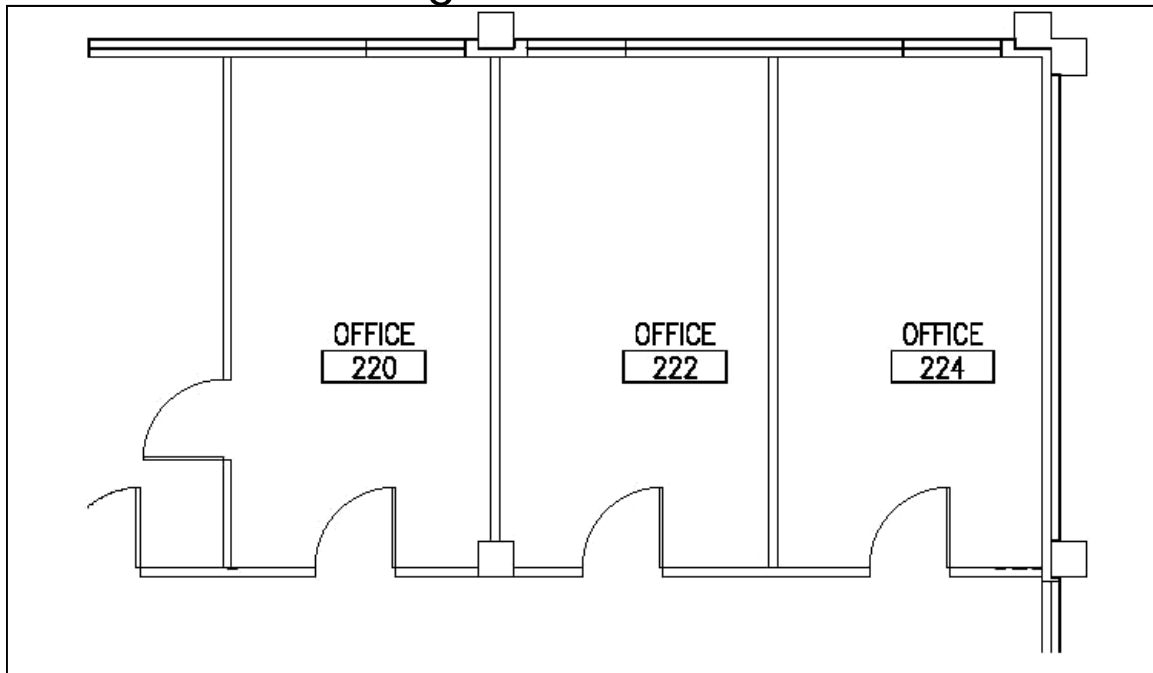


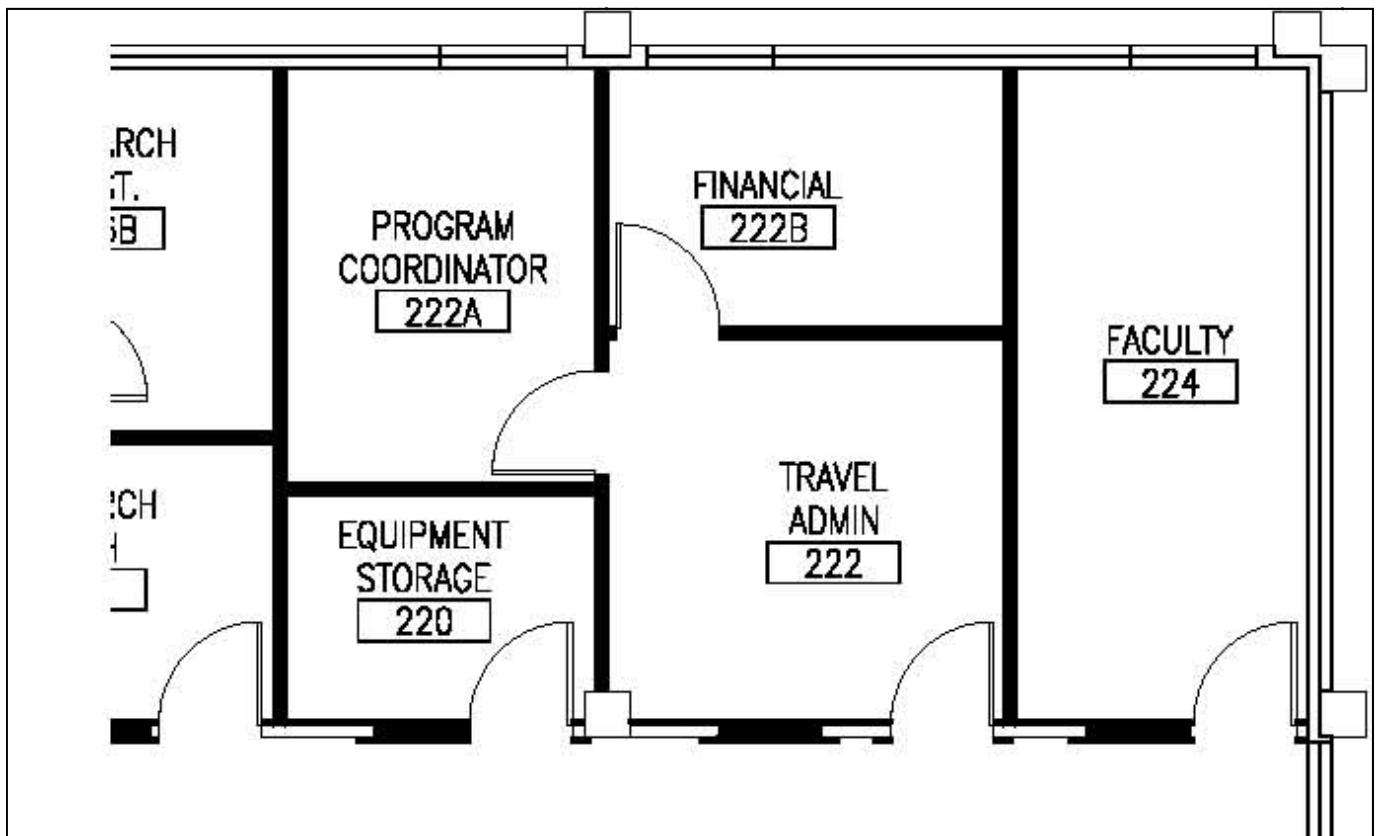
# AHRB East Wing Offices

## Existing 2nd Floor Offices



*Example:  
Partial floor  
plan*

## New 2nd Floor Offices





# TOTAL PROJECT COST INCREASE

**Name of Project:** Arctic Health Lab Revitalization for Initiative Programs

**Location of Project:** West Ridge, Fairbanks Campus

**Project Number:** 2007021 AHRL

**Date of Request:** May 23, 2007

<b>Estimated Total Project Cost:</b>	<b>\$5,700,000</b>
	<b>\$7,700,000</b>
<b>Approval Required: BOR Approval</b>	

## INTRODUCTION

In accordance with Regents' Policy P05.12, Schematic Design Approval (SDA) represents approval of the location of the facility, its relationship to other facilities, the functional relationship of interior areas, the basic design including construction materials, mechanical, electrical, technology infrastructure, and telecommunications systems, and any other changes to the project since Formal Project Approval.

Unless otherwise designated by the approval authority or a Material Change in the project is subsequently identified, SDA also represents approval of the proposed cost of the next phase(s) of the project and authorization to complete the Construction Documents process, to bid and award a contract within the approved budget, and to proceed to completion of project construction. Provided, however, if a Material Change in the project is subsequently identified, such change will be subject to the approval process described below.

For the Schematic Design Approval, if there has been no Material Change in the project since the Formal Project Approval, approval levels shall be as follows:

- TPC > \$4 million will require approval by the Facilities and Land Management Committee (F&LMC).
- TPC > \$2 million but ≤ \$4 million will require approval by the chair of the F&LMC.
- TPC ≤ \$2 million will require approval by the university's Chief Finance Officer (CFO) or designee.

If there has been a Material Change in the project since the Formal Project Approval, the Schematic Design approval levels shall be the same as the Formal Project Approval.

