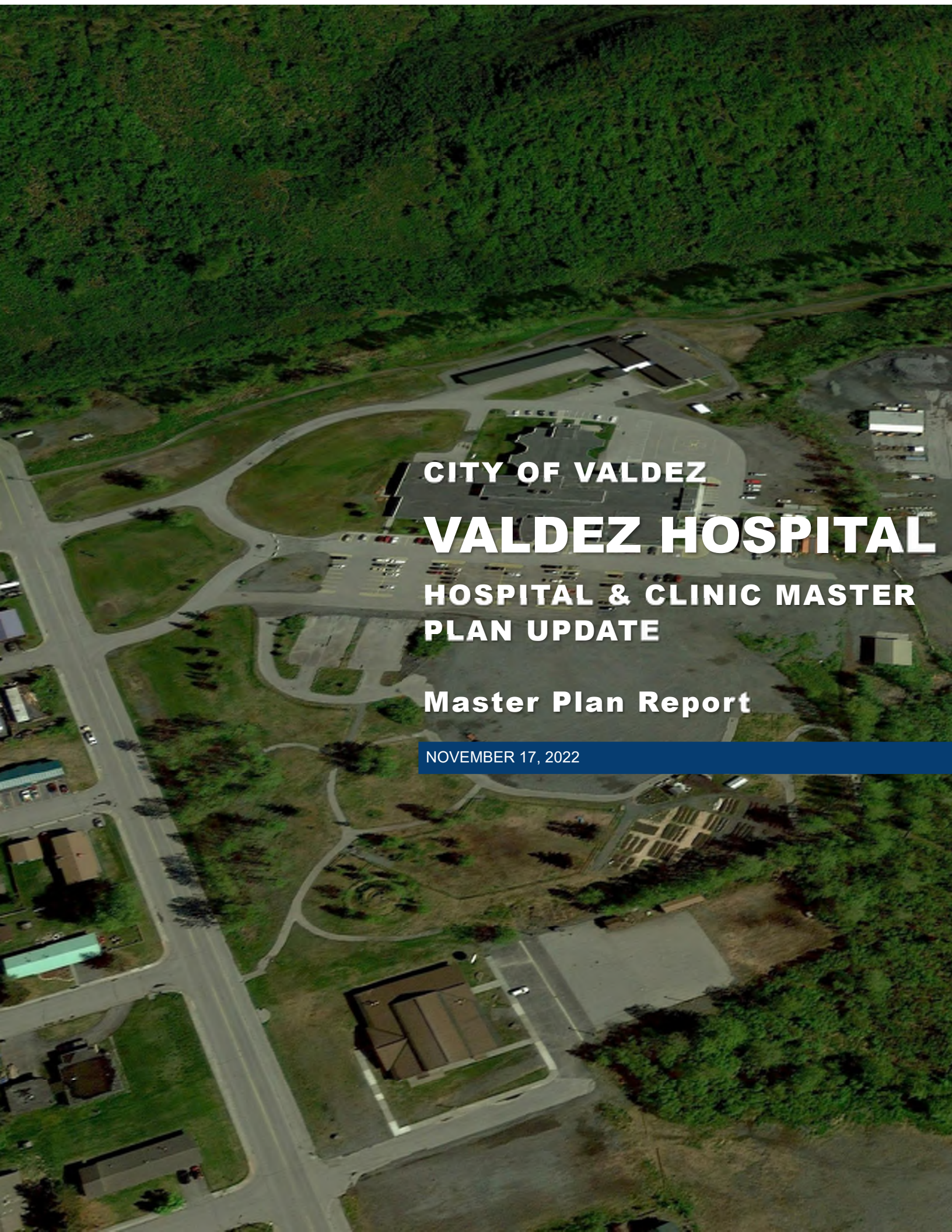

CITY OF VALDEZ

VALDEZ HOSPITAL

HOSPITAL & CLINIC MASTER PLAN UPDATE

Master Plan Report

NOVEMBER 17, 2022

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TABLE OF CONTENTS

INTRODUCTION

In 2021 the City of Valdez sought professional design and financial consultants to update the original Valdez Medical Center Masterplan completed in 2013 by Architects Alaska to align with the community's current needs and to evaluate the following project options:

- Expanded outpatient services; inclusive of rehabilitation, physical therapy, specialty clinics, etc.
- Redesign and expansion of the Providence Valdez Counseling Center
- Long Term Care Expansion
- Establishment of early childhood development center
- Residential substance abuse treatment center
- Small scale transient staff housing complex
- Identify potential location for indoor walking oval on campus

The goals of this masterplan effort were to determine which projects were feasible and to assist with setting priorities. The master planning efforts were limited to the Valdez Medical Center campus. The level of analysis for the various programs were determined early on based on discussions with the City of Valdez, Agnew::Beck, Architects Alaska, ZGF, and Providence Valdez Medical Center and affirmed by the Healthcare Advisory Committee. This resulted in modifications to project options along with the following level of analysis:

Program Area	Financial Modeling	Construction Cost Estimate	Siting	Project Option
• Outpatient Service				
◦ Expanded Outpatient Services		X	X	Option B
◦ Rehabilitation/Physical Therapy		X	X	Option A
◦ Specialty Clinics		X	X	Option A
• Behavioral Health				
◦ Counseling Center Expansion	X	X	X	Option A
◦ Partial Hospitalization	X	X	X	Option A
• Long Term Care	X	X	X	Option C
• Workforce				
◦ Early Childhood Development Center			X	N/A Located in Rec Center
◦ Transient Staff Housing Complex		X	X	Option E
• ED Expansion		X	X	Option D
• Rec Center (indoor walking oval)			X	

Expansion of Long Term Care, Transient Staff Housing, Rec Center, ED Expansion, and Expanded Outpatient Services can occur as relatively discrete projects.

Rehabilitation/Physical Therapy, Specialty Clinics, and the Counseling Center Expansion are dependent on the addition a building

The master planning process was divided into 4 tasks including and Infrastructure Analysis, Programming, Master Planning, and Feasibility Study.

The infrastructure analysis included a review of existing site information, reports, previous master plans, and 2 meetings to review both the existing site and existing building. The purpose was to identify existing constraints and identify opportunities for guiding the planning effort.

The programming analysis included a review of the existing departments that were targeted for improvements under the master-plan followed by teleconference/on-site meeting with Providence Valdez Medical Center, ZGF Architects, Architects Alaska, Ag-new::Beck, City of Valdez, Public Health, and the Valdez Medical Clinic to identify their current and anticipated needs.

Concurrently with these activities Agnew::Beck reviewed the existing financial picture of the hospital and clinic. This was followed up with financial modeling of behavioral health and the long-term care expansions to provide a better understanding of the poten-tial profits and losses based.

Once programming was complete Architects Alaska & ZGF Architects developed a campus and facility masterplan with a series of development options. These were coordinated with separate potential development on the site including the addition of a recrea-tion center, senior housing, and road re-alignment.

INFRASTRUCTURE ANALYSIS

Code

The purpose of this analysis is to evaluate the code limitations to a hospital expansion or addition and is based on the most restrictive requirements of the 2012 International Building Code, 2021 International Building Code and 2012 NFPA 101.

Existing Conditions— Code

Allowable Height & Area

The maximum building size allowed by code is based on the occupancy of the building (Hospital, Clinic, Storage, etc.), the type of construction (combustibility, level of fire protection, materials), the installation of a fire sprinkler systems, and the number of stories. Below is the calculated allowable area and height based on the existing conditions:

Hospital

Construction Type: II-A (IBC)/ II (111) (NFPA)

Occupancy: I-2

Area:

Actual: 58,217sf

Allowable: 15,000sf (Tabular) + 45,000sf (Sprinkler increase, 1 story) + 9,900sf (Frontage Increase) = 69,900sf

Building Height:

- Actual: 29'-6"
- Allowable: 85

Number of Stories:

- Actual: 1 with mechanical penthouse
- Allowable: 3

Clinic

Construction Type: V-B (IBC)/ V (000) (NFPA)

Occupancy: B

Area:

Actual: 5,932sf

Allowable: 9,000sf (Tabular) + 27,000sf (Sprinkler increase, 1 story) + 4,500sf (Frontage Increase) = 40,500sf

Building Height:

- Actual: 15'-6"
- Allowable: 60

Number of Stories:

- Actual: 1
- Allowable: 3

Expansion Capabilities

Hospital

The hospital can be expanded by approximately 11,600sf without the need to create a separate building. No stories can be added as it would reduce the allowable area of the existing hospital.

Clinic

The clinic can be expanded by approximately 34,500sf without the need to create a separate building

Existing Conditions— Architectural Components

Foundation

No known issues.

Exterior Walls

The existing exterior walls of the hospital are comprised of gypsum wall board, vapor barrier, metal studs with insulation between the studs with gyp sheathing, weather barrier and metal panels. While there are no known issues with existing exterior walls it is generally less robust then what would be build to today's building standards and is not compliant with the International Energy Conservation Code should that be adopted. The clinic is of similar construction, using wood studs framing in lieu of metal studs.

Roof

The existing roof is composed of metal decking, gypsum board, 4" polyisocyanurate insulation with an fully adhered EPDM membrane . The roof has approximately 3 year of useful life, the membrane over the longer term care has significant areas of patching and punctures. Drawings do not indicate if a vapor barrier was installed. The minimum R-Value of the roof is approximately R-26, the current energy code requires an R-value of approximately R-35.

Windows & Doors

The existing windows are constructed of anodized aluminum, some with an operable panel for ventilation. No issues reported with the existing windows. The existing exterior doors are scheduled for replacement in approximately 3 years.

Finishes

The finishes are as expected given the age of the facility. In wet areas some of the plastic laminate counter are due for replacement, generally solid surface is the preferred counter material in such locations. The walls are generally in good condition and have been replaced as necessary where leaks have occurred. Existing carpeting is scheduled for replacement. Exposed concrete floors are due to be resealed.

Existing Conditions— Support Spaces

Kitchen

The grease trap is failing and in need of replacement. The freezers and coolers are in need of replacement. The facility is currently planning to replace electric stoves with gas.

A detailed analysis of the kitchen was not in scope of this analysis. The sense of staff was that the kitchen was generally adequate to support additional programs.

Capacity for food storage is low and should be evaluated if there is a significant increase in demand. It was indicated that the dishwasher may need be upsized to support additional capacity.

Laundry

The existing laundry could support a small additional load. There are currently hookups to allow for an additional washer. There are no additional hookups for additional dryers.

INFRASTRUCTURE ANALYSIS

Support Spaces

Pharmacy

The pharmacy and gym are currently served by the same VAV box which makes creates problem for proper drug storage.

The capacity of the pharmacy is adequate to support the existing demand, it is not anticipated that the programs being evaluated would cause a significant increase in the demand for pharmacy service.

There is interest in setting up the pharmacy so that it could serve as both an inpatient and outpatient pharmacy as the local outpatient pharmacy has at times struggled with staffing.

General Stores

No reported issues with the capacity of general stores, though through the hospital and clinic it was observed that there is a lack of department specific storage leading to clinical spaces being utilized for storage.

Existing Conditions

The major mechanical systems for the hospital were installed in 2003, making the equipment not yet replaced at 19 years old. Most major mechanical equipment has an expected useful life of 20-30 years.

Plumbing

The facility is connected to City of Valdez (COV) water and sanitary sewer systems. The below grade sanitary sewer (waste) piping slopes toward the east, with the shallowest waste piping inverts at the Long Term Care area and the west end Counseling Center.

Domestic hot water is generated through three indirect fired water heaters.

Plumbing fixtures are functioning properly and are generally in good condition.

A domestic water piping replacement project was recently completed, replacing much of the smaller domestic cold and hot water copper piping with plastic piping materials.

Roof drainage is collected via roof drains and routed below grade to discharge to the COV storm drain utility system.

Medical Gas

The medical gas system consists of piped oxygen, nitrous oxide, medical air and medical vacuum systems. Oxygen is generated onsite, while nitrous oxide is supplied in cylinders. The system is sufficiently sized for the usage. Extension of the medical air system to the Long Term Care area is desired.

Fuel Oil

A 10,000 gallon double wall exterior above ground fuel oil storage tank provides fuel oil to two interior day tanks; one for the boilers and one for the generator.

Heating

The central heating plant, located in the Utility Building, consists of three 3,350 MBH output fuel oil fired boilers. The burners have recently been replaced. Two boilers operating are capable of providing sufficient heat to the entire facility. There is a space allotted for a future fourth boiler.

Each boiler has a dedicated circulation pump and connect to a building circulation loop served by two pumps equipped with variable speed drives in a lead/lag configuration. Heating piping is extended into the Clinic.

The 6 inch heating piping mains are capable of additional flowrate to the building.

The heating fluid is treated water. No glycol systems are present. The piping system utilizes Victaulic grooved fittings. The fitting gaskets have been problematic and require replacement.

The occupied portions of the building are heated primarily with air. Temperature control issues are present, likely a result of both ineffective controls and insufficient airflow to some areas.

Cooling

The cooling plant consists of a single nominal 125 ton chiller, located in the Utility Building, with a roof mounted air cooler condensing unit. No noted capacity issues were reported, however the connected load is approximately 125 tons; therefore excess capacity is not present with this system.

Chilled water is circulated to the building and the air handling unit cooling coils by two pumps, both equipped with a vari-

able speed drive. Operation of both pumps is reportedly required for system operation.

The 4 inch chilled water piping mains are not capable of additional flowrate to the building.

The chilled water system fluid is treated water. The piping system utilizes Victaulic grooved fittings. No issues with pipe leaks were noted.

Ventilation

Three main air handling systems serve the hospital building; AHU-1 serves the Administrative areas, AHU-2 serves the treatment areas, and AHU-3 serves the Operating rooms. All are located in the penthouse fan room.

The AHUs are nearing the end of their useful lives, with frequent motor replacements necessary in the past few years.

Variable volume air terminal units with reheat coils to temper the supply air to zones are typical. Comprehensive ductwork cleaning has not taken place.

The Clinic portion of the building has a dedicated AHU installed in 2008, making it about 14 years old.

Fire Suppression

The facility is protected via a fire suppression system, including both a wet pipe and a dry pipe system serving the entry areas.

Building Automation System

The existing building automation system is maintained by Long Building Technologies, based on Anchorage. The system is connected to the major mechanical systems for monitoring and control.

The system and components are aged, with most devices currently obsolete. Replacement parts are becoming more difficult to obtain. Replacement of the system is needed.

Expansion Capabilities

Long Term Care

For a small building addition near the Long Term Care area:

Heating: A small addition could be supported by the central heating plant. Additional boiler capacity and/or pump(s) may be required to maintain the existing system redundancy.

Cooling: The central cooling plant does not have excess capacity. Cooling for any addition would need to be provided by new cooling equipment.

Ventilation: The existing AHU-2 system is maxed out and a building addition would require additional ventilation systems equipment.

Plumbing: The medical gas and domestic cold and hot water piping systems could be extended to support a small building addition. As the below grade waste piping is shallow at this end of the building, a lift station or a new sanitary sewer utility connection is likely required to support any new plumbing fixtures. An additional domestic water heater or storage tank may be required.

Clinic

For a small building addition near the Clinic:

Heating: A small addition could be supported by the central heating plant. Additional boiler capacity and/or pump(s) may be required to maintain the existing system redundancy.

Cooling: The central cooling plant does not have excess capacity. Cooling for any addition would need to be provided by new cooling equipment.

Ventilation: The existing clinic AHU system will not support a building addition. New ventilation system equipment would be required.

Plumbing: Domestic cold water for the Clinic is supplied from the hospital and there is sufficient capacity to support a small building addition. Possible invert elevation of the existing under slab sanitary sewer/waste piping is unknown. A 6 inch waste main appears to exit toward the Utility Building. A lift station may be required for any new plumbing fixtures. A new or larger domestic water heater may be required.

Counseling Center

For a small building addition near the Counseling Center:

Heating: A small addition could be supported by the central heating plant. Additional boiler capacity and/or pump(s) may be required to maintain the existing system redundancy.

Cooling: The central cooling plant does not have excess capacity. Cooling for any addition would need to be provided by new cooling equipment.

Ventilation: The existing AHU-1 system will not support a building addition. New ventilation system equipment would be required.

Plumbing: The domestic cold and hot water piping systems could be extended to support a small building addition. As the below grade waste piping is shallow at this end of the building, a lift station or a new sanitary sewer utility connection is likely required to support any new plumbing fixtures. An additional domestic water heater or storage tank may be required.

INFRASTRUCTURE ANALYSIS

Electrical

Existing Conditions

The major electrical systems were installed in 2003, making the equipment not yet replaced 19 years old. Generally, larger electrical equipment, such as power distribution equipment, has an expected useful life of 20-30 years.

Power

The building is fed from a Copper Valley Electric Association (CVEA) transformer located behind the maintenance building at 480Y/277V, 3-phase, 4-wire, 1,600 Amp.

Being a critical access hospital, the facility is outfitted with normal power distribution and an Essential Electrical System (EES) consisting of a Life Safety Branch, a Critical Branch, and an Equipment Branch.

The EES is fed from a diesel fueled, 480Y/277V, 3-phase, 4-wire genset located within the maintenance building and sized at 500kW/625kVA. This generator feeds the Life Safety Branch, the Critical Branch, and the Equipment Branch through three (3) automatic transfer switches (ATSes). These ATSes were recently replaced due to maintenance issues.

The Life Safety ATS feeds an electrical distribution panel (Panel EHLS) sized at 480Y/277V, 3-phase, 4-wire, 60 Amps.

The Critical Branch ATS feeds an electrical distribution panel (Panel EHCC) sized at 480Y/277V, 3-phase, 4-wire, 200 Amps. Panel EHCC in turn feeds various 480Y/277V 208Y/120V branch circuit panels located strategically throughout the facility.

The Equipment Branch ATS feeds an electrical distribution panel (Switchboard EDPQ1) sized at 480Y/277V, 3-phase, 4-wire, 600 Amps located within the maintenance building. Switchboard EDPQ1 in turn feeds another fused switchboard (Switchboard EDPQ2) sized at 480Y/277V 208Y/120V branch circuit panels located within the penthouse of the hospital building proper. Both switchboards EDPQ1 and EDPQ2 feed critical branch equipment loads and 208Y/120V, 3-phase, 4-wire electrical branch circuit panels located in both buildings.

The Automatic Transfer Switches have recently been replaced.

We understand that the City of Valdez is looking to replace the existing generator with a generator of similar size due to ongoing maintenance issues.

Lighting

Lighting in the facility generally consists of linear fluorescent light fixtures with T8 fluorescent lamps of unknown Color Rendering Index and color temperature. The lighting in the facility is in generally good condition and appears to function correctly. Light fixtures generally have a useful life of 20 years, so the time is probably drawing nigh where consideration might be given to the replacement of the existing fluorescent light fixtures with LED type fixtures to take advantage of their energy efficiencies and reduced maintenance aspects.

The lighting system within the building is generally fed from 277V power sources.

Special Systems

The existing fire alarm system consists of a voice evacuation system that complied with Code at the time of construction. To the best of our knowledge the system has not been replaced since the building's original construction. Fire alarm systems typically have a useful life of 15-20 years, so the existing system is probably approaching the end of its useful life.

The existing telecommunications distribution system is largely fed from the Main Telecom Room located on the penthouse level in the hospital building proper. The system consists of dedicated telecom room(s), racks, cabinets, insulation displacement terminal blocks, patch panels, outlets, and cabling.

Locations requiring emergency call buttons or pull switches have them. Locations requiring master stations have them. By their nature, if a system can't be expanded, a new system can be obtained at relatively low cost and the existing push buttons and pull stations reused.

Expansion Capabilities

Long Term Care

A small building addition adjacent to the Long Term Care area:

The existing long term care area is fed from six (6) electrical branch circuit panels:

Panel LC-1 – Normal Branch – 208Y/120V, 3-phase, 4-wire, 200 Amp, 30 pole spaces.
Panel LC-2 - Section 2 of Panel LC-1 above, 30 pole spaces.
Panel EHCC – Critical Branch – 480Y/277V, 3-phase, 4-wire, 200 Amp, 42 pole spaces.
Panel HC – Normal Branch – 480Y/277V, 3-phase, 4-wire, 100 Amp
Panel ELCC-1 – Critical Branch – 208Y/120V, 3-phase, 4-wire, 200 Amp
Panel ELCC-2 – Section 2 of Panel ELCC-1 above.

Combined, Panels LC-1/LC-2 contain 60 pole spaces with most of those pole spaces occupied by circuit breakers and thus presumably in use. We estimate that there is insufficient capacity to support a Long Term Care addition from these two electrical panels for normal power needs.

Panel EHCC is a 42 pole space panel with approximately one half of those pole spaces occupied by circuit breakers and thus in use. We estimate there is sufficient capacity within this electrical panel to provide power to new 480V or 277V loads within a Long Term Care addition and perhaps to feed a 208Y/120V, 3-phase, 4-wire panel via a step-down transformer to power 208V and/or 120V critical power loads. One problem with this approach will be to find a location for the step-down transformer.

Panel HC is a 30 pole space panel with just over one half of those pole spaces occupied by circuit breakers and thus in use. We estimate there is sufficient capacity within this electrical panel to provide power to new lighting within a Long Term Care addition and perhaps to feed a 208Y/120V, 3-phase, 4-wire panel via a step-down transformer to power 208V and/or 120V normal power loads. One problem with this approach will be to find a location for the step-down transformer.

Combined, Panels ELCC-1/ELCC-2 contain 60 pole spaces with most of those pole spaces occupied by circuit breakers and thus presumably in use. We estimate that there is insufficient capacity to support a Long Term Care addition from these two electrical panels for critical power needs.

Overall, we estimate there may be sufficient normal power (from Panel HC via a step-down transformer) and critical branch power (from Panel EHCC via a step down transformer) to support a small Long Term Care addition. A small electrical room within the Long Term Care addition will need to be provided to locate two (2) step-down transformers and two electrical branch circuit panels in. Furthermore, 30-day electrical metering should be obtained to ensure that both Panel HC and Panel EHCC have the spare ampacity to support additional loads, although we estimate they do. In addition, the load profile of the existing generator needs to be examined to ensure that the generator has sufficient capacity to accommodate additions to the Critical Branch (although we estimate that it does in fact have sufficient capacity).

Fire alarms systems are generally convenient to expand with the addition of notification appliance booster panels if any are required. We estimate that the existing fire alarm system can be expanded to cover a Long Term Care addition.

INFRASTRUCTURE ANALYSIS

Electrical

Similarly, telecommunications distribution systems are constructed in such a way, that the system are generally convenient to expand. We estimate that the existing telecommunications distribution system can be expanded to accommodate a Long Term Care addition.

We would probably recommend replacement of the existing nurse call master station (unless it has been replaced recently) in the existing long term care area, reuse of the existing push buttons and pull stations, with new push buttons and pull stations added to the Long Term Care addition.

Clinic

A small building addition near the existing Clinic area:

The existing clinic is currently fed from two (2) electrical branch circuit panels – Panel C and Panel A. Panel C is fed from a 225A circuit breaker in existing main switchboard MSB in the hospital via a 75 kVA transformer. Panel C feeds Panel A.

We have little information regarding the existing condition of either Panel C or Panel A. We may know more in the coming days. Having said that, we would estimate the existing Clinic is probably just barely served adequately or perhaps underserved by only two electrical branch circuit panels in its space. Therefore, we estimate that an addition to the Clinic would require additional infrastructure from the penthouse electrical switchboard(s) feeding at least one (if not two) electrical branch circuit panels within the Clinic and/or Clinic addition.

Fire alarms systems are generally convenient to expand with the addition of notification appliance booster panels if any are required. We estimate that the existing fire alarm system can be expanded to cover a Clinic addition.

Similarly, telecommunications distribution systems are constructed in such a way, that the system are generally convenient to expand. We estimate that the existing telecommunications distribution system can be expanded to accommodate a Clinic addition.

Counseling Center

A small building addition near the Clinic:

The existing counseling area is fed from a group of panels located in the kitchen area. These include:

Panel HA – Normal Branch – 480Y/277V, 3-phase, 4-wire, 150 Amp, 30 pole space.
Panel LA – Sect 1 – Normal branch, 208Y/120V, 3-phase, 4-wire, 225 Amp, 42 pole spaces.
Panel LA – Sect 2 – Normal branch, 208Y/120V, 3-phase, 4-wire, 225 Amp, 42 pole spaces.
Panel ELCA – Critical Branch – 208Y/120V, 3-phase, 4-wire, 60 Amp, 30 pole space.

Panel HA is a 30 pole space panel with just under one half of those pole spaces occupied by circuit breakers and thus in use. We estimate there is sufficient capacity within this electrical panel to provide power to new lighting within a Counseling Center addition and perhaps to feed a 208Y/120V, 3-phase, 4-wire panel via a step-down transformer to power 208V and/or 120V normal power loads. One problem with this approach will be to find a location for the step-down transformer.

Panel ELCA is a 30 pole space panel with all those pole spaces occupied by circuit breakers and thus in use. We estimate that there is insufficient capacity to support a Counseling Center addition from this electrical panel for critical power needs. Having said that, a Counseling Center addition should not require circuits from the Critical Branch, so this is probably not an issue.

Combined, Panels LA-1/LA-2 contain 84 pole spaces with approximately 2/3 of those pole spaces occupied by circuit

breakers and thus presumably in use. This leaves approximately 1/3 of those pole spaces available to support an addition to the Counseling Center. We estimate that there is sufficient capacity to support a Counseling Center addition from these two electrical panels for normal power needs.

Overall, we estimate there may be sufficient normal power (from Panels LA-1/LA-2 to support a small Counseling Center addition. 30-day electrical metering should be obtained to ensure that both Panels LA-1/LA-2 have the spare ampacity to support additional loads, although we estimate they do.

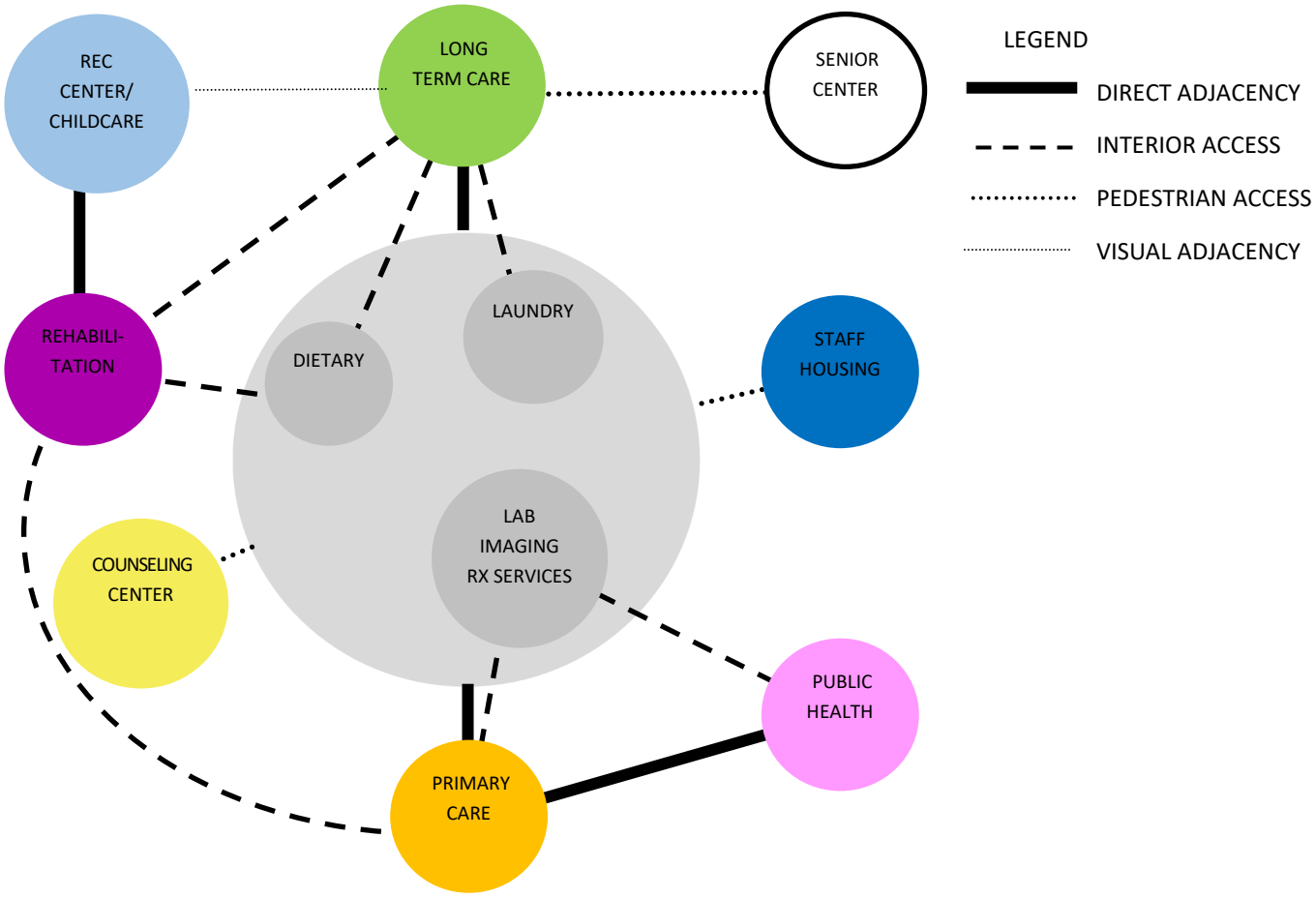
Fire alarms systems are generally convenient to expand with the addition of notification appliance booster panels if any are required. We estimate that the existing fire alarm system can be expanded to cover a Counseling Center addition.

Similarly, telecommunications distribution systems are constructed in such a way, that the system are generally convenient to expand. We estimate that the existing telecommunications distribution system can be expanded to accommodate a Counseling Center addition.

The existing counseling area probably does not have nurse call push buttons or pull stations, and none are probably required in any Counseling Center addition.

PROGRAMMING

SPACE ADJACENCY



Counseling Center

The counseling center benefits from having a common entry with the hospital. The thought is that when a client enters the hospital it is not apparent they are seeking mental health service which could reduce stigma and increase utilization.

Staff Housing

Staff housing is intended for itinerate workers and would benefit from being located on campus with pedestrian access. It is anticipated that access would be through a side walk.

Long Term Care

The long term care center shares laundry and dietary services with the hospital. Residents benefit through interior access to rehabilitation for appointments. Prior to the Covid-19 pandemic there was regular traffic between the senior center and long term care center. Staff expressed a desire to have some visual adjacency between the long-term care and childcare if possible.

Out Patient Services

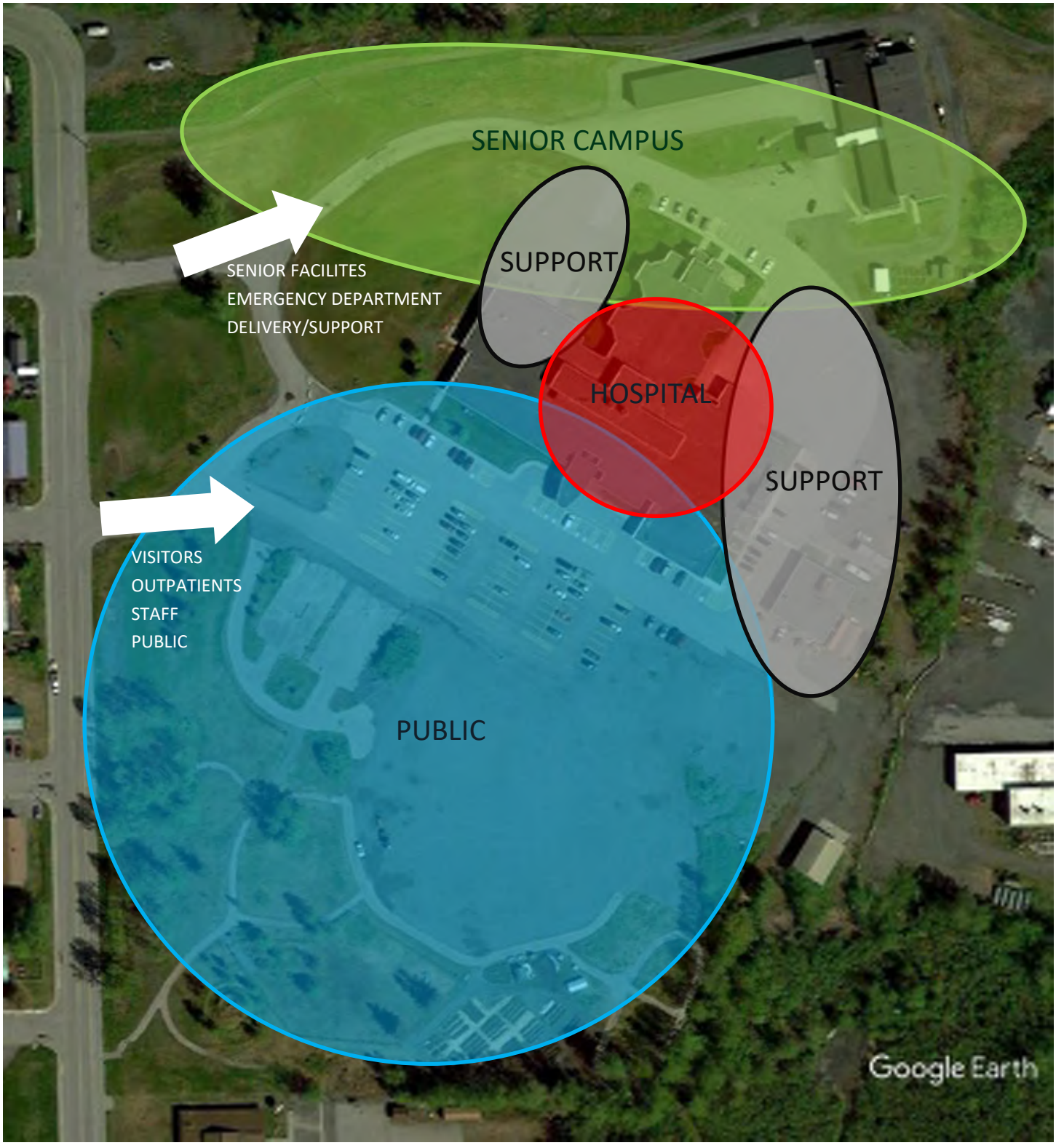
Primary care and public health benefit through a direct connection to the hospital. The physicians at the clinic provide care to in-patients at the hospital. The proximity of laboratory and imaging services allows for convient access to patients. It is anticipated that the hospital may need to provide out-patient pharmacy services in the future which would ideally be located with proximity to other out-patient services.

Childcare

The need for childcare is community wide and not limited to the hospital therefore it was determined to have it co-located with the recreation center as there were potential synergies with the availability of interior activity space. There is potentially interior access to the hospital through the rehabilitation addition.

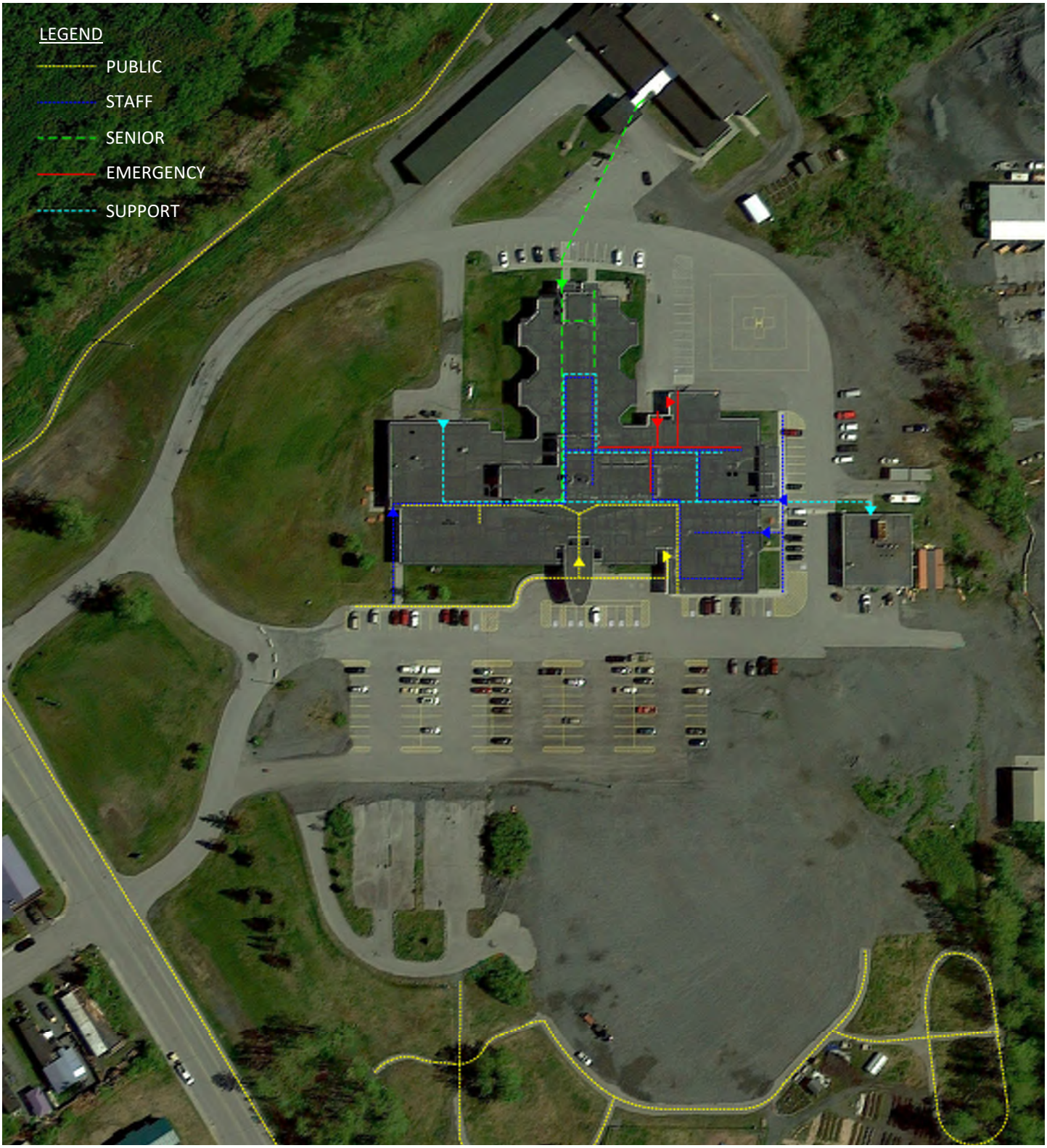
PROGRAMMING

SITE



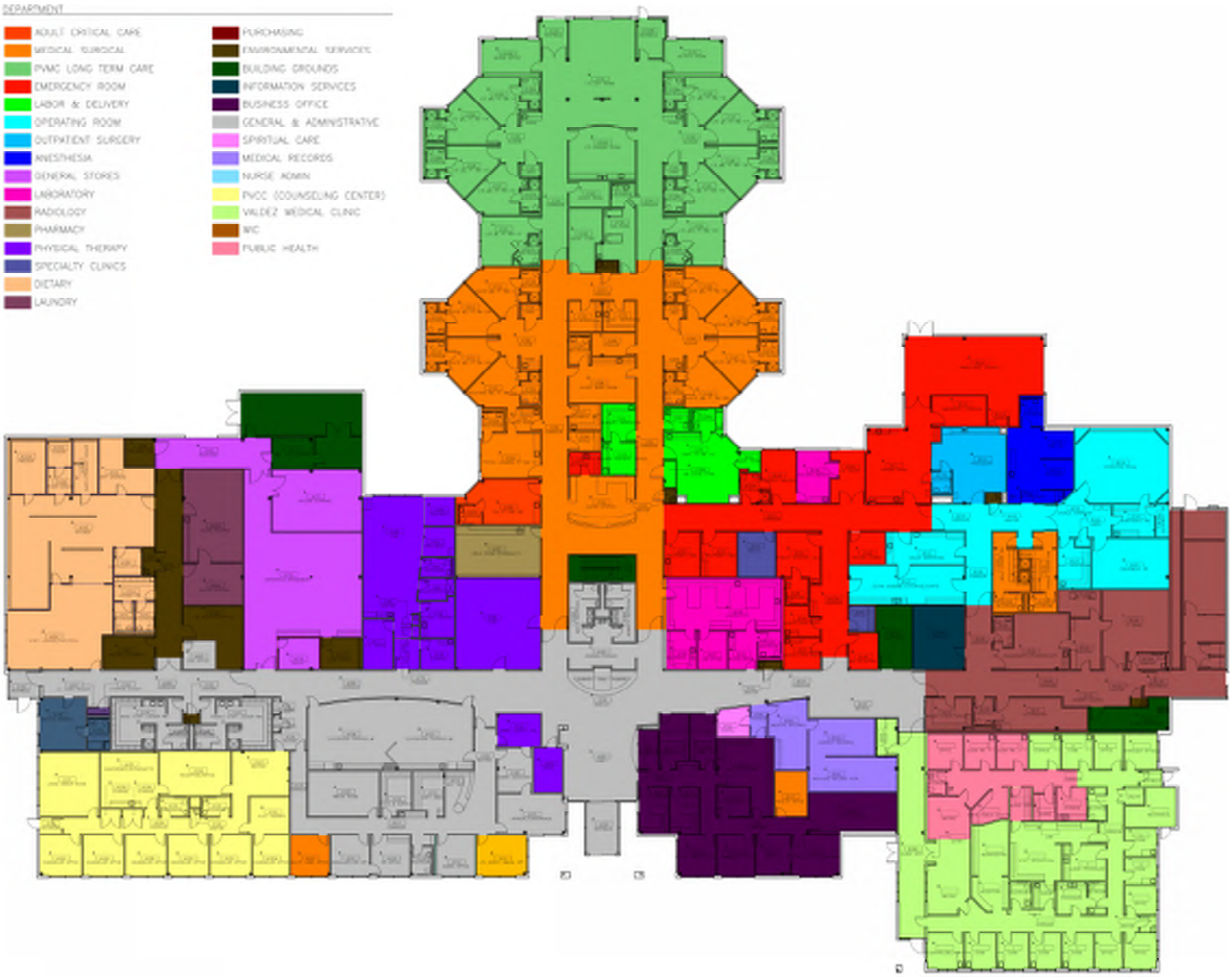
PROGRAMMING

PEDESTRIAN ROUTES



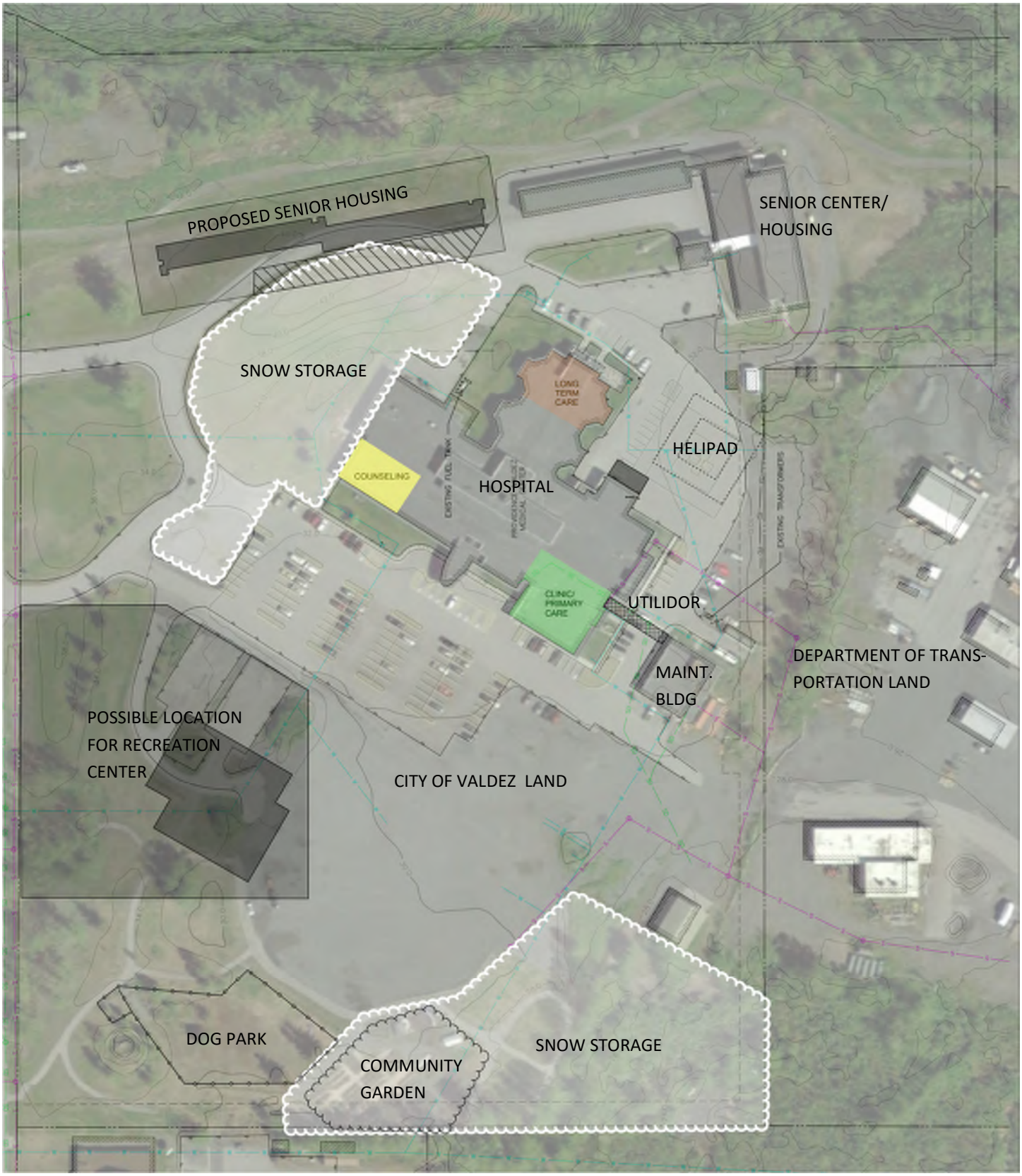
PROGRAMMING

EXISTING DEPARTMENTS



PROGRAMMING

EXISTING SITE WITH PROPOSED DEVELOPMENTS



PROGRAMMING

SPACE PROGRAM

Clinic	QTY	NSF/SPACE	TOTAL NSF	COMMENTS
Waiting and Admitting			**430**	**subtotal**
Reception/Registration Desk	1	80	80	Check in/out Some billing function
Clerk work area	1	40	40	
Office Equipment	1	40	40	
Waiting	1	270	270	180 nsf, (2) to (3) seats per patient care area. 15-20 nsf per seat. **Could be shared, Maybe**
Toilet, Public	0	55	0	
Patient Care			**765**	**subtotal**
Exam Room	4	100	400	may go up to 5
Procedure Room	1	150	150	
Triage area	1	60	60	
Light Pod Room	1	100	100	Red light therapy, dedicated ventilation
Toilet, Patient	1	55	55	
Clinical Support			**520**	**subtotal**
Alcove, POC Testing	1	80	80	Can include height/weight
Utility, Clean	1	100	100	
Utility, Soiled	1	80	80	
Alcove, Clean Linen	1	20	20	
Medication Room	1	80	80	sink, medication dispensing, minimal supplies
Storage, Equipment	1	120	120	
Housekeeping	1	40	40	Can be shared
Staff Support and Administration			**865**	**subtotal**
Office, Nurse staff	1	150	150	2 work stations for charting
Office, Manager	1	100	100	
Office, Nurse Practioner	1	100	100	
Office, Physician	1	100	100	
Conference	1	200	200	With some counter storage. **Can be shared with other department**
Lounge, Staff	1	100	100	100 nsf min, Allow for staff at peak shift @ 20 NSF **Can be shared with other department**
Kitchenette	1	60	60	1 microwaves, 1 refrigerator, sink
Toilet, Staff	1	55	55	
TOTAL NSF			**2,580**	
DGSF Factor			**1.45**	
Total DGSF			**3,741**	

Public Health				
Waiting and Admitting			**280**	**subtotal**
Reception & Check-in	1	80	80	
Clerk work area	1	40	40	
Office Equipment	1	40	40	
Waiting	1	120	120	180 nsf, (2) to (3) seats per patient care area. 15-20 nsf per seat. **Could be shared**
Patient Care			**285**	**subtotal**
Exam Room	2	115	230	Average of existing rooms (1) Adult and (1) Pediatric
Toilet, Patient	1	55	55	
Clinical Support			**304**	**subtotal**
POC Testing	1	40	40	
Utility, Clean	1	64	64	
Utility, Soiled	0	60	0	**Shared with PVMC**
Med Station	1	80	80	sink, medication dispensing, minimal supplies
Clean Linen	1	20	20	
Storage	1	100	100	
Housekeeping	0	40	0	
Staff Support and Administration			**445**	**subtotal**
Office, Manager	1	100	100	
Office, Nurse	1	100	100	
Office, WIC	1	80	80	
Office, Health Equity	1	80	80	
Lounge, Staff	0	100	0	Will share with other clinic
Kitchenette	0	60	0	
Personal Storage	6	5	30	per staff
Toilet, Staff	1	55	55	
TOTAL NSF			**1,314**	
DGSF Factor			**1.45**	
Total DGSF			**1,905**	

PROGRAMMING

SPACE PROGRAM

Valdez Medical Clinic					
Waiting and Admitting				**935**	**subtotal**
Reception & Check-in		1	80	80	
	Clerk work area	4	40	160	
	Office Equipment	1	40	40	
Waiting		1	600	600	180 nsf, (2) to (3) seats per patient care area. 15-20 nsf per seat. **Could be shared**
Toilet, Public		1	55	55	
Patient Care				**1,405**	**subtotal**
Exam Room		9	100	900	(3) per provider working
Procedure Room		1	140	140	
Procedure, Large		1	180	180	
Sound booth		1	75	75	
Toilet, Patient		2	55	110	
Clinical Support				**520**	**subtotal**
POC Testing area		1	40	40	
Utility, Clean		1	80	80	
Utility, Soiled		1	60	60	**Shared with PH**
Alcove, Clean Linen		1	20	20	
Medication Room		1	80	80	sink, medication dispensing, minimal supplies
Storage		2	100	200	
Housekeeping		1	40	40	**Shared with PH**
Staff Support and Administration				**1,658**	**subtotal**
Office, Booking		1	200	200	
Office, Manager		1	80	80	
Office, Nurse		1	80	80	
Office, Physician		5	120	600	
Work areas, Mas		6	40	240	(6) MA's
Work areas, Students		2	40	80	
Lounge, Staff		1	188	188	staff at peak shift @ 20 NSF **To be shared with PH**
	Kitchenette	1	60	60	1 microwaves, 1 refrigerator, sink
	Personal Storage	15	5	75	per staff
Toilet, Staff		1	55	55	
	TOTAL NSF			**4,518**	
	DGSF Factor			**1.45**	
	Total DGSF			**6,551**	

Specialty Clinics				
Waiting and Admitting			**300**	**subtotal**
Reception & Check-in	1	80	80	
Office Equipment	1	40	40	
Waiting	1	180	180	180 nsf, (2) to (3) seats per patient care area. 15-20 nsf per seat. **Could be shared**
Patient Care			**455**	**subtotal**
Exam Room	4	100	400	Up to (2) providers using space at once
Toilet, Patient	1	55	55	
Clinical Support			**240**	**subtotal**
Utility, Clean	1	80	80	**May be shared with hospital / Clinic**
Utility, Soiled	0	60	0	**Shared with hospital / Clinic**
Alcove, Clean Linen	1	20	20	
Alcove, Medication	1	60	60	sink, medication dispensing, minimal supplies
Storage, equipment	1	80	80	Portable Dental chair
Housekeeping	0	40	0	**Shared with hospital or other clinic**
Staff Support and Administration			**100**	**subtotal**
Office, Physician	1	100	100	
Toilet, Staff	0	55	0	
TOTAL NSF			**1,095**	
DGSF Factor			**1.45**	
Total DGSF			**1,588**	

PROGRAMMING

SPACE PROGRAM

Counseling Center				
Waiting and Admitting			**330**	**subtotal**
Reception	1	80	80	80 nsf typ for 1 to 2 clerks,
Interview/Consult space	1	100	100	
Waiting	1	150	150	120 nsf min: allow 20 nsf per seat
Patient Care			**2,000**	**subtotal**
Counselor Office	6	165	990	Average of existing rooms
Group Room, Large	2	225	450	15 persons 12-15 nsf per, Increased count due to inclusion of Intensive Outpatient Services program
Play Therapy	1	180	180	(2) separate spaces, (1) for play therapy, (1) for observation
Conference	1	200	200	10-12 people: allow for 12-15 nsf per additional seat200
Toilet, Patient	2	55	110	
Storage	2	15	30	
Housekeeping	1	40	40	
TOTAL NSF			**2,330**	
DGSF Factor			**1.45**	
Total DGSF			**3,379**	

Rehabilitation				
PHYSICAL THERAPY				
Patient Care			**2,293**	**subtotal**
Treatment	6	90	540	(3) with high/low tables, (3) without
Sensory Room	1	150	150	
Rehab gymnasium	2	700	1400	(1) O.T. & (1) P.T.
Daily Living Kitchen	1	60	60	
Toilet, Patient	1	55	55	
Handwashing Station	1	10	10	
Dressing/Shower	1	78	78	
Support			**360**	**subtotal**
Supply, Clean	1	60	60	
Holding, Soiled	1	40	40	
Alcove, Linen	1	20	20	
Storage, Equipment	1	120	120	Traction, Walkers, HGR chairs
Storage, Speech	1	40	40	
Storage, Pediatric	1	40	40	
Housekeeping	1	40	40	
Staff and Admin			**450**	**subtotal**
Office, Rehab Admin	1	60	60	open work area
Office equipment	1	40	40	
Office, P.T.	1	150	150	3 work areas
Office, Speech	1	200	200	shared with 5-6 staff
TOTAL NSF			**3,103**	
DGSF Factor			**1.45**	
Total DGSF			**4,499**	

PROGRAMMING

SPACE PROGRAM

Long Term Care Unit				
Patient Rooms			**3,850**	**subtotal**
Patient Bedroom, Single	14	210	2940	Average of existing rooms
Toilet/Shower Room	14	65	910	Average of existing rooms
Patient Support			**1,925**	**subtotal**
Activity Room	1	180	180	
Activity Room, Quiet	1	180	180	
Day Room	1	700	700	Existing area
Dining Room	1	350	350	25 nsf per bed
Residental Kitchen/Snack Room	1	120	120	Existing area
Patient Grooming Room	1	120	120	
Handwashing Station	2	10	20	
Tub room	1	200	200	
Toilet room, Patient	1	55	55	
Clinical Support			**380**	**subtotal**
Supply, Clean	0	100	0	**Will be shared with ACUTE inpatient**
Holding, Soiled	0	60	0	**Will be shared with ACUTE inpatient**
Clean Linen	2	30	60	Closet
Med Station	1	80	80	sink, medication dispensing, minimal supplies
Storage, Equipment	1	190	190	
Housekeeping	1	50	50	
Staff			**865**	**subtotal**
Office, Nurse Manager	1	100	100	
Office, Activities Director	1	150	150	
Office, Nursing Aides	1	180	180	60 nsf per staff: Shared space
Office, Shared CRCs	1	180	180	60 nsf per staff: Shared space
Lounge, Staff	7	20	140	staff at peak shift @ 20 NSF
Kitchenette	1	60	60	1 microwaves, 1 refrigerator, sink
Toilet, Staff	1	55	55	
TOTAL NSF			**7,020**	
DGSF Fac-			**1.45**	
Total DGSF			**10,179**	

Transient Staff Housing					
	Dwelling Unit			**5,100**	**subtotal**
	Apartment, Single Bedroom	2	650	1300	
	Apartment, Two Bedroom	4	950	3800	
	Support			**550**	
	Storage	6	40	240	
	Mechanical	1	120	120	
	Laundry	1	120	120	
	Trash	1	70	70	
	TOTAL NSF			**5,650**	
	DGSF Fac-			**1.45**	
	Total DGSF			**8,193**	

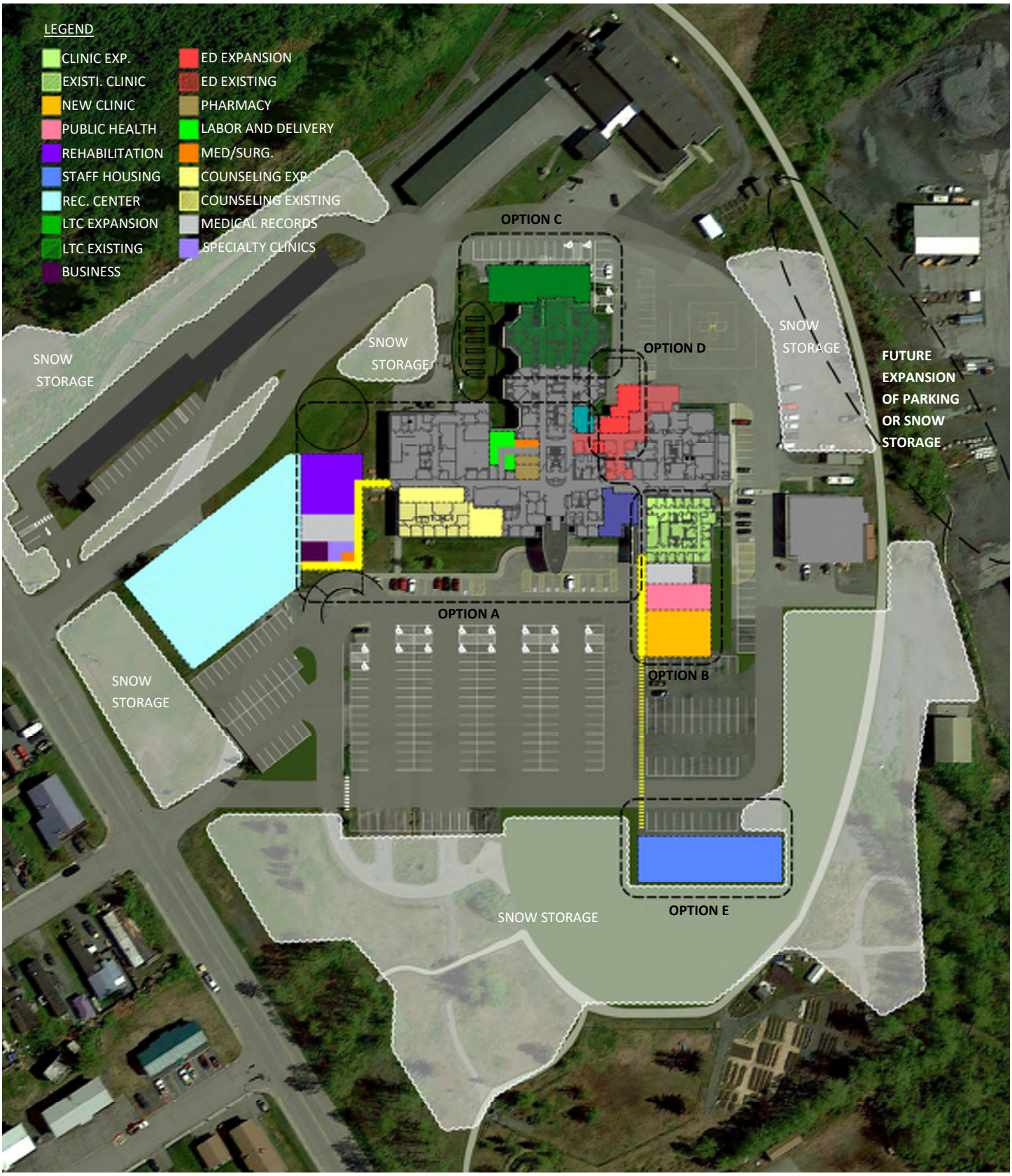
PROGRAMMING

SPACE PROGRAM

Emergency Department					
	Patient Rooms			**1,010**	**subtotal**
	Treatment/Observation	5	150	750	
	All Treatment/Observation	1	195	195	
	All Bath/Shower	1	65	65	
	Trauma	1	480	480	
	Triage	1	100	100	
	Patient Support			**370**	**subtotal**
	Waiting Room	1	300	300	
	Restroom	1	70	70	
	Clinical Support			**1,770**	**subtotal**
	Ambulance Bay	1	770	770	
	Decon	1	100	100	
	Storage	1	650	650	
	Morgue	1	250	250	
	Staff			**325**	**subtotal**
	Office, Security	1	55	55	
	Office, Staff	1	120	120	
	On-call Room	1	100	100	
	Nurse Station	1	50	50	
	TOTAL NSF			**3,475**	
	DGSF Factor			**1.5**	
	Total DGSF			**5,213**	

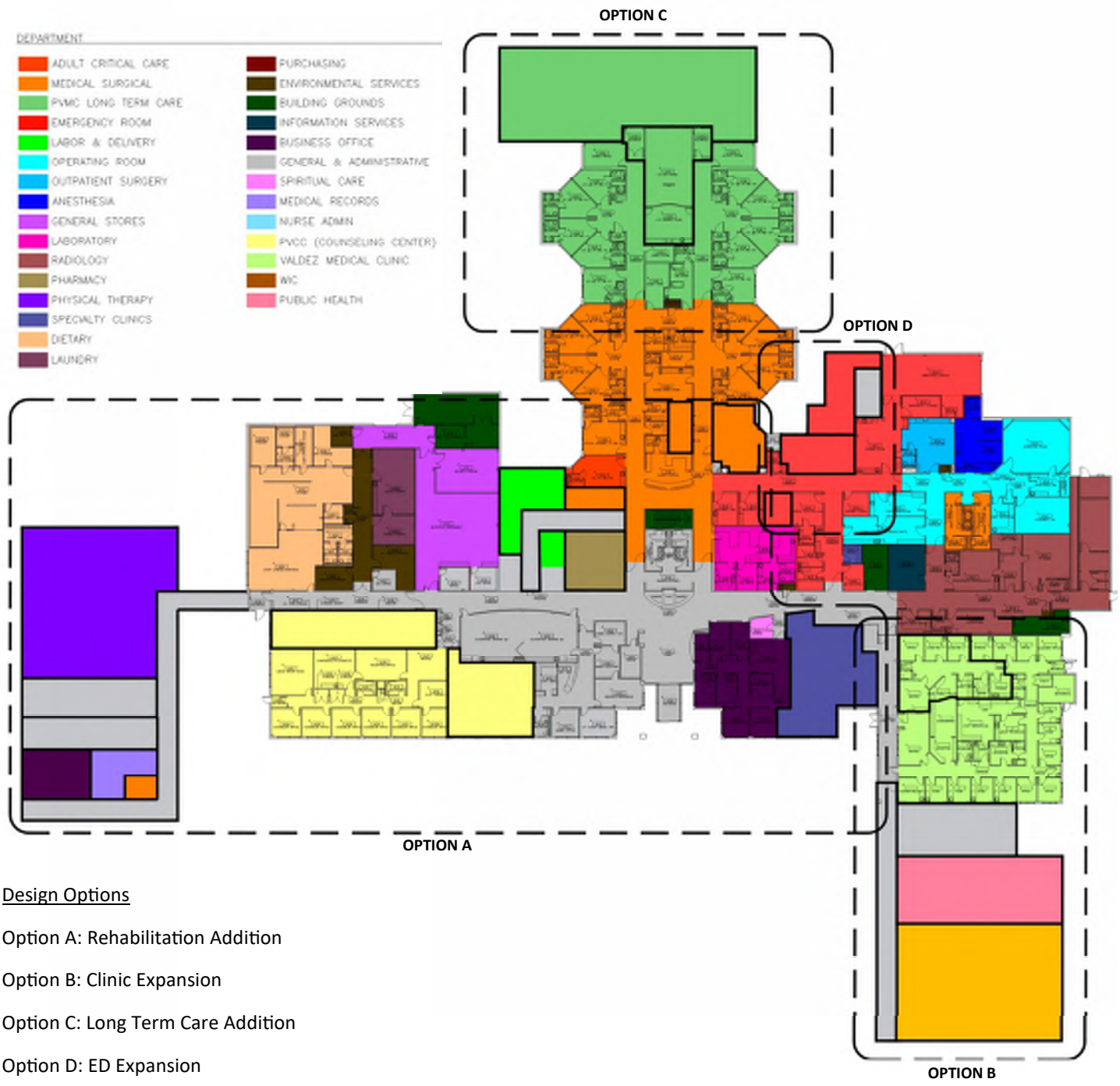
MASTERPLAN

OVERALL CAMPUS PLAN



MASTER PLAN

PROPOSED OPTIONS



Design Options

Option A: Rehabilitation Addition

Option B: Clinic Expansion

Option C: Long Term Care Addition

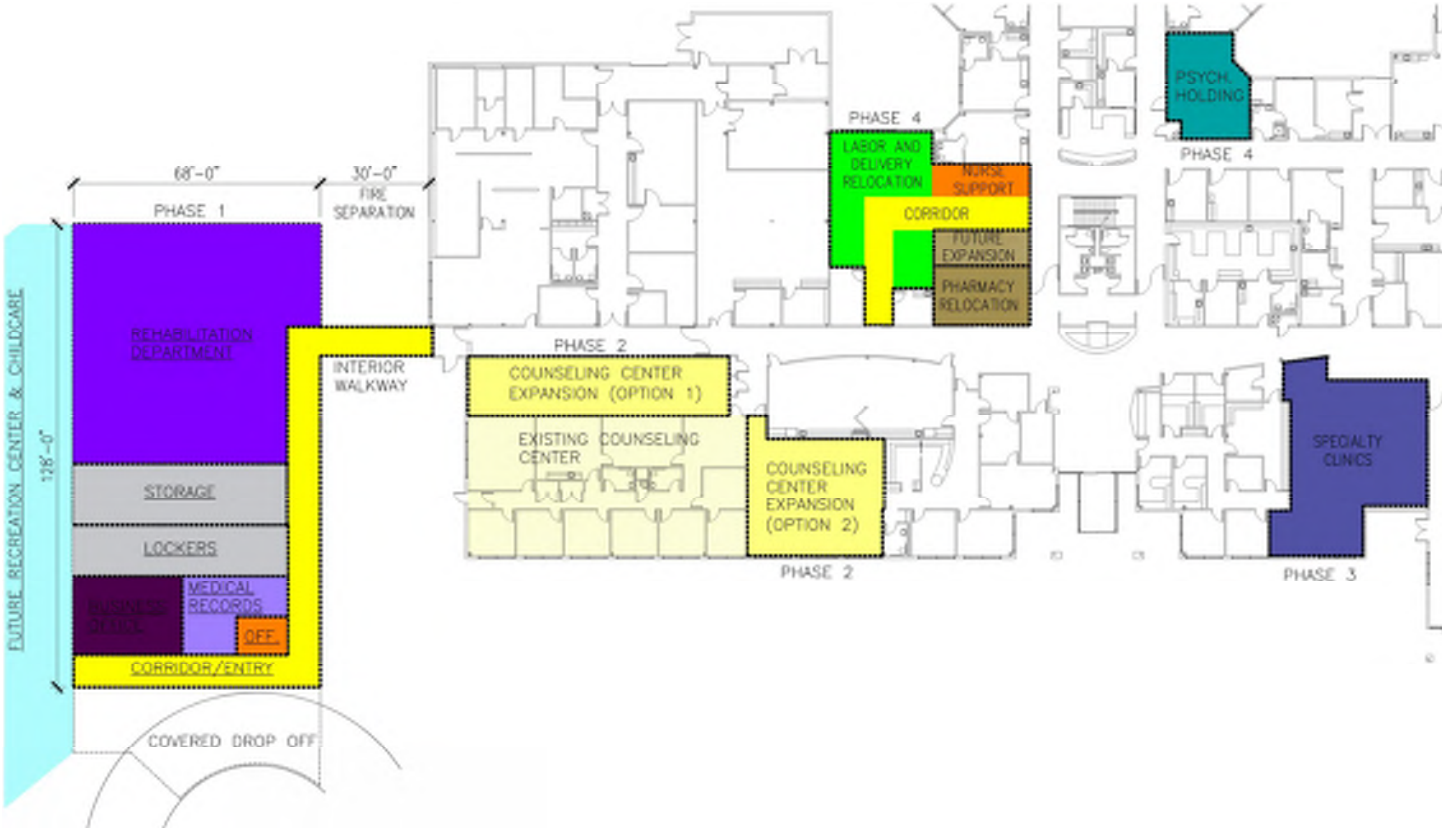
Option D: ED Expansion

Option E: Transient Staff Housing

*Break down of each option found on pages 34 through 40.

Master Plan

Option A —Rehab Addition



The rehabilitation addition is located on the west side of the building and is planned as a detached single story building which could be attached to a future recreation center with the possibility of sharing amenities. The addition is planned to include the rehabilitation department with additional space to relocate offices, lockers, and for a pedestrian link to the future recreation center.

This location was preferred by staff because it allows access from the long term care residents without having to navigate a ramp and is also convenient to the staff entrance.

The existing building is near the maximum allowable area based on the use and construction type so the addition is planned as a detached building. By locating the addition 30 feet from the existing hospital it avoids the need to construct a fire wall and minimizes the modifications to the corridor exterior.

The addition is planned as a B-Occupancy of Type II-B construction which would allow the recreation center to be built without a separation between the buildings.

The addition would free up space for a number of interior renovations outlined below. Note that the phase numbers are not based on priority and could be constructed in any order.

Phase 2—Counseling Center Expansion

There are two potential options for relocating the counseling center. Option 1 would be expand the counseling center to encompass the space currently occupied by the staff lockers. Alternatively with Option 2 the counseling center could expand into the existing administrative area. There is some efficiency in relocating to the administrative area as existing rooms could be reused with less disruption to the existing counseling center.

Phase 3—Specialty Clinics

A portion of the business office including medical records could be relocated to the rehabilitation addition freeing up space for specialty clinics. The specialty clinics would benefit from the proximity to admitting and the existing outpatient clinics.

Phase 4—Labor & Delivery Relocation, Psychiatric Holding, Pharmacy Relocation, Nurse Station Expansion

This phase is planned to address a number of needs that came up during the programming and master planning meetings and requires a number of sub-phases:

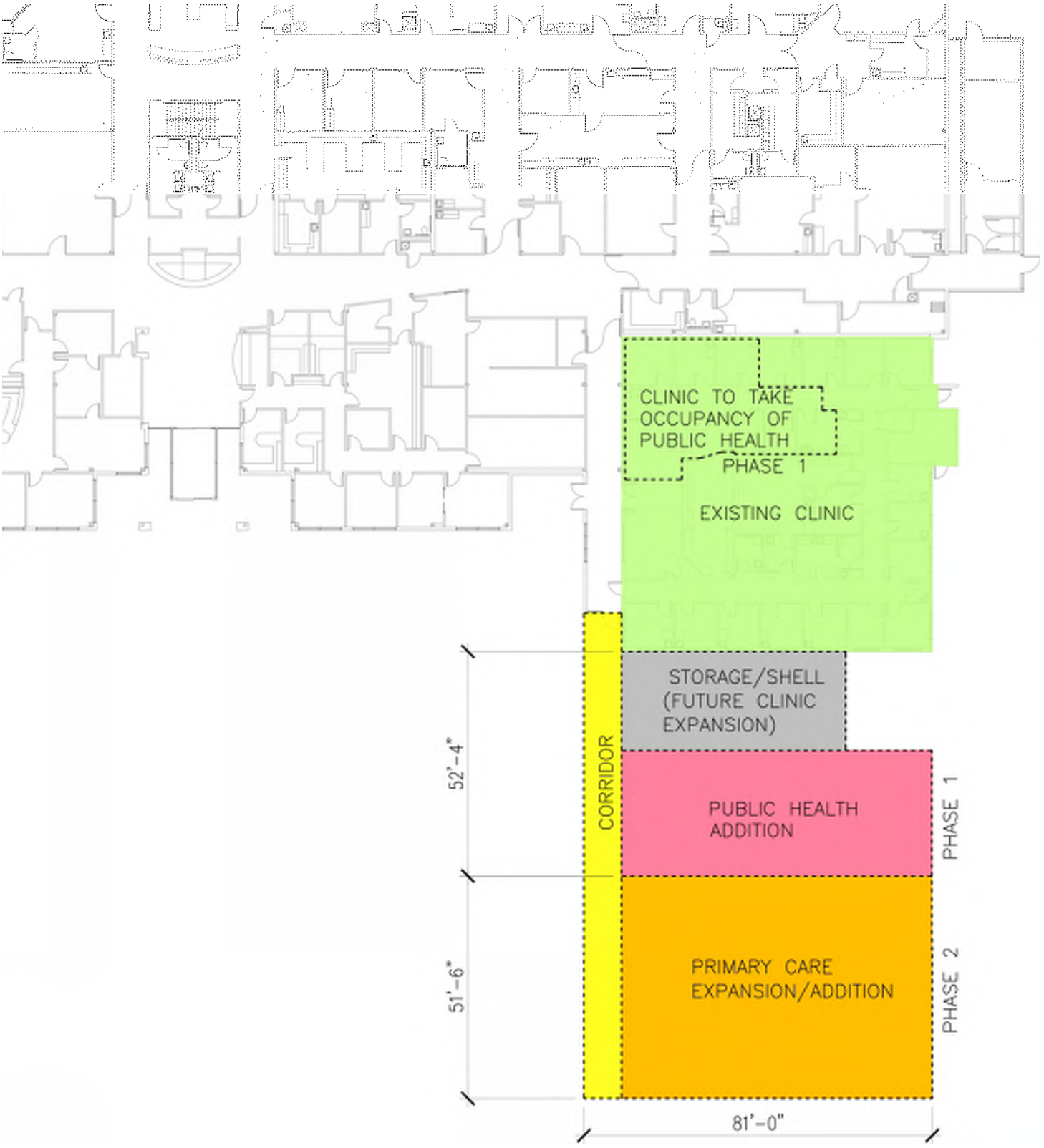
Phase 4.1 Pharmacy Relocation: Valdez is currently served by one private outpatient pharmacy and there is concern that there needs to be a contingency should that pharmacy close. By relocating the inpatient pharmacy to the south it allow access from both the public lobby and treatment area so it could serve both inpatient and outpatient populations. To accommodate outpatients needs the plans include the option to expand the pharmacy, this could happen along with the relocation or as a future project when needed.

In addition to allowing the pharmacy to serve outpatients this relocation will allow for a corridor to access the existing rehabilitation space from the clinical side of the hospital. It also creates space adjacent to the nurse station which can be used for support

Phase 4.2 Labor & Delivery Relocation: Since the labor & delivery room is an overnight room there is a need for windows, the current location limits the options for expanding the emergency department as those windows will become obstructed or at much closer to the emergency department entrance limiting privacy and view. By relocating labor and delivery to the existing rehabilitation space it Phase 2 would allow for the addition of another practice and could be built in conjunction with Phase 1 or it could be constructed at a later date as needed.

Master Plan

Option B—Clinic Expansion



Option B—Clinic Expansion

The clinic expansion is located to take advantage of adjacent services including imaging, laboratory, and pharmacy services and allows flexibility for the existing clinic to expand or host future medical practices. By co-locating the practices they can share a common entrance.

A new corridor runs the length of the west wall, the intent is that this will be used for accessing the clinic and will serve as access from parking and from staff housing to the south.

In touring the clinics it was discovered the exam space was being used for storage because of a lack of appropriate storage for the clinic. To better utilize the existing exam rooms it was proposed that an addition include a space for storage which in the future could be remodeled to expand the clinic.

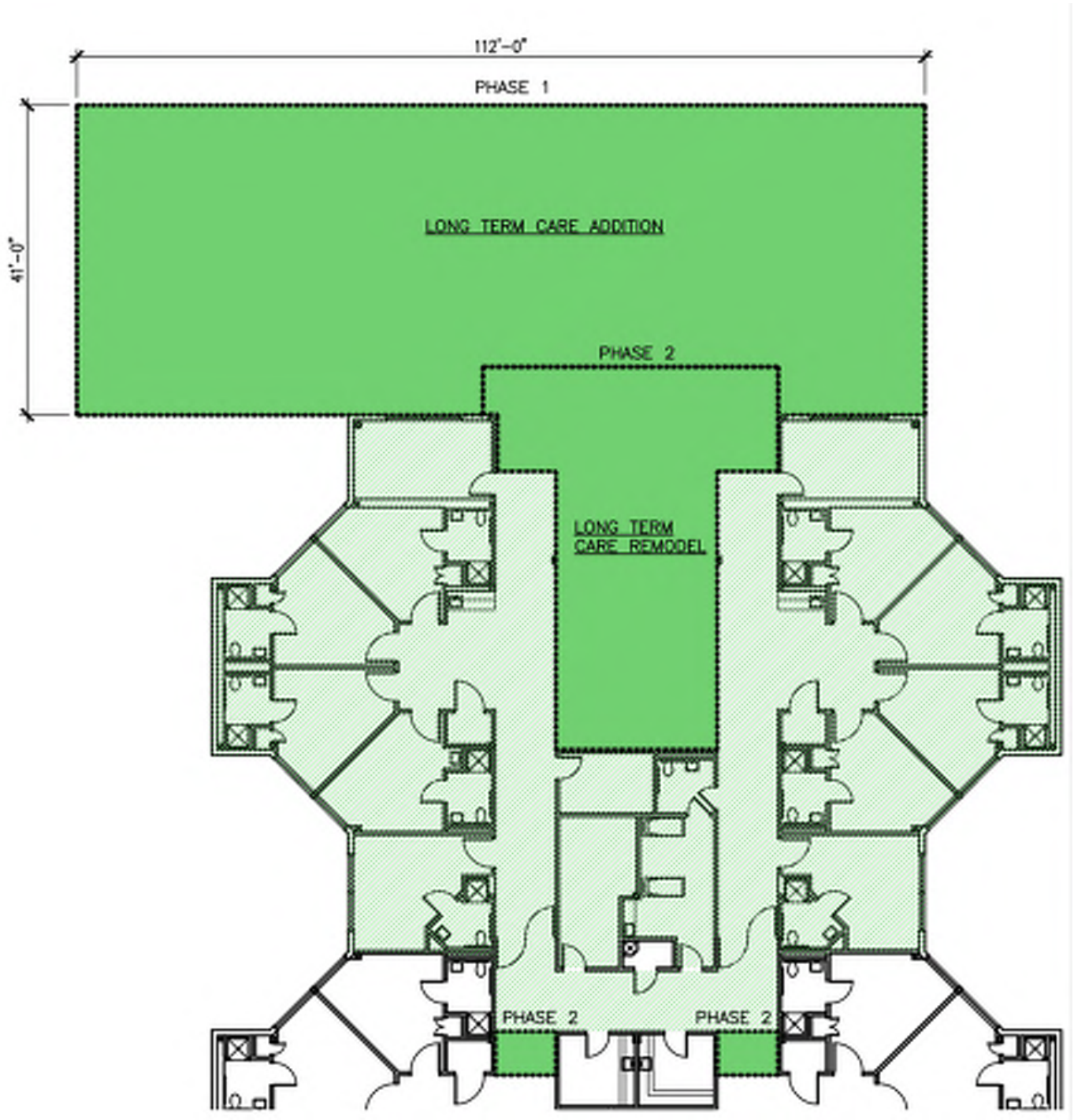
The existing clinic is of Type V-B construction and is a B-Occupancy. The addition of the clinics could be accomplished using a similar construction type without the need for the construction of a fire wall. This makes this location a more economical choice than attached directly to the hospital .

There are two phases proposed for the expansion of the clinic. Phase 1 would address the needs of the existing practices on campus. This would consist of the addition that would include storage and a new public health clinic. The existing Valdez Health Clinic would expand into the area vacated by public health which is currently contiguous with the existing clinic and would require no or minimal remodel to occupy.

Phase 2 would allow for the addition of another practice and could be built in conjunction with Phase 1 or it could be constructed at a later date as needed.

MASTER PLAN

Option C—Long Term Care Addition



Option C—Long Term Care Addition

The long term care addition is planned as an addition to the north of the existing long term care facility and is planned as an attached single story addition. The addition will include 4 private patient rooms with attached private bathrooms, a new activity room, staff work room, shared office space, family meeting space, break room, and library.

The work would be divided into two phases. The first phase would be the addition. The second phase would include interior renovations to the dining room and day room as well as the addition of a soiled utility room and addition of two double egress doors would be added to the south of the long term care to create a vestibule for accessing the shower without passing though the hospital proper.

The long term care addition is planned as a “dog leg” due to it being constrained by the hospital, road, parking lot, and helipad. On street parking would be relocated to the north and east sides of the addition. To the south west a fenced garden area would be provided with screening between it and the exiting drive to the loading dock.

The existing long term care facility is of Type II-A construction and is classified as an I-2 Occupancy. The addition would be of the same construction to avoid the need for fire separation. There was discussion about relocating the doors to the south which would separate the hospital from the long term care but since they serve as part of the fire/smoke compartment boundary it was determined they should remain as is to avoid unnecessary cost.

MASTER PLAN

Option D—ED Expansion

Currently the emergency department entry is tucked between the ambulance bay and patient rooms with an uncovered entryway. Upon entering the building patients must proceed through the emergency department to the main nurse station which creates potential infection control and safety issues.

The proposed program adds a covered drop off to the emergency department with a covered walkway to the entrance. At the entry it is planned that there be a waiting room, security office, and triage room with adjacencies to each other. This would allow individuals entering the hospital to be immediately screened prior to entering the hospital. The morgue would be located adjacent to the ambulance bay allowing patient transfers out of view of patient rooms. The morgue would be increased in size to double the capacity to 4 decedents.

The location of the emergency department expansion was driven by the requirement that the patient rooms to the west of entry have access to windows. On the north side of the building the emergency department is constrained by an existing helipad which is located close to existing property lines and access drives. This layout is dependent on the ambulance bay having a single garage door which was approved by the fire department. This will require that storage along the walls be relocated to the addition to allow ambulances to pull in and transfer patients around the ambulance.

In addition to the building addition the existing dental room will be converted to allow it to serve as an emergency room. The doors to the existing patient room will be modified from swinging doors to breakaway sliders.

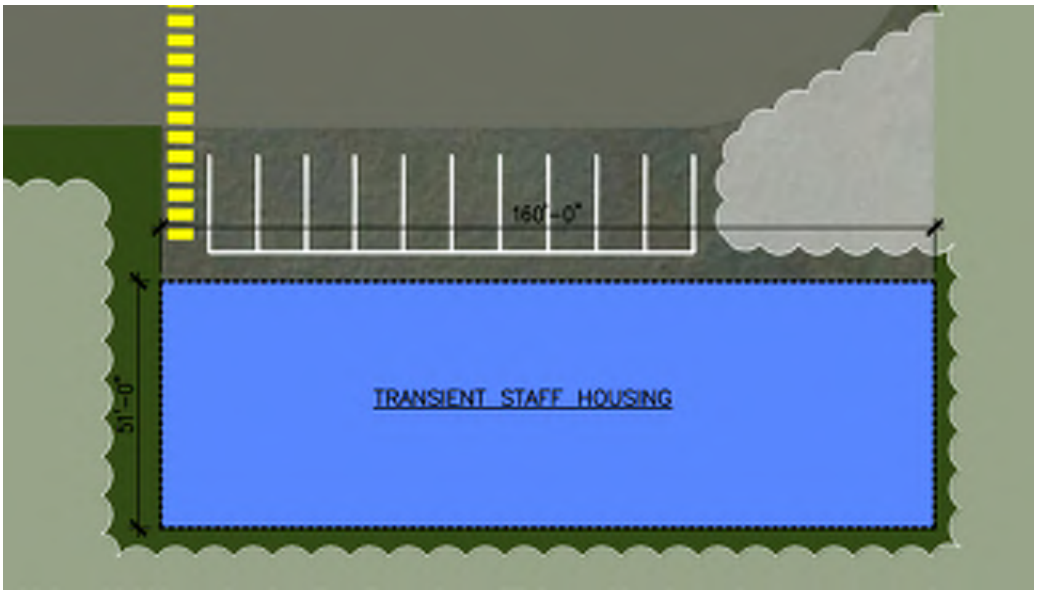
It is anticipated that work would occur in 2 major phases. The first would be an addition to the building followed by the interior renovation.

Option E—Transient Worker Housing

Transient Staff Housing was located on the south side of the campus to provide adjacency to green space and to avoid using up valuable real estate adjacent to the hospital. Since the housing would be for staff the location provides convenient access to the hospital via an uncovered walkway to the clinic.

There was discussion about the size and type of units that would be available and it was determined that these should include a mix of 2 and 1 bedroom units for a total of 6 units.

The housing would be constructed as a single story building of type V-B construction, separated from the existing clinic by a minimum of 60 feet.



FINANCIAL SUMMARY

Based on the financial analysis it is anticipated that the Long Term Care expansion would result in a net increase in revenue. The counseling center will continue to operate at a net loss but the expansion of programs is anticipated to reduce the losses by up to $110,000 annually.

Expansion of the outpatient services (Rehabilitation, Outpatient Clinic, Specialty Clinics) is anticipated to have a net neutral financial impact.

The emergency department expansion is not anticipated to generate additional revenue but has been identified as a need to address functional and compliance concerns.

Transient Staff Housing is not anticipated to result in a change of revenue as the hospital is currently paying to house staff off site.

Estimated Project Costs Based on 2022 Construction Costs:

	Design Allowance (12%)	Construction	Contingency (20%)	Project Cost (2022)	Revenue	Break Even	Estimated Construction Duration
Option A Rehab Addition	$1,680,000	$14,000,000	$2,800,000	$18,480,000	Net Neutral	N/A	18-24 months
Option B Outpatient Clinic Expansion	$756,000	$6,300,000	$1,260,000	$8,316,000	Net Neutral	N/A	12-15 months
Option C LTC Expansion	$552,000	$4,600,000	$920,000	$6,072,000	1.7 mil (2.1mil @ year 5)	6 yrs	12-15 months
Option D ED Expansion	$216,000	$1,800,000	$360,000	$2,628,000	N/A	N/A	9-12 months
Option E Transient Staff Housing	$552,000	$4,600,000	$920,000	$6,072,000	Net Neutral	N/A	9-12 months

Project Cost Escalation Based on Year of Construction:

	2022	2023 (8%)	2024 (8%)	2025 (5%)	2026 (4%)
Option A—Rehab Addition	$18,480,000	$19,958,000	21,555,000	22,633,000	23,538,000
Option B -Outpatient Clinic Expansion	$8,316,000	$8,981,000	$9,700,000	$10,185,000	$10,592,000
Option C -LTC Expansion	$6,072,000	$6,558,000	$7,083,000	$7,437,000	$7,734,000
Option D -ED Expansion	$2,628,000	$2,838,000	$3,065,000	$3,219,000	$3,347,000
Option E-Transient Staff Housing	$6,072,000	$6,558,000	$7,082,000	$7,437,000	$7,734,000

FINANCIAL SUMMARY

Valdez Medical Center Master Plan Update Financial Analysis

November 2022

Prepared by Agnew::Beck Consulting as a subcontractor to Architects Alaska

Engage
Plan
Implement

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Contents

Figures

Tables

1. Executive Summary

Project Purpose

In March 2021, the City of Valdez released a Request for Qualifications (RFQ) to provide a financial feasibility analysis and architectural and engineering guidance to update the Valdez Medical Center master plan. Architects Alaska, with ZGF and Agnew::Beck as a subcontractors, were selected to prepare the master plan update. The project team worked together to assess current and potential services to determine which ones were both feasible and in alignment with community needs. Architectural planning and drawings were drafted for the feasible options. This report provides a summary of the financials analysis that contributed to advancing the project.

Feasibility Analysis Priorities & Key Findings

The table below shows the financial feasibility analysis tasks associated with each of the four RFQ subareas. The project team prioritized analysis of behavioral health and long-term care services. Outpatient services and workforce housing generally operates at a net neutral, and the early childhood development center is being addressed through a separate RFP.

Table 1: Financial Analysis & Community Need Key Findings

RFQ Subarea	Financial Analysis Prioritization
Outpatient Expanded outpatient services; rehabilitation/physical therapy, specialty clinics Expansion of primary care, inclusive of public health	The 2020 Valdez Community Health Needs Assessment identified healthy lifestyle and barriers to appropriate healthcare access as the second and third highest community health need, respectively. Therapies and specialty clinics along with primary care already operate with financial sustainability. Changes to primary care are primarily in space configuration and do not require new construction, with the exception of public health, which could benefit from a new location and additional space. Specialty outpatient clinics are revenue neutral, but changes to these should be determined by Providence based on need and market. The barriers to expanded outpatient are primarily related to workforce and space. Net neutral financial impacts with change in services.
Behavioral Health Redesign and expansion of Providence Valdez Counseling Center Residential Substance Use Disorder Treatment replaced with partial hospitalization	Mental health and substance misuse was the top priority need identified in the 2020 community health needs assessment. Residential substance use disorder (SUD) treatment typically operates at a substantial loss in rural Alaska settings due to insufficient volume and reimbursement rates to cover care costs associated with 24/7/365 treatment offerings. Early conversations with Providence Valdez Medical Center and Providence Health & Services Alaska staff regarding residential SUD treatment led to replacing that service with an assessment of a partial hospitalization program, which offers a similar level and intensity of treatment but without requiring overnight stays The project team modeled a partial hospitalization program in combination with intensive outpatient SUD treatment at the Counseling Center to optimize behavioral health service delivery in Valdez. A transition to intensive outpatient and partial hospitalization and would result in a net loss of $90,000 per year (by year 5) to the Counseling Center, based on the modeling assumptions in this analysis. This would be an improvement compared to their current losses.

RFQ Subarea	Financial Analysis Prioritization
Long-term Care	The 2020 community health needs assessment did not specifically identify seniors' needs as a priority, however there were multiple references to the need for more senior housing and assisted living to support seniors when they were unable to live independently in their own homes. Long-term skilled nursing care[1] at the Providence Valdez Medical Center currently produces positive net revenue. The project team assessed demand for additional skilled nursing or assisted living beds in Valdez and analyzed the net revenues that would be produced with the expansion of two or four beds of skilled nursing. Overall, the Valdez community could likely accommodate an additional 35 beds of skilled nursing and/or assisted living by 2035. New construction would be needed to accommodate additional long-term care beds. A 4-bed long-term care expansion would result in a $1.17 million incremental increase in annual net revenue above the status quo.
Workforce Early childhood development center Small scale transient housing complex	Provider workforce needs were not listed as a priority in the 2020 community health needs assessment but were highlighted in the 2017 community health needs assessment. Additionally, the lack of childcare and housing options in Valdez were mentioned in the interviews as top reasons that it is difficult to recruit and retain adequate health care workforce at all levels. In Valdez, Providence currently secures temporary housing for its workforce (for up to three months) while they secure permanent housing. Additional housing to support the workforce may be needed and there are a couple of projects that may produce additional housing units; the Chugach Alaska Corporation housing project is one example. Space on the campus to support housing for medical staff is reasonable to reserve for the future. The lack of childcare options in Valdez limits the ability for Providence to recruit and retain staff. A separate RFP has been released to assess the need for and feasibility of an early childhood development center

Community Health Needs Assessment

Providence Valdez Medical Center engages the community every three years to produce a community health needs assessment which helps to guide Providence's services and work in the community. This section summarizes relevant findings from both the 2017 and 2020 needs assessments in each of the four financial feasibility analysis subareas.

Outpatient

Three of the top five priority needs in 2017 related to outpatient care including:

- Priority Need 1: Local health care provider workforce as the cause of primary care being the greatest identified need in the 2017 survey
- Priority Need 3: Access to specialty care
- Priority Need 4: Healthy lifestyle/chronic disease

In 2020, primary and specialty care needs that can be addressed in the outpatient setting remained top priorities including:

[1] The term skilled nursing is a generic term used to describe the services provided at the Valdez Medical Center for long-term care. The long-term care facility is technically licensed as an intermediate care facility.

- Priority Need 2: Healthy lifestyle (e.g., chronic disease, overweight/obesity, physical activity, etc.)
- Priority Need 3: Barriers to appropriate healthcare access (right care, right time, right place) focus on primary & specialty care

Relevant current services at PVMC include: obstetrics, labs and imaging, stress testing, general medical care, endoscopy and minor surgical, sleep disorder studies, physical and occupational and speech therapy. The State-funded public health nursing program is also located at PVMC.

Behavioral Health

Mental health and substance misuse was the top priority need identified in the 2020 community health needs assessment. This need was second in the 2017 community health needs assessment.

Relevant current services at the Valdez Counseling Center include individual, family and group psychotherapy, psychiatric services and medication management, substance use disorder treatment, psychoeducational groups, domestic abuse intervention programming and supervised visitation for Office of Children's Services involved families.

Seniors

The 2020 community health needs assessment did not identify seniors needs as a priority need, however there were multiple references to the need for more senior housing and assisted living to support seniors when they were unable to live independently in their own homes. The PVMC currently offers 10 long-term care beds.

Workforce

The services related to workforce in the RFQ included the establishment of an early childhood development center and a small-scale transient housing complex. Without housing, new providers cannot work in Valdez because they would not have anywhere to stay when they are not working. Similarly, if there are limited childcare options, providers with young children will not be able to work reliably because their children will have nowhere to be during the day. Many new health care providers come from outside of the community because there are limited opportunities in Valdez for health care education. Affordable quality housing and childcare both support recruitment and retention of the health care provider workforce.

Provider workforce needs were not listed as a priority in the 2020 community health needs assessment, but the impact of childcare and housing were mentioned in the interviews. The top priority need in the 2017 community health needs assessment was the local health care provider workforce.

The Valdez-Cordova Census Area (now the Chugach and Copper River census areas) is designated as a primary health, dental health and mental health professional shortage area, the definitions of which are shown below.[2]

Table 2: Health professional shortage area provider ratios

Health Professional Shortage Area	Provider ratio benchmark (not high needs population)
Primary care	3,500 people per provider
Mental	20,000 people per psychiatrist and 6,000 people per core mental health provider
Dental	5,000 people per provider

[2] Source: data.census.gov

Note: A health professional shortage area means that the region has not met the provider benchmark ratios.

Comprehensive Financial Analysis

The financial analysis included the following steps:

- Identify surplus/net revenue or loss associated with prioritized potential service area.
- Identify market and need using the 2020 Valdez Community Health Needs Assessment and census data.

Table 3: Summary of annual costs/revenues associated with modeled services

Item	Net Revenue (rounded)	Notes
Current financial position, Providence Valdez Medical Center including Counseling Center [1]	$1.5 million	"The PVMC is a component unit of the City of Valdez budget. The fund balance is owned by the City of Valdez and is used to fund hospital related capital and maintenance projects, capital equipment purchases, and to maintain cash-on-hand requirements articulated in the operating agreement." -City of Valdez 2020 Budget
Add incremental increase in revenue from 4-bed long-term care expansion	$1.17 million	Difference between 10-bed net revenue of $940K and 14-bed net revenue of $2.1 million when fully operational at year 5
Less additional behavioral health services	-$90,000	At year 5 when fully operational; mostly replaces existing services, some costs for continuing existing programs are likely and not directly included in this estimate.
Specialty clinics	Net neutral	PMVC chooses specialty clinics that are financially positive and based on community need. Housing and workforce retention are the limiting factor.
Primary care	Net neutral	Outpatient is typically net neutral. Housing and workforce retention are the limiting factor.
Housing for employees	Net neutral if housing budget doesn't increase	Net neutral assuming no additional spending on housing. [2]
Childcare center	TBD	Separate RFP underway
[1] Source: FY21 Providence Valdez Med Center MGD Department Income Statement. Note: The exact excess over revenue is $1,542,533, with $3,234 attributed to the Counseling Center. [2] Current PVMC housing program includes a master lease of 14 units up from 6 units pre-Covid. Housing is provided for employees for up to three months until they find housing. Itinerant employees also have access to the PVMC housing. Six new units at the planned Chugach Alaska Corporation new housing development could also be a solution for housing medical employees.		

Workforce Housing

Workforce housing is likely to be net neutral for Providence Valdez Medical Center, and subsequently the City of Valdez, should Providence continue to purchase temporary housing for its workforce at an amount similar to current levels. Additional housing may increase costs but may also allow for more health care professionals to relocate to Valdez to provide a full range of services. Overall, the availability of housing impacts the ability to attract health care professionals. Valdez has 1,748 housing units, 1,550 of which are occupied year-round. The rental housing vacancy rate is 7.8 percent and the homeowner vacancy rate is 2.0 percent.[3]

[3] 2020 American Community Survey 5-Year Estimate, Table DP 04

2. Expanded Facility Operating and Capital Costs

Valdez Medical Center Master Plan Facility Operations and Maintenance Costs

The Valdez Medical Center Master Plan proposes to add 13,875 square feet to the hospital and 8,015 square feet to the clinic for an overall increase in space of 34 percent (see Table 4).

Table 4: Expanded Facility Square Footage Increase

Item	Existing SF	Increase SF	Total SF at Buildout
Long Term Care	6,530	4,345	10,875
Emergency Department	4,065	990	5,055
Counseling Center	2,975	1,180	4,155
Maintenance Building/Physical Plant	4,520	-	4,520
Rehabilitation (PT/OT)	2,290	2,210	4,500
Balance of Hospital	37,805	5,060	42,865
Total Hospital	58,185	13,785	71,970
Percent Increase Over Existing SF	-	-	24%
Clinic	5,870	8,015	13,885
Percent Increase Over Existing SF	-	-	137%
Total for Valdez Medical Center	64,055	21,800	85,855
Percent Increase Over Existing SF	-	-	34%
Placeholder for Future Housing	-	8,500	8,500

Source: Architects Alaska

Currently, the Providence Valdez Medical Center funds $1.7 million in facility operations and maintenance (O&M) costs for the hospital, while City of Valdez funds $115,000 in facility operations and maintenance costs for the clinic. We applied the current operating costs per square foot to arrive at estimated O&M costs at buildout of the expanded facilities proposed in the Valdez Medical Center Master Plan (see Table 5).

Table 5: Expanded Facility Operating & Maintenance Costs

	Hospital [1]			Clinic [2]		
Item	**Existing Cost FY21**	**Cost per Sq ft**	**Cost at Buildout**	**Existing Cost FY21**	**Cost per Sq ft**	**Cost at Buildout**
Heating Oil & Propane	$155,318	$2.67	$192,115	$15,400	$2.62	$36,427
Electricity	$413,935	$7.11	$512,003	$16,760	$2.86	$39,644
Water/Sewer & Other	$22,478	$0.39	$27,803	$2,268	$0.39	$5,364
Total Utilities [3]	**$591,731**	**$10.17**	**$731,922**	**$34,428**	**$5.87**	**$81,436**
Maintenance	$654,217	$11.24	$809,212	$19,740	$3.36	$46,692
Environmental Services (Janitorial)	$412,146	$7.08	$509,790	$60,000	$10.22	$141,925
Total	**$1,658,094**	**$28.50**	**$2,050,924**	**$114,167**	**$19.45**	**$270,053**
Percent Increase Over Existing Operating Costs	-	-	24%	-	-	137%

[1] Responsibility of Providence Valdez Medical Center

[2] Responsibility of City of Valdez

[3] Snow plowing not included. No substantial changes in snow plow costs anticipated.

Source: City of Valdez and Providence Valdez Medical Center

Using current costs per building square feet and extrapolating that based on the new space contemplated in the master plan, at buildout, annual O&M costs at the hospital would increase by $400,000 to $2.1 million, while annual O&M costs at the clinic would increase by $55,000 to $270,000. Operation and maintenance costs at the hospital are the responsibility of Providence Valdez Medical Center, while O&M costs at the clinic are the responsibility of City of Valdez.

Please note that these estimates do not include snow plowing expenses. Currently, City of Valdez is responsible for plowing the major roads at the Medical Center while Providence is responsible for facility sidewalks. The master plan buildout is not anticipated to result in any major changes to the road or sidewalk systems, therefore snow removal expenses should remain similar to their current costs.

The master plan also contemplates a potential housing project on site, but this use is currently too speculative to estimate its operating costs.

Valdez Medical Center Master Plan Facility Capital Construction Costs

The Valdez Medical Center Master Plan proposes the following expansions and capital construction costs. The following space descriptions are excerpted from Architects Alaska, "Valdez Hospital, Hospital & Clinic Master Plan Update":

Rehab Addition

The rehabilitation addition is located on the west side of the building and is planned as a detached single story building which could be attached to a future recreation center with the possibility of sharing amenities. The addition is planned to include the rehabilitation department with additional space to relocate offices, lockers, and a pedestrian link to the future recreation center.

This location is preferred by staff because it allows access from the long term care residents without having to navigate a ramp and is also convenient to the staff entrance.

The existing building is near the maximum allowable area based on use and construction type so the addition is planned as a detached building. By locating the addition 30 feet from the existing hospital it avoids the need to construct a fire wall and minimizes modifications to the existing exterior.

This addition is anticipated to cost $13.996 million.

Outpatient Clinic Expansion

The clinic is located to take advantage of adjacent services including imaging, laboratory, and pharmacy services and allows flexibility for the existing clinic to expand or host future medical practices. By co-locating the practices, they can share a common entrance.

A corridor runs the length of the west wall to be used for accessing the clinic and will serve as access from parking and from staff housing to the south.

In touring the clinics, it was discovered the exam space was being used for storage because of a lack of appropriate storage for the clinic. To better utilize the existing exam rooms, it was proposed that an addition include space for storage which in the future could be remodeled to expand the clinic.

This expansion is anticipated to cost $6.29 million.

Long Term Care Expansion

The long-term care expansion is planned as an attached single story addition to the north of the existing long term care facility. The addition will include 4 private patient rooms with attached private bathrooms, a new activity room, staff work room, shared office space, family meeting space, break room, and library.

The work would be divided into two phases. The first phase would be the addition. The second phase would include interior renovations to the dining room and day room as well as the addition of a soiled utility room and the addition of two double egress doors to the south to create a vestibule for accessing the shower without passing though the hospital.

The long-term care addition is planned as a "dog leg" due it being constrained by the hospital, road, parking lot, and helipad. On street parking would be relocated to the north and east sides of the addition. To the

southwest a fenced garden area would be provided with screening between it and the existing drive to the loading dock.

This addition is anticipated to cost $4.53 million.

Emergency Department Expansion

Currently the emergency department entry is tucked between the ambulance bay and patient rooms with an uncovered entryway. Upon entering the building patients must proceed through the emergency department to the main nurse station which creates potential infection control and safety issues. The proposed expansion adds a covered drop off to the emergency department with a covered walkway to the entrance. At the entry it is planned that there be a waiting room, security office, and triage room. This would allow individuals entering the hospital to be immediately screened. The morgue would be located adjacent to the ambulance bay allowing transfers out of view of patient rooms. The morgue would be increased in size to double the capacity to 4 decedents.

The location of the emergency department expansion was driven by the requirement that the patient rooms to the west of entry have access to windows. On the north side of the building the emergency department is constrained by an existing helipad which is located close to existing property lines and access drives. This layout is dependent on the ambulance bay having a single garage door which was approved by the fire department. This will require that storage along the walls be relocated to the addition to allow ambulances to pull in and transfer patients around the ambulance. In addition to the building addition the existing dental room will be converted to allow it to serve as an emergency room. The doors to the existing patient room will be modified from swinging doors to breakaway sliders.

This addition is anticipated to cost $1.77 million.

Transient Staff Housing

Transient staff housing was located on the south side of the campus to provide adjacency to green space and to avoid using up valuable real estate adjacent to the hospital. Since the housing would be for staff the location provides convenient access to the hospital via an uncovered walkway to the clinic.

There was discussion about the size and type of units that would be available and it was determined that these should include a mix of 2 and 1 bedroom units for a total of 6 units.

These housing units are anticipated to cost $4.55 million.

The rough order of magnitude (ROM) capital construction costs for these expansions are detailed in Table 6. Given recent construction cost volatility, contingency is estimated at 20%. Inflation is assumed at 7% for the next two years until construction begins in 2024 for a total ROM construction cost estimate of $42.79 million.

Table 6: ROM Expanded Facility Construction Costs

Description	**SF**	**$/SF**	**$ x 1,000**
Rehab Addition	16,190	$864	$13,996,245
Outpatient Clinic Expansion	7,950	$791	$6,290,821
Long Term Care Expansion	5,800	$782	$4,534,008
Emergency Department Expansion	1,425	$1,244	$1,772,734
Transient Staff Housing	8,000	$569	$4,549,331
Subtotal			**$31,143,139**
Contingency		20%	$6,228,628
Escalation (2024, 7% per yr for 2 yrs)		14%	$5,415,169
Subtotal			**$42,786,936**

Source: Architects Alaska

3. Behavioral Health Key Findings

Key Findings

- Staffing needs for the substance use disorder intensive outpatient and partial hospitalization programs include 1.6 full-time equivalent (FTE) clinicians, .7 FTE case managers, 2 FTE peer support specialists and a 0.5 FTE clinical supervisor for a total of 4.8 FTEs.
- The combined financial performance of intensive outpatient and partial hospitalization programs would yield $207,772 of billable revenue in year one, growing to $338,970 by year five as rates of client vacancy and missed appointments improve. Costs for the 4.8 FTEs of direct service staff are estimated at $376,508 in year one and $429,219 by year five, accounting for annual pay increases. Net loss is $168,735 in year one, improving to a net loss of $90,249 by year five.
- Changes to program staffing, increasing program enrollment and accounting for Medicaid rate increases could improve financial results.

Current Services

Behavioral healthcare is a continuum of services focused on preventing or intervening in mental or behavioral disorders so that individual functioning improves, and life can become fuller and healthier. The two primary areas of behavioral healthcare involve mental illness and substance use disorder (SUD). These often co-occur and are termed Co-occurring Disorder or COD (see Appendix A for details).

The Valdez Counseling Center currently offers outpatient behavioral health services and is staffed by three full-time equivalent (FTE) clinicians, up to a .8 FTE certified medical assistant, one FTE peer support specialist and one FTE clinical supervisor. A contracted psychiatrist is available four days per month.

Outpatient

Outpatient services are typically anything less than nine hours per week. Outpatient treatments and supportive services are provided in a variety of settings, including specialty community behavioral health centers, SUD rehabilitation programs, independent provider offices, hospitals, community health centers, peer-run organizations, schools, jails and prisons, at home through telehealth or home-based services, inpatient programs, primary care programs with integrated behavioral health services, and other community settings.[4] Example services include:

- Diagnostic interviews;
- Medication management;
- Neuropsychological/psychological testing;
- Psychiatric interviews;
- Individual, family and group therapy services; and
- Crisis intervention.

Relevant current services at the Valdez Counseling Center include individual, family and group psychotherapy, psychiatric services and medication management, substance use disorder treatment,

[4] Substance Abuse Mental Health Services Administration, 2015, https://www.samhsa.gov/treatment

psychoeducational groups, domestic abuse intervention programming and supervised visitation for Office of Children's Services-involved families.

Need and Market

Population

For the purposes of a market analysis, the primary market area for behavioral health services is the city of Valdez. The secondary market is the combined Copper River and Chugach census areas ("the region"), formerly known as the Valdez-Cordova census area. The tertiary market for the Intensive Outpatient Program is the other regions served by Providence, that could help clients connect via telehealth to this program based in Valdez.

The population 18 and older in the city of Valdez was an estimated 2,986 in 2021. A 30 percent escalator was applied to account for behavioral health clients coming from outside of the city for a total of 3,882 individuals over 18. According to the 2020 National Survey on Drug Use and Health, 16.57 percent of Alaskans over 18 had a substance use disorder in the past year. When applied to the target population for this analysis, the result is an estimated 643 individuals per year in need of substance use disorder treatment (See Table 7).

Table 7: Demand estimates

Demand estimates, Valdez primary and secondary markets	
City of Valdez, 18+ population	2,986
30% escalator for clients outside of city	3,882
National Survey on Drug Use and Health, percent of Alaskans over 18 with a substance use disorder	16.57%
Valdez, primary and secondary market demand for substance use disorder treatment	643 individuals per year

The 2020 National Survey of Substance Abuse Treatment Services (N-SSATS) provides an estimate of the percentage of individuals receiving treatment at different levels of care. Applied to the population needing treatment in the primary and secondary markets identified in this analysis, this indicates 605 individuals would receive outpatient treatment, 32 would receive residential care and 6 would receive inpatient treatment.

Table 8: Type of care received by individuals in substance use disorder treatment

National Survey of Drug Use and Health, Type of care received by individuals in substance use disorder treatment		
Type of care	**Percentage**	**Valdez Demand**
Outpatient	**94%**	**605**
Outpatient	42%	270
Outpatient MAT	41%	264
Intensive Outpatient	8%	51
Outpatient Detox	1%	6
Partial Hospitalization	1%	6
Residential	**5%**	**32**
Inpatient	**1%**	**6**

The N-SSATS further breaks down outpatient treatment into the following categories: Outpatient, outpatient Medication Assisted Treatment, intensive outpatient, outpatient withdrawal management, and partial hospitalization (See Table 8 above). Eight percent of individuals received intensive outpatient, and just 1 percent received partial hospitalization. Applying these proportions to the target population for this study results in a demand for 51 intensive outpatient treatment slots and six partial hospitalization treatment slots annually. Given the lack of availability of partial hospitalization treatment to date in the region, it is assumed that some individuals who are currently served in outpatient or residential care could be more appropriately served at this level of care.

Behavioral Health Needs in the 2020 Valdez Community Health Needs Assessment

Stakeholders identified behavioral health as the number one priority need for the Valdez community in the 2020 community health needs assessment. Stakeholders described Valdez's culture that accepts and promotes heavy alcohol use, social disconnection, isolated geography, and snowy winters as challenges to residents' behavioral and mental health. There is also a perception that there is a lack of confidentiality when receiving treatment locally. Stakeholders identified a need for substance use disorder residential treatment services and support services for people in recovery.

Market Gaps

In addition to outpatient services, three additional care settings considered in this project are described below, and three additional settings not considered in this project are shared in Appendix B.

Intensive Outpatient (IOP)

Intensive outpatient treatment is currently offered at the Providence Valdez Counseling Center. However, engagement in this level of service is low, with only two-thirds of available treatment slots filled. IOP services require participants to have a minimum of nine hours of therapeutic contact each week.[5] A typical IOP treatment program schedules three hours of treatment on three days or evenings per week and programs vary

[5] Substance Abuse: Clinical Issues in Intensive Outpatient Treatment. Chapter 4, Services in Intensive Outpatient Treatment programs. 2006. http://www.ncbi.nlm.nih.gov/books/NBK64093/pdf/bookshelf_NBK64093.pdf

considerably in the anticipated length of stay where many courses of treatment span 12 to 16 weeks before clients 'step-down' to a less intensive or maintenance stage.[6] Example services include:

- Individual and group therapy;
- Psychoeducation programming;
- Medication management;
- Alcohol and drug use monitoring;
- Case management;
- 24-hour crisis coverage;
- Support groups
- Vocational training and employment services.

Additional services that may be provided in this treatment setting, specifically if used in conjunction with a supportive housing component, are education, housing and food, recreational activities, adjunctive therapies, childcare, and parenting classes. There may be more individuals in need of IOP services if supportive housing were available in conjunction with treatment services.

Partial Hospitalization Program (PHP)

For individuals not needing 24-hour care, a partial hospitalization program may be the better option than residential treatment. Partial hospitalization is a short-term, intensive day treatment program provided in a structured and coordinated clinical setting. Most programs average six to eight hours per day, five days per week. After program completion, participants usually enter a continuing care or outpatient program depending on needs. Partial hospitalization offers an alternative to residential treatment more flexibility and lower costs. It allows participants to meet personal responsibilities and maintain independence while receiving intensive treatment. Example services include:

- Comprehensive evaluation and treatment planning;
- Therapy and case management;
- Multidisciplinary treatment team consisting of a psychiatrist, psychologist, nurse, clinical social worker, rehabilitation therapists;
- Medication teaching and management;
- Comprehensive and ongoing assessments;
- Therapeutic community; and
- Discharge/aftercare planning.

Residential Treatment

Residential treatment provides intensive help in a structured environment to individuals seeking recovery from SUD or a CoD. While receiving residential treatment, individuals temporarily live in a facility that is supervised and monitored by clinically trained staff 24 hours per day. According to the American Society of Addiction Medicine (ASAM), there are three levels of residential treatment ranging from low to high intensity (see Appendix A). For individuals with a higher level of need, residential treatment may be the best option. Example services include:

[6] Substance Abuse: Clinical Issues in Intensive Outpatient Treatment. Chapter 4, Services in Intensive Outpatient Treatment programs. 2006. http://www.ncbi.nlm.nih.gov/books/NBK64093/pdf/bookshelf_NBK64093.pdf

- Individual and group therapy;
- Cognitive behavioral interventions;
- Motivational interviewing;
- 12-step groups;
- Medication management;
- Education, e.g. social skills and parenting/relationship skill building;
- Special groups tailored to the individual including: relapse prevention, anger management, stress reduction, mental health;
- Relaxation, exercise and recreational activities;
- Wellness activities such as biofeedback;
- Vocational training; and
- Aftercare and transitional care planning, e.g. case management and referrals to services.

While there is a high need for residential treatment, these programs historically have not been financially sustainable in small rural Alaska communities due to unpredictable and low patient volumes and inadequate reimbursement rates. Table 9 shows the net operating deficit of two providers that explored offering residential SUD treatment in rural Alaska communities.

Table 9: Net operating deficit for residential treatment programs, year 2 fully operational (rounded)

Item	Provider 1	Provider 2
Revenue	$580,000	$140,000
Expenses (including indirect)	$2.3 million	$750,000
Net Deficit	$1.7 million	$610,000

With new behavioral health services and rates available through the 1115 Medicaid waiver, there may be a more sustainable model for residential services in rural communities. For this study, however, the current providers in Valdez chose to analyze program options that are more similar to current offerings because these offerings are more aligned to current workforce, facility space, and demand patterns from clients in the Valdez community.

Financial Feasibility Modeling

This study modeled a partial hospitalization program and intensive outpatient substance use disorder treatment services alone and in combination with each other. Because these programs do not require additional space or supplies, and expenses are primarily driven by staffing costs, we modeled the staffing costs and revenues.

Intensive Outpatient Program

Program

The intensive outpatient program has capacity to serve 48 clients per year, or an average of 12 clients per week. Each client would receive services for 3 months or 13 weeks, for an average of 10.5 hours per week.

Revenue

Payer proportions are based on the current proportions of the Valdez Counseling Center where 8 percent of clients receive uncompensated care, 29 percent have Medicaid as the payer, 59 percent have Medicare or other private insurance, and four percent are self-pay and pay at least a portion of their charges. Revenues would primarily come from intensive outpatient individual therapy (one hour per week) and group service (8 hours per week), intensive case management (.50 hours per week) and peer support services (1 hour per week). The hourly rate for intensive outpatient is $118.44 for individual and $39.08 for group; the hourly rate for intensive case management is $112.28 and peer support services are billed at $88.88 per hour. There is also one initial assessment and one treatment plan review per client. The payment rate for Medicare and private payers is estimated at 100 percent of Medicaid and self-pay is assumed at five percent of Medicaid rates.

The missed appointment rate is assumed at 19 percent the first year and declines by two percent each year until the target rate of 12 percent is reached. The client vacancy rate is assumed at 33 percent the first year and declines by five percent each year until the target rate of 15 percent vacancy is reached. The non-payment rate due to billing errors is estimated at 2 percent per year.

Annual revenue, after accounting for vacancy, missed appointments, billing errors and nonpayment is estimated at $206,009 by year five. It is important to note that because Medicaid rate increases have not been consistent over the years, a rate increase is not incorporated into the model.

Staffing

Staffing is assumed to be split with other programs, so the exact FTE is estimated per program rather than rounded to the nearest .5 or 1 FTE. Given the estimated billable services based on clients and program design, there would need to be a .8 FTE master's level clinician, a .2 FTE clinical supervisor, a .5 FTE case manager, and a 1 FTE peer support specialist. These positions could be shared with other counseling center programs or the new partial hospitalization program.

Annual FTE hours are assumed at 2080 hours per year with six percent overtime, 3.5 percent annual salary increase and 30 percent benefit load. Personnel costs for intensive outpatient services are estimated at $223,764 by year five.

Revenue less Personnel Costs

As the Providence Valdez Counseling Center decreases vacancy and missed appointment rates in the program over time, the net loss difference between billable revenue and personnel costs decreases from $62,813 in year one to $17,754 in year five.

Partial Hospitalization Program

Program

The partial hospitalization program is assumed to serve 16 clients per year for an average of 2 clients per week. Each client would receive services four days per week for six and a half weeks at 22 hours per week.

Revenue

Payer proportions are based on the current proportions of the Valdez Counseling Center where 8 percent of clients receive uncompensated care, 29 percent have Medicaid as the payer, 59 percent have Medicare or other private insurance, and four percent are self-pay and pay at least a portion of their charges. Billing would be primarily for partial hospitalization (26 total days on average per client) and peer support services (1 hour/week). The daily rate for partial hospitalization is $500 per day; and peer support services are billed at $88.88 per hour. There is also one initial assessment and one treatment plan review per client. Case

management will also be provided to partial hospitalization clients but will not be billed separately. The payment rate for Medicare and private payers is estimated at 100 percent of Medicaid and self-pay is assumed at five percent of Medicaid rates.

The missed appointment rate is assumed at 10 percent and the client vacancy rate is assumed at 50 percent the first year, 30 percent the second year and 20 percent in subsequent years. The non-payment rate due to billing errors is estimated at 2 percent per year.

Annual revenue, after accounting for vacancy, missed appointments, billing errors and nonpayment is estimated at $132,961 in year five. It is important to note that because Medicaid rate increases have not been consistent over the years, a rate increase is not incorporated into the model.

Staffing

Staffing is assumed to be split with other programs, so the exact FTE is estimated per program rather than rounded to the nearest .5 or 1 FTE. Given the estimated billable services based on clients and program design, there would need to be a .8 FTE master's level clinician, a .3 FTE clinical supervisor, a .2 FTE case manager and a 1 FTE peer support specialist. These positions could be share with other counseling center programs.

Annual FTE hours are assumed at 2080 hours per year with six percent overtime, 3.5 percent annual salary increase and 30 percent benefit load. Personnel costs for partial hospitalization are estimated at $205,455 by year five.

Revenue less Personnel Costs

As the Providence Valdez Counseling Center decreases vacancy and missed appointment rates in the program over time, the net loss difference between billable revenue and personnel costs decreases from $105,922 in year one to $72,494 in year five.

Combined Financial Performance of Intensive Outpatient and Partial Hospitalization

The combined financial performance of intensive outpatient and partial hospitalization programs would yield $207,772 of billable revenue in year one, growing to $338,970 by year five as rates of client vacancy and missed appointments improve. Costs for the 4.8 FTEs of direct service staff are estimated at $376,508 in year one and $429,219 by year five, accounting for annual pay increases. Net loss is $168,735 in year one, improving to a net loss of $90,249 by year five.

It is important to note that program expenses include only personnel costs and do not include costs for housing, program materials, administrative time, or other costs.

Changes to program staffing, increasing program enrollment and accounting for Medicaid rate increases could improve financial results.

