

**SITE PLAN**  
**HVAC REPLACEMENT**

SCALE: 1" = 30'

CODE ANALYSIS		KEY NOTES #	
<b>BUILDING B</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 17'-11" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 7,613 S.F. TYPE OF CONSTRUCTION V-B		1. EXISTING TURF 2. EXISTING A/C PAVING 3. EXISTING CONCRETE SIDEWALK 4. EXISTING CHAIN-LINK FENCE	
<b>BUILDING C</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 17'-11" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 8,482 S.F. TYPE OF CONSTRUCTION V-B		<b>GENERAL NOTES</b> ALL WORK SHALL CONFORM TO 2019 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR). CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR. SUBSTITUTIONS OF PRODUCTS AND PROCESSES WHICH AFFECT THE STRUCTURAL SAFETY, FIRE AND LIFE-SAFETY, AND ACCESSIBILITY OF THIS PROJECT SHALL BE SUBMITTED TO DSA FOR REVIEW AND APPROVAL AS AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR). GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD, AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.	
<b>BUILDING D</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 17'-11" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 7,883 S.F. TYPE OF CONSTRUCTION V-B		<b>CAL. ENERGY CODE</b> THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TESTS TECHNICIAN (ATT). MECHANICAL CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER / ARCHITECT OF RECORD OR THE OWNER'S AGENT. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: <a href="https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-programs/acceptance">https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-programs/acceptance</a> . THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.	
<b>BUILDING E</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 17'-11" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 6,421 S.F. TYPE OF CONSTRUCTION V-B		<b>integrated designs</b> by SOMAM, Inc. <b>ARCHITECTURE ENGINEERING INTERIOR DESIGN</b> 6011 N. FRESNO STREET, SUITE 130 FRESNO CALIFORNIA 93710 P: (559) 436-0881 F: (559) 436-0887 E: design@somam.com integrateddesigns.com	
<b>BUILDING F</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 20'-8" / + 24'-11.5" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 12,472 S.F. TYPE OF CONSTRUCTION V-B		<b>ARCHITECTURE ENGINEERING INTERIOR DESIGN</b> LICENSED ARCHITECT CHRIS C. FLEMING No. C 28966 Exp. 5-31-25 STATE OF CALIFORNIA	
<b>BUILDING G</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 22'-6" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 8,206 S.F. TYPE OF CONSTRUCTION V-B		<b>LEGEND</b> BUILDINGS THAT ARE PART OF THE SCOPE OF WORK FOR THIS HVAC MODERNIZATION	
<b>BUILDING H</b> BUILDING USE CLASSROOMS OCCUPANCY GROUP E NUMBER OF STORIES ONE BUILDING HEIGHT + 17'-11" ALLOWABLE FLOOR AREA 9,500 S.F. ACTUAL FLOOR AREA 5,633 S.F. TYPE OF CONSTRUCTION V-B		<b>SITE PLAN</b> Job No: <b>5525</b> Sheet No: <b>A1.00</b> Release: DSA SUBMITTAL 11/28/22	

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 DATE: 07/27/2023



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 1300 BAKER STREET  
 BAKERSFIELD, CA 93305

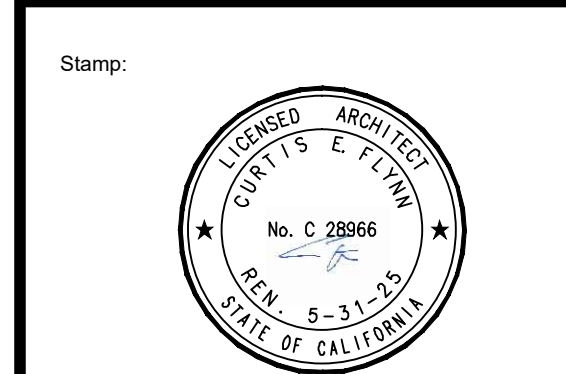
Project Name:  
**HVAC REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

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 by SOMAM, Inc.

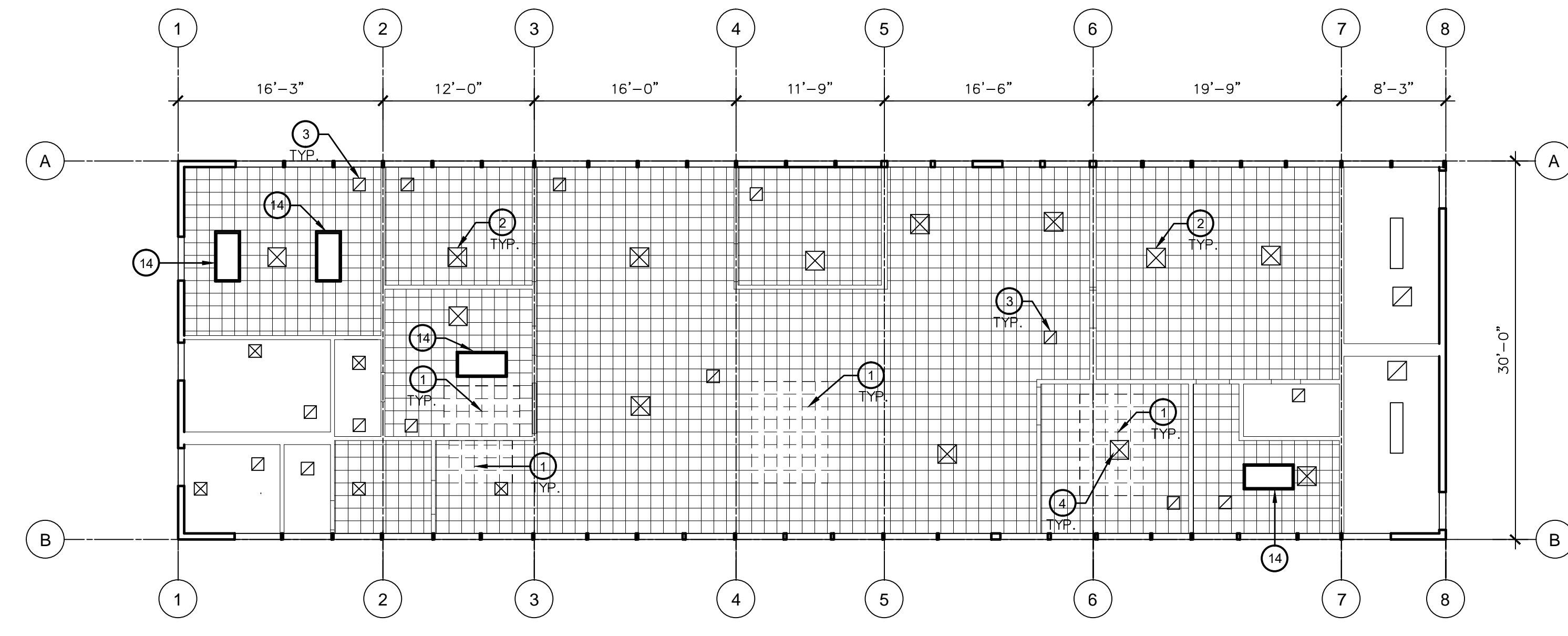
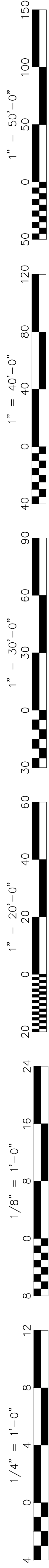
**ARCHITECTURE ENGINEERING INTERIOR DESIGN**  
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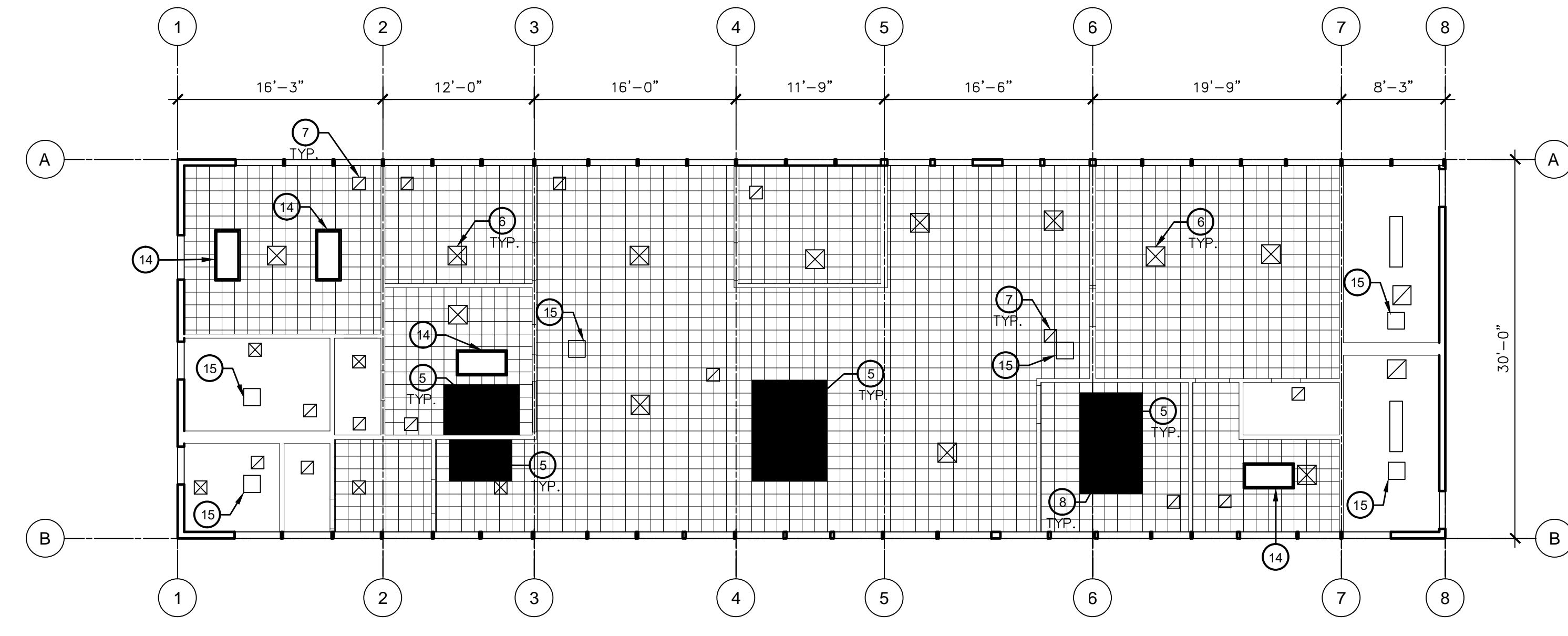


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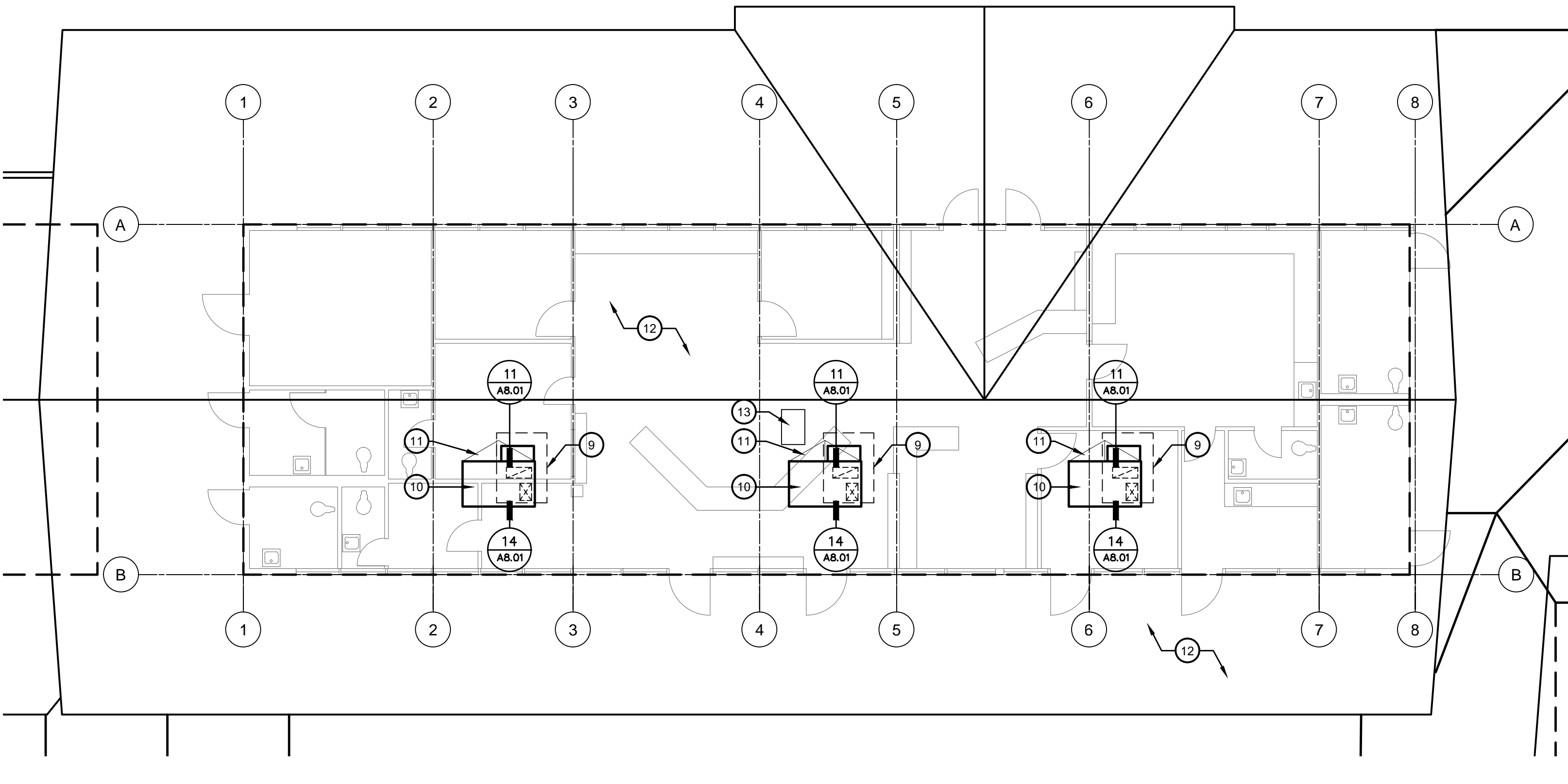
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 Sheet No: **A1.00**  
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**REFLECTED CEILING BUILDING A PLAN - DEMOLITION**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**REFLECTED CEILING BUILDING A PLAN - IMPROVEMENT**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**ROOF PLAN - BUILDING A PLAN - DEMOLITION AND IMPROVEMENT**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"

- KEY NOTES #**
- REMOVE PORTION OF (E) GULLED-ON ACOUSTICAL TILES OVER (E) 1X3 STRIPPING @ 12" o.c. AS REQUIRED TO ALLOW INSTALLATION OF NEW WORK.
  - (E) AIR SUPPLY GRILL TO REMAIN, TYPICAL.
  - (E) AIR RETURN GRILL TO REMAIN, TYPICAL.
  - REMOVE (E) AIR SUPPLY GRILL AND SALVAGE FOR RELOCATION.
  - REPLACE ACOUSTICAL TILE CEILING AREA INCLUDING 1X3 STRIPPING @ 12" o.c. AND 2X3 STRIPPING @ 16" o.c. TILE TO MATCH (E) TILE COLOR, PATTERN THICKNESS AND TEXTURE.
  - TYPICAL (E) AIR SUPPLY GRILL.
  - TYPICAL (E) AIR RETURN GRILL.
  - REINSTALL SALVAGED (E) AIR SUPPLY GRILL.
  - (E) HEATING AND COOLING ROOFTOP UNIT TO BE REMOVED.
  - NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
  - REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRIBBET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO MATCH (E) ROOFING - SEE 14/AB.01.
  - (E) COMPOSITION SHINGLES ROOFING OVER 1" DIAGONAL SHEATHING ROOF DECKING.
  - (E) ROOF HATCH TO REMAIN.
  - (E) 2'x4' FLUORESCENT LIGHT FIXTURE TO REMAIN.
  - (N) 16"x16" CEILING ACCESS PANEL FOR HEAT DETECTORS. COORDINATE LOCATIONS WITH ELECTRICAL PLAN SHEET E3.12. CONTRACTOR SHALL VERIFY THERE ARE NO EXISTING ELEMENTS INTERFERING OR OBSTRUCTING ACCESS. NOTIFY THE ARCHITECT PROMPTLY IF THERE IS INTERFERENCE.

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**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA. 93305

Project Name:  
**HVAC REPLACEMENT**

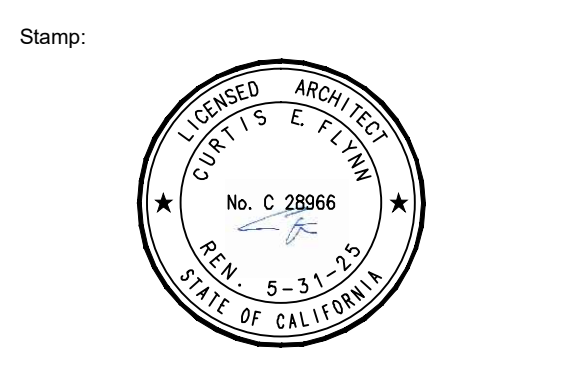
Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
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Sheet Title:  
**BUILDING A PLAN**

Job No.:  
**5525**

Sheet No.:  
**A2.00**  
 Release: DSA SUBMITTAL 11/28/22


**DEDUCTIVE BID ALTERNATE No. 1**  
 THE WORK ON THIS SHEET AND S1.11, M2.11, E2.04, E2.12 AND E3.12 ARE PARTS OF THIS BID ALTERNATE

# KEY NOTES #

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. TYP.
2. REMOVE EXISTING OUTSIDE AIR LOUVER AND DUCT THRU WALL.
3. REMOVE (E) CARPET, VAT TILE FLOORING AND MASTIC
4. REMOVE (E) VINYL COMPOSITION TILE FLOORING AND MASTIC
5. REMOVE EXISTING SHEET METAL PIPE COVER, CONCRETE PAD AND UTILITY PIPES, CAP AND ABANDON REMAINING PIPES UNDERGROUND. -SEE DETAIL 13/A6.01
6. SEE SHEET A6-10 FOR REFLECTED CEILING DEMOLITION WORK AND A6.21 FOR RCP IMPROVEMENTS.

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# GENERAL NOTES

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**


Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

  
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# LEGEND

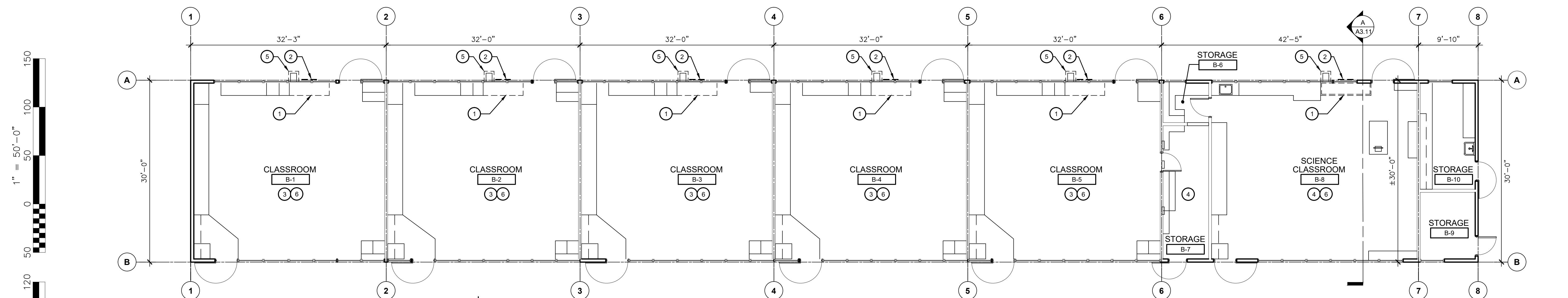
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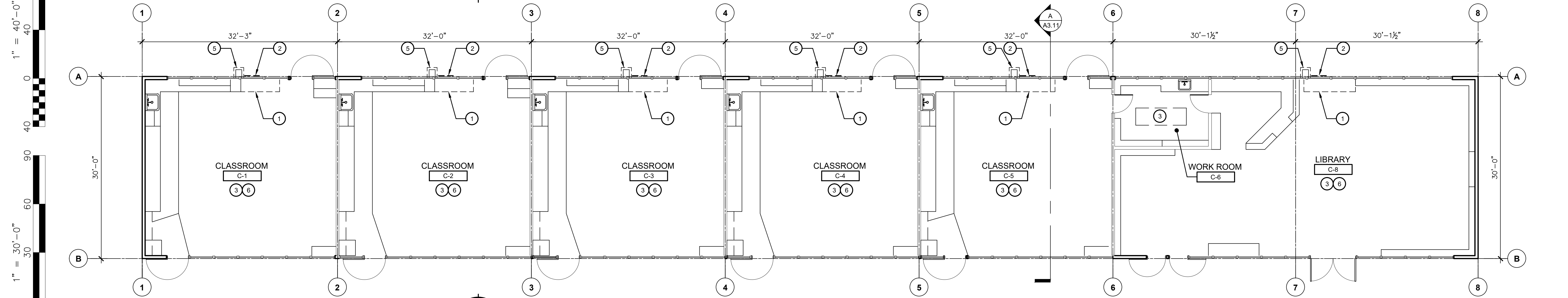
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**DEMOLITION PLANS  
BLDG. B, C, D & E**

Job No.:  
**5525**

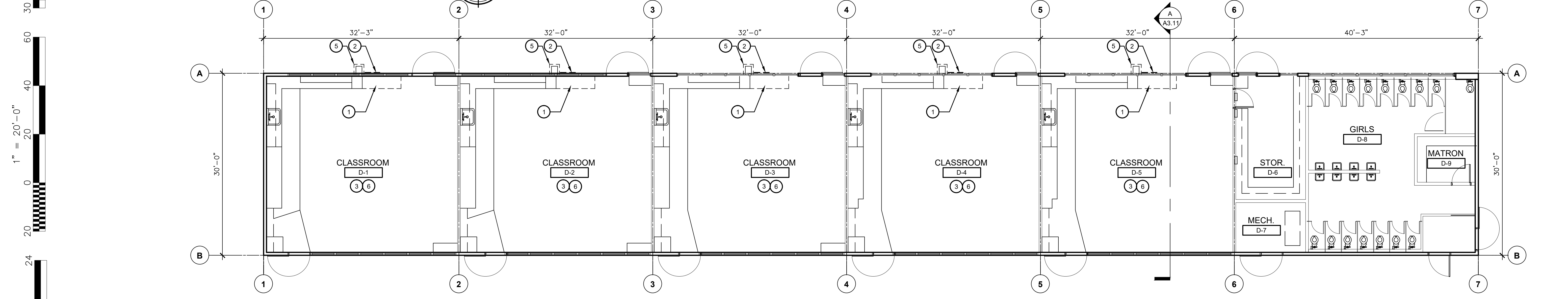
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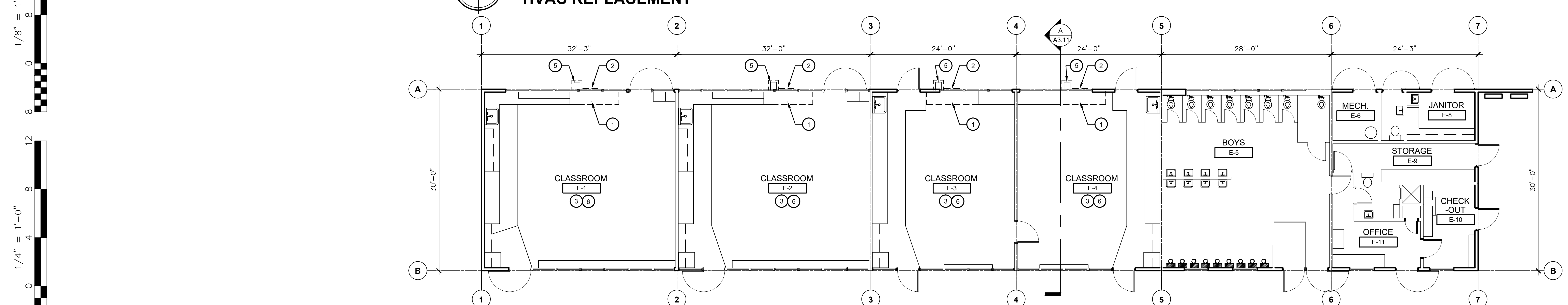
**DEMOLITION PLAN - BUILDING B**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



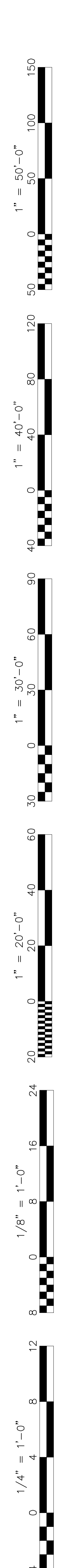
**DEMOLITION PLAN - BUILDING C**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



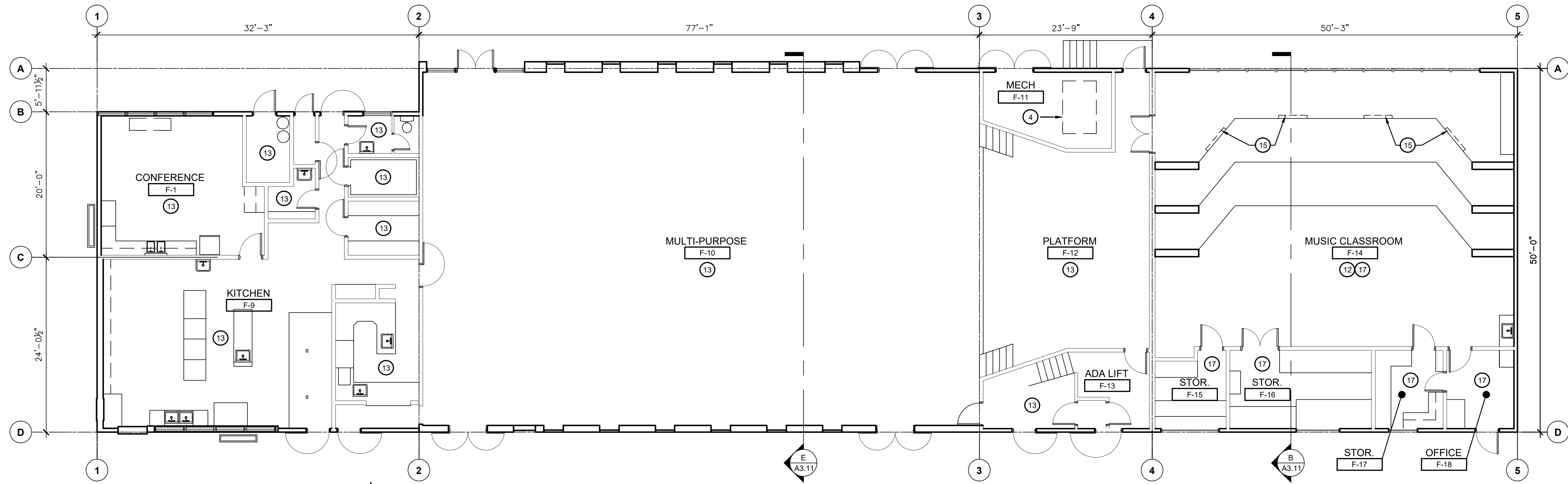
**DEMOLITION PLAN - BUILDING D**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



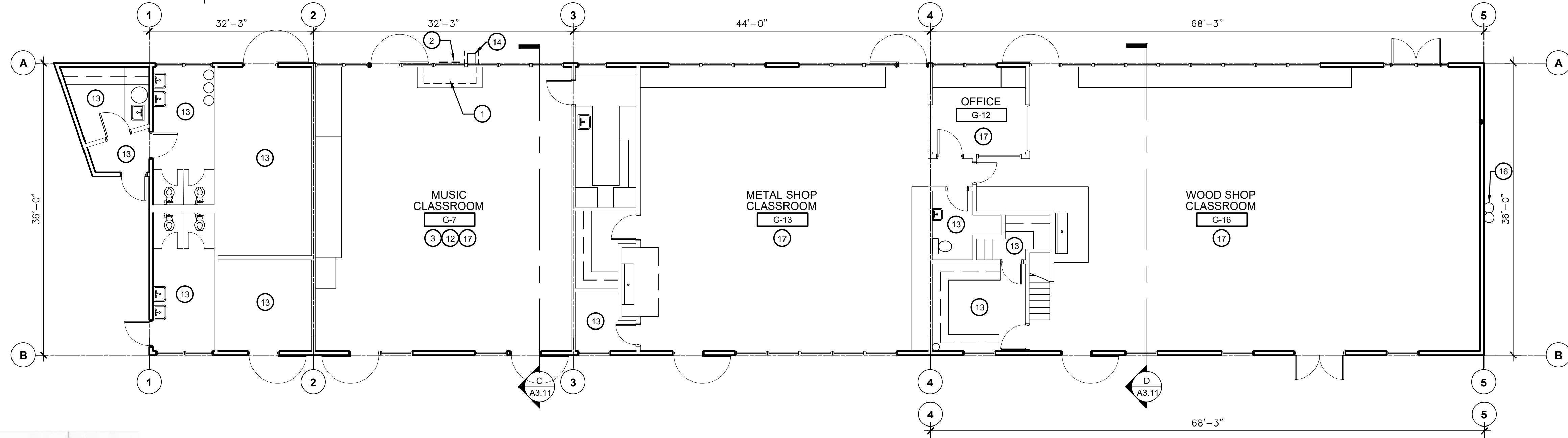
**DEMOLITION PLAN - BUILDING E**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



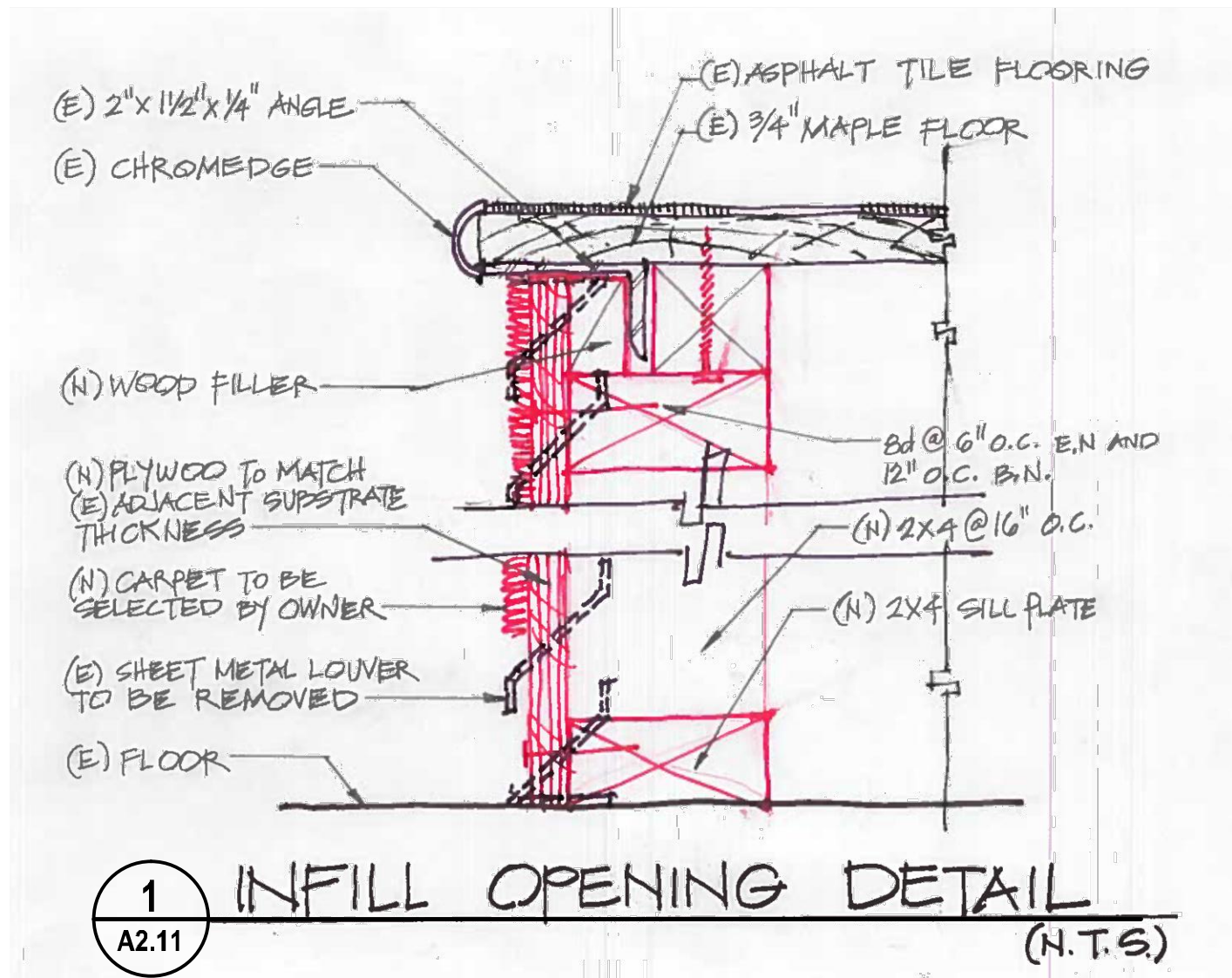
1" = 50'-0"  
 1" = 40'-0"  
 1" = 30'-0"  
 1" = 20'-0"  
 1" = 15'-0"  
 1" = 10'-0"  
 1" = 8'-0"  
 1" = 6'-0"  
 1" = 4'-0"



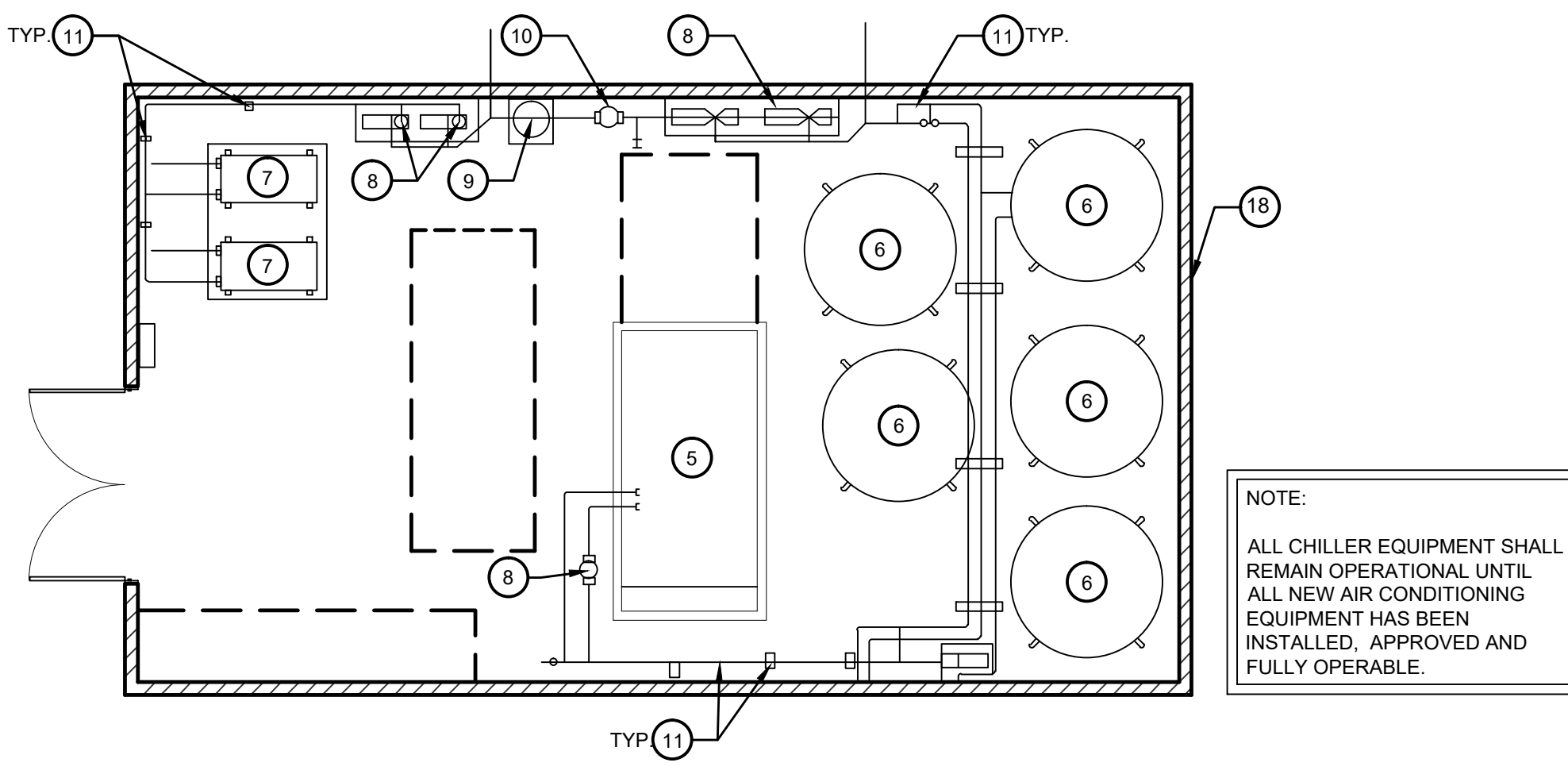
**DEMOLITION PLAN - BUILDING F**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**DEMOLITION PLAN - BUILDING G**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**1 INFILL OPENING DETAIL**  
 (N.T.S.)  
 A2.11



**DEMOLITION PLAN - BUILDING H**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"

**KEY NOTES #**

- REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. COORDINATE WITH MECHANICAL DRAWINGS, TYP.
- REMOVE EXISTING OUTSIDE AIR LOUVER AND DUCT THRU WALL. SEE DETAIL 13/A8.01
- REMOVE (E) CARPET, VAT FLOORING AND MASTIC.
- REMOVE (E) FAN COIL UNIT SEE SHEET M2.61 FOR ADDITIONAL INFORMATION.
- REMOVE EXISTING AIR COOLED CHILLER, PIPING AND CONTROLS.
- REMOVE EXISTING ICE STORAGE TANK.
- REMOVE EXISTING HYDRONIC BOILER, PIPING AND CONTROLS.
- REMOVE EXISTING PUMP, PIPING AND CONTROLS.
- REMOVE EXISTING EXPANSION TANK AND PIPING.
- REMOVE EXISTING AIR SEPARATOR AND PIPING.
- REMOVE EXISTING PIPING AND SUPPORT.
- REMOVE (E) VINYL COMPOSITION TILE AND MASTIC.
- NO WORK IN THIS ROOM.
- REMOVE EXISTING SHEET METAL PIPE COVER, CONCRETE PAD AND UTILITY PIPES. CAP AND ABANDON REMAINING PIPES UNDERGROUND. SEE DETAIL 13/A8.01
- REMOVE EXISTING RETURN AIR GRILL AND DUCTWORK PATCH OPENING TO MATCH EXISTING. SEE 1/A2.11 AND SHEET M2.61 FOR ADDITIONAL INFORMATION.
- REMOVE EXISTING HYDRONIC PIPING. SEE SHEET M2.71 FOR ADDITIONAL INFORMATION.
- SEE SHEET A6.11 FOR REFLECTED CEILING DEMO WORK AND A6.21 FOR RCP IMPROVEMENTS.
- REMOVE AND DISPOSE OF (E) CMU WALLS, INCLUDING CONCRETE FOUNDATION AND CHAIN-LINK FENCE ON TOP OF WALL. COORDINATE DEMOLITION WITH REMOVAL OF CHILLER EQUIPMENT TIME FRAME.

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Sheet Title:  
**DEMOLITION PLANS BLDG. F, G & H**

Job No.:  
**5525**


Sheet No.:  
**A2.11**  
 Release: DSA SUBMITTAL 11/28/22

**DEMOLITION PLANS - CENTRAL PLANT**  
 1/8" = 1'-0"

**KEY NOTES #**


- INFILL OPENING WITH WOOD STUDS, CEMENT PLASTER TO MATCH EXISTING ADJACENT COLOR AND TEXTURE ON THE OUTSIDE AND GYPSUM BOARD TO MATCH EXISTING ADJACENT THICKNESS, COLOR, AND TEXTURE ON THE INSIDE. PROVIDE R-19 BATT INSULATION. SEE 12A&B.01
- PROVIDE NEW CARPET AS PER SPECIFICATIONS - COLOR TO BE SELECTED BY OWNER
- INSTALL NEW CERAMIC TILE FLOORING - SIZE AND COLOR TO BE SELECTED BY OWNER
- PAINT WALL, WINDOW FRAME, COLUMN, DOOR FRAME AND DOOR - COLOR TO BE SELECTED BY OWNER
- NO WORK IN THIS ROOM
- NEW HVAC WIRELESS GATEWAY PROVIDE 120V SINGLE PHASE WALL OUTLET AND ETHERNET CONNECTION.
- WALL MOUNTED RETURN AIR GRILL ABOVE DOOR. SEE SHEET M2.21 FOR ADDITIONAL INFORMATION.
- WALL MOUNTED SUPPLY AIR GRILL. SEE SHEET M2.021 FOR ADDITIONAL INFORMATION.
- SEE SHEET A6.20 FOR NEW REFLECTED CEILING WORK.

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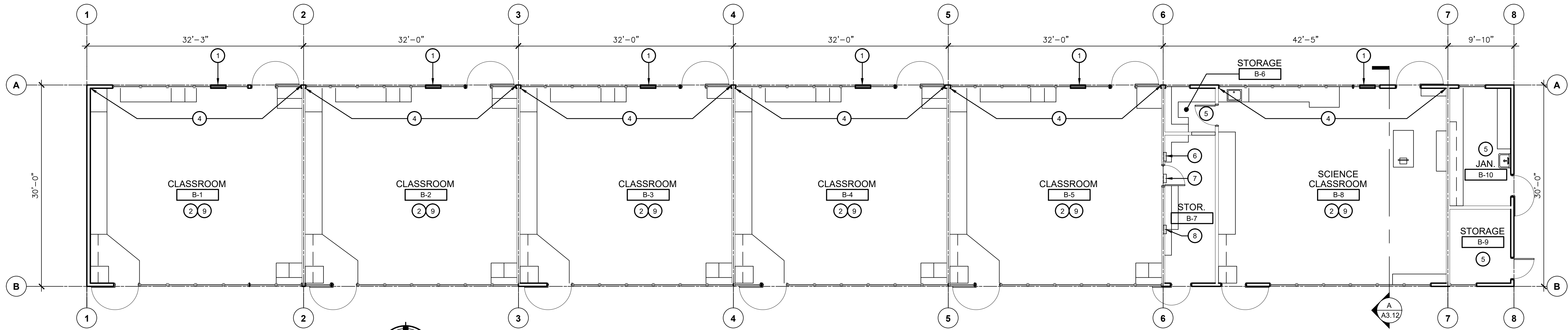
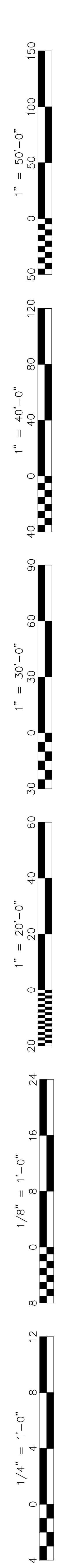
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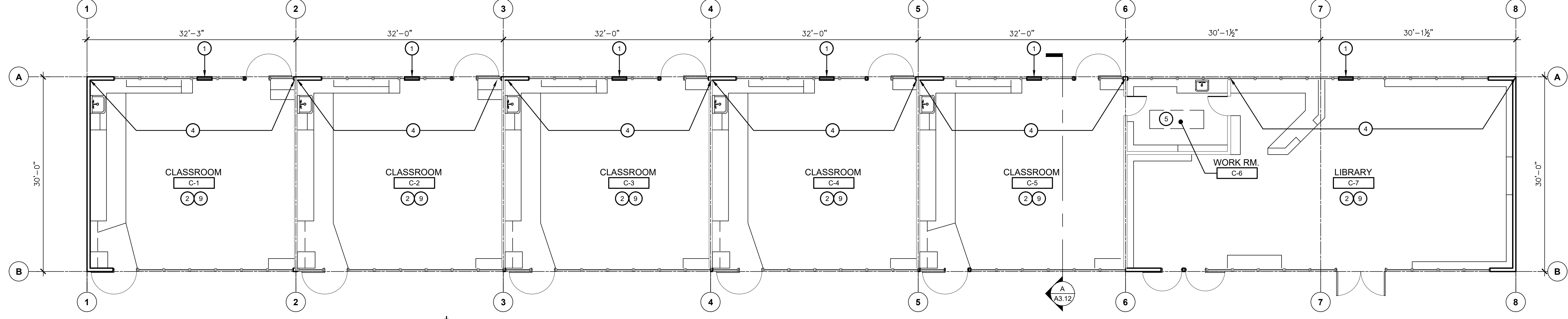
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**FLOOR PLANS BLDG. B, C, D & E**

Job No.:  
**5525**

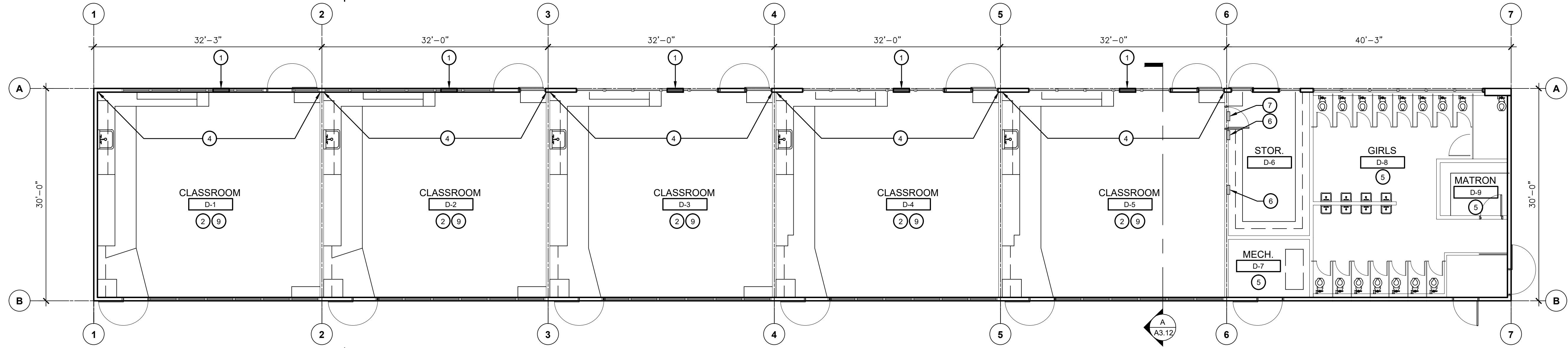
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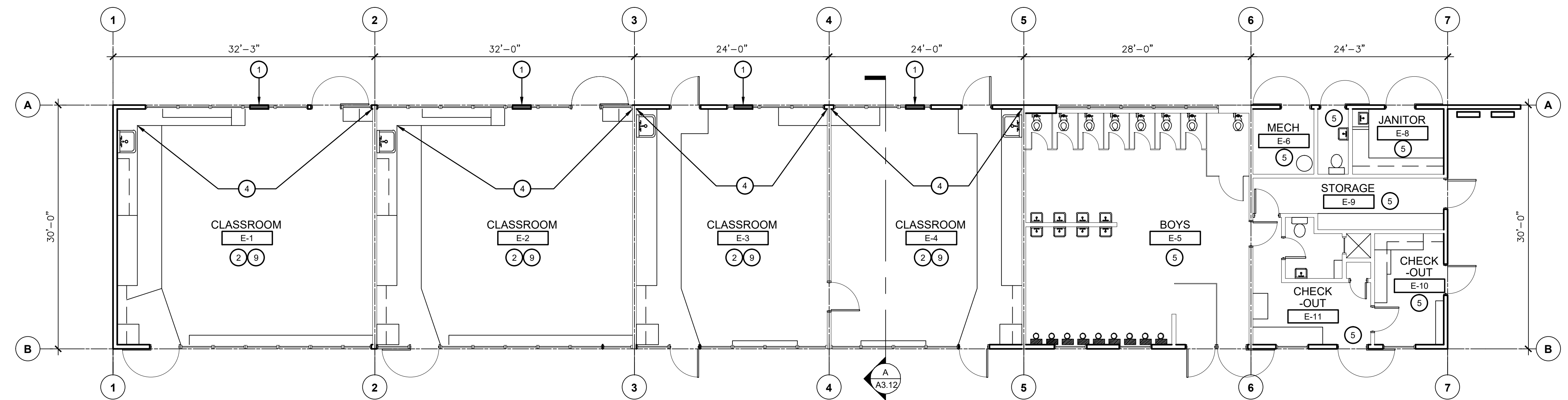
**FLOOR PLANS - BUILDING B - IMPROVEMENTS**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



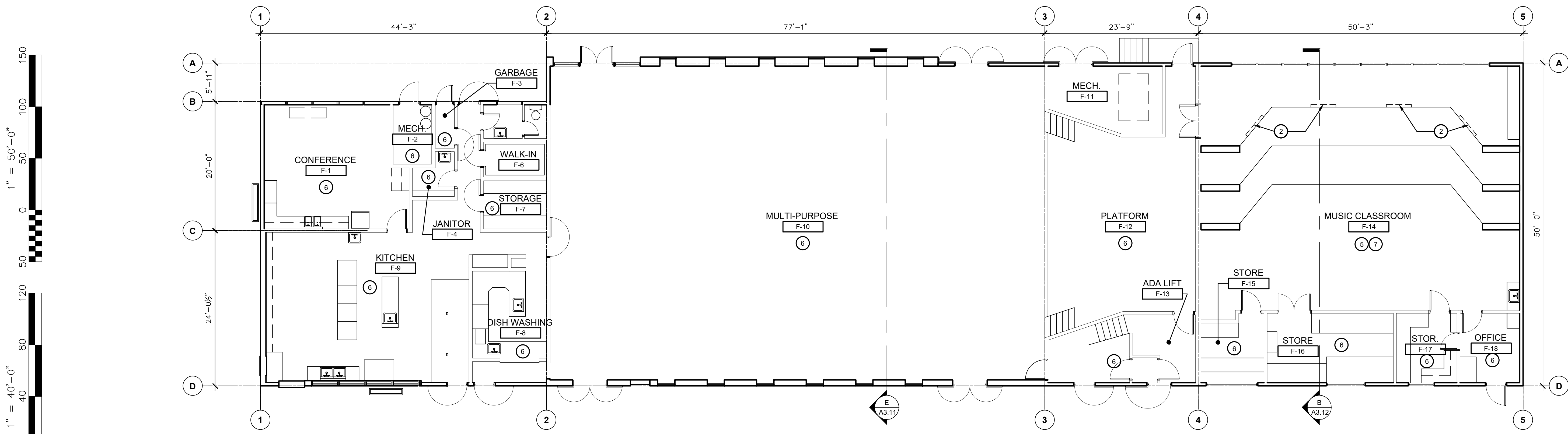
**FLOOR PLANS - BUILDING C - IMPROVEMENTS**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



**FLOOR PLANS - BUILDING D - IMPROVEMENTS**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



**FLOOR PLANS - BUILDING E - IMPROVEMENTS**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



**FLOOR PLANS - BUILDING F - IMPROVEMENTS**

**HVAC REPLACEMENT**

SCALE: 1/8" = 1'-0"



**KEY NOTES #**

- INFILL OPENING WITH WOOD STUDS, CEMENT PLASTER TO MATCH EXISTING ADJACENT COLOR & TEXTURE ON THE OUTSIDE & GYPSUM BOARD TO MATCH EXISTING ADJACENT THICKNESS, COLOR, & TEXTURE ON THE INSIDE. PROVIDE R-19 BATT INSULATION - SEE 12A&B.10
- INFILL OPENING WITH WOOD STUDS, PLYWOOD AND CARPET TO MATCH EXISTING ADJACENT MATERIAL, TEXTURE AND COLOR - SEE DETAIL 1/A2.11.
- (NOT USED).
- PAINT WALL, WINDOW FRAME, COLUMN, DOOR FRAME, AND DOOR - COLOR TO BE SELECTED BY OWNER.
- SEE SHEET A6, 21 FOR REFLECTED CEILING NEW WORK.
- NO WORK IN THIS ROOM
- PROVIDE NEW VCT AS PER SPECIFICATIONS - COLOR TO BE SELECTED BY OWNER.

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DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

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**GENERAL NOTES**

**LEGEND**

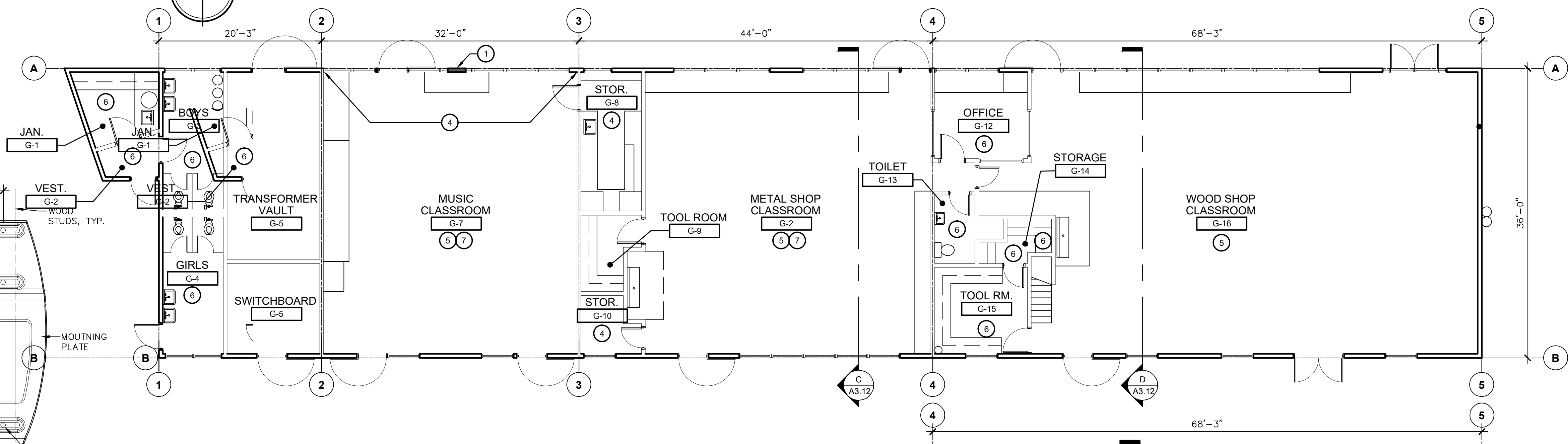
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Sheet Title:  
**FLOOR PLANS BLDG. F, G & H**

Job No.:  
**5525**

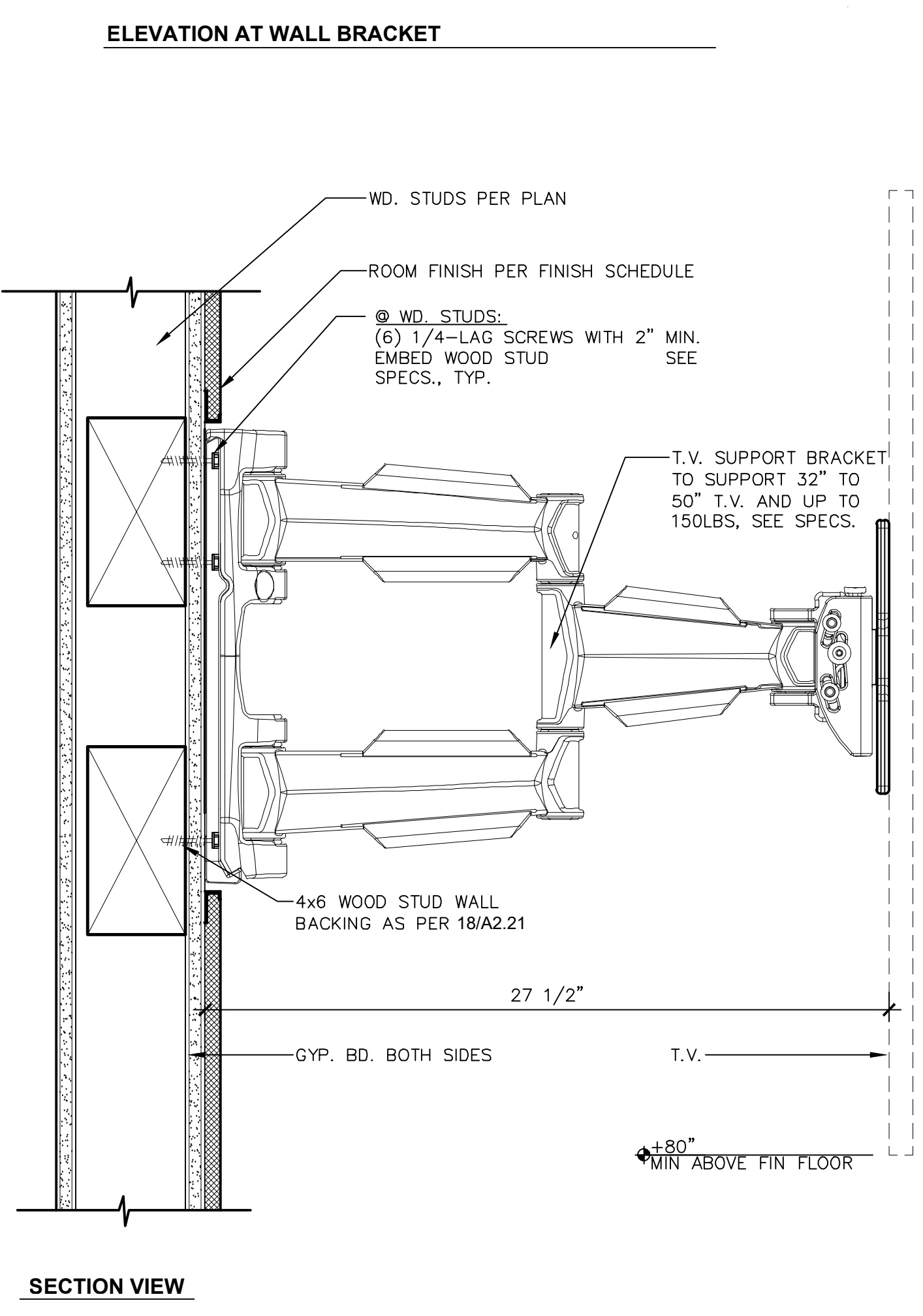
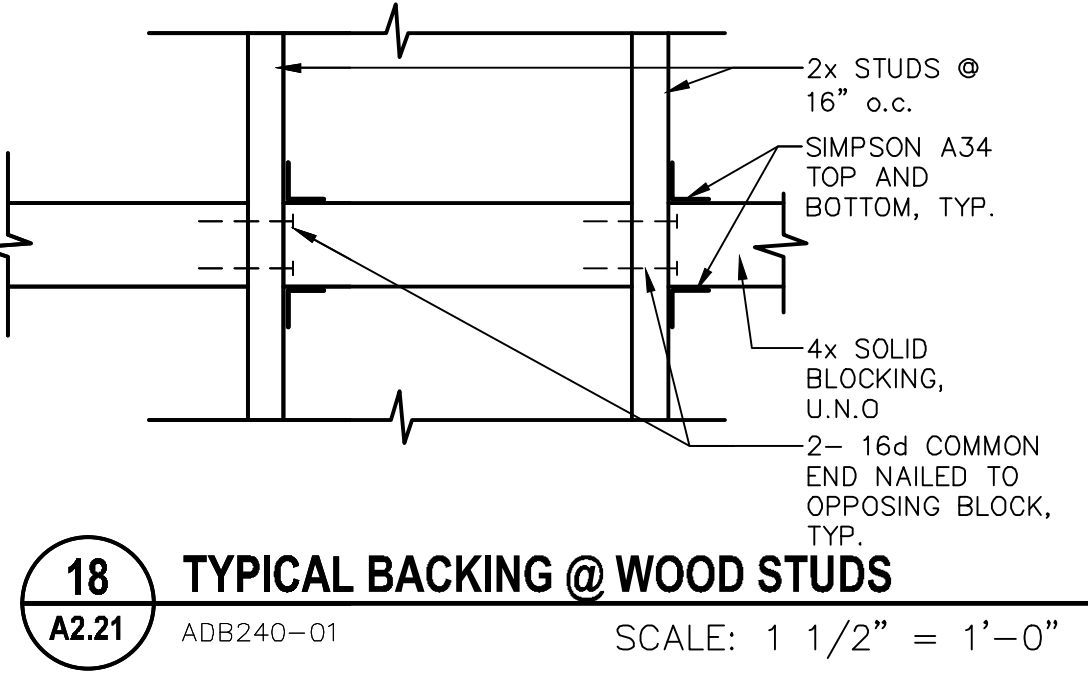
Sheet No.:  
**A2.21**  
Release: DSA SUBMITTAL 11/28/22



**FLOOR PLANS - BUILDING G - IMPROVEMENTS**

**HVAC REPLACEMENT**

SCALE: 1/8" = 1'-0"



**FLOOR PLANS - BUILDING H - IMPROVEMENTS**


**HVAC REPLACEMENT**

SCALE: 1/8" = 1'-0"

**KEY NOTES #**

1. (E) STEEL JOISTS TO REMAIN
2. (E) 2X3 STRIPPING @ 24" O.C. TO BE REMOVED
3. (E) 1X3 STRIPPING @ 12" O.C. TO BE REMOVED
4. (E) 2X4 CEILING JOISTS
5. (E) 2X4 HANGER
6. (E) WINDOW
7. (E) ACOUSTIC TILE OVER DRYWALL TO BE REMOVED
8. (E) LIGHT FIXTURES TO BE REMOVED
9. (E) CONCRETE SLAB
10. (E) CONCRETE WALK
11. (E) STUD WALL
12. (E) WOOD FRAME PLATFORM
13. REMOVE (E) SUSPENDED T-BAR CEILING AND APPURTENANCES
14. REMOVE (E) BATT INSULATION
15. REMOVE PORTION OF (E) 1" DIAGONAL SHEATHING OR PLYWOOD ROOF DECKING AS REQUIRED TO INSTALL NEW A/C UNIT AND RELATED DUCTS - SEE STRUCTURAL SHEET S2.1
16. REMOVE PORTION OF (E) 2X PURLINS AS REQUIRED TO INSTALL NEW AIR DUCTS - SEE STRUCTURAL DETAILS ON SHEET S2.1
17. REMOVE (E) UNIT VENTILATOR AND ALL RELATED COMPONENTS, CONTROLS, ETC. SEE DETAIL 13/A6.01.
18. REMOVE PORTION OF (E) 2X10 PURLIN AS REQUIRED TO INSTALL NEW A/C UNIT AND AIR DUCTS - SEE STRUCTURAL DETAILS ON SHEET S2.1
19. REMOVE (E) SHEET METAL PIPE COVER, CONCRETE PAD, AND UTILITY PIPES. CAP AND ABANDON REMAINING PIPES UNDERGROUND. SEE DETAIL 13/A6.01.
20. (E) 2X10 PURLINS AT 24" o.c.
21. REMOVE (E) WIRE SUSPENDED CEILING INCLUDING 1-1/2 RUNNER CHANNELS AT 3' o.c., 2X3 STRIPPING AT 16" o.c., 5/8" GYPSUM BOARD, AND 12"X12" ACOUSTIC TILES
22. (E) 1" DIAGONAL SHEATHING
23. (E) 2X4 PURLINS AT 24" o.c.
24. REMOVE PORTION OF (E) 2X3 STRIPPING
25. REMOVE PORTION OF ACOUSTIC TILE
26. (E) 2X ROOF RAFTERS AT 16" o.c.
27. REMOVE (E) ROOF MOUNTED A/C UNIT

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Project Name:  
**HVAC REPLACEMENT**

Project Address:  
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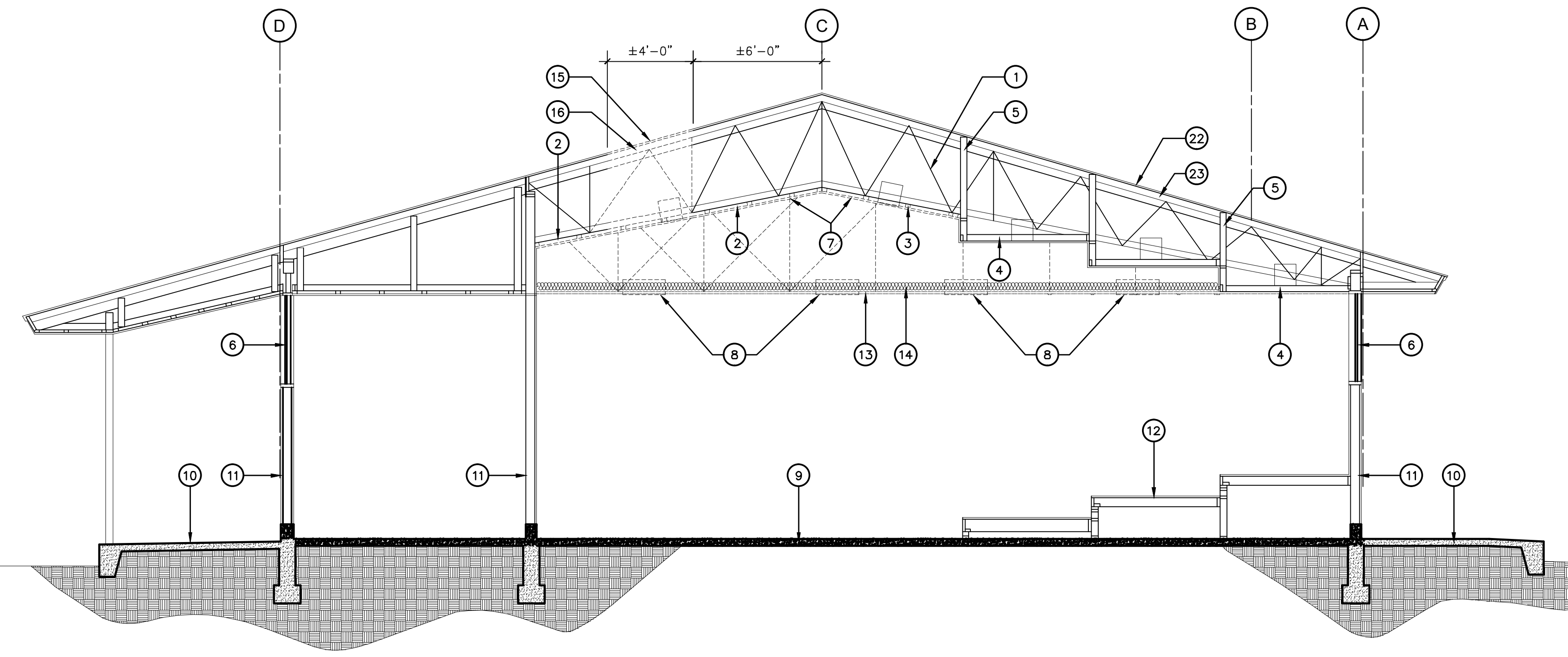
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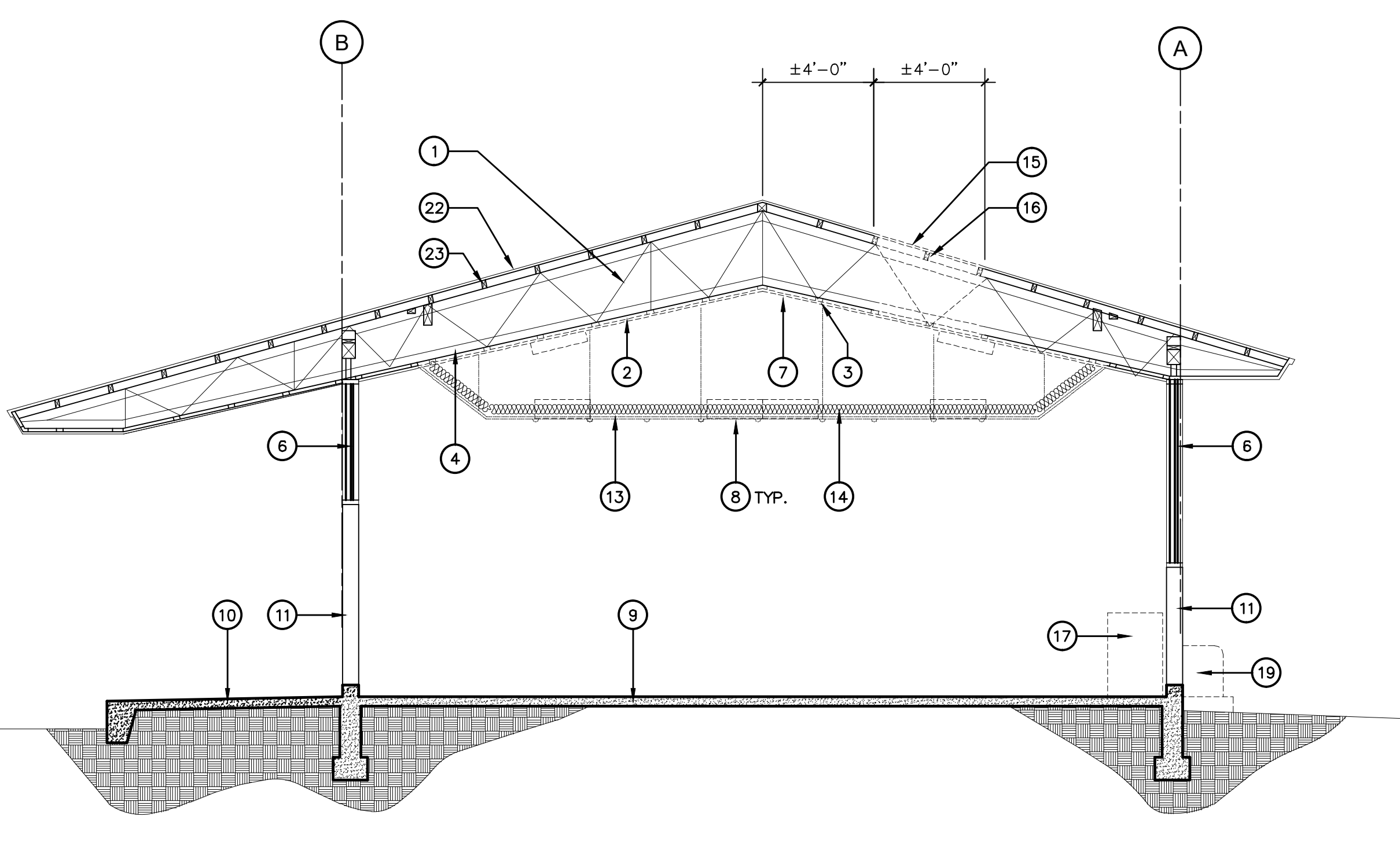

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**SECTIONS  
 DEMOLITION**

Job No.:  
**5525**

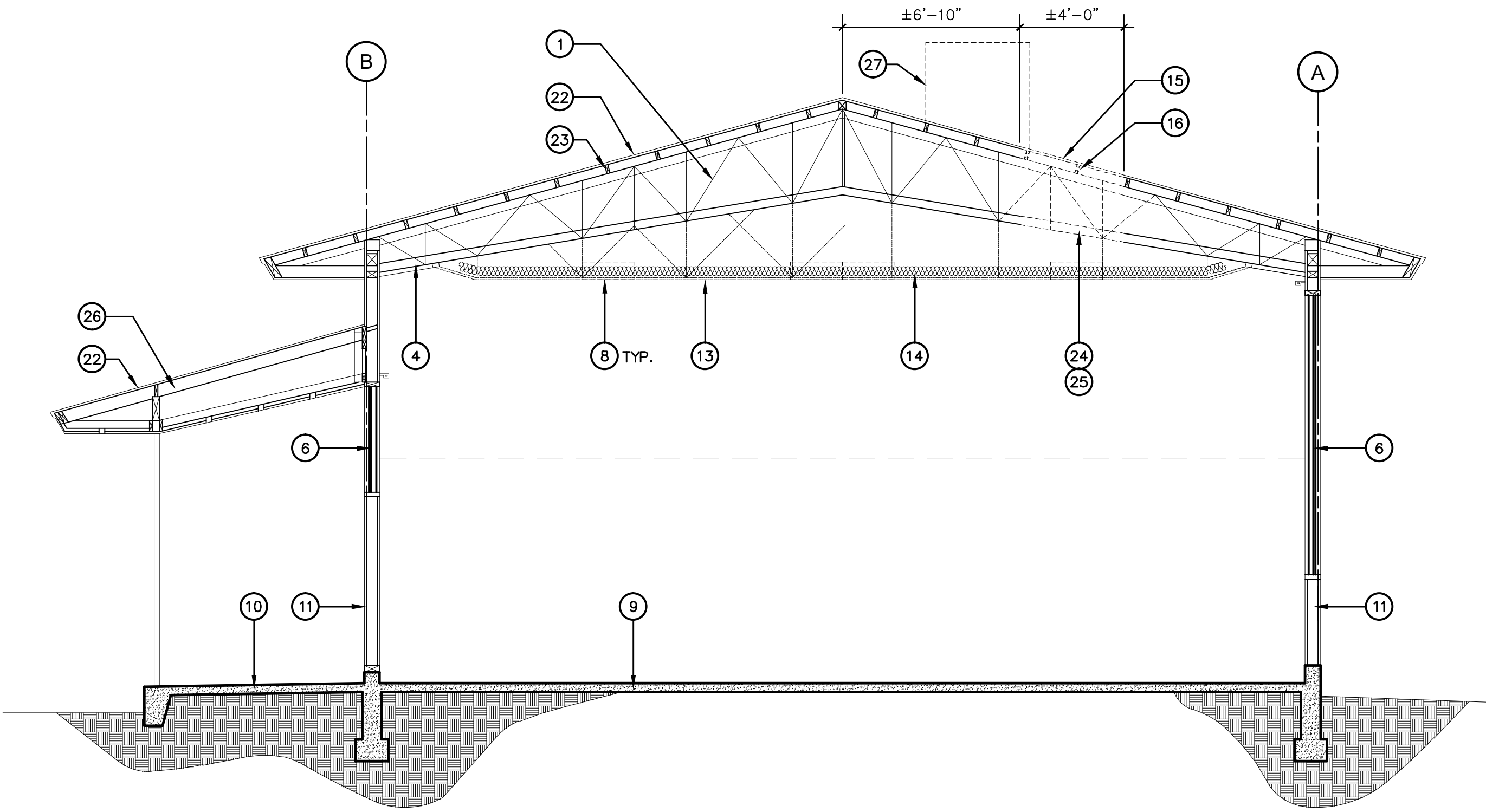
Sheet No.:  
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 Release: DSA SUBMITTAL 11/28/22



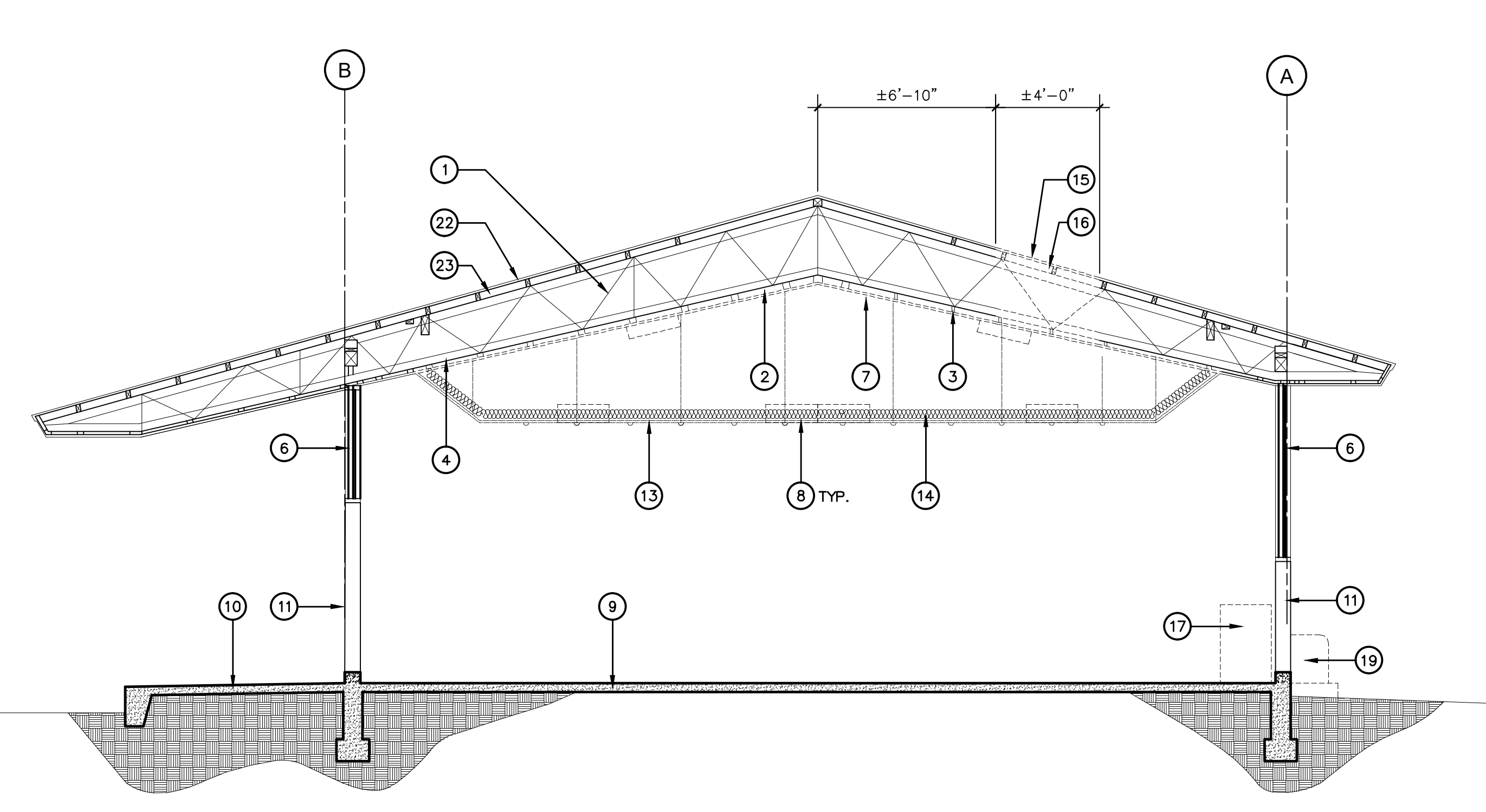
**B BUILDING F - DEMO**  
 1/4" = 1'-0"



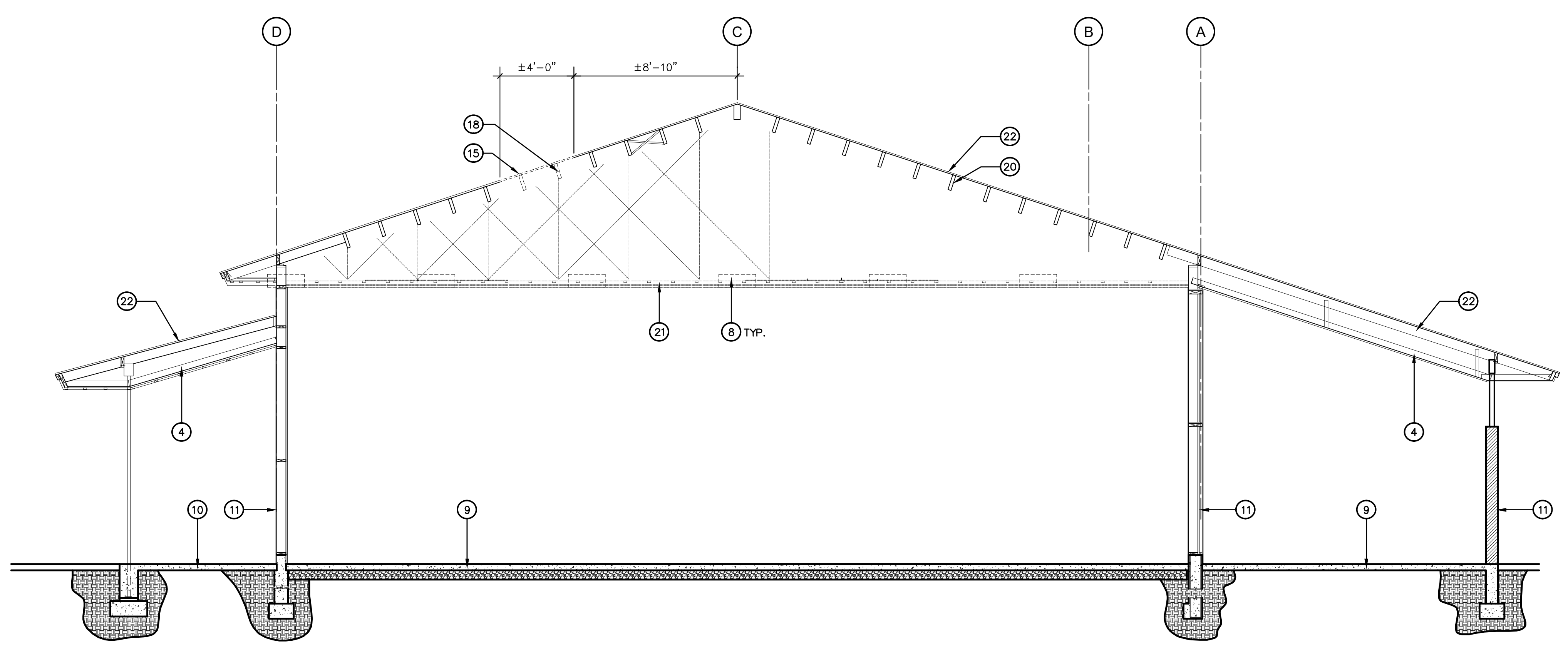
**A BUILDINGS B, C, D, E & H - DEMO**  
 1/4" = 1'-0"



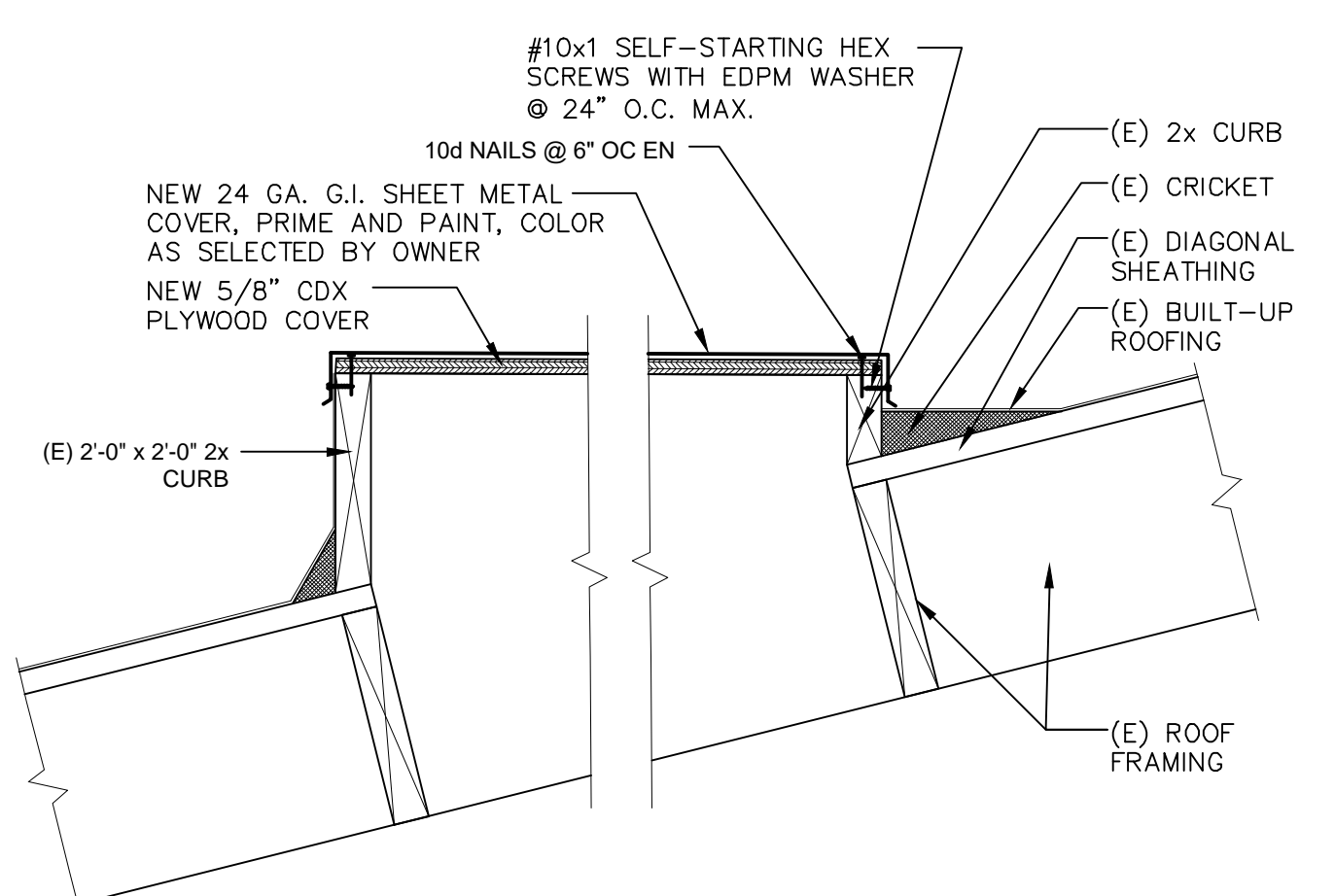
**D BUILDING G - DEMO**  
 1/4" = 1'-0"



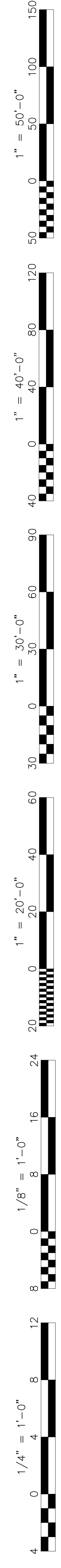
**C BUILDING G - DEMO**  
 1/4" = 1'-0"



**E BUILDING F - DEMO**  
 1/4" = 1'-0"



**1 EXISTING ROOF OPENING COVER**  
 A3.11 01-A301 SCALE: 1 1/2" = 1'-0"






# KEY NOTES #

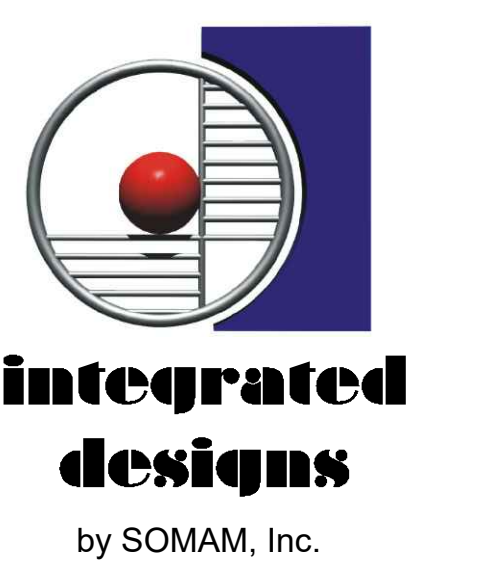
1. NEW SINGLE PACKAGE ROOF TOP UNIT - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
2. NEW PRE-FAB METAL EQUIPMENT CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
3. REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB. PROVIDE A CRICKET TO DIVERT RAIN WATER
4. NEW SUSPENDED ACOUSTIC CEILING SYSTEM - SEE DETAIL 1/A8.01
5. NEW R-30 LAY-ON BATT INSULATION

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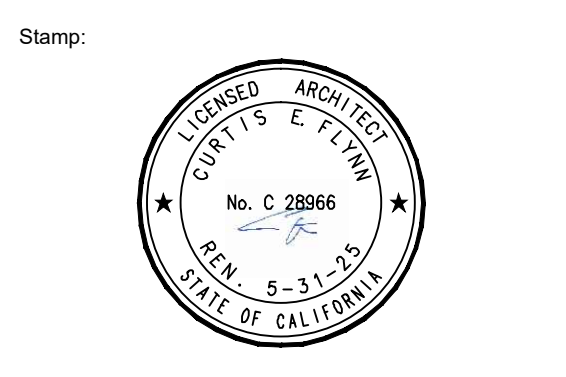
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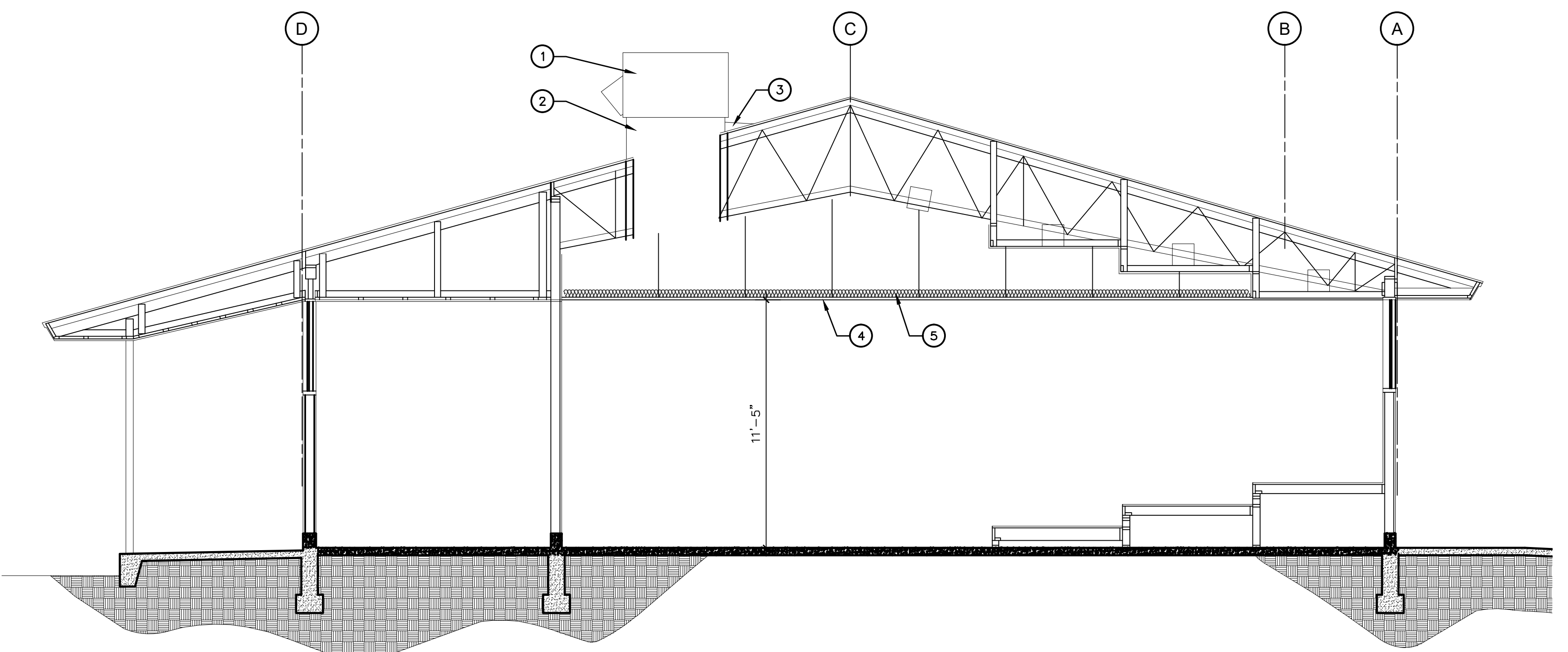
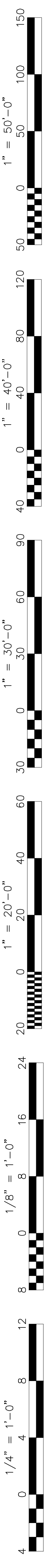
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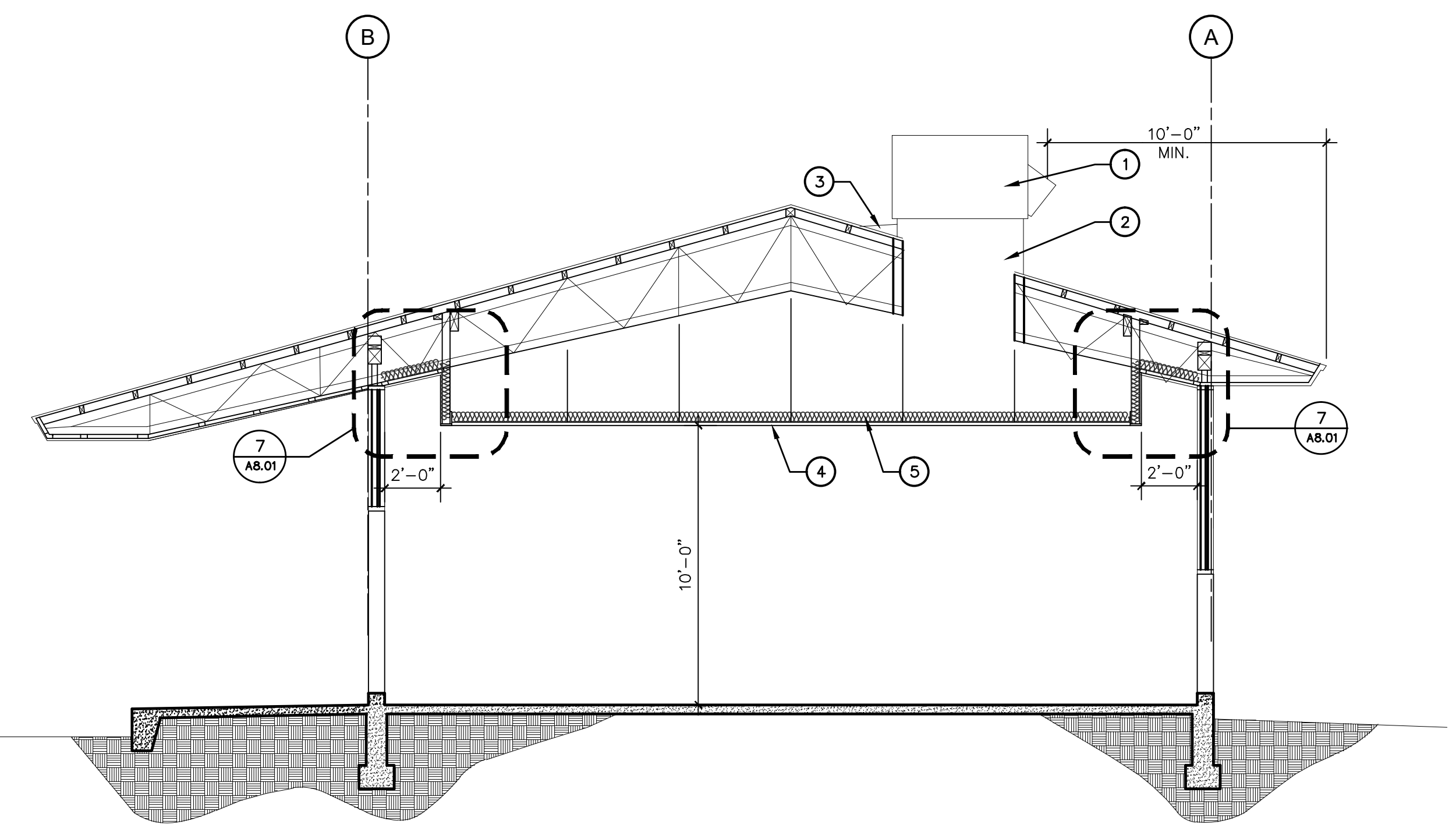
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**SECTIONS IMPROVEMENTS**

Job No.:  
**5525**

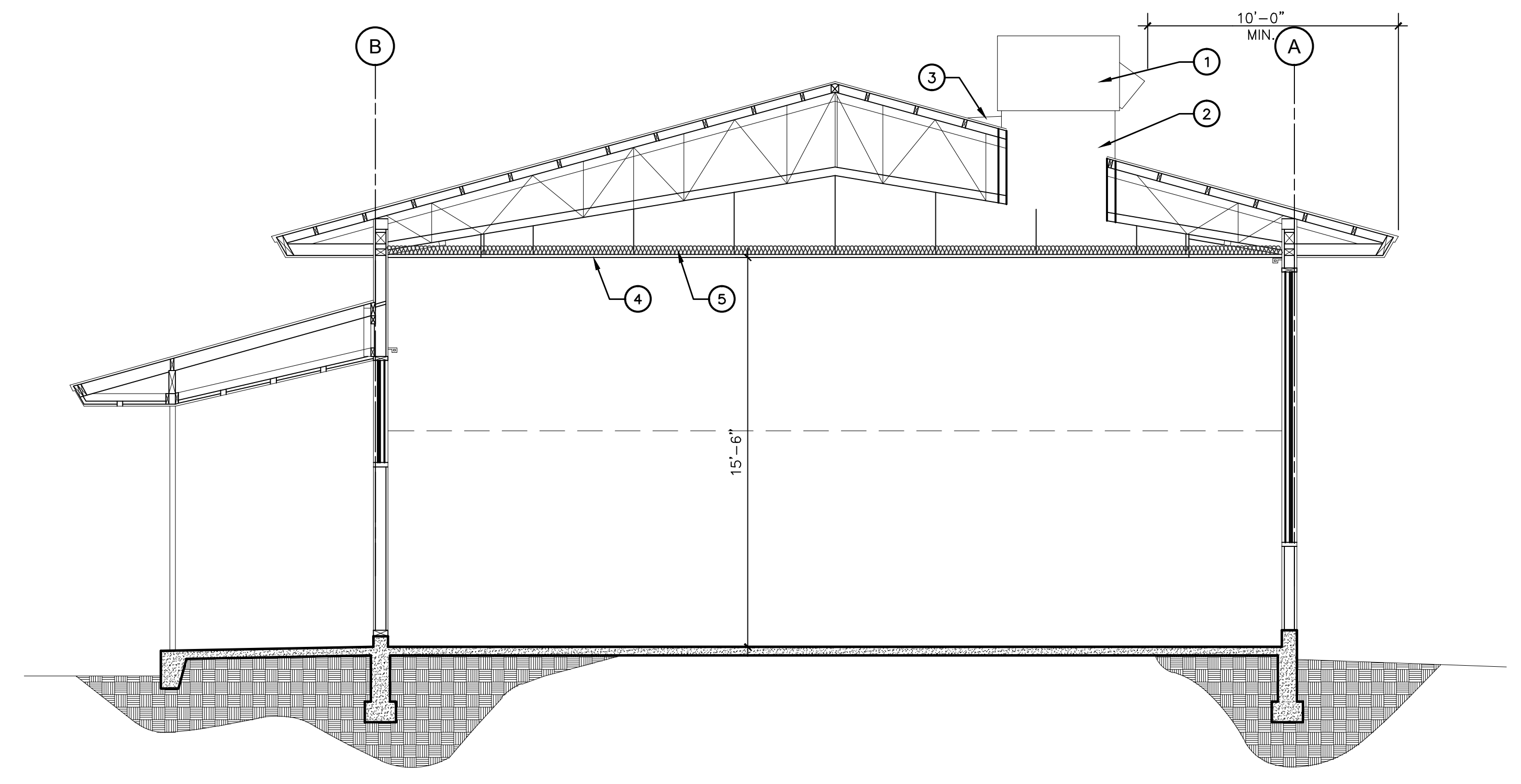
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**A3.12**  
Release: DSA SUBMITTAL 11/28/22



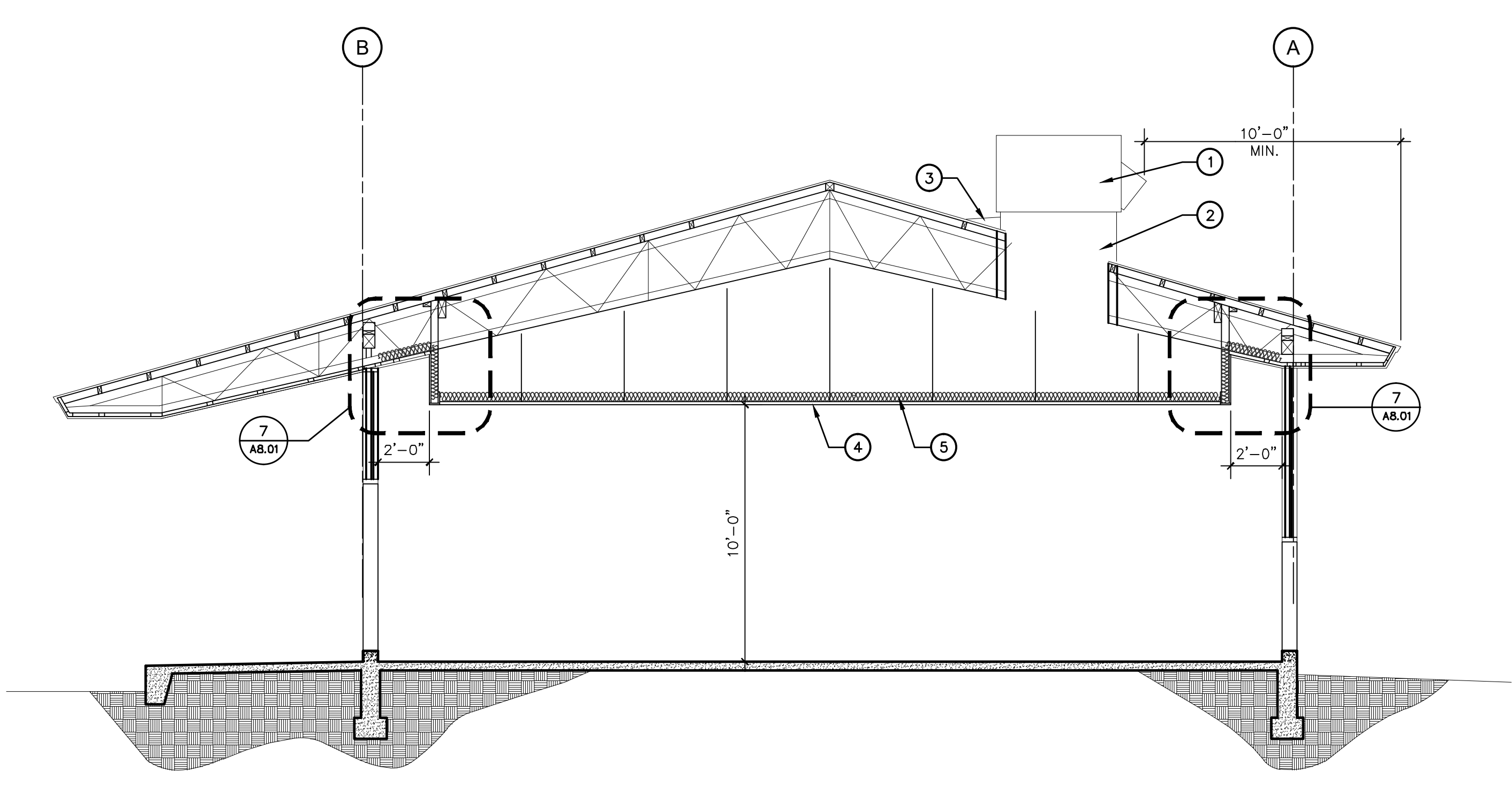
**B BUILDING F - IMPROVEMENTS**  
1/4" = 1'-0"



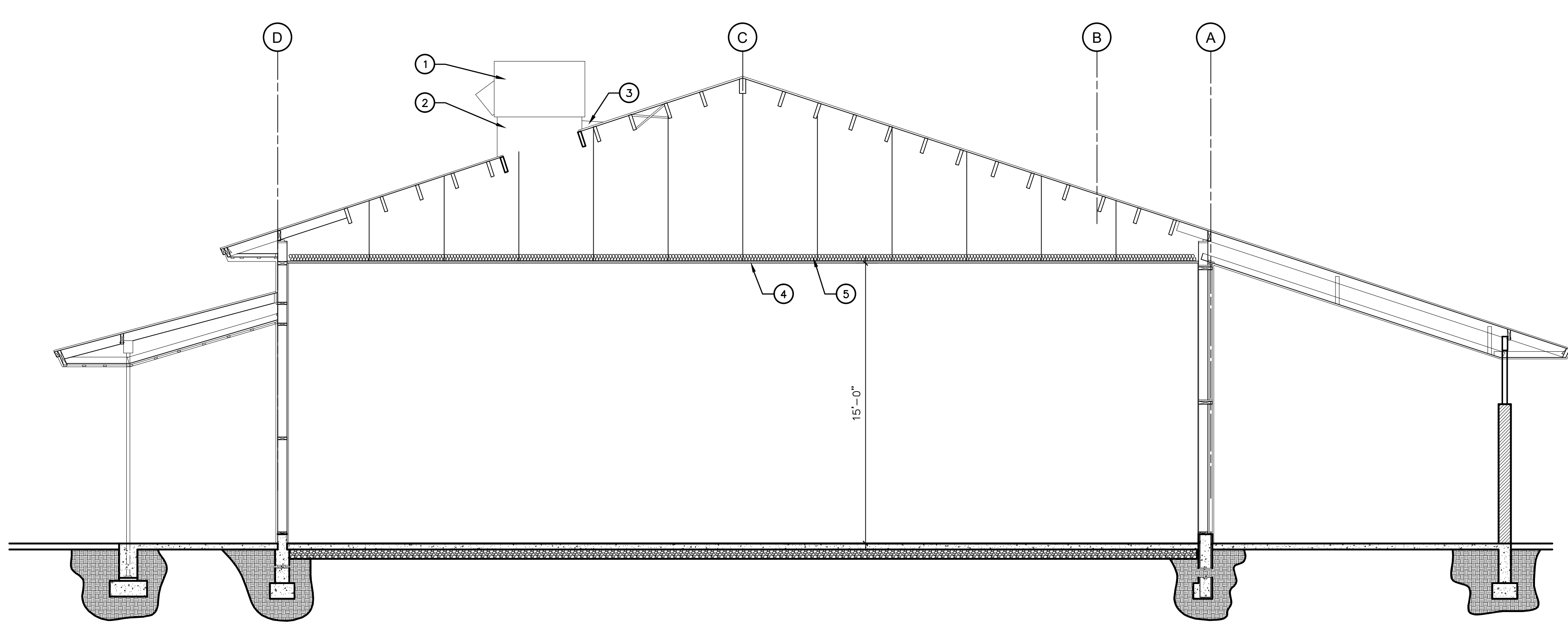
**A BUILDINGS B, C, D, E & H - IMPROVEMENTS**  
1/4" = 1'-0"



**D BUILDING G - IMPROVEMENTS**  
1/4" = 1'-0"



**C BUILDING G - IMPROVEMENTS**  
1/4" = 1'-0"




**E BUILDING F - IMPROVEMENTS**  
1/4" = 1'-0"

**KEY NOTES #**

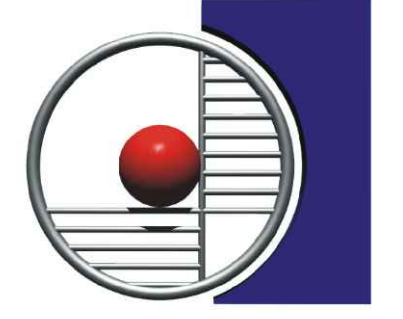
1. (E) COMPOSITION SHINGLES ROOFING OVER 1" DIAGONAL SHEATHING ROOF DECKING.
2. NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRICKET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO MATCH (E) ROOFING - SEE DETAIL 14/AB.01
4. SAW CUT AND REMOVE PORTION OF (E) 1" DIAGONAL SHEATHING ROOF DECK AS REQUIRED TO INSTALL AIR DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS - SEE STRUCTURAL SHEET S2.1 FOR REINFORCING OF ROOF OPENINGS.
5. (E) ROOF HATCH TO REMAIN.
6. (NOT USED).
7. (NOT USED).
8. (E) EXHAUST FAN TO REMAIN.
9. (NOT USED).
10. (E) GUTTER TO REMAIN.

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**GENERAL NOTES**

1. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO THE (E) ROOFING.
2. CONTRACTOR SHALL PATCH AND REPAIR ROOFING AT ALL NEW ROOF PENETRATIONS TO PROVIDE A WATER TIGHT INSTALLATION.

**LEGEND**

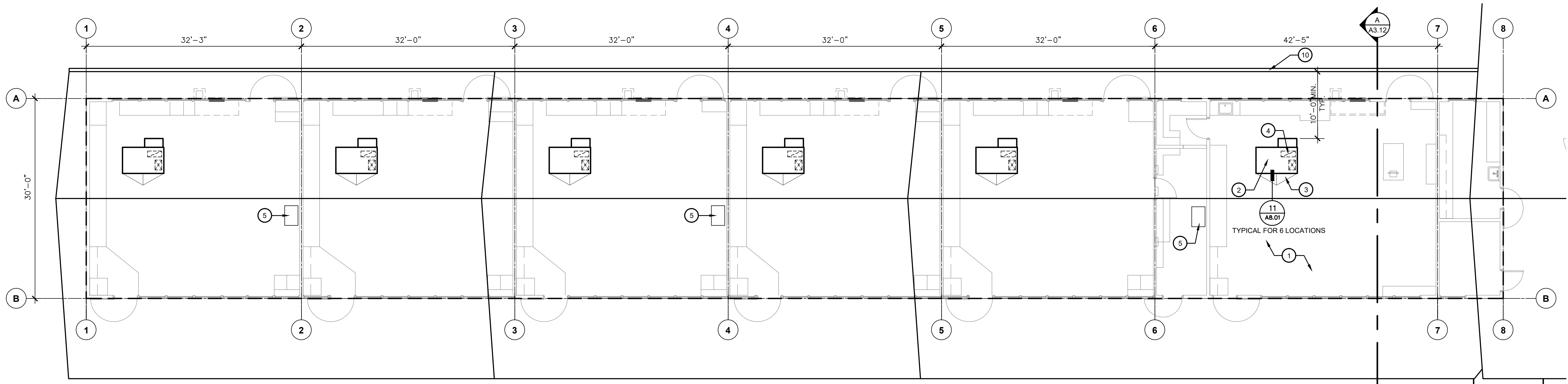
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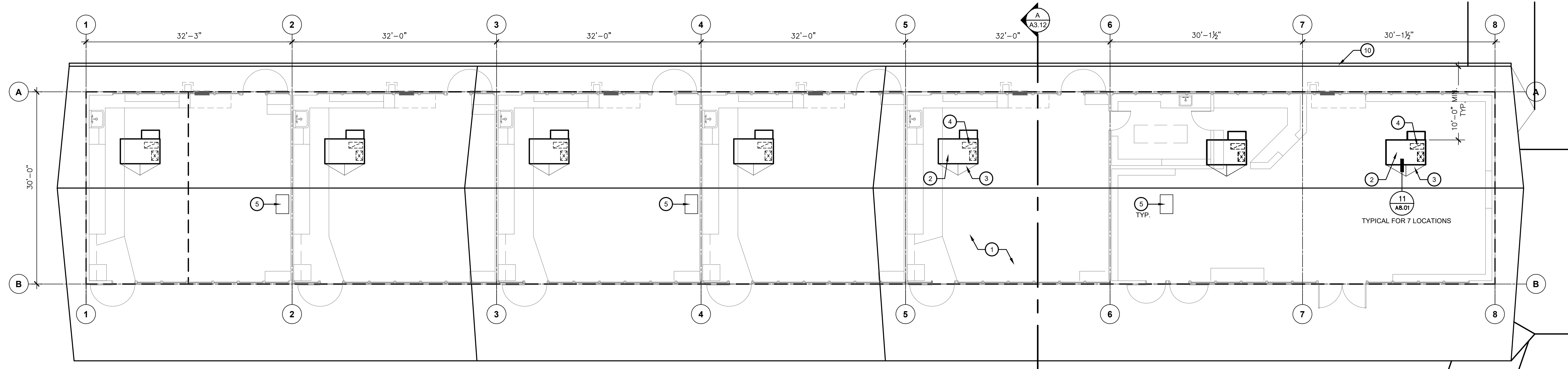

Sheet Title:  
**ROOF PLANS**  
BLDG. B, C & D

Job No.:  
**5525**

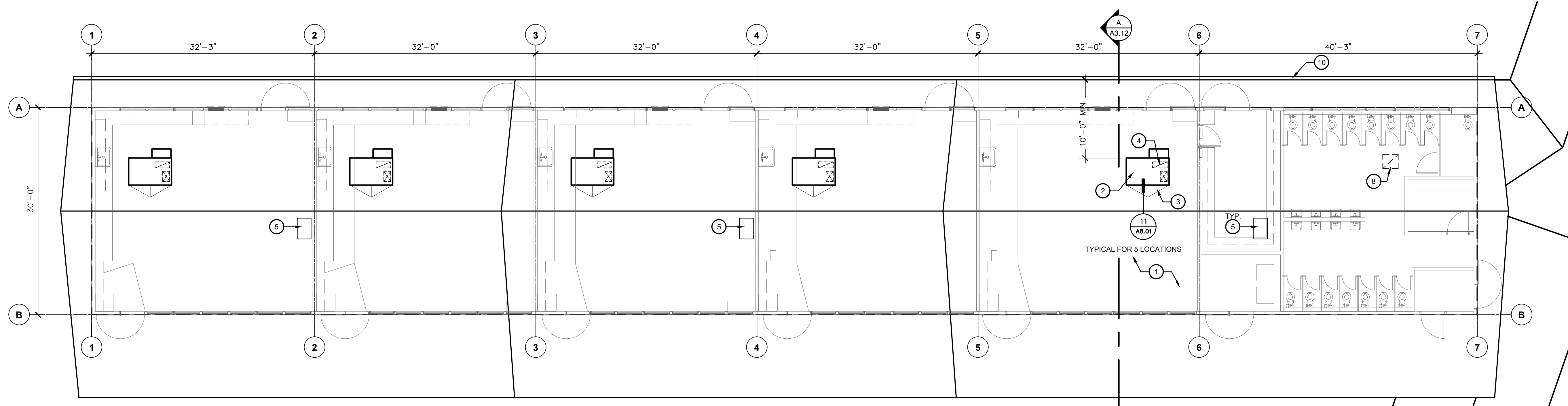
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 **ROOF PLANS - BUILDING B**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"

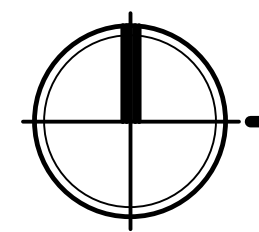
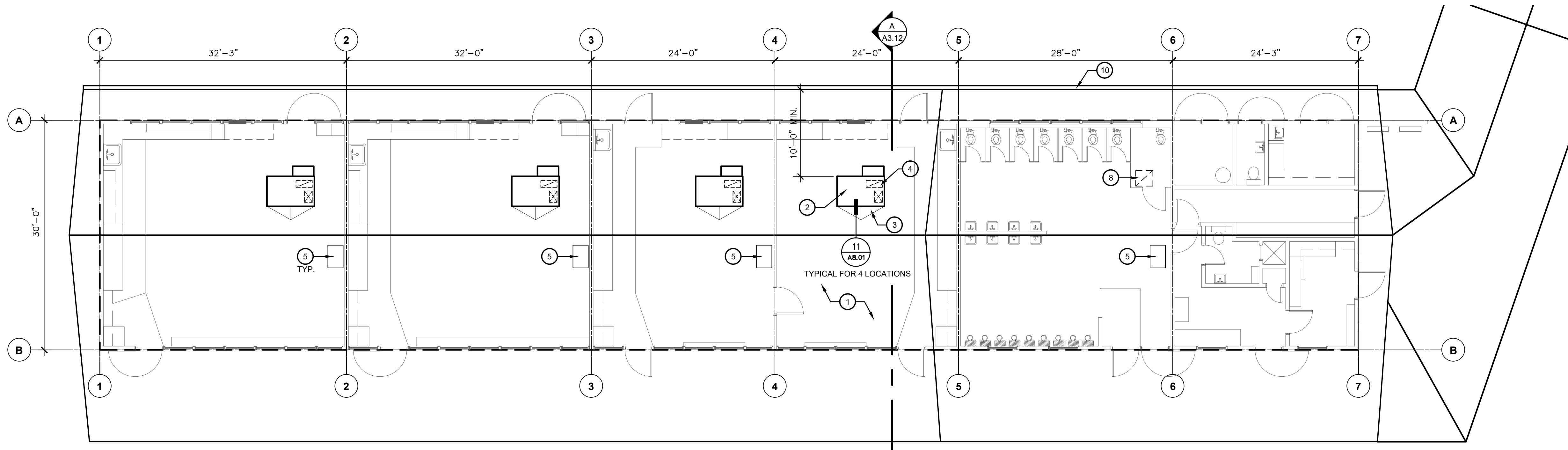


 **ROOF PLANS - BUILDING C**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



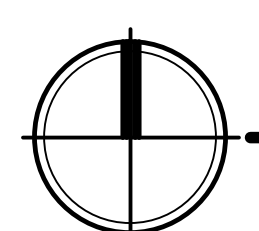
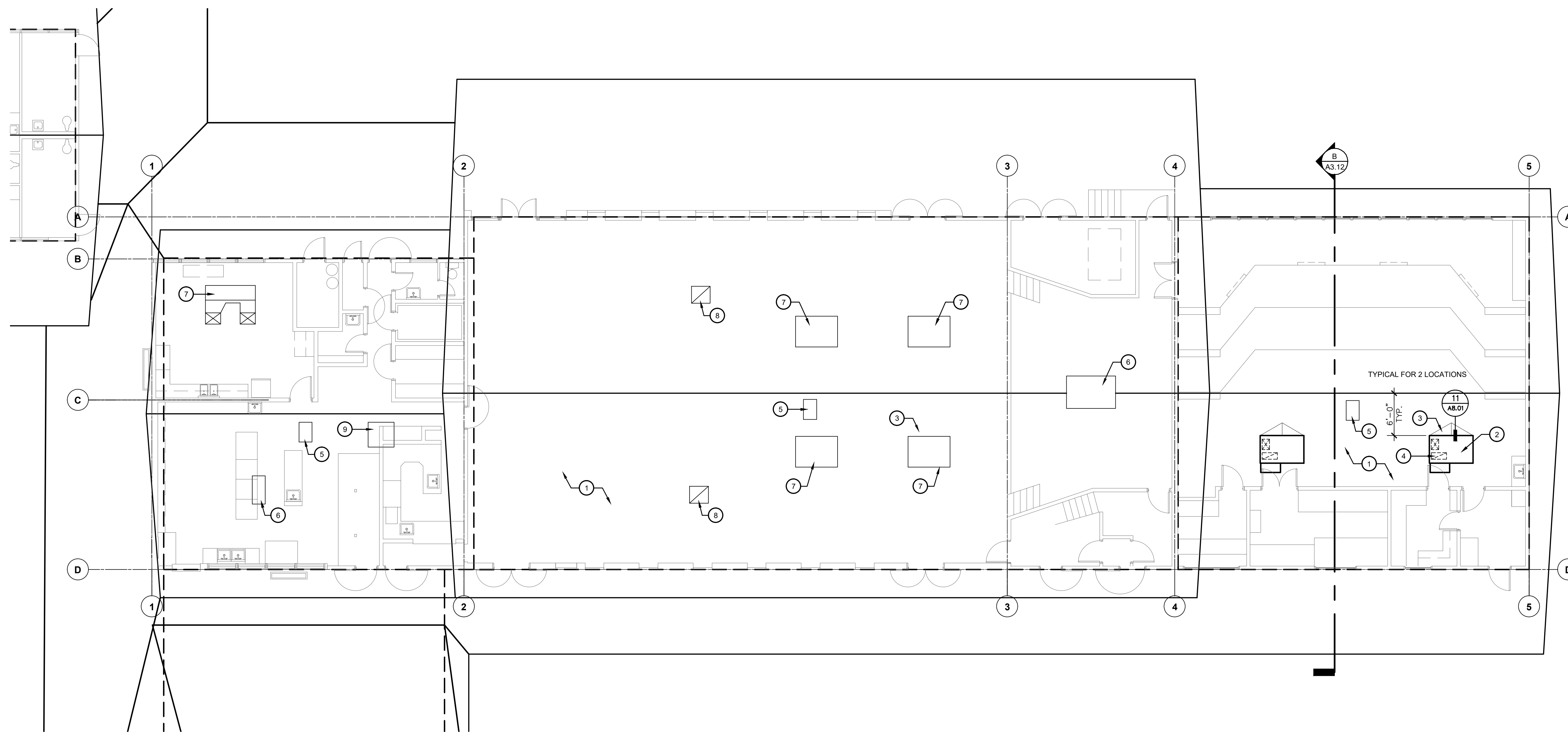
 **ROOF PLANS - BUILDING D**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"

Vertical scale bars on the left side of the sheet:  
1" = 50'-0"  
1" = 40'-0"  
1" = 30'-0"  
1" = 20'-0"  
1" = 10'-0"  
1/8" = 1'-0"  
1/4" = 1'-0"



**ROOF PLANS - BUILDING E**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



**ROOF PLANS - BUILDING F**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

**KEY NOTES #**

1. (E) COMPOSITION SHINGLES ROOFING OVER 1" DIAGONAL SHEATHING ROOF DECKING.
2. NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRICKET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO MATCH (E) ROOFING.
4. SAW CUT AND REMOVE PORTION OF (E) 1" DIAGONAL SHEATHING ROOF DECK AS REQUIRED TO INSTALL AIR DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS - SEE STRUCTURAL DRAWINGS FOR REINFORCING OF ROOF OPENINGS.
5. (E) ROOF HATCH TO REMAIN.
6. (E) ATTIC VENT TO REMAIN.
7. (E) HEATING AND COOLING ROOF TOP UNIT TO REMAIN.
8. (E) EXHAUST FAN TO REMAIN.
9. (E) EVAPORATIVE COOLER TO REMAIN.
10. (E) GUTTER TO REMAIN.

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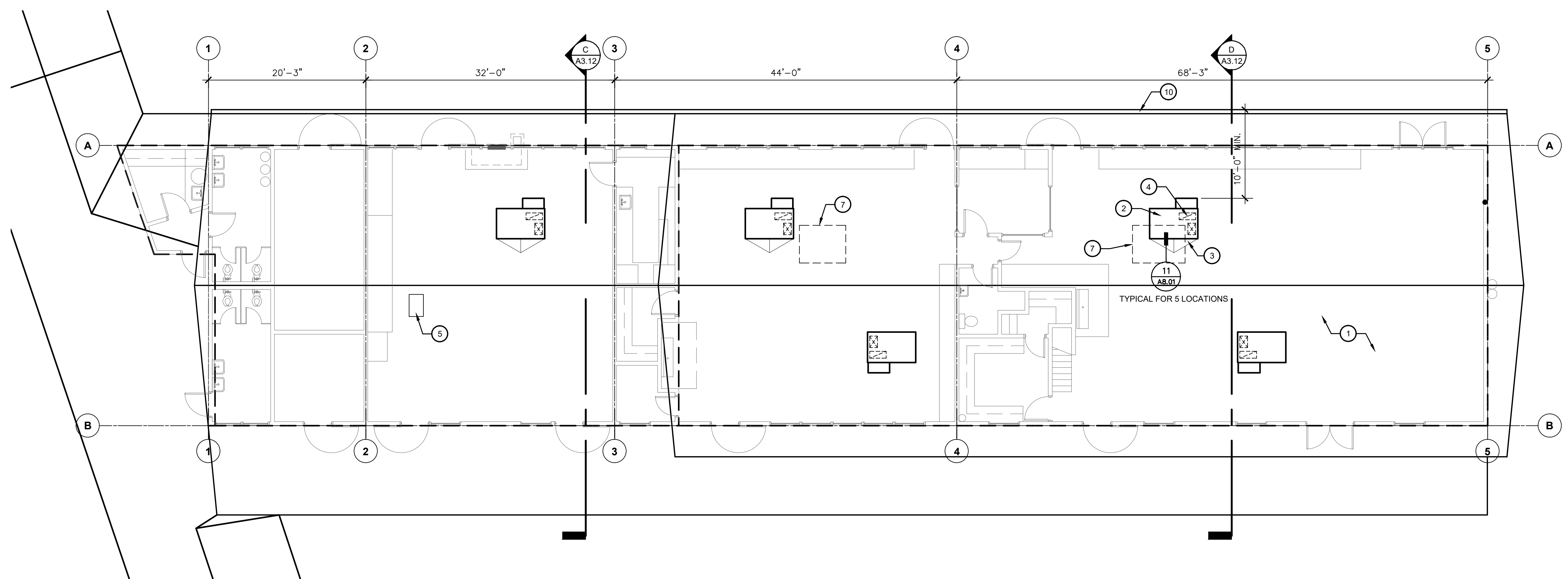
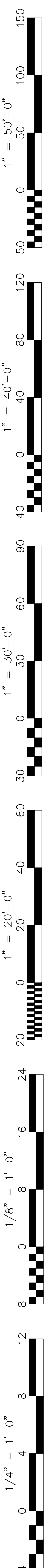
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**ROOF PLANS**  
BLDG. E & F  
Job No.: **5525**  
Sheet No.: **A4.20**  
Release: **DSA SUBMITTAL** 11/28/22

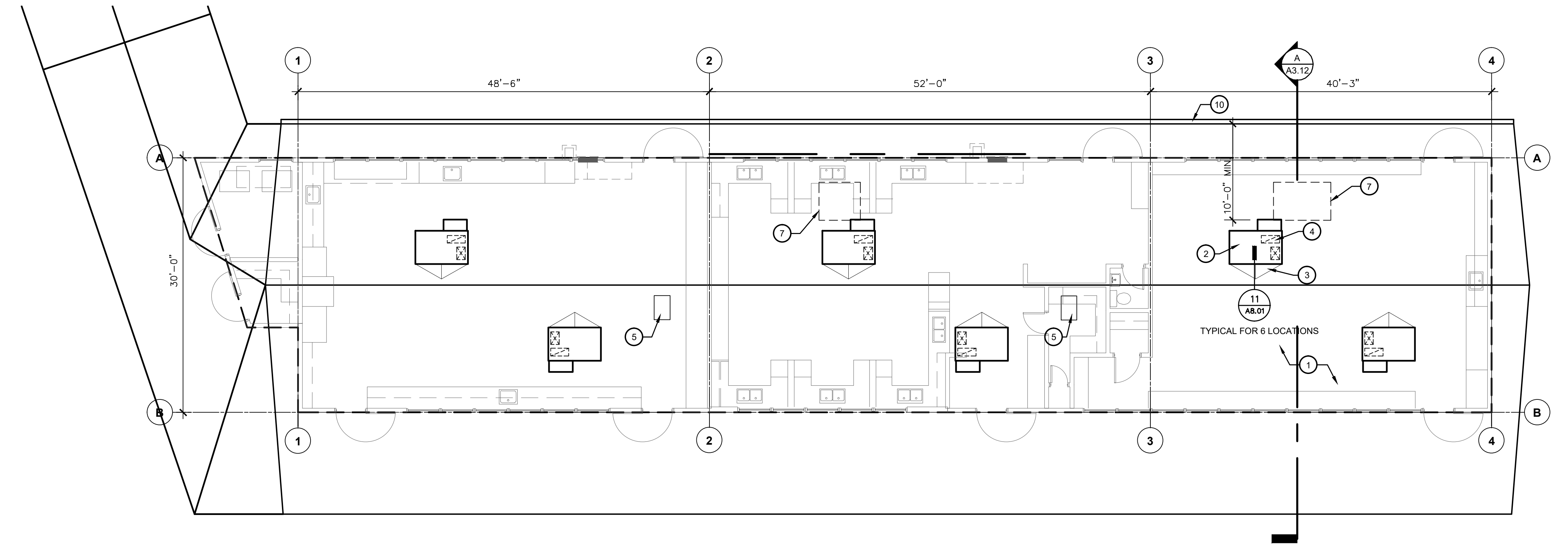
**GENERAL NOTES**

1. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGE TO THE (E) ROOFING.
2. CONTRACTOR SHALL PATCH AND REPAIR ROOFING AT ALL NEW ROOF PENETRATIONS TO PROVIDE A WATER TIGHT INSTALLATION.

**LEGEND**



**ROOF PLANS - BUILDING G**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'-0"



**ROOF PLANS - BUILDING H**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'-0"

**KEY NOTES #**

1. (E) COMPOSITION SHINGLES ROOFING OVER 1" DIAGONAL SHEATING ROOF DECKING.
2. NEW SINGLE PACKAGE ROOF TOP UNIT ON NEW PRE-FAB CURB - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. REMOVE PORTION OF (E) COMPOSITION SHINGLES AS REQUIRED TO INSTALL NEW EQUIPMENT CURB - PROVIDE CRICKET TO DIVERT RAIN WATER AND PATCH AFFECTED ROOF AREA TO MATCH (E) ROOFING.
4. SAW CUT AND REMOVE PORTION OF (E) 1" DIAGONAL SHEATING ROOF DECK AS REQUIRED TO INSTALL AIR DUCTS - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS - SEE STRUCTURAL DRAWINGS FOR REINFORCING OF ROOF OPENINGS.
5. (E) ROOF HATCH TO REMAIN.
6. (NOT USED)
7. (E) HEATING AND COOLING ROOF TOP UNIT TO BE REMOVED INCLUDING STEEL FRAME SUPPORT. PATCH ROOF WITH SIMILAR ROOFING SYSTEM AND MATCHING COLOR, AS CLOSE AS POSSIBLE TO THE EXISTING ROOF COLOR. COVER (E) DUCT OPENING AS PER DETAIL 1/A3.11.
8. (NOT USED)
9. (NOT USED)
10. (E) GUTTER TO REMAIN.

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**ROOF PLANS**  
**BLDG. G & H**


Job No.:  
**5525**

Sheet No.:  
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# KEY NOTES #

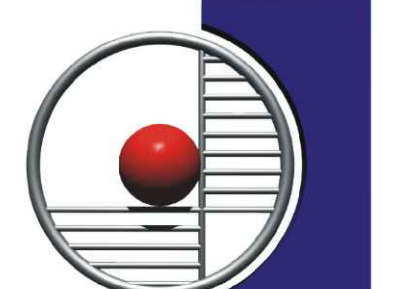
1. REMOVE (E) FLUORESCENT LIGHT FIXTURES
2. REMOVE (E) IONIZER AND SALVAGE FOR RELOCATION
3. REMOVE (E) SUSPENDED T-BAR ACOUSTICAL CEILING AND APPURTENANCES
4. NO WORK IN THIS ROOM
5. REMOVE (E) AIR SUPPLY GRILL
6. REMOVE (E) RETURN AIR GRILL

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APP: 03-122490 INC:  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

  
**integrated designs**  
by SOMAM, Inc.

**ARCHITECTURE  
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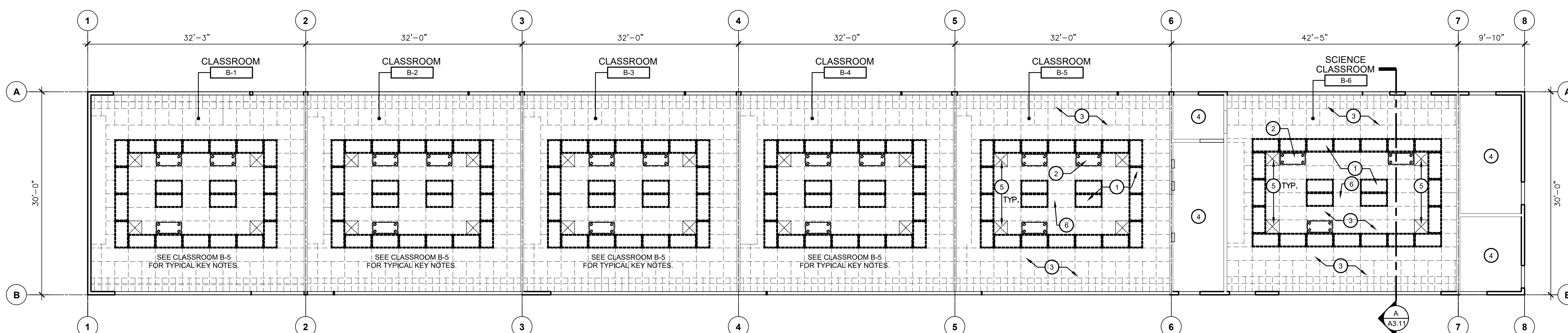
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C. T. FLEMING  
No. C 28966  
SINCE 5-31-15  
STATE OF CALIFORNIA

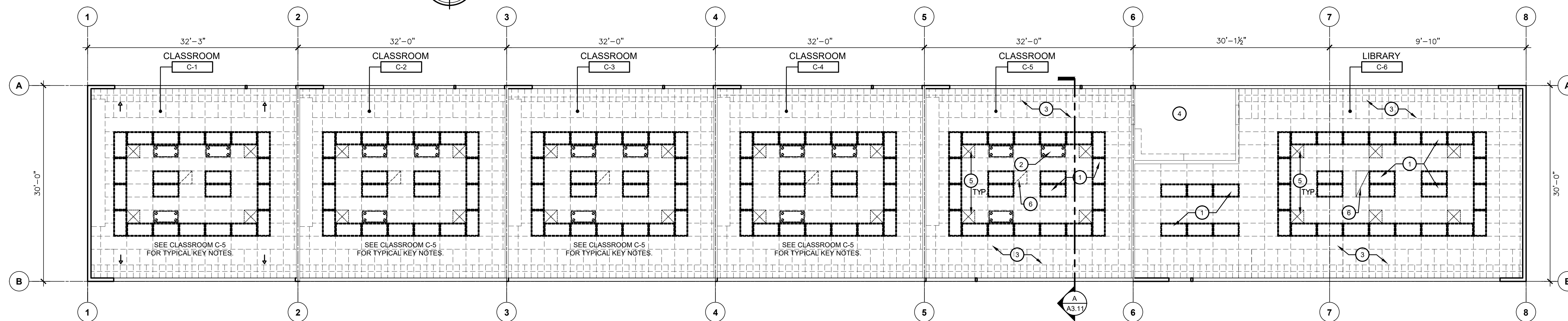
Sheet Title:  
**DEMO REFLECTED CEILING PLANS  
BUILDINGS B, C, D & E**

Job No.:  
**5525**

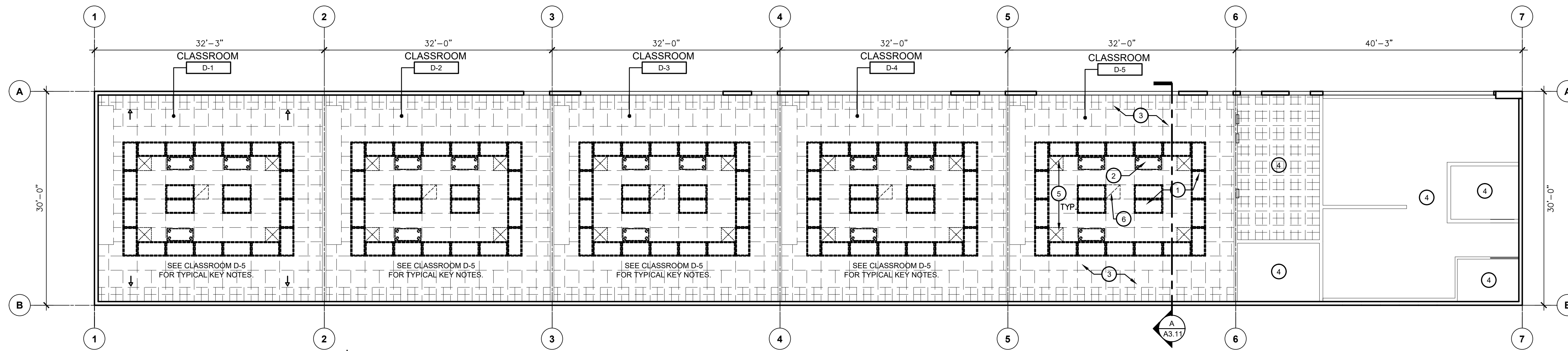
Sheet No.:  
**A6.10**  
Release: DSA SUBMITTAL 11/28/22



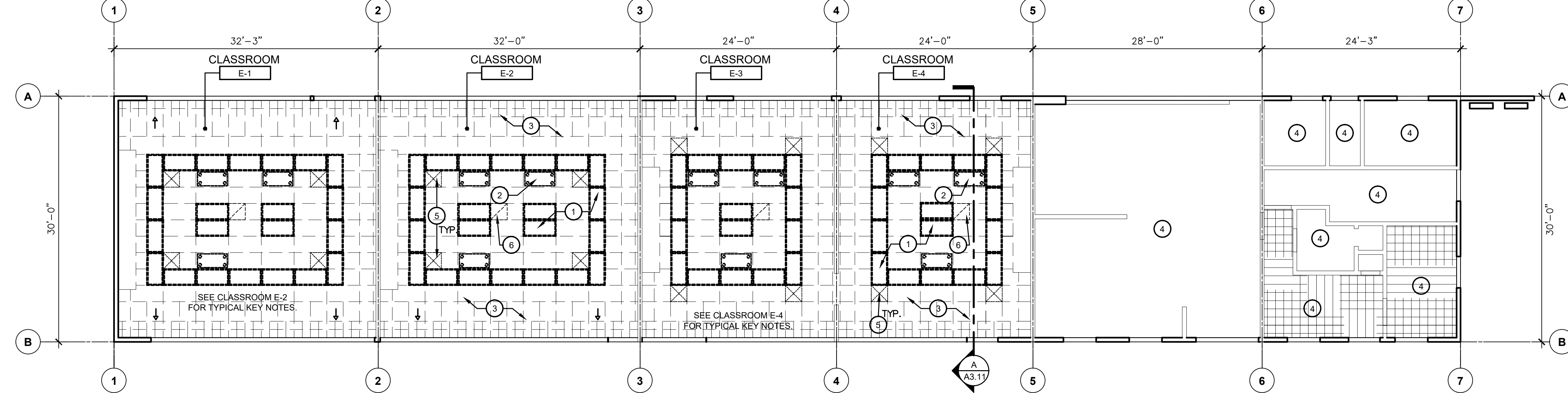
**DEMO REFLECTED CEILING PLANS - BUILDING B**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"



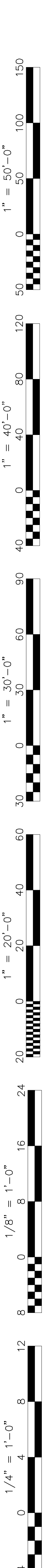
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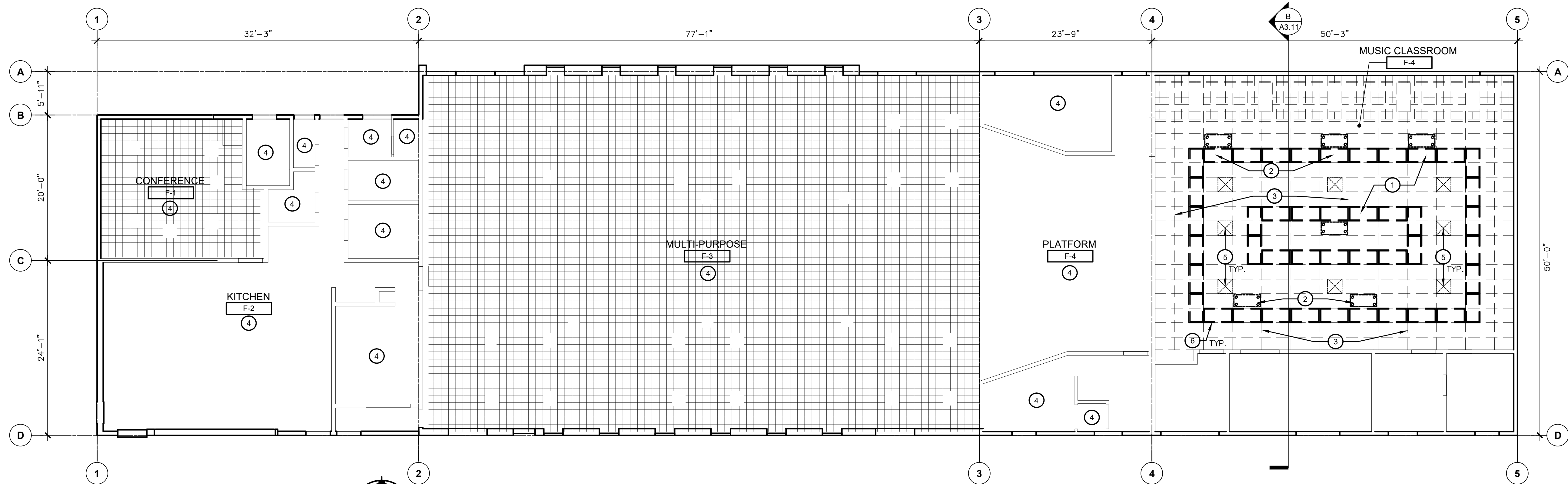
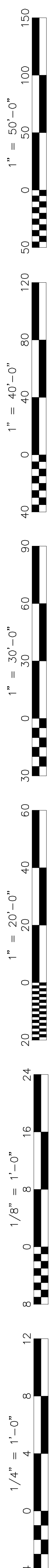


**DEMO REFLECTED CEILING PLANS - BUILDING D**  
HVAC REPLACEMENT  
SCALE: 1/8" = 1'-0"

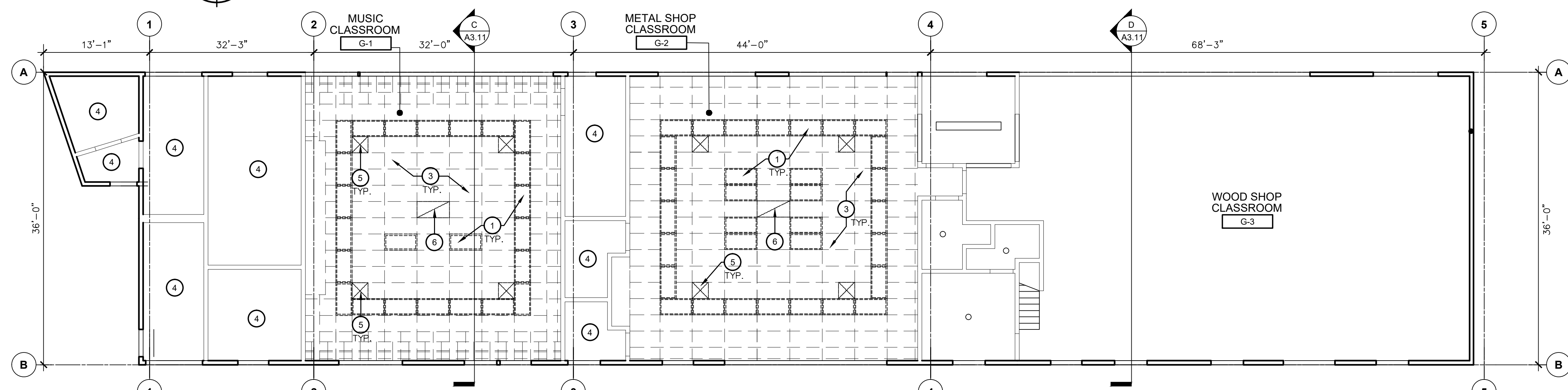


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HVAC REPLACEMENT  
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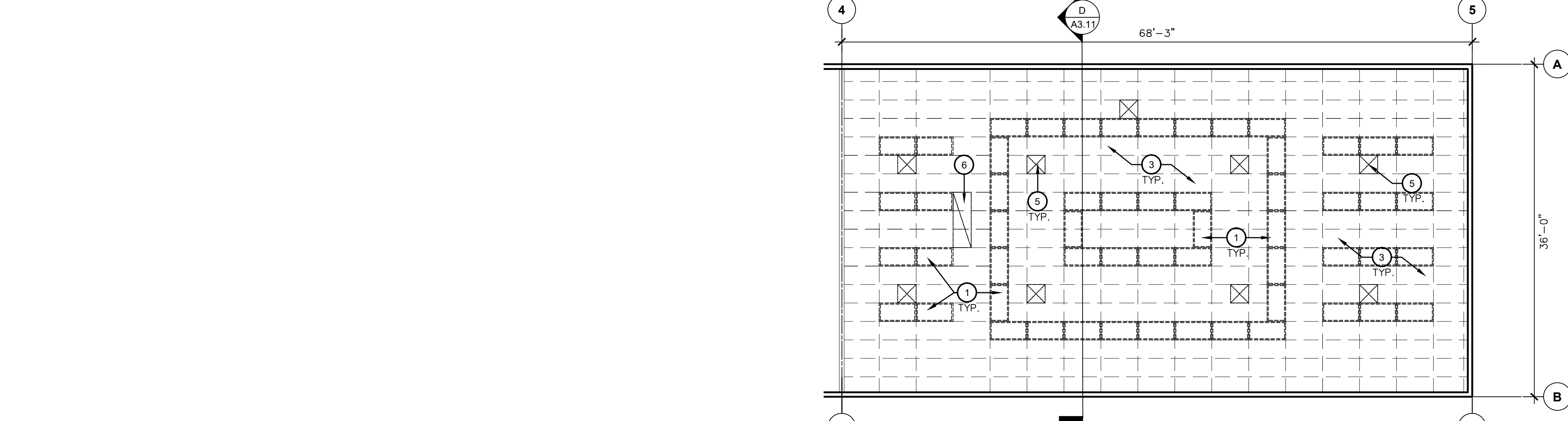




**DEMO REFLECTED CEILING PLAN- BUILDING F**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**DEMO REFLECTED CEILING PLAN- BUILDING G**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"



**DEMO REFLECTED CEILING PLAN- BUILDING H**  
 HVAC REPLACEMENT  
 SCALE: 1/8" = 1'-0"

**KEY NOTES #**

1. REMOVE (E) FLUORESCENT LIGHT FIXTURES
2. REMOVE (E) IONIZER AND SALVAGE FOR RELOCATION
3. REMOVE (E) SUSPENDED T-BAR ACOUSTICAL CEILING AND APPURTENANCES
4. NO WORK IN THIS ROOM
5. REMOVE (E) AIR SUPPLY GRILL
6. REMOVE (E) RETURN AIR GRILL

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 1300 BAKER STREET  
 BAKERSFIELD, CA 93305

**HVAC REPLACEMENT**

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Sheet Title:  
**DEMO REFLECTED CEILING PLANS BUILDINGS F, G & H**

Job No.:  
**5525**


Sheet No.:  
**A6.11**  
 Release: DSA SUBMITTAL 11/28/22

### KEY NOTES #

1. INSTALL NEW LIGHT FIXTURES - SEE DETAIL 9/A8.01 FOR INSTALLATION AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. REINSTALL SALVAGED IONIZER - SEE DETAIL 15/A8.01 AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. INSTALL A NEW SUSPENDED ACCOUSTICAL TILE CEILING - SEE DETAIL 1/A8.01.
4. NO WORK IN THIS ROOM.
5. (NOT USED).
6. NEW SUPPLY AIR GRILL - SEE MECHANICAL FOR SIZE AND TYPE.
7. NEW RETURN AIR GRILL - SEE MECHANICAL FOR SIZE AND TYPE.


IDENTIFICATION STAMP  
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DATE: 07/27/2023

### GENERAL NOTES

Owner:  
  
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1300 BAKER STREET  
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Project Name:  
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Project Address:  
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### LEGEND

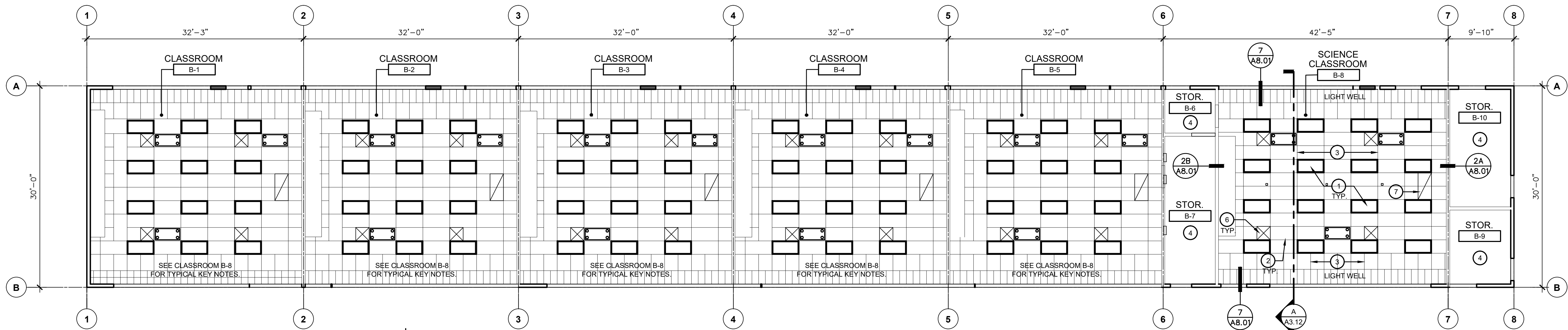
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CURTIS C. FLEMING  
No. C 28966  
STATE OF CALIFORNIA

Sheet Title:  
**REFLECTED CEILING PLAN**

Job No.:  
**5525**

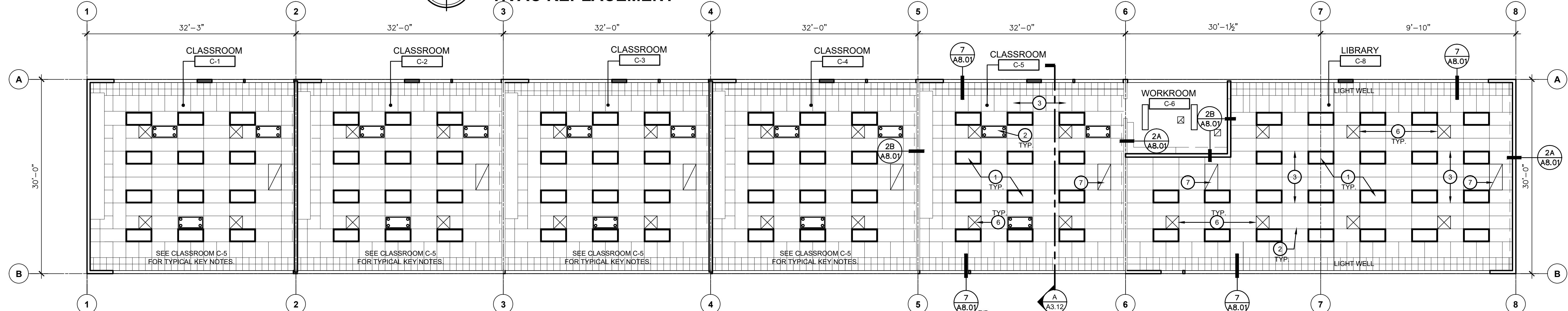
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**A6.20**  
Release: DSA SUBMITTAL 11/28/22



### REFLECTED CEILING PLAN - BUILDING B - IMPROVEMENTS

HVAC REPLACEMENT

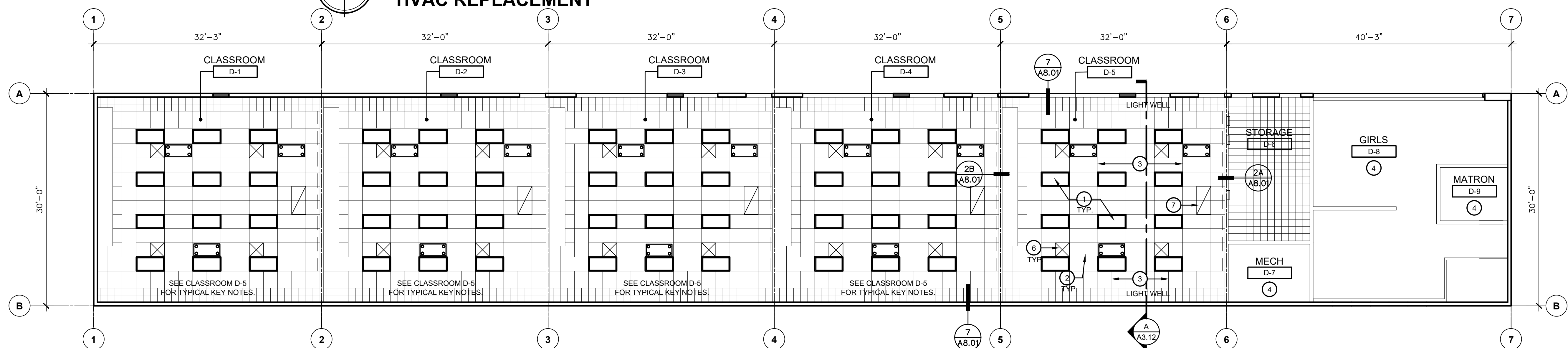
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### REFLECTED CEILING PLAN - BUILDING C - IMPROVEMENTS

HVAC REPLACEMENT

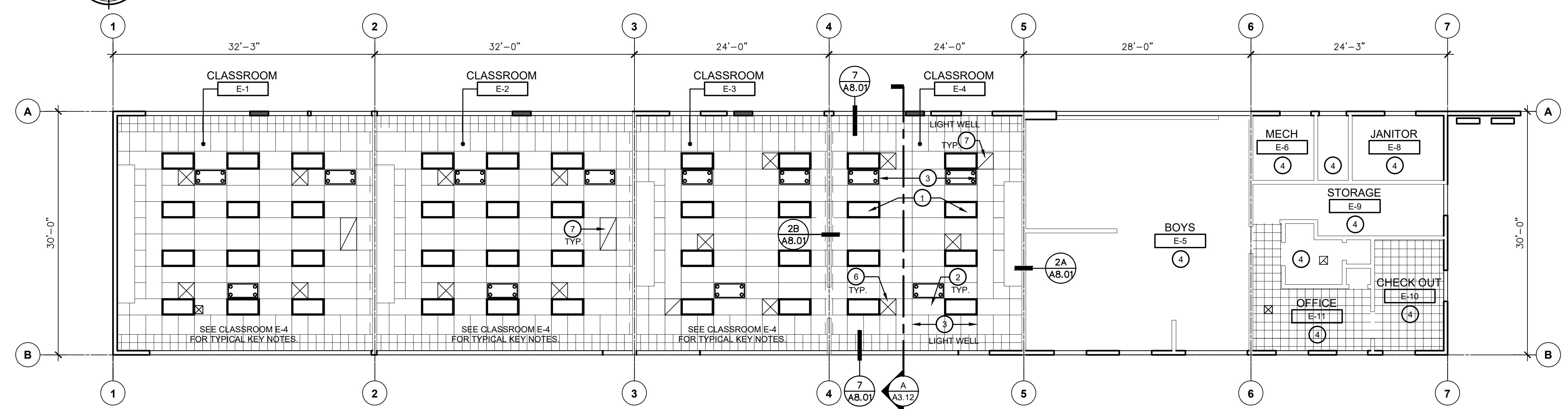
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### REFLECTED CEILING PLAN - BUILDING D - IMPROVEMENTS

HVAC REPLACEMENT

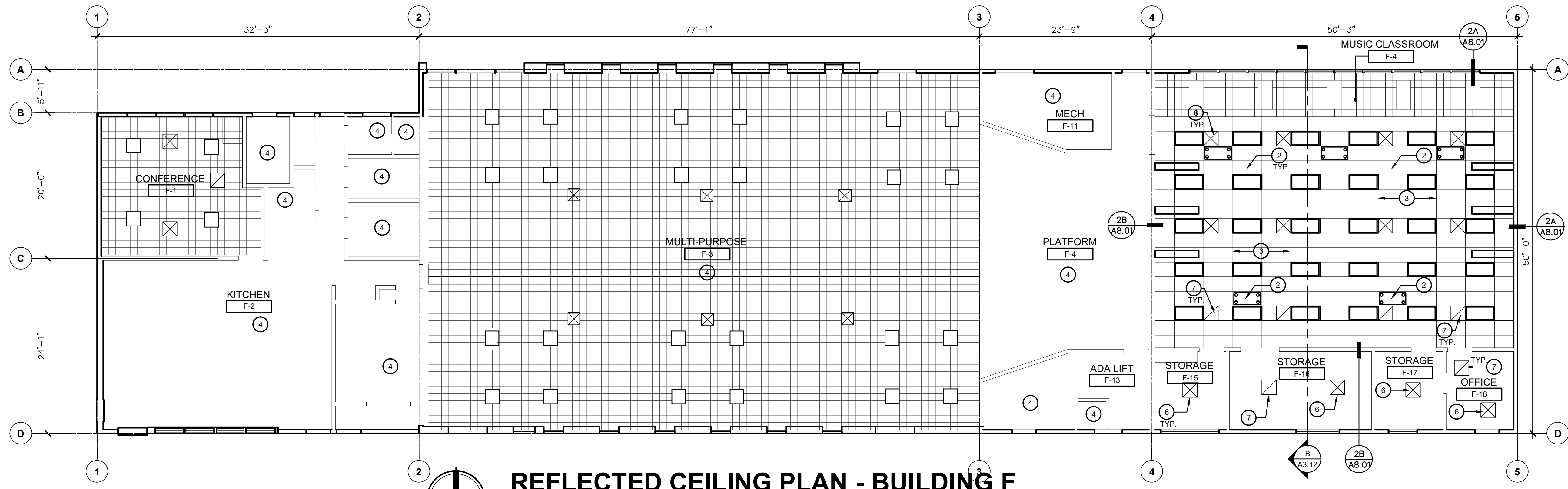
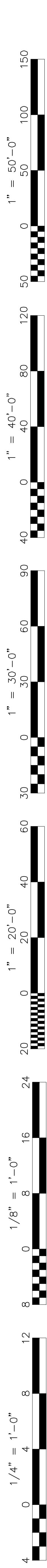
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### REFLECTED CEILING PLAN - BUILDING E - IMPROVEMENTS

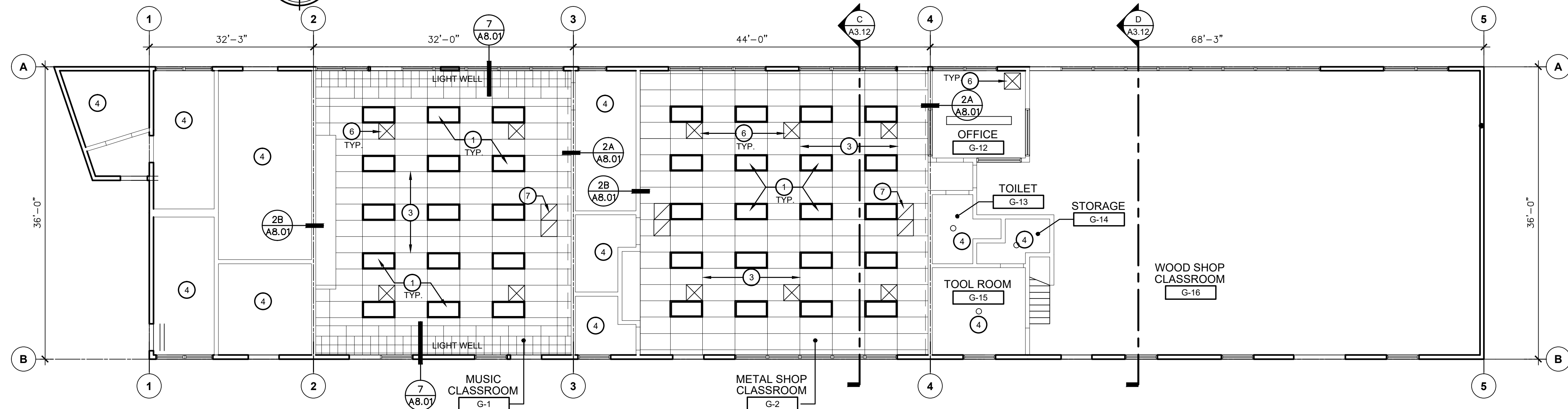
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



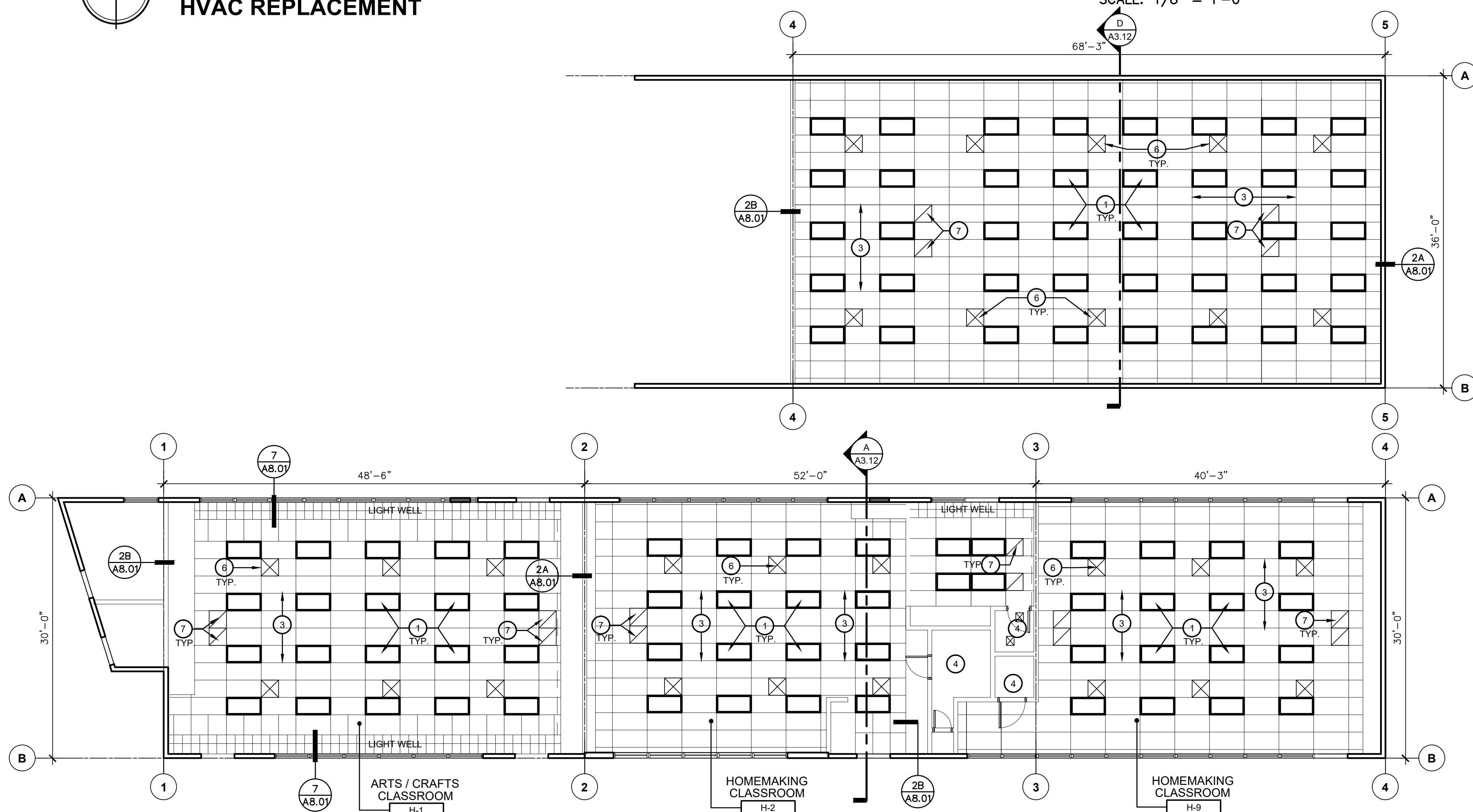
**REFLECTED CEILING PLAN - BUILDING F**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



**REFLECTED CEILING PLAN - BUILDING G**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



**REFLECTED CEILING PLAN - BUILDING H**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

**KEY NOTES #**

1. INSTALL NEW LIGHT FIXTURES - SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAIL 9/A8.01.
2. REINSTALL SALVAGED IONIZER - SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. INSTALL A NEW SUSPENDED ACCOUSTICAL TILE CEILING - SEE DETAIL 1/A8.01.
4. NO WORK IN THIS ROOM.
5. (NOT USED.)
6. NEW SUPPLY AIR GRILL - SEE MECHANICAL FOR SIZE AND TYPE.
7. NEW RETURN AIR GRILL - SEE MECHANICAL FOR SIZE AND TYPE.

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**REFLECTED CEILING PLAN**

Job No: **5525**

Sheet No: **A6.21**  
Release: DSA SUBMITTAL 11/28/22





# MATERIAL SPECIFICATIONS

## GENERAL

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING CODE. SEE 'PROJECT DATA'

## CONSTRUCTION LIABILITY

THE CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY...

## WOOD FRAMING

DOUGLAS FIR COAST REGION, CONFORMING TO WEST COAST LUMBER INSPECTION BUREAU STANDARD GRADING AND DRESSING RULE No. 17, AS AMENDED TO DATE.

MOISTURE CONTENT SHALL BE LESS THAN 19% FROM THE TIME OF INSTALLATION ONWARD.

- 1. 2x, 3x, 4x PLATES, JOISTS, PURLINS AND BEAMS, No. 1 & BETTER, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. 2x, 3x, 4x PLATES, JOISTS, PURLINS AND BEAMS, SELECT STRUCTURAL, WHERE NOTED ON THE DRAWINGS.
3. 6x & LARGER BEAMS, No. 1 WHEN BEAM WIDTH IS NOT MORE THAN 2" GREATER THAN THICKNESS, THE MEMBER SHALL CONFORM TO ITEM 6 BELOW.

ALL FRAMING LUMBER 6" OR LARGER IN THE LEAST DIMENSION SHALL BE FOHC.

WOOD FRAMING PERMANENTLY EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.

FASTENERS AND BOLT ASSEMBLIES IN PRESSURE TREATED LUMBER SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL IN COMPLIANCE WITH ASTM A 153.

BOLT HOLES SHALL BE 1/32" MIN TO 1/16" MAX LARGER THAN THE BOLT DIAMETER, U.N.O.

## PLYWOOD

ALL PLYWOOD SHALL CONFORM TO U.S. PRODUCT STANDARD PS 1-19, AMERICAN PLYWOOD ASSOCIATION. EACH SHEET SHALL BE STAMPED WITH THE PS AND/OR APA GRADEMARK.

ALL PLYWOOD PERMANENTLY EXPOSED TO WEATHER SHALL BE EXTERIOR TYPE PLYWOOD.

ALL UNBLOCKED PLYWOOD EDGES SHALL BE TONGUE-AND-GROOVE OR SUPPORTED WITH PLYWOOD CLEATS OR PLYWOOD CLIPS.

## ROOF PLYWOOD

- 5 PLY EXPOSURE 1, CDX, SPAN RATING 32/16, SPECIES GROUP 2 OR BETTER.

## WALL PLYWOOD

- 3 PLY EXPOSURE 1, CDX, SPAN RATING 24/0, SPECIES GROUP 2 OR BETTER.

## FASTENERS FOR EXTERIOR WALL COVERINGS

IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2304.10.1.1, FASTENERS AND BOLT ASSEMBLIES USED AT EXTERIOR WALL COVERINGS SHALL BE HOT DIPPED ZINC COATED GALVANIZED IN ACCORDANCE WITH ASTM A153. FASTENERS AT EXTERIOR WALL COVERINGS MAY ALSO BE MECHANICALLY DEPOSITED ZINC COATED IN ACCORDANCE WITH ASTM B695.

## LIGHT GAGE METAL CONNECTORS

ALL LIGHT GAGE METAL CONNECTORS SHALL BE SIMPSON STRONG TIE CONNECTORS OR APPROVED EQUAL, UNLESS NOTED OTHERWISE ON THE DRAWINGS. CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER TO BE HOT DIPPED ZINC-COATED GALVANIZED STEEL IN COMPLIANCE WITH ASTM A653 OR ASTM A123.

## STRUCTURAL STEEL

### MACHINE BOLTS, ANCHOR BOLTS AND THREADED RODS

BOLTS, NUTS, WASHERS AND RODS PERMANENTLY EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.

- 1. BOLTS SHALL CONFORM TO ASTM A307 GRADE A OR B OR A36.
2. ANCHOR BOLTS AND RODS SHALL CONFORM TO ASTM F1554 GR 36.
3. ALL BOLTS & LAG SCREWS SHALL HAVE STANDARD STEEL WASHERS, U.N.O.
4. LAG SCREW HOLES SHALL BE AS FOLLOWS: 1/4" SCREW = 3/32" HOLE; 3/8" SCREW = 1/16" HOLE.
5. NUTS SHALL BE AS SHOWN BELOW AND FINISH SHALL MATCH FASTENER.
6. BOLT HOLES SHALL BE STANDARD SIZE (BOLT DIA + 1/16") TYP, U.N.O.

Table with 3 columns: FASTENER GRADE AND SIZE, NUT CLASS, NUT STYLE. Rows include ASTM A36, ASTM A307A, F1554 1/4" TO 1-1/2", etc.

### POST INSTALLED ANCHORS

EXISTING CONCRETE SURFACES SHALL BE SCANNED PER 'AS-BUILT INFORMATION' ON S0.01 TO ENSURE EXISTING REINFORCEMENT REMAINS UNDAMAGED DURING POST INSTALLED ANCHOR INSTALLATION.

### EXPANSION ANCHORS FOR CONCRETE

- EXPANSION ANCHORS SHALL BE:
- HILTI KWIK BOLT T22 ANCHORS (ICC ESR-4266).

CONTRACTOR SHALL TORQUE ANCHORS IN ACCORDANCE WITH THE ICC OR IPMO REPORT. EXPANSION ANCHORS SHALL USE WASHERS SIZED TO PREVENT CRUSHING OF THE ATTACHED MEMBER UNDER THE INSTALLATION TORQUE.

# TESTING AND SPECIAL INSPECTION

## GENERAL

THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR AND PROJECT INSPECTOR [JOR] DURING CONSTRUCTION ON THE FOLLOWING TYPES OF WORK. THE INSPECTIONS NOTED BELOW SHALL BE PERFORMED BY THE SPECIAL INSPECTOR UNLESS NOTED AS "OR".

## SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE, TO THE SATISFACTION OF THE DIVISION OF THE STATE ARCHITECT, FOR INSPECTION OF A PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- TESTING AND INSPECTIONS WILL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY SELECTED AND EMPLOYED BY THE DISTRICT AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA).

## DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPLICABLE PROJECT DRAWINGS AND SPECIFICATIONS.
- MATERIAL REQUIRED TO BE TESTED WILL BE SELECTED BY THE TESTING LAB OR THE DISTRICTS PROJECT INSPECTOR AND NOT BY THE CONTRACTOR.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE DIVISION OF THE STATE ARCHITECT, THE DISTRICT OR DISTRICTS DESIGNATED REPRESENTATIVE, THE ARCHITECT OR PROJECT MANAGER, THE STRUCTURAL ENGINEER OF RECORD, THE CONTRACTOR AND OTHER PERSONS DESIGNATED BY THE DISTRICT OR DISTRICTS REPRESENTATIVE.

## PROJECT INSPECTOR [OR]

- THE DISTRICT MUST PROVIDE FOR AND REQUIRE COMPETENT, ADEQUATE AND CONTINUOUS INSPECTION BY AN INSPECTOR SATISFACTORY TO THE ARCHITECT OR REGISTERED ENGINEER IN GENERAL, RESPONSIBLE CHARGE OF OBSERVATION OF THE WORK OF CONSTRUCTION, TO ANY ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR A PORTION OF THE WORK, AND TO DSA. THE COST OF PROJECT INSPECTION SHALL BE PAID FOR BY THE DISTRICT. AN INSPECTOR SHALL NOT HAVE ANY CURRENT EMPLOYMENT RELATIONSHIP WITH ANY ENTITY THAT IS A CONTRACTING PARTY FOR THE CONSTRUCTION. AN APPROVED PROJECT INSPECTOR MAY BE REMOVED AND REPLACED IF THE WORK PERFORMED IS NOT IN CONFORMANCE WITH ACCEPTED INSPECTION STANDARDS AS DETERMINED BY THE DISTRICT AND THE PROJECT ARCHITECT AND ENGINEER WITH CONCURRENCE OF DSA.

## STRUCTURAL STEEL

### STRUCTURAL STEEL AND MISCELLANEOUS IRON

- VERIFY THAT MILL CERTIFICATES SHOW STRUCTURAL STEEL AND MISCELLANEOUS IRON IS IN COMPLIANCE WITH PROJECT SPECIFICATIONS.

## POST INSTALLED ANCHORS

### POST-INSTALLED ANCHORS

- CONTINUOUSLY INSPECT PLACEMENT OF POST-INSTALLED ANCHORS.
- THE SPECIAL INSPECTOR SHALL VERIFY THE FOLLOWING AND RECORD THE INSTALLATION IN THE INSPECTION REPORT:

- 1. ANCHOR TYPE, SIZE, AND DIMENSIONS.
2. HOLE DIMENSIONS AND CLEANLINESS.
3. ANCHOR SPACING.
4. EDGE DISTANCE.
5. ANCHOR EMBEDMENT.
6. TORQUE VALUE (AS APPLICABLE).
7. ADHESIVE ANCHOR INSTALLER CERTIFICATION (AS APPLICABLE).

- TEST ANCHORS PER THE REQUIREMENTS OF CBC SECTION 1910A.5 AND ANCHORS' ICC REPORT AND WITH THE FOLLOWING FREQUENCY:
- 100% FOR STRUCTURAL APPLICATIONS.

- EXCEPTIONS:
1. 10% AT SILL PLATE BOLTING.
2. 25% AT INTERFACE DOWELS AT CAST-IN-PLACE CONCRETE OR SHOTCRETE WALL OVERLAYS.
3. SLAB-ON-GRADE COLD JOINT DOWELS WHERE APPROVED BY THE ENGINEER.

- 50% FOR NON-STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE (ANCHORS NOT SHOWN ON STRUCTURAL DRAWINGS).
- TESTING OF ANCHORS SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO DSA. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS SHALL BE TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY.

TESTING VALUES AS NOTED IN POST-INSTALLED ANCHOR TESTING LOADS ON SHEET S0.1

# ABBREVIATIONS

## ABBREVIATIONS

Table of abbreviations including AT DIAMETER, ANCHOR BOLT, AMERICAN CONCRETE INSTITUTE, STRUCTURAL STEEL, ALTERNATE, APPROXIMATELY, ARCHITECTURAL, BUILDING, BLOCK, BLOCKING, BEAM, BOUNDARY NAILING, BOTTOM OF FOOTING, BOTTOM, BEGIN VERTICAL CURVE, CENTER TO CENTER, CENTERLINE, CUBIC FOOT, CAST IN DRILLED HOLE, CAST IRON PIPE, CONSTRUCTION JOINT, COMPLETE JOINT PENETRATION, CEILING, CLEAR, CLEARANCE, CORRUGATED STEEL PIPE, CONCRETE MASONRY UNIT, COLUMN, CONCRETE CONNECTION, CONSTRUCTION, CORNER, COORDINATE, COUNTERSINK, CUBIC YARD, DOUBLE, DEMAND CRITICAL WELD, DETAIL, DOUGLAS FIR, DIAGONAL, DIAMETER, DISTANCE, DEAD LOAD, DOWN, DITTO, DRAWING, EXISTING, EACH, END HORIZONTAL CURVE, END CURB RETURN, ELEVATION, ELEVATOR, EMBANKMENT, EDGE NAILING, EQUAL, END VERTICAL CURVE, EACH WAY, EXISTING, EXPRESSWAY, FRAMED BEAM CONNECTION, FINISHED GRADE, FINISHED, FLOW LINE, FOUNDATION, FACE OF CONCRETE, FREE OF HEART CENTER, FACE OF MASONRY, FACE OF STUD(S), FULL PENETRATION, FAR SIDE, FOOTING, GAUGE, GALVANIZED, GLUE LAMINATED BEAM, HEIGHT, HEADER, HEXAGONAL, HANGER, HORIZONTAL, HIGH STRENGTH, HIGH STRENGTH BOLT, HOLLOW STRUCTURAL SECTION, INSIDE DIAMETER, INSPECTION/INSPECTOR, INSULATION, JOINT, ONE THOUSAND POUNDS, POUNDS, LINEAR FOOT, LIGHT GAUGE STEEL, LIVE LOAD, LONG LEGS BACK TO BACK, LONG LEG HORIZONTAL, LONG LEG VERTICAL, LOCATION.

# GENERAL NOTES

- 1. CONSIDER GENERAL NOTES AS APPLYING TO ALL DRAWINGS.
2. DO NOT SCALE DRAWINGS. SCALE SHOWN FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, AND MEP CONTRACT DOCUMENTS, AS WELL AS ANY OTHER APPLICABLE TRADES. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND RESOLVED PRIOR TO BIDDING AND PROCEEDING WITH THE WORK.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS REQUIRED TO COMPLETE THE PROJECT. NO PORTION OF THE STRUCTURE SHALL BE CONSIDERED TO BE SELF SUPPORTING UNTIL THE ENTIRE VERTICAL AND LATERAL LOADING SYSTEM IS IN PLACE.
6. THE CONTRACTOR SHALL PROTECT AND SHORE ALL EXCAVATIONS WITH BRACING AND SHORING AS REQUIRED TO MAINTAIN SOIL STABILITY.
7. CONSTRUCT THOSE FEATURES OF THE PROJECT, WHICH MAY NOT BE FULLY SHOWN, IN MANNER SIMILAR TO THAT USED FOR SIMILAR FEATURES.
8. CENTERLINES OF COLUMNS AND FOUNDATIONS COINCIDE WITH GRID LINE INTERSECTIONS, U.N.O.
9. CENTERLINES OF FOUNDATION GRADE BEAMS COINCIDE WITH CENTERLINES OF WALLS, U.N.O.
10. CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES, U.N.O.
11. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING PROPOSED FOUNDATION CONSTRUCTION JOINT LOCATIONS, DETAILS, AND THE PLACEMENT SEQUENCE FOR THE STRUCTURAL ENGINEER'S APPROVAL PRIOR TO PROCEEDING WITH WORK.
12. NO CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, WALLS, AND SLABS UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
13. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE ENGINEER.
14. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS, VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES TYPICAL, U.N.O.

# PROJECT DESCRIPTION

LEVELS: 1 STORY

FOUNDATION: CONTINUOUS GRADE BEAMS & CONCRETE SLAB ON GRADE

ROOF SYSTEM: DIAGONAL SHEATHING OVER SAWN LUMBER AND OPEN WEB STEEL JOISTS

LATERAL FORCE RESISTING SYSTEM: STEEL MOMENT FRAMES AT LIGHT FRAME WOOD SHEARWALLS

DIAPHRAGMS: DIAGONAL SHEATHING

CHORDS & COLLECTORS: SAWN LUMBER

MISC: ADDING HVAC UNITS TO EXISTING BUILDINGS

# PROJECT DATA

- 1. PLANS AND CALCULATIONS FOR THE STRUCTURAL DESIGN WERE BASED UPON:
- GOVERNING CODE: 2019 CALIFORNIA BUILDING CODE W/ CHAPTER A AMENDMENTS
2. VERTICAL LOADS:
ROOF LIVE LOAD = 20 PSF [REDUCED PER CODE]
ASSUMED ROOF DEAD LOADS
BLDG A TYPICAL = 15 PSF
BLDG A OVERHANG = 22.5 PSF
BLDG B/C/D/E/H TYPICAL = 15 PSF
BLDG B/C/D/E/H OVERHANG = 21 PSF
BLDG F TYPICAL = 15 PSF
BLDG F OVERHANG = 22 PSF
BLDG G TYPICAL = 15 PSF
BLDG G OVERHANG = 21.5 PSF
3. EARTHQUAKE DESIGN DATA:
EQUIVALENT LATERAL FORCE PROCEDURE
V = Sps I W
Ss = .946; S1 = .343
S0 = .756; Sp = NA
I = 1.25; RISK CATEGORY III
SITE CLASS = D, SEISMIC DESIGN CAT = D
NON-STRUCTURAL COMPONENT ANCHORAGE:
AC A1-A3, B1-B6, C1-C7, D1-D5, E1-E4, F1-F7, G1-G5, H1-H6, Ap = 2.5 Rp = 3.0
4. WIND DESIGN DATA:
BASIC WIND SPEED = 101 MPH
RISK CATEGORY III
WIND EXPOSURE = C
INTERNAL PRESSURE COEFFICIENT = +0.18, -0.18
NON STRUCTURAL COMPONENT DESIGN WIND PRESSURE = 18.9 PSF [LRFD]
5. FOUNDATION DESIGN CRITERIA:
PRESUMPTIVE BEARING PRESSURES PER CBC:
DL + LL
1500 PSF

# POST-INSTALLED ANCHOR TESTING LOADS

Table with 2 columns: ANCHOR DIAMETER, TORQUE INSTALLATION REQUIREMENTS - CONCRETE ANCHORS. Rows include HILTI KB-T22 (ICC ESR-4266) with MINIMUM NOMINAL EMBED and INSTALL TORQUE (FT-LBS).

## NOTES

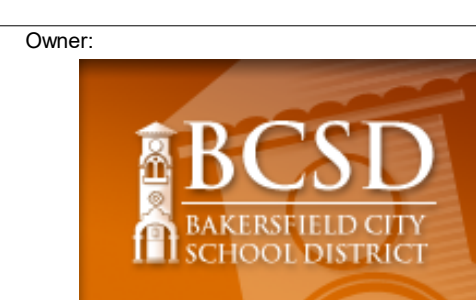
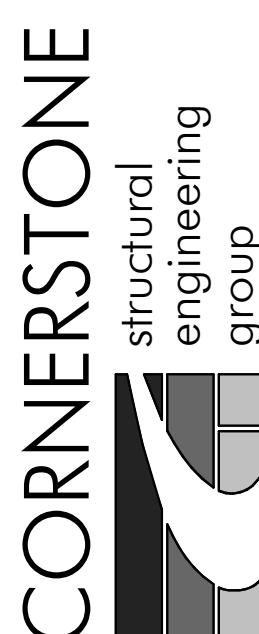
- 1. SEE TESTING AND SPECIAL INSPECTION SECTION FOR INSPECTION & TESTING REQUIREMENTS.
2. MINIMUM EMBEDMENTS VARY BETWEEN MANUFACTURERS. EMBEDMENTS NOTED ARE MINIMUMS AND SHOULD BE INCREASED AS REQUIRED TO MEET MANUFACTURER'S PUBLISHED MINIMUM EMBEDMENTS.
3. ANCHORS SHOULD BE INSTALLED INTO MEMBERS WITH A MINIMUM THICKNESS AS NOTED IN THE MANUFACTURER'S ICC REPORT.
4. WHERE DRILLED HOLE DEPTH IS WITHIN 2 1/2" OF THE EDGE OF MEMBER, CONTRACTOR SHALL USE ROTARY DRILL.
5. TENSION TESTED ANCHORS SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS, AND SHALL EXHIBIT NO DISCREIBABLE MOTION DURING THE TEST (SUCH AS LOOSENING OF THE WASHER BELOW THE NUT)
6. TORQUE TESTED ANCHORS SHALL ATTAIN THE SPECIFIED TORQUE WITH ONE-HALF (1/2) TURN OF THE NUT.

# AS-BUILT INFORMATION

THESE PLANS ARE BASED ON AS-BUILT INFORMATION PROVIDED BY THE DISTRICT. TO ACCURATELY CONSTRUCT THIS UPGRADE, THE CONTRACTOR MUST INTERACT WITH THE EXISTING STRUCTURE. PLEASE NOTE THE FOLLOWING:
1. THE CONTRACTOR MAY OBTAIN AS-BUILT DOCUMENTATION FROM THE DISTRICT PRIOR TO BIDDING AND CONSTRUCTION OF THESE PLANS.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
3. WHERE WELDING NEW REINFORCEMENT TO EXISTING REINFORCEMENT, THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND LAYOUT OF THE EXISTING REINFORCEMENT. ALL NEW REINFORCEMENT SHALL MATCH THE SIZE OF THE EXISTING REINFORCEMENT, WHERE EXISTING REINFORCEMENT IS TO BE WELDED TO NEW REINFORCEMENT, WELDING COMPATIBILITY SHALL BE CHECKED. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THE STATEMENT ABOVE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
4. WHERE DRILLING EXISTING BEAMS, COLUMNS, AND WALLS FOR THE PURPOSE OF PROVIDING NEW ANCHORS OR REINFORCING DOWELS, THE CONTRACTOR SHALL SCAN THE EXISTING MEMBER TO LOCATE THE EXISTING REINFORCEMENT PRIOR TO DRILLING. FURTHER, THE CONTRACTOR SHALL NOT COMPROMISE THE LOAD CARRYING CAPABILITY OF ANY MEMBER WHILE PERFORMING WORK ON THAT MEMBER UNLESS SUPPLEMENTARY SUPPORTS ARE PROVIDED DURING INSTALLATION. ANY CONDITIONS ENCOUNTERED IN THE FIELD WHERE EXISTING REINFORCEMENT PREVENTS PLACEMENT OF DOWELS AS SHOWN IN THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
5. WHERE CORING OF EXISTING SLABS, WALLS, BEAMS, AND COLUMNS FOR THE PURPOSE OF PROVIDING NEW PIPES OR CONDUTS IS SHOWN ON OTHER CONSULTANTS DRAWINGS, THE CONTRACTOR SHALL SCAN THE EXISTING MEMBER TO LOCATE THE EXISTING REINFORCEMENT PRIOR TO CORING. CORES SHALL BE LOCATED TO AVOID EXISTING REINFORCING. FURTHER, THE CONTRACTOR SHALL NOT COMPROMISE THE LOAD CARRYING CAPABILITY OF ANY MEMBER WHILE PERFORMING WORK ON THAT MEMBER. ANY CONDITIONS ENCOUNTERED IN THE FIELD WHERE EXISTING REINFORCEMENT PREVENTS PLACEMENT OF CORES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

# SHEET INDEX

Table with 2 columns: SHEET NUMBER, SHEET DESCRIPTION. Rows include S0.1 MATERIAL DATA, PROJECT INFORMATION, TESTING & SPECIAL INSPECTION; S1.1 ENLARGED ROOF FRAMING PLANS No. 1; S1.2 ENLARGED ROOF FRAMING PLANS No. 2; S1.3 ENLARGED ROOF FRAMING PLANS No. 3; S1.4 ENLARGED ROOF FRAMING PLANS No. 4; S2.1 ROOF STRENGTHENING DETAILS.



# BAKERSFIELD CITY SCHOOL DISTRICT

1300 BAKER STREET FRESNO, CA 93706

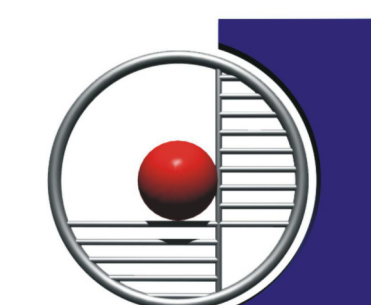
Project Name:

# CENTRAL PLAN REPLACEMENT

Project Address:

# WASHINGTON MIDDLE SCHOOL

1101 NOBLE AVENUE BAKERSFIELD, CA 93305



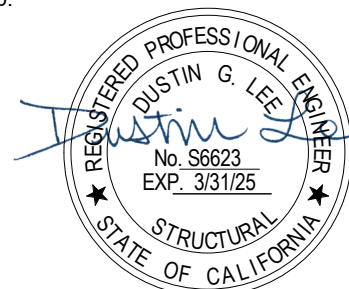
integrated designs by SOMAM, Inc.

# ARCHITECTURE ENGINEERING INTERIOR DESIGN

6011 N. FRESNO STREET, SUITE 130 FRESNO CALIFORNIA 93710 P: (559) 436-0881 F: (559) 436-0887 E: design@somam.com integrateddesigns.com

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Stamp:



Sheet Title:

# MATERIAL DATA, PROJECT INFORMATION, TESTING & SPECIAL INSPECTION

Job No.:

5525

Sheet No.:

S0.1

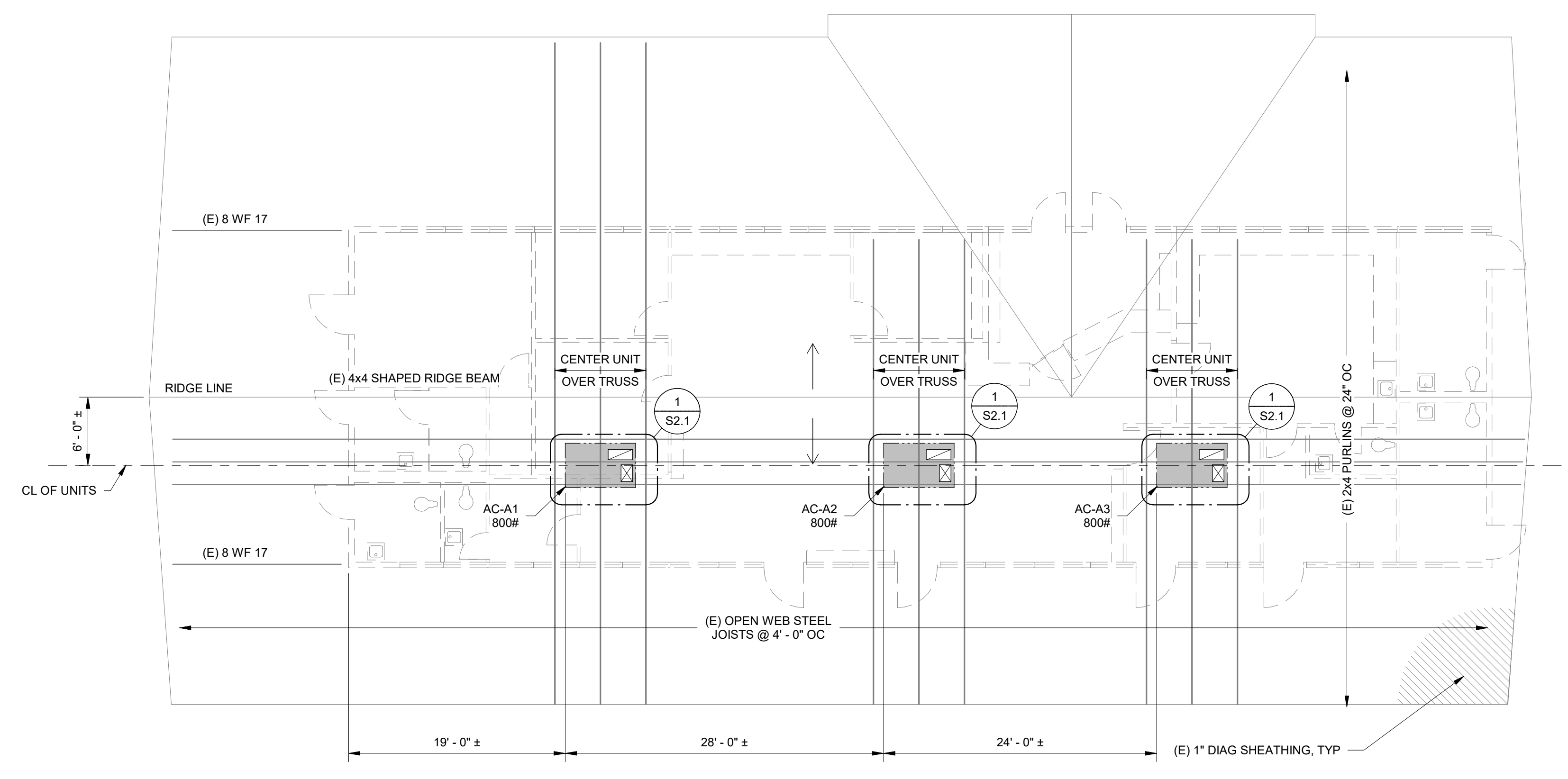
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Date:

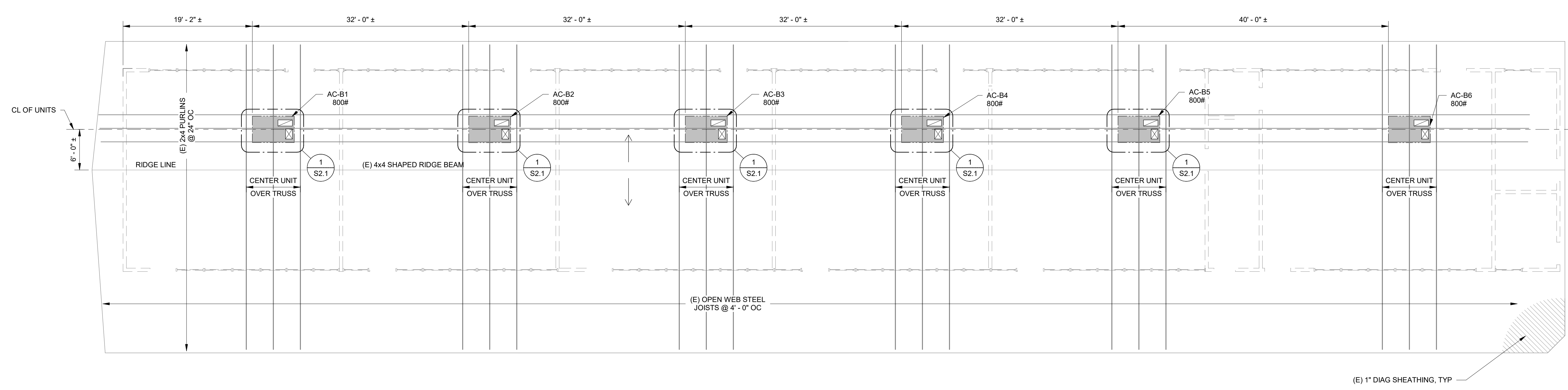
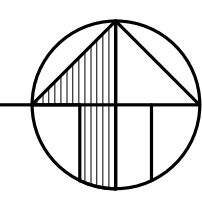
**ROOF FRAMING NOTES:**

- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET S0.1
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM BOTH ARCHITECT AND ENGINEER OF ANY CONFLICTING INFORMATION.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES, TYPICAL U.N.O.
- THE SIZE, LOCATIONS AND ORIENTATIONS OF ALL MECHANICAL UNITS, CURBS, SLEEPERS AND OPENINGS SHALL BE VERIFIED WITH THE UNIT SUPPLIERS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- MOISTURE CONTENT OF ALL NEW BLKG SHALL MATCH OR BE LOWER THAN THE MOISTURE CONTENT OF THE EXISTING JOISTS.
- SEE 2/S2.1 FOR DETAILS OF TYPICAL OPENING THROUGH (E) ROOF. DO NOT CUT STRUCTURAL FRAMING. THE DIMENSIONS LOCATING THE NEW HVAC EQUIPMENT SHALL BE VERIFIED ALONG WITH THE DIMENSIONS OF THE NEW EQUIPMENT. DUCTWORK AND EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION, WHERE EXISTING CONDITIONS VARY FROM THOSE SHOWN OR WHERE NEW EQUIPMENT DICTATES A SIGNIFICANT (GREATER THAN 1'-0") ADJUSTMENT OF THE UNIT LOCATIONS, THE ARCHITECT SHALL REVIEW THE PROPOSED MODIFICATION PRIOR TO THE CONTINUATION OF THE WORK.
- NO STRUCTURAL MEMBERS SHALL BE NOTCHED OR CUT NOR ANY HOLES BE BORED IN THEM UNLESS THEY ARE DETAILED ON DRAWINGS AND APPROVED BY THE OFFICE OF THE STATE ARCHITECT.

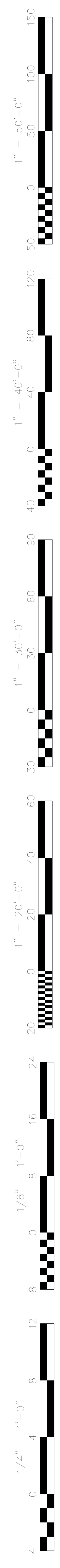
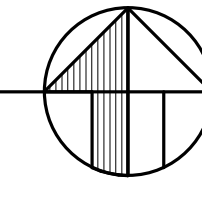
- 1 SX X: DETAIL/SECTION VIEW WITH VIEW DIRECTION ARROW, DETAIL NUMBER AND SHEET REFERENCE.
- (N): INDICATES (N) FRAMED OPENING.
- >: INDICATES ROOF SLOPE. SEE ARCH DRAWINGS FOR EXTENTS.
- [shaded box]: INDICATES NEW MECHANICAL UNITS ABOVE ROOF. SEE MECHANICAL DRAWINGS FOR CONNECTIONS TO STRUCTURE.
- 600#: INDICATES MAXIMUM UNIT WEIGHT.



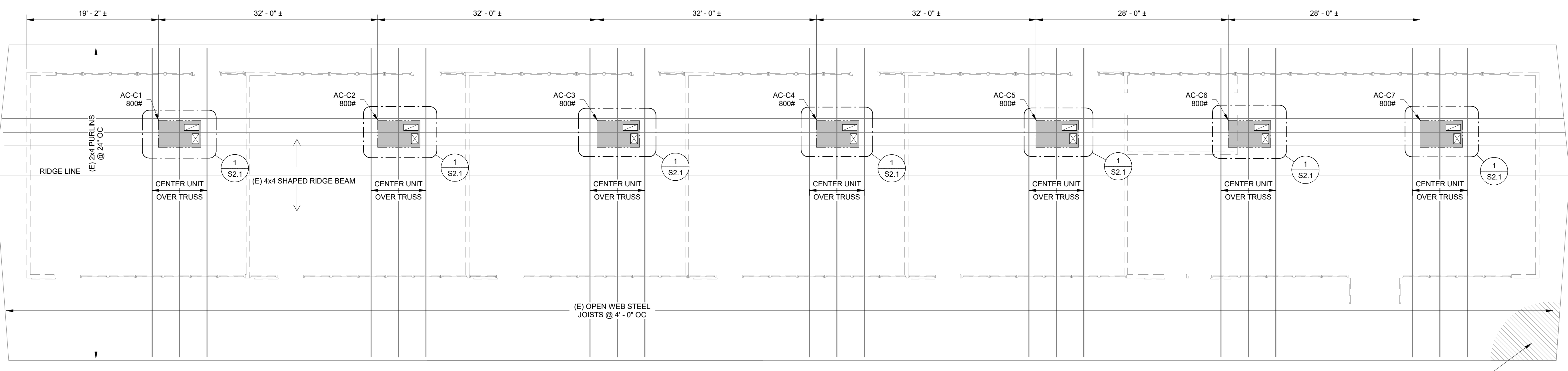
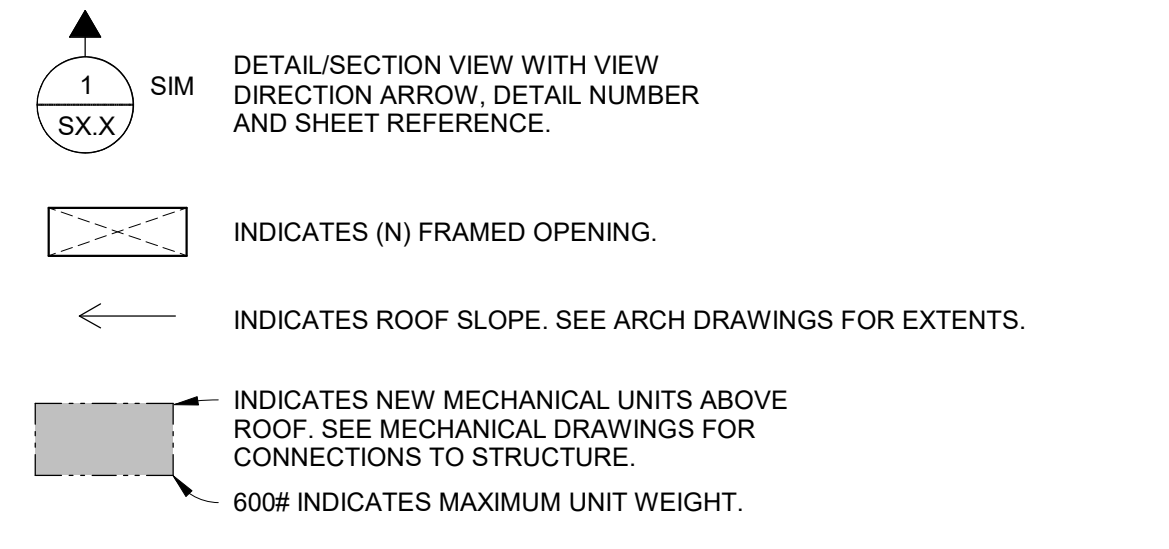
ROOF FRAMING PLAN - BUILDING A  
 1/8" = 1'-0"



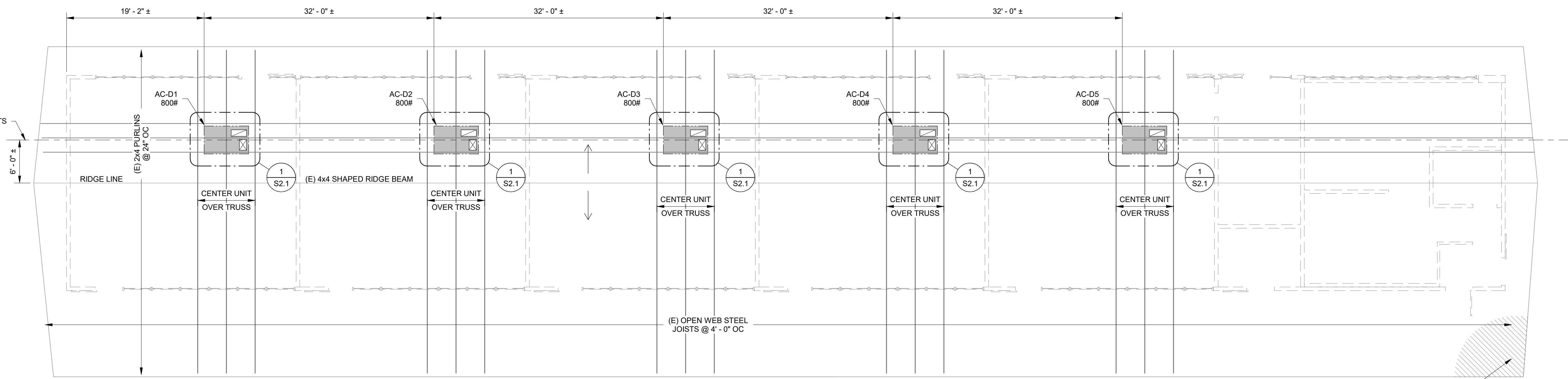
ROOF FRAMING PLAN - BLDG B  
 1/8" = 1'-0"



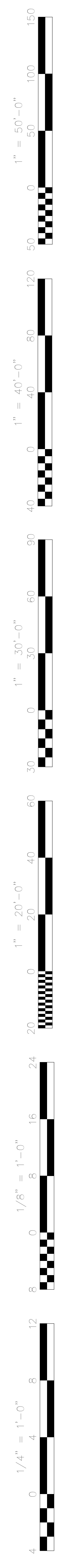
- ROOF FRAMING NOTES:**
- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET S0.1
  - CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM BOTH ARCHITECT AND ENGINEER OF ANY CONFLICTING INFORMATION.
  - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. TYPICAL U.N.O.
  - THE SIZE, LOCATIONS AND ORIENTATIONS OF ALL MECHANICAL UNITS, CURBS, SLEEPERS AND OPENINGS SHALL BE VERIFIED WITH THE UNIT SUPPLIERS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - MOISTURE CONTENT OF ALL NEW BLKG SHALL MATCH OR BE LOWER THAN THE MOISTURE CONTENT OF THE EXISTING JOISTS.
  - SEE S2.1 FOR DETAILS OF TYPICAL OPENING THROUGH (E) ROOF. DO NOT CUT STRUCTURAL FRAMING. THE DIMENSIONS LOCATING THE NEW HVAC EQUIPMENT SHALL BE VERIFIED, ALONG WITH THE DIMENSIONS OF THE NEW EQUIPMENT, DUCTWORK AND EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION. WHERE EXISTING CONDITIONS VARY FROM THOSE SHOWN OR WHERE NEW EQUIPMENT DICTATES A SIGNIFICANT (GREATER THAN 1") ADJUSTMENT OF THE UNIT LOCATIONS, THE ARCHITECT SHALL REVIEW THE PROPOSED MODIFICATION PRIOR TO THE CONTINUATION OF THE WORK. NO STRUCTURAL MEMBERS SHALL BE NOTCHED OR CUT NOR ANY HOLES BE BORED IN THEM UNLESS THEY ARE DETAILED ON DRAWINGS AND APPROVED BY THE OFFICE OF THE STATE ARCHITECT.



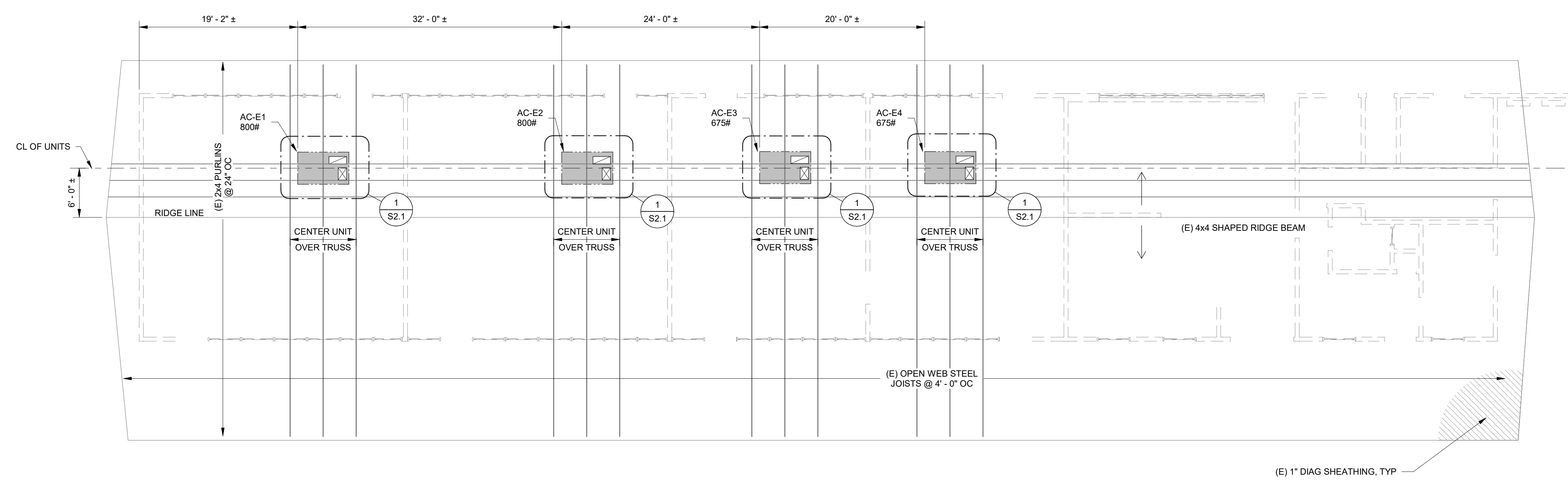
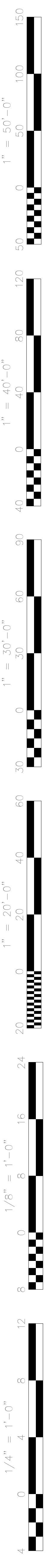
**ROOF FRAMING PLAN - BLDG C**  
 1/8" = 1'-0"



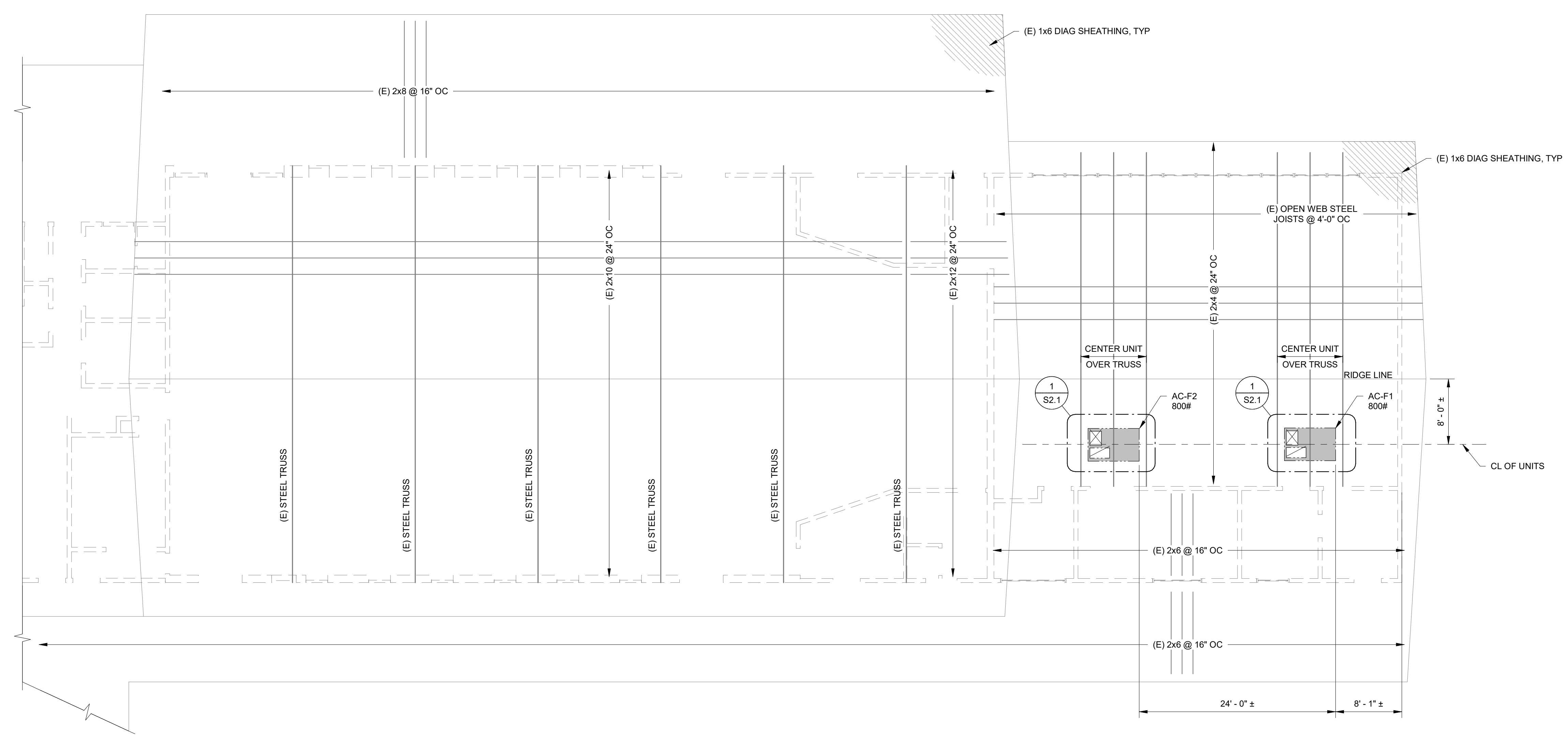
**ROOF FRAMING PLAN - BLDG D**  
 1/8" = 1'-0"



- ROOF FRAMING NOTES:**
- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET S0.1
  - CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM BOTH ARCHITECT AND ENGINEER OF ANY CONFLICTING INFORMATION.
  - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES, TYPICAL U.N.O.
  - THE SIZE, LOCATIONS AND ORIENTATIONS OF ALL MECHANICAL UNITS, CURBS, SLEEPERS AND OPENINGS SHALL BE VERIFIED WITH THE UNIT SUPPLIERS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - MOISTURE CONTENT OF ALL NEW BLDG SHALL MATCH OR BE LOWER THAN THE MOISTURE CONTENT OF THE EXISTING JOISTS.
  - SEE 2/S2.1 FOR DETAILS OF TYPICAL OPENING THROUGH (E) ROOF. DO NOT CUT STRUCTURAL FRAMING. THE DIMENSIONS LOCATING THE NEW HVAC EQUIPMENT SHALL BE VERIFIED, ALONG WITH THE DIMENSIONS OF THE NEW EQUIPMENT, DUCTWORK AND EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION. WHERE EXISTING CONDITIONS VARY FROM THOSE SHOWN OR WHERE NEW EQUIPMENT DICTATES A SIGNIFICANT (GREATER THAN 1'-0") ADJUSTMENT OF THE UNIT LOCATIONS, THE ARCHITECT SHALL REVIEW THE PROPOSED MODIFICATION PRIOR TO THE CONTINUATION OF THE WORK.
  - NO STRUCTURAL MEMBERS SHALL BE NOTCHED OR CUT NOR ANY HOLES BE BORED IN THEM UNLESS THEY ARE DETAILED ON DRAWINGS AND APPROVED BY THE OFFICE OF THE STATE ARCHITECT.
- SIM 1/SX.X DETAIL/SECTION VIEW WITH VIEW DIRECTION ARROW, DETAIL NUMBER AND SHEET REFERENCE.
  - INDICATES (N) FRAMED OPENING.
  - INDICATES ROOF SLOPE. SEE ARCH DRAWINGS FOR EXTENTS.
  - INDICATES NEW MECHANICAL UNITS ABOVE ROOF. SEE MECHANICAL DRAWINGS FOR CONNECTIONS TO STRUCTURE.
  - 600# INDICATES MAXIMUM UNIT WEIGHT.



**ROOF FRAMING PLAN - BLDG E**  
 1/8" = 1'-0"



**ROOF FRAMING PLAN - BUILDING F**  
 1/8" = 1'-0"

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

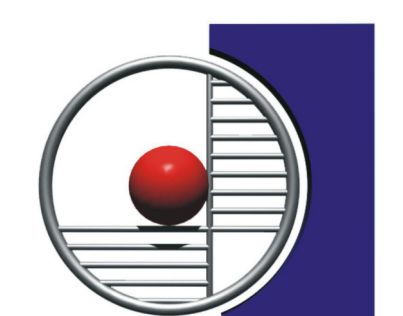
986 W. Alluvial Avenue, Suite 201  
 Fresno, California 93711  
 559.320.3200  
 fax 559.320.3201



**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 FRESNO, CA 93706

Project Name:  
**CENTRAL PLAN REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305



**integrated designs**  
 by SOMAM, Inc.

**ARCHITECTURE ENGINEERING INTERIOR DESIGN**  
 6011 N. FRESNO STREET, SUITE 130  
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Sheet Title:  
**ENLARGED ROOF FRAMING PLANS No. 4**

Job No.:  
**5525**

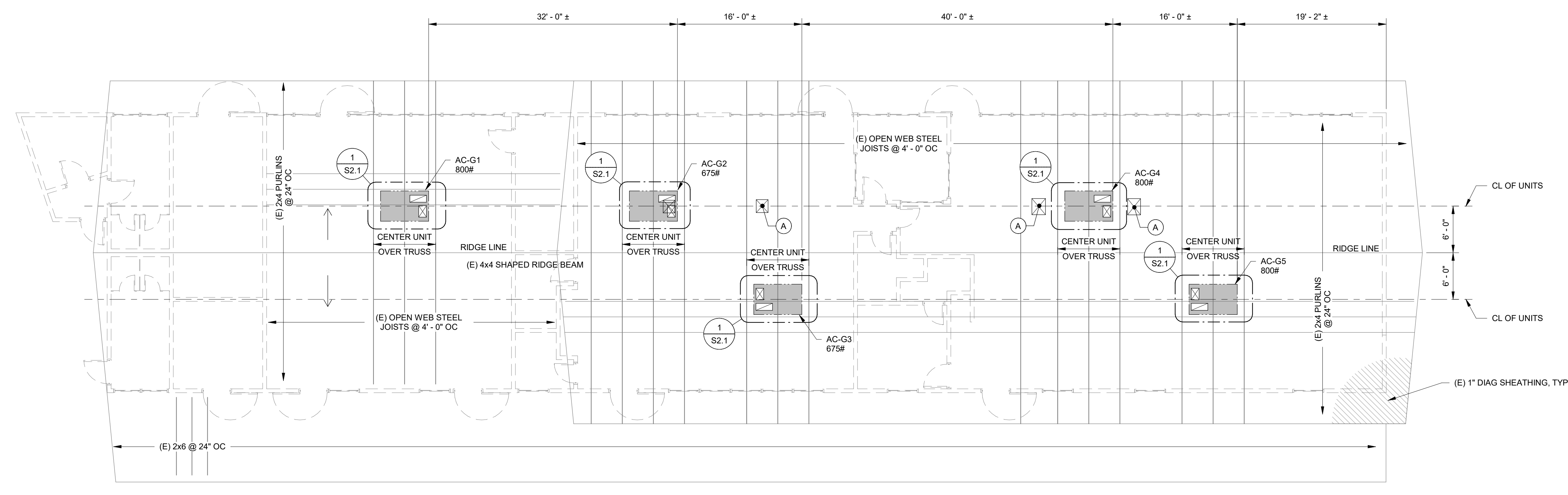
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**S1.4**

Release: \_\_\_\_\_ Date: \_\_\_\_\_

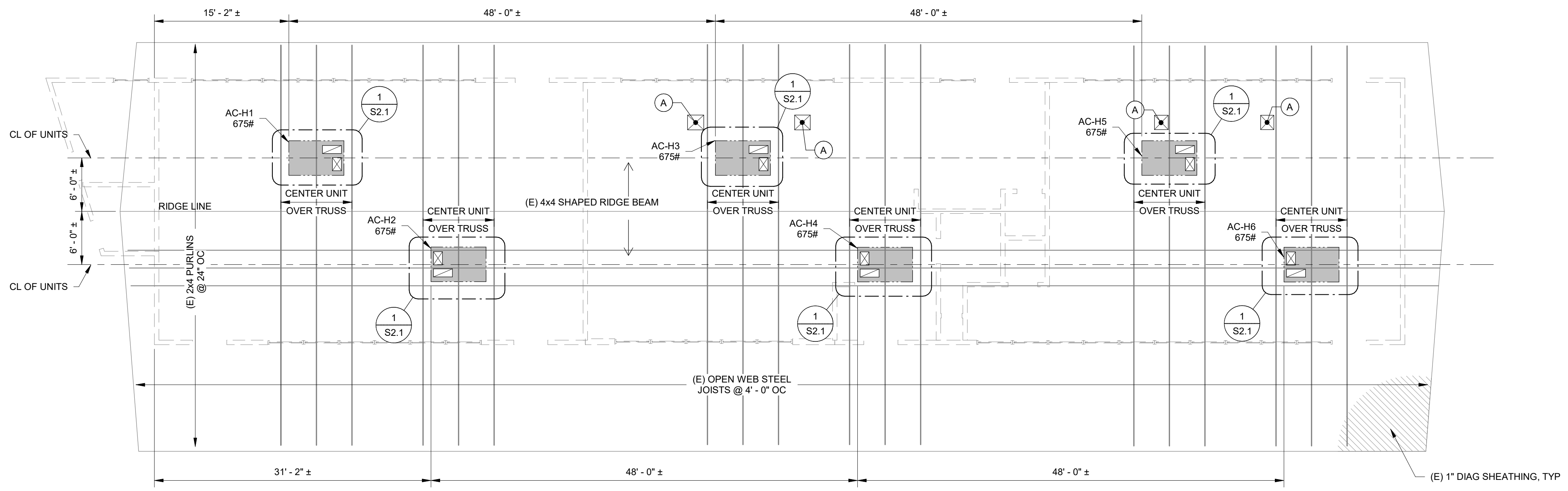
**ROOF FRAMING NOTES:**

- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET S0.1
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND INFORM BOTH ARCHITECT AND ENGINEER OF ANY CONFLICTING INFORMATION.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SIZES, CONDITIONS, MEMBER ELEVATIONS AND DIMENSIONS BEFORE BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS. ANY CONDITIONS ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
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- THE SIZE, LOCATIONS AND ORIENTATIONS OF ALL MECHANICAL UNITS, CURBS, SLEEPERS AND OPENINGS SHALL BE VERIFIED WITH THE UNIT SUPPLIERS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- MOISTURE CONTENT OF ALL NEW BLKG SHALL MATCH OR BE LOWER THAN THE MOISTURE CONTENT OF THE EXISTING JOISTS.
- SEE 2/S2.1 FOR DETAILS OF TYPICAL OPENING THROUGH (E) ROOF. DO NOT CUT STRUCTURAL FRAMING. THE DIMENSIONS LOCATING THE NEW HVAC EQUIPMENT SHALL BE VERIFIED, ALONG WITH THE DIMENSIONS OF THE NEW EQUIPMENT DUCTWORK AND EXISTING CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION. WHERE EXISTING CONDITIONS VARY FROM THOSE SHOWN OR WHERE NEW EQUIPMENT DICTATES A SIGNIFICANT (GREATER THAN 1/4") ADJUSTMENT OF THE UNIT LOCATIONS, THE ARCHITECT SHALL REVIEW THE PROPOSED MODIFICATION PRIOR TO THE CONTINUATION OF THE WORK. NO STRUCTURAL MEMBERS SHALL BE NOTCHED OR CUT NOR ANY HOLES BE BORED IN THEM UNLESS THEY ARE DETAILED ON DRAWINGS AND APPROVED BY THE OFFICE OF THE STATE ARCHITECT.

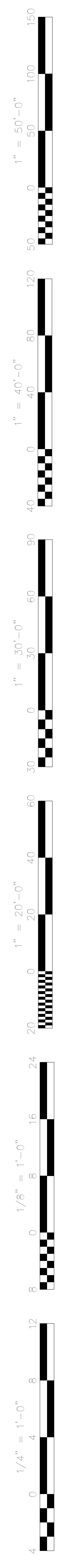
- 1 SXX  
DETAIL SECTION VIEW WITH VIEW DIRECTION ARROW, DETAIL NUMBER AND SHEET REFERENCE.
- INDICATES (N) FRAMED OPENING.
- INDICATES ROOF SLOPE. SEE ARCH DRAWINGS FOR EXTENTS.
- INDICATES NEW MECHANICAL UNITS ABOVE ROOF. SEE MECHANICAL DRAWINGS FOR CONNECTIONS TO STRUCTURE.  
600# INDICATES MAXIMUM UNIT WEIGHT.
- (A) INDICATES (E) OPENING INFILL PER (A) 3.11

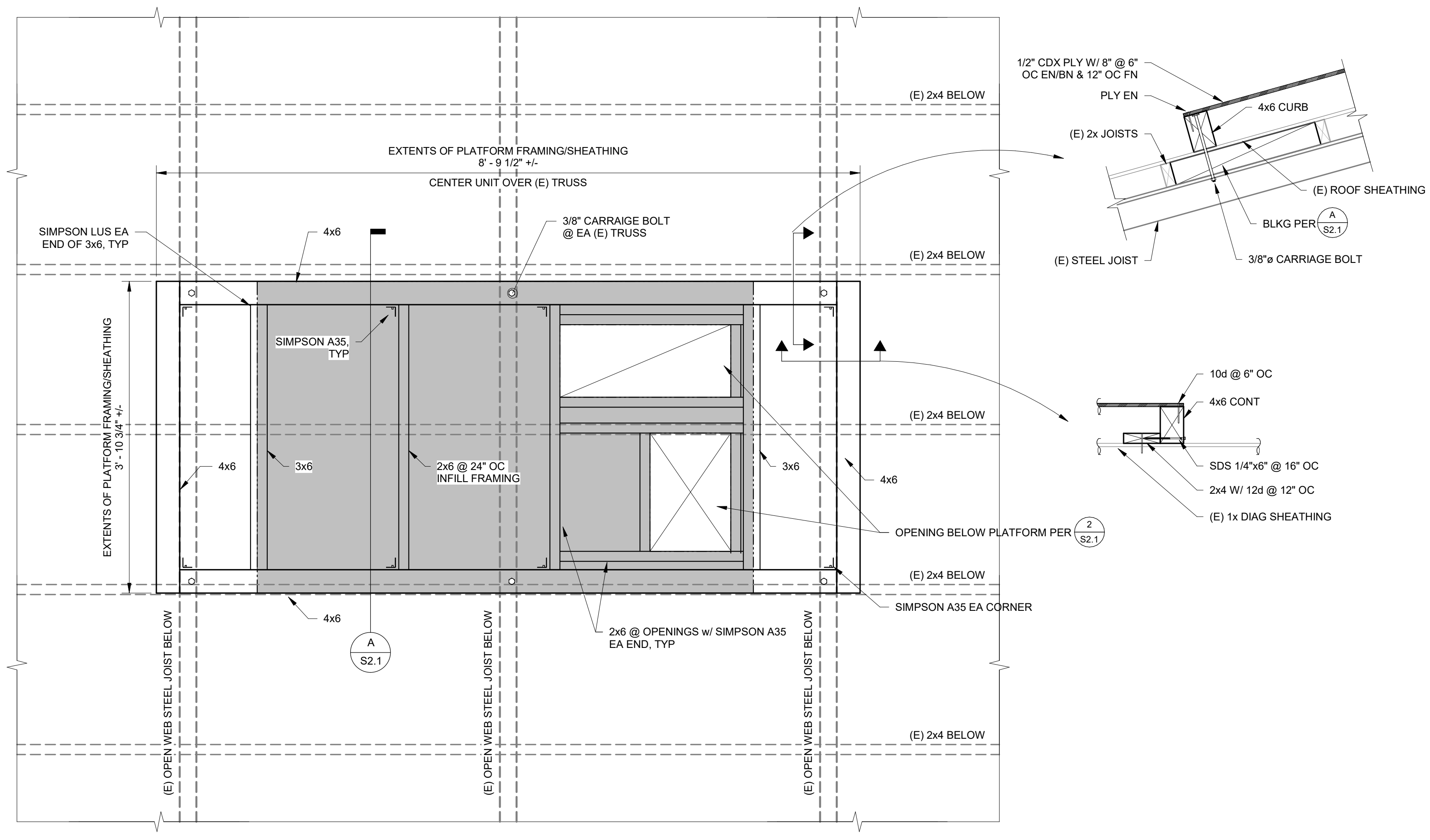


**BUILDING G ENLARGED FRAMING PLAN**  
 1/8" = 1'-0"



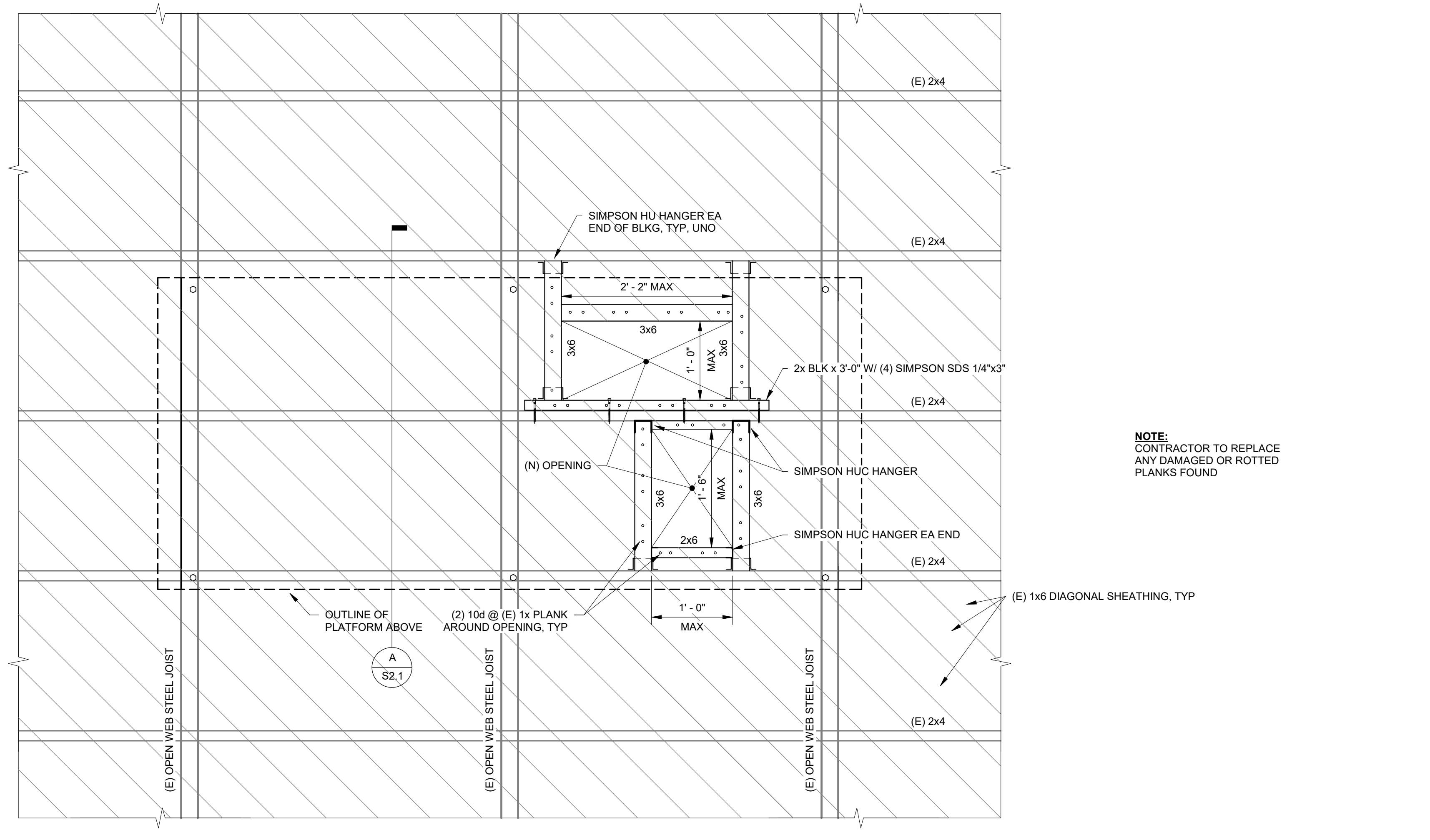
**BLDG H ENLARGED ROOF FRAMING PLAN**  
 1/8" = 1'-0"





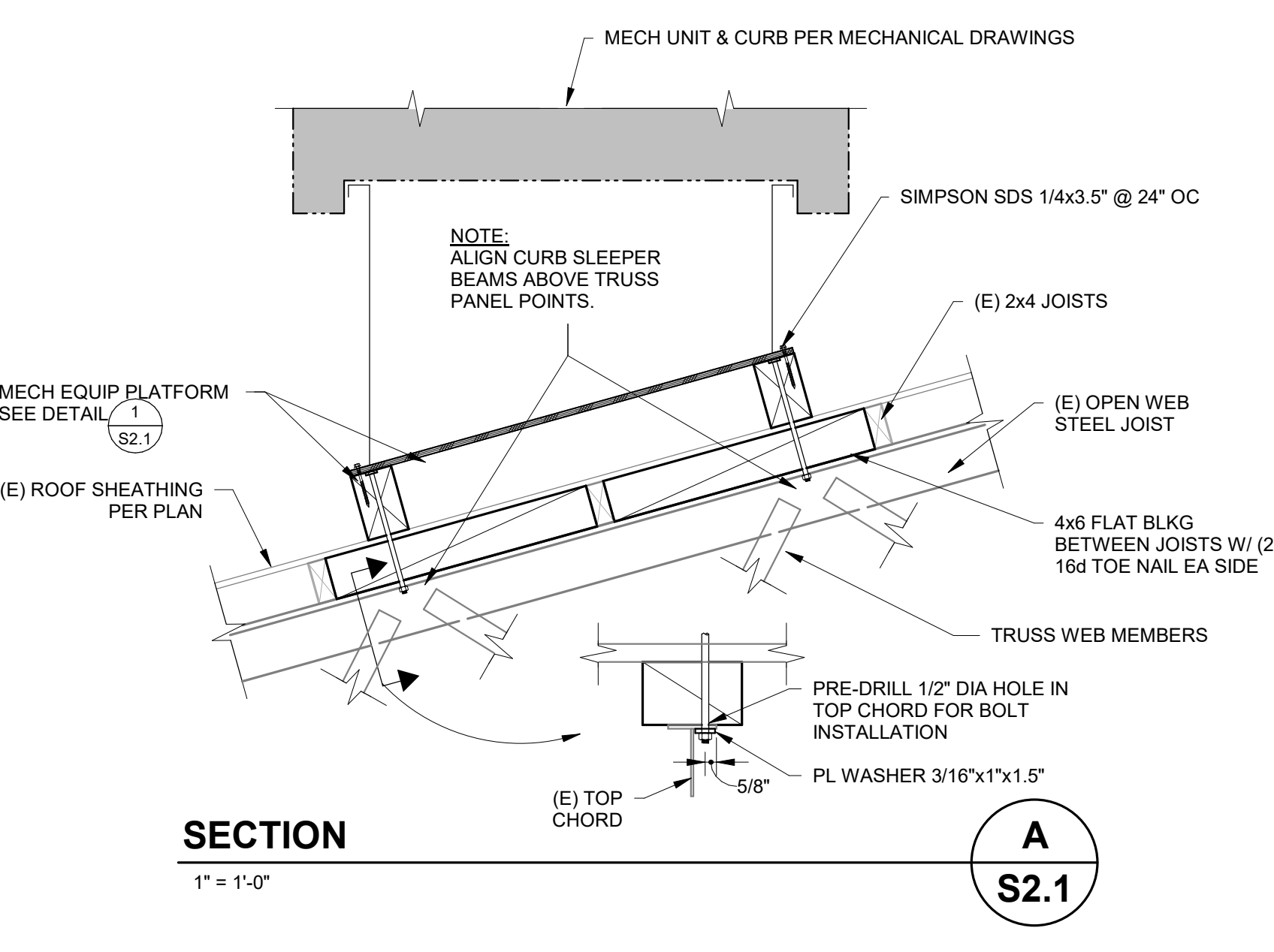
**NOTES:**  
 1. MECH UNIT SIZE & ORIENTATION ARE ONLY SHOWN GRAPHICALLY. SEE PLANS & MECH DRAWINGS FOR SPECIFIC INFORMATION.  
 2. AT BUILDINGS WITH (E) MECHANICAL PLATFORMS:  
 - REMOVE THE (E) STEEL FRAME SUPPORTS.  
 - REMOVE THE PLYWOOD OF THE PLATFORM AND THE PLATFORM FRAMING.  
 3. CURB SLEEPER BEAMS ARE REQUIRED TO LAND ON TRUSS PANEL POINTS. SEE A/S2.1. CURBS SLEEPER BEAMS AT BLDG F UNITS ONLY DO NOT ALIGN OVER TRUSS PANEL POINTS.

**TYPICAL MECHANICAL PLATFORM FRAMING DETAIL**  
 1  
 S2.1  
 1" = 1'-0"

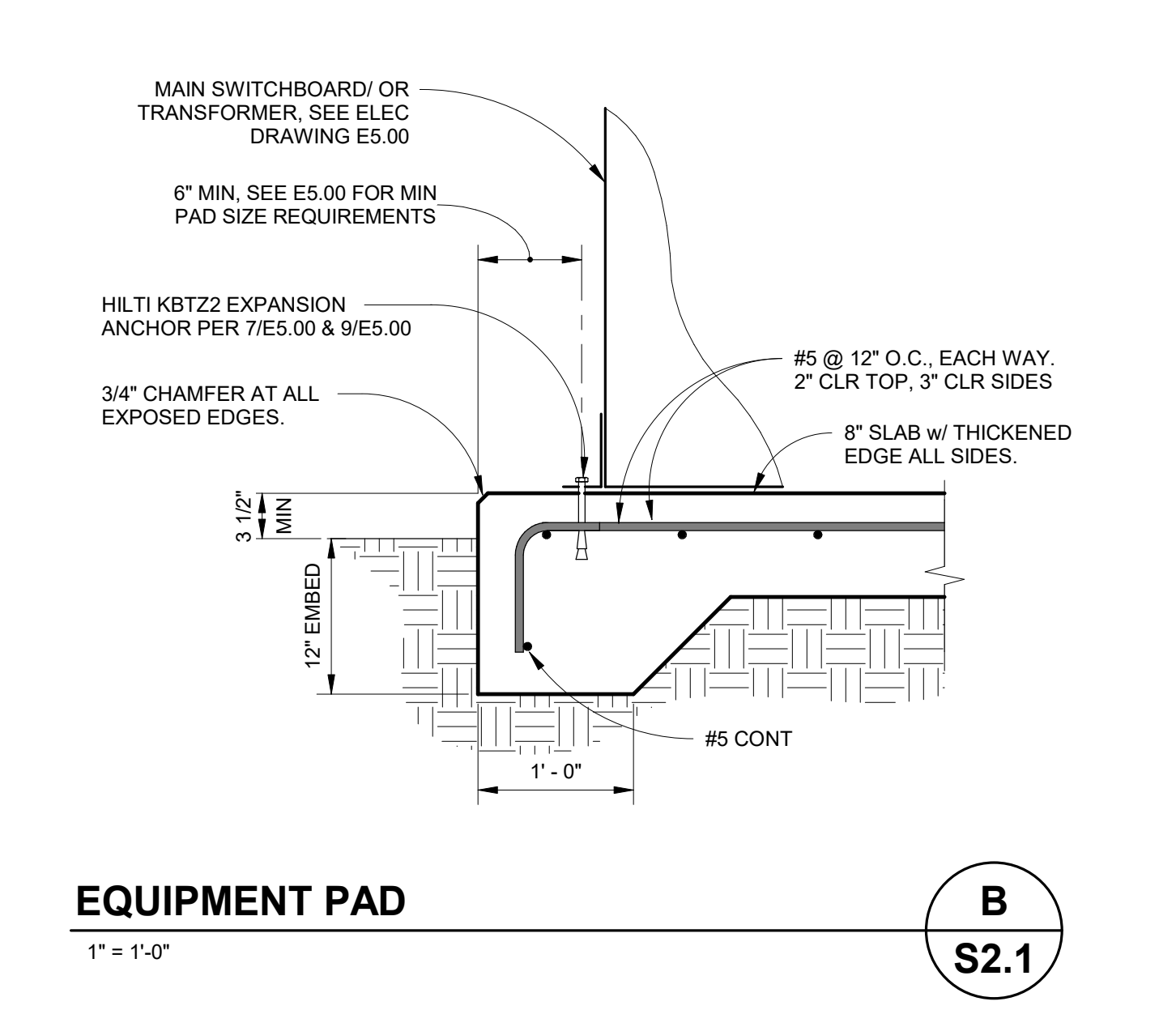


**NOTE:**  
 CONTRACTOR TO REPLACE ANY DAMAGED OR ROTTED PLANKS FOUND

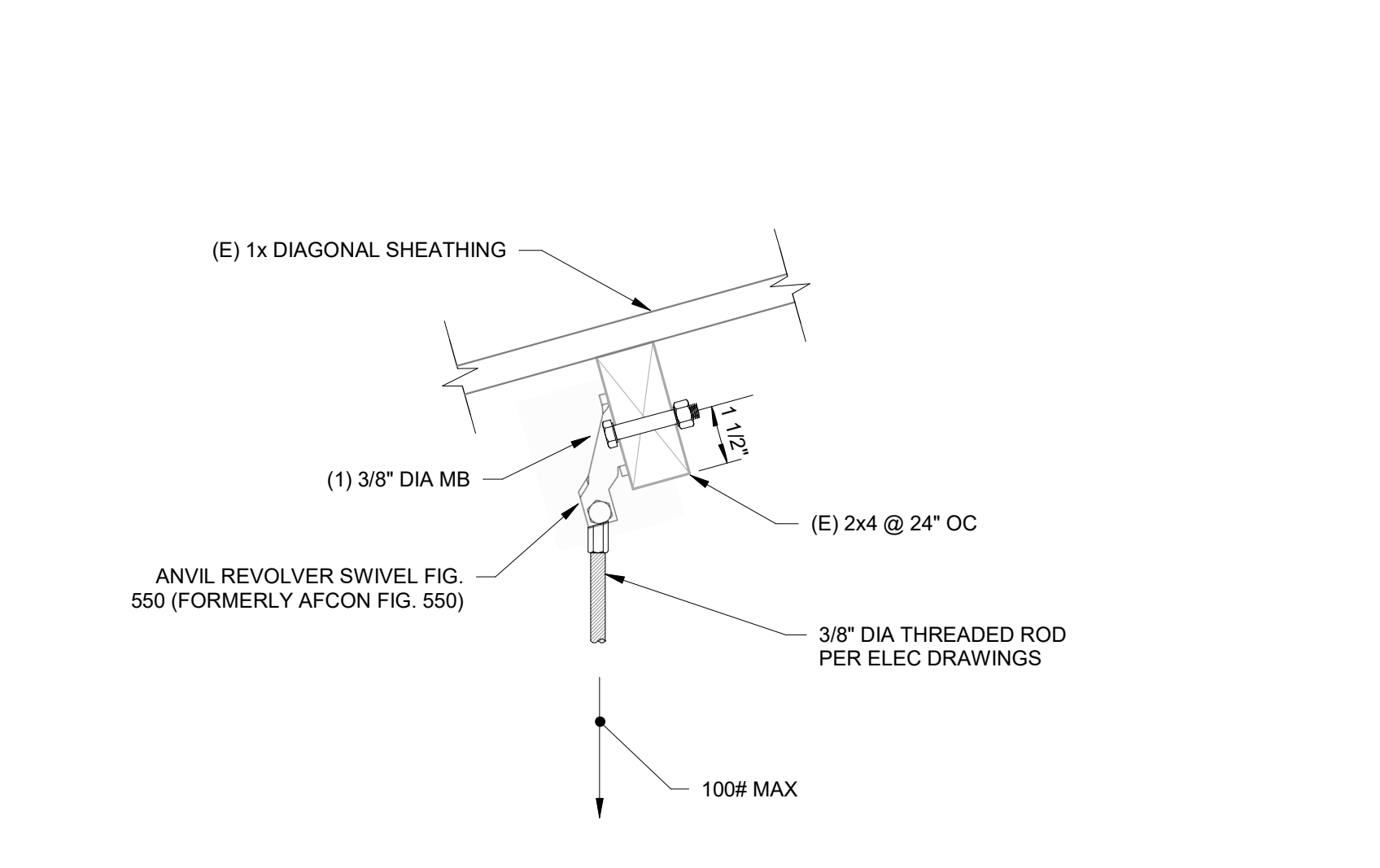
**TYPICAL MECHANICAL PLATFORM OPENINGS AT (E) ROOF FRAMING**  
 2  
 S2.1  
 1" = 1'-0"



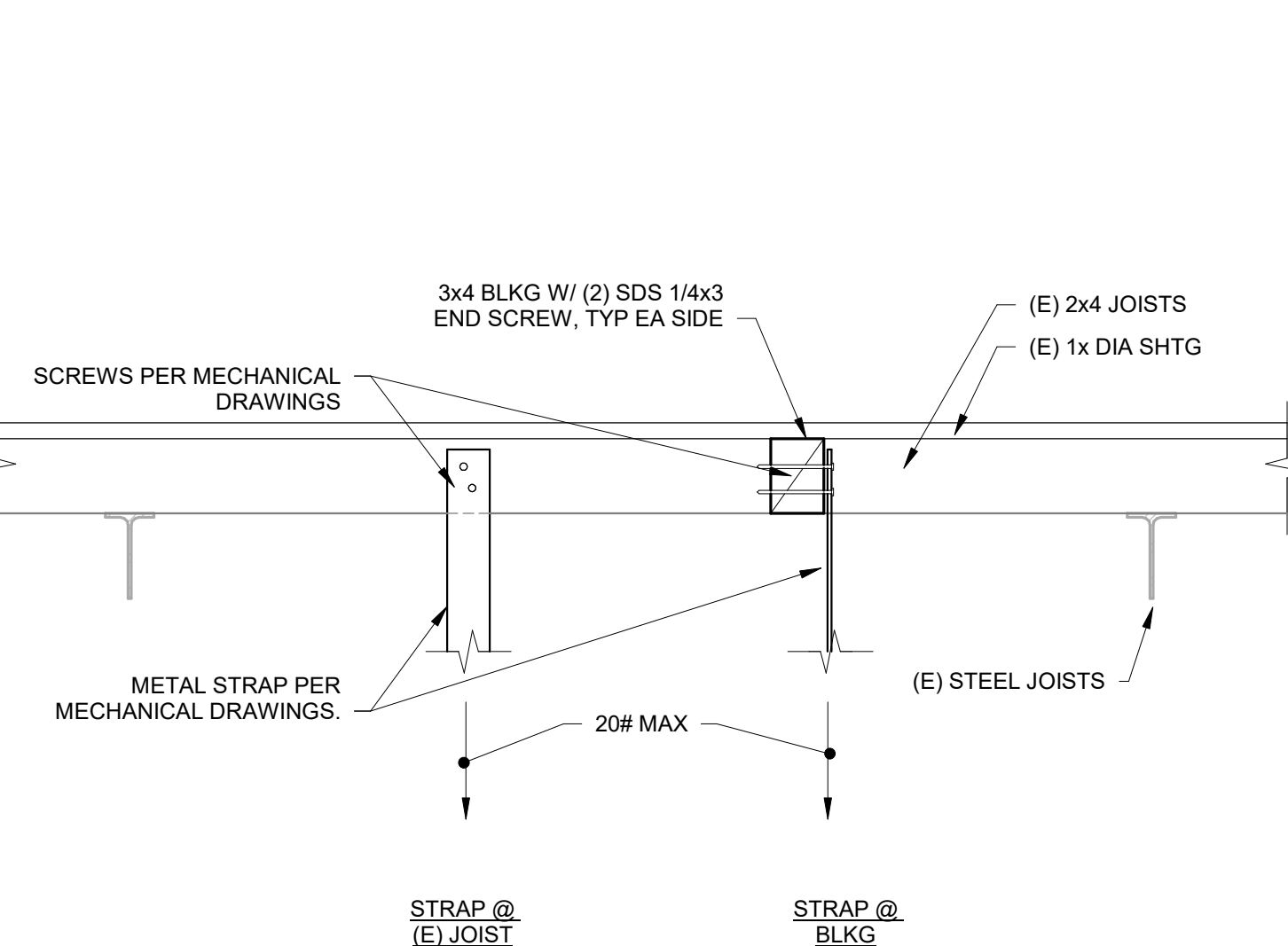
**SECTION A**  
 S2.1  
 1" = 1'-0"



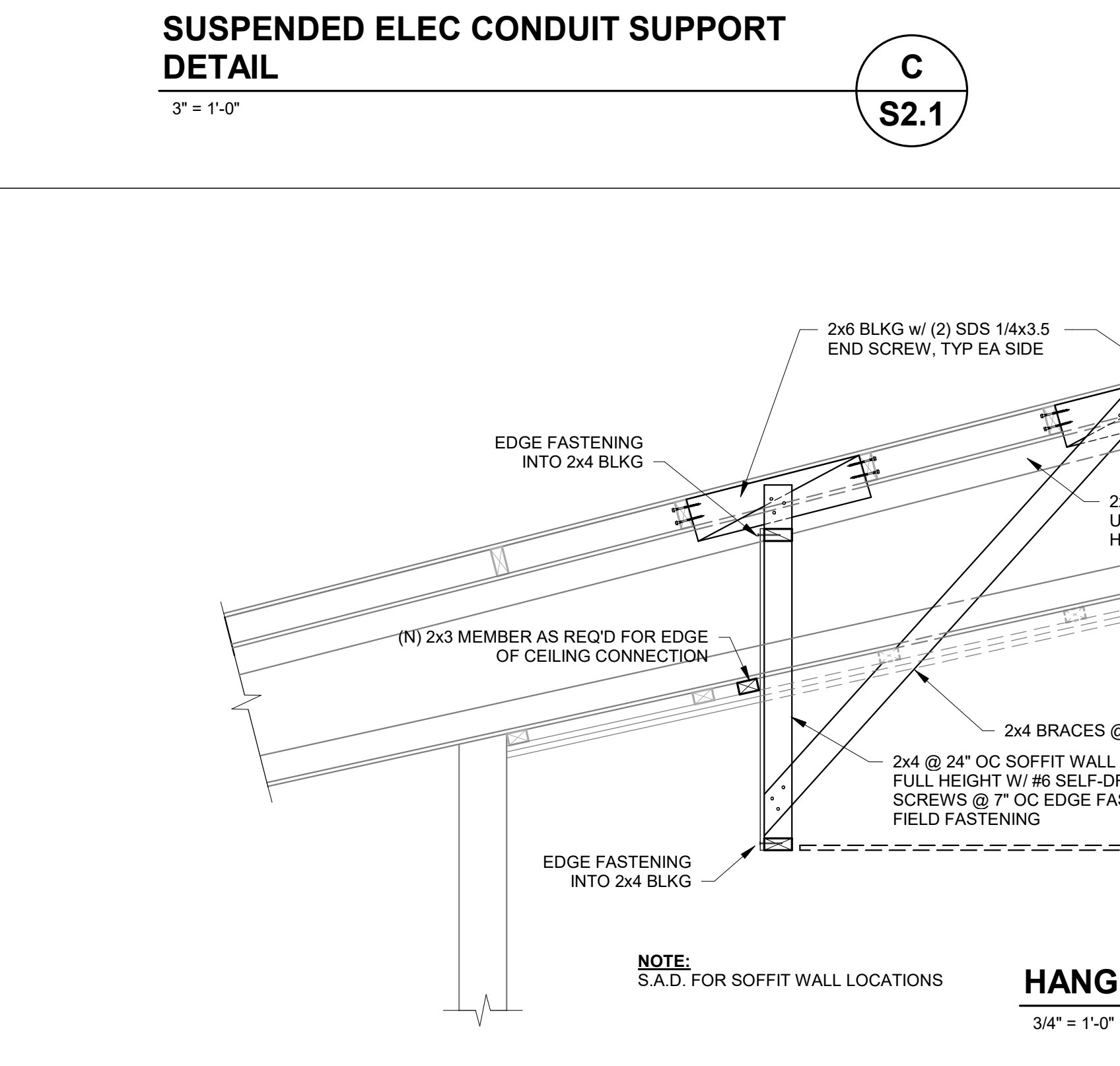
**EQUIPMENT PAD B**  
 S2.1  
 1" = 1'-0"



**SUSPENDED ELEC CONDUIT SUPPORT DETAIL C**  
 S2.1  
 3" = 1'-0"



**MECH STRAP CONNECTION D**  
 S2.1  
 1 1/2" = 1'-0"



**HANGING SOFFIT WALL E**  
 S2.1  
 3/4" = 1'-0"

**NOTE:**  
 S.A.D. FOR SOFFIT WALL LOCATIONS

(E) STEEL TRUSS TO REMAIN UNDAMAGED. REMOVE (E) 1/2" ACOUSTICAL TILE, 1x3 STRIPPINGS @ 12" OC AND 2x3x @ 24" OC WHERE EVER NEW SUSPENDED CEILING OCCURS

**PACKAGE AIR CONDITIONING UNIT SCHEDULE**

MARK	AC E1	AC E2	AC E3	AC E4	AC E5	AC E6	AC C1	AC C2	AC C3	AC C4	AC C5	AC C6	AC C7	AC D1	AC D2	AC D3	AC D4	AC D5
<b>VOLTS/PHASE</b>	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
<b>MCA / MOCP</b>	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25	23 / 25
<b>FLA / LRA</b>	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53	21 / 53
<b>FUSE SIZE</b>	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
<b>BLOWER:</b>																		
<b>CFM</b>	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
<b>DUCT SP (IN WC)</b>	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
<b>MINIMUM OSA (CFM)</b>	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
<b>HP / BHP</b>	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79	1 / 0.79
<b>DRIVE</b>	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
<b>COOLING:</b>																		
<b>TOTAL (MBH)</b>	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
<b>SENSIBLE (MBH)</b>	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
<b>EADB / EAWB (°F)</b>	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
<b>AMBIENT DB (°F)</b>	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
<b>REFRIGERANT</b>	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
<b>CONDENSATE CONN</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
<b>SEER / EER AT AHRI</b>	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2
<b>HEATING:</b>																		
<b>CAPACITY (MBH)</b>	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
<b>EADB (°F)</b>	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
<b>AMBIENT DB (°F)</b>	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
<b>STRIP HEATER (KW)</b>	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
<b>HSPF / COP</b>	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7	8.3 / 3.7
<b>FILTERS:</b>																		
<b>RA: QUANTITY / SIZE</b>	4 / 16x16x2																	
<b>TYPE</b>	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
<b>PD: CLEAN (IN WC)</b>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>OSA: QUANTITY / SIZE</b>	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1
<b>TYPE</b>	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE
<b>MANUFACTURER</b>																		
<b>TYPE</b>	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
<b>MODEL NUMBER</b>	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05	50GQCM05
<b>CONTROL</b>	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)
<b>SERVICE</b>	CLASSROOM B-1	CLASSROOM B-2	CLASSROOM B-3	CLASSROOM B-4	CLASSROOM B-5	CLASSROOM B-6	CLASSROOM C-1	CLASSROOM C-2	CLASSROOM C-3	CLASSROOM C-4	CLASSROOM C-5	CLASSROOM C-6	CLASSROOM D-1	CLASSROOM D-2	CLASSROOM D-3	CLASSROOM D-4	CLASSROOM D-5	CLASSROOM D-5
<b>OP WEIGHT (LBS)</b>	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
<b>ACCESSORIES</b>	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)

- NOTES:  
 (1) INSULATED ROOF CURB TO MATCH ROOF SLOPE  
 (2) HEAVY DUTY CONDENSER COIL GUARD  
 (3) HINGED ACCESS PANELS  
 (4) CA COMPLIANT ECONOMIZER WITH FDD, FULLY MODULATING DAMPERS, BAROMETRIC RELIEF, AND DEMAND CONTROL VENTILATION  
 (5) DISCONNECT BY DIV 26 ELECTRICAL  
 (6) CONTROLLER INTERFACE FOR COMMUNICATION TO PELICAN WIRELESS THERMOSTAT  
 (7) SMOKE DETECTOR IN SUPPLY AIR DUCT TO SIGNAL FAN SHUT DOWN AND FIRE ALARM SYSTEM

**PACKAGE AIR CONDITIONING UNIT SCHEDULE**


MARK	AC E1	AC E2	AC E3	AC E4	AC E5	AC E6
<b>VOLTS/PHASE</b>	460/3	460/3	460/3	460/3	460/3	460/3
<b>MCA / MOCP</b>	23 / 25	23 / 25	19 / 20	19 / 20	27 / 30	27 / 30
<b>FLA / LRA</b>	21 / 53	21 / 53	18 / 49	18 / 49	25 / 65	25 / 65
<b>FUSE SIZE</b>	25	25	20	20	30	30
<b>BLOWER:</b>						
<b>CFM</b>	1600	1600	1200	1200	2000	2000
<b>DUCT SP (IN WC)</b>	0.8	0.8	0.8	0.8	0.8	0.8
<b>MINIMUM OSA (CFM)</b>	150	150	150	150	150	150
<b>HP / BHP</b>	1 / 0.79	1 / 0.79	0.75 / 0.53	0.75 / 0.53	1.5 / 1.19	1.5 / 1.19
<b>DRIVE</b>	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
<b>COOLING:</b>						
<b>TOTAL (MBH)</b>	44.5	44.5	33.1	33.1	58.6	58.6
<b>SENSIBLE (MBH)</b>	35	35	25.9	25.9	47.5	47.5
<b>EADB / EAWB (°F)</b>	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
<b>AMBIENT DB (°F)</b>	105	105	105	105	105	105
<b>REFRIGERANT</b>	R410A	R410A	R410A	R410A	R410A	R410A
<b>CONDENSATE CONN</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
<b>SEER / EER AT AHRI</b>	16.2 / 12.2	16.2 / 12.2	16.2 / 12.5	16.2 / 12.5	16.2 / 12.2	16.2 / 12.2
<b>HEATING:</b>						
<b>CAPACITY (MBH)</b>	45.6	45.6	34.3	34.3	55.9	55.9
<b>EADB (°F)</b>	70	70	70	70	70	70
<b>AMBIENT DB (°F)</b>	47	47	47	47	47	47
<b>STRIP HEATER (KW)</b>	5.5	5.5	5.5	5.5	5.5	5.5
<b>HSPF / COP</b>	8.3 / 3.7	8.3 / 3.7	8.3 / 3.8	8.3 / 3.8	8.3 / 3.9	8.3 / 3.9
<b>FILTERS:</b>						
<b>RA: QUANTITY / SIZE</b>	4 / 16x16x2	4 / 16x16x2	2 / 16x25x2	2 / 16x25x2	4 / 16x16x2	4 / 16x16x2
<b>TYPE</b>	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
<b>PD: CLEAN (IN WC)</b>	0.3	0.3	0.3	0.3	0.3	0.3
<b>OSA: QUANTITY / SIZE</b>	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1
<b>TYPE</b>	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE
<b>MANUFACTURER</b>						
<b>TYPE</b>	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
<b>MODEL NUMBER</b>	50GQCM05	50GQCM05	50GQCM04	50GQCM06	50GQCM06	50GQCM06
<b>CONTROL</b>	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)
<b>SERVICE</b>	CLASSROOM E-1	CLASSROOM E-2	CLASSROOM E-3	CLASSROOM E-4	BLDG F - BAND	BLDG F - BAND
<b>OP WEIGHT (LBS)</b>	800	800	675	675	800	800
<b>ACCESSORIES</b>	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)

- NOTES:  
 (1) INSULATED ROOF CURB TO MATCH ROOF SLOPE  
 (2) HEAVY DUTY CONDENSER COIL GUARD  
 (3) HINGED ACCESS PANELS  
 (4) CA COMPLIANT ECONOMIZER WITH FDD, FULLY MODULATING DAMPERS, BAROMETRIC RELIEF, AND DEMAND CONTROL VENTILATION  
 (5) DISCONNECT BY DIