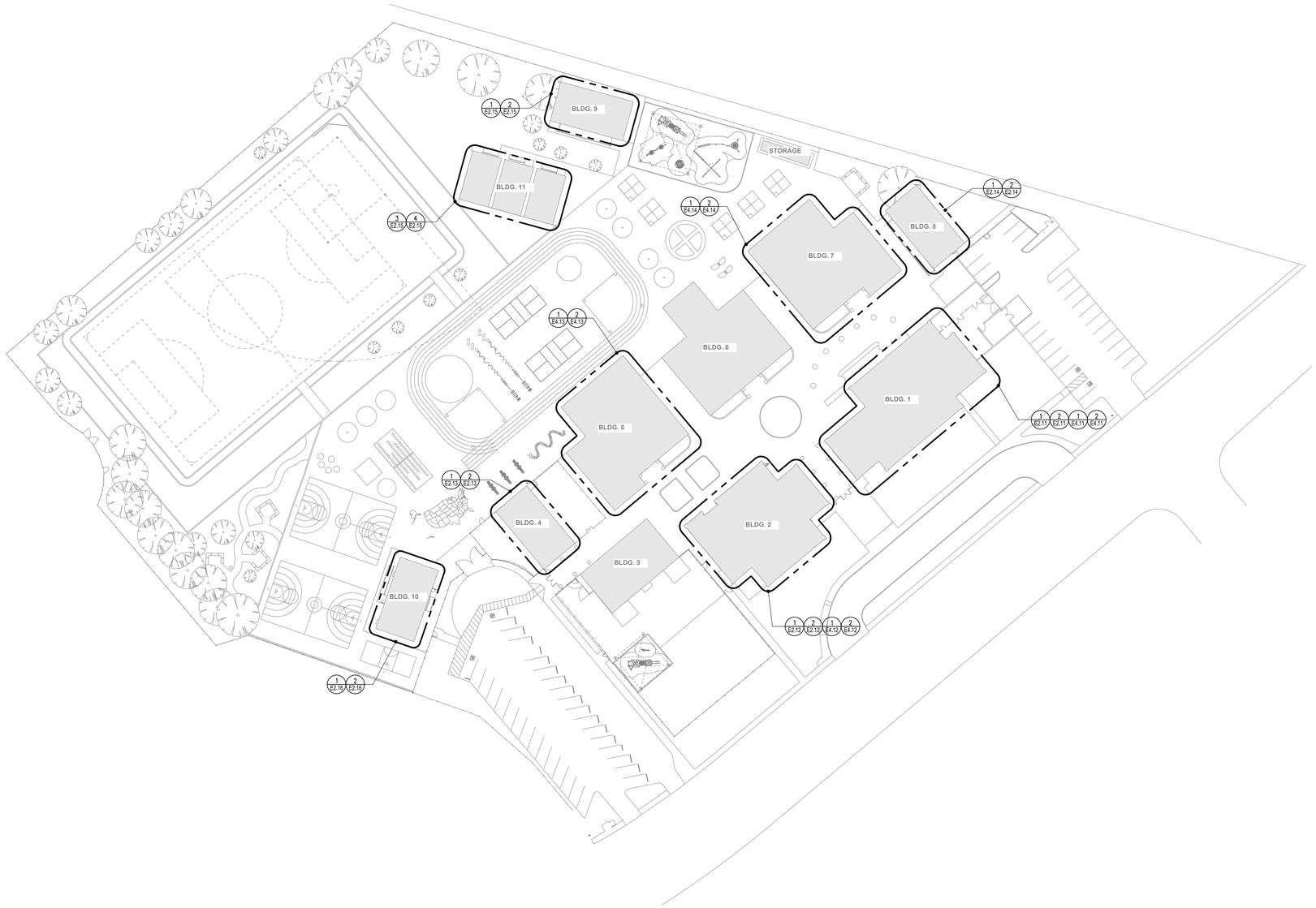
THE LINE BROWN ABOVE IS EXACTLY 1" WHEN PRINTED ON SHEETS ORIGINAL IMAGE SIZE



OVER ELECTRICAL SITE PLAN 1

1" = 40'-0"

PLEASE RECYCLE

Autodesk Docs://3186070000 - SCUSD Matsuyama ES Modernization/3186070000-A-MATSUYAMA-MOD.rvt
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Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

FACILITY:

MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRMANETO, CA 95831

PROJECT:

MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:

OVER ELECTRICAL SITE PLAN

DSA SUBMITTAL

DATE: **01/04/2024**

CLIENT PROJ NO: **3186-070-000**

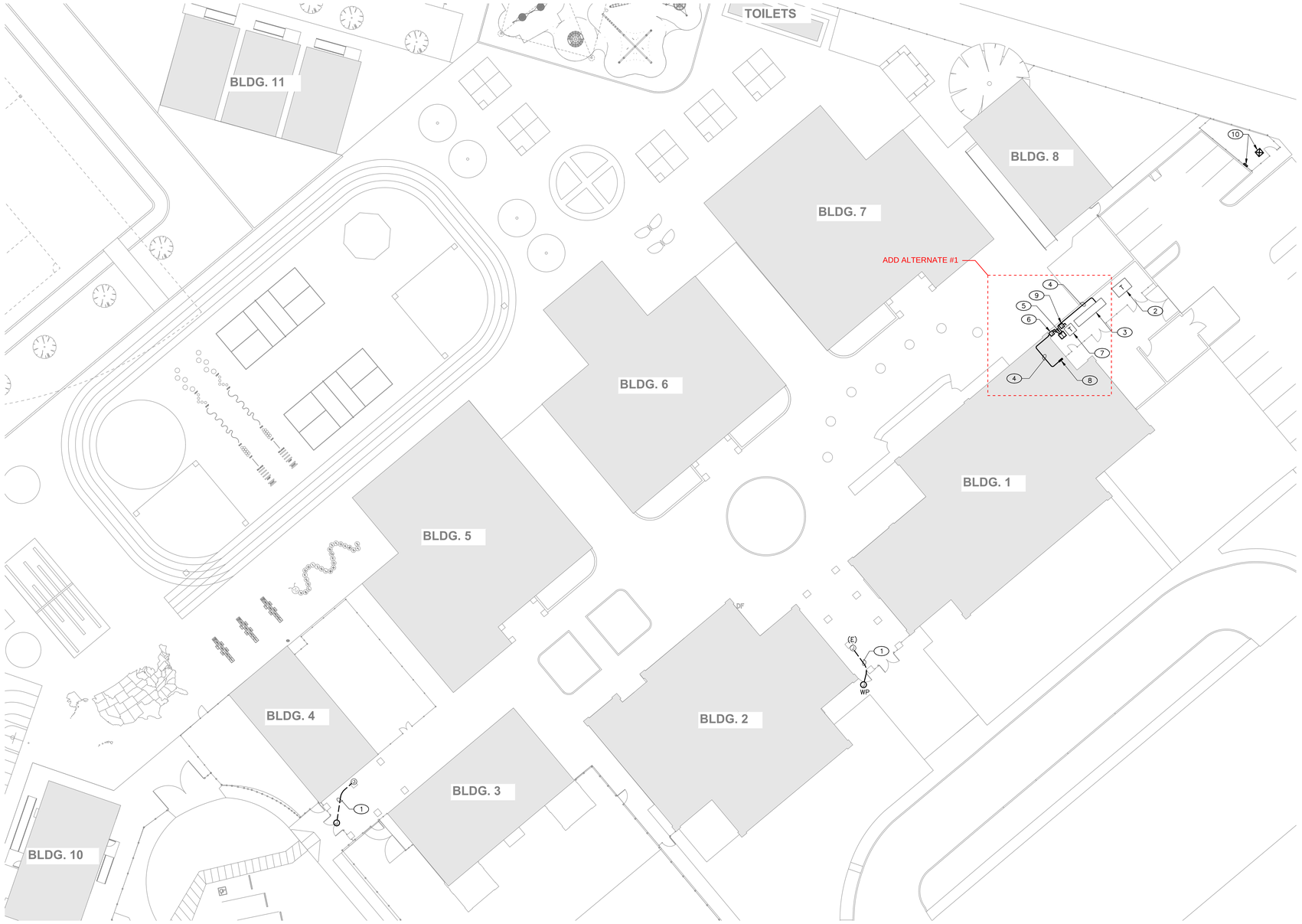
SHEET:

E1.11

THE LINE BROWN ABOVE IS EXACTLY 1" WHEN PLOTTED ON SHEETS ORIGINAL MADE FOR

KEY NOTES

1. PROVIDE (1) 1" UNDERGROUND CONDUIT FROM THE (E) J-BOX TO THE SECURITY GATE HARDWARE. COORDINATE THE EXACT LOCATIONS WITH TECHNOLOGY DRAWINGS.
2. (E) UTILITY SERVICE TRANSFORMER.
3. (E) SERVICE MAIN SWITCHBOARD.
4. (N) CONDUITS AND CONDUCTORS, SEE ONE LINE DIAGRAM ON SHEET E6.01 FOR MORE INFO.
5. (N) OUTDOOR RATED TRANSFORMER "T-5", SEE ONE LINE DIAGRAM ON SHEET E6.01 FOR MORE INFO.
6. (N) 400AS/225AF/3P OUTDOOR RATED HEAVY DUTY FUSIBLE DISCONNECT SWITCH. SEE ONE LINE DIAGRAM ON SHEET E6.01 FOR MORE INFO.
7. (E) TRANSFORMER "T-1".
8. (N) PANEL "K", SEE E2.11 FOR LOCATION AND ONE LINE DIAGRAM ON SHEET E6.01. SEE PANEL SCHEDULE ON SHEET E7.01.
9. (E) WALL MOUNTED DISCONNECT SWITCH.
10. (E) IRRIGATION PUMP AND CONTROLLER TO BE REPLACED BY IRRIGATION CONTRACTOR. ELECTRICAL CONTRACTOR SHALL RECONNECT THE (N) PUMP AND CONTROLLER TO THE (E) 208V/3-PHASE, 50A CIRCUIT. RESERVE AND PROTECT THE (E) IRRIGATION PUMP CIRCUIT DURING THE CONSTRUCTION. PROVIDE ALL POWER AND CONTROL CONNECTIONS BETWEEN THE IRRIGATION PUMP AND THE CONTROLLER AS A COMPLETE AND OPERABLE SYSTEM. REFER TO LANDSCAPE DRAWINGS FOR ADDITIONAL REQUIREMENT.



GENERAL NOTES

A. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40. ALL ABOVE GROUND CONDUITS SHALL BE GRC.

TN
PN

ELECTRICAL ENLARGED SITE PLAN | 1
1" = 20'-0"

PLEASE RECYCLE

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RAMI S. ZEIDAN
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ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL ENLARGED SITE PLAN

DSA SUBMITTAL

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

SHEET:

E1.12

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KEY NOTES

1. CONNECT THE (N) POLE LIGHT TO THE NEAREST (E) SITE LIGHTING CIRCUIT AND CONTROL.

GENERAL NOTES

A. UNDERGROUND CONDUITS SHALL BE SCH-40 PVC.

TN
PN

ELECTRICAL LIGHTING SITE PLAN | **1** 1" = 20'-0"

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STATE OF CALIFORNIA

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7680 WINDBRIDGE DR.
SACRMANETO, CA 95831

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ELECTRICAL LIGHTING SITE PLAN

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SHEET:

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LIGHTING FIXTURE SCHEDULE

SYMBOL	LABEL	MANUFACTURER/MODEL NUMBER	MOUNTING	LUMENS & COLOR TEMP.	LIGHT LOSS FACTOR	WATTAGE	REMARKS
⊶□	S1	COOPER LIGHTING GLAN-SA2-C-740-U-T4W-PA-SPB4	POLE @ +25'	LED 4000K 14145 LUMENS	1:00	108	LED POLE MOUNT FIXTURE, PROVIDE WITH MOTION SENSOR. SEE DETAIL 8/E8.01 FOR MOUNTING DETAIL

PHOTOMETRIC STATISTICS

SYMBOL	DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	MAXIMUM/MINIMUM	AVERAGE/MIMINUM
+	PATH OF TRAVEL	2.3 FC	3.5 FC	1.0 FC	3.5/1	2.3/1

TN
PN

ELECTRICAL PHOTOMETRIC SITE PLAN 1 1" = 20'-0"

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MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRMANETO, CA 95831

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ELECTRICAL PHOTOMETRIC SITE PLAN

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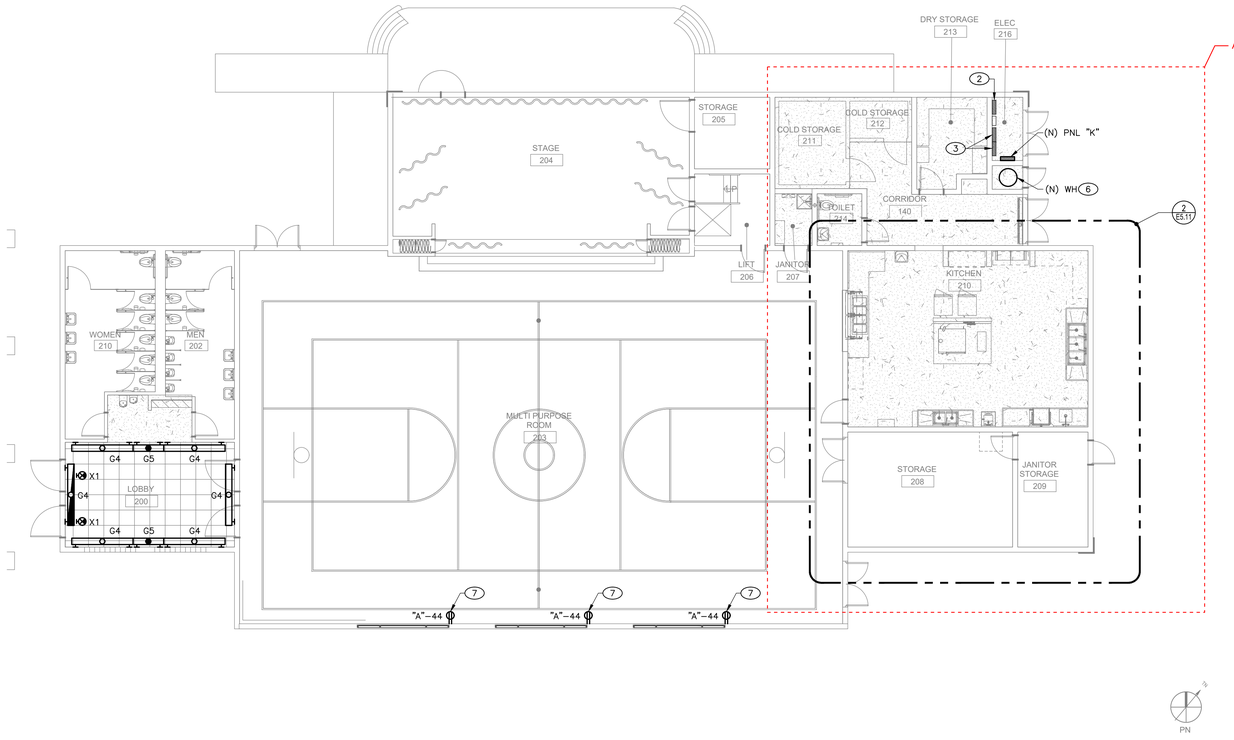
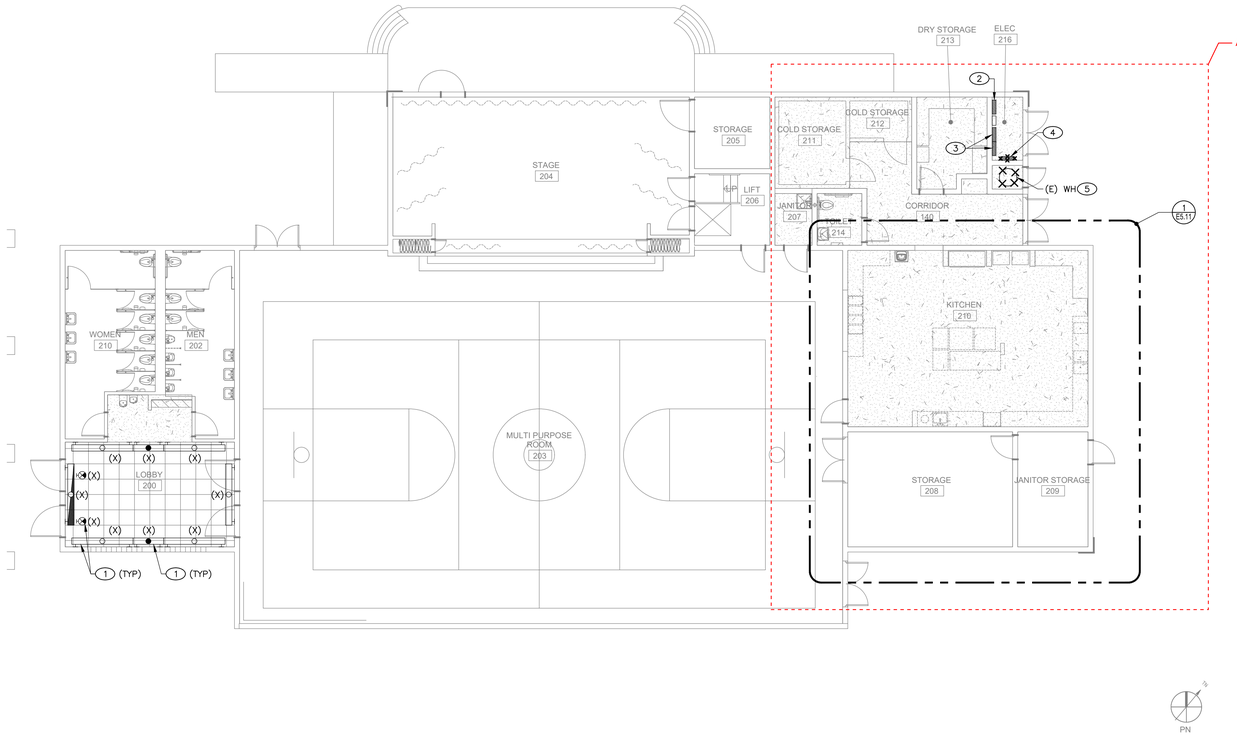
SHEET:

