

TO: Board of Directors

FROM: Liz Jamieson, Director of Capital Projects

SUBJECT: Approval of SHS Draft Change Order No. 67 – Additional Cooling - \$268,810.00

DATE: December 6, 2022

TYPE: Action Needed

According to Board Policy No. 6957, construction Change Orders that exceed \$100,000.00 need Board approval.

Attached is a draft Change Order No. 67 for Stanwood High School - Additional Cooling, increasing the contract with Cornerstone General Contractors by the amount of \$268,810.00

The Change Order is for supplemental cooling capacity at two mechanical Dedicated Outside Air Units which serve the second and third floors of the main building. It is anticipated that this enhancement, in conjunction with utilizing early morning cool air to flush the building, will provide air tempering in early autumn and late spring on unseasonably warm days. This work did not include the addition of traditional air conditioning.

A budget has been established for Change Orders for each project currently underway and sufficient capacity is available to cover the added cost of this Change Order (CO) and other Construction Change Directives (CCD) and Change Order Proposals (COP) in process. This Change Order does not change the project completion date.

Please let us know if you have any questions.

#### **Recommendation:**

We recommend the board <u>move to approve SHS Draft Change Order No. 67 to the contract with</u> <u>Cornerstone General Contractors, Inc., in the amount of \$268,810.00, for the addition of cooling capacity to outside air units serving the second and third floors of the new Stanwood High School.</u>

#### Stanwood High School - Phase 2

Stanwood-Camano School District

#### **CHANGE ORDER**

Project:	Stanwood High School - Phase 2	Architect's Project No.:	1426.000	
	Stanwood-Camano School District No	o. 401		
Architect:	McGranahan Architects		Change Order No.:	67
Contractor:	Cornerstone General Contractors	Date:	December 6, 2022	
			er shall constitute full settlement for all costs and ti ential damages, regardless of cause, related to this	
Plans and/o	r Specifications shall be changed as f	ollows (refer to attachmen	ts for back-up information):	
CI#	Description			Amount
632	CCD-218 Additional Cooling			\$268,810.00
032	CED 210 / Idahironia Cooling			Ψ200,010.00
	•		Total Change Order Amount:	\$268,810.00
_	tract Amount:	\$91,445,901.00	Original Date of Substantial Completion:	August 26, 2021
-	uthorized Change Orders:	\$5,584,562.00 \$97,030,463.00	Prevoiusly Authorized Change Orders: Current Date of Substantial Completion:	August 26, 2021
Current Con	Tract Amount.	\$97,030,403.00	The Contract Time Will be:	August 20, 2021
Contract Am	ount will be:		Increased / Decreased / <b>Unchanged</b>	by <u><b>0</b></u> Calendar Days.
Increased /	Decreased/ Unchanged			
by this Chan	ge Order in the amount of:	\$268,810.00		
The Povised	Contract Amount as a result		The date of Substantial Completion as a result of this Change Order therefore is:	August 26, 2021
	ge Order therefor is:	\$97,299,273.00	of this change order therefore is.	August 20, 2021
	_	701/200/210100		
APPROVALS	:			
Steve E	Broback  Digitally signed by Steve Broback  DN: CrUS, E=steve.broback@mcgranahan.com, CN=Steve Broback	December 6, 2022		
	1cGranahan Architects	December 0, 2022		
ATTITICELL. IV	regrananan Architects	Date		
Contractor:	Cornerston General Contractors	Date		
Owner:	Stanwood Camano SD	Date		

# Stanwood High School Change Order Proposal (COP)

**Date:** 11/8/2022

Change Item: 632 - CCD-218 Additional Cooling

# GORNERSTONE General Contractors

#### Comments

Costs associated with CCD #218. Cooling added to third floor. Roof units added, units added to mechanical mezzanine, and piping/electrical ran through the ceiling space above the third floor.

Self Perform Costs									
Description	Quantity UOM Labor Mat/Equip				/Equip	Total			
			Unit Price	Total	Unit Price	Total			
Survey		HR	\$185.00		\$0.00				
Layout + Total Station		HR	\$93.18		\$30.00				
Cleanup/Protection	32	HR	\$80.75	\$2,584.00	\$0.00	\$0.00	\$2,584		
Material Handling - Forklift	0	HR	\$80.75	\$0.00	\$45.00	\$0.00	\$0		
Dumpster	1	EA	\$0.00	\$0.00	\$1,500.00	\$1,500.00	\$1,500		
Procore	1	LS	\$0.00	\$0.00	\$200.00	\$200.00	\$200		
Touch Up GWB/Paint		HR	\$80.75		\$0.00				
BIM Modeling/Detailing		HR	\$75.00		\$0.00				
Project Management		HR	\$115.00		\$0.00				
Project Engineer		HR	\$75.00		\$0.00				
Roof Patch	1	LS	\$0.00	\$0.00	\$1,810.00	\$1,810.00	\$1,810		
Demo/Build Curbs/Load and Unload	40	HR	\$80.75	\$3,230.00	\$0.00	\$0.00	\$3,230		
Site Investigation/Mobilization/Access	120	HR	\$80.75	\$9,690.00	\$0.00	\$0.00	\$9,690		
Stow-It	1	LS	\$0.00	\$0.00	\$1,088.00	\$1,088.00	\$1,088		
United Site Services	1	LS	\$0.00	\$0.00	\$261.25	\$261.25	\$261		
United Site Serviecs	1	LS	\$0.00	\$0.00	\$261.25	\$261.25	\$261		
United Site Services	1	LS	\$0.00	\$0.00	\$306.26	\$306.26	\$306		
Tacoma Screw	1	LS	\$0.00	\$0.00	\$217.79	\$217.79	\$218		
Hytech	1	LS	\$0.00	\$0.00	\$1,809.60	\$1,809.60	\$1,810		
Hydro Ninjas LLC	1	LS	\$0.00	\$0.00	\$671.92	\$671.92	\$672		
DTG Recycle	1	LS	\$0.00	\$0.00	\$643.80	\$643.80	\$644		
			Subtotals:	\$15,504		\$8,770	\$24,274		

Trade Contractor Costs	
Subcontractor/Supplier	Amount
Milne Electric, Inc.	\$12,993
Washington Best Finishes, LLC	\$2,328
Ramsett Mechanical Company	\$202,159
Spectrum Painting	\$1,768
Washington Best Finishes, LLC	\$985
Subto	tal: \$220,233

#### Stanwood High School Change Order Proposal (COP)

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11/8/2022

Change Item: 632 - CCD-218 Additional Cooling



Subtotal		\$244,507.00
Self Perform	15.000%	\$3,641.00
Subtier	8.000%	\$17,619.00
Fee Compound Deduct Per Contract	-0.860%	(\$1,894.00)
Subtotal		\$263,873.00
General Liability Insurance	0.600%	\$1,583.00
Perf. & Payment Bond	0.800%	\$2,111.00
B&O State Tax	0.471%	\$1,243.00
*Total Direct Costs		\$268,810.00

We reserve our right for recovery of added costs and/or time resulting from the cumulative impact this change may have on cost and schedule as well as the potential unknown impacts this change may have on unchanged work.

Submitted By:	Helsey Lees	Approved By:	<	
	Kelsey Lewis		Liz Jamieson	(Date)

# RAMSET MECHANICAL Co., INC. 2913 142<sup>nd</sup> Ave East, Suite 106 Sumner, WA 98390

October 4, 2022

CORNERSTONE GC 11805 N Creek Parkway South, #115 Bothell, WA. 98011

RE:

STANWOOD H.S. PH. 2 PCO 217r1 for CCD 218r1 ADDITIONAL COOLING

Attn: Kelsey

Attached you will find our rvised change proposal for the work associated with CCD 218r1. The total revised cost for this change to the work is \$202,159.00. Detailed backup is provided for review.

Ramsett will await written direction to proceed with this change to the work.

Please feel free to contact me to discuss this.

Sincerely,

John Bolstad, Project Manager RAMSETT MECHANICAL COMPANY, INC.

Cc: Field PCO 217r1

F:\1805\PCO 217r1

TEL: (425) 251-9404 FAX: (425) 251-3595

	R					
		2913 142ND AVENUE				
		SUMNER, W				
		EL (425) 251-9404 F	AX (425) 251-3595			
TO:	CORNERSTONE GC			DATE:	27-Sep-22	
REF:	STANWOOD H.S. PH. 2			PR#:	CCD-218R1	
UBJECT:	Additional Cooling			RFI#		
1.00	LABOR HOURS - T&M		18,938.99			
2.00	PUNCHLIST/CLOSEOUT 3%		568.17			
	B TOTAL (L1+L2)				19,507.16	
4.00	MATERIAL COST - T&M		23,08032			
5.00	IN-HOUSE MISC MATERIAL		100.00			
6.00	DETAILING					
7.00	SUBCONTRACTORS		126,583.37			
8.00	SUBCONTRACTORS FEE		14,695.36			
9.00	SUB TOTAL (L4 - L8)				164,459.05	
10.00	TOTALS (L3+L9)					183,966.21
11.00	FEE ON OWN WORK (12% OF L10	-L7&L8)	5,122.50			
12.00	PROFIT ON SUBS (8% OF L7)		10,126.67			
13.00	SUB TOTAL (L11+L12)				15,249.17	
14.00	BOND (N/A)					
15.00	LIABILITY INSURANCE (1.6% OF L	.10)	2,943.46			
16.00	SUB TOTAL (L14+L15)				2,943.46	
17.00	TOTAL (L13+L16)					18,192.63
19.00	GRAND TOTALS (L10+L17)					202,159.00

SUBCONTRACTORS		DIRECT COST		FEE	TOTAL
SHEET METAL	******	\$80,714.29	******	\$9,685.71	\$90,400.00
BALANCE	******	\$7,487.34	******	\$806.39	\$8,293.73
CONTROLS	******	\$17,016.74	******	\$1,639.26	\$18,656.00
GEO LOOP	******		******	111	
INSULATION	******	\$21,365.00	******	\$2,564.00	\$23,929.00
MECH DEMO	******		******		
WELDING	******		******		
CHEMICAL TREATMENT	******		*****		1
PAINTING	******		******		
LEAK DETECTION	******		******		
ELECTRICAL	******		******		
CONCRETE POURING	******		****		
CONCRETE SAWING	******		中央市外管理大士		
CONCRETE CORING	********		境由本本业业业会		
EXCAVATION	****		向我在在全年市市		
RENTAL EQUIPMENT	全全台的世界市场		******		
SUBCONTRACT TOTAL		\$126,583.37	*******	\$14,695.36	\$141,278.73



October 3, 2022

Ramsett Mechanical 2913 142<sup>nd</sup> Ave East, Suite 106 Sumner, WA 98390

Reference:

Stanwood High School

Subject:

CCD #218R1 - Additional Cooling System \*Revision 2\*

Attention:

John Bolstad

John,

We have reviewed the above noted change. We find our cost for this change is Ninety Thousand Four Hundred Dollars, \$90,400.00.

The above noted cost is to add OCU-303, 304, associated refrigerant piping, coils and ductwork fittings per the direction issued in CCD #218R1. This has been revised to include the duct revisions necessary for the coil to be installed at DOAU-5 and add the Low Ambient control kits. Attached is Delta's material and labor breakdown.

This cost excludes all roofing/patching and equipment sleepers and flashing

This cost excludes all roofing/patching and equipment sleepers and flashing per M5.02 Detail 13, all work in DOAU-5, and all wiring and controls.

These change orders do not include any amount for changes in the sequence of work, delays, disruption, rescheduling, extended overhead, acceleration, or impact costs, and Delta Technology is expressly reserving our right to make claim for any and all of these and related items of cost prior to final settlement of the contract.

Please let me know if you have any questions.

Sincerely,
DELTA TECHNOLOGY CORPORATION

Kyle Thomas Project Manager Stanwood High School

10/3/2022

		COST
a.		

a.	LABOR COST				
	Labor Hours (see Contractor's breakdown):		263.70		
	Direct Labor Cost:	Hours	Hourly Rate		
	Detailer Foreman	0	113.42	*	
	Working Foreman	96	112.25	10,776.00	
	Journeyman	167.7	105.05	17,616.89	
				125	
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	Total Hours	263.7			
	Direct Labor Rate		0.00		
	Direct Labor Cost			28392.89	
	Supervision	15.00%	72	0.00	
	Total Labor Cost		S.*	\$	28,392.89
b.	SMALL TOOLS				\$0.00
b.	MATERIAL COSTS (see Contractor's Breakdown)				\$52,321.40
c.	EQUIPMENT COSTS (see Contractor's Breakdown)				\$0.00
e.	SUBCONTRACTORS				
	Sub 1 -			\$0.00	
	Sub 2 -			\$0.00	
	Subcontractors Total				\$0.00
g.	FEE				
	On Contractor's Own Work		\$80,714.29		
	Amount subject to Overhead Allowance				
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	12.00%		\$9,685.71	
		12.0070		\$0.00	
				\$0.00	
	On Subcontractor's Work				
		7.00%		\$0.00	
		7.0070		\$0.00	
	Overhead Allowance Total			\$0.00	\$9,685.71
					<b>\$0,000.</b> 2
h.	INSURANCE/BOND				
	Warranty	0.00%	\$90,400.00	\$0.00	
	Bond	0.00%	\$90,400.00	\$0.00	
	Insurance/Bond Total				\$0.00
	TOTAL CHANGE ORDER				\$90,400.00

#### **Summary** Stanwood High School

10/3/2022

MATERIAL						LABOR		
Description	LHR	Units	QTY	Cost/Unit		Cost/unit		
Added Refer Pipe - 1/2"		Lin Ft	385	2.85	1,097.25	0.099	38.12	
Added Refer Pipe - 3/4"		Lin Ft	205	4.53	928.65	0.107	21.94	
Added Refer Pipe - 7/8"	1	Lin Ft	180	5.41	973.80	0.107	19.26	
Added Refer Pipe - 1 1/8"	l	Lin Ft	385	7.13	2,745.05	0.112	43.12	
Added Refer Insulation - 1/2"		Lin Ft	385	2.62	1,008.70	0.044	16.9	
Added Refer Insulation - 3/4"		Lin Ft	205	3.01	617.05	0.047	9.6	
Added Refer Insulation - 7/8"		Lin Ft	180	3.33	599.40	0.048	8.6	
Added Refer Insulation - 1 1/8"		Lin Ft	385	4.16	1,601.60	0.05	19.2	
LP Duct Fittings		Lbs	302	1.55	468.10	0.102	30.80	
New Split Systems		Lot	1	37,745	37,745.00	32.00	32.00	
Roof Mounting Hardware		Ea	2	225.00	450.00	2.00	4.0	
Refrigerant Charge/Test/Start-Up		Ea	1	248.00	248.00	8	8.00	
Man Lift Rental		Ea	1	580.00	580.00		-1	
Forklift Rental		Ea	1	620.00	620.00			
Low Ambient Control Kit		Lot	1	673.80	673.80		A	
Control Kit Labor		Lot	1	1,965.00	1,965.00		-	
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		EA			-		-	
Delivery		EA			-			
Equipment		EA			-		-	
Rental		EA			-			
Travel/Subsistence		EA			-		-	
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					F2 224 42		262	
SUBTOTALS:				\$	52,321.40	HR	263.7	

# DELTA

JOB STANWOOD AS:

DATE 15-17-21 7-12-22

TYPE COD" 2156+ 122

L.P.#
HP#
LINER
ANGLE
FLEX
SPIN-INS

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#### PROPOSAL

Seattle - p. (206) 284-1476 2203 23<sup>14</sup> Ave S. Seattle, WA 98144

CCD 4 216

Date:	12/16/2021	Project Name:	Stanwood High School Phase 2
From:	Johnson Barrow / Trevor Grinzel	To:	Delta
Contact Info:	206-316-6302	Attention:	Kyle Thomas

#### **LG - VRF Heat Pump Systems**

**Condensing Units** 

Tag	Model	Nominal Cooling Capacity	Description
OCU-303	ARUM144DTE5	12 Tons	Single Chassis Heat Pump 460v/3ph
ODU-304	ARUM121DTE5	10 Tons	Single Chassis Heat Pump 460v/3ph

#### **EEV Kits**

Qty.	Model	Nominal Cooling Capacity	Description
2	PRLK096A0	8-16 Tons	EEV Kit for 3rd Party Cooling Coil

#### **Included in Scope of Supply:**

- AHU Communications Kit
- Startup
- Installation training and support
- 6-7 Week lead time
- (2) 58D42x45-7-4-W-H-R DX coils by RAE (10 weeks lead time)

Exclusions: <u>Smoke Detectors</u>, Refrigerant piping, Line Sets, Digital Output Kits, Ball Valves, Secondary Drain Pan, Non-integral Condensate Pumps, External Refrigerant Trim Charges, Vibration Isolation, Wiring, Installation, Digital input kits, Dry Contacts, CO2 Sensors, Dampers, Low Ambient Kits, Seismic Calculation, Offloading, Storage, Access, Rigging, Installation, Extended Warranty, Any Other Options Not Listed Above, Special Construction, and Installation.

#### Total NET Price, freight included

\$37,745.00

Thank you, Shelby Spicer sspicer@jbarrow.com 206-572-0917

# Sales Quote



Document Date

September 14, 2022

Sales Quote No.

SQ01593

Page 1/1

Johnson Barrow, Inc. 2024 21st Ave S Seattle, WA 98144 206-284-1476

Parts Direct: 206-826-3200 Email: parts@jbarrow.com

TO: DELTA TECHNOLOGY, INC. 1223 VALENTINE AVE., S.E. PACIFIC, WA 98047-2106 United States

SHIP TO:

DELTA TECHNOLOGY, INC. DELTA TECHNOLOGY, INC. 1223 VALENTINE AVE., S.E. PACIFIC, WA 98047-2106 United States

Salesperson	Quote Valid To	Payment Terms	Shipment Method
Jeremy Andrews	October 14, 2022	Net 30 days	Standard Ground Shipping

No.	Description	QTY	Unit	Unit Price	Amount
LGE-PRVC2	Low Ambient Control Kit for MV IV & 5	2	Each	319.40	638.80
FREIGHT	Freight	1	Each	35.00	35.00
				Subtotal	673.80
				Total Tax	0.00
				Total \$	673.80

Terms: Net 30 O.A.C., F.O.B. Factory, Freight is only an estimate at this time and is subject to change based off actual freight costs. Sales estimate is only valid for 30 days.

Please fax or email a copy of your purchase order when you're ready to order. If you do not have an open account with us, we take American Express, Visa or Mastercard. Fax# 206-832-4655.

Returns: If returns are coordinated through Johnson Barrow, Inc, credit may be issued. Returns are subject to a re-stocking fee and freight costs. NO RETURNS after 30 days.



### Johnson Barrow inc

# Proposal

Date:	09/21/2022	From:	Johnson Barrow	
Project Name:	Stanwood HS-LG	To:	Delta Tech	
Documents Acknowledged:		Attention:	Kyle Thomas	

#### Stanwood HS-LG

Johnson Barrow Service to configured (Qty.2) Low Ambient Control Kits for LG systems. Followed by testing to ensure proper operation. To be billed on a T&M basis.

#### Exclusions:

- Any/All troubleshooting unrelated to the scope above
- Another proposal including labor and parts will be provided to address any components found to be faulty
- All Installation and Wiring of Low Ambient Control Kits.

Total NET Price \$1,965.00

Please provide two weeks' notice

Any additional time over the above hours will be billed out per Johnson Barrows service rates, detailed below.

Johnson Barrow Service Rates	
Standard Journeyman Rate \$185.00/per hr.	
Overtime applies after 8 hours @ \$240.00/per hr.	
After hours & Holiday rate @ \$315.00/per hr.	
Truck/Fuel Charge Within Puget Sound Area (King/Pierce County) @ \$65.00	
Truck/Fuel Charge Outside of Puget Sound Area @ \$115.00	
Welding fee(\$15)/reclaim fee(\$40)/vacuum pump oil(\$18)	

Date: 09/21/2022

THIS IS NOT AN INVOICE

Project Name: Stanwood HS-LG

Project #:

#### Proposal

Description of work: Refer to scope on Pg.1

Service call [10] hours @ \$185.00/per hr (estimated)	
*Travel time included*	
*Prevailing Wage accounted for*	¢ 1 850 00
***Parts and Materials not included	\$ 1,850.00
Other costs	\$
Overtime applies after 8 hours @ \$240.00/per hr	\$
After hours & Holiday rate @ \$315.00/per hr	\$
Truck/Fuel Charge Within Puget Sound Area (King/Pierce County) @ \$65.00	\$
Truck/Fuel Charge Outside of Puget Sound Area @ \$115.00	\$ 115.00
25lbs of Refrigerant	\$
Welding Fee (\$15) / Reclaim Fee (\$40) / Vacuum Pump Oil (\$18)	\$
TOTAL	\$ 1,965.00

#### TERMS:

#### \*Excluded sales taxes and shipping charges.

- · We offer to furnish the services and/or equipment specified herein at the prices stated and in accordance with Johnson-Barrows' standard terms and conditions. If you do not have a copy of or are not aware of these conditions please contact this office. Payment terms are Net 30 days, O.A.C.
- If you do not have an account with Johnson Barrow, VISA, MASTERCARD, & AMERICAN EXPRESS are accepted.
- NOTE: This proposal may be revised by Johnson Barrow if not accepted within 160 days.

Signature of Acceptance:	DATE:	
Standard Johnson Barrow Terms and Conditions Apply		
Thank you,		

Dexter Charles Service Sales Engineer M: (206) 406-7603

E: Dcharles@jbarrow.com



#### Change Order Proposal Breakdown

DATE:	November 19, 2021	JOB NO.: _	19-1007-1	AIRTEST COP NO.:
JOB NAME	E: Stanwood High School CCD-218		CUSTOMER:	Ramsett
SCOPE:	CCD-218 Add additional cooling capacity	. Rebalance D	OAU-3 & 5, and	chilled water system.

Supervisor/ Technician	W/E Date	Straight	OT	DT	Total Hours
TBD	TBD	24.00			24.00
TBD	TBD	24.00			24.00
					0.00
				A	0.00
***************************************					0.00
					0.00
					0.00
				water and the same	0.00
					0.00
Total:		48.00	0.00	0.00	48.00

lot	as.			48.00	0.00	0.00		40.00
1.	LAI	BOR RATES (Includes SS FICA/Med.	FUI, SUI, L&I)					
		Field Straight Time (Technician):	24.00	Hours @	\$ 73.27		\$	1,758.41
	B	Field Overtime (Technician):	0.00	Hours @	\$ 109.90		\$	
		Field Doubletime (Technician):	0.00	Hours @	\$ 146.53		\$	
		Field Straight Time (Supervisor):	24.00	Hours @	\$ 79.84		\$	1,916.08
		Field Overtime (Supervisor):	0.00	Hours @	\$ 119.75		S	
		Field Doubletime (Supervisor):	0.00	Hours @	\$ 159.67		5	
		Commissioning Manager:	0.00	Hours @			5	-
		TAB Project Manager:	0.00	Hours @			S	
		LABOR HOURS TOTAL:	48.00		LABOR RAT	ES TOTAL:	\$	3,674.49
l.	LA	BOR BURDENS						
	A.	Union Benefits	\$ 31.48	times Total	Union Labor hour	S	\$	1,511.04
	B.	Non Union Labor Burden	47.10%	of Total Nor	-Union Labor Ra	tes	S	*
	C.	Supervision:	15,00%	of Total Lab	or Rates		S	551.17
	D.	Safety Meetings:	1.25%	of Total Lab	or Rates		\$	45.93
		Warranty:	3.00%	of Total Lab	or Rates		S	110.23
		EATH OTHER C			LABOR BURD	EN TOTAL:	\$	2,218.3
II.	INS	STRUMENTATION & EQUIPMENT						
	A.	Instrumentation:	\$ 20.00	x Total Lab	or Hours		5	960.0
	B.	Equipment (vehicles, ladders, etc.):	\$ 5.50	x Total Lab	or Hours		5	264.0
	C	Consumables:	3.0%	of Total Uni	on Labor Rates		S	110.2
	D	Small Tools:	3.0%	of Total Uni	on Labor Rates		\$	110.2
			INS	TRUMENTAT	TON & EQUIPME	NT TOTAL:	\$	1,444.4
IV.		HER DIRECT COSTS						
	A.	Other Direct Costs (sheaves, belts, b	ushings, etc.):					
	B	Travel/Parking / Per Diem: Prevailing	g Wage				\$	150.0
				ОТН	ER DIRECT COS	STS TOTAL:	\$	150.0
V.	SU	BTOTAL (Items I through IV)			\$	SUBTOTAL:	\$	7,487.3
VI.	0.050	/ERHEAD & FEES						
		Fee	10.00%	x Subtotal			\$	748.7
		Bond (excluded from our scope):	0.00%	x Subtotal			\$	
	C.	B & O Tax:	0.70%	The state of the s	Fee, & Bond	0.0000000000000000000000000000000000000	\$	57.6
				•	OVERHEAD & FE	ES TOTAL:	\$	806.3
		TOTAL PR	OPOSED CHA	NGE AMOUN	T FOR TAB / CX	SERVICES:	\$	8,29
	Pr	oceeding Per:						
12		vaiting written direction to proceed with	n this work					
		ork performed on expedited basis						
		ork in Progress						
1		ork already completed						
		ork performed during regular hours un						



# NEBB Certification #3000 Change Order Proposal

Date:	November 19, 2021							
Company:	Ramsett							
Attention:	Kathy Tatman							
Project Name:	Stanwood High School CCD-218							
Project Description:  Rebalance work required after cooling capcity changes made per 0 218. Rebalance DOAU-3, 5, and chilled water system.								
Cost to Perform Spec	ified Services: \$ 8,294							
Comments: See attached page for addi Assumes daytime hours. O	itional information. Ivertime or shift will be extra							
Brent K. Wyman President								
Please sign this proposal	and include it in your purchase/change order.							
Accepted By:								
Date:								



August 18, 2022

Attention: Heather Bolstad, Ramsett Mechanical

Project: Stanwood SD - Stanwood High School

Subject: COP-7 Additional Cooling (CCD-218 R1) - REV 1

#### Heather:

ATS Automation is prepared to execute the following scope of work as described below, for the above referenced project. Our proposal covers the following:

#### Scope Description:

- ATS will facilitate the addition of a new CHW cooling coil to DOAU-5 by providing a new 1.25" Belimo
  control valve (for installation by others) and wiring to the existing Alerton controller. The controller
  will be reprogrammed to operate the cooling coil in accordance with a revised sequence of operation.
- ATS will remove existing DOAU-5 control wiring to allow for the installation of the new coil cabinet, reinstall control wiring, and provide additional point-to-point and functional testing of existing controls to verify proper operation.
- ATS will facilitate the addition of (2) new DX coils to DOAU-2 by providing a new programmable
  controller, installing a discharge air temperature sensor for each coil, and wiring new condenser unit
  start/stop and status signals. The new coils will be programmed in accordance with a revised sequence
  of operation.
- ATS will provide point-to-point checkout and functional testing of the new controls.
- ATS will update control drawings and front-end graphics to reflect the changes.
- All original clarifications and exclusions apply.

Total Price – Additional Cooling:	\$ 18,656 ADD
-----------------------------------	---------------

ATS requires approval before proceeding with the work described above. Please contact me at (425) 264-9321 if you have any questions.

	al Submitted:	Proposal Accepted:	
ATS Aut	omation, Inc.		
By:	Carson Fisco	By:	
Title:	Sr. Sales Engineer	Title:	

#### **ATS Contract Change Order**

Job Name:	Stanwood High School	Additional Description:					
ATS Job #:	1119003	<ul> <li>Add cooling to DOAU-2, DOAU-5</li> </ul>					
Project Manager:	Austin Blake						
Sales Engineer:	Carson Fisco						
Date:	1/11/2022						
Reference:	CCD-218 R1						
Subject:	Additional Cooling						
ATS COP:	07 R1						

A. Labor - ATS Publishe	ed Rates			E. Misc Costs / Direct Project Support		
Description	Rate	Hours	Cost	Description		Cos
Project Manager	\$140.00	16.00	\$2,240	Labor Total (A)		\$5,760
Project Engineering	\$125.00	8.00	\$1,000	Material Total (B & C)		\$1,367
Project Technicians	\$105.00	24.00	\$2,520	Subtotal 1 (A , B, & C)		\$7,127
Project Support	\$77.00	0.00	\$0		Rate	
Description	Overtime Rate	Hours	Cost	Markup on Direct Work	12%	\$855.26
Project Management	\$210.00	0.0	\$0			
Project Engineering	\$187.50	0.0	\$0	1		
Project Technicians	\$142.50	0.0	\$0			
Project Support	\$104.50	0.0	\$0			
TOTAL LABOR COST:		Г	\$5,760	TOTAL MISC/PROJECT SUPPORT COSTS:	Г	\$855
B. Material (General)	CENTRAL PROPERTY.	I STATE WILL		F. OVERHEAD/FEE		All of the
Description			Cost	Description		Cos
General Material	(See Attached)		\$104	Subcontracts Total (D)		\$9,800
Section of the section.	Freight @	3%	\$3	Subtotal 1 (D)		\$9,800
	Warranty @	3%	\$3	1		
TOTAL MATERIAL (GENE	RALL COST:	_	\$110		Rate	
C. Material (Alerton, E				Markup on Subcontractor	8.00%	\$784
Description	V648 000000 101 1000		Cost			
Alerton List Price	(See Attached)		\$1,708	TOTAL OUTBURAD (SSE	_	\$78
Belimo List Price	(See Attached)		\$927	TOTAL OVERHEAD/FEE: G. TOTALS & BOND/TAX		370
	AA NISTE C	0.45	\$769	Description		Со
Net Alerton Price	Multiplier @	0.45	\$709	A. Labor Total		\$5,76
	Manhieliae G	0.45	\$417	B. Material (General) Total		\$11
Net Belimo Price	Multiplier @	0.45	241/	C. Material (Alerton/Belimo) Total		11.
						\$1.25
	Terrata @	20/	¢26	And a little to the control of the c		
	Freight @	3%	\$36	D. Subcontracts Total		\$9,80
	7700 CONTRACTOR OF THE PARTY OF		1.35,00.00	D. Subcontracts Total E. Misc Costs / Direct Project Support Total		\$9,80 \$85
	Freight @ Warranty @		\$36 \$36	D. Subcontracts Total E. Misc Costs / Direct Project Support Total F. Overhead/Fee Total	_	\$9,80 \$85 \$78
TOTAL MATERIAL (ALER	Warranty @	3%	1.35,00.00	D. Subcontracts Total E. Misc Costs / Direct Project Support Total		\$9,80 \$85 \$78
	7700 CONTRACTOR OF THE PARTY OF	3%	\$36	D. Subcontracts Total E. Misc Costs / Direct Project Support Total F. Overhead/Fee Total		\$9,80 \$85 \$78
D. SUBCONTRACTS	Warranty @	3%	\$36 <b>\$1,257</b>	D. Subcontracts Total E. Misc Costs / Direct Project Support Total F. Overhead/Fee Total Subtotal 2 (A, B, C, D, E, & F)	Rate 0.484%	\$9,80 \$85 \$78 \$18,56
	Warranty @	3%	\$36	D. Subcontracts Total E. Misc Costs / Direct Project Support Total F. Overhead/Fee Total		\$9,80 \$85 \$78 \$18,56
D. SUBCONTRACTS  Description	Warranty @	3%	\$36 <b>\$1,257</b> <u>Cost</u>	D. Subcontracts Total E. Misc Costs / Direct Project Support Total F. Overhead/Fee Total Subtotal 2 (A, B, C, D, E, & F)		\$1,25° \$9,800 \$85° \$786 \$18,560

Job Name:	Stanwood High School	
ATS Job #:	1119003	
Reference:	CCD-218 R1	
ATS COP:	07 R1	

#### GENERAL MATERIAL

MANUFACTURER	DESCRIPTION	MAN PART #	Price	Qty	Total
Hoffman	12x12x4 Small Enclosure	EN-08	\$25.00	1	\$25.00
Functional Devices	Current Sensing Relay	CR-2	\$16.00	2	\$32.00
Functional Devices	Relay, SPDT, 24-120vac	RIB-1A	\$16.00	2	\$32.00
Functional Devices	50VA Transformer	XF-C2	\$15.00	1	\$15.00
					\$0.00
					\$0.00
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					\$0.00
					\$0.00
					\$0.00
				A. C. 1997	\$0.00
					\$0.00
			1		\$0.00
	<del></del>			Sub Total:	\$104.00

Job Name: Stanwood High School						
ATS Job #:	1119003					
Reference:	CCD-218 R1					
ATS COP:	07 R1					

#### ALERTON MATERIAL

MANUFACTURER	DESCRIPTION	MAN PART #	Price	Qty	Total
Alerton	VLC-853-E Programmable Controller	VL03-E	\$1,676.00	1	\$1,676.00
Alerton	Temp Sensor, Duct, 12"	TS-10B	\$32.00	1	\$32.00
					\$0.00
					\$0.00
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					\$0.00
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					\$0.00
					\$0.00
- W					\$0.00
	CONTRACTOR OF THE PARTY OF THE	Marin Marin		Sub Total:	\$1,708.00

#### BELIMO MATERIAL

MANUFACTURER	DESCRIPTION	MAN PART #	Price	Qty	Total
Belimo	Characterized Control Valve, 1.25", 2-way	B231	\$927.00	1	\$927.00
78.51					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
					\$0.00
	*			Sub Total:	\$927.00



Controls Fire Alarm Security

July 21, 2022

Austin Blake ATS Automation 450 Shattuck Ave S# 100, Renton, WA 98057

#### RE: Stanwood HS

We are happy to quote and propose the installation of the DDC control system on the above referenced project based on your proposal dated 6/6/21 as follows:

#### Scope of Work:

- Demo/Salvage Controls for DOAs 5 and Reinstall.
  - o Add Conduit/Wire to Support New Cooling Add.
  - Install a New Controller to Support Cooling for DOAU-2.
    - o Install Control Wiring for (2) Duct Coils.
      - 24vs from Duct Coil.
      - MSTP from Nearest Source.
      - Cost for Interlock Wiring from Indoor/Outdoor Units Included.

#### Assumptions/Exclusions:

- All work is to be performed during normal working hours.
- All wiring is to be installed per local code.
- Work to be done on ladders. Does not include a ladders last safety project.
- Payment terms are (60) days after receipt of invoice.
- · All control wiring is low voltage unless otherwise specified in points list or proposal.
- Engineering of control drawings is done by the control's contractor. Datskiy can assist in spotting discrepancies, but responsibility lies on engineering. Datskiy electric is the electrical contractor.
- Once approved control drawings are received, they are the basis of design for the project.
   All alterations to control drawings must be submitted to the acting project manager for approval before alterations to installed electrical work can commence.
- Datskiy electric is responsible for installation of the hired controls contractors DDC system. All other control systems (fire alarm, security, lighting, receptacle, metering, etc.) are excluded unless specified in proposal or points list.
- Exclusions: WSST, provision of devices or control devices, engineering, VFD installation or line/load wiring, painting, and patching.

**Base Cost:** 

\$ 9,800.00

Sincerely,

Larry Gerasimchuk Larry.g@datskiyelectric.com 425-446-0907

### To: Ramsett Mechanical Co

# **COP Subcontractor Breakdown Summary**

Project Name:	Stanwood High School				COP No.	16
Project No.	2758	Source Documents:		CCD #218	R1 Date:	9/1/2022
Contractor:	Heckman, Inc	-			Contractor Ref. No.	1805
Description:	Additional Cooling. Revise CHW coils will have LAT's	ed 9/1/22: Add supply do requiring insulation to pr	uct insu revent c	lationPrevio	usly un-insulated ducts require insultion becau Price includes removal and replacing ceiling til	ise the added
. CRAFT LABOR	COSTS			Itemize :	all costs on attæhed COP Cost Breakdown	form.
Direct Lab						
a. crew (appr	rentices, jaırneymen, & I	aborers)	\$	14,931.75		
b. foreman			\$	-		
c. lead forem			\$	-		
	DIREC	T LABOR SUBTOTAL	\$	14,931.75		
Labor Mar	kups:				Supervision marku p should be zero if any	
	ervision (NTE 0% of 1a)		\$		foreman time is included in direct labor costs.	
e. safety (NT	E 0% of lines 1a, b, & c)		\$	-	4 00 457 4 00 0 00 00 0	44,000,0
					1. CRAFT LABOR COSTS	14,932.0
. MATERIAL COS						
a. material to	otal from cost breakdown	form	\$	6,433.29	2 MATERIAL COSTS &	6,433.0
					2. MATERIAL COSTS \$	0,433.0
EQUIPMENT C		•	•			
a. equipmen	t total from cost breakdo	wn form	\$		3. EQUIPMENT COSTS \$	
					3. EQUIT MENT 00010	
SMALL TOOLS	- (NTE 00/ -5.4- 0 h)		¢			
a. small tool	s (NTE 0% of 1a & b)		Ф		4. SMALL TOOLS \$	
					SUBTOTAL 4 4hm. 4	04.005.0
					SUBTOTAL 1 thru 4	21,365.0
. OVERHEAD & F						
	on of 1, 2, 3, & 4up to \$5		\$	2,563.80		
b. NTE 10%	portion of 1, 2, 3,& 4 in 6	excess of \$50,000	\$	*	5 OVERVIEAR & PRORT 6	0.504
					5. OVERHEAD & PRORT	2,564.0
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·					6. SUB-SUBCONTRACTORS	-
OVERHEAD &	PRORT ON SUB-SUBCO	NTRACTORS			_	
	of Line 6 up to \$50,000fo		\$			
	of Line 6 in excess of \$50		\$		•7	
2 =			7	OVERHEA	& PRORT ON SUB-SUBCONTRACTORS	-
. INSURANCE					<del>-</del>	
	riven liability insurance	0.00 % of 1	\$	-		
The real of the second	riven liability insurance	0.00 % of 1-7	\$	-	8. INSURANCE	\$ -
	₹ 200 mm and 200 mm a	3.000	100		_	
BOND						
a. Subguard	d on sub-subcontractors	1.00 % of 1-6	\$	-	9. BOND_	\$ -
					·	
					TOTAL COST	\$ 23,929

#### **COP Cost Breakdown**

Project Name: Stanwood High School

To: Ramsett Mechanical Co

COP No. 16 Date: 9/1/2022

1805

Project No.
Contractor:

Heckman, Inc

Contractor Ref. No.

Description	0	Unit		abor	Cost	Unit \$	ateria	Cost	Equipment ost Unit \$ Cost			Total Cost	
Description	Quantity	Туре	Unit \$	\$	Cost	Unit \$	\$	Cost -	Offic	\$	Cost -	\$	COSt -
Cooling 11/23/21								_		-			E 520 05
Journeyman Insulator Wages	59.75	hours	\$92.60	\$	5,532.85		\$			\$	-	\$	5,532.85
3/4 x 1" fiberglass insulation	102	LF		\$	200 - 1	\$1.98		201.96		\$		\$	201.96
2017 201 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102	LF		\$		\$3.04	\$	200.64		\$		\$	200.64
2-1/2 x 1" fiberglass Insulation	66	LF		\$		\$3.14	\$	2,216.84		s	-	\$	2,216.84
3/4 x 1" Armaflex Insulation	706	each		\$		\$1.38		15.18	-	\$		s	15.18
#7 PVC fitting	11	1.50000000		\$		\$4.05	\$	52.65		\$		\$	52.65
#13 PVC fitting	13	each LF		\$		\$3.57	\$	235.62		\$		\$	235.62
2-1/2 x 1" PVC Jacket	66	LF		\$	-	\$2.79	10.00	150.66	100000	\$		\$	150.66
3/4 x 1" Aluminum Jacket	54	1		\$		\$6.90		55.20	-	\$		\$	55.20
3/4 x 1" Aluminum fitting	8	each lot		\$		\$469.31	\$	469.31		\$		\$	469.31
accessories	1	iot		\$		φ405.51	\$	-		\$		\$	-
Supply Duct 9/1/22		-		\$			\$			\$	-	\$	
Journeyman Insulator Wages	101.5	hours	\$92.60	-	9,398.90		\$			\$	-	\$	9,398.90
Journey Half Histiator VVages	101.5	nours	\$02.00	\$	-		\$	-		\$	-	\$	- 1
1-1/2" duct wrap	5027	SF		\$		\$0.47	\$	2,362.69		\$	551-0	\$	2,362.69
accessories	1	lot		\$		\$472.54	\$	472.54		\$	-	\$	472.54
accessories	<u> </u>	101		\$	-		\$	-		\$	-	\$	
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***				\$			\$			\$	-	\$	-
Subtotal				\$	14,931.75		\$	6,433.29		\$	-	\$	21,365.04
		hrs		\$	-		\$			\$	-	\$	
	-	hrs		\$			\$	7 <del>=</del>		\$	-	\$	-
Total	161.25	hrs		\$			\$			\$		\$	25
Total Cost of Work		ed 3/19/2009		\$	14,931.75		\$	6,433.29		\$		\$	21,365.04

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Report Selections: Job: Inv. Item: Employee: Phase: Vendor: Tran. Type: Cost Type: 09217 FFF AP, EQ, GL, IC, JC, PR, OH 1805 Customer: Division: **Phase Status:** A/P Contract Labor Hours? Draw Appl. #: Master Job? Job Status: N O ALL ALL ALL Active, Inactive, Complete Active

# RAMSETT MECHANICAL CO., INC.

# Job Cost History Report From Inception To 08/26/22 Including P.O. Receipts and Payroll in Progress

	1					Unit	of Measure
	Iran						
Date	Type	Reference	Description	Additional Information	Hours	Quantity	Amount

190.57	2.00	Check# E26801	THOMAS HAAG	PR HAATHO	08/04/22
602.28	8.00	Check# E26791	BRANDON ARMSTRONG	PR ARMBRA	08/04/22
695.79	8.00	Check# E26816	ERIC RUSSELL	PR RUSERI	08/03/22
190.57	2.00	Check# E26801	THOMAS HAAG	PR HAATHO	08/03/22
602.28	8.00	Check# E26791	BRANDON ARMSTRONG	PR ARMBRA	08/03/22
695.79	8.00	Check# E26816	ERIC RUSSELL	PR RUSERI	08/02/22
602.28	8.00	Check# E26791	BRANDON ARMSTRONG	PR ARMBRA	08/02/22
695.79	8.00	Check# E26816	ERIC RUSSELL	PR RUSERI	08/01/22
190.57	2.00	Check# E26801	THOMAS HAAG	PR HAATHO	08/01/22
602.28	8.00	Check# E26791	BRANDON ARMSTRONG	PR ARMBRA	08/01/22
695.75	8.00	Check# E26782	ERIC RUSSELL	PR RUSERI	07/29/22
526.96	7.00	Check# E26757	BRANDON ARMSTRONG	PR ARMBRA	07/29/22
695.74	8.00	Check# E26782	ERIC RUSSELL	PR RUSERI	07/28/22
190.54	2.00	Check# E26766	THOMAS HAAG	PR HAATHO	07/28/22
602.23	8.00	Check# E26757	BRANDON ARMSTRONG	PR ARMBRA	07/28/22
695.74	8.00	Check# E26782	ERIC RUSSELL	PR RUSERI	07/27/22
381.15	4.00	Check# E26766	THOMAS HAAG	PR HAATHO	07/27/22
602.23	8.00	Check# E26757	BRANDON ARMSTRONG	PR ARMBRA	07/27/22
190.58	2.00	Check# E26766	THOMAS HAAG	PR HAATHO	07/26/22
695.74	8.00	Check# E26782	ERIC RUSSELL	PR RUSERI	07/25/22
952.88	10.00	Check# E26766	THOMAS HAAG	PR HAATHO	07/25/22
544.10	8.00	Check# E26765	LUCAS HAAG	PR HAALUC	07/25/22
602.23	8.00	Check# E26757	<b>BRANDON ARMSTRONG</b>	PR ARMBRA	07/25/22
261.26	3.00	Check# E26748	ERIC RUSSELL	PR RUSERI	07/19/22
270.03	3.00	Check# E26732	THOMAS HAAG	PR HAATHO	07/19/22
381.56	4.00	Check# E26628	THOMAS HAAG	PR HAATHO	06/28/22
296,48	4.00	Check# E26619	BRANDON ARMSTRONG	PR ARMBRA	06/28/22
311.06	4.00	Check# E26609	ERIC RUSSELL	PR RUSERI	06/24/22
				Phase: 09-217 Cost Type: L LABOR	
				Job: 1805 STANWOOD HS-PHASE II	Job: 1805 S

# Job Cost History Report From Inception To 08/26/22 RAMSETT MECHANICAL CO., INC.

# Including P.O. Receipts and Payroll in Progress

				ANWOOD HS-PHASE II	Job: 1805 STANWOOD HS-PHASE II	Job: 1805
Quantity	Hours	Additional Information	Description	Reference	Туре	Date
Unit o					Tran	
		including P.O. Receipts and Payroll in Progress	Including P.O. Re		sted?	UnPosted?

PR	PR	PR	PR	PR	PR	
PR RUSERI	HAATHO	PR ARMBRA	R RUSERI	ARMBRA	PR RUSERI	CONTRACTOR
ERIC RUSSELL	THOMAS HAAG	<b>BRANDON ARMSTRONG</b>	ERIC RUSSELL	<b>BRANDON ARMSTRONG</b>	ERIC RUSSELL	
Check# E26851	Check# E26834	Check# E26825	Check# E26851	Check# E26825	Check# E26816	

08/05/22 08/08/22

08/09/22 08/09/22 08/09/22 08/08/22

Job 1805 Recap

Subtota
for P
hase:
09-217
Cost 1
Гуре:
<b>L LABOR</b>

Total for Job: 1805 STANWOOD HS-PHASE II

Total	09-217	Amount
229.00 18,938.99	229.00 18,938.99	LABOR
229.00 18,938.99	229.00 18,938.99	Total

229.00	229.00	8.00	3.00	5.00	10.00	10.00
0.00	0.00					
18,938.99	18,938.99	695,79	285.87	376.42	869.74	752.83

8.00

695.79



1012 132nd STREET SOUTHWEST EVERETT, WA 98204-7328

Please contact with Questions: 425-742-4748 APR 0 5 2022

INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE
0329630	\$159.05	14150	1 of 1

# PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

RAMSETT MECHANICAL CO INC 17405 SPRUCE WAY C/O JEFF REES @ SPRUCE ELEM LYNNWOOD, WA 98037

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

SHIP WHSE. 3023	SEL WHS	E.			05-9217-1	SALESMAN KJS		NAME VOOD HS PHA		E DATE 01/22	IO 454720
ORDER	RED	SHIPPED	ITEM N	UMBER		DESCRIPTION		UNIT PRICE	UM	AMO	UNT
	2	2	VCD35920		Come visit us at our ne location. 3440 6th Ave 4X2-1/2 PTD GRV ME	South CH TEE 920	ICE SUB-TOTAL	64.976	EA		129.9 129.9 29.1
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Looking for a more convenient way to pay your bill?

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(B)

TERMS:

**NET 10TH PROX** 

**ORIGINAL INVOICE** 

TOTAL DUE

\$159.05



INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE	
0723166-1	\$11.82	14150	1 of 1	

## PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

Please contact with Questions: 206-767-7700

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

SHIP WHSE.	SELL	TAX 0	CODE	USTOMER ORDER NUMBER	SALESMAN	JOB	NAME	INVOICE DA	
3007	3007	7 WA1	1726	1805-9217	KJS	STAN	MOOD	08/03/22	465123
ORDERE	ED	SHIPPED	ITEM NUM	BER	DESCRIPTION		UNIT PRICE	UM A	MOUNT
	1	1	M49560163	2-3/4 HOLE DOZER HO	LE SAW		10.715	EA	10.7
					INVOICE	SUB-TOTAL			10.7
						TAX	Seattle		1.1
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AUG 0 5 2022

TERMS: NET 10TH PROX ORIGINAL INVOICE TOTAL DUE \$11.82



Please contact with Questions: 206-767-7700

AUG 0 5 ZUZZ

INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE
0723266	\$48.56	14150	1 of 1

# PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

TOTAL DUE

\$48.56

COUNTER PICK UP 4100 WEST MARGINAL WAY SW SEATTLE, WA 98106-1209

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

TERMS:

**NET 10TH PROX** 

SHIP WHSE.	SELL WHSE 3007			1805-9217	SALESMAN		NAME OM		OS/22	IO 465123
ORDER	RED	SHIPPED	ITEM NUMBER		DESCRIPTION		UNIT PRICE	UM	AMC	UNT
	2 2	2 2	PFXMMHFFN PFGG100K	LF 3/4 MIP X 3/4 MHT E 2 GAS TEST GA ASSY	0-100#	E SUB-TOTAL	4.408 19.870	EA EA	8. 39. 48.	
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All past due amounts are subject to a service charge of 1.5% per month, or the maximum allowed by law, if lower. If Buyer fails to pay within terms, then in addition to other remedies, Buyer agrees to pay Seller all costs of collection, including reasonable attorney fees. Complete terms and conditions are available upon request or at https://www.ferguson.com/content/website-info/terms-of-sale, incorporated by reference. Seller may convert checks to ACH.
\*Any reference to or incorporation of Executive Order 14042 and/or the EO-implementing Federal clauses (FAR 52.223 -99 and/or DFARS 252.223-7999) is expressly rejected by Seller and shall not apply as Seller is a materials supplier and therefore exempt under the Executive Order.\*

**ORIGINAL INVOICE** 



INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE
0723166	\$55.81	14150	1 of 1

#### PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

Please contact with Questions: 206-767-7700

AUG 0 5 2022

SHIP TO:

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

WHSE. V	SELL VHSE. 3007	TAX C		CUSTOMER ORDER NUMBER 1805-9217	SALESMAN KJS	NAME NWOOD	08/0	3/22	IO 465123
ORDERED		SHIPPED	ITEM NUM	BER	DESCRIPTION	UNIT PRICE	UM AMOUNT		UNT
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Log in to Ferguson.com and request access to Online Bill Pay.

**ORIGINAL INVOICE** TOTAL DUE TERMS: **NET 10TH PROX** \$55.81

#### Invoice INV00174

July 21, 2022 Page 1/1





RAMSETT MECHANICAL CO., INC. MARY LEISCHOW 2913 142nd Ave E Ste 106 STE. 106 Sumner, WA 98390-9504 United States Ship-to Address
Ramsett Mechanical
2913 142ND AVE E
SUMNER, WA 98390-9504
United States

Johnson Barrow, Inc. 2024 21st Ave S Seattle, WA 98144

Customer PO No. 1805-9217

Due Date August 20, 2022 Payment Terms Net 30 days

Description	Shipment Date	Quantity	Unit	Unit Price	Line Amount
DOAS-5 CW coil & box	06/15/22	1	Each	13,970.00	13,970.00
				Subtotal	13,970.00
				Total Tax	0.00
				Total \$	13,970.00

Remit Check Payment To: Johnson Barrow, Inc. 2024 – 21<sup>st</sup> Ave S Seattle, WA 98144 Remit ACH Payment To: Bank: Washington Trust Routing: 125100089 Account: 1000675965

Remittance: remittance@jbarrow.com

9217



INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE
0731556-1	\$6.43	14150	1 of 1

# PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

COUNTER PICK UP 1012 132ND STREET SOUTHWEST EVERETT, WA 98204-7328

Please contact with Questions: 42	AUG 1 7 2022
RAMSETT MECHANICAL CO 2913 142ND AVE E SUITE 106 SUMNER, WA 98390	

SHIP WHSE. 3023	SEL WHS	E.		STOMER ORDER NUMBER 1805-9217	SALESMAN KJS	NAME VOOD HS PHA	08/15/	10
ORDER	RED	SHIPPED	ITEM NUMBI	ER	DESCRIPTION	UNIT PRICE	UM	AMOUNT
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4100 WEST MARGINAL WAY SW SEATTLE, WA 98106-1209

Please contact with Questions: 206-767-7700

AUG 0 5 2022

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

INVOICE NUMBER	TOTAL DUE	CUSTOMER	PAGE
0710752-2	\$391.85	14150	1 of 1

# PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

RAMSETT MECHANICAL 7400 272ND ST NW STANWOOD, WA 98292

SHIP WHSE.	SEL WHS	E.	CODE	CUSTON	MER ORDER NUMBER 1805-9217	SALESMAN KJS	JOB	NAME .		E DATE	IO 465123
ORDER	ED	SHIPPED	ITEM	NUMBER		DESCRIPTION		UNIT PRICE	UM	AMC	UNT
	2 2 2	2	GBRNLU		4X2-1/2 PTD FIP MEC LF 2-1/2X6 BRS NIP G LF 2-1/2X4 BRS NIP G	BL BL	CE SUB-TOTAL FREIGHT	70.790 63.777 45.829	EA EA EA		141.5 127.5 91.6 360.7
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TERMS:

**NET 10TH PROX** 

**ORIGINAL INVOICE** 

TOTAL DUE

\$391.85



1012 132nd STREET SOUTHWEST EVERETT, WA 98204-7328

Please contact with Questions: 425-742-4748

AUG 0 9 2022

 INVOICE NUMBER
 TOTAL DUE
 CUSTOMER
 PAGE

 0731556
 \$508.94
 14150
 1 of 1

# PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

COUNTER PICK UP 1012 132ND STREET SOUTHWEST EVERETT, WA 98204-7328

RAMSETT MECHANICAL CO INC
2913 142ND AVE E SUITE 106
SUMNER, WA 98390

SHIPPED 4	ITEM NUMBER		KJS	1805 STAN	WOOD HS PHA	08/05/22		IO 465438
4	HEM NUMBER		DESCRIPTION		UNIT PRICE	UM	AMO	DUNT
100	PF500F JT26250	3/4 COP CLAD 2H STR 1/4 ID X 3/8 OD X 100			0.233 0.337	EA FT		0.93 33.70
2	FNW7010EP0100	1 EPOX PLTD ADJ SW			0.708	EA		1.4
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Log in to Ferguson.com and request access to Online Bill Pay.

TERMS: NET 10TH PROX ORIGINAL INVOICE TOTAL DUE \$508.94



4100 WEST MARGINAL WAY SW SEATTLE, WA 98106-1209

Please contact with Questions: 206-767-7700

2913 142ND AVE E SUITE 106

**SUMNER, WA 98390** 

**NET 10TH PROX** 

TERMS:

 INVOICE NUMBER
 TOTAL DUE
 CUSTOMER
 PAGE

 0710752-1
 \$46.34
 14150
 1 of 1

## PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

TOTAL DUE

\$46.34

RAMSETT MECHANICAL 7400 272ND ST NW STANWOOD, WA 98292

	AU	0	3 2022	
RAMSETT MECHANICAL CO INC				

SHIP WHSE.	SELI WHS	E.		CUSTOM	ER ORDER NUMBER 1805-9217	SALESMAN KJS	JOB	NAME	08/01/22		IO 464970
ORDER	RED	SHIPPED	ITEM N	UMBER		DESCRIPTION UNIT PRICE		UNIT PRICE	UM	AMOUNT	
	2	0	VCD35920 CS4L	PE0	4X2-1/2 PTD FIP MEC 2-1/2 WROT FTGXC S	T 45 ELL	ICE SUB-TOTAL	46.343	EA EA		0.00 46.34 <b>46.3</b> 4
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All past due amounts are subject to a service charge of 1.5% per month, or the maximum allowed by law, if lower. If Buyer fails to pay within terms, then in addition to other remedies, Buyer agrees to pay Seller all costs of collection, including reasonable attorney fees. Complete terms and conditions are available upon request or at https://www.ferguson.com/content/website-info/terms-of-sale, incorporated by reference. Seller may convert checks to ACH.
\*Any reference to or incorporation of Executive Order 14042 and/or the EO-implementing Federal clauses (FAR 52.223 -99 and/or DFARS 252.223-7999) is expressly rejected by Seller and shall not apply as Seller is a materials supplier and therefore exempt under the Executive Order.\*

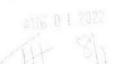
**ORIGINAL INVOICE** 

Log in to Ferguson.com and request access to Online Bill Pay.

Remit To.

STAR RENTALS INC PO BOX 3875 SEATTLE, WA 98124-3875

www.starrentals.com



#### Invoice

Closed Invoice#
Thu 7/28/2022 631213-38

Bill to.

Customer #: 146088

RAMSETT MECHANICAL CO INC 2913 142ND AVE E STE 106

SUMNER, WA 98390

PO #: 1805-9217 Job No: 1805-9217

Date Out Mon 7/25/2022

Terms Aging Date

Net 10th Thu 7/28/2022

Ordered By: TOM HAAG

Delivery Mon 7/25/2022 7:00AM - 9:00AM

TOM 206-288-9318 STANWOOD HIGH SCHOOL 7400 272ND N W ST STANWOOD, WA 98292 Pickup Mon 8/ 1/2022 7:00AM - 9:00AM

TOM 206-288-9318 STANWOOD HIGH SCHOOL 7400 272ND N W ST STANWOOD, WA 98292

Qty	Key	Items	Ser#	Disc%	Returned Date	Price
1	150-0100#R5130	FORKLIFT, 55'10000# 4WD JE 10054	G 0160112810		Wed 7/27/2022 8.00AM	\$840.00
	Meter Out 98 0 1day \$420.00 1wee		otal hours on meter. 1.0			
1	[MISC-33	DELIVERY CHARGE				\$200.00



#### Current Net 10th

Please pay from this invoice.

		ouoo puj				
Rental and Sale	es	WA HERT:				STANWOOD
\$1,040.0	00	\$10.50	400 400 11 20			\$96.72
Total Amount:	\$1.147.22		Total Paid	\$0.00	Total Due	\$1,147.22

360-255-2020

www starrentals com

360-384-9039



Please contact with Questions: 425-742-4748

#### PAGE INVOICE NUMBER TOTAL DUE CUSTOMER \$24.28 14150 0711358 1 of 1

#### PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

COUNTER PICK UP 1012 132ND STREET SOUTHWEST EVERETT, WA 98204-7328

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

SHIP WHSE.	SELL WHSE 3023		GODE CUST		The state of the s		NAME NWOOD	07/2	9/22	IO 464761	
ORDERED SHIPPE		SHIPPED ITEM NUMBER			DESCRIPTION		UNIT PRICE	UM AMO		OUNT	
1 1 M48390539		539	24 TPI COMP B/SAW B		E SUB-TOTAL	21.970	PK		21.97 21.97		
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Log in to Ferguson.com and request access to Online Bill Pay.

TERMS:

**NET 10TH PROX** 

ORIGINAL INVOICE

TOTAL DUE

All past due amounts are subject to a service charge of 1.5% per month, or the maximum allowed by law, if lower. If Buyer fails to pay within terms, then in addition to other remedies, Buyer agrees to pay Seller all costs of collection, including reasonable attorney fees. Complete terms and conditions are available upon request or at https://www.ferguson.com/content/website-info/terms-of-sale, incorporated by reference. Seller may convert checks to ACH.

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4100 WEST MARGINAL WAY SW SEATTLE, WA 98106-1209

Please contact with Questions: 206-767-7700

 INVOICE NUMBER
 TOTAL DUE
 CUSTOMER
 PAGE

 0710752
 \$3,369.17
 14150
 1 of 1

### PLEASE REFER TO INVOICE NUMBER WHEN MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES #3007 PO BOX 847411 DALLAS, TX 75284-7411

SHIP TO:

RAMSETT MECHANICAL 7400 272ND ST NW STANWOOD, WA 98292

RAMSETT MECHANICAL CO INC 2913 142ND AVE E SUITE 106 SUMNER, WA 98390

SHIP SEL WHS 3007 300	E.		OMER ORDER NUMBER	SALESMAN KJS	JOB NAME		E DATE   29/22	IO 464689
ORDERED	SHIPPED	ITEM NUMBER		DESCRIPTION	UNIT PRICE	UM	AMO	DUNT
2	0	VCD35920PE0	4X2-1/2 PTD FIP MECH	TEE 920		EA		0.00
1	1	NT58570HCF	*NP 3/4 BRZ 600# THR	D FP BV CC	41.758	EA		41.76
5	5	N672L	LF 2-1/2 125/150# COP	2PC COMP FLG	98.316	EA	257/257 28	
2 .	2	VF024647CGT-NR	2-1/2X6 GRV X THRD I	DIELEC NIP 647	98.414	EA		1965.83
2	2	FNWLBBZ1L	2-1/2 ZN 150# DBL SID	E LUG BFV BLT	6.029		EA 12.6	
40	40	LHARDL20	2-1/2 X 20 L HARD COI	7 TUBE	2328.701	C		931.48
2	2	HBRGT61	STAY SAFE BRIDGIT 1	STAY SAFE BRIDGIT 1/8 X 1LB SPL		EA		94.10
4	4	CS9L	2-1/2 WROT FTGXC ST	2-1/2 WROT FTGXC ST 90 ELL				184.46
	1	GTL	2-1/2 WROT CXCXC TI	E 2-5/8 OD	62.798	EA		62.80
1	1	CFRGF	1X3/4 WROT FTGXC R	ED	4.039	EA		4.04
4	4	CCL	2-1/2 WROT CXC COU		18.812	EA		75.25
3	3	CMAK	2 WROT GXM ADPT	mass creament (2004/01) N	25.071	EA		75.21
2	2	CFAL	2-1/2 WROT CXF ADP	r	89.062	EA		178.16
3	3	CRCLK	2-1/2X2 WROT CXC RI		29.585	EA		88.76
6	6	C4L	2-1/2 WROT CXC 45 E		34.852	EA		209.11
4	3	CS4L	2-1/2 WROT FIGXC S		46.343	LA		139.03
4		CFMAF	LF 3/4 WROT FTG X M	11.543			11.54	
	1	FNWR1FFGAL	2-1/2 RR 1/8 FF 150# C	2.306			9.22	
4	4	BP150A307AL	2-1/2 150# BLT KIT 4 5		4.936			19.74
4	4		4 IPS PLTD RIGID STE		4.070	2.77		8.14
2	2	FNW7873Z0400	QT VIC LUB	IG! OLMP	80.438			80.4
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12	12	The State of the S	2-1/2X1 WROT FTGXC		32.395	CONTRACTOR OF THE PERSON NAMED IN		32.40
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				INVOICE	SUB-TOTAL			3369.17
S FEDERAL ¢ RODUCTS W	R OTHER APPLI TH: NP IN THE D	DABLE LAW IN POTA ESCRIPTION ARE N	ODUCTS THAT ARE NOT "L IBLE WATER SYSTEMS AND DT LEAD FREE AND CAN OF RESPONSIBLE FOR PRODU	TICIPATED FOR HUMAN OF NLY BE INSTALLED IN	NCE WITH ONSUMPTION			
			more convenied		your bill? Online Bill Pay.		83	)
	NET 10TH PRO	1			100000000000000000000000000000000000000	1 1		

All past due amounts are subject to a service charge of 1.5% per month, or the maximum allowed by law, if lower. If Buyer fails to pay within terms, then in addition to other remedies, Buyer agrees to pay Seller all costs of collection, including reasonable altorney fees. Complete terms and conditions are available upon request or at https://www.ferguson.com/content/website-info/terms-of-sale, incorporated by reference. Seller may convert checks to ACH.
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# Chemical Products Company



Invoice Water Treatment Specialist

Date	Invoice #
8/25/2022	3433

29516 82nd Avenue Court South Roy, WA 98580

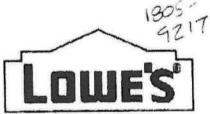
Phone # 253-229-7449 Fax # 253-215-0082

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
1805-9217	Net 30	TD	8/25/2022	Job Site		

Quantity Item Code	Description	Price Each	Amount
Quantity Item Code  1 Service Call	Service Call completed on August 10, 2022 Glycol pumping in CWS Testing HWS inhibitor Additional inhibitor for HWS	Price Each 2,450.00	Amount 2,450.00

Sales Tax (0.0%)	\$0.00
Odioo 1 di (0.070)	40.00

Thank you for your business.	Total	\$2,450.00
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LOWE'S HOME CENTERS, LLC 3300 169TH PLACE NE ARLINGION, WA 98223 (360) 653-205

- SALE

SALESN: S006 IKH1 1746558 FRANSE: 95762909 07-25-22

12181 185109

115,92

#[ 13/8 CAT FIR SHEADATING

28.98 4 8 . ITEMS MUST BE PICKED UP TODAY

SUBTOTAL:

115.92

TAX:

10.78

INUGICE 28814 TOTAL:

126.70

M/C:

126.70

M/C: XXXXXXXXXXXX5173 ANOUNT:126.70 AUTHCO: 684753

CHIP REF ID: 006128080342 07/25/22 08:28:21

CUSTOMER CODE: 9217

AFL: Mastercard TUR: 0000008000

AID: A0000000041010 TS1: E800

STURE: 61

TURKINGL: 28 07/25/22 08:28:29

\* OF ITEMS PURCHASED:

LOVE'S HOME CENTERS, LLC

3300 169TH PLACE NE ARLINGTON, UA 98723 (360) 653-7405

- SALE -

SALESM: SOO61KH1 1748558 TRANSM: 9,776,499 07-25-22

227199 32-6AL BH ROUND THEM CAN

195.84

8 \$ /4.48 805331 FXN 5/8-IN X 56-FT HD HSE 22.90

SUBTRIAL:

218.82

IAK:

20.35

239.17

INVOILE 28808 TOTAL: H/C:

239.17

H/C: XXXXXXXXXXXX5173 AHUUNT:239.17 AUTHCD: 615678

CHIP REFID:005128080336 07/25/22 08:19:18

CUSTOMER CODE: 9217

APL: Hastercard TUR: 0000008000

A10: A0000000041010 TSI: E800

TERNITMAL: 28 07/25/22 08:21:39 STORE: 61

# OF ITEMS PURCHASED:

EXCLUDES FEES, SERVICES AND COLUMN



LOWE'S HOME CENTERS, LLC 3300 169TH PLACE NE ARLINGTON, WA 98223 (360) 653-7405

- SALE -

SALES#: FSTLANE1 13 TRANS#: 14047775 07-28-22

1095664 LNX 3-5/8-IN NON-ARBRD HO 20.98 1215586 WEDGE 3/8 X 3-3/4 15CT (1 14.78

> SUBTOTAL: 35.76 TAX: 3.33 INVOICE 19550 TOTAL: 39.09

H/C:

39.09

H/C: XXXXXXXXXXXX4262 AMOUNT: 39.09 AUTHCD: 663425 CHIP REFID:006119066412 07/28/22 15:36:02 CUSTOMER CODE: STANWOOD HS APL: Mastercard TVR: 0000008000

AID: A0000000041010 TSI: E800

STORE: 61 TERMINAL: 19 07/28/22 H OF ITEMS PURCHASED: TERMINAL: 19 07/28/22 15:36:15 EXCLUDES FEES, SERVICES AND SPECIAL ORDER ITEMS

1805-9217

OHALITY TOOLS L

MARYSVILLE WA #02928 11401 STATE AVENUE MARYSVILLE, WA 98271 Telephone: (360) 939-1718

#### SALE

63317 1/10 HP TRANSFER PUMP If opened return via HFTPumpRtn.com \$64.99 Subtotal Sales Tax 9.400% \$64.99 Total \$6.11 \$71.10 MasterCard Card No. XXXXXXXXXXXXX4262 \$71.10 Expiration Date XX/XX Auth. No. 692737 Mastercard Contactless Signature Verified Mode: Issuer AID: A0000000041010 TVR: 0000008000

1805 - 9217

THANK YOU FOR SHOPPING ACET STANWOOD ACE HARDWARE (360) 926-8711

SAM DSM		590	SALE
2	EA	\$4.59	EA
		AND WAR COLOR	\$9.18
		\$17.99	
		(B) (B) (B) (B) (B) (B)	\$17.99
		.30	EA *N
			\$.30
27.47	TA	X: \$	2.53
		\$	30.00
XXXXXXXX	XXX4	262	
			30.00
	2 5x.040X7, 1 SEALANT 8 y Donatio 27.47 BC AM XXXXXXXXX 881 TII	SEALANT 80Z 1 EA y Donations 27.47 TA BC AMT:  XXXXXXXXXXXXXX4 881 TID:*** VED AM	2 EA \$4.59 5X.040X7/8 1 EA \$17.99 SEALANT 80Z 1 EA .30 y Donations 27.47 TAX: \$ TOTAL: \$

Authorizing Network: MASTERCARD

Contact less

CARD TYPE:MASTERCARD EXPR: XXXX

AID : A0000000041010 TVR: 0400008001

IAD : 0110A000012200000000000000000000

### 1805-9217

#### THANK YOU FOR SHOPPING ACET STANWOOD ACE HARDWARE (360) 926-8711

08/08/22 10:06AF	1 DSM		590	SALE
4504585	3	EA	\$4.99	) EA
HOSE BARB MENDR	1/4" 1	F		\$14.97
4027488	80	EA	.79	EA EA
4027488 VINYL TUBNG PVC	1/4X3	/8"		\$63.20
SUB-TOTAL:\$	78.17	TA	X: \$	7.27
		TOTA	L: \$	85.44
	BC AM	T:	\$	7.27 85.44 85.44
3K CARD#: XXX	XXXXXX	XXXX4	262	
4ID:*******688				
AUTH: 660100		AM	T: \$	85.44
Host reference	#:9059	111	Bat#	
Authorizing Net	work:	MASTE	RCARD	
Contact less				
CARD TYPE: MASTE	RCARD		EXPR: )	XXXX
AID : A00000000	41010			

1805-9217

TVR: 0400008001

08/01/22 10:18AM DSM

THANK YOU FOR SHOPPING ACET STANWOOD ACE HARDWARE (360) 926-8711

SALF

TAD - 0.1.10A0000.122000.00000000000000000000

00/01/22 10:10A	ווסטו ויו	,	100	MLL	
56	10	EA	.40	EA	
FASTENERS				\$4.00	
56	10	EA	.35	EA	
FASTENERS				\$3.50	
SUB-TOTAL:\$	7.50	TAX:	\$	.70	
		TOTAL:	\$	8.20	
	BC AM	TOTAL: T:	\$	8.20	
BK CARD#: XX	XXXXXX	XXXX426:	2		
MID: *******688	1 TI	D: ***51	76		
AUTH: 681255		AMT:	\$	8.20	
Host reference	#:9035	43 B	at#		
Authorizing Net	work:	MASTERC	ARD		

Contact less

EXPR: XXXX CARD TYPE: MASTERCARD

AID : A0000000041010 TVR: 0400008001

TST :

# 1805-9217

#### THANK YOU FOR SHOPPING ACET STANWOOD ACE HARDWARE (360) 926-8711

08/04/22 8:234	M TAC		590	SALE
3004687	1	EA		B EA
CABLE TIES 11"	75# BI	_K		\$4.59
47039				B EA
HOSE ADAPTR 3/4	1X3/4"	3RS		\$6.99
49022	1	EA	\$6.9	9 EA
NIPPLE 3/4"XCLO	SE BR	S		\$6.99
74129	1	EA	\$3.5	9 EA
WASHR HOSE RUB	BR 10/	000000		\$3.59
4061370				9 EA
SPLY WASH MACH	3/4X3/	4X60		\$19.99
4789707	1	FA	\$15.9	9 EA
DRILL POWER UT	TITTY	PIMP	*1.4.1	\$15.99
4505483		FΔ	\$9.9	\$15.99 9 EA
ELBOW 90DEG 3/			4010	\$9.99
FLBUM SONER 3/	4 (1)	1-1		43123
SUB-TOTAL:\$	68.1	3 T	AX: \$	6.34
JUD TOTALLY		TOT	Al : \$	74.47
	BC /	MT:	\$	6.34 74.47 74.47
BK CARD#: )	(XXXXX)	(XXXX)	(4262	
MID:******68	181	(ID:*4	¥\$176	
AUTH: 631094	1	,	AMT: \$	74.47
Host reference	#:90	4516	Bat#	

Authorizing Network: MASTERCARD

# 1805-9217

# **RBOR FREIGHT**

MARYSVILLE WA #02928 11401 STATE AVENUE MARYSVILLE. WA 98271 Telephone (360) 939-1718

#### SALE

63317 1/10 HP TRANSFER PUMP If opened return via HFTPumpRtn com \$64 99 Subtotal Sales Tax 9 400% \$64 99 \$6 11 Total \$71.10 MasterCard Card No XXXXXXXXXXXXX4262 \$71.10 Expiration Date XX/XX Auth No 692737 Mastercard Contactless Signature Verified Mode: Issuer AID A0000000041010 TUR 0000008000

1805 - 9217

THANK YOU FOR THEPPING ACE!

STANSAU ALL HARDWAY 12040 020-6714

08/01/22 10:0	MELL MACH		590	SALE
2339851	2	EA	\$4.59	ŁA.
COTOFF WHI 4.	5x 040x	1/8		\$9.18
4295586	1	EA	\$17.99	LA
MEGALOC THRU	SEALANT	807		\$17.99
9269862	1	EA	30	EA *N
CMN or Charit	y Donat	tons		\$ 30
	-			

27.4/ TAX: \$ SUB-TUTAL:\$ 2.53 101AL: \$ 30.00 BC AMT : 30 00

BK CARD#: XXXXXXXXXXXXX4262 MID.+\*\*\*\*\*\*\*\*\*6861 TID \*\*\*5176 AUTH: APPROVED AMI \$ 30 00 Host reference #.903534 Bat#

Authorizing Network MASTERCARD

3041010

CARL TYPE:MASTERCARD

Contact less

1122000099500000000000000000

TXPR: XXXX

1805-9217

THANK YOU FOR SHOPPING ACE! STANWOOD ACE HARDWARE (360) 926-8711

08/08/22 TO.OGAN DEM 590 SALE 4504585 3 LA \$4.99 EA HOSE BARB MENDRI/4" LI \$14.97 /9 LA 4027468 to, EA VINYL TUBNG PVC 1/4x3/8 \$ti3 20 SUB 101AL :\$ 78.17 TAX: \$ 121 101AL: \$ 85 44 BC AMI 85 44 \$

BK CARDS. MID: \*\*\*\*\*\*\*\*\* 16881 TID: \*\*\*5176 AUTH: 660100 AMT: \$ 65 44 Host reference #:905911 Bata

Authorizing Network, MASTERCARD

Contact less CARD TYPE MASTERCARD EXPR XXXX AID A0000000041010 TVR : 0400008001 Ты. • бэлолооба 2200м имобой в виновиний и.

#### THANK YOU FOR SHOPPING ACET STANHOOD ACE HARDMARE (350) 926-8711

08/04/22 8.234				
3004687 CABLE TIES TI 47039 HUSE ADAPTR 374 49022	1	Ł.A	\$4 55	) LA
CARGE LIES 11	75# BI	K		#4 59
41039	1	EA	\$0.9	) EA
THE ADAPTR W	14:1/4 1	883		\$6.99
VOUSE WINE IN ST	1	FA	26.9	911
490ZZ	ier aps	Lo	40.0	Sh 49
NIPPLE 3/4 XGE 74129	VAL DIO	LA	43 6	4 14
74129	u . 1 //	1.61	40	49 59
WASHR HOSE RUG 4061370 SPLY WASH MACH	BK 10/1	· ·	#10 G	O EA
4061370	1	LA	\$19.9	9 [A
SPLY WASH MACH	3/4%3/	4X60		\$19.99
4789707 DRILL PUWER UI	1	LA	\$15 9	9 FA
DRILL PUNER UT	HILL	Lilith)		\$15.99
4505483	1	LA	\$9.9	9 LA
ELBOW 90DEG 3/	4 11	l.F		\$3.33
SUB-INTAL:\$	68.1	3 1	AX. \$	6.34
July 191111 14		TOT	Al : \$	14.41
\$: SUB-TOTAL	BC A	MI:	\$	74.47
8K CARU#:				
MID:*******	181	10:+4	*517b	
AUTH: 63109	1		MT . S	74 41
AUTH: 03109		er er	God &	

Authorizing Network MASTERCARD

Ba1#

Host reference #:904516

21007-640



### **How doers** get more done.

11616 AURORA AVE STORE MGR JAARON	N.	SEATTL ERBACH	E, WA 98133 206-361-9600
4706 00051 332 SALE SELF CHECKO	244 DUT	08/29/	22 09:28 AM
0270-0914518 DW0 DAWN DISH ORG	R75 <	A>	11.47
BAG FEE - 8 C	FEE	08 <b.< td=""><td>80.0 eU</td></b.<>	80.0 eU
021709370553 320 PRO SPRAYER B 393 48 MAX REFUND VA 10.44 Instant Vo MUST RETURN ALL	Z BOT BOTTLE LUE \$ It Vol	320Z 8.35/3 Saving:	10.44 s
X.XXXXXXXXXXXXXXX4262			19 90 2.04 \$21.94
AUTH CODE 692373 Chip Read	/6510	022	USD\$ 21.94 TA
AID AGOOGEDOO410	10		Mastercard
P.U M/JOB NAME:	PIPE	ESTING	8-29

NON-DISCOUNTABLE ITEM



RETURN POLICY DEFINITIONS
POLICY ID DAYS POLICY EXPIRES ON
1 90 11/27/2022
2 - NO REFUNDS AB

### DID WE NAIL IT?

Take a short survey for a chance TO WIN A \$5,000 HOME DEPOT GIFT CARD

Opine en españoi

www.homedepat.com/survey

User ID: H89 71483 66828 PASSWORD: 22429 66777

Entries must be completed within 14 days of purchase Entrants must be 18 or older to enter See complete rules on website No purchase necessary



11616 AURORA AVE. N., SEATTLE, WA 98133 STORE MGR JAARON LAUTERBACH 206-361-9600

4705 00051 19102 SALE SELF CHECKOUI 08/25/22 10:10 AM

706511500950 95KEYSCHLAGE <A> 98 KEY SCHLAGE 2@3.27

6.54

SUBTOTAL SALES TAX TOTAL

XXXXXXXXXXXXXXXA262 MASTERCARD

USD\$ 7.21 TA

AUTH CODE 605021/0515231 Chip Read All A0000000041010

Master card

P. 0 #/ JOB MAME: 21007

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Frither.			\$11,000
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Surface Colony Methods - Mountain Arts

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Large Fift Mealth a.

AND CHARLESTON (CARLESTON)

180 : Ollowershit , is the speciment while,



# Change Order Proposal

Project Name:	Stanwood High School				Sheet #	1	
To:	Cornerstone General Contractors						
Att:	Kelsey Lewis						
Project No.	18-009	Source Documents:			Proposal MEI - COP - #	106	
					Date	10/4/202	2
Description:	Power for added cooling system						
Description.							
1. Labor Cost					SUBTOTAL 1 a. & 1 b.	\$ 8,0	03.39
a. DIRECT Labor Mark	LABOR SUBTOTAL from Cost Brea	ikdown Sheet 2	\$ 8,003.39				
b. safety In			\$ -				
·	•		•				
2. MATERIAL COST	(from Material Labor Hours Sheet	2)				\$ 2,9	60.89
3. FQUIPMENT CO	ST (from Equipment Rates Sheet 4)	1				\$ 4	08.84
o. Egon meitr oo	or (nom Equipment Rules officer 4)	,				, -	00.04
4. SMALL TOOLS (I	ncl. in fee)					\$	-
					SUBTOTAL 1 thru 4	i 11,3	73.00
5. OVERHEAD & PF	ROFIT						
	ortion of 1, 2, 3, & 4				:	\$ 1,3	64.76
e cup tien cupo	ONTRACTORS					<u> </u>	
6. SUB-TIER SUBC	JNIKACIOKS					\$	-
b.							
c.			\$ -				
d.			\$ -				
e.			\$ - \$ -				
f.			5 -				
7. OVERHEAD & PR	OFIT ON SUB-TIER SUBCONTRAC	TORS				\$	-
a. NTE 8% ea	ch sub		\$ -				
					Bonds/Insurances - (Incl. in M/U)	\$ 2	54.76
<u> </u>							
					COST (From Above)	100	03.00
						\$ 12,99 \$	93.00
							93.00
				l	· ·	,0	
	Excludes cutting, patching, painti	ing, any damage to ex	xisting finishes. Excludes pe	rmit costs	S.		
Scope of Work Exclusions:							
LACIUSIONS:							
					Time Extension Request in	0.0	
					Days:	<u> </u>	

This change order pricing is valid for TEN (10) calendar days only. If not accepted within 10 calendar days, price is void. Pricing subject to material/labor/rental price increases after 10 calendar days.

All other scopes of work excluded in not listed/addressed above.

Pricing is based soley on the specific information received from the Architect/Owner on the change proposal document issued.



# Material & Labor Hours

Project Name: Stanwood High School Sheet # 2

		Total Ma	aterial		2,960.89	Total Ho	urs	91.51
	Item Name	Quantity	Price	Unit	Ext Price	Labor	Unit	Labor Ext
	FOREMAN COORDINATION	2		E		1	E	2
0	0	0	\$0.00	0	\$0.00	0	0	0
40	12 THHN CU STRANDED	3500	\$298.04	M	\$1,043.15	7.5	M	26.25
833	3/4 EMT	300	\$89.70	С	\$269.10	6.2	С	18.6
890	3/4 EMT CONN CMPST	20	\$138.78	С	\$27.76	0.17	Ε	3.4
974	3/4 EMT COUP CMPST	40	\$283.27	C	\$113.31	0.37	Е	14.8
1023	3/4 EMT LB BODY	3	\$20.03	Ε	\$60.11	0.75	Ε	2.25
1109	3/4 EMT 1 HOLE STRAP/STL	25	\$26.77	С	\$6.70	5	С	1.25
3226	THRD-ROD-1/4-20-10FT-PLTD	5	\$136.77	С	\$6.84	13.7	С	0.69
3882	812M 1/2-3/4 CLIPS	50	\$92.01	С	\$46.01	0	С	0
4511	1/4-20 APP BEAM CLAMP	20	\$453.44	С	\$90.69	37.5	С	7.5
4538	3/4 STL COND HGR W/BOLT	20	\$133.87	С	\$26.78	31.2	С	6.24
5356	3/4 SEAL TITE CONN	6	\$2,427.46	С	\$145.65	22	С	1.32
5404	3/4 SEAL TITE 90 CONN	6	\$4,007.35	С	\$240.44	26.4	С	1.58
9337	20A 2P BRKR BAB2020	2	\$21.92	E	\$43.84	0.62	Е	1.24
9365	20A 3P BRKR GHB3020	2	\$341.99	E	\$683.98	0.87	Е	1.74
14161	4/S BOX 2-1/8" DEEP	4	\$959.31	С	\$38.38	35	С	1.4
14178	4/S BLANK COVER	4	\$206.83	С	\$8.27	12.5	C	0.5
15133	GROUND SCREW/#12 PIGTAIL	10	\$264.20	С	\$26.42	0.08	E	0.75
0	PERMIT	1	\$83.50	E	\$83.50	0	E	0
0	0	0	\$0.00	0	\$0.00	0	0	0
0	0	0	\$0.00	0	\$0.00	0	0	0
0	0	0	\$0.00	0	\$0.00	0	0	0
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0	0	0	\$0.00	0	\$0.00	0	0	0
-	<del>-</del>	-	, •	-	,	-	•	-



### **Labor Cost**

Project Name: Stanwood High School

Sheet #

3

Rates Through 05/31/21

ALL CHANGE ORDER WORK LABOR IS BEING PRICED AT NECA 2 DUE TO CURRENT LABOR AVAILABILITY ALL RATES ARE PER CURRENT IBEW LOCAL 191 UNION SCALE. IF NEW INCREASED RATES ARE RATIFIED THEN THESE RATES WILL BE ADJUSTED TO CONFORM TO THE INCREASE IN UNION SCALE

			General Foreman (Classification)						Foreman (Classification) ST DT					
Base Wage		\$	<u>ST</u> 58.03	\$	<u>T 1/2</u> 87.05	\$	<u>DT</u> 116.06		\$	<u>51</u> 52.75	\$	79.13	\$	105.50
Union Fringes	Varies	\$	26.98	\$	27.85	\$	28.72		\$	26.82	\$	27.61	\$	28.41
PFML/SL		\$	1.53	\$	2.31	\$	3.07		\$	1.40	\$	2.09	\$	2.79
FUTA	0.60%	\$	0.35	\$	0.52	\$	0.70		\$	0.32	\$	0.47	\$	0.63
FICA	6.20%	\$	3.60	\$	5.40	\$	7.20		\$	3.27	\$	4.91	\$	6.54
Medicare	1.45%	\$	0.84	\$	1.26	\$	1.68		\$	0.76	\$	1.15	\$	1.53
SUTA	2.23%	\$	1.13	\$	1.69	\$	2.25		\$	1.02	\$	1.54	\$	2.05
Workers Comp	. Varies	\$	0.93	\$	0.93	\$	0.93		\$	0.93	\$	0.93	\$	0.93
Liability Ins.	1.2583%	\$	0.73	\$	1.10	\$	1.46		\$	0.66	\$	1.00	\$	1.33
	Base Rate	\$	94.12	\$	128.10	\$	162.07		\$	87.94	\$	118.82	\$	149.71
	HRS Total	\$	0.0 3.00	\$	0.0	\$	0.0		\$ 6,	76.0 ,683.25	\$	0.0	\$	0.0
				(Clas	rneyman ssification)							prentice ssification)		
Base Wage		\$	<u>ST</u> 47.95	(Clas	-	\$	<u>DT</u> 95.90		\$	<u>ST</u> 42.07		•	\$	DT 84.14
Base Wage Union Fringes	Varies	\$		(Clas	sification) <u>T 1/2</u>				\$		(Cla	ssification) T 1/2	\$	
· ·	Varies		47.95	(Clas	ssification) T 1/2 71.93	\$	95.90			42.07	(Cla	ssification) T 1/2 63.11		84.14
Union Fringes	Varies 0.60%	\$	47.95 26.68	(Clas	ssification) T 1/2 71.93 27.40	\$	95.90 28.12		\$	23.10	(Cla \$ \$	23.73	\$	24.36
Union Fringes PFML/SL		\$	26.68 1.27	\$ \$ \$	ssification) <u>T 1/2</u> 71.93 27.40 1.89	\$ \$	95.90 28.12 2.54		\$	42.07 23.10 1.11	\$ \$ \$	23.73 1.68	\$	24.36
Union Fringes PFML/SL FUTA	0.60%	\$	47.95 26.68 1.27 0.29	\$ \$ \$ \$	ssification) T 1/2 71.93 27.40 1.89 0.43	\$ \$ \$	95.90 28.12 2.54 0.58		\$ \$	23.10 1.11 0.25	\$ \$ \$	ssification) <u>T 1/2</u> 63.11 23.73 1.68 0.38	\$ \$	24.36 2.24 0.50
Union Fringes PFML/SL FUTA FICA	0.60% 6.20%	\$ \$	47.95 26.68 1.27 0.29 2.97	\$ \$ \$ \$	ssification) T 1/2 71.93 27.40 1.89 0.43 4.46	\$ \$ \$	95.90 28.12 2.54 0.58 5.95		\$ \$	23.10 1.11 0.25 2.61	\$ \$ \$ \$	ssification) T 1/2 63.11 23.73 1.68 0.38 3.91	\$ \$ \$	24.36 2.24 0.50 5.22
Union Fringes PFML/SL FUTA FICA Medicare	0.60% 6.20% 1.45% 3.21%	\$ \$ \$	47.95 26.68 1.27 0.29 2.97 0.70	\$ \$ \$ \$ \$	sification) T 1/2 71.93 27.40 1.89 0.43 4.46 1.04	\$ \$ \$ \$	95.90 28.12 2.54 0.58 5.95 1.39		\$ \$	23.10 1.11 0.25 2.61 0.61	\$ \$ \$ \$ \$	ssification) T 1/2 63.11 23.73 1.68 0.38 3.91 0.92	\$ \$ \$	24.36 2.24 0.50 5.22 1.22
Union Fringes PFML/SL FUTA FICA Medicare SUTA	0.60% 6.20% 1.45% 3.21%	\$ \$ \$	47.95 26.68 1.27 0.29 2.97 0.70	\$ \$ \$ \$ \$ \$	sification) T 1/2 71.93 27.40 1.89 0.43 4.46 1.04	\$ \$ \$ \$	95.90 28.12 2.54 0.58 5.95 1.39		\$ \$ \$	23.10 1.11 0.25 2.61 0.61 0.82	\$ \$ \$ \$ \$	ssification) T 1/2 63.11 23.73 1.68 0.38 3.91 0.92 1.22	\$ \$ \$ \$	84.14 24.36 2.24 0.50 5.22 1.22
Union Fringes PFML/SL FUTA FICA Medicare SUTA Workers Comp.	0.60% 6.20% 1.45% 3.21%	\$ \$ \$ \$ \$	47.95 26.68 1.27 0.29 2.97 0.70 0.93	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	sification) T 1/2 71.93 27.40 1.89 0.43 4.46 1.04 1.40 0.93	\$ \$ \$ \$ \$	95.90 28.12 2.54 0.58 5.95 1.39 1.86 0.93		\$ \$ \$ \$ \$	23.10 1.11 0.25 2.61 0.61 0.82 0.93	\$ \$ \$ \$ \$ \$ \$ \$	ssification) T 1/2 63.11 23.73 1.68 0.38 3.91 0.92 1.22 0.93	\$ \$ \$ \$ \$	84.14 24.36 2.24 0.50 5.22 1.22 1.63 0.93

Summary Sheet 1 Total cost \$ 8,003.39

Total Hours Entered Above 92
Estimated Hours 92
Delta (0.49)



### **Equipment Rate Sheet**

**Project Name: Stanwood High School** 

Sheet #

4

Category	Page No.	Equipment Description	Qty.	Per	Rate	-	Total
	36	Pickup 1/2 ton (jobsite pickup)	0.4	Month	\$ 1,022.11		408.84
	36	Pickup 4X4 3/4 ton	0.0	Month	\$ 1,460.18		0.00
	36	Van 12'	0.0	Month	\$ 1,747.43		0.00
	2	Large Gang Box - On Casters	0.0	Month	\$ 91.24		0.00
	3	Semi Trailer (Conex)	0.0	Month	\$ 246.82		0.00
	25	EMT Hydraulic Bender - 1 1/2HP Powe	0.0	Month	\$ 855.49		0.00
	9	Electric Scissor Lift (up to 24')	0.0	Month	\$ 1,514.01		0.00
	10	Gas/LP/Diesel Snorkel Lift (45')	0.0	Month	\$ 2,874.03		0.00
					Total	\$	408.84

In lieu of RS Means due to specialised electrical equipment we are using the "NECA 2017-2018 Tool & Equipment Rental Schedule" not all items are listed above but can be added

### **Washington Best Finishes LLC**

#### **COP Subcontractor Breakdown Summary**

Pı	roject Name:	Stanwood HS				COP No.	WBF 95
	Project No.	Sou	urce Documents:	AC <sup>-</sup>	T Ceiling Wor	rk Date:	9/6/2022
General	Contractor:	Cornerstone General Co	otractors			Contractor Ref. No.	
	_			•		•	
	escription:					d along the hallway to allow	
		added support and instal			ig as neede	ed. Installation of ACT grid	with wife for
		adda sapport and motal	iddion of coming	tiioo.			
4 CDA	ET LABOR CO	ere.		Ite	mize all cost	ts on attached COP Cost Brea	akdown form.
1. CRA	FT LABOR CO Direct Labor						
a.		itices, journeymen, & labore	rs)	\$	1,886.28		
b.	foreman	alooo, journoymon, a laboro	,	\$	-		
c.	lead foreman	1					
		DIRECT LA	BOR SUBTOTAL	\$	1,886.28		
	Supervision:						
d.	-	vison (NTE 15% of 1a)		\$	-		
e.	safety (NTE 2	2% of lines 1a, b, & c)		\$	37.73		
	EDIAL COSTO					1. CRAFT LABOR COSTS	\$ 1,924.00
z. WAI	ERIAL COSTS material cost			\$	_		
a. b.	freight costs			Ф	-		
D.	ireigiit oosts	(nomize)				2. MATERIAL COSTS	\$ -
3. EQL	JIPMENT COS	TS					*
a.	owned equip	ment (per spec approved so	urce)	\$	-		
b.	rental equipr	nent		\$	=		
						3. EQUIPMENT COSTS	\$ -
4. SMA	LL TOOLS						
a.	small tools (I	NTE 2% of 1a & b)		\$	37.73	=	
						4. SMALL TOOLS	\$ 38.00
						Γ	
						SUBTOTAL 1 thru 4	\$ 1,962.00
5. OVE	RHEAD & PRO						
a.	Overhead & I	Profit 15 % Portion of 1,2,3 8	44	\$	294.30		
						E OVERHEAR & PROFIT	¢ 204.00
6 INCI	JRANCE					5. OVERHEAD & PROFIT	\$ 294.00
a.		n liability insurance	3.75 % of 1	\$	72.15		
b.		n liability insurance	% of 1-7	\$	-	6. INSURANCE	\$ 72.00
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>		•••••••••••••••••••••••••••••••••••••••	·
7. BONI	ס						
a.	Bond		1.55 % of 1-6	•		7. BOND	\$ -
						<u>-</u>	
						TOTAL COST	\$ 2,328.00
						l	

### **Washington Best Finishes LLC**

### **COP Cost Breakdown**

Project Name: Stanwood HS
Project No.
Contractor: Cornerstone General Contractors

COP No.
Date: 9/6/2022

Contractor Ref. No.

			Unit	L	abor	М	aterial	Equ	ipment	Total	
		Quantity	Type	Unit \$	Cost	Unit \$	Cost	Unit \$	Cost	Cost	
Material											
Labor											
	2 Framers, 11 hours each	22	m/hr	\$85.74	\$ 1,886.28					\$ 1,886	.28
	2 mobilizations, material reused, demolition of ACT grid and ceiling										
	tiles to allow space for HVAC/Electricitans to run wire/ducting,										
	re-installation of wire to support ACT grid and installation of ACT tiles,										
	clean up work area.										
	Labor Subtotal				\$ 1,886.28						
	Foreman										
Equipment											
Total Cost of Work					\$ 1,886.28		\$ -		\$ -	\$ 1,886	.28

### **COP Wage Rates**

Project Name: _	Stanwood HS
Project No:	
Contractor:	Washinton Best Finishes LLC

Trade & Position		Drywall Installer		Drywall Finisher	Drvwall	Foreman	Finsl	her Foreman										
Rate Schedule Date*		-																
1. Hourly Wage Rate		\$ 50.1	5 \$	48.46	\$	55.17	\$	53.31										
2. Hourly Benefits		\$ 20.86	5 \$	22.15	\$	20.86	\$	22.15										
SUBTOTAL		\$ 71.0	1 \$	70.61	\$	76.03	\$	75.46	\$ -	\$	-	\$ -	\$	-	\$	-	\$	
	Rate																	
3. FUTA % of 1	0.80%	\$ 0.40	\$	0.39	\$	0.44	\$	0.43	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
4. FICA % of 1	6.20%	\$ 3.1	1 \$	3.00	\$	3.42	\$	3.31	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
5. MEDICARE % of 1	1.45%	\$ 0.73	3 \$	0.70	\$	0.80	\$	0.77	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
6. SUI % of 1 (insert correct % to right)	0.37%	\$ 0.19	9 \$	0.18	\$	0.19	\$	0.20	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
7. LNI		\$ 3.20	3 \$	3.26	\$	3.26	\$	3.26										
8. Sick leave		\$ 1.25				1.38		1.33										
9. FMLA	0.40%			0.19	\$			0.21										
TOTAL (incl. payroll taxes)		\$ 80.1	1			85.74		84.97	\$ -	\$	-	\$ -	\$	-	\$	-	\$	_
Normal 1.5x Overtime Rates Calculate A	utomati						·		·	, ·			<u>, , , , , , , , , , , , , , , , , , , </u>		<u> </u>		·	
OT Wage Rate @ 1.5x		\$ 75.23	_			82.76		79.97		\$	-	\$ -	\$	-	\$	-	\$	-
Benefits		\$ 20.80	3 \$	22.15	\$	20.86	\$	22.15	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
Subtotal		\$ 96.09	9 \$	94.84	\$	103.62	\$	102.12	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
Taxes: Lines 3-6		\$ 6.63	3 \$	6.41	\$	7.28	\$	7.05	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
L&I: WC Premium		\$ 3.20	3 \$	3.26	\$	3.26	\$	3.26	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
Total Overtime Rate		\$ 105.98	3 \$	104.51	\$	114.15	\$	112.43	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
Premium Portion Only		\$ 25.83	3 \$	24.96	\$	28.41	\$	27.46	\$ -	\$	-	\$ -	\$		\$	-	\$	-

NOTES: \* Rate schedule date is the date of the Dept. of Labor & Industries Prevailing Wage Rate used or the Union Agreement.

- $a.\ for\ items\ 3\ thru\ 5,\ the\ Federal\ rates\ do\ not\ vary\ by\ firm,\ and\ the\ percentages\ are\ already\ locked\ into\ this\ form.$
- b. for item 6, the actual rate is determined by the State Employment Security Dept. and varies by firm. It shall be verified by the contractor at the start of the project.
- c. for item 7, the rate is based on L & I classification. The hourly dollar amount is specific to the firm/trade and shall be verified by the contractor at the start of the project. d. definitions
  - 1. items 1 & 2 are basic wages and benefits (see general conditions 7.02 B.7.a(1))
  - 2. item 3, FUI is Federal Unemployment Tax Act (see general conditions 7.02 B.7.a(3))
  - 3. item 4, FICA is Federal Insurance Compensation Act/Social Security (see general conditions 7.02B.7(3))
  - 4. item 5, Medicare is FICA medical aid (see general conditions 7.02 B.7.a(3))
  - 5. item 6, SUI is State Unemployment Compensation Act (see general conditions 7.02 B.7.a(3))
  - 6. item 7, WC is industrial insurance/workers' compensation (see general conditions 7.02 B.7.a(2))

Form Revised 6/1/2004 Issued 9/6/2022

### **Washington Best Finishes LLC**

#### **COP Subcontractor Breakdown Summary**

Project Na	ne:	Stanwood HS					COP No.	WBF 94
Project	No.	Sou	rce Documents:		T&M #05		Date:	8/30/2022
General Contrac	tor:	Cornerstone General Co	tractors				Contractor Ref. No.	
	_			•			-	
Descripti	on:	Drywall finishing with lev sand, clean up work area		ded. Firs	st coat of n	nud, sa	and, final coat of muc	and final
		Sand, clean up work area	a					
1. CRAFT LABO	R CO	STS		Item	nize all cost	ts on at	tached COP Cost Brea	kdown form.
Direct L								
a. crew (ap	pren	tices, journeymen, & labore	rs)	\$	771.66			
b. foreman	1			\$	-			
c. lead for	eman							
		DIRECT LA	BOR SUBTOTAL	\$	771.66			
Supervi		: (NITE 450/ -5 4-)		œ.				
	-	ison (NTE 15% of 1a) % of lines 1a, b, & c)		\$	15.43			
e. safety (f	VIL 2	76 Of filles 1a, b, & c)		φ	13.43	1. CR	AFT LABOR COSTS	\$ 787.00
2. MATERIAL CO	STS							707.00
a. material	cost	s		\$	28.17			
b. freight o	osts	(itemize)						
							2. MATERIAL COSTS	\$ 28.00
	3. EQUIPMENT COSTS							
		ment (per spec approved so	urce)	\$	-			
b. rental e	quipn	nent		\$	-	•	EQUIDMENT COSTS	<b>ው</b>
4. SMALL TOOL	s					э.	EQUIPMENT COSTS	φ -
	_	ITE 2% of 1a & b)		\$	15.43			
	•	,		,			4. SMALL TOOLS	\$ 15.00
							<u>-</u>	
							SUBTOTAL 1 thru 4	\$ 830.00
5. OVERHEAD 8	PRO	FIT					OODTOTAL TURB 4	ψ 030.00
		Profit 15 % Portion of 1,2,3 8	.4	\$	124.50			
						5. O	VERHEAD & PROFIT	\$ 125.00
6. INSURANCE								
		liability insurance	3.75 % of 1	\$	29.51			Φ
b. volume	drive	n liability insurance	% of 1-7	\$	-		6. INSURANCE	\$ 30.00
7. BOND								
a. Bond			1.55 % of 1-6				7. BOND	\$ -
20114			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•			23.45	
							TOTAL COST	¢ 005.00
							TOTAL COST	\$ 985.00

### **Washington Best Finishes LLC**

### **COP Cost Breakdown**

Project Name: Stanwood HS
Project No.
Contractor: Cornerstone General Contractors

COP No.
Date: 8/30/2022

Contractor Ref. No.

			Unit	L	.abor	M	aterial	Equ	ipment	1	Total
		Quantity	Type	Unit \$	Cost	Unit \$	Cost	Unit \$	Cost		Cost
Material											
	Taping Mud	1	box			\$10.56	\$ 10.56			\$	10.56
	Mesh Tape	1	roll			\$7.05	\$ 7.05			\$	7.05
	Hot Mud	1	bag			\$10.56	\$ 10.56			\$	10.56
Labor											
T&M #5	1 Finisher Foreman	9	m/hr	\$85.74	\$ 771.66					\$	771.66
	Mobilization, , protecct existing finishes, finish taping. First coat of mud,										
	sand, second coat of mud, final sand clean up work area.										
	Labor Subtotal				\$ 771.66						
	Foreman										
Equipment											
Total Cost of V	Vork				\$ 771.66		\$ 28.17		\$ -	\$	799.83

### **COP Wage Rates**

Project Name: _	Stanwood HS
Project No:	
Contractor:	Washinton Best Finishes LLC

Trade &											
Position		Drywall Installer	Drywall Finisher	Drywall Foreman	Finsher Foreman						
Rate Schedule Date*											
1. Hourly Wage Rate		\$ 50.15	\$ 48.46	\$ 55.17	\$ 53.31						
2. Hourly Benefits		\$ 20.86	\$ 22.15	\$ 20.86	\$ 22.15						
SUBTOTAL		\$ 71.01	\$ 70.61	\$ 76.03	\$ 75.46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Rate										
3. FUTA % of 1	0.80%	\$ 0.40	\$ 0.39	\$ 0.44	\$ 0.43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. FICA % of 1	6.20%	\$ 3.11	\$ 3.00	\$ 3.42	\$ 3.31	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. MEDICARE % of 1	1.45%	\$ 0.73	\$ 0.70	\$ 0.80	\$ 0.77	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6. SUI % of 1 (insert correct % to right)	0.37%	\$ 0.19	\$ 0.18	\$ 0.19	\$ 0.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7. LNI		\$ 3.26	\$ 3.26	\$ 3.26	\$ 3.26						
8. Sick leave		\$ 1.25	\$ 1.21	\$ 1.38	\$ 1.33						
9. FMLA	0.40%	\$ 0.20	\$ 0.19	\$ 0.22	\$ 0.21						
TOTAL (incl. payroll taxes)		\$ 80.15	\$ 79.55	\$ 85.74	\$ 84.97	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Normal 1.5x Overtime Rates Calculate	utomati	cally									
OT Wage Rate @ 1.5x		\$ 75.23					\$ -	\$ -	\$ -	\$ -	\$ -
Benefits		\$ 20.86	\$ 22.15	\$ 20.86	\$ 22.15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ 96.09	\$ 94.84	\$ 103.62	\$ 102.12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Taxes: Lines 3-6		\$ 6.63	\$ 6.41	\$ 7.28	\$ 7.05	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
L&I: WC Premium		\$ 3.26	\$ 3.26	\$ 3.26	\$ 3.26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Overtime Rate		\$ 105.98	\$ 104.51	\$ 114.15	\$ 112.43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Premium Portion Only		\$ 25.83	\$ 24.96	\$ 28.41	\$ 27.46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

- NOTES: \* Rate schedule date is the date of the Dept. of Labor & Industries Prevailing Wage Rate used or the Union Agreement.
  - a. for items 3 thru 5, the Federal rates do not vary by firm, and the percentages are already locked into this form.
  - b. for item 6, the actual rate is determined by the State Employment Security Dept. and varies by firm. It shall be verified by the contractor at the start of the project.
  - c. for item 7, the rate is based on L & I classification. The hourly dollar amount is specific to the firm/trade and shall be verified by the contractor at the start of the project. d. definitions
    - 1. items 1 & 2 are basic wages and benefits (see general conditions 7.02 B.7.a(1))
    - 2. item 3, FUI is Federal Unemployment Tax Act (see general conditions 7.02 B.7.a(3))
    - 3. item 4, FICA is Federal Insurance Compensation Act/Social Security (see general conditions 7.02B.7(3))
    - 4. item 5, Medicare is FICA medical aid (see general conditions 7.02 B.7.a(3))
    - 5. item 6, SUI is State Unemployment Compensation Act (see general conditions 7.02 B.7.a(3))
    - 6. item 7, WC is industrial insurance/workers' compensation (see general conditions 7.02 B.7.a(2))

Form Revised 6/1/2004 Issued 8/30/2022



#### **Bid submittal**

#### **Spectrum Painting**

845 Givens Ave. Darrington WA. 98241

LIC# SPECTP053J8 Phone 425-268-3401 Fax 425-610-4652  $e\hbox{-mail; spectrum painting} @comcast.net$ 

Date; 09/14/2022

Project

**Stanwood High** Reaint and touch up hand rails 3rd floor

				SQ feet	sq.ft p	er gl	gal		\$ per gl		Total	
include,09900	Paint				0	(	)	7	\$	26.30	\$	184.10
	thinner							0	\$	24.00	\$	-
	primer							0	\$	41.21	\$	-
	Cleaner							0	\$	9.70	\$	-
	Shipping							0	\$	33.20	\$	-
							_				\$	184.10
							hrs		lift		paint	
					0							
	Da	ys/hrs Rat	:e									
	man hours	20 \$	69.70		\$	1,394.00						
	man lift 40 electric ft boom	0 \$	140.00		\$	-						
	Material and supply	0	0		\$	184.10						
	Total				\$	1,578.10						
	12% overhead /profit		0.12		\$	189.37						
	Grand Total				\$	1,767.47						

Submitted by,

Patrick Parson



Po Box 669 Ferndale, WA 98248 360-734-1112

Date	Invoice #
7/25/2022	91840

Bill To	
Cornerstone General Contractors 11805 N Creek Pkwy S #115 Bothell, WA 98011	

tanwood High School	
100 aga 1 d. NYII	
400 272nd St NW	
tanwood, WA 98292-7410	

P.O. Nu	mber		Terms	Rep	Ship	Project	
		ON	RECEIPT		7/25/2022		
Quantity	Item C	ode			Description	Price Each	Amount

1 STL\_PLT

Steel Plate(s), Stg, 07/25/22 - 08/24/22

1,000.00

1,000.00

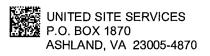
1901/997632/M/08.08.22/SA

Subtotal	\$1,000.00
Sales or Use Tax (8.80%)	\$88.00
Total	\$1,088.00

CORNERSTONE GENERAL CONTRACTOR

11805 N CREEK PKWY S STE 115

BOTHELL, WA 98011





INVOICE

United Site Services of Nevada, Inc. Customer Service: 1-800-859-6883

RECEIVED

JUL 1 5 2022

Shlp To:

Cornerstone General Contractors, Inc. Page: 1

Customer ID: USS-1470118 Invoice No: 114-13212689 Terms: Due Upon Receipt

P.O. No:

Our Order No: 0-2022335 Invoice Date: 06/30/22

Stanwood HS 7400 272nd NW STANWOOD, WA 98292

Item / Description	Quantity	Term	From / Thru	Unit Price	Total Price
STD Standard Restroom	1 Each	1	06/01/22 06/30/22	35.00	35.00
REG-STD Weekly Service	1 Each	. 1	06/01/22 06/30/22	92.50	92.50
XSVC-STD Additional Weekly Service - 2	1 Each	1	06/01/22 06/30/22	98.75	98.75
Paying your invoices at USS is easy! With consolidated charges and online bill pay, our invoices are designed to make it easier to do business with us. To learn more about the recent change to the line-item charges on your invoice visit UnitedSiteServices.com/ExplanationOfCharges.					
HS Hand Sanitizer	1 Each	1	06/01/22 06/30/22	35.00	35.00

UNITED SITE SERVICES P.O. BOX 1870 ASHLAND, VA 23005-4870



Page: 2

Customer ID: USS-1470118 Invoice No: 114-13212689

Terms: Due Upon Receipt

P.O. No:

Our Order No: 0-2022335 Invoice Date: 06/30/22

INVOICE

United Site Services of Nevada, Inc. Customer Service: 1-800-859-6883

Bill

CORNERSTONE GENERAL CONTRACTOR

To:

11805 N CREEK PKWY S STE 115 BOTHELL, WA 98011

To:

Ship Stanwood HS

7400 272nd NW

STANWOOD, WA 98292

1901/997632/M/07.22.22/S*F* 

Total:

261.25

Pay Your Invoices Online at www.UnitedSiteServices.com/BillPay

Please detach this coupon and include with your payment in the enclosed envelope. See Reverse for Terms & Conditions, which are part of this Agreement wherein United Site Services of Nevada, Inc. is referred to as "Company"

CORNERSTONE GENERAL CONTRACTOR

**Customer ID:** Invoice Number: USS-1470118

Subject to Tax

**Exempt from Tax** 

114-13212689

0.00

261.25

Our Order No: 0-2022335

Total:

261.25

Am	ount Paid:
	Check this box if you would like to pay by credit card, change your address or decline damage waiver, and you

have completed the necessary form(s) on the reverse.

Please

UNITED SITE SERVICES

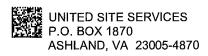
Remit to: PO BOX 660475

DALLAS TX 75266-0475

ոլիկներիկիկիկիկիրիկերիկերկիրկիրիկումիկիկիկիկի

00000000114-1321268900000261258

7805100.2022070120701.01246





Ship

To:

Page: 1

**INVOICE** 

United Site Services of Nevada, Inc. Customer Service: 1-800-859-6883

Customer ID: USS-1470118 Invoice No: 114-13331009 Terms: Due Upon Receipt

P.O. No:

Our Order No: 0-2022335 Invoice Date: 08/31/22

STANWOOD, WA 98292

Stanwood HS 7400 272nd NW

737

CORNERSTONE GENERAL CONTRACTOR 11805 N CREEK PKWY S STE 115 **BOTHELL WA 98011-8803** 

RECEIVED

SEP 1 2 2022

Cornerstone General Contractors, Inc.

Item / Description	Quantity	Term	From / Thru	Unit Price	Total Price
STD Standard Restroom	1 Each	Final	08/01/22 09/01/22	1.16667	37.33
REG-STD Weekly Service	1 Each	Final	08/01/22 09/01/22	3.08333	98.67
XSVC-STD Additional Weekly Service - 2	1 Each	Final	08/01/22 09/01/22	3.29167	105.33
HS Hand Sanitizer	1 Each	Final	08/01/22 09/01/22	1.16667	37.33
FSC Fuel & Inflation Surcharge			,		27.60

Effective 8/1/22, you will notice a Fuel & Inflation Surcharge on your USS sanitation invoice(s). To learn more about the line-item charges on your invoice visit UnitedSiteServices.com/ExplanationOfCharges

UNITED SITE SERVICES P.O. BOX 1870 ASHLAND, VA 23005-4870



INVOICE

Page: 2

United Site Services of Nevada, Inc. Customer Service: 1-800-859-6883

Customer ID: USS-1470118 Invoice No: 114-13331009 Terms: Due Upon Receipt

P.O. No:

Our Order No: 0-2022335 Invoice Date: 08/31/22

Bill

CORNERSTONE GENERAL CONTRACTOR

To: 11805 N CREEK PKWY S STE 115 BOTHELL, WA 98011 On

Ship Stanwood HS

To:

7400 272nd NW

STANWOOD, WA 98292

1901/997632/M/09.15.22/SA

Total:

306.26

Pay Your Invoices Online at www.UnitedSiteServices.com/BillPay

Please detach this coupon and include with your payment in the enclosed envelope. See Reverse for Terms & Conditions, which are part of this Agreement wherein United Site Services of Nevada, Inc. is referred to as "Company"

**CORNERSTONE GENERAL CONTRACTOR** 

Customer ID:

USS-1470118

Subject to Tax

Exempt from Tax

Invoice Number: 114-13331009

0.00

306.26

Our Order No:

0-2022335

•

Total: 306.26

Amount Paid:

Check this box if you would like to pay by credit card, change your address or decline damage waiver, and you

have completed the necessary form(s) on the reverse.

Please Remit to: UNITED SITE SERVICES

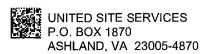
Remit to: PO BOX 660475

DALLAS TX 75266-0475

-լիկնեսվիններիվիիվորկերից|||--գիկիկիիվորիլ

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7805100.2022090105301.00737



11805 N CREEK PKWY S STE 115

**BOTHELL WA 98011-8803** 



INVOICE

Page: 1

United Site Services of Nevada, Inc. Customer Service: 1-800-859-6883

582

Customer ID: USS-1470118 Invoice No: 114-13276130 Terms: Due Upon Receipt

P.O. No:

Our Order No: 0-2022335 Invoice Date: 07/31/22

Stanwood HS

Ship

To:

7400 272nd NW STANWOOD, WA 98292

CORNERSTONE GENERAL CONTRACTOR AUG 1 7 2022

> Cornerstone General Contractors, Inc.

Item / Description	Quantity	Term	From / Thru	Unit Price	Total Price
STD Standard Restroom	1 Each	1	07/01/22 07/31/22	35.00	35.00
REG-STD Weekly Service	1 Each	1	07/01/22 07/31/22	92.50	92.50
XSVC-STD Additional Weekly Service - 2	1 Each	1	07/01/22 07/31/22	98.75	98.75
HS Hand Sanitizer	1 Each	1	07/01/22 07/31/22	35.00	35.00

1901/997632/M/09.06.22/S

Total:

261.25

Pay Your Invoices Online at www.UnitedSiteServices.com/BillPay

Please detach this coupon and include with your payment in the enclosed envelope. See Reverse for Terms & Conditions, which are part of this Agreement wherein United Site Services of Nevada, Inc. is referred to as "Company"

CORNERSTONE GENERAL CONTRACTOR

Customer ID:

USS-1470118

Subject to Tax

Exempt from Tax

Invoice Number:

114-13276130

0.00

261.25

Our Order No:

0-2022335

Total:

261.25

Amount Paid:				
	Check this box if you would like to pay by credit card, change your address or decline damage walver, and you			

have completed the necessary form(s) on the reverse.

Please Remit to: UNITED SITE SERVICES

PO BOX 660475

DALLAS TX 75266-0475

ոլիրեսկիսակիվիլիկոլմիկիկիկութիկիլիկոնիկի

0000000114-1327613000000261253









Customer #	Invoice Date	Invoice #
125812	12/27/21	260025981-00
Pmnt Terms	PO #	Page #
Net30	1901	1
Ship Via	Freight	Terms
VC Burlingtn		

Pick Up Address

Ship To

Reference Written By Delivery Rep

Reference

**BLS** 

Remit To
TACOMA SCREW PRODUCTS INC
ATTENTION ACCOUNTS RECEIVABLE
2001 CENTER ST
TACOMA, WA 98409-7821

Bill To
CORNERSTONE GENERAL CONTRACTOR
ATTN: ACCOUNTS PAYABLE
11805 N CREEK PKWY S STE 115 BOTHELL, WA 98011-8803

RECEIVED

JAN 0 3 2022

Cornerstone General Contractors, Inc. BURLINGTON TACOMA SCREW PRODUCTS INC 1075 GOLDENROD RD **BURLINGTON, WA 98233-3403** (360)757-1075/

CORNERSTONE GENERAL CONTRACTOR ATTN: RECEIVING 11805 N CREEK PKWY S STE 115 BOTHELL, WA 98011-8803

Ln #	Product # And Description	Quantity Ordered	Quantity Shipped	Quantity Backordered	Unit Price	υм	· · · · · · · · · · · · · · · · · · ·	Amount (Net)
1	305-311 Bosch 1" SDS-plus Bulldog	1 g Xtreme Rotary Hamm	1 ner	0	199,95	EA		199.95
2	305-711 3/4"x 10" Flat Chisel SDS-	1 -Plus Hammer Steel	1	0	17.83570	EA		17.84
2	Lines Total	Qty Shipped Total	. 2	_		_	Total Taxes Invoice Total	217.79 0.00 217.79

1901/997632/M/01.10.22/SA

Thank you for your order. Please note that all sales are subject to Tacoma Screw Products Inc.'s Terms of Sale and Condition of Sale. If there should be any questions, or if we c be of further service, please call (253) 572-3444 or (800) 562-8192. We appreciate and value your continued business. Picked Up By

Print Time: 12/27/21 19:36\*

**Customer Copy** 

0.00 If Paid By 12/27/21 Page 1 of 1

Cash Discount



PHONE: (360) 354-4335 FAX: (360) 354-1335 LICENSE: HYTECRI106P5

89151

BILL Cornerstone Construction To: 11805 North Creek Parkway S

Bothell, WA 98011

REMIT PAYMENT

HyTech Roofing, Inc. 7381 Guide Meridian Rd. Lynden, WA 98264

INVOICE #	CLIENT PO#	JOB	TERMS	DATE	DATE DUE	PM
23828		WO #5425	Net 30 Days	08/22/2022	09/21/2022	ML

#### **JOB SITE:**

Stanwood High School, 7400 272nd Street Northwest Stanwood, WA 98292

Main Area

#### **WORK PERFORMED:**

- Sealed up (6) sleepers
- (2) 6x6 curbs
- Existing Soprema PVC roof.

Subtotal	\$1,809.60
Tax	\$0.00
BALANCE DUE	\$1,809.60

A service charge of 18.00% per annum will be charged on all amounts 30 days overdue.



### **ESTIMATE**

# EST-000060

Estimate Date: Aug 08, 2022 Expiry Date: Sep 19, 2022

#### FROM:

Hydro Ninjas LLC License: 604852651 EIN # 87-4744029 8433 Vernon Road Lake Stevens, WA, 98258

 ${\bf Email: hydroninjasllc@gmail.com}$ 

Phone: (360) 926-2838

#### TO:

#### **Cornerstone General Contractors**

Attn: Pieter V 7400 272nd Street Northwest Stanwood, WA, 98292 Phone: (360) 348-3596

JOB:

#### JOB LOCATION:

#### **Cornerstone General Contractors**

7400 272nd Street Northwest Stanwood, WA, 98292 Phone: (360) 348-3596

# Services	Sq ft	Tax (%)	Total
1 Pressure Surface Cleaning	2459.00	\$57.17 (9.3%)	\$671.92

#### Service Description:

If growth is abundant on surface, surface will be pre-treated to kill organic growth. Selected surface area will then be pressure washed at high PSI determined by type of material. Aggregate concrete driveways will generally always be pre-treated as then need to be washed at lower PSI to avoid damage.

Subtotal (without tax)	\$614.75
Taxes	\$57.17
Grand Total (\$)	\$671.92

#### **Accepted payment methods**

Credit Card, Check, Cash

#### Message

PLEASE LIST ANY PREFERRED DATE/S AND TIME/S FOR THE APPOINTMENT ON THE ACCEPTANCE PAGE IN THE MESSAGE BOX AND WE WILL TRY TO INCORPORATE THAT INTO OUR SCHEDULE AS

#### BEST WE CAN.

We would be happy to have an opportunity to work with you.

#### **Terms**

By signing a contract you are signing a legally binding contract for work to be performed.

Services. Upon acceptance, we will perform the services described in this estimate. Any additional services requested by you and not included in this estimate may incur additional charges.

Schedule. The services will be completed and will be made in accordance with the schedule agreed upon.

Changes. Changes in the specifications, quantities, or other aspects of the services that are requested or approved by you do not become binding unless accepted in writing. Any such changes may result in additional or increased charges, and you agree to pay such increased charges.

Taxes. You will be responsible for payment of all applicable federal, state and local taxes.

Payment Terms. All invoices for services covered by the estimate are payable upon completion of work or date stated on the invoice.

We abide to all of the state stated on this estimate - Service Terms and Conditions.

If applicable, client agrees to authorize us on their property for the purposes of performing the services stated on this estimate. Client understands that although we try our best to provide you with an accurate timeframe, there is no set timeframe for the completion of services and several visits to the property may be required. The time stated on your appointment is just an arrival window, we will be sure to contact you when we are on our way. Client agrees to allow us to utilize any photos, descriptions, reviews, quotes, texts or videos of the property for marketing purposes.

By inquiring about our services or doing business with us, you are giving your consent to receive notifications and messages (e-mail or text) regarding our promotions or services.

Again, we appreciate you agreeing to these terms and conditions as we only set them in place to ensure everyone's safety and satisfaction. If you have any questions regarding these Terms and Conditions, please reach out to us.

You can be confident, that our goal is to provide you with the highest quality of service! We look forward to working with you!

Business powered by Markate.com

### DTG Recycle - DBA Hungry Buzzard Recovery/Rolloff Recyclers

PO Box 14203 Mill Creek, Washington 98082, United States P.: 425 489 9235

E.: accounting@dtgrecycle.com

Invoice Submitted To:

#### **Cornerstone General Contractors**

11805 N Creek Parkway S Suite 115 Bothell, WA 98011 United States, Washington United States P.: 425.481.7460



	INVOICE	
Invoice #		29412A
Invoice Date		18-Apr-2022
Terms		Net 30

Job Code	Job Address
	Stanwood High School, 7400 272nd ST NW, Washington, Stanwood,
29412	98292, United States

Descr	ription	Qty	Unit Price (\$)	Tax (\$)	Sub Total (\$)
40 F		1.00	305.00	0.00	305.00
Mixed (per ton)		3.08	110.00	0.00	338.80
				Total	\$ 643.80
			-	(+) Tax	\$ 0.00
			·-	Grand Total	\$ 643.80
				Amount Paid	\$ 0.00
			-	Amount Due	\$ 643.80

Job Notes :

\*\*RO\*\* 1st AM APT made. Final pick up of 40 Pieter 360-348-3596

4/14/22 F-40/10 WT-WOO16112 3.08

Invoice Notes:

1901/997632/M/05.13.22/SA

PAYMENT STUB	Hungry Buzzard	Client	Cornerstone General Contractors
Recovery/Rolloff Recyclers	<b>,</b>	Client Phone	425.481.7460
PO Box 14203		Invoice #	29412A
Mill Creek,		Invoice Date	18-Apr-2022
Washington 98082, United States		Amount Paid	0.00
P.: 425 489 9235		Amount Due	\$ 643.80
E.: accounting@dtgrecycle.com		Amount Enclosed	

#### **Stanwood High School Phase 2**

Stanwood - Camano School District No. 401 1606-12

#### CONSTRUCTION CHANGE DIRECTIVE: CCD-218R1 ADDITIONAL COOLING SYSTEM

#### **CONTRACT MODIFICATION:**

The Contractor is hereby directed to make the following minor change(s) to the Work:

Provide adding additional cooling in Stanwood High School. Scope is to include providing a new hydronic cooling coil to be installed in DOAU-5. New coil to be connected to existing hydronic system. Two new DX cased coils to be installed on 3<sup>rd</sup> floor branches of DOAU-2 ductwork serving the 3<sup>rd</sup> floor. Additional controls to be added per drawing revisions on sheets M6.04 and M6.05. Corresponding outdoor condensing units be installed on the roof. COP cost to include programming, sensor, wiring, conduit, devices and ALL appurtenances as required for a complete & operational system.

Reference: M0.0	03, M0.04, M1.33, M1.35, M2.35, M2.41, M2.77	7, M6.04, M6.05, E3.43, E	6.11, E6.33
Attachments: M	10.03, M0.04, M1.33, M1.35, M2.35, M2.41, M2	.77, M6.04, M6.05, E3.43	3, E6.11, E6.33
The Contract:  Lump Sur  As provid	Sum will be adjusted on following basis: m (increase) (decrease) of: led in Article 7 of the General Conditions or, s: Time and Materials:		
The Contract			
□ Remain u	inchanged;		
□ (Increase	) (Decrease) by days or;		
🗴 🛮 Be adjust	ed as provided in Article 8 of the General Condi	tions.	
Work as describ	the Architect and approved by the Owner, this ded above. The Contractor shall proceed IMMED.  Time are agreed to by the Architect, Owner and	IATELY. When the actua	l adjustments to the Contract Sum all be added to the Contract by
Issued By:	Steve Broback	Date:	11/19/21
Approved By:	McGranahan Architects  Liz Jamisson  Owner	Date:	11/19/21
•	rindicates the Contractor's acknowledgement of <b>(agrees) [] (disagrees)</b> with the proposed me	•	•
Accepted By:		Date:	
	Contractor		

McGRANAHAN architects 1

										_
			GR	LILLES-RI	EGISTERS-	DIFFUS	SERS SCI	HEDULE	23 37 1	3
UNIT NO	DESCRIPTION	MFR.	MODEL	CFM	AIR PATTERN	MOUNTING	FACE SIZE	NECK SIZE	COLOR	REMARKS
CD-1	CEILING DIFFUSER	TITUS	TDC-1	PER PLANS	1 WAY	T-BAR	23 <sup>3</sup> / <sub>4</sub> X23 <sup>3</sup> / <sub>4</sub>	PER PLANS	WHITE	FRAME 3
CD-2	CEILING DIFFUSER	TITUS	TDC-2	PER PLANS	2 WAY	T-BAR	23 <sup>3</sup> / <sub>4</sub> X23 <sup>3</sup> / <sub>4</sub>	PER PLANS	WHITE	FRAME 3
CD-3	CEILING DIFFUSER	TITUS	TDC-3	PER PLANS	3 WAY	T-BAR	23 <sup>3</sup> / <sub>4</sub> X23 <sup>3</sup> / <sub>4</sub>	PER PLANS	WHITE	FRAME 3
CD-4	CEILING DIFFUSER	TITUS	TDC-4	PER PLANS	4 WAY	T-BAR	23 <sup>3</sup> / <sub>4</sub> X23 <sup>3</sup> / <sub>4</sub>	PER PLANS	WHITE	FRAME 3
CDH-	CEILING DIFFUSER	TITUS	(1)	PER PLANS	(1)	SURFACE	NECK SIZE +5 <sup>3</sup> ⁄ <sub>4</sub> "TOTAL	PER PLANS	WHITE	(2) FRAME 6
X-LSSX-X	LINEAR SLOT SUPPLY DIFFUSER	TITUS	FL	PER PLANS	2 WAY	SURFACE	5 <sup>3</sup> ⁄ <sub>4</sub> " HIGH	PER PLANS	AS SELECT. BY ARCH.	(5)
RD	ROUND DUCT DIFFUSER	TITUS	TMRA	PER PLANS	360	SURFACE	-	PER PLANS	WHITE	
DS	DRUM SUPPLY DIFFUSER	TITUS	DL	PER PLANS	VARIABLE	WALL/DUCT	NECK SIZE + 2½"TOTAL	PER PLANS	AS SELECT. BY ARCH.	
SDS	SIDEWALL SUPPLY DIFFUSER	TITUS	300RL	PER PLANS	DBL.DEFLECTION	SURFACE	NECK SIZE +13/4"TOTAL	PER PLANS	WHITE	(2) (3)
RG	RETURN/RELIEF GRILLE	TITUS	50F-A	PER PLANS	-	T-BAR	NECK SIZE +1" TOTAL	PER PLANS	WHITE	
RGH	RETURN/RELIEF GRILLE	TITUS	50F-A	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> ⁄ <sub>4</sub> "TOTAL	PER PLANS	WHITE	(2)
RGS	SIDEWALL RETURN /RELIEF GRILL	TITUS	350 RL	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> / <sub>4</sub> "TOTAL	PER PLANS	WHITE	(2) (3)
EG	EXHAUST GRILLE	TITUS	50F-A	PER PLANS	-	T-BAR	NECK SIZE +1" TOTAL	PER PLANS	WHITE	
EGS	SIDEWALL RETURN /EXHAUST GRILLE	TITUS	350 RL	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> / <sub>4</sub> "TOTAL	PER PLANS	WHITE	(2) (3)
EGH	EXHAUST GRILLE	TITUS	50F-A	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> / <sub>4</sub> "TOTAL	PER PLANS	WHITE	(2)
TG	TRANSFER GRILLE	TITUS	50F-A	PER PLANS	-	T-BAR	NECK SIZE +1" TOTAL	PER PLANS	WHITE	
TGS	SIDEWALL TRANSFER GRILLE	TITUS	350 RL	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> ⁄ <sub>4</sub> "TOTAL	PER DETAIL	WHITE	(3)
TGH	TRANSFER GRILLE	TITUS	50F-A	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> ⁄ <sub>4</sub> "TOTAL	PER PLANS	WHITE	
HDR	HEAVY DUTY RETURN/RELIEF	TITUS	30R	PER PLANS	-	SURFACE	NECK SIZE +1 <sup>3</sup> ⁄ <sub>4</sub> "TOTAL	PER PLANS	WHITE	(3) (4) BLADE SETTING O'.
TF	TURBO NOZZLE	SEIHO	NT	PER PLANS	ADJUSTABLE	SURFACE	PER PLANS	PER PLANS	ANODIZED	

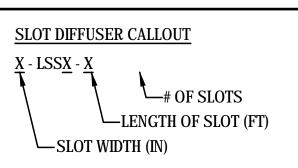
NOTES FOR GRILLES, REGISTERS, DIFFUSERS SCHEDULE:

MODEL No. & AIR PATTERN SHALL BE SAME AS CD-1 THRU CD-4, EXCEPT PROVIDE FOR MOUNTING INDICATED

FURNISH WITH "OPPOSED BLADE DAMPER"(OBD). FURNISH WITH HORIZONTAL FRONT BLADES.

FACE PLATE SHALL BE 14 GA. STEEL 1/8"x1/2" HORIZONTAL BLADES ON 6" CENTERS WITH EACH BLADE WELDED TO 14 GA. STEEL SLEEVE, COUNTERSUNK

SCREW HOLES ON 8" CENTERS. (5) PROVIDE WITH INSULATED PLENUM BOXES.



				BOOS	TER	FAI	V S(	CHED	ULE					
UNIT NO	MFR.	MODEL	CONFIGURATION	AREA SERVED	ВНР	НР	CFM	FAN EX. S.P.	CONTROLLED BY OR INTERLOCKED WITH	ELECTRI VOLTS	CAL Ø	STARTER FURN. BY	DISCONNECT FURN. BY	REMARKS
BF-101	FANTECH	DBF-4XLT-705	DRYER BOOSTER	CULINARY ARTS 174	0.04	1/10	150	0.2	DRYER OPERATION	115	1	MFR	EC	(1)
BF-102	FANTECH		DRYER BOOSTER	SHOWER	0.04	1/10	150	0.2	DRYER OPERATION	115	1	MFR		(1)
BF-103	FANTECH	FKD10	DRYER BOOSTER	138 LAUNDRY 116 TRIACE	0.04	1/2	910	0.5	DRYER OPERATION	115	1	MFR	EC	(1)
BF-201	FANTECH	DBF-4XLT-705	DRYER BOOSTER	TRIAGE 240	0.04	1/10	150	0.2	DRYER OPERATION	115	1	MFR	EC	(1)

NOTES FOR BOOSTER FAN SCHEDULE: (1) FAN TO BE PROVIDED WITH PRESSURE SENSING CIRCUIT, LED INDICATOR DISPLAY PANEL, AND TEMPERATURE LIMIT DEVICE. CC TO WIRE AND INSTALL LED INDICATOR DISPLAY.

	DESTRATIFICATION FAN SCHEDULE													
UNIT	MFR.	MODEL	LOCATION	WEIGHT (LBS.)	WATTS	ELEC VOLTS	_		REMARKS					
NO	1722 200	AMPS	1021/2120											
DF-1	AIRIUS	25-EC	COMMONS 131	10	30	115	1	15	(1) (2)					
DF-2	AIRIUS	25-EC	COMMONS 131	10	30	115	1	15	(1) (2)					
DF-3	AIRIUS	25-EC	COMMONS 131	10	30	115	1	15	(1) (2)					
DF-4	AIRIUS	25-EC	COMMONS 131	10	30	115	1	15	(1) (2)					

NOTES FOR DESTRATIFICATION FAN SCHEDULE:

(1) PROVIDE WITH 0-10V DC CONTROL MODULE. (2) CONTROLLED BY BUILDING MANAGEMENT SYSTEM. SEE SEQUENCE IN CONTROLS DRAWINGS.

		KI	LN FAN	SCHE	DUL	Е								
UNIT NO	I MER   MODEL   LOCATION													
NO														
KF-102 SKUITT ENVIROVENT2 KILN 181A 20 1.4 115 1 15 (1)														

NOTES FOR KILN FAN SCHEDULE:
(1) PROVIDE WITH ENVIROLINK AUTOMATIC FAN OPERATION SYSTEM. INTERLOCK WITH KILN OPERATION.

						23 64 0	00 AIR C	COOLED	WATE	R CHILI	LER SC	HEDULI	$\Xi$					
						P	ERFORMANCI	3					ELECT	RICAL			DISCONNECT	
								PD (FT			WEIGHT					STARTER	FURN.	
UNIT NO.	MFR.	MODEL	LOCATION	TONS	GPM	E.W.T.	L.W.T.	WATER)	EER	IPLV	(LBS)	MCA	MOCP	VOLTS	Ø	FURN. BY	BY	NOTES
CH-1	CARRIER	30XV160H	SERVICE YARD	153.9	376.6	54	44	19.3	11.4	20.13	13,000	291.9	350	460	3	MFR	EC	(1) (2) (3) (4)

NOTES FOR AIR COOLED WATER CHILLER SCHEDULE: (1) UNIT PERFORMANCE BASED ON 20% GLYCOL.

(2) RATED AT 95° F. AIR ENTERING CONDENSER AND 44° F. LEAVING WATER TEMPERATURE.

(3) CHILLER EFFICIENCY SHALL BE AT LEAST 15% BETTER THAN WSEC REQUIREMENTS. (4) EC TO PROVIDE A SEPARATE 120V 40 AMP CIRCUIT FOR CHILLER CONTROLS AND EVAPORATOR HEATER.

	23 52 33 GAS-FIRED BOILER SCHEDULE																
UNIT NO.	MFR.	MODEL	LOCATION	INPUT (MBH)	OUTPUT (MBH)	EFFICIENCY %	ТҮРЕ	FUEL PRESSURE	WATER FLOW @ 20°F V (GPM)	WATER PD (FT)	WET WEIGHT (LBS)	EL! FLA	ECTRICAI VOLTS	ø	STARTER FURN. BY	DISCONNECT FURN. BY	NOTES
B-1	KN	16	MECH ROOM 209	1600	1483	93	NG	7.00	148	2.0	2500	6.6	208	1	MFR	EC	(1) (2) (3) (4) (5)
B-2	KN	16	MECH ROOM 209	1600	1483	93	NG	7.00	148	2.0	2500	6.6	208	1	MFR	EC	(1) (2) (3) (4) (5)
B-3	KN	16	MECH ROOM 209	1600	1483	93	NG	7.00	148	2.0	2500	6.6	208	1	MFR	EC	(1) (2) (3) (4) (5)

NOTES FORGAS-FIRED BOILER SCHEDULE

(1) PROVIDE FULLY MODULATING BURNERS, 5:1 MINIMUM TURN DOWN. (2) EC TO PROVIDE REMOTE SHUT-OFF BUTTON AT EACH EXIT DOOR FROM THE BOILER ROOM.

(3) BOILER OUTPUT BASED ON 100°F EWT AT FULL FIRE.

(4) PROVIDE WITH CONDENSATE DRAIN AND NEUTRALIZING KIT.

(5) BOILER EFFICIENCY SHALL BE AT LEAST 15% BETTER THAN WSEC REQUIREMENTS.

			23 11	23 HYD	RON]	IC PU	<b>JMPS</b>	SCE	IEDUI	E			
UNIT NO.	MFR.	MODEL	LOCAT NAME	TION	MOT HP	TOR RPM	FLOW (GPM)	HEAD (FT)	ELECTRIC VOLTS	CAL Ø	STARTER FURN. BY	DISCONNECT FURN. BY	NOTES
HCP 1	TACO	FI4011C	МЕСН	209	25	1760	667	97	460	3	VFD	EC	(1)(4)
НСР 2	TACO	FI4011C	МЕСН	209	25	1760	667	97	460	3	VFD	EC	(1)(4)
BCP 1	TACO	VR-25	МЕСН	209	1-1/2	3500	148	15	230	1	MFR.	EC	(1)(2)
BCP 2	TACO	VR-25	МЕСН	209	1-1/2	3500	148	15	230	1	MFR.	EC	(1)(2)
BCP 3	TACO	VR-25	МЕСН	209	1-1/2	3500	148	15	230	1	MFR.	EC	(1)(2)
CCP 1	TACO	FI3011D	МЕСН	209	15	1760	416	69	460	3	VFD	EC	(3)(4)
CCP 2	TACO	FI3011D	MECH	209	15	1760	416	69	460	3	VFD	EC	(3)(4)

NOTES FOR HYDRONIC PUMPS SCHEDULE

PUMP CAPACITY BASED ON WATER, NO GLYCOL.

(2) PUMPS PROVIDED WITH EC MOTOR WITH INTEGRAL SPEED CONTROL AND BACNET INTERFACE. (3) PUMP CAPACITY BASED ON 20% GLYCOL.

(4) PROVIDE WITH VFD.

				23	81 26 OUTI	OOOR UNIT SP	LIT SY	STE	M SCH	ED	ULE		
	UNIT	NO.	MFR.	MODEL	LOCATION	UNITS SERVED	WEIGHT	ELEC MCA	TRICAL DAT VOLTS	TA Ø	STARTER FURN. BY	DISCONNECT FURN. BY	NOTES
Ī	OCU	101	MITSUBISHI	PUY-A24NHA7	ROOFTOP	ICU-101	160	19	208	1	MFR.	EC	(1) (2) (3) (4)
	OCU	102	MITSUBISHI	PUY-A24NHA7	ROOFTOP	ICU-102	160	19	208	1	MFR.	EC	(1) (2) (3) (4)
	OCU	201	MITSUBISHI	PUY-A12NKA7	ROOFTOP	ICU-201	100	11	208	1	MFR.	EC	(1) (2) (3) (4)
	OCU	202	MITSUBISHI	PUZ-A12NKA7	ROOFTOP	ICU-202	100	11	208	1	MFR.	EC	(1) (2) (3) (4)
	OCU	301	MITSUBISHI	PUMY-P36NKMU1	ROOFTOP	ICU-103, 301	300	31	208	1	MFR.	EC	(1) (2) (3)
	OCU	302	MITSUBISHI	RUMY P36NKMU1	ROPTOP	1CV-302,303~~	~30b~	~31~	~208~	<b>√</b> ∤	MER.	WEC .	(1)(2)(3)
7	OCU	303	LG	ARUM096DTE	ROOFTOP	DC-1	550	16.4	460	3	MFR.	EC	(1) (2) (3)
7	OCU	304	LG	ARUM096DTE	ROOFTOP	DC-2	550	16.4	460	3	MFR.	EC	(1) (2) (3)

(1) COOLING CAPACITY MBH@ 95°F D.B. &67°F WB. OUTDOOR, 80°F D.B. INDOOR. (2) PROVIDE SECTION WITH SINGLE POINT POWER CONNECTION. CC TO INSTALL CONTROL WIRING BETWEEN UNITS.

(3) PROVIDE WITH R-410A REFRIGERANT ONLY.

(4) EC TO PROVIDE POWER WIRING FROM ASSOCIATED OUTDOOR UNIT

		23 81 26 INDOOR SPLIT SYSTEM COOLING UNIT SCHEDULE													
		20	OI ZU IIVI	JOOK SI LII	) I	) T T. 1A1						T. A	I		
							COOLING	HEATING		ELEC	TRICAL DA'	IA			
UNIT	NO.	MFR.	MODEL	AREA SERVED	SEER	COP (5)	TOTAL MBH	TOTAL MBH	WEIGHT	MCA	VOLTS	Ø	NOTES		
ICU	101	MITSUBISHI	PKA-A24KA7	ELEV MACH 144	21.4	NA	24	NA	50	1	208	1	(1) (2) (3) (4) (6)		
ICU	102	MITSUBISHI	PKA-A24KA7	ELEV MACH 121	21.4	NA	24	NA	50	1	208	1	(1) (2) (3) (4) (6)		
ICU	103	MITSUBISHI	PKFY-P12NHMU	MECHANICAL 176	21.0	3.9	12	13.5	30	1	208	1	(1) (2) (3) (4)		
ICU	201	MITSUBISHI	PKA-A12HA7	MDF 213A	20.8	NA	12	NA	30	1	208	1	(1) (2) (3) (4) (6)		
ICU	202	MITSUBISHI	PKA-A12HA7	KENNELS 258A	20.8	4.3	12	14	30	1	208	1	(1) (2) (3) (4) (6)		
ICU	301	MITSUBISHI	PKFY-P12NHMU	IDF 334	21.0	3.9	12	13.5	30	1	208	1	(1) (2) (3) (4)		
ICU	302	MITSUBISHI	PKFY-P12NHMU	IDF P2	21.0	3.9	12	13.5	30	1	208	1	(1) (2) (3) (4)		
ICU	303	MITSUBISHI	PKFY-P12NHMU	DIMMER ROOM 350	21.0	3.9	12	13.5	30	1	208	1	(1) (2) (3) (4)		

NOTES FOR INDOOR UNIT SPLIT SYSTEM SCHEDULE

(1) PROVIDE SECTION WITH SINGLE POINT POWER CONNECTIONS. (2) MANUFACTURER TO PROVIDE 24V THERMOSTAT, CC TO INSTALL AND WIRE.

(3) PROVIDE WITH R-410A REFRIGERANT ONLY. (4) PROVIDE WITH CONDENSATE PUMP.

(5) COPBASED ON 47°F (6) EC TO PROVIDE POWER WIRING FROM ASSOCIATED OUTDOOR UNIT.

		23 82	<b>39 ELE</b>	CTRIC WALL HEAT	TER S	CHE	DU	JLE
					ELE	CTRICAL		
UNIT	NO.	MFR.	MODEL	LOCATION	WATTS	VOLTS	Ø	NOTES
EWH	101	KING	PAW1215	FIRE RISER 109	750	120	1	(1) (2)
EWH	102	KING	PAW1215	MECHANICAL 176	750	120	1	(1) (2)
EWH	103	KING	PAW1215	STORAGE 119	750	120	1	(1) (2)
EWH	104	KING	PAW1215	STAIR ST09	750	120	1	(1) (2) (3)
EWH	105	KING	PAW1215	PUMPHOUSE	1250	120	1	(1) (2) (3)
EWH	201	KING	PAW1215	MECH RM 209	750	120	1	(1) (2)

NOTES FOR ELECTRIC WALL HEATER SCHEDULE (1) PROVIDE WITHINTEGRAL THERMOSTAT KIT. SET THERMOSTAT TO 55° F.

(2) RECESS MOUNT HEATER 12" ABOVE FINISHED FLOOR. (3) PROVIDE WITH STAINLESS STEEL GRILLE.

architect\_ MCGRANAHAN ARCHITECTS civil engineer\_ COUGHLIN PORTER LUNDEEN landscape architect\_ WEISMAN DESIGN GROUP

structural engineer\_ PCS STRUCTURAL SOLUTIONS

mechanical engineer\_ BCE ENGINEERS electrical engineer\_ BCE ENGINEERS

food service\_ HALLIDAY ASSOCITATES

EHS-INTERNATIONAL INC.

theater design\_ PLA DESIGN

sports fields engineer\_ DA HOGAN

hazardous materials\_

project\_ STANWOOD HIGH SCHOOL - PHASE 2 client\_ STANWOOD-CAMANO SCHOOL DISTRICT NO. 401

Project No. 1426 **MECHANICAL** SCHEDULES II

location\_ STANWOOD, WA

- CCD-218

issued\_ CONFORMED SET 12 DEC 18 PERMIT RESUB revision\_ ADDENDUM 2 3∕CCD 033

05 NOV 21

drawn\_ checked\_

4\CCD 218

JJ, SZ sheet\_

								23	73 00 (AI	HU) V	AV AI	R HA	NDI	LING	UNII	SC	HED	JLE																
UNIT								DEMAND CONTROL	<u> </u>						G COIL (11				HYDRONIC (	COOLING	COIL (11)							ELEC	CTRICAL		CTA DTED	DICCONNECT	DUCT SMOKE	
NO.	MFR.	MODEL	CONFIGURATION	LOCATION	AREA SERVED	CFM	MAX. OSA	VENTILATION (DCV) MIN. OSA	HP (13) E.S.P.	ВНР	ROWS	FACE VEL.	GPM	TOTAL MBH	E.A.T. L.A (°F) (°	A.T. (F) W	/.P.D. RO	WS V		ENS TOTA		E.A.T.	L.A.T. db(°F)			EIGHT LBS)	FILTERS	VOLTS	ø M		STARTER FURN. BY	DISCONNECT FURN. BY	DETECTOR FURN. BY	NOTES
AHU-1	AAON	M2	HORIZONTAL	MECHANICAL PLATFORM	GYMNASIUM 110	20000	N/A	N/A	30 1.25	22.7	2	555	90	659	70 10	0.3	1.6	8 5	55   140   4	94 627	75	63	54.7	52.9	12.3	6400	(3)	460	3	50	MFR	EC	(1)	(4) (5) (6) (7) (10) (9)
AHU-2	AAON	Н3	HORIZONTAL	MECHANICAL PLATFORM	AUXILIARY GYM 201	8600	N/A	N/A	2 @ 8 1.3	2 @ 3.4	1	500	25	197.8	70 91	1.3	5.4	8 5	00 50 2	8.4 283.5	5 75	63	53.3	52.0	16.4	.000	(3)	460	3	19	MFR	EC	(1)	(4) (5) (6) (8) (10) (9)
AHU-3	AAON	Н3	HORIZONTAL	MECHANICAL PLATFORM	AUXILIARY GYM 202	8600	N/A	N/A	2 @ 8 1.3	2 @ 3.4	1	500	25	197.8	70 91	1.3	5.4	8 5	00 50 2	8.4 283.5	5 75	63	53.3	52.0	16.4	.000	(3)	460	3	19	MFR	EC	(1)	(4) (5) (6) (8) (10) (9)
AHU-4	AAON	M2	HORIZONTAL	MECHANICAL PLATFORM	COMMONS 131	11000	6335	800	15 1.2	8.9	2	502	50	400.3	67 10	00	2.3	8 5	02 61 27	1.7 336.9	75	63	52.2	52.1	12.6	1800	(3)	460	3	26	MFR	EC	(1)	(2) (4) (5) (6) (8) (9) (10)
AHU-5	AAON	M2	HORIZONTAL	MECHANICAL PLATFORM	THEATRE 159 & 160	10640	6160	900	15 1.3	9.3	2	486.3	50	396	66 10	00	2.3	8 48	6.3 61 20	330.3	3 75	63	54.2	52.8	12.6	1800	(3)	460	3	26	MFR	EC	(1)	(2) (4) (5) (6) (7) (9) (10)
AHU-6	AAON	Н3	HORIZONTAL	MECHANICAL PLATFORM	STAGE 160	1920	660	240	2.3 1.1	1.6	2	542	10	54	70 9	96	3.6	8 5	12 15 4	5.6 53.6	75	63	55.5	54.1	4.9	.000	(3)	460	3	3	MFR	EC	N/A	(2) (4) (5) (6) (8) (9) (10)
AHU-7	AAON	Н3	HORIZONTAL	MECHANICAL PLATFORM	UPPER LOBBY 243 & LOWER LOBBY 158	3200	800	300	8 1.2	2.2	2	443	10	88	70 95	5.5	7.2	8 4	13 15 7	9.6 98.4	75	63	53.8	52.7	3.7	.000	(3)	460	3	10	MFR	EC	(1)	(2) (4) (5) (6) (8) (9) (10)

NOTES FOR AIR HANDLING UNIT SCHEDULE

(1) M.C. TO COORDINATE WITH E.C. ON LOCATION OF ALL SMOKE DETECTORS PRIOR TO INSTALLATION. MC TO MOUNT ON SUPPLY AND RETURN DUCTS. EC TO FURNISH AND CONNECT.

UNIT TO BE CAPABLE OF 100% ECONOMIZER COOLING. (3) 2" MERV 13 FINAL FILTER. FILTERS TO BE STANDARD SIZE.

PROVIDE WITH EC MOTORS. E.S.P. DOES NOT INCLUDE AN ALLOWANCE FOR FILTERS.

PROVIDE WITH SINGLE POINT POWER CONNECTION.

UNIT TO BE PROVIDED WITH 3 WAY CONTROL VALVES BY CC.

UNIT TO BE PROVIDED WITH 2 WAY CONTROL VALVES BY CC.

CC TO PROVIDE DAMPER AND CONTROL VALVE ACTUATORS. (10) UNIT TO BE PROVIDED ON MANUFACTURER 6" BASE RAIL. SEE PLANS FOR EXACT UNIT ORIENTATION AND ACCESS SIDE.

(11) HEATING WATER COIL PERFORMANCE BASED ON E.W.T. 140 °F AND L.W.T. 120°F. CHILLED WATER COIL PERFORMANCE BASED ON E.W.T. 44 °F AND L.W.T. 54°F WITH 20% GLYCOL.

(12) FANS SHALL HAVE A FAN EFFICIENCY GRADE OF 71 OR HIGHER BASED ON MANUFACTURER'S CERTIFIED DATA, AS DEFINED BY AMCA 205.

(13) FAN HP TO BE MANUFACTURER NEXT SIZE ABOVE BRAKE HORSE POWER.

										23	3 72 0	00 AII	R-TO-	AIR E	ENER	CGY I	REC	OVER	Y UN	IIT S	CHEL	OULE	I																				
UNIT	MODEL	Logamion	AREA	SU	PPLY FAN (8)		ЕХНА	UST FAN (8	8)		SU	JMMER CO		HALPY WH	IEEL HEA			R CONDIT					HEAT	ING COIL	(6)					COOLING	COIL (6)						ELE/	CTRICAL			DIG CONNECTO	DUCT SMOK	
NO MFR.	MODEL	LOCATION	SERVED	CFM RPM	EXT S.P. BHP	HP (10)	CFM RPM	M EXT S.P.	BHP HP (		OUTSIDE EWB	AIR LDB L		HAUST AIF B EWI		OUTSII EWB		LWB	RETURN EDB	AIR EWB	OWS FAC	EE GPM	W.P.D. (FT)	мвн Е	E.A.T. L. (°F) (	A.T. CO	NTROL ROWS FAC	CE L. GPM	W.P.D. (FT)	MBH MBI SENS LATE	H E.A.T. (°F)	L.A.T. EWT	T LWT CO	ONTROL VALVE	WEIGHT LBS	FILTERS	MCA N	<u> </u>		STARTER FURN. BY	DISCONNECT FURN. BY	DETECTOR FURN. BY	
DOAU-1 AAON	V3	MECHANICAL 176	FIRST FLOOR WEST	6435 2240	2.6 2 @ 3.9	2 @ 8 6	340 1970	0 2.6 2	@ 2.7 2 @	9 8 79	63	76.4 6	2.8 7	63	23	18.9	52.1	45.5	70	58.5	1 366.3	3 20	0.8	274.2	52.1	90	(3)						-		1800	(7)	36	40 460	) 3	MFR.	EC	(1)	(2) (5) (9) (1
DOAU-2 AAON	M3	MECHANICAL 176	2ND AND 3RD FLOOR WEST	20130 1660	2.5 2 @ 13 2	2 @ 15 18	8360 1345	5 2.3 2	@ 8.3 2 @	15 79	63	76.4	2.9 7	63	23	18.9	51.8	45.4	70	58.5	1 524	1 75	5.7	891	51.8 9	01.6	(4)								13000	(7)	92	110 460	3	MFR.	EC	(1)	(2) (5) (11)
DOAU-3 AAON	M2	MECHANICAL RO 209	OM FIRST FLOOR EAST	12555 1400	2.3 14.1	20 14	4570 1420	0 2.3	14.3 20	0 79	63	76.1 6	2.9 7	63	23	18.9	56.7	49.1	70	58.5	1 609	35	7.0	416.7	51.6 9	03.2	(3)								7500	(7)	62	80 460	3	MFR.	EC	(1)	(2) (5) (11)
DOAU-4 AAON	M2	MECH. PLATFOR	M GYMNASIUM 110, 201, & 202	12000 1170	1.0 8.0	15 10	0500 1020	0 1.0	5.4 1	5 79	63	76.8	3.0 7	63	23	18.9	48.9	42.7	70	58.5	1 448	59	2.5	570.6	48.9 9	02.8	(3)	~~~	~~~	~~~	***	~~~	~~~~	~~	8500	(7)	48	60 460	3	MFR.	EC	(1)	(2) (5) (9) (1
DOAU-5 AAON	M2	MECH. PLATFOR	M 2ND AND 3RD EAST	10880 1640	2.5 11.7	15 90	0695 1610	0 2.55	10.2	5 79	63	77.3	3.0 7	63	23	18.9	42.7	37.6	70	58.5	1 495	50	2.3	532.3	42.7 8	38.5	(3) 6 49	5 60	8.3	380 401	80	60 45	5 57	(3)	7500	(7)	41	60 460	3	MFR.	EC	(1)	(2) (5) (9) (1
DOAU-6 AAON	V3	MECH. PLATFOR	M SECOND FLOOR ADMIN	1060 2335	2.2 1.45	2.3 5	570 1990	0 2.1	0.75 2.	3 79	63	77.0	2.9 7	63	23	18.9	45.3	40.2	70	58.5	1 314	10	0.5	62.9	45.3 9	06.5	(3)		سند	ىنىن	نىين	WW.	in		1800	(7)	6	15 460	3	MFR.	EC	N/A	(2) (5) (9) (1

CONFIGURATION

INLINE

INLINE

ROOFTOP DOWNBLAST

UPBLAST ROOFTOP

UPBLAST ROOFTOP

ROOFTOP DOWNBLAST

INLINE

UPBLAST ROOFTOP

UPBLAST ROOFTOP

INLINE

ROOFTOP

ROOFTOP

INLINE

INLINE - ROOFTOP

MFR.

EF-101 | GREENHECK | SQ-120-VG

EF-102 | GREENHECK | SQ-85-VG

EF-103 | GREENHECK | G-099-VG

EF-104 GREENHECK CUBE-200HP

EF-105 | GREENHECK | CUBE-180HP

EF-106 | GREENHECK | G-099-VG

EF-107 | GREENHECK | SQ-99-VG

EF-108 | GREENHECK | CUBE-300HP

EF-109 | GREENHECK | CUBE-200-20

EF-110 | GREENHECK | SQ-120-VG

EF-201 GREENHECK BSQ-80-5

EF-202 | GREENHECK | SQ-120-VG

EF-203 | GREENHECK | BSQ-80-5

EF-204 | GREENHECK | BSQ-80-5

EF-205 | GREENHECK | BSQ-80-5

EF-206 | GREENHECK | BSQ-80-5

EF-207 | GREENHECK | SQ-95-VG

EF-208 | GREENHECK | SQ-120--VG

EF-209 | GREENHECK | SQ-99-VG

EF-210 | GREENHECK | SQ-90-VG

EF-211 YORK IEF 5-61

YORK

EF-301 | GREENHECK | SQ-120-VG

EF-302 ENERVEX RSV-200

NOTES FOR EXHAUST FAN SCHEDULE:

EF-212

MODEL

NOTES FOR AIR HANDLING UNIT SCHEDULE

(1) M.C. TO COORDINATE WITH E.C. ON LOCATION OF ALL SMOKE DETECTORS PRIOR TO INSTALLATION. MC TO MOUNT ON SUPPLY AND RETURN DUCTS. EC TO FURNISH AND CONNECT.

(2) EQUIPMENT TAGGING PER SPEC. (3) PROVIDE WITH 2-WAY VALVE. VALVE AND ACTUATOR BY CC

(4) PROVIDE WITH 3-WAY VALVE. VALVE AND ACTUATOR BY CC.

(5) PROVIDE WITH VFD OR ECM FOR ALL SUPPLY AND EXHAUST FANS. (6) HEATING COIL PERFORMANCE BASED ON EVYT 140°F AND LWT 120°F.

(7) PROVIDE UNIT WITH MERV 8 PREFILTER AND MERV 13 FINAL FILTER. FILTERS TO BE STANDARD SIZE.

(8) FANS SHALL HAVE A FAN EFFICIENCY GRADE OF 71 OR HIGHER BASED ON MANUFACTURER'S CERTIFIED DATA, AS DEFINED BY AMCA 205.

(9) ENTHALPY WHEEL TO BE SIZED FOR 25% INCREASED AIRFLOW. (10) FAN HP TO BE MANUFACTURER NEXT SIZE ABOVE BRAKE HORSE POWER.

(11) UNIT TO BE PROVIDED ON MANUFACTURER 6" BASE RAIL. SEE PLANS FOR EXACT UNIT ORIENTATION AND ACCESS SIDE.

		22	2 15 00 AIR	COM	PRE	SS0	R SCI	HEDU	JLE(3	)				
					MO	TOR	P	TANK	ELE	ECTRICAL		STARTER	DISCONNECT	
UNIT NO.	MFR.	MODEL	LOCATION	TYPE	HP	RPM	(PSI)(2)	(GAL)	FLA	VOLTS	Ø	SIARIER	FURN. BY	NOTES
AC-1	INGERSOLL RAND	7.5i-X100	MECHANICAL 176	ROTARY SCREW	10	4630	100	120	41.8	208	3	MFR	E.C.	(1)

NOTES FOR AIR COMPRESSOR SCHEDULE

(1) E.C. TO PROVIDE A MANUAL STARTER AND DISCONNECT. M.C. TO PROVIDE AND INSTALL A MOTOR RATED RELAY FOR CONTROLS INTERLOCK.

(2) RATED DISCHARGE PRESSURE. (3) SEE DETAIL 1 ON M5.04 FOR INSTALLATION DETAILS.

			EXP	PANSION TAN	K SCHEDULE(4)					
UNIT NO	MFR.	MODEL	CONFIGURATION	ТҮРЕ	SERVICE	PRESSURE (PSI)	VO) TOTAL	LUME (GAL) ACCEPTANCE	WEIGHT (LBS)	REMARKS
ET-1	AMTROL	ST-20V-C	FREE STANDING	DIAPHRAGM	KITCHEN 103	55	8	4	100	(1) (3)
ET-2	AMTROL	ST-12V-C	FREE STANDING	DIAPHRAGM	WEST POTABLE WATER	55	6.4	3	100	(1) (3)
ET-3	AMTROL	ST-20V-C	FREE STANDING	DIAPHRAGM	EAST NON-POTABLE WATER	55	8	4	100	(1) (3)
ET-4	AMTROL	ST-20V-C	FREE STANDING	DIAPHRAGM	EAST POTABLE WATER	55	8	4	100	(1) (3)
ET-5	AMTROL	AX-280V	FREE STANDING	BLADDER	HEATING WATER LOOP	25	211	84	2000	(1) (2)
ET-6	AMTROL	AX-80V	FREE STANDING	BLADDER	CHILLER WATER LOOP	25	44.4	22.6	800	(1) (2)

E1-0 AMIRUL AX-80V NOTES FOR EXPANSION TANK SCHEDULE:

(1) CONTRACTOR TO SET AIR PRESSURES IN FIELD.

(2) HYDRONIC WATER MAXIMUM PRESSURE RATING OF 125 PSL PROVIDE ASME RATED EXPANSION TANK.

(3) DOMESTIC WATER MAXIMUM PRESSURE RATING OF 150 PSI. PROVIDE ASME RATED EXPANSION TANK.

(4) SEE DETAIL 10 ON M5.01 FOR INSTALLATION DETAILS.

			Di	UCT	COIL	SCI	HEDULI	$\Xi$				
UNIT NO.	MFR.	MODEL	AREA SERVED	CFM	AIR PD	FIN SIZE	COOLING TOTAL MBH	COOLING SENSIBLE MBH	E.A.T. (°F)	L.A.T. (°F)	WEIGHT	NOTES
DC 1	RAE	58D42X45	3RD FLOOR NORTH	4200	0.2	42X45	138	101	80	58	200	(1)
DC 2	RAE	58D42X45	3RD FLOOR SOUTH	3840	0.2	42X45	131	94	80	57.5	200	(1)

NOTES FOR INDOOR UNIT SPLIT SYSTEM SCHEDULE

(1) PROVIDE WITH R-410A REFRIGERANT ONLY. 

				DI	JCT	COII	SCI	HEDULE	3					
UNIT	NO.	MFR.	MODEL	AREA SERVED	CFM	AIR PD	FIN SIZE	COOLING TOTAL MBH	COOLING SENSIBLE MBH	E.A.T. (°F)	L.A.T. (°F)	WEIGHT	NOTES	
DC	1	RAE	58D42X45	3RD FLOOR NORTH	4200	0.2	42X45	138	101	80	58	200	(1)	
DC	2	RAE	58D42X45	3RD FLOOR SOUTH	3840	0.2	42X45	131	94	80	57.5	200	(1)	

CCD-218

ALL EXHAUST FANS TO BE WIRED FROM MOTOR TO BOX ON EXTERIOR OF FAN ENCLOSURE. (2) FANS SHALL HAVE A FAN EFFICIENCY GRADE (FEG) OF 67 OR HIGHER. THE TOTAL EFFICIENCY OF THE FAN AT DESIGN OPERATING

CONDITIONS SHALL BE WITHIN 15% OF THE PEAK OPERATING EFFICIENCY.

(3) EC TO PROVIDE A MANUAL STARTER (INCLUDING DISCONNECT). MC TO PROVIDE AND INSTALL A MOTOR RATED RELAY FOR INTERLOCK. (4) PROVIDE WITH ELECTRONICALLY COMMUTATED MOTOR.

(5) MOTOR TO ACCEPT 0-10 VDC INPUT SIGNAL FOR SPEED CONTROL.

**IEF 5-61** 

YES 115 1/2 YES HOOD 580 0.75 1970 (3) 115 1/2 | 1480 | 0.45 | 1540 | YES **ECM** T-STAT (3) (1)(2)(4)(5)(3) 115 580 0.75 YES HOOD (3) YES 115 1/2 (3) YES 115 580 0.75 (3) 115 1/2 | 580 | 0.75 | 1970 | YES YES HOOD (1)(2)(5)(3) 115 0.08YES **ECM** CONTINUOUS (1)(2)(4)(5)1/6 | 360 | 0.5 | 1470 | (3) **ECM** 115 1/2 T-STAT (3) (1)(2)(4)(5)590 0.45 YES **ECM** SWITCH 115 1/4 (3) 60 | 115 | 1 1/10 | 370 | 0.45 | 1540 | YES **ECM** T-STAT (3) EQUIPMENT INTERLOCK VERSALASER 3.5 FAB LAB 266B 0.7 3/4 250 6.0 3685 YES NO 180 | 460 | 3 | (3) VERSALASER 3.5 EQUIPMENT INTERLOCK 180 | 460 | 3 | 3/4 | 250 | 6.0 | 3685 | NO (1)(3)(10)(3) 65 115 0.18 1/2 | 1140 | 0.4 | 1260 | YES **ECM** (3) (1)(2)(4)(5)| EBC-24 | PRESSURE SENSOR | 65 | 115 | 1 0.15 | 307 | 0.5 | 1600 | NO (3) (1)(2)(11)

(6) EC TO PROVIDE A MAGNETIC STARTER (INCLUDING DISCONNECT). MC TO PROVIDE AND INSTALL A MOTOR RATED RELAY FOR

SPEED CONTROLLED BY OR WEIGHT

T-STAT

T-STAT

DISHWASHER

KITCHEN HOOD

KITCHEN HOOD

DISHWASHER

SWITCH

KITCHEN HOOD

KITCHEN HOOD

SCHEDULE

CONTROL INTERLOCKED WITH

\_ | ELECTRICAL | STARTER | DISCONNECT |

VOLTS | Q | FURN. BY | FURN. BY

(3)

(3)

(3)

(6)

(6)

(3)

(3)

(6)

(6)

(3)

(1)(2)(4)(5)

(1)(2)(4)(5)

(1)(2)(5)(7)

(1)(2)(5)(7)

(1)(2)(4)(5)

(1)(2)(4)(5)

(1)(2)(7)(9)

(1)(2)(7)(9)

(1)(2)(4)(5)(8)

115

115

115

460

115

115

460

460

115

130

130

300

200

150 460

INTERLOCK. (7) FAN SERVES TYPE I KITCHEN HOOD, FAN SHALL BE UL 762 LISTED. PROVIDE WITH GREASE TRAP AND HINGED BASE.

