4,720,808	\$ 4,843,580	\$ 4,970,035	\$ 5,100,284	\$ 5,234,440	\$ 5,372,621	\$ 5,514,947	\$ 5,661,543	\$ 5,812,537	\$ 5,968,061									
ent	Other Operations Expense																			
ent	Food & Nutrition Supplies	\$ 131,400	\$ 135,342	\$ 139,402	\$ 143,584	\$ 147,892	\$ 152,329	\$ 156,898	\$ 161,605	\$ 166,454	\$ 171,447									
ent	Maintenance, Utilities & Housekeeping	\$ 547,910	\$ 564,347	\$ 581,278	\$ 598,716	\$ 616,678	\$ 635,178	\$ 654,233	\$ 673,860	\$ 694,076	\$ 714,898									
ent	Contingent Staffing Agency Support	\$ 15,970	\$ 16,449	\$ 16,943	\$ 17,451	\$ 17,975	\$ 18,514	\$ 19,069	\$ 19,642	\$ 20,231	\$ 20,838									
ent	Total Operations Expense	\$ 695,280	\$ 716,139	\$ 737,623	\$ 759,752	\$ 782,544	\$ 806,020	\$ 830,201	\$ 855,107	\$ 880,760	\$ 907,183									
ent	Total Budget	\$ 5,416,088	\$ 5,559,718	\$ 5,707,658	\$ 5,860,035	\$ 6,016,984	\$ 6,178,641	\$ 6,345,148	\$ 6,516,651	\$ 6,693,298	\$ 6,875,245									
ent	Annual Cost per Resident	\$ 180,536	\$ 185,324	\$ 190,255	\$ 195,335	\$ 200,566	\$ 205,955	\$ 211,505	\$ 217,222	\$ 223,110	\$ 229,175									
ent	Average Daily Rate per Resident	\$ 495	\$ 508	\$ 521	\$ 535	\$ 549	\$ 564	\$ 579	\$ 595	\$ 611	\$ 628									
ent	Annual NPV	\$ 5,416,088	\$ 5,294,970	\$ 5,177,014	\$ 5,062,119	\$ 4,950,188	\$ 4,841,127	\$ 4,734,847	\$ 4,631,262	\$ 4,530,287	\$ 4,431,844									
ent	Total - Five Biennium NPV	\$ 49,069,745																		
ent	Total Square Feet	29,300																		

TYPE OF STAFF BY DAILY SHIFT



	7:00 am - 3:00 pm	3:00 pm - 11:00 pm	11:00pm-7:00am	Hrs/Day	Hrs/Week	FTE's @ 40 Hrs Per Week
Certified Nursing Assistant (CNA)/Attendant Counselor	3	3	2	64	448	11.2
Registered Nurse (RN)	0.5	0.5	0.5	12	84	2.1
	3.5	3.5	2.5	76	532	
	8	8	8	8		
	28	28	20	76	532	
<b>Total</b>	<b>4.7</b>	<b>4.7</b>	<b>3.3</b>	<b>12.7</b>		<b>13.3</b>

# Staffing Plan: 6-Bed Facility

	FTE/Bed	Total FTEs/6 Beds
DSHS - Community Nursing Care Homes Redesign Staffing Plan - 5, 6-Bed Homes	1.9	11.2
v3.1.22	0.35	2.1
<b>Total</b>	<b>2.22</b>	<b>13.3</b>

STAFFING PLAN FOR ONE HOME BY TYPE OF STAFF BY DAILY SHIFT

MEDICAL & OTHER CLINICAL SERVICES

DIRECT NURSING SERVICES

	FTES	FTES Per Bed		7:00 am - 3:00 pm	3:00 pm - 11:00 pm	11:00pm-7:00am	Hrs/Day
Advanced Practice Registered Nurse (ARNP)	0.1	0.02					
Dietician	0.1	0.02					
Physical Therapist (PT)	0.1	0.02					
Occupational Therapist (OT)	0.1	0.02					
Social Worker (MSW)	0.1	0.02					
Speech-Language Pathologist (SLP)	0.1	0.02					
# of Staff			Certified Nursing Assistant (CNA)/Attendant Counselors	3	3	2	64
			Registered Nurse (RN)	0.5	0.5	0.5	12
			<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>2.5</b>	<b>76</b>
Hrs/Shift				8	8	8	
Total Hrs/Shift				28	28	20	76
<b>Total Nursing Hrs/Pat/Day</b>				<b>4.7</b>	<b>4.7</b>	<b>3.3</b>	<b>12.7</b>

**13.3**

	FTE/Bed	Total FTEs/6 Beds
CNA/AC	11.9	11.2
RN	0.35	2.1
<b>Total</b>	<b>2.22</b>	<b>13.3</b>

MEDICAL & OTHER CLINICAL SERVICES

	FTES	FTES Per Bed
Advanced Practice Registered Nurse (ARNP)	0.1	0.02
Dietician	0.1	0.02
Physical Therapist (PT)	0.1	0.02
Occupational Therapist (OT)	0.1	0.02
Social Worker (MSW)	0.1	0.02
Speech-Language Pathologist (SLP)	0.1	0.02
<b>Total FTES</b>	<b>0.6</b>	<b>0.1</b>

<b>TOTAL CLINICAL SERVICES</b>	<b>0.60</b>
<b>TOTAL NURSING SERVICES</b>	<b>13.3</b>
<b>TOTAL</b>	<b>13.90</b>



# Staffing & Salaries Projections: 6-Bed Facility

## DSHS - Community Nursing Care Homes Predesign Staffing Plan - 5, 6-Bed Home

v3.1.22

Staffing Plan	FTEs	Salaries Based on 1.0 FTE (Non-represented, Step K)	Salary Total
<b>Nursing/Direct Care Services</b>			
Nursing Assistant - Lead	1.0	\$45,504	\$45,504
Nursing Assistant - Residential Living/Attendant Counselor 1	7.0	\$45,504	\$318,528
Registered Nurse (RN)	1.5	\$101,017	\$151,526
<b>Contracted Clinical Staff</b>			
Advanced Registered Nurse Practitioner	0.1	\$135,852	\$13,585
Social Worker 2	0.1	\$69,264	\$6,926
Dietician 1	0.1	\$58,260	\$5,826
Occupational Therapist 2	0.1	\$64,332	\$6,433
Physical Therapist 2	0.1	\$70,956	\$7,096
Speech Pathologist 1	0.1	\$82,344	\$8,234
<b>Administrative Support Staff</b>			
Attendant Counselor Manager	0.5	\$55,524	\$27,762
Nursing Consultation Advisor	0.05	\$129,312	\$6,466
Developmental Disabilities Administrator	0.1	\$82,344	\$8,234
Secretary	0.2	\$40,440	\$8,088
<b>Administrative Support Staff &amp; Business Services</b>			
Quality Assurance/Safety	0.1	\$115,000	\$11,500
Human Resource Consultant 2	0.1	\$62,748	\$6,275
IT System Administration	0.1	\$81,840	\$8,184
Accounting/Billing	0.1	\$64,750	\$6,475
<b>FTE Total 6 Bed Home</b>		11.4	
<b>FTE Total 5x 6 Bed Facilities</b>		56.8	
		<b>Annual Salary &amp; Wages 1 Home</b>	<b>\$646,642</b>
		<b>Annual Salary &amp; Wages 5 Homes</b>	<b>\$3,233,211</b>



6:30 am - 3:00 pm 3:00 pm - 11:00 pm 11:00pm-7:00am

# Staffing Plan: 30-Bed Facility

Assistant (CNA)/Attendant Counselor (N)

Census/Day

2.5	1.5	1.5
9.5	8.5	5.5
8	8	8
76	68	44
<b>2.5</b>	<b>2.3</b>	<b>1.5</b>

Hrs/Day	Hrs/Week	FTE's @ 40 Hrs Per Week
144	1008	25.2
44	308	7.7
<b>188</b>	<b>1316</b>	
8		
188	1316	32.9
<b>6.3</b>		

