

October 21, 2020

SOLICITATION ADDENDUM NO. 1
RFQ 20-0009
Cooper Mountain Seismic General Contractor

THE FOLLOWING CHANGES/ADDITIONS TO THE ABOVE CITED SOLICITATION ARE ANNOUNCED:

This Addendum modifies the Request for Qualifications (RFQ) document(s) only to the extent indicated herein. All other areas not changed or otherwise modified by this Addendum shall remain in full force and effect. This Addendum is hereby made an integral part of the RFQ document. Applicants must be responsive to any requirements of this Addendum as if the requirements were set forth in the RFQ. Failure to do so may result in SoQ rejection. See the RFQ regarding requests for clarification or change and protests of this Addendum, and the deadlines for the foregoing.

This addendum is to be acknowledged in the space provided on the Certification form supplied in the solicitation document. Failure to acknowledge receipt of this addendum may be cause to reject your SoQ.

The closing date **REMAINS UNCHANGED: November 17, 2020 at 2:00 PM Pacific Time**

CHANGES:

- 1) The date of the mandatory pre-qualification conference listed on the Summary (page 1) of the RFQ is hereby changed to October 29, 2020. The time and location of the pre-qualification conference are unchanged.
- 2) The DD Engineer's Estimate is hereby attached to this Addendum 1 and incorporated into the RFQ.
- 3) The Supplemental Asbestos Survey Report is hereby attached to this Addendum 1 and incorporated into the RFQ.

CLARIFICATIONS:

Question: I see 2 dates for a prequal conference. Which one is correct? See below copy/pastes from the RFP:
MANDATORY pre-qualification conference will be held on **November 5, 2020** at 2:00 PM Pacific Time at Cooper Mountain ES, 7670 SW 170th Ave, Beaverton, OR 97007.

However, there is another section that says:

<u>RFQ Process Milestones</u>	<u>Dates</u>
Issue RFQ	October 15, 2020
Pre-qualification Conference	October 29, 2020 at 2:00 p.m.
Deadline for Questions	November 6, 2020

Answer: **October 29, 2020 is the correct date for the mandatory pre-qualification conference. Please see CHANGES 1), which corrects the erroneous November 5, 2020 date listed on the Summary page.**

Question: What is the Engineer's Estimate for the project.

Answer: **Please see the DD Engineer's Estimate, which attached to this addendum and incorporated into the RFQ.**

DD Engineer's Estimate

Architecture Planning Interiors LEED Consulting

115 NW First Ave, Suite 300
Portland, OR 97209
tel 503.280.8000c
fax 503.224.5442



OH PLANNING+DESIGN, ARCHITECTURE

DESIGN DEVELOPMENT COST ESTIMATE SUMMARY & BUDGET
COST REDUCTION (BCR)

PROJECT NAME:	PROJECT NO.: 90060
Cooper Mountain ES SRGP Improvements	DATE: 9/28/20

	Schematic Design					Design Development					SD/DD Delta	COMMENTS
	Area A	Area B	Area C	Area D	Total Area	Area A	Area B	Area C	Area D	Total Area	Total Area	
Direct Costs												
02 - Existing Conditions	\$18,143	\$15,948	\$31,786	\$83,624	\$149,501	\$43,405	\$20,645	\$53,393	\$81,756	\$199,199	\$49,698	\$46,000 allowance for hazardous material abatement.
03 - Concrete	\$0	\$0	\$6,050	\$0	\$6,050	\$1,750	\$0	\$6,800	\$0	\$8,550	\$2,500	
04 - Masonry	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$20,000	\$20,000	Full grouting of CMU wall under review, existing may be sufficient.
05 - Metals	\$8,908	\$50,411	\$28,677	\$16,574	\$104,570	\$9,844	\$70,229	\$36,254	\$17,324	\$133,651	\$29,081	Additional strapping at roof added from SD to DD
06 - Wood/Plastics/Composites	\$31,506	\$44,284	\$54,708	\$47,004	\$177,502	\$42,126	\$3,719	\$41,208	\$50,964	\$138,017	-\$39,485	No new plywood required at roof, roof scope reduced
07 - Thermal & Moisture Protection	\$0	\$102,956	\$0	\$120,798	\$223,754	\$0	\$113,414	\$4,157	\$161,580	\$279,151	\$55,397	Roof insulation increase from R-20 to R-30
09 - Finishes	\$86,809	\$9,818	\$205,653	\$106,417	\$408,697	\$101,549	\$17,537	\$162,421	\$119,399	\$400,906	-\$7,791	Adjusted for Swisspearl fiber cement
21 - Fire Suppression	\$0	\$25,000	\$0	\$0	\$25,000	\$0	\$25,000	\$0	\$0	\$25,000	\$0	
22 - Plumbing	\$24,963	\$0	\$4,858	\$4,189	\$34,010	\$24,963	\$0	\$4,858	\$4,639	\$34,460	\$450	
23 - HVAC	\$35,017	\$6,348	\$68,070	\$31,683	\$141,118	\$30,002	\$11,379	\$53,506	\$46,292	\$141,179	\$61	
25 - Integrated Automation	\$0	\$0	\$0	\$12,480	\$12,480	\$0	\$0	\$0	\$14,991	\$14,991	\$2,511	
26 - Electrical	\$41,417	\$41,760	\$138,129	\$27,025	\$248,331	\$31,952	\$39,816	\$142,096	\$27,025	\$240,889	-\$7,442	
27 - Communications	\$7,485	\$10,440	\$50,535	\$14,533	\$82,993	\$10,509	\$10,750	\$51,169	\$22,673	\$95,101	\$12,108	Added conduit/cable
28 - Electronic Safety & Security	\$8,733	\$12,180	\$58,958	\$10,173	\$90,044	\$9,708	\$12,180	\$59,073	\$10,173	\$91,134	\$1,090	
Subtotal	\$262,980	\$319,145	\$647,423	\$474,497	\$1,704,046	\$305,809	\$324,667	\$614,934	\$576,814	\$1,822,224	\$118,178	
Indirect Costs												
General Conditions (SD- 7%, DD- 10%)	\$18,409	\$22,340	\$45,320	\$33,215	\$119,283	\$30,581	\$32,467	\$61,493	\$57,681	\$182,222	\$62,939	Updated to meet recent industry trends
General Requirements (SD- 3%, DD- 4%)	\$8,442	\$10,245	\$20,782	\$15,231	\$54,700	\$13,456	\$14,285	\$27,057	\$25,380	\$80,178	\$25,478	Updated to meet recent industry trends
Bonds & Insurance (2%)	\$5,797	\$7,035	\$14,271	\$10,460	\$37,563	\$6,997	\$7,428	\$14,070	\$13,198	\$41,692	\$4,129	
General Contractor Fee (5%)	\$11,825	\$14,350	\$29,112	\$21,336	\$76,623	\$17,842	\$18,942	\$35,878	\$33,654	\$106,316	\$29,693	Increased from 4% to 5%
Design Contingency (SD- 20%, DD- 7%)	\$61,490	\$74,623	\$151,380	\$110,947	\$398,440	\$26,228	\$27,845	\$52,740	\$49,471	\$156,284	-\$242,156	Reduced from 15% to 7%.
Construction Contingency (3%)	\$11,068	\$13,432	\$27,248	\$19,970	\$71,718	\$12,027	\$12,769	\$24,184	\$22,685	\$71,667	-\$51	
Escalation, Summer 2021 (4.1%)	\$15,732	\$19,092	\$38,730	\$28,385	\$101,939	\$17,095	\$18,149	\$34,375	\$32,244	\$101,862	-\$77	
Subtotal	\$132,762	\$161,116	\$326,844	\$239,544	\$860,266	\$124,225	\$131,886	\$249,798	\$234,313	\$740,222	-\$120,044	
Total	\$395,743	\$480,262	\$974,267	\$714,041	\$2,564,312	\$430,034	\$456,553	\$864,731	\$811,127	\$2,562,446	-\$1,865	

Project Budget: \$2,500,000

Alternates	Cost (\$)	Accepted	Rejected	Alternate	Comments
Area B- Gymnasium/Auditorium					
1 Fiber cement rainscreen	\$44,000	\$0	\$0	\$0	Provide rainscreen instead of exposed structure at Gymnasium north façade.
	\$44,000	\$0	\$0	\$0	

Budget Cost Reduction (BCR) Options	Cost (\$)	Accepted	Rejected	Alternate	Comments
1 Salvage existing ACT instead of full replacement	\$114,400				Assumed 10% replacement of damaged ACT. DD Scope includes existing grid to remain.
2 Salvage ACT & grid at Cafeteria	\$7,700				DD scope includes full replacement of ACT/grid in Cafeteria only. 1,374SF
3 Reduce VCT replacement at foundation improvements	\$15,000				Reduce extent of demo from full room/corridor to ~3' from wall.
4 Fiber Cement to be James Hardie ILO Swiss Pearl	\$26,600				James Hardie @ \$4.5/SF ILO Swiss Pearl @ \$12.5/SF
Grand Total:	\$163,700	\$0	\$0	\$0	

BCR Summary	Cost (\$)	Comments
Target Total Cost of Construction:	\$2,500,000	
Accepted BCR Total:	\$0	
Estimated Grand Total w/ BCR :	\$2,562,446	
Estimated Grand Total w/BCR + Alternates :	\$2,562,446	

Notes:

Cooper Mountain Elementary School Seismic Improvements

DD Progress

September 25, 2020

20-00644



Prepared for OH Planning + Design

CUMMING
Building Value Through Expertise

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EXECUTIVE SUMMARY

1.1 Introduction

This estimate has been prepared, pursuant to an agreement between OH Planning + Design and Cumming, for the purpose of establishing a probable cost of construction at the DD Progress stage.

The project aims to improve the structural deficiencies of the Cooper Mountain Elementary School in compliance with the Seismic Evaluation and Conceptual Seismic Strengthening Scheme dated November 14, 2018. The seismic improvements will address the seismic performance of both the primary structural system and non-structural elements such as ceilings, piping, and mechanical equipment. The design targets specific walls, roofs, and ceilings in need of seismic improvement. Walls that require additional shear capacity will be strengthened on the side that will have the least intrusive impact on adjacent spaces, especially plumbing and other utilities. In addition to interior work, there will be a complete re-roof and roof-level seismic strengthening of the Gymnasium building (area B) and 1986 addition, classroom addition and covered walk (area D). Where devices, furnishings, and other equipment must be removed to provide access to the work, those items will be salvaged and protected for reinstallation whenever possible. All new finishes will be selected to match or complement the existing adjacent finishes.

1.2 COVID-19 Disclosure

The outbreak of the novel Coronavirus (COVID-19), declared by the World Health Organization as a "Global Pandemic" on 11 March 2020, has impacted global financial markets.

Market activity is being impacted in many sectors and circumstances remain very fluid and variable in different jurisdictions. Accordingly, as of this date, we are concerned with the market related impacts on the deliverables we are furnishing to you as part of our Services including cost estimates, budgets, and schedules ("Deliverable(s)"). Indeed, the current response to this pandemic means that we are faced with an unprecedented set of circumstances on which to base a judgement of the effects on the availability of labor, materials, and access and other impacts, although we are monitoring those on a continuing basis. Particularly including productivity impacts as a result of the CDC directives regarding social distancing.

Our Deliverables must be regarded with a degree of 'material uncertainty, – and a higher degree of caution – than would normally be the case. Given the unknown future impact that the COVID-19 pandemic might have on the construction and real estate markets, we recommend that you keep the Deliverables of this project under frequent review. For your information, we have not added or considered a COVID19 additional contingency within this Deliverable"

1.3 Project Schedule

	Start	Finish	Duration
Construction	Jun-21	Sep-21	4 months

1.4 Key Assumptions & Exclusions

This document should be read in association with Approach and Methodology which outline assumptions, project understanding, approach, and cost management methodology. Key assumptions built into the above cost breakdown include

Key Assumptions

- Design, Bid and Build
- Single Phase Construction

Key Exclusions

- Project Soft Costs
- Department Relocation
- Allowance for COVID-19 impacts

APPROACH & METHODOLOGY

Basis of Estimate	<p>Documents used:</p> <ul style="list-style-type: none">- Cooper Mountain Elementary School Seismic SGRP Improvements, DD Progress drawing set dated 08/28/2020
Estimate Format	<p>A component cost classification format has been used for the preparation of this estimate. It classifies costs by building trade.</p>
Cost Mark Ups	<p>The following % mark ups have been included in each design option:</p> <ul style="list-style-type: none">- General Conditions (10.00% on direct costs)- General Requirements (4.00% compound)- Bonds & Insurance (2.00% compound)- Contractor's Fee (5.00% compound)- Design Contingency (7.00% compound)- Construction Contingency (3.00% compound)- Escalation to MOC, 08/03/21 (4.14% compound)
Escalation	<p>All subcontract prices herein are reflective of current bid prices. Escalation has been included on the summary level to the stated mid point of construction.</p>
Design Contingency	<p>An allowance of 7% for undeveloped design details has been included in this estimate. As the design of each system is further developed, details which historically increase cost become apparent and must be incorporated into the estimate while decreasing the % burden.</p>
Construction Contingency	<p>It is prudent for all program budgets to include an allowance for change orders which occur during the construction phase. These change orders normally increase the cost of the project. It is recommended that a 3% construction contingency is carried in this respect. This cost is included within the estimate.</p>
Construction Schedule	<p>Costs included herein have been based upon a construction period of 4 months. Any costs for excessive overtime to meet accelerated schedule milestone dates are not included in this estimate.</p>
Method of Procurement	<p>The estimate is based on a Design, Bid and Build procurement strategy.</p>
Bid Conditions	<p>This estimate has been based upon competitive bid situations (minimum of 3 bidders) for all items of subcontracted work.</p>
Basis For Quantities	<p>Wherever possible, this estimate has been based upon the actual measurement of different items of work. For the remaining items, parametric measurements were used in conjunction with other projects of a similar nature.</p>
Basis for Unit Costs	<p>Unit costs as contained herein are based on current bid prices in Portland, OR. Sub overheads and profit are included in each line item unit cost. Their overhead and profit covers each sub's cost for labor burden, materials, and equipment, field overhead, home office overhead, and profit. The general contractor's overhead is shown separately on the master summary.</p>

APPROACH & METHODOLOGY

Sources for Pricing

This estimate was prepared by a team of qualified cost consultants experienced in estimating construction costs at all stages of design. These consultants have used pricing data from Cumming's database updated to reflect current conditions in Q3 2020..

Key Exclusions

The following items have been excluded from our estimate:

- Project Soft Costs
- Department Relocation
- Allowance for COVID-19 impacts

Items Affecting Cost Estimate

Items which may change the estimated construction cost include, but are not limited to:

- Modifications to the scope of work included in this estimate.
- Unforeseen sub-surface conditions.
- Restrictive technical specifications or excessive contract conditions.
- Any specified item of material or product that cannot be obtained from 3 sources.
- Any other non-competitive bid situations.
- Bids delayed beyond the projected schedule.

Statement of Probable Cost

Cumming has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. This estimate is made on the basis of the experience, qualifications, and best judgement of a professional consultant familiar with the construction industry. Cumming, however, cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Cumming's staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

Pricing reflects probable construction costs obtainable in the project locality on the target dates specified and is a determination of fair market value for the construction of this project. The estimate is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all sub and general contractors with a range of 3 - 4 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids. Conversely, an increased number of bidders may result in more competitive bid day responses.

APPROACH & METHODOLOGY

COVID-19 Disclosure

The outbreak of the novel Coronavirus (COVID-19), declared by the World Health Organization as a “Global Pandemic” on 11 March 2020, has impacted global financial markets.

Market activity is being impacted in many sectors and circumstances remain very fluid and variable in different jurisdictions. Accordingly, as of this date, we are concerned with the market related impacts on the deliverables we are furnishing to you as part of our Services including cost estimates, budgets, and schedules (“Deliverable(s)”). Indeed, the current response to this pandemic means that we are faced with an unprecedented set of circumstances on which to base a judgement of the effects on the availability of labor, materials, and access and other impacts, although we are monitoring those on a continuing basis. Particularly including productivity impacts as a result of the CDC directives regarding social distancing.

Our Deliverables must be regarded with a degree of ‘material uncertainty, – and a higher degree of caution – than would normally be the case. Given the unknown future impact that the COVID-19 pandemic might have on the construction and real estate markets, we recommend that you keep the Deliverables of this project under frequent review. For your information, we have not added or considered a COVID19 additional contingency within this Deliverable”

Recommendations

Cumming recommends that the Owner and the Architect carefully review this entire document to ensure it reflects their design intent. Requests for modifications of any apparent errors or omissions to this document must be made to Cumming within ten days of receipt of this estimate. Otherwise, it will be assumed that its contents have been reviewed and accepted. If the project is over budget or there are unresolved budget issues, alternate systems / schemes should be evaluated before proceeding into further design phases.

It is recommended that there are preparations of further cost estimates throughout design by Cumming to determine overall cost changes since the preparation of this estimate. These future estimates will have detailed breakdowns indicating materials by type, kind, and size, priced by their respective units of measure.

SUMMARY

Element	Area	Cost / SF	Total
Area A	4,990	\$86.18	\$430,034
Area B	6,960	\$65.60	\$456,553
Area C	33,690	\$25.67	\$864,731
Area D	5,813	\$139.54	\$811,127
Total Estimated Construction Cost	51,453	\$49.80	\$2,562,446

Add Alternates

Total

Enclose new HSS posts on North Elevation of Gym (Area B) with new sheathing and siding	\$45,000
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Note: All costs include the following Mark-Ups-Ups

- General Conditions
- General Requirements
- Bonds & Insurance
- Subguard Insurance
- Contractor's Fee
- Design Contingency
- Construction Contingency
- Escalation

Cooper Mountain Elementary School Seismic Improvements
Beaverton, OR
DD Progress

Project # 20-00644
09/25/20

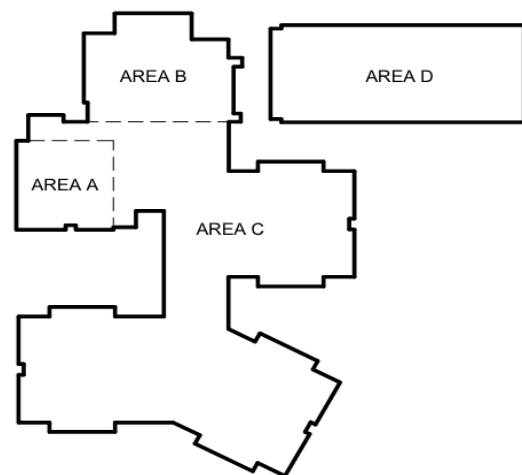
SUMMARY MATRIX

	Area A 4,990 SF		Area B 6,960 SF		Area C 33,690 SF		Area D 5,813 SF		Overall Totals	
Element	Total	Cost/SF	Total	Cost/SF	Total	Cost/SF	Total	Cost/SF	Total	Cost/SF
02 Existing Conditions	\$43,405	\$8.70	\$20,645	\$2.97	\$53,393	\$1.58	\$81,756	\$14.06	\$199,199	\$3.87
03 Concrete	\$1,750	\$0.35			\$6,800	\$0.20			\$8,550	\$0.17
04 Masonry							\$20,000	\$3.44	\$20,000	\$0.39
05 Metals	\$9,844	\$1.97	\$70,229	\$10.09	\$36,254	\$1.08	\$17,324	\$2.98	\$133,650	\$2.60
06 Wood, Plastics, And Composites	\$42,126	\$8.44	\$3,719	\$0.53	\$41,208	\$1.22	\$50,964	\$8.77	\$138,017	\$2.68
07 Thermal And Moisture Protection			\$113,414	\$16.30	\$4,157	\$0.12	\$161,580	\$27.80	\$279,150	\$5.43
09 Finishes	\$101,549	\$20.35	\$17,537	\$2.52	\$162,421	\$4.82	\$119,399	\$20.54	\$400,906	\$7.79
21 Fire Suppression			\$25,000	\$3.59					\$25,000	\$0.49
22 Plumbing	\$24,963	\$5.00			\$4,858	\$0.14	\$4,639	\$0.80	\$34,460	\$0.67
23 HVAC	\$30,002	\$6.01	\$11,379	\$1.63	\$53,506	\$1.59	\$46,292	\$7.96	\$141,179	\$2.74
25 Integrated Automation							\$14,991	\$2.58	\$14,991	\$0.29
26 Electrical	\$31,952	\$6.40	\$39,816	\$5.72	\$142,096	\$4.22	\$27,025	\$4.65	\$240,889	\$4.68
27 Communications	\$10,509	\$2.11	\$10,750	\$1.54	\$51,169	\$1.52	\$22,673	\$3.90	\$95,101	\$1.85
28 Electrical Safety And Security	\$9,708	\$1.95	\$12,180	\$1.75	\$59,073	\$1.75	\$10,173	\$1.75	\$91,133	\$1.77
Subtotal Cost	\$305,809	\$61.28	\$324,667	\$46.65	\$614,934	\$18.25	\$576,814	\$99.23	\$1,822,224	\$35.42
General Conditions 10.0%	\$30,581	\$6.13	\$32,467	\$4.66	\$61,493	\$1.83	\$57,681	\$9.92	\$182,222	\$3.54
General Requirements 4.0%	\$13,456	\$2.70	\$14,285	\$2.05	\$27,057	\$0.80	\$25,380	\$4.37	\$80,178	\$1.56
Bonds & Insurance 2.0%	\$6,997	\$1.40	\$7,428	\$1.07	\$14,070	\$0.42	\$13,198	\$2.27	\$41,692	\$0.81
Contractor's Fee 5.0%	\$17,842	\$3.58	\$18,942	\$2.72	\$35,878	\$1.06	\$33,654	\$5.79	\$106,316	\$2.07
Design Contingency 7.0%	\$26,228	\$5.26	\$27,845	\$4.00	\$52,740	\$1.57	\$49,471	\$8.51	\$156,284	\$3.04
Construction Contingency 3.0%	\$12,027	\$2.41	\$12,769	\$1.83	\$24,185	\$0.72	\$22,686	\$3.90	\$71,667	\$1.39
Escalation to MOC, 08/03/21 4.1%	\$17,095	\$3.43	\$18,149	\$2.61	\$34,375	\$1.02	\$32,244	\$5.55	\$101,862	\$1.98
Total Estimated Construction Cost	\$430,034	\$86.18	\$456,553	\$65.60	\$864,731	\$25.67	\$811,127	\$139.54	\$2,562,446	\$49.80

SCHEDULE OF AREAS AND CONTROL QUANTITIES

Schedule of Areas	Area A	Area B	Area C	Area D	SF
1. Enclosed Areas (x 100%)					
Area A	4,990				4,990
Area B		6,960			6,960
Area C			33,690		33,690
Area D				5,813	5,813
Total Enclosed	4,990	6,960	33,690	5,813	51,453
2. Unenclosed Areas					
Covered Deck				6,098	6,098
Total Unenclosed				6,098	6,098

KEY PLAN



BUILDING YEAR PLAN

Area A

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

SUMMARY - AREA A

Element		Total	Cost / SF
02 Existing Conditions		\$43,405	\$8.70
03 Concrete		\$1,750	\$0.35
05 Metals		\$9,844	\$1.97
06 Wood, Plastics, And Composites		\$42,126	\$8.44
09 Finishes		\$101,549	\$20.35
22 Plumbing		\$24,963	\$5.00
23 HVAC		\$30,002	\$6.01
26 Electrical		\$31,952	\$6.40
27 Communications		\$10,509	\$2.11
28 Electrical Safety And Security		\$9,708	\$1.95
Subtotal		\$305,809	\$61.28
General Conditions	10.00%	\$30,581	\$6.13
Subtotal		\$336,390	\$67.41
General Requirements	4.00%	\$13,456	\$2.70
Subtotal		\$349,845	\$70.11
Bonds & Insurance	2.00%	\$6,997	\$1.40
Subtotal		\$356,842	\$71.51
Contractor's Fee	5.00%	\$17,842	\$3.58
Subtotal		\$374,684	\$75.09
Design Contingency	7.00%	\$26,228	\$5.26
Subtotal		\$400,912	\$80.34
Construction Contingency	3.00%	\$12,027	\$2.41
Subtotal		\$412,939	\$82.75
Escalation to MOC, 08/03/21	4.14%	\$17,095	\$3.43
TOTAL ESTIMATED CONSTRUCTION COST		\$430,034	\$86.18

Total Area: 4,990 SF

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA A

Element	Quantity	Unit	Unit Cost	Total
02 Existing Conditions				
Demolition				
Demolish existing window.	1	ea	\$99.09	\$99
Remove gypsum board as required to install new connection between base of wall and foundation	70	sf	\$1.99	\$139
Demolish 5/8" gypsum board, veneer plaster, and rubber base	1,329	sf	\$2.19	\$2,911
Remove and salvage wall mounted equipment and devices	1,694	sf	\$1.46	\$2,473
Demolish wall mounted tectum acoustic panels	1,502	sf	\$1.79	\$2,689
Remove and salvage casework and/or shelving	24	lf	\$16.61	\$399
Demolish built out furred wall to structural framing	884	lf	\$2.52	\$2,228
Demolish slab for structural footing. Protect adjacent flooring finish	20	sf	\$73.09	\$1,462
Demolish existing floor finish and sheathing for installation of new blocking and nailing	45	sf	\$2.59	\$117
Demolish existing cement plaster exterior finish	208	sf	\$2.92	\$607
Remove and salvage upper casework. Demolish lower casework, countertop, and sink.	20	lf	\$16.61	\$332
Demolish p-lam countertop. Existing lower casework to remain	38	lf	\$6.70	\$255
Demolish VCT flooring to nearest tile joint, min. 3'-0" from wall	2,008	sf	\$1.79	\$3,594
Demolish floor sheathing to allow access for new wall sheathing	67	sf	\$1.50	\$101
Remove protective wall covering; protect decorative tiles above.	412	sf	\$1.50	\$618
Demolish all existing lay-in ceiling tiles to provide access to underside of roof decking.				
Modify grid at perimeter.	591	sf	\$0.73	\$431
Demolish 4' wide gypsum board ceiling assembly and associated 4x4 recessed light fittings.	1049	sf	\$1.79	\$1,878
Demolish existing ceiling for installation of new wall sheathing	40	sf	\$1.79	\$72
Demolish all existing lay-in ceiling tiles and grid to provide access to underside of roof decking.	1373	sf	\$0.73	\$1,002
Additional demolition scope, allowance	1	ls	\$1,000.00	\$1,000
Hazmat abatement				
Hazmat abatement; Allowance	1	ls	\$21,000.00	\$21,000