E1.14



ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 1

2
1/8" = 1'-0"



ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 1

1
1/8" = 1'-0"

KEY NOTES

1. DEMOLISH AND REMOVE ALL EXISTING LIGHT FIXTURES IN LOBBY 200. RESERVE THE EXISTING CIRCUIT AND CONTROLS FOR NEW FIXTURES. PROVIDE NEW FIXTURE IN THE LOBBY 200 AS SHOWN ON IMPROVEMENT PLAN. RECONNECT THE (N) FIXTURES TO THE (E) LIGHTING CIRCUIT AND CONTROL.
2. EXISTING PANEL "HA" TO REMAIN.
3. EXISTING PANEL "A" TO REMAIN.
4. REMOVE EXISTING PANEL "K" AND REPLACE WITH NEW PANEL. SEE ONE LINE DIAGRAM ON SHEET E6.01 FOR MORE INFO. CONTRACTOR SHALL VERIFY THE EXISTING CIRCUIT DESIGNATIONS AT THE (E) PANEL AND TAG THE EXISTING BRANCH CIRCUITS. INTERCEPT BRANCH CIRCUITS; EXTEND AND RECONNECT THEM TO THE (N) PANEL TO MAINTAIN EXISTING CIRCUIT CONTINUITY TO THE REMAINING ELECTRICAL FIXTURES AND/OR EQUIPMENT.
5. DEMO GAS WATER HEATER; PROTECT AND RESERVE ASSOCIATED (E) 120V, 20A POWER CIRCUIT(S) FOR RECONNECTION TO (N) GAS WATER HEATER.
6. (N) GAS WATER HEATER; RECONNECT BLOWER, IGNITION AND POWER VENT TO (E) 120V, 20A POWER CIRCUIT(S). EXTENT THE CIRCUIT(S) AS REQUIRED. SEE PLUMBING DRAWINGS FOR MORE INFO.
7. PROVIDE 120V, 20A POWER CONNECTION TO MOTORIZED ROLLER WINDOW SHADES. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT ON SITE. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENT.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 1

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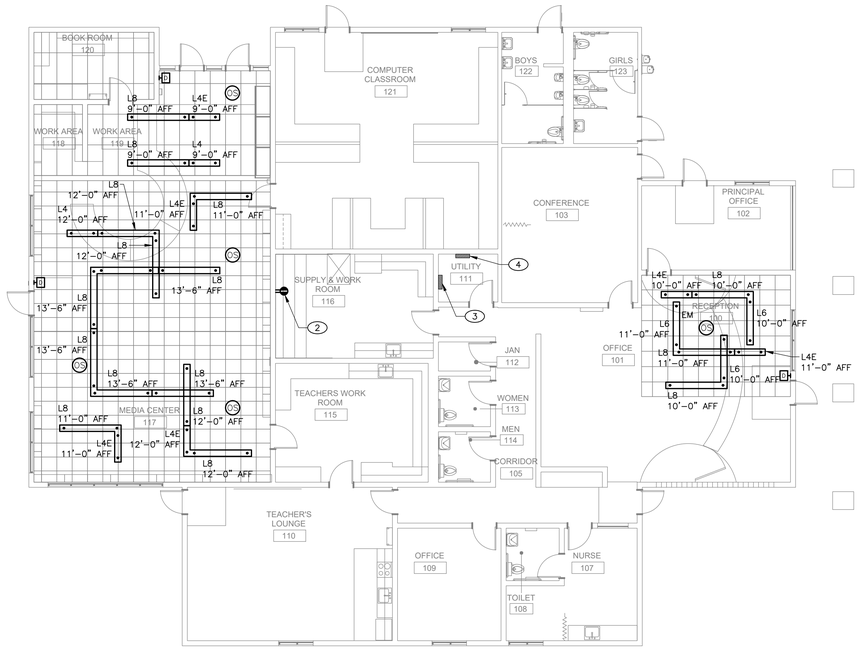
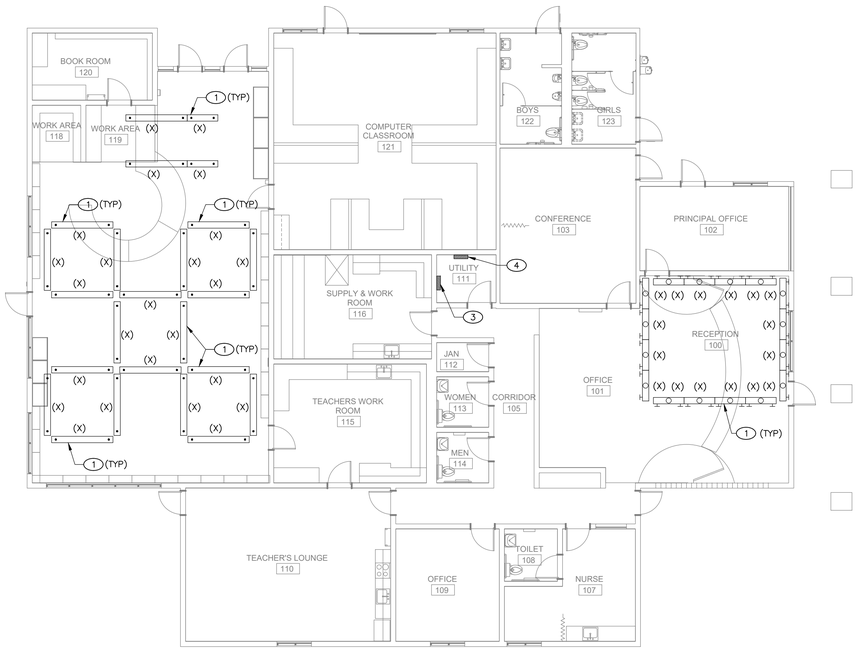
E2.11



ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 2 | **2** 1/8" = 1'-0"



ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 2 | **1** 1/8" = 1'-0"

KEY NOTES

1. DEMOLISH AND REMOVE EXISTING LIGHT FIXTURES WITH ASSOCIATED CONTROLS. RESERVE THE EXISTING CIRCUIT FOR NEW FIXTURES. PROVIDE NEW LED FIXTURE AS SHOWN ON IMPROVEMENT PLAN. RECONNECT THE (N) FIXTURES TO THE (E) LIGHTING CIRCUIT. PROVIDE NEW LIGHTING CONTROL AS SHOWN. RECONFIGURE THE LIGHTING CIRCUIT TO ACCOMMODATE NEW LIGHTING CONTROLS. PROVIDE BLANK COVER TO EXISTING OUTLET BOXES AND PROVIDE FINISH TO MATCH EXISTING CEILING AND WALL FINCHES.
2. PROVIDE 120V, 20A DEDICATED POWER CONNECTION TO SECURITY GATE DOOR STRIKE POWER SUPPLY FROM THE BUILDING (E) PANEL. USE THE (E) AVAILABLE SPARE OR SPACE IN THE PANEL. PROVIDE NEW BREAKER TO MATCH EXISTING TYPE AND AIC RATING AND BREAKER SIZE. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY DRAWINGS.
3. EXISTING PANEL "HB" TO REMAIN.
4. EXISTING PANEL "B" TO REMAIN.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

C. REFER TO ARCHITECTURAL SHEET A3.12 FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR NEW LIGHTING.

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REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 2

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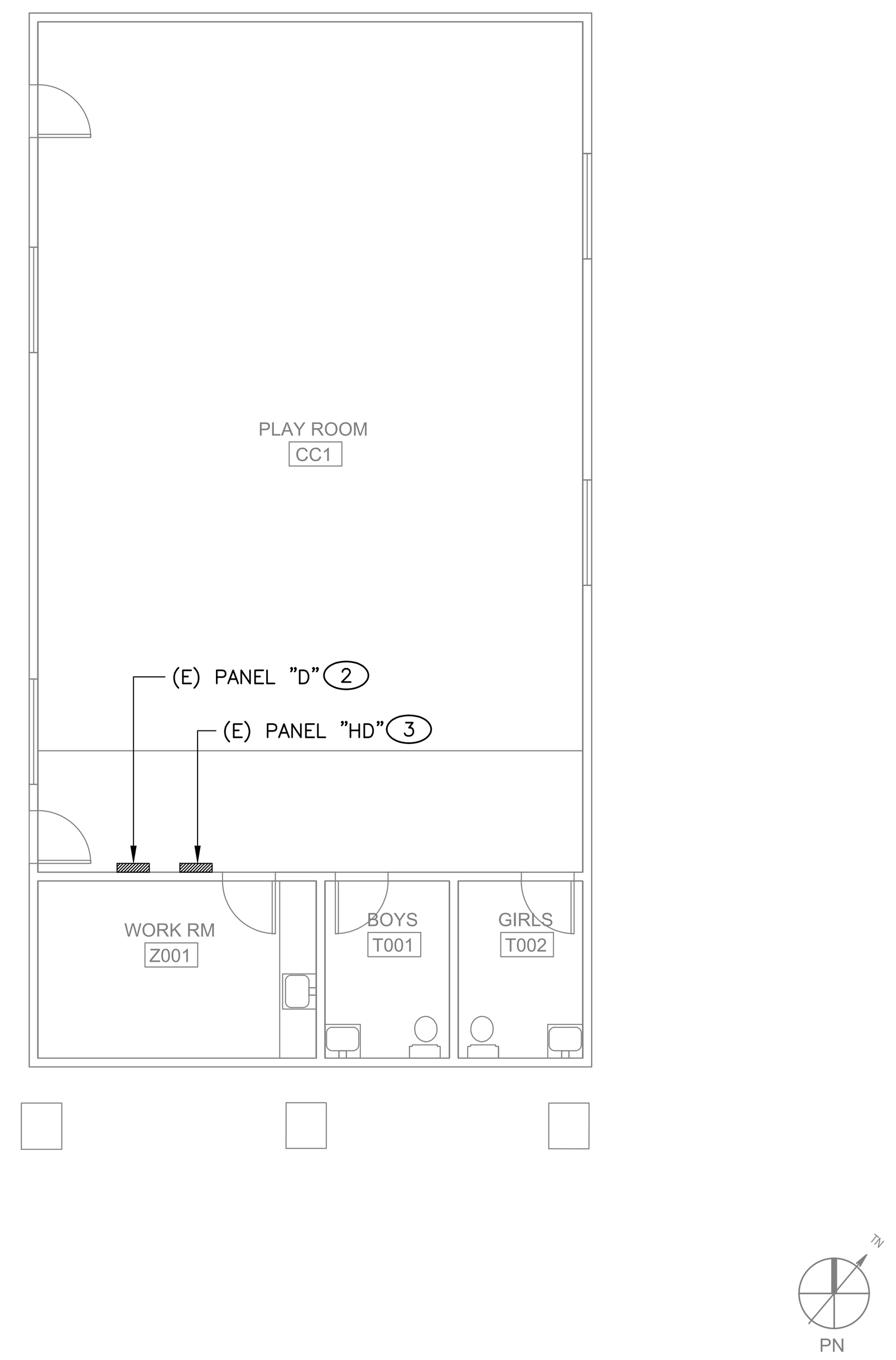
DATE: **01/04/2024** | CLIENT PROJ NO: **3186-070-000**

SHEET:

E2.12

KEY NOTES

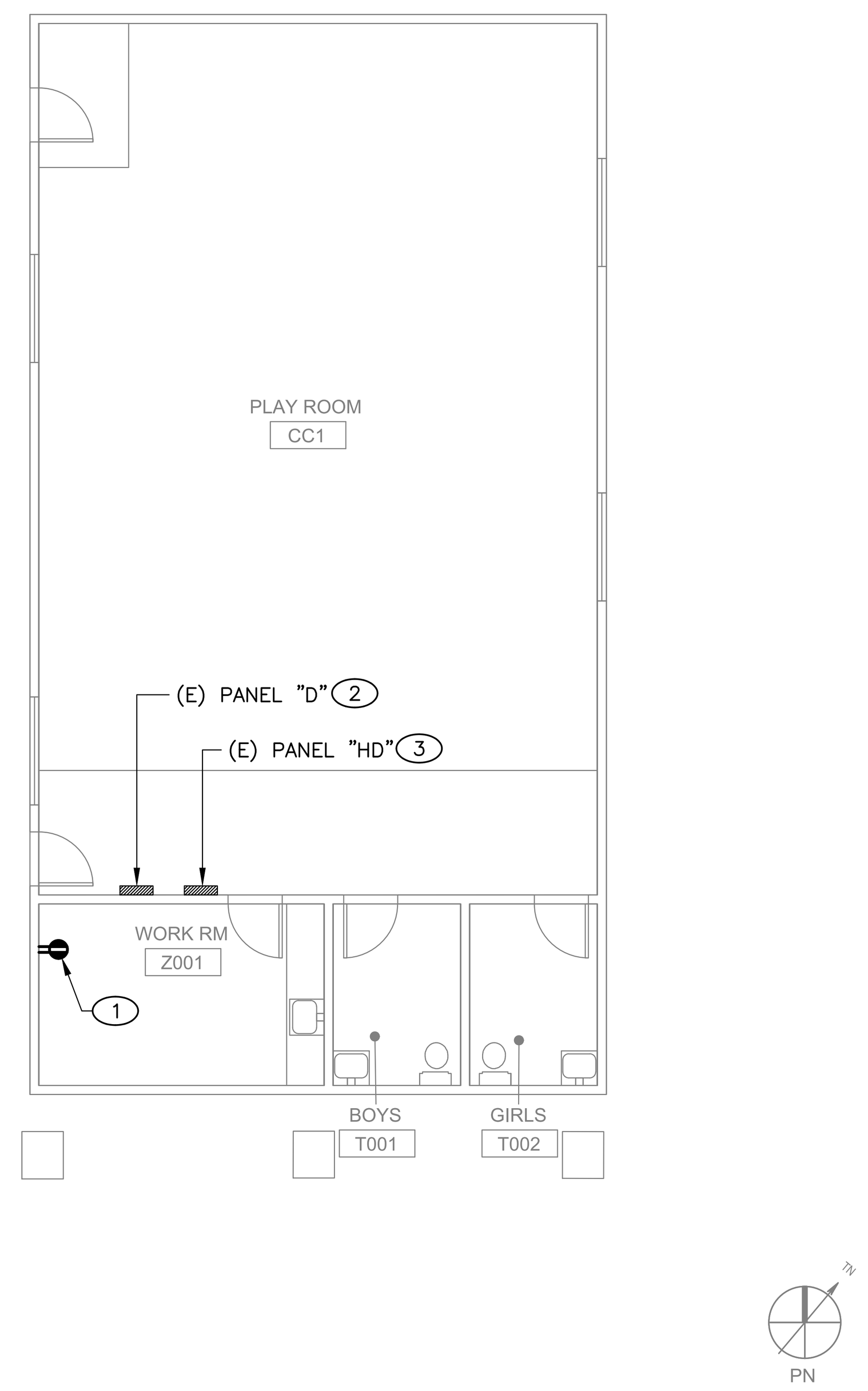
1. PROVIDE 120V, 20A DEDICATED POWER CONNECTION TO SECURITY GATE DOOR STRIKE POWER SUPPLY FROM THE BUILDING (E) PANEL. USE THE (E) AVAILABLE SPARE OR SPACE IN THE PANEL. PROVIDE NEW BREAKER TO MATCH EXISTING TYPE AND AIC RATING. COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT WITH TECHNOLOGY DRAWINGS.
2. EXISTING PANEL "D" TO REMAIN.
3. EXISTING PANEL "HD" TO REMAIN.



ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 4 | 1 | 1/8" = 1'-0"

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.



ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 4 | 2 | 1/8" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER RAMI S. ZEIDAN No. E 16762 Exp. 9/30/24 ELECTRICAL STATE OF CALIFORNIA

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

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SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 4

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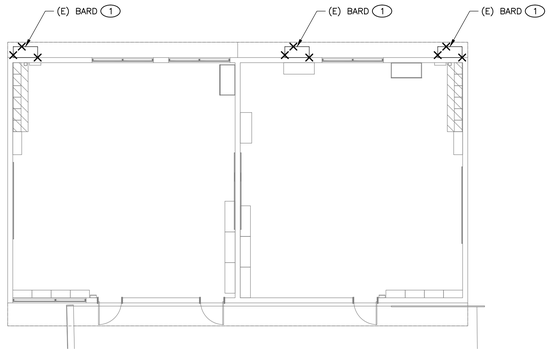
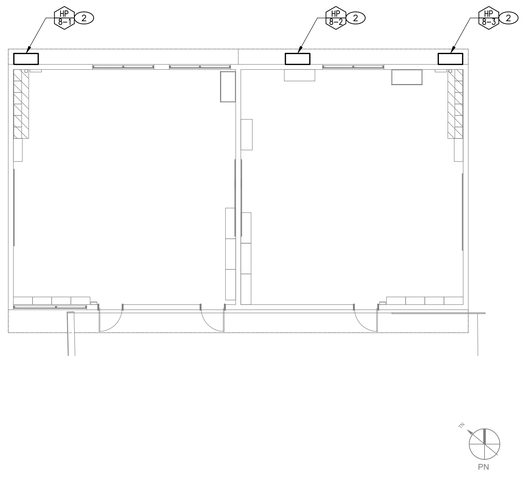


ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 8 | **1** 1/8" = 1'-0"



ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 8 | **2** 1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL UNIT, RESERVE (E) POWER CIRCUITING AND DISCONNECT FOR (N) MECHANICAL UNIT. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL UNIT, RECONNECT TO (E) POWER CIRCUITING. EXTEND (E) CIRCUITING AS REQUIRED.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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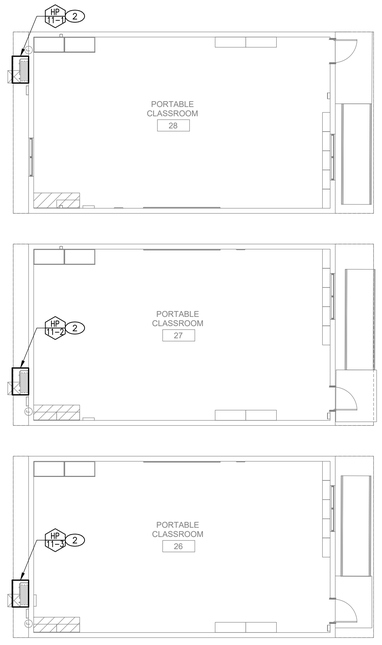
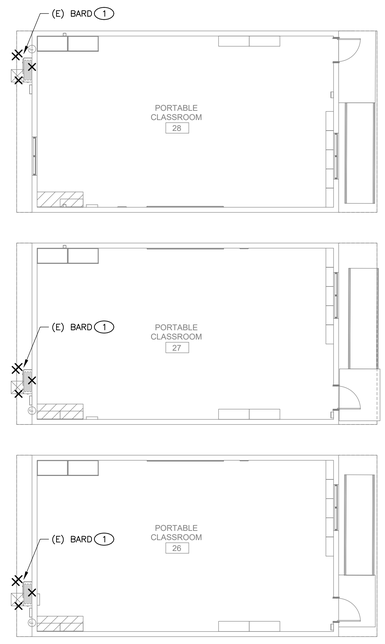


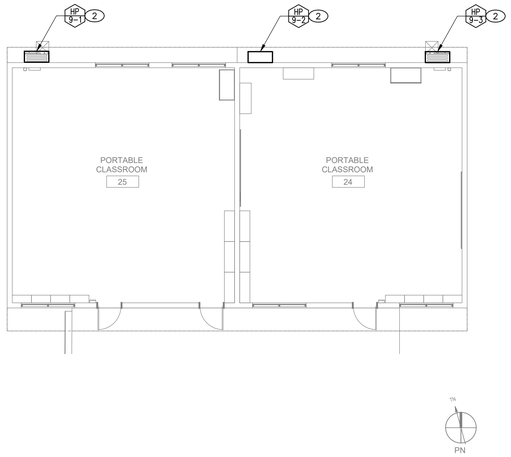
ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 11 | 4

1/8" = 1'-0"



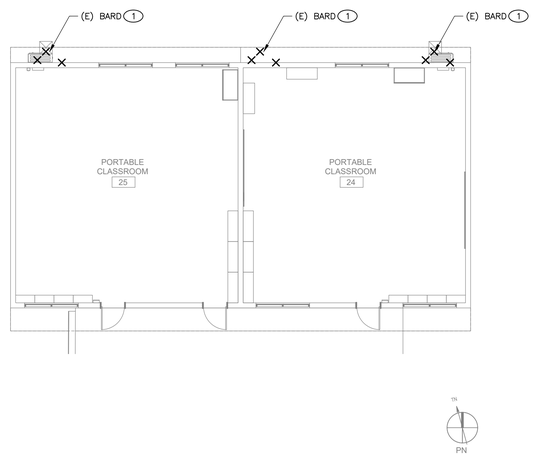
ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 11 | 3

1/8" = 1'-0"



ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 9 | 2

1/8" = 1'-0"



ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 9 | 1

1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL UNIT, RESERVE (E) POWER CIRCUITING AND DISCONNECT FOR (N) MECHANICAL UNIT. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL UNIT, RECONNECT TO (E) POWER CIRCUITING. EXTEND (E) CIRCUITING AS REQUIRED.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

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ELECTRICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 9, 11

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SHEET:

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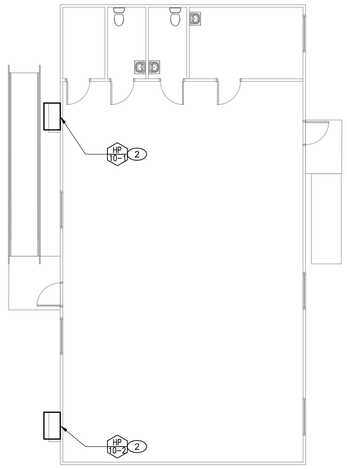
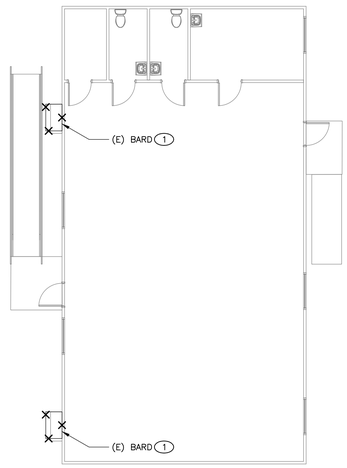


PN

ELECTRICAL IMPROVEMENT FLOOR PLAN - BLDG 10

2
1/8" = 1'-0"



PN

ELECTRICAL DEMOLITION FLOOR PLAN - BLDG 10

1
1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL UNIT, RESERVE (E) POWER CIRCUITING AND DISCONNECT FOR (N) MECHANICAL UNIT. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL UNIT, RECONNECT TO (E) POWER CIRCUITING. EXTEND (E) CIRCUITING AS REQUIRED.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
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1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0776
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

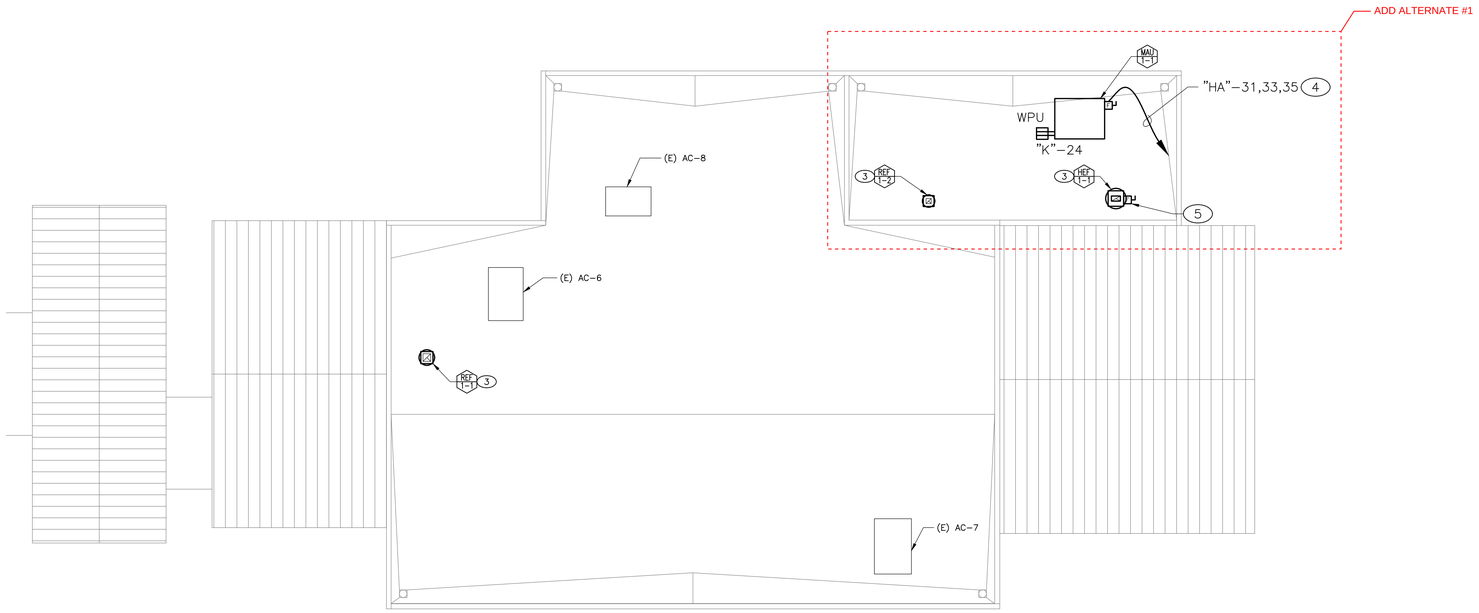
SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT FLOOR PLANS - BLDG 10

DSA SUBMITTAL

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

SHEET:

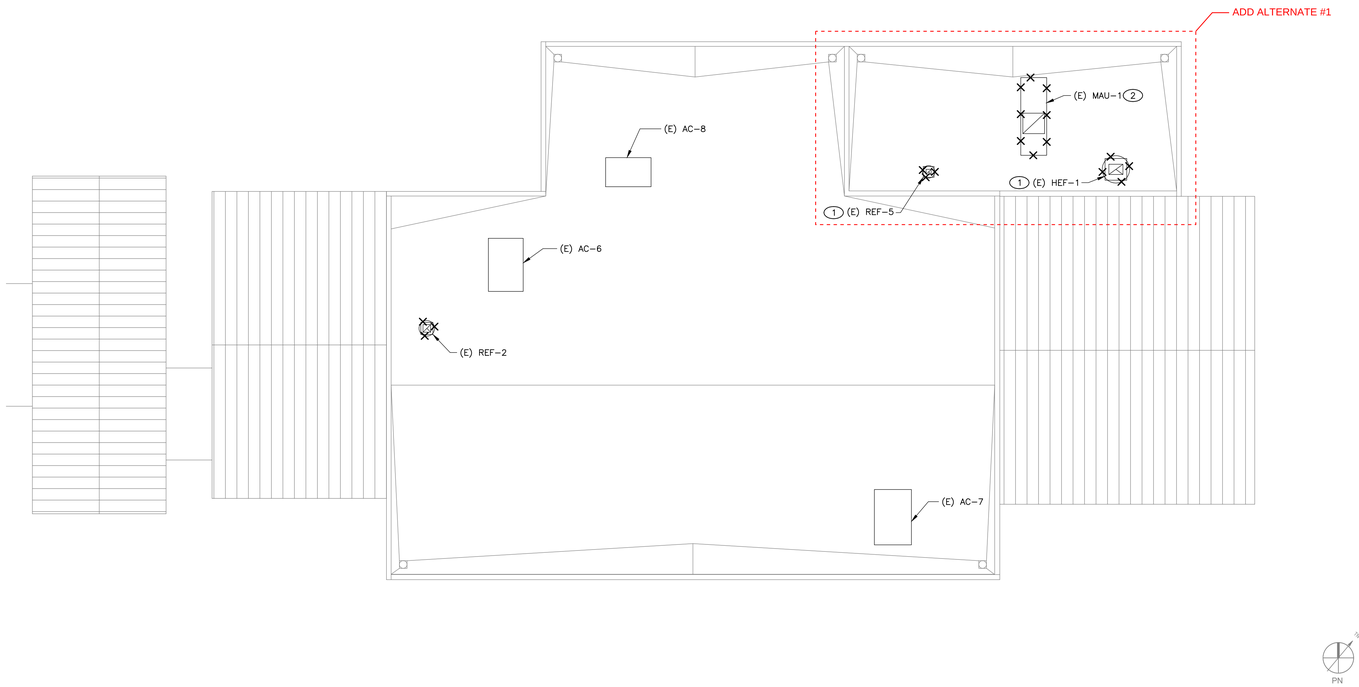
E2.16



ELECTRICAL IMPROVEMENT ROOF PLAN - BLDG 1

2

1/8" = 1'-0"



ELECTRICAL DEMOLITION ROOF PLAN - BLDG 1

1

1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL EXHAUST FAN, RESERVE THE (E) ELECTRICAL CIRCUITING FOR (N) EXHAUST FAN. SEE KEY NOTE 3 ON THIS SHEET.
2. DEMO MECHANICAL MAU, DEMOLISH AND REMOVE ASSOCIATED ELECTRICAL CIRCUITING AND DISCONNECT.
3. (N) MECHANICAL EXHAUST FAN, RECONNECT THE (N) EXHAUST FAN TO THE (E) POWER AND CONTROL CIRCUITING. SEE MECHANICAL DRAWINGS FOR MORE INFO.
4. (N) MECHANICAL "MAU" UNIT, 460V/3–PHASE, 16,3A MCA, 20A MOCP. PROVIDE 30AS/20AF/3P HEAVY DUTY WEATHERPROOF FUSIBLE DISCONNECT SWITCH. PROVIDE 3/4"C–3#12 CU +1#12 CU GND.
5. (N) MECHANICAL "HEF" FAN, 120V/1–PHASE, 11.6A FLA. PROVIDE 30AS/20AF/2P HEAVY DUTY WEATHERPROOF FUSIBLE DISCONNECT SWITCH. EXTEND (E) CIRCUITING AS REQUIRED.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. PATCH, REPAIR, AND FINISH AS NECESSARY FOR ANY DAMAGES DURING DEMOLITION AND INSTALL.

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Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

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CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 18762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

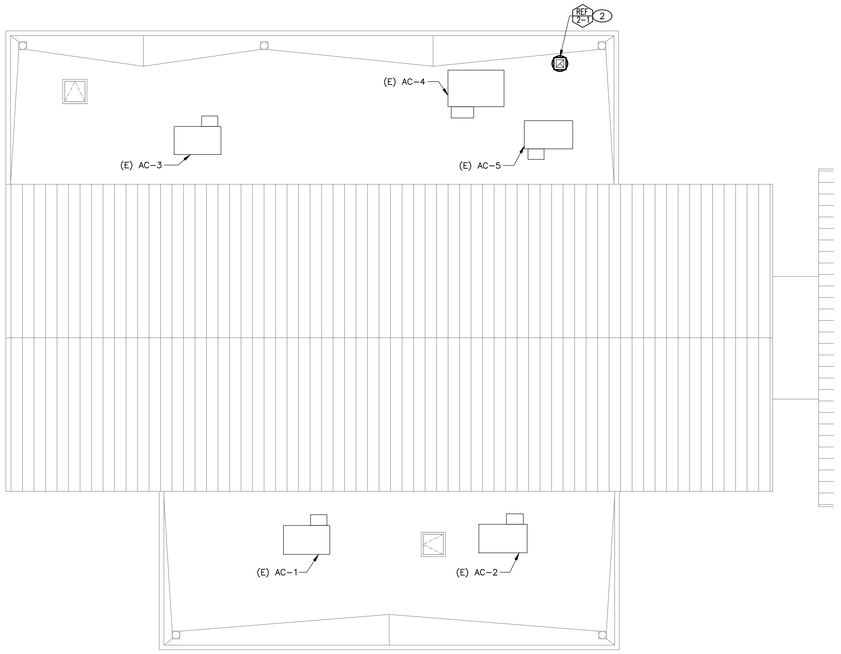
SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 1

DSA SUBMITTAL

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

SHEET:

E4.11

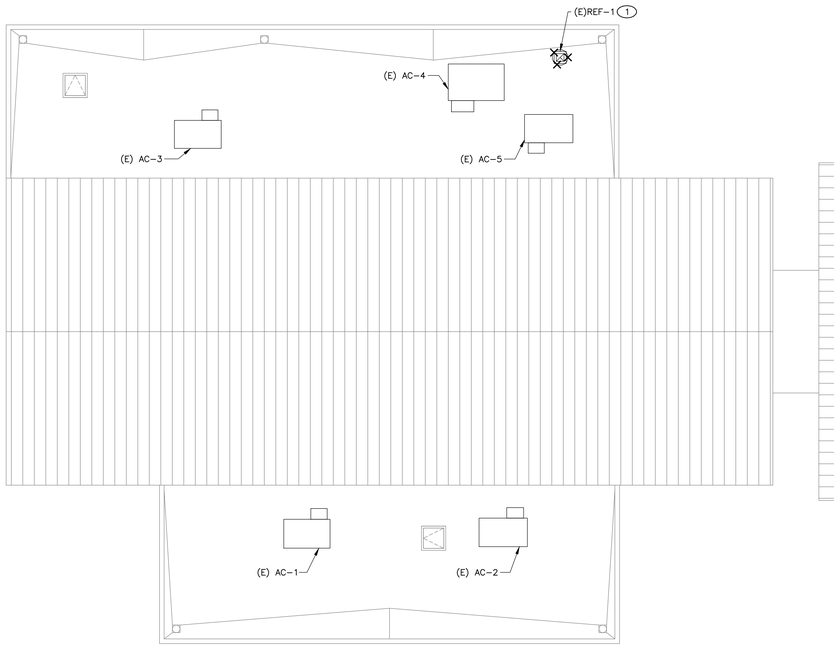


ELECTRICAL IMPROVEMENT ROOF PLAN - BLDG 2

2
1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL EXHAUST FAN, RESERVE THE (E) ELECTRICAL CIRCUITING FOR (N) EXHAUST FAN. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL EXHAUST FAN WITHE PRE-WIRED DISCONNECT SWITCH, RECONNECT THE (N) EXHAUST FAN TO THE (E) POWER AND CONTROL CIRCUITING. SEE MECHANICAL DRAWINGS FOR MORE INFO.