## DSHS - Community Nursing Care Homes Predesign Staffing Plan - 30-Bed Facility

v3.1.22	CNA/AC	0.84	25.2
	RN	0.26	7.7
<b>Total</b>		<b>1.10</b>	<b>32.9</b>

### STAFFING PLAN FOR 30 BED NURSING CARE FACILITY BY TYPE OF STAFF AND DAILY SHIFT

#### DIRECT NURSING SERVICES

#### MEDICAL & OTHER CLINICAL

	BEDS	FTEs	FTEs	FTEs Per Bed		Hrs/Day
Advanced Registered Nurse Practitioner (ARNP)	30	0.5	0.5	0.02		
Occupational Therapist (OT)		1.0	1.0	0.03	6:30 am - 3:00 pm	
Physical Therapist (PT)		1.0	1.0	0.03	3:00 pm - 11:00 pm	
Speech-Language Pathologist (SLP)		1.0	1.0	0.03	11:00pm-7:00am	
# of Staff					Certified Nursing Assistant (CNA)/Attendant Counselor	7
					Registered Nurse (RN)	7
						4
					<b>Total</b>	<b>188</b>
					Hrs/Shift	
					<b>Total Hrs/Shift</b>	<b>188</b>
					<b>Total Nursing Hours/Patient Census/Day</b>	<b>6.3</b>

**32.9**

	FTE/Bed	Total FTEs/30 Beds
CNA/AC	0.84	25.2
RN	0.26	7.7
<b>Total</b>	<b>1.10</b>	<b>32.9</b>

#### MEDICAL & OTHER CLINICAL

	FTEs	FTEs Per Bed
Advanced Registered Nurse Practitioner (ARNP)	0.5	0.02
Dietician	0.5	0.02
Occupational Therapist (OT)	1.0	0.03
Physical Therapist (PT)	1.0	0.03
Physicians	0.2	0.01
Social Worker	0.5	0.02
Speech-Language Pathologist (SLP)	0.5	0.02
<b>Total FTEs</b>	<b>4.2</b>	<b>0.14</b>

<b>TOTAL MEDICAL &amp; OTHER CLINICAL</b>	<b>4.20</b>
<b>TOTAL NURSING SERVICES</b>	<b>32.9</b>
<b>TOTAL</b>	<b>37.10</b>



# Staffing & Salaries Projections: 30-Bed Facility

## DSHS - Community Nursing Care Homes Predesign Staffing Plan - 30-Bed Facility

v3.1.22

Staffing Plan	FTEs	Salaries Based on 1.0 FTE Non-Union Step K, RN - Level Q	Salary Total
<b>Nursing Services</b>			
Nursing Assistant - Residential Living/Attendant Counselor 1	26.0	\$45,504	\$1,183,104
Registered Nurse (RN) Level 1	6.0	\$87,048	\$522,288
Registered Nurse (RN) Level 3	2.0	\$111,504	\$223,008
<b>Medical &amp; Behavioral Health Services</b>			
Advanced Registered Nurse Practitioner (ARNP)	0.5	\$135,852	\$67,926
Physician 3	0.2	\$229,968	\$45,994
Social Worker 2	0.5	\$69,264	\$34,632
<b>Therapy Services</b>			
Occupational Therapist 2	1.0	\$64,332	\$64,332
Physical Therapist 2	1.0	\$70,956	\$70,956
Speech Pathologist 1	0.5	\$82,344	\$41,172
<b>Administrative Support Staff</b>			
Director/Administrator	1.0	\$120,000	\$120,000
Assistant Director	0.5	\$58,000	\$29,000
Nurse Manager/Registered Nurse (RN) 4	1.0	\$123,072	\$123,072
Nurse Educator/Registered Nurse (RN) 3	1.0	\$111,504	\$111,504
Recreation Therapist 2	1.0	\$56,856	\$56,856
Admissions & Transitions Coordinator/Social Work Assistant	1.0	\$54,108	\$54,108
Unit/Front Desk Secretary	2.0	\$40,440	\$80,880
<b>Environmental Services</b>			
Custodian 2	4.0	\$39,528	\$158,112
<b>Dietary &amp; Food Services</b>			
Dietician 1	0.5	\$58,260	\$29,130
Food Service Worker	4.0	\$37,728	\$150,912
<b>Administrative Support &amp; Business Services</b>			
Clinical Quality Specialist	0.5	\$115,000	\$57,500
Human Resource Consultant 2	0.5	\$62,748	\$31,374
Accounting/billing	0.5	\$60,750	\$30,375
IT System Administration	0.5	\$81,840	\$40,920
<b>FTE Total 30 Bed Facility</b>		<b>55.7</b>	
		<b>Annual Salary &amp; Wages</b>	<b>\$3,327,155</b>



# Cost Estimate: 6-Bed Facility



DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
6 BED NURSING FACILITY  
TACOMA, WA  
PRELIMINARY DESIGN ESTIMATE

ESTIMATE ISSUE DATE: April 11, 2022  
ESTIMATE REVISION: 3

Submitted To:  
JIM WOLCH, ASSOCIATE PRINCIPAL  
BCRA  
2106 PACIFIC AVENUE, SUITE 300  
TACOMA, WA 98402

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
6 BED NURSING FACILITY  
TACOMA, WA  
PRELIMINARY DESIGN ESTIMATE



## CLARIFICATIONS AND ASSUMPTIONS

### RC Cost Group Estimating Team:

Lead Estimator: Andy Cluness  
Architectural: Andy Cluness  
Structural: Andy Cluness  
Mechanical: Neil Watson  
Electrical: Neil Watson  
Civil: Andy Cluness / Neil Watson  
Landscape: Andy Cluness  
QA/QC: John Perry

### Design Documentation:

BCRA Design Documents

### Exclusions from Construction Cost:

Design fees  
Owners administration costs  
Building and land acquisition fees  
Legal and accounting fees  
Removal of unforeseen underground obstructions  
Owner's furniture, furnishings and equipment  
Owners supplied materials  
Moving owners equipment and furniture  
Compression of schedule, premium or shift work  
Assessments, finance, legal and development charges  
Builder's risk, project wrap-up and other owner provided insurance program  
Building demolition  
AV Equipment  
Escalation

### Assumption used in establishing the estimate:

The project will be procured utilizing the design, bid, build project delivery method  
Open and competitive bidding among all proportions of the work  
Construction Start Date: To Be Decided

### Items that may affect the cost estimate:

Modifications to the scope of work included in this estimate.  
Special phasing requirements other than mentioned above.  
Restrictive technical specifications or excessive contract conditions.  
Any non-competitive bid situations.  
Bids delayed beyond the projected schedule.

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE

Date: April 11, 2022



## OVERALL SUMMARY CONSTRUCTION COST

	GFA	\$/SF	\$
Building	6,000 SF	445.99	2,675,928
Sitework	22,400 SF	20.50	459,200
Off-Site Improvements, Allowance			40,000
Building Demolition & HAZMAT, Assumed Not Required			N/A
<b>SUBTOTAL DIRECT COST</b>			<b>3,175,128</b>
General Conditions & General Requirements	11.50%		365,140
Estimating Contingency	20.00%		708,054
Escalation	5.00%		669,642
<b>SUBTOTAL</b>			<b>4,917,964</b>
Insurance & Bonds	1.50%		73,769
Overhead & Fee	4.00%		196,719
<b>TOTAL CONSTRUCTION COST "TCC" (EXCLUDING WSST)</b>			<b>5,188,452</b>
<b>Alternates</b>			
Alternate 1: Net Zero Alternate			389,820



# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE



DATE: April 11, 2022

## BUILDING DATA

### Building Area: Building

Residence	5,000 SF
Garage	1,000 SF

**Total Gross Floor Area 6,000 SF**

Mechanical Mezzanine / Catwalks

**Total Unoccupied Space (Excluded from GFA)**

		Quantity	Unit	Ratio to Gross Area
Number of stories (x1,000)		1	EA	0.167
Gross Area		6,000	SF	1.000
Enclosed Area		6,000	SF	1.000
Footprint Area		1,000	SF	0.167
Suspended Slab		-	SF	
Gross Wall Area		5,546	SF	0.924
Retaining Wall Area (Excludes Stem Walls)		-	SF	
Opaque Finished Wall Area		5,052	SF	0.842
Windows or Glazing Area	8.91%	494	SF	0.082
Roof Area		8,351	SF	1.392
Interior Partition Length		710	LF	0.118
Interior Doors Per Leaf		123	EA	0.021
Interior Glazing		150	SF	0.025
Finished Area		6,000	SF	1.000
Elevators (x10,000)		-	EA	

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

GROSS FLOOR AREA: 6,000 SF  
 DATE: April 11, 2022



No.	ELEMENT DESCRIPTION	ELEMENT TOTAL	GROUP TOTAL	COST PER SF
A10	FOUNDATIONS		\$ 170,825	\$ 28.47
A1010	Standard Foundation	\$ 83,525	\$ 13.92	
A1020	Special Foundation	\$ -	\$ -	
A1030	Slab on grade	\$ 87,300	\$ 14.55	
A20	BASEMENT WALL CONSTRUCTION		\$ -	\$ -
A2010	Basement Excavation	\$ -	\$ -	
A2020	Basement Wall Construction	\$ -	\$ -	
B10	SUPERSTRUCTURE		\$ 316,733	\$ 52.79
B1010	Floor & Roof Construction	\$ 316,733	\$ 52.79	
B20	EXTERIOR ENCLOSURE		\$ 522,949	\$ 87.16
B2010	Exterior Walls	\$ 450,987	\$ 75.16	
B2020	Exterior Windows	\$ 42,237	\$ 7.04	
B2030	Exterior Doors	\$ 29,725	\$ 4.95	
B30	ROOFING		\$ 221,393	\$ 36.90
B3010	Roofing	\$ 221,393	\$ 36.90	
C10	INTERIOR CONSTRUCTION		\$ 282,563	\$ 47.09
C1010	Partitions	\$ 173,617	\$ 28.94	
C1020	Interior Doors	\$ 70,975	\$ 11.83	
C1030	Fittings and Specialties	\$ 37,972	\$ 6.33	
C20	STAIRS		\$ -	\$ -
C2010	Stair Construction	\$ -	\$ -	
C30	INTERIOR FINISHES		\$ 182,400	\$ 30.40
C3010	Wall Finishes	\$ 51,000	\$ 8.50	
C3020	Floor Finishes	\$ 59,400	\$ 9.90	
C3030	Ceiling Finishes	\$ 72,000	\$ 12.00	
D10	CONVEYING		\$ -	\$ -
D1010	Elevators & Lifts	\$ -	\$ -	
D20	PLUMBING		\$ 135,000	\$ 22.50
D2010	Plumbing	\$ 135,000	\$ 22.50	
D30	HVAC		\$ 280,000	\$ 46.67
D3010	HVAC	\$ 280,000	\$ 46.67	
D40	FIRE PROTECTION		\$ 40,755	\$ 6.79
D4010	Sprinkler System	\$ 40,755	\$ 6.79	
D50	ELECTRICAL		\$ 426,610	\$ 71.10
D5000	Electrical	\$ 426,610	\$ 71.10	
E10	EQUIPMENT		\$ 38,200	\$ 6.37
E1010	Equipment	\$ 38,200	\$ 6.37	
E20	FIXED FURNISHINGS		\$ 58,500	\$ 9.75
E2010	Fixed Furnishings	\$ 58,500	\$ 9.75	
F10	SPECIAL CONSTRUCTION		\$ -	\$ -
F1010	Special Structure	\$ -		
F1020	Special Construction	\$ -		
F20	SELECTIVE BUILDING DEMOLITION		\$ -	\$ -
F2010	Building Elements Demolition	\$ -		
Sub-Total Direct Cost			\$ 2,675,928	\$ 445.99

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>A10 FOUNDATIONS</b>				
<b>A1010 Standard Foundation</b>				
A1011 Foundations				
Reinforced concrete continuous footings				
Excavate for continuous footings	132	CY	49.00	In site earthwork
Backfill, assume imported fill	80	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	176	CY	28.25	In site earthwork
Fine grade bottom of footing	1,067	SF	1.10	1,174
Formwork to foundations - sides	1,021	SF	12.75	13,013
Reinforcing steel in foundations	6,441	LB	1.70	10,950
Concrete, 4,000 psi	52	CY	295.00	15,281
Finish to top of footing	1,067	SF	1.25	1,334
Reinforced concrete footings at porch areas				
Excavate for continuous footings	14	CY	49.00	In site earthwork
Backfill, assume imported fill	8	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	18	CY	28.25	In site earthwork
Fine grade bottom of footing	264	SF	1.10	290
Formwork to foundations - sides	24	SF	12.75	306
Reinforcing steel in foundations	669	LB	1.70	1,137
Concrete, 4,000 psi	5	CY	295.00	1,586
Finish to top of footing	264	SF	1.25	330
A1012 Column foundations				
Reinforced concrete spread footings at building				
Excavate for spread footings	41	CY	49.00	In site earthwork
Backfill, assume imported fill	25	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	54	CY	28.25	In site earthwork
Fine grade bottom of footing	257	SF	1.10	283
Formwork to foundations - sides	332	SF	12.75	4,233
Reinforcing steel in foundations	1,794	LB	1.70	3,051
Concrete, 4,000 psi	16	CY	295.00	4,603
Finish to top of footing	257	SF	1.25	321
A1013 Perimeter drainage and insulation				
Perimeter drainage included in storm water estimate				
Perimeter insulation	1,210	SF	5.10	6,171
Miscellaneous				
Reinforced concrete stem walls	10	CY	1,150.00	10,962
Dampproofing, not required				N/A
Concrete supervision, clean up and small tools	1	LS	8,500.00	8,500
<b>Total For Standard Foundations</b>				<b>83,525</b>
<b>A1020 Special Foundation</b>				
No work anticipated				
<b>Total For Special Foundations</b>				<b>N/A</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: **6,000 SF**  
 Date: **April 11, 2022**



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>A1030 Slab on Grade</b>				
A1031 Standard slab on grade				
Reinforced concrete slab on grade, 4" thick and base at building area	5,000	SF	10.80	54,000
Reinforced concrete slab on grade, 4" thick and base at garage area	1,000	SF	10.80	10,800
Concrete supervision, clean up and small tools	1	LS	22,500.00	22,500
<b>Total For Slab on Grade</b>				<b>87,300</b>
<b>A20 BASEMENT CONSTRUCTION</b>				
<b>A2010 Basement Excavation</b>				
No work anticipated				N/A
<b>Total For Basement Excavation</b>				
<b>A2020 Basement Walls</b>				
No work anticipated				N/A
<b>Total For Basement Walls</b>				
<b>B1010 Roof Construction</b>				
B1010 Roof Construction				
Mechanical mezzanine construction				N/A
Roof construction				
Wood posts / Built up studs	758	BM	10.15	7,689
LVL posts	155	BM	21.60	3,352
Tube steel posts	9,332	LB	3.85	35,927
Tube steel beams	1,301	LB	3.85	5,009
Moment connections	4	EA	671.00	2,684
11 7/8" Red I45 at 2'-0" o.c.	2,404	SF	17.40	41,833
11 7/8" Red I65 at 2'-0" o.c.	409	SF	17.60	7,193
14" Red I65 at 2'-0" o.c.	1,382	SF	19.00	26,259
16" Red I65 at 2'-0" o.c.	299	SF	20.00	5,987
20" Red I65 at 2'-0" o.c.	1,028	SF	22.10	22,715
Glu laminated beams	6,124	BM	10.80	66,140
Headers	393	BM	8.85	3,479
2 x 8 at 2'-0" o.c.	143	SF	8.85	1,265
Outriggers at exterior overhangs, 2 x 8 at 2'-0" o.c.	977	SF	8.85	8,642
Plywood sheathing	7,802	SF	4.00	31,208
Fiberglass insulation at underside of roof, R1	7,802	SF	5.30	41,350
Safety / wisha - Install and maintain	1	LS	6,000.00	6,000
<b>Total For Floor &amp; Roof Construction</b>				<b>316,733</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>B20 EXTERIOR CLOSURE</b>				
<b>B2010 Exterior Walls</b>				
B2011 Exterior wall construction				
Hardi siding, wood toned, FC-1	2,399	SF	26.75	64,168
Ceraclad siding, FC-2, FC-3	1,187	SF	40.00	47,497
Hardi panel siding, FC-4	97	SF	38.00	3,675
Brick veneer	1,369	SF	48.00	65,730
Stud framing	5,052	SF	11.50	58,101
Batt insulation	5,052	SF	1.75	8,842
Vapor barrier	5,052	SF	3.10	15,662
Sheathing-Plywood	5,052	SF	4.60	23,241
Add for shear nailing	1	LS	3,500.00	3,500
Add for glazed openings-framing, headers	1	LS	6,000.00	6,000
Add for door openings-framing, headers per leaf	6	EA	265.00	1,590
Vapro shield "self adhered"	5,052	SF	6.55	33,093
Gypsum board, 5/8"	5,052	SF	4.10	20,714
Concealed clip system @ FC-2, FC-3	1,187	SF	7.50	8,906
Hat channel and Z furring @ FC-4	97	SF	6.75	653
Fascia / Trim, prefinished metal	1	LS	8,000.00	8,000
B2013 Exterior louvers, screens and fencing				
Louvers	20	SF	82.00	1,640
B2014 Exterior sun control devices				
Sunscreens, not required				N/A
B2016 Exterior soffits				
Exterior car decking at soffits	2,736	SF	26.40	72,220
Caulking, sealants and firestopping				
Caulking, sealants and firestopping at exterior	6,000	GFA	0.45	2,700
Miscellaneous				
Hold downs	22	EA	148.00	3,256
CST/CMST strapping	1	LS	1,800.00	1,800
<b>Total For Exterior Walls</b>				<b>450,987</b>
<b>B2020 Exterior Windows</b>				
B2021 Windows				
Aluminum framed windows	234	SF	85.50	20,007
B2023 Storefronts				
Aluminum storefront glazing	260	SF	85.50	22,230
<b>Total For Exterior Windows</b>				<b>42,237</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>B2030 Exterior Doors</b>				
B 2030 Exterior Doors				
Aluminum glazed single door, 3'-0" x 7'-0"	3	EA	4,650.00	13,950
Hollow metal door, 3'-0" x 7'-0"	2	EA	2,800.00	5,600
Garage door	1	EA	5,675.00	5,675
Specialty hardware	1	LS	4,500.00	4,500
<b>Total For Exterior Doors</b>				<b>29,725</b>
<b>B30 ROOFING</b>				
<b>B3010 Roof Covering</b>				
B3011 Roof finishes				
Membrane roofing system, incl coverboard & rib profile	8,351	SF	19.74	164,841
B3014 Flashings and trim				
Sheet metal flashings and trim	1	LS	14,000.00	14,000
B3016 Gutters and downspouts				
Guttering, prefinished sheet metal	301	LF	29.40	8,849
Downspouts, prefinished sheet metal	10	EA	310.00	3,100
B3021 Glazed roof openings				
Translucent skylight panels	150	SF	95.00	14,250
B3022 Roof hatches				
Roof access hatches, not required				N/A
Miscellaneous				
Fall restraint anchors	16	EA	1,022.00	16,352
<b>Total For Roofing</b>				<b>221,393</b>
<b>C10 INTERIOR CONSTRUCTION</b>				
<b>C1010 Partitions</b>				
C1011 Fixed partitions				
Interior partitions	7,236	SF	19.35	140,017
Add for shear nailing	1	LS	4,000.00	4,000
Add for abuse resistant GWB	1	LS	8,250.00	8,250
C1016 Interior balustrades and screens				
Wood railings				N/A
C1017 Interior windows and storefronts				
Interior glazing	150	SF	74.00	11,100
Miscellaneous				
Blocking and backing	1	LS	3,500.00	3,500
Window sills and trim	1	LS	3,250.00	3,250
Firestopping	1	LS	3,500.00	3,500
<b>Total For Interior Partitions</b>				<b>173,617</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: **6,000 SF**  
 Date: **April 11, 2022**



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>C1020 Interior Doors</b>				
C1021 Interior doors				
Solid core wood door, Single	15	EA	2,750.00	41,250
Solid core wood door, Double	1	EA		
Pocket doors	7	EA	2,050.00	14,350
Bi-fold doors	2	EA	1,750.00	3,500
Access doors	1	LS	1,875.00	1,875
Specialty hardware	1	LS	10,000.00	10,000
<b>Total For Interior Doors</b>				<b>70,975</b>
<b>C1030 Specialties</b>				
C1033 Storage shelving and lockers				
Janitors mop rack and shelf	1	EA	565.00	565
Locker allowance	1	LS	3,000.00	3,000
C1035 Identifying devices				
Signage	6,000	GFA	1.65	9,900
C1037 General fittings and misc. metals				
Miscellaneous metals, allow 0.3#/SF	1,800	LB	3.00	5,400
Fire extinguisher cabinets	2	EA	253.31	507
Cornerguards	12	EA	275.00	3,300
Restroom and shower accessories	1	LS	10,800.00	10,800
Miscellaneous graphics	1	LS	4,500.00	4,500
<b>Total For Fittings and Specialty Items</b>				<b>37,972</b>
<b>C20 STAIRS</b>				
<b>C2010 Stair Construction</b>				
No work anticipated				N/A
<b>Total For Stair Construction</b>				
<b>C30 INTERIOR FINISHES</b>				
<b>C3010 Wall Finishes</b>				
C3012 Wall finishes to interior walls				
Interior painting	6,000	GFA	4.00	24,000
Miscellaneous wall finishes	6,000	GFA	4.50	27,000
<b>Total For Wall Finishes</b>				<b>51,000</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>C3020 Floor Finishes</b>				
C3024 Flooring including base				
Floor leveling	6,000	GFA	1.00	6,000
Floor finishes	6,000	GFA	8.90	53,400
<b>Total For Floor Finishes</b>				<b>59,400</b>
<b>C3030 Ceiling Finishes</b>				
C3031 Ceiling finishes				
Ceiling finishes	6,000	SF	12.00	72,000
<b>Total For Ceiling Finishes</b>				<b>72,000</b>
<b>D10 VERTICAL TRANSPORTATION</b>				
<b>D1010 Elevator &amp; Lift</b>				
No work anticipated				N/A
<b>Total For Elevator &amp; Lifts</b>				
<b>D20 PLUMBING</b>				
<b>D2010 Plumbing</b>				
Plumbing systems, complete	6,000	GFA	22.50	135,000
<b>Total For Plumbing</b>				<b>135,000</b>
<b>D30 HVAC</b>				
<b>D3010 HVAC</b>				
HVAC Systems, conditioned	5,000	GFA	56.00	280,000
HVAC Systems, unconditioned	1,000	GFA		
<b>Total For HVAC</b>				<b>280,000</b>
<b>D40 FIRE PROTECTION</b>				
<b>D4010 Fire Protection</b>				
D4010 Sprinklers				
Fire suppression at main level	6,000	GFA	6.25	37,500
Fire suppression at mezzanine	-	SF	6.02	
Fire suppression at covered outdoor	310	SF	10.50	3,255
<b>Total For Fire Sprinkler System</b>				<b>40,755</b>



# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>D50 ELECTRICAL</b>				
<b>D5000 Electrical</b>				
D5010 Electrical Service and Distribution	6,000	GFA	13.28	79,680
Photovoltaic system, roof, add alternate				N/A
D5020 Lighting and Branch Wiring				
Machine and equipment power	6,000	GFA	3.75	22,500
User convenience power	6,000	GFA	5.25	31,500
Lighting systems	6,000	GFA	10.63	63,780
Lighting controls	6,000	GFA	3.35	20,100
D5031 Public address and music systems				
Head-end equipment	1	LS	4,000.00	4,000
Speakers including conduit and wire	10	EA	615.00	6,150
D5033 Telephone/data systems				
Telecomms	6,000	GFA	4.75	28,500
D5034 Call systems				
Call systems	6,000	GFA	3.05	18,300
D5035 AV/TV systems				
TV head-end equipment	1	LS	1,650.00	1,650
TV outlets including conduit and cable	6,000	GFA	0.50	3,000
D5037 Fire alarm system				
Fire alarm at building area	6,000	GFA	4.10	24,600
Fire alarm to mezzanine areas	-	SF	3.35	
D5038 Security and detection systems				
Access control/intruder detection	6,000	GFA	4.25	25,500
CCTV systems	6,000	GFA	3.55	21,300
D5091 Grounding systems				
Grounding	6,000	GFA	0.40	2,400
D5092 Emergency light and power systems				
Generator				See Sitework
Lighting inverter	1	EA	5,150.00	5,150
Generator disconnect	1	EA	15,500.00	15,500
Automatic transfer switch	1	EA	25,750.00	25,750
Feeder conduit and wire	50	LF	395.00	19,750
D5095 General construction items				
Testing	1	LS	7,500.00	7,500
<b>Total For Electrical</b>				<b>426,610</b>

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 6,000 SF  
 Date: April 11, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>E10 EQUIPMENT</b>				
<b>E1010 Equipment</b>				
E1094 Residential equipment				
Residential equipment	1	LS	6,500.00	6,500
Washer / dryer	1	LS	5,200.00	5,200
Miscellaneous				
Miscellaneous equipment, allow	1	LS	24,500.00	24,500
Owner furnished, contractor installed items	1	LS	2,000.00	2,000
<b>Total For Equipment</b>				<b>38,200</b>
<b>E20 FIXED FURNISHINGS</b>				
<b>E2010 Fixed Furnishing</b>				
E2012 Fixed casework				
Casework	6,000	GFA	7.50	45,000
E2013 Blinds and other window treatments				
Window treatments	1	LS	13,500.00	13,500
<b>Total For Fixed Furnishings</b>				<b>58,500</b>
<b>F10 SPECIAL STRUCTURES</b>				
<b>F1010 Special Structure</b>				
No work anticipated				N/A
<b>Total For Special Structure</b>				
<b>F1020 Special Construction</b>				
No work anticipated				N/A
<b>Total For Special Construction</b>				
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
<b>F2010 Building Elements Demolition</b>				
No work anticipated				N/A
<b>Total For Selective Building Demolition</b>				

# Cost Estimate - 6-Bedroom Home

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 6 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 ALTERNATES



Date: April 11, 2022

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b><u>Alternate 1: Net Zero Alternate</u></b>				
Photovoltaic system	1	LS	276,000.00	276,000
<b>Sub-Total</b>				<b>276,000</b>
General Conditions & General Requirements	11.50%			31,740
Estimating Contingency	20.00%			61,548
Escalation				
<b>Sub-Total</b>				<b>369,288</b>
Insurance & Bonds	1.50%			5,539
Overhead & Fee	4.00%			14,993
<b>Total Construction Cost</b>				<b>389,820</b>



## Cost Estimate: 30-Bed Facility



DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
30 BED NURSING FACILITY  
TACOMA, WA  
PRELIMINARY DESIGN ESTIMATE

ESTIMATE ISSUE DATE: March 8, 2022  
ESTIMATE REVISION: 1

Submitted To:  
JIM WOLCH, ASSOCIATE PRINCIPAL  
BCRA  
2106 PACIFIC AVENUE, SUITE 300  
TACOMA, WA 98402

**CLARIFICATIONS AND ASSUMPTIONS**

**RC Cost Group Estimating Team:**

Lead Estimator: Andy Cluness  
Architectural: Andy Cluness  
Structural: Andy Cluness  
Mechanical: Neil Watson  
Electrical: Neil Watson  
Civil: Andy Cluness / Neil Watson  
Landscape: Andy Cluness  
QA/QC: John Perry

**Design Documentation:**

BCRA Design Documents

**Exclusions from Construction Cost:**

Design fees  
Owners administration costs  
Building and land acquisition fees  
Legal and accounting fees  
Removal of unforeseen underground obstructions  
Owner's furniture, furnishings and equipment  
Owners supplied materials  
Moving owners equipment and furniture  
Compression of schedule, premium or shift work  
Assessments, finance, legal and development charges  
Builder's risk, project wrap-up and other owner provided insurance program  
Building demolition  
AV Equipment  
Escalation

**Assumption used in establishing the estimate:**

The project will be procured utilizing the GC-CM alternative project delivery method  
Open and competitive bidding among all proportions of the work  
Construction Start Date: TBD

**Items that may affect the cost estimate:**

Modifications to the scope of work included in this estimate.  
Special phasing requirements other than mentioned above.  
Restrictive technical specifications or excessive contract conditions.  
Any non-competitive bid situations.  
Bids delayed beyond the projected schedule.



**OVERALL SUMMARY CONSTRUCTION COST**

	GFA	\$/SF	\$
Building	28,000 SF	536.15	15,012,306
Garage - 3 Bay	1,300 SF	190.00	247,000
Sitework	126,000 SF	20.50	2,583,000
Off-Site Improvements, Allowance			650,000
Building Demolition & HAZMAT, Assumed Not Required			N/A
<b>SUBTOTAL DIRECT COST</b>			<b>18,492,306</b>
General Conditions and General Requirements	11.50%		2,126,615
Estimating contingency	20.00%		4,123,784
Escalation	5.00%		3,900,069
<b>SUBTOTAL</b>			<b>28,642,774</b>
<b>SUBTOTAL</b>			<b>28,642,774</b>
Insurance & Bonds	1.50%		429,642
Overhead and Fee	4.00%		1,145,711
<b>SUBTOTAL</b>			<b>30,218,127</b>
<b>TOTAL CONSTRUCTION COST "TCC" (EXCLUDING WSST)</b>			<b>30,218,127</b>
<b>Alternates</b>			
Alternate 1: Net Zero Alternate			1,910,120

**BUILDING DATA**

**Building Area: Building**

Level 1 28,000 SF

**Total Gross Floor Area 28,000 SF**

Mechanical Mezzanine / Catwalks 3,250 SF

**Total Unoccupied Space (Excluded from GFA) 3,250 SF**

		<b>Quantity</b>	<b>Unit</b>	<b>Ratio to Gross Area</b>
Number of stories (x1,000)		1	EA	0.036
Gross Area		28,000	SF	1.000
Enclosed Area		28,000	SF	1.000
Footprint Area		28,000	SF	1.000
Suspended Slab		-	SF	
Gross Wall Area		24,259	SF	0.866
Retaining Wall Area (Excludes Stem Walls)		-	SF	
Opaque Finished Wall Area		20,049	SF	0.716
Windows or Glazing Area	17.36%	4,210	SF	0.150
Roof Area		34,294	SF	1.225
Interior Partition Length		2,901	LF	0.104
Interior Doors Per Leaf		123	EA	0.004
Interior Glazing		1,320	SF	0.047
Finished Area		28,000	SF	1.000
Elevators (x10,000)		-	EA	