Total - Existing Conditions**\$43,405****03 Concrete**

Concrete footings

Form new concrete footings 3' x 3' x 1'6" thick; include all excavation, breaking up existing slab, excavation, reinforcement, backfill and reinstating slab on grade and flooring to match existing

Patch and repair slab at area of new footing work

2	ea	\$750.00	\$1,500
20	sf	\$12.50	\$250

Total - Concrete**\$1,750****05 Metals**

Miscellaneous

Simpson HDU holddown and post, include epoxy dowel to existing footings

Simpson HDU holddown, include epoxy dowel to existing CMU wall and screwed to existing timber

11	ea	\$79.69	\$877
8	ea	\$79.69	\$638

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

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DETAIL ELEMENTS - AREA A

Element	Quantity	Unit	Unit Cost	Total
2' x 2' x 1/2" metal plate, bolted to existing concrete with 4# expansion anchors	24	ea	\$90.89	\$2,181
2' x 9" x 1/2" metal plate, bolted to existing concrete with 4# expansion anchors	12	ea	\$62.90	\$755
Miscellaneous metals, allowance	4,990	gsf	\$0.58	\$2,894
Canopy attachments to existing structure, allowance	1	ls	\$2,500.00	\$2,500

Total - Metals**\$9,844****06 Wood, Plastics, And Composites**

Rough Carpentry

Wall Framing, Wood Studs

Wood studs, 2" x 6" at 16" o.c., exterior walls

208 sf \$5.41 \$1,125

Wood studs, 2" x 6" at 16" o.c., partitions

3,030 sf \$5.41 \$16,392

Bolt bottom stud to existing concrete

115 lf \$12.39 \$1,425

Upper Floor Framing

Provide blocking and additional boundary nailing

45 sf \$8.39 \$378

Plywood Sheathing, CDX

Shear walls, 1/2"

3,238 sf \$2.68 \$8,678

Flooring, 3/4", in repairs

112 sf \$3.00 \$336

Building Casework:

Base cabinets, plastic laminate countertops

20 lf \$296.51 \$5,930

Reinstall Upper cabinets, previously laid aside

20 lf \$61.36 \$1,227

Worktop, laminated, incl. all supports

38 lf \$174.59 \$6,634

Total - Wood, Plastics, And Composites**\$42,126****09 Finishes**

Exterior Walls

Exterior Walls

Infill window opening; include timber studs, ply sheathing, building paper, fiber cement board, gypsum board,

20 sf \$25.01 \$500

Exterior Plaster

Exterior plaster, walls; include sheathing and water barrier

208 sf \$15.17 \$3,155

Interior Partitions

Gypsum Board

Gypsum board, 5/8" thick, finished (I4), type X, fixed to ply sheathing

3,030 sf \$3.26 \$9,878

Gypsum board, 5/8" thick, finished (I4), type X, in repairs, include joint to existing

70 sf \$3.66 \$256

Ceiling

Acoustic Tile Ceilings

ACT, 2' x 4', include ceiling grid

1,373 sf \$4.77 \$6,549

Form seismic gap with closure angle

156 lf \$6.43 \$1,003

ACT, 2' x 4' tiles, lay in existing grid; modify ceiling grid as required

591 sf \$3.90 \$2,305

Gypsum board ceilings, incl. framing

1,049 sf \$10.40 \$10,910

Gypsum board soffit drops, incl. framing

624 sf \$18.78 \$11,719

Gypsum board ceilings, incl. framing, in repairs, include joint to existing finishes

40 sf \$11.95 \$478

Flooring

Floors

Cooper Mountain Elementary School Seismic Improvements

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09/25/20

DETAIL ELEMENTS - AREA A

Element	Quantity	Unit	Unit Cost	Total
Repairs to existing flooring; match existing flooring, include joints to existing	335	sf	\$4.59	\$1,538
VCT, prepare existing floor	1,717	sf	\$4.60	\$7,898
Base				
Rubber base, 4"	413	lf	\$3.85	\$1,590
Walls				
Acoustic wall panels	1,488	sf	\$13.93	\$20,728
Reinstall wall mounted equipment and devices, previously laid aside for re-use	1,694	sf	\$3.57	\$6,048
Wall protection panels	412	sf	\$12.79	\$5,269
Painting and Coating				
Walls				
Paint walls	4,555	sf	\$0.74	\$3,371
Paint existing walls, allowance	4,990	gsf	\$0.63	\$3,144
Paint new exterior cement plaster	208	sf	\$1.29	\$268
Ceiling				
Paint gypsum board ceilings/soffit drops	1,713	sf	\$0.85	\$1,456
Paint existing ceilings, allowance	4,990	gsf	\$0.63	\$3,144
Casework				
Paint existing base cabinets	38	lf	\$9.03	\$343

Total - Finishes**\$101,549****22 Plumbing**

Plumbing installation

Demolish all plumbing that interferes with construction of the new shear wall	1	ls	\$13,032.00	\$13,032
Demolish sink in second floor music room; install new sink	1	ls	\$6,000.00	\$6,000
Relocate 3/4" cold water line and hose bibb	1	ls	\$1,927.00	\$1,927
Install seismic bracing for all gas piping in kitchen	1	ls	\$4,004.00	\$4,004

Total - Plumbing**\$24,963****23 HVAC**

Demolition

Demolish ductwork, associated equipment for new shear wall	1	ls	\$2,122.00	\$2,122
Demolish duct that interferes with sheeting installation, re-install-2 times	1	ls	\$13,032.00	\$13,032
Demolish 4 supply grilles	1	ls	\$1,929.00	\$1,929
Demolish grilles and supply ductwork	1	ls	\$1,396.00	\$1,396

HVAC installation

Install new ductwork, dampers and grilles	1	ls	\$5,000.00	\$5,000
Install seismic bracing at unit heater	1	ls	\$1,571.00	\$1,571
Add seismic bracing to HVAC duct that exceeds 6 sf	1	ls	\$4,952.00	\$4,952

Total - HVAC**\$30,002**

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DETAIL ELEMENTS - AREA A

Element	Quantity	Unit	Unit Cost	Total
26 Electrical				
Electrical Installation				
General Electrical	4,990	gfa	\$0.50	\$2,495
Demo/Safe-Off/Temp Pwr & Ltg	4,990	gfa	\$1.35	\$6,737
Testing & Commissioning	4,990	gfa	\$0.35	\$1,747
Convenience Power				
J-Box connection, Relocated	3	ea	\$95.00	\$285
Receptacle 20A Quad New	3	ea	\$165.00	\$495
Receptacle 20A Duplex Relocated	3	ea	\$95.00	\$285
Receptacle 20A Duplex Surface Relocated	1	ea	\$95.00	\$95
Receptacle 20A Quad Duplex Relocated	3	ea	\$95.00	\$285
Reconnect existing circuit	1	ea	\$95.00	\$95
Branch wiring	600	lf	\$4.50	\$2,700
Lighting fixtures, conduits, wiring				
Surface Strip Relocated	3	ea	\$95.00	\$285
Type E Recessed	6	ea	\$95.00	\$570
Type F1 Recessed 2x2	13	ea	\$95.00	\$1,235
Type Exit New	2	ea	\$285.00	\$570
Track Lighting Relocated (Incl (6) Heads)	38	lf	\$25.00	\$950
Switch OS Ceiling	3	ea	\$125.00	\$375
Branch wiring - lighting	575	lf	\$5.25	\$3,019
HVAC and Equipment Reconnections	4,990	gfa	\$1.95	\$9,731

Total - Electrical**\$31,952****27 Communications**

Communication Installation				
Telecom/Data, conduit and cable	4,990	gfa	\$1.50	\$7,485
Tel/Data Outlet Relocated	2	ea	\$95.00	\$190
A/V System, conduit and cable	4,990	gfa	\$0.50	\$2,495
TV Outlet Relocated	2	ea	\$102.00	\$204
Clock Outlet Relocated	1	ea	\$135.00	\$135

Total - Communications**\$10,509****28 Electrical Safety And Security**

Electrical Safety And Security				
Security/Access Control, conduit and cable	4,990	gfa	\$0.75	\$3,743
Fire Alarm/ Mass Notification System	4,990	gfa	\$1.00	\$4,990
Smoke Detector Relocated	5	ea	\$195.00	\$975

Total - Electrical Safety And Security**\$9,708**

Area B

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

SUMMARY - AREA B

Element		Total	Cost / SF
02 Existing Conditions		\$20,645	\$2.97
05 Metals		\$70,229	\$10.09
06 Wood, Plastics, And Composites		\$3,719	\$0.53
07 Thermal And Moisture Protection		\$113,414	\$16.30
09 Finishes		\$17,537	\$2.52
21 Fire Suppression		\$25,000	\$3.59
23 HVAC		\$11,379	\$1.63
26 Electrical		\$39,816	\$5.72
27 Communications		\$10,750	\$1.54
28 Electrical Safety And Security		\$12,180	\$1.75
Subtotal		\$324,667	\$46.65
General Conditions	10.00%	\$32,467	\$4.66
Subtotal		\$357,134	\$51.31
General Requirements	4.00%	\$14,285	\$2.05
Subtotal		\$371,419	\$53.36
Bonds & Insurance	2.00%	\$7,428	\$1.07
Subtotal		\$378,847	\$54.43
Contractor's Fee	5.00%	\$18,942	\$2.72
Subtotal		\$397,790	\$57.15
Design Contingency	7.00%	\$27,845	\$4.00
Subtotal		\$425,635	\$61.15
Construction Contingency	3.00%	\$12,769	\$1.83
Subtotal		\$438,404	\$62.99
Escalation to MOC, 08/03/21	4.14%	\$18,149	\$2.61

TOTAL ESTIMATED CONSTRUCTION COST

\$456,553

\$65.60

Total Area: 6,960 SF

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA B

Element	Quantity	Unit	Unit Cost	Total
02 Existing Conditions				
Demolition				
Demolish gypsum board ceiling	843	sf	\$1.79	\$1,509
Demolition - Roof				
Demolish standing seam roofing	6,251	sf	\$2.19	\$13,689
Demolish gutter.	168	lf	\$2.66	\$447
Hazmat abatement				
Hazmat abatement; Allowance	1	ls	\$5,000.00	\$5,000
Total - Existing Conditions				\$20,645

05 Metals

Structural Steel				
HSS 6" x 4" x 5/16", continuously bolted to existing structure	3.01	tn	\$6,243.66	\$18,793
Miscellaneous bolts and connections	0.25	tn	\$6,243.66	\$1,561
Hi-Performance coating to steelwork	1,583	sf	\$9.01	\$14,263
Miscellaneous				
Steel angle 4" x 4" x 5/16 x 1' long, bolted to existing concrete slab and CMU wall; painted	18	ea	\$45.00	\$810
Steel angle 6" x 6" x 3/8 x 1' long, bolted to existing CMU wall; Office & Storage	64	ea	\$50.00	\$3,200
Steel angle 6" x 6" x 3/8 x 1' long, bolted to existing concrete wall; Gym	150	ea	\$50.00	\$7,500
Simpson collector straps at 48" centers each way; roof	6,251	sf	\$3.21	\$20,065
Miscellaneous metals, allowance	6,960	sf	\$0.58	\$4,037
Total - Metals				\$70,229

06 Wood, Plastics, And Composites

Rough Carpentry				
Plywood Sheathing				
Roof sheathing, 1/2", in repairs; Allowance	625	sf	\$5.95	\$3,719
Total - Wood, Plastics, And Composites				\$3,719

07 Thermal And Moisture Protection

Roof Insulation				
R-30 Rigid roof insulation, poly iso insulation	6,251	sf	\$7.66	\$47,880
Built Up Roofing				
TPO roofing	6,251	sf	\$7.36	\$46,005
Flashing/Counterflashing				
Counterflash/flash	6,251	sf	\$2.00	\$12,501
Roof Accessories				
Gutters	168	lf	\$26.47	\$4,447

Cooper Mountain Elementary School Seismic Improvements

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Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA B

Element	Quantity	Unit	Unit Cost	Total
Aluminum downspouts	60	lf	\$26.47	\$1,588
Roof curbs for fans	52	lf	\$15.07	\$784
Miscellaneous				
Caulking allowance	6,960	gfs	\$0.03	\$209

