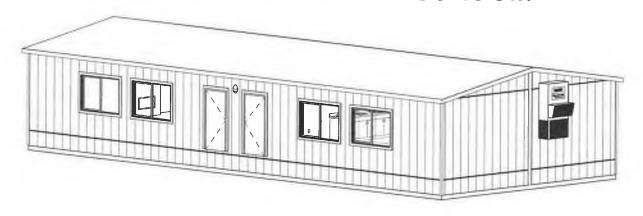
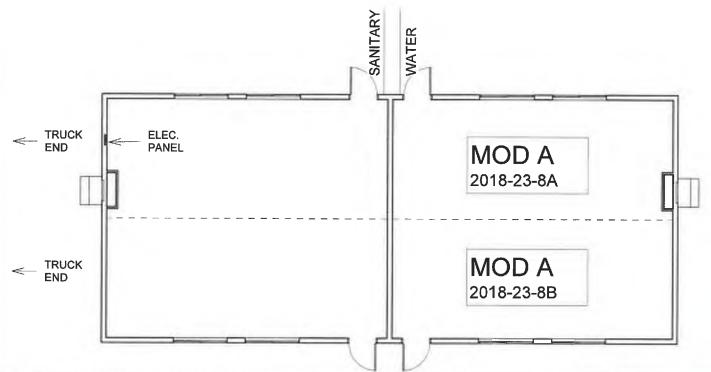
SUMNER SD II 28' x 64' MODULAR CLASSROOM





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E 1.0	ELECTRICAL PLAN		
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M 0.1	HVAC NOTES & LEGEND		
M 1.0	HVAC PLAN		
P 1.0	PLUMBING NOTES & SCHEMATICS		

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REV.	DESCRIPTION	DATE	BY		
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SHEET COVER SHEET	
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PROJ. 28' x 64' MODULAR CLASSROOM

SUMNER	SD II	(BLDG	#8)
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JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7 SHEET#

A 0.0

DRW SR DATE 4/3/18 ADDRESS 1707 MAIN ST. SUMNER, WA 98390

GENERAL NOTES

- 1. THE TERM IBC SHALL APPLY TO THE CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE STATES OF OREGON AND WASHINGTON. FOR PROJECTS IN ALL OTHER STATES IT SHALL APPLY TO THE CURRENT EDITION OF THE UBC OR IBC AS ADOPTED BY THAT STATE.
- 2. ALL CONTROLS AND HARDWARE SHALL BE ACCESSIBLE TO PERSONS WITH DISABILITIES.
- 3. LOCAL JURISDICTION TO DETERMINE COMPLIANCE WITH IBC CHAPTER 29 (WITH REGARD TO ADJACENT FACILITIES) IN ACCORDANCE WITH THEIR CURRENTLY ADOPTED EDITION OF THE IBC.
- 4. WHERE REQUIRED, PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN ACCORDANCE WITH 2015 IFC SECTION 906
- 5. PER WAC 296-150F-0605 REQUIRES TOILET FACILITIES LOCATED IN AN ADJACENT FACILITY TO BE NOTED ON THE PLAN SUBMITTAL AND THAT THE REQUIREMENTS OF IBC CHAPTER 29, SECTION 2902. TABLE 2902.1 OF THE STATE BUILDING CODE MUST BE VERIFIED BY THE LOCAL JURISDICTION BUILDING OFFICIAL AND SHOWN ON THE NLEA.
- 6. IF APPLICABLE, SPECIAL INSPECTION REQUIRED IN ACCORDANCE WITH IBC CHAPTER 17, SECTION 1705. FOR THIS PROJECT ALL APPLICABLE CRITERIA IS RELATED TO WELDING. THE P.E. CAN PERFORM THE INSPECTION.
- 7. IF APPLICABLE, PERIODIC SPECIAL INSPECTION OF WOOD SHEAR WALLS WITH FASTENER SPACING OF 4" OR LESS WILL BE PERFORMED BY THE ENGINEER OF RECORD OR ALTERNATE. A REPORT SHALL BE SUBMITTED TO THE DEPARTMENT AND PLACED INTO THE APPROVED SET.
- 8. IF APPLICABLE, FIRE ALARM SYSTEM TO BE FIELD INSTALLED (BY OTHERS) PER 2015 IBC SECTION 907.1.2. SEE ELECTRICAL PLAN FOR DEVICE LOCATIONS. FIRE ALARM INSPECTION AND APPROVAL PER LOCAL AUTHORITY HAVING JURISDICTION.
- 9. IF APPLICABLE, FIRE SAFETY AND EVACUATION PLANS SHALL BE PROVIDED BY OWNER PRIOR TO CERTIFICATE OF OCCUPANCY PER 2015 IFC SECTION 403
- 10. THIS SET OF PLANS PREPARED AND SUBMITTED FOR APPROVAL UNDER THE FOLLOWING CODES:

OREGON	WASHINGTON
2015 IBC	2015 IBC/WAC 51-50
2015 IMC	2015 IMC/WAC 51-52
2015 IFC	2015 IFC/WAC 51-54A
2017 OPSC	2015 UPC/WAC 51-56
2014 OEESC	2015 WSEC/WAC 51-110
2017 OESC	2017 NEC
	2015 IBC 2015 IMC 2015 IFC 2017 OPSC 2014 OEESC

	DESIGN CRITERIA
GENERAL:	
CONSTRUCTION TYPE	VB (NON-SPRINKLERED)
OCCUPANCY GROUP	E
OCCUPANCY LOAD	84
DISTANCE TO PROPERTY LINE OR ASSUMED PROPERTY LINE	FRONT: 10' MIN. REAR: 10' MIN.
	LEFT: 10' MIN.
	RIGHT: 10' MIN.
ELECTRICAL:	
ELECTRICAL SERVICE LOAD	225A / 120/240V / 1 PH.
	50.0 kVA
MECHANICAL:	
VENTILATION OCCUPANCY LOAD	58
CLIMATE ZONE	4C/5B
HEATING	SPV/HP
AIR-CONDITIONING	YES
PLUMBING:	
PLUMBING OCCUPANCY LOAD	OR - 78 (39 MALE/39 FEMALE) / WA = 1771sf / 100 = 18 (9 MALE/9 FEMALE)
QUANTITY OF PLUMBING FIXTURES	OR = 7 / WA = 6
STRUCTURAL:	
ROOF SNOW LOAD	30 PSF
FLOOR LIVE LOAD	50 PSF
WIND LOAD	Lambda = 1.0 Vult = 140 MPH (Vasd = 108 MPH) 3 SECOND GUST - EXP. B
SEISMIC	BEARING WALL SYSTEM: S _S = 1.500, F _a = 1.000
	S _{DS} = 1.000, RISK CATEGORY II
	I _e = 1.0, SEISMIC DESIGN CATEGORY D, SITE CLASS D

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PROJ.

28' x 64' MODULAR CLASSROOM

SUMNER SD II (BLDG #8)

SHEET#

DMP: 2016 OR/WA ADD #7

ADDRESS 1707 MAIN ST. SUMNER, WA 98390

JOB# 2018-RN-23-8

ENERGY CODE NOTES

- 1. ALL BUILDING THERMAL ENVELOPE INSULATION SHALL BE MARKED IN ACCORDANCE WITH OEESC 303.1.1 AND WSEC C303.1.1 AND INSTALLED PER OEESC 303.1.2 AND WSEC C303.1.2
- 2. BLOWN-IN INSULATION SHALL BE INSTALLED AND CERTIFIED PER OEESC 303.1.1.1 AND WSEC C303.1.1.1
- 3. ALL AIR BARRIER MATERIALS SHALL BE ASTM E2178 RATED OR AS LISTED IN OEESC 502.4.1.2.1 AND WSEC C402.5.1.1
- 4. AIR BARRIER COMPLIANCE OPTIONS: CONTINUOUS AIR BARRIER FOR THE OPAQUE BUILDING ENVELOPE SHALL COMPLY WITH OEESC 502.4.1.2.1

AIR BARRIER TESTING AND REPORTING TO BE CONDUCTED PER WSEC C402.5.1.2 FOR THE STATE OF WASHINGTON

- 5. PENETRATIONS OF THE AIR BARRIER SHALL BE CAULKED, GASKETED OR SEALED PER OEESC 502.4.2 AND WSEC C402.5.1.1
- 6. ALL FENESTRATION ASSEMBLIES SHALL BE LABELED BY THE MANUFACTURER PER OEESC 303.1.3 AND 502.4.1 AND WSEC C303.1.3 AND C402.4.3
- 7. AIR ECONOMIZER SHALL BE CAPABLE OF PROVIDING 100% OUTSIDE AIR PER OEESC 503.3.1 AND WSEC C403.3.3.1
- 8. ECONOMIZER HIGH-LIMIT SHUTOFF CONTROL IS ELECTRONIC ENTHALPY PER MANUFACTURER'S SPECIFICATIONS AND WSEC C403.3.3.3
- 9. MECHANICAL VENTILATION SYSTEM SHALL HAVE THE CAPABILITY TO REDUCE THE OUTSIDE AIR SUPPLY TO THE MINIMUM REQUIRED PER OEESC 503.2.5 AND WSEC C403.5
- 10. OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL BE RATED PER OEESC 502,4,4 AND 503.2.4.5 AND WSEC C402.5.5 AND C403.2.4
- 11. THIS PROJECT PROVIDES TWO ADDITIONAL EFFICIENCY PACKAGE OPTIONS PER 2015 WSEC, SECTION C406.
 - A. ENERGY ADD OPTION #1 IS WSEC C406.1 (ITEM #2): C406.3 REDUCED LIGHTING POWER DENSITY. INSTALLED LIGHTING WATTAGE IS LESS THAN 75% OF ALLOWED INTERIOR LIGHTING WATTAGE WSEC C405.4.2(1) OR C404.4.2(2)
 - B. ENERGY ADD OPTION #2 IS WSCE C406.1 (ITEM #3); C406.4 ENHANCED LIGHTING CONTROLS. NO LESS THAN 90% OF ALL INTERIOR LIGHTING IS CONTROLLED WITH CONTINUOUS DIMMING ALONG WITH EXCEPTION #3 OF WSEC 406.4
- 12. THIS PROJECT MEETS DEDICATED OUTDOOR AIR SYSTEM REQUIREMENTS PER WSEC C403.6, EXCEPTION #1, NATURAL VENTILATION AREAS AT WINDOWS IS GREATER THAN 4% OF FLOOR AREA (OPEN WINDOW AREA = 82.4 SQ. FT. ≥ 70.8 SQ. FT. = 4% (1771 SQ. FT. FLOOR AREA)

SYSTEM COMMISSIONING NOTES

1. PRIOR TO CONSTRUCTION, A COMMISSIONING PLAN SHALL BE DEVELOPED PER WSEC C408.1.2. THE COMMISSIONING PLAN SHALL BE USED DURING CONSTRUCTION TO INSURE PROPER INSTALLATION, TESTING AND BALANCING OF BUILDING SYSTEMS AS FOLLOWS:

MECHANICAL SYSTEM PER WSEC C408.2 LIGHTING AND CONTROLS PER WSEC C408.3 SERVICE WATER HEATING PER WSEC C408.4 **ENERGY METERING PER WSEC C408.6**

NOT REQUIRED (EXCEPTION) NOT REQUIRED (EXCEPTION #1 AND #2) NOT REQUIRED (EXCEPTION #1) NOT REQUIRED (PER C409.1)

- 2. UPON COMPLETION OF CONSTRUCTION, A PRELIMINARY COMMISSIONING REPORT SHALL BE COMPLETED AND CERTIFIED AND PROVIDED TO THE BUILDING OWNER PER WSEC C408.1.4.1.
- 3. OPERATING AND MAINTENANCE MANUALS FOR ALL COMMISSIONED BUILDING SYSTEMS SHALL BE PROVIDED TO THE BUILDING OWNER PER OEESC 503.2.9.2 AND WSEC C103.6.2.
- 4. DOCUMENTS, MANUALS AND REPORTS REQUIRED BY WSEC C103.6.3 SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 180 DAYS OF RECEIVING THE CERTIFICATE OF OCCUPANCY.
- 5. A FINAL COMMISSIONING REPORT SHALL BE PROVIDED TO THE BUILDING OWNER PER WSEC C408.1.3.
- 6. THE BUILDING OWNER SHALL BE TRAINED IN PROPER OPERATION AND MAINTENANCE OF ALL COMMISSIONED BUILDING SYSTEMS PER WSEC C103.6.4



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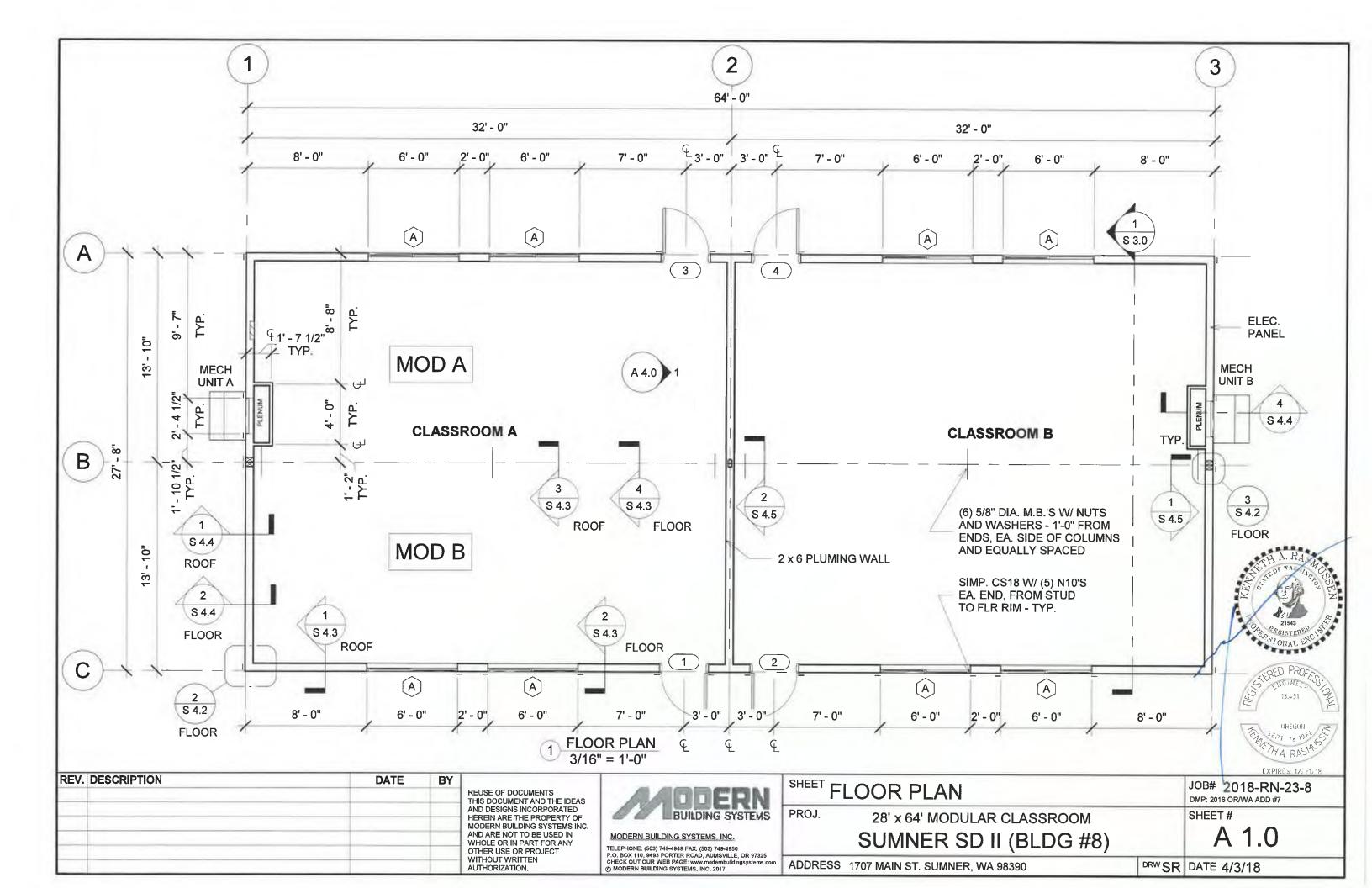
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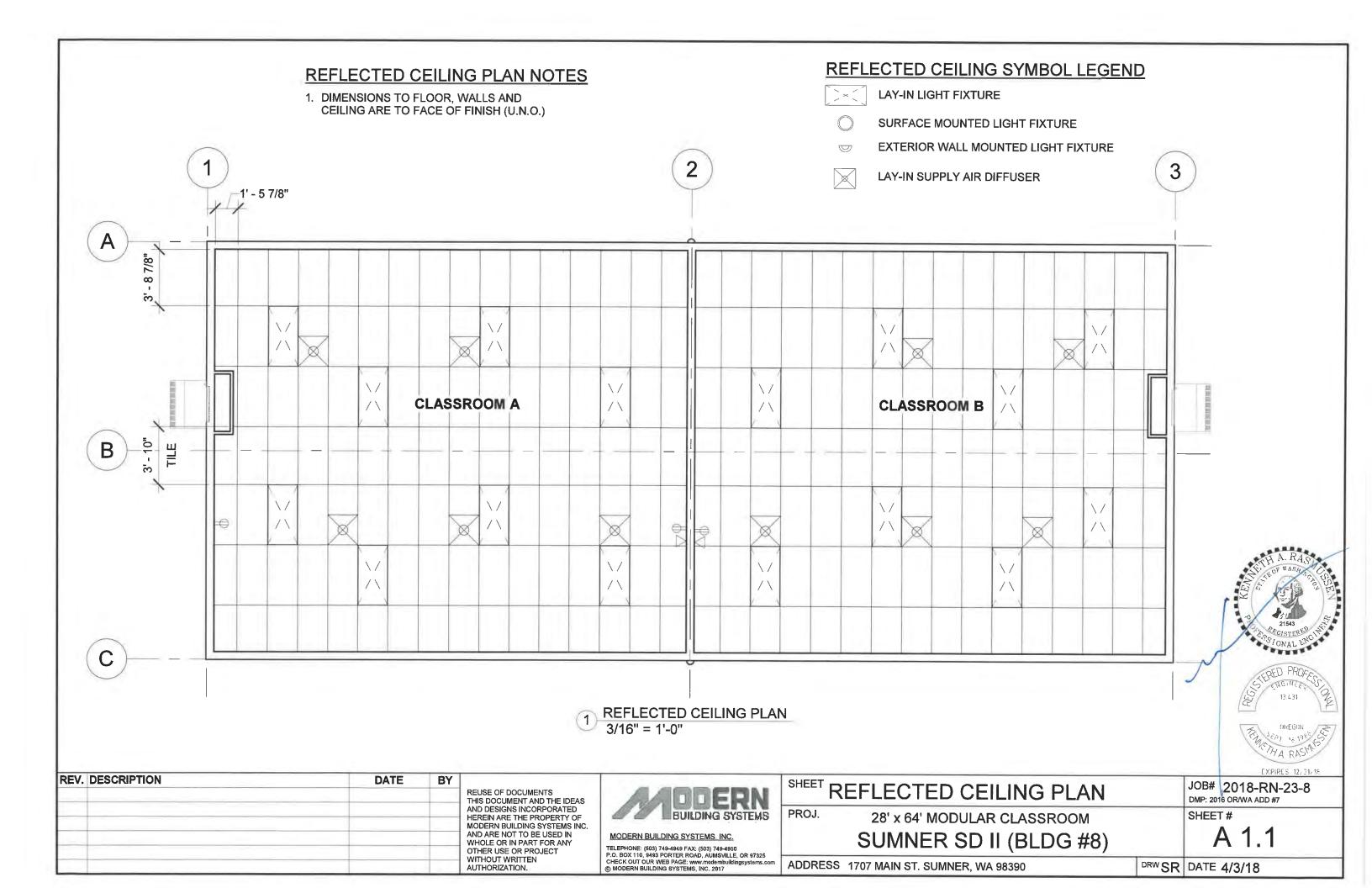
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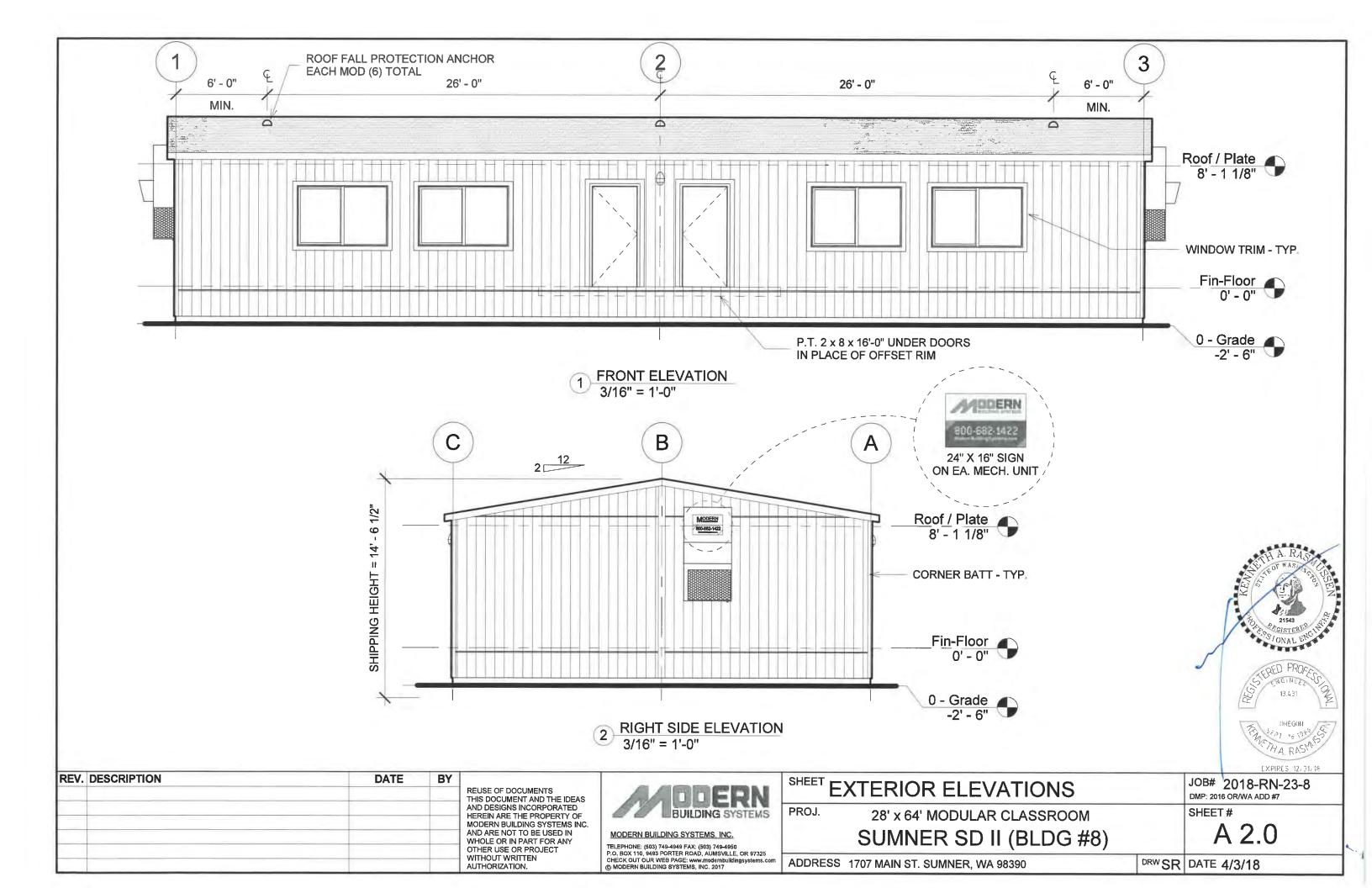
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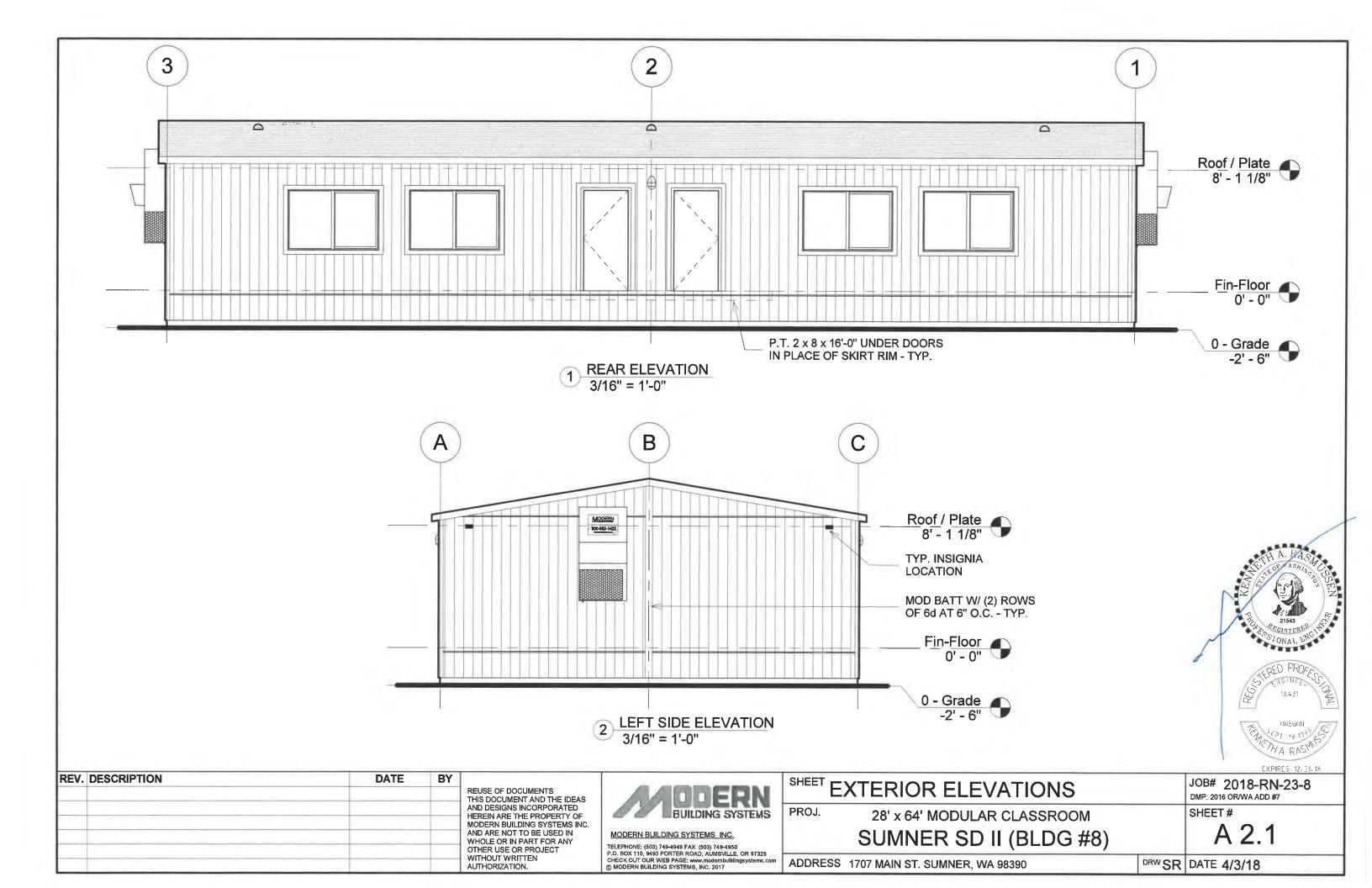
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FLOOR CONSTRUCTION

FINISH: CARPET THRU OUT

BASE: 4" VINYL THRU OUT

UNDERLAYMENT: NONE

SUBFLOOR: 23/32" APA RATED SHEATHING (24) (ACTS AS 1 PERM MAX. VAPOR BARRIER) (ACTS AS AIR BARRIER)

JOISTS: 2 x 8 DF #2 AT 16" O.C., DBL. 2 x 8 AT ENDS

RIM JOISTS: MURPHY LVL 3100 Fb - 2.0E, 1.5" W x 7-1/4" D (ESR-1387 AND ESR-2913)

OFFSET RIMS: 2 x 4 DF #2

INSULATION: R-30 U (2 LAYERS R-15 FIBERGLASS BATTS)

BOTTOM CLOSURE: FS-25

EXTERIOR WALL CONSTRUCTION

PLATE HEIGHT: 8'-1 1/8"

SIDING: 15/32" T1-11 (16) W/ 8" VERT. GROOVES

SHEATHING: NONE

STUDS: 2 x 6 DF STUD GRADE AT 16" O.C. W/ BLDG WRAP AT EXTERIOR (ACTS AS A WATER RESISTIVE BARRIER)

INSULATION: R-21 U (FIBERGLASS BATTS) HEADERS TO BE (2) 2x W/ MIN. R-10 INSULATION BETWEEN. SEE DOOR AND WINDOW SCHEDULE FOR SIZE.

INTERIOR FINISH: 5/8" V.C. GYPSUM BOARD (ACTS AS 1 PERM MAX. VAPOR BARRIER) (ACTS AS AIR BARRIER)

SKIRT: MATCH SIDING

INTERIOR WALL CONSTRUCTION

PLATE HEIGHT: 8'-1 1/8"

REV. DESCRIPTION

STUDS: 2 x 4 HF STUD GRADE AT 16" O.C. (U.N.O.)

INTERIOR FINISH: 5/8" V.C. GYPSUM BOARD

CEILING NOTES

CEILING HEIGHT: NOMINAL 8'-0" (U.N.O.)

CEILING: SUSPENDED T-GRID W/ ACOUSTIC TILE (REF: MFR'S INSTALLATION DATA)

INSTALL SUSPENDED CEILING PER IBC, ASTM C635, C636, ESR-1308 AND 401 DATED 12/13

ATTACH LIGHT FIXTURES TO CEILING GRID W/ (4) #6 x 1" STSM SCREWS

ATTACH HVAC DIFFUSERS TO CEILING GRID W/ (4) #6 x 1" STSM SCREWS

LIGHT FIXTURES SHALL BE INDEPENDENTLY SUPPORTED BY 12-1/2 GA. WIRES AT OPPOSITE CORNERS

ROOF CONSTRUCTION

ROOFING: FIBERGLASS COMP. SHINGLES OVER (2) LAYERS 15# FELT (MIN. CLASS B), (6) STAPLES

SHEATHING: 7/16" O.S.B. (24/16) (ACTS AS AIR BARRIER)

FRAMING: 2 x 10 DF #2 AT 24" O.C.

BEAMS: (2) MURPHY LVL 3100 Fb 2.0E, 1.5" W x 24" D (ESR-1387 AND ESR-2913)

INSULATION: R-42 (CELLULOSE) W/ FS-25 (ACTS AS 1 PERM MAX. VAPOR BARRIER)

OVERHANG: 6"

ROOF PITCH: 2 IN 12

EXTERIOR NOTES

CORNER BATTS: 1 x 4

FASCIA: 1 x 6

BARGE: 1 x 6

WINDOW/DOOR TRIM: 1 x 4

GUTTERS: 4" K-LINE (PREFINISHED)

DOWNSPOUTS: 2" x 3" RECT. (PREFINISHED)

FASTENING/SCHEDULE

MINIMUM NUMBER OF NAILS FOR WOOD MEMBERS (EXCEPT AS NOTED ON DRAWINGS)

	CONNECTION	NO. / SPACING
FLOOR	CONNECTION RIM JOIST TO FLOOR JOIST JOIST TO JOIST BLOCKING	3 PER JOIST 2 ROWS AT 12" O.C. 2 EACH END
WALL	STUDS TO PLATES - END NAIL STUDS TO PLATES - END NAIL BLOCKING JAMB STUD TO 4x HEADER JAMB STUD TO 2x HEADER STUD TO STUD (CRIPPLE, ETC.) UPPER TOP PLATE TO LOWER TOP PLATE BOTTOM PLATE TO FLOOR	2 EACH END AT 2 x 4 3 EACH END AT 2 x 6 2 EACH END MIN. 4 EACH END MIN. 2 EACH END 8" O.C. 2 EACH SIDE OF STUD 2 EACH SIDE OF STUD
ROOF	RIM JOIST TO RAFTER RIM JOIST TO TRUSS RAFTER TO RAFTER BLOCKING 2 x 4 LEDGER 2x BRACE TO RAFTER	3 PER RAFTER MIN. 2 PER TRUSS 2 ROWS AT 12" O.C. 2 EACH END 2 ROWS AT 6" O.C. 4 AT RAFTER

NOTE: ALL FASTENERS ARE 12d (.131)

STANDARD SHEATHING FASTENING - U.N.O.

FROM ESR-1539 JULY 2017

	SPACING	TYPE	MIN. LENGTH
FLOOR SHEATHING (UNBL	OCKED)		
23/32" CDX OR O.S.B. OR STURDI - FLOOR T&G	6" EDGE 8" FIELD	8d (.113) RING-SHANK	2-3/8"
FLOOR UNDERLAYMENT (C	SLUE AND STA	AGGER JOINTS)	
11/32" CCP	8" EDGE 8" FIELD	#7 SCREWS	1-5/8"
SIDING (ALL EDGES SUPPO	PRTED)		
15/32" T1-11	6" EDGE 12" FIELD	8d (.113) GALVANIZED	2-1/2"
ROOF SHEATHING (UNBLO	CKED)		
7/16" O.S.B.	4-1/8" EDGE 8" FIELD	15 GA. STAPLE MIN. 7/16" CROWN	2"





BY

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PROJ.		28' v	64'	MOL	71.11	ΔΡ

CHEET

28' x 64' MODULAR CLASSROOM

SUMNER SD II (BLDG #8)

SHEET#

DRW SR | DATE 4/3/18 ADDRESS 1707 MAIN ST. SUMNER, WA 98390

										DOOR	SCHEDL	<u>JLE</u>						
Mark	Width	Height	Thickness	Swing	Core	Lite Size	Lite Glass	Face	Door Finish	Frame Type	Frame Finish	Throat	R.O. Type	Hdw Group	Fire Rating	Door Header	U-Value	Remarks
1	3' - 0"	6' - 8"	1 3/4"	LHOS	НМ	-	- 1	MTL	PT	HM	PT	6 3/4"	G	1		(2) 2 x 8 DF #2	.22	
2	3' - 0"	6' - 8"	1 3/4"	RHOS	НМ	-	-	MTL	PT	НМ	PT	6 3/4"	G	1		(2) 2 x 8 DF #2	.22	
3	3' - 0"	6' - 8"	1 3/4"	LHOS	НМ	-	-	MTL	PT	НМ	PT	6 3/4"	G	1		(2) 2 x 8 DF #2	.22	
4	3' - 0"	6' - 8"	1 3/4"	RHOS	НМ	-	-	MTL	PT	HM	PT	6 3/4"	G	1		(2) 2 x 8 DF #2	.22	

NOTES:

- 1. CAULK AND SEAL ALL EXTERIOR DOORS
- 2. ALL EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT (U.N.O.)
- 3. ALL DOOR LEADS 4-1/2" (U.N.O.)
 4. ALL DOORS TO HAVE A OPENING FORCE NOT EXCEED 5 POUNDS

									WINDO\	W SCHE	DULE		
Mark	Count	Width	Height	Туре	Frame	Glass	SHGC	U-VAL	Air Leakage	Ext. Trim	Int. Trim	Window Header	Comments
Α	8	6' - 0''	4' - 0"	XO	VINYL	DUAL / LOW E / TMP	0.30	0.34	.18 CFM/SF	1x4	VWS	(2) 2 x 8 DF #2	

1. CAULK AND SEAL ALL EXTERIOR WINDOWS

		<u>F</u>	HARDWARE SCHEDU	JLE		
GROUP #1	GROUP #2	GROUP #3	GROUP #4	GROUP #5	GROUP #6	GROUP #7
1-1/2 PAIR BUTTS LEVER/LEVER W/ LOCK CLOSER WEATHER-STRIP DOOR BOTTOM 1/2" MAX. ACCESSIBLE THRESHOLD						

		ABB	REVIATIONS		
AL ALUMINUM AFF ABOVE FIN. FLR. BA BRONZE ANODIZED BV BOTTOM VENT CDR CEDAR CH COASTAL HEMLOCK	CLR CLEAR CS CAULK AND SEAL FGL FIBERGLASS FP FACTORY PRIMED FPT FIELD PAINTED HB HARDBOARD	HC HOLLOW CORE HF HEM FIR HM HOLLOW METAL INS INSULATED KD KNOCK DOWN LH LEFT HAND	LHR LEFT HAND REV. MTL METAL NRW NARROW (LITE) P&D PUNCH & DIMPLE PF PREFINISHED PT PAINT	RH RIGHT HAND RHR RIGHT HAND REV. SC SOLID CORE SF STOREFRONT STN STAIN TIM TIMELY FRAME	TMP TEMPERED TTP TAPE, TEXTURE, PT VWS VINYL WRAP SURR. WD WOOD WLD WELDED

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SHEET	SCHEDUL	ES
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PROJ.

28' x 64' MODULAR CLASSROOM

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JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7

SHEET#

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	DOOR ROUGH OPE	NING SCHEDULE
	EXTERIOR I	DOORS
Α	METAL DOORS W/ HOLLOW MET R.O. WIDTH CALL R.O. HEIGHT CALL	
В	DBL. METAL DOORS W/ HOLLOW R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE + 4-1/2"
С	STOREFRONT DOOR R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE + 4-1/2" SIZE + 2-1/8"
D	TIMELY SPLIT MEDIA DOOR R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE + 1-1/4" SIZE + 1"
E1	METAL DOOR W/ WOOD FRAME R.O. WIDTH CALL R.O. HEIGHT CALL	(PEASE AND STANLEY) (INSWING) SIZE + 2" SIZE + 2"
E2	R.O. WIDTH CALL	(PEASE AND STANLEY) (OUTSWING) SIZE + 2" SIZE + 1-9/16"
F	STOCKER DOOR R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE + 1-1/4" SIZE + 1"
G		L FRAME (KNOCK-DOWN) SIZE + 2" SIZE + 1"
	INTERIOR D	OORS
1	HOLLOW / SOLID WOOD DOOR V R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE + 2"
2		SIZE + 1-1/4" SIZE + 1"
3		LL SIZE + 2" SIZE + 4"
4	BI-PASS DOOR R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE SIZE + 2-1/8"
5	BI-FOLD DOOR R.O. WIDTH CALL R.O. HEIGHT CALL	SIZE SIZE + 5/8"

AREA SCHEDULE	(Gross Build	ing)
AREA TYPE	NO. MODS	AREA
Gross Building Area	2	1771 SF

ROOF SCHE	DULE
DESCRIPTION	AREA
ROOFING	1889 SF

WALL SCHEDUL	E
DESCRIPTION	LENGTH
EXTERIOR 2x6	181' - 6"
EXTERIOR 2x SKIRTWALL	183' - 0"
INTERIOR 2x3	13' - 7"
INTERIOR 2x6	27' - 2"

<u>OCCUPAN</u>	NT LOAD	SCHED	<u>JLE</u>
FUNCTION OF SPACE	Area	LOAD FACTOR	OCCUPANT LOAD
CLASSROOM A	830 SF	20	42
CLASSROOM B	829 SF	20	42
Total			84

NOTE: ALL TRIMMER HEIGHTS = R.O. CALL SIZE MINUS 1-1/2"

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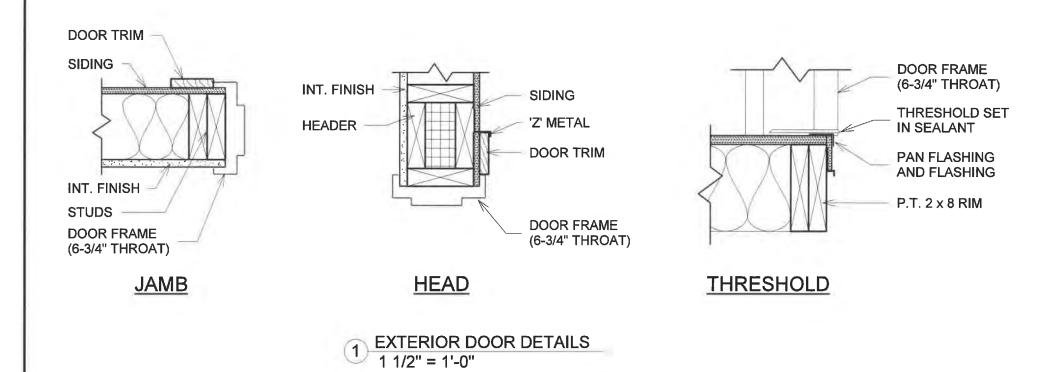
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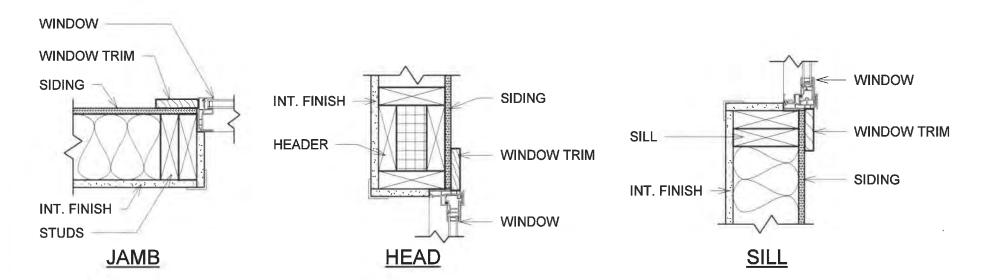
PROJ. 28' x 64' MODULAR CLASSROOM JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7 SHEET#

SUMNER SD II (BLDG #8)

A 3.3

ADDRESS 1707 MAIN ST. SUMNER, WA 98390





WINDOW DETAILS 1 1/2" = 1'-0"

REV.

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MADDERN	SHEET W	/INDOW/De
BUILDING SYSTEMS	PROJ.	28' x 64' MO

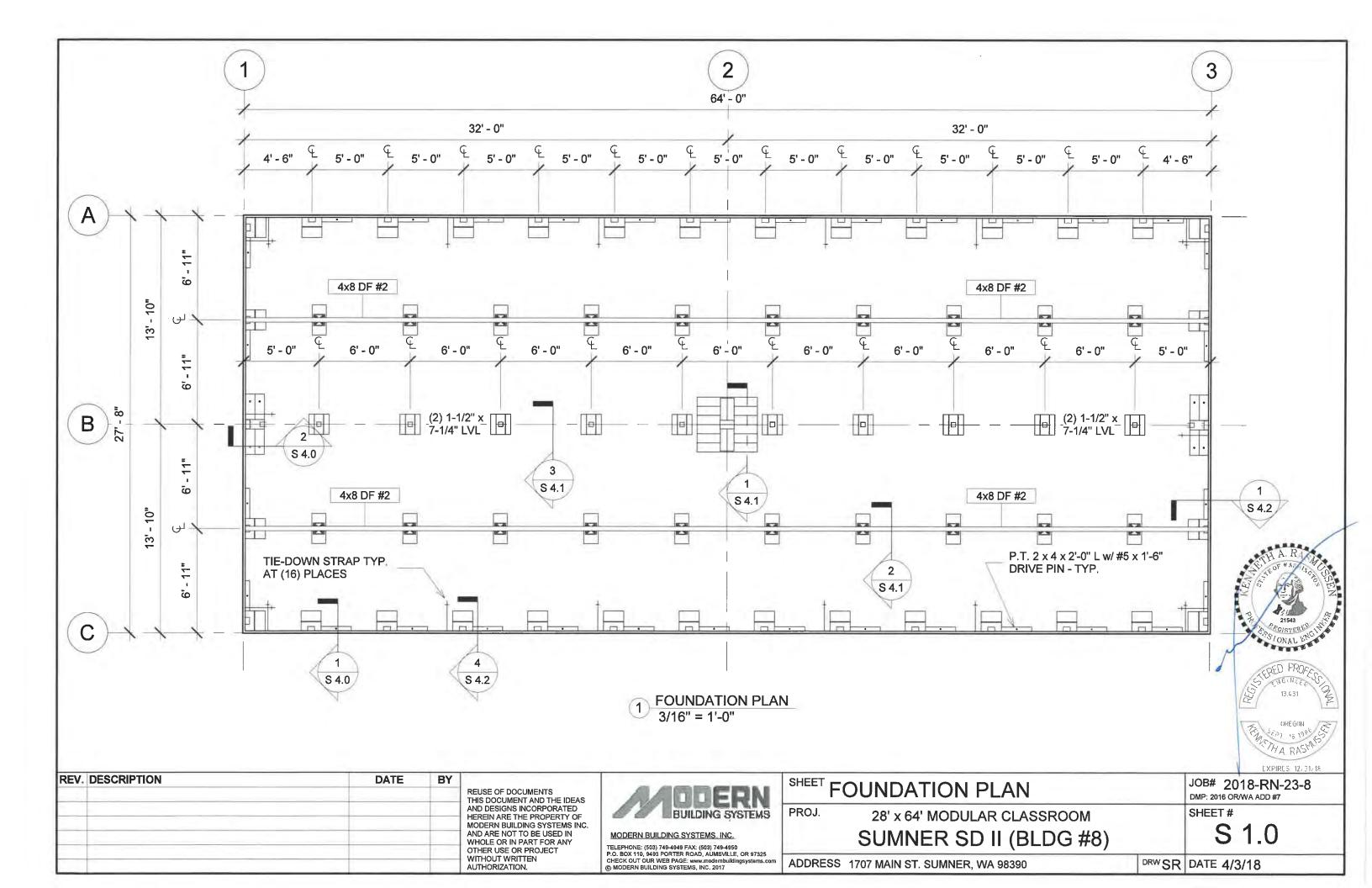
28' x 64' MODULAR CLASSROOM

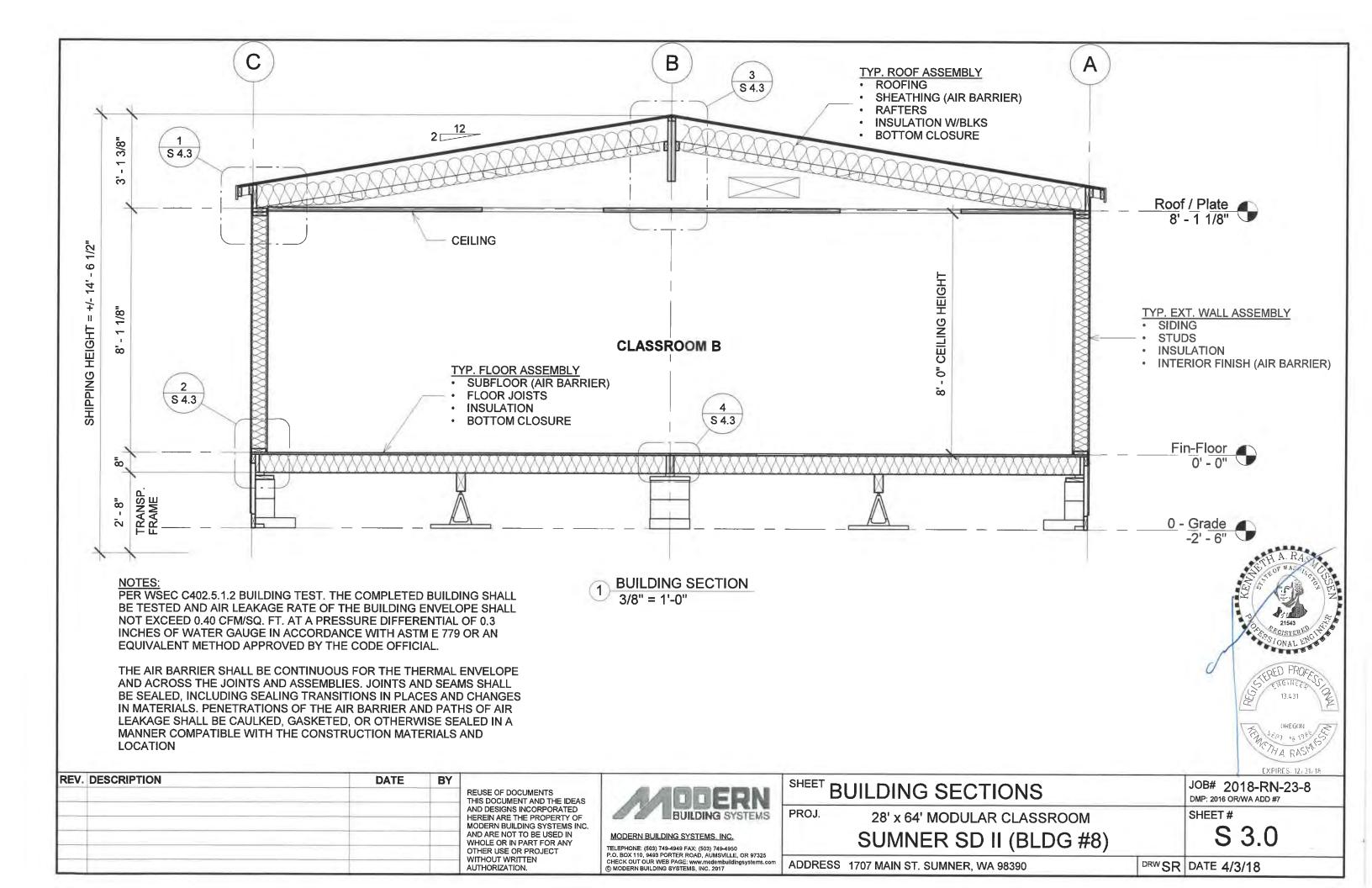
SUMNER SD II (BLDG #8)

JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7 SHEET# A 5.1

OOR DETAILS

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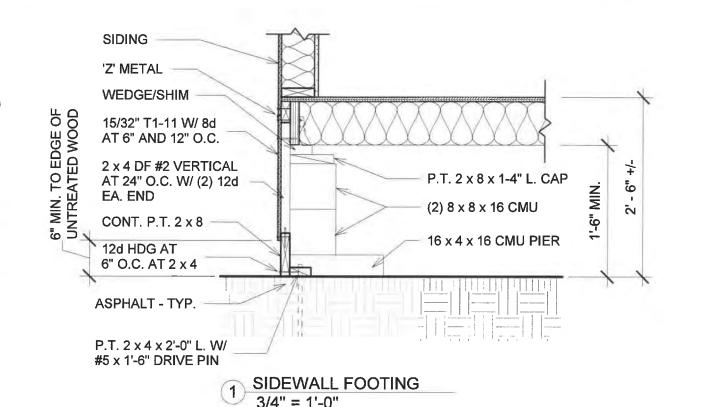
FOUNDATION NOTES

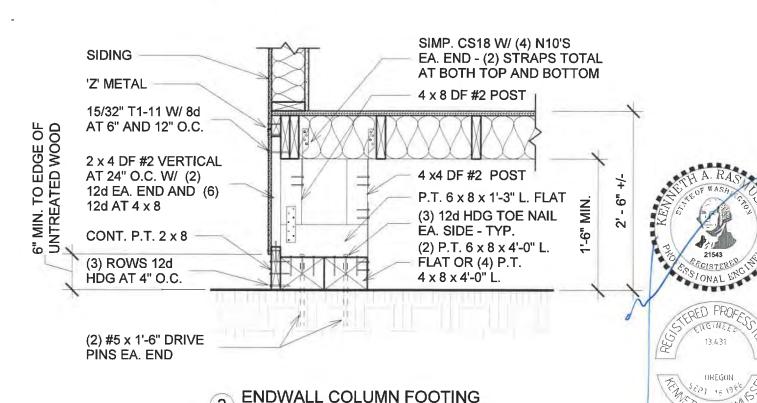
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS. THIS STRUCTURE SHALL BE ADEQUATELY BRACED FOR WIND OR EARTHQUAKE FORCES AND TEMPORARY FORCES DURING SETTING AND ERECTION UNTIL ALL UNITS HAVE BEEN PERMANENTLY ATTACHED THERETO. REMOVE ORGANIC / SOD UNDER ALL BEARING PADS.

2. DESIGN LOADS:

ROOF DEAD LOAD	12 PSF
ROOF SNOW LOAD	25 PSF
FLOOR DEAD LOAD	10 PSF
FLOOR LIVE LOAD	50 PSF
WIND LOAD	Lambda = 1.0 Vult = 140 MPH (Vasd = 108 MPH) 3 SECOND GUST - EXP. B
SEISMIC	BEARING WALL SYSTEM: $S_S = 1.500$, $F_a = 1.000$ $S_{DS} = 1.000$, RISK CATEGORY II
	I _e = 1.0, SEISMIC DESIGN CATEGORY D, SITE CLASS D
ALLOWABLE BEARING CAPACITY	1,500 PSF AT SOIL
CAPACITY	

- 3. EXCEPT AS NOTED, DIMENSION LUMBER FOR FOUNDATION SHALL BE HEM-FIR, NO. 2 AND BETTER. TREATED LUMBER SHALL BE ACQ PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD U1, USE CATEGORY UC4A, TO A MINIMUM RETENTION OF 0.40 PCF. AT PIECES IN CONTACT WITH GROUND, SAWN END GRAIN SHALL BE FIELD TREATED WITH 2% MIN. CONCENTRATION COPPER NAPHTHENATE. TREATED PLATE STOCK SHALL BE GOOD QUALITY AND SHALL NOT CONTAIN EXCESSIVE SPLITS, CHECKS OR WANE. 2 x 4 FRAMING SHALL BE HEM-FIR, STANDARD OR BETTER, TREATED 2 x 4 FRAMING SHALL MEET THE REQUIREMENTS SPECIFIED ABOVE.
- 4. ALL FASTENERS TO BE HOT DIPPED GALVANIZED OR EQUAL AT P.T. MEMBERS.
- 5. VENT CRAWL SPACE w/ (6) 15" SQ. METAL VENTS (MODERN STANDARD). INSTALL 6 MIL. VAPOR BARRIER ON GROUND IN ENTIRE CRAWL SPACE. LAP VAPOR BARRIER JOINTS MIN 12". (VAPOR BARRIER NOT REQUIRED AT ASPHALT OR CONCRETE IF OCCURS)
- 6. CONNECT STORM WATER FROM ROOF GUTTERS AND DOWNSPOUTS AND DIRECT AWAY FROM BUILDING PAD TO AN APPROVED DRAINAGE SYSTEM.
- 7. FOUNDATION PLANS AND DETAILS ARE NOT REVIEWED BY BCD OR L&I, EXCEPT FOR THE SUITABILITY OF THE DESIGN TO SUPPORT THE MODULAR BUILDING. APPROVAL AND INSPECTION OF THE FOUNDATION SYSTEM IS THE JURISDICTION OF THE LOCAL BUILDING OFFICIAL.





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SHEET FOUNDATION NOTES & DETAILS

28' x 64' MODULAR CLASSROOM

3/4" = 1'-0"

DMP: 2016 OR/WA ADD #7
SHEET #

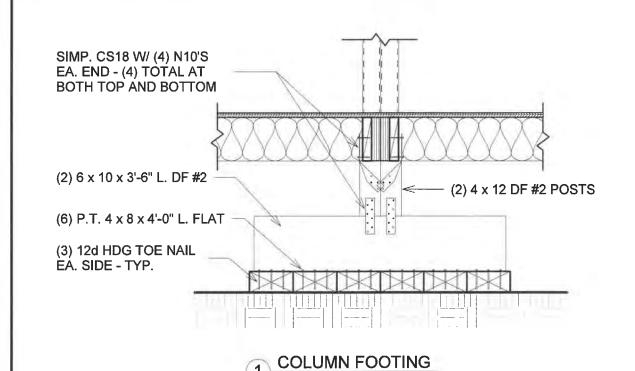
DRW SR | DATE 4/3/18

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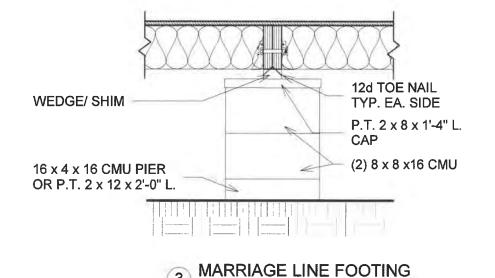
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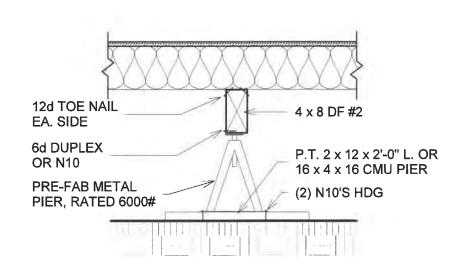
JOB# 2018-RN-23-8



3/4" = 1'-0"

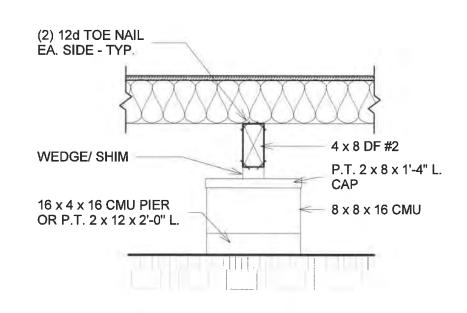


3/4" = 1'-0"



MID-SPAN FOOTING

3/4" = 1'-0"



PROJ.

MID-SPAN FOOTING - ALTERNATE

ADDRESS 1707 MAIN ST. SUMNER, WA 98390

3/4" = 1'-0"

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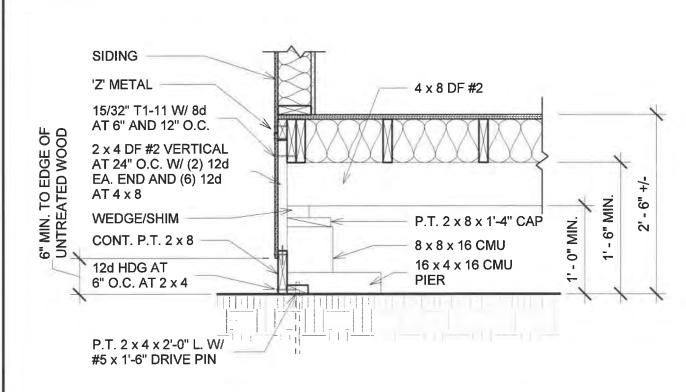
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28' x 64' MODULAR CLASSROOM

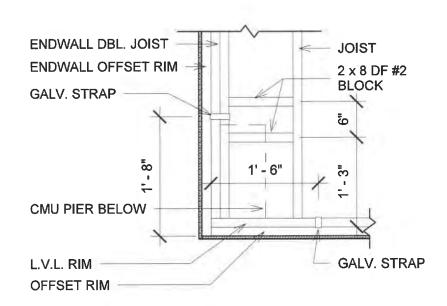
SUMNER SD II (BLDG #8)

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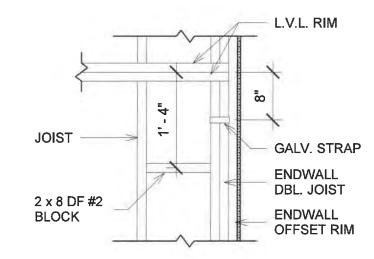
JOB# 2018-RN-23-8



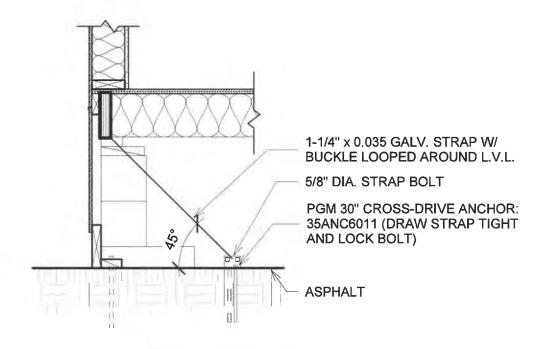




TIE-DOWN AT CORNER
3/4" = 1'-0"



TIE-DOWN AT MARRIAGE 3/4" = 1'-0"



TIE-DOWN STRAP 3/4" = 1'-0"

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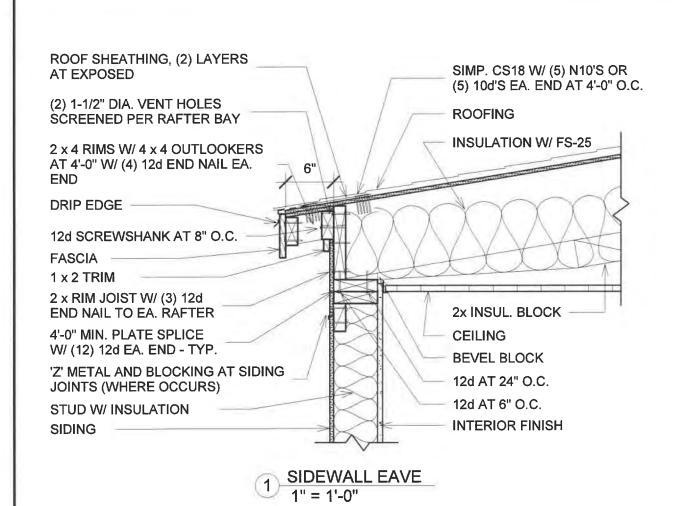
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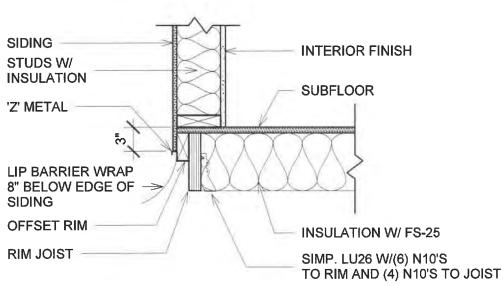
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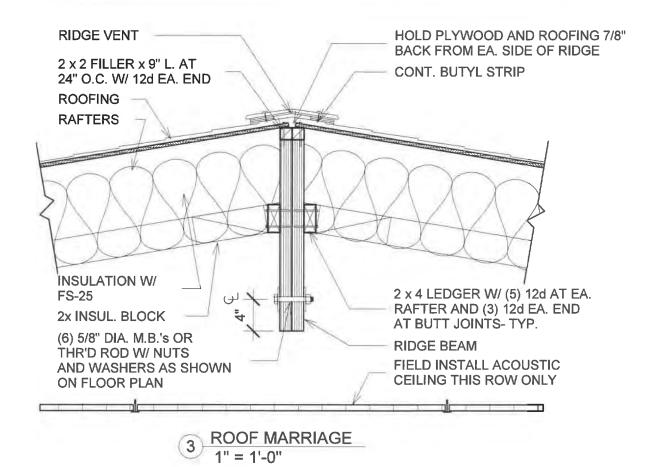
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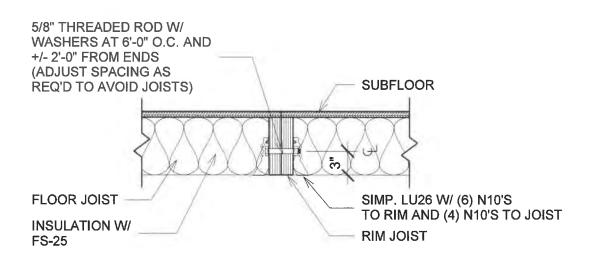
S 4.2

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RIAGE

	2 SIDEWALL FLOOR 1" = 1'-0"	4 FLOOF 1" = 1'-	
ESCRIPTION	DATE BY		SHEET DETAIL O

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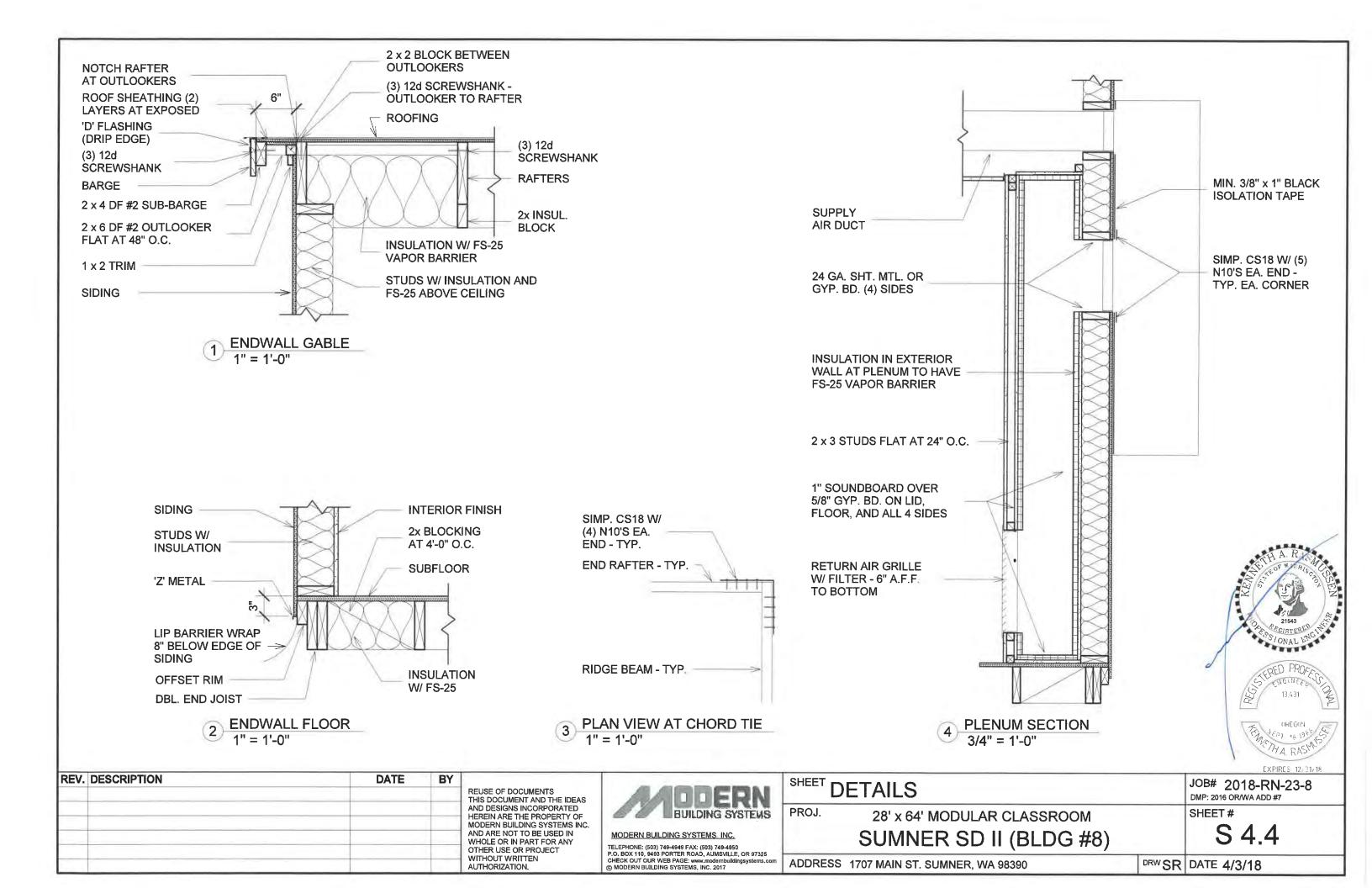
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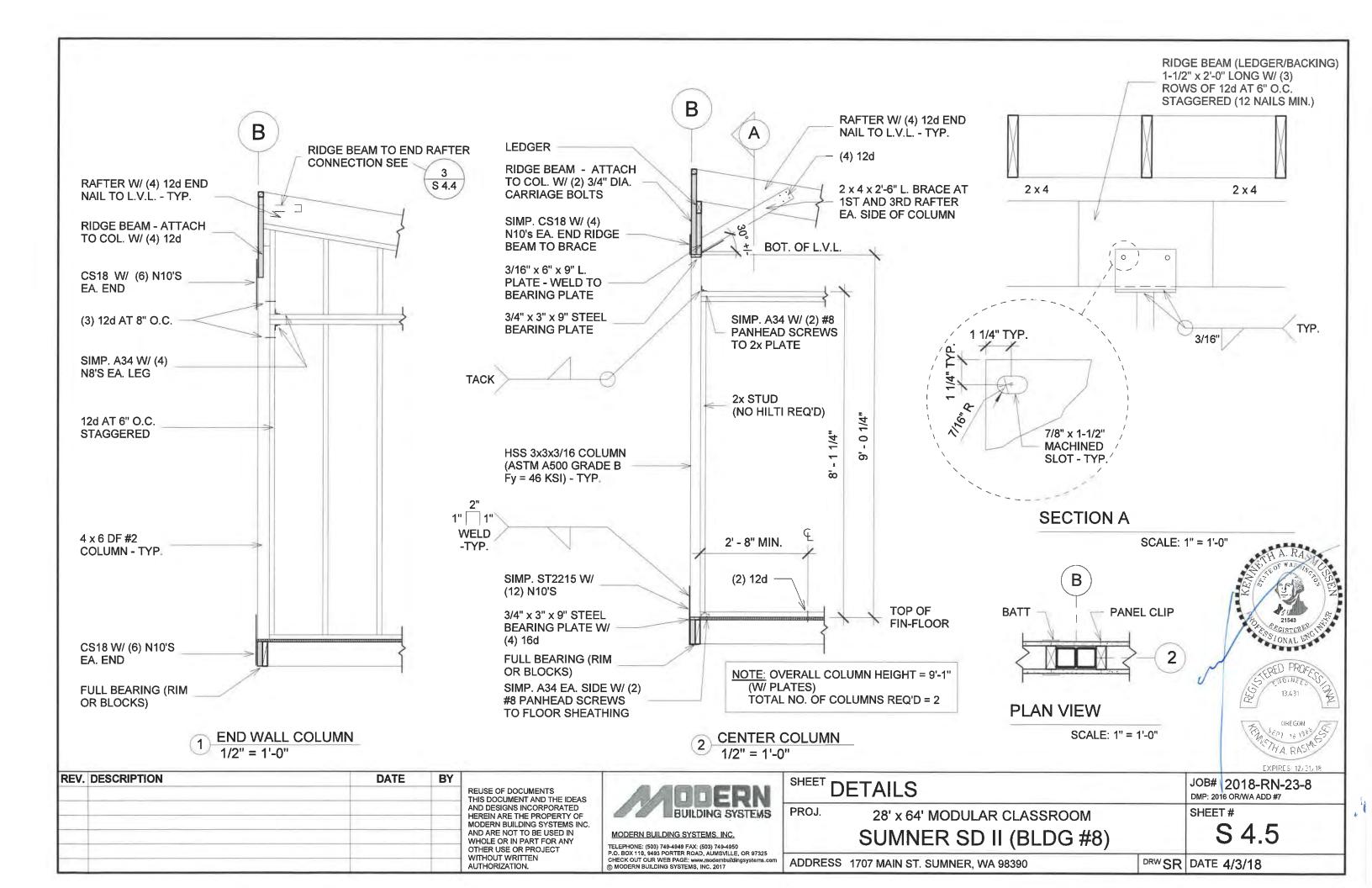
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ADDRESS 1707 MAIN ST. SUMNER, WA 98390

JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7 SHEET# 28' x 64' MODULAR CLASSROOM S 4.3 SUMNER SD II (BLDG #8) DRW SR DATE 4/3/18





ELECTRICAL SYMBOLS LEGEND

/ ĎL \ .

2' x 4' LED LAY-IN FIXTURE W/ INTEGRAL **nLIGHT DAYLIGHT AND OCCUPANCY SENSORS**

2' x 4' LED LAY-IN FIXTURE - nLIGHT ENABLED

13" LED SURFACE MOUNTED FIXTURE

EXTERIOR LED WALL MOUNTED LIGHT FIXTURE +86" A.F.F. \bigcirc PC = PHOTOCELL WP = WEATHERPROOF E = EMERGENCY LIGHT W/ BATTERY BACKUP

DUPLEX RECEPTACLE +17" A.F.F. (U.N.O.) GFCI = GROUND FAULT CIRCUIT INTERRUPTER WP = IN USE WEATHERPROOF COVER WR = WATER RESISTANT RECEPTACLE

CONTROLLED DUPLEX RECEPTACLE +17" A.F.F. (U.N.O.) Ocr. 50% OF RECEPTACLE CONTROLLED BY OCCUPANCY SENSOR AND VISIBLY DIFFERENTIATED PER WSEC 405.10

CONTROLLED RECEPTACLE POWER PACK

LIGHTING CONTROL WALL SWITCH

 $\left(\overline{\mathbf{j}}\right)$ **JUNCTION BOX**

T THERMOSTAT +48" A.F.F. TO TOP OF CONTROLS

 ∇ PHONE/DATA BOX - 3/4" CONDUIT UP (RACEWAY ONLY) +17" A.F.F. (U.N.O.)

<u>c</u> CLOCK RECEPTACLE (120V) +88" A.F.F.

 \Box DISCONNECT

AUDIO / VISUAL FIRE ALARM (RACEWAY ONLY) +86" TO CENTERLINE FO

MANUAL PULL STATION (RACEWAY ONLY) +45" TO CENTERLINE М

(v) VISUAL ALARM (RACEWAY ONLY) +82" TO CENTERLINE

ELECTRICAL NOTES

- 1. CONDUIT SHALL BE ELECTRICAL METALLIC TUBING AND METAL CLAD CABLE
- 2. EXTERIOR RECEPTACLES SHALL BE WEATHER RESISTANT TYPE W/ IN USE WEATHERPROOF COVER
- 3. FLUORESCENT LUMINAIRES WITH DOUBLE ENDED LAMPS THAT CAN BE SERVICED IN PLACE AND SHALL HAVE AN INTERNAL OR EXTERNAL DISCONNECT PER NEC 410.130G
- 4. BUILDING SERVICE SHALL BE SERVED BY ONLY ONE SERVICE OR FEEDER PER NEC 225.30 AND 230.2
- 5. SERVICE OR FEEDER DISCONNECT SHALL BE INSTALLED PER NEC 230,70, FOR BUILDINGS IN THE STATE OF WASHINGTON SERVICE OR FEEDER DISCONNECT SHALL BE INSTALLED PER WAC 296-46B-230
- 6. PERMANENT MEANS OF LOCKING OUT DISCONNECT TO MECHANICAL UNIT(S) SHALL BE PROVIDED PER NEC 424.19
- 7. PERMANENT MEANS OF LOCKING OUT DISCONNECT TO WATER HEATER(S) SHALL BE PROVIDED PER NEC 422.31(B)
- 8. GASKET ALL EXTERIOR WALL BOX PLATE COVERS
- 9. PER NEC 110.26D, ILLUMINATION FOR PANEL BOARDS, SWITCHBOARDS, AND SERVICE EQUIPMENT SHALL NOT BE CONTROLLED BY AUTOMATIC MEANS ONLY. A MANUAL MEANS TO BYPASS THE AUTOMATIC CONTROL IS REQUIRED.

- 10.PER NEC 406.9(B)(1) 15 AND 20 AMP RECEPTACLES INSTALLED IN WET LOCATION SHALL HAVE AN **ENCLOSURE THAT WEATHERPROOF WHETHER OR NOT** THE ATTACHMENT PLUG CAP IS INSERTED. AN OUTLET BOX HOOD INSTALLED FOR THIS PURPOSE SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY". RECEPTACLES SHALL BE LISTED AS WEATHER-RESISTANT TYPE.
- 11.PER NEC 110.26, WORKING SPACE FOR EQUIPMENT OPERATING AT 600 VOLTS, NOMINAL, OR LESS TO GROUND AND LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL COMPLY WITH THE DIMENSIONS OF 110.26(A)(1), (A)(2), AND (A)(3)
- 12. PER NFPA 72. NEC 760 AND WAC 296-46B-760 DEVICE AND JUNCTION BOXES FOR FIRE ALARM SYSTEMS OTHER THAN SURFACE RACEWAY TYPE MUST BE SUBSTANTIALLY RED IN COLOR BOTH INSIDE AND OUTSIDE. POWER LIMITED FIRE PROTECTIVE SIGNALING CIRCUIT CONDUCTORS MUST BE DURABLY AND PLAINLY MARKED IN OR ON JUNCTION BOXES OR OTHER ENCLOSURES TO INDICATE THAT IT IS POWER LIMITED FIRE PROTECTIVE SIGNALING CIRCUIT.
- 13. PER NEC 110.22 AND WAC 296-46B-220-032 **IDENTIFICATION PLATES ON DISCONNECTING MEANS** ARE TO SHOW DESIGNATION OF CIRCUIT SOURCE PANEL BOARD THAT SUPPLIES DISCONNECT AND IDENTIFY WHAT IT IS DISCONNECTING. MUST BE AN **IDENTIFICATION PLATE**

LIGHTING PLAN NOTES

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- 1. THIS BUILDING PROVIDES LIGHTING "ADDITIONAL EFFICIENCY PACKAGE OPTIONS" PER C406.3 AND C406.4. TO INCLUDE WAC 51-11C, SECTION C406.4 #2, EXCEPTION #3
- 2. LIGHT LEVELS TO MEET WAC 246-366-115 TABLE 2
- OCCUPANCY SENSOR(S) IN EACH ROOM WILL BE WIRED TO CONTROL ALL LIGHT FIXTURES IN THAT ROOM.
- 4. LIGHT WIRING AS SHOWN IS FOR GENERAL CONTROL CLARIFICATION ONLY. ACTUAL WIRING FOR CONTROLS (I.E.: SWITCHES, OCCUPANCY SENSORS AND DAYLIGHT SENSORS) SHALL BE PER CONTROL MANUFACTURER'S SPECIFICATIONS AND AS NECESSARY TO MEET THE CODE REQUIREMENTS FOR EACH CONTROL AND THE LIGHT FIXTURES CONNECTED TO IT.
- 5. DAYLIGHTING AND OCCUPANCY SENSORS ARE INTEGRAL TO EACH LIGHT FIXTURE AS SHOWN AND PROGRAMMED TO COVER EACH DAYLIGHT ZONE, OCCUPANCY SENSORS ARE PROGRAMMED TO CONTROL ALL FIXTURES IN THE SPACE



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ELECTRICAL LEGEND & NOTES

SUMNER SD II (BLDG #8)

SHEET#

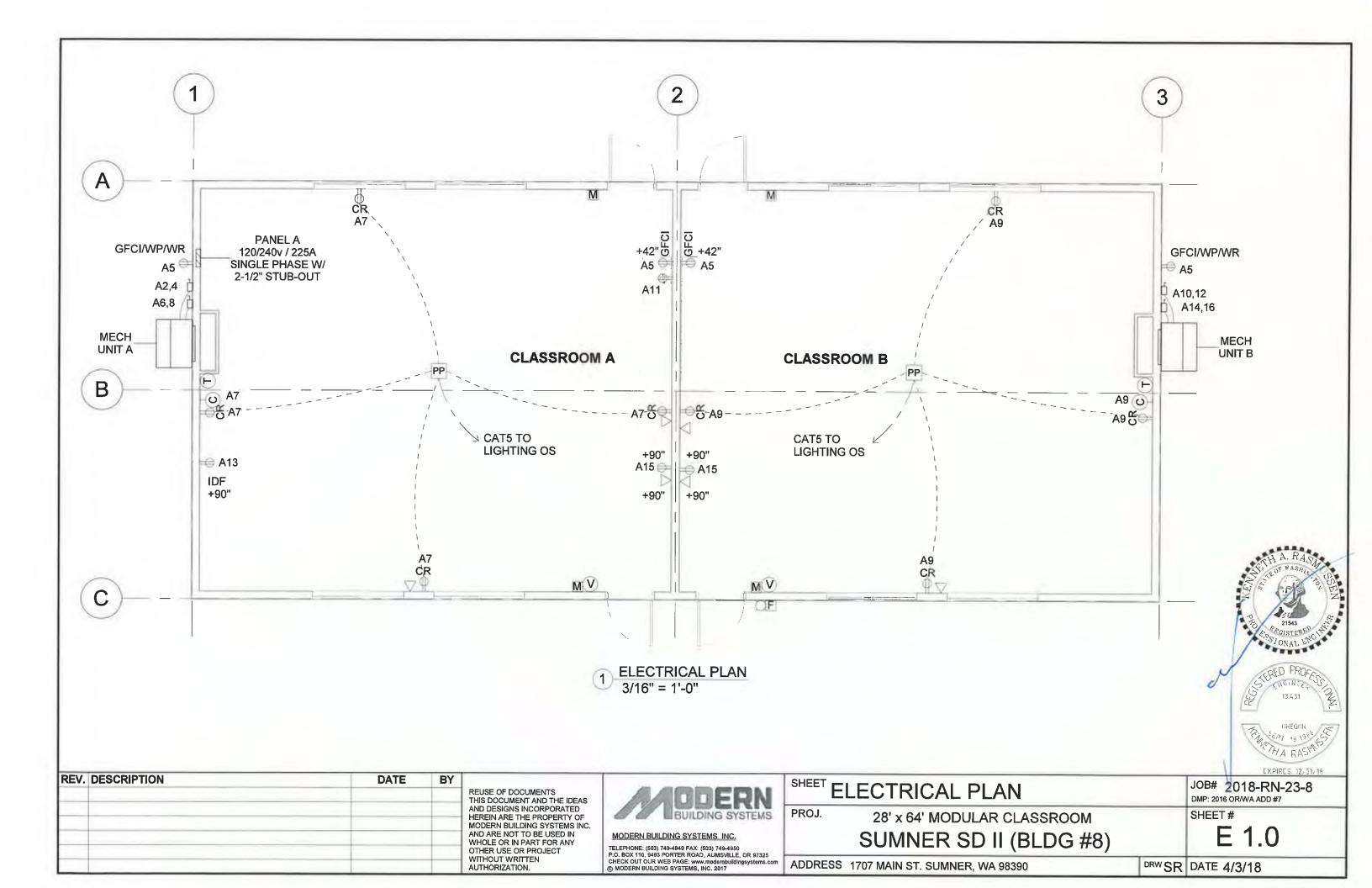
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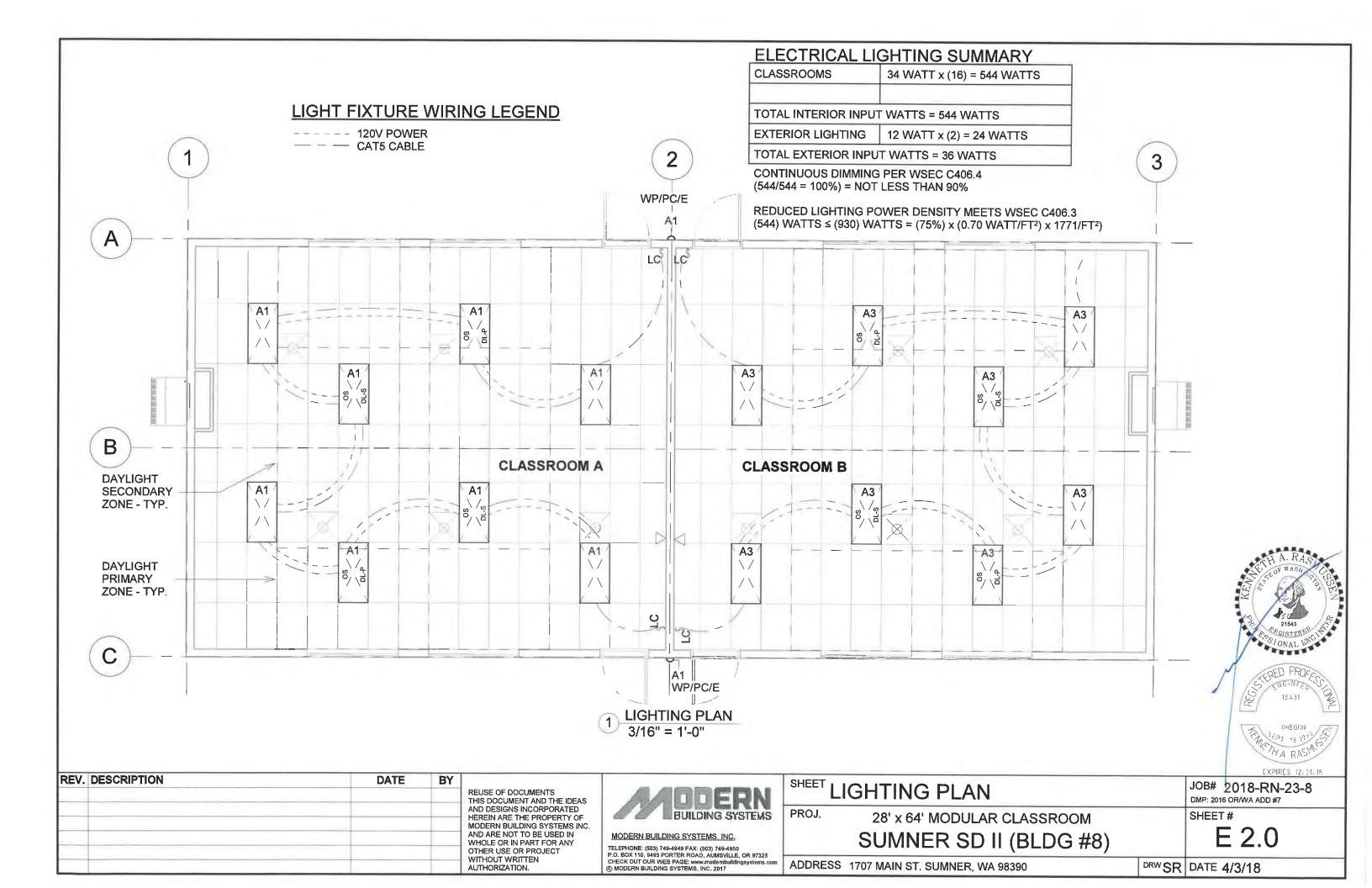
JOB# 2018-RN-23-8

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MAIN DISTRIBUTION PANEL PANEL A

MOUNTING Recessed

PROJECT NO: 2018-RN-23-8

DATE: 4/3/18

Load Name	Rating	Circuit Number	Number of Poles		A		В	Number of Poles	Circuit Number	Rating	Load Name
Lighting/Fan Classroom A	20 A	A1	1	294 VA	6600 VA			2	A2	60 A	HVAC Classroom A
Lighting/Fan Classroom B	20 A	A3	1			272 VA	6600 VA		A4		
Exterior Receptacles	20 A	A5	1	720 VA	3120 VA			2	A6	30 A	HVAC Classroom A
Receptacles Classroom A	20 A	A7	1			900 VA	3120 VA		A8	-	-
Receptacles Classroom B	20 A	A9	1	900 VA	6600 VA			2	A10	60 A	HVAC Classroom B
Water Heater	20 A	A11	1			1500 VA	6600 VA	_	A12	-	
IDF Receptacle	20 A	A13	1	180 VA	3120 VA			2	A14	30 A	HVAC Classroom B
Projector Receptacles	20 A	A15	1			360 VA	3120 VA		A16		
		A17							A18		
		A19							A20		
		A21							A22		
		A23							A24		
		A25							A26		
		A27							A28		
		A29							A30		

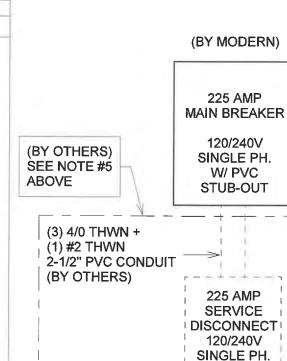
21534 VA 22472 VA

	TOTAL PANEL VA=	44006 VA	183 A	=TOTAL PANEL AMPS
BUSS SIZE	225 A		VOLTAGE	120/240 Single
MAIN BREAKER	225 A		PHASE	11

ITEM	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD
LIGHTS	5310 VA	125.00%	6638 W
SIGN CIRCUIT			0 W
RECEPTACLE	3060 VA	100.00%	3060 W
DED. RECEPTACLE			0 W
MOTORS & COMPRESS	ORS		
EXHAUST FAN			0 W
LARGEST MOTOR	0 VA	0.00%	0 VA
HEATING & A/C (Per Mfg	g's Specs)		
TOTAL HEAT & A/C LOA	D		
	38880 VA	100.00%	38880 W
MISCELLANEOUS			
WATER HEATER	1500 VA	100.00%	1500 W
CONNECTED LOAD		CALCULATED LOAD	
TOTAL VA =	48750 VA	TOTAL VA =	50078 VA
TOTAL AMPS =	203 A	TOTAL AMPS =	209 A

ONE-LINE DIAGRAM NOTES

- 1. EMT CONDUIT SHALL NOT BE USED WITH UNFUSED CONDUCTORS **INSIDE BUILDING LINES**
- 2. FIELD VERIFY AIC RATING REQUIREMENTS
- 3. BUILDING / SERVICE DISCONNECTING MEANS MUST BE LOCATED ON OR WITHIN 15 FEET OF THE BUILDING AND MUST HAVE LABEL IDENTIFYING IT'S FUNCTION AS THE BUILDING DISCONNECT PER WAC 296-46B-225
- 4. GROUNDING TO BE IN ACCORDANCE TO NEC 250.52(A)(5)
- 5. SITE INSTALLED PORTION OF ELECTRICAL DISTRIBUTION SYSTEM DESIGN IS GENERIC. SUBJECT TO APPROVAL OF ELECTRICAL LOCAL AUTHORITY HAVING JURISDICTION PLAN REVIEW AND/OR INSPECTION OF SITE INSTALLED ELECTRICAL DISTRIBUTION SYSTEM



ONE-LINE DIAGRAM



NO SCALE

NOTE: CONNECTED LOAD FOR LIGHTS IS FROM NEC TABLE 220.12

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#4 CU BARE UFER **GROUND ON SITE**

SERVICE

JOB# 2018-RN-23-8 DMP: 2016 OR/WA ADD #7

PROJ.

28' x 64' MODULAR CLASSROOM

SHEET# E 3.0

SUMNER SD II (BLDG #8)

DRW SR | DATE 4/3/18

ADDRESS 1707 MAIN ST. SUMNER, WA 98390

MECHANICAL NOTES

1. MECHANICAL UNIT: (2) 3.0 TON WALL HUNG HEAT PUMP (230/208-1) BARD W36HA (10.0 EER) 10 kW ELECTRICAL HEAT AND ECONOMIZER

2. EXHAUST FAN: NONE

3. CONTROLS: THERMOSTAT: HONEYWELL TH8321R1001/U

4. DUCTWORK: MATERIAL: 1" FIBERGLASS (R-4.3) OR 24 GA. SHEET METAL W/ 26 GA. SHEET METAL ROUNDS AND FLEX DUCT **ROUNDS AT DIFFUSERS** INSULATING AND SEALING: DUCTWORK TO BE INSULATED AND SEALED PER WSEC C403.2.8.1 AND C403.2.8.2 CONSTRUCTION: **DUCTWORK TO BE CONSTRUCTED AS** LOW PRESSURE DUCT SYSTEM PER WSEC C403.2.8.3.1

5. VOLUME DAMPERS: PROVIDE VOLUME DAMPERS TO CONTROL AIRFLOW AT EACH TAKE-OFF

6. DESIGN MECHANICAL EQUIPMENT TO MEET NC-35 NOISE CRITERION AND MECHANICAL BACKGROUND NOISE AT OR BELOW 45 DBA. LOCATE BUILDINGS AWAY FROM NOISE AND **POLLUTION SOURCES**

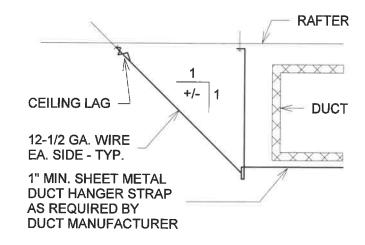
HVAC SYMBOL LEGEND

2' x 2' LAY-IN SUPPLY DIFFUSER

2' x 2' LAY-IN RETURN GRILLE

FLEX DUCT

THERMOSTAT +48" A.F.F. TO TOP OF CONTROLS



DUCT SUPPORT

OUTSIDE AIR CALCULATION

MECHANICAL UNIT A:

CLASSROOM AREA FACTOR

(29 OCC)(10 CFM) = 290 (830 SF)(.12 CFM) = 99 = 389 CFM

MINIMUM OUTSIDE AIR FOR UNOCCUPIED BUILDING

= 99 CFM

MECHANICAL UNIT B:

CLASSROOM AREA FACTOR (29 OCC)(10 CFM) = 290 (829 SF)(.12 CFM) = 99 = 389 CFM

MINIMUM OUTSIDE AIR FOR **UNOCCUPIED BUILDING**

= 99 CFM

PROJ.



REV.	DESCRIPTION	DATE	BY

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SHEET HVAC NOTES & LEGEND

28' x 64' MODULAR CLASSROOM

SUMNER SD II (BLDG #8)

SHEET# M 0.1

ADDRESS 1707 MAIN ST. SUMNER, WA 98390 DRW SR DATE 4/3/18