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

GROSS FLOOR AREA: 28,000 SF  
 DATE: March 8, 2022



No.	ELEMENT DESCRIPTION	ELEMENT TOTAL	GROUP TOTAL	COST PER SF
A10	FOUNDATIONS		\$ 840,812	\$ 30.03
A1010	Standard Foundation	\$ 448,412	\$ 16.01	
A1020	Special Foundation	\$ -	\$ -	
A1030	Slab on grade	\$ 392,400	\$ 14.01	
A20	BASEMENT WALL CONSTRUCTION		\$ -	\$ -
A2010	Basement Excavation	\$ -	\$ -	
A2020	Basement Wall Construction	\$ -	\$ -	
B10	SUPERSTRUCTURE		\$ 1,452,310	\$ 51.87
B1010	Floor & Roof Construction	\$ 1,452,310	\$ 51.87	
B20	EXTERIOR ENCLOSURE		\$ 2,414,052	\$ 86.22
B2010	Exterior Walls	\$ 1,796,289	\$ 64.15	
B2020	Exterior Windows	\$ 493,763	\$ 17.63	
B2030	Exterior Doors	\$ 124,000	\$ 4.43	
B30	ROOFING		\$ 1,126,485	\$ 40.23
B3010	Roofing	\$ 1,126,485	\$ 40.23	
C10	INTERIOR CONSTRUCTION		\$ 1,513,779	\$ 54.06
C1010	Partitions	\$ 962,994	\$ 34.39	
C1020	Interior Doors	\$ 374,150	\$ 13.36	
C1030	Fittings and Specialties	\$ 176,635	\$ 6.31	
C20	STAIRS		\$ -	\$ -
C2010	Stair Construction	\$ -	\$ -	
C30	INTERIOR FINISHES		\$ 1,022,000	\$ 36.50
C3010	Wall Finishes	\$ 336,000	\$ 12.00	
C3020	Floor Finishes	\$ 277,200	\$ 9.90	
C3030	Ceiling Finishes	\$ 408,800	\$ 14.60	
D10	CONVEYING		\$ -	\$ -
D1010	Elevators & Lifts	\$ -	\$ -	
D20	PLUMBING		\$ 1,316,000	\$ 47.00
D2010	Plumbing	\$ 1,316,000	\$ 47.00	
D30	HVAC		\$ 1,895,961	\$ 67.71
D3010	HVAC	\$ 1,895,961	\$ 67.71	
D40	FIRE PROTECTION		\$ 227,078	\$ 8.11
D4010	Sprinkler System	\$ 227,078	\$ 8.11	
D50	ELECTRICAL		\$ 2,477,430	\$ 88.48
D5000	Electrical	\$ 2,477,430	\$ 88.48	
E10	EQUIPMENT		\$ 327,400	\$ 11.69
E1010	Equipment	\$ 327,400	\$ 11.69	
E20	FIXED FURNISHINGS		\$ 399,000	\$ 14.25
E2010	Fixed Furnishings	\$ 399,000	\$ 14.25	
F10	SPECIAL CONSTRUCTION		\$ -	\$ -
F1010	Special Structure	\$ -		
F1020	Special Construction	\$ -		
F20	SELECTIVE BUILDING DEMOLITION		\$ -	\$ -
F2010	Building Elements Demolition	\$ -		
Sub-Total Direct Cost			\$ 15,012,306	\$ 536.15



DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
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**A10 FOUNDATIONS**

**A1010 Standard Foundation**

A1011 Foundations

Reinforced concrete continuous footings

Excavate for continuous footings	745	CY	49.00	In site earthwork
Backfill, assume imported fill	453	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	990	CY	28.25	In site earthwork
Fine grade bottom of footing	5,591	SF	1.10	6,150
Formwork to foundations - sides	5,585	SF	12.75	71,202
Reinforcing steel in foundations	36,316	LB	1.70	61,738
Concrete, 4,000 psi	292	CY	295.00	86,155
Finish to top of footing	5,591	SF	1.25	6,989

Reinforced concrete footings at porch areas

Excavate for continuous footings	343	CY	49.00	In site earthwork
Backfill, assume imported fill	208	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	456	CY	28.25	In site earthwork
Fine grade bottom of footing	3,850	SF	1.10	4,235
Formwork to foundations - sides	600	SF	12.75	7,650
Reinforcing steel in foundations	16,718	LB	1.70	28,421
Concrete, 4,000 psi	134	CY	295.00	39,661
Finish to top of footing	3,850	SF	1.25	4,813

A1012 Column foundations

Reinforced concrete spread footings at building

Excavate for spread footings	115	CY	49.00	In site earthwork
Backfill, assume imported fill	71	CY	51.00	In site earthwork
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	153	CY	28.25	In site earthwork
Fine grade bottom of footing	776	SF	1.10	854
Formwork to foundations - sides	1,030	SF	12.75	13,133
Reinforcing steel in foundations	5,095	LB	1.70	8,662
Concrete, 4,000 psi	44	CY	295.00	13,070
Finish to top of footing	776	SF	1.25	970

A1013 Perimeter drainage and insulation

Perimeter drainage included in storm water estimate				N/A
Perimeter insulation	3,555	SF	5.10	18,131

Miscellaneous

Reinforced concrete stem walls	35	CY	1,150.00	40,580
Dampproofing, not required				N/A
Concrete supervision, clean up and small tools	1	LS	36,000.00	36,000

**Total For Standard Foundations**

**448,412**

**A1020 Special Foundation**

No work anticipated

N/A

**Total For Special Foundations**

**A1030 Slab on Grade**

A1031 Standard slab on grade

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
Reinforced concrete slab on grade, 4" thick and base at building area	28,000	SF	10.80	302,400
Concrete supervision, clean up and small tools	1	LS	90,000.00	90,000
<b>Total For Slab on Grade</b>				<b>392,400</b>
<b>A20 BASEMENT CONSTRUCTION</b>				
<b>A2010 <u>Basement Excavation</u></b>				
No work anticipated				N/A
<b>Total For Basement Excavation</b>				
<b>A2020 <u>Basement Walls</u></b>				
No work anticipated				N/A
<b>Total For Basement Walls</b>				
<b>B1010 <u>Roof Construction</u></b>				
B1010 Roof Construction				
Mechanical mezzanine construction				
Vertical structure included in roof construction				
(2) ply 2 x 10 Beam	70	LF	40.00	2,800
2 x 10 framing at 1'-4" o.c.	3,250	SF	14.50	47,125
Plywood sheathing	3,250	SF	4.45	14,463
Gypcrete topping slab, not required				N/A
Roof construction				
Wood posts / Built up studs	3,330	BM	10.15	33,800
LVL posts	682	BM	21.60	14,736
Tube steel posts	41,018	LB	3.85	157,921
Tube steel beams	5,719	LB	3.85	22,020
Moment connections	18	EA	671.00	12,078
11 7/8" Red I45 at 2'-0" o.c.	10,568	SF	17.40	183,880
11 7/8" Red I65 at 2'-0" o.c.	1,796	SF	17.60	31,617
14" Red I65 at 2'-0" o.c.	6,075	SF	19.00	115,425
16" Red I65 at 2'-0" o.c.	1,316	SF	20.00	26,316
20" Red I65 at 2'-0" o.c.	4,518	SF	22.10	99,848
Glu laminated beams	26,919	BM	10.80	290,725
Headers	1,728	BM	8.85	15,293
2 x 8 at 2'-0" o.c.	628	SF	8.85	5,560
Outriggers at exterior overhangs, 2 x 8 at 2'-0" o.c.	3,906	SF	8.85	34,568
Plywood sheathing	34,294	SF	4.00	137,178
Fiberglass insulation at underside of roof, R1	34,294	SF	5.30	181,760
Safety / wisha - Install and maintain	1	LS	25,200.00	25,200
<b>Total For Floor &amp; Roof Construction</b>				<b>1,452,310</b>
<b>B20 EXTERIOR CLOSURE</b>				
<b>B2010 <u>Exterior Walls</u></b>				
B2011 Exterior wall construction				
Hardi siding, wood toned, FC-1	9,519	SF	26.75	254,633
Ceraclad siding, FC-2, FC-3	4,712	SF	40.00	188,480

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: **28,000 SF**  
 Date: **March 8, 2022**



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
Hardi panel siding, FC-4	384	SF	38.00	14,584
Brick veneer	5,434	SF	48.00	260,832
Stud framing	20,049	SF	11.50	230,561
Batt insulation	20,049	SF	1.75	35,085
Vapor barrier	20,049	SF	3.10	62,151
Sheathing-Plywood	20,049	SF	4.60	92,224
Add for shear nailing	1	LS	13,500.00	13,500
Add for glazed openings-framing, headers	1	LS	25,000.00	25,000
Add for door openings-framing, headers per leaf	20	EA	265.00	5,300
Vapro shield "self adhered"	20,049	SF	6.55	131,320
Gypsum board, 5/8"	20,049	SF	4.10	82,200
Concealed clip system @ FC-2, FC-3	4,712	SF	7.50	35,340
Hat channel and Z furring @ FC-4	384	SF	6.85	2,629
Fascia / Trim, prefinished metal	1	LS	32,000.00	32,000
<b>B2013 Exterior louvers, screens and fencing</b>				
Louvers	50	SF	80.00	4,000
<b>B2014 Exterior sun control devices</b>				
Sunscreens, not required				N/A
<b>B2016 Exterior soffits</b>				
Perforated sheet metal soffit, 24 gauge, AEP span prestige series including framing	6,294	SF	40.90	257,441
Exterior car decking at entry, outdoor area	1,395	SF	26.40	36,828
<b>Caulking, sealants and firestopping</b>				
Caulking, sealants and firestopping at exterior	28,000	GFA	0.45	12,600
<b>Miscellaneous</b>				
Hold downs	85	EA	148.00	12,580
CST/CMST strapping	1	LS	7,000.00	7,000
<b>Total For Exterior Walls</b>				<b>1,796,289</b>
<b>B2020 Exterior Windows</b>				
<b>B2021 Windows</b>				
Aluminum framed windows	936	SF	85.50	80,028
Patient windows with integral blinds and laminated glass	547	SF	330.00	180,576
<b>B2023 Storefronts</b>				
Aluminum storefront glazing	2,727	SF	85.50	233,159
<b>Total For Exterior Windows</b>				<b>493,763</b>
<b>B2030 Exterior Doors</b>				
<b>B 2030 Exterior Doors</b>				
Aluminum glazed double door at entrances, 6'-0" x 7'-0"	7	EA	8,250.00	57,750
Aluminum glazed single door, 3'-0" x 7'-0"	6	EA	4,650.00	27,900
Gates at porches	3	EA	2,250.00	6,750
OHC at receiving, 8'-0" wide	1	EA	5,600.00	5,600
Specialty hardware	1	LS	26,000.00	26,000
<b>Total For Exterior Doors</b>				<b>124,000</b>

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>B30 ROOFING</b>				
<b>B3010 Roof Covering</b>				
B3011 Roof finishes Prefinished standing seam metal roofing system, complete, 24 gauge, AEP Span	34,294	SF	26.40	905,372
B3014 Flashings and trim Sheet metal flashings and trim	1	LS	63,000.00	63,000
B3016 Gutters and downspouts Guttering, prefinished sheet metal	622	LF	29.40	18,287
Downspouts, prefinished sheet metal	24	EA	310.00	7,440
B3021 Glazed roof openings Translucent skylight panels	662	SF	95.00	62,890
B3022 Roof hatches Roof access hatches, not required				N/A
Miscellaneous Fall restraint anchors	68	EA	1,022.00	69,496
<b>Total For Roofing</b>				<b>1,126,485</b>
<b>C10 INTERIOR CONSTRUCTION</b>				
<b>C1010 Partitions</b>				
C1011 Fixed partitions Interior partitions	39,164	SF	19.35	757,814
Add for shear nailing	1	LS	16,000.00	16,000
Add for abuse resistant GWB	1	LS	35,000.00	35,000
C1016 Interior balustrades and screens Wood railings	1	LS	12,500.00	12,500
C1017 Interior windows and storefronts Interior glazing	1,320	SF	74.00	97,680
Miscellaneous Blocking and backing	1	LS	15,000.00	15,000
Window sills and trim	1	LS	14,000.00	14,000
Firestopping	1	LS	15,000.00	15,000
<b>Total For Interior Partitions</b>				<b>962,994</b>
<b>C1020 Interior Doors</b>				
C1021 Interior doors Aluminum glazed double door at interior of vestibule, 6'-0" x 7'-0"	1	EA		
Solid core wood door, Single	89	EA	2,750.00	244,750
Solid core wood door, Double	7	EA		
Pocket doors	18	EA	2,050.00	36,900
Access doors	1	LS	7,500.00	7,500
Specialty hardware	1	LS	85,000.00	85,000

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>Total For Interior Doors</b>				<b>374,150</b>
<b>C1030 Specialties</b>				
C1033 Storage shelving and lockers				
Janitors mop rack and shelf	1	EA	565.00	565
Locker allowance	1	LS	8,500.00	8,500
C1035 Identifying devices				
Signage	28,000	GFA	1.65	46,200
C1037 General fittings and misc. metals				
Miscellaneous metals, allow 0.3#/SF	8,400	LB	3.50	29,400
Fire extinguisher cabinets	6	EA	253.31	1,520
Cornerguards	108	EA	275.00	29,700
Floor hatch and access ladders	2	EA	5,200.00	10,400
Restroom and shower accessories	1	LS	29,200.00	29,200
Ships ladder	1	EA	7,150.00	7,150
Miscellaneous graphics	1	LS	14,000.00	14,000
<b>Total For Fittings and Specialty Items</b>				<b>176,635</b>
<b>C20 STAIRS</b>				
<b>C2010 Stair Construction</b>				
No work anticipated				N/A
<b>Total For Stair Construction</b>				
<b>C30 INTERIOR FINISHES</b>				
<b>C3010 Wall Finishes</b>				
C3012 Wall finishes to interior walls				
Interior painting	28,000	GFA	4.00	112,000
Miscellaneous wall finishes	28,000	GFA	8.00	224,000
<b>Total For Wall Finishes</b>				<b>336,000</b>
<b>C3020 Floor Finishes</b>				
C3024 Flooring including base				
Floor leveling	28,000	GFA	1.00	28,000
Floor finishes	28,000	GFA	8.90	249,200
<b>Total For Floor Finishes</b>				<b>277,200</b>
<b>C3030 Ceiling Finishes</b>				
C3031 Ceiling finishes				
Ceiling finishes	28,000	SF	14.60	408,800
<b>Total For Ceiling Finishes</b>				<b>408,800</b>
<b>D10 VERTICAL TRANSPORTATION</b>				

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 30 BED NURSING FACILITY  
 TACOMA, WA  
 PRELIMINARY DESIGN ESTIMATE  
 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>D1010 Elevator &amp; Lift</b>				
No work anticipated				N/A
<b>Total For Elevator &amp; Lifts</b>				
<b>D20 PLUMBING</b>				
<b>D2010 Plumbing</b>				
Plumbing systems, complete	28,000	GFA	47.00	1,316,000
<b>Total For Plumbing</b>				<b>1,316,000</b>
<b>D30 HVAC</b>				
<b>D3010 HVAC</b>				
D3032 Direct expansion systems				
Heat pumps	3	EA	33,139.75	99,419
Branch selector boxes	10	EA	5,447.00	54,470
Fan coil units, VRF	48	EA	4,009.25	192,444
Terminal units, VRF	18	EA	3,095.75	55,724
Refrigerant piping, fittings, valves and insulation	8,200	LF	35.68	292,576
Split system air conditioning to IT room	1	LS	16,747.50	16,748
			-	-
D3041 Air distribution systems				
DOAS air handling unit with heat recovery	3	EA	38,062.50	114,188
Ductwork and fittings, OSA/SA/RA/HREA	32,500	LB	12.98	421,850
Ductwork ancillaries	1	LS	54,708.50	54,709
Duct insulation	24,375	SF	6.23	151,856
Grilles, registers and diffusers	330	EA	285.32	94,156
Louvers	5	EA	1,141.28	5,706
			-	-
D3042 Exhaust ventilation system				
Exhaust fans	7	EA	1,556.29	10,894
Ductwork and fittings, EA	1,650	LB	12.98	21,417
Ductwork ancillaries	1	LS	40,600.00	40,600
Louvers	5	EA	933.78	4,669
			-	-
D3060 Controls and Instrumentation				
DDC controls	28,000	GFA	7.57	211,960
			-	-
D3070 Systems Testing and Balancing				
Testing, adjusting and balancing	1	LS	25,375.00	25,375
Attendance on third party commissioning	1	LS	10,962.00	10,962
			-	-
D3090 Other HVAC Systems and Equipment				
Unit heaters	1	LS	16,240.00	16,240
			-	-
<b>Total For HVAC</b>				<b>1,895,961</b>
<b>D40 FIRE PROTECTION</b>				
<b>D4010 Fire Protection</b>				
D4010 Sprinklers				