Total - Thermal And Moisture Protection**\$113,414****09 Finishes**

Ceiling				
Gypsum board ceilings, incl. framing	843	sf	\$10.40	\$8,767
Painting and Coating				
Walls				
Paint existing walls, allowance	6,960	gsf	\$0.63	\$4,385
Ceiling				
Paint existing ceilings, allowance	6,960	gsf	\$0.63	\$4,385

Total - Finishes**\$17,537****21 Fire Suppression**

Fire Suppression installation				
Install seismic bracing for fore protection piping	1	ls	\$25,000.00	\$25,000

Total - Fire Suppression**\$25,000****23 HVAC**

Demolition				
Remove existing exhaust fans and curbs	2	ea	\$543.00	\$1,086
HVAC installation				
Add seismic bracing to HVAC equipment suspended from roof structure	1	ls	\$4,952.00	\$4,952
Remove and reinstall gravity relief hoods	1	ls	\$1,396.00	\$1,396
Set existing exhaust fans in place	2	ea	\$710.30	\$1,421
Install new roof curbs for exhaust fans	2	ea	\$1,262.00	\$2,524

Total - HVAC**\$11,379****26 Electrical**

Electrical Installation				
General Electrical	6,960	gfa	\$1.00	\$6,960
Demo/Safe-Off/Temp Pwr & Ltg	6,960	gfa	\$1.35	\$9,396
Testing & Commissioning	6,960	gfa	\$0.50	\$3,480
Service & Distribution	6,960	gfa	\$0.50	\$3,480
Convenience Power				

Cooper Mountain Elementary School Seismic Improvements

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Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA B

Element	Quantity	Unit	Unit Cost	Total
Receptacle 20A Duplex Relocated	1	ea	\$95.00	\$95
Branch wiring	25	lf	\$4.50	\$113
Lighting fixtures, conduits, wiring				
New wire cage over existing fixtures	32	ea	\$85.00	\$2,720
HVAC and Equipment Reconnections	6,960	gfa	\$1.95	\$13,572

Total - Electrical	\$39,816
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27 Communications

Communication Installation				
Telecom/Data, conduit and cable	6,960	gfa	\$1.00	\$6,960
WAP Outlet Relocated	1	ea	\$175.00	\$175
A/V System, conduit and cable	6,960	gfa	\$0.50	\$3,480
Clock Outlet Relocated	1	ea	\$135.00	\$135

Total - Communications	\$10,750
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28 Electrical Safety And Security

Electrical Safety And Security				
Security/Access Control, conduit and cable	6,960	gfa	\$0.75	\$5,220
New Fire Alarm/ Mass Notification System	6,960	gfa	\$1.00	\$6,960

Total - Electrical Safety And Security	\$12,180
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Area C

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

SUMMARY - AREA C

Element		Total	Cost / SF
02 Existing Conditions		\$53,393	\$1.58
03 Concrete		\$6,800	\$0.20
05 Metals		\$36,254	\$1.08
06 Wood, Plastics, And Composites		\$41,208	\$1.22
07 Thermal And Moisture Protection		\$4,157	\$0.12
09 Finishes		\$162,421	\$4.82
22 Plumbing		\$4,858	\$0.14
23 HVAC		\$53,506	\$1.59
26 Electrical		\$142,096	\$4.22
27 Communications		\$51,169	\$1.52
28 Electrical Safety And Security		\$59,073	\$1.75
Subtotal		\$614,934	\$18.25
General Conditions	10.00%	\$61,493	\$1.83
Subtotal		\$676,427	\$20.08
General Requirements	4.00%	\$27,057	\$0.80
Subtotal		\$703,484	\$20.88
Bonds & Insurance	2.00%	\$14,070	\$0.42
Subtotal		\$717,554	\$21.30
Contractor's Fee	5.00%	\$35,878	\$1.06
Subtotal		\$753,431	\$22.36
Design Contingency	7.00%	\$52,740	\$1.57
Subtotal		\$806,172	\$23.93
Construction Contingency	3.00%	\$24,185	\$0.72
Subtotal		\$830,357	\$24.65
Escalation to MOC, 08/03/21	4.14%	\$34,375	\$1.02

TOTAL ESTIMATED CONSTRUCTION COST

\$864,731

\$25.67

Total Area: 33,690 SF

Cooper Mountain Elementary School Seismic Improvements

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Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA C

Element	Quantity	Unit	Unit Cost	Total
02 Existing Conditions				
Demolition				
Demolish 5/8" gypsum board, veneer plaster, and rubber base	2,506	sf	\$2.19	\$5,488
Remove and salvage wall mounted equipment and devices	1,406	sf	\$1.46	\$2,053
Demolish tackable wall surface	603	sf	\$0.73	\$440
Demolish slab for structural footing. Protect adjacent flooring finish	65	sf	\$73.09	\$4,751
Pull back soil and landscaping to provide foundation access for structural; reinstate	1,455	sf	\$1.00	\$1,455
Demolish VCT flooring to nearest tile joint, min. 3'-0" from wall	996	sf	\$1.79	\$1,783
Demo asphalt for foundation anchors; reinstate	245	sf	\$7.00	\$1,715
Demo concrete for foundation anchors; reinstate	52	sf	\$14.50	\$754
Demolish all existing lay-in ceiling tiles to provide access to underside of roof decking. Modify grid at perimeter.	26,361	sf	\$0.73	\$19,244
Demolish gypsum board ceiling	397	sf	\$1.79	\$711
Remove ceiling tiles for installation of new columns				
Hazmat abatement				
Hazmat abatement; Allowance	1	ls	\$15,000.00	\$15,000

Total - Existing Conditions**\$53,393****03 Concrete**

Concrete footings

Form new concrete footings 3' x 3' x 1'6" thick; include all excavation, breaking up existing slab, excavation, reinforcement, backfill and reinstating slab on grade and flooring to match existing	4	ea	\$750.00	\$3,000
Form new concrete footings 3' x 3' x 1'6" thick adjacent to existing tunnel; include all excavation, breaking up existing slab, excavation, reinforcement, backfill and reinstating slab on grade and flooring to match existing	3	ea	\$1,000.00	\$3,000
Patch and repair slab at area of new footing work	64	lf	\$12.50	\$800

Total - Concrete**\$6,800****05 Metals**

Miscellaneous

Simpson HDU holddown and post, include epoxy dowel to existing footings	8	ea	\$79.69	\$638
2' x 7" x 1/4" metal plate, bolted to existing concrete with 4# expansion anchors	220	ea	\$60.00	\$13,200
Simpson coil strap to underside of existing joists	40	lf	\$8.47	\$339
Simpson HD bolted to concrete wall with epoxy anchors	11	ea	\$62.90	\$692
Simpson HD E/S bolted to concrete wall with epoxy anchors	18	ea	\$62.90	\$1,132
Connect joists to underside of roof sheathing with A35 clips	78	ea	\$9.14	\$713
Miscellaneous metals, allowance	33,690	gsf	\$0.58	\$19,540

Total - Metals**\$36,254****06 Wood, Plastics, And Composites**

Cooper Mountain Elementary School Seismic Improvements

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DETAIL ELEMENTS - AREA C

Element	Quantity	Unit	Unit Cost	Total
Rough Carpentry				
Wall Framing, Wood Studs				
Wood studs, 2" x 6" at 16" o.c., partitions	2,506	sf	\$5.41	\$13,557
Bolt bottom stud channel to existing concrete	179	lf	\$12.39	\$2,218
Plywood Sheathing, CDX				
Shear walls, 1/2"	1,652	sf	\$2.68	\$4,427
Connection to existing roof	179	lf	\$7.50	\$1,343
Miscellaneous Rough Carpentry:				
Blocking below roof with 2 x 6 blocking; connect with A34 clips each side	3,167	lf	\$4.63	\$14,663
Sheathing / wall support of partial height concrete wall	1	ls	\$5,000.00	\$5,000

Total - Wood, Plastics, And Composites**\$41,208****07 Thermal And Moisture Protection**

Roof Accessories				
Gutters	166	lf	\$25.04	\$4,157

Total - Thermal And Moisture Protection**\$4,157****09 Finishes**

Interior Partitions				
Gypsum Board				
Gypsum board, 5/8" thick, finished (I4), type X, fixed to ply sheathing	1,652	sf	\$3.26	\$5,386
Ceiling				
Acoustic Tile Ceilings				
ACT, 2' x 4' tiles, lay in existing grid; modify ceiling grid as required	23,725	sf	\$3.90	\$92,527
ACT, 2' x 4' tiles, include grid; Allowance for damaged tiles and grid	2,636	sf	\$4.77	\$12,574
Gypsum board ceilings, incl. framing	397	sf	\$10.40	\$4,129
Flooring				
Floors				
Repairs to existing flooring; match existing flooring, include joints to existing	996	sf	\$4.59	\$4,572
Reinstall carpet with adhesive where rolled back, include rolling back	129	lf	\$0.58	\$75
Base				
Rubber base, 4"	213	lf	\$3.85	\$820
Walls				
Sureboard sheathing panels	854	sf	\$13.93	\$11,896
Reinstall wall mounted equipment and devices, previously laid aside for re-use	1,406	sf	\$3.57	\$5,019
Tackable wall panels	305	sf	\$8.65	\$2,638
Painting and Coating				
Walls				
Paint walls	1,652	sf	\$0.74	\$1,222
Paint existing walls, allowance	33,690	gsf	\$0.63	\$21,225

Total - Finishes**\$162,421**

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA C

Element	Quantity	Unit	Unit Cost	Total
22 Plumbing				
Plumbing installation				
Relocate 3/4" cold water line and hose bibb	1	ls	\$4,858.00	\$4,858

Total - Plumbing				\$4,858
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23 HVAC

Demolition				
Demolish ductwork and pipe that interferes with construcion of new shear wall	2	ea	\$15,800.00	\$31,600
HVAC installation				
Replace ductwork and piping to match existing	1	ls	\$13,420.00	\$13,420
Add seismic bracing to exiting ductwork	1	ls	\$8,486.00	\$8,486

Total - HVAC				\$53,506
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26 Electrical

Electrical Installation				
General Electrical	33,690	gfa	\$0.25	\$8,423
Demo/Safe-Off/Temp Pwr & Ltg	33,690	gfa	\$0.75	\$25,268
Testing & Commissioning	33,690	gfa	\$0.25	\$8,423
Service & Distribution	33,690	gfa	\$0.10	\$3,369
Convenience Power	33,690	gfa	\$0.75	\$25,268
Convenience Power				
J-Box connection, Relocated	2	ea	\$95.00	\$190
Receptacle 20A Quad New	1	ea	\$165.00	\$165
Receptacle 20A Duplex Relocated	7	ea	\$95.00	\$665
Receptacle 20A Duplex Surface Relocated	2	ea	\$95.00	\$190
Receptacle 20A Quad Duplex Relocated	1	ea	\$95.00	\$95
Reconnect existing circuit	2	ea	\$95.00	\$190
Wiremold Relocated	37	lf	\$6.00	\$222
Branch wiring	500	lf	\$4.50	\$2,250
Lighting fixtures, conduits, wiring (Remove and Reinstall Fixtures)	33,690	gfa	\$1.50	\$50,535
HVAC and Equipment Connections	33,690	gfa	\$0.50	\$16,845

Total - Electrical				\$142,096
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27 Communications

Communication Installation				
Telecom/Data, conduit and cable	33,690	gfa	\$1.00	\$33,690

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

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Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA C

Element	Quantity	Unit	Unit Cost	Total
Tel/Data Outlet Relocated	2	ea	\$95.00	\$190
Tel/Data Outlet Surface Relocated	1	ea	\$105.00	\$105
A/V System, conduit and cable	33,690	gfa	\$0.50	\$16,845
TV Outlet Relocated	2	ea	\$102.00	\$204
Clock Outlet Relocated	1	ea	\$135.00	\$135

Total - Communications**\$51,169****28 Electrical Safety And Security**

Electrical Safety And Security				
Security/Access Control, conduit and cable	33,690	gfa	\$0.75	\$25,268
Fire Alarm/ Mass Notification System	33,690	gfa	\$1.00	\$33,690
Horn / Strobe Relocated	1	ea	\$115.00	\$115

Total - Electrical Safety And Security**\$59,073**

Area D

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

SUMMARY - AREA D

Element		Total	Cost / SF
02 Existing Conditions		\$81,756	\$14.06
04 Masonry		\$20,000	\$3.44
05 Metals		\$17,324	\$2.98
06 Wood, Plastics, And Composites		\$50,964	\$8.77
07 Thermal And Moisture Protection		\$161,580	\$27.80
09 Finishes		\$119,399	\$20.54
22 Plumbing		\$4,639	\$0.80
23 HVAC		\$46,292	\$7.96
25 Integrated Automation		\$14,991	\$2.58
26 Electrical		\$27,025	\$4.65
27 Communications		\$22,673	\$3.90
28 Electrical Safety And Security		\$10,173	\$1.75
Subtotal		\$576,814	\$99.23
General Conditions	10.00%	\$57,681	\$9.92
Subtotal		\$634,496	\$109.15
General Requirements	4.00%	\$25,380	\$4.37
Subtotal		\$659,876	\$113.52
Bonds & Insurance	2.00%	\$13,198	\$2.27
Subtotal		\$673,073	\$115.79
Contractor's Fee	5.00%	\$33,654	\$5.79
Subtotal		\$706,727	\$121.58
Design Contingency	7.00%	\$49,471	\$8.51
Subtotal		\$756,198	\$130.09
Construction Contingency	3.00%	\$22,686	\$3.90
Subtotal		\$778,884	\$133.99
Escalation to MOC, 08/03/21	4.14%	\$32,244	\$5.55

TOTAL ESTIMATED CONSTRUCTION COST**\$811,127****\$139.54**

Total Area: 5,813 SF

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA D

Element	Quantity	Unit	Unit Cost	Total
02 Existing Conditions				
Demolition				
Demolish exterior finish	2,361	sf	\$3.65	\$8,618
Remove carpet in classrooms and common area. Demolish floor sheathing as required for access to foundation work.	3,922	sf	\$2.66	\$10,433
Demolish all existing lay-in ceiling tiles to provide access to underside of roof decking. Modify grid at perimeter.	5,064	sf	\$0.73	\$3,697
Remove paving around existing HSS stanchions; reinstate after completion of strengthening work	10	ea	\$135.00	\$1,350
Demolition - Roof				
Demolish ballast roofing.	7,661	sf	\$3.79	\$29,035
Demolish gutter.	56	lf	\$2.66	\$149
Demolish sheet metal parapet and intermediate ridge flashing	572	lf	\$2.66	\$1,522
Remove, salvage, and protect roof hatch.	1	ea	\$186.04	\$186
Remove, salvage, and protect rooftop mechanical screen.	126	lf	\$172.76	\$21,768
Hazmat abatement				
Hazmat abatement; Allowance	1	ls	\$5,000.00	\$5,000

Total - Existing Conditions**\$81,756****04 Masonry**

Existing Concrete Masonry Units				
Core existing CMU external walls and fully grout; Allowance	1	ls	\$20,000.00	\$20,000

Total - Masonry**\$20,000****05 Metals**

Miscellaneous				
Bolt (E) wood post to (E) foundation and provide bracing	42	ea	\$35.00	\$1,470
3/8" steel plate all around existing 6 x 6 x 1/4" TS, stitch welded, full height	10	ea	\$1,071.00	\$10,710
Simpson CST strap, block under strap	90	ea	\$5.00	\$450
Blocking and positive attachment between roof members, including strapping and A34 clips	520	lf	\$1.10	\$572
Strengthen existing HSS columns; L6x6x1/2" angles all round include (8) epoxy anchors	10	ea	\$75.00	\$750
Miscellaneous metals, allowance	5,813	sf	\$0.58	\$3,372

Total - Metals**\$17,324****06 Wood, Plastics, And Composites**

Rough Carpentry				
Plywood Sheathing				
Plywood floor sheathing, 3/4"	3,922	sf	\$3.00	\$11,766

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA D

Element	Quantity	Unit	Unit Cost	Total
Miscellaneous Rough Carpentry:				
Extend parapet framing, include metal flashing	241	lf	\$50.00	\$12,050
Simpson connector straps at 48" centers each way; roof	7,661	sf	\$3.21	\$24,592
Reinstall roof hatch previously laid aside, include new curb	1	ea	\$449.19	\$449
Reinstal rooftop mechanical screen, previously laid aside	136	lf	\$15.49	\$2,107

Total - Wood, Plastics, And Composites**\$50,964****07 Thermal And Moisture Protection**

Roof Insulation				
R-30 Rigid roof insulation, poly iso insulation; tapered	7,661	sf	\$11.14	\$85,344
Built Up Roofing				
TPO roofing	7,661	sf	\$7.36	\$56,385
Flashing/Counterflashing				
Sheet metal parapet	240	lf	\$31.59	\$7,582
Counterflash/flash	7,661	sf	\$1.28	\$9,806
Roof Accessories				
Gutters	56	lf	\$26.47	\$1,482
Aluminum downspouts	30	lf	\$25.04	\$751
Miscellaneous				
Caulking allowance	7,661	gfs	\$0.03	\$230

Total - Thermal And Moisture Protection**\$161,580****09 Finishes**

Exterior Walls And Parapets				
Exterior wall; Fiber cement panel including, insulation, plywood sheathing, water barrier	2,361	sf	\$30.00	\$70,830
Window treatment	22	lf	\$12.00	\$264
Existing siding; install vertical trim and continuos bead to new siding, paint to match new siding	353	sf	\$4.00	\$1,412
Ceiling				
Acoustic Tile Ceilings				
ACT, 2' x 4' tiles, lay in existing grid; modify ceiling grid as required	4,558	sf	\$3.90	\$17,775
ACT, 2' x 4' tiles, include grid; Allowance for damaged tiles and grid	506	sf	\$4.77	\$2,416
Flooring				
Floors				
Carpet	3,922	sf	\$4.54	\$17,806
Transition strips	35	lf	\$12.00	\$420
Base				
Rubber base, 4"	507	lf	\$3.85	\$1,952
Painting and Coating				
Steel frame at play shed				
Paint steelwork members	6,098	gfa	\$1.07	\$6,525

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA D

Element	Quantity	Unit	Unit Cost	Total
---------	----------	------	-----------	-------

Total - Finishes				\$119,399
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22 Plumbing

Roof drainage				
Through wall scupper and flashing	12	ea	\$75.00	\$900
Plumbing installation				
Remove and re-install 5 condensate drains	5	ea	\$135.80	\$679
Furnish and install new flashings for plumbing pipe	1	ls	\$3,060.00	\$3,060

Total - Plumbing				\$4,639
------------------	--	--	--	---------

23 HVAC

Demolition				
Remove air handling units	5	ea	\$1,184.00	\$5,920
Remove existing exhaust fans and curbs	2	ea	\$543.00	\$1,086
Remove existing roof curbs	5	hr	\$543.00	\$2,715
Crane services	8	ls	\$400.00	\$3,200
Remove and store equipment for re-installation	1	ls	\$5,000.00	\$5,000
Equipment build back				
Install new roof curbs for A/C units and exhaust fans	7	ea	\$1,262.00	\$8,834
Reconnect ductwork, clean and comb fins, new condensate drain traps	1	ls	\$4,579.00	\$4,579
Set existing A/C units in place	5	ea	\$710.30	\$3,552
Set existing exhaust fans in place	2	ea	\$710.30	\$1,421
New dog house for ductwork, allow	1	ls	\$5,000.00	\$5,000
Final air balance	8	hr	\$119.42	\$955
Start-up and commissioning	8	hr	\$103.84	\$831
Crane services	8	hr	\$400.00	\$3,200

Total - HVAC				\$46,292
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25 Integrated Automation

Integrated Automation				
Remove DDC controls to A/C units and exhaust fans	7	hr	\$118.10	\$827
Install new DDC controls to A/C units and exhaust fans	7	ea	\$2,023.50	\$14,165

Total - Integrated Automation				\$14,991
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26 Electrical

Electrical Installation				
General Electrical	5,813	gfa	\$0.25	\$1,453

Cooper Mountain Elementary School Seismic Improvements

Beaverton, OR

DD Progress

Project # 20-00644

09/25/20

DETAIL ELEMENTS - AREA D

Element	Quantity	Unit	Unit Cost	Total
Demo/Safe-Off/Temp Pwr & Ltg	5,813	gfa	\$0.75	\$4,360
Testing & Commissioning	5,813	gfa	\$0.25	\$1,453
Service & Distribution	5,813	gfa	\$0.10	\$581
Convenience Power	5,813	gfa	\$0.75	\$4,360
Lighting fixtures, conduits, wiring - (Incl. light cage install covered play area 6,098 sf)	11,911	gfa	\$1.00	\$11,911
HVAC and Equipment Connections	5,813	gfa	\$0.50	\$2,907

Total - Electrical**\$27,025****27 Communications**

Communication Installation				
Telecom/Data, conduit and cable	5,813	gfa	\$2.00	\$11,626
2-1/2" EMT (Incl FO Cable (Single Strand) and Coax Cable (Single Strand)	148	lf	\$55.00	\$8,140
A/V System, conduit and cable	5,813	gfa	\$0.50	\$2,907

Total - Communications**\$22,673****28 Electrical Safety And Security**

Electrical Safety And Security				
Security/Access Control, conduit and cable	5,813	gfa	\$0.75	\$4,360
New Fire Alarm/ Mass Notification System	5,813	gfa	\$1.00	\$5,813

Total - Electrical Safety And Security**\$10,173**

SUPPLEMENTAL ASBESTOS SURVEY REPORT

Cooper Mountain Elementary School

**7670 SW 170th Avenue
Beaverton, OR 97007**

Prepared for:

Beaverton School District

**16550 SW Merlo Road
Beaverton, OR 97006**

Inspection Dates: September 2, 2020
Report Prepared: September 21, 2020

Prepared By:



**4105 SE International Way, Suite 505
Milwaukie, OR 97222
503.387.3251**

TRC Project Number: 407537

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Appendices

- Appendix A – Figures
- Appendix B – Laboratory Analytical Data Sheets
- Appendix C – Prior Documentation
- Appendix D – Inspector Certification(s)

EXECUTIVE SUMMARY

TRC Environmental Corporation (TRC) was contracted by the Beaverton School District to conduct a supplemental asbestos survey, including collection of bulk asbestos samples, laboratory analysis, and preparation of a report for Cooper Mountain Elementary School located at 7670 SW 170th Avenue in Beaverton, Oregon 97007. Mr. Jason Stone, AHERA accredited building inspectors performed the survey on September 2nd, 2020. The survey activities included the review of prior sampling documentation and reports provided by the District, inspection and assessment of accessible suspect building materials, collection of bulk samples of suspect asbestos containing building materials that had previously not be sampled, and submission of bulk samples for laboratory analysis.

ASBESTOS MATERIAL SUMMARY

Suspect asbestos containing building materials were sampled and submitted under the chain-of-custody (COC) protocol to an accredited laboratory for polarized light microscopy (PLM) bulk sample analysis. Inspection, sampling and analytical procedures were performed in general accordance with the U.S. Environmental Protection Agency's (EPA's) National Emission Standards for Hazardous Air Pollutants (NESHAP) EPA 40 CFR 61 Subpart M, the EPA Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763, and Federal Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 guidelines.

The following materials sampled during this investigation and prior investigations were identified as asbestos containing materials:

- 12" x 12" Tan Floor Tile and Mastic (Previously Sampled)
- MJP Pipe Fittings (Previously Sampled)
- Built-up Roofing (Previously Sampled)
- Fire Doors (Assumed)

Additionally, any materials uncovered during renovation activities that are not addressed in this inspection report or prior reports for the building are considered presumed asbestos containing materials and must be sampled by an accredited asbestos inspector prior to disturbance, or they must be treated as asbestos containing.

INTRODUCTION

A supplemental asbestos survey was conducted by TRC at Cooper Mountain Elementary School, located at 7670 SW 170th Avenue in Beaverton, Oregon. It was reported by the client that this hazardous materials survey is being conducted in conjunction with their seismic renovation project. The survey activities were performed on September 2nd, 2020, and included the review of prior sampling documentation and reports as well as the inspection, assessment and bulk sampling of suspect asbestos containing building materials that had not previously been sampled. Sample locations are presented on the Sample Location Diagrams in Appendix A. Laboratory analytical results are presented in Appendix B and Prior Documentation is presented in Appendix C.

Mr. Jason Stone, AHERA accredited building inspector conducted the survey inspection and sampling activities. Copies of training certificates and state licenses (where applicable) are presented in Appendix D, Inspector Certifications.

BACKGROUND

Asbestos Containing Materials

The United States Environmental Protection Agency (EPA) define an asbestos-containing material (ACM) as any material containing more than one percent (>1.0%) asbestos by weight. In addition, ACMs are designated as:

Friable asbestos - material which can be crumbled, pulverized or reduced to powder by hand pressure, a.k.a. Regulated Asbestos Containing Materials (RACM).

Category I Non-friable - includes resilient floor coverings, asphalt roofing products, gaskets and packing.

Category II Non-friable - any non-friable ACM that is not in Category I (i.e. Asbestos-cement (Transite) siding or roofing material).

OSHA Regulated Materials

The Occupational Safety and Health Administration (OSHA) regulates all materials containing any detectable level of asbestos by weight, including those materials containing 1.0% or less.

Asbestos Sampling and Analytical Procedures

Representative bulk samples of suspect asbestos-containing building materials were randomly collected from the interior of the building. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.),
- Application (sprayed or trowel-on, assembly into a system, etc.),
- Material function (thermal insulation, floor tile, wallboard system, etc.).

The bulk samples were collected, labeled, and shipped to the certified analytical laboratory under proper COC documentation, and condition and approximate quantity assessments were performed by the accredited inspector during the inspection.

Laboratory services were provided by TRC Labs, in Windsor, Connecticut, a National Voluntary Laboratory Accreditation Program (NVLAP code #101424-0).

Bulk samples were analyzed by PLM utilizing the EPA's Test Methods: Methods for the Determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references.

Analysis by PLM was performed by visual observation of the bulk sample and slides prepared of the bulk sample for microscopic examination and identification. The samples were analyzed for asbestos (Chrysotile, Amosite, Crocidolite, Anthophyllite, and Actinolite/Tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimates the relative amounts of each constituent by determining the estimated area of the asbestos compared with the area estimate of the total sample.

ASBESTOS FINDINGS & RECOMMENDATIONS

The following table presents the location and quantities of each suspect building material identified and sampled during this survey as well as all applicable analytical results:

Sample No.	Material	Sample Location	Asbestos Content	Approximate Quantity
CME-04A CME-04B CME-04C	Gypsum Board and Joint Compound	Throughout M Wing	G.B. – ND J.C. – ND	N/A
CME-05A CME-05B CME-05C CME-05D CME-05E CME-05F CME-05G CME-05H CME-05I	Plaster, Skim Coat with Base Coat	Throughout	ND	N/A
CME-06A CME-06B CME-06C	12" x 12" Floor Tile (Yellow/Blue/Red/Gold) and Associated Glue	Cafeteria, Front Entry, Room Above Kitchen	ND	N/A

ND = Non-detect

SF = Square feet

LF = Linear Feet

N/A = Not Applicable

Asbestos Containing Materials (ACMs)

Asbestos was detected in the following materials sampled during this and prior investigations:

Material	Approximate Location(s)	Approximate Quantity
12" x 12" Tan Floor Tile and Mastic	A Hall , Custodial 2	Unknown (Previously Sampled)
MJP Pipe Fittings	Throughout	Unknown (Previously Sampled)
Built-up Roofing	North Roof on CMT2	6,500 SF (Previously Sampled)

Material	Approximate Location(s)	Approximate Quantity
Fire Doors	Throughout	Assumed

Non-Detect Materials (ND)

Asbestos was not detected in the following materials sampled during this investigation:

Material	Location
Gypsum Board and Joint Compound	Throughout M Wing, Library, Lounge
Plaster, Skim Coat with Base Coat	Throughout
12" x 12" Floor Tile (Yellow/Blue/Red/Gold) and Associated Glue	Cafeteria, Front Entry, Room Above Kitchen
Sheet Floor Covering – Aggregate Pattern	Boy's 3
4" Tan Cove Base and Mastic	Central Corridor, Staff Workroom, Lounge
4" Brown Cove Base and Mastic	Custodial 2, Main Hall
Gypsum Wallboard	Custodial 2, Boiler Room, Stage
Wall and Ceiling Plaster – Scratch Coat	Custodial 2, C Hall, C106, Central Corridor, Staff Workroom, Storage 6, A200, Library, Lounge, Stage
Skim coat	Custodial 2
Lay-in Ceiling Tile	B Hall, C106, Central Corridor, Unisex Restroom 1, Staff Workroom, Work Room 2, Stage
Mastic	B Hall, C Hall, Work Room 3
Cement Overspray	B108, B110
Pipe Insulation	Boiler Room, Mechanical Room 12
Cove Base Mastic	C106, Custodial 2, Library
Slate Like Material (Layered Black & White)	Gym
Wainscot Paneling Mastic	Main Hall
Hard Fittings – Fiberglass	Mechanical 2, Boiler Room
Brown/Tan Sheet Flooring	Girl's Restroom 3
Off-White Beige Sheet Flooring	Unisex Restroom 1
Gray Backing	Unisex Restroom 1
Sheet Flooring Material and Mastic	Unisex Restroom 1
MJP Pipe Fitting	Storage 7
4" Black Cove Base and Yellow Mastic	Library
Corkboard	Library
Sheet Floor Covering	Modular Boys 1 and Girls 1 Restrooms
Built-up Roofing	B Hall, C Hall, Cafeteria
Wall Plaster	Stage
Gypsum Board and Joint Compound	CMT2 – Commons, M110
Paper Felt	CMT2 - Roof
Built-up Roofing	CMT2 – South Parapet, South Walkway

Due to the Site being an occupied building at the time of the inspection and sampling, a full destructive investigation for concealed materials was not performed. Hidden building materials (e.g., old floor mastic patches hidden under carpeting, chalkboard mastic, mirror mastic, wood paneling mastic, etc.), other than those discussed in this report, could be uncovered when removing building finishes during renovation activities. Any materials encountered during the renovation activities that are not identified in this report, should either be presumed to be asbestos containing and handled as ACM or be sampled by an accredited asbestos inspector to determine if it contains asbestos.

RECOMMENDATIONS

All identified asbestos containing and OSHA regulated materials from this investigation and previous investigations must be removed by a licensed asbestos abatement contractor prior to them being impacted by any renovation or demolition activities.

Additionally, any materials uncovered during renovation or demolition activities that are not addressed in this inspection report or prior reports for the building are considered presumed asbestos containing materials and must be sampled by an accredited asbestos inspector prior to disturbance, or they must be treated as asbestos containing.

DISCLAIMER

The content presented in this report is based on data collected during the site inspection and survey, review of pertinent regulations, requirements, guidelines and commonly followed industry standards, and information provided by the Beaverton School District, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties.

This asbestos survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating potential ACMs. This report is not intended for, and may not be utilized as, a bidding document or as an abatement project specification document.

If you have any questions, or need any further clarification regarding this report, please do not hesitate to contact Mr. Ron Landolt at (503) 407-0734.

Sincerely,

TRC Environmental Corporation

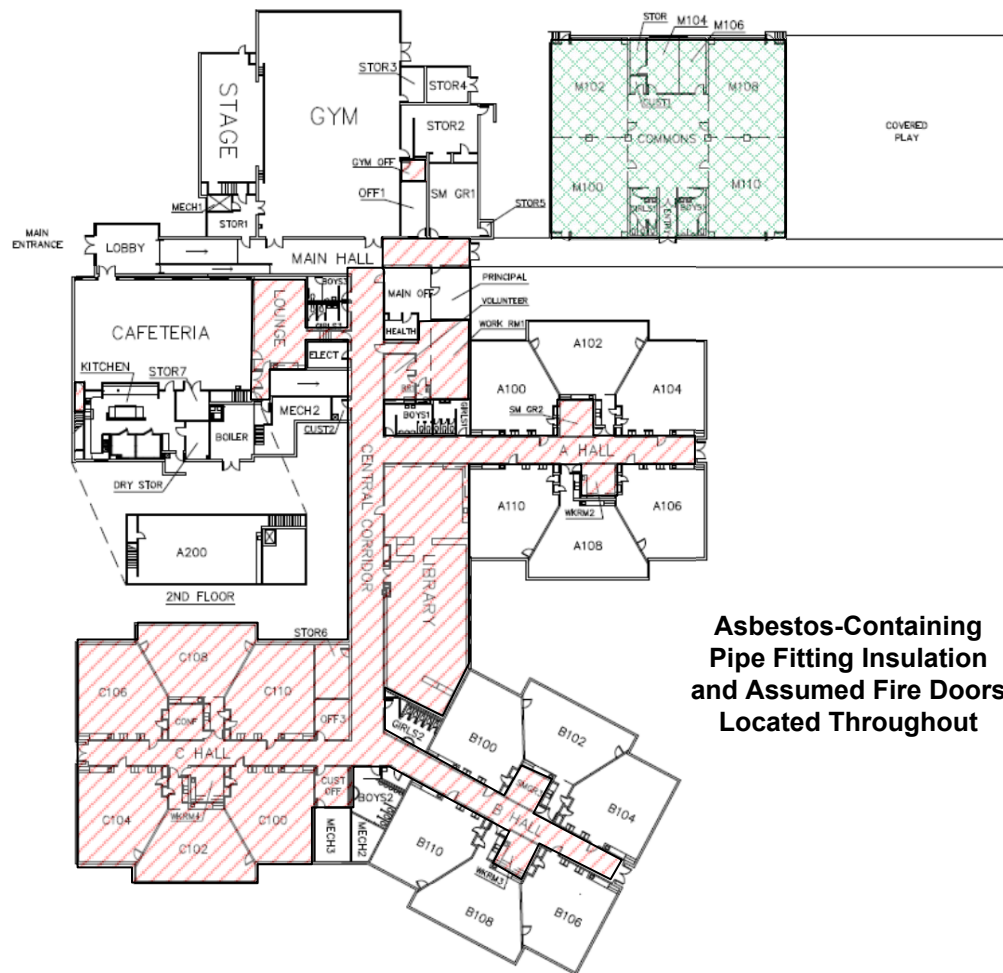


Matthew Cuda
Project Manager





Ron Landolt, CAC
NW Region BSI Practice Manager

Appendix A – Figure(s)



LEGEND

-  — Asbestos-Containing Floor Tile and Mastic (Some Under Carpet)
-  — Asbestos-Containing Roofing Materials

HAZARDOUS MATERIALS SURVEY REPORT MATERIAL LOCATION DIAGRAM

COOPER MOUNTAIN ELEMENTARY SCHOOL
7670 SW 170TH AVENUE
BEAVERTON, OREGON 97007

TRC Project No.: 407537

Drawn by: JS

Reviewed by: RAL

Figure: 2

Date: September 2020



4105 SE International Way, Suite 505
Milwaukie, Oregon 97222
Phone: (503) 387-3251 Fax: (503) 908-1318

Appendix B – Laboratory Analytical Data Sheets



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Beaverton School District

Lab Log #: 0055564
Project #: 407537.0000.0000
Date Received: 09/03/2020
Date Analyzed: 09/03/2020

Site: Cooper Mountain Elementary School, 7670 SW 170th Avenue, Beaverton, OR

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials		Asbestos %	Asbestos Type
CME-04A	White (joint compound)	No	Yes	1	---		ND	None
CME-04A	White (gypsum wallboard)	No	Yes	2	2%	cellulose	ND	None
CME-04B	White (joint compound)	No	Yes	1	---		ND	None
CME-04B	White (gypsum wallboard)	No	Yes	2	2%	cellulose	ND	None
CME-04C	White (joint compound)	No	Yes	1	---		ND	None
CME-04C	White (gypsum wallboard)	No	Yes	2	2%	cellulose	ND	None
CME-05A	White (skim coat)	No	Yes	1	---		ND	None
CME-05A	Grey (base coat)	No	Yes	2	---		ND	None
CME-05B	White (skim coat)	No	Yes	1	---		ND	None
CME-05B	Grey (base coat)	No	Yes	2	---		ND	None
CME-05C	White (skim coat)	No	Yes	1	---		ND	None
CME-05C	Grey (base coat)	No	Yes	2	---		ND	None
CME-05D	White (skim coat)	No	Yes	1	---		ND	None
CME-05D	Grey (base coat)	No	Yes	2	---		ND	None
CME-05E	White (skim coat)	No	Yes	1	---		ND	None
CME-05E	Grey (base coat)	No	Yes	2	---		ND	None
CME-05F	White (skim coat)	No	Yes	1	---		ND	None
CME-05F	Grey (base coat)	No	Yes	2	---		ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM0007 TX #300354
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426
VT #AL910359 LA#05011 VA #3333 000283
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071
AZ #A20944

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NJ #CT004 CA #2907



POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
CME-05G	White (skim coat)	No	Yes	1	---	ND	None
CME-05G	Grey (base coat)	No	Yes	2	---	ND	None
CME-05H	White (skim coat)	No	Yes	1	---	ND	None
CME-05H	Grey (base coat)	No	Yes	2	---	ND	None
CME-05I	White (skim coat)	No	Yes	1	---	ND	None
CME-05I	Grey (base coat)	No	Yes	2	---	ND	None
CME-06A	Yellow (glue)	No	Yes	1	---	ND	None
CME-06A	Yellow/Blue/Red/Gold (floor tile)	No	Yes	2	---	ND	None
CME-06B	Yellow (glue)	No	Yes	1	---	ND	None
CME-06B	Yellow/Blue/Red/Gold (floor tile)	No	Yes	2	---	ND	None
CME-06C	Yellow (glue)	No	Yes	1	---	ND	None
CME-06C	Yellow/Blue/Red/Gold (floor tile)	No	Yes	2	---	ND	None

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2021. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2020. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by: Joel Corso
Joel Corso, Approved Signatory

Date Issued
09/04/2020

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM0007 TX #300354
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426
VT #AL910359 LA#05011 VA #3333 000283
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052
AZ #A20944 HI #L-09-004

