

Table with 10 columns: Fan System Name, Qty, Hours of Operation per Year, Design Supply Airflow Rate, Outdoor Airflow, % Outdoor Air at Full Design Airflow, Exemptions to Exhaust Air Heat Recovery Requirement per 140.4(a) & 170.2(c)(4), Exhaust Air Heat Recovery Requirement per 140.4(a) & 170.2(c)(4), Type Of Heat Recovery Rating, Required Recovery Ratio, Energy Recovery Bypass.

Table with 3 columns: Name or Item Tag, FEI Exception, FEI.

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)(4) 170.2(c)(4) or requirements in 141.0(b)(2) 180.2(b)(2) for altered space conditioning systems.

Table with 9 columns: System Name, System Zoning, Conditioned Floor Area Being Served (ft²), Thermostats 110.2(b) & (c), 120.2(a) & 160.3(a)(2) or 141.0(b)(2) & 180.2(b)(2), Shut-Off Controls 120.2(g) & 160.3(a)(2), Isolation Zone Controls 120.2(g) & 160.3(a)(2), Demand Response 110.2(2)(b) & 160.3(a)(2), Supply Air Temp. Reset 140.4(f) & 170.2(c)(4), Window Interlocks per 140.4(a) & 170.2(c)(4).

FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

Table with 11 columns: Name or Item Tag, Equipment Category per Tables 110.2, 140.4(a) and 170.2(c)(1), Equipment Type per Tables 110.2 and 170.2(c)(1), Smallest Size Available² 140.4(a) and 170.2(c)(1), Heating Output²,³, Cooling Output²,³, Load Calculations³,⁴.

FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c). Healthcare facilities are exempted. It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables. If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank. Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

Dry System Equipment Efficiency (Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP) only)

Table with 7 columns: Name or Item Tag, Heating Mode, Design COP, Cooling Mode, Design EER.

A. GENERAL INFORMATION

Table with 4 columns: Project Location (city), Climate Zone, Occupancy Types Within Project, Classroom.

B. PROJECT SCOPE

This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b)(2) and 180.2(b)(2) for alterations.

Table with 3 columns: Air System(s), Wet System Components, Dry System Components.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1, 120.2(c)(3), 140.4(a), 140.4(a), 140.4(a), 170.2(c)(3), and 170.2(c)(4) for all nonresidential and hotel/motel and of multifamily/110.2, 160.3(a)(2), 170.2(a)(4), 170.2(a)(4) for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

Table with 2 columns: O1, O2. Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.

Nonresidential and Hotel/Motel Multifamily Common Use Ventilation Systems

Table with 10 columns: System Name, System Design OA CFM Airflow¹, System Design Transfer Air CFM, Air Filtration per 120.1(c) 141.0(b)(2) and 160.2(c)(2)¹, Exh. Vent per 120.1(c)(4) & 160.2(c)(4), DCV or Sensor Controls per 120.1(d)(3), 120.1(d)(5), and 120.1(e)(3) 160.2(c)(5)D 160.2(c)(5)E 160.2(c)(5)D.

G. PUMPS

This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(f), 170.2(c)(3), and 170.2(c)(4) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

Table with 11 columns: System Name, Quantity, Fan System Status, Alteration, System Zoning, all other systems, Servicing Dwelling Units, Not Servicing Dwelling Units, Fan System Airflow (cfm), 2,300, Site Elevation, 17, Economizer, NA: Altered packaged AC or HP <54 kbtu/h.

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, or the table indicated as not compliant for guidance.

Table with 9 columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. System Summary, Pumps, Fans/Economizers, System Controls, Ventilation, Terminal Box Controls, Distribution, Cooling Towers, Compliance Results.

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table with 6 columns: System Name, Quantity, System Serving, System Status, Space Type, Utilizing Recovered Heat.

J. VENTILATION AND INDOOR AIR QUALITY

Table with 10 columns: Space Name or Item Tag, Occupancy Type⁴, Conditioned Floor Area (ft²), # of Shower heads/toilets, # of people⁵, Required Min OA CFM, Required Min CFM, Provided per Design CFM, DCV, NA: Not required per §120.1(d)(3), Occ Sensor, NA: Not required space type.

FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system. Air filtration requirements apply to the following three system types per 120.1(c)(1): space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space. Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence. Fan lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code. 120.2(c)(3) requires systems serving rooms that are required by 130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensing include offices 250ft² or smaller, multipurpose rooms less than 1,000 ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by 130.1(c).

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK AND PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing. Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.

H. FAN SYSTEMS & AIR ECONOMIZERS

Table with 11 columns: System Name, Quantity, Fan System Status, Alteration, System Zoning, all other systems, Servicing Dwelling Units, Not Servicing Dwelling Units, Fan System Airflow (cfm), 2,300, Site Elevation, 17, Economizer, NA: Altered packaged AC or HP <54 kbtu/h.

FOOTNOTES: Fans serving spaces with design background noise goals below NC35. Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads. Fan system allowance includes fan system base allowance. Filter pressure loss can only be counted once per fan system. Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both. Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document.

H. EXHAUST AIR HEAT RECOVERY 140.4(a), 170.2(c)(4)

Table with 11 columns: O1, O2, O3, O4, O5, O6, O7, O8, O9, O10, O11.



HMC Architects

3186-070-000

2101 CAPITOL AVENUE, SUITE 100, SACRAMENTO, CA 95816 916 368 7990 / www.hmcarchitects.com

Table with 2 columns: DESCRIPTION, DATE. 1 ADDENDUM #1 03/01/2024

TITLE 24 SHEET INDEX

Table with 2 columns: SHEET NO., SHEET TITLE. T24.01 TITLE 24 COMPLIANCE - BUILDING 8, T24.02 TITLE 24 COMPLIANCE - BUILDING 8, T24.03 TITLE 24 COMPLIANCE - BUILDING 8, T24.04 TITLE 24 COMPLIANCE - BUILDING 9, T24.05 TITLE 24 COMPLIANCE - BUILDING 10, T24.06 TITLE 24 COMPLIANCE - BUILDING 10, T24.07 TITLE 24 COMPLIANCE - BUILDING 11, T24.08 TITLE 24 COMPLIANCE - BUILDING 11, T24.09 TITLE 24 COMPLIANCE - KITCHEN, T24.10 TITLE 24 COMPLIANCE - KITCHEN, T24.11 TITLE 24 COMPLIANCE - ELECTRICAL BUILDING 2 AND SITE LIGHTING, T24.12 TITLE 24 COMPLIANCE - ELECTRICAL BUILDING 2 AND SITE LIGHTING.



FACILITY: MATSUYAMA ELEMENTARY SCHOOL 7680 WINDBRIDGE DR. SACRAMENTO, CA 95831

PROJECT: MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME: TITLE 24 COMPLIANCE - BUILDING 8

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET: DSA SUBMITTAL

T24.01

Autodesk Docs/018607000 - SCUSD Matsuyama ES Modernization/018607000-A-MATSUYAMA-MOD-01 12/15/2023 2:28:53 PM

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization Report Page: (Page 12 of 13)
Date Prepared: 12/14/2023

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

	01	02
Compliance with Mandatory Measures documented through MCH	Yes	Plan sheet or construction document location
Mandatory Measures Note Block		M-Sheets

Generated Date/Time: Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4955-1223-1594
Schema Version: rev 20220101 Report Generated: 2023-12-14 13:42:57

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization Report Page: (Page 13 of 13)
Project Address: 7680 Windbridge Dr Date Prepared: 12/14/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Lydia Reynolds
Signature Date: 2023-12-14
Company: LP Consulting Engineers, Inc.
Address: 1209 Pleasant Grove Blvd.
City/State/Zip: Roseville CA 95678
Phone: 916.771.0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Ennis
Signature Date: 2023-12-14
Company: LP Consulting Engineers, Inc.
Address: 1209 Pleasant Grove Blvd.
City/State/Zip: Roseville CA 95678
Phone: 916.771.0778

Generated Date/Time: Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4955-1223-1594
Schema Version: rev 20220101 Report Generated: 2023-12-14 13:42:57

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization Report Page: (Page 9 of 13)
Date Prepared: 12/14/2023

L. DISTRIBUTION (DUCTWORK AND PIPING)
Duct Leakage Testing

	NR/ Common Use:	Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
The answers to the questions below apply to the following duct systems:	HP-8-1	Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	No
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft ² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system.	
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17		All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18		All ductwork is an extension of an existing duct system	
19		Ductwork serving individual dwelling unit	
20		< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Duct Insulation R-value	
22			
23			

The answers to the questions below apply to the following duct systems: HP-8-2 & HP-8-3 NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems? No

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4955-1223-1594
Schema Version: rev 20220101 Report Generated: 2023-12-14 13:42:57

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization Report Page: (Page 10 of 13)
Date Prepared: 12/14/2023

L. DISTRIBUTION (DUCTWORK AND PIPING)

	Dwelling Units:	Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	No
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft ² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system.	
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17		All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18		All ductwork is an extension of an existing duct system	
19		Ductwork serving individual dwelling unit	
20		< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Duct Insulation R-value	
22			
23			

M. COOLING TOWERS
This section does not apply to this project.

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Schema Version: rev 20220101 Report Generated: 2023-12-14 13:42:57

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization Report Page: (Page 11 of 13)
Date Prepared: 12/14/2023

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	BAR2 W36H; BAR2 W36H;
NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes" if Constant Volume Single Zone HVAC Systems are included in the scope, permit application should move this form to "Yes".	BAR2 W36H; BAR2 W36H;
NRCA-MCH-11-A Automatic Demand Shed Controls	BAR2 W36H; BAR2 W36H;
NRCA-MCH-16-A Supply Air Temperature Reset Controls	BAR2 W36H; BAR2 W36H;
NRCA-MCH-18-A Energy Management Control Systems	BAR2 W36H; BAR2 W36H;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
There are no NRCV forms required for this project.

Generated Date/Time: Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4955-1223-1594
Schema Version: rev 20220101 Report Generated: 2023-12-14 13:42:57

AGENCY APPROVAL:



HMC Architects

3186-070-000

2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

DESCRIPTION	DATE
1 ADDENDUM #1	03/01/2024



FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
TITLE 24 COMPLIANCE - BUILDING 8

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000
SHEET:

T24.02

Autodesk Docs/1218607000 - SCUSD Matsuyama ES Modernization/18607000-A-MATSUYAMA-MOD-1712152023.228:53 PM

J. VENTILATION AND INDOOR AIR QUALITY This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(c)38 140.4(a) and 140.4(a) for all nonresidential and hotel/motel and d:124refnoln/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table.

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

G. PUMPS This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS This table is used to demonstrate compliance with prescriptive requirements found in 140.4(f), 140.4(f), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems.

Table with columns for System Name, HP-9-1, Quantity, 1, Fan System Status, Alteration, System Zoning, all other systems, Servicing Dwelling Units, Not Servicing Dwelling Units, Fan System Airflow (cfm), 1,150, Site Elevation, 17, Economizer, NA: Altered packaged AC or HP <=4 kbtu/h

A. GENERAL INFORMATION Table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.

Table with columns for Project Location (city), Sacramento, Total Conditioned Floor Area, 1920, Climate Zone, 12, Total Unconditioned Floor Area, 0, Occupancy Types Within Project, Classroom, 1

J. VENTILATION AND INDOOR AIR QUALITY Space Name or Item Tag Classroom Classroom (ages 5-18) Occupancy Type, 960, Conditioned Floor Area (ft²), # of Shower heads/toilets, # of people, Required Min OA CFM, 364.8, Required Min CFM, 0, Provided per Design CFM, 0, DCV, NA: Not required per 160.2(c)212, NA: Not required space type

FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

K. TERMINAL BOX CONTROLS This section does not apply to this project. L. DISTRIBUTION (DUCTWORK AND PIPING) This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing.

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

H. FAN SYSTEMS & AIR ECONOMIZERS System Name HP-9-2 & HP-9-3 Quantity 2 Fan System Status Alteration System Zoning all other systems Servicing Dwelling Units Not Servicing Dwelling Units Fan System Airflow (cfm) 2,300 Site Elevation 17 Economizer NA: Altered packaged AC or HP <=4 kbtu/h

FOOTNOTES: Fans serving spaces with design background noise goals below NC25 Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow.

H. EXHAUST AIR HEAT RECOVERY 140.4(q), 170.2(c)4O Table with columns for Fan System Name, Qty, Hours of Operation per Year, Design Supply Airflow Rate, Outdoor Airflow, % Outdoor Air at Full Design Airflow, Exemptions to Exhaust Air Heat Recovery Requirement per 140.4(q) & 170.2(c)4O

Table with columns for System Name, HP-9-2 & HP-9-3, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

C. COMPLIANCE RESULTS Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user.

Table with columns for O1, O2, O3, O4, O5, O6, O7, O8, O9, Compliance Results, COMPLIES

D. EXCEPTIONAL CONDITIONS This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Space Conditioning System Information Table with columns for System Name, Quantity, System Servicing, System Status, Space Type, Utilizing Recovered Heat

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

L. DISTRIBUTION (DUCTWORK AND PIPING) Duct Leakage Testing Table with columns for The answers to the questions below apply to the following duct systems: HP-9-1, NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?

The answers to the questions below apply to the following duct systems: HP-9-2 & HP-9-3, NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

H. EXHAUST AIR HEAT RECOVERY 140.4(q), 170.2(c)4O Table with columns for Fan System Name, Qty, Hours of Operation per Year, Design Supply Airflow Rate, Outdoor Airflow, % Outdoor Air at Full Design Airflow, Exemptions to Exhaust Air Heat Recovery Requirement per 140.4(q) & 170.2(c)4O

I. SYSTEM CONTROLS This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

Table with columns for System Name, HP-9-2 & HP-9-3, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems) Table with columns for Name or Item Tag, Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii, Equipment Type per Tables 110.2 and Title 20, Heating Output, Cooling Output, Load Calculations

FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are exempted.

It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables. Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

Table with columns for Name or Item Tag, HP-9-1, Rated Output Capacity (kbtu/h), Minimum COP Required per Table 110.2-E, Design COP, Rated Output Capacity (kbtu/h), Minimum EER Required per Tables 110.2-E, Design EER

Table with columns for System Name, HP-9-2 & HP-9-3, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

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ISSUE table with columns for Description, Addendum #1, Date, 03/01/2024

J. VENTILATION AND INDOOR AIR QUALITY Space Name or Item Tag Classroom Classroom (ages 5-18) Occupancy Type, 960, Conditioned Floor Area (ft²), # of Shower heads/toilets, # of people, Required Min OA CFM, 364.8, Required Min CFM, 0, Provided per Design CFM, 0, DCV, NA: Not required per 160.2(c)212, NA: Not required space type

FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

K. TERMINAL BOX CONTROLS This section does not apply to this project. L. DISTRIBUTION (DUCTWORK AND PIPING) This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing.

Table with columns for System Name, HP-9-1, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

L. DISTRIBUTION (DUCTWORK AND PIPING) Duct Leakage Testing Table with columns for The answers to the questions below apply to the following duct systems: HP-9-1, NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?

The answers to the questions below apply to the following duct systems: HP-9-2 & HP-9-3, NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?

Table with columns for System Name, HP-9-2 & HP-9-3, System Design OA CFM Airflow, 365, System Design Transfer Air CFM, 0, Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)212, 16.

PROJECT: MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME: TITLE 24 COMPLIANCE - BUILDING 9 DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000 SHEET: T24.03



PLEASE RECYCLE

STATE OF CALIFORNIA
Mechanical Systems
 CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
 Project Name: Matsuyama Elementary School Modernization Report Page: (Page 13 of 13)
 Project Address: 7680 Windbridge Dr Date Prepared: 12/14/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Lydia Reynolds
 Company: LP Consulting Engineers, Inc.
 Address: 1209 Pleasant Grove Blvd.
 City/State/Zip: Roseville CA 95678
 Phone: 916.771.0778

Documentation Author Signature: [Signature]
 Signature Date: 2023-12-14
 CCA/HER Certification Identification (if applicable):

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Ennis
 Company: LP Consulting Engineers, Inc.
 Address: 1209 Pleasant Grove Blvd.
 City/State/Zip: Roseville CA 95678
 Phone: 916.771.0778

Responsible Designer Signature: [Signature]
 Signature Date: 2023-12-14
 License: M41413

Generated Date/Time: Documentation Software: EnergyPro
 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4955-1223-1595
 Schema Version: rev 20220101 Report Generated: 2023-12-14 13:50:58

STATE OF CALIFORNIA
Mechanical Systems
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CERTIFICATE OF COMPLIANCE NRCC-MCH-E
 Project Name: Matsuyama Elementary School Modernization Report Page: (Page 10 of 13)
 Project Address: 7680 Windbridge Dr Date Prepared: 12/14/2023

L. DISTRIBUTION (DUCTWORK AND PIPING)

Item	Yes	No	Description
11	No		The scope of the project includes only duct systems serving healthcare facilities
12	Yes		Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes		The space conditioning system serves less than 5,000 ft ² of conditioned floor area.
14	No		The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system.
15			The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17			All ductwork and plenums with pressure class ratings shall be constructed to Sea Class A
18			All ductwork is an extension of an existing duct system
19			Ductwork serving individual dwelling unit
20			< 25 ft of new or replacement space conditioning ducts installed
21			Duct Insulation R-value
22			
23			

M. COOLING TOWERS
 This section does not apply to this project.

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CERTIFICATE OF COMPLIANCE NRCC-MCH-E
 Project Name: Matsuyama Elementary School Modernization Report Page: (Page 11 of 13)
 Project Address: 7680 Windbridge Dr Date Prepared: 12/14/2023

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title

NRCA-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	BAR0 W36H; BAR0 W36H;
NRCA-MCH-03-A - Constant Volume Single Zone HVAC. NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	BAR0 W36H; BAR0 W36H;
NRCA-MCH-11-A Automatic Demand Shed Controls	BAR0 W36H; BAR0 W36H;
NRCA-MCH-16-A Supply Air Temperature Reset Controls	BAR0 W36H; BAR0 W36H;
NRCA-MCH-18-A Energy Management Control Systems	BAR0 W36H; BAR0 W36H;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
 There are no NRCV forms required for this project.

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CERTIFICATE OF COMPLIANCE NRCC-MCH-E
 Project Name: Matsuyama Elementary School Modernization Report Page: (Page 12 of 13)
 Project Address: 7680 Windbridge Dr Date Prepared: 12/14/2023

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
 This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

	01	02
Compliance with Mandatory Measures documented through MCH	Yes	Plan sheet or construction document location
Mandatory Measures Note Block		M-Sheets

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AGENCY APPROVAL:



HMC Architects

3186-070-000

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 SACRAMENTO, CA, 95816
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ISSUE

DESCRIPTION	DATE
1 ADDENDUM #1	03/01/2024



FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
 7680 WINDBRIDGE DR.
 SACRAMENTO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
TITLE 24 COMPLIANCE - BUILDING 9

DSA SUBMITTAL

DATE: 01/04/2024 CLIENT PROJ NO: 3186-070-000

SHEET:

T24.04