DEPARTMENT OF SOCIAL & HEALTH SCIENCES  
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 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
Fire suppression at main level	28,000	GFA	6.80	190,400
Fire suppression at mezzanine	3,250	SF	5.92	19,240
Fire suppression at covered outdoor	1,395	SF	12.50	17,438
<b>Total For Fire Sprinkler System</b>				<b>227,078</b>

**D50 ELECTRICAL**

**D5000 Electrical**

D5010 Electrical Service and Distribution	28,000	GFA	15.50	434,000
Photovoltaic system, roof, add alternate				N/A
D5020 Lighting and Branch Wiring				
Machine and equipment power	28,000	GFA	4.25	119,000
User convenience power	28,000	GFA	5.75	161,000
Lighting systems	28,000	GFA	25.05	701,400
Lighting controls	28,000	GFA	3.35	93,800
D5031 Public address and music systems				
Head-end equipment	1	LS	4,000.00	4,000
Speakers including conduit and wire	45	EA	615.00	27,675
D5033 Telephone/data systems				
Telecomms	28,000	GFA	6.15	172,200
D5034 Call systems				
Call systems	28,000	GFA	3.05	85,400
D5035 AV/TV systems				
TV head-end equipment	1	LS	1,650.00	1,650
TV outlets including conduit and cable	28,000	GFA	0.50	14,000
D5037 Fire alarm system				
Fire alarm at building area	28,000	GFA	6.25	175,000
Fire alarm to mezzanine areas	3,250	SF	3.35	10,888
D5038 Security and detection systems				
Access control/intruder detection	28,000	GFA	6.75	189,000
CCTV systems	28,000	GFA	4.75	133,000
D5091 Grounding systems				
Grounding	28,000	GFA	0.40	11,200
D5092 Emergency light and power systems				
Generator				See Sitework
Lighting inverter	1	EA	5,150.00	5,150
Generator disconnect	1	EA	15,500.00	15,500
Automatic transfer switch	1	EA	25,750.00	25,750
Feeder conduit and wire	150	LF	385.00	57,750
D5095 General construction items				
Testing	1	LS	40,067.25	40,067
<b>Total For Electrical</b>				<b>2,477,430</b>

**E10 EQUIPMENT**

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 TACOMA, WA  
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 BUILDING ESTIMATE

Gross Floor Area: 28,000 SF  
 Date: March 8, 2022



ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b>E1010 Equipment</b>				
E1093 Food service equipment Kitchen equipment "commercial", allowance	1	LS	190,000.00	190,000
E1094 Residential equipment Residential equipment Washer / dryer	1 1	LS EA	18,500.00 13,900.00	18,500 13,900
Miscellaneous Miscellaneous equipment, allow Owner furnished, contractor installed items	1 1	LS LS	98,000.00 7,000.00	98,000 7,000
<b>Total For Equipment</b>				<b>327,400</b>
<b>E20 FIXED FURNISHINGS</b>				
<b>E2010 Fixed Furnishing</b>				
E2012 Fixed casework Casework	28,000	GFA	12.00	336,000
E2013 Blinds and other window treatments Window treatments	1	LS	63,000.00	63,000
<b>Total For Fixed Furnishings</b>				<b>399,000</b>
<b>F10 SPECIAL STRUCTURES</b>				
<b>F1010 Special Structure</b>				
No work anticipated				N/A
<b>Total For Special Structure</b>				
<b>F1020 Special Construction</b>				
No work anticipated				N/A
<b>Total For Special Construction</b>				
<b>F20 SELECTIVE BUILDING DEMOLITION</b>				
<b>F2010 Building Elements Demolition</b>				
No work anticipated				N/A
<b>Total For Selective Building Demolition</b>				



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GROSS FLOOR AREA: 1,300 SF  
 DATE: March 8, 2022

No.	ELEMENT DESCRIPTION	ELEMENT TOTAL	GROUP TOTAL	COST PER SF
A10	FOUNDATIONS		\$ 23,725	\$ 18.25
A1010	Standard Foundation	\$ 8,775	\$ 6.75	
A1020	Special Foundation	\$ -	\$ -	
A1030	Slab on grade	\$ 14,950	\$ 11.50	
A20	BASEMENT WALL CONSTRUCTION		\$ -	\$ -
A2010	Basement Excavation	\$ -	\$ -	
A2020	Basement Wall Construction	\$ -	\$ -	
B10	SUPERSTRUCTURE		\$ 38,350	\$ 29.50
B1010	Floor & Roof Construction	\$ 38,350	\$ 29.50	
B20	EXTERIOR ENCLOSURE		\$ 62,270	\$ 47.90
B2010	Exterior Walls	\$ 41,600	\$ 32.00	
B2020	Exterior Windows	\$ -	\$ -	
B2030	Exterior Doors	\$ 20,670	\$ 15.90	
B30	ROOFING		\$ 26,000	\$ 20.00
B3010	Roofing	\$ 26,000	\$ 20.00	
C10	INTERIOR CONSTRUCTION		\$ 19,175	\$ 14.75
C1010	Partitions	\$ 14,300	\$ 11.00	
C1020	Interior Doors	\$ 2,600	\$ 2.00	
C1030	Fittings and Specialties	\$ 2,275	\$ 1.75	
C20	STAIRS		\$ -	\$ -
C2010	Stair Construction	\$ -	\$ -	
C30	INTERIOR FINISHES		\$ 7,930	\$ 6.10
C3010	Wall Finishes	\$ 2,600	\$ 2.00	
C3020	Floor Finishes	\$ 3,770	\$ 2.90	
C3030	Ceiling Finishes	\$ 1,560	\$ 1.20	
D10	CONVEYING		\$ -	\$ -
D1010	Elevators & Lifts	\$ -	\$ -	
D20	PLUMBING		\$ -	\$ -
D2010	Plumbing	\$ -	\$ -	
D30	HVAC		\$ 26,000	\$ 20.00
D3010	HVAC	\$ 26,000	\$ 20.00	
D40	FIRE PROTECTION		\$ 9,100	\$ 7.00
D4010	Sprinkler System	\$ 9,100	\$ 7.00	
D50	ELECTRICAL		\$ 34,450	\$ 26.50
D5000	Electrical	\$ 34,450	\$ 26.50	
E10	EQUIPMENT		\$ -	\$ -
E1010	Equipment	\$ -	\$ -	
E20	FIXED FURNISHINGS		\$ -	\$ -
E2010	Fixed Furnishings	\$ -	\$ -	
F10	SPECIAL CONSTRUCTION		\$ -	\$ -
F1010	Special Structure	\$ -		
F1020	Special Construction	\$ -		
F20	SELECTIVE BUILDING DEMOLITION		\$ -	\$ -
F2010	Building Elements Demolition	\$ -		
Sub-Total Direct Cost			\$ 247,000	\$ 190.00

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**ALTERNATES**

Date: **March 8, 2022**

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTALS
<b><u>Alternate 1: Net Zero Alternate</u></b>				
Photovoltaic system	1	LS	1,288,000.00	1,288,000
<b>Sub-Total</b>				<b>1,288,000</b>
Estimating / Design Contingency	11.50%			148,120
Sub Bonding	20.00%			287,224
Escalation	5.00%			86,167
<b>Sub-Total</b>				<b>1,809,511</b>
MACC Contingency				
<b>Sub-Total</b>				<b>1,809,511</b>
GC-CM Fee	1.50%			27,143
NSS / General Requirements	4.00%			73,466
<b>Sub-Total</b>				<b>1,910,120</b>
Specified General Conditions (SGC's)				
<b>Total Construction Cost</b>				<b>1,910,120</b>