

UAF West Ridge Deferred Renewal Information Item

Background:

The University of Alaska Fairbanks West Ridge is the portion of campus stretching west from the Reichardt Building. An area traditionally used by the Athabascan people, it was originally developed by the University in the 1920s as a prime farming area. Since then, a new spine road and multiple buildings tallying over 830,000 gross square feet have been constructed. The facilities on West Ridge were meant to be research intensive facilities, but over the last few years, a move toward integrating teaching into the area of concentrated research has taken place; especially with the construction of the new Life Sciences Facility.

As the main focus of campus research, the buildings on the West Ridge of campus are used heavily to support laboratory needs through many different types of labs and lab support spaces. The capability of the University to conduct research projects is directly affected by the capacity and ability of these labs. Over the last decade, the existing space has been over utilized and its useful life has quickly come to an end, which has directly affected the performance to process research projects and generate revenue. In order for UAF to sustain its distinction as a world-class research institute, the antiquated facilities must be updated to modern standards.

The facilities on the West Ridge present a mixture of construction methods, structural frames, and life expectancies. The average age of the buildings, excluding those built in the last five years, is approximately 38 years of age. Only 10 percent of the facilities on the West Ridge have been renewed through a deferred renewal program in the last 10 years, while the current total backlog of deferred renewal remains well over \$300 million.

The University faces a major task to update these facilities to modern codes, renew worn and obsolete equipment, and provide better space functionality to embody current research and teaching trends. Many decisions will be factored into how the renewals occur, including available surge space for displaced programs, whether the renovations are total gut/renewals or renew-in-place, and how to phase the work with limited capital funding.

Besides renewing the facilities, the West Ridge buildings must be made ready for a major shift in facility occupants. When the Life Sciences Facility is complete, multiple spaces within other buildings on the West Ridge will be vacated by current research and teaching programs. New research programs and increased personnel will quickly backfill the open space, making renewal efforts very difficult. Beyond the renovations, there is a larger mission to reunite departments that have been fragmented over the years into various buildings. The goal of the University is to provide space that is congruent, reflects logical adjacencies, creates spaces that are more modern, and trend with the pedagogical changes happening within the student body.

Project Scope and Process

The project team is working on a master plan for the renewal of the facilities on the West Ridge that will address and develop logical phasing, budgetary estimates, and program space allocation. To date, the plan has completed facilities condition analyses and established a condition index that has helped guide the master planning efforts. The design team and executive committee have also completed advance programming of the space on West Ridge as it relates to current and projected programs and as it relates to the deficit of teaching and research space noted in the

2010 UAF Master Plan. The next steps are to work on an analysis of logical program adjacencies and the plan for relocation of programs, including major changes to various spaces to create these adjacencies. At the same time, the team will create logical phasing plans with recommended funding levels to become the basis for future capital budget requests. The work to date has allowed UAF to craft the FY14 request for deferred maintenance on West Ridge.

Proposed Total Project Cost and Funding Source(s)

The Total Project Cost is \$710,000 and will be funded by the following source:

<u>Funding source</u>	<u>Account</u>	<u>Amount</u>
State of Alaska FY12 Capital Appropriation	571317-50216	\$510,000
State of Alaska FY13 Capital Appropriation	571345-50216	\$200,000
Total Project Cost		\$710,000

Variance since Last Report to Board of Regents

Additional funding is being added to the project from FY13 Deferred Renewal funds to allow the project team to complete additional HVAC, structural, and electrical analysis of Elvey, Irving, and Arctic Health as it relates to how the renovations can be effectively phased partial building occupancy.

Schedule

The planning efforts will be completed by January 2013.

Supporting Documents

West Ridge Deferred Maintenance Update

UNIVERSITY OF ALASKA FAIRBANKS West Ridge Deferred Maintenance



September 27-28, 2012

2 West Ridge Research Facilities Introduction

The West Ridge Deferred Maintenance Master Plan is intended to address major renewal or replacement necessary to bring the facilities up to standard while maintaining continuity in University of Alaska Fairbanks' research enterprise, and increasing the integration of teaching into these facilities. The existing program deficit identified in the 2010 Campus Master Plan necessitates sufficient surge space for programs displaced by renovations. Initially the project will assess the condition of each facility on the UAF West Ridge Campus, and develop logical phasing, budgetary estimates, and program space allocation. This study will build upon the 2010 Campus Master Plan and will be guided by its established goals.

- Support the integration of teaching and research
- Enhance both the academic and student life experience.
- Improve campus access and circulation.
- Preserve and highlight the unique natural and cultural aspects of the campus.
- Enhance space quality and maximize effective utilization.
- Employ best practices in sustainability.

The following is the result of interviews with UAF administrators, faculty, and staff. A 5 year planning horizon of 2017 has been utilized in verifying projected space deficits identified in the 2010 Campus Master Plan.

General Overview

3 **West Ridge Research Facilities** Research Enhancements

The University of Alaska Fairbanks has historically been able to secure grant funding at levels that are well above peer institutions on a per capita basis. This success has enabled UAF to become a world class research center. Anticipated enhancements for research revenue include:

- State funded research such as UAV and Ocean Acidification.
- Research focused on the Issues of the Arctic including aerospace, climate change, and oil spill response. UAF 's position of strength in the global research market provides an advantage in securing private grants in this topic area.
- The strength of UAF's interdisciplinary programs to attract top doctoral candidates and their associated grant funding.
- Continuation and anticipated expansion of existing programs including EPSCOR and SNAP.

Program Overview

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4 West Ridge Research Facilities Allocation by Research Component

GRADUATE STUDENTS	Current	2017	Change
Administration	66	71	5
Animal Resources Center	0	0	0
Arctic Region Supercomputing Center	0	0	0
College of Natural Science and Mathematics	84	100	16
Geophysical Institute	85	115	30
Institute for Arctic Biology	118	158	40
International Arctic Research Center	14	30	16
Library	0	0	0
School of Fisheries and Ocean Sciences	146	171	25
School of Natural Resources and Agricultural Sciences	51	58	7
University of Alaska Museum of the North	0	0	0
Total	564	703	139

FACULTY AND STAFF	Current	2017	Change
Administration	40	44	4
Animal Resources Center	8.5	9.5	1
Arctic Region Supercomputing Center	27	27	0
College of Natural Science and Mathematics	63	72	9
Geophysical Institute	211	271	60
Institute for Arctic Biology	150	180	30
International Arctic Research Center	78	116	38
Library	3.5	4	0.5
School of Fisheries and Ocean Sciences	86	110	24
School of Natural Resources and Agricultural Sciences	47	52	5
University of Alaska Museum of the North	32	48	16
Total	746	933.5	187.5

Personnel Projection Summary

5 West Ridge Research Facilities Allocation by Space Type

Type	Current (ASF)	2017 (ASF)	Increase (ASF)
Office	149,715	156,884	7,169
Research Laboratory	157,892	220,637	62,745
Classroom	20,091	28,822	8,731
Classroom Laboratory	43,341	53,291	9,950
Conference	18,753	25,763	7,010
Vivarium	15,704	16,087	383
Computer	6,677	6,934	257
Greenhouse	11,708	17,208	5,500
Collections	31,725	44,469	12,744
Exhibitions	17,314	17,314	0
Other	13,028	45,041	32,013
Total	485,948	632,450	146,502

- 2010 Campus Master Plan identifies a projected area deficit of approximately 183,000 ASF for Research and Open Laboratories, Animal Quarters, Hazardous Materials, Greenhouse, Meeting Areas, and Offices. The new Life Sciences Building will provide approximately 30,000 ASF of dedicated research related space.

Space Projection Summary

UNIVERSITY OF ALASKA FAIRBANKS West Ridge Deferred Maintenance

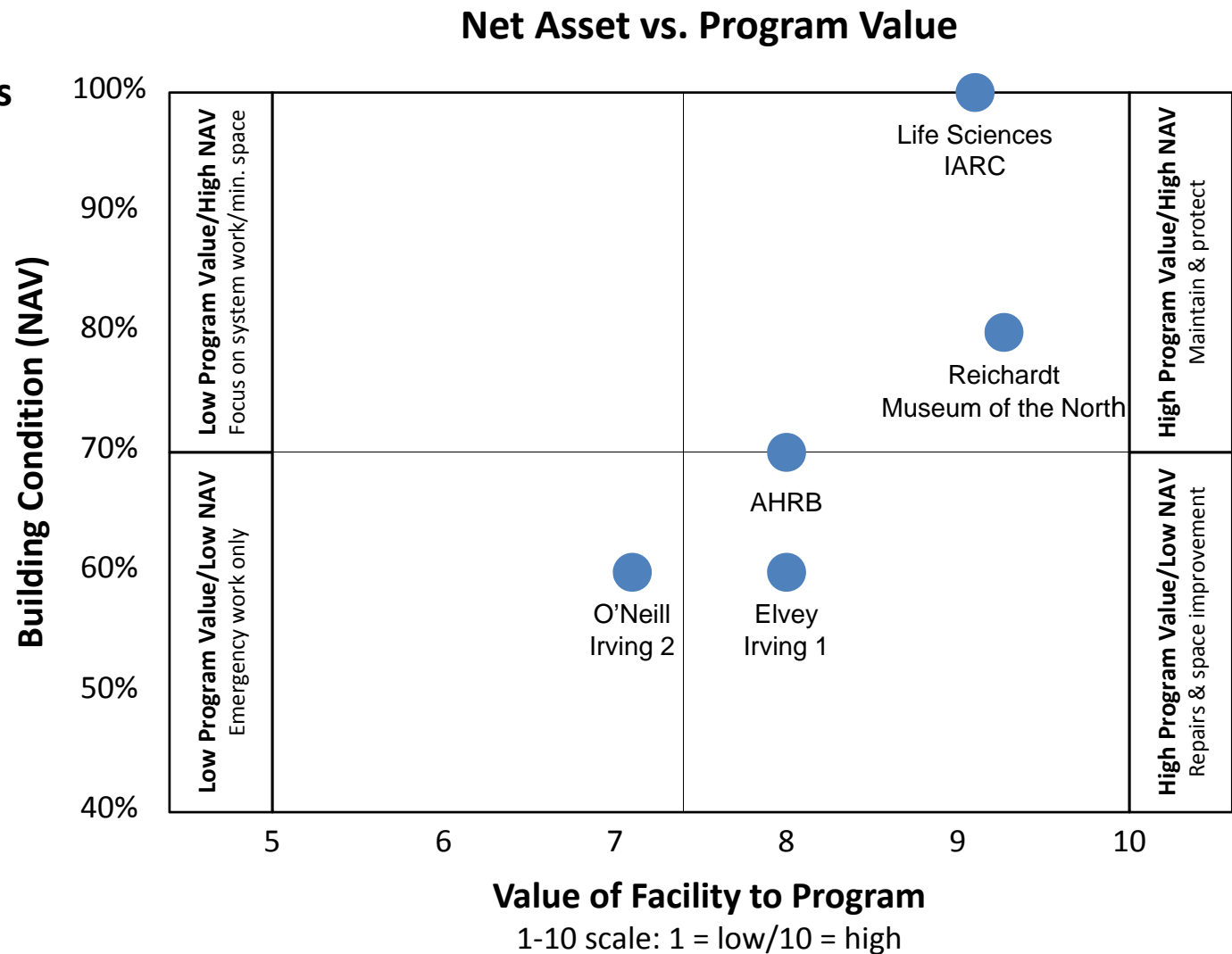
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6 West Ridge Research Facilities Facility Deficiency Analysis

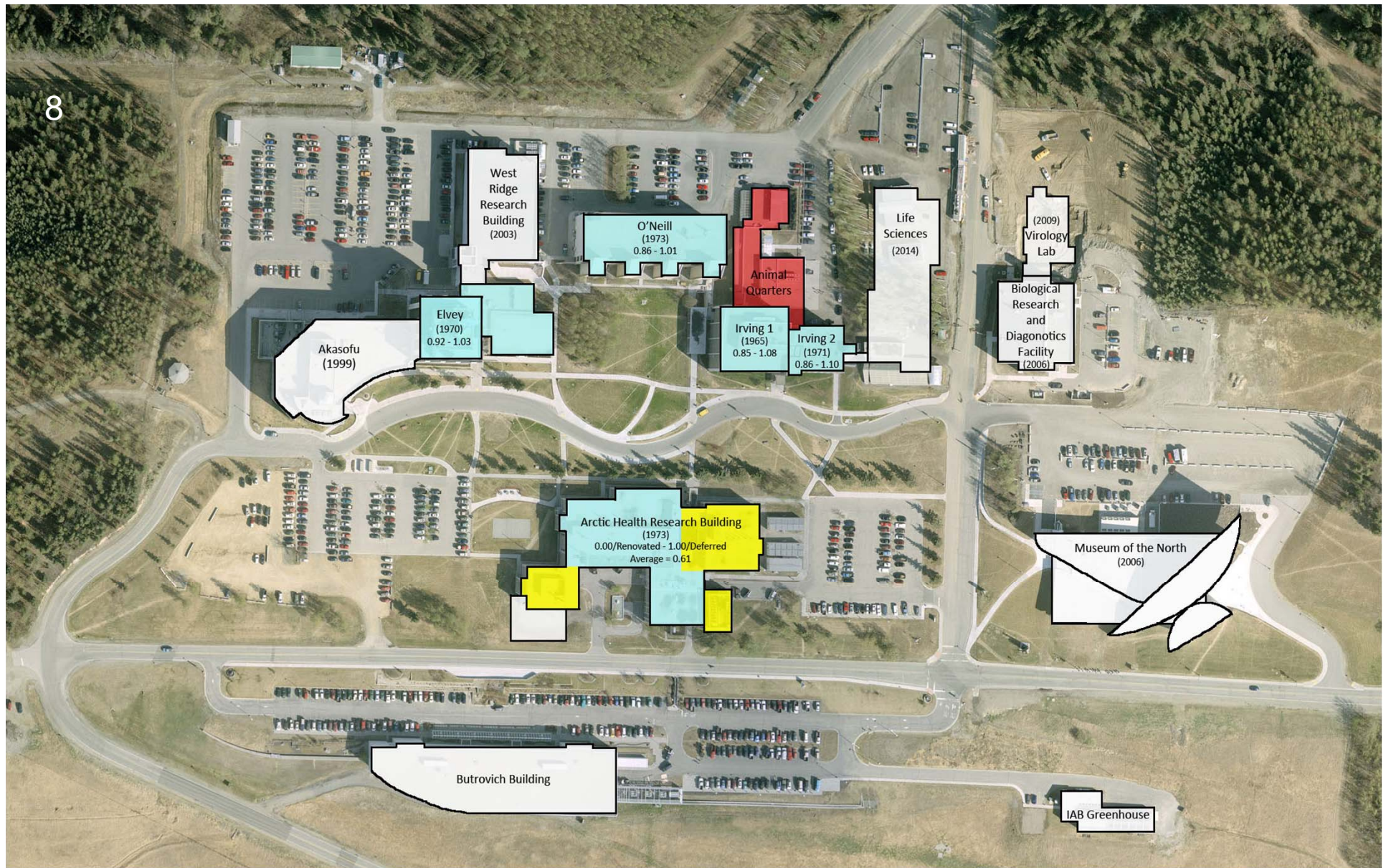
- UAF Facility Deficiency Audits have been confirmed by the Planning Team.
- Deficiency remediation costs and replacement costs inclusive of demolition ranging from high to low have been developed for each facility from prior UAF audit information as well as independent estimates prepared by the Planning Team.
- A facility condition index (FCI) has been calculated for the highlighted buildings.
 - FCI = Renovation Cost/Replacement Cost.
 - An FCI greater than 0.70 typically merits serious replacement consideration.
 - The FCI range for Elvey, O'Neill, Irving 1, and Irving 2 substantially exceed 0.70 necessitating the following:
 - Full replacement of mechanical and electrical systems.
 - Full exterior envelope upgrades to meet current energy conservation goals.
 - Significant hazardous materials abatement.
 - Significant seismic and structural upgrades at Elvey and O'Neill.
 - Except for O'Neill, these buildings are classified as High Program/Low Net Asset Value.
 - Since Akasofu, WRRB, and Life Sciences are new construction the FCI is assumed to be significantly below 0.70.
- Less than 9,000 ASF of surge space will become available with the inclusion of Life Sciences. Much of the remediation and upgrades necessitate entire floors or buildings to be temporarily vacated during this process. Additionally, Elvey, Irving 1, and Irving 2 are not ideally suited to support efficient open wet lab research configurations.

Existing Facilities

7 West Ridge Research Facilities Value Analysis



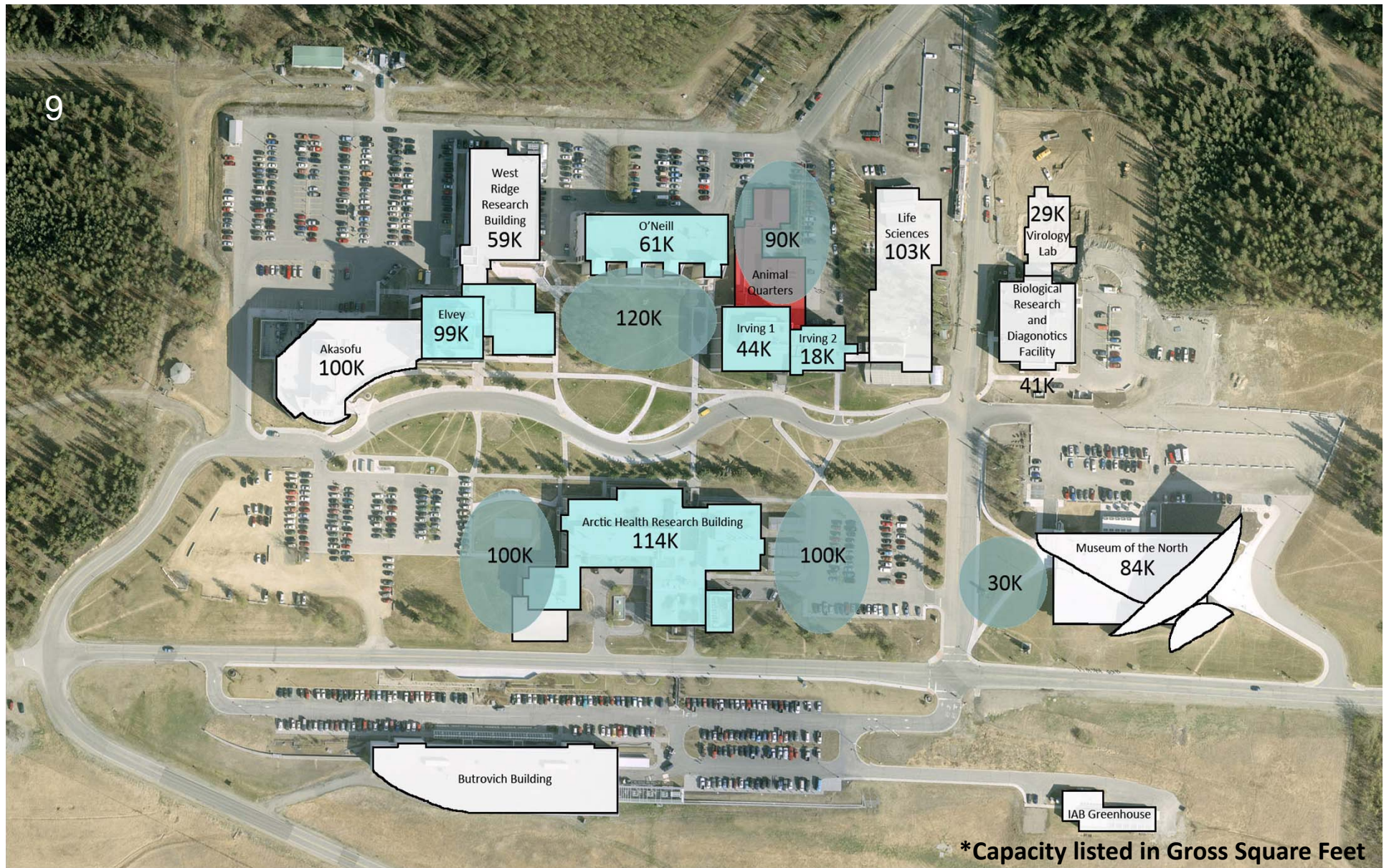
Existing Facilities



Facility Condition Index

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Building Site Capacity

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