BOARD OF TRUSTEES' FACILITIES CONTRACTING COMMITTEE

MATERIALS

8:00 a.m. May 13, 2020

AGENDA
FACILITIES CONTRACTING COMMITTEE
May 13, 2020
8:00 to 11:00

Executive Session: To the extent an Executive Session is needed, the general topic and scheduling a time for the executive session will be discussed and determined at the beginning of the meeting. (**Note** See separate executive session agenda from Melanie.)

Regular Meeting Agenda:

1. Status of building projects under construction. Status, update, and summary of any and all issues (i.e. cost, design, change order, etc.) to **avoid all surprises**. 1) BSL3 – CDC Certification update, 2) Science Initiative, 3) West Campus Satellite Power, 4) Parking Garage, 5) Housing, and 6) other—Mai. (**NOTE-**Executive Session—if necessary)…….4

2. Request Approval: Science Initiative Greenhouse Change Order. (**Motion #2-9) …… 18**

3. Request Approval: Construction Manager Selection for Student Housing and Dining…20

4. Request Approval: Construction Manager Selection for the Ivinson Parking Garage…. 22

5. Request Approval: Construction Manager Selection for the Wyoming Hall Demolition.24

6. Request Approval: Construction Manager Selection for the Bus Maintenance Facility..26

7. Request Approval: Law School Expansion and Renovation – Design Consultant Amendment…….28

8. Request Approval: War Memorial Stadium, West Stadium Renovation and Corbett Pool – Design Consultant Selection……...30

9. Request Approval: West Campus Satellite Energy Plant Change order……31

10. Recommendation: Exterior Design Advisory Committee for Student Housing and Dining—Discussion.

11. ROTC Level 1- Update……33

12. Rodeo Level 1- Update……131

13. AMK- Update. Building exterior renovation funding and NPS letter of support……150

14. Renovation of Crane Hall.

15. Horse boarding facility – update on planning and explanation of additional funding required.

16. Project planning updates for: Law School, Natatorium, War Memorial project.

17. New parking facility exterior design and cost estimates—update.

18. Fall semester 2020 housing and related issues—updates and discussion.

19. Cheyenne Family Medicine- Security, ADA and Mechanical Renovations……152

20. Housing updates and discussion.

21. Other?

(Note to JCM --Items nos. 2 through 9 need motions for full BofT)

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Capital Construction Report**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [March 25, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

AGENDA ITEM TITLE: **Capital Construction Report**, Mai

SESSION TYPE:
☐ Work Session
☐ Education Session
☒ Information Item
☐ Other:
[Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC PLAN:
☐ Yes (select below):
☐ Driving Excellence
☐ Inspiring Students
☐ Impacting Communities
☐ High-Performing University
☒ No [Regular Business]

☐ *Attachments are provided with the narrative—refer to Supplemental Materials Report.*

EXECUTIVE SUMMARY:

Engineering Building

- Project is 100% complete.
- Hot and Cold-water loops from the West Campus Satellite Energy Plant have been tied into the North West vault. Site and street remediation will be forthcoming

Science Initiative

- Guaranteed Maximum Price contract amendment was approved 10/16/2019.
- Construction activities commenced 10/17/2019.
- Deep foundations, grade beams, caps and high walls are complete.
- Plumbing and electrical underground are complete.
- Level one concrete slab on grade is complete.
- Steel erection and metal decking is in progress.
- Placement of concrete slab on metal decking.

West Campus Satellite Energy Plant

- Bid Package #1 was issued for foundation and utilities. The public bid opening was held 6/18/2019.
- Construction site is cleared and secured.
- Initial Guaranteed Maximum Price was prepared and approved at the August 2019 Board of Trustees Meeting.
- Construction activities commenced 9/16/2019.
- Bid Package #2 was issued, 100% construction documents. The public bid opening was held 10/4/2019.
- Final GMP was approved on 11/14/2019.
- Foundation high walls and tank foundation are complete.
- Underground plumbing and electrical are complete.
- Basement slab on grade is complete.
- Steel erection and metal decking are in progress.
- Distribution piping is in progress.
- Complete steel erection.
- Continue distribution piping.

11th and 12th/Lewis Street Reconstruction

- Schematic design in progress.
- Survey complete.
- Determining the likelihood of vacating Lewis and side streets. Will meet with the City/UW Administration to discuss previous MOU, proposed adjustments and any cost sharing strategies.
- Continue with schematic design.

UW Housing Phase I

Wyoming Hall Demolition

- Deconstruction drawings complete.
- Industrial hygienist finalizing work plan for abatement.
- CMAR RFP is currently in progress. Recommendation will be taken to the FCC meeting in May.
- Complete abatement plan.
- Compile and issue bidding documents.
- Coordinate final deconstruction documents with the Wyoming Hall utilities project.

Wyoming Hall Utility Relocation

- Construction documents complete.
- Geotechnical report and survey complete.
- CMAR RFP is currently in progress. Recommendation will be taken to the FCC meeting in May.

- City coordination. Work with Administration to develop funding negotiation and schedule strategy.
- Finalize construction documents and compile bidding documents.

Ivinson Lot Parking Garage

- Survey complete.
- Geotechnical report complete.
- Vacation of alleyway complete.
- Programming document 90% complete.
- Coordination with UW and franchise utilities for relocation underground.
- Schematic design phase in progress.
- Onboard CMAR and begin developing schedules and budgets.

Bus Garage/Fleet Relocation

- Pricing for the renovation of the existing facility is complete.
- Design is underway for the new bus maintenance facility.
- Abatement of existing facility is complete.
- Demolition of existing materials is 80% complete.
- Mechanical, electrical and plumbing (MEP) rough in is underway on existing building.
- Exterior painting on existing building is underway.
- Hazardous material (rodent) was discovered during demolition on the insulation above the grid ceilings. Contractor abated and work was completed on 4/21/2020.
- Continue designing the new facility.
- Begin construction on the renovation.
- Rough carpentry renovation.
- Exterior painting renovation.
- MEP rough renovation.
- Audio Visual/Information Technology rough renovation.

Law School Addition

- On hold.

Campus Master Plan

- A draft of the report was received in December. The Executive Committee is currently reviewing the plan and working with the consultant to finalize.
- A presentation of the final draft is scheduled for the May BOT meeting.

AMK Ranch

- Shutdown for the winter.
- Eight tasks need to be completed in Spring they include: Generator installation, Flushing Hydrant installation, Installation of TideFlex, Chlorination and filling tank, Asphalt paving, concrete collars at valve boxes, system start-up and site clean-up.

Capital Construction
Progress Report as of April 27, 2020

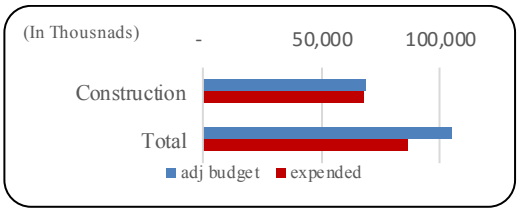
The following is an accounting of the progress and activity of construction and design since the last Trustees meeting. Also reported are approved change orders.

PROJECTS IN CONSTRUCTION

1. Engineering Education and Research Building (EERB)

Contractor: GE Johnson Construction Wyoming
Jackson, WY

Original Project Budget $ 105,358,910 (a)



Funding Sources:	Original Anticipated:	Actual:
Grant – AML funds	350,000.00	350,000.00
Grant 2 – AML funds	750,154.00	750,154.00
State appropriation	55,000,000.00	55,000,000.00
Reduced by 2015 legislative action	(8,570,000.00)	(8,570,000.00)
Reduced by 2015 legislative action	(3,475,737)	(3,475,737)
State gen fun from AML – held until match	15,800,000.00	15,800,000.00
State matching funds	14,200,000.00	14,200,000.00
State Sec I swap for cap construction	10,000,000.00	10,000,000.00
2016 Appropriation	14,500,000.00	14,500,000.00
2015 DEQ redirected funds	3,475,737	3,475,737
Foundation donation	3,328,756	3,328,756
Total Project	**105,358,910.00**	**105,358,910.00**

Guaranteed Maximum Price $69,014,882
Contract Substantial Completion Date February 13, 2019

Note: Funds have been reallocated among the budget categories. The adjusted budget has not changed in total.

(In Thousands)	Budget (a)	Additional Funding (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	72,491	(2,406)	(1,575)	68,510	(68,498)	(12)	**-**
Equipment	**-**	3,106	-	3,106	(3,106)	-	**-**
Contingency	8,205	(4,175)	(2,434)	1,596	-	-	**1,596**
Reserve	5,243	3,369	8,000	16,612	-	(16,612)	**-**
Design	7,943	(105)	-	7,838	(7,813)	(23)	**2**
FF&E	3,993	(75)	303	4,221	(4,041)	(183)	**(3)**
Tech	3,474	(75)	(2,951)	448	(451)	-	**(3)**
Admin	4,010	361	(1,343)	3,028	(2,457)	(567)	**4**
Total	**105,359**	**-**	**-**	**105,359**	**(86,366)**	**(17,397)**	**1,596**

Statement of Contract Amount

Original contract		**$69,014,882**
Change order #1	Owner requested changes to AV/IT base bid package	762,148
Change order #2	Owner requested changes to boardroom AV/IT base bid package	279,003
Change order #3	Owner savings to finalize contract value	(1,574,691)
Adj Contract		**$68,481,342**

Work Completed/In Progress:

- Project is 100% complete.

Issues Encountered with Proposed Resolution for Each:

- None at this time.

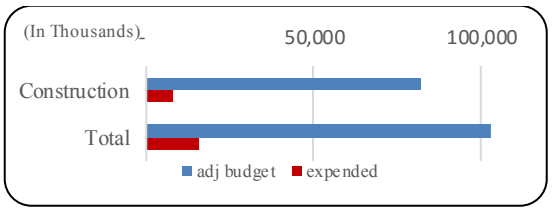
Work Planned for the Upcoming Month:

- Hot and Cold-water loops from the West Campus Satellite Energy Plant have been tied into the North West vault. Site and street remediation will be forthcoming.

2. Science Initiative

Contractor: GE Johnson Construction Wyoming
Jackson, WY

Original Project Budget $ 103,000,000 (a)
Adjusted Project Budget $ 103,000,000 (d)



Funding Sources:	Original Anticipated:	Actual:
State	3,000,000.00	3,000,000.00
UW	15,000,000.00	15,000,000.00
State	85,000,000.00	85,000,000.00
UW INBRE program		325,000.00
Total Project	**103,000,000.00**	**103,325,000.00**

Guaranteed Maximum Price $74,359,220
Contract Substantial Completion Date

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	82,029	-	-	82,029	(8,100)	(66,259)	**7,670**
Contingency	3,919	-	(248)	3,671	-	-	**3,671**
Reserve	1,702	-	-	1,702	-	-	**1,702**
Design	6,962	42	248	7,252	(6,113)	(1,183)	**(44)**
FF&E	3,100	-	-	3,100	-	-	**3,100**
Tech	2,287	-	-	2,287	-	-	**2,287**
Admin	3,001	283	-	3,284	(1,335)	(278)	**1,671**
Total	**103,000**	**325**	-	**103,325**	**(15,548)**	**(67,720)**	**20,104**

Statement of Contract Amount

Original contract	Pre-construction	$142,000
10/16/2019	GMP established, includes full project scope excluding alternates, reserve held for north greenhouses. (Includes pre-construction)	74,359,220
Adj Contract		**$74,359,220**

Work Completed/In Progress:
• Guaranteed Maximum Price contract amendment was approved 10/16/2019. • Construction activities commenced 10/17/2019. • Deep foundations, grade beams, caps and high walls are complete. • Plumbing and electrical underground are complete. • Level one concrete slab on grade is complete. • Steel erection and metal decking is in progress.

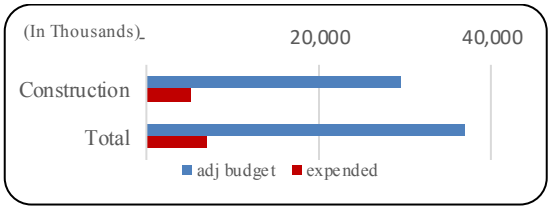
Issues Encountered with Proposed Resolution for Each:
• None at this time.

Work Planned for Upcoming Month:
• Placement of concrete slab on metal decking.

3. West Campus Satellite Energy Plant

Contractor: GE Johnson Construction Wyoming
Jackson, WY

Original Project Budget $ (a)
Adjusted Project Budget $ (d)



Funding Sources:	Original Anticipated:	Actual:
Major Maintenance	18,000,000.00	22,000,000.00
EERB Project Reserve	12,314,336.00	12,612,600.00
SI Project Reserve	2,000,000.00	1,701,736.00
UW – Capital Reserves (BOT)	4,616,773.00	616,773.00
Total Project	**36,931,109.00**	**36,931,109.00**

Guaranteed Maximum Price $ 29,058,549.00
Contract Substantial Completion Date October 19, 2021

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	29,559	-	-	29,559	(5,088)	(23,971)	**500**
Contingency	3,688	-	-	3,688	-	-	**3,688**
Design	2,623	-	-	2,623	(1,464)	(595)	**564**
FF&E	110	-	-	110	-	-	**110**
Tech	25	-	-	25	-	-	**25**
Admin	926	-	-	926	(447)	(136)	**343**
Total	**36,931**	-	-	**36,931**	**(6,999)**	**(24,702)**	**5,230**

Statement of Contract Amount

Original contract	**Pre-construction**	**$61,250**
Amendment #1	Initial Guaranteed Maximum Price for Foundation and Utilities. (Includes pre-construction)	15,486,191
Amendment #2	Final Guaranteed Maximum Price; full project scope.	13,572,358
Adj Contract		**$29,058,549**

Work Completed/In Progress:

- Bid Package #1 was issued for foundation and utilities. The public bid opening was held 6/18/2019.
- Construction site is cleared and secured.
- Initial Guaranteed Maximum Price was prepared and approved at the August 2019 Board of Trustees Meeting.
- Construction activities commenced 9/16/2019.
- Bid Package #2 was issued, 100% construction documents. The public bid opening was held 10/4/2019.
- Final GMP was approved on 11/14/2019.
- Foundation high walls and tank foundation are complete.
- Underground plumbing and electrical are complete.
- Basement slab on grade is complete.
- Steel erection and metal decking are in progress.
- Distribution piping is in progress.

Issues Encountered with Proposed Resolution for Each:

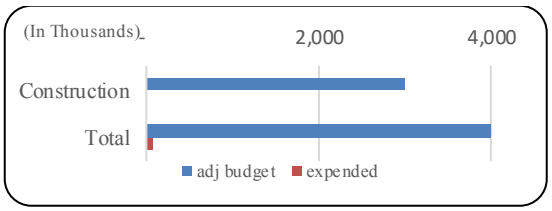
- None at this time.

Work Planned for Upcoming Month:

- Complete steel erection.
- Continue distribution piping.

4. 11th & 12th/Lewis Street Reconstruction

Contractor:



Original Project Budget $ (a)
Adjusted Project Budget $ (d)

Funding Sources:	Original Anticipated:	Actual:
EERB Project Reserve	4,000,000.00	4,000,000.00
Total Project	**4,000,000.00**	**4,000,000.00**

Guaranteed Maximum Price $
Contract Substantial Completion Date

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	3,000	-	-	3,000	-	-	**3,000**
Contingency	450	-	-	450	-	-	**450**
Design	365	-	-	365	(48)	(466)	**(149)**
FF&E	-	-	-	-	-	-	-
Tech	-	-	-	-	-	-	-
Admin	185	-	-	185	(30)	-	**155**
Total	**4,000**	-	-	**4,000**	**(78)**	**(466)**	**3,456**

Statement of Contract Amount

Original contract		**$-**
Adj Contract		**$-**

Work Completed/In Progress:

- Schematic design in progress.
- Survey complete.

Issues Encountered with Proposed Resolution for Each:

- Determining the likelihood of vacating Lewis and side streets. Will meet with the City/UW Administration to discuss previous MOU, proposed adjustments and any cost sharing strategies.

Work Planned for Upcoming Month:

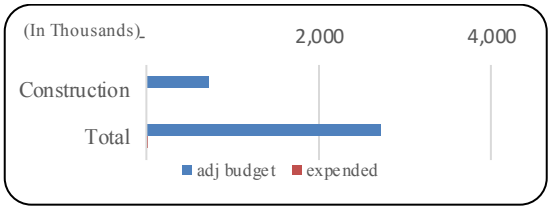
- Continue with schematic design.

UW Housing Phase I

5. Wyoming Hall Demolition

Contractor:

Original Project Budget $ (a)
Adjusted Project Budget $ (d)



Funding Sources:	Original Anticipated:	Actual:
UW – Housing Reserve Account	2,726,536.00	2,726,536.00
Total Project	**2,726,536.00**	**2,726,536.00**

Guaranteed Maximum Price $
Contract Substantial Completion Date

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	720	-	-	720	-	-	**720**
Contingency	108	-	-	108	-	-	**108**
Design	43	-	-	43	(12)	(10)	**21**
FF&E	-	-	-	-	-	-	-
Tech	-	-	-	-	-	-	-
Admin	1,856	-	-	1,856	(9)	(32)	**1,815**
Total	**2,727**	-	-	**2,727**	**(21)**	**(42)**	**2,664**

Statement of Contract Amount

Original contract		**$-**
Adj Contract		**$-**

Work Completed/In Progress:

- Deconstruction drawings complete.
- Industrial hygienist finalizing work plan for abatement.
- CMAR RFP is currently in progress. Recommendation will be taken to the FCC meeting in May.

Issues Encountered with Proposed Resolution for Each:

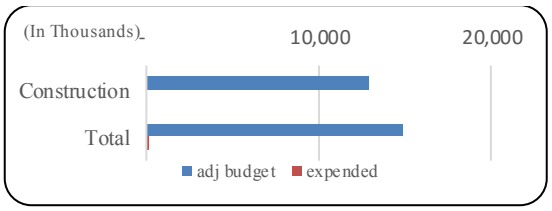
- None at this time.

Work Planned for Upcoming Month:
• Complete abatement plan. • Compile and issue bidding documents. • Coordinate final deconstruction documents with the Wyoming Hall utilities project.

6. Wyoming Hall Utility Relocation

Contractor:

Original Project Budget $ (a)
Adjusted Project Budget $ (d)



Funding Sources:	**Original Anticipated:**	**Actual:**
UW – Construction Reserve Account	10,000,000.00	10,000,000.00
Major Maintenance	4,929,300.00	4,929,300.00
Total Project	**14,929,300.00**	**14,929,300.00**

Guaranteed Maximum Price $
Contract Substantial Completion Date

(In Thousands)	**Budget (a)**	**Additional Funding/Adj (b)**	**Use of Contingency (c)**	**Adj Budget (a+b+c)=(d)**	**Expenditures (e)**	**Obligations (f)**	**Remaining Balance (d+e+f)=(g)**
Construction	12,929	-	-	12,929	-	-	**12,929**
Contingency	1,200	-	-	1,200	-	-	**1,200**
Design	331	-	-	331	(130)	(201)	-
FF&E	-	-	-	-	-	-	-
Tech	240	-	-	240	-	-	**240**
Admin	229	-	-	229	(6)	(16)	**207**
Total	**14,929**	-	-	**14,929**	**(136)**	**(217)**	**14,576**

Statement of Contract Amount

Original contract		**$-**
Adj Contract		**$-**

Work Completed/In Progress:
• Construction documents complete. • Geotechnical report and survey complete. • CMAR RFP is currently in progress. Recommendation will be taken to the FCC meeting in May.

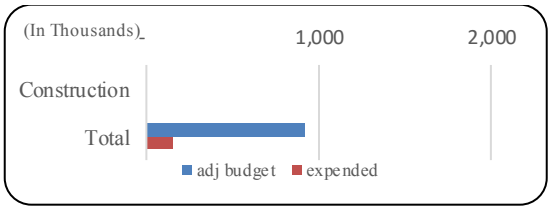
Issues Encountered with Proposed Resolution for Each:
• City coordination. Work with Administration to develop funding negotiation and schedule strategy.

Work Planned for Upcoming Month:
• Finalize construction documents and compile bidding documents.

7. Ivinson Lot Parking Garage

Contractor:

Original Project Budget $ (a)
Adjusted Project Budget $ (d)



Funding Sources:	Original Anticipated:	Actual:
UW – Housing Reserve Account	926,400	926,400
	-	-
Total Project	**926,400**	**926,400**

Guaranteed Maximum Price $
Contract Substantial Completion Date

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-
Design	726	-	-	726	(92)	(8)	**626**
FF&E	-	-	-	-	-	-	-
Tech	-	-	-	-	-	-	-
Admin	200	-	-	200	(65)	(121)	**14**
Total	**926**	-	-	**926**	**(157)**	**(129)**	**640**

Statement of Contract Amount

Original contract		**$-**
Adj Contract		**$-**

Work Completed/In Progress:
• Survey complete. • Geotechnical report complete. • Vacation of alleyway complete. • Programming document 90% complete. • Coordination with UW and franchise utilities for relocation underground.

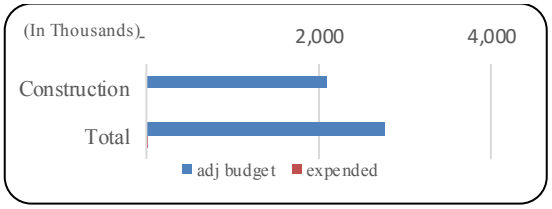
Issues Encountered with Proposed Resolution for Each:
• None at this time.

Work Planned for Upcoming Month:
• Schematic design phase in progress. • Onboard CMAR and begin developing schedules and budgets.

8. Bus Garage/Fleet Relocation

Contractor:

Original Project Budget $ (a)
Adjusted Project Budget $ (d)



Funding Sources:	Original Anticipated:	Actual:
UW – Construction Reserve Account	2,779,260.00	2,779,260.00
Total Project	**2,779,260.00**	**2,779,260.00**

Guaranteed Maximum Price $
Contract Substantial Completion Date

(In Thousands)	Budget (a)	Additional Funding/Adj (b)	Use of Contingency (c)	Adj Budget (a+b+c)=(d)	Expenditures (e)	Obligations (f)	Remaining Balance (d+e+f)=(g)
Construction	2,100	-	-	2,100	-	-	**2,100**
Contingency	315	-	-	315	-	-	**315**
Design	125	-	-	125	(10)	(153)	**(38)**
FF&E	86	-	-	86	-	-	**86**
Tech	71	-	-	71	-	-	**71**
Admin	82	-	-	82	(11)	(153)	**(82)**
Total	**2,779**	-	-	**2,779**	**(21)**	**(306)**	**2,452**

Statement of Contract Amount

Original contract		**$-**
Adj Contract		**$-**

Work Completed/In Progress:

- Pricing for the renovation of the existing facility is complete.
- Design is underway for the new bus maintenance facility.
- Abatement of existing facility is complete.
- Demolition of existing materials is 80% complete.
- Mechanical, electrical and plumbing (MEP) rough in is underway on existing building
- Exterior painting on existing building is underway.

