



Ketchum City Hall Remodel

Change Order Rm 106 May 10, 2021

LOCATION: Ketchum, Idaho
ARCHITECT: CSHQA
DURATION(mnths): 5
WARRANTY(yrs): 1
SITE ACREAGE: 0.29 Acres
SQUARE FOOTAGE: 15749 GSF

#	Description		Base Price
DEMOLITION/ OFF-SITE INFRASTRUCTURE			\$2,922
3	Selective Demolition	Interior Contractors, Inc.	\$2,922
SITE WORK (ROUGH)			\$0
6	Temporary Site Construction Requirements	Clear Creek	\$0
7	Survey, Layout and Staking		\$0
8	Earthwork, Paving, Site Signage & Striping		\$0
SITE WORK (FINISH)			\$0
15	Landscaping Irrigation & Fencing		\$0
STRUCTURE			\$0
29	Site & Building Concrete		\$0
32	Structural Metals		\$0
35	Rough Carpentry		\$0
ENCLOSURE			\$2,261
38	Caulking and Sealants	Core West	\$593
42	Thermal and Sound Insulation	Altitude Insulation	\$718
43	Membrane Roofing	Nations Roof Mountain	\$950
46	Stucco / E.I.F.S.	Desert Sage	\$0
49	Glass and Glazing		\$0
INTERIOR FINISHES			\$16,131
55	Temporary Building Construction Requirements		\$0
56	Doors, Frames and Hardware	Johnson Brothers Planing Mill, Inc.	\$2,175
59	Finish Carpentry / Millwork		\$0
61	Metal Studs, Drywall, and ACT	Interior Contractors, Inc.	\$5,791
62	Paint		\$0
65	Carpet and Resilient Flooring	Dillabaugh's flooring America	\$8,165
70	Final Clean		\$0
SPECIALTIES			\$0
72	Building Signage		\$0
EQUIPMENT			\$0
MP&E SYSTEMS			\$59,970
97	Fire Sprinkler Systems	Mountain Fire Sprinklers	\$1,200
98	Plumbing Systems	Evans Plumbing Incorporated (EPI)	\$6,720
99	HVAC Systems	Thornton Heating & Sheetmetal	\$45,200
103	Electrical Systems	Lea Electric LLC	\$6,850
SUBCONTRACTOR DEFAULT INSURANCE			\$1,143

Subtotal (with Direct Costs)		\$82,426
------------------------------	--	----------

CONTINGENCIES & ALLOWANCES		\$4,121
5.0%	CM/GC Construction Contingency	\$82,426

Subtotal (with Contingencies & Allowances)		\$86,547
--	--	----------

	GENERAL REQUIREMENTS	BASED ON	SUB TOTAL
REQUIRED	General Conditions	4.5 Months	

Subtotal (with General Requirements)		\$86,547
--------------------------------------	--	----------

	INSURANCE, BONDS, AND BUILDERS RISK	BASED ON	SUB TOTAL
REQUIRED	General Liability	\$92,519	\$925
REQUIRED	Payment and Performance Bond	\$92,519	\$773
REQUIRED	Builders Risk Insurance	\$92,519	\$331

Subtotal (with GR's, Prof. Services, & Insurance)		\$88,577
---	--	----------

RATE	CONTRACTOR'S FEE	BASED ON	SUB TOTAL
4.45%	CM / GC Fee	\$88,577	\$3,942

Subtotal (GR's, Prof Services, Insurance, Tax, & Fee)		\$92,519
---	--	----------

Estimate Amount		
Estimate Total	\$92,519	

The findings indicated:

- The existing system had 25 tons of capacity based on occupant load. Current code requires 52 tons of capacity based on preliminary calculations of occupant load.
- The existing system did not provide outside air (OSA) Mechanical Ventilation. Current codes require OSA of 3,000 cfm based on preliminary calculations.
- The existing HVAC Zoning was split into 2 zones per floor (East and West only). New HVAC systems typically zone, per load type, equating to 4 to 6 zones per floor.
- The existing HVAC equipment is staged as “up-flow” installation, i.e. 1st floor equipment is located in the basement, 2nd floor equipment is located in the 1st floor, 3rd floor equipment is located in the 2nd floor. All equipment is located in mechanical closets utilizing precious floor space. New HVAC equipment is typically overhead, minimizing lost floor space. This configuration complicates phased construction strategies as work on the lower floor effects the mechanical equipment servicing the floor above.

The strategies pursued to provide a completely new mechanical system with the best sustainable option, running off electric feeds versus the existing gas system, resulted in a mechanical estimate of \$949,409.00. At the time of this estimate it was unknown if the building would require a greater electrical service. The design and construction team has now determined additional service would be required and has estimated a not to exceed allowance of \$250,000 for Idaho Power to upgrade electrical service.