WORK IS ALTERNATE BID 7 ONLY.

EXHAUST FAN SCHEDULE

| 1375 | 0.4 | 1435 |

3262 | 1.5 | 1245 |

1225

1.6 | 1147 |

525 1.0

2954

1/10 265

1/4

1/2

YES

YES

NO

NO

NO

NO

**ECM** 

**ECM** 

**ECM** 

NO

NO

**ECM** 

**ECM** 

NO

NO

**ECM** 

BHP

0.26

0.05

1.54

0.82

1.62

0.36

0.32

0.36

0.36

0.36

0.27

0.15

AREA SERVED

**KILN 181A** 

MECHANICAL 176

KITCHEN 103 - TYPE I HOOD

KITCHEN 103 - TYPE I HOOD

KITCHEN 103 - TYPE II HOOD

DRYING ROOM 114B

CULINARY ARTS 174 - TYPE I HOOD

STORAGE

LAB HOOD

SCIENCE LAB 262

**ELECTRICAL 208** 

LAB HOOD

SCIENCE LAB 264 LAB HOOD

SCIENCE LAB 261

LAB HOOD

SCIENCE LAB 257 LAB HOOD

SCIENCE LAB 253

KENNELS 258A

ELECTRICAL 255

TRIAGE 240, TREATMENT 240A

MECHANICAL 209

VERSALASER 3.5 FAB LAB 266B

ELECTRICAL 333B

MUA-1 FLUE

CULINARY ARTS 174 TYPE II HOOD 0.19

CULINARY ARTS 174 - TYPE I HOOD 4.79

PROVIDE WITH VFD CAPABLE OF ACCEPTING 0-10V SIGNAL FOR SPEED CONTROL. (10) FAN TO BE INTERLOCKED WITH VERSALASER 3.5 OPERATION.

(11) PROVIDE WITH EBC-24 CONTROLLER. CONTROLLER TO BE INSTALLED ADJACENT TO MUA-1. CONTROLLER TO CONTROL FAN OPERATION SUCH THAT IT ONLY OPERATES WHEN MUA-1 BURNER IS OPERATIONAL.

architect\_ MCGRANAHAN ARCHITECTS civil engineer\_ COUGHLIN PORTER LUNDEEN landscape architect\_ WEISMAN DESIGN GROUP structural engineer\_ PCS STRUCTURAL SOLUTIONS mechanical engineer\_ BCE ENGINEERS electrical engineer\_ BCE ENGINEERS food service\_ HALLIDAY ASSOCITATES theater design\_ PLA DESIGN sports fields engineer\_ DA HOGAN hazardous materials\_ EHS-INTERNATIONAL INC.

> project\_ STANWOOD HIGH SCHOOL - PHASE 2 client\_ STANWOOD-CAMANO SCHOOL

Project No. 1426 **MECHANICAL** SCHEDULES III

DISTRICT NO. 401

STANWOOD, WA

location\_

issued\_ 01 NOV 18 12 DEC 18 CONFORMED SET PERMIT RESUB 19 FEB 19 revision\_ ADDENDUM 1 14 NOV 18 05 NOV 21 4\CCD 218

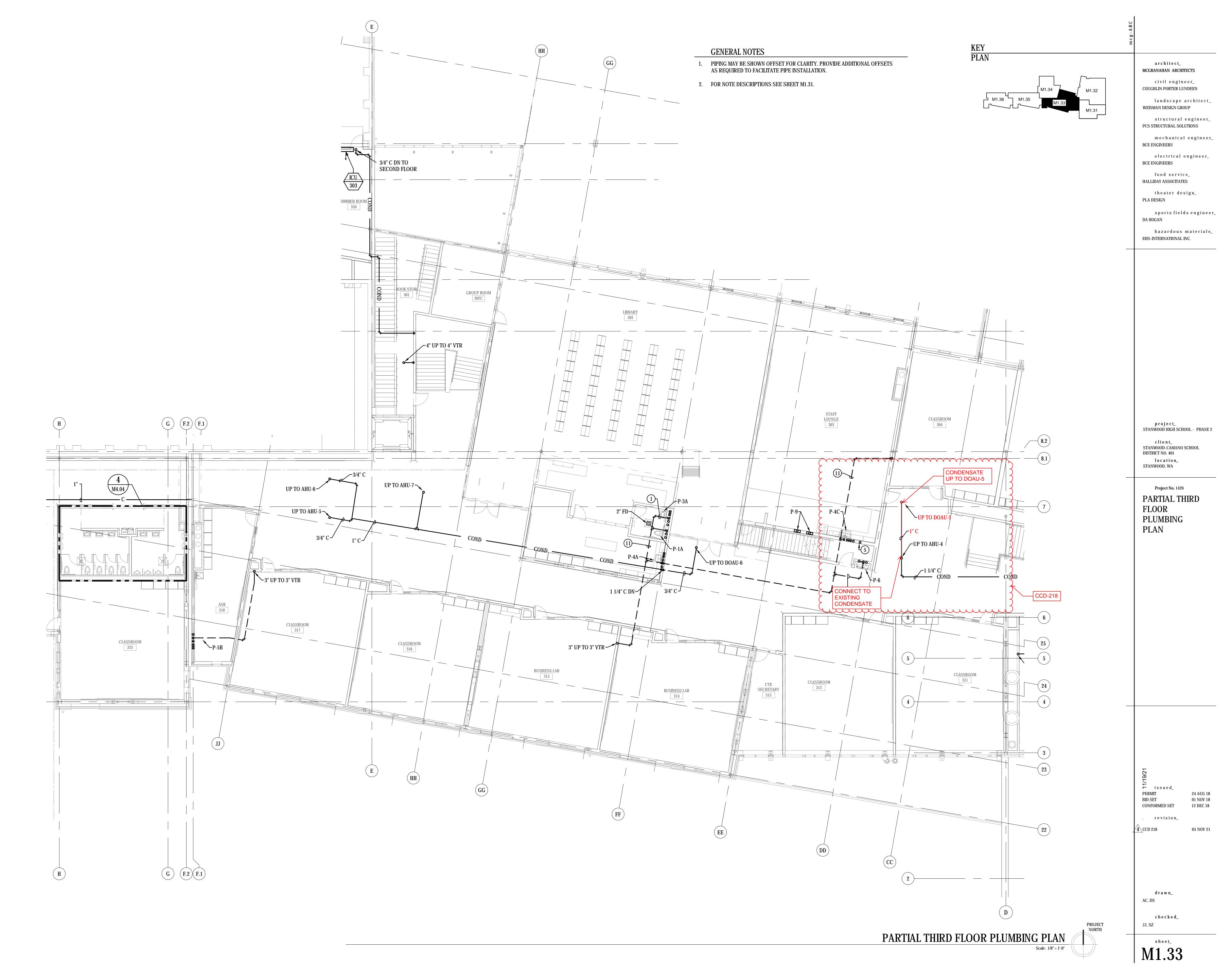
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drawn\_

c h e c k e d\_

AC, DS

JJ, SZ



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- 1. PIPING MAY BE SHOWN OFFSET FOR CLARITY. PROVIDE ADDITIONAL OFFSETS AS REQUIRED TO FACILITATE PIPE INSTALLATION.
- 2. FOR NOTE DESCRIPTIONS SEE SHEET M1.31.

**→** 4" UP TO 4" VTR 2" UP TO 2" VTR  $\neg$ 2" UP TO 2" VTR 23 CLASSROOM CLASSROOM 331 CLASSROOM 327 CLASSROOM CLASSROOM 329 325 CONDENSATE FROM DC-1 DRAIN PAN SHARED LEARNING CONF. ROOM
333A PHOTOJOURNALISM CONDENSATE 330 20 FROM DC-2 DRAIN PAN 4" UP TO 4" VTR 3" UP TO 3" VTR—— MU<u>LTI-ME</u>DIA 328 muniment the second sec // 2" UP TO 2" VTR – 🗸 GREEN ROOM PHOTOGRAPH YEARBOOK
324 CLASSROOM  $\bigcirc 3$ " UP TO 3" VTR  $\bigcirc$ L NN PARTIAL THIRD FLOOR PLUMBING PLAN

WEISMAN DESIGN GROUP structural engineer\_ PCS STRUCTURAL SOLUTIONS mechanical engineer\_

civil engineer\_

landscape architect\_

COUGHLIN PORTER LUNDEEN

architect\_ MCGRANAHAN ARCHITECTS

electrical engineer\_ BCE ENGINEERS food service\_

BCE ENGINEERS

HALLIDAY ASSOCITATES theater design\_ PLA DESIGN

sports fields engineer\_ DA HOGAN

hazardous materials\_ EHS-INTERNATIONAL INC.

project\_ STANWOOD HIGH SCHOOL - PHASE 2

client\_ STANWOOD-CAMANO SCHOOL DISTRICT NO. 401 location\_ STANWOOD, WA

Project No. 1426

PARTIAL THIRD FLOOR **PLUMBING** PLAN

issued\_ CONFORMED SET

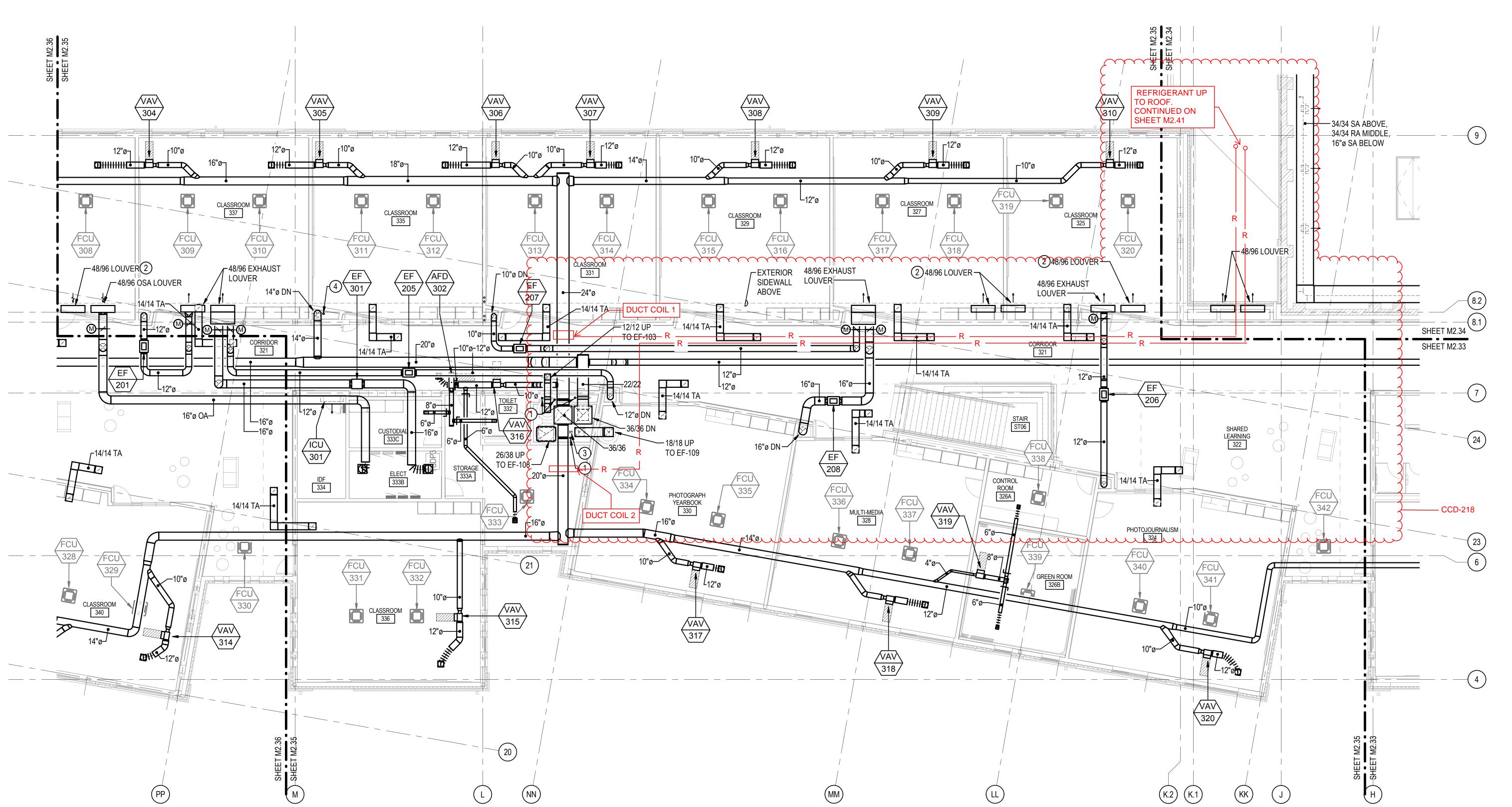
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revision\_ 4\CCD 218

c h e c k e d\_

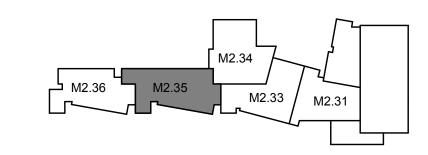
JJ, SZ

sheet\_



PARTIAL THIRD FLOOR HVAC PLAN

**KEY PLAN** 



### **GENERAL NOTES**

- ALL DUCTWORK SHALL BE CONSTRUCTED & SEALED PER IMC. ALL DUCTWORK IS LOW-PRESSURE & SHALL BE CONSTRUCTED TO 2" W.G. PRESSURE CLASS.
- ALL OSA DUCTWORK TO MEET WSEC C402.5 LEAKAGE REQUIREMENTS & VAPOR RETARDER REQUIREMENTS.
- CEILING SPACE ABOVE THE CORRIDORS ARE USED AS AN EXHAUST AIR PLENUM. ALL MATERIALS SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.
- SEE SHEETS M5.01 TO M5.03 FOR INSTALLATION DETAILS.

### CONSTRUCTION NOTES

- (1) PROVIDE FIRE DAMPER AT CHASE PENETRATION. SEE INSTALLATION DETAIL ON SHEET M5.02.
- (2) PROVIDE SHEET METAL BLANK-OFF OF LOUVER AND INSULATE PER WSEC.
- (3) 6" MAKE UP AIR UNIT FLUE TO ROOF.
- (4) PROVIDE FIRE DAMPER AT SCAB PENETRATION.

COUGHLIN PORTER LUNDEEN landscape architect\_ WEISMAN DESIGN GROUP

civil engineer\_

architect\_ MCGRANAHAN ARCHITECTS

structural engineer\_ PCS STRUCTURAL SOLUTIONS

mechanical engineer\_ **BCE ENGINEERS** electrical engineer\_

**BCE ENGINEERS** 

food service\_ HALLIDAY ASSOCITATES theater design\_

**PLA DESIGN** sports fields engineer\_ DA HOGAN

hazardous materials\_ EHS-INTERNATIONAL INC.

project\_ STANWOOD HIGH SCHOOL - PHASE 2

STANWOOD-CAMANO SCHOOL DISTRICT NO. 401 location\_ STANWOOD, WA

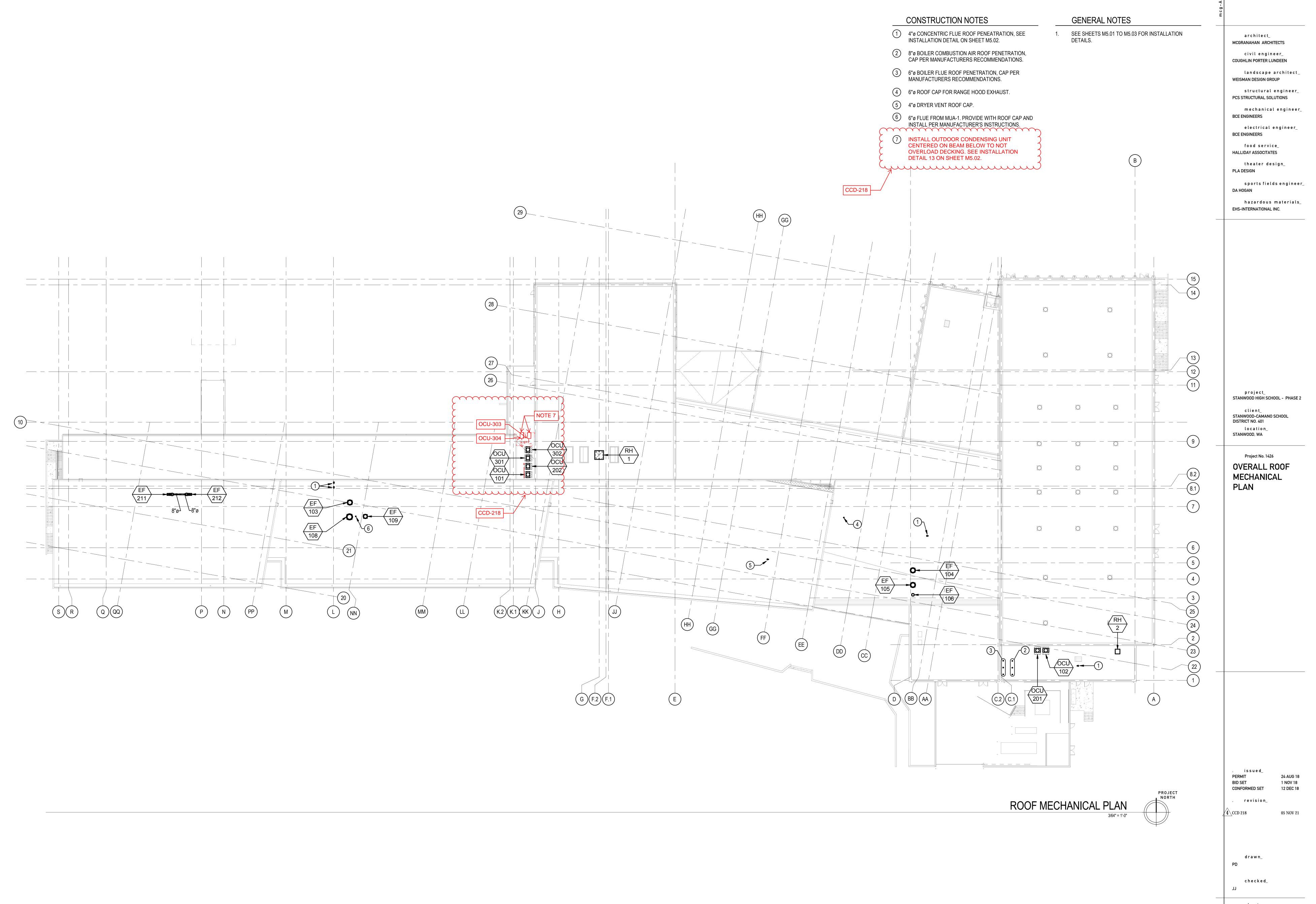
Project No. 1426

PARTIAL THIRD **FLOOR HVAC** PLAN

CONFORMED SET 12 DEC 18 revision\_ **4**\CCD 218 05 NOV 21

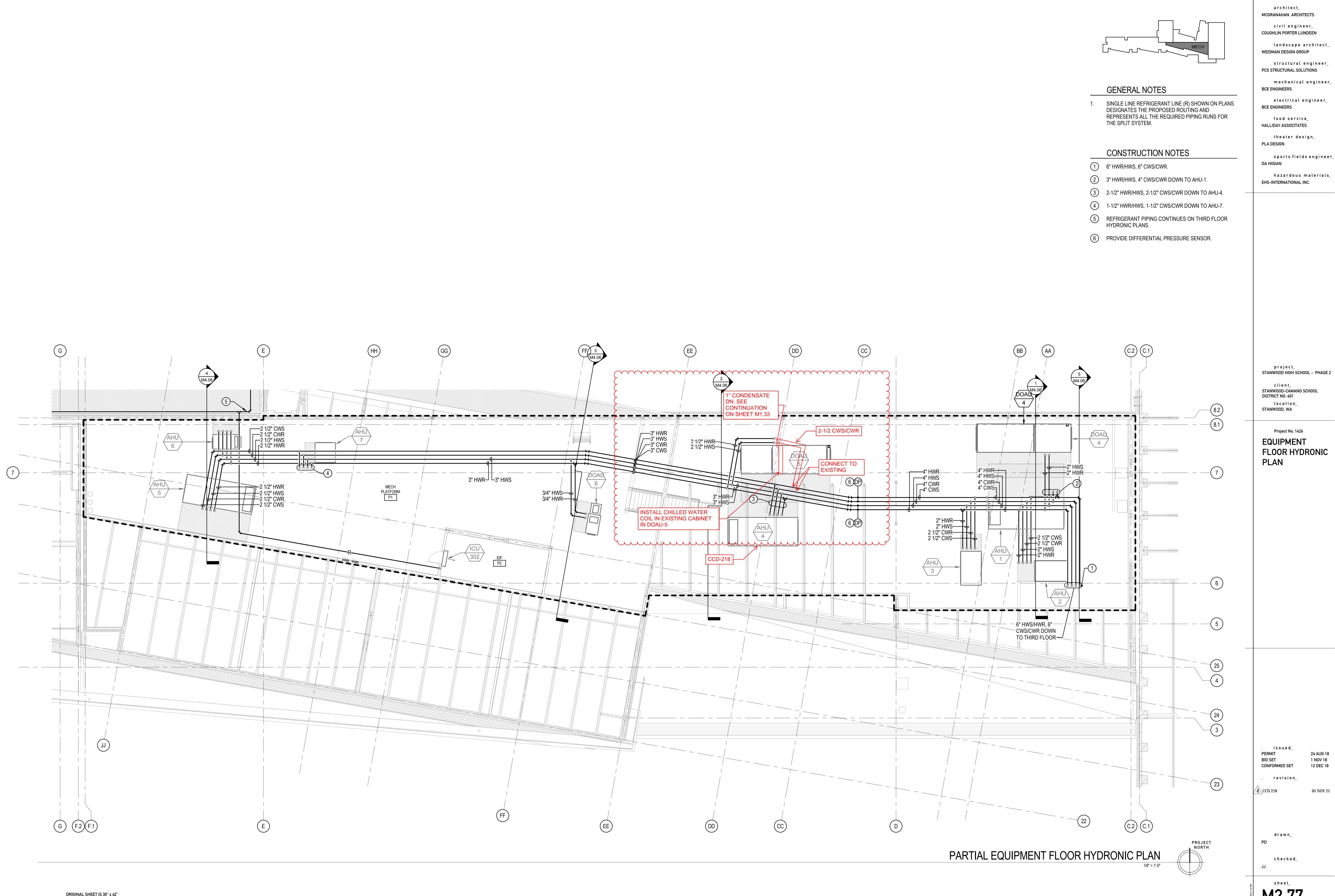
c h e c k e d\_

s h e e t\_

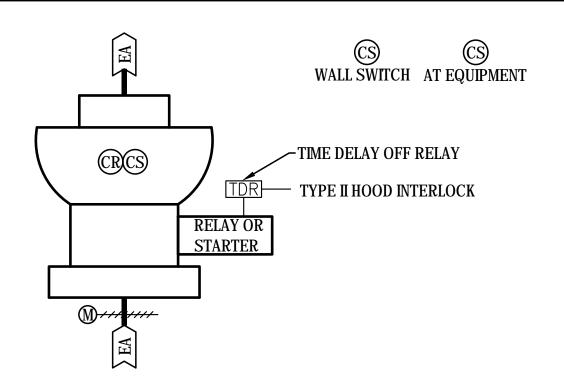


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M2.41



**KEY PLAN** 

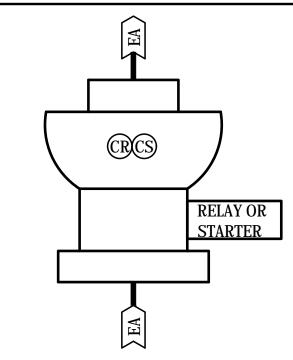


### TYPE II EXHAUST FAN SEQUENCE (EF 103, 106)

1. EXHAUST FAN CONTROL SHALL BE INTERLOCKED WITH THE ASSOCIATED HOOD AND WALL SWITCH VIA TIME DELAY RELAYS. DAMPER SHALL OPEN AND EXHAUST FAN SHALL OPERATE VIA CURRENT SENSOR WHILE INTERLOCKED EQUIPMENT OPERATES OR SWITCH IS ENABLED AND SHALL CONTINUE OPERATING FOR 5 MINUTES (VAR) AFTER THE INTERLOCKED EQUIPMENT SHUTS OFF. DAMPER SHALL FAIL CLOSED. EMCS SYSTEM TO MONITOR.

### INFORMATION TERMINAL

- FAN ON/OFF POWER
- FAN RUNTIME • FAN FAILURE ALARM (I.E. NO CURRENT ON WHEN EF OR ASSOCIATED UNIT COMMANDED ON)
- RANGE ON/OFF STATUS (BY CURRENT SENSING RELAY)
- DAMPER POSITION

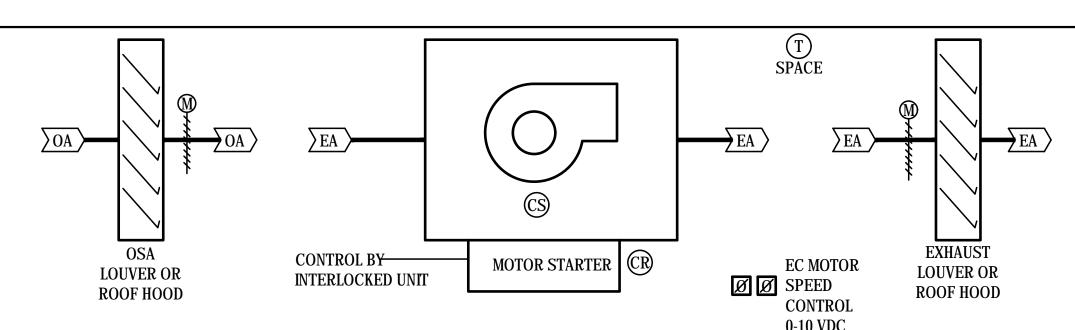


## TYPE I EXHAUST FAN SEQUENCE (EF 104, 105, 108, & 109)

EXHAUST FAN CONTROL SHALL BE VIA STAND ALONE CONTROLLER PROVIDED WITH THE TYPE 1 KITCHEN HOOD SYSTEM. SEE FS DRAWINGS FOR DETAILS. EMCS SYSTEM TO MONITOR FAN OPERATION.

### B. INFORMATION TERMINAL

- FAN ON/OFF STATUS (BY CURRENT SENSING RELAY)
- FAN RUNTIME
- FAN FAILURE ALARM (I.E. NO CURRENT WHEN COMMANDED ON)



### T'STAT INTERLOCKED EXHAUST FAN CONTROL SEQUENCE (EF 101, 102, 202, 208, 210, 301)

1. EXHAUST FAN IS CONTROLLED BY SPACE TEMPERATURE.

INITIAL SPACE SETPOINT SHALL BE 85° F.

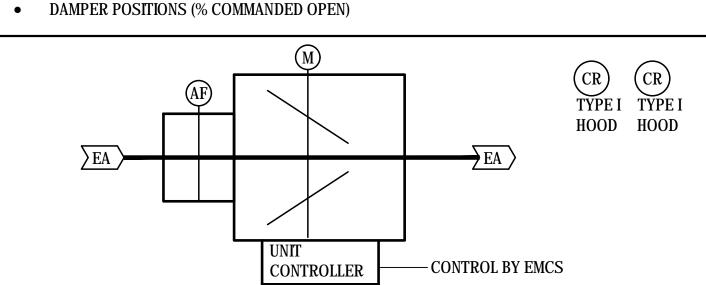
2. DAMPERS SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPERS SHALL FAIL CLOSED.

### B. OCCUPIED/UNOCCUPIED MODES:

1. THE DAMPERS SHALL OPEN AND FAN SHALL START UPON SENSING A SPACE TEMPERATURE 5°F ABOVE SETPOINT (VAR). FAN SHALL STOP UPON SENSING A SPACE TEMPERATURE 5°F BELOWSETPOINT (VAR).

## C. INFORMATION AT TERMINAL

- FAN ON/OFF STATUS (BY CURRENT SENSING RELAY)
- FAN RUNTIME
- DAMPER END SWITCH STATUS
- FAN FAILURE ALARM (I.E. NO CURRENT WHEN COMMANDED ON)
- SPACE TEMPERATURE (°F) SPACE TEMPERATURE SETPOINT (°F)



## CULINARY ARTS AND KITCHEN EXHAUST VAV TERMINAL BOX (AFD 109 & 114)

# A. GENERAL

1. THE TERMINAL UNIT SHALL BE CONTROLLED AND ENERGIZED AS SCHEDULED BY THE BUILDING DDC

### B. OCCUPIED MODE

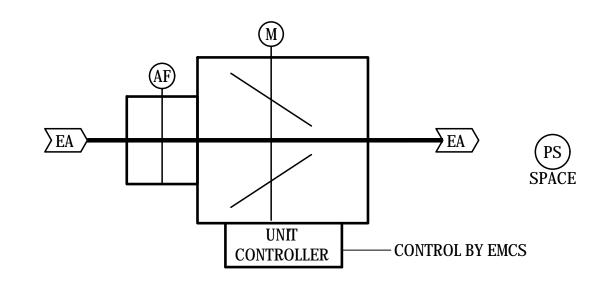
1. THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND AIRFLOW DAMPER SHALL

### MODULATE TO MAINTAIN MAXIMUM SCHEDULED EXHAUST CFM. 2. WHEN INTERLOCKED FUME HOOD IS IN OPERATION, AIRFLOW DAMPER SHALL CLOSE.

C. UNOCCUPIED MODE 1. THE AIRFLOW DAMPER SHALL BE CLOSED.

### D. INFORMATION AT TERMINAL:

- UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED). • DAMPER POSITION (% COMMANDED OPEN).
- AIRFLOW CFM • FUME HOOD STATUS



### VARIABLE EXHAUST VAV TERMINAL BOX

1. THE TERMINAL UNIT SHALL BE CONTROLLED AND ENERGIZED AS SCHEDULED BY THE BUILDING DDC SYSTEM.

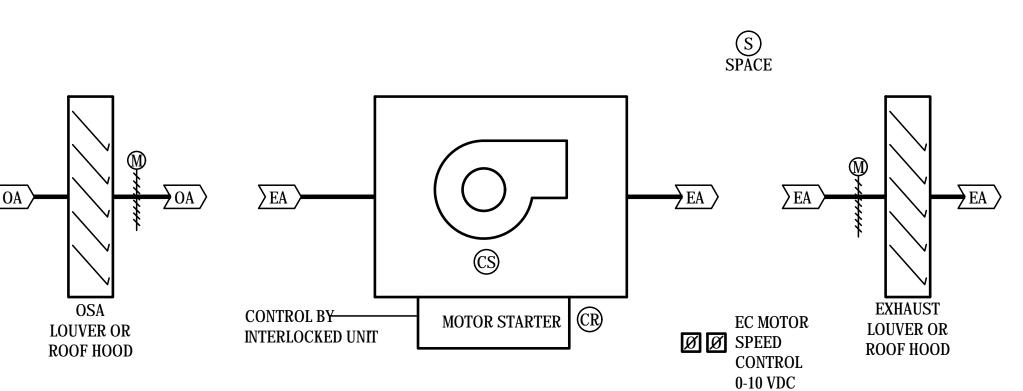
1. THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN A SPACE PRESSURE SETPOINT OF 0.02" WC (VAR).