Issues Encountered with Proposed Resolution for Each:

- Hazardous material (rodent) was discovered during demolition on the insulation above the grid ceilings. Contractor abated and work was completed on 4/21/2020.

Work Planned for Upcoming Month:

- Continue designing the new facility.
- Begin construction on the renovation.
- Rough carpentry renovation.
- Exterior painting renovation.
- MEP rough renovation.
- Audio Visual/Information Technology rough renovation.

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Science Initiative Building Change Order**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [May 14, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
Pursuant to UW Regulation 6-9(III)(G), Administration is requesting Board approval of a contract change order to the Science Initiative CMAR agreement with GE Johnson Construction Company of Wyoming (GEJCW).

The Greenhouse bid was $5.4M at the original bid opening. This bid was for the north half of the greenhouses only and excluded mechanical, electrical, plumbing, and management burden. Only one research greenhouse bid was received. Upon inquiring with greenhouse manufacturers it was determined the lack of participation and high bid result were due to intumescent paint (a fire retardant) being required on the greenhouse structure.

Administration collaborated with the State Fire Marshal to develop a solution to have the paint removed. As such, the greenhouses were increased in height to achieve code required clearance from finished floor to horizontal structure, thus allowing the removal of the intumescent paint. The result of which afforded the project the ability to procure the full greenhouse scope in lieu of half the greenhouse; all while remaining within the original construction budget.

The project construction budget is $82,390,000.00, the guaranteed maximum price (GMP) without the greenhouses is $74,359,220.00. Administration is requesting approval for a contract change order to GEJCCW in the amount of $5,999,462.00. This change order funds the north and south research bays of the greenhouse and includes all indirect costs. This change order increases the GMP to $80,358,682.00, which is within the construction budget.
The change order value captures some value engineering components, the greenhouse controls are being studied to determine if the cost can be further reduced. This change order is being

treated as a guaranteed maximum price within the existing agreement; as such, all costs are to be validated for the owners review.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve all change orders greater than $50,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval for the CMAR contract change order with GE Johnson Construction of Wyoming.

PROPOSED MOTION:
"I move to recommend to the full Board to authorize Administration to execute the CMAR contract change order with GE Johnson Construction Company of Wyoming in the amount of $5,999,462.00."

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Construction Manager Selection for Student Housing and Dining**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
- ☐ Yes
- ☒ No

FOR FULL BOARD CONSIDERATION:
- ☒ Yes [May 14, 2020]
  [Note: If yes, materials will also be included in the full UW Board of Trustee report.]
- ☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

In the Fall of 2019 and Spring of 2020, Administration worked with the consulting firms of; Plan One, alm2s, and Mackey Mitchell Architects on Level 2 planning for Phase 1 of the Student Housing and Dining project. Phase 1 will consist of the construction of 1,000 beds of freshman housing, an 850-seat dining facility, landscaping and civil infrastructure improvements.

The consultant team recently completed the Level 2 Planning effort which included; space programming, conceptual site and utility design, conceptual floor plans and building massing accompanied by a preliminary cost estimate. The team is currently in the early stages of Level 3 Planning for the project.

Administration publicly advertised a request for qualifications / proposals (RFQ/ RFP) for construction management services. **XXX** responses were received. Based on a review of the submitted Statements of Qualifications, **XXX** teams were invited to submit proposals and interview. Each team was scored and ranked by the Planning Team with a recommendation being provided based on; qualifications of the firm, proposed team, fee, capabilities with projects of similar scope, schedule and the team deemed to bring the highest value to the University.

With Board authorization to execute an agreement, Administration will integrate the construction manager team into the early stages the Level 3 planning for Phase 1 of the project.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve contractor selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval to execute an agreement with **XXXXXXXX** for Level 3 construction management services in the amount of **($XXX.XX)** for Phase 1 of the Student Housing and Dining project.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to execute an agreement with **XXXXXXXX** for Level 3 construction management services in the amount of **($XXX.XX)** for Phase 1 of the Student Housing and Dining project"

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Construction Manager Selection for the Ivinson Parking Garage**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
- ☐ Yes
- ☒ No

FOR FULL BOARD CONSIDERATION:
- ☒ Yes [May 14, 2020]
  [Note: If yes, materials will also be included in the full UW Board of Trustee report.]
- ☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

In the Fall of 2019 and Spring of 2020, Administration worked with the consulting firms of; By Architectural Means and Anderson Mason Dale Architects on Level 2 planning for the Ivinson Parking Garage and Police Facility project. The project will consist of the construction of a 400-stall parking structure with an integrated 10,000sf facility for the University of Wyoming Police Department.

The consultant team recently completed the Level 2 planning effort which included; space programming, conceptual site and utility design, conceptual floor plans and building massing accompanied by a preliminary cost estimate. The team is currently in the early stages of Level 3 Planning for the project.

Administration publicly advertised a request for qualifications / proposals (RFQ/ RFP) for construction management services. **XXX** responses were received. Based on a review of the submitted Statements of Qualifications, **XXX** teams were invited to submit proposals and interview. Each team was scored and ranked by the Planning Team and a recommendation has been provided based on; qualifications of the firm, proposed team, fee, capabilities with projects of similar scope, schedule and the team deemed to bring the highest value to the University.

With Board authorization to execute an agreement, Administration will integrate the construction manager team into the early stages the Level 3 planning for Phase 1 of the project.

WHY THIS ITEM IS BEFORE THE COMMITTEE:

Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve contractor selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval to execute an agreement with **XXXXXXXXXX of City, State** for Level 3 construction management services in the amount of **($XXX.XX)** for the Ivinson Parking Garage project.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to execute an agreement with **XXXXXXXX** for Level 3 construction management services in the amount of **($XXX.XX)** for the Ivinson Parking Garage project"

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Construction Manager Selection for the Wyoming Hall Demolition**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [May 14, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
In preparation for the Student Housing and Dining project, Wyoming Hall will be demolished. To remove the structure, existing utilities running through the building will need to be relocated into a new exterior utility tunnel south of the existing building. In addition, heating and cooling lines to serve the Student Housing and Dining project will be routed from the West Campus Satellite Energy Plant as they are heavily impacted by the utilities project.

The consultant team is nearing completion of the Level 3 utilities, abatement and demolition documents for the project.

Administration publicly advertised a request for proposals (RFP) for construction management services. Responses are due May 3. Each team was scored and ranked by the Planning Team with a recommendation being submitted based on; qualifications of the firm, proposed team, fee, capabilities with projects of similar scope, schedule and the team deemed to bring the highest value to the University.

With Board authorization to execute an agreement, Administration will integrate the construction manager team into the Level 3 planning for Phase 1 of the project.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve contractor selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval to execute an agreement with Haselden Wyoming Constructors of Laramie, WY for construction management services for the Wyoming Hall Demolition project.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to execute an agreement with Haselden Wyoming Constructors of Laramie, WY for construction management services in the amount of Four Hundred Eight Thousand Six Hundred Fifty-Four dollars ($408,654.00) for the Wyoming Hall Demolition and Utilities Relocation project".

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Construction Manager Selection for the Bus Maintenance Facility**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [May 14, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
Administration continues working toward relocating Fleet and Transit Services from the Service Building to 2102 South 15th Street. The Bus Maintenance Facility is planned to be located and constructed on the site. The Bus Maintenance Facility will replace the bus service and repair area currently located in the lower level of the Service Building.

The consultant team is nearing completion of the Level 3 construction documents for the project.

Administration publicly advertised a request for proposals (RFP) for construction management services. Responses will be received on May 5. Each team will be scored and ranked by the Planning Team with a recommendation being submitted based on; qualifications of the firm, proposed team, fee, capabilities with projects of similar scope, schedule and the team deemed to bring the highest value to the University.

With Board authorization to execute an agreement, Administration will integrate the construction manager team into the Level 3 planning for the project.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve contractor selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval to execute an agreement with **XXXXXXXX** for Level 3 construction management services in the amount of **($XXX.XX)** for the Bus Maintenance Facility project.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to execute an agreement with **XXXXXXXX** for Level 3 construction management services in the amount of **($XXX.XX)** for the Bus Maintenance Facility project."

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Design Consultant Contract Amendment, Law School Expansion and Renovation**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
- ☐ Yes
- ☒ No

FOR FULL BOARD CONSIDERATION:
- ☒ Yes [May 14, 2020]
  [Note: If yes, materials will also be included in the full UW Board of Trustee report.]
- ☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:

In Fall of 2019, Administration worked with the College of Law and design consultants led by By Architectural Means of Cheyenne, WY to complete a program plan and conceptual design for the renovation and expansion of the College of Law building. The project participated in the EDAC process and secured approval from the Board for the exterior design of the building. At that time, the project was placed on hold awaiting funding. While private fundraising efforts are ongoing, the State did not pass a construction bill in the latest session eliminating the required matching funds in the near future.

The remaining design and documentation phases will take approximately 6-months to complete. The College of Law has requested permission to complete the design and construction documentation phases for the project to be ready for construction when all funds are secured. Design fees are to be paid from the private funds secured for the project. Bidding and construction phases shall not proceed prior to Board approval.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(A), the Board of Trustees shall approve consultant selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval for Administration to proceed with the design and documentation phase and execute an amendment with By Architectural means for design and construction services.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to proceed with design phase services for the College of Law expansion and renovation and to execute a contract amendment with By Architectural Means in the amount of One Million One Hundred Seventy-Three Thousand Seventy-Five dollars ($1,173,075.00) for the design and construction phases of the project, bringing the total design contract to One Million Three Hundred Eighty-Seven Thousand Five Hundred Fifteen dollars ($1,387,515.00)".

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Design Consultant Selection for War Memorial West Stand Renovation and Natatorium**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [May 14, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
Administration publicly advertised a request for qualifications (RFQ) for design services for the War Memorial West Stand renovation and natatorium. Three responses to the request were received. The responses were scored and a recommendation has been provided based on; qualifications of the firm, proposed consultant team, fee, capabilities with projects of similar scope and the team deemed to bring the highest value to the University.

Administration seeks approval to begin contract negotiations with the highest-ranked firm, with the understanding that the contract and related fee will be brought before to the Board of Trustees for approval prior to execution.

Upon Board of Trustees approval, negotiations will begin with architectural consulting team Arete Design Group of Sheridan, Wyoming in consultation with Tobin and Associates of Cheyenne, Wyoming and Perkins and Will of Denver, Colorado.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(A), the Board of Trustees shall approve consultant selection for projects over $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Committee approval to enter into contract negotiations with Arete Design Group.

PROPOSED MOTION:
"I move to recommend to the full Board to allow Administration to enter into contract negotiations with Arete Design Group."

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **West Campus Satellite Energy Plant Change Order**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
☐ Yes
☒ No

FOR FULL BOARD CONSIDERATION:
☒ Yes [May 14, 2020]
[Note: If yes, materials will also be included in the full UW Board of Trustee report.]
☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
Pursuant to UW Regulation 6-9(III)(G), Administration is requesting Board approval to execute a change order with GE Johnson Construction of Wyoming (GEJCW) for the West Campus Satellite Energy plant project. The change order has two parts to accommodate future growth in heating and cooling loads:

1. Electrical and controls rough-in for boiler integration. The not-to-exceed total is $33,924.00.
2. Shifting the hot and chilled water distribution piping further west in Bradley Street for a more direct installation to the Science Initiative building, which also allows for future expansion to the south (Bureau of Mines). The not-to-exceed total is $48,373.00.

The boiler integration was not included in the base bid as the boiler manufacturer was unknown. The manufacturers are now fully vetted. The distribution piping change reduces utilities in a primary corridor, in this case 10th Street.

If approved, this change will increase GE Johnson Construction of Wyoming's contract by $82,297.00. Administration recommends utilizing Owner's Contingency to compensate GEJCW for the change; the balance before this change is $3,687,865.00 and the remaining balance will be $3,605,568.00, if approved.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
Pursuant to UW Regulation 6-9(III)(G), the Board of Trustees shall approve all change orders greater than $50,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
Board approval of a change order to GE Johnson Construction of Wyoming in the amount of $82,297.00

PROPOSED MOTION:
"I move to recommend to the full Board to authorize Administration to execute a change order with GE Johnson Construction Company of Wyoming in the amount of $82,297.00."

HILL-CRANE DINING FACILITY

University of Wyoming
Military and Aerospace Studies Renovation

Level I Reconnaissance Study

University of Wyoming
Planning and Construction

April, 2020

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APPENDICES

APPENDIX 'A' — UW Historic Preservation Plan – Crane-Hill Complex

APPENDIX 'B' — Crane-Hill Facility Assessment

APPENDIX 'C' — Hill Hall Hazardous Materials Report

EXECUTIVE SUMMARY

Following the process defined in UW Regulation 6-9, this Level I Reconnaissance Study completes an initial investigation of the space needs of the Military and Aerospace Studies programs. The study includes a definition of the space program, existing facility assessment, conceptual floor plans and a preliminary cost estimate.

While the recent relocation of Army and Airforce ROTC to Hill Hall to accommodate the deconstruction of Wyoming Hall provides office, meeting and storage space, the configuration of Hill Hall does not lend itself to accommodating other programmatic requirements. Both the Army and Air Force ROTC programs have needs for large classroom, storage, physical training, firing range, and indoor drill floor space.

ROTC has recently been allocated space in the Crane-Hill Dining facility as a potential location to accommodate these needs. The dining hall serves ROTC's need for a large indoor space for drill practice and physical fitness training in the winter months. The adjacent spaces provide sufficient space to accommodate current training and classroom needs while providing the potential for expansion in the future.

The facility is currently underutilized due to its large dining hall and commercial kitchen spaces. The facility as a whole, while in fairly good condition, requires system updates to be considered as a potential for reuse.

A permanent plan is needed to support the long-term strength, stability and growth of the Army and Air Force ROTC departments to continue the 127-year legacy of excellence in military training at the University of Wyoming. An identity on campus and a state-of-the-art Military Science and Aerospace Studies program would enable the program to remain a premier ROTC training program in the Rocky Mountain region.

PLANNING CONTEXT

UW Regulation 6-9

All construction projects at the University of Wyoming shall follow UW Regulation 6-9. For purposes of this policy, Capital construction projects include new construction in any amount and renovations, major maintenance or other capital construction projects in excess of $500,000.

For capital construction projects, the Planning and Construction Office will prepare the Level I Reconnaissance Study. The Planning and Construction office shall work with the Planning Team (which shall consist solely of university employees and appropriate stakeholders) to develop the study.

The Division of Administration shall ensure that stakeholders working with the Planning Team include a variety of constituencies including policymakers and at least one member of the Board of Trustees. The Vice President for Finance and Administration shall advise the Board of Trustees of the membership of the Planning Team and the stakeholders identified to work with the consultant prior to the Planning and Construction office commencing work.

The Level I Reconnaissance Study shall include all information required by Wyoming law (W.S. 9-5-108).

Level I Reconnaissance Study

Pursuant to Wyoming Statute W.S. 9-5-108, state-funded capital construction projects require three levels of reports. The initial report, a Level I Reconnaissance Study shall to the extent possible:

- Describe the project
- Identify the need for the project
- In cooperation with appropriate local, county and state agencies, assess the status of proposed site ownerships including existing conflicts and recommendations for resolution and identify other potential obstacles
- Assess and describe local, state and federal permits required for construction
- Assess environmental considerations and constraints
- Identify legal constraints to development
- Identify alternate sources of space to purchase and lease
- Summarize public testimony received at meetings held by the commission in the county of the proposed construction
- Contain the commission's recommendation to the legislature to continue the project at its current level of study, or to proceed with further activity under paragraph (ii), (iii) or (iv) of this subsection.

Upon completion of the Level I Reconnaissance Study the Vice President for Finance and Administration shall review and may direct further work or modifications to the Document. After review and approval, the document is then submitted to the Facilities Contracting Committeee.

UW Strategic Plan

Proposed capital construction projects shall address the way in which the project relates and contributes to the University of Wyoming's Strategic Plan. The project aims to contribute to each category in the following ways:

DRIVING EXCELLENCE

This initiative will improve the Cowboy Battalion, Detachment 940 and UW's reputation and relevance in the region and across the country. As well as enhance the recruiting and marketing efforts of both the university and the Army and Air Force ROTC programs.

INSPIRING STUDENTS

This initiative will enhance relationships with high school Army and Air Force JROTC programs in Wyoming, Colorado, Montana, Nebraska, and Texas by providing a facility that demonstrates our commitment to excellence. The facility will be used to host UW's third largest annual recruiting event dedicated for JROTC programs in the region.

A new, dedicated facility will assist in the development of competitive ROTC athletic teams. Providing cadets with a suitable training facility will provide a tremendous source of pride and sense of community for the Army and Air Force ROTC Cadets, alumni, and greater University community. The project will also provide opportunities for students to study the profession of arms and develop the technical, critical thinking, and leadership skills required to succeed.

IMPACTING COMMUNITIES

This initiative will connect distinguished ROTC alumni and veterans to regional and national communities. The training and educations cadets receive in the program prepares cadets to be service members and provides educational opportunities for those whom have served.

HIGH PERFORMING UNIVERSITY

This initiative will strengthen UW's marketing efforts by providing a modern facility for the Military Science and Aero Space Studies Departments as well as aiding in the recruitment of Army and Air Force ROTC students.

Campus Master Plan (In progress)

The University of Wyoming Campus Master Plan provides long-term direction for planning and development on campus. While the master plan is not prescriptive it does identify the Crane-Hill complex as an area of revitalization, placing the program in this location helps achieve the goal of activating and connecting Central Campus.

Regulatory Context

All University facilities are designed to meet the requirements of the International Code Council as adopted by the City of Laramie and State of Wyoming including; building, fire, mechanical, plumbing and electrical. In addition to building codes the University Planning and Construction office will provide the University of Wyoming Design Guidelines and Construction Standards to consultants and contractors performing any work on the project.

The City of Laramie is a home rule community as defined by Wyoming Statute, with exception of the electrical and life safety systems. The Wyoming State Fire Marshal is required to review and approve all state-owned and funded projects for construction. Thus, the University capital construction projects are reviewed and approved by both the State Fire Marshal and the City of Laramie.

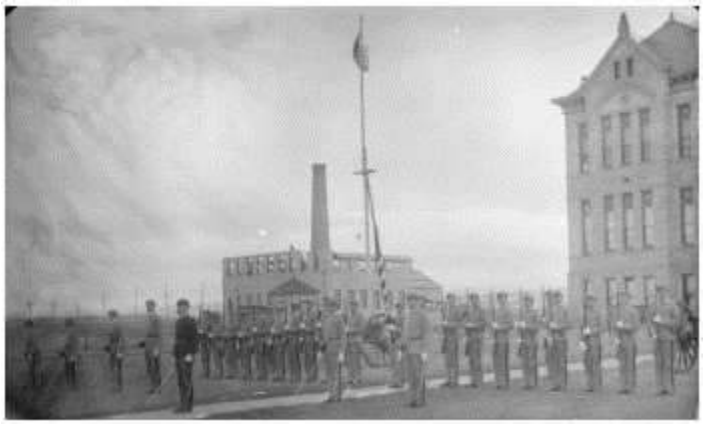
All utility improvements involving fluids such as effluent and potable water systems will be required to meet the requirements of the Water Quality Division of the Department of Environmental Quality. Depending on the extent of the site disturbance, the Land Quality and Air Quality Division of the Department of Environmental Quality may be involved. The City of Laramie has design standards for all utilities that must be incorporated into the final design of any utility including fire-fighting capacities.

Property Ownership/ Legal Constraints

The Crane-Hill complex is owned by the University of Wyoming. The property, as is all of campus, is zoned by the City of Laramie as high-density residential or R-3. University projects reviewed by the City are required to apply for a Conditional Use Permit. Major renovations resulting in a change of occupancy are required to apply for the permit.

MILITARY AND AEROSPACE STUDIES

Military training at the University of Wyoming was instituted in 1891 one year after Wyoming was admitted to the Union as a state. The First Morrill Act of 1862 required land grant universities to provide military training to all able-bodied male students. The first commanding officer of the Military Science Department, First Lieutenant D.L. Howel of the Seventh Infantry, organized the 55 able-bodied, male, UW students into a battalion of two companies. For the first year there were no rifles and training consisted of marching and foot drills. In 1892, however, (2) 3-inch muzzle loading field pieces were received, along with Springfield rifles and training became realistic.



The third Professor of Military Science, Captain Charles A. Varnum (1895-1898), had been a Second Lieutenant of the Seventh Cavalry in 1876 and was in charge of Crow and Arickaree Indian scouts under the command of Major Reno and General Custer at the Battle of Little Big Horn. For his actions during the battle, Captain Varnum was awarded the Congressional Medal of Honor.

In 1902 able-bodied female UW students were added to the military training program with two all-female companies being formed. The female cadets participated in regular drills with male military students.

Wyoming Cadets first saw military action during World War I. Twenty students volunteered, three of whom obtained commissions while six served as non-commissioned officers. While deployed to France during the war, the 148th Field Artillery Battalion of the Wyoming Army National Guard developed the now famous bucking bronco symbol used on the Wyoming license plate. It is also the origin of the iconic “Steamboat” used to represent the University of Wyoming and prominently featured on the Cowboy Battalion patch.

In 1916, the National Defense Act created the Reserve Officers Training Corps (ROTC). The University of Wyoming applied for a unit and the request was approved on October 31, 1916. Wyoming became one of the first seven universities in the nation to install an ROTC unit.

In 1923, the Military Science Department celebrated the laying of the cornerstone for Half Acre Gym and in 1925 the gym was completed. Half Acre Gym included administrative offices, an indoor rifle range, space for physical training, classroom instruction and military drill.

Half Acre would be the home of the Military Science Department for the next 58 years. In 1947, the Army Air Corp became the United States Air Force and in July, 1952 an Air Force ROTC Detachment was created at UW under Air Force Lieutenant Colonel Thompson. Since then UW has maintained a proud legacy of providing men and women the opportunity to become officers while completing a college degree.

The Army and Air Force ROTC cadet corps' continued to expand until the 1965-66 school year. At that time the University Board of Trustees approved Army and Air Force ROTC as elective programs. In 1972, females were allowed to participate in Army ROTC in pursuit of a commission as a 2nd Lieutenant. During the 1976-77 school year the cadet corps was commanded by its first female cadet battalion commander.

In 1983, the Military Science and Aerospace Studies Departments' administrative offices were moved to Wyoming Hall where they remained until their recent relocation to Hill Hall. The rifle range and the supply room continued to operate out of Half Acre until 2009 when the remodel of Half Acre Gym began.

Throughout the years several notable alumni have graduated from Wyoming Army and Air Force ROTC including; General Officers, politicians, Ambassadors, and other prominent political appointees.

GEN Schoomaker
Class of *69

Hon Dickman
Class of *47

Hon Brownlee
Class of *68

Sen Simpson
Class of *54

Maj Gen Pamerlau
Class of *68

Indicative of the quality of the program, the United States Army named the Cowboy Battalion the "Most Outstanding Unit in the Country for 2001" and awarded the Order of the Founders and Patriots of America Award. In 2014, the Cowboy Battalion was presented the Cochise Award and named the best small unit in the country. The program was selected over 270 other ROTC units nationwide.

Today the Air Force program is administered by six faculty and staff members, supporting a student population ranging from 70-100 students. The Army program is administered by fourteen faculty and staff members who support a student population ranging from 100-130 students. The UW ROTC program offers minors in Military Science and Aerospace Studies

The Cowboy Battalion and Air Force Detachment 940 continue to be premier leadership training programs, providing valuable training for the future leaders of our Army, Air Force and civilian communities. The Military Science and Aerospace Studies Departments are proud of the long and distinguished record in serving the needs of our state and nation. The program honors proud traditions and continues to commission servant leaders of character to serve our Army and Air Force.

PROJECT DESCRIPTION

Statement of Need

Since the relocation from Half Acre Gymnasium, the ROTC program has not had permanent space on campus dedicated to its programmatic requirements. This proposal requests additional space for the Army and Air Force ROTC Departments that will enable the program to achieve items outlined in the DA Form 918 contract signed by the Commanding General of Cadet Command and the University of Wyoming President in 2018. Both the Army and Air Force ROTC programs have office, classroom, storage, physical training and unique space requirements for their respective departments which they are currently lacking. Additional storage space is also needed to house supplies currently located off-site at the Armory.

Project Goals/ Guidelines

A set of project goals and guidelines have been developed to guide the project. Goals are referenced and evaluated in each phase of project development.

GOAL 1

Premier Army/ Air Force ROTC Program in the Region: This means that our reputation for high standards of excellence are well known throughout the Rocky Mountain Region. The Cowboy Battalion and Detachment 940 are destination programs for young people in the pursuit of the best military education. The end goal is to create sustainable programs that recruit the best candidates, retain quality students and routinely commission a minimum of thirty Army 2nd Lieutenants and twenty Air Force 2nd Lieutenants per year.

GOAL 2

Growth: To achieve an annual commission goal of 20 and 30 for Airforce and Army respectively, the combined program size would need to see increases from 180 to 300 students. To meet this goal the Military Science and Aero Space Studies Department will require a training facility tailored to supporting the unique requirements of the program.

GOAL 3

Honor our legacy of military excellence since 1891: The University of Wyoming has a 127-year legacy of military training on campus. Alumni of Army ROTC have fought in every major U.S. engagement since WWI and Air Force alumni have fought in every major engagement since Korea. As a land grant university, we are deeply rooted in the military tradition. In the Field House there exists a monument to Wyoming's WWII veterans that has not been open to the public for 20 years. It is our desire to honor the military legacy of this university by placing these items on display in a Military Science and Aero Space Studies facility dedicated to honoring this legacy.

Space Planning

A description of the types and qualities of the required spaces have been provided below. This information is utilized to inform sizing individual spaces according to the University's Space Utilization Standards.

Computer Lab

A 10-15 seat multipurpose computer lab is needed. Labs currently have a high rate of utilization. This would be a dual-purpose space for student use for school related studies and cadet staff work planning.

Honor and Legacy

Army and Air Force have obtained historical artifacts, documents, and awards that are currently scattered throughout the existing facility and other facilities within the university. Last year, an important piece of art honoring our proud 127-year legacy of military training on campus was given to the University through the donation of a $30,000 portrait of our most distinguished military alumni and 35th Chief of Staff of the Army, General Peter J. Schoomaker. A museum-quality display installation is needed to create a central location for these important and historic items.

Equipment Storage

Storage is required for field equipment, uniform storage/check-out and supply techs. Army's physical fitness equipment is temporarily shared within Athletics space. Shared athletic storage is limited and insufficient for accreditation requirements. Army's field equipment and additional clothing supply is currently stored off-site at the Armory and may need to be relocated.

Conference Room

This room is conceived as a shared facility that is furnished with a flexible and/or modular conference table that can be arranged to the demands of various conference, seminar or educational activities. Campus standard conference room audio-visual capabilities are required.

Classrooms

Army and Air Force collectively offer 15 of courses each semester and teach a total of 36 classes per week. Army and Air Force ROTC prefer separate classrooms for each program, if space permits. Classrooms should have moveable table and chairs, an instructor computer, projector, proper lighting and wireless access. Each class should have the ability to seat students in an active learning layout.

The classrooms must have the basic technology and technology support established by Classroom Technology Services with the ability to migrate as future technology advances.

Physical Training

Army and Air Force ROTC has recently purchased exercise equipment including free weights, squat racks, and cardio machines. The space will allow Army and Air Force to conduct PT without interrupting occupants in other facilities. It will also provide free weight based full-body development and health maintenance. The finishes in the room should be evaluated for maximum use as an exercise space including the proper floor and flooring

system. Finishes should include mirrored walls, resilient floor systems and in-room storage of mobile exercise equipment.

Drill Hall

Army and Air Force currently share existing facilities with Athletics at the indoor practice facility. Both ROTCs are unable to keep a consistent time and location of PT and exercise regimens due to the seasonal facility demands. Army and Air Force ROTC currently occupy half of the IPF 5 days a week from 5:45am-7:00am. Currently, 80% of all PT is held indoors. PT is held during the Spring and Fall semesters. A large facility can have alternative uses for Army and Air Force, in regards to large group training sessions (non-physical), awards ceremonies and joint military functions.

Virtual Firing Range

The existing firing range has been decommissioned by the University due to a lack of funding for continued maintenance and less than optimal environmental conditions. The age of the facility and the changes in regulations related to the range have also lead to its closure. Adequate space for a virtual firing range is needed to replace this programmatic element.

Locker Rooms

Access to locker rooms is highly desired. Lockers would be beneficial in allowing faculty and cadets a consolidated location to shower immediately following physical training in the morning. Cadets who have 8am class would benefit greatly from having shower facilities on site. For faculty, having locker room facilities available following PT would negate the need to leave the building. Private/single-stall showers and dressing areas are highly desirable. Equity in the availability of lockers, restroom and shower facilities are also important.

Drill Hall Storage

Building storage is needed to accommodate physical training equipment such as pull-up bars, cones, medicine balls, and Army Combat Fitness Test equipment.

Custodial

Custodial closets accessible within the facility are necessary to permit reasonable daily maintenance and access to proper equipment used by staff.

PROGRAM AND PHASING PLANS

Program Plan

Upon identification of programmatic needs, room sizes are estimated using the University Space Management Utilization Standards. Resulting spaces are compared with the University's available space resources in an effort to identify potential space solutions. Various buildings may be assessed for feasibility of accommodating the required space necessary to support unit programs. The unit space estimate reports are utilized as a basis for Level 2 Planning. The areas below represent the net assignable area for each program space.

PHASE 2 PROGRAM PLAN

Training Rooms	Net Area (sf)
Virtual Firing Range	700
Physical Training	1,600

Classrooms	
Classroom 1	750
Classroom 2	950
Seminar/ Conference Room	350
Computer Lab	450

Locker Rooms	
Men	650
Women	650

General	
Drill Hall Storage	200

Subtotal	6,300
Efficiency Factor (70%)	1,890

Total Program Area (sf)	**8,190**

The program spaces above are sized based on net assignable square feet. An efficiency factor is added to the net assignable area to account for space such as; wall thicknesses, corridors/ lobbies, mechanical chases and custodial/utility closets.

Space will be assigned in the basement of the dining facility once items are inventoried and the required space is coordinated with Facilities Engineering.

This program plan is referenced to investigate available space on campus that would accommodate the programmatic needs. Potential locations are identified and preliminary floor plan test-fits are performed to investigate the facility's ability to accommodate program spaces and initial facility assessments are performed to understand building system limitations.

FACILITIES PLAN

The proposed location for the project is the Crane-Hill Dining Facility located on Central Campus. The areas identified in this plan have recently been assigned as permanent space for the ROTC program. The program was recently relocated to Hill Hall which provides immediate access to the proposed facility.

Alternatives

The requirements for a large indoor space with high ceilings for drill practice severely limit the possibilities for alternative space. Facilities large enough to accommodate the program would be located off-campus.

Crane-Hill Dining Hall

The Crane-Hill complex was designed by architects Corbett & Dehnert of Lander, in partnership with J. T. Banner of Laramie. The complex contains the first large-scale buildings other than War Memorial Stadium and Memorial Fieldhouse to be constructed east of main campus. Completed in 1962, the buildings originally served as men's dormitories. The full analysis of the Crane-Hill Complex included in UW Historic Preservation Plan has been attached as Appendix 'A'.

South façade of the Dining Hall (left)

Stone detail on stair towers (center)

North wing of Crane Hall (above)

The three buildings that form the Crane-Hill complex are good examples of the International Style of architecture. Unlike the University's adjacent high-rise dorms, the Crane-Hill complex successfully integrates the University of Wyoming sandstone into a period architectural style.

While the kitchen served as UW's Catering Center until the completion of the UW Conference Center expansion, the dining hall has not been utilized due to the large open space that would be difficult to divide for other uses.

Environmental Impact Assessment

- Preserving and renovating the facility requires fewer resources than new construction
- Replacement of outdated mechanical equipment would result in lower operations and facility maintenance costs.
- Abatement of hazardous materials will provide a safer environment and reduce limitations on building flexibility in the future.

Facility Assessment

The Crane-Hill Dining Hall is overall in good condition. A full facility assessment was performed in March of 2019 (Appendix 'B').

Notable items from the assessment report include:

- Crane-Hill complex was identified as being in the best overall condition for repurposing
- Structurally the buildings are in good condition with limited cracking/spalling
- Exterior envelope is inefficient due to the light construction of the curtain wall framing system
- Roof drains for the sawtooth roof may be inadequately sized and should be verified
- All major mechanical equipment exceeds expected lifespans and should be replaced
- Asbestos is present in both pipe insulation and flooring

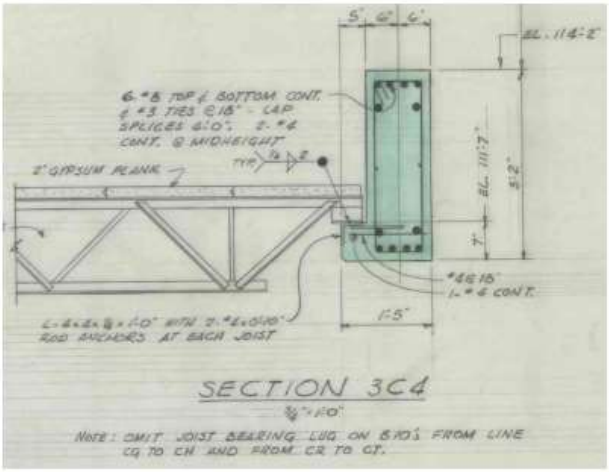
A hazardous materials report (Appendix 'C') was commissioned for the Hill Hall Renovation project in the summer of 2019. The report noted the following materials contained asbestos levels higher than permitted by the Wyoming Department of Environmental Quality:

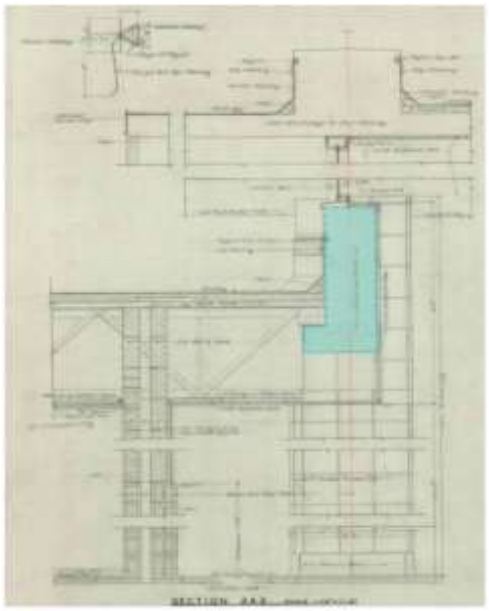
- Floor tile
- Drywall texture
- Pipe insulation
- Rubber base

Light fixtures and thermostats are also subject to hazardous materials and would likely need to be removed and disposed of by a licensed contractor.

Structural

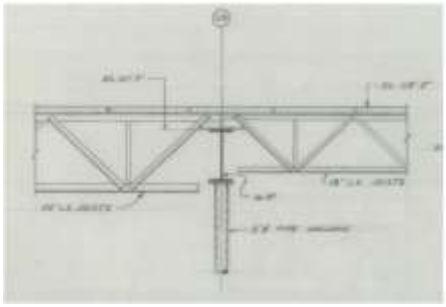
A review of the building's structural system was performed to identify the various load bearing conditions. The three-primary top-of-wall beam conditions are attached as Appendix 'X'

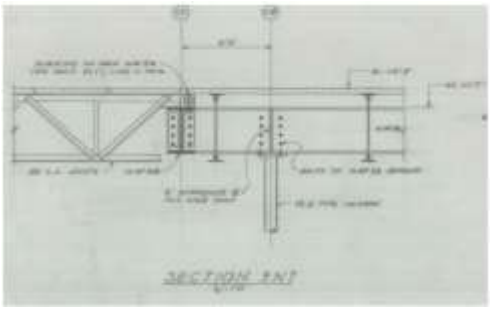




Structural and architectural details showing the roof beam condition between the dining hall and the kitchen.

The structural system between the dining hall and the kitchen provides an opportunity to create large penetrations into the Physical Training room. The partition walls throughout the proposed area of renovation are of masonry construction. While more-difficult and costly to remove, it does not appear that the majority of these walls are load-bearing.





The wall currently separating the dishwashing room and the corridor to the north (upper left), contains the main east/west structural beam for the kitchen. It carries bar joists spanning north to the exterior wall and south to the dining wall discussed previously. It is recommended to plan around this wall if possible to avoid columns and minimize penetrations.

A beam running north/south extends from the north exterior wall and ties into a column located in the same wall discussed above. This beam carries bar joist spanning east/west, bearing on the east exterior wall. This beam has no intermittent columns.

The existing floor is a 4", reinforced, elevated concrete slab. The original use of the space as a commercial kitchen created a large number of penetrations in the slab. A structural engineer will examine the penetrations during demolition and provide direction on the potential for reuse, acceptable core locations and reinforcement requirements.

Skylights and existing roof penetrations from the existing kitchen equipment will require roof repair. Proposals to place mechanical equipment on the existing structure will require a full analysis.

Plumbing

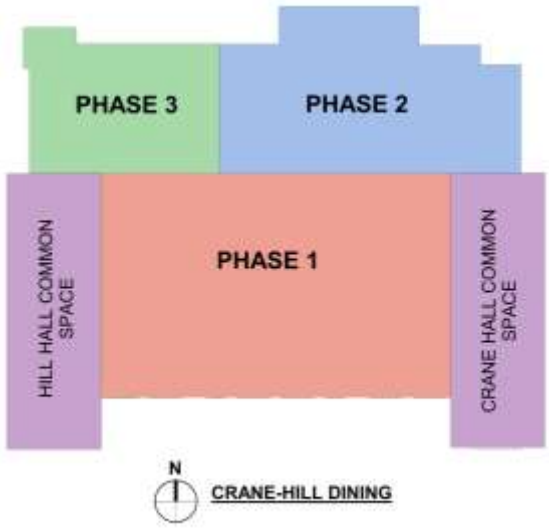
A preliminary code analysis was performed to analyze the existing and proposed plumbing fixture counts in the building. For the proposed mixed-use of the space, the International Building Code classifies the space as an A-3 mixed with a B occupancy. Using this classification, the analysis showed that the facility is currently deficient; 10 toilets, 2 sinks and one drinking fountain.

Major Maintenance Items

Currently UW Operations is working to abate the popcorn ceilings located within the dining hall. Included in this project will be the replacement of the existing light fixtures with LED fixtures. Beyond this work, the Hill-Crane Dining Facility is not on a current list of major maintenance priorities. Improvements required for the project include but are not limited to;

- Kitchen Equipment Removal/Salvage
- Roofs and Drainage
- Mechanical Equipment
- Electrical/ lighting upgrades
- Air Handling Equipment
- Base Board Heat/ Boilers
- Additional Abatement

PHASING PLAN



Phasing Plan

PHASE 1

Phase 1 of the project is underway. A current UW Operations project is abating and refinishing the sawtooth ceiling in the dining hall. The project will also involve replacement of existing lighting with LED fixtures. A synthetic turf or rubberized flooring system adhering to ROTC's national drill floor requirements is proposed for the dining hall to accommodate practice and performance needs.

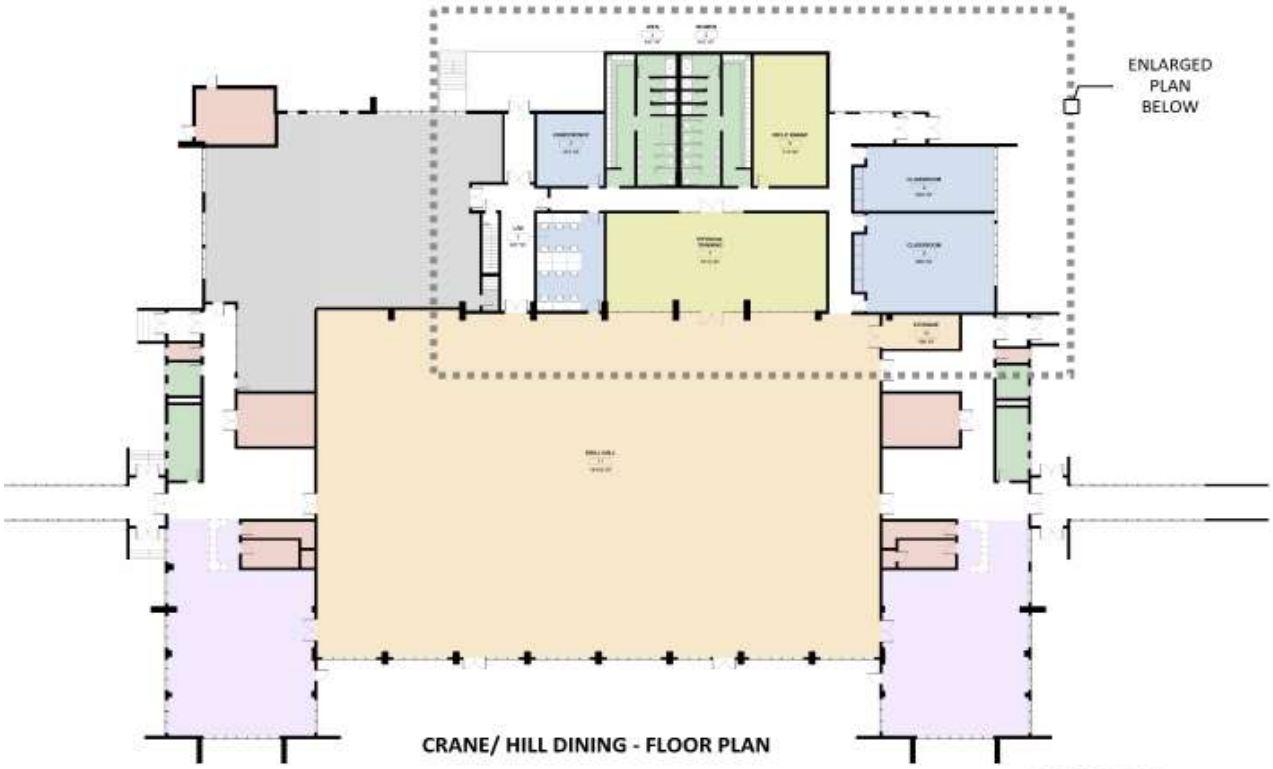
PHASE 2

Phase 2 of the project is the basis of this study which includes the renovation of approximately 8,200sf of existing commercial kitchen space and storage space in the basement. As an interior renovation project there are minor modifications to the exterior. A new exterior entry located on the northeast corner of the building is envisioned to accommodate egress requirements. The basement will be partitioned to provide storage space. Participation in the UW's Exterior Design Advisory Committee is not anticipated. As a historic facility, care will be taken to preserve important historic building elements. Photo documentation will be performed prior to the demolition of building elements. Original building placards will be preserved and reinstalled in the facility should relocation be necessary.

PHASE 3

The northwest portion of the building currently houses UW Vending Services who utilize this space for walk-in coolers and loading dock capabilities. Should future plans for the University allow Vending Services to be accommodated in another space, ROTC would place a Space Request for additional program space and flexibility for future growth.

CONCEPTUAL PLAN / FACILITY TEST-FIT



CRANE/ HILL DINING - FLOOR PLAN

ENLARGED PLAN

PRELIMINARY COST ESTIMATE

A preliminary cost estimate has been prepared based on the proposed scope of work for interior improvements proposed by ROTC with a second estimate providing a preliminary estimate of major maintenance expenses. A summary of the tenant finish estimate has been provided below:

PRELIMINARY COST ESTIMATE - TENANT FINISH
Project: Crane-Hill Dining_ROTC Renovation
Date: April 7, 2020
Prepared By: UW Planning and Construction

Preliminary Construction Budgeting		
Square Footage	$/SF	Construction Cost
8,200	$200.00	$1,640,000.00

CONSTRUCTION COSTS

BUILDING COMPONENTS		Comments
Renovation of existing kitchen area (8,200 sf)	$1,640,000.00	
Rubberized Flooring System in Dining Hall (14,500sf)	$137,750.00	$7.50/sf flooring and $2/sf demo./prep.
Display Cases and Environmental Graphics	$50,000.00	Allowance

TOTAL CONSTRUCTION COST	$1,827,750.00

ADMINISTRATIVE EXPENSES

CONSULTANT FEES		Comments
Design and Professional Services (10%)	$182,775.00	
Industrial Hygienist		Major maintenance
Commissioning Agent	$7,500.00	
Display Case/ Environmental Graphics Consultant	$10,000.00	
Consultant Reimbursables	$6,000.00	
IT EQUIPMENT		
Information Technology/ Equipment (4%)	$73,110.00	
Security Equipment	$5,000.00	
FURNISHINGS AND EQUIPMENT		
FFE and Interior Design (4%)	$73,110.00	No specialty equipment included
Custodial Equipment	$3,000.00	Verify with custodial
FEES/ ADVERTISEMENTS		
City Building Permit Fee	$8,630.95	
City Plan Review Fee	$5,550.09	
State Fire Marshall Review Fee	$5,886.05	
Advertisements	$1,500.00	
SERVICES		
Operations/ IT Project Support	$10,000.00	
ADMINSTRATION		
Abatement		Major maintenance
Moving Expenses (.25%)	$4,569.38	
Postage, Copier, Shipping, Info. Tech.	$200.00	
CONTINGENCIES		
Design/Construction Contingency (15%)	$274,162.50	

TOTAL ADMINISTRATION	$670,993.97

TOTAL COSTS

		Comments
Total Construction Cost	$1,827,750.00	
Total Administrative Expense	$670,993.97	

TOTAL PROJECT COST	$2,498,743.97

UW Operations staff performed a review of the facility assessment reports (Appendix 'B'), a current facility inspection and developed preliminary budget numbers for the improvements. A summary of the estimate is provided below.

PRELIMINARY COST ESTIMATE - MAJOR MAINTENANCE
Project: Crane-Hill Dining_ROTC Renovation
Date: April 7, 2020
Prepared By: UW Planning and Construction

CONSTRUCTION COSTS

BASEMENT

Abate basement and tunnels	$90,000.00	
Hot water system	$135,000.00	
Basement electrical room	$74,750.00	
Replace H&V unit	$112,500.00	

EXTERIOR

Replace the 'E' 15KV switch and conductors	$72,000.00	
Replace building transformer	$135,000.00	
Concrete and stone repair	$90,000.00	

INTERIOR		
Rebuild two AHU's service common spaces	$292,500.00	
Dining Hall Lighting	$135,000.00	In progress
Sawtooth ceiling abatement	$450,000.00	In progress
Painting	$180,000.00	In progress
New electrical sub-panels	$112,500.00	

TOTAL CONSTRUCTION COST	**$1,879,250.00**

ADMINISTRATIVE EXPENSES

CONSULTANT FEES		**Comments**
Design and Professional Services (10%)	$187,925.00	
Industrial Hygienist	$7,500.00	
Commissioning Agent	$5,000.00	
Consultant Reimbursables	$1,000.00	

FEES/ ADVERTISEMENTS

City Building Permit Fee	$8,820.75	
City Plan Review Fee	$5,669.69	
State Fire Marshall Review Fee	$6,015.53	
Advertisements	$1,500.00	

SERVICES

Operations/ IT Project Support	$10,000.00	

ADMINSTRATION

Abatement		Major maintenance
Moving Expenses (.25%)	$4,698.13	
Postage, Copier, Shipping, Info. Tech.	$200.00	

CONTINGENCIES

Design/Construction Contingency (15%)	$281,887.50	

TOTAL ADMINISTRATION	**$520,216.60**

TOTAL COSTS

		Comments
Total Construction Cost	$1,879,250.00	
Total Administrative Expense	$520,216.60	

TOTAL MAJOR MAINTENANCE COST	**$2,399,466.60**

PRELIMINARY COST ESTIMATE - TOTAL COSTS
Project: Crane-Hill Dining_ROTC Renovation
Date: April 7, 2020
Prepared By: UW Planning and Construction

CONSTRUCTION COSTS		
ROTC Tenant Finish		**Comments**
Construction Hard Costs	$1,827,750.00	
Administrative/Soft Costs	$670,993.97	
Major Maintenance		
Construction Hard Costs	$1,879,250.00	
Replace building transformer	$520,216.60	
TOTAL CONSTRUCTION COST	**$4,898,210.56**	

Preliminary Cost Estimate Notes

While care has been taken in developing the preliminary estimate, building renovations often uncover unforeseen conditions. A number of items have been identified for consideration:

.

- The ROTC tenant finish portion of the project cannot happen until key major maintenance items are addressed.
- Of the major maintenance estimate, $850,000 represents work currently in progress within the Dining Hall as noted in the Comments column of the estimate.
- A large number of slab penetrations from the original kitchen utilities will need to be examined once the utilities are removed. These may need to be worked around, or reinforced. The preliminary estimate assumes minimal structural modifications.
- Building envelope improvements, beyond installing a door on the northeast corner of the building to accommodate additional egress requirements, are not included.
- The estimate includes typical furniture and furnishings such as; conference tables, chairs, marker boards, lockers and desks. It does not include specialty furnishings for the Virtual Rifle Range, Training Room or specialty classroom equipment. Associated costs for these items would be the responsibility of ROTC.
- UW Operations is currently performing abatement and refinishing the ceiling and replacing light fixtures in the Drill Hall. Additional improvements beyond the rubberized floor and display cases is not anticipated in this phase.
- Cost escalation has been accounted for through the end of 2020. Extension of bidding schedules will require the estimate to be updated according to market trends.

SCHEDULE

Planning Schedule

This Level 1 Reconnaissance Study completes the initial planning process documenting; needs, feasibility study, facility assessment requirements and space analysis. Upon approval by Administration, Facilities Contracting Committee, Board of Trustees and confirmation of secured funding, the Planning and Construction Office will proceed to Level 2 planning.

For overall project planning, the following durations should be anticipated:

Level 2 Planning: 2 months

Level 3 Design and Documentation: 4 months

Level 3 Construction: 6-9 months

APPENDICES

APPENDIX 'A'

UW Historic Preservation Plan – Crane-Hill Complex

APPENDIX 'B'

Facility Assessment

APPENDIX 'C'

Hill Hall Hazardous Materials Report

7.5 - RESIDENTIAL COMPLEXES

CRANE AND HILL HALLS

Year Completed **1962**

Crane and Hill Halls were constructed as men's dormitories as part of the University growth and expansion in the late 1950s and early 1960s. Modern buildings designed in the International Style, the twin structures none-the-less reflect the character of University buildings through their use of sandstone and complementary colors.

Historical Development

Crane and Hill Halls were the first large-scale buildings other than the stadium and fieldhouse to be constructed east of the main historic campus. Completed in 1962, the buildings served as men's dormitories and were designed by architects Corbett & Dehnert of Lander in partnership with J. T. Banner of Laramie (Fraser 2010:167).

APPENDIX 'A'

Crane Hall and cafeteria (Humstone 2013)

Between 1965 and 1967, these two firms also collaborated in design and construction of a modern women's dormitory complex just to the west, creating an extensive new contemporary residential zone on campus south of Fraternity Mall and north of Grand Avenue. Older dormitories from the early twentieth century were adapted to other uses. Crane and Hill Halls were named in honor of former President Arthur G. Crane and Professor John A. Hill (Marmour 1994:42).

Integrity

Crane and Hill Halls retain a high degree of historical integrity. On the exterior, the buildings have changed very little. The interiors were not surveyed for the preservation plan project but are understood to largely retain their early 1960s materials and character. The two dormitories are connected by a large one-story cafeteria with a concrete saw-tooth roof.

The three buildings that make up the complex are very good examples of the International Style of their times. Unlike the University's adjacent high-rise dorms, Crane and Hill Halls use the sandstone typical of University of Wyoming buildings, and the colorful metal panels of the aluminum curtain walls, becoming lighter as they rise on the elevation, are sympathetic to the color of the sandstone. The buildings demonstrate how national architectural trends can be creatively adapted to embrace local character. Mature evergreen trees now surround and shade the buildings.

APPENDIX 'A'

Exterior of Crane Hall

Condition and Recommendations

Crane and Hill Halls are in good condition but are not in full-time use, presumably due to the utilitarian nature of their interiors and the light construction of the curtain walls, contributing to heat loss and the cost of operation. It is understood that the University may demolish the buildings to provide space for new residential halls meeting current needs and standards.

The three buildings are much friendlier in exterior appearance than the adjacent high-rise dorms, and the window walls with their continuous rows of glass make for more friendly interiors as well. It is suggested that adaptive reuse be considered before a decision is made for demolition. The exteriors could be preserved while the interiors are wholly reconfigured to provide residences meeting contemporary needs and expectations.

Exterior stone and curtain wall detailing

APPENDIX 'A'

Details of the curtain wall and central cafeteria

Central cafeteria

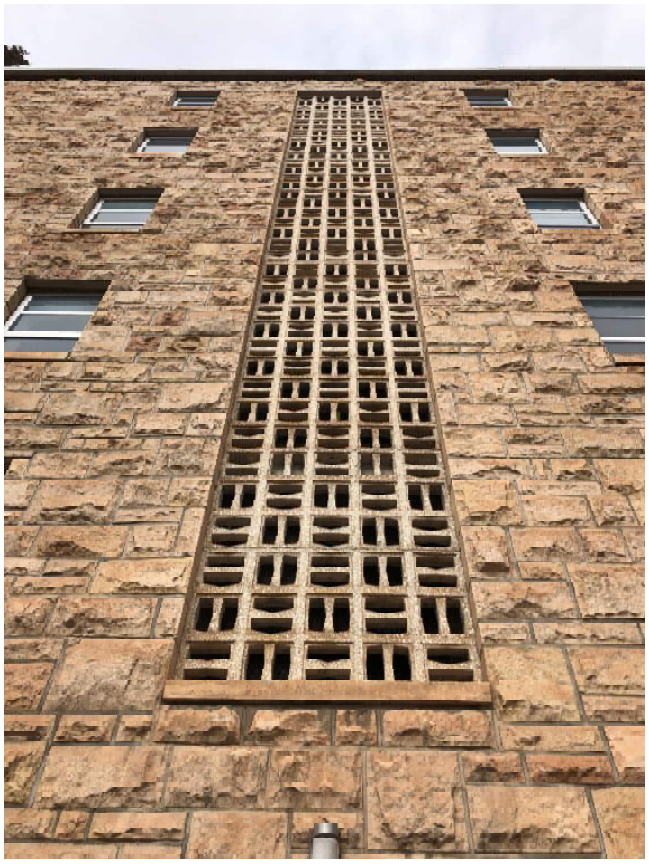
APPENDIX 'A'

DRAFT

UW Housing Assessment

Martin/Martin Wyoming, Inc. Project No.: 19-017

March 20, 2019



University of Wyoming
Laramie, Wyoming

Prepared By: Martin/Martin Wyoming
4020 Laramie Street
Cheyenne, WY 82001
307-637-8422

APPENDIX 'B'

DRAFT

TABLE OF CONTENTS

Executive Summary

ADA Assessment

Building Envelope Assessment

Structural Assessment

Mechanical / Plumbing Assessment

Electrical Assessment

MARTIN/MARTIN WYOMING
4020 Laramie Street
Cheyenne, Wyoming 82001
307.637.8422
mmwyo.com

Lakewood, CO
martinmartin.com

Avon, CO

Bay Area, CA

Fort Collins, CO

Albuquerque, NM

APPENDIX 'B'

DRAFT

Matthew F. Kibbon
Deputy Director of Planning and Construction
University of Wyoming
Laramie, Wyoming

Re: UW Housing Assessment
Martin/Martin Wyoming, Inc. Project No.: 19-017

Mr. Kibbon,

We have completed our assessment of the existing University of Wyoming residence halls located in Laramie, Wyoming. The residence halls included in the assessment include White Hall, Downey Hall, McIntrye Hall, Orr Hall, Crane Hall and Hill Hall. The assessment included the following system/discipline reviews: ADA, building envelope, structural, mechanical, plumbing and electrical. The purpose of the assessment was to evaluate the current condition of each of the residence halls and to determine the one best suited for extended use. The full assessment of each system follows the executive summary below.

EXECUTIVE SUMMARY

The assessment of each system included review of the existing building drawings and one or more site observations. Mechanical, plumbing and electrical assessments additionally included review of University work orders as well as discussions with University maintenance personnel. The assessments were performed with an understanding that the University is planning to construct new residence halls. One or more of the existing residence halls may remain and be used as temporary office space. We understand the amount of office space needed is approximately the same as Wyo Hall which is planned to be demolished to make room for the new residence halls. The residence hall or halls which are to remain may be utilized as a residence hall again after serving as temporary office space.

The team has not considered and is not aware of specific future building locations or master plan requirements outside of the information above. As such, building location has not been considered when providing suggestions of which building or buildings to keep. Additionally, when making recommendations the team has not been tasked with reviewing the aesthetic of the residence halls, or to consider how the architecture aligns with the existing buildings on campus.

The residence halls can be divided into two primary types, White type which includes White, Downey, McIntyre, and Orr. These are building were constructed between 1965-1967 and have similar systems and construction. Crane-Hill type is the second type and includes Crane and Hill which were constructed in 1960, these buildings are mirror images with similar or identical systems thoughout.

Our recommendations are based on differentiators which point to a preferred building type and building. Regarding ADA compliance, the White type residence halls have more updates and fewer ADA compliance issues. The building envelope of each residence hall type is consistent with construction during the time period. Each of the building types are generally lacking in insulation and the building envelopes are not performing in an energy efficient manner. Per the building envelope summary, a preference is given to Crane and Hill. This preference is driven by building architecture and the building façade resembling other

APPENDIX 'B'

buildings on campus with limestone veneer over large areas. The building envelope of each type has similar performance.

Structurally the White type residence halls offer an advantage in that the lateral force resisting system is more robust, however the lateral force resisting system in each of the buildings is deficient in comparison to current code and lateral force requirements. The two taller White residence halls, White and McIntyre, do have additional shear walls in the long direction of the building. Additionally, the White residence halls have a thicker structural floor slab which has an increased likelihood of having the capacity to support the larger live load required by office loading in comparison to the residential loading.

We assessed the mechanical systems and recommend replacement as they are past their useful life. There are multiple deficiencies in each building type, with several of the same deficiencies. Deficiencies include age of equipment, no outside air and no mechanical cooling. White and McIntyre have split mechanical systems with service coming from the basement and rooftop, Downey and Orr have a single system. Crane and Hill also have split system with the building divided at the center lobby.

An assessment of the plumbing systems revealed the following concerns for each residence hall; asbestos insulation, roof drains which may not meet current code, limited accessible fixtures, undersized recirculation systems, thermostatic mixing values not present to meet current code and the general age of the fixtures has exceed their useful life span. Additionally, the Crane type residence halls do not have backflow preventers on the domestic water service.

The electrical service of the White residence halls has been renovated within the last 14 years, these buildings have adequate power, COM-DATA, CATV, and fire alarm systems for their intended use. The most current renovation was Downey Hall in 2010 and White Hall 2012. An important item of note is that the White residence halls have central electrical distribution, generator and fire pump system. These services would most likely require rework and replacement if a single building were to remain. Complete replacement of electrical, COM-DATA, CATV and fire alarm are recommended for the Crane type buildings.

After reviewing the assessment with the team members and discussing needed upgrades we believe that Downey Hall would be the most suitable residence hall to keep. The square footage of Downey hall is relatively close to that of Wyo Hall providing a building of approximately the same square footage. The electrical service of Downey Hall has been recently renovated, and Downey Hall has a single mechanical system. The single disadvantage of Downey Hall in comparison to the remaining residence halls is that the structural lateral force resisting system in the long direction of the building is less robust in comparison to White or McIntyre. If the square footage of Downey Hall is not adequate White hall would be the logical alternate. White hall has also had recent electrical upgrades, the disadvantage to White Hall is that the square footage is larger than needed which would mean additional renovation costs. White hall also has a split mechanical system which would require upgrades to mechanical rooms at the basement and at the rooftop.

Crane and Hill Hall offer the advantage of architecture which is more consistent with the other buildings on campus, a greater level of natural light and a building façade that could possibly be updated by replacing the existing aluminum wall system with new curtain wall. However, from a systems point of view Crane and Hill do not appear to be good selections to remain.

APPENDIX 'B'

DRAFT

ADA ASSESSMENT

APPENDIX 'B'

DRAFT

OVERVIEW

Our review of the University of Wyoming Residence Halls for ADA Compliance with the ICC A117.1-2017 Accessible and Usable Buildings and Facilities has included a review of existing floor plans, site visitation and an evaluation of six existing Residence Hall buildings including, White Hall, Downey Hall, McIntire Hall, Orr Hall, Hill Hall, and Crane Hall.

For the purpose of this report White Hall, Downey Hall, McIntire Hall, and Orr Hall will be described as The White Towers. These four residence halls are similar enough to be grouped into one category.
Crane Hall and Hill Hall will be described as Crane-Hill. Crane Hall and Hill Hall are symmetrical plans mirrored around a central dining area.

WHITE TOWERS

The White Tower Residence Halls have been renovated in an attempt to comply with the ADA requirement in each tower. White Hall is thirteen floors, Downey Hall is nine floors, McIntire Hall is thirteen floors and Orr Hall is nine floors. Each of these towers has similar layouts per floor and connect to Washakie Dining Center via tunnels in the basement. These Towers are currently in use by the University of Wyoming.

Each Tower has at least one route from site arrival points in the parking areas that do not require stairs or have an ADA compliant ramp to an entry vestibule.

The White Tower buildings have a compliant ADA accessible entry vestibule. Each Main floor lobby has an ADA compliant manned reception counter that includes mail pick up. A single room ADA restroom was created in each lobby. This restroom meets most ADA requirements but the door to enter this room cannot open to a full 90 degrees because a chase inside the restroom blocks the door movement making this restroom inaccessible. Once inside the restroom, the toilet is missing the vertical grab bar.

Each building has an elevator that meets ADA requirements.

All White Tower Residence Halls have 3 ADA Dorm Rooms on each odd numbered floor. We were not able to do a site evaluation of these rooms as all rooms are occupied currently. A review of existing building plans indicates these rooms would meet ADA requirements. On each oddly numbered floor corresponding with the ADA rooms, one single room ADA toilet/shower room is available. This room does not have signage to clearly identify that this an ADA Toilet/Shower Room. The layout of this room is such that the toilet paper holder encroaches into the 18” clear space needed on the pull side of the door. The vertical grab bars at both the toilet and showers are missing. Otherwise, this room is ADA compliant.

All White Tower Residence Halls have stairwells from the top floor to the basement. These stair wells do not have handrails that meet ADA requirements. In general, the top and bottom handrail extensions are missing and in some cases would not be possible to create. There are laundry facilities and tunnels to Washakie Dining in the basement of each Resident Hall. These areas are ADA Compliant.

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These are identified ADA Deficiencies in the White Tower Residence Halls:

1. Sidewalk cracking and uneven ground at various locations along site access routes at all White Tower Buildings are greater than the allowed variance to be ADA compliant and would require repair or replacement to become compliant. (Figure 1)
2. The Lobby ADA Restroom door would need to shift within the wall to open to a full 90 degrees to become compliant. (Figure 2)
3. Add a Vertical Grab Bar to the Lobby ADA Restrooms. (Figure 3)
4. Add ADA compliant signage for Toilet/Shower room. (Figure 4)
5. Toilet/Shower rooms, move the toilet paper holder out of the required 18" clear space for the door and add a vertical grab bar at the toilets and showers. (Figure 5)
6. Address handrails extensions at the top and bottom of the stairs in each stair well. (Figure 6)

Figure 1: Sidewalk cracks in accessible route

Figure 2: Door doesn't open a full 90 degrees

Figure 3: Missing vertical grab bar

Figure 4: No signage for Toilet/Shower Rooms

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Figure 5: Toilet paper holder in 18" clear space And missing vertical grab bar

Figure 6: Missing handrail extensions at stairs

CRANE-HILL

Crane-Hill Residence Halls are the oldest of the residence halls. They are designed to be mirrored floor plans around a central dining area. Each wing has nine floors. These residence halls are not occupied by students and it appears that some demolition is occurring.

Crane has a route from site arrival points in the parking area that does not require stairs or has an ADA compliant ramp to the entry vestibule of this Residence Hall. One ADA compliant Entry vestibule is at the East side of Crane. Sidewalk cracking in various locations along travel routes at Crane-Hill is greater than the allowed variance to be ADA compliant.

Crane-Hill has a reception area, elevators, and stairs from the top floor to a basement, public restrooms and dorm and toilet/shower rooms. The reception consists of a counter and mail area. The counter does not have a lower countertop section of not higher than 36" and a minimum of 36" wide that would be accessible to be considered ADA compliant. The elevators were not in use when our site visit occurred. It is assumed they are still operational but this would need to be verified to assure an ADA compliant route to upper floors.

Crane-Hill has interior stair wells that run from the top floor to the basement. These stair wells do not have handrails that meet ADA requirements. In general, the top and bottom handrail extensions are missing. The public restrooms in the lobby area are not ADA compliant. A remodel of the space would be required to create a fully compliant ADA restroom that meets requirements.

The end dorm residence rooms in the North wing of both Crane-Hill first and second floors were converted rooms to be an ADA suite. These rooms have living spaces and a Toilet/Shower within the suite. The first floor showers have a ramp up into the shower that is too steep to meet current ADA requirements. The showers are missing the vertical grab bar and the seat has been removed. The toilets in these suites are missing the vertical grab bar, the back wall grab bars and the toilet paper holder is not in an accessible location.

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These are identified deficiencies in the Crane-Hill Residence Halls:

1. Sidewalk cracking and uneven ground at various locations along site access routes at all White Tower Buildings are greater than the allowed variance to be ADA compliant and would require repair or replacement to become compliant. (Figure 1)
2. Remodel the reception counter to create an ADA compliant section of counter and mail pick up.
3. Address handrails extensions at the top and bottom of the stairs in each stair well.
4. Create a public restroom that meets all ICC A117.1-2017 requirements in the lobby area. (Figure 2)
5. Remodel the existing ADA suites to meet current ICC A117.1-2017 regulations. (Figures 3 & 4)
6. Evaluation of Elevator when/if it is up and running.

Figure 1: Sidewalk cracks in accessible route

Figure 2: Existing public restroom

Figure 3: Existing ADA suite- shower

Figure 4: Existing ADA suite – toilet

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BUILDING ENVELOPE ASSESSMENT

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BUILDING ENVELOPE ASSESSMENT

We have completed our investigation of the six Dormitories located on the Campus of the University of Wyoming located in Laramie, Wyoming. The Dormitories reviewed during our investigation were: White Hall, McIntyre Hall, Downey Hall, Orr Hall, Crane Hall, and Hill Hall. The purpose of our investigation was to evaluate the general condition of each building and provide an opinion on which buildings have the best overall integrity, with regards to their building envelopes, for re-use and retention in the Campus Master Plan. Below are the observations and conclusions reached as a result of this investigation.

BACKGROUND

The dormitory buildings are located along the south edge of the campus, aligned along East Grand Avenue. The White, McIntyre, Downey, and Orr (W/M/D/O) dormitories are together in a complex centered around the Washakie dining Hall, which also houses several University administrative functions. The four dormitories and the Dining Hall are connected by underground corridors. These four buildings above are characterized by:

1. Concrete frame and floor construction, with stucco fascia, wall, and soffits. (Photos 1 thru 3)
2. Rough aggregate, precast concrete wall panels. (Photos 4, 5)
3. Double-glazed fixed and awning-type operable windows in the student rooms and lounges (Photo 6)
4. Roofing of all four buildings were noted to be in good condition, with new roofs in 2013 and 2017 for Downey and Orr (Photos 7 thru 9)
5. Corridors 4’-4” wide, student room walls 4” thick, stairs 44” wide.

