

November 6, 2024 Adopted by the Board of Regents

# 2024 **TROTH YEDDHA'** CAMPUS **MASTER PLAN AMENDMENTS** UNIVERSITY OF ALASKA

FAIRBANKS



# LAND ACKNOWLEDGEMENT

University of Alaska Fairbanks

We acknowledge the Alaska Native nations upon whose ancestral lands our campuses reside. In Fairbanks, our Troth Yeddha' Campus is located on the ancestral lands of the Dena people of the lower Tanana River.

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# **CHANCELLOR'S MESSAGE**



Daniel M. White, Chancellor

UAF's vision statement is excellence through transformative experiences. It is by providing transformative experiences for faculty, staff, and students that UAF will reach this standard of excellence. Today, we stand at a crossroads in the history of higher education in the U.S. Nationally, enrollment is declining, and to navigate these challenges, we need to think big and act fast. Our goals for the coming years are critical to the future of UAF and Alaska: achieving R1 status, growing enrollment, advancing the Troth Yeddha' Indigenous Studies Center, revitalizing UAF's "Main Street", and modernizing the student experience by renovating, demolishing, or constructing new facilities.

The university has faced significant challenges over the past decade for sure. But this one is different because the landscape of college education is changing. That's different.

I am proud to say that in recent years, we have made remarkable progress in streamlining processes and increasing enrollment. Congratulations to all those who have contributed towards this goal!! As we continue to see year over year positive growth in enrollment, we have a unique opportunity to think strategically and act intentionally in pursuit of our facilities goals.

The master plan amendment outlines a strategic approach to improving UAF's facilities. In the short term, we are focused on high-impact projects, such as replacing outdated housing with modern residence halls and apartment complexes—key to both student recruitment, retention, and our goal of attaining R1 research status. UAF currently operates some of the oldest facilities in the UA system, with several research-focused departments working in buildings that are far beyond end of life and whose deferred maintenance exceeds their replacement value. While some facilities will be renovated to extend their usefulness, others must be replaced entirely.

Looking to the future, UAF is also exploring ways to enhance campus vibrancy, adding new facilities and renewing existing ones along "Main Street"—the area along Tanana Loop, just east of the campus entrance from Thompson Drive. These improvements will strengthen connections with the community, generate revenue from our assets and contribute to our goal to grow enrollment and improve retention.

This 2024 Master Plan update is the result of a rigorous, data-driven process that began in April 2023, involving an in-depth analysis of current facility conditions, housing utilization, and enrollment trends. The plan aligns UAF's long-term needs with our Strategic Plan and the goals of the UA Board of Regents. This is an ambitious plan, but when executed thoughtfully, it will transform UAF and prepare us for the next century. A revitalized campus will attract students, faculty, staff, and community, setting UAF on a strong path for the future.

Daniel M. White Chancellor

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# INTRODUCTION

The University of Alaska Fairbanks (UAF) recognizes an evolution in its post-COVID institutional priorities and physical investments across the Troth Yeddha' campus in Fairbanks, Alaska. The University has identified the evolving landscape of economic, academic and environmental conditions, and has opted to update the 2020 Campus Master Plan in response to strategic directions necessary to carry forward the mission and vision of the institution. Three major objectives informed the development of this update to the Campus Master Plan (CMP):

- A vision of practical modernization and funding strategies for implementation
- Excellence through transformative experiences
- Analysis and projections informed by data

This report focuses on three specific precincts across the campus: Housing, Main Street, and West Ridge. A detailed analysis and vision for each precinct is included herein. Focused on major improvements within each of these three areas, several drivers inform the strategic vision. UAF is anticipating the following outcomes over the next 7-10 years:

- Achieve R-1 Research classification
- Hit an enrollment target of 10,000 students across the university, including rural and online/hybrid enrollments
- Increase competitiveness of Varsity Athletics and successful recreation programming
- Support workforce development
- Calibrate and balance the future supply of traditional and non-traditional oncampus housing ratios and locations in areas of highest demand and best suited for residential functions
- Create an enhanced sense of place

# **UAF MISSION STATEMENT**

The University of Alaska Fairbanks is a Land, Sea, and Space Grant university and an international center for research, education, and the arts, emphasizing the circumpolar North and its diverse peoples. UAF integrates teaching, research, and public service as it educates students for active citizenship and prepares them for lifelong learning and careers.



# **CAMPUS VISION**

UA System Goals, Accreditation Themes, UAF Strategic Goals, and Master Planning Goals were considered in the development of this updated plan. The vision for the future Troth Yeddha' campus is aligned with enrollment growth and modern student needs across campus. This plan has a specific focus on immediate priorities within residential areas, research, athletics, and supporting hospitality functions, while being good stewards of financial resources and adapting the physical footprint to remove or update data infrastructure before considering new construction. The revisions and amendments herein are limited to the Troth Yeddha' Campus in Fairbanks. Off-campus instructional and/or research sites were not included within this plan, please refer to the 2020 Campus Master Plan or the 2023 CRCD + CTC Campus Master Plan for the vision of these sites.

An assumed 3% annual enrollment growth projection was integrated into assumptions for instructional, administrative, and student life space needs. Research growth projections and space needs were aligned with two expanding departments: Geophysical Institute (GI) and College of Fisheries and Ocean Sciences (CFOS). GI and CFOS also received specific focus due to the substantial backlog of deferred renewal of current facilities and the corresponding negative impacts on program operability and continuity. Given the complexity of space across West Ridge to support the specific departmental growth projections which are detailed further in this document, a migration plan has been developed to support the implementation of phased improvements across the precinct.

The CMP implementation strategy seeks to set reasonable goals to achieve projected growth by envisioning the campus 7-10 years in the future and establishing a flexible and adaptable framework that positions the University to make strategic investments and decisions in support of the overarching campus vision.



# **BUILDING CONDITIONS**

Detailed analysis and existing facilities challenges are outlined in the 2020 Campus Master Plan, and generally align with assumptions carried forward within this update. Informed by the latest conditions of existing facilities, the assessment was developed with input from Facilities Services and grounded in the Deferred Maintenance/Facilities Condition Index data provided by the University. This information drove assumptions informing longterm investment and capital planning strategies across the campus. The assessment included five condition groups, ranked from best condition to worst:

- 1. Maintenance + Repair: buildings requiring regular maintenance and upkeep.
- 2. Renewal: systematic repairs and replacements are necessary to extend useful life and retain functionality.
- 3. Major Revitalization or Replacement: buildings requiring large scale renovations.
- 4. Adaptive Reuse: buildings no longer suited to their current use. These buildings are structurally sound and are good candidates for repurposing.
- 5. Demolition or Sell: buildings past their useful life.

Existing space can be revitalized, where financially feasible. However, many existing facilities were not built to suit the functions they are supporting. Those with significant deferred maintenance backlog likely do not suit the needs of the current programs, and should be prioritized for repurposing, replacement, or removal.



FIGURE 1.2 Building Conditions

# **POTENTIAL FUNDING SOURCES**

The 2020 Campus Master Plan identifies potential funding sources for various projects. The designations are intended as a strategic guide to help focus fundraising, marketing, capital campaigns, and budgeting; they do not represent commitments to any single funding source. All options should remain viable while exploring funding sources to achieve the goals of the master plan. The following funding sources should be explored.

- Capital Request: Funding requests made to the state through the UA system.
- Public-Private Partnership (P3): A funding option where the university partners with a third-party developer to realize a project.
- Private Giving: Funding through donations, bequests, and endowments made by alumni, corporations, foundations, or individuals.
- Deferred Maintenance: Funds designated to improve the condition of campus facilities.
- Other: Other funding options available to UAF in pursuit of realizing master plan goals, for example public and private grants, and partnerships with the local government.

# **MASTER PLAN IMPLEMENTATION**

This updated plan concentrates on future campus improvements and development to support and achieve the goals outlined herein. The implementation strategy seeks to set reasonable near, mid-, and long-term improvements envisioned in the 7-10 year vision, through a flexible and adaptable framework that positions the university for investments and decisions in support of its goals. Refer to the following section for further detail, by precinct, of funding and phasing strategies identified within the plan.

# **DESIGN GUIDELINES**

Campus design guidelines highlight the expectations for future construction and development on campus. The existing campus character and existing buildings continue to influence and guide campus development in conjunction with the character expressed in recent campus construction. The development of each respective zone will exhibit consistencies through specific elements of the exterior façade, both in form and color, for continued correlation to the character and successful response to the climate. As the campus is developed, great care should be taken to respect the campus history, respect the diversity of the campus community, and reflect the principles and ideals of the institution.

# **PROCESS**

In September 2023, UAF engaged the planning consultant team from DLR Group to carry forward strategies from 2020 into the Revisions and Amendments within this update, leveraging historical knowledge and strategic considerations to support the updated plan. Subject matter expert consultants were integrated into the planning effort, with specific areas of focus related to the three precincts outlined herein. Tours of campus and focused virtual workshops were conducted with select campus stakeholders, aligned with additional guidance from UAF Leadership for the refinement of the vision.





# PRECINCT 1 - HOUSING

Residential functions are UAF's second largest space category, comprised of Undergraduate, Graduate, and Employee, Family, and Graduate (EFG) housing.

As the primary residential institution in the University of Alaska system, UAF seeks to maintain a minimum of 30% of enrolled students residing on campus. This section outlines the physical opportunities to achieve this target.

### Vision for Housing

UAF's proposed expanded housing neighborhoods reinvigorate and densify the area of campus north of Wood Center. The vision along Yukon Drive includes 'lanterns along the walkway', bridging the urban edge from Skarland Hall to the corner of N. Chandalar Drive At this corner, new Undergraduate housing meets new Graduate housing, framing a community amenity gateway to open recreation space between Yukon Drive and N. Chandalar Drive

#### Undergraduate

The Undergraduate residence hall will offer up to 400 beds in suite-style units, replacing 300 beds in traditional double-loaded corridor dormitories that are over 65 years old. The proposed 4 story building is organized around vertical nodes of social gathering and learning spaces. The ground floor, across Yukon Drive from Wood Center, is programmed to offer collaboration and study spaces that are easily accessible to off-campus guests and foster community and belonging. Utilizing opportunities in the site's topography, there is potential to provide access to Wood Center below Yukon Drive.

#### Graduate

The proposed Graduate apartment building, stepping from 2 to 3 stories with 76, mostly single student micro units, is similarly

organized around vertical nodes of social and learning space. These efficiently laid out units, less than 300 gross square feet, allow residents to have their own kitchenette and restroom. These units cater to the busy graduate student that may be interested in a meal plan and values the close proximity to Wood Center and the campus core.

#### Employee, Family and Graduate (EFG)

Like UAF, peer institutions are experiencing a major shortage of affordable EFG housing. To meet demand and accommodate projected growth, UAF is planning for a projected capacity increase of 40% within this area of campus. Current and historic demand for EFG models consistently exceeds supply, with a regular waitlist of approximately 100 housing requests. Additional demographics such as Veteran students and visitors to the campus are also being accounted for in projections.



FIGURE 2.3 Precinct 1- Housing



The EFG townhomes are two story, 1,200 gsf units lining N. Chandalar Drive in clusters of four.

This new co-located and efficient housing plan enables UAF to demolish aged EFG housing, benefiting from existing site work and existing drives and utility connections. The park to the south and the open space to the north of N. Chandalar Drive are picturesque opportunities for residents to walk, recreate, and enjoy the beauty of the landscape and surrounding mountain views.

This plan focuses on investment in the residential campus through replacement of Chandalar, Stuart and Tanana complexes, where modern configurations will improve vibrancy and vitality on campus. These EFG facilities are located in areas proposed for near-term and future development - areas of campus that have proven successful in supporting high-degree-earning students seeking proximity to student life activities and amenities.

#### **Future Potential Development**

Cutler and Hess facilities require a high degree of maintenance due to their original construction. These two areas may be additional potential future development areas for UAF to consider, following further study of the cost-benefit for replacement or renewal.



RENDERING LOOKING NORTH WEST FROM THE WOOD CENTER

	Underg	graduat	e (Beds)	
Current			Future (Propose	ed)
Moore	316		Moore	316
Bartlett	316		Bartlett	316
Skarland	139		Skarland	139
Eileen	24		Eileen	24
McIntosh (demo)	95		Wickersham	97
Stevens (demo)	100		Cutler	231
Nerland (demo)	97		Lathrop (renew)	129
Lathrop (renew)	129		Sustainable Village	16
Wickersham	97		New	400
Cutler	231			
Sustainable Village*	16			
Total Undergrad	1560		Total Undergrad	1668

\*Sustainable is slated to go back to RL Fall 2025

	E	FG (Un	its)	
Current			Future (Propose	ed)
Chandalar (demo)	19		Garden*	12
Garden*	12		Harwood	36
Hardwood	36		Hess	72
Hess	72		Walsh	12
Stuart (demo)	12		New Grad	76
Walsh	12		New EFG	28
Tanana (demo)	6			
Total EFG	169		Total EFG	236

\*Garden has 6 units but 12 beds - only EFG area with non family members living together

### Supporting Analysis and Projections

Needs identified for new on-campus housing includes:

#### Undergraduate Housing

- 400 new beds
- A mix of suite-style units, including 2 bedroom, 1 bath unit and 4 bedroom, 2 bath units, with living space
- Community kitchen will be provided by floor
- Additional program: 6,000 asf of shelled space to support a tenant providing convenience retail for residents

#### Graduate and Visitor Housing

- 76 new beds
- Micro unit apartments with study space, bathroom, and kitchenette (300 gsf/bed)
- Mostly single students, potential for some double occupancy rooms
- Additional program: communal study lounges and collaboration space by floor

### Employee, Family and Graduate (EFG) Housing

- 28 new units
- 2 bed, 1.5 bath townhomes with independent entry, full kitchen, and outdoor patio (1,200 gsf/unit)

#### Parking

- Surface Level parking is planned at a ratio of 1 car : 3.5 beds, adjacent to new and existing housing facilities.
- Structured parking south of Yukon Drive will serve as expanded capacity for visitors to core academic areas of campus, including the Wood Center. This parking will also provide flexibility for events, providing more options for surge demand as needed.

### Peer Benchmarks

Benchmarking of unit size and residential life compared current housing inventory on UAF campus with peer institutions. As noted in the 2021 Student Housing Study report, Wickersham Hall and Cutler Apartments are two examples of housing models that are popular with students. Wickersham is an example of a four-person suite-style unit with a shared bathroom and common living area. Cutler Apartments offer an apartment-style 2 bedroom, 1 bath unit with a kitchen and living area. These range from 236-324 gsf/bed which is comparable to projections for the new suite-style units. In addition to on-campus benchmarking, peer analysis revealed that similar suite-style units are being offered at the University of Montana and the University of Kansas, among many others.

### **Implementation Priorities**

To achieve UAF's top housing priorities and address immediate needs, a business model will be developed to determine appropriate and achievable funding strategies for the proposed redevelopment of the housing facilities identified in the plan.

The EFG housing could be a likely first phase to address the current waitlist and remove the oldest housing units. However, depending on the business model, the higher density undergraduate and graduate housing could occur simultaneously or closely follow.

The preferred business model will incorporate the migration of existing bed capacity from the lower dorms to the upper housing precinct, including site improvements around the new development. Vacating and removal of select lower dorms provides opportunity for open space and/or future development in the Main Street precinct. Funding from UA and external partners, such as P3 developers, are likely to be the sources for the development.

# **PRECINCT 2 - MAIN STREET**

### Vision for the Main Street Corridor

Developing vibrant, welcoming, student, and public-friendly facilities to make Tanana Loop East evoke the feeling of "Main Street" is the primary goal of this study. Besides the proposed additions to the existing facilities on the north side of the street, future development of both a hotel to accommodate visitors along with a new, on-campus Ice Arena on the south side will will create a modern streetscape. Establishing a north-south development boundary of buildings west of SRC will strive to maintain the outdoor recreational space and cross country ski course. This precinct will densify heading east, beginning with the Nanook Community Ice Rink and associated parking expansions that connect to the hotel, and anchored by the Welcome Center that serves as the doorway to the main campus experience.



Precinct 2- Main Street

This precinct hosts the widest variety of functions on campus, with five major improvement projects identified.

- Welcome Center (Lola Tilly Renovation) is an immediate project planned to begin the transformation of the precinct into a "front door" to campus. The project will leverage Deferred Renewal funds.
- An **on-campus Hotel** will occur following further market analysis, anticipated to result in a land lease to an external hotelier partner. The time frame for this will be dependent on market demand.
- Nanook Community Ice Rink Development will occur within 3-5 years of this plan, in partnership with the Nanook Hockey Alliance to align programmatic requirements with the development of a business plan to fit the project vision.
- Expansion of the Student Recreation Center will be funded by student fees, UA revenue bonds, or a private partner, and is anticipated to occur in 8+ years, beyond the lifespan of this plan.
- A **new parking lot or structure** will be required to support the event demand of the proposed development across the Main Street corridor, and may coincide with this development.

#### Welcome Center

Anticipated as a near term project that bridges the past and empowers the future, the UAF Welcome Center is a launchpad for transformative experiences grounded in community, connection and curiosity. The gateway building for campus visitors and prospective students, improvements and upgrades to the existing facility will offer an enhanced campus experience with improved access to services and campus resources, while standing as a welcoming front door to the campus and hosting events for students, alumni and visitors.



Expansion on the upper floor and exterior envelope replacement will support new functional areas within the facility, including exhibit spaces honoring the history and legacy of the University, welcoming engagement areas, open and flexible seating areas, and increased vibrancy and transparency with enhanced branding and signage visible from roundabouts at Tanana Loop E to the west and South Chandalar to the east.

Improvements to the existing facility and surrounding site will include expanded entry plaza and enhanced signage and wayfinding around the site, with a new enclosed pedestrian bridge on the east envisioned to serve as direct access into the facility, and comfortable queuing areas for transit pickup/drop off with informal south-facing seating where occupants may enjoy the views of Denali and Alaska Range vistas.

#### **On-Campus Hotel**

As part of the broader vision of activating UAF's Main Street corridor, a hotel will be located in close proximity to the Welcome Center, Student Recreation Center, and Nanook Community Ice Rink. The hotel, while not necessarily intended to be a university-branded hotel, will be part of the gateway experience into the campus core and will support the diverse activities hosted by the proposed development and existing campus activities including athletics events, research conferences, graduation, and visits by prospective students, faculty and visiting scholars. The preferred location for the hotel is in a gravel pad currently used for surface parking, south of Tanana Loop.

Hotel benchmarks comparable to what is proposed include the Hampton Inn and the Springhill Suites by Marriott in Fairbanks. The hotel would offer approximately 100 rooms and suites, and amenities that would support but not compete with new campus recreation facilities. To support the hotel, approximately 75 adjacent parking spaces would be provided. Directly adjacent to SRC, the Patty Center serves shared functions for both Nanook Athletics and Recreation programs, including a gymnasium, rifle range, indoor pool, and indoor ice rink. The complex is deficient in supporting varsity athletics and the current enrollment, with a facility condition index driving major investment decisions. With the proposed Nanook Ice Arena, opportunities will arise to renew and repurpose the Patty Center to support continued NCAA sports as well as new opportunities for activities highly requested by UAF students in a proposed field house.

#### Nanook Community Ice Rink

UAF Athletics and the greater Fairbanks community will benefit greatly from upgraded and expanded ice facilities. Where the existing Patty Ice Rink is currently not meeting demand, the new rink will meet the requirements of NCAA Division I, serve as an expanded community recreational resource, and support a UAF goal to recruit and retain student-athletes.

The new arena will house a minimum of 3,000 seats in NCAA Division I Hockey style configuration, with an overall footprint of approximately 80,000 gsf. The facility will support Nanook Hockey, while hosting youth and high school hockey and community skating. Additional premium spaces such as club level suites and expanded concession offerings will improve the fan experience. The proposed facility will feature a second sheet of ice to replace the aged-out Patty Ice Rink and support an additional 2800 hours of community ice demand.

Soil on the south side of Tanana will require additional improvements similar to those done prior to construction of the combined heat and power plant. The design goal is to create a harmonious scale for the new rink, complementing the neighboring buildings and the campus approach from the west. By lowering the elevation of the ice sheet and the roofline, we can foster a more inviting campus atmosphere for fans and visitors. This design choice enhances the overall experience while ensuring that the structure respects the character of Main Street. A complete bowl around the ice would support an atmosphere of student and community engagement that will elevate Alaska Nanook success to new levels. The suites and community rooms above the concourse level could benefit University events and Alumni fundraising with opportunities adjacent to hotel accommodations and the Patty Complex just across the road.

#### **Rink Location Considerations**

An alternate arena location connected to the SRC and Patty Center could offer an alternative for further study of cost and constructability. Considerations for a location north of Tanana Loop E include:

- Safe pedestrian access to arena events from existing parking lots without crossing Tanana Loop
- Direct adjacency to current UAF Athletics facilities
- Reduced utility and infrastructure investments to expand existing systems
- Combined service and operational functions with economies of scale
- Shared recreation infrastructure

#### **SRC Expansion**

The current Student Recreation Center facility contains an indoor track, weight training, and fitness centers dedicated to the Nanook Recreation program. A site has been located directly south of SRC, for the planned expansion of indoor and outdoor recreation facilities that will include space to support the Nanook Recreation programs, group exercise rooms, and a longer track to accommodate the growing number of students and increased community use of the SRC. Upgrades will be made to support the contemporary functional needs of a modern university.

# Parking Expansion, Circulation, and Wayfinding Improvements

The expansion of facilities and programs that serve both students and visitors across Main Street will require up to 1000 parking stalls, necessitating a parking structure to increase density while replacing lost surface parking. This structure will be within reasonable walking distance and will integrate loading and service functions discreetly to adjacent facilities. Improvements at the Welcome Center and future Student Recreation Center will include enhanced wayfinding, signage, and crossings for safety, along with better landscaping, pedestrian flow, site lighting, and separation from vehicular traffic. Enhanced pedestrian street crossings will ensure clear lines of sight from



FIGURE 2.7 Precinct 2- Main Street - Option 2

Tanana Loop E to entry/drop-off plazas at each facility. The Patty Center renovations, with modern materials and colors replacing the existing facade, will also provide improved wayfinding and vitality.

### Lathrop Hall Renewal

As noted in the Housing Precinct plan, Lathrop Hall may remain operational in its present location maintain a lower campus options for housing closely related to facility use on Main Street. This may be ideal for student athletes, University Fire Department students, or in the future, guest housing.

### **Peer Benchmarks**

Student enrollment competition amongst peers, particularly in Alaska, is entering a new era of importance. The enrollment struggles of most institutions post-pandemic have forced them to take a close look at their peers. Relevant program comparison, such as Augustana University's Midco Arena, Colorado College's Robson Arena, and Pegula Ice Arena at Penn State provide a look at the style of varsity hockey program locker rooms, training, and coaching suites that are expected for a competitive program. University recreation centers, likewise, have continued to provide expanded offerings to all patrons and combine private club like spaces with architecture that inspires wellness and engagement. Brightly colored, awe-inspiring campus facilities in relatively similar climates were shared with the committee from the University of Utah, SUNY Cortland, and Northern Kentucky University.

Peer data indicates that the proposed Main Street enhancements will foster a strong sense of campus connections with prospective students and significantly increase school spirit and engagement among current students, all of which supports sustainable enrollment growth.



RENDERING LOOKING EAST TO THE WELCOME CENTER, RINK AND HOTEL, AND SRC/PATTY

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# **PRECINCT 3 - WEST RIDGE**

### A Destination for "Research Where It Happens"

West Ridge is the research hub of UAF, a truly unique place for the community, as well as faculty, researchers, staff, and students across disciplines to collaborate, paving the way for research innovation that is unique to UAF. The vision for West Ridge is driven by expanding modern UAF scientific learning and research environments, achieving R1 status, and further recognition as a leader in Arctic research innovation.

This update reinforces excellence in research and innovation by fostering:

- A symbiotic relationship with the broader campus
- A sense of community through essential amenity and social space
- Continuous education and student engagement
- Functional and operational efficiency, specially in lab and lab support
- Future flexibility and adaptability with thought toward interdisciplinary spaces
- An opportunity for recruitment to attract and retain the best and brightest students, staff, faculty, researchers, and visiting scholars

The vision is driven primarily through opportunity for growth of two significant units: the Geophysical Institute (GI) and the College of Fisheries and Ocean Sciences (CFOS). Both of these units occupy buildings that no longer adequately serve their needs, have no space to accommodate their growth, and have deferred renewal costs that are driving investment decisions indicating replacement. The most significant change within GI lies in research revenue growth, leading to an increase in personnel and therefore space. For CFOS this growth occurs in both local and remote research sites. Understanding the distribution of research growth across these units is crucial for effective planning.

Opportunities for achieving strategic growth in academics and research across the West Ridge precinct are comprehensive and include dedication of new and renewed facilities into stateof-the-art interdisciplinary hubs of instruction and research. UAF will re-purpose and reuse portions of existing facilities primarily for non-laboratory uses where possible, to maximize future adaptability and flexible conversions, and to limit the university's carbon-footprint while modernizing the existing campus. Consolidation of operations and centralization of field prep staging areas with efficient storage space will support colocation of similar core functions, while allowing for the creation of unique identities for each unit where it matters.





The UAF research community will come together across disciplines to leverage open spaces, preserve iconic views, and enhance connections in the unique setting of the Troth Yeddha' campus. The West Ridge vision establishes active, engaged and student-centered learning environments to support interdisciplinary research, modern pedagogies, and accessible gathering areas both indoor and outdoor for undergraduate and graduate students, faculty and staff across the precinct.

### **Analysis and Projections**

The following summary focuses on a high-level analysis of projected needs for two units occupying a major portion of space across West Ridge, GI and CFOS, to inform future growth and physical accommodation within the plan.

GEOPHYSICAL INSTITUTE	ASF
Current Space	119,000
10 Year Projection Needed	136,430
COLLEGE OF FISHERIES AND OCEAN SCIENCES	ASF
Current Space	42,000
10 Year Projection Needed	56.530

Further analysis can be found in the Appendix.

### Summary of Modest Growth

#### **Geophysical Institute**

While GI's program has nearly doubled in size over the past several years, its footprint within Akasofu, WRRB and Elvey facilities has not. Departments must work remotely due to lack of appropriate space. This plan anticipates future 10-year growth to see an increase of 10% staff and 20% research faculty and support positions, whereas projections assume a sustained 4:1 graduate-to-faculty ratio. The overall net footprint of GI is expected to increase by nearly 9.5%

#### **College of Fisheries and Ocean Sciences**

Field preparation space is severely limited across West Ridge, a major driver for identifying appropriate accommodations of these functions across the precinct. CFOS projects growth of 25% staff, 14% faculty, 8% postdoctoral researchers, and 40% students. The overall net footprint of CFOS is expected to increase over 29%.

### Achieving R1 Status

The West Ridge facility strategy will support UAF on the path towards the target of R1 (Doctoral University - Very High Research Activity) classification based on the Carnegie Classification of Institutions of Higher Education. The following list further describes planned enhancements:

- Facility Replacement: Demo of aged out buildings with functional obsolescence, replacing them with modern, efficient spaces that better support current research activities.
- **Research Facilities Expansion:** Investing in state-of-theart laboratories, specialized equipment, and cutting-edge technology will support advancing research on campus.
- Infrastructure Upgrades: Improvements to existing buildings, purpose-built research facilities, and collaboration spaces.
- Increased Lab Space: In response to increasing funding for PhD students and faculty, increase research space to accommodate the projected growth most notably within GI and CFOS.
- Focus on Interdisciplinary Research: While departmentally assigned and dedicated space is necessary, it is not a preferred strategy for space assignments for research. More research dollars are being allocated towards interdisciplinary interactions and collaborations, therefore facilities that reinforce these behaviors and opportunities are a primary focus for environments across the precinct.

### **Implementation Priorities**

This plan resolves near and long term needs through future proposed development across West Ridge, including the replacement, removal and revitalization of multiple facilities to support the projected growth for both programs. Due to the lack of surge space across West Ridge, essential migration steps are required to achieve the vision. New purpose-built facilities will initiate the next phase of renewal across West Ridge.

#### **Future Facilities**

The vision for West Ridge is driven by the development of new facilities to enable the removal of targeted facilities and to meet UAF's objectives outlined earlier in this document. The following new facilities are included in the plan:

- Building A: a new home for GI, this building directly connects to existing adjacent underground utilities and extends enclosed pedestrian corridors to Building C (with connections to GI programs in Akasofu, WRRB and Elvey) and Building B, creating a fully contiguous pathway from Akasofu to Murie.
- Building B: relocates CFOS from O'Neill, AHRB, and Irving II into a central facility, purpose built for wet and dry lab needs. Connection to the new West Ridge Logistics Support Facility provides convenience for CFOS researchers to easily access field materials and prep space in the facility.
- Building C: Replaces Elvey Annex, providing critical support space and infrastructure required for Elvey and open informal collaboration space. The two-story (one above grade and one below grade) facility expands connections to the new and existing adjacent buildings, while framing a new plaza and open space with lower-level daylight and enhanced wayfinding to WRRB from Koyukuk Drive and nearby buildings.
- West Ridge Logistics Support Facility: A central high-bay storage facility of field research supplies and materials for CFOS and similar programs, to replace O'Neill.

#### Arctic Health Research Building

Select research lab and service areas will receive renovations to expand functional capacity for the Institute of Agriculture, Natural Resources and Extension academics and research. These improvements provide opportunity to relocate labs and offices out of O'Neill prior to its demolition.

A future potential expansion site is identified west of Arctic Health, to accommodate flexible needs of the university as it targets R1 research classification.

#### Elvey

Due to the critical nature of the uniqueness of Elvey and users in the building, the best value is to renew the building in a meaningful way. The entire Elvey building has accumulated a significant backlog of deferred renewal with the original finishes, infrastructure, and equipment, is functionally obsolete, and no longer supports critical research missions. The building is plagued by asbestos-containing material that hampers modification to suit emerging program needs. The exterior facade is failing and spalling concrete creates a risk to pedestrians. The building's annex has significant seismic risk in the structural elements and is scheduled for replacement.



RENDERING LOOKING WEST TO ARCTIC HEALTH AND IRVING I

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After the full renovation, which will focus on creating offices, computation labs, and research collaboration space right sized to modern space standards, the building will return to serve the Geophysical Institute.

#### Irving I

The new adjacent facilities will enable revitalization of this existing space to support future needs of Institute of Arctic Biology's operations and research including Toolik Field Station, and the College of Natural Science and Mathematics Department of Veterinary Medicine.

#### O'Neill

CFOS will vacate the entire facility following the construction of new purpose-built facilities. Complete demolition of this 1973 building will enable its replacement with a consolidated warm and cold field prep staging and storage facility on site.

#### Irving II

This facility is scheduled for demolition due to its high level of deferred renewal. The site will be allocated for a future development.

#### **Connected Corridors**

New corridors between proposed and existing facilities support circulation across and between buildings, enhancing wayfinding and expanded informal gathering areas, and providing protection from the natural environment and harsh winter conditions.

### Proposed Future Renewal/Replacement

### Funding

The capital planning for these projects is currently being developed, with a combination of deferred maintenance grants and university revenue bonds. Because the proposed renewals are mostly needed due to the condition of the oldest buildings, UAF will prioritize using deferred maintenance strategies first, and then consider other funding or financing options to supplement them. When completed, the West Ridge strategies should remove over \$300 million backlogged deferred maintenance.

### **Next Steps**

Alignment of investments will drive strategic direction, with a major priority to increase surge space allowing for the flexibility of GI and CFOS to expand and/or relocate into modern facilities that foster interdisciplinary collaboration and innovation. Further detailed analysis is expected to support pre-design and project definition for estimating costs, phasing and development of funding strategies for Elvey and the West Ridge Logistics Support Facility, and project time frames are expected to extend through the next three years.

### Proposed Future Renewal/Replacement

Facility	Assignable Square Feet (ASF) Capacity	GI	CFOS	Other West Ridge occupants to infill available space
Arctic Health (select renovation)	15,000	-	-	15,000
Elvey (renovated)	61,500	61,500	-	-
Irving I (renovated)	31,820	-	-	31,820
Akasofu	27,600	27,600	-	-
WRRB	19,800	19,800	-	-
WRLSF	10,300	-	-	10,300
Building A	57,900	26,930	-	30,370
Building B	56,530	-	56,530	-
Building C*	600	600	-	-
Total	281,050	136,430	56,530	87,490

\* Building C assignable space noted in the table above is limited to open informal collaboration and support spaces. The scope of this project focuses on major circulation and infrastructure critical for Elvey. Estimates for the layout of the facility anticipate a higher grossing factor to accommodate for this.

### Proposed Future Demolition

Facility to be Removed	ASF
O'Neill	35,701
Elvey Annex	15,805
Irving II	13,672
Total Reduction in A	<b>ASF</b> 65,178
2	

Net new space in ASP 49,652
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# **Geophysical Institute**

A wide array of geophysical science research spans three facilities within this plan. The Geophysical Institute (GI) is allocated both dedicated and shared space within these select footprints. A net total of 35,500 asf is shared space including office support, library, study and classroom functions. A net total of 83,281 asf is dedicated space including office, research, research service, and shop functions.

Research activity continues to grow, including high proportions of undergraduate and graduate students engaged on research teams. Laboratory modalities vary, based on accommodations and requirements for learning, wet research, and computational research environments. Additional office areas for Principal Investigators, graduate students and research assistants should ideally be located adjacent to these specialized areas.

Future projections identify growth beyond the existing baseline square footage, to accommodate needs over the next 10 years. These projections rely on input provided by the department, including impacts due to shifts in enrollment anticipated. **GI projects growth of 10% staff and 20% research faculty and support positions.** 

Space needs for research functions are developed using R1 metrics and modules, informed by NSF peers that have research output similar to GI. Each module supports one faculty researcher and team, with additional research service area included to accommodate equipment and storage functions.