### C. UNOCCUPIED MODE

1. THE AIRFLOW DAMPER SHALL BE CLOSED.

### D. INFORMATION AT TERMINAL:

- UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED).
- DAMPER POSITION (% COMMANDED OPEN). AIRFLOW CFM
- STATIC PRESSURE SETPOINT • STATIC PRESSURE



# T'STAT PUSHBUTTON EXHAUST FAN CONTROL SEQUENCE (EF 107, 209)

#### A. GENERAL EXHAUST FAN IS CONTROLLED BY PUSHBUTTON SWITCH.

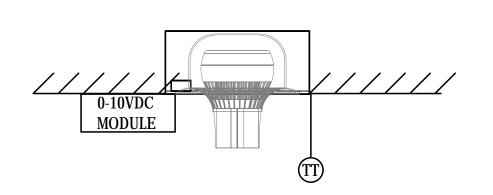
2. DAMPERS SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPERS SHALL FAIL CLOSED.

### B. OCCUPIED/UNOCCUPIED MODES:

THE DAMPERS SHALL OPEN AND FAN SHALL START UPON SENSING PUSHBUTTON SWITCH OPERATION. EXHAUST FAN TO OPERATION 60 MINUTES(VAR).

### C. INFORMATION AT TERMINAL

- FAN ON/OFF STATUS (BY CURRENT SENSING RELAY)
- FAN RUNTIME • FAN FAILURE ALARM (I.E. NO CURRENT WHEN COMMANDED ON)
- DAMPER POSITIONS (% COMMANDED OPEN)
- DAMPER END SWITCH STATUS





## **DESTRATIFICATION FAN (DF)**

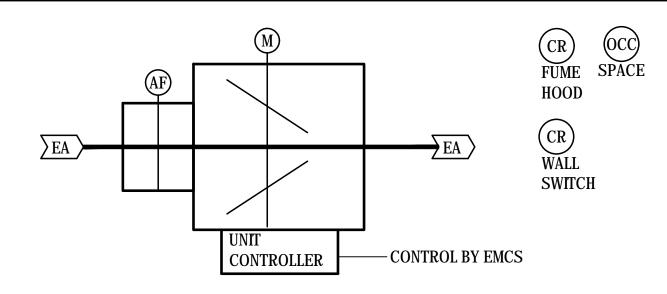
### A. GENERAL

FAN ON/OFF

1. FAN OPERATION: A. FAN TO OPERATE WHEN CEILING TEMPERATURE VARIES FROM SPACE TEMPERATURE BY MORE THAN

- B. FAN SHALL STOP DURING UNOCCUPIED HOURS.
- C. WALL SWITCH OVERRIDE FOR MANUAL OPERATION 2. CEILING FAN SPEED:
- A. START FAN SPEED AT 30% AND INCREMENT 10% EVERY 5 MINUTES WHILE CONDITIONS 1A EXISTS. MAINTAIN SPEED ONCE ACTIVATION CONDITIONS ARE SATISFIED. AFTER 30 MINUTES (VAR) OF CONTINUOUS OPERATION FAN TO OFF.
- 3. WALL CONTROLLER A. INSTALLATION AND WIRING FROM WALL CONTROLLER TO FAN BY CONTROLS CONTRACTOR.

INFORMATION AT THE TERMINAL: PEOPLE ZONE TEMPERATURE (FROM EMCS T-STAT) HIGH SPACE ZONE TEMPERATURE



### SCIENCE ROOM VARIABLE EXHAUST VAV TERMINAL BOX

1. THE TERMINAL UNIT SHALL BE CONTROLLED AND ENERGIZED AS SCHEDULED BY THE BUILDING DDC SYSTEM.

### B. OCCUPIED MODE

THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN MAXIMUM SCHEDULED EXHAUST CFM.

- 2. WHEN INTERLOCKED FUME HOOD IS IN OPERATION, AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN MINIMUM SCHEDULED EXHAUST CFM.
- 3. WHEN "MAXIMUM EXHAUST" PUSHBUTTON IS DEPRESSED, AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN MAXIMUM SCHEDULED EXHAUST CFM. REGARDLESS OF FUME HOOD STATUS.

### C. UNOCCUPIED MODE

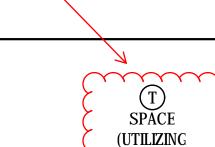
1. THE AIRFLOW DAMPER SHALL BE CLOSED.

### D. OCCUPANCY SENSORS

1. CC TO WIRE TO AUXILIARY CONTACT. CLOSE AIRFLOW DAMPER WHEN ROOM IS UNOCCUPIED. RESUME CO2 CONTROL AFTER THE SPACE HAS BEEN REOCCUPIED FOR 5 CONSECUTIVE MINUTES (VAR).

### E. INFORMATION AT TERMINAL:

- UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED).
- DAMPER POSITION (% COMMANDED OPEN). AIRFLOW CFM
- FUME HOOD STATUS
- PUSH BUTTON STATUS



FCU T-STAT)

CO2 OCC SPACE SPACE uuu (WHERE PROVIDED FOR LIGHTING CONTROL OR ON PLANS)

# VARIABLE-SUPPLY VAV TERMINAL BOX

CONTROLLER

1. THE TERMINAL UNIT SHALL BE CONTROLLED AND ENERGIZED AS SCHEDULED BY THE BUILDING DDC SYSTEM.

1. THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN MINIMUM CFM AS INDICATED ON THE EQUIPMENT SCHEDULE.

— CONTROL BY EMCS

## C. UNOCCUPIED MODE

THE AIRFLOW DAMPER SHALL BE CLOSED.

### COOLING MODE (VAV 216, 219-225, 301-315, 317-337)

THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND MAINTAIN SPACE TEMPERATURE COOLING SETPOINT BY MODULATING PRIMARY AIR DAMPER FROM LISTED MINIMUM AIRFLOW TO MAXIMUM LISTED AIRFLOW AS INDICATED ON THE EQUIPMENT SCHEDULE. COOLING MODE OVERRIDES CO2 DAMPER MODULATION.

### MODULATE CFM SETPOINT FROM SCHEDULED MINIMUM CFM TO MAXIMUM CFM TO MAINTAIN SPACE CO2 SETPOINT OF 1000 PPM (VAR). GENERATE ALARM IF CO2 RISES 10% ABOVE SETPOINT (VAR).

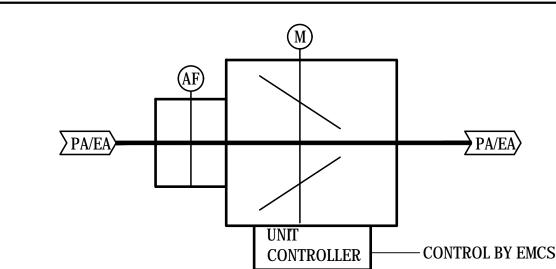
# F. OCCUPANCY SENSORS

CC TO WIRE TO AUXILIARY CONTACT. CLOSE AIRFLOW DAMPER WHEN ROOM IS UNOCCUPIED. RESUME CO2 CONTROL AFTER THE SPACE HAS BEEN REOCCUPIED FOR 5 CONSECUTIVE MINUTES (VAR).

#### G. BUILDING PRESSURIZATION SEE MISCELLANEOUS CONTROLS - BUILDING PRESSURIZATION AND DEMAND CONTROL VENTILATION.

### H. INFORMATION AT TERMINAL UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED). CO2 SETPOINT

- DAMPER POSITION (% COMMANDED OPEN).
- AIRFLOW CFM CO2 LEVEL
- CO2 ALARM OCCUPANCY SENSOR COMMONS LUNCH MODE SCHEDULE



# CONSTANT SUPPLY/EXHAUST VAV TERMINAL BOX

A. GENERAL 1. THE TERMINAL UNIT SHALL BE CONTROLLED AND ENERGIZED AS SCHEDULED BY THE BUILDING DDC SYSTEM.

### B. OCCUPIED MODE

1. THE UNIT SHALL BE CONSIDERED AS RUNNING CONTINUOUSLY AND AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN AIRFLOW CFM AS INDICATED ON THE EQUIPMENT SCHEDULE.

### C. UNOCCUPIED MODE 1. THE AIRFLOW DAMPER SHALL BE CLOSED.

D. INFORMATION AT TERMINAL: • UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED).

- DAMPER POSITION (% COMMANDED OPEN).
- AIRFLOW CFM

structural engineer\_ PCS STRUCTURAL SOLUTIONS mechanical engineer\_ BCE ENGINEERS electrical engineer\_ BCE ENGINEERS food service\_ HALLIDAY ASSOCITATES theater design\_ PLA DESIGN

architect\_ MCGRANAHAN ARCHITECTS

WEISMAN DESIGN GROUP

civil engineer\_ COUGHLIN PORTER LUNDEEN

landscape architect\_

hazardous materials\_ EHS-INTERNATIONAL INC.

sports fields engineer\_

DA HOGAN

project\_ STANWOOD HIGH SCHOOL - PHASE 2 client\_

STANWOOD-CAMANO SCHOOL

DISTRICT NO. 401

STANWOOD, WA

location\_

Project No. 1426 **MECHANICAL** 

**CONTROLS II** 

issued\_

CCD-218

CONFORMED SET 12 DEC 18 PERMIT RESUB 19 FEB 19 revision\_ **1**\CCD 218 05 NOV 21

24 AUG 18

01 NOV 18

drawn\_ AC, DS

checked\_

sheet\_

JJ, SZ

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1. SPACE TEMPERATURE SENSORS EQUIPPED WITH PUSHBUTTONS TO PROVIDE UNOCCUPIED OVERRIDE REQUEST AND SPACE TEMPERATURE SETPOINT ADJUSTMENT AS REQUIRED.

2. VALVES ARE TWO OR THREE WAY PER MECHANICAL SCHEDULE & DETAILS.

FCU SUPPLY FANS

1. SUPPLY FAN START VIA A SCHEDULE (VAR) OR OVERRIDE COMMAND (VAR). OVERRIDE COMMAND CAN BE TRIGGERED BY SPACE TEMPERATURE SENSOR UNOCCUPIED OVERRIDE REQUEST, SPACE TEMPERATURE SENSOR IN UNOCCUPIED HEATING MODE, OR BY EMCS USER INTERFACE.

2. FAN ALARMS

A. FAN ALARM ACTIVATES IF FAN STATUS FAILS TO ACTIVATE AFTER FAN HAS BEEN STARTED. EMCS RECORDS FAN ALARM.

1. HEATING VALVE SPRINGS NORMALLY OPEN TO THE COIL AND IS CLOSED WHEN FAN IS OFF.

2. HEATING VALVE OPENS TO MAINTAIN HEATING TEMPERATURE SETPOINT (VAR).

1. COOLING VALVE SPRINGS NORMALLY CLOSED TO THE COIL AND IS CLOSED WHEN FAN IS OFF.

2. COOLING VALVE OPENS TO MAINTAIN COOLING TEMPERATURE SETPOINT (VAR).

AIR TEMPERATURE SETPOINT

1. HEATING TEMPERATURE SET POINT 68°F (VAR)

2 COOLING TEMPERATURE SET POINT 78°F (VAR)

CONDENSATE OVERFLOW SAFETY SWITCH

1. UPON DETECTION OF WATER BY THE CONDENSATE OVERFLOW SAFETY SWITCH. THE EMCS SHALL SEND AN ALARM. DISABLE THE FAN. AND CLOSE THE CONTROL VALVE.

INFORMATION AT THE TERMINAL

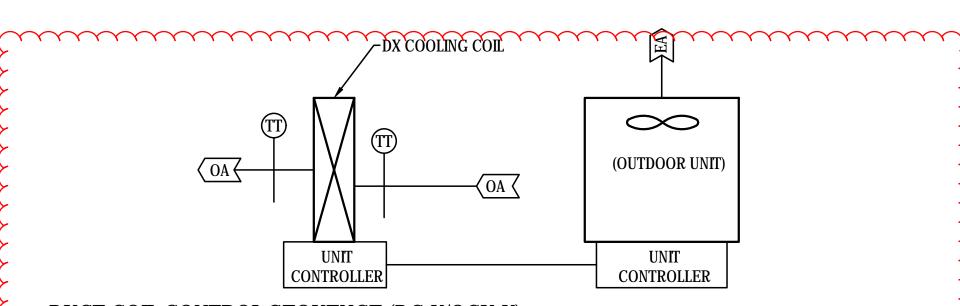
ZONE TEMPERATURE (FROM EMCS T-STAT) ZONE TEMPERATURE SETPOINT (FROM EMCS T-STAT)

UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED, HEATING/COOLING)

COOLING COIL VALVE POSITION (FROM EMCS) HEATING COIL VALVE POSITION (FROM EMCS)

FAN ON/OFF

FAILURE ALARM (CONDENSATE PUMP/FAN) CONDENSATE OVERFLOW ALARM



DUCT COIL CONTROL SEQUENCE (DC-X/OCU-X)

SYSTEM OPERATION:

SYSTEM OPERATION 1. DC-1 AND DC-2 TO BE ENABLED WHEN DOAU-2 IS ON.

DX COOLING COIL COMPRESSOR IS OFF WHEN DOAU-2 IS OFF

2. COMPRESSOR MODULATES TO MAINTAIN DISCHARGE TEMPERATURE SET POINT.

DX HEATING COIL

1. HEATING IS DISABLED AT THE DUCT COIL.

DISCHARGE AIR TEMPERATURE SETPOINT DC-1 TO BE ASSOCIATED WITH FCU 301/302, 303/304, 305/306, 307/308, 309/310, 311/312, 313/314, 315/316, 317/318, & 319/320.

DC-2 TO BE ASSOCIATED WITH FCU 321/322, 324/325, 326/327, 328/329, 331/332, 334/335, 336/337, 338, 339, 340/341 & 343/344. 3. DISCHARGE AIR TEMPERATURE (DAT) SETPOINT RANGE IS 55°F (ADJ) TO 78°F (ADJ). AT THE START OF EACH MORNING, THE DAT SETPOINT SHALL START AT 68°F (VAR).

4. INCREMENT THE DAT BY 2°F EVERY 10MINUTES (VAR) WHILE MAJORITY OF ASSOCIATED SPACE HEATING VALVES REMAIN

5. DECREMENT THE DAT BY 2°F EVERY 10MINUTES (VAR) WHILE MAJORITY OF ASSOCIATED SPACE TEMPERATURES ARE GREATER 1

6. DAT SHALL REMAIN UNCHANGED WHEN MAJORITY OF ASSOCIATED ZONES ARE IN DEADBAND MODE.

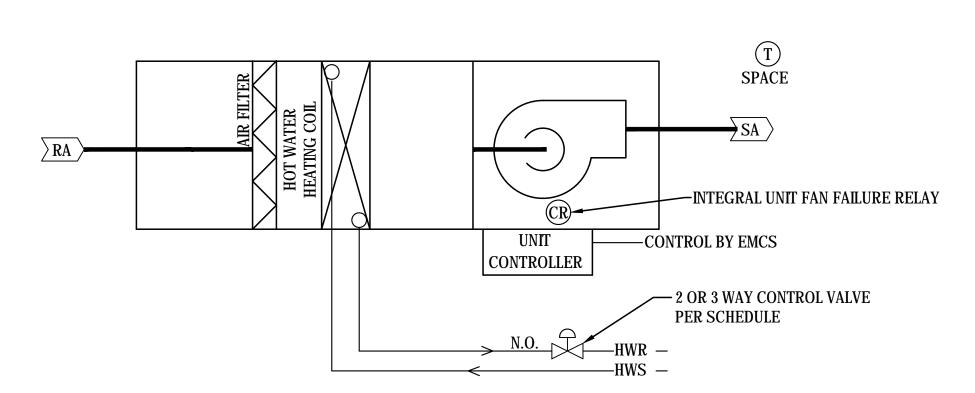
INFORMATION AT THE TERMINAL:

DISCHARGE AIR TEMPERATURE SET POINT

 ASSOCIATED ZONES GREATER THAN 75° F ASSOCIATED ZONES HEATING VALVES OPEN

DUCT COIL STATUS

 DISCHARGE AIR TEMPERATURE • ENTERING AIR TEMPERATURE



TWO-PIPE FAN COIL (FCU 1-238, 261-377)

1. SPACE TEMPERATURE SENSORS EQUIPPED WITH PUSHBUTTONS TO PROVIDE UNOCCUPIED OVERRIDE REQUEST AND SPACE TEMPERATURE SETPOINT ADJUSTMENT AS REQUIRED.

2. VALVES ARE TWO OR THREE WAY PER MECHANICAL SCHEDULE & DETAILS.

1. SUPPLY FAN START VIA A SCHEDULE (VAR) OR OVERRIDE COMMAND (VAR). OVERRIDE COMMAND CAN BE TRIGGERED BY SPACE TEMPERATURE SENSOR UNOCCUPIED OVERRIDE REQUEST, SPACE TEMPERATURE SENSOR IN UNOCCUPIED HEATING MODE, OR BY EMCS USER INTERFACE.

2. FAN ALARMS

A. FAN ALARM ACTIVATES IF FAN STATUS FAILS TO ACTIVATE AFTER FAN HAS BEEN STARTED. EMCS RECORDS FAN ALARM.

1. HEATING VALVE SPRINGS NORMALLY OPEN TO THE COIL AND IS CLOSED WHEN FAN IS OFF.

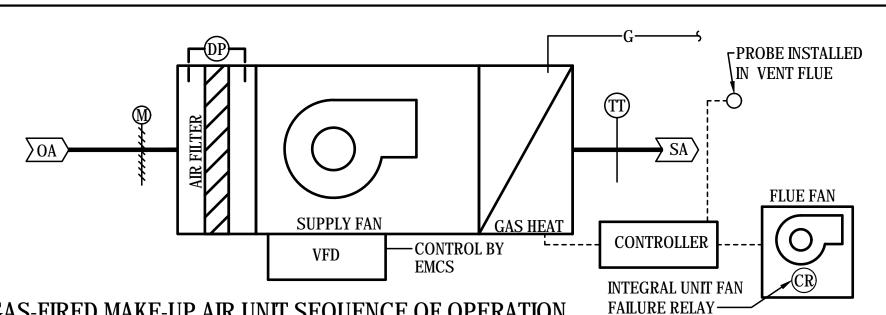
2. HEATING VALVE OPENS TO MAINTAIN HEATING TEMPERATURE SETPOINT (VAR).

AIR TEMPERATURE SETPOINT 1. HEATING TEMPERATURE SET POINT 68°F (VAR)

INFORMATION AT THE TERMINAL: ZONE TEMPERATURE (FROM EMCS T-STAT) ZONE TEMPERATURE SETPOINT (FROM EMCS T-STAT)

UNIT COMMANDED MODE (OCCUPIED/UNOCCUPIED, HEATING) HEATING COIL VALVE POSITION (FROM EMCS)

FAN ON/OFF FAN FAILURE ALARM



GAS-FIRED MAKE-UP AIR UNIT SEQUENCE OF OPERATION

1. SUPPLY FAN SHALL BE CONTROLLED BY THE KITCHEN HOOD MANUFACTURERS CONTROLS (REFER TO FS DRAWINGS).

**HEATING SECTION (GAS FURNACE)** 

HEATING SECTION SHALL BE ENABLED WHEN SUPPLY FAN IS "ON" AND BE OPERATED TO MAINTAIN

SUPPLY AIR TEMPERATURE OF 65°F (VAR).

2. HEAT SECTION SHALL BE DISABLE ON HIGH TEMP ALARM AND REMAIN OFF UNTIL ALARM IN MANUALLY CLEARED.

INFORMATION AT THE TERMINAL

 UNIT STATUS (ON/OFF) • TEMPERATURES (°F): OUTSIDE AND SUPPLY AIR.

 OSA DAMPER POSITION • FILTER DIFFERENTIAL PRESSURE (IN. W.G.)

GAS HEATING SIGNAL

• FLUE FAN STATUS (ON/OFF)

• SUPPLY FAN FAILURE TO OPERATE ON COMMAND.

• SUPPLY TEMPERATURE OUT OF TOLERANCE FOR 10MINUTES (NOT WITHIN 5° F OF SET POINT). FLUE FAN FAILURE TO OPERATE ON COMMAND.

FAN OPERATION PRESSURE SWITCH (CC TO INSTALL AND (P) WIRE TO FAN) 00  $\overline{\rangle}$  EA  $\rangle$ — FAN OPERATION INDICATOR LIGHT (CC TO INSTALL AND WIRE TO FAN)

DRYER BOOSTER EXHAUST FAN CONTROL SEQUENCE (BF)

EXHAUST FAN TO OPERATE WHEN ASSOCIATED DRYER IS RUNNING VIA DUCT MOUNTED PRESSURE SWITCH.

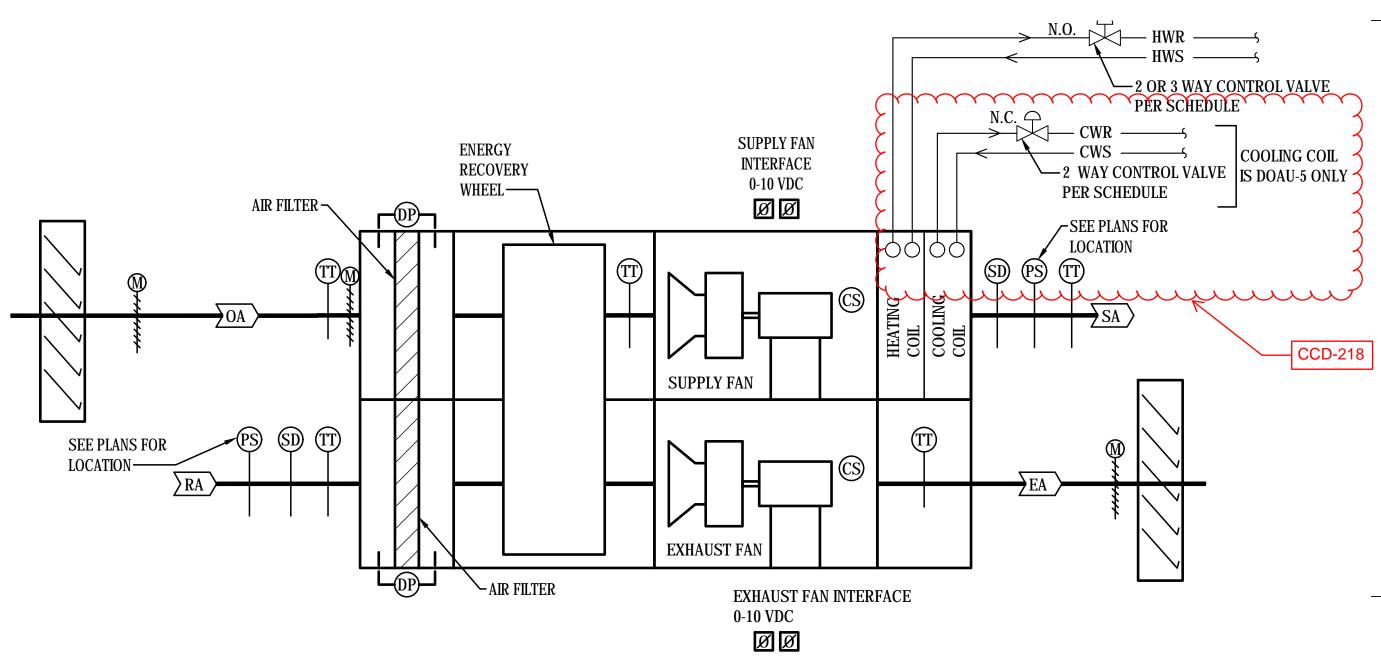
RELAY OR

STARTER

FAN NOT CONNECTED TO OR MONITORED BY THE EMCS.

INSTALL AND WIRE DRYER BOOSTER FAN INDICATOR LIGHT IN WALL ADJACENT TO DRYER.

— CCD-218



DEDICATED OUTDOOR AIR UNIT (DOAU 1-6)

1. ZONE SPACE TEMPERATURE SENSORS SHALL BE EQUIPPED WITH PUSHBUTTONS TO PROVIDE UNOCCUPIED OVERRIDE REQUEST. OVERRIDE RUNTIME SHALL BE 2 HOURS

2. UNIT SHALL BE PROGRAMMED FOR START/STOP THROUGH THE DDC SYSTEM BASED ON DESIGNED OCCUPIED MODES WITH WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES.

SUPPLY FAN SHALL START VIA A SCHEDULE (ADJUSTABLE) OR OVERRIDE COMMAND (ADJUSTABLE). OVERRIDE COMMAND CAN BE TRIGGERED BY A ZONE SPACE

TEMPERATURE SENSOR UNOCCUPIED OVERRIDE REQUEST OR BY EMCS USER INTERFACE OUTSIDE AIR DAMPER SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPER SHALL FAIL CLOSED.

PRIMARY AIR DAMPER CALCULATION.

a. FAN ALARM ACTIVATES IF FAN STATUS FAILS TO ACTIVATE AFTER FAN HAS BEEN STARTED. EMCS RECORDS FAN ALARM.

b. HARDWIRE FAN SHUTDOWN UPON ACTIVATION OF FIRE/SMOKE ALARM. EMCS RECORDS FIRE/SMOKE ALARM

SUPPLY FAN SPEED VARIES TO MAINTAIN DUCT PRESSURE SETPOINT. SETPOINT SHALL RANGE FROM 0.5" W.C. TO 0.9" W.C. (ADJUSTABLE) TO MAINTAIN THE MAXIMUM VAV PRIMARY AIR DAMPER POSITION AT 90% (ADJUSTABLE). AIR BALANCER TO SELECT FINAL SETPOINTS. SEE PLANS FOR DUCT PRESSURE SENSOR LOCATION. THE EMCS OPERATOR SHALL MODIFY, ADD AND DELETE A LIST OF VAV PRIMARY AIR DAMPERS AT THE OPERATOR WORKSTATION THAT SHALL BE USED FOR THE MAXIMUM VAV

C. EXHAUST FAN

EXHAUST FAN OPERATES WHENEVER THE SUPPLY FAN IS PROVEN ON.

EXHAUST DAMPER SHALL OPEN UPON ACTIVATION AND FAN SHALL START VIA DAMPER END SWITCH. DAMPERS SHALL FAIL CLOSED

EXHAUST FAN SPEED VARIES TO MAINTAIN DUCT PRESSURE SETPOINT. SETPOINT SHALL RANGE FROM -0.3" W.C. TO -1.0" W.C. (VAR) BASED ON EXHAUST VAV DAMPER POSITIONS. AIR BALANCER TO SELECT FINAL SETPOINTS.

a. DECREMENT DUCT PRESSURE SETPOINT 0.1" W.C. (VAR) EVERY 5 MINUTES (VAR) UNTIL ALL VAV DAMPERS ARE NO MORE THAN 90% (VAR) OPEN. b. INCREMENT DUCT PRESSURE SETPOINT 0.1" W.C. (VAR) EVERY 5 MINUTES (VAR) TO MAINTAIN AT LEAST ONE VAV DAMPER NO LESS THAN 85% (VAR) OPEN.

4. FAN ALARMS:

a. FAN ALARM ACTIVATES IF FAN STATUS FAILS TO ACTIVATE AFTER FAN HAS BEEN STARTED. EMCS RECORDS FAN ALARM.

b. HARDWIRE FAN SHUTDOWN UPON ACTIVATION OF FIRE/SMOKE ALARM. EMCS RECORDS FIRE/SMOKE ALARM 5. HARDWIRE FAN SHUTDOWN UPON HIGH DUCT PRESSURE ALARM ACTIVATION. EMCS RECORDS HIGH PRESSURE ALARM.

D. HYDRONIC HEATING COIL

HEATING VALVE SPRINGS NORMALLY OPEN TO THE COIL AND IS CLOSED WHEN FAN IS OFF

2. HEATING VALVE MODULATES TO MAINTAIN DISCHARGE AIR TEMPERATURE SETPOINT (VAR). 

E. HYDRONIC COOLING COIL (DOAU-5 ONLY) COOLING VALVE SPRINGS IS CLOSED WHEN FAN IS OFF.

COOLING VALVES MODULATES TO MAINTAIN DISCHARGE TEMPERATURE SET POINT.

3. COOLING VALVE TO REMAIN CLOSED IF HYDRONIC WATER TEMPERATURE IS GREATER THAN 70°F.

F. <u>DISCHARGE AIR</u> TEMPERATURE SETPOINT DISCHARGE AIR TEMPERATURE (DAT) SETPOINT RANGE IS 55°F (ADJ) TO 78°F (ADJ). AT THE START OF EACH MORNING, THE DAT SETPOINT SHALL START AT 68°F (VAR).

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2. INCREMENT THE DAT BY 2°F EVERY 10MINUTES (VAR) WHILE MAJORITY OF ASSOCIATED SPACE HEATING VALVES REMAIN OPEN

DECREMENT THE DAT BY 2°F EVERY 10MINUTES (VAR) WHILE MAJORITY OF ASSOCIATED SPACE TEMPERATURES ARE GREATER THAN 75°F (VAR). 4. DAT SHALL REMAIN UNCHANGED WHEN MAJORITY OF ASSOCIATED ZONES ARE IN DEADBAND MODE.

G. ENERGY RECOVERY WHEEL

1. THE ENERGY RECOVERY WHEELSHALL START WHEN THE SUPPLY FAN STATUS IS ON, OUTSIDE AIR AND RETURN AIR DIFFERENTIAL IS GREATER THAN 8°F (ADJ).

2. THE ENERGY RECOVERY WHEEL SHALL STOP WHEN THE SUPPLY FAN STATUS IS OFF. 3. THE ENERGY RECOVERY WHEEL SHALL STOP FOR ECONOMIZER OPERATION WHEN OUTSIDE AIR TEMP IS LESS THAN RETURN AIR TEMP AND THE COOLING VALVE IS OPEN.

H. FIRE ALARM SHUTDOWN

1. UPON A GENERAL FIRE ALARM ALL AIR HANDLING EQUIPMENT SHALL SHUTDOWN. THE AIR HANDLERS HAVE SMOKE DETECTORS THAT SHUTDOWN THAT SPECIFIC UNIT IF SMOKE IS SENSED IN THE DUCTWORK AND THE DDC SYSTEM SHALL COMMAND A SOFTWARE SHUTDOWN OF ALL AIR HANDLING EQUIPMENT.

I. INFORMATION AT THE TERMINAL

 UNIT OPERATING MODE (OCCUPIED/UNOCCUPIED) • TEMPERATURES (°F): ENTERING OUTSIDE AIR,

• LEAVING OUTSIDE AIR, ENTERING EXHAUST AIR, LEAVING EXHAUST AIR AND LEAVING ENERGY

• RECOVERY WHEEL AIR. ENERGY RECOVERY WHEEL ENABLE/DISABLE

• DUCT PRESSURE (IN. W.G.)

 ENERGY RECOVERY WHEEL STATUS • DUCT PRESSURE SETPOINT (IN. W.G.)

 CHILLED WATER CONTROL VALVE POSITION HOT WATER CONTROL VALVE POSITION

 ALL EMCS GENERATED ALARMS ALL SETPOINTS AND RANGES

• SUPPLY AND EXHAUST FAN START/STOP, POWER, ALARM, SPEED, RUNTIME • ALL FILTER DIFFERENTIAL PRESSURES (IN. W.G.)