Photo 1 - Typical Structure at White Hall with Cracked Stucco

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Photo 2 – Cracked Stucco Fascia Below Aggregate Panel at Downey Hall, Typical Elsewhere

Photo 3 – Cracked Vertical Stucco Fascia at McIntyre Hall

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Photo 4 – Flashing at top of Precast Aggregate Panel, with extended parapet above at Downey Hall and at Orr Hall

Photo 5 – Missing Stone Pieces in Aggregate Panel at Downey, Typical Elsewhere

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Photo 6 – Thermal Glazed windows at Orr Hall, Typical Elsewhere in Washakie Complex

Photo 7 – New TPO Roofing at McIntyre Hall

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Photo 8 – New EPDM Roofing at Downey Hall

Photo 9 – Newer Ballasted EPDM Roofing at Orr Hall

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The Crane and Hill (C/H) dormitories are characterized by:

1. Concrete frame and floor with curtainwall and stone masonry end walls (Photo 10)
2. Architectural concrete columns show significant checking of the smooth surfaces, but no spalling was observed (Photos 11, 12)
3. Sandstone masonry walls at wing ends and base, with joints in good condition and minimal weathering of the sandstone (Photo 13)
4. The curtainwall window system has awning-type, operable single-glazed windows, without insulation (Photos 14 thru 16)
5. Floor tiles throughout are 9" x 9," indicating that they could contain asbestos. The mastic floor tile adhesive of the era also could contain asbestos.
6. The two wings are joined by a dining/kitchen/meeting/communal space (Photo 17)
7. Both buildings have a ballasted EPDM roofing system, reported to be in good condition (Photo 18)
8. Student rooms have 4" and 6" masonry hall walls, exit stairs are 52" wide, and the central stair is approximately 44" wide. Hallways are 6'-0" wide (Photos 19)

Photo 10 - Surface Checking at Architectural Concrete Column, Crane and Hill Halls

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Photo 11 – Checked Concrete Column Surface at Crane Hall

Photo 12 – Checked Concrete Column Surface at Crane Hall

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Photo 13 - Sandstone Foundation Erosion at Crane Hall

Photo 14 - Restroom Windows Showing Vinyl Obscuring Film Deteriorated by Sunlight at Crane Hall

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Photo15 – Typical Window Wall Panel at Crane Hall, Hill Hall similar

Photo 16 - Window Wall at Hill Hall Dormitory – No Insulation at Ceiling or Floor

APPENDIX 'B'

Photo 17 - Dining Room at Crane and Hill Dormitories

Photo 18 – Newer Ballasted EPDM Roofing at Hill Hall, Crane Hall Similar

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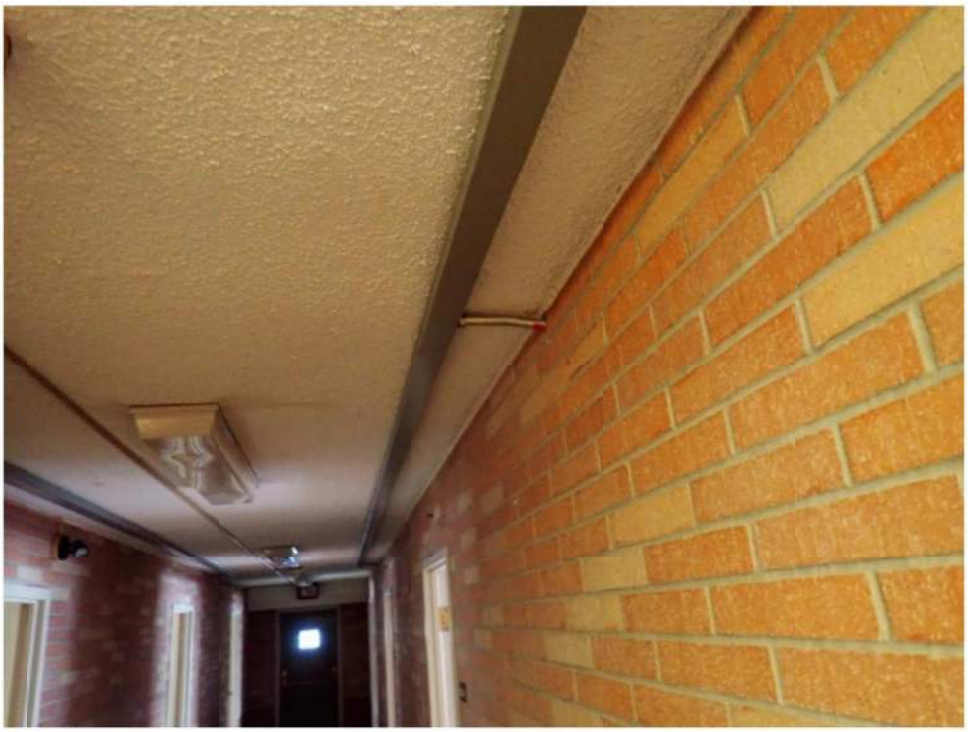

Photo 19 - Typical Data and Emergency Wiring Installation – Hill Hall

OBSERVATIONS and DISCUSSION

Martin/Martin has reviewed the original construction drawings and performed a visual investigation of the six buildings on February 19, 2019. Below are items noted during our investigation, including typical damage and deficiencies that were observed around the buildings:

White, McIntyre, Downey, and Orr Dormitories

1. Site concrete – walks, ramps, stairs - deterioration (Photos 20, 21, 22)
2. Minimal insulation at the exterior walls. We captured thermographic images with an infrared (IR) camera that indicate significant thermal bridging, revealing the locations of unit heaters and hot water pipes. (Photo 23)
3. All four buildings were in very similar condition, with the following deficiencies:
   a. Similar cracking in stucco fascia strips between windows (Photos 24, 25, 26)
   b. Many corner columns had cracks in their stucco covering at second floor/column junction, vertical from inside corner (Photos 1, 27)
   c. All caulked joints at windows and stucco/precast junctions, were generally in good condition, but will require maintenance (Photos 28, 29)
   d. General cement stucco wall finishes cracked. Stucco soffits stained and/or cracking, possibly from having no drip edges (Photos 2, 30, 31, 32, 33)

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Photo 20 – Repaired Sidewalk at White Hall

Photo 21 – Concrete Walk and Steps Separation at White Hall

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Photo 22 – Concrete Ramp and Stair Deterioration at Orr Hall

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Measurements		
Sp1		33.3 °F
Sp2		24.0 °F
Sp3		27.6 °F
Sp4		25.2 °F
Dt2	Sp3 - Sp4	2.4 °F
Dt1	Sp1 - Sp2	9.3 °F

Parameters	
Emissivity	0.95
Refl. temp.	12 °F

Geolocation	
Compass	249° W

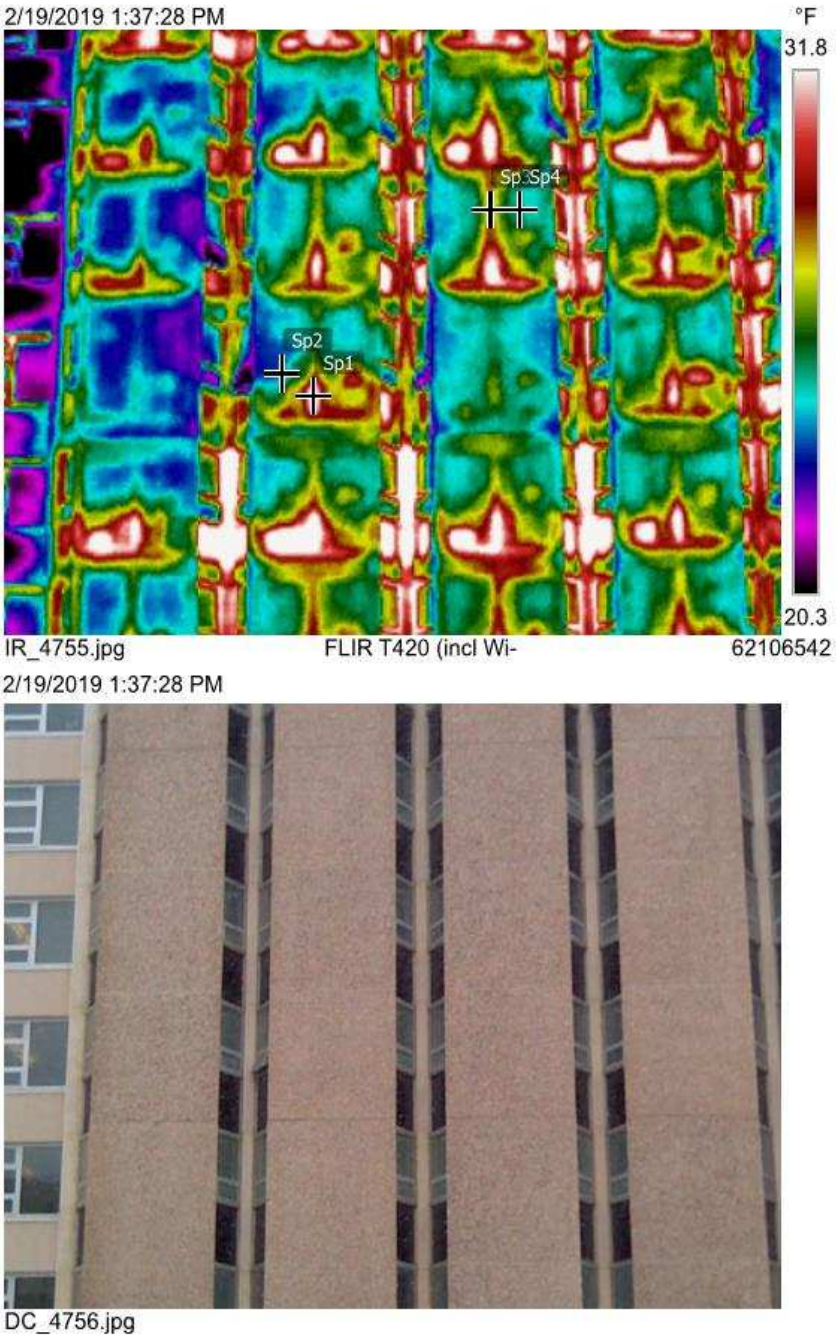

Photo 23 – Thermal bridging of unit heaters and hot water piping through exterior walls at Downey Hall

Photo 24 – Cracks in Vertical Fascia at White Hall

Photo 25 – Cracks in Vertical Stucco Fascia Strip at Downey Hall
Typical All Washakie Dormitories

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Photo 26 – Cracked Vertical Stucco Panels and Deteriorated Parapet Panel Coating at Orr Hall

Photo 1 - Typical Structure at White Hall with Cracked Stucco

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Photo 27 – Corner Column Cover and Head Stucco Cover Deterioration at Orr Hall

Photo 28 – Weathered Caulking at Window Head at McIntyre Hall

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Photo 29 – Deteriorating Stucco Under Window Sill at McIntyre Hall

Photo 2 – Cracked Stucco Fascia Below Aggregate Panel at Downey Hall, Typical Elsewhere

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Photo 30 – Cracked Stucco Soffit at McIntyre Hall

Photo 31 – Cracked Stucco Soffit, Ground Level, at McIntyre Hall

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Photo 32 – Deteriorated Stucco Soffit at Downey Hall, Typical Elsewhere

Photo 33 – Cracked Stucco Soffit Above Sidewalk at Orr Hall, Typical Elsewhere

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Crane and Hill Dormitories

1. Architectural columns show widespread checking, but no spalling was observed (Photos 10, 11)
2. Sandstone masonry walls at wing ends and base, with joints in good condition and minimal weathering of the sandstone (Photos 12, 13)
3. The substitute window wall panels may be a fiberglass reinforced, phenolic resin-type panel, but the manufacturer is unknown. Martin/Martin observed slight panel weathering throughout and puncture damage in a few locations (Photos 34, 35)
4. Moisture staining was observed on the glued ceiling tiles at the windows. The lack of insulation in the window system has likely allowed moisture to condense on the interior face of the aluminum framing. That moisture then migrates to the ceiling tiles adjacent to the exterior (Photos 16, 36)
5. Minimal insulation at the exterior walls. We captured thermographic images with an infrared (IR) camera that indicate significant thermal bridging through the existing curtainwall framing, as well as increased heat loss through each room's center window located above the unit heaters. (Photos 37 and 38)
6. The Dining Hall has an unusual folded plate concrete roof. We were informed that the 2" drain lines were too small to carry large amounts of water from the individual valleys (Photo 17)

Photo 10 - Surface Checking at Architectural Concrete Column, Crane and Hill Halls

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Photo 11 – Checked Concrete Column Surface at Crane Hall

Photo 12 – Checked Concrete Column Surface at Crane Hall

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Photo 13 - Sandstone Foundation Erosion at Crane Hall

Photo 34 – Typical Window Wall Panel at Crane Hall, Hill Hall similar

Photo 35 – Typical Damaged Panel at Crane Hall

Photo 16 - Window Wall at Hill Hall Dormitory – No Insulation at Ceiling or Floor

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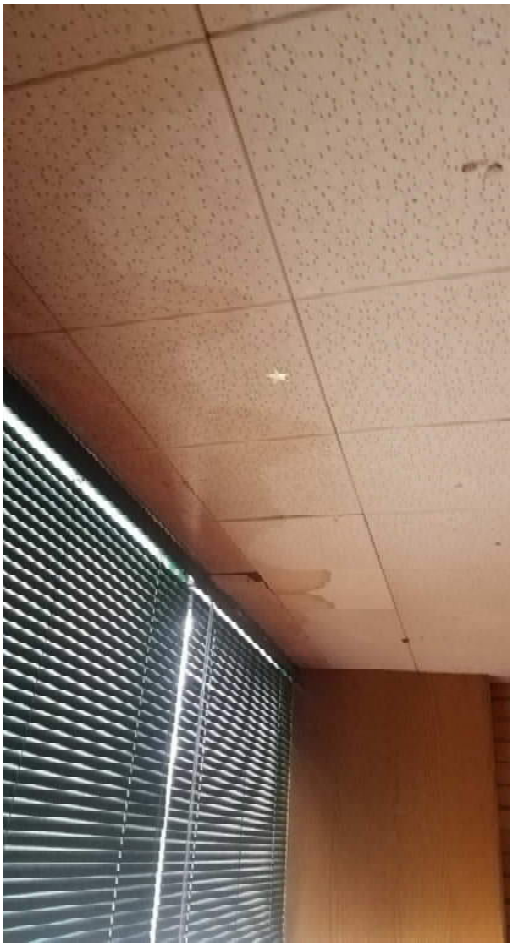

Photo 36 - Moisture Stains at Ceiling Tiles – Hill Hall

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Measurements		
Sp1		31.1 °F
Sp2		39.7 °F
Sp3		56.0 °F
Dt1	Sp3 - Sp1	24.9 °F
Dt2	Sp2 - Sp1	8.6 °F

Parameters	
Emissivity	0.95
Refl. temp.	12 °F

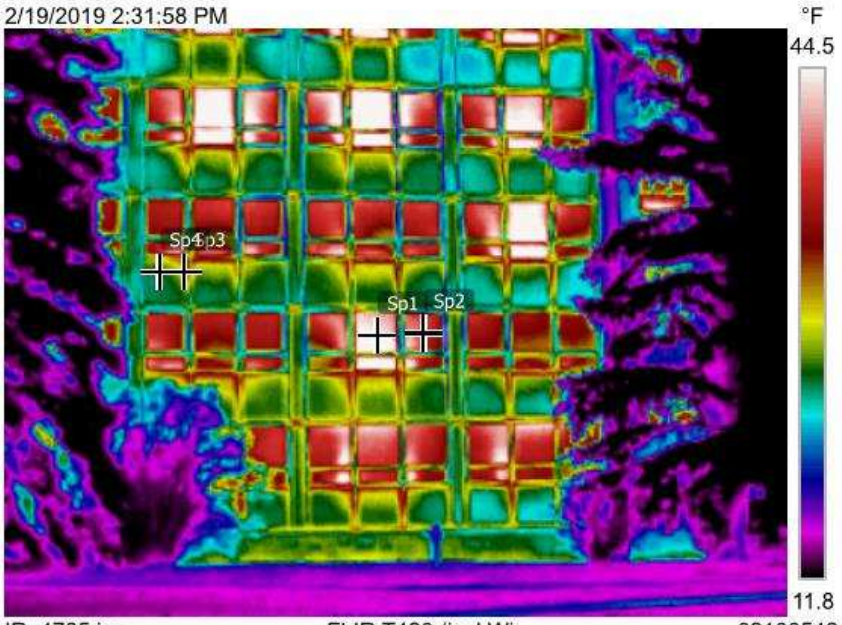
Geolocation	
Compass	352° N

37 – Thermal Bridging through Curtainwall Framing Crane Hall

Measurements		
Sp1		45.0 °F
Sp2		38.1 °F
Sp3		30.2 °F
Sp4		25.9 °F
Dt2	Sp3 - Sp4	4.3 °F
Dt1	Sp1 - Sp2	6.9 °F

Parameters	
Emissivity	0.95
Refl. temp.	12 °F

Geolocation	
Compass	104° E



38 – Heat Loss at Center Windows above unit heaters at Crane Hall

RECOMMENDATIONS for REPAIR

Our recommendations are two-fold. We have a basic list of items for repair and an outline for renovation and retention. We understand that one set of dormitories, of unspecified size or number of rooms, is to be retained for continued service. That group would be first renovated for office use, and then returned to dormitory use.

As previously mentioned, the W/M/D/O dormitories are of the same construction and design. All four have the same deterioration issues and deficiencies. They are located flanking the Washakie Dining and Campus Offices Building, forming their own identity. They differ in size, and therefore also differ in volume of work for repair and renovation for the issues listed below:

1. Repair stucco deterioration and cracks where required, installing proper expansion joints as needed.
2. Provide new finish coat on stucco-clad walls.
3. Review and replace old and deteriorated caulking where occurrences are observed.
4. Repair precast panels for missing aggregate pieces.
5. Insulate outer walls of all floors.
6. Review and renovate/replace plumbing riser system as required.
7. Build miscellaneous ground floor support amenities as required by a future program
8. No recommendation for adding windows for light and view due to the buildings' existing design.

The Crane and Hill Dormitories are located north of the W/M/D/O dormitories and, with their Dining Hall, have the same construction and design. They also share the same deterioration issues and deficiencies. The two buildings are the same size and share the list below of repair and renovation issues.

1. Repair sandstone masonry where required.
2. Review and replace aged or deteriorated caulking where those occurrences are observed.
3. Replace or renovate exterior aluminum curtainwall assemblies to improve their insulating properties and correct current damage and deterioration. Replacement curtainwall assemblies could be designed to better incorporate new perimeter heating, ventilation and air conditioning systems.
4. Replace, or cover with new flooring, the existing 9" x 9" floor tiles throughout.
5. Renovate restrooms to satisfy office use and accessibility requirements. Work here would be substantial due to complete replacement work required, as detailed elsewhere in this report.
6. Total reconstruction of the plumbing facilities would also allow additional space for simple access for vertical distribution of new mechanical, plumbing, electrical, data, phone, life safety and other systems without multiple dispersed penetrations throughout the Dormitories.
7. Build miscellaneous ground floor amenities, perhaps in the Dining Hall facilities, as required by a future program.
8. Renovate existing dining hall roof drain system.

CONCLUSIONS

Both dormitory groups will have repair of exterior elements, as noted in the Observations and Photos.

1. There are instances of probable asbestos-containing floor tiles and floor adhesive in Crane and Hill.
2. White, McIntyre, Downey, and Orr will have continuing stucco maintenance throughout.
3. Observed insulating qualities of all the buildings are deficient in many ways, especially walls and windows.
4. The rooms in McIntyre, White, Downey, and Orr have windows that are minimal and limited in daylight and view, making the rooms less than optimal as living or work spaces.
5. Hill and Crane offer greater flexibility and function for renovation and alterations for temporary offices, and then later being returned to dormitory space.
6. The hallways in Hall and Crane are significantly wider, an aid to accessibility.

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7. The rooms in Hall and Crane have great natural light through the full width window system, providing much better office or dormitory spaces.

RECOMMENDATIONS for RETENTION

A recommendation for retention of one set of dormitory buildings is difficult. A simple list of expected costs for preparing a building or group of buildings is one way to determine the best candidates in one category only. Consideration of an individual building or buildings as historic or architecturally significant is another aspect of enrichment of the University of Wyoming experience. Recognition of the University's place in Wyoming life is understood and appreciated by the state's citizens.

Following are assessments of the two building types qualities in a planning sense, starting with the building sizes in approximate room capacity:

White	12 stories, 319 rooms
McIntyre	12 stories, 319 rooms
Downey	8 stories, 209 rooms
Orr	8 stories, 209 rooms
Crane	6 stories, 214 rooms
Hill	6 stories, 214 rooms

One of these dormitories, or a pair of them, may fulfill the requirement for interim office space. Crane and Hill together are roughly the same room capacity (428) as Downey and Orr together (418), so either provide the similar space for re-use and retention.

However, the one set of dormitories, Hill and Crane, would be the better candidate for re-use and retention.

A. Hill and Crane offer greater flexibility and function for renovation and alterations for temporary offices and would provide superior dormitory living spaces.
B. The halls are significantly wider, an aid to accessibility. More complete accessibility is possible in renovated Crane and Hill dormitories.
C. The rooms have great natural light through the full width windows system, providing better office spaces or dormitory residence spaces.
D. Due to the renovation or replacement of the curtainwalls, this option is likely to be more expensive than the Downey and Orr Hall work.
E. Esthetically, these buildings are the most significant of the group, as they would be judged an outstanding example of western contemporary architecture. They would be the most complementary to the emerging campus architectural theme.
F. Crane Hall, Hill Hall, and their shared Dining Facilities will cost more to redevelop. However, these buildings will provide great student living spaces and be worth enjoying for another fifty-plus years of student living.

Consideration of the Campus Master Plan is obvious. Martin/Martin cannot address the relative places of these buildings in the overall campus plan, because it is currently unknown to us, and probably still in development. Martin/Martin welcomes the opportunity to contribute to that process beyond this report. Martin/Martin encourages the University to highly consider the retention of Hill Hall, Crane Hall, and their

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Dining Facilities as a notable example of Wyoming architecture and regional expression, as well as a flexible platform for changing uses.

REPORT LIMITATIONS

The Assessment offered above for the dormitories at the University of Wyoming, Laramie Campus, are based on the conditions of the building elements that were readily observable at the time of this investigation. Martin/Martin, Inc. does not accept responsibility for structural or material deficiencies not evident during an evaluation of this type. The recommendations and/or opinions contained in this report are to be used to aid in establishing future budgeting efforts for the repairing and maintaining of the building's exterior façade elements. No warranty, either expressed or implied, is given regarding any general or specific conditions as they affect the current or future owners of the building.

We appreciate this opportunity to be of service. Please call if you have any questions regarding this report or if we may be of further assistance.

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STRUCTURAL ASSESSMENT

APPENDIX 'B'

STRUCTURAL OVERVIEW

A facility site assessment of the existing residence halls at the University of Wyoming was conducted on two occasions. Orr, Downey, McIntyre and White Halls were reviewed during one visit and Crane and Hill Halls during a subsequent visit. The purpose was to evaluate their current condition for future potential use as a temporary office space and then revert to dormitory use. The site assessment included visual observations of the building structures as well as a brief review of original design drawings for Orr, McIntyre, White, Crane and Hill Halls. Downey drawings were not available at the time of assessment. The following report details the items observed and possible recommendations if a change of occupancy is pursued.

OBSERVATIONS

The residence halls can be divided into two types of buildings, the first type is the White buildings consisting of Orr, Downey, McIntyre and White Halls and the second type consisting of Crane and Hill Halls. White buildings consist of similar cast-in-place reinforced concrete framing, non-structural masonry partition walls, and precast cladding panels. Concrete shear walls are present in the short direction of all buildings but vary in configuration between building types in the long direction. Crane-Hill buildings also consist of cast-in-place reinforced concrete framing but utilize unreinforced brick masonry infill partition walls for the lateral system. The exterior walls are constructed with glazing and fiberglass paneling.

For the White buildings, all stair cores, mechanical penthouses and basements were observed, as well as exterior facades from the ground level by Martin/Martin Wyoming. In general, all four residence halls appeared to be in good condition. Mild deterioration of column bases has taken place on a small quantity of columns at the perimeter of the dorms near high traffic areas (Figure 1). In the 12-story dorms (White and McIntyre), smoke damper systems were installed in existing shear walls at the roof and between level 1 and level 2 during the most recent renovations. The joint between Orr Hall and the walkway to McIntyre showed some water infiltration from the exposed plaza above. In general, the joints between the buildings and the tunnels that were visible for observation showed minimal weathering.