## *BODY OF THE APPROVAL*

### **1. Narrative Description**

#### **History:**

Constructed in 1964, the east wing of the Arctic Health Research Building (AHRB) was built by the federal government to study water pollution in Alaska. Since then, the Institute of Arctic Biology and the School of Natural Resources and Agricultural Sciences have occupied the space to study plant pathology, Alaska Native Health, and several other Alaska related issues.

The east wing of AHRB consists of approximately 19,800 gross square feet of laboratory, class-lab, and office space located on two floors. The space has not been significantly renovated in the over 40 years. Based on the need for highly technical research space, the building has been functionally obsolete since the early 1990's.

The current project will create modern era labs and offices as well as correct code deficiencies and deferred renewal items within about 19,800 gross square feet, in addition to adding sprinklers to approximately 30,000 gsf in the animal wing.

#### **Interests:**

At the heart of any top notch research institute are good staff, expert faculty, quality students, sound technique, and adequate funding. Yet without adequate lab space infrastructure, all of these things can not flourish and produce new results and answers that will profoundly affect Alaska. Providing the best facilities attracts the best programs, researchers and students, furthering UAF's stance as a world leader in research.

In an ongoing effort to provide new, modern, and efficient space for growing research programs on the Fairbanks campus, the Arctic Health Laboratory Revitalization for Initiative Programs Project would renovate inefficient, obsolete space into state of the art research laboratories. Renovated space will directly affect \$30M in current grants and initiatives directly affected by the renovation.

UAF is at the forefront of global climate change and must engage its resources to become the catalyst for new research in arctic regions. By providing modern lab space, initiatives such as studies of climate change, impacts on Alaska Native Health, and development of new agricultural products that can grow in a warmer environment can successfully be completed. Research programs directly affected by the renovation include:

<b>Current Research Grants</b>	<b>Grant Funding Level</b>
Center of Alaska Native Health Research	\$12,000,000
IPY: Carbon, Water and Energy Balance of the Arctic Landscape	\$2,200,000
IPY: Dynamics of Change in Alaska's Boreal Forests	\$4,000,000
Avian Flu Research	\$3,800,000

Faculty Early Career Development Program (NSF)	\$1,000,000
IGERT	\$3,000,000
INBRE (Total INBRE Grant \$18M)	\$4,000,000
<b>TOTAL</b>	<b>\$30,000,000</b>

Rasmuson Foundation Undergraduate Program in Fisheries	\$5,000,000
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The lab renovations would better utilize existing space within the building, and would provide a faster, more viable solution to space shortages on West Ridge. Completing office revitalization within the east wing will create more offices than we currently have, and are critical for new faculty and graduate and doctoral students. The fire sprinkler system installation would allow departments to renovate the existing Animal Wing into useable space. **Modern labs and offices are key to UA’s ability to attract and retain research faculty.**

The cost and time to complete the project is very competitive with building surge space. It is also in line with other renovations of UAF research labs performed in 2002 and 2003. Cost for the fire suppression system is based on current known cost for installations in the Irving 1 Building (2006) and portions of the Arctic Health Building (2002).

The renovation of laboratories and offices in the east wing of the Arctic Health Research Building and completing installation of fire suppression is critical to several major research programs at UAF that have national and state prominence. These include:

(1) The Center for Alaska Native Health Research (CANHR) is about to receive a 5 year renewal of their National Institutes of Health (NIH) award for \$12M. This Community-Based Participatory Research program supports investigations into the biological basis of health disparities in Native Alaskan communities in the Yukon Kuskokwim Delta region, with a current focus on the roles of genetics and nutrition on health risk factors for diabetes, including obesity. CANHR is the most prominent of UAF’s new programs in biomedical research and education with direct importance to the state’s economy and well being. It is partnering with several additional NIH funded research programs on behavioral health issues in rural communities in Alaska and is linked to the new joint UAF/UAA Ph.D. program in psychology.

Successfully completing the goals of the renewal research is directly dependent on the renovation project in AHRB. Renovations of two of the laboratories are required to support the research programs core faculty in CANHR: Assistant Professor Dr. Diane O’Brien, who has an additional NSF funded project for \$92,766, and Associate Professor Dr. Rosemarie Plaetke, who leads the biostatistics program. New offices that will be created out of the renovation are also necessary for two new faculty to be hired through the CANHR program, a nutritional epidemiologist and a behavioral interventionist. CANHR has also been awarded \$875,000 from UA Foundation funds to support the visits of 10 rotating “President’s Professors in Biomedical Research”, who will require new office space.