• ALL DAMPER POSITIONS (% COMMANDED OPEN)

OVERRIDE STATUS

issued 01 NOV 18 12 DEC 18 CONFORMED SET PERMIT RESUB 19 FEB 19 revision\_ \ ADDENDUM 3 28 NOV 18 4\CCD 218 05 NOV 21

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WEISMAN DESIGN GROUP

PCS STRUCTURAL SOLUTIONS

food service\_

theater design\_

sports fields engineer

hazardous materials\_

HALLIDAY ASSOCITATES

EHS-INTERNATIONAL INC.

project\_

client\_

location\_

DISTRICT NO. 401

STANWOOD, WA

STANWOOD-CAMANO SCHOOL

Project No. 1426

**MECHANICAL** 

CONTROLS III

STANWOOD HIGH SCHOOL - PHASE 2

BCE ENGINEERS

BCE ENGINEERS

PLA DESIGN

DA HOGAN

civil engineer\_ COUGHLIN PORTER LUNDEEN

landscape architect\_

structural engineer\_

mechanical engineer\_

electrical engineer\_

drawn\_ AC, DS checked\_

JJ, SZ

sheet\_

ORIGINAL SHEET IS 30" x 42" copyright 2018 allrightsreserved

landscape architect\_ WEISMAN DESIGN GROUP structural engineer\_ PCS STRUCTURAL SOLUTIONS mechanical engineer\_ **BCE ENGINEERS** electrical engineer\_ **BCE ENGINEERS** food service\_ HALLIDAY ASSOCITATES theater design\_ **PLA DESIGN** DA HOGAN project\_ STANWOOD HIGH SCHOOL - PHASE 2 28 c l i e n t\_ STANWOOD-CAMANO SCHOOL DISTRICT NO. 401 location\_ STANWOOD, WA **ROOF POWER** PLAN CONFORMED SET PERMIT RESUB 12 DEC 18 19 FEB 19 revision\_ drawn\_ c h e c k e d\_ PROJECT NORTH **ROOF POWER PLAN** ORIGINAL SHEET IS 30" x 42"

architect\_ MCGRANAHAN ARCHITECTS civil engineer\_ COUGHLIN PORTER LUNDEEN

sports fields engineer\_

			ASE: 3	3	VO	_	: 480Y/2	.77V		FE	ED TYP	E: Bo	ttom	100 A MLO	
LOCA	TION	N: ELECT 333B MOU	JNT: S	Surface		WIRE	: 4							225 A BUS	
	TYPE	E: Type 1 POI	LES: 4	<b>42</b>	SF	MAINS	: No							10,000 AIC	
LC	#	Circuit Description	Trip	Poles	A	4	E	3		;	Poles	-Trip	<b>Gircuit Descri</b>	ption #	LC
	1					0 VA				<b>\</b>	3	20	OCU-303	4	
L	3	L Room 345, 343, 341, 339, 337, 335, 331,	20	1			3510 VA	0 VA		<b>\</b>	-	-		4	
L	5	L Room 344, 333, 336, 332, 326A, 349, 342	20	1					3418 VA	0 VA	-	-		4	
L	7	L Room 321, 322, ST06-1, 300	20	1	16 VA	0 VA				<b>\</b>	3	20	OCU-304	4	
L	9	L Room 321A, 320, 319, 300, 323, 318, 317	20	1			528 VA	0 VA		<b>&gt;</b>	-	-		<b>4</b> 0	
L	11	L Room 321A, 320, 319, 323, 318, 317, 316	20	1					1198 VA	0 VA	-	-		<b>4</b> 2	
L	13	L Room P2, P1	20	1	1700 VA	0 VA					ىب		SMARTHER	<del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>	
	15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16	
	17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18	
	19	SPARE	20	1	0 VA	0 VA					1	20	SPARE	20	
	21	SPARE	20	1			0 VA	0 VA			1	20	SPARE	22	-
	23	SPARE	20	1					0 VA	0 VA	1	20	SPARE	24	
	25	SPARE	20	1	0 VA	0 VA					1	20	SPARE	26	
	27	SPARE	20	1			0 VA	0 VA			1	20	SPARE	28	
	29	SPARE	20	1					0 VA	0 VA	1	20	SPARE	30	
	31	SPARE	20	1	0 VA	0 VA					1	20	SPARE	32	
	33	SPARE	20	1			0 VA	0 VA			1	20	SPARE	34	
	35	SPARE	20	1					0 VA	0 VA	1	20	SPARE	36	
	37	SPARE	20	1	0 VA	0 VA					1	20	SPARE	38	
	39	SPARE	20	1			0 VA	0 VA			1	20	SPARE	40	
	41	SPARE	20	1					0 VA	0 VA	1	20	SPARE	42	
		Total Connecte	ed Loa	ad (VA):	1716	3 VA	4038	3 VA	4616	S VA					
		Total Connected	d Curr	ent (A):	6	6	1	6	1	8					
													Pa	nnel Totals	
		L (125%) = 12963 VA			H (100%	) =			WH (100°	%) =					
	R<	10,000(100%) = 0 VA		Motor-LAR	•	•			K (65°	•			Total Conn. Load	: 10370 VA	
		10,000 (50%) = 0 VA		Motor-OTH	•	•			A (100°	•			Total Conn. Current		
		EPTS TOTAL =			OR TOTAL	•			D (100°	•			Total Demand Load		
W (EST	W (ESTIMATED DEMAND) = RW (ESTIMATED DEMAND)								E (80°				Total Demand Current		
•		ND FACTOR) =	,	V (DEMAND		•			<b>,</b>	,					

Notes: L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP.,

Notes: L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = DEDICATED LOADS, SF = SUB-FEEDS, E = EQUIP.,

AW = ARC WELDER, RW = RESISTIVE WELDER

AW = ARC WELDER, RW = RESISTIVE WELDER

P	١NE	L: KH	PHASE:	3	VC	LTAGE:	480Y/2	277V		FE	ED TYP	E: Bo	ottom 10	0 A MLO	
LOCA	TIOI	N: CORRIDOR 103E	MOUNT:	Recesse	d	WIRE:	4						22	5 A BUS	
-	ΓΥΡΙ	E: Type 1	POLES:	42	SF	MAINS:	No						10,	771 AIC	ı
LC	#	Circuit Description	n Trip	Poles		A	I	В		2	Poles	Trip	Circuit Description	#	L
K	1	WASTE COLLECTOR - RM 103	20	3	416 VA	1800 VA					3	20	FLOOR MIXER - RM 103	2	ŀ
	3						416 VA	1800 VA						4	
	5								416 VA	1800 VA				6	
	7	SPARE	30	2	0 VA	5942 VA					3	30	WAREWASHER - RM 103	8	
	9						0 VA	5942 VA						10	
	11	SPARE	30	3					0 VA	5942 VA				12	
	13				0 VA	10000 VA					3	50	WAREWASHER HEATER - RM 103	14	
	15						0 VA	10000 VA						16	
	17	SPACE							0 VA	10000 VA				18	
	19	SPACE			0 VA	0 VA							SPACE	20	
	21	SPACE					0 VA	0 VA					SPACE	22	
	23	SPACE							0 VA	0 VA			SPACE	24	
	25	SPACE			0 VA	0 VA					-		SPACE	26	
	27	SPACE					0 VA	0 VA					SPACE	28	
	29	SPACE							0 VA	0 VA			SPACE	30	
-	31	SPACE			0 VA	0 VA							SPACE	32	
	33	SPACE					0 VA	0 VA					SPACE	34	
	35	SPACE							0 VA	0 VA			SPACE	36	
	37	SPACE			0 VA	0 VA							SPACE	38	
	39	SPACE					0 VA	0 VA			-		SPACE	40	
	41	SPACE							0 VA	0 VA	-		SPACE	42	
		Total	Connected Lo	ad (VA):	1815	8 VA	1815	8 VA	1815	8 VA					
			onnected Curi	• •	6	66		66		6					
													Panel To	als	
		L (125%) =			H (100%	•			WH (100	•					
		10,000(100%) = 0 VA		Motor-LAF						%) = 53684	4 VA		Total Conn. Load: 54473	3 VA	
		>10,000 (50%) = 0 VA		Motor-OTH	•	•			A (100	•			Total Conn. Current: 66 A		
		EPTS TOTAL =			OR TOTA				D (100	,			Total Demand Load: 53684	I VA	
`		ED DEMAND) =	,	ESTIMATED		'			E (80	%) =			<b>Total Demand Current:</b> 65 A		
AW (I	DEMA	ND FACTOR) =	R\	W (DEMANI	FACTOR	R) =									
													D = DEDICATED LOADS, SF = SUB-F		

P/	NE	L: 1LA PHA	ASE: 3	3	VO	LTAGE:	480Y/2	277V		FEI	ED TYP	E: Bo	ttom	100 A M	LO	
LOCA	TIOI	N: ELECT RM 208 MOU	JNT: S	Surface		WIRE:	: 4							225 A B	US	
			LES: 4		SF	MAINS:								39,901 Al		
LC	#	Circuit Description	Trip	Poles		4		 В		<u> </u>	Poles	Trip	Circuit Descrip	•	#	LC
L		L Room 107, 108A, 105A, 106A, 106C, 108,	•	1		1612 VA					1	20	L Room 211, 213A, 215, 214,		2	` L
L		L GYMNASIUM 110	20	1			2190 VA	2190 VA			1		L AUX GYM 202	, , , , ,	4	L
L	5	L GYMNASIUM 110	20	1					2628 VA	2190 VA	1	20	L AUX GYM 202		6	L
L	7	L GYMNASIUM 110	20	1	2190 VA	326 VA					1	20	L Room 200, 217, 230, ST03-	3, S302-1,	8	L
L	9	L Room 111, 117, 113, 114, 113C, 114C,	20	1			2712 VA	2190 VA			1		L AUX GYM 201	· ,	10	L
L		L Room 120, 118A, 123, 122, ST03-1	20	1					2129 VA	2190 VA	1	20	L AUX GYM 201		12	L
L		L Room 100A, 100, 131, S223, 120, ST03-2	20	1	465 VA	1794 VA			-		1	20	L Room 205A, 203, 205B, 204	1. 207. 206. 205	14	L
L		L Room 101, 102, 113E-1, 103B, 103A, 103	20	1			1897 VA	256 VA			1	20	L Room 230B, 230, 131	, , , , , , , , , , , , , , , , , , , ,	16	L
L	_	L Room 158, 136, 135, 130A, 133, 134, 156	20	1					397 VA	1237 VA	1	20	L Room 219, 243, 243B, 2564	, 230A, 230,	18	L
L		L Room 143, 153, 152, 151, 140B, 141B, 13	20	1	2728 VA	60 VA					1		L Room 230, 131, ST01-2	, , ,	20	L
L		L Room 315, 314, 313, 312, 311, 310, 309	20	1			2292 VA	2686 VA			1		SITE LIGHTING - SOUTH		22	L
L		L Room 300, ST13-1, 307, 308	20	1					128 VA	3135 VA	1		SITE LIGHTING - NORTH - E	AST	24	L
L		L Room 302, 302A, 302B, 332B	20	1	2456 VA	0 VA					1	20	SPARE		26	
L	_	L Room 306, 305, 304, 303	20	1			1593 VA	0 VA			1	20	SPARE		28	
		SPARE	20	1					0 VA	0 VA	1	20	SPARE		30	
	31	SPARE	20	1	0 VA	0 VA					1	20	SPARE		32	
	33	SPARE	20	1			0 VA	0 VA			1	20	SPARE		34	
	35	SPARE	20	1					0 VA	0 VA	1	20	SPARE		36	
	37	SPARE	20	1	0 VA	0 VA					3	30	SPD		38	
	39	SPARE	20	1			0 VA	0 VA							40	
	41	SPARE	20	1					0 VA	0 VA					42	
		Total Connecte	ed Loa	d (VA):	1435	8 VA	1800	6 VA	1403	34 VA						
		Total Connected		• •		2		55		51						
										•			Pa	nel Totals		
	_	L (125%) = 57998 VA			H (100%	,			WH (100	,						
		10,000(100%) = 0 VA			RGE (125%	,			K (65	,			Total Conn. Load:			
		10,000 (50%) = 0 VA			HER (100%	,			A (100	•			Total Conn. Current:			
		EPTS TOTAL =			FOR TOTA				D (100	•			Total Demand Load:			
•		ED DEMAND) =	,		DEMAND	,			E (80	%) =			Total Demand Current:	70 A		
AW ([	DEMA	ND FACTOR) =	RV	V (DEMAN	D FACTOR	) =										
lata:		GHTING, R = RECEPTACLES, Motor = MOTO														

PA	NEL	_: MH1 Ph	IASE:	3	VO	LTAGE:	: 480Y/2	277V		FE	ED TYP	E: Bo	ttom 40	0 A MCB	
LOCAT	ΓΙΟΝ	N: MECHANICAL 176 MC	OUNT: \$	Surface		WIRE:	: 4						40	0 A BUS	
Т	YPE	E: Type 1 PC	DLES: 4	42	SF	MAINS:	: No						10,	000 AIC	ī
LC	#	Circuit Description	Trip	Poles		4		В		C	Poles	Trip	Circuit Description	#	LC
Motor	1	DOAU-1	60	3	12188 VA	25484 VA					3		DOAU-2	2	Motor
	3						12188 VA	25484 VA						4	
	5								12188 VA	25484 VA				6	-
D	7	WAREWASHER - RM 174A	20	3	2608 VA	2833 VA					3	20	BOOSTER HEATER - RM 174A	8	D
	9						2608 VA	2833 VA						10	
	11								2608 VA	2833 VA				12	
	13	SPARE	20	1	0 VA	0 VA					1	20	SPARE	14	
	15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16	
	17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18	
	19	SPARE	20	1	0 VA	0 VA					1	20	SPARE	20	-
	21	SPARE	20	1			0 VA	0 VA			1	20	SPARE	22	-
	23	SPARE	20	1					0 VA	0 VA	1	20	SPARE	24	-
-	25	SPARE	20	1	0 VA	0 VA					1	20	SPARE	26	
	27	SPARE	20	1			0 VA	0 VA			1	20	SPARE	28	-
	29	SPARE	20	1					0 VA	0 VA	1	20	SPARE	30	-
	31	SPARE	20	1	0 VA	0 VA					1	20	SPARE	32	-
	33	SPARE	20	1			0 VA	0 VA			1	20	SPARE	34	
	35	SPARE	20	1					0 VA	0 VA	1	20	SPARE	36	
otor; D;	37	ML1 VIA T1	100	3	11524 VA	15140 VA					3	225	GH1	38	D
	39						11305 VA	15140 VA						40	-
	41								12872 VA	15140 VA				42	-
		Total Connec	ted Loa	ad (VA):	6977	'8 VA	6955	9 VA	7112	26 VA		•		•	•
		Total Connect	ed Curr	ent (A):	2	52	2	51	2	57					
													Daniel Tat	ala .	
		L (125%) =			H (100%	b) = 13696	\/Δ		WH (100	%) =			Panel Tot	ais	
	R<	10,000(100%) = 0 VA		Motor-I AF	RGE (125%	•			K (65	•			Total Conn. Load: 21046	S4 \/Δ	
		10,000 (50%) = 0 VA			HER (100%	•			A (100	•			Total Conn. Current: 253 A		
		EPTS TOTAL =			TOR TOTAL	•			,	%) = %) = 6274	5 \/A		Total Demand Load: 21524		
		ED DEMAND) =	D/V/ /E		DEMAND		- VA			1%) = 0214; 1%) =	0 VA		Total Demand Current: 259 A		
`		ND FACTOR) =	,	V (DEMAN		•			⊏ (00	70) –			Total Demailu Current. 239 A	i.	

otes: L = LIGHTING, R = RECEPTACLES, Motor = MOTOR LOADS, H = ELECTRIC HEAT, WH = WATER HEATER, K = KITCHEN EQUIP., A = APPLIANCES, D = D AW = ARC WELDER, RW = RESISTIVE WELDER	EDICATED LOADS, SF =	SUB-FEEDS, E = EQUIP.,

		L: MH2 N: MECH RM 209		IASE: ( )UNT: (	3 Surface	VO	LTAGE: WIRE:		277V		FEI	ED TYPI	E: Bo	tom		225 A MLO 225 A BUS	
T	ΥΡΙ	E: Type 1	PC	DLES: 4	<b>42</b>	SF	MAINS:	No								31,737 AIC	
LC	#	Circuit De	scription	Trip	Poles		4		3	(	;	Poles	Trip		<b>Circuit Descrip</b>	tion #	LC
Motor	1	DOAU-3		80	3	17174 VA	9418 VA					3	50	HCP-1		2	Moto
	3			-				17174 VA	9418 VA					-		4	
	5									17174 VA	9418 VA			-		6	
Motor	7	HCP-2		50	3	9418 VA	5817 VA					3	30	CCP-1		8	Moto
	9							9418 VA	5817 VA					-		10	
	11									9418 VA	5817 VA			-		12	
Motor	13	CCP-2		30	3	5817 VA	0 VA							SPACE		14	
	15							5817 VA	0 VA					SPACE		16	
	17									5817 VA	0 VA			SPACE		18	
	19	SPARE		20	1	0 VA	0 VA							SPACE		20	
	21	SPARE		20	1			0 VA	0 VA					SPACE		22	
	23	SPARE		20	1					0 VA	0 VA			SPACE		24	-
	25	SPARE		20	1	0 VA	0 VA							SPACE		26	
	27	SPARE		20	1			0 VA	0 VA					SPACE		28	
	29	SPARE		20	1					0 VA	0 VA			SPACE		30	
	31	SPARE		20	1	0 VA	0 VA							SPACE		32	
	33	SPARE		20	1			0 VA	0 VA					SPACE		34	
-	35	SPARE		20	1					0 VA	0 VA			SPACE		36	
	37	SPARE		20	1	0 VA	0 VA							SPACE		38	
	39	SPARE		20	1			0 VA	0 VA					SPACE		40	
	41	SPARE		20	1					0 VA	0 VA			SPACE		42	
			Total Connec	ted Loa	d (VA):	4764	4 VA	4764	4 VA	4764	4 VA					'	
			Total Connecto		• •	17	72	17	72	17	72						
															Pan	el Totals	
		L (125%) =				H (100%	) =			WH (100	%) =						
	R<	10,000(100%) = 0 VA			Motor-LAF	RGE (125%	,	VA		K (65	•				Total Conn. Load:	142933 VA	
		>10,000 (50%) = 0 VA				HER (100%	,			A (100	•				Total Conn. Current:		
		EPTS TOTAL =				OR TOTAL	•			D (100	•			-	Total Demand Load:		-
		ED DEMAND) =		RW (E		DEMAND				E (80	•				tal Demand Current:		
•		ND FACTOR) =		,		D FACTOR	•			(32	,						
		GHTING, R = RECEPTA															

			ASE: 3		VO	LTAGE		277V		FE	ED TYP	Ξ: Βο			
				Surface		WIRE							225 A B		
	ΓΥΡΙ	E: Type 1 PO	LES: 4	-2	SF	MAINS	: No						10,000 A	IC	
LC	#	Circuit Description	Trip	Poles	<i>I</i>	4	l	В		;	Poles	Trip	Circuit Description	#	LC
L	1	L Room 162-1, 159, 146A, 160, 161, 163D,	20	1	220 VA	3430 VA					1	20	L Room 241A, 242, 241, 239, 240B, 240A,	2	L
L	3	L Room 165A, 161A, 165B, 163B, 163, 163	20	1			1991 VA	13 VA			1	20	L Room 250, 252, 230, 245, ST06-2	4	L
L	5	L Room 165C, 165	20	1					1804 VA	0 VA			SPACE	6	
L	7	L Room 177, 178, 179, 174, 174A, 181, 174	20	1	2307 VA	2811 VA					1	20	L Room 261, 257, 253, 261A, 256, 255, 250	. 8	L
L	9	L Room 164, 166, 167, 168, 169, 170, 176,	20	1			2741 VA	2745 VA			1	20	L Room 267, 266A, 266B, 266, 265, 264,	10	L
L	11	SITE LIGHTING - NORTH - WEST	20	1					2231 VA	2673 VA	1	20	L Room 254, 262, 262A, 258A, 258, 254A,	12	L
	13	SPARE	20	1	0 VA	0 VA					1	20	SPARE	14	
	15	SPARE	20	1			0 VA	0 VA			1	20	SPARE	16	
	17	SPARE	20	1					0 VA	0 VA	1	20	SPARE	18	
	19	SPARE	20	1	0 VA	0 VA					1	20	SPARE	20	
	21	SPARE	20	1			0 VA	0 VA			1	20	SPARE	22	
	23	SPARE	20	1					0 VA	0 VA	1	20	SPARE	24	
	25	SPARE	20	1	0 VA	0 VA					1	20	SPARE	26	
	27	SPARE	20	1			0 VA	0 VA			1	20	SPARE	28	
	29	SPARE	20	1					0 VA	0 VA	1	20	SPARE	30	
	31	SPARE	20	1	0 VA	0 VA					1	20	SPARE	32	
		SPARE	20	1			0 VA	0 VA			1	20	SPARE	34	
	35	SPARE	20	1					0 VA	0 VA	1	20	SPARE	36	
	37	SPARE	20	1	0 VA	0 VA					1	20	SPARE	38	
	39	SPARE	20	1			0 VA	0 VA			1	20	SPARE	40	
		SPARE	20	1					0 VA	0 VA	1	20	SPARE	42	
		Total Connect	ed Loa	d (VA):	8768	8 VA	749	0 VA	6708	3 VA					
		Total Connecte				2	2	27	2	4					
													Panel Totals		
		L (125%) = 28708 VA			H (100%	s) =			WH (1009	%) =					
	R<	10,000(100%) = 0 VA		Motor-LAF	RGE (125%				K (659	•			Total Conn. Load: 22966 VA		
	R>	>10,000 (50%) = 0 VA			· HER (100%	•			A (1009	•			Total Conn. Current: 28 A		
		EPTS TOTAL =		MOT	OR TOTAL	_ L =			D (1009	•			Total Demand Load: 28708 VA		
AW (EST		ED DEMAND) =	RW (E	STIMATED	DEMAND	) =			E (809	,			Total Demand Current: 35 A		-
•		ND FACTOR) =	•		D FACTOR	•			`	,					
		GHTING, R = RECEPTACLES, Motor = MOTO													

PA	NEI	L: ML1	PHASE: 3	3	VO	LTAGE	208Y/1	20V		FE	<b>ED TYPI</b>	E: Bo	ttom	225 A MCB	
LOCAT	TION		MOUNT: S	Surface		WIRE: 4 SF MAINS: No				. –			A	225 A BUS 10,000 AIC	
LC	#	Circuit Description	Trip	Poles	1	Α	1	3		<u> </u>	Poles	Trip	Circuit Descrip		1
Motor		AC-1	60	3	5016 VA	528 VA					1		BF-101	2	Moto
	3						5016 VA	653 VA			1	20	EF-101, EF-102	4	Mot
	5								5016 VA	104 VA	2	20	ICU-103	6	Н
Н	7	FCU-101 - FCU-107	20	1	840 VA	104 VA								8	_
Н	9	FCU-108 - FCU-118	20	1			1440 VA	960 VA			1	20	FCU-119 - FCU-126	10	Н
Н	11	FCU-127 - FCU-136	20	1					1200 VA	840 VA	1	20	FCU-137 - FCU-143	12	Н
D	13	VAV CONNECTION - RM 163B	20	1	250 VA	250 VA					1	20	VAV CONNECTION - RM 176	14	D
D	15	AFD CONNECTION - RM 163B	20	1			250 VA	250 VA			1	20	AFD CONNECTION - RM 176	16	D
Motor	17	EF-110	20	1					1176 VA	1800 VA	1	20	KF-101	18	Mot
Н	19	MUA-1	30	3	2736 VA	1800 VA					1	20	KF-102	20	Mot
	21		-				2736 VA	0 VA			1	20	SPARE	22	-
	23								2736 VA	0 VA	1	20	SPARE	24	-
	25	SPARE	20	1	0 VA	0 VA					1	20	SPARE	26	-
	27	SPARE	20	1			0 VA	0 VA			1	20	SPARE	28	
	29	SPARE	20	1					0 VA	0 VA	1	20	SPARE	30	
	31	SPARE	20	1	0 VA	0 VA					1	20	SPARE	32	
	33	SPARE	20	1			0 VA	0 VA			1	20	SPARE	34	
	35	SPARE	20	1					0 VA	0 VA	1	20	SPARE	36	
	37	SPARE	20	1	0 VA	0 VA					1	20	SPARE	38	
	39	SPARE	20	1			0 VA	0 VA			1	20	SPARE	40	-
	41	SPARE	20	1					0 VA	0 VA	1	20	SPARE	42	-
		Total Con	nected Loa	d (VA):	1152	24 VA	1130	5 VA	1287	2 VA				'	
		Total Conn				96	9	4	10	08					
													Par	nel Totals	
		L (125%) =			H (100%	5) = 13696	VA		WH (100°	%) =			1 41		
	R<	10,000(100%) = 0 VA		Motor-LAF	RGE (125%	s) = 18810	VA		K (65	%) =			Total Conn. Load:	35701 VA	
		10,000 (50%) = 0 VA			,	s) = 5957 V			A (100°	•			Total Conn. Current:	99 A	
ļ	REC	EPTS TOTAL =		MOT	OR TOTA	L = 24767	VA		•	%) = 1000	VA		Total Demand Load:	39463 VA	
W (ESTIN	MATE	ED DEMAND) =	RW (E	STIMATED	DEMAND	)) =			E (80°				Total Demand Current:	110 A	
•		ND FACTOR) =	R۷	V (DEMANI	D FACTOR	R) =			•	•					

		L: MH3 N: MECH PLATFORM P1	PHASE: 3		VO	LTAGE: WIRE:		?//V		FE	ED TYPI	E: B0		100 A MCB 100 A BUS	
T	YPE	E: Type 1, FEED THRU	POLES: 4	<b>42</b>	SF	MAINS	: No						17	7,898 AIC	
LC	#	Circuit Description	Trip	Poles		4	E	3		C	Poles	Trip	Circuit Description	n #	LC
Motor; H	1	AHU-1	70	3	13850 VA	5263 VA					3	30	AHU-2	2	Motor; I
	3						13850 VA	5263 VA						4	
	5								13850 VA	5263 VA				6	
Motor; H	7	AHU-3	30	3	5263 VA	7202 VA					3	40	AHU-4	8	Motor;
	9						5263 VA	7202 VA						10	
	11								5263 VA	7202 VA				12	
Motor; H	13	AHU-5	40	3	7202 VA	942 VA					3	20	AHU-6	14	Motor; I
	15						7202 VA	942 VA						16	
	17								7202 VA	942 VA				18	
Motor	19	AHU-7	30	3	2770 VA	13296 VA					3	60	DOAU-4	20	Motor;
	21						2770 VA	13296 VA						22	
	23								2770 VA	13296 VA				24	
Motor; H	25	DOAU-5	60	3	13296 VA	1662 VA					3	20	DOAU-6	26	Motor;
	27						13296 VA	1662 VA						28	
	29								13296 VA	1662 VA				30	
Motor		EF-104, EF-105	20	3	1523 VA	2659 VA					3	20	EF-211, EF-212	32	Motor
	33						1523 VA	2659 VA						34	
	35								1523 VA	2659 VA				36	
Notor; D;		ML4 VIA T2	100	3	11902 VA	1884 VA					3	20	EF-108, EF109	38	Motor
	39					1001171	15302 VA	1884 VA						40	
	41						10002 171	1001 171	15840 VA	1884 VA			<b></b>	42	
		Total Coni	nootod Loc	۲ (۱/۷)۰ ۱	9971	4 VA	9211	/ \/A		52 VA					
											-				
		Total Conne	ected Curr	ent (A):	32	20	33	34	3	36					
													Panel T	otals	
		L (125%) =			H (100%	) = 60556	VA		WH (100	%) =					
	R<	10,000(100%) = 0 VA		Motor-LAF	RGE (125%	) = 41550	VA		K (65	(%) =			Total Conn. Load: 273	480 VA	
	R>	10,000 (50%) = 0 VA		Motor-OTH	HER (100%	) = 178684	4 VA		A (100	%) =			Total Conn. Current: 329	Α	
	REC	EPTS TOTAL =		MOT	FOR TOTA	_ = 220234	4 VA		D (100	%) = 1000	VA		Total Demand Load: 281	790 VA	
AW (ESTI	MATE	ED DEMAND) =	RW (E	STIMATED	DEMAND	) =			E (80	%) =			Total Demand Current: 339	Α	
AW (DI	EMAI	ND FACTOR) =	RV	V (DEMANI	D FACTOR	) =									

architect\_ MCGRANAHAN ARCHITECTS civil engineer\_ COUGHLIN PORTER LUNDEEN landscape architect\_ **WEISMAN DESIGN GROUP** structural engineer\_ PCS STRUCTURAL SOLUTIONS mechanical engineer\_ **BCE ENGINEERS** electrical engineer\_ **BCE ENGINEERS** food service\_ HALLIDAY ASSOCITATES theater design\_ PLA DESIGN sports fields engineer\_ DA HOGAN

> STANWOOD HIGH SCHOOL - PHASE 2 STANWOOD-CAMANO SCHOOL DISTRICT NO. 401 location\_ STANWOOD, WA

project\_

Project No. 1426

issued\_ 1 NOV 18 CONFORMED SET revision\_ 1\ ADDENDUM 1

c h e c k e d\_

E6.11

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	LOAD					QUIPMENT ELEC (	· · · · ·						
F	PROPERTIES	CIRCUIT	PROPERT	TIES		RUN PROPERTIES	QT/	CONNE	CTION AND P T	ROTECTION		_	
						WIRE PROPERTIES		RNISHED BY	DISC	ONNECT		DCT SMK	
NIT NO.	MCA	PANEL CKT#	VOLTS (	LOAD TO PANEL	# OF RUNS C.	AWG-Cu HOT NEU GI	R MANUAL	MAGNETIC	FURNISHE D BY	FUSED	VFD	DETECTOR FURN. BY	REM/
CU 301	1	ML4 25	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR	WWWITE	EC	TOOLD	VID	10141.51	T NEIVI
CU 302	1	ML4 25	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 303 CU 304	1	ML4 25 ML4 25	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 304	1	ML4 25	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 306	1	ML4 25	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 307	1	ML4 25	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 308 CU 309	1	ML4 25 ML4 25	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 310	1	ML4 25	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 311	1	ML4 26	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 312 CU 313	1	ML4 26 ML4 26	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 314	1	ML4 26	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 315	1	ML4 26	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 316	1	ML4 26	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 317	1	ML4 26	120	1 120 VA	<b>.</b>	#12 CU & #12 GND 1 1 1 1	MFR MFR		EC EC				
CU 318 CU 319	1	ML4 26 ML4 26	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR		EC				
CU 320	1	ML4 26	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 321	1	ML4 27	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 322 CU 323	1	ML4 27 ML4 27	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 323	1	ML4 27	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 325	1	ML4 27	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 326	1	ML4 27	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 327 CU 328	1	ML4 27 ML4 27	120	1 120 VA 1 120 VA		#12 CU & #12 GND	MFR MFR		EC EC				
CU 329	1	ML4 27	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 330	1	ML4 27	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 331	1	ML4 28	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 332 CU 333	1	ML4 28 ML4 28	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 334	1	ML4 28	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 335	1	ML4 28	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 336	1	ML4 28	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 337 CU 338	1	ML4 28 ML4 28	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 339	1	ML4 28	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 340	1	ML4 29	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 341	1	ML4 29 ML4 29	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 342 CU 343	1	ML4 29	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 344	1	ML4 29		1 120 VA		#12 CU & #12 GND 1 1 1			EC				
CU 345	1	ML4 29	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 346 CU 347	<u> </u>	ML4 29 ML4 29	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 348	1	ML4 30	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 349	1	ML4 30	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 350	1	ML4 30	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 351 CU 352	1	ML4 30 ML4 30	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 353	1	ML4 30	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 354	1	ML4 30	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 355 CU 356	1	ML4 30 ML4 30	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 356	1	ML4 30	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1 1	MFR		EC				
CU 358	1	ML4 31	120	1 120 VA	1 3/4"	#12 CU & #12 GND 1 1 1	MFR		EC				
CU 359	1	ML4 31	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 360 CU 361	<u> </u>	ML4 31 ML4 31	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 362	1	ML4 31	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 363	1	ML4 32	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 364 CU 365	1	ML4 32 ML4 32	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 #12 CU & #12 GND 1 1 1	MFR MFR		EC EC				
CU 365	1	ML4 32	120	1 120 VA 1 120 VA		#12 CU & #12 GND 1 1 1 1 1 1	MFR		EC				
CU 367	1	ML4 32	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 368	1	ML4 32	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 369	1	ML4 32	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR MFR		EC EC				
CU 370 CU 371	1	ML4 32 ML4 33	120	1 120 VA 1 120 VA		#12 CU & #12 GND	MFR		EC				
CU 372	1	ML4 33	120	1 120 VA		#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 373	1	ML4 33	120	1 120 VA		#12 CU & #12 GND 1 1 1	MFR		EC				
CU 374	1	ML4 33	120	1 120 VA	-	#12 CU & #12 GND 1 1 1 1	MFR		EC				
CU 375 CU 376	1	ML4 33 ML4 33	120	1 120 VA 1 120 VA		#12 CU & #12 GND	MFR MFR		EC EC				
V	1	1 00		1 120 VA		#12 CU & #12 GND 1 1 1	1711 1 \	1					1

munimum management and the second sec

CCD-218

architect\_

MCGRANAHAN ARCHITECTS

civil engineer\_

COUGHLIN PORTER LUNDEEN

landscape architect\_ WEISMAN DESIGN GROUP structural engineer\_

PCS STRUCTURAL SOLUTIONS

mechanical engineer\_ BCE ENGINEERS

electrical engineer\_ BCE ENGINEERS

food service\_ HALLIDAY ASSOCITATES theater design\_

DA HOGAN

PLA DESIGN
sports fields engineer\_

project\_ STANWOOD HIGH SCHOOL - PHASE 2

client\_ STANWOOD-CAMANO SCHOOL DISTRICT NO. 401 location\_ STANWOOD, WA

Project No. 1426

MECHANICAL
EQUIPMENT
ELECTRICAL
CONNECTION
SCHEDULE

. issued\_
PERMIT 24 AUG 18
BID SET 1 NOV 18
CONFORMED SET 12 DEC 18
PERMIT RESUB 19 FEB 19

drawn\_

revision\_

NH checked\_

sheet\_

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