Figure 1: Exterior column base

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Crane-Hill buildings appeared to be undergoing some initial demolition in the restrooms and with the door hardware. The buildings have been vacated and the rooms were open and available for observation. We walked each level of each building and periodically observed some of the open rooms. We also observed the basement space of each building. The buildings appear to be in good condition with minimal signs of deterioration. One condition where the buildings are showing signs of deterioration is at the architectural exposed concrete vertical fins that are exposed to the elements. It appears that there has been patch work or a skim coat applied on the surfaces to cover and protect some cracking in the concrete. This is not a structural concern at this point but with the lack of maintenance could develop into one.

Figure 2 Exposed Concrete Fin

ASSESSMENT OF CONTINUED USE

As mentioned previously, the structural gravity system for all buildings are in good condition and it is reasonable to assume they will continue to perform satisfactorily for their design gravity loads. One caveat to changing the occupancy category to an office space is the code required design live load. The dorms have been designed for a 40 psf live load plus partition weight. The load assumed for the partitions is unknown. Per the International Building Code, an office loading is to be designed for a live load of 50 psf which exceeds the original design load. One potential option for using the space as office space, would be to post a reduced allowable live load on each floor, however this would need to be verified with the local building department. Another possibility is the floor may have additional capacity, but this would need to be verified with calculations. In addition to floor framing, the columns would also need to be checked for the increase in load. The calculations have not been performed for this assessment. The White buildings are more likely to have additional capacity in the floor framing due to their thicker slab and shorter spans.

The International Building Code does not require structural elements to meet current codes provided alterations to the building do not increase the demand on individual gravity elements by more than 5%, or individual lateral elements by more than 10%. The proposed change of occupancy live load does exceed the 5% threshold for the full office design load and the options mentioned previously would need to be considered. For lateral elements, the change does not necessitate structural enhancement because the loads are not being increased beyond the allowable threshold. In other words, future lateral loads are not anticipated to exceed magnitudes the structure has already demonstrated an ability to resist in the past.

A potential exception to this rational is seismic loading. Recognizing earthquake do not occur frequently, many existing buildings, including the residence halls, have not been exposed to any notable level of seismic loading during their service life. Note that the building code does not mandate recognition of this potential exception for seismic loading in evaluating existing structures. Thus, risk assessment for seismic loading on existing buildings is left to individual building owners or jurisdictions.

Review of the existing drawings revealed an absence of shear walls in the White buildings eight story buildings in the long direction. Consequently, moment frame action between the columns, beams and slabs provides the only structural mechanism to resist lateral loads in this direction. Concrete design provisions of the era these buildings were designed and constructed provided a low level of ductility. Thus cast-in-place concrete buildings similar to these have long been identified as being susceptible to considerable damage, and even partial collapse, in a significant seismic event. Laramie is in an area of low seismic risk and as mentioned previously there is no code requirement to upgrade lateral systems given the proposed renovations. However, a seismic assessment was deemed prudent when considering the potential concerns for this building type under seismic loading coupled with the proposed investment to extend the service life of these structures.

The assessment revealed all of the White building structures to have reasonable capacity in the short direction in line with modern lower ductility structures. The twelve-story configuration in the long direction does have a shear wall along the back of the elevator banks, which significantly enhances the lateral resistance over the eight-story configurations.

Our review also revealed that the Crane-Hill buildings' lateral system is provided by unreinforced brick masonry infill walls. This is a brittle system and is typically not recommended for use with seismic lateral resisting systems.

CONCLUSION AND RECOMMENDATIONS

The seismic assessment of the lowest level of the White buildings eight and twelve-story configurations indicated adequate resistance in the short directions. Assessment of the twelve-story configuration in the long direction suggests the lateral system to be moderately deficient, but within a range that is fairly common for existing buildings. It is recommended the existing shear wall be enhanced with an adjacent shotcrete shear wall to increase resistance to a threshold similar to the short direction. The assessment of the eight-story configuration in the long direction revealed a significant deficiency. It is recommended shear walls either within the footprint, or outboard of the existing footprint be added to reduce the probability of significant damage from a seismic event over the proposed extended life of these structures. As stated previously, the assessment discussed herein was preliminary and limited. A more rigorous analysis should be performed coincident with the formal design of repairs.

For the Crane-Hill buildings, we would recommend that shotcrete walls be installed to provide some ductility in the lateral resisting system. A minimum of two walls in each direction in each wing of the Crane-

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Hill buildings, or eight walls per dorm, would provide the desired ductility. These walls would likely be located between columns and in the short direction, take the place of the brick partition walls.

Limitations

This investigation is limited only to the visual assessment of readily accessible elements. No testing or material sampling was performed, and undiscovered deficiencies of varying degrees or severity may exist.

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MECHANICAL - PLUMBING ASSESSMENT

APPENDIX 'B'

The Ballard Group, Inc.
Mechanical Consulting Engineers

University of Wyoming Dorms

Mechanical System Assessment Report
For Downey, Hill & Crane, McIntyre, Orr, and White Hall

1000 E University Ave.
Laramie, WY 82070

March 20, 2019

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DRAFT

Mr. John Shaffer
Martin/Martin Wyoming

Re: University of Wyoming – Dorms Mechanical Assessment

An assessment of the referenced facilities mechanical systems serving the requested spaces was performed on February 05, 2018. This report divides the buildings into two separate categories: White Towers, which include White, Downey, Orr, and McIntyre Halls, and Crane-Hill, which includes both Crane and Hill Halls which are symmetrical. This report identifies the deficiencies of each building's mechanical system regarding future use and makes recommendations for a complete mechanical system replacement of whichever building is selected to remain due to age.

White Towers Deficiencies

1. Age of mechanical equipment far exceeds typical lifespan.
2. Asbestos insulation on piping.
3. Maintenance issues with copper waste stacks requiring continual maintenance.
4. Plumbing fixtures are out dated and need updating.
5. Currently, there is no mechanical ventilation system to bring fresh air into the buildings. All ventilation is by operable windows. Only building exhaust with makeup air by infiltration. (Except White has a small air handler to pressurize the chases perimeter.)
6. There is no mechanical cooling.
7. Steam piping for Downey, Orr and McIntyre Hall passes through Washakie Center.

Crane-Hill Deficiencies

1. Age of mechanical equipment far exceeds typical lifespan.
2. Backflow preventers are not present on the domestic water services.
3. Asbestos insulation on piping.
4. Plumbing fixtures are out dated and need updating.
5. Currently, there is no mechanical ventilation system to bring fresh air into the buildings. All ventilation is by operable windows. Only building exhaust with makeup air by infiltration.
6. There is no mechanical cooling.
7. There is no spare hydronic pump in-case of a pump failure.
8. Steam piping for Crane and Hill passes through Crane-Hill Cafeteria.

Recommendations

The mechanical and plumbing systems in each building are all past their useful life and should be replaced with new systems or maintenance costs will continue to escalate. Given the extent of code violations and concerns listed above, the simplest solution will be start over with new mechanical systems sized for today's needs. The new system designed sized for proper ventilation rates and can include mechanical cooling if desired. The routing of the steam piping to the building chosen to remain is also something that will need to be taken into consideration. I hope this report is helpful for you and the University to make an informed decision for their future needs.

Sincerely,
THE BALLARD GROUP, INC.

Matthew J. Doll, PE
Principal

White Towers

Extent of Scope

The following report is assessment of the mechanical systems in the four White Towers, which include Downey, McIntyre, Orr, and White Halls. The White Towers were built in-between 1965 - 1967. Downey Hall is approximately 86,000 sf and has nine levels. Orr Hall is approximately 90,000 sf and has nine levels. McIntyre Hall is approximately 135,000 sf and has 13 levels. White Hall is approximately 132,000 sf and has 13 levels. McIntyre and Orr were renovated in-between 2004-2006 and Downey and White were renovated in-between 2010-2012. The buildings consist of dorm rooms, lobby and study areas, and basement tunnels to Washakie Dining Towers. The towers are currently in use.

Description of the Existing Systems

Heating System

The heating system in Downey and Orr Consists of a steam converter and four circulation pumps located in the mechanical room in the basement. Steam is produced at the Campus's steam boiler plant and piped over each of the towers via underground tunnels. The steam provided to Downey Hall, Orr Hall, and McIntyre Hall passes through the Washakie Center. The steam piping to White is routed separately from King St. The steam converter then exchanges the heat from the steam into the hydronic heating water. The capacity of each converter is 2400 MBH and produces 250 GPM of

Figure 1: Steam Converter

Figure 2: Hydronic Pumps

Figure 3: Typical Dorm Room Layout

Figure 4: Lobby Radiation Heater

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heating water. That heating water is then used to heat the building via fin-tube radiation heaters located in each dorm room and the public spaces of the building. The heating water has 30% Propylene Glycol in the system. The heating system for McIntyre and White follows a similar process except the buildings are divided into an upper and lower half with two separate mechanical rooms serving them. The lower half of each building is served by the mechanical room in the basement and the upper half of each building is served by the mechanical penthouse up on the roof level. All four buildings lack isolation valves, forcing an entire floor to be shut off to fix a broken control valve.

Air Distribution System

The air distribution systems of each tower are limited to exhaust systems for each building, an AHU added in White hall to help prevent pipes from freezing, and two Fan Coil Units added in the 2012 renovation of White. The ventilation for the building is provided via operable windows and doors in each room. There are not drawings of the AHU addition.

There are main exhaust rises in each building that go up to fans located up on the roof or mechanical penthouse of each building. Both Orr and McIntyre have their original fans in use although they had their motor sheave and belts replaced in the 2004-2006 remodel. Additional fans were added in the 2004-2006 remodel to ventilate the data rooms in both buildings and to pressurize the elevator mechanical room and North and South stairs for McIntyre. Downey has followed a similar path with its original exhaust fans still being in use, although modified in 2010, and addition fans being added in 2010 as well. White hall had its exhaust fans replaced in 2012 and some additional fans added for building pressurization and electrical and data room ventilation.

Figure 5: Exhaust Fan

Figure 6: Typical Dorm Bathroom Exhaust Grille

Figure 7: Fan Coil Unit

Figure 8: White Hall Added Ahu

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Miscellaneous Heating System

There are Hydronic Cabinet Heaters in the vestibules on the first floor of each tower and hydronic unit heaters in the mechanical rooms for each building as well.

Figure 9: Hydronic Unit Heater

Figure 10: Hydronic Cabinet Unit Heater

Temperature Control System

The original system is pneumatic controls for all four buildings. Only White hall has been updated to Johnson Control DDC system in 2012. All temperature sensors and damper actuators remain as pneumatic. This system appears to have been installed in the 1980's and is past its expected life.

The original buildings had manual control values for each fin-tube radiation heater in each dorm room. The controls for each room have been updated to an electric six setting switch and control value allowing occupants to control their heater without using the manual control value.

Figure 11: Dorm Room Control Switch

Figure 12: White Hall Controller

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Possible Code Violations and Concerns

The following observed issues appear to be code violation that are a safety concern for the building.

1. Insulation material for piping contains Asbestos fibers and should be replaced.
2. Building ventilation may not meet current code. There is no makeup or outside air intake systems for the building, so meeting code is dependent on having enough operable windows and doors. This create a negative pressure inside the building resulting in high infiltration rates and occupancy discomfort. A Mechanical ventilation system is recommended for a positively pressurized building to minimize infiltration.
3. General age of all Mechanical equipment and piping systems are past useful lifespan.

Plumbing Systems

Domestic Services

Orr and Downey towers are each served with a 4" water service with an 8" sanitary service. The water entry consists of a 4" double check backflow preventer which is in the basement.

White and McIntyre towers are each served with a 6" water service with an 8" sanitary service. The water entry consists of a 6" double check backflow preventer which is in the basement.

Figure 13: Orr and Downey (typical)

Figure 14: White and McIntyre (typical)

White and McIntyre towers have a pair of duplex pumps that boost domestic water pressure since these towers are taller. Orr and Downey do not have these.

Figure 15: White and McIntyre

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Water piping throughout the towers is soldered copper.

Domestic Heating Systems

Orr and Downey towers produce domestic hot water via pair of steam to hot water generators located in the basement. Each generator is 1,085 gallons of capacity.

Figure 16: Orr and Downey

White and McIntyre towers produce domestic hot water via two pairs of steam hot water generators located in the basement and another pair in the penthouse. Each generator is 1,085 gallons of capacity.

Figure 17: White and McIntyre (basement)

Figure 18: White and McIntyre (Penthouse)

Hot water recirculation is split between the basement and penthouse mechanical spaces each with their individual recirculation pumps. Water piping throughout the towers is soldered copper.

Storm and Waste Drainage

Duplex sump pump located within the basement serves foundation drainage.

Figure 19: White and McIntyre

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Roof drain piping offsets below grade to the City mains.

Storm piping is cast iron with bell ends. Waste piping is a combination of soldered copper for the fixtures and cast iron with bell ends in the basement and below grade areas. It is noted that the Facilities staff have several complaints and issues with the existing soldered copper waste stacks leaking or getting clogged.

Fixtures

The water closets are wall mounted and feature manual type flush valves. Lavatories are drop in, manual type. There are main restroom groups on each wing of each floor that also include showers. Each unit has their own sink. All the fixtures stack between floors. Some of the floors have drinking fountains with bottle fillers, but not all.

Figure 20: White Towers (typical)

Fire Protection Systems

Fire Service

The towers are supplied with a 6" fire service with a 6" double check backflow preventer located within the basement.

Figure 21: Towers (typical)

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System Design

The fire system for all towers includes fire booster pumps and associated equipment. The fire booster pump in basement of McIntyre Hall also feeds Orr Hall. This pump was replaced in 2004. We believe the fire booster pump in basement of White Hall also feeds Downey Hall but this needs more investigation to confirm. The installation of the sprinkler system had been upgraded after initial construction. Head types are semi-recessed type with exposed white covers in all units with fully-recessed concealed with white covers in the main lobby areas.

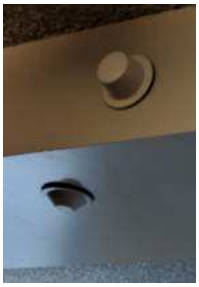

Figure 22: Within Units (typical)

Figure 23: Lobby Areas (typical)

Possible Code Violations and Concerns

The following observed issues appear to be code violation that are a safety concern for the building.

1. Insulation material for piping contains Asbestos fibers and should be replaced.
2. Roof drain overflow may not meet current code. It should be routed or handled separately from the main roof drain system.
3. Accessible fixtures are limited to only the first floor.
4. Recirculation systems appear to be undersized and the pumps seem too small to support proper flow to meet current design standards.
5. Thermostatic mixing valves are not present to meet current code.
6. General age of plumbing equipment and fixtures are past useful lifespan.

Plumbing and Fire Protection Recommendations

1. Replace all insulation with fiberglass or similar.
2. Provide a new hot water generating system for each tower.
3. Provide thermostatic mixing valves at all lavatories, master mixer at hot water storage tank.
4. Provide new hot water recirculation pumps with new balancing valves.
5. Replace storm sump pumps in basement.
6. Replace all fixtures.
7. Provide accessible unit and bathroom upgrades to meet current codes.
8. Replace bell end cast iron waste piping with PVC throughout towers.

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Recommendations

The mechanical and plumbing systems with in this portion of the building are all past their useful life and should be replaced with new systems or maintenance costs will continue to escalate. Given the extent of code violation and concerns listed above, the simplest solution will be start over with new mechanical systems sized for today's needs. The new system designed sized for proper ventilation rates and can include mechanical cooling if desired. The route of the steam piping to the building chosen to remain will need to be taken into consideration. If Washakie Center is demolished then steam piping to Downey, McIntyre, or Orr would need to be redone. White Hall has an independent steam feed from King Street.

Crane-Hill

Extent of Scope

The following report is assessment of the mechanical systems in Crane Hall and Hill Hall. Crane Hall and Hill Hall were built in 1960 and are designed to be symmetrical. Both halls are 89,000 sf and have nine levels. The halls are connected by a common dining hall. The halls were decommissioned at the end of the 2017-2018 school year and have had parts from their mechanical systems scavenged for use on other buildings. However, the common dining hall is still in use as storage and the building mechanical systems are still running.

Description of the Existing Systems

Heating System

The heating system in Crane and Hill consists of a steam converter and two circulation pumps located in the two mechanical rooms for each hall. Each dorm is divided into north and south half and has its' own mechanical system. Steam is produced at the Campus's steam boiler plant and piped over each of the towers via underground tunnels. The steam enters the building at Hill hall and then travels over to Crane hall. The steam converter then exchanges the heat from the steam into the hydronic heating water. The capacity of each converter is not included in the original drawings and not marked on the converters. That heating water is then used to heat the building via fin-tube radiation heaters located in each dorm room and the public spaces of the building. The heating water has 30% Propylene Glycol in the system. Both buildings lack isolation valves, forcing an entire floor to be shut off to fix a broken control valve.

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Figure 24: Steam Converter

Figure 26: Typical Dorm Room Radiation Heater

Figure 25: Hydronic Pumps

Figure 27: Corridor Radiation Heater

Air Distribution System

The air distribution systems of each tower are limited to exhaust systems for each building. There are four main exhaust rises in each building that go up to four exhaust fans located up on the roof of each building. Both Hill and Crane have their original fans. The ventilation for the building is

Figure 28: Exhaust Fan

Figure 29: Typical Dorm Bathroom Exhaust Grille

provided by operable windows and doors.

Temperature Control System

The original system is thermostatic controls which was updated to Johnson Control DDC system. The original buildings had manual control values for each fin-tube radiation heater in each dorm room. The controls for each room have been updated to an electric six setting switch and control value allowing occupants to control their heater without using the manual control value.

Figure 30: Dorm Room Control Valve

Figure 31: Hill Hall Controller

Possible Code Violations and Concerns

The following observed issues appear to be code violation that are a safety concern for the building.

1. Insulation material for hydronic piping is Asbestos and should be replaced.
2. Building ventilation may not meet current code. There is no makeup or outside air intake systems for the building, so meeting code is dependent on having enough operable windows and doors. This create a negative pressure inside the building resulting in high infiltration rates and occupancy discomfort. A Mechanical ventilation system is recommended for a positively pressurized building to minimize infiltration.
3. General age of all Mechanical equipment and piping systems are past useful lifespan.

Plumbing Systems

Domestic Services

Crane and Hill towers are each served with a 3" water service with a 6" sanitary service. There are no backflow preventers on these water entries currently.

Water piping throughout the towers is soldered copper.

Domestic Heating Systems

Each tower produces domestic hot water via two pairs of steam hot water generators located in the basement. Each pair serves half of the tower and each generator has 1,085 gallons of capacity.

Figure 32: Crane and Hill (typical)

Hot water recirculation is split between each half of the tower with their individual recirculation pumps.

Water piping throughout the towers is soldered copper.

Storm and Waste Drainage

Roof drain piping offsets below grade to the City mains.

Storm piping is cast iron with bell ends. Waste piping is mainly cast iron with bell ends with some galvanized piping throughout.

Fixtures

The fixtures are located at main groups in each wing of the towers. They consist of: water closets, wall mounted and feature manual type flush valves. Lavatories are wall hung, manual type. Showers which are single head, manual type. Finally, there are bathtubs in these core restroom groups. Individual units do not have sinks in them. All the fixtures stack between floors. Some of the floors have drinking fountains with bottle fillers, but not all.

Some of the fixtures have been removed from the towers since the building is vacant.

Figure 33: Crane and Hill (typical)

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Fire Protection Systems

Fire Service

Each tower is supplied with an 8" fire service with a 4" double check backflow preventer located within the basement.

Figure 34: Crane and Hill (typical)

System Design

The fire system for both towers includes semi-recessed type with exposed white covers in all units with fully-recessed concealed with white covers in the main lobby areas.

Figure 35: Within Units (typical) upper head missing cover

Figure 36: Lobby Areas (typical)

Piping for the sprinkler system is CPVC within the units and corridors and black steel within the commercial spaces.

Possible Code Violations and Concerns

The following observed issues appear to be code violation that are a safety concern for the building.

1. Backflow preventers are not present on the domestic water services.
2. Insulation material for piping contains Asbestos fibers and should be replaced.

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3. Roof drain overflow may not meet current code. It should be routed or handled separately from the main roof drain system.
4. Accessible fixtures are limited to non-existent.
5. Recirculation systems is likely undersized, and the pumps seem too small to support proper flow to meet current design standards.
6. Thermostatic mixing valves are not present to meet current code.
7. General age of plumbing equipment and fixtures exceed useful lifespan.

Plumbing and Fire Protection Recommendations

1. Replace all insulation with fiberglass or similar.
2. Provide a new hot water generating system for each tower.
3. Provide thermostatic mixing valves at all lavatories, master mixer at hot water storage tank.
4. Provide new hot water recirculation pumps and new balancing valves.
5. Replace all fixtures and all piping mains.
6. Provide accessible unit and bathroom upgrades to meet current codes.
7. Replace bell end cast iron waste piping with PVC throughout towers.

Recommendations

The mechanical and plumbing systems within this portion of the building are all past their useful life and should be replaced with new systems or maintenance costs will continue to escalate. Given the extent of code violation and concerns listed above, the simplest solution will be start over with new mechanical systems sized for today's needs. The new system designed sized for proper ventilation rates and can include mechanical cooling if desired. The routing of the steam piping to the building chosen to remain will need to be taken into consideration. The steam piping to Crane and Hill Halls passes through Crane-Hill Cafeteria. Therefore, if either Crane or Hill is chosen to remain but the Cafeteria is removed, the steam piping will need to be redone.

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ELECTRICAL ASSESSMENT

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ELECTRICAL EXECUTIVE SUMMARY:

The University's long-term plan is to construct new residence halls at other locations on campus. Once those accommodations are constructed 4 or 5 of the 6 existing residence halls will be removed. The building(s) that are to remain are to be temporarily utilized as office swing space to support University personnel that will be displaced for other construction projects at other locations on campus. Once those projects are complete and the University personnel are moved into their permanent facilities the building(s) that are to remain will be converted back to residence halls that the University will utilize for lower price point student housing accommodations. The purpose of this report is to assist in the determination of which building(s) make the most cost-effective long-term sense for the University to keep for the purposes listed above.

From an **electrical** stand-point any of the **Washakie Residence Halls** (McIntyre, Orr, Downey, White) will serve the goal purpose well as all have been renovated with-in the last 14-years and all have adequate power, adequate COM-DATA, adequate CATV, and adequate fire alarm systems for the intended purposes. The cavate would be the necessary revisions that would be required with the removal of the other "connected" buildings including the Washakie Center. Since these buildings are interconnected special coordination and central system re-builds (Primary Electrical Distribution, Generator, and Fire Pump) would be required in order to isolate one of these buildings as stand-alone.

From an **electrical** stand-point **Crane and Hill halls** will need complete Electrical, COM-DATA, CATV and Fire Alarm replacement like what was done via the recent remodels for the Washakie complex residence halls in order to facilitate the Universities long term goals.