Office area is calculated by FTE for faculty, postdoctoral researchers, research staff, administrative, and graduate students, using a range of 30-140 asf per FTE. These metrics are further outlined in the Space Needs Assumptions (page 41).

Projections developed herein support high-level planning strategies for development of West Ridge only. Further study is recommended to determine department level needs.





FIGURE 2.12 GI - 10 Year Projected Need





FIGURE 2.11 GI - Space Needs Projections \* The reduction in office space need is due to the right-sizing of office and office service space in alignment with university standards

<sup>1</sup> As shop functions are highly specialized and unique spaces serving the department, further specific analysis and study is required to determine accurate projections for long term need. Included are highlevel assumptions to provide a rough order of magnitude for the University to utilize for planning purposes.

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# **College of Fisheries and Ocean Sciences**

Fisheries and ocean sciences teaching and research spans four facilities within this plan. The College of Fisheries and Ocean Sciences (CFOS) is allocated both dedicated and shared space within these select footprints. A net total of 5,299 asf shared space includes office support, library, study and classroom functions. A net total of 36,076 asf dedicated space includes office, research, research service, and shop functions.

Future projections identify growth beyond the existing baseline square footage, to accommodate needs over the next 10 years. These projections rely on input provided by the department, including impacts due to shifts in enrollment anticipated. **CFOS projects growth of 25% staff, 14% faculty, 8% postdoctoral researchers and 40% students.** These projections serve as the basis of developing space needs to accommodate this growth.

CFOS research areas include wet laboratories, equipment storage, and field processing areas. Due to the wide variety of research that occurs in the field, and processed within the laboratory, research service space is expected to encompass a larger footprint for field activities. Each one-size module of 1,000 asf per lab supports one faculty researcher and team, with additional research service area included to accommodate equipment and storage functions. A 25% service space is added to research laboratory modules in line with R1 peers that are currently participating in similar research. Each research team is anticipated to be accommodated within a single module.

Office area is calculated by FTE for faculty, postdoctoral researchers, research staff, administrative, and graduate students, using a range of 30-140 asf per FTE. These metrics are further outlined in the Space Needs Assumptions (page 41).

Projections developed herein support high-level planning strategies for development of West Ridge only. Further study is recommended to determine department level needs.





FIGURE 2.13 CFOS - Current Space





\* The reduction in office space need is due to the right-sizing of office and office service space in alignment with university standards

<sup>2</sup> Additional study is recommended to analyze use beyond the scope of this amendment. Specifically, a review of campus-wide non-dedicated general classroom utilization and trends in use by CFOS may provide a clearer understanding.

#### FIGURE 2.15 CFOS - Space Needs Projections

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Note: The phases proposed herein were developed to provide UAF with high-level planning strategies for development of West Ridge only. Further study is recommended to determine department level needs, estimated costs, phasing validation, and infrastructure capacity to support the vision.

FIGURE 2.16 West Ridge Migration Strategy - Phases

# West Ridge Space Needs Assumptions

Projections developed herein are to provide UAF with high-level planning strategies for development of West Ridge only. Further study is recommended to determine department level needs.

#### Office Space

Asf allocations used to calculate office space needs:

- Faculty= 120-140 asf
- Postdoc= 70-80 asf
- Research Staff= 90 asf
- Administrative Staff= 100-140 asf
- Graduate Students= 30-40 asf

Asf allocations used to calculate office service space needs:

- Faculty= 20 asf
- Postdoc= 10 asf
- Research Staff= 10 asf
- Administrative Staff= 40 asf
- Graduate Students= 10 asf

Office service space includes:

- Breakroom
- Office storage
- Kitchen
- Conference space
- Collaboration space

#### Geophysical Institute Research Labs

- Research service space calculated to be 15% of the research space (in alignment with R1 peers)
- Projected lab space need = Benchmark lab asf per PI Team \* Number of PI's
- Research lab space benchmark:

Alaska Earthquake Center = 750 asf Alaska Satellite Facility = 900 asf Atmospheric Science Group = 750 asf GINA = 250 asf Space Physics Research Group = 500 asf GI RCS = 250 asf Seismology Research Group = 600 asf Snow Ice Permafrost Group = 600 asf Sedimentation & Tech Group = 600 asf Volcanology Group = 750 asf ACUASI = 600 asf

#### **CFOS Research Labs**

- Research Service space calculated to be 20% of the research space (in alignment with R1 peers)
- PI data was received at the college level; therefore, one assumed PI team benchmark (1,000 ASF) was used.
- Projected Lab Space Need = Benchmark Lab asf per PI Team (1,000 asf) \* Number of PI's

#### Classrooms

- Based off current square footage
- Typically calculated as: max course capacity x standard station asf (20-26 asf)

#### Library

- Based off current square footage
- Recommend utilizing peer benchmarks for comparison for future study



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