NY #10980 WV #000622
NJ #CT004 CA #2907



4105 SE International Way, Suite 505,
Milwaukie, OR 97222

55564

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Client: Beaverton School District		Project Number: 407537	Inspector(s): Jason Stone		
Project Name: BSD-Cooper Mountain Elementary School Cooper Mountain Elementary School 7670 SW 170th Ave Beaverton, OR 97007		Tracking Number:	Requested TAT: 24 HR		
Email Results to: jstone@trccompanies.com, mcuda@trccompanies.com, rlandolt@trccompanies.com		Analytical Method: PLM EPA 600/R-93/116	Lab Comments:		
Date Collected	Sample Identification	Material Description	Homogeneous Area	Sample Location	Lab Identification (Lab Use Only)
2020-09-02	CME-04A	Wallboard, Gypsum with Joint Compound, White	M Wing	See Diagram	
2020-09-02	CME-04B	Wallboard, Gypsum with Joint Compound, White	M Wing	See Diagram	
2020-09-02	CME-04C	Wallboard, Gypsum with Joint Compound, White	M Wing	See Diagram	
2020-09-02	CME-05A	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05B	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05C	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	

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Date Collected	Sample Identification	Material Description	Homogeneous Area	Sample Location	Lab Identification (Lab Use Only)
2020-09-02	CME-05D	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05E	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05F	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05G	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05H	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-05I	Plaster, Skim Coat with Base Coat, Gray	Throughout	See Diagram	
2020-09-02	CME-06A	12" x 12" Floor Tile (Yellow/Blue/Red/Gold) & Associated Glue	Cafeteria, Front Entry, & Room Above Kitchen	See Diagram	
2020-09-02	CME-06B	12" x 12" Floor Tile (Yellow/Blue/Red/Gold) & Associated Glue	Cafeteria, Front Entry, & Room Above Kitchen	See Diagram	
2020-09-02	CME-06C	12" x 12" Floor Tile (Yellow/Blue/Red/Gold) & Associated Glue	Cafeteria, Front Entry, & Room Above Kitchen	See Diagram	

Special Instruction to Laboratory:

N/A

CHAIN OF CUSTODY INFORMATION

Relinquished By:	Date	Time	Received By:	Date	Time
I. (Print): Jason Stone	2020-09-02	15:02:52 PDT	I. (Print): <i>Williamson</i>	09/02/20	1030
(Sign): <i>JS</i>			(Sign): <i>Williamson</i>		
II. (Print):			II. (Print):		
(Sign):			(Sign):		

Appendix C – Prior Documentation

ASBESTOS MATERIALS

The following materials either tested positive or are presumed to be asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled or not listed in this report may contain asbestos and should be tested to verify asbestos content prior to impact, demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (P) Presumed Positive

Cooper Mountain Main Building (CMT1)			
Result	Material	Location	Quantity
P	MJP Pipe Fittings / / / HSA 1,2,3,4,5 [ID: 24602]	Attic	194 ea
P	Pipe Covering / / / [ID: 24603]	Chiller	0 lf
+	Floor Tile and Mastic / Tested Positive / 12 x 12 / HSA 9, Cmmt: Tested 2% chrysotile tan & tan/gray vinyl, 3% & 4% Chrysotile Black mastic (19766.017-0004 & 0005 phase 100) (abated 15 sf-spring 2010 at A102 & A108 entry) [ID: 24604]	Level 1 / A Hall	975 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24605]	Level 1 / A100	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24606]	Level 1 / A102	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24607]	Level 1 / A104	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24608]	Level 1 / A106	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24609]	Level 1 / A108	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24610]	Level 1 / A110	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24341]	Level 1 / B Hall	900 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24342]	Level 1 / B100	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated Summer 2003 [ID: 24343]	Level 1 / B102	0 sf

Cooper Mountain Main Building (CMT1)			
Result	Material	Location	Quantity
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Abated Summer 2003 [ID: 24345]	Level 1 / B104	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Abated Summer 2003 [ID: 24346]	Level 1 / B106	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Abated Summer 2003 [ID: 24347]	Level 1 / B108	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Abated Summer 2003 [ID: 24348]	Level 1 / B110	0 sf
+	Boiler Insulation / Breaching Exhaust Pack / / HSA 1, Cmnt: Pulling away; Tested 20% Amosite (19766.017-0001 phase 3); Abated Summer 2009. [ID: 24349]	Level 1 / Boiler	0 sf
+	MJP Pipe Fittings / / / HSA 1,2,3,4,5 / Tested Positive, Cmnt: Abated Summer 2012 [ID: 24350]	Level 1 / Boiler	0 ea
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24351]	Level 1 / C Hall	887 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24352]	Level 1 / C100	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24353]	Level 1 / C102	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24354]	Level 1 / C104	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: minor tile separation [ID: 24355]	Level 1 / C106	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: slightly cracked tiles [ID: 24356]	Level 1 / C108	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24357]	Level 1 / C110	50 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Abated Summer 2003 [ID: 24358]	Level 1 / Cafeteria	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Cracking and chipping by staff room, RR2 and electrical room. Consider repair-inspection note 6/14. [ID: 24359]	Level 1 / Central Corridor	1922 sf

Cooper Mountain Main Building (CMT1)			
Result	Material	Location	Quantity
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24360]	Level 1 / Conference	142 sf
+	Floor Tile and Mastic / Tested Positive, Cmmt: abated 3 SF- Dec. 2010 [ID: 28848]	Level 1 / Custodial 2	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24361]	Level 1 / Custodial Office	200 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated 3590 SF - Summer 2007 [ID: 24362]	Level 1 / Gym	0 sf
P	MJP Pipe Fittings / / / HSA 1,2,3,4,5 [ID: 24364]	Level 1 / Gym Office	5 ea
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Chip at the door. [ID: 24363]	Level 1 / Gym Office	75 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, (Old Room: Main Building / Level 1 / Office 2), Cmmt: Abated 100 SF- July 2005 [ID: 24371]	Level 1 / Health Room	0 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmmt: 70sf where new wall to be constructed abated 7/2005. Carpet. [ID: 24366]	Level 1 / Library	2290 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Abated 960 SF - Summer 2007. abated 2 SF outside sm group1- Spring 2010 [ID: 24367]	Level 1 / Main Hall	138 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Carpeted [ID: 24368]	Level 1 / Main Office	485 sf
P	MJP Pipe Fittings / / / HSA 1,2,3,4,5 [ID: 24369]	Level 1 / Mechanical 1	3 ea
+	MJP Pipe Fittings / Tested Positive, Cmmt: Tested 2% Chrysotile & 5% Amosite (19766.017-0039 phase 3); Abated 60 Hard fittings - Summer 2009. Cmmt: some damage during 2018 inspection, consider repair[ID: 28043]	Level 1 / Mechanical 2	2 ea
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmmt: Carpet [ID: 24370]	Level 1 / Office 1	184 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24372]	Level 1 / Offices	167 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmmt: Carpeted [ID: 24373]	Level 1 / Principal	235 sf

Cooper Mountain Main Building (CMT1)			
Result	Material	Location	Quantity
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24374]	Level 1 / Records Room	110 sf
P	Sheet Flooring Material and Mastic / / / , Cmnt: Abated Summer 2005 [ID: 24375]	Level 1 / Restroom Boys 1	0 sf
P	MJP Pipe Fittings, Cmnt: Abated 10 Hard fittings - Summer 2009. [ID: 27967]	Level 1 / Restroom Boys 2	2 ea
P	Sheet Flooring Material and Mastic / / / , Cmnt: Ceramic tile [ID: 24376]	Level 1 / Restroom Boys 2	0 sf
P	MJP Pipe Fittings, Cmnt: Abated 14 Hard fittings - Summer 2009. [ID: 27969]	Level 1 / Restroom Boys 3	2 ea
P	Sheet Flooring Material and Mastic / / / , Cmnt: Ceramic tile [ID: 24377]	Level 1 / Restroom Girls 1	0 sf
P	MJP Pipe Fittings, Cmnt: Abated 11 Hard fittings - Summer 2009. [ID: 27968]	Level 1 / Restroom Girls 2	2 ea
P	MJP Pipe Fittings, Cmnt: Abated 13 Hard fittings - Summer 2009. [ID: 28159]	Level 1 / Restroom Girls 3	2 ea
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24378]	Level 1 / Restroom Unisex 1	19 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24379]	Level 1 / Small Group 2	145 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Bubbled/chipped tile near door [ID: 24380]	Level 1 / Small Group 3	142 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: abated 64 SF- Dec. 2010 [ID: 24381]	Level 1 / Staff	595 sf
P	Asbestos Insulated Wiring	Level 1 / Stage / Portable Stand	4
P	MJP Pipe Fittings / / / HSA 1,2,3,4,5, Cmnt: not observed 1/2010 [ID: 24382]	Level 1 / Storage 1	1 ea
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24383]	Level 1 / Storage 6	231 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, (Old Room: Main Building / Level 1 / Health Room), Cmnt: Abated 93 SF- July 2005 [ID: 24365]	Level 1 / Volunteer Room	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmnt: Cracked tile near heating units per inspector. [ID: 24384]	Level 1 / Work Room 1	352 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24385]	Level 1 / Work Room 2	145 sf

Cooper Mountain Main Building (CMT1)			
Result	Material	Location	Quantity
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: abated 7 SF- Dec. 2010 [ID: 24386]	Level 1 / Work Room 3	135 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9 [ID: 24387]	Level 1 / Work Room 4	142 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmmt: Carpeted. Wood subfloor. [ID: 24388]	Level 2 / A200	0 sf
P	Floor Tile and Mastic / Visible-Positive / 12 x 12 / HSA 9, Cmmt: Wood subfloor. Tile appears to be new throughout [ID: 24389]	Level 2 / A200	30 sf
M	Stringer Covebase	Stage stairs; tan stair stringer covebase	0
+	Fire Door	Stage storage room; hall door, white fire door insulation	0
P	MJP Pipe Fittings / / / HSA 1,2,3,4,5, Cmmt: abandoned in place, fair condition with some damage, restrict access - 2018 [ID: 24390]	Tunnel	132 ea

MATERIALS THAT TESTED NEGATIVE

The following materials tested negative. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact, demolition, renovation, etc.

Cooper Mountain Main Building (CMT1)	
Material	Location
Hard Fittings/Fiberglass	Boiler room; gray pipe insulation
Material Debris	Boiler room; wall plaster debris
Sheet Floor Covering	Boys 3; aggregate pattern
Covebase/Mastic	Central corridor; tan 4" covebase, yellow mastic
Covebase/Mastic	Central corridor; tan, 4" covebase, white mastic
Covebase/Mastic	Custodial 2; 4" brown
Gypsum Wallboard	Custodial 2; gypsum substrate
Wall and Ceiling Plaster	Custodial 2; plaster scratch coat
Skimcoat	Custodial 2; plaster skim coat
Lay-in Ceiling Tile / Tested Negative, Cmmt: Non-Detect (19766.017-0041 phase 3) [ID: 28045]	Level 1 / B Hall
Mastic / Tested Negative, Cmmt: Non-Detect (19766.017-0017 phase 3) [ID: 28027]	Level 1 / B Hall

Cooper Mountain Main Building (CMT1)	
Material	Location
Cement Overspray / Tested Negative, Cmnt: Non-Detect (19766.017-0001 phase 6) [ID: 28656]	Level 1 / B108
Cement Overspray / Tested Negative, Cmnt: Non-Detect (19766.017-0002 phase 6) [ID: 28657]	Level 1 / B110
Gypsum Wallboard / Tested Negative, Cmnt: Non-Detect (19766.017-0004 phase 3) [ID: 28018]	Level 1 / Boiler
Wall Plaster Debris / white / gray	Level 1 / Boiler Room
Insulation / pipe	Level 1 / Boiler Room / off-white/Gray
Mastic / Tested Negative, Cmnt: Non-Detect (19766.017-0018 phase 3) [ID: 28028]	Level 1 / C Hall
Wall and Ceiling Plaster / Tested Negative, Cmnt: Non-Detect (19766.017-0014 phase 3) [ID: 28024]	Level 1 / C Hall
Covebase/Mastic / Tested Negative, Cmnt: Non-Detect (19766.017-0021 phase 3) [ID: 28031]	Level 1 / C106
Lay-in Ceiling Tile / Tested Negative, Cmnt: Non-Detect (19766.017-0042 phase 3) [ID: 28046]	Level 1 / C106
Wall and Ceiling Plaster / Tested Negative, Cmnt: Non-Detect (19766.017-0020 phase 3) [ID: 28030]	Level 1 / C106
Lay-in Ceiling Tile / Tested Negative, Cmnt: Non-Detect (19766.017-0015 phase 3) [ID: 28025]	Level 1 / Central Corridor
Wall and Ceiling Plaster / Tested Negative, Cmnt: Non-Detect (19766.017-0013 phase 3) [ID: 28023]	Level 1 / Central Corridor
Covebase/Mastic / Brown	Level 1 / Custodial 2
Plaster Skim and Scratch Coat / brown / gray	Level 1 / Custodial 2
Gypsum and Plaster	Level 1 / Custodial 2
Slate like Material / Layered Black & White / Tested Negative all layers, Cmnt: Non-Detect (19766.014-0004 task 0100) [ID: 27798]	Level 1 / Gym
Covebase/Mastic / Tested Negative, Cmnt: Non-Detect (19766.017-0007 phase 3) [ID: 28020]	Level 1 / Library
Wainscot Paneling Mastic / Joint Compound / White / Tested Negative, Cmnt: non-detect (19766.017-0003 phase 100) [ID: 28220]	Level 1 / Main Hall
Wainscot Paneling Mastic / Fibrous / Light Brown / Tested Negative, Cmnt: non-detect (19766.017-0001 - 0003 phase 100) [ID: 28219]	Level 1 / Main Hall
Hard Fittings/Fiberglass	Level 1 / Mechanical 2