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ELECTRICAL WASHAKIE HOUSING COMPLEX

The Washakie housing complex is comprised of 5-Builings that are interconnected via a basement level tunnel system.

Building 1: Washakie Center is a 2-Story building that serves as the campus' main dining facility along with administrative offices and meeting rooms. It is the Hub of the complex and houses the primary electrical distribution system, a central generator and central fire pump that are utilized to support all 5-buildings.

Building 2: McIntyre Hall is a 12-Story Residence Hall. It was renovated in 2005 with new electrical, fire alarm, COM-DATA, and CATV systems.

Building 3: Orr Hall is a 8-Story Residence Hall building. It was renovated in 2005 with new electrical, fire alarm, COM-DATA, and CATV systems.

Building 4: Downey Hall is a 8-Story Residence Hall building. It was renovated in 2010 with new electrical, fire alarm, COM-DATA, and CATV systems.

Building 5: White Hall is a 12-Story Residence Hall building. It was renovated in 2012 with new electrical, fire alarm, COM-DATA, and CATV systems.

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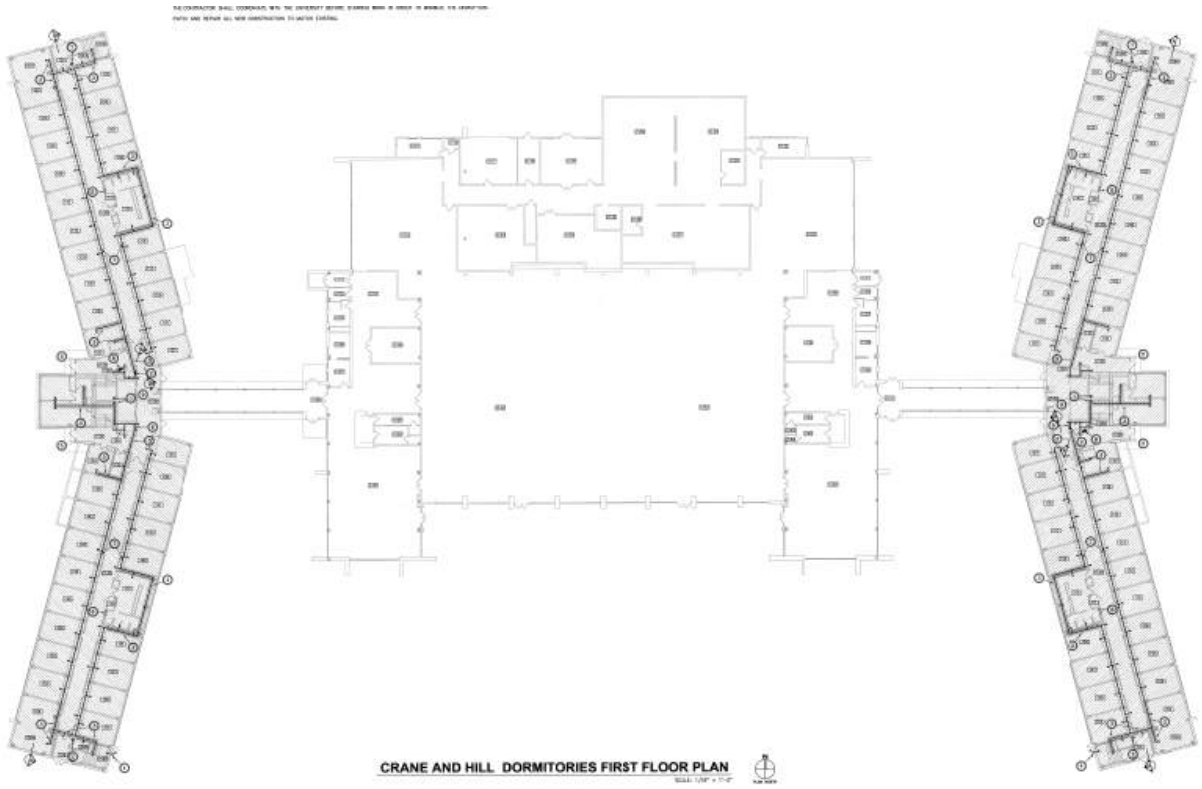
ELECTRICAL CRANE AND HILL HOUSING COMPLEX

The Crane and Hill housing complex is comprised of 3-Builings that are interconnected.



Building 1: Cafeteria(Center) is a 1-level building that originally served as a dining facility along with administrative offices and meeting rooms for Crane and Hill Residence Halls. It is currently not in use as a cafeteria and is primarily used currently as an events hall.

Building 2: Crane Hall (East) is a 6-Story Residence Hall constructed in 1960. The electrical infrastructure has had limited upgrades done over its life span to date. It is currently not in use.

Building 3: Hill Hall (West) is a 6-Story Residence Hall constructed in 1960. The electrical infrastructure has had limited upgrades done over its life span to date. It is currently not in use.

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ELECTRICAL EVALUATION MATRIX

		McIntyre Hall		Orr Hall		Downey Hall		White Hall		Crane Hall		Hill Hall
Adequate Power Infrastructure		Y		Y		Y		Y		N		N
Updated LED Lighting		N		N		N		N		N		N
Fire Alarm Code Compliant		Y		Y		Y		Y		N		N
Adequate COM/DATA distribution		Y		Y		Y		Y		N		N
Adequate CATV distribution		Y		Y		Y		Y		N		N
Generator Power for Elevator and Other Life Safety Systems		Y		Y		Y		Y		N		N
Emergency Responder Radio Coverage Amplification System		N		N		N		N		N		N
Elevator two-way communications system		N		N		N		N		N		N
Elevator Recall		Y		Y		Y		Y		N		N

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EXECUTIVE SUMMARY

Landmark Environmental Inc. (Landmark) was retained by University of Wyoming (UW) to conduct an asbestos containing material (ACM) and regulated building material (RBM) inspection at the Hill Hall Building located on the University of Wyoming Campus in Laramie, Wyoming (project site). The purpose of the inspection was to identify and quantify ACM and other RBM that must be managed during and prior to the planned renovation of the six-story dormitory located at the project site.

Asbestos

Asbestos inspection services were performed to identify the presence, location, quantity, friability and condition of ACMs located at the project site. Bulk samples were collected of suspect ACMs that were requested. Samples were collected from friable and non-friable suspect ACMs as part of this inspection. The following are confirmed or assumed to be ACM:

Friable ACMs

Basement Level

- Friable white boiler insulation (BI01) with fibrous woven material painted green with gray insulation located in rooms 005 and 016.
- Friable white pipe insulation (PI01) with fibrous woven material
- Friable white pipe fittings (PF01) with gray insulation.

1st Level

- Friable white spray on acoustical micaceous texture (SOA01) with white paint located in rooms and hallways.

2nd Level

- Friable white spray on acoustical micaceous texture (SOA02) with white paint located in rooms and hallways.

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3rd Level

- Friable white spray on acoustical micaceous texture (SOA03) with white paint located in rooms and hallways.

4th Level

- Friable white spray on acoustical micaceous texture (SOA04) with white paint located in rooms and hallways.
- Friable lighting heat shield (HS01) that is an off-white fibrous material.

5th Level

- Friable white spray on acoustical micaceous texture (SOA05) with white paint located in rooms and hallways.
- Friable lighting heat shield that (HS02) is an off-white fibrous material.

6th Level

- Friable white spray on acoustical micaceous texture (SOA06) with white paint located in rooms and hallways.

7th Level

- Friable white pipe insulation (PI01) with fibrous woven material paint orange with gray insulation.

Non-friable ACMs

1st Level

- Non-friable tan 9-inch by 9-inch floor tile and black mastic (FTC01).
- Non-friable red 9-inch by 9-inch floor tile and black mastic (FTC02).
- Non-friable tan and off white 9-inch by 9-inch floor tile and black mastic (FTC03).
- Non-friable green 9-inch by 9-inch floor tile and black mastic (FTC04).

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- Non-friable black floor tile mastic under carpet (CA01 and CA02).

2nd Level

- Non-friable black floor tile mastic under clear carpet adhesive (CA03 and CA04).
- Non-friable tan 9-inch by 9-inch floor tile and black mastic (FTC01).
- Non-friable red 9-inch by 9-inch floor tile and black mastic (FTC02).

3rd Level

- Non-friable black floor tile mastic under clear carpet adhesive (CA05 and CA06).
- Non-friable tan 9-inch by 9-inch floor tile and black mastic (FTC01).
- Non-friable red 9-inch by 9-inch floor tile and black mastic (FTC02).

4th Level

- Non-friable black floor tile mastic under clear carpet adhesive (CA07 and CA08).

5th Level

- Non-friable black floor tile mastic under clear carpet adhesive (CA09).

6th Level

- Non-friable black floor tile mastic under clear carpet adhesive (CA10 and CA11).

7th Level

- No non-friable identified.

Trace Asbestos Materials

Levels 1 through 6

- Non-friable brown baseboard with brown adhesive (BBA01).
- Non-friable white ceiling tile with brown adhesive (CTA01).

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Assumed ACMs

The following suspect ACMs were not sampled due to inaccessibility or at the request of the property owner and are assumed to contain asbestos.

- Miscellaneous construction adhesives and HVAC duct sealants.
- Fire door insulation
- Roofing materials.
- Subsurface materials (foundation sealant, buried piping).
- Pipe joint gaskets in mechanicals room.

Asbestos Summary

All six floors, the basement, and the penthouse have friable ACMs that must be abated if the ACMs are going to be impacted during remodeling. The six dormitory floors have non-friable ACMs that may remain during remodeling if they will not be disturbed. Trace asbestos materials will need to be handled properly to protect workers. Several suspect asbestos materials have been assumed to contain asbestos. If these suspect materials are to be disturbed during remodeling, further investigation is required.

Prior to any renovation or demolition activities in any public or commercial building, which may disturb greater than 160 square feet, 260 linear feet, or the equivalent of a 55-gallon drum (35CF) of friable material or non-friable ACM that may become friable during the renovation or demolition activities, these ACMs must be removed in accordance with all applicable EPA and state regulations.

Regulated Building Materials

Landmark performed a presumptive survey for RBMs during the inspection of the project site which included:

- Fire extinguishers
- Compact fluorescent lights
- Light bulbs assumed to contain mercury

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- Light ballast assumed to contain polychlorinated biphenyls (PCBs)
- Exit signs may contain batteries and radioactive sources
- Refrigerants (water fountains, refrigerators)
- Smoke detectors may contain batteries and radioactive sources
- Thermostats (mercury containing)
- Batteries

These items have specific disposal and handling requirements which must be taken into account during renovation activities if they will be impacted.

HANSEN ARENA
HORSE BOARDING FACILITIES

University of Wyoming
College of Agriculture

Level I Reconnaissance Study

University of Wyoming
Planning and Construction

May, 2020

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EXECUTIVE SUMMARY

Following the process defined in UW Regulation 6-9, this Level I Reconnaissance Study is an initial investigation of the space needs of the University of Wyoming Rodeo program. The study includes a definition of the space program, site layout, architectural renderings and presents a project budget.

The goal of the project is to provided university-owned horse boarding facilities for UW Rodeo students. Currently students bringing animals to campus are required to find, secure and pay for private boarding in/around Laramie. This is a safety concern for the College as students are required to pull trailers to the Arena along with concerns for animal health and safety. Providing a convenient boarding option will also create efficiencies in student's time, allowing them to focus on their studies.

UW Rodeo offers a unique platform to promote the University mission, values and goals due to the correlation between Wyoming's identity of western culture and the sport of rodeo. The horse boarding project will greatly enhance the UW Rodeo program on many levels, including the ability for UW Rodeo to impactfully promote the University of Wyoming.

In March of 2019, the College of Agriculture received a State appropriation. Of this general fund appropriation, five hundred thousand dollars ($500,000.00) shall only be expended for design and construction of a covered practice arena, animal stalls, stables and animal handling units associated with University of Wyoming rodeo activities and programs.

At that time the College, Administration and the Planning and Construction department initiated the process of identifying the programmatic needs and potential sites for the project. Two sites were considered in the proximity of the Hansen Arena that were; University-owned, of appropriate size and located within proximity of adequate utility services.

PLANNING CONTEXT

UW Regulation 6-9

All construction projects at the University of Wyoming shall follow UW Regulation 6-9. For purposes of this policy, Capital construction projects include new construction in any amount and renovations, major maintenance or other capital construction projects in excess of $500,000.

For capital construction projects, the Planning and Construction Office will prepare the Level I Reconnaissance Study. The Planning and Construction office shall work with the Planning Team (which shall consist solely of university employees and appropriate stakeholders) to develop the study.

The Division of Administration shall ensure that stakeholders working with the Planning Team include a variety of constituencies including policymakers and at least one member of the Board of Trustees. The Vice President for Finance and Administration shall advise the Board of Trustees of the membership of the Planning Team and the stakeholders identified to work with the consultant prior to the Planning and Construction office commencing work.

The Level I Reconnaissance Study shall include all information required by Wyoming law (W.S. 9-5-108).

Level I Reconnaissance Study

Pursuant to Wyoming Statute W.S. 9-5-108, state-funded capital construction projects require three levels of reports. The initial report, a Level I Reconnaissance Study shall to the extent possible:

- Describe the project
- Identify the need for the project
- In cooperation with appropriate local, county and state agencies, assess the status of proposed site ownerships including existing conflicts and recommendations for resolution and identify other potential obstacles
- Assess and describe local, state and federal permits required for construction
- Assess environmental considerations and constraints
- Identify legal constraints to development
- Identify alternate sources of space to purchase and lease
- Summarize public testimony received at meetings held by the commission in the county of the proposed construction
- Contain the commission's recommendation to the legislature to continue the project at its current level of study, or to proceed with further activity under paragraph (ii), (iii) or (iv) of this subsection.

Upon completion of the Level I Reconnaissance Study the Vice President for Finance and Administration shall review and may direct further work or modifications to the Document. After review and approval, the document is then submitted to the Facilities Contracting Committee.

STRATEGIC PLAN

UW Strategic Plan

The College of Agriculture and Natural Resources recognizes the importance of rodeo to the visibility of the University of Wyoming and the values that the University stands for and this is reflected in the College strategic plan. The University of Wyoming Rodeo program represents a piece of the history, a unique identity and exemplifies the Western culture of the state of Wyoming.

Rodeo resonates across the state: mottos and themes associated with rodeo, for example “Breaking Through”, “The World Needs More Cowboys” Steamboat, Code of the West, and Cowboys honor the importance of livestock and livestock related activities to the founding and growth of the State and it cultural ties to frontier values. These cultural and historic ties are reflected today in the rodeo program.

The project aims to contribute to the Strategic Plan in the following ways:

INSPIRING STUDENTS

The UW Rodeo program facilities will enhance the UW Rodeo programs ability to recruit student athletes. The completion of horse boarding at the University of Wyoming will enhance our students experience by decreasing their cost to rodeo at the University of Wyoming, as well as the time our students allocate for travel on a daily basis. Horse boarding facilities will increase the effort and time they allocate to academics, rodeo practice and all other college activities.

IMPACTING COMMUNITIES

Rodeo is the official sport for the State of Wyoming. New horse boarding facilities will generate an excitement and admiration for the University of Wyoming’s commitment to the sport of rodeo. UW rodeo alumni, future students, current students, fans and supporters will be encouraged and proud of the facility.

HIGH PERFORMING UNIVERSITY

UW Rodeo is extremely proud to be associated with the University of Wyoming and our goal to Assure the long-term strength and stability of the University by preserving, caring for and developing human, intellectual, financial, structural and marketing resources. The future horse boarding facility will fill the facility need for UW Rodeo, to meet the University standard of excellence.

Campus Master Plan (In progress)

The University of Wyoming Campus Master Plan provides long-term direction for planning and development on campus. During the current master planning process, Sasaki Associates provided a long-term vision for the Hansen Arena site. The proposed plan for the project has taken this vision into consideration in the siting of the facility.

Regulatory Context

All University facilities are designed to meet the requirements of the International Code Council as adopted by the State of Wyoming including; building, fire, mechanical, plumbing and electrical. In addition to building codes the University Planning and Construction office will provide the University of Wyoming Design Guidelines and Construction Standards to consultants and contractors performing work on the project.

The Wyoming State Fire Marshal and Electrical Safety department is required to review and approve all state-owned and funded projects for construction. Thus, UW capital construction projects shall to demonstrate adherence to current building codes. A building permit will be required from Albany County and the State of Wyoming Fire Marshal and Electrical Safety office.

All utility improvements involving fluids such as effluent and potable water systems will be required to meet the requirements of the Water Quality Division of the Department of Environmental Quality. Depending on the extent of the site disturbance, the Land Quality and Air Quality Division of the Department of Environmental Quality may be involved.

COLLEGE OF AGRICULTURE AND THE UW RODEO PROGRAM

The University of Wyoming rodeo program began in 1940 and continues today as a program that is growing with community support, admiration of our students and constituents and academic and athletic excellence. 80-years ago, the University of Wyoming rodeo team was one of the original collegiate rodeo programs in the nation. During the past 80 years, UW Rodeo has built a successful brand of college rodeo that includes, 6 Team National Championships, 22 individual National Championships and 24 reserve National Championships.

Hundreds of students have been positively impacted by the UW Rodeo experience through college rodeo at the University of Wyoming. These students competed at a high level, completed degree programs and went on to be successful in their careers.

Project Goals/ Guidelines

A set of project goals and guidelines have been developed for the project. Goals are referenced and evaluated in each phase of project development.

GOAL 1

Safety: Improving the safety of students, faculty, staff and community members using and visiting the facility is the top priority of the project.

GOAL 2

Supporting Student Success: Eliminating the need for students to find adequate boarding and trailer animals to and from Hansen will allow students to spend more time on campus focusing on academic success.

GOAL 3

Improving Animal Health: Locating animals on-site will reduce stress caused by transportation. It is also easier to monitor animal health when they are housed in the same facility. Diet/feed would also be easy to control in a central facility.

PROJECT DESCRIPTION

Statement of Need

The Horse boarding facility will be used by the student athletes and coaches who participate in the UW Rodeo team to enhance the program. Improvements to the facility will allow UW to:

- Enhance competitiveness with similar facilities of collegiate rodeo programs
- Enhance ability to recruit athletes
- Provide safe and positive animal welfare housing
- Enhance the individual athlete's college rodeo experience
- Decrease daily travel time
- Decrease cost for athletes in fuel and boarding
- Decrease the risk of injury due transporting of animals
- Increase the time available to students for their studies

Within the vision of the facility, parking will be provided for the student athletes vehicles, access to plug in diesel vehicles, night lighting for safety, frost free water hydrants, and area for hay storage.

Bio Security – If issues arise with any equine related disease, horses will be able to be separated out and transferred to other areas of the LREC Center, local Veterinary Hospitals and possibly the Wyoming State Veterinary Lab.

All horses to be boarded at UW Rodeo Facility will be required to have a current health examination and Coggins test within 48 hours of arrival to the UW Rodeo Horse boarding facility. Recording of all required paperwork is to be controlled by UW Rodeo Coaches.

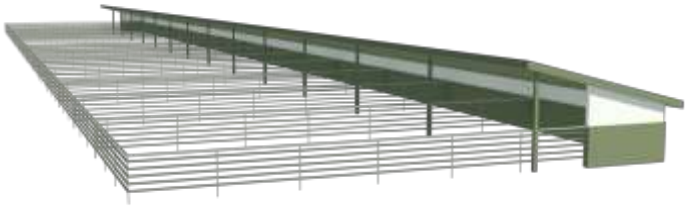
College of Agriculture and Natural Resources and LREC has requested that all hay fed to UW Rodeo Horses is certified weed free hay. A combination of certified grass, alfalfa and mixed hay will be purchased by UW Rodeo to be sold to UW Rodeo athletes.

Student cost to utilize horse boarding will be as low as possible for each student but sufficient to cover the cost of upkeep and maintenance of the facility. This includes the feasibility for UW Rodeo to maintain the cleaning and up-keep of the facility with limited additional resources.

Space Needs

The vision for the UW Rodeo horse boarding is to construct steel lean-to structures that provide shelter and wind break for 100 horses. Within each shelter a number of individual pens will be able to access the steel structure. Each pen will have access to automatic and heated watering units. The individual pen size will be 30' wide and 60' long. Some pens may be split into 10' wide and 20' wide to accommodate separation of animals.

The fencing for each pen will be drill stem pipe posts, pipe gates, and metal continuous fence. Fencing will be 5' tall.



The Horse boarding facility will be used by the student athletes and coaches who participate in the UW Rodeo team. UW Rodeo Coaches will assign individual pens, to students, for their horse boarding. UW Rodeo will bill and receive monthly charge for horse boarding (rates TBD). UW Rodeo will also manage the biosecurity protocol for students housing horses at the University of Wyoming. Operations activities include:

Student Responsibility

- Students will be financially responsible for all required animal health documents.
- Students will be responsible for daily care and feeding of their animals.
- Students will be responsible to clean pens on a daily basis. This will include hauling manure from their pen in a wheelbarrow to a shared pile that UW rodeo will remove to an appropriate location.

Bio Security Protocol

- Keeping records of each horse housed at the University of Wyoming.
- Obtain health paperwork from veterinarian, including current Coggins test for equine infectious anemia (EIA) (6 months) and health certificate (within 48 hours of housing horses at the University of Wyoming).
- Weekly cleaning/hauling of manure for facility.
- Monitoring any health issues and implementing quarantine if needed.

Maintenance

- UW Rodeo will be responsible to maintain all automatic water systems and their maintenance and repairs.
- UW Rodeo will be responsible to maintain all structural needs, including building and pens.
- UW Rodeo will be responsible to maintain parking lots and roads.

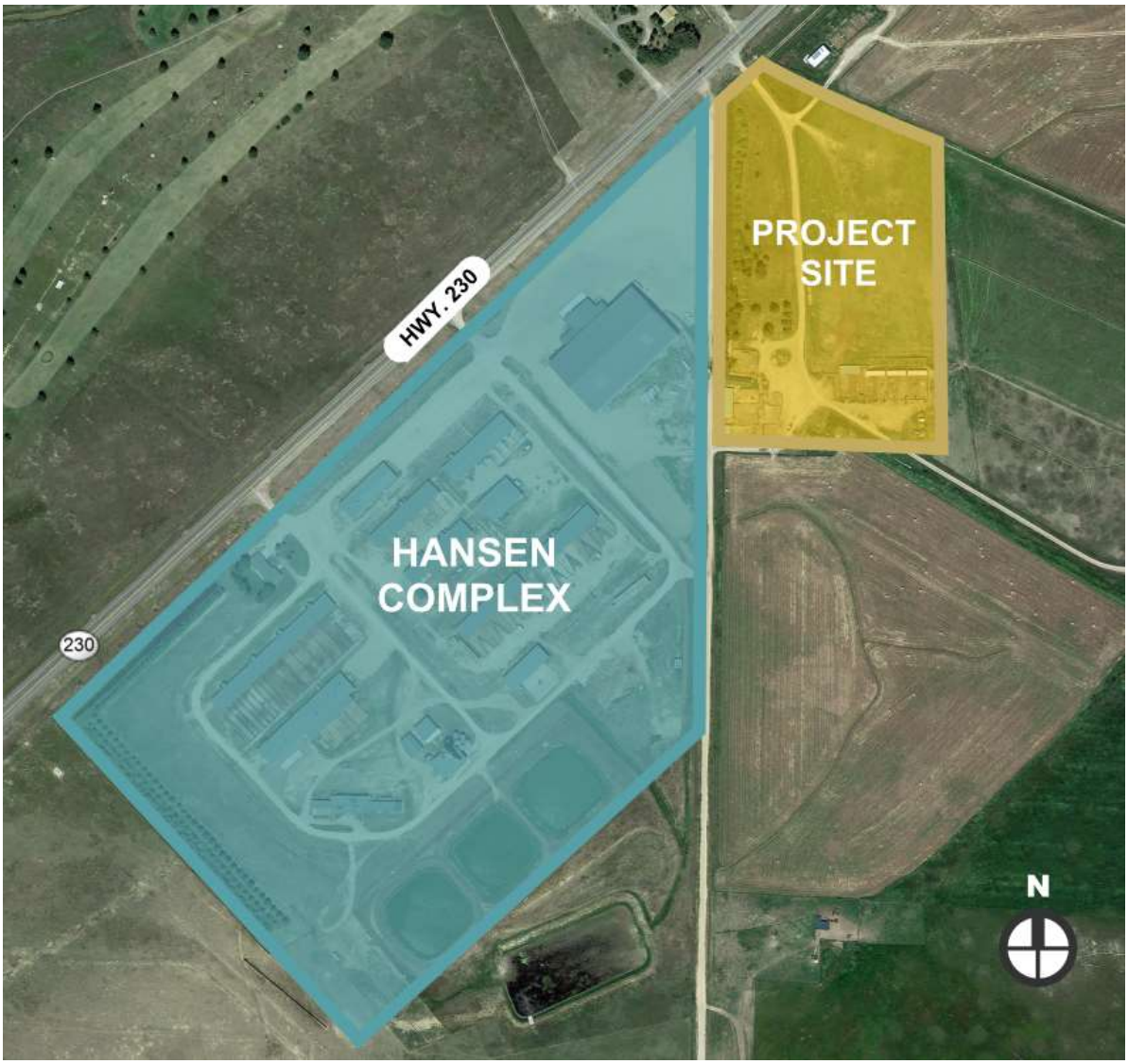
Equipment Needed

- Skid steer to load manure
- Dump truck to haul manure
- Wheelbarrows
- Basic plumbing tools to maintain automatic water needs

SITE #1 – HANSEN TEACHING ARENA COMPLEX

In September, 1996, the 47,500 square feet Cliff and Martha Hansen Teaching Arena (HTA) was donated to the UW. The HTA is critical to the teaching mission of the College of Agriculture and Natural Resources. For the past 25 years, the UW Rodeo team has shared and utilized the HTA as a venue for team practice and local performances. Rodeo livestock have been housed in close proximity to the building, and the proposed horse boarding facility would involve housing additional animals next to the HTA, alleviating the need for students on the rodeo team to transport horses from other locations within the community that currently takes significant time away from their ability to practice.

The HTA has been instrumental in building UW relations with the local community. The facility is used for numerous activities including livestock laboratories, judging contests, and, equestrian practice and competition. In addition, the Rodeo Team practices in this facility regularly and the NIRA sanctioned Laramie River Rendezvous rodeo is held in the facility every spring.



Proposed Site

Site #1 is located east of the Hansen Farm Complex and immediately east of the HTA used by UW Rodeo. The site is approximately 5 acres and currently houses a small number of livestock pens and an open area currently utilized for overflow parking during large events. While in need of minor modifications to the approach to the highway, the site has existing vehicular access from Highway 130 as well as a cut-across to the HTA.

A utility easement splits the proposed site from the HTA. The easement accommodates electrical transmission and distribution lines. The utility provider is currently seeking a revised easement to make improvements and to possibly re-route the line. Planning and Construction staff are currently working with the utility to improve the path through the site to increase development opportunity, similar to what was proposed in the site master plan.

A second access easement follows the same path as the utility easement. The access easement serves privately-owned property located south of the site. This easement could be easily adjusted, providing better access for the property owner.

A UW irrigation ditch follows the aforementioned easements providing water to UW hay fields south of the site. This ditch was identified as in poor condition and inefficient due to the loss of water. Burying the line in a PVC pipe was recommended by Operations maintenance staff.

Power for the project's site lighting and automatic watering system is in close proximity. Well water is also available on the site in close proximity. The proposed site and associated parking is envisioned to serve overflow capacity during large events. The lot will be well-lit to increase safety and security.

SITE #1 - HANSEN ARENA			SITE ANALYSIS MATRIX
			Ranking: 0=Poor Conditions
Selection Criteria	**Max Pts.**	**Score**	
Safety			**Comments**
Regular use of trailers	15	**15**	On-site
On-site safety/security concerns	15	**12**	On-site caretaker but somewhat secluded
Jurisdiction (City or County)			
Zoning	5	**5**	County
Visibility/Screening/Architecture	5	**4**	Similar use to match existing structures
Utilities			
Electric	5	**5**	On-site
Water	5	**5**	On-site
Site Access			
Truck/ Trailer Access	10	**9**	Irrigation ditch and easements cross site
Proximity/ Site Access	5	**5**	Adjacent to Arena
Cost			
Land/Lease Costs	10	**10**	UW land
Permitting/Fees	5	**5**	County
Schedule			
Design	5	**4**	Less civil, site work and landscaping
Construction	5	**4**	Less civil, site work and landscaping
Future Use			
Building	5	**5**	Multi-use, could be used for other animals
Land	5	**3**	Using productive hay ground
TOTAL	100	**91**	

SITE #2 – HIGHWAY 130

Site #2 - The second site considered was a piece of land owned by the UW/College of Agriculture located along Highway 130, east of the Laramie Regional Airport. The northwest corner of the site identified above was considered for the project. The site is undeveloped and is largely unproductive agriculturally. The land is relatively flat with a slight slope that provides for positive drainage from the proposed site.

Difficulties in developing this site include:

- City of Laramie Community Development Plan identifies the northern boundary of the site as a recreational corridor with expectations that property developers contribute to building a recreational path
- An existing road cut does not exist on the site. A traffic analysis and civil improvements for roads and drainage are expected on this site
- While both water and power are located in close proximity, there are additional costs and approvals associated with tapping these utilities
- City zoning requirements categorize the project as requiring a Conditional Use Permit before approving the site for the intended use.
- The City of Laramie Unified Development code requires additional landscaping, screening, architectural requirements and light pollution requirements.
- City of Laramie Development process requires multiple phases of planning and permit review accompanied by fees.

SITE #2 - HWY. 130			SITE ANALYSIS MATRIX
			Ranking: 0=Poor Conditions
Selection Criteria	**Max Pts.**	**Score**	
Safety			**Comments**
Regular use of trailers	15	**8**	Daily
On-site safety/security concerns	15	**8**	No on-site personnel
Jurisdiction (City or County)			
Zoning	5	**4**	City of Laramie - Agriculture
Visibility/Screening/Architecture	5	**3**	City of Laramie Unified Development Code
Utilities			
Electric	5	**4**	Power line in proximity
Water	5	**5**	City water main at edge of property
Site Access			
Truck/ Trailer Access	10	**9**	Good access. Highway 130 speeds a concern
Proximity/ Site Access	5	**3**	Approximately 5 miles to Arena
Cost			
Land/Lease Costs	10	**10**	UW land
Permitting/Fees	5	**4**	City and State planning review and permit fees
Schedule			
Design	5	**4**	City planning process
Construction	5	**4**	Significant civil work
Future Use			
Building	5	**4**	No other current uses on site
Land	5	**5**	Land is not productive, no other use identified
TOTAL	100	**75**	

Site Analysis Summary

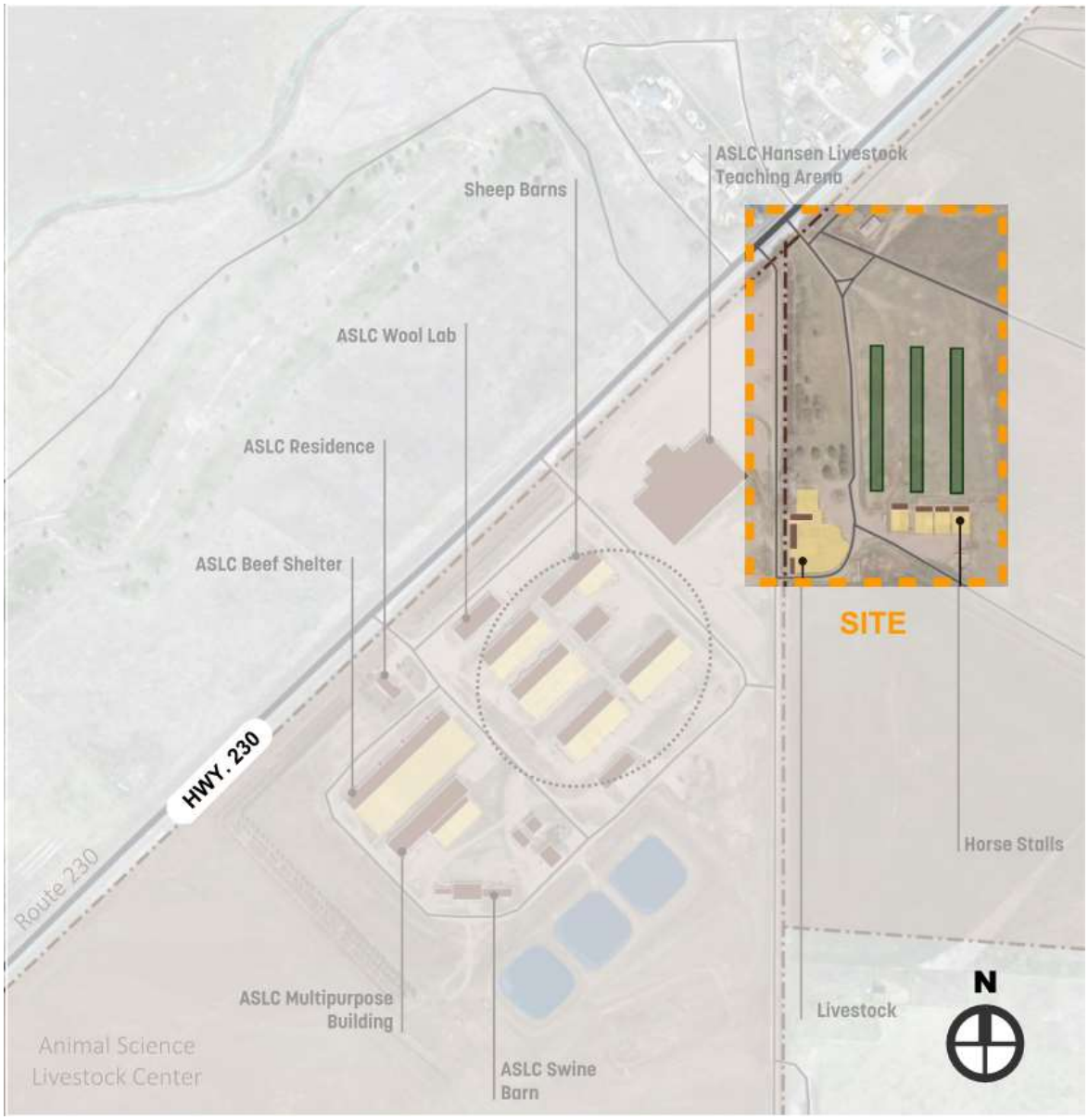
After review of the needs of the College and analysis of potential sites, the Hansen Arena site, with a site analysis score of 91, has been identified by the Planning Team as the most beneficial site to the College and the UW. With a site analysis score of 75, Site #2 – Highway 130 had a number of negative characteristics, most importantly the site does not maximize student safety. Eliminating the need for students to haul trailers was a very important consideration in the selection of a site. Due to its County zoning, the property is also easier to develop and result in lower permit fees.

PREFFERED SITE – HANSEN ARENA

The HTA will continue to serve as a multiple use facility supporting of a wide array of group and team activities, classes, labs, community events, various clubs and team practices and these activities will continue.

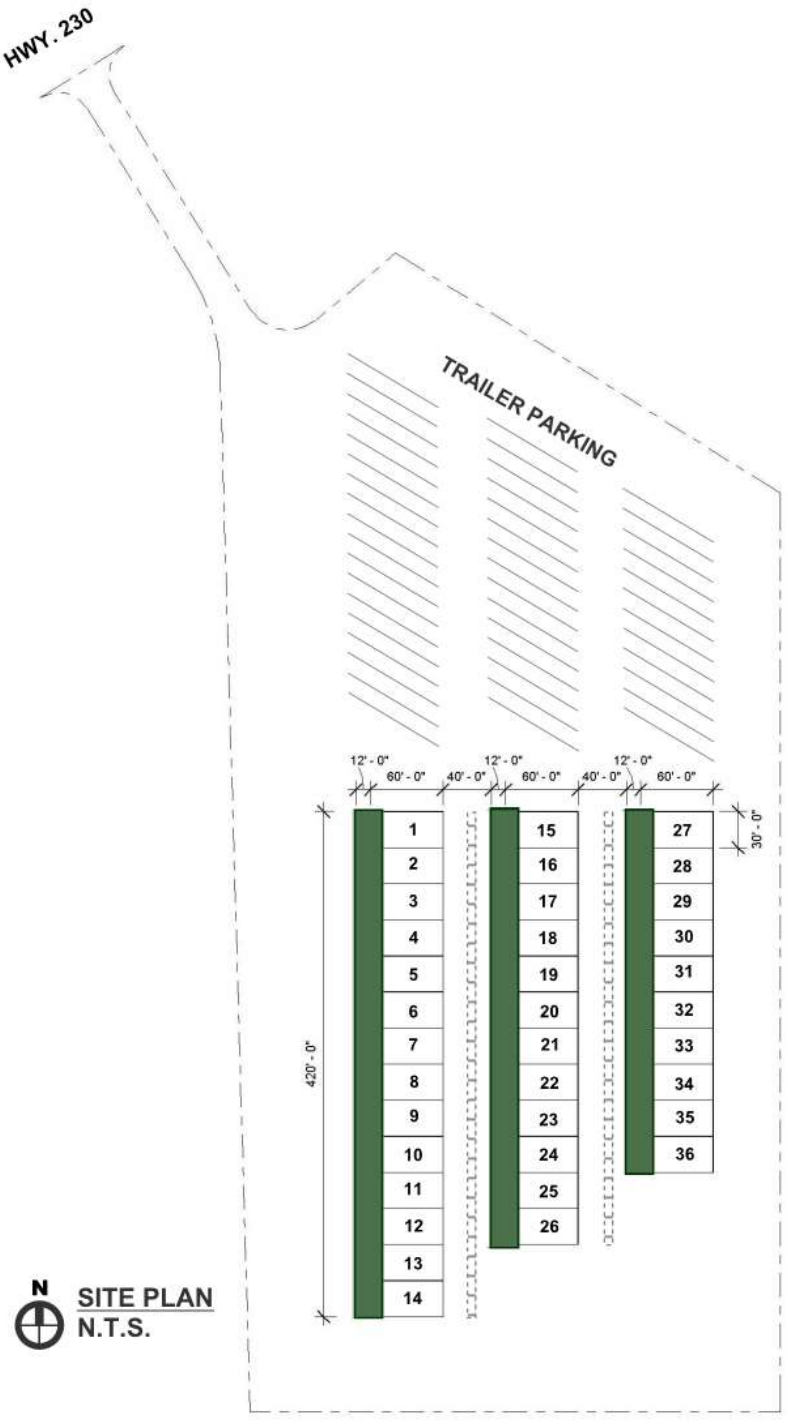
The long-term plans for the HTA are to improve the infrastructure and capability of this facility so that it can continue to serve the community. Adjacent to the HTA is the Laramie Research and Extension Center (LREC) an important center for basic and applied research involving research for the College of Agriculture and Natural Resources. LREC provides significant outreach to producer communities across the state and region. A detailed map of the existing facility has been attached at Exhibit 'A'

With these multiple uses, we anticipate that, although scheduling problems with the HTA will persist, that the proximate housing of rodeo horses to the Hansen Arena where the rodeo team practices will improve the efficiency of use of the Hansen Arena by the rodeo team and may result in open time slots.



Site Plan

The proposed program was tested on the site to ensure dimensional feasibility and configuration. The proposed site plan allows for convenient truck/trailer access as well as ample trailer storage space. Access to the HTA is somewhat limited requiring access across an existing drive south of the proposed site. The site allows for optimal positioning of the structures to provide maximum protection from the elements based on Laramie's weather patterns.



Conceptual Renderings

Conceptual renderings were prepared for the site to demonstrate the project's visual impact. The structures are proposed to match the color scheme of the HTA and LREC. The scheme consists of dark green roofs and bases with white field panels. The buildings are simple lean-to structures placed on concrete stem wall/knee wall on-footing foundations. An aerial image looking north over the site demonstrates the site layout and location to the HTA (structure shown on the top left of the image below). The second image demonstrates the visual impact of the project as you would experience driving west on Highway 230.

View looking north

View looking south from Highway 230

PROJECT BUDGET

A budget was prepared for the project by the Planning and Construction office (PAC). The Construction Budget for the project is based on bid numbers from Hamaker, a local design-build contractor. Administrative costs for the project do not reflect a typical UW PAC project budget in that little design and engineering is associated with the project and it also does not include typical project costs such as IT or furnishings and equipment.

CONSTRUCTION BUDGET	
	BUDGET
Boarding Site and Shelter Construction	$761,700.00
TOTAL CONSTRUCTION BUDGET (HARD COSTS)	**$761,700.00**

ADMINISTRATION BUDGET	
	BUDGET
Owner Contingency	$30,468.00
Design and Engineering	$10,000.00
Engineering Reimbursables	$1,000.00
Geotechnical	$5,000.00
Surveying	$21,000.00
ADMINISTRATION	
Plan Review Fees	$500.00
Advertisements and Solicitations	$500.00
Materials Testing / Special Inspections	$10,000.00
TOTAL ADMINISTRATION BUDGET (SOFT COSTS)	**$78,468.00**

TOTAL PROJECT BUDGET	$840,168.00

Project Budget Notes

A list of items have been identified below for consideration when reviewing the budget:

- Budget does not include equipment for maintaining and operating the facility
- Cost escalation has been accounted for through the end of 2020. Extension of bidding schedules will require the estimate to be updated according to market trends.

SUMMARY

This Level 1 Reconnaissance Study completes the initial planning process documenting; needs, feasibility study, facility assessment requirements and space analysis. Upon approval by Administration, Facilities Contracting Committee, Board of Trustees and confirmation of secured funding, the Planning and Construction Office will proceed to Level 2 planning.

For overall project planning, the following durations should be anticipated:

Level 2 Planning: 1 month

Level 3 Design and Documentation: 1 month

Level 3 Construction: 3 months

United States Department of the Interior

NATIONAL PARK SERVICE
GRAND TETON NATIONAL PARK
P.O. BOX 170
MOOSE, WY 83012-0170

IN REPLY REFER TO:

10.D. (GRTE)

Bill Mai, Vice President
University of Wyoming
Old Main 202E
1000 E. University Avenue
Laramie, WY 82071

Dear Mr. Mai:

Thank you for the productive discussions in recent months regarding the strong partnership Grand Teton National Park has enjoyed with the University of Wyoming for over 65 years. The scientific research conducted at the University of Wyoming-National Park Research Center at the AMK Ranch is critical to understanding and preservation of the rich and diverse natural and cultural resources of Grand Teton and Yellowstone National Parks, John D. Rockefeller, Jr. Memorial Parkway, and surrounding areas.

The location of the research station within the national park makes our cooperative research mission more timely and effective, and we strongly support your continued long-term contributions at the AMK Ranch Historic District. We greatly appreciate the University's proven track record of effectively addressing critical infrastructure deferred maintenance and improving the condition of historic structures that provide laboratory space, conference areas, and housing, including the recent investments in the center's water and wastewater system replacement and upgrades. While we share your disappointment that the research center cannot conduct normal operations this summer in light of the COVID-19 pandemic, we fully support the decision and we recognize your intent to utilize this unique opportunity to conduct additional maintenance and repair projects at the vacant facility this summer.

As we discussed on April 17, the National Park Service is committed to exploring a new agreement with the University of Wyoming that better represents both our shared history of cooperation and the long-term partnership we collectively seek to codify. Based on our initial research there is not currently a more durable or longer duration agreement than the recent extension of our partnership agreement. However, we are pursuing the possibility of a new type of agreement that would better meet the interests of the university and the park. We will keep you apprised of our progress in these efforts in a timely manner.

Thank you again for your partnership and collaboration. We look forward to finding new ways to ensure that our two institutions may work closely together for generations to come.

Sincerely,

Gopaul Noojibail
Acting Superintendent
Grand Teton National Park
John D. Rockefeller, Jr. Memorial Parkway

FACILITIES CONTRACTING COMMITTEE

COMMITTEE MEETING MATERIALS

AGENDA ITEM TITLE: **Cheyenne Family Medicine Clinic – Security, ADA, & Mechanical Renovations**, Mai

☒ PUBLIC SESSION
☐ EXECUTIVE SESSION

PREVIOUSLY DISCUSSED BY COMMITTEE:
- ☐ Yes
- ☒ No

FOR FULL BOARD CONSIDERATION:
- ☒ Yes [May 14, 2020]
  [Note: If yes, materials will also be included in the full UW Board of Trustee report.]
- ☐ No

☐ *Attachments/materials are provided in advance of the meeting.*

EXECUTIVE SUMMARY:
During the 2018 Budget Session, the Legislature of the State of Wyoming (#HB0194, Section 4.ii) appropriated $875,000 for the UW Cheyenne Family Medical Center. The Clinic Director initiated a UW Operations project with the following priorities: building security and egress, refurbishment of (6) restrooms for ADA/Code compliance, additional ADA/Code items, in-house lab countertop replacement, and creation of additional off-street parking spaces.

Additionally, UW Operations has budgeted $250,000 of Major Maintenance funding for the replacement of the building's original primary mechanical equipment and dual duct mixing box controls, and room ceiling diffusers and grilles, in order to improve indoor comfort, and system efficiency and reliability.

University of Wyoming Operations intends to publicly advertise for bids beginning on May 1, 2020, with a bid opening on June 3, 2020.

WHY THIS ITEM IS BEFORE THE COMMITTEE:
UW Regulation 6-9 states any project over $500,000.00 is a capital construction project and requires authorization by the full Board prior to entering into contract with a constructor. The budgetary project estimate developed by the Consultant indicates a total project cost above $500,000.00.

ACTION REQUIRED AT THIS COMMITTEE MEETING:
COMMITTEE approval to authorize administration to enter into contract with the lowest responsible bidder.

PROPOSED MOTION:
I move to recommend to the full board to authorize administration to enter into contract with the lowest responsible bidder for the renovations to the Cheyenne Family Medicine center.