Figure 1: Behavioral health new services financial feasibility

Billable Revenue	PVCC: PHP + IOP SUD Programs					Partial Hospitalization Program: SUD					Intensive Outpatient Program: SUD				
	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027
Medicaid Revenue*	$ 177,059	$ 177,059	$ 177,059	$ 177,059	$ 177,059	$ 66,284	$ 66,284	$ 66,284	$ 66,284	$ 66,284	$ 110,774	$ 110,774	$ 110,774	$ 110,774	$ 110,774
Other Insurance Revenue	$ 307,520	$ 307,520	$ 307,520	$ 307,520	$ 307,520	$ 128,833	$ 128,833	$ 128,833	$ 128,833	$ 128,833	$ 178,687	$ 178,687	$ 178,687	$ 178,687	$ 178,687
Self-Pay Revenue	$ 1,107	$ 1,107	$ 1,107	$ 1,107	$ 1,107	$ 414	$ 414	$ 414	$ 414	$ 414	$ 692	$ 692	$ 692	$ 692	$ 692
Sub-total Billable Revenue	**$ 485,685**	**$ 485,685**	**$ 485,685**	**$ 485,685**	**$ 485,685**	**$ 195,531**	**$ 195,531**	**$ 195,531**	**$ 195,531**	**$ 195,531**	**$ 290,154**	**$ 290,154**	**$ 290,154**	**$ 290,154**	**$ 290,154**
Adj. for vacancy, missed app'ts, billing error	$ (277,912)	$ (212,692)	$ (172,828)	$ (152,518)	$ (146,714)	$ (121,229)	$ (82,123)	$ (62,570)	$ (62,570)	$ (62,570)	$ (156,683)	$ (130,569)	$ (110,258)	$ (89,948)	$ (84,145)
Sub-total Adjusted Billable Revenue	**$ 207,772**	**$ 272,993**	**$ 312,856**	**$ 333,167**	**$ 338,970**	**$ 74,302**	**$ 113,408**	**$ 132,961**	**$ 132,961**	**$ 132,961**	**$ 133,471**	**$ 159,584**	**$ 179,895**	**$ 200,206**	**$ 206,009**
TOTAL BILLABLE REVENUE	**$ 207,772**	**$ 272,993**	**$ 312,856**	**$ 333,167**	**$ 338,970**	**$ 74,302**	**$ 113,408**	**$ 132,961**	**$ 132,961**	**$ 132,961**	**$ 133,471**	**$ 159,584**	**$ 179,895**	**$ 200,206**	**$ 206,009**

Personnel Costs	PVCC: PHP + IOP SUD Programs					Partial Hospitalization Program: SUD					Intensive Outpatient Program: SUD				
	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027
Wages, Taxes, Benefits	$ 376,508	$ 389,686	$ 402,863	$ 416,041	$ 429,219	$ 180,224	$ 186,532	$ 192,840	$ 199,148	$ 205,455	$ 196,284	$ 203,154	$ 210,024	$ 216,894	$ 223,764
Sub-total Salary + Benefits	**$ 376,508**	**$ 389,686**	**$ 402,863**	**$ 416,041**	**$ 429,219**	**$ 180,224**	**$ 186,532**	**$ 192,840**	**$ 199,148**	**$ 205,455**	**$ 196,284**	**$ 203,154**	**$ 210,024**	**$ 216,894**	**$ 223,764**
SUBTOTAL Personnel Costs	**$ 376,508**	**$ 389,686**	**$ 402,863**	**$ 416,041**	**$ 429,219**	**$ 180,224**	**$ 186,532**	**$ 192,840**	**$ 199,148**	**$ 205,455**	**$ 196,284**	**$ 203,154**	**$ 210,024**	**$ 216,894**	**$ 223,764**
TOTAL Personnel Costs	**$ 376,508**	**$ 389,686**	**$ 402,863**	**$ 416,041**	**$ 429,219**	**$ 180,224**	**$ 186,532**	**$ 192,840**	**$ 199,148**	**$ 205,455**	**$ 196,284**	**$ 203,154**	**$ 210,024**	**$ 216,894**	**$ 223,764**

Billable Revenue MINUS Personnel Costs	PVCC: PHP + IOP SUD Programs					Partial Hospitalization Program: SUD					Intensive Outpatient Program: SUD				
	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027
	$ (168,735)	$ (116,693)	$ (90,007)	$ (82,874)	$ (90,249)	$ (105,922)	$ (73,124)	$ (59,879)	$ (66,186)	$ (72,494)	$ (62,813)	$ (43,569)	$ (30,128)	$ (16,688)	$ (17,754)

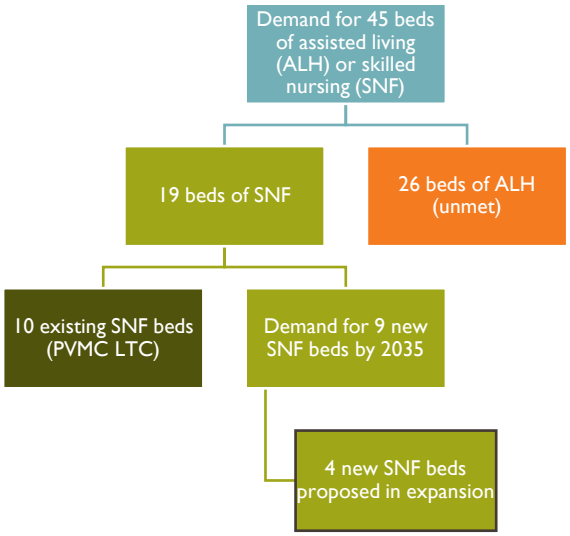
Direct Service FTEs Adjusted for Billability	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027	2023	2024	2025	2026	2027
Clinician (LPC, LMSW, LCSW)	1.6 FTE	1.6 FTE	1.6 FTE	1.6 FTE	1.6 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE	0.8 FTE
Case Manager	0.7 FTE	0.7 FTE	0.7 FTE	0.7 FTE	0.7 FTE	0.2 FTE	0.2 FTE	0.2 FTE	0.2 FTE	0.2 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE
Certified Medical Assistant	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE	0.0 FTE
Peer Support Specialist	2.0 FTE	2.0 FTE	2.0 FTE	2.0 FTE	2.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE
Clinical Supervisor	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.3 FTE	0.3 FTE	0.3 FTE	0.3 FTE	0.3 FTE	0.2 FTE	0.2 FTE	0.2 FTE	0.2 FTE	0.2 FTE
Total FTEs	**4.8 FTE**	**4.8 FTE**	**4.8 FTE**	**4.8 FTE**	**4.8 FTE**	**2.3 FTE**	**2.3 FTE**	**2.3 FTE**	**2.3 FTE**	**2.3 FTE**	**2.5 FTE**	**2.5 FTE**	**2.5 FTE**	**2.5 FTE**	**2.5 FTE**

4. Long-term Care Key Findings

Key Findings

- There are ten beds of intermediate care level nursing (also known as skilled nursing) in the long-term care (LTC) wing of the Providence Valdez Medical Center (PVMC). Recent occupancy of the LTC wing is 95 percent and has been increasing since 2019.[7]
- Forty percent of LTC patients (4 patients) are aged 80 or older. In 2021, there were 42 people in Valdez and 165 people regionwide (Copper River and Chugach census area combined) who were aged 80 or older. By 2035, there will be 576 people aged 80 or older in the region, 112 of whom will live in Valdez.[8]
- There will be an estimated total demand for 45 beds of skilled nursing (SNF) **or** assisted living (ALH) beds in the Valdez region by 2035. Subtracting the existing 10 SNF beds, results in a demand of 35 additional beds of either kind by 2035.[9] Based on the current age utilization in the PVMC LTC wing and projected future population growth, there is an estimated demand for 19 beds of skilled nursing in Valdez by 2035.[10] Subtracting the existing 10 SNF beds, results in a demand of 9 additional SNF beds by 2035. Four are proposed as part of the PVMC expansion. There is an estimated demand for at least 26 assisted living beds by 2035, based on a total demand for ALH or SNF beds combined (45), less the demand for 19 SNF beds.

Figure 2: Estimated skilled nursing or assisted living home bed demand by 2035.



- There are currently six full time equivalent (FTE) nurses and 12 FTE nurse aides and one LTC administrator needed to provide direct care services to patients in the 10-bed long-term care wing.[11]

[7] Providence Valdez Medical Center

[8] Alaska Department of Labor and Workforce Development, Population Estimates v2021, Population Projections v2020

[9] Agnew::Beck analysis, see chapter for detail

[10] Agnew::Beck analysis, see chapter for detail

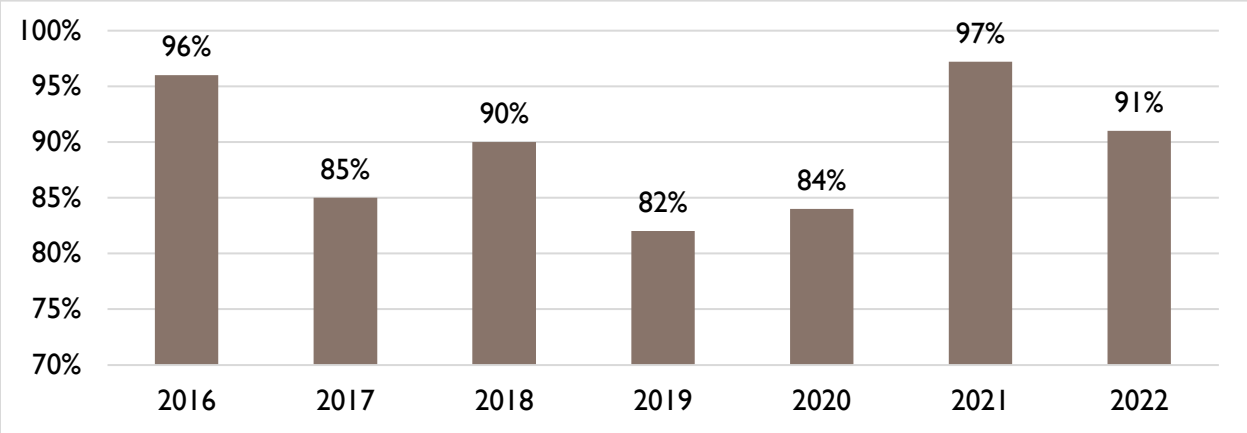
[11] Interview with Pauline Doucet, LTC administrator

- The current 10-bed long-term care wing yields $939,272 in net revenue, or $93,927 per bed.
- Additional staff needed for a 14-bed LTC wing include one LTC nurse supervisor, 2.5 FTE nurse aides and a .5 FTE housekeeper. [12]
- Under the 14-bed scenario, there is an estimated net revenue of $2,110,319 annually, or $150,737 per bed. **This is an increase of $1,171,048 annual net revenues above the status quo for the LTC wing.**

Current Service

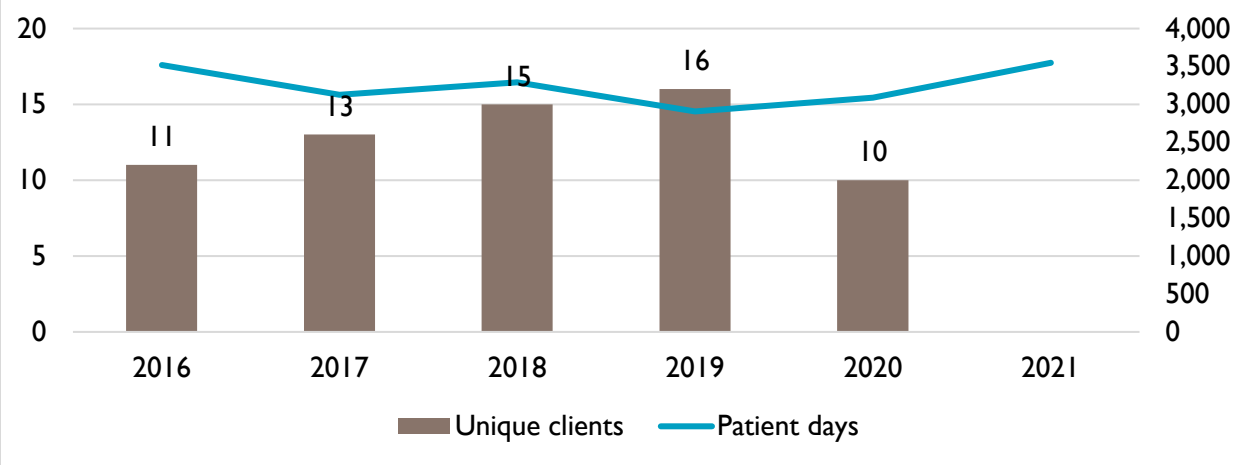
The Providence Valdez Medical Center (PVMC) currently operates ten long-term care beds in one wing of the hospital. The average occupancy rate has been increasing since 2019 and is currently around 95 percent occupied.[13] The LTC wing typically has around 13 unique clients per year.

Figure 3: Average occupancy rate for Providence Valdez Medical Center Long-term Care wing



Source: Providence Valdez Medical Center

Figure 4: Annual unique clients and patient days in Providence Valdez Medical Center Long-term Care



Source: Providence Valdez Medical Center

[12] Interview with Pauline Doucet, LTC administrator

[13] Source: Providence Valdez Medical Center

Staffing

The long-term care (LTC) wing is staffed by six FTE nurses, 12 FTE nurse aides and an administrator.[14] Some of these positions are filled by part-time employees or itinerant workers. There is currently an unfilled LTC supervisor position. Some Certified Nursing Aides (CNAs) work in acute care as well, but generally the LTC staff work in LTC. The LTC administrator also works on both the LTC and acute care sides of the hospital. The wing also receives support from an additional nursing staff to do in-take and a social worker for care coordination and discharge planning. Long-term care patients receive physical and occupational therapy in outpatient services. Environmental services staff including laundry and janitorial, maintenance staff and food services staff are also shared across the hospital.

Population Need

For the purposes of a market analysis, the primary market area for long-term care is the city of Valdez. The secondary market is the combined Copper River and Chugach census areas ("the region"), formerly known as the Valdez-Cordova census area. Around 70 percent of current long-term care residents come from Valdez and 30 percent come from the region, including communities such as Copper River and Tatitlek.

Eight of the 10 people in the Providence Valdez Medical Center long-term care wing are age 60 or older.[15] The older population in Alaska will peak and begin to decline in the next ten years. In 2021, there were 724 people aged 60 and older living in Valdez, which is around 18 percent of the total population.[16] There were 2,261 people aged 60 and older living in the greater region, or around 23 percent of the total population. By 2035, there will be 2,160 people aged 60 or older in the region and they will make up 24 percent of the population.[17]

Table 10: Older Alaskans living in Valdez and the greater region

Age Category	Providence Valdez Medical Center LTC	Valdez (city)	Chugach + Copper River Census Area
Total Population	10	3,971	9,635
60+	8	724	2,261
%60+	*80%*	*18%*	*23%*
80+	4	42	165

Source: Alaska Department of Labor and Workforce Development, Population estimates v2022, Providence Valdez Medical Center

The population age 80 and older will continue to grow through 2040. This population is more likely than younger seniors to require care in a skilled nursing facility (SNF) or assisted living home (ALH).[18] Four of the 10 people living at the Valdez Medical Center LTC in 2022 are aged 80 or older (40% of total census). In

[14] Interview with Pauline Doucet, LTC administrator

[15] Valdez Medical Center

[16] Alaska Department of Labor and Workforce Development, Population Estimates, v2021

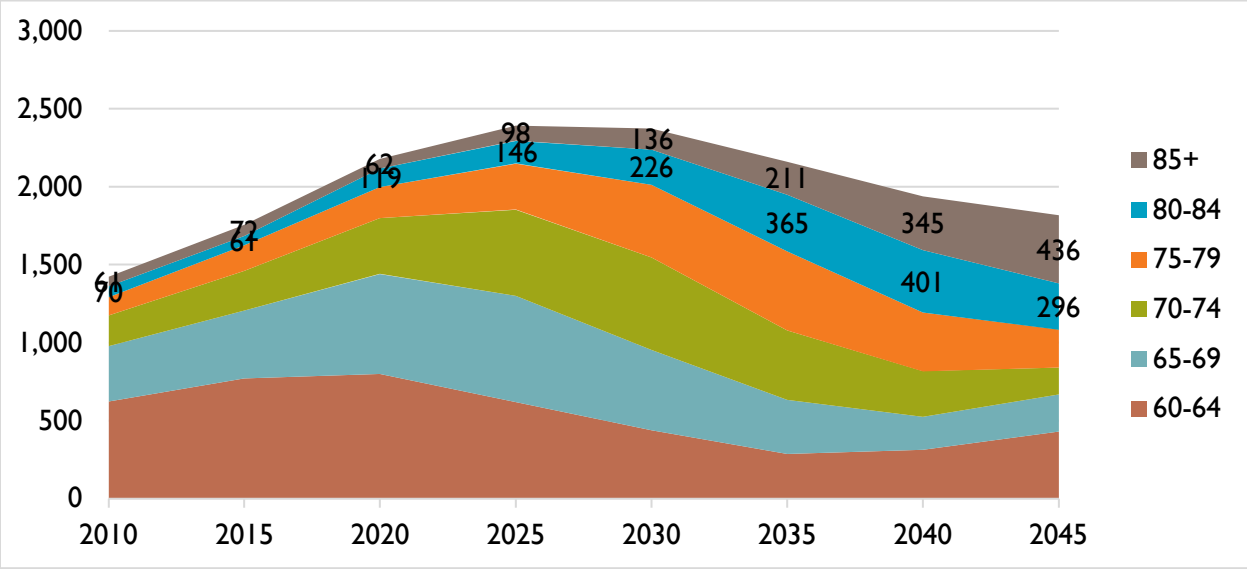
[17] Alaska Department of Labor and Workforce Development, Population Projections, v 2020

[18] The facility is licensed as an intermediate care facility, but for purposes of this analysis, we refer to these long-term care beds as "skilled nursing beds" to differentiate it from assisted living, the other main long-term care residential care setting outside of an individual home.

2021, there were 42 people in Valdez and 165 people regionwide who were age 80 or older, or 2 percent of the population. By 2035, there will 576 people 80 or older in the region, or 6 percent of the population.

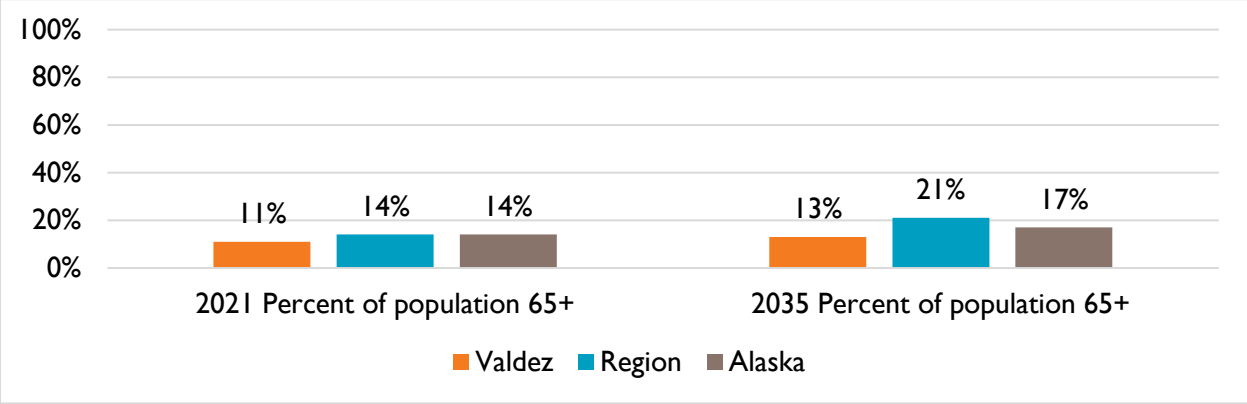
Alzheimer's disease increases with age, from three percent of people aged 65 to 74 experiencing Alzheimer's disease to 17 percent of people 75 to 84, and 32 percent of people aged 85 or older.[19] Forty-eight percent of nursing home facility residents experience Alzheimer's disease or a related dementia (ADRD).[20] Applying these national numbers to the population projections in region, the number of people experiencing ADRD in the region will more than double over the next 15 years. An estimated 71 people experienced ADRD in the region in 2020. By 2035, there will be an estimated 299 people living with an ADRD diagnosis in the region. [21]

Figure 5: Valdez-Cordova census area projections, age 60 and older



Source: Alaska Department of Labor and Workforce Development, Population Projections, v2020

Figure 6: Percent of population age 65 and older



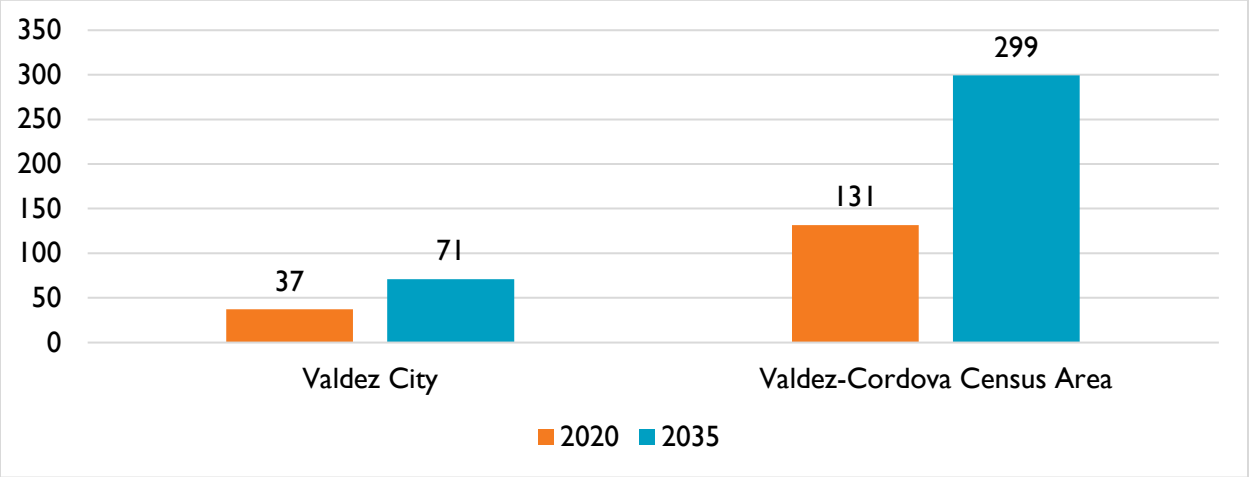
Source: Alaska Department of Labor and Workforce Development, Population Projections, v 2020

[19] Alzheimer's Disease Facts and Figures 2020 + 2021

[20] Alzheimer's Association

[21] Alzheimer's Disease Facts and Figures 2021, Alzheimer's Association, Alaska Department of Labor and Workforce Development, Population Projections, v 2020, 60-80% of ADRD is AD (https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.12068)

Figure 7: Estimated number of people experiencing ADRD in the Valdez region, age 65 and older



Source: Alzheimer's Disease Facts and Figures 2021, Alzheimer's Association, Alaska Department of Labor and Workforce Development, Population Projections, v 2020, 60-80% of ADRD is AD (https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.12068)

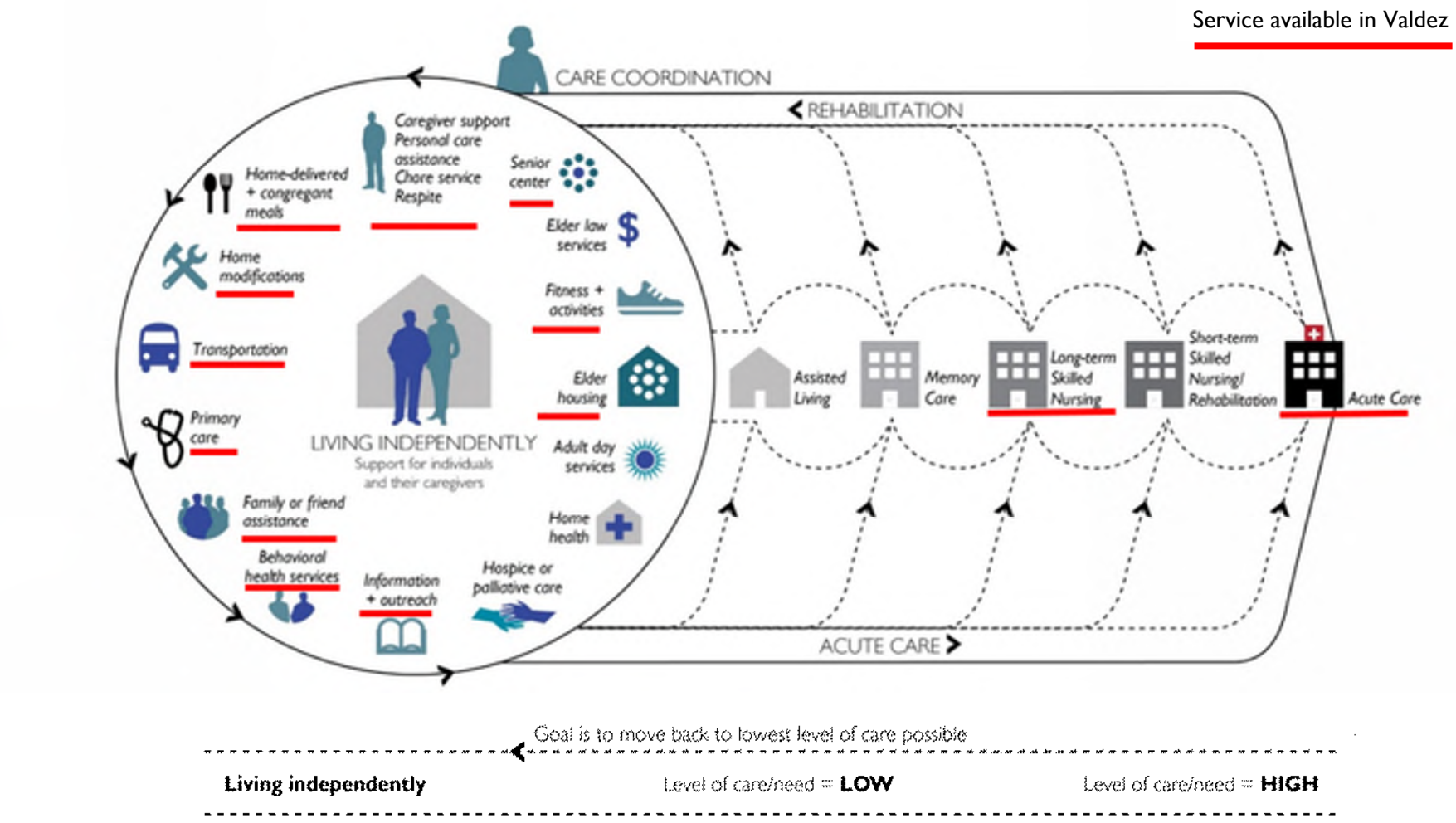
Seniors in the 2020 Valdez Community Health Needs Assessment

Though senior needs overall were not shown as a priority in the 2020 Valdez community health needs assessment, it did find a need for specialists for podiatry, diabetes and cardiac conditions and transportation for essential trips. The report also found that some seniors were leaving Valdez for higher levels of care, such as assisted living. There is also a high need for affordable senior housing; there is a waitlist of 24 to 25 people for the 14 senior apartments in Valdez.

Long-term Services and Supports in Valdez

The figure on the next page shows long-term services and supports for seniors in Valdez. A full continuum of care for seniors ensures that people can age in place in the setting that they prefer. Most often, seniors prefer to stay in their homes as they age, unless their physical or mental conditions require care outside of the home. When there are gaps in the continuum, people end up receiving care in a care setting that does not fit their needs. This can result in increased costs to individuals, organizations, and communities at the detriment of individual wellbeing. Gaps in the Valdez long-term continuum of care include adult day services, home health, hospice, and assisted living.

Figure 8: Long-term Services and Supports in Valdez



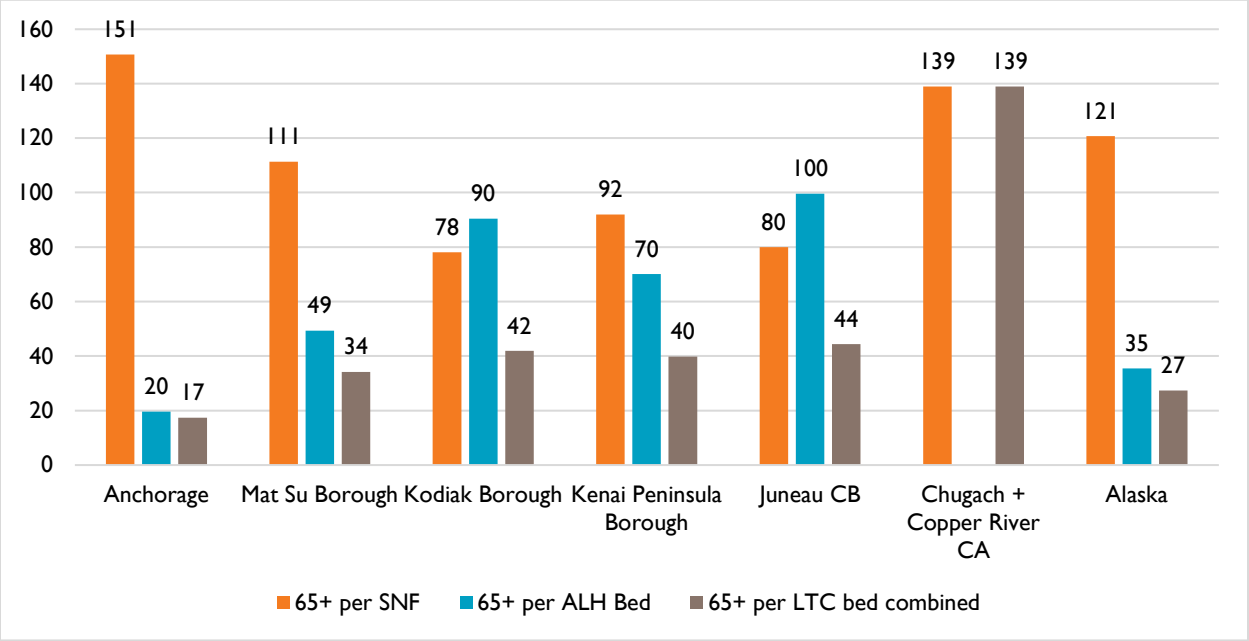
Market Demand

The Valdez region (Chugach + Copper River Census Area) has one of the highest ratios of people aged 65 and older to skilled nursing beds in the state, and no assisted living home beds.

Statewide, there are 121 people aged 65 and older per skilled nursing bed and 35 people aged 65 and older per assisted living bed. In the Valdez region, there are 139 people aged 65 and older per skilled nursing bed, compared to Kodiak at 78 people aged 65 and older and Juneau at 80 people aged 65 and older per bed. Both those regions have assisted living beds as well.

Valdez also leads the state in the ratio of people aged 65 and older to skilled nursing or assisted living beds combined. In the Valdez region, there are 139 people aged 65 and older per bed of any type, which is at least three times as many people per bed as in comparable regions.

Figure 9: People aged 65 and older per LTC bed by geography



Source: State of Alaska Division of Health Care Licensing

Skilled Nursing or Assisted Living Beds Demand

There is demand for 33 beds of any type (assisted living or skilled nursing) in 2021 and 45 beds of any type in 2035. Netting out the existing 10 SNF beds in Valdez yields a demand for an additional 23 beds of any type in 2021 and 35 in 2035. The estimates are based on the 2021 ratio of population aged 65 and older to bed of any type (SNF or ALH) beds in Kodiak Island Borough applied to Valdez current and projected population in 2035.[22] The estimate for beds of any kind was determined by using Kodiak Island Borough as a benchmark because of the similar geography and role of Providence in the health care system. There are 42 people per bed (SNF and ALH combined) in Kodiak.

This a conservative estimate for Valdez because it does not account for the pent-up demand for assisted living beds or additional skilled nursing beds that exist in the market today. These estimates are also low

[22] Alaska Department of Labor and Workforce Development, Population Projections, v 2020

because the age profile of age 65 and older in 2035 will be "older" that the current population aged 65 and older and will likely require higher levels of care.

Applications of other geographies' ratios resulted in a demand from 32 (Juneau) beds to 98 (Anchorage) beds in 2035.[23]

Narrowing to Skilled Nursing Facility Beds Demand

When looking just at skilled nursing demand, the following analysis was conducted. There is an estimated demand for 13 to 19 beds of skilled nursing in Valdez by 2035. The low estimate (13) is based on the 2021 population age 65 and older per skilled nursing bed in the region applied to the projected 65 and older population in 2035 in the region. However, as mentioned before, the larger cohort of people age 65 and older will be much older at that time, and will likely require more long-term care services and supports than the current cohort of people aged 65 and older. The high estimate (19) is based on projected growth by age group for those 65 and older for the Valdez-Cordova Census Area applied to the current resident mix.[24]

Figure 10: Estimated regional demand for skilled nursing beds, low estimate based on current ratio

Year	Population 65+ in Region	Total SNF Beds
2021	1,389	10
2035	1,874	**13**
Pop 65+ per bed	*139*	

Source: Low estimate based on 2021 population age 65+ per SNF bed in region applied to projected population in 2035. Alaska Department of Labor and Workforce Development, Population Projections, v2020

Figure 11: Estimated regional demand for skilled nursing beds, high estimate based on projected population growth by current age cohort

Resident age	Residents in 2022	Projected growth by 2035	Total Estimated SNF bed demand 2035
55-60	2	-46%	1
61-70	1	-56%	0
71-80	3	71%	5
81-90	2	218%	6
90+	2	218%	6
	10		**19**

Source: High estimate based on projected growth by age group for the Valdez-Cordova Census Area applied to the current resident mix. Alaska Department of Labor and Workforce Development, Population Projections, v2020

Assisted Living Home Bed Demand

[23] 10 existing beds have been netted out of these demand estimates.

[24] Alaska Department of Labor and Workforce Development, Population Projections, v 2020

We estimated the demand for assisted living beds by estimating the demand for either skilled nursing or assisted living beds (see above sections) and netting out the forecasted 19 beds of skilled nursing demand in 2035, which includes the existing 10 beds.

Table 11: Estimated regional demand for assisted living beds in the Valdez region

Year	Regional population age 65+	Estimated demand for bed of any type (SNF+ALH)	Estimated demand for ALH beds (after netting out SNF demand)	Estimated demand for ALH beds based on ALH ratio alone
2021	1,389	33	23 (less 10 beds)	15
2035	1,874	45	26 (less 19)	21
Based on Pop. 65+ per ALH bed (Kodiak)		*42*		*90*

Source: Estimates based on 2021 ratio of population age 65 and older to beds in Kodiak Island Borough applied to Valdez current and projected population in 2035. Alaska Department of Labor and Workforce Development, Population Projections, v2020.

Financial Analysis

Status Quo

To determine the financial impact of adding two or four additional skilled nursing beds to the current 10-bed long-term care wing, we modeled the financial position of the long-term care wing as it is today. Cost estimates came from the 2021 Medicare Cost Report and were adjusted using interviews with Providence Valdez Medical Center staff. The Medicare Cost Report details costs associated with each cost center, including long-term care. However, the financial structure and use of the Providence Valdez Medical Center and the method the general services costs are apportioned to the cost centers tends to overestimate the actual cost of long-term care staff, services and supplies. Interviews with staff were used to model the direct care staffing and benefits, LTC administration, and ancillary staffing and supplies such as laundry, housekeeping, and food services. The Medicare Cost Report was used as the source for the social worker and care coordination costs, operation of the physical plant, and administrative overhead such as administrative staffing, medical supplies, and medical records. Contract labor costs were based on the Medicare Cost Report, but one FTE night nurse and three FTE nurse aides were subtracted from the estimate because these positions were included in the modeled direct care staffing costs. They are currently accounted for in contract labor in the Medicare Cost Report because these are unfilled positions being temporarily filled by itinerate workers (PRNs). The capital costs and mobile equipment costs were not included in the modeled costs of LTC.

Total expenses for the 10-bed long-term care wing are estimated at $3,542,264 annually. Long-term care personnel costs are estimated at $1,924,482. Ancillary costs, including staffing and supplies are estimated at $474,328. Operations including maintenance, labor and utilities are estimated at $292,444. Administrative overhead is estimated at $850,010, or 32 percent of all expenses, which is an industry norm.

Revenue is estimated using the current Medicaid daily rate of $1,292.44 for long-term care beds in a combined facility. At 95 percent occupancy, annual gross revenue is estimated at $4,481,536. Subtracting the expenses, the 10-bed long-term care wing yields $939,272 in net revenue, or $93,927 per bed.

Bed Scenarios

We then modeled the operational expenses and revenues of a two and four-bed expansion of the current 10-bed long-term care wing to estimate the incremental change in revenue stream between the status quo and proposed expansion options. Some expenses scale with the increase in beds while other expenses remain fixed independent of the bed count.

An increase to 12 beds requires a LTC supervisor and an additional two FTE nurse aides. A further increase to 14 beds requires another .5 FTE nursing aide above the 12-bed scenario. Employee benefits scale with staffing, while contract labor is estimated to remain stable. No change is needed for the social service position. The supplies needed for laundry, housing keeping and food services and dietary needs scale with beds. No change is anticipated to the ancillary staffing, except for an additional .5 FTE housekeeper for the 14-bed scenario. The physical plant operations costs escalate with the increase in square footage needed to accommodate additional beds. The general administrative costs and medical records are estimated to remain the same, though the medical supplies costs will escalate with the beds.

Revenues escalate with beds and is modeled at 95 percent occupancy for all three scenarios.

Under the 12-bed scenario, there is an estimated $4,041,635 in expenses and $5,377,843 in revenues, for a net revenue of $1,336,207 annually, or $111,351 per bed. This is an increase of $396,936 annual above the status quo for the LTC wing.

Under the 14-bed scenario, there is an estimated $4,163,831 in expenses and $6,274,150 in revenues, for a net revenue of $2,110,319 annually, or $150,737 per bed. This is an increase of $1,171,048 annual above the status quo for the LTC wing.

Figure 12: Status quo financial model for 10-bed long-term care wing

Item	Estimate	Modeling assumptions
LTC Personnel		
Nurse administration	$150,000	LTC administrator (works between acute and SNF, but booked here)
Direct care staff	$1,138,800	6 FTE nurses, 12 FTE nurse aides. Interview with LTC Admin P. Doucet. Does not include LTC administrator or supervisor (unfilled)
Direct care personnel benefits	$347,976	Employee benefits modeled at 27%
Social Service	$67,764	MCR Cost report; Social worker/care coordination, discharge planning
Contract labor	$219,942	MCR Cost Report, less 1 FTE night nurse and 3 FTE nurse aides; covers callouts, sick days, vacation
Subtotal Personnel Costs	*$1,924,482*	
Ancillary Service Costs		
Laundry	$54,032	1 FTE laundry, benefits, supplies
Housekeeping	$54,032	1 FTE housekeeping, benefits, supplies
Dietary	$366,264	2 FTE cooks, 1 FTE dishwasher, benefits, food at $60/day/resident
Subtotal ancillary costs	*$474,328*	
Capital Costs and Utilities		
Capital Fixed	$0	None, MCR Cost Report accounts for depreciation
Capital Mobile equipment	$0	None, MCR Cost Report accounts for depreciation
Operation of Plant	$292,444	MCR Cost Report; maintenance, labor, utilities
Subtotal capital costs and utilitie	*$292,444*	
Administrative Overhead		
Administrative & general	$531,982	MCR Cost Report
Central Services & supplies	$153,496	MCR Cost Report
Medical Records & library	$165,532	MCR Cost Report; staffing, no EHR
Subtotal administrative costs	*$851,010*	
Total Costs	**$3,542,264**	
SNF Revenue		
Net Revenue	$4,481,536	Based on modeling using daily MCD rate, 95% occupancy
Annual Net for LTC	**$939,272**	
Per bed	$93,927	

Figure 13: Status quo, 12-bed, and 14-bed financial analysis

Item	10 Bed Status Quo	12 Beds	14 Beds	Notes
Long-term Care Personnel				
Nurse administrator	$150,000	$150,000	$150,000	Modeled. LTC administrator.
Direct care staff	$1,138,800	$1,339,364	$1,360,164	Modeled. Status quo: 6 FTE nurses, 12 FTE nurse aides. 12 Bed: Increases by LTC supervisor, 2 FTE nurses aides. 14 Bed: Increase .5 FTE nursing aide abo.ve 12 bed scenario. Interview with LTC Admin P. Doucet
Employee benefits	$347,976	$402,128	$407,744	Modeled, matches MCR Cost report. Escalates with staffing.
Social Service	$67,764	$67,764	$67,764	MCR Cost Report, Apportion of General Service. Social worker/care coordination, discharge planning
Contract labor	$219,942	$219,942	$219,942	MCR Cost Report, Skilled Nursing Cost Center "direct costs." Less 1 FTE night nurse, 3 FTE nurse aides
Subtotal Personnel Costs	*$1,924,482*	*$2,179,198*	*$2,205,614*	
Ancillary Costs				
Laundry	$54,032	$54,272	$54,512	Modeled. 1 FTE laundry, benefits, supplies. Supplies scale with beds.
Housekeeping	$54,032	$54,272	$75,312	Modeled. 1 FTE housekeeping, benefits, supplies. Supplies scale with beds, add.5 FTE for 14 beds
Dietary	$366,264	$410,064	$453,864	Modeled. 2 FTE cooks, benefits, food at $60/day/resident. Raw food costs scale with beds.
Subtotal ancillary costs	*$474,328*	*$518,608*	*$583,688*	
Capital Costs and Utilities				
Capital Fixed	$0	$0	$0	Not included.
Capital Mobile equipment	$0	$0	$0	Not included.
Operation of Plant	$292,444	$462,120	$462,120	Scales with square footage of LTC footprint, same for 2 beds and 4; most of addition is common space
Subtotal capital costs and utilitie	*$292,444*	*$462,120*	*$462,120*	
Administrative Overhead				
Administrative & general	$531,982	$531,982	$531,982	No escalation.
Central Services & supplies	$153,496	$184,195	$ 214,894	MCR Cost Report Apportion of General Service. Medical supplies. Escalates with beds.
Medical Records & library	$165,532	$165,532	$165,532	No escalation.
Subtotal administrative costs	*$851,010*	*$881,709*	*$912,408*	
Total Costs	$3,542,264	$4,041,635	$4,163,831	
SNF Revenue	$4,481,536	$5,377,843	$6,274,150	Modeled. 95% occupancy. Scales with beds.
Net for SNF	**$939,272**	**$1,336,207**	**$2,110,319**	
Per bed	$93,927	$111,351	$150,737	
Annual net increase above status quo		$396,936	$1,171,048	
Percent change from status quo		42%	125%	

Five-Year Financial Forecast of 14-bed Scenario

The need and market demand support four additional beds of skilled nursing long-term care in Valdez, so we modeled a five-year forecast of the 14-bed scenario. The first year was estimated at 80 percent operational, and subsequent years at 100 percent operational, with revenues increasing at 1.5 percent per year and expenses increasing at three percent per year. The occupancy rate is estimate at 95 percent for all years. While net revenues will slowly decline over time because of the difference in the rate of increase of expense and revenues, the long-term care wing will remain profitable.

Figure 14: Five-year revenue and expenses for 14-bed long-term care beds at Providence Valdez Medical Center

5-Year Projection		Operational 80%	Operational 100%	Operational 100%	Operational 100%	Operational 100%
Revenues, Increase at 1.5% a Year	**Assumptions**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Long-term care Medicaid	$1,292 per day	$ 5,019,320	$ 6,368,262.23	$ 6,463,786	$ 6,560,743	$ 6,659,154
Subtotal Revenues	14 beds	**$ 5,019,320**	**$ 6,368,262**	**$ 6,463,786**	**$ 6,560,743**	**$ 6,659,154**
Expenses, Increase at 3.0% a Year	**Assumptions**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
LTC personnel costs	23.5 FTE	$ 2,205,614	$ 2,271,783	$ 2,339,936	$ 2,410,134	$ 2,482,438
Ancillary costs	5.5 FTE	$ 466,950	$ 601,199	$ 619,235	$ 637,812	$ 656,946
Capital costs and utilities		$ 462,120	$ 475,983	$ 490,263	$ 504,971	$ 520,120
Administrative overhead		$ 912,408	$ 939,781	$ 967,974	$ 997,013	$ 1,026,924
Capital Debt Repayment						
Bad Debt at 3.0% a Year		$ 150,580	$ 191,048	$ 193,914	$ 196,822	$ 199,775
Subtotal Expenses		**$ 4,197,673**	**$ 4,479,793**	**$ 4,611,321**	**$ 4,746,752**	**$ 4,886,203**
Annual Surplus / (Deficit)		**$ 821,647**	**$ 1,888,469**	**$ 1,852,465**	**$ 1,813,991**	**$ 1,772,952**
per bed		$ 58,689	$ 134,891	$ 132,319	$ 129,571	$ 126,639
Notes						

5. Appendix A: The Continuum of Care for Substance Use Disorder and Co-occurring Disorder Treatment

Behavioral healthcare is a continuum of services focused on preventing or intervening in mental or behavioral disorders so that individual functioning improves and life can become fuller and healthier. The two primary areas of behavioral healthcare involve mental illness and SUD. Mental illness is a complex brain disease that disrupts thoughts, mood, and/or behavior. There are many different types of mental illness (e.g., depression, anxiety, schizophrenia, bipolar disorder, personality disorders, trauma and eating disorders) with varying degrees of severity. SUD is a chronic, often relapsing behavioral disorder that occurs when someone is dependent on alcohol or drugs and experiences impaired control, social impairment, risky use, increased tolerance and withdrawal symptoms.[25]

The abuse of alcohol or drugs can lead to structural and functional changes to the brain resulting in mental illness. Likewise, mental illness can lead to SUD, with individuals suffering from depression, bipolar disorder, anxiety, and schizophrenia more likely to self-medicate with alcohol or drugs.[26] This complex relationship between mental illness and SUD is referred to as a CoD and requires that treatment of both illnesses happen concurrently. Concurrent treatment is associated with lower costs and better outcomes, including reduced substance use, improved psychiatric symptoms and functioning, decreased hospitalization, increased housing stability, fewer arrests, and improved quality of life.[27] Because there is a fairly common prevalence of CoD, the SUD treatments described below will include treatment modalities for CoD as well.

In the 1980s, the American Society of Addiction Medicine (ASAM) defined a national set of criteria for providing outcome-oriented and results-based care in the treatment of addiction. These comprehensive and integrated guidelines for SUD and CoD placement, continued stay, and transfer/discharge provide the foundation for treatment programs across the nation. The ASAM placement process matches specific client need to five levels of treatment or "levels of care" ranging from early intervention to intensive inpatient services.[28] Figure 4 outlines the continuum of services based on client needs. The continuum of care is based on the concept that higher levels of need require increasingly more intensive, and typically more expensive, levels of care.

Because many regions across the country do not have the full complement of services available, behavioral health providers are frequently challenged with placing clients in a treatment modality that matches the level of assessed need. These deficits can result in clients receiving a level of care that cannot address the clients' acuity or in clients having to leave their home communities to secure needed services. Limitations within

[25] National Institute of Drug Abuse, 2016, Retrieved from https://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics

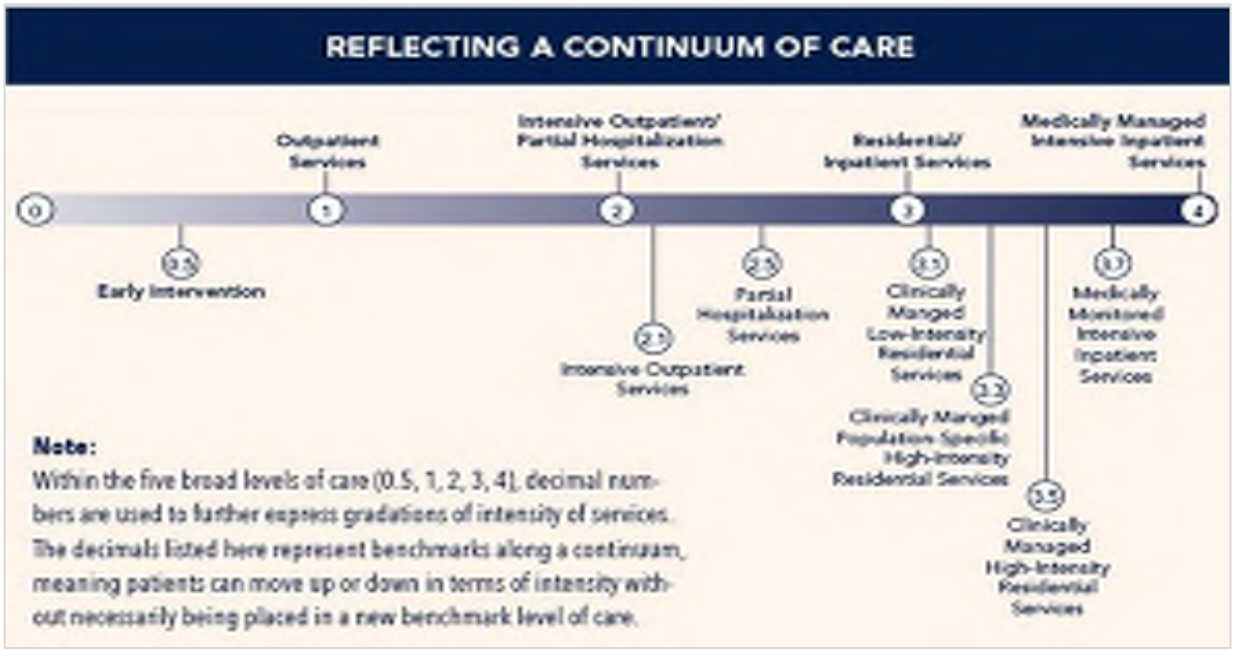
[26] How Mental Illness and Addiction Influence Each Other, 2009, Retrieved from http://www.everydayhealth.com/addiction/mental-illness-and-addiction.aspx

[27] Substance Abuse Mental Health Services Administration, 2015, Retrieved from https://www.samhsa.gov/treatment

[28] American Society of Addiction Medicine (ASAM) Criteria, 2015, Retrieved from http://www.asam.org/publications/the-asam-criteria/about

insurance coverages (e.g., shorter lengths of treatment, lack of a specific SUD benefit) or having no insurance/ability to cover costs also pose significant barriers to receiving the appropriate level of care.