Cooper Mountain Main Building (CMT1)	
Material	Location
Sheet Flooring / Brown/Tan / Tested Negative, Cmnt: Non-Detect (CM-03 0014603-003, CM-04 0014603-004) [ID: 29067]	Level 1 / Restroom Girls 3
Sheet Flooring / Off White/Beige / Tested Negative, Cmnt: Non-Detect (CM-01 0014603-001, CM-02 0014603-002 Layer 1) [ID: 29068]	Level 1 / Restroom Unisex 1
Backing / Gray / Tested Negative, Cmnt: Non-Detect (CM-01 0014603-001, CM-02 0014603-002 Layer 2) [ID: 29069]	Level 1 / Restroom Unisex 1
Lay-in Ceiling Tile / Tested Negative, Cmnt: Non-Detect (19766.017-0012 phase 3) [ID: 28022]	Level 1 / Restroom Unisex 1
Sheet Flooring Material and Mastic / Tested Negative, Cmnt: Non-Detect (19766.017-0008, -0009, -0010 phase 3) [ID: 28021]	Level 1 / Restroom Unisex 1
Lay-in Ceiling Tile	Level 1 / Staff Work Room
Wall and Ceiling Plaster / Scratch and Finish Coats	Level 1 / Staff Work Room
Covebase/Mastic- Cove base- Tan, Mastic- Beige	Level 1 / Staff Work Room
Wall and Ceiling Plaster / Tested Negative, Cmnt: Non-Detect (19766.017-0019 phase 3) [ID: 28029]	Level 1 / Storage 6
MJP Pipe Fittings / Tested Negative, Cmnt: Non-Detect (19766.017-0035, -0036 phase 3) [ID: 28042]	Level 1 / Storage 7
Lay-in Ceiling Tile / Tested Negative, Cmnt: Non-Detect (19766.017-0040 phase 3) [ID: 28044]	Level 1 / Work Room 2
Mastic / Tested Negative, Cmnt: Non-Detect (19766.017-0016 phase 3) [ID: 28026]	Level 1 / Work Room 3
Wall and Ceiling Plaster / Tested Negative, Cmnt: Non-Detect (19766.017-0005, -0006 phase 3) [ID: 28019]	Level 2 / A200
Covebase/Mastic	Library; south wall, 4" black covebase with yellow mastic
Corkboard	Library; south wall, corkboard
Gypsum Wallboard/Joint Compound	Library; south wall, gypsum and joint compound behind bookcase
Wall and Ceiling Plaster	Library; south wall, lath and plaster wall
Covebase/Mastic	Lounge; northeast wall, 4" tan covebase with yellow mastic
Covebase/Mastic	Lounge; northeast wall, 4" tan covebase with yellow mastic
Gypsum Wallboard/Joint Compound	Lounge; northeast wall, gypsum and joint compound on IT room walls

Cooper Mountain Main Building (CMT1)	
Material	Location
Wall and Ceiling Plaster	Lounge; northeast wall, plaster wall
Covebase/Mastic	Main hall; brown, 4" covebase, clear, residual brown mastic
Pipe Insulation	Mechanical room #12
Material Debris	Mechanical room #12
Sheet Floor Covering	Modular / Boys1 and Girls1 Restrooms
Built-up Roofing / Tested Negative, Cmmt: Non-Detect (19766.017-0025 phase 3) [ID: 28034]	Roof / B Hall
Built-up Roofing / Tested Negative, Cmmt: Non-Detect (19766.017-0029,0030 phase 3) [ID: 28039]	Roof / C Hall
Built-up Roofing / Tested Negative, Cmmt: Non-Detect (19766.017-0024 phase 3) [ID: 28033]	Roof / Cafeteria
Wall Plaster	Stage at electrical; wall plaster
Lay-in Ceiling Tile	Stage ceiling; 2' by 4' ceiling tile with pin perf pattern
Ceiling Plaster	Stage stair landing; ceiling plaster
Covebase/Mastic	Stage stairs landing; 4" brown
Wall Plaster	Stage stairs; wall plaster

ASBESTOS SUMMARY

The following shows asbestos activities and projects. For more detailed information or related documents see the individual activity information in the database.

June 2003 to September 2003 - CMT12019-1

Activity: Inspection/Survey - Location: CMT

January 2004 to December 2012 -

Activity: Database Update - Location: CMT1

CMT1 Import Historical Materials without samples

January 2004 to December 2012 - 19766.017 p03

Activity: Database Update - Location: CMT1 p03

CMT1 Import Historical materials with Samples

January 2004 to December 2012 - 19766.017 p06

Activity: Database Update - Location: CMT1 p06

CMT1 Import Historical materials with Samples

January 2004 to December 2012 - 19766.014 p100

Activity: Database Update - Location: CMT1 p100

CMT1 Import Historical materials with Samples

January 2016 to January 2016 - CMTSampling4

Activity: Sampling - Location: Level 1 / Custodial 2 and Boiler Room

August 2016 to August 2016 - 23816.110 Phase 1

Activity: Sampling - Location: Cooper Mountain Elementary

December 2016 to December 2016 - CMTSampling3

Activity: Sampling - Location: Level 1 / Staff Work Room

February 2017 to March 2017 - CMTsampling2

Activity: Sampling - Location: Level 1 / Mech2

floor plan x

February results x

March results x

February invoice received x

March invoice received

March 2017 to March 2017 - CMTsampling1

Activity: Sampling - Location: Level 1 / BOYS3 Restroom

floor plan x

results received x

results in verdant x

invoice received x

January 2018 to January 2018 - 23816.176 Phase 1

Activity: Sampling - Location: Modular / Boys1 and Girls1 Restrooms

Tan pebble pattern sheet floor covering non-asbestos and homogeneous in Boys1 and Girls2 Restrooms.

~~Floor Plan~~

Daily Log

~~Contractor Invoice~~

DEQ Notification

Disposal Manifest

Air clearance samples

~~Consultant Close out documentation in Verdant~~

~~Consultant Invoice~~

April 2018 to April 2018 - 23816.189 Phase 0001

Activity: Sampling - Location: CMT1

December 2018 to December 2018 - 23816.219

Activity: Sampling - Location: CMT1

Floor plan X

Results received X

Results in Verdant X

Consultant Invoice X

Consultant's notes:

Sampling white block insulation within wood laminate fire door between the stage storage area and the main hall. Door laminate was partially missing and insulation was exposed beneath a duct tape patch. Insulation tested positive for asbestos. Similar-age doors with fire door labels should be presumed to have asbestos insulation.

June 2019 to June 2019 - 23816.248

Activity: Sampling - Location: Cooper Mountain Main Building (CMT1)

Sampled wall materials in the south of the library behind bookshelves for asbestos. No asbestos detected.

Floor plan X

Results received X

Results in Verdant X

Consultant Invoice X

June 2020 to July 2020 - CMT12020-1

Activity: Sampling - Location: Stage and stage stairs sampling

- _ Floor plan
- _ Results received
- _ Results in Verdant
- _ Daily log
- _ Consultant Invoice
- _ Contractor Invoice
- _ DEQ Notification
- _ Disposal Manifest
- _ Lab samples in Verdant
- _ TEM Air clearance samples
- _ Consultant Close out documents in Verdant
- _ BOLI Form
- _ Certified Payroll dates

ACTIVITIES

The following shows historic activities and projects. For more detailed information or related documents see the individual activity information in the database.

Activity Type	Location	Start Date	Related Documents
Sampling	Stage and stage stairs sampling	06/01/2020	Yes
Sampling	Cooper Mountain Main Building (CMT1)	06/27/2019	Yes
Sampling	CMT	02/20/2019	Yes
Sampling	CMT1	12/13/2018	Yes
Sampling	CMT1	04/18/2018	Yes
Sampling	Modular / Boys1 and Girls1 Restrooms	01/02/2018	Yes
Sampling	Level 1 / BOYS3 Restroom	03/27/2017	Yes
Sampling	Level 1 / Mech2	02/06/2017	Yes
Sampling	Level 1 / Staff Work Room	12/01/2016	Yes
Sampling	Cooper Mountain Elementary	08/01/2016	Yes
Sampling	Level 1 / Custodial 2 and Boiler Room	01/11/2016	Yes
Database Update	CMT1	01/01/2004	No
Database Update	CMT1 p03	01/01/2004	No
Database Update	CMT1 p06	01/01/2004	No
Database Update	CMT1 p100	01/01/2004	No
Inspection/Survey	CMT	06/01/2003	Yes

ASBESTOS MATERIALS

The following materials either tested positive or are presumed to be asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled or not listed in this report may contain asbestos and should be tested to verify asbestos content prior to impact, demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (P) Presumed Positive

Cooper Mountain Modular Building (CMT2)			
Result	Material	Location	Quantity
P	Sheet Flooring Material and Mastic / / / , Cmnt: Some edges starting to come up per inspector. [ID: 24392]	Level 1 / Custodial	38 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmnt: Carpeted [ID: 24391]	Level 1 / Commons	1000 sf
P	Sheet Flooring Material and Mastic / / / [ID: 24393]	Level 1 / Entrance	69 sf
P	Sheet Flooring Material and Mastic / / / , Cmnt: Minor chipping [ID: 24394]	Level 1 / M100	150 sf
P	Sheet Flooring Material and Mastic / / / , Cmnt: Minor chipping [ID: 24395]	Level 1 / M102	190 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmnt: Carpet [ID: 24396]	Level 1 / M104	183 sf
P	Floor Tile and Mastic / Non-Visible PACM / / HSA 9, Cmnt: Carpet [ID: 24397]	Level 1 / M106	183 sf
P	Sheet Flooring Material and Mastic / / / [ID: 24398]	Level 1 / M108	188 sf
P	Sheet Flooring Material and Mastic / / / , Cmnt: minor chipping [ID: 24399]	Level 1 / M110	188 sf
P	Sheet Flooring Material and Mastic / / / , Cmnt: material appears to have been overlayed or replaced - 2018[ID: 24400]	Level 1 / Restroom Boys 1	145 sf
P	Sheet Flooring Material and Mastic Cmnt: material appears to have been overlayed or replaced - 2018 / / / [ID: 24401]	Level 1 / Restroom Girls 1	145 sf
P	Sheet Flooring Material and Mastic / / / [ID: 24402]	Level 1 / Storage	63 sf
+	Built-up Roofing / Tested Positive, Cmnt: Tested 1% Chrysotile (PAINT) (19766.017- 0023 phase 3); Non-Detect (19766.017-0022 phase 3). [ID: 28032]	Roof / North	6500 sf

MATERIALS THAT TESTED NEGATIVE

The following materials tested negative. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact, demolition, renovation, etc.

Cooper Mountain Modular Building (CMT2)	
Material	Location
Gypsum Wallboard/Joint Compound / Tested Negative, Cmmt: Non-Detect (19766.017-0033, -0034 phase 3) [ID: 28041]	Level 1 / Commons
Gypsum Wallboard/Joint Compound / Tested Negative, Cmmt: Non-Detect (19766.017-0032 phase 3) [ID: 28040]	Level 1 / M110
Paper Felt / Tested Negative, Cmmt: Non-Detect (19766.017-0028 phase 3) [ID: 28037]	Roof
Built-up Roofing / Tested Negative, Cmmt: Non-Detect (19766.017-0027 phase 3) [ID: 28036]	Roof / South Parapet
Built-up Roofing / Tested Negative, Cmmt: Non-Detect (19766.017-0026 phase 3) [ID: 28035]	Roof / South Walkway

ASBESTOS SUMMARY

The following shows asbestos activities and projects. For more detailed information or related documents see the individual activity information in the database.

January 2004 to December 2012 -

Activity: Database Update - Location: CMT2

CMT2 Import Historical Materials without samples

January 2004 to December 2012 - 19766.017 p03

Activity: Database Update - Location: CMT2 p03

CMT2 Import Historical materials with Samples

ACTIVITIES

The following shows historic activities and projects. For more detailed information or related documents see the individual activity information in the database.

Activity Type	Location	Start Date	Related Documents
Database Update	CMT2	01/01/2004	No
Database Update	CMT2 p03	01/01/2004	No

Appendix D – Inspector Certification(s)

Certificate of Completion

This is to certify that

Jason Stone

has satisfactorily completed
4 hours of refresher training as an
AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

175978

Certificate Number



Dec 9, 2019 Expires in 1 year.

Date(s) of Training

Exam Score: N/A
(if applicable)

Instructor

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