A second option was explored which was a compromise between affordability and sustainability which eliminated conversion to electric from the existing gas system. This would remove the cost associated with upgrading the existing electrical panel of approximately \$25,000.00 as well as the potential of having to upgrade the existing building systems / power supply. The decision to utilize the compromise system of Split DX gas units and a VRF/VRV resulted in an HVAC material cost of \$449,479.00 cutting the initial investment in half.

However, this too exceeded the overall project budget. Therefore, it was determined to utilize the existing systems with supplementing with a mini-split on the 3rd floor and redistributing the mechanical ductwork to accommodate a minimal redesign of the floor plan. This strategy would not require building code upgrades, at this time, that require upgrading the existing system to accommodate an enlarged assembly occupancy. This resulted in a mechanical cost of \$132,243.00 and would allow for upgrades to take place at a future, to be determined, date. This saved the project over \$700,000.00.

After the conclusion of the bid process and submittal of the GMP, it was decided the Large Public Meeting Room located on the first floor needed to be enlarged to operate efficiently. The team evaluated the minimal improvements to accommodate the code requirements that are necessary for the larger assembly occupancy. The options evaluated included adding a 95% efficient 5 ton Gas Furnace with 13 seer AC condenser and coil along with an HRV fresh air exchange unit. This would be an additional cost of 45,000.00 for the mechanical equipment and \$6,850.00, for additional electrical feeds to power the equipment. Also evaluated was the option to utilize a comparable high efficiency electrical unit, AC Condenser and coils with an HRV fresh air recovery unit. It was determined the cost of the electrical HVAC equipment was comparable in price. However, it would require an electrical panel upgrade and supplemental electrical conduit, wiring etc. of approximately \$25,000.00.

All of the above work can be completed within the existing construction schedule durations as the equipment is available for immediate delivery.

Any further upgrades of the existing electrical infrastructure to accommodate future conversion to a complete electrical HVAC system, would require the involvement of Idaho Power to evaluate the available power within the immediate vicinity, the distance to provide the feeds as well as the cost associated with installation of a new transformer and supplemental electrical panels. Unfortunately, until a work order is submitted to Idaho Power to determine all the associated costs. The related costs can only be estimated on recent upgrades provided at other facilities. A recommended allowance for this electrical upgrade is approximately \$250,000.00.

Due to current procurement durations, of electrical transformers and associated equipment and scheduling of Idaho Power work orders, the project would require an additional six months and would prevent occupancy of the meeting room by September 2021.

Sustainability Impact

An electric unit would support the city's clean energy goals. However, the electric unit would not be as energy efficient as recommissioning the full HVAC system.

Financial Requirement/Impact

The dual fuel HVAC is included within the \$92,519 change order. Should the Council elect to go with an electric only unit, it would be an additional \$25,000 for the panel and up to \$250,000 to extend additional power service to the building. The necessary funds do exist in the CIP fund balance and General Fund balance without accessing set reserves.

Attachment:

Change Order quote for room expansion



City of Ketchum
City Hall

June 21, 2021

Mayor Bradshaw and City Councilors
City of Ketchum
Ketchum, Idaho

Mayor Bradshaw and City Councilors:

Recommendation to Approve a Dual Fuel HVAC Unit Associated with Expansion of Public Meeting Room at New City Hall

Recommendation and Summary

During the June 7th meeting, the Council approved the expansion of the meeting room and associated \$92,519 change order. However, the Council did not make a final determination regarding whether to approve a dual fuel system HVAC unit which is included in the change order amount OR an electric only unit which would result in an additional \$25,000 to upgrade the panel and potentially up to \$250,000 to have Idaho Power upgrade service to the building. Staff held a follow-up session with CSHQA and CORE Construction to debrief on the pros and cons as it relates to the project. The recommendation from the project team is to keep with a dual fuel system.

Regarding Council Meeting Room:

Option #1: "I move to fund the change order which includes dual fuel HVAC unit."

Option #2: "I move to appropriate an additional \$25,000 to fund the change order and an allowance of up to \$250,000 to extend electric service for an electric only HVAC unit."

The reasons for the recommendation are as follows:

- The city intends to recommission the building's entire HVAC system in future years. The technology associated with electric only HVAC units continues to advance.
- An electric unit purchased now would not likely be integrated with the rest of the building's new system due to change in technology.
- Should the Council select the electric only option, it would affect the overall project schedule delay occupy of the meeting room space for several months past the current September completion timeline.

Introduction and History

As part of the initial design work of the building, the consultant team researched various options to determine the most efficient system to upgrade the entire building with the best value and sustainable operations afforded by the project budget. To determine the options available the existing building systems needed to be evaluated as related to Building Code Updates, implemented during the last 20 years.