Figure 15: The American Society of Addiction Medicine Continuum of Care



Source: American Society of Addiction Medicine, 2015

Assessment

ASAM assesses SUD and CoD clients across the following objectively defined life dimensions to standardize placement, treatment planning, and continuing care decisions. [29]

1. Acute intoxication and/or withdrawal potential
2. Biomedical conditions and complications
3. Emotional, behavioral, and cognitive conditions and complications
4. Readiness to change
5. Relapse and continued use potential
6. Recovery environment

By rating and ranking risks in the above areas, behavioral health providers are able to work with clients to identify placement and treatment goals. This assessment is updated regularly by the client's multi-dimensional treatment team to assess the need for transfer to a lower or higher level of care or readiness for discharge.

Levels of Care: Treatment

[29] American Society of Addiction Medicine (ASAM) Criteria, 2015, Retrieved from http://www.asam.org/publications/the-asam-criteria/about

After assessment, clients enter the system at a level of care appropriate for treatment needs; therefore, any level can be used as an entry point. As levels of care increase, service intensity also increases (Figure 16). Levels I, II, and III can become a step-down level of care as a result of successful completion of treatment from a higher level; likewise, levels II, III and IV can become a step-up level of care as a result of an unsuccessful attempt at a lower level. At times, when a client's readiness for change may be low and placement in more intensive services would likely result in incomplete treatment, a client may be placed in a lower level of care than is needed. The behavioral health provider's role in such a case would be to help build basic skills and encourage the client's recognition of service need.

Figure 16: The American Society of Addiction Medicine Treatment Levels of Care

Level	Type	Description
Level 0.5	Early Intervention	Assessment and education for at-risk individuals who do not meet diagnostic crit SUD.
Level I.0	Outpatient Services	Less than 9 hours of service per week for adults for recovery or motivational en therapies and strategies.
Level II.1	Intensive Outpatient	9 or more hours of service per week for adults to treat multi-dimensional instab
Level II.5	Partial Hospitalization	20 or more hours of service per week for adults for multidimensional instability requiring 24-hour care.
Level III.1	Clinically Managed Low Intensity Residential	24-hour structure with trained counselors to stabilize multidimensional imminen Less intense milieu and group treatment for individuals with cognitive or other in unable to use full, active milieu or therapeutic community.
Level III.3	Clinically Managed Medium Intensity Residential	24-hour structure with trained counselors to stabilize multidimensional imminen and prepare for outpatient treatment. Able to tolerate and use full active milieu therapeutic community.
Level III.5	Clinically Managed High Intensity Residential	24-hour structure with trained counselors to stabilize multidimensional imminen and prepare for outpatient treatment. Able to tolerate and use full active milieu therapeutic community. Has 16 hours a day of counselor ability.
Level III.7	Medically Monitored Intensive Inpatient	24-hour nursing care with physician availability for significant problems with detoxification/withdrawal, biomedical conditions and complications, and emotion behavioral, or cognitive conditions and complications. Counseling available to eng in treatment.
Level IV	Medically Managed Intensive Inpatient	24-hour care in an inpatient, acute care setting (e.g., psychiatric hospital inpatient

Source: American Society of Addiction Medicine, 2015

Levels of Care: Detoxification

As with ASAM treatment levels of care (Figure 16), ASAM detoxification levels of care (Figure 17) are determined upon assessment. Clients enter detoxification at a level of care appropriate to treatment needs; therefore, any level of detoxification can be used as an entry point into treatment. It is important to note that all levels of care are guidelines for client placement.

Figure 17: The American Society of Addiction Medicine Detoxification Levels of Care

Level	Type	Description
Level I-D	Ambulatory Detoxification with No Extended Onsite Monitoring	Mild withdrawal with daily or less than daily outpatient supervision; has supportiv living situations; client is likely to complete detox and continue treatment or rec
Level II-D	Ambulatory Detoxification with Extended Onsite Monitoring	Moderate withdrawal with all day detox support and supervision; at night, has su family or living situations; likely to complete detox and continue treatment or re
Level III.2-D	Clinically Managed Residential Detoxification	Moderate withdrawal, but needs 24-hour support to complete detox and increas likelihood of continuing treatment or recovery.
Level III.7-D	Medically Monitored Inpatient Detoxification	Severe withdrawal and needs 24 hour nursing care and physician visits; unlikely t detox without medical support and nurse monitoring.
Level IV-D	Medically Managed Intensive Inpatient Detoxification	Severe, unstable withdrawal and needs 24 hour nursing care and physician visits t detox regiment and manage medical instability; unlikely to complete detox witho support and nurse monitoring.

Source: American Society of Addiction Medicine, 2015

Typical Treatment Goals

Goals of substance abuse treatment vary across programs and change over time; however, most programs across the continuum of care have a common focus to help clients:

- Reduce withdrawal symptoms and any resulting medical issues from their addition.
- Stabilize physical and psychosocial areas of their life such as health, housing and education/employment.
- Achieve behavioral changes that result in long-term sobriety.
- Improve coping and problem solving skills, for example:
    - Recognizing, labeling and expressing emotions and
    - Learning techniques to better manage emotions.
- Recognize and manage potential relapse, such as:
    - Identifying triggers;
    - Learning how triggers, cravings, and relapse relate to one another;
    - Practicing relapse prevention techniques, e.g. calling a sponsor or going to a 12-step meeting;
    - Developing positive support networks and practicing socialization skills; and
    - Engaging in community-based support systems, e.g. 12-step programs.

6. Appendix B: Additional Care Settings

The following offers a summary of additional care settings that may be helpful for behavioral health program planning in Valdez.

Detoxification or Withdrawal Management Services

Detoxification is usually the first step in any comprehensive addiction treatment for individuals suffering from SUD or CoD. Detoxification provides the necessary cleanse the body needs to remove toxins and is most often administered in a medical setting. On average, the detoxification process takes three to five days, although in extreme cases of alcohol abuse, detoxification can take up to two to three weeks.

Individuals in detoxification may experience similar symptoms during the process, though the severity and duration of the withdrawal depends on the level of dependency, length of time abusing the substance, type of substance used, method of abuse, amount taken each time, family history and genetic makeup, as well as medical and mental health factors.[30] In addition to physical symptoms of withdrawal, mental health issues may also arise, such as suicidality, anger and aggression.[31]

Crisis Respite Services

Crisis respite services are an alternative to emergency hospitalization. These services are short-term with the average length of stay at 48 hours. Crisis respite can help with both medical and behavioral health needs to support the caregiver and/or protect the individual or others living with the individual. Examples services include:

- Medication management,
- Crisis intervention,
- Illness management,
- Recovery services,
- Peer support,
- Referral to services, and
- Follow-up services.

Supportive Transitional Housing

Supportive housing is a type of short-term housing that provides on-site services to individuals who need support to live independently. A supportive housing setting with wraparound services can help stabilize clients and reduce the need for future interventions.[32] Supportive housing has been found to work well with

[30] American Addiction Centers, http://americanaddictioncenters.org/withdrawal-timelines-treatments/

[31] American Society of Addiction Medicine (ASAM) Criteria, 2015, http://www.asam.org/publications/the-asam-criteria/about

[32] Research conducted by Burt and Anderson 2005; Culhane, Metraux, and Hadley 2002; Culhane et al. 2007.

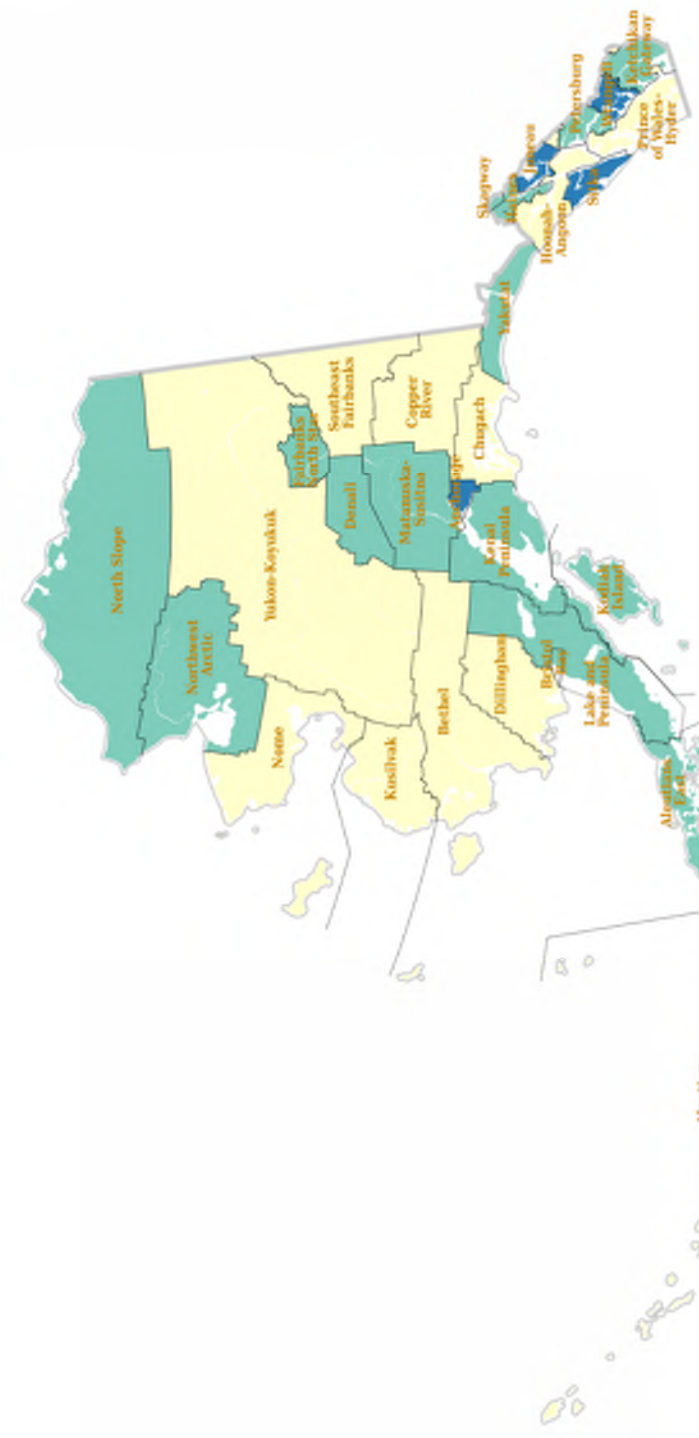
individuals who face complex challenges, such as homelessness, substance use, and mental illness and this model is cost effective.[33]

Supportive housing is a safe alternative for clients returning from treatment or for clients actively engaged in partial hospitalization or IOP treatment. It allows clients the time and support needed to effectively transition from treatment to living independently and provides time for clients to work on the skills they learn while receiving treatment. Supportive housing also provides clients additional 'step-down' supportive services like case management and peer support to assist with community reentry.

Transitional housing provides treatment-ready clients a safe, sober living option while engaging in IOP treatment or partial hospitalization, supporting clients in the same way it would support a client stepping down from residential treatment. A transitional, short-term supportive housing model is not an evidence-based practice and funding at the national and state level has moved in the direction of permanent supportive housing. **However, we understand that short-term supportive housing may be the more acceptable option given the housing shortages in Valdez and the region.** We recommend that housing units be built in a way that could be converted to permanent supportive housing in the future, preferably using a scattered site model rather than co-located with the center.

[33]Lisa Sturtevant and Janet Viveiros, How Investing in Housing Can Save on Health Care: A Research Review and Comment on Future Directions for Integrating Housing and Health Services, 2016.

7. Appendix C: Alaska Census Area and Borough Map



Source: State of Alaska

City of Valdez (Providence) Medical Campus
Masterplan Update
Valdez, Alaska

Construction Cost Estimate
Rough Order of Magnitude Costs
September 30, 2022

Estimations, Inc.
1225 E. International Airport Road, Suite 235
Anchorage, Alaska 99518
907.561.0790

Prepared for:
Architects Alaska Inc.
403 W. 5th Avenue, Suite 403
Anchorage. Alasla 99501
907.272.3567

BASIS OF ROUGH ORDER OF MAGNITUDE COSTS

Documents Used For Preparation

PVMC Masterplan single line drawings

Assumptions

The pricing is based on the following general conditions of construction:
The contractor will be required to pay prevailing wages
The general contractor will have reasonable access to the site during normal working hours

Exclusions

Construction Management Fees
Design and Engineering Fees
Assessments, Taxes, Finance, Legal and Development Charges

City of Valdez (Providence) Medical Campus
Masterplan Update
Prepared for Architects Alaska Inc. by Cost Estimations

Construction Cost Estimate
Rough Order of Magnitude Costs
September 30, 2022

Description			$/SF	$x1,000
Option A - Rehab Addition	16,190	SF	$864	13,996,245
Option B - Outpatient Clinic Expansion	7,950	SF	$791	6,290,821
Option C - LTC Expansion	5,800	SF	$782	4,534,008
Option D - ED Expansion	1,425	SF	$1,244	1,772,734
Option E - Transient Staff Housing	8,000	SF	$569	4,549,331
Subtotal				**31,143,139**
Contingency			20%	6,228,628
Escalation (2024, 7%/yr for 2 yrs)			14%	5,415,169
Subtotal				**42,786,936**

City of Valdez (Providence) Medical Campus
Masterplan Update
Prepared for Architects Alaska Inc. by Cost Estimations

Construction Cost Estimate
Rough Order of Magnitude Costs
September 30, 2022

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
1	**Option A - Rehab Addition**	**16,190**	**SF**		
2					
3	**Phase 1 Addition**	**9,000**	**SF**		
4	Basic Building and Systems				
5	Substructure	9,000	SF	$54.90	$494,100
6	Superstructure	9,000	SF	$103.70	$933,300
7	Exterior Closure	4,096	SF		
8	Walls	4,096	SF	$97.60	$399,770
9	Windows	1,114	SF	$152.50	$169,824
10	Openings	4	EA	$6,100.00	$24,400
11	Mechanical	9,000	SF	$183.00	$1,647,000
12	Electrical	9,000	SF	$152.50	$1,372,500
13	Demolition For Connections	1	LS	$36,600.00	$36,600
14	Built Out				
15	Rehabilitation	4,500	SF	$488.00	$2,196,000
16	Office	1,100	SF	$244.00	$268,400
17	Lockers	850	SF	$549.00	$466,650
18	Storage	1,500	SF	$122.00	$183,000
19	Walkway	250	SF	$40.26	$10,065
20	Other	800	SF	$244.00	$195,200
21					
22	**Total Phase 1**	**9,000**	**SF**	**$932.98**	**$8,396,809**
23					
24	**Phase 2 Counseling Center Expansion**	**1,200**	**SF**		
25	**Counseling Center Expansion**	**1,200**	**SF**		
26	Demolition	1,200	SF	$30.50	$36,600
27	Built Out				
28	Counseling Center Expansion	1,200	SF	$305.00	$366,000
29	Systems Upgrades				
30	Mechanical	1,200	SF	$219.60	$263,520
31	Electrical	1,200	SF	$183.00	$219,600
32					
33	**Total Phase 2**	**1,200**	**SF**	**$738.10**	**$885,720**
34					
35	**Phase 3 Specialty Clinics**	**1,725**	**SF**		
36	**Specialty Clinics**	**1,725**	**SF**		
37	Demolition	1,725	SF	$30.50	$52,613
38	Built Out				
39	Specialty Clinics	1,725	SF	$427.00	$736,575
40	Systems Upgrades				
41	Mechanical	1,725	SF	$219.60	$378,810
42	Electrical	1,725	SF	$183.00	$315,675
43					
44	**Total Phase 3**	**1,725**	**SF**	**$860.10**	**$1,483,673**
45					
46					
47					
48					
49					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
50					
51	**Phase 4**	**4,265**	**SF**		
52	**Pharmacy Relocation**	**425**	**SF**		
53	Demolition	425	SF	$30.50	$12,963
54	Built Out				
55	Pharmacy	425	SF	$427.00	$181,475
56	Systems Upgrades				
57	Mechanical	425	SF	$219.60	$93,330
58	Electrical	425	SF	$183.00	$77,775
59					
60	**Pharmacy Expansion**	**265**	**SF**		
61	Demolition	265	SF	$30.50	$8,083
62	Built Out				
63	Pharmacy	265	SF	$427.00	$113,155
64	Systems Upgrades				
65	Mechanical	265	SF	$219.60	$58,194
66	Electrical	265	SF	$183.00	$48,495
67					
68	**L&D Relocation**	**875**	**SF**		
69	Demolition	875	SF	$30.50	$26,688
70	Built Out				
71	L&D Relocation	875	SF	$671.00	$587,125
72	Systems Upgrades				
73	Mechanical	875	SF	$263.52	$230,580
74	Electrical	875	SF	$219.60	$192,150
75					
76	**Nurse Support**	**250**	**SF**		
77	Demolition	250	SF	$30.50	$7,625
78	Built Out				
79	Pharmacy	250	SF	$427.00	$106,750
80	Systems Upgrades				
81	Mechanical	250	SF	$219.60	$54,900
82	Electrical	250	SF	$183.00	$45,750
83					
84	**Corridor**	**1,850**	**SF**		
85	Demolition	1,850	SF	$30.50	$56,425
86	Built Out				
87	Corridor	1,850	SF	$36.60	$67,710
88	Systems Upgrades				
89	Mechanical	1,850	SF	$219.60	$406,260
90	Electrical	1,850	SF	$183.00	$338,550
91					
92					
93					
94					
95					
96					
97					
98					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
99					
100	**Psychiatric Holding Rooms**	**600**	**SF**		
101	Demolition	600	SF	$30.50	$18,300
102	Built Out				
103	Specialty Clinics	600	SF	$427.00	$256,200
104	Systems Upgrades				
105	Mechanical	600	SF	$219.60	$131,760
106	Electrical	600	SF	$183.00	$109,800
107					
108	**Total Phase 4**	**4,265**	**SF**	**$757.34**	**$3,230,043**
109					
110					
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112					
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115					
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117					
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130					
131					
132					
133					
134					
135					
136					
137					
138					
139					
140					
141					
142					
143					
144					
145	**Subtotal: Option A - Rehab Addition: Cost based on 16,190 SF**				**$13,996,245**
146	Average Unit Price For this division is: $864.50 per SF				
147					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
148					
149	**Option B - Outpatient Clinic Expansion**	**7,950**	**SF**		
150					
151	**Phase 1 Clinic Addition**				
152	Addition	3,800	SF		
153	Substructure	3,800	SF	$54.90	$208,620
154	Superstructure	3,800	SF	$103.70	$394,060
155	Exterior Closure	4,096	SF		
156	Walls	4,096	SF	$97.60	$399,770
157	Windows	819	SF	$152.50	$124,928
158	Openings	2	EA	$6,100.00	$12,200
159	Mechanical	3,800	SF	$183.00	$695,400
160	Electrical	3,800	SF	$152.50	$579,500
161	Demolition For Connections	1	LS	$30,500.00	$30,500
162	Built Out				
163	Storage/Shell	1,250	SF	$30.50	$38,125
164	Public Health	2,075	SF	$244.00	$506,300
165	Corridor	475	SF	$36.60	$17,385
166					
167	**Total Phase 1**	**3,800**	**SF**	**$791.26**	**$3,006,788**
168					
169	**Phase 2 Primary Care Addition**	**4,150**	**SF**		
170	Addition	4,150	SF		
171	Substructure	4,150	SF	$54.90	$227,835
172	Superstructure	4,150	SF	$103.70	$430,355
173	Exterior Closure	4,096	SF		
174	Walls	4,096	SF	$97.60	$399,770
175	Windows	819	SF	$152.50	$124,928
176	Openings	2	EA	$6,100.00	$12,200
177	Mechanical	4,150	SF	$152.50	$632,875
178	Electrical	4,150	SF	$122.00	$506,300
179	Demolition For Connections	1	LS	$30,500.00	$30,500
180	Built Out				
181	Primary Care Clinic	3,700	SF	$244.00	$902,800
182	Corridor	450	SF	$36.60	$16,470
183					
184	**Total Phase 2**	**4,150**	**SF**	**$791.33**	**$3,284,033**
185					
186					
187					
188					
189					
190					
191					
192					
193					
194	**Subtotal: Option B - Outpatient Clinic Expansion: Cost based on 7,950 SF**				**$6,290,821**
195	Average Unit Price For this division is: $791.30 per SF				
196					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
197					
198	**Option C - LTC Expansion**	**5,800**	**SF**		
199					
200	**Phase 1 LTC Addition**				
201	Addition	4,400	SF		
202	Substructure	4,400	SF	$54.90	$241,560
203	Superstructure	4,400	SF	$103.70	$456,280
204	Exterior Closure	3,680	SF		
205	Walls	3,680	SF	$97.60	$359,168
206	Windows	736	SF	$152.50	$112,240
207	Openings	4	EA	$6,100.00	$24,400
208	Mechanical	4,400	SF	$122.00	$536,800
209	Electrical	4,400	SF	$103.70	$456,280
210	Demolition For Connections	1	LS	$36,600.00	$36,600
211	Built Out				
212	LTC	4,400	SF	$366.00	$1,610,400
213					
214	**Total Phase 1**	**4,400**	**SF**	**$871.30**	**$3,833,728**
215					
216	**Phase 2 LTC Interior Renovation**	**1,400**	SF		
217	Renovation	1,400	SF		
218	Demolition	1,400	SF	$30.50	$42,700
219	Upgrade Mechanical	1,400	SF	$122.00	$170,800
220	Upgrade Electrical	1,400	SF	$103.70	$145,180
221	Built Out				
222	LTC	1,400	SF	$244.00	$341,600
223					
224	**Total Phase 2**	**1,400**	**SF**	**$500.20**	**$700,280**
225					
226					
227					
228					
229					
230					
231					
232					
233					
234					
235					
236					
237					
238					
239					
240					
241					
242					
243	**Subtotal: Option C - LTC Expansion: Cost based on 5,800 SF**				**$4,534,008**
244	Average Unit Price For this division is: $781.73 per SF				
245					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
246					
247	**Option D - ED Expansion**	**1,425**	**SF**		
248					
249	**Phase 1 ED Addition**				
250	Addition	850	SF		
251	Substructure	850	SF	$54.90	$46,665
252	Superstructure	850	SF	$103.70	$88,145
253	Exterior Closure	1,072	SF		
254	Walls	1,072	SF	$97.60	$104,627
255	Windows	214	SF	$152.50	$32,696
256	Openings	4	EA	$6,100.00	$24,400
257	Mechanical	850	SF	$183.00	$155,550
258	Electrical	850	SF	$152.50	$129,625
259	Demolition For Connections	1	LS	$24,400.00	$24,400
260	Built Out				
261	ED	850	SF	$671.00	$570,350
262					
263	**Total Phase 1**	**850**	**SF**	**$1,384.07**	**$1,176,458**
264					
265	**Phase 2 ED Renovation**	**575**	**SF**		
266	Renovation	575	SF		
267	Demolition	575	SF	$30.50	$17,538
268	Upgrade Mechanical	575	SF	$183.00	$105,225
269	Upgrade Electrical	575	SF	$152.50	$87,688
270	Built Out				
271	ED	575	SF	$671.00	$385,825
272					
273	**Total Phase 2**	**575**	**SF**	**$1,037.00**	**$596,276**
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292	**Subtotal: Option D - ED Expansion: Cost based on 1,425 SF**				**$1,772,734**
293	Average Unit Price For this division is: $1244.02 per SF				
294					

Line No.	Description	Qty	UNITS	Unit Cost	Total Cost
295					
296	**Option E - Transient Staff Housing**	**8,000**	**SF**		
297					
298	**Phase 1 Transient Staff Housing**				
299	Addition	8,000	SF		
300	Substructure	8,000	SF	$54.90	$439,200
301	Superstructure	8,000	SF	$103.70	$829,600
302	Exterior Closure	6,752	SF		
303	Walls	6,752	SF	$97.60	$658,995
304	Windows	1,350	SF	$152.50	$205,936
305	Openings	4	EA	$6,100.00	$24,400
306	Mechanical	8,000	SF	$97.60	$780,800
307	Electrical	8,000	SF	$79.30	$634,400
308	Built Out				
309	Housing	8,000	SF	$122.00	$976,000
310					
311	**Total Phase 1**	**8,000**	**SF**	**$568.67**	**$4,549,331**
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341	**Subtotal: Option E - Transient Staff Housing: Cost based on 8,000 SF**				**$4,549,331**
342	Average Unit Price For this division is: $568.67 per SF				
343					