Without the renovations we have no alternatives for office space for these new faculty and additional associated staff.

(2) The laboratory and office renovations directly support the research and teaching program of Assistant Professor Dr. Kristin O'Brien, who has two awards from the National Science Foundation (NSF) for studies on bioenergetics in cold water fishes for \$135,780 and a new Faculty Early Career Development (CAREER) award for \$800,000 for research in the molecular mechanisms of cold-induced mitochondrial biogenesis. The CAREER award is NSF's most prestigious award to support the developing activities of those teacher-scholars who most effectively integrate research and education within universities. We are very lucky to have Dr. O'Brien on our faculty. Disruption of her research program by a delay in the planned renovations would severely jeopardize her ability to accomplish the requirements of her grant awards.

(3) A space trade between IAB and SNRAS that is only possible if the renovations go forward will result in a new office and an expanded, recently renovated laboratory to support the research program of Assistant Professor Dr. Jonathan Rundstadler, who this summer is being awarded a 4 year grant from the NIH for \$3.8M for research and surveillance of Avian Influenza in Alaska, which is a stop-over for migrating waterfowl from and to Europe, Asia, and North America. This research program is in collaboration with the University of California (UCLA and UCD) and is key to NIH's strategy to protect the U.S. from an epidemic that originates from bird flu.

(4) The laboratories that support Dr. Donie Bret-Harte, IAB Research Assistant Professor, are being renovated for the first time since 1967. Bret-Harte is PI of a new International Polar Year award from NSF for an Arctic Observatory Network (\$2.2M) that links UAF's Toolik Field Station with three other arctic field stations in measurements of carbon, water, and energy flux changes that affect climate change in the circum-Arctic and feed backs to global climate. Bret-Harte is PI on another major award from the NSF for \$477,000 to study the advance of tree-line in Alaska.

(5) Dr. Terry Chapin's laboratory will be renovated for the first time since 1967 and new office space will be created for his research programs. Chapin, UA's only National Academy of Sciences member, is PI of the Boreal Forest Long-term Ecological Research program (\$4M), that studies the affect of drought, fire, insect invasions, and climate change on Alaska's Interior forests. Chapin is PI on several other NSF grants worth \$2.2M to study fire-mediated changes and the dynamics of change in Alaska's Boreal forests in response to climate warming.

(6) The offices of Dr. Gary Kofinas will be expanded and renovated. Assistant Professor Kofinas is PI of UAF's NSF IGERT program, renewed for 5 more years (\$3.2M), which brings an interdisciplinary approach to graduate Ph.D training in social, economic, and biological adaptation and resilience to climate and land use change in Alaska.

(7) Associate Professor Dr. Marvin Schulte will occupy one of the renovated laboratories and an office in the east wing of AH. Dr. Schulte is a core member of the NIH sponsored INBRE program with research in infectious disease and contaminants and in the neurosciences. Assistant Professor Dr. Karsten Hueffer is also part of INBRE and his laboratory in AH requires utility modifications that will only be possible if fire suppression

upgrade is complete for the entire building. The INBRE program grant is \$18M; we intend to renew it in two years for a similar amount.

## 2. Graphic Description

Schematic concept drawings showing new room layouts are attached to this write-up.

## 3. Proposed Cost and Funding Source(s)

This should describe the cost and funding source(s) for the next phase of the project and for eventual completion of the project

Arctic Health Lab Revitalization for Initiative Program	
FY07 HB381 Tobacco Bonds	\$3,550,000
FY07 SB231 Capital Bill	\$1,700,000
Arctic Health Building Ceiling Seismic Upgrade	
FY07 HB381 Tobacco Bonds	\$ 450,000
<b>UAF Debt</b>	<b><u>\$2,000,000 (new funding)</u></b>
Total Project Cost	\$7,700,000

#### 4. Estimated Total Project Cost (Two Budgets)

<b>UNIVERSITY OF ALASKA</b>		
Project Name: Arctic Health Lab Revitalization for Initiative Programs		
MAU: UAF		
Building: AHRB	Date:	23-May-07
Campus: Fairbanks	Prepared By:	Wohlford
Project Title: AHRL 2007021	Account No.:	571263, 571272, 571277-50216
Total GSF Affected by Project: 19,800		
<b>PROJECT BUDGET</b>	Original 15,000gsf	Revised 19,800 gsf
<b>A. Professional Services</b>		
Consultant Basic Services	\$510,000	\$512,480
Consultant Extra Services	\$0	\$59,395
Site Survey	\$0	\$0
Soils Engineering	\$0	\$0
Testing	\$25,000	\$30,000
Plan Review / Permits	\$19,448	\$22,768
Other	\$0	\$0
Professional Services Subtotal	<b>\$554,448</b>	<b>\$624,643</b>
<b>B. Construction</b>		
General Contractor	\$4,200,000	\$5,165,574
Other Contractors (Voice/Data Installation, Work Orders Included)	\$30,000	\$105,000
Construction Contingency 9%	\$378,000	\$464,902
Art 0%	\$0	\$0
Other (Interim Space Needs)	\$0	\$0
Construction Subtotal	<b>\$4,608,000</b>	<b>\$5,735,475</b>
Construction Cost per GSF	\$307	\$290
<b>C. Equipment and Furnishings</b>		
Equipment	\$0	\$0
Furnishings	\$0	\$0
Make Ready/Move Out/In	\$110,000	\$183,000
Equipment and Furnishings Subtotal	<b>\$110,000</b>	<b>\$183,000</b>
<b>D. Administrative Costs</b>		
Advance Planning	\$0	\$0
Misc. Expenses	\$24,500	\$38,000
Project Management 6.5%	\$403,052	\$418,882
Administrative Costs Subtotal	<b>\$427,552</b>	<b>\$456,882</b>
<b>E. Total Project Cost</b>	<b>\$5,700,000</b>	<b>\$7,000,000</b>

<b>UNIVERSITY OF ALASKA</b>			
Project Name: Arctic Health Animal Quarters Fire Sprinklers			
MAU: UAF			
Building:	AHRB	Date:	23-May-07
Campus:	Fairbanks	Prepared By:	Wohlford
Project Title:	TBD	Account No.:	TBD
Total GSF Affected by Project: 30,000			
<b>PROJECT BUDGET</b>			Original
<b>A. Professional Services</b>			
Consultant Basic Services			\$60,000
Consultant Extra Services			\$0
Site Survey			\$0
Soils Engineering			\$0
Testing			\$0
Plan Review / Permits			\$4,400
Other			\$0
Professional Services Subtotal			<b>\$64,400</b>
<b>B. Construction</b>			
General Contractor			\$500,000
Other Contractors (Voice/Data Installation, Work Orders Included)			\$33,500
Construction Contingency	9%		\$50,000
Art	1%		\$0
Other (Interim Space Needs)			\$0
Construction Subtotal			<b>\$583,500</b>
Construction Cost per GSF			\$19
<b>C. Equipment and Furnishings</b>			
Equipment			\$0
Furnishings			\$0
Make Ready/Move Out/In			\$0
Equipment and Furnishings Subtotal			<b>\$0</b>
<b>D. Administrative Costs</b>			
Advance Planning			\$0
Misc. Expenses			\$10,600
Project Management	6.3%		\$41,500
Administrative Costs Subtotal			<b>\$52,100</b>
<b>E. Total Project Cost</b>			<b>\$700,000</b>
Total Project Cost per GSF			\$23
<b>F. Total Cost Rounded</b>			<b>\$700,000</b>



## 5. Variance Report

Identify any significant changes in scope, cost, schedule, funding plan, operating cost impact, or other cost considerations from the time the project received Formal Project Approval.

The design documents for the AHRB Lab Revitalization for Initiative Programs project are complete and the project is currently out to bid, with the bid opening in early June. The Board of Regents granted Approval to DESIGN (STEP 2) and Approval to CONSTRUCT (STEP 3) in September and December 2006 respectively with a Total Project Cost (TPC) of \$5,700,000.

The original deferred maintenance funding (FY06 Capital appropriation) included the revitalization of two floors of science laboratories, but did not include the adjacent two floors of offices. In an effort to achieve the greatest benefit of revitalization for the funding in hand, the office revitalizations were included in the design with the original expectation to include the office revitalizations as additive alternates to the construction project.