ELECTRICAL DEMOLITION ROOF PLAN - BLDG 2

1
1/8" = 1'-0"

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

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Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

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CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0776
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

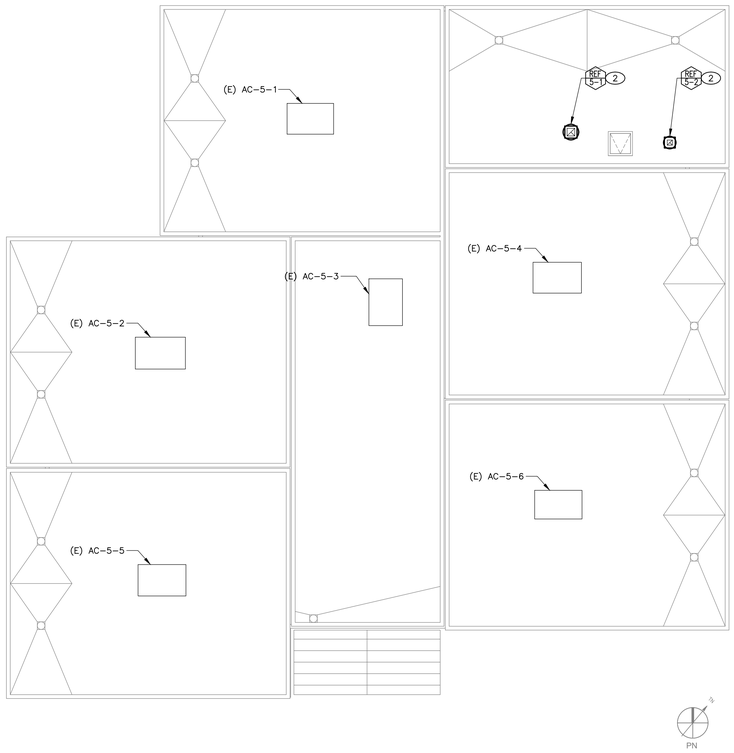
PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 2

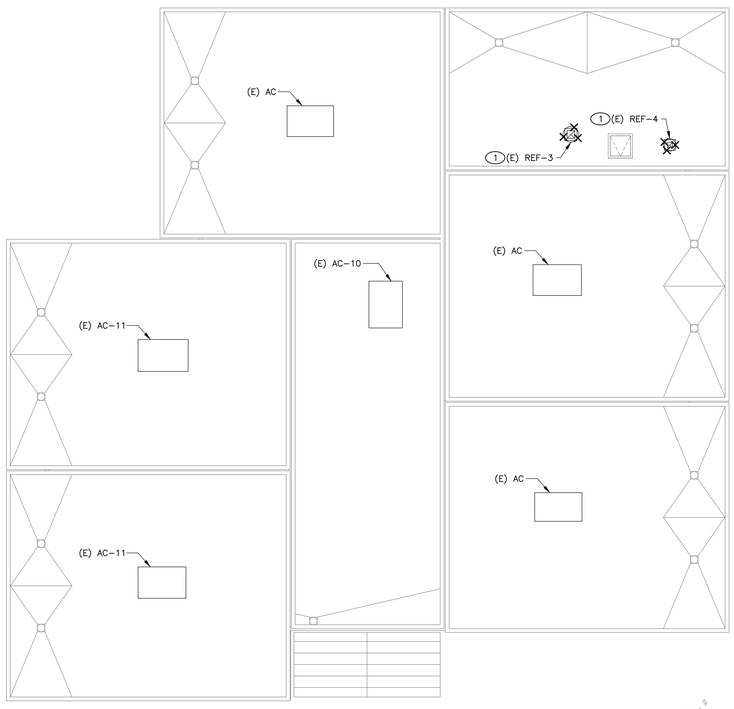
DSA SUBMITTAL

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

E4.12



ELECTRICAL IMPROVEMENT ROOF PLAN - BLDG 5 | **2** 1/8" = 1'-0"



ELECTRICAL DEMOLITION ROOF PLAN - BLDG 5 | **1** 1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL EXHAUST FAN, RESERVE THE (E) ELECTRICAL CIRCUITING FOR (N) EXHAUST FAN. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL EXHAUST FAN WITHE PRE-WIRED DISCONNECT SWITCH, RECONNECT THE (N) EXHAUST FAN TO THE (E) POWER AND CONTROL CIRCUITING. SEE MECHANICAL DRAWINGS FOR MORE INFO.

GENERAL NOTES

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HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

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CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0776
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
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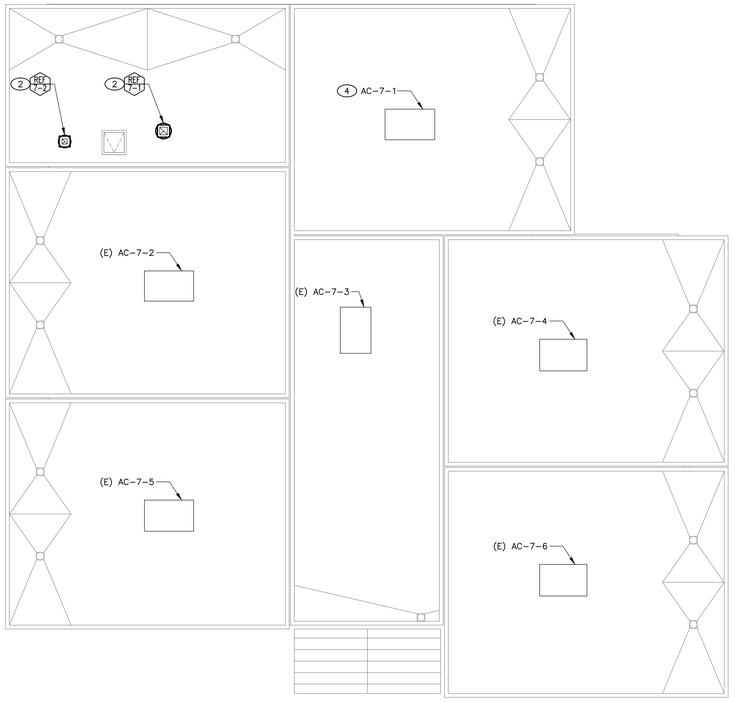
ELECTRICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 5

DSA SUBMITTAL

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

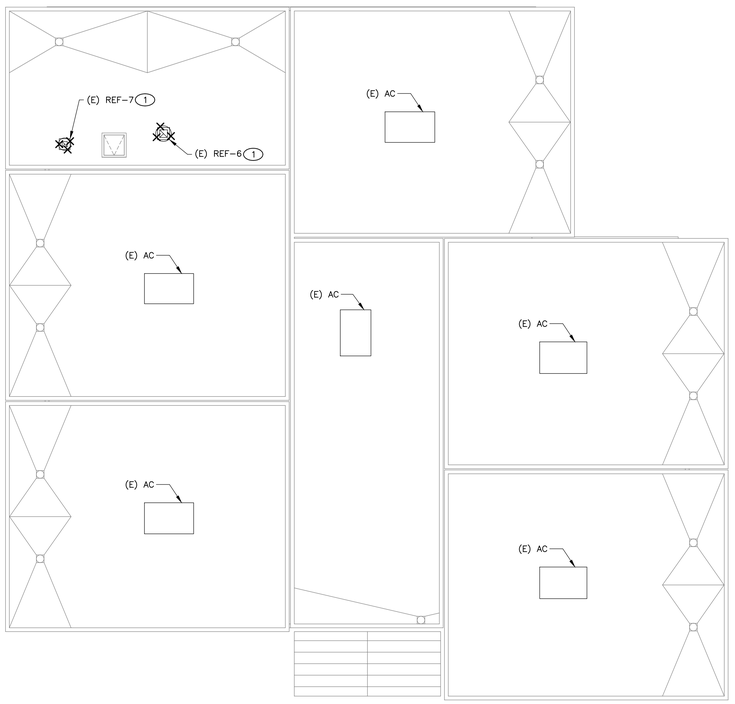
SHEET:

E4.13



ELECTRICAL IMPROVEMENT ROOF PLAN - BLDG 7

2
1/8" = 1'-0"



ELECTRICAL DEMOLITION ROOF PLAN - BLDG 7

1
1/8" = 1'-0"

KEY NOTES

1. DEMO MECHANICAL EXHAUST FAN, RESERVE THE (E) ELECTRICAL CIRCUITING FOR (N) EXHAUST FAN. SEE KEY NOTE 2 ON THIS SHEET.
2. (N) MECHANICAL EXHAUST FAN WITHE PRE-WIRED DISCONNECT SWITCH, RECONNECT THE (N) EXHAUST FAN TO THE (E) POWER AND CONTROL CIRCUITING. SEE MECHANICAL DRAWINGS FOR MORE INFO.

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HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
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MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd,
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

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ELECTRICAL DEMOLITION AND IMPROVEMENT ROOF PLANS - BLDG 7

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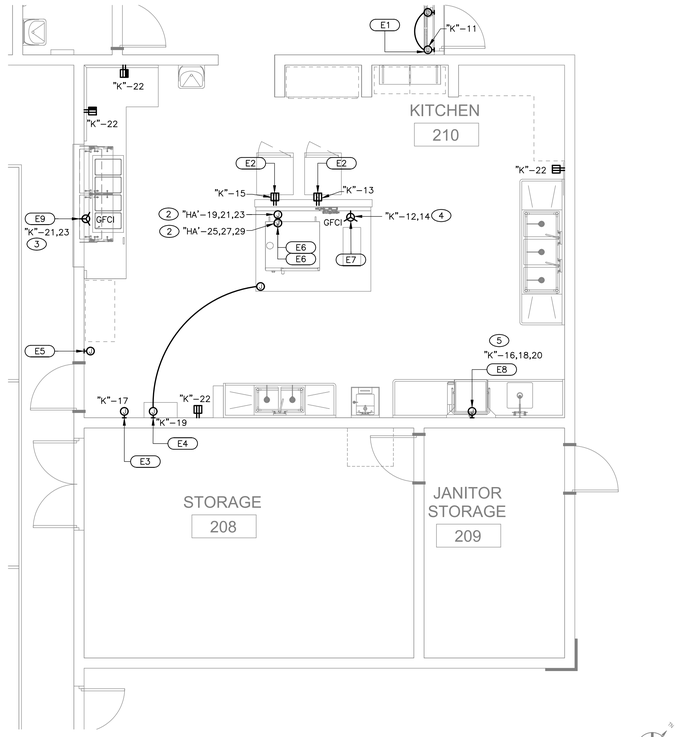
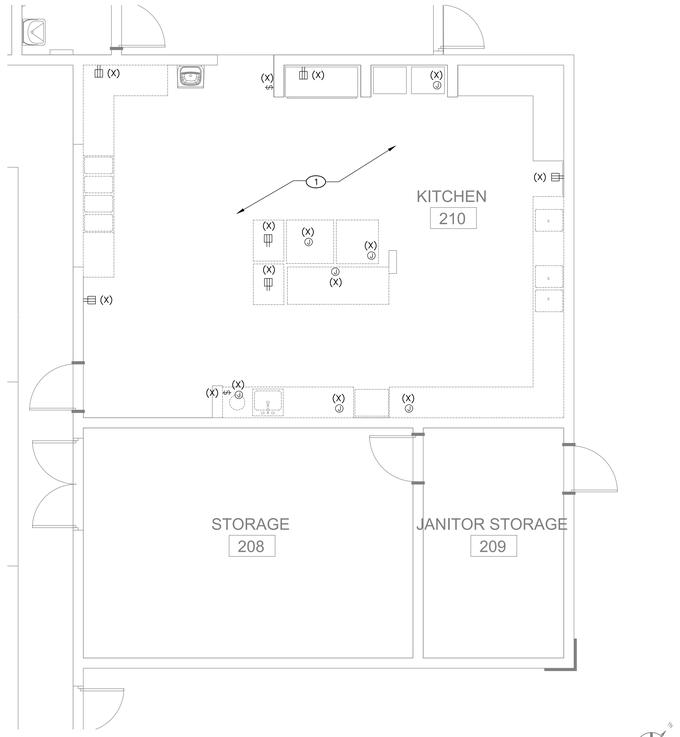
E4.14

ADD ALTERNATE #1



ELECTRICAL IMPROVEMENT ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

2
1/4" = 1'-0"



ELECTRICAL DEMOLITION ENLARGED FLOOR PLAN - BLDG 1 KITCHEN

1
1/4" = 1'-0"

FOOD SERVICE EQUIPMENT ELECTRICAL SCHEDULE

ELEC. NO.	ITEM NO.	DESCRIPTION	QTY.	VOLT. PH		DIRECT	PLUG	NEMA	LOAD WATT	LOAD AMPS. DRAW	LOAD HP	OUTLET HEIGHT	REMARKS	NOTE(S)
E1	1	UNHEATED AIR CURTAIN	1EA.	120	1	X	-	-	-	3.4	-	+86"	PROVIDE J-BOX IN WALL. INSTALL DOOR LIMIT SWITCH FOR INSTANT ON/OFF SWITCH, SEE C/FS8.2	1
E2	3	MOBILE WARMING HOLDING CABINET (OFCI)	1EA.	120	1	-	X	5-15P	-	12	-	+36"	PROVIDE DUPLEX RECEPTACLE, UNIT PROVIDED WITH CORD AND PLUG SET	2
E3	4	EXHAUST HOOD CONTROL POWER AND ROOM TEMPERATURE SENSOR	1EA.	120	1	X	-	-	-	20	-	+48"	CONNECT TO DEMANDAIRE CONTROL PANEL RECESS IN WALL REFER TO FS5.2	3 6
E4	4.1	EXHAUST HOOD FIRE SYSTEM CONTROL POWER	1EA.	120	1	X	-	-	-	20	-	+104"	PROVIDE J-BOX CONNECT TO UNIT ELECTRICAL CONNECTION REFER TO FS5.3 INTERCONNECTION REQUIREMENTS	
E5	4.1	FIRE SYSTEM (REMOTE PULL STATION)	1EA.	-	-	X	-	-	-	-	-	+48"	EMPTY FLUSH MT'D. OCTAGONAL BOX (REMOTE PULL) SEE FS5.3	5
E6	5	COMBI OVEN, ELECTRIC TOP AND BOTTOM UNIT REQUIREMENTS	2EA.	480	3	X	-	-	-	35	-	1 @ +48" 1 @ +24"	PROVIDE J-BOX CONNECT TO UNIT ELECTRICAL CONNECTION	4 7
E7	6	INDUCTION COOK TOP	1EA.	240	1	-	X	6-50P	-	32	-	+48"	PROVIDE SIMPLEX RECEPTACLE UNIT PROVIDED WITH CORD AND PLUG SET	4
E8	10	HIGH TEMP WARE WASHER W/ SINGLE POINT CONNECTION	1EA.	208 / 240	3	X	-	-	-	35	-	+18"	PROVIDE J-BOX CONNECT TO UNIT ELECTRICAL CONNECTION	
E9	17.1	HOT WELLS, DRY	1EA.	208	1	-	X	6-20P	-	9.6	-	+18"	PROVIDE SIMPLEX RECEPTACLE PROVIDED WITH CORD AND PLUG SET	

ELECTRICAL KEYNOTES:

1. PROVIDE 1 PLUNGER ROLLER SWITCH PER DOOR
2. CONTRACTOR TO VERIFY AND PROVIDE UTILITIES WITH SUPPLIED EQUIPMENT
3. SEE FS5.2 EXHAUST HOOD ELECTRICAL INTERCONNECTIONS REQUIREMENTS
4. PROVIDE INTERLOCK WIRING FROM FIRE PROTECTION SYSTEMS TO ELEC. SHUNT TRIP BREAKERS
5. PROVIDE EMPTY FLUSH MT'D. OCTAGONAL BOX @ +48" AFF. W/ EMPTY CONDUIT TO +2" ABOVE CEILING.
6. ELECTRICAL CONTRACTOR TO PROVIDE J-BOX W/ EMPTY CONDUIT FROM +2" ABOVE CEILING IN WALL TO AMBIENT TEMPERATURE MONITOR AND HMI TOUCH SCREEN.
7. AMP DRAW REQUIREMENTS ARE ONE PER DECK. BOTTOM DECK CONNECTION @ 24" AFF TOP DECK @ 48"AFF. TWO CONNECTIONS IN TOTAL.

KEY NOTES

1. DEMOLISH AND REMOVE ALL ELECTRICAL WIRING, CONDUITS, BOXES AND DEVICES ASSOCIATED WITH DEMO KITCHEN EQUIPMENT, REFER TO ARCHITECTURAL DRAWINGS FOR DEMO SCOPE.
2. PROVIDE 3/4"C–3#8 CU + 1#10 CU GND.
3. PROVIDE 3/4"C–3#12 CU + 1#12 CU GND.
4. PROVIDE 1"C–3#4 CU + 1#10 CU GND.

GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

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Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
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CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
AMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
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SHEET NAME:
ELECTRICAL ENLARGED FLOOR PLANS - BLDG 1 KITCHEN

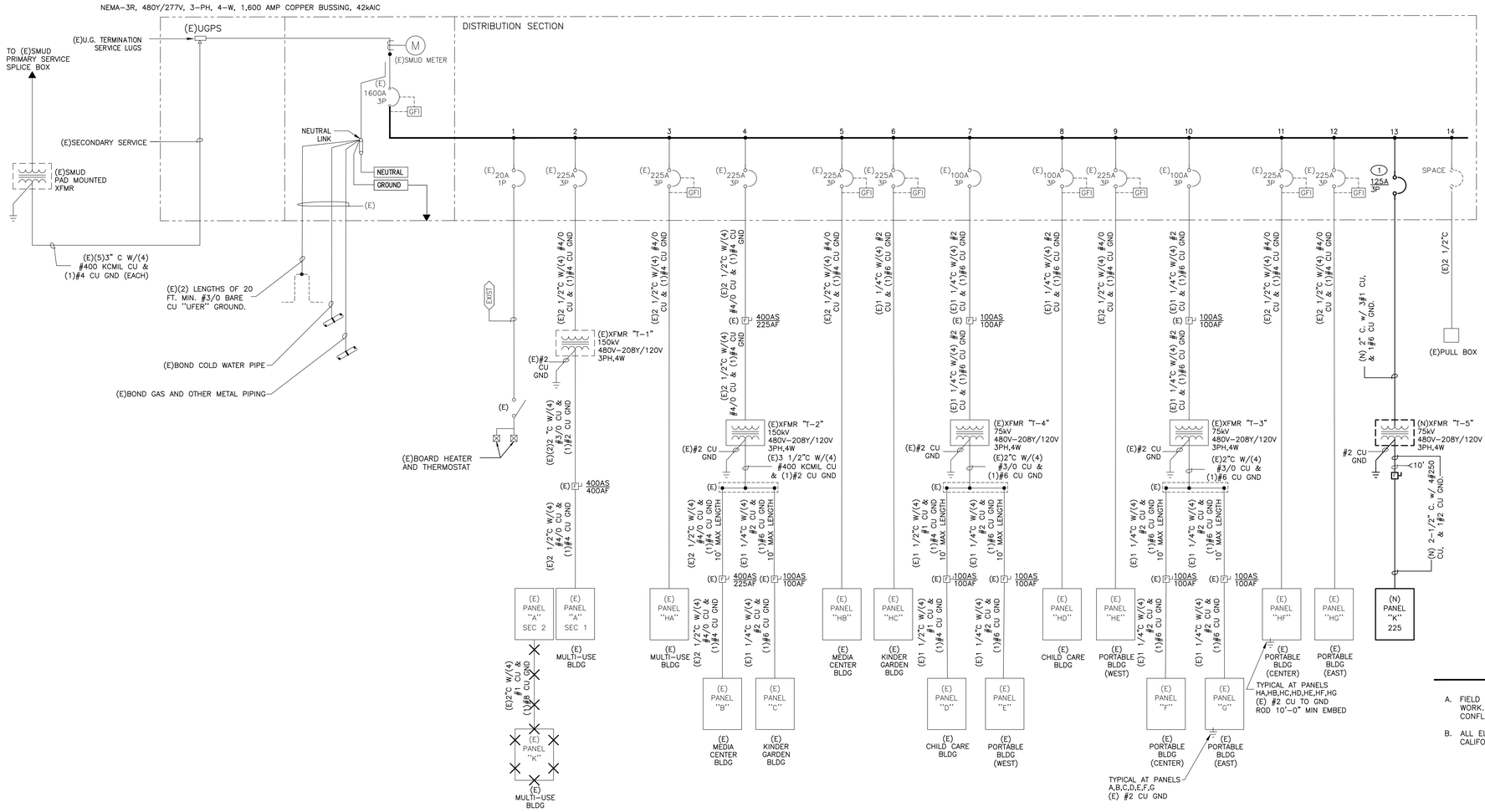
DSA SUBMITTAL

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

E5.11

KEY NOTES

1. PROVIDE NEW BREAKER WITH ALL REQUIRED HARDWARE MATCH EXISTING BREAKERS' TYPE AND AIC RATING FOR TRANSFORMER "T-5".



GENERAL NOTES

A. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.

B. ALL ELECTRICAL WORK SHALL COMPLY WITH 2022 CALIFORNIA ELECTRIC CODE.

EXISTING ELECTRICAL SERVICE LOAD CALCULATION

EXISTING MAXIMUM PEAK DEMAND LOAD FOR THE PAST 12-MONTH RECORDED IN 2023					
(SOURCE: SMUD PREVIOUS 12 MONTHS DATA)					152.0 KVA
PLUS 25% OF EXISTING CONNECTED LOAD					38.0 KVA
TOTAL EXISTING CONNECTED LOAD				=	190.0 KVA
REMOVED EXISTING LOAD					
-				0.0	KVA
-				0.00	KVA
TOTAL LOAD REMOVED				= 0.0	KVA
TOTAL EXISTING LOAD MINUS REMOVED LOAD				=	190.0 KVA
ADD NEW LOAD					
COMBI OVEN	22.4	kVA ea	X	2	44.8 KVA
MAU-1-1	10.8	kVA ea	X	1	10.8 KVA
UNHEATED AIR CURTAIN	0.4	kVA ea	X	1	0.4 KVA
MOBILE WARMING CABINET	2.9	kVA ea	X	2	5.8 KVA
EXHAUST HOOD CONTROL	1.2	kVA ea	X	2	2.4 KVA
HOT WELLS, DRY	2.0	kVA ea	X	1	2.0 KVA
INDUCTION COOK TOP	7.7	kVA ea	X	1	7.7 KVA
HIGH TEMP WARE WASHER	19.3	kVA ea	X	1	19.3 KVA
25% OF LARGEST NEW MOTOR=	19.3	KVA @ 25% =			4.8 KVA
TOTAL ADDED LOAD				=	98.0 KVA
EXISTING AND ADDED TOTAL SERVICE LOAD				=	288.0 kvA
288.0 KVA @ 277/480 VOLT , 3 PHASE = 347 AMPERES					
THEREFORE: EXISTING MAIN 1600 AMP SERVICE HAS THE CAPACITY FOR THE NEW ADDED LOAD.					

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p 916-771-0778
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REGISTERED PROFESSIONAL ENGINEER — RAMI S. ZEIDAN — No. E 16762 — Exp. 9/30/24 — ELECTRICAL — STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM

DSA SUBMITTAL

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

SHEET:

E6.01

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER & CATALOG NUMBER	LUMENS	VOLTS / VA	MOUNTING	REMARKS
G4	FINELITE S17-LED - VCF - SF - 8' - H - 835	4156 LUMEN	120V / 56VA	WALL @ 10' AFG	PROVIDE WITH 90 MINUTE EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY LIGHT.
G5	FINELITE S17-LED - VCF - SF - 4' - H - 835	2079 LUMEN	120V / 28VA	WALL @ 10' AFG	PROVIDE WITH 90 MINUTE EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY LIGHT.
L4	AXIS LIGHTING STFDI-SLI-175-DSO-400-4-80-35-UNV-DP-1-CASL(#)-RC-B(#)	575 LUMEN/FOOT	UNV / 25VA	SUSPENDED	STENCIL PENDANT LED FIXTURE, PROVIDE WITH ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE WITH ARCHITECT FOR CEILING TYPE AND PROVIDE THE CORRECT ACCESSORIES.
L4E	AXIS LIGHTING STFDI-SLI-175-DSO-400-4-80-35-UNV-DP-1-CASL(#)-RC-B(#)	575 LUMEN/FOOT	UNV / 25VA	SUSPENDED	STENCIL PENDANT LED FIXTURE, PROVIDE WITH ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE WITH ARCHITECT FOR CEILING TYPE AND PROVIDE THE CORRECT ACCESSORIES. PROVIDE WITH 90 MINUTE EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY LIGHT.
L6	AXIS LIGHTING STFDI-SLI-175-DSO-400-6-80-35-UNV-DP-1-CASL(#)-RC-B(#)	575 LUMEN/FOOT	UNV / 37VA	SUSPENDED	STENCIL PENDANT LED FIXTURE, PROVIDE WITH ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE WITH ARCHITECT FOR CEILING TYPE AND PROVIDE THE CORRECT ACCESSORIES.
L8	AXIS LIGHTING STFDI-SLI-175-DSO-400-4-AL(L Hub (90º))-80-35-UNV-DP-1-CASL(#)-RC-B(#)	575 LUMEN/FOOT	UNV / 50VA	SUSPENDED	STENCIL PENDANT LED FIXTURE, PROVIDE WITH ALL NECESSARY MOUNTING ACCESSORIES. COORDINATE WITH ARCHITECT FOR CEILING TYPE AND PROVIDE THE CORRECT ACCESSORIES.
S1	COOPER LIGHTING GLAN-SA2-C-740-U-T4W-PA-SPB4	14148 LUMEN	120V / 108VA	POLE @ 25' AFG	PROVIDE WITH MOTION SENSOR TO REDUCE DOWN TO 50% WHEN NO MOTION DETECTED AND 100% ONCE DETECT MOTION AND PHOTOCELL SENCOR. PROVIDE COLOR FINISH TO MATCH EXISTING LIGHT AND POLE FINISH.
X1	LITHONIA LIGHTING ECBG LED M6	LED	120V / 2.32	WALL	Exit/Unit Combos INTEGRATED EXIT/UNIT COMBOS UNIVERSAL MOUNTED EXIT SIGN.

LIGHTING FIXTURE NOTES:

1. COORDINATE LIGHT FIXTURE COLORS & FINISHES WITH ARCHITECT (TYPICAL).
2. EMERGENCY LIGHT FIXTURES SHALL BE PROVIDED WITH 90-MINUTE RUNTIME INTERGRATED BATTERY PACK WITH MINIMUM. PROVIDE UNSWITCHED HOT LEG FOR TRICKLE CHARGE TO EMERGENCY BATTERY PACK.
3. EXIT LIGHTS SHALL BE PROVIDED WITH WITH 90-MINUTE RUNTIME INTERGRATED BATTERY PACK. PROVIDE UNSWITCHED HOT LEG FOR TRICKLE CHARGE TO EMERGENCY BATTERY PACK.

EXISTING PANEL "A" SEC 1 [1]

120/208 Volt, 3 Phase, 4 Wire
400 Amp BUS CU.
400 Amp MCB
Amp MLO

10 KAIC Rating
SURFACE Mounted
NEMA 1 Type

CKT.	BKR	DESCRIPTION	A	B	C	A	B	C	DESCRIPTION	BKR	CKT.
			PHASE SUMMARY (WATTS)								
1	20/1	(E)LTG - TRACK STAGE	400			720			(E)SOUND RACK	20/1	2
3	20/1	(E)LTG - TRACK STAGE		400			1,400		(E)REC - WALL MARQUEE	20/1	4
5	20/1	(E)LTG - TRACK STAGE			400			700	(E)FOUNTAIN	20/1	6
7	20/1	(E)LTG - TRACK STAGE (FRONT)	1,000			1,200			(E)LTG - STAGE	20/1	8
9	20/1	(E)LTG - TRACK STAGE (FRONT)		1,000			900		(E)LTG - STAGE	20/1	10
11	20/1	(E)LTG - TRACK STAGE (FRONT)			1,000			200	(E)REC - STAGE DIMMING	20/1	12
13	20/1	(E)LTG - TRACK STAGE (RIGHT)	400			200			(E)REC - STAGE DIMMING	20/1	14
15	20/1	(E)LTG - TRACK STAGE (RIGHT)		400			600		(E) LTG - CONTACTOR STG RM	20/1	16
17	20/1	(E)LTG - TRACK STAGE (LEFT)			400			1,000	(E)RR AND WATER FOUNTAIN	20/1	18
19	20/1	(E)LTG - TRACK STAGE (LEFT)	400			1,000			(E)LTG - LOBBY	20/1	20
21	20/1	(E)REC - MULTI-SE MICROW		1,500			1,000		(E)LTG - STG	20/1	22
23	20/1	(E)REC - MULTI-SE MICROW			1,000			500	(E)EXIT SIGNS	20/1	24
25	20/1	(E)REC - IDF RM	540			200			(E)REC - EXTERIOR STAGE DIM	20/1	26
27	20/1	(E)EM LTG - MP RM		900			200		(E)REC - EXTERIOR STAGE DIM	20/1	28
29	20/1	(E)SPARE IN MP RM CONTACTOR						500	(E)INVERTER EXT LTG	20/1	30
31	20/1	(E)SPARE IN MP RM CONTACTOR				700			(E)REC - JANITOR	20/1	32
33	20/1	(E)MP RM LTG CONTACTOR		1,000			100		(E)GWH	20/1	34
35	20/1	(E)EM LTG - MP RM			1,500			900	(E)REC - CONV	20/1	36
37	20/1	(E)SPARE IN MP RM CONTACTOR				1,300			(E)REC - EXTERIOR STAGE	20/1	38
39	20/1	SPACE					100		(E)PROJECTOR SCREEN	20/1	40
41	20/1	(E)LTG - KITCHEN			1,300			500	(E) DRAPERY MOTOR IN MP RM	20/1	42
43		(E)PNL "A" (SEC2)	13,910								44
45		FEED-THRU LUGS		12,820							46
47		-			14,350						48

PHASE TOTALS		
A	B	C
21,970	22,320	24,250

PANEL AND CIRCUIT BREAKER NOTES:

[1] MULTIPLE CIRCUITS SHARING THE SAME CONDUIT AND NEUTRAL SHALL HAVE HANDLE TIES AT BREAKERS AND WIRE IN PANEL TIES PER CEC 210.4.

[2]

DEMAND LOADS	
LIGHTING / CONTINUOUS LOAD x 125%	8,875 Watts
RECEPTACLES / OTHER x 100%	61,440 Watts
LARGEST MOTOR x 25%	250 Watts
TOTAL DEMAND LOADS	70,565 Watts
TOTAL DEMAND AMPS	196 AMPS

EXISTING PANEL "A" SEC 2 [1]

120/208 Volt, 3 Phase, 4 Wire
400 Amp BUS CU.
Amp MCB
400 Amp MLO

10 KAIC Rating
SURFACE Mounted
NEMA 1 Type

CKT.	BKR	DESCRIPTION	A	B	C	A	B	C	DESCRIPTION	BKR	CKT.
			PHASE SUMMARY (WATTS)								
43	20/1	(E)BACKSTOP MOTOR	1,100			**360**			**(N) REC**	**[2][N] 20/1**	44
45	20/1	(E)BACKSTOP MOTOR		1,100					SPARE	40/1	46
47	20/1	(E)LTG - MULTI-USE RM			1,000			3,033	(E)IRRIGATION PUMP	50/3	48
49	20/1	(E)LTG - MULTI-USE RM	1,500			3,033			-	-	50
51	20/1	(E)LTG - MULTI-USE RM		1,000			3,033		-	-	52
53	20/1	(E)LTG - MULTI-USE RM			1,500			250	(E)IRRIGATION CONTROLLER	20/1	54
55	20/1	(E)LTG - MULTI-USE RM	1,000			250			(E)PUMP COTROLS	20/1	56
57	20/1	SPARE					720		(E)CHAIR LIFT	20/1	58
59	20/1	(E)HOT CABINET (FS #3)			1,200			540	(E)REF (FS #1)	20/1	60
61	20/1	(E)HOT CABINET (FS #6)	1,200			540			(E)REF (FS #1)	20/1	62
63	20/1	(E)MILK CABINET (SF #12)		600			1,700		(E)CONVENTION OVEN (FS #14)	20/1	64
65	20/1	(E)SLICER (SF #8)			1,200			1,700	(E)CONVENTION OVEN (FS #14)	20/1	66
67	20/1	(E)MIXER (SF #11)	1,200			1,667			(E)DISHWASHER (FS #2)	20/3	68
69	20/1	(E)AIR DOOR (FS #19		1,000			1,667		-	-	70
71	20/1	(E)CASH REGISTER			360			1,667	-	-	72
73	20/1	(E)REC	360						(E)SPARE	80/3	74
75	-	SPACE							-	-	76
77	20/1	(E)GARBAGE DISP (FS #7)			1,200				-	-	78
79	20/1	(E)GARBAGE DISP (FS #7)	1,200			500			(E)MIXER	20/3	80
81	20/1	(E)REF 2, 5 & REC SKY LTG		1,500			500		-	-	82
83	20/1	(E)LTG - HOOD			200			500	-	-	84

PHASE TOTALS		
A	B	C
13,910	12,820	14,350

PANEL AND CIRCUIT BREAKER NOTES:

[1] MULTIPLE CIRCUITS SHARING THE SAME CONDUIT AND NEUTRAL SHALL HAVE HANDLE TIES AT BREAKERS AND WIRE IN PANEL TIES PER CEC 210.4.

[2] PROVIDE NEW CIRCUIT BREAKER IN SPACE. MATCH (E) TYPE AND AIC RATING

DEMAND LOADS	
LIGHTING / CONTINUOUS LOAD x 125%	7,500 Watts
RECEPTACLES / OTHER x 100%	35,080 Watts
LARGEST MOTOR x 25%	758 Watts
TOTAL DEMAND LOADS	43,338 Watts
TOTAL DEMAND AMPS	120 AMPS

EXISTING PANEL "HA" [1]

277/480 Volt, 3 Phase, 4 Wire
225 Amp BUS CU.
225 Amp MCB
Amp MLO

22 KAIC Rating
SURFACE Mounted
NEMA 1 Type

CKT.	BKR	DESCRIPTION	A	B	C	A	B	C	DESCRIPTION	BKR	CKT.
			PHASE SUMMARY (WATTS)								
1	35/3	(E)AC-6	8,333			733			(E)MAU	15/3	2
3	-	-		8,333			733		-	-	4
5	-	-			8,333			733	-	-	6
7	33/3	(E)AC-7	7,100			1,333			(E)HEF	15/3	8
9	-	-		7,100			1,333		-	-	10
11	-	-			7,100			1,333	-	-	12
13	20/3	(E)AC-5	4,100			700			(E)FREEZER COMPRESSOR	15/3	14
15	-	-		4,100			700		-	-	16
17	-	-			4,100			700	-	-	18
19	**[2][N] 35/3**	**(N)COMBI OVEN 1**	**7,467**			500			(E)COOLER COMPRESSOR	15/3	20
21	**-**	**-**		**7,467**			500		-	-	22
23	**-**	**-**			**7,467**			500	-	-	24
25	**[2][N] 35/3**	**(N)COMBI OVEN 2**	**7,467**			1,000			(E)HEATER DEFROST FREEZER	15/2	26
27	**-**	**-**		**7,467**			1,000		-	-	28
29	**-**	**-**			**7,467**				SPARE	20/2	30
31	**[2][N] 20/3**	**MAU - 1-1**	**3,603**						-	-	32
33	**-**	**-**		**3,603**					SPACE	PFB	34
35	**-**	**-**			**3,603**				SPACE	PFB	36
37	PFB	SPACE							SPACE	PFB	38
39	PFB	SPACE							SPACE	PFB	40
41	PFB	SPACE							SPACE	PFB	42

PHASE TOTALS		
A	B	C
42,336	42,336	41,336

PANEL AND CIRCUIT BREAKER NOTES:

[1] MULTIPLE CIRCUITS SHARING THE SAME CONDUIT AND NEUTRAL SHALL HAVE HANDLE TIES AT BREAKERS AND WIRE IN PANEL TIES PER CEC 210.4.

[2] PROVIDE NEW CIRCUIT BREAKER IN SPACE. MATCH (E) TYPE AND AIC RATING

DEMAND LOADS	
LIGHTING / CONTINUOUS LOAD x 125%	2,500 Watts
RECEPTACLES / OTHER x 100%	124,008 Watts
LARGEST MOTOR x 25%	2,083 Watts
TOTAL DEMAND LOADS	128,591 Watts
TOTAL DEMAND AMPS	155 AMPS

ADD ALTERNATE #1

NEW PANEL "K" [1]

120/208 Volt, 3 Phase, 4 Wire
225 Amp BUS CU.
225 Amp MCB
Amp MLO

10 KAIC Rating
SURFACE Mounted
NEMA 1 Type

CKT.	BKR	DESCRIPTION	A	B	C	A	B	C	DESCRIPTION	BKR	CKT.
			PHASE SUMMARY (WATTS)								
1	20/1	(E)FREEZER LTG	50			2,400			(E)STEAM TABLES	30/2	2
3	20/1	(E)WASHER		850			2,400		-	-	4
5	30/2	(E)DRYER			2,400			250	(E)FAN COIL - FREEZER	15/2	6
7	-	-	2,400			250				-	8
9	30/1	(E)ELEC WATER HEATER		2,400			500		(E)FIRE ALARM	20/1	10
11	20/1	UNHEATED AIR CURTAIN			408			3,840	INDUCTION COOK TOP	50/2	12
13	20/1	MOBILE WARMING CABINET	1,440			3,840			-	-	14
15	20/1	MOBILE WARMING CABINET		1,440			6,425		HIGH TEMP WARE WASHER	60/3	16
17	20/1	EXHAUST HOOD CONTROL			1,200			6,425	-	-	18
19	20/1	EXHAUST HOOD FIRE SYSTEM CONTROL	1,200			6,425			-	-	20
21	20/2	HOT WELLS, DRY		998			720		REC KITCHEN	20/1	22
23	-	-			998			180	REC ROOF	20/1	24
25	20/1	SPARE							SPACE	-	26
27	20/1	SPARE							SPACE	-	28
29	20/1	SPARE							SPACE	-	30

PHASE TOTALS		
A	B	C
18,005	15,733	15,701

PANEL AND CIRCUIT BREAKER NOTES:

[1] MULTIPLE CIRCUITS SHARING THE SAME CONDUIT AND NEUTRAL SHALL HAVE HANDLE TIES AT BREAKERS AND WIRE IN PANEL TIES PER CEC 210.4.

[2]

DEMAND LOADS	
LIGHTING / CONTINUOUS LOAD x 125%	63 Watts
RECEPTACLES / OTHER x 100%	49,390 Watts
LARGEST MOTOR x 25%	213 Watts
TOTAL DEMAND LOADS	49,665 Watts
TOTAL DEMAND AMPS	138 AMPS

AGENCY APPROVAL:

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

Δ	DESCRIPTION	DATE

LP CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RAMI S. ZEIDAN
No. E 16762
Exp. 9/30/24
ELECTRICAL
STATE OF CALIFORNIA

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

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL FIXTURE AND PANEL SCHEDULES

DSA SUBMITTAL

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

SHEET:
E7.01

PLEASE RECYCLE

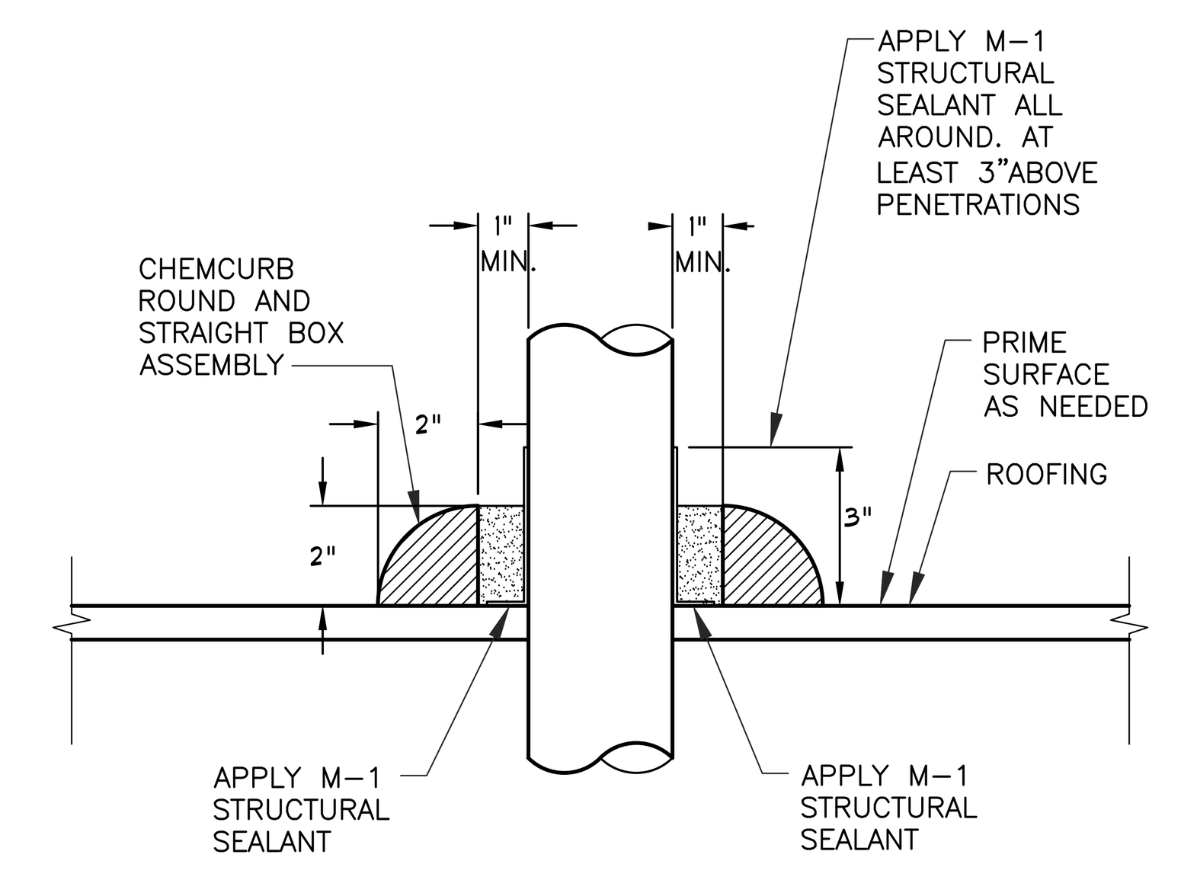
AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

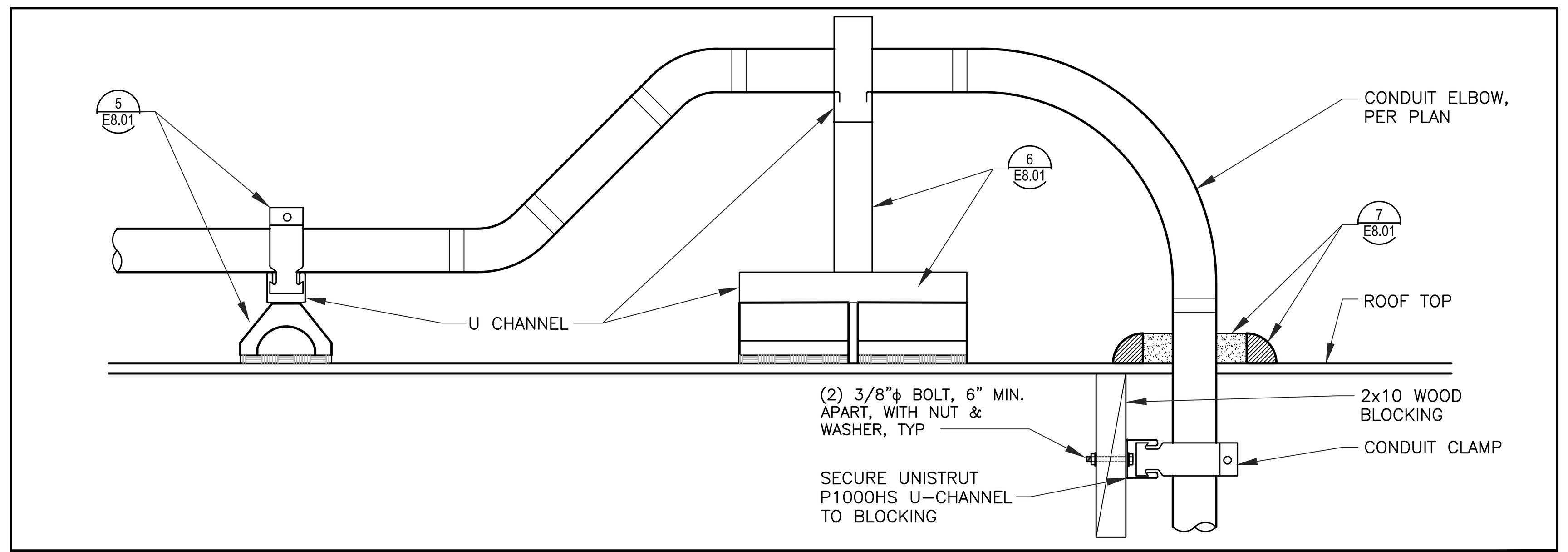
HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916.368.7990 / www.hmcarchitects.com

ISSUE

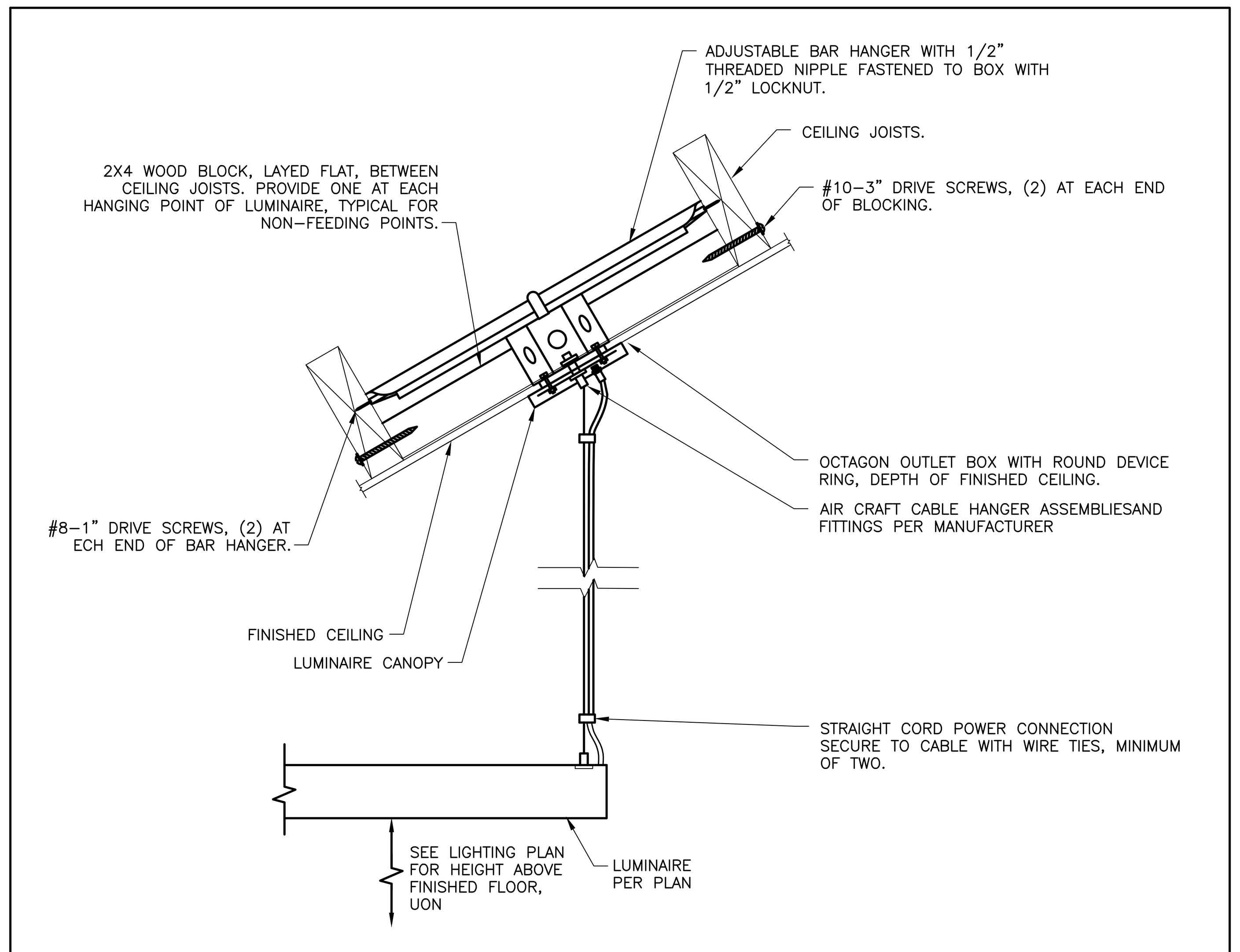
Δ	DESCRIPTION	DATE



CONDUIT PENETRATION CROSS SECTION NTS 7



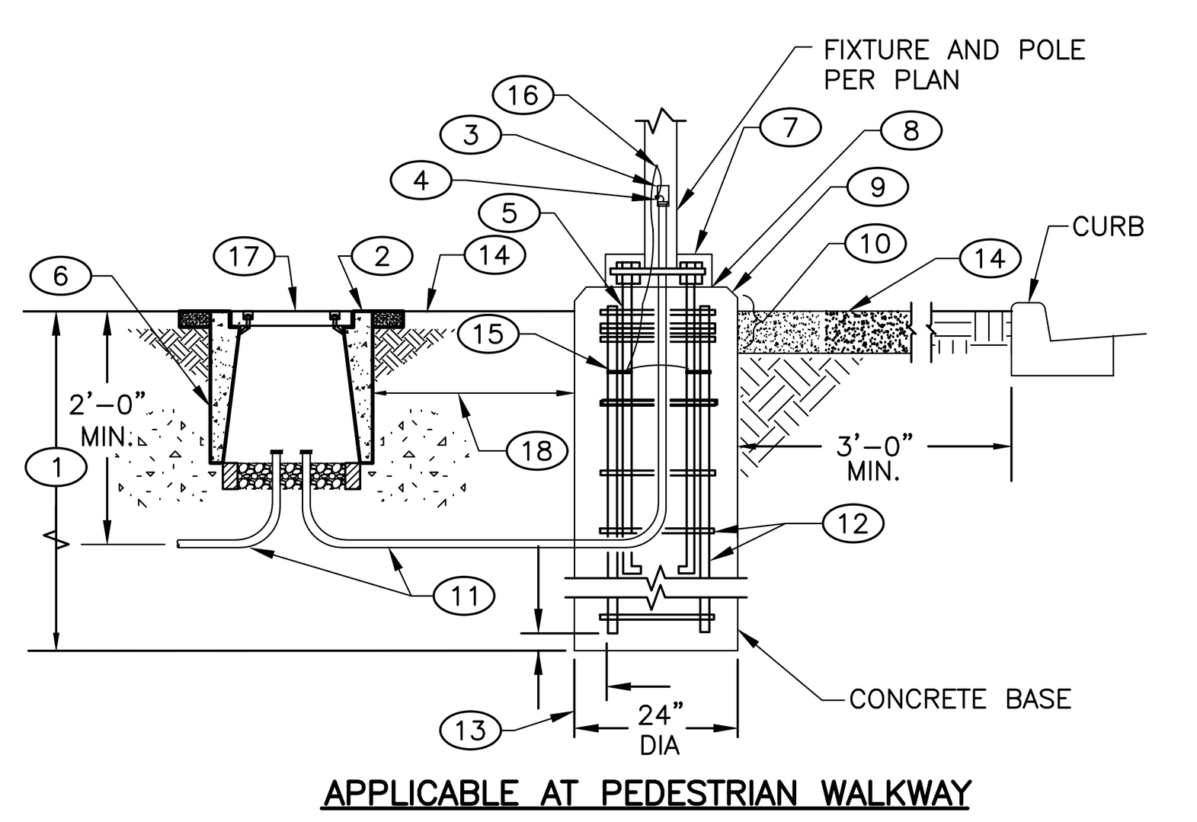
ROOF CONDUIT SUPPORT / PENETRATION DETAIL NTS 4



CABLE SUSPENDED LUMINAIRE MOUNTING DETAIL
AT "OPEN SPACE"
NTS 1

1. PROVIDE 48" MINIMUM FOR LIGHT POLE UP TO 25 FEET, AND 60" MINIMUM FOR LIGHT POLE UP TO 35 FEET. COORDINATE CONCRETE BASE SIZE WITH STRUCTURAL ENGINEER.
2. UNDERGROUND PULL BOX REQUIRED ADJACENT TO POLE BASE WHERE INDICATED ON DRAWINGS. SET TOP OF PULLBOX FLUSH WITH FINISHED GRADE.
3. GASKETED HANDHOLE COVER WITH TWO STAINLESS STEEL TAMPERPROOF SCREWS.
4. CONNECT GROUND WIRE TO GROUNDING LUG OF POLE AT HANDHOLE.
5. FOUR ANCHOR BOLTS, SIZE PER MANUFACTURER'S STANDARDS.
6. PROVIDE PULL BOX ONLY WHERE SHOWN ON PLAN.
7. BASECOVER, SECURE TO POLE AND/OR BASE.
8. PROVIDE 1 1/2" MINIMUM AND 3" MAXIMUM GROUT AROUND THE BASE AFTER PLUMB. SLOPE TO GRADE FOR DRAINAGE.
9. PROVIDE CONCRETE BASE WITH 1/2" CHAMFER. CONCRETE FILL AND SACK FINISH ALL CONCRETE SURFACE IMPERFECTIONS, CAVITIES AND VOIDS ABOVE FINISHED GRADE .
10. PROVIDE (3) #3 REBAR TIES, REINFORCE STEEL HOOPS 2" ON CENTERED WITHIN TOP 5"AREA.
11. CONDUIT PER PLAN.
12. PROVIDE (6) #4 REINFORCE STEEL RODS AND #3 REINFORCE STEEL HOOPS 9" ON CENTER. SIZE PER MANUFACTURER'S STANDARDS.
13. PROVIDE 3" CLEAR IF CAST AGAINST EARTH, TYPICAL.
14. FINISHED GRADE OR PAVING PER ARCHITECTURAL DRAWINGS.
15. UL LISTED GROUND CLAMP SUITABLE FOR CONCRETE ENCASEMENT OR DIRECT BURIAL. INSTALL CLAMPS ON ALL ANCHOR BOLTS, TYPICAL.
16. SPLICE GROUND WIRE AND EXTEND TO GROUND CLAMP AT ANCHOR BOLT.
17. PROVIDE TRAFFIC BOLT-DOWN COVER.
18. LOCATE PULL BOX ADJACENT TO THE POLE CONCRETE BASE.

NOT PART OF DSA APPROVAL



APPLICABLE AT PEDESTRIAN WALKWAY

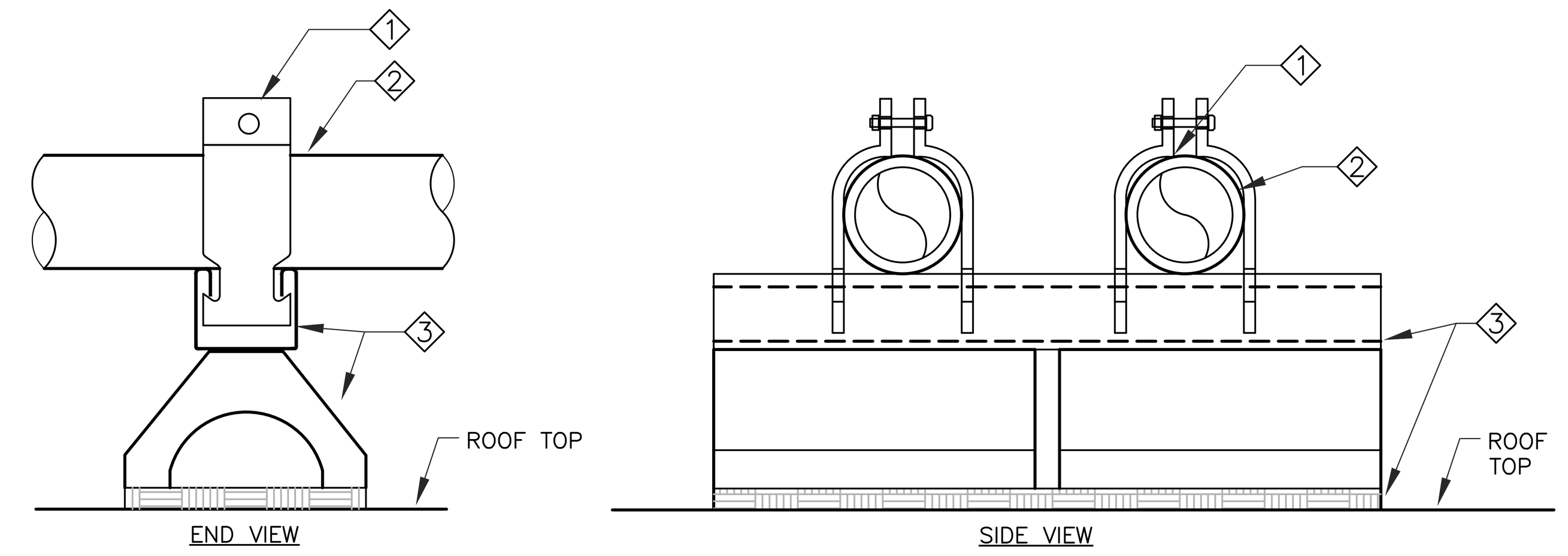
FIXTURE POLE BASE MOUNTING DETAIL NTS 8

KEY NOTES

1. HOT-DIPPED GALVANIZED UNISTRUT CONDUIT CLAMP. SIZE AS REQUIRED.
2. CONDUIT AS NOTED ON DRAWINGS.
3. ROOFTOP SUPPORT BASE, B-LINE C6 SERIES WITH HOT-DIPPED GALVANIZED B12 CHANNEL. SECURE TO ROOF WITH A FULL BED OF NON-HARDENING ADHESIVE TYPE MASTIC.

NOTE:
ALL SUPPORTS TO BE MAX 10 FT ON CENTER AND MAX 3 FT FROM ALL CONDUIT TERMINATIONS WHERE OCCURS

NOTE:
INSTALL SUPPORT BLOCK 8'-0" O.C. MAX, WITHIN 36" OF A BOX CONNECTION, AND AT EACH CHANGE OF DIRECTION.

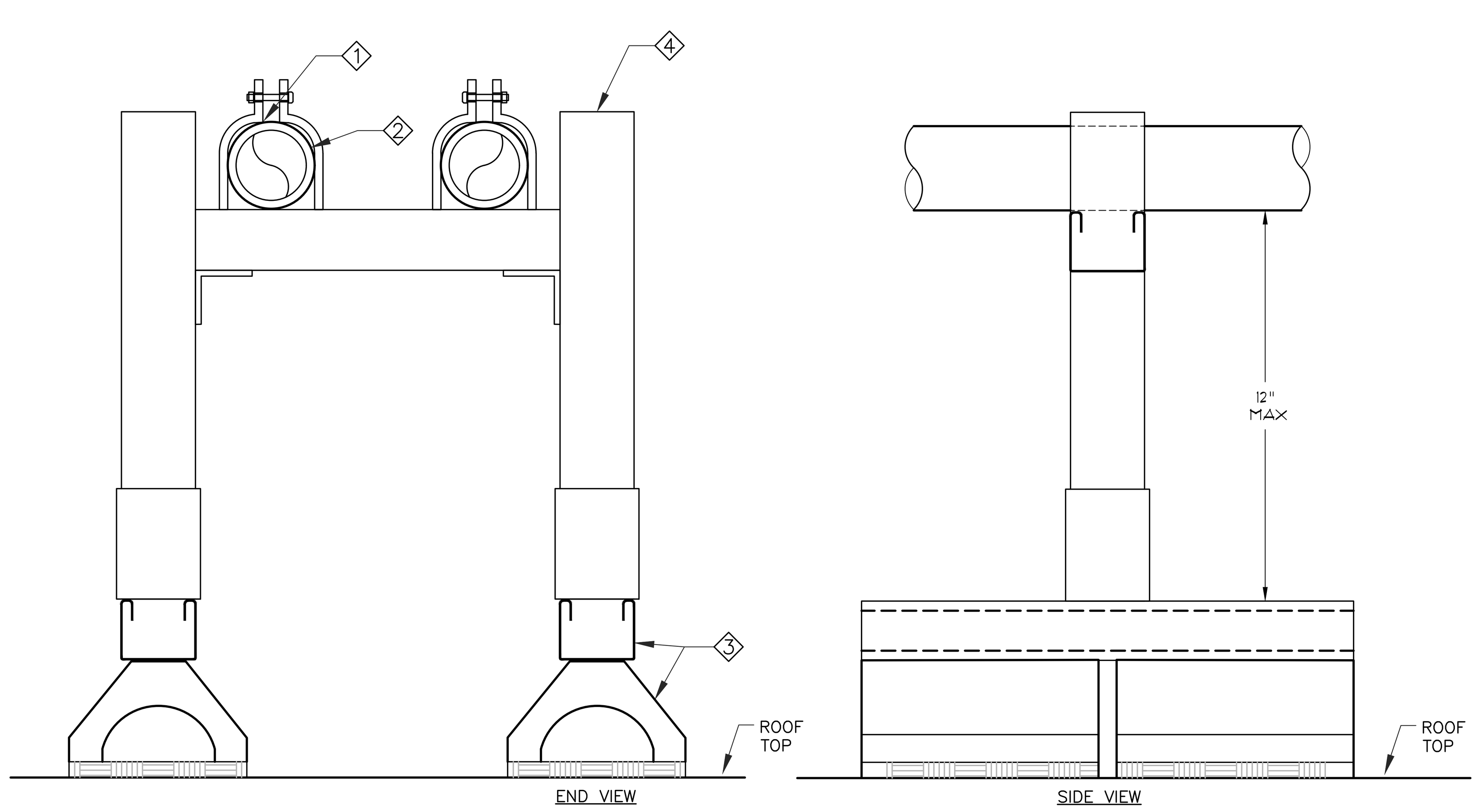


ROOF CONDUIT LOW SUPPORT DETAIL NTS 5

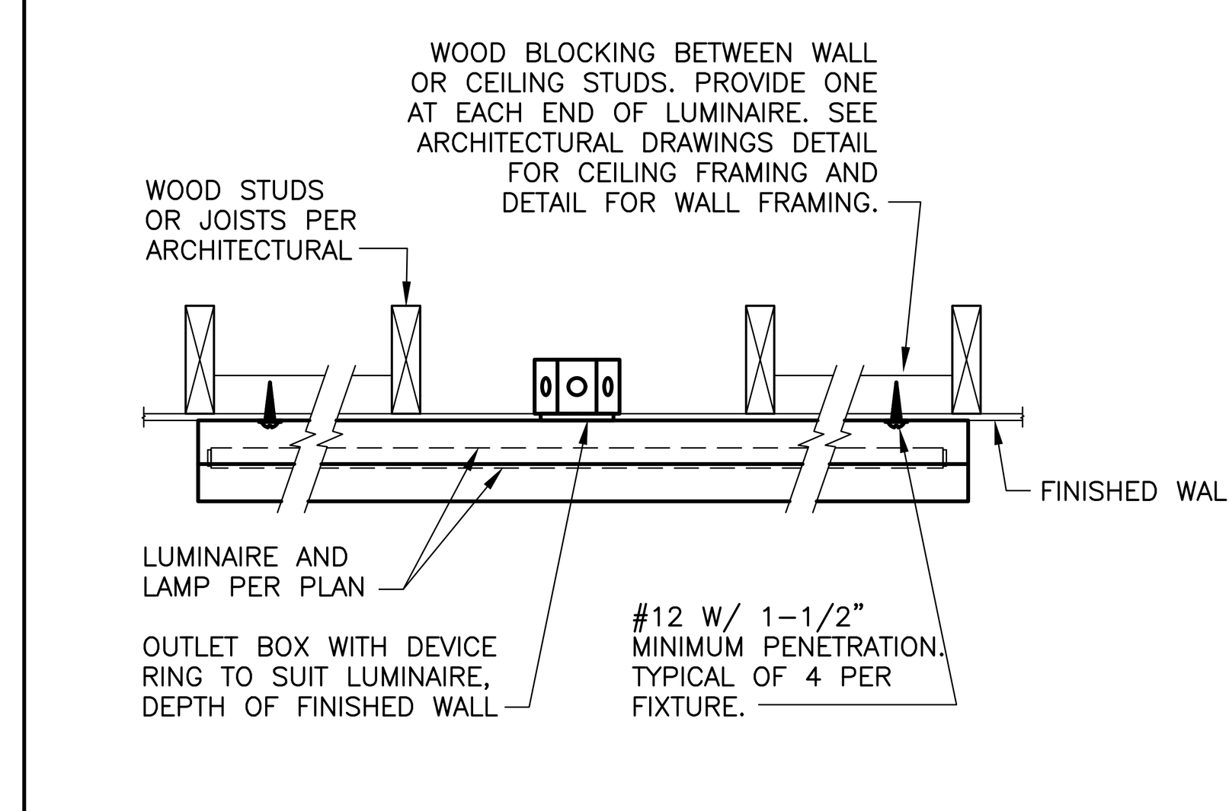
KEY NOTES

1. HOT-DIPPED GALVANIZED UNISTRUT CONDUIT CLAMP. SIZE AS REQUIRED.
2. CONDUIT AS NOTED ON DRAWINGS.
3. ROOFTOP SUPPORT BASE, B-LINE DB_DS SERIES WITH HOT-DIPPED GALVANIZED CHANNEL. SECURE TO ROOF WITH A FULL BED OF NON- HARDENING ADHESIVE TYPE MASTIC.
4. B-LINE "DURA-BLOK" DB2318DS SERIES, SH RISER CHANNEL 1 5/8" x 1 5/8". ASSEMBLE AND INSTALL PER MANUFACTURER'S INSTRUCTIONS

NOTE:
ALL SUPPORTS TO BE MAX 10 FT ON CENTER AND MAX 3 FT FROM ALL CONDUIT TERMINATIONS WHERE OCCURS



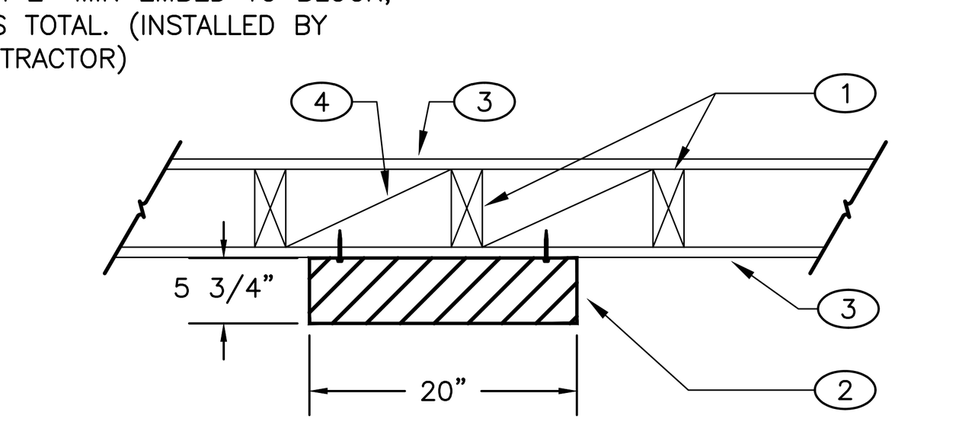
ROOF CONDUIT HIGH SUPPORT DETAIL NTS 6



WALL/CEILING SURFACE LIGHT FIXTURE MOUNTING DETAIL FOR WOOD FRAMING NTS 2

KEY NOTES:

1. WOOD STUD
2. SURFACE MOUNTED PANEL CABINET, (SEE NOTE #1 FOR PANEL WEIGHT)
3. SHEET ROCK OR OTHER WALL SURFACE MATERIAL (SEE ARCH. DRAWINGS)
4. 4X MIN WOOD BLOCK W/ SIMPSON A34 EA END, TOP & BOTTOM
5. ATTACH PANEL TO BLOCKING W/(4) 3/8" LAG SCREW WITH 2" MIN EMBED TO BLOCK, (4) LAG SCREWS TOTAL. (INSTALLED BY ELECTRICAL CONTRACTOR)



TOP VIEW

PROVIDE: SIMPSON A34 CLIPS ATTACHED WITH #9x1-1/2" SD SCREWS STAGGER EACH END OF 4X BLOCKING, TYPICAL

NOTES:

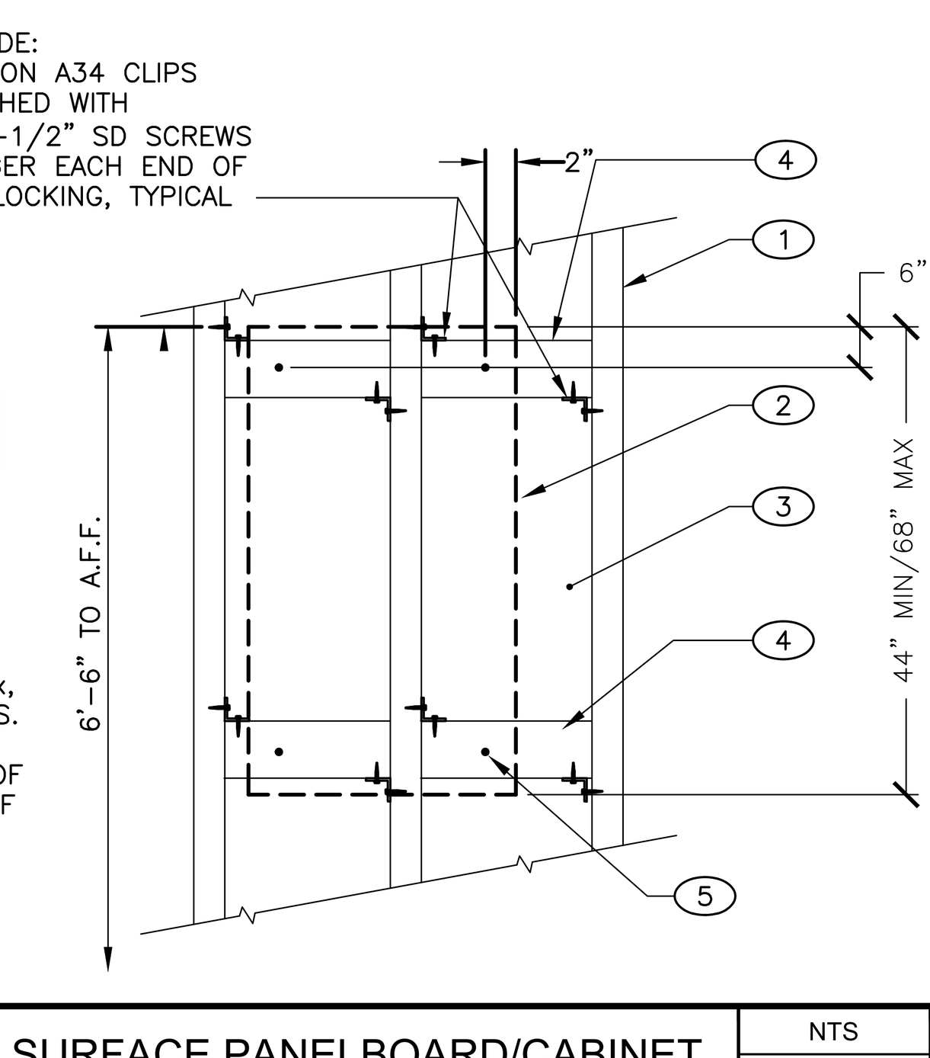
A. PANEL WEIGHT:

REGULAR: 150 LBS.
LARGE: 250LBS. MAX

B. MOUNT TERMINAL CABINETS, J-BOXES, ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.

C. REFER TO PANEL SCHEDULE SHEET Ex.x, FOR SIZES OF PANELS.

D. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = ±50".



FRONT VIEW

SURFACE PANELBOARD/CABINET WOOD FRAMING MOUNTING DETAIL NTS 3

LP CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
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Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
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7680 WINDBRIDGE DR.
SACRMANETO, CA 95831

PROJECT:
MATSUYAMA ELEMENTARY SCHOOL MODERNIZATION

SHEET NAME:
ELECTRICAL DETAILS

DSA SUBMITTAL

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

SHEET:
E8.01

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems 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.			
Project Name: Matsuyama Elementary School Modernization		**Report Page:**	**(Page 1 of 13)**
Project Address:	7680 Windbridge Dr.	**Date Prepared:**	12/14/2023

A. GENERAL INFORMATION

01	Project Location (city)	Sacramento	04	Total Conditioned Floor Area	1920
02	Climate Zone	12	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

- 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.

01		02		03	
Air System(s)		Wet System Components		Dry System Components	
☒	Heating Air System	☐	Water Economizer	☐	Air Economizer
☒	Cooling Air System	☐	Pumps	☐	Electric Resistance Heat
Mechanical Controls		☐	System Piping	☒	Fan Systems
☒	Mechanical Controls (existing to remain, altered or new)	☐	Cooling Towers	☒	Ductwork (existing to remain, altered or new)
		☐	Chillers	☒	Ventilation
		☐	Boilers	☐	Zonal Systems/ Terminal Boxes

STATE OF CALIFORNIA
Mechanical Systems
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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.

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)											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

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
HP-8-1	1	Single zone	Alteration		☐
HP-8-2 & HP-8-3	2	Single zone	Alteration		☐

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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)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
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	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-8-1	PTAC/ PTHP	PTHP newly constructed or newly conditioned space	NA: Altered per 141.0(b)2E and 180.2(b)2	20.61	33	0	33.87	28.6	34.42	44.97
HP-8-2 & HP-8-3	PTAC/ PTHP	PTHP newly constructed or newly conditioned space	NA: Altered per 141.0(b)2E and 180.2(b)2	41.22	33	0	63.97	28.6	34.49	45.58

[1]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 excepted.
[2]It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] 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)

01	02	03	04	05	06	07
	Heating Mode			Cooling Mode		
Name or Item Tag	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
HP-8-1	33000	3	3.3	36000	9.5	11.1
HP-8-2 & HP-8-3	33000	3	3.3	36000	9.5	11.1

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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(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	HP-8-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,150	Site Elevation	17	Economizer	NA: Altered packaged AC or HP <54 kBtu/h

01	02	03	04	05	06	07	08	09	10	11
						Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
SF	Supply	1	Base Allowance for system serving spaces <=6 floors away	1,150		267		Manufacturer provided		0.44
			MERV 13-16 Filter upstream of thermal conditioning equipment	1,150		160				
			Hydronic/DX cooling coil or heat pump coil	1,150		160				
			Supply Fan System	1,150		160				
Supply Fan Base Allowance (kW)		Exhuast/Return/Relief/Transfer Fan Base Allowance(kW)			Fan System Allowance (kW)[3]		1	Fan System Electrical Output (kW)		0.44

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	HP-8-2 & HP-8-3	Quantity	2	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	2,300	Site Elevation	17	Economizer	NA: Altered packaged AC or HP <54 kBtu/h

01	02	03	04	05	06	07	08	09	10	11
						Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
SF	Supply	2	Base Allowance for system serving spaces <=6 floors away	1,150		267		Manufacturer provided		0.44
			MERV 13-16 Filter upstream of thermal conditioning equipment	1,150		160				
			Hydronic/DX cooling coil or heat pump coil	1,150		160				
			Supply Fan System	1,150		160				
Supply Fan Base Allowance (kW)		Exhuast/Return/Relief/Transfer Fan Base Allowance(kW)			Fan System Allowance (kW)[3]		1.49	Fan System Electrical Output (kW)		0.87

[1] FOOTNOTES: Fans serving spaces with design background noise goals below NC35
[2] 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.
[3] Fan system allowance includes fan system base allowance.
[4] Filter pressure loss can only be counted once per fan system.
[5] Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.
[6] 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(q), 170.2(c)4O

01	02	03	04	05	06	07	08	09	10	11

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

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	Exhaust Air Heat Recovery 140.4(q) & 170.2(c)4O	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass

Fan Energy Index (FEI)

01	02	03
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)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
HP-8-1	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	4 Hour Timer	EMCS	NA: Would increase energy use	Provided
HP-8-2 & HP-8-3	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	4 Hour Timer	EMCS	NA: Would increase energy use	Provided

[1]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.

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]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. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems

	04	05		06		07
System Name	HP-8-1	System Design OA CFM Airflow[1]	365	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2]: Provided

08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3					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[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom	Classroom (ages 5-18)	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes

	04	05		06		07
System Name	HP-8-2 & HP-8-3	System Design OA CFM Airflow[1]	365	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2]: Provided

08	09	10	11	12	13	14	15	16

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J. VENTILATION AND INDOOR AIR QUALITY

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3					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[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom	Classroom (ages 5-18)	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes

[1] FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system
[2] 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.
[3] Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
[4] See Standards Tables 120.1-A and 120.1-B.
[5] For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.
[6] 120.2(e)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 sensors include offices 250ft^2 or smaller, multipurpose rooms less than 1,000 ft^2, 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.

01	☐	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.

TITLE 24 SHEET INDEX

AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

Δ	DESCRIPTION	DATE

LP CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER RYAN ENNIS M 41413 REN. 03-31-25 MECHANICAL STATE OF CALIFORNIA

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRMANETO, 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:
T24.01

PLEASE RECYCLE

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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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 Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M-Sheets

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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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	Documentation Author Signature: [signature]
Company: LP Consulting Engineers, Inc.	Signature Date: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	CEA/ HERS Certification Identification (if applicable):
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	Responsible Designer Signature: [signature]
Company: LP Consulting Engineers, Inc.	Date Signed: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	License: M41413
City/State/Zip: Roseville CA 95678	Phone: 916.771.0778

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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L. DISTRIBUTION (DUCTWORK and PIPING)

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	HP-8-1	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
		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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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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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.	BARD W36H; BARD 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".	BARD W36H; BARD W36H;
NRCA-MCH-11-A Automatic Demand Shed Controls	BARD W36H; BARD W36H;
NRCA-MCH-16-A Supply Air Temperature Reset Controls	BARD W36H; BARD W36H;
NRCA-MCH-18-A Energy Management Control Systems	BARD W36H; BARD W36H;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

AGENCY APPROVAL:

Sacramento City
UNIFIED SCHOOL DISTRICT

HMC Architects
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DSA SUBMITTAL

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

SHEET:
T24.02

AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100, SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

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p 916-771-0778
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FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRMANETO, 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:
T24.03

PLEASE RECYCLE

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THIS SHEET'S ORIGINAL PAGE SIZE

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STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization	**Report Page:** (Page 7 of 13)
	Date Prepared: 12/14/2023

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]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. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems

04		05		06		07
System Name	HP-9-1	System Design OA CFM Airflow[1]	365	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2]: Provided

08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3: Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Exh. Vent per 120.1(c)4 & 160.2(c)4: Required Min CFM	Provided per Design CFM	DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
Classroom	Classroom (ages 5-18)	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes

04		05		06		07
System Name	HP-9-2 & HP-9-3	System Design OA CFM Airflow[1]	365	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2]: Provided
08	09	10	11	12	13	14 / 15 / 16

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization	**Report Page:** (Page 4 of 13)
	Date Prepared: 12/14/2023

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(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	HP-9-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,150	Site Elevation	17	Economizer	NA: Altered packaged AC or HP <54 kBtu/h

01	02	03	04	05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
SF	Supply	1	Base Allowance for system serving spaces <=6 floors away	1,150		267		Manufacturer provided		0.44
			MERV 13-16 Filter upstream of thermal conditioning equipment	1,150		160				
			Hydronic/DX cooling coil or heat pump coil	1,150		160				
			Supply Fan System	1,150		160				
Supply Fan Base Allowance (kW)		Exhuast/Return/Relief/Transfer Fan Base Allowance(kW)			Fan System Allowance (kW)[3]		1	Fan System Electrical Output (kW)		0.44

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems 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.	
Project Name: Matsuyama Elementary School Modernization	**Report Page:** (Page 1 of 13)
Project Address: 7680 Windbridge Dr.	**Date Prepared:** 12/14/2023

A. GENERAL INFORMATION

01	Project Location (city)	Sacramento	04	Total Conditioned Floor Area	1920
02	Climate Zone	12	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

- 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.

01		02		03	
Air System(s)		Wet System Components		Dry System Components	
☒	Heating Air System	☐	Water Economizer	☐	Air Economizer
☒	Cooling Air System	☐	Pumps	☐	Electric Resistance Heat
Mechanical Controls		☐	System Piping	☒	Fan Systems
☒	Mechanical Controls (existing to remain, altered or new)	☐	Cooling Towers	☒	Ductwork (existing to remain, altered or new)
		☐	Chillers	☒	Ventilation
		☐	Boilers	☐	Zonal Systems/ Terminal Boxes

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
Project Name: Matsuyama Elementary School Modernization	**Report Page:** (Page 8 of 13)
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J. VENTILATION AND INDOOR AIR QUALITY

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3: Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Exh. Vent per 120.1(c)4 & 160.2(c)4: Required Min CFM	Provided per Design CFM	DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
Classroom	Classroom (ages 5-18)	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes

[1] *FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system*

[2] *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.*

[3] *Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

[4] *See Standards Tables 120.1-A and 120.1-B.*

[5] *For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.*

[6] *120.2(e)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 sensors include offices 250ft^2 or smaller, multipurpose rooms less than 1,000 ft^2, 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.

01	☐	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.

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	HP-9-2 & HP-9-3	Quantity	2	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	2,300	Site Elevation	17	Economizer	NA: Altered packaged AC or HP <54 kBtu/h

01	02	03	04	05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
SF	Supply	2	Base Allowance for system serving spaces <=6 floors away	1,150		267		Manufacturer provided		0.44
			MERV 13-16 Filter upstream of thermal conditioning equipment	1,150		160				
			Hydronic/DX cooling coil or heat pump coil	1,150		160				
			Supply Fan System	1,150		160				
Supply Fan Base Allowance (kW)		Exhuast/Return/Relief/Transfer Fan Base Allowance(kW)			Fan System Allowance (kW)[3]		1.49	Fan System Electrical Output (kW)		0.87

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*

[2] *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.*

[3] *Fan system allowance includes fan system base allowance.*

[4] *Filter pressure loss can only be counted once per fan system.*

[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*

[6] *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(q), 170.2(c)4O

01	02	03	04	05	06	07	08	09	10	11

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-E
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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.

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)										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

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
HP-9-1	1	Single zone	Alteration		☐
HP-9-2 & HP-9-3	2	Single zone	Alteration		☐

STATE OF CALIFORNIA

Mechanical Systems

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L. DISTRIBUTION (DUCTWORK and PIPING)

Duct Leakage Testing

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?	No
		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-9-2 & HP-9-3	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

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STATE OF CALIFORNIA

Mechanical Systems

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

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	Exhaust Air Heat Recovery 140.4(q) & 170.2(c)4O	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass

Fan Energy Index (FEI)

01	02	03
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)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
HP-9-1	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	4 Hour Timer	EMCS	NA: Would increase energy use	Provided
HP-9-2 & HP-9-3	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	4 Hour Timer	EMCS	NA: Would increase energy use	Provided

[1] *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.*

STATE OF CALIFORNIA

Mechanical Systems

CALIFORNIA ENERGY COMMISSION

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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)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
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	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-9-1	PTAC/ PTHP	PTHP newly constructed or newly conditioned space	NA: Altered per 141.0(b)2E and 180.2(b)2	20.61	33	0	33.86	28.6	34.42	43.67
HP-9-2 & HP-9-3	PTAC/ PTHP	PTHP newly constructed or newly conditioned space	NA: Altered per 141.0(b)2E and 180.2(b)2	41.22	33	0	63.94	28.6	34.49	44.36

[1] *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 excepted.*

[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*

[4] *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)

01	02	03	04	05	06	07
	Heating Mode			Cooling Mode		
Name or Item Tag	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
HP-9-1	33000	3	3.3	36000	9.5	11.1
HP-9-2 & HP-9-3	33000	3	3.3	36000	9.5	11.1

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	Documentation Author Signature:
Company: LP Consulting Engineers, Inc.	Signature Date: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	CEA/ HERS Certification Identification (if applicable):
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	Responsible Designer Signature:
Company: LP Consulting Engineers, Inc.	Date Signed: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	License: M41413
City/State/Zip: Roseville CA 95678	Phone: 916.771.0778

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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	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 ft² 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.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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	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.	BARD W36H; BARD 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".	BARD W36H; BARD W36H;
NRCA-MCH-11-A Automatic Demand Shed Controls	BARD W36H; BARD W36H;
NRCA-MCH-16-A Supply Air Temperature Reset Controls	BARD W36H; BARD W36H;
NRCA-MCH-18-A Energy Management Control Systems	BARD W36H; BARD W36H;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

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 Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M-Sheets

AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

Δ	DESCRIPTION	DATE

CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER
RYAN ENNIS
M 41413
REN. 03-31-25
MECHANICAL
STATE OF CALIFORNIA

FACILITY:
MATSUYAMA ELEMENTARY SCHOOL
7680 WINDBRIDGE DR.
SACRMANETO, 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

J. VENTILATION AND INDOOR AIR QUALITY

Storage	All others	210			31.5	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				641	18	Ventilation for this System Complies?		Yes

[1] FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system
[2] 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.
[3] Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
[4] See Standards Tables 120.1-A and 120.1-B.
[5] For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.
[6] 120.2(e)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 sensors include offices 250ft^2 or smaller, multipurpose rooms less than 1,000 ft^2, 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.

01	☐	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.

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	HP-10-1 & HP-10-2	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

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(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	HP-10-1 & HP-10-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,350	Site Elevation	17	Economizer	NA: Altered packaged AC or HP <54 kBtu/h

01	02	03	04	05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
SF	Supply	1	Base Allowance for system serving spaces <=6 floors away	1,350		313		Manufacturer provided		0.44
			MERV 13-16 Filter upstream of thermal conditioning equipment	1,350		188				
			Hydronic/DX cooling coil or heat pump coil	1,350		188				
			Supply Fan System	1,350		188				
Supply Fan Base Allowance (kW)		Exhaust/Return/Relief/Transfer Fan Base Allowance(kW)				Fan System Allowance (kW)[3]		1	Fan System Electrical Output (kW)	0.44

[1] FOOTNOTES: Fans serving spaces with design background noise goals below NC35
[2] 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.
[3] Fan system allowance includes fan system base allowance.
[4] Filter pressure loss can only be counted once per fan system.
[5] Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.
[6] Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..

This document is used to demonstrate compliance for mechanical systems 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.

A. GENERAL INFORMATION

01	Project Location (city)	Sacramento	04	Total Conditioned Floor Area	1921
02	Climate Zone	12	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

- Classroom
- Support Areas
- All Other Occupancies

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.

01		02		03	
Air System(s)		Wet System Components		Dry System Components	
☒	Heating Air System	☐	Water Economizer	☐	Air Economizer
☒	Cooling Air System	☐	Pumps	☐	Electric Resistance Heat
Mechanical Controls		☐	System Piping	☒	Fan Systems
☒	Mechanical Controls (existing to remain, altered or new)	☐	Cooling Towers	☒	Ductwork (existing to remain, altered or new)
		☐	Chillers	☒	Ventilation
		☐	Boilers	☐	Zonal Systems/ Terminal Boxes

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.

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

01	02	03	04	05	06	07	08	09	10	11
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	Exhaust Air Heat Recovery 140.4(q) & 170.2(c)4O	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass

Fan Energy Index (FEI)

01	02	03
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)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
HP-10-1 & HP-10-2	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	4 Hour Timer	EMCS	NA: Would increase energy use	Provided

[1]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.

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.

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)										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

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
HP-10-1 & HP-10-2	1	Single zone	Alteration		☐

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.	BARD W42H;
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".	BARD W42H;
NRCA-MCH-11-A Automatic Demand Shed Controls	BARD W42H;
NRCA-MCH-16-A Supply Air Temperature Reset Controls	BARD W42H;
NRCA-MCH-18-A Energy Management Control Systems	BARD W42H;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]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. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems

04		05		06		07
System Name	HP-10-1 & HP-10-2	System Design OA CFM Airflow[1]	641	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2]: Provided

08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3: Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Exh. Vent per 120.1(c)4 & 160.2(c)4: Required Min CFM	Provided per Design CFM	DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
Classroom	Classroom (ages 5-18)	1605			609.9	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
Restroom	Toilet, private	106			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type

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)

01	02	03	04	05	06	07	08	09	10	11
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	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Heating Output[2,3]: Per Design (kBtu/h)	Heating Output[2,3]: Rated (kBtu/h)	Heating Output[2,3]: Supp. Heating Output (kBtu/h)	Cooling Output[2,3]: Sensible Per Design (kBtu/h)	Cooling Output[2,3]: Rated (kBtu/h)	Load Calculations[3,4]: Total Heating Load (kBtu/h)	Load Calculations[3,4]: Total Sensible Cooling Load (kBtu/h)
HP-10-1 & HP-10-2	PTAC/ PTHP	PTHP newly constructed or newly conditioned space	NA: Altered per 141.0(b)2E and 180.2(b)2	24.36	39	0	39.91	30.8	60.51	81.41

(Columns 05–11: Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2)

[1]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 excepted.
[2]It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] 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)

01	02	03	04	05	06	07
	Heating Mode			Cooling Mode		
Name or Item Tag	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
HP-10-1 & HP-10-2	39000	3	3.3	41500	9.5	11

G. PUMPS

This section does not apply to this project.

AGENCY APPROVAL:

Sacramento City
UNIFIED SCHOOL DISTRICT

HMC Architects
3186-070-000
2101 CAPITOL AVENUE, SUITE 100,
SACRAMENTO, CA, 95816
916 368 7990 / www.hmcarchitects.com

ISSUE

Δ	DESCRIPTION	DATE

LP CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 23-2274

REGISTERED PROFESSIONAL ENGINEER RYAN ENNIS M 41413 REN. 03-31-25 MECHANICAL STATE OF CALIFORNIA

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

PROJECT:
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SHEET NAME:
TITLE 24 COMPLIANCE - BUILDING 10

DSA SUBMITTAL

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

SHEET:
T24.05

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 Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M-Sheets

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Lydia Reynolds	
Company: LP Consulting Engineers, Inc.	Signature Date: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	CEA/ HERS Certification Identification (if applicable):
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:	Responsible Designer Signature:
Ryan Ennis	
Company: LP Consulting Engineers, Inc.	Date Signed: 2023-12-14
Address: 1209 Pleasant Grove Blvd.	License: M41413
City/State/Zip: Roseville CA 95678	Phone: 916.771.0778

AGENCY APPROVAL:

Sacramento City UNIFIED SCHOOL DISTRICT

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SHEET:

T24.06