The revitalization of the adjacent offices was included in the described scope of work at CONSTRUCTION (Step 3) approval of the Board of Regents. The additional funding needed to be able to award the additive alternates to include the adjacent office is approximately \$1.3M.

UAF has identified the revitalization of the entire East Wing of AHRB (adding the offices) as the highest priority use of debt. The economy and efficiency of vacating the entire East Wing in addition to providing modern laboratories, complimented by adjacent and efficiently laid out offices, will meet the needs of competitively awarded research, and position UAF to receive extensions and future awards for critical initiative research.

In addition, at the top of the UA and UAF 6-year Capital Plan is a project to install fire sprinklers in vacated Animal wing (West Wing) of Arctic Health. (The occupants have moved to the recently complete Biological Research and Diagnostic building (BiRD). This will leave only the State of Alaska Virology Lab space (that will be vacated in when the DHSS/SOA Virology Building is complete) without a sprinkler system of all AHRB.

Using debt to install the sprinklers now instead of waiting for State funding will allow three UAF schools and institutes to leverage their moneys to renovate the existing space. Without fire sprinklers installed, the State of Alaska Fire Marshal code citation of 1991 remains, and no modifications, no matter how minor, can be made. The sprinklers affect approximately 30,000 of recently vacated animal research space.

Total debt proposed for the AHRB project is \$1.3M to revitalize the offices of the East Wing, and \$700,000 to install a sprinkler system in the West wing of AHRB, for a total of \$2M increase in the Total Project Cost.

## Analysis of Cost for Lab Revitalization: Original Budget vs. Revised Budget.

### Original Budget [\$5.7M TPC]

Item Description	Cost/SF	Total Area Revitalized	Total Construction Cost
Labs and Support Space*	\$336/SF	13,200 SF	\$4,435,475
Ceiling/Light Replacement	\$96/SF	1,800 SF	\$ 175,525
<b>Total Blended Cost</b>	<b>\$307/SF</b>	<b>15,000 SF</b>	<b>\$4,608,000</b>

### Revised Budget [\$7.7M TPC]

Item Description	Cost/SF	Total Area Revitalized	Total Cost
Labs and Support Space + Additional Lab Reconfiguration*	\$336/SF	13,200 SF	\$4,435,475
Office Revitalization	\$197/SF	6,600 SF	\$1,300,000
<b>Total Blended Cost</b>	<b>\$290/SF</b>	<b>19,800 SF</b>	<b>\$5,735,475</b>

## 6. Schedule for Completion

Design Development (65%)	March 8, 2007
Construction Documents (95%)	April 16, 2007
Bid Documents (100%)	May 4, 2007
Bid Period	May 16 to June 8, 2007
Construction	June 9, 2007 to January 31, 2008
Occupancy	February 28, 2008

## 7. Affirmation

Prior approvals are listed in the Board of Regents meeting minutes on the following dates:

Board of Regents Formal Project Approval: September 21, 2006  
 Facilities and Land Management Committee Schematic Design Approval: December 6, 2006

## 8. Action Requested

Total Project Cost Increase for the Arctic Health Lab Revitalization for Initiative Programs from \$5,700,000 original amount to \$7,700,000 an increase of \$2,000,000

## 9. Approval

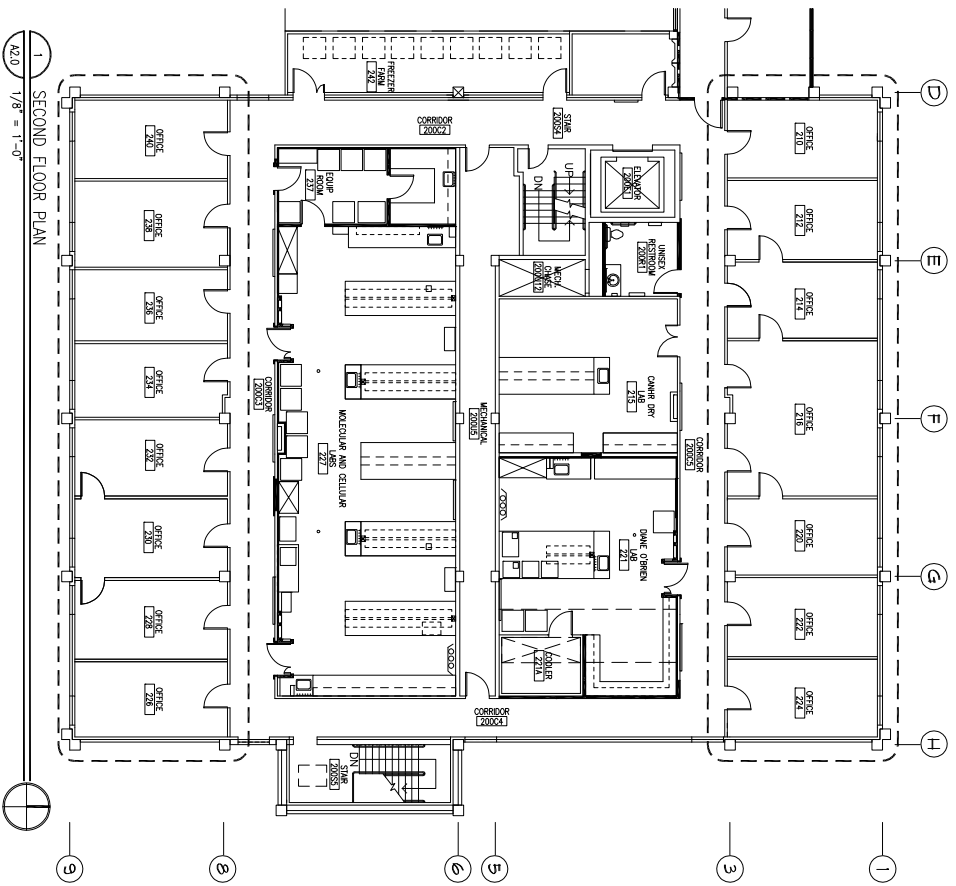
The President recommends that:

### MOTION

“As required by Regents’ Policy P09.12.04, the Board of Regents approves the Schematic Design Approval request for the University of Alaska Fairbanks Arctic Health Lab revitalization for Initiative Programs as presented, and authorizes the University administration to complete the design, bid and award a contract, and proceed with the completion of construction not to exceed a Total Project Cost of \$7,700,000. This motion is effective June 6<sup>th</sup>, 2007.”

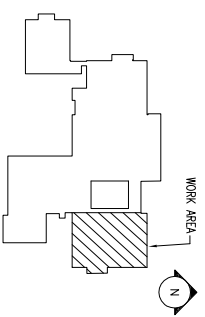
## Approval Notes

This approval is subject to the following provisions:



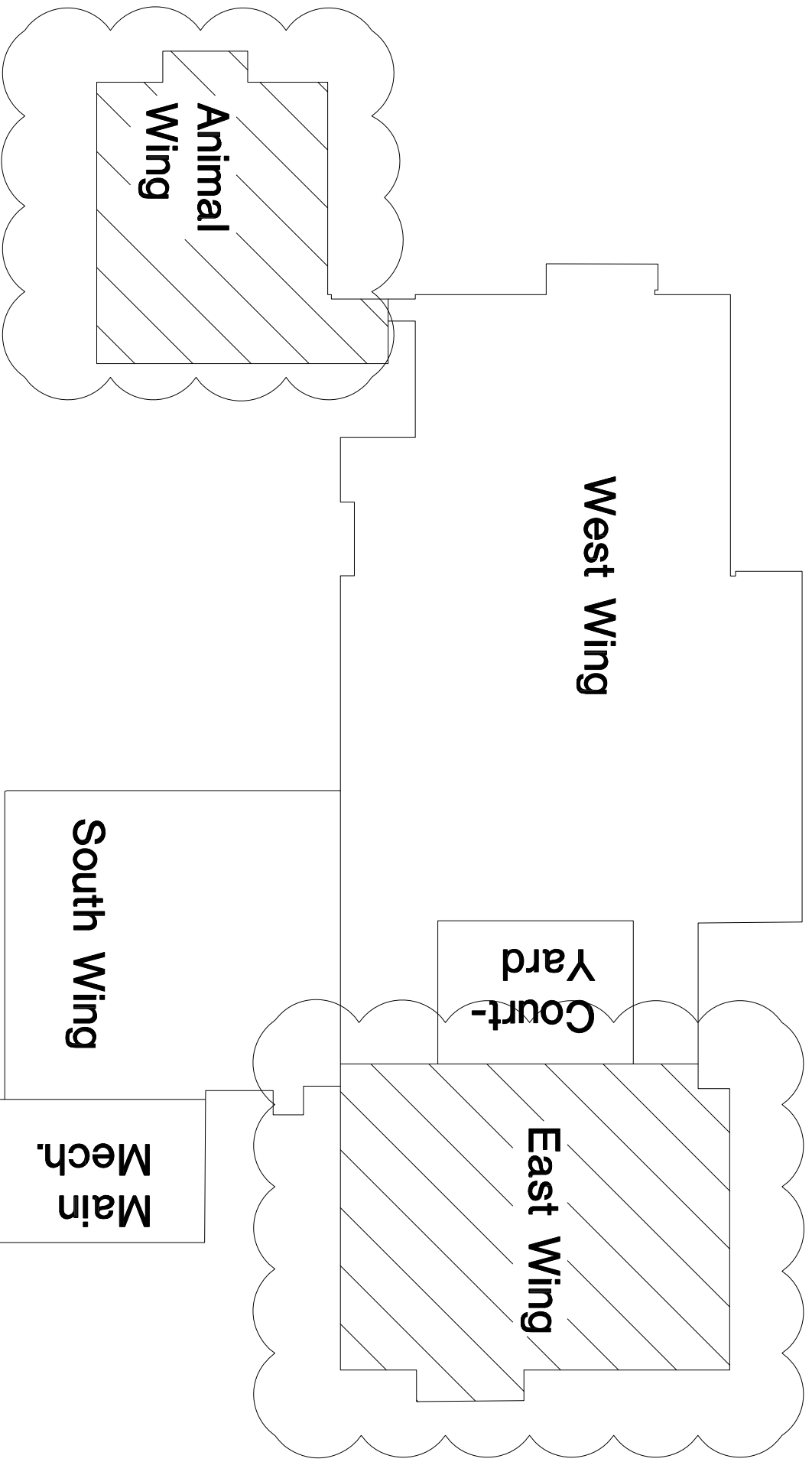
SCOPE OF WORK GENERAL NOTES:

1. REPLACE ALL FLOOR FINISHES WITH CARPET, TILE, OR SHEET VINYL
2. PAINT EXISTING AND NEW WALLS
3. REPLACE OLD CEILING TILE
4. REPLACE ALL LIGHT FIXTURES WITH ONES THAT CONSERVE MORE ENERGY
5. INSTALL SENSORS THAT WILL KEEP THE LIGHTS ON ONLY WHEN THE ROOM IS OCCUPIED
6. PROVIDE NEW, ADDITIONAL POWER PANELS AND OUTLETS THROUGHOUT
7. INSTALL A NEW VENTILATION SYSTEM THAT WILL PROVIDE BETTER TEMPERATURE CONTROL AS WELL AS MAKE LABS MUCH SAFER.
8. REPLACE 40 YEAR OLD PIPING THAT PROVIDES DRINKING WATER, HEATING FLUID, LABORATORY GAS/AIR/VACUUM, AND SANITARY WASTE REMOVAL.
9. REPLACE EXTERIOR DOORS AND BRIGHTEN UP STAIRWELLS.
10. RELOCATE WALLS AND DOORS TO PROVIDE MORE FUNCTIONAL LAYOUT OF THE CURRENT SPACE.
11. INSTALL NEW COMMUNICATIONS CABLES THAT WILL PROVIDE FASTER INTERNET ACCESS.
12. RENOVATE THE RESTROOMS, MAKING THEM HANDICAP ACCESSIBLE.
13. INSTALL NEW WALK-IN FREEZER/COOLER
14. CONSTRUCT NEW FIRE WALLS AS REQUIRED BY THE BUILDING CODE



**AHRB LAB REVITALIZATION**  
SCALE: PER DETAIL





**AHRB LAB REVITALIZATION**  
SCALE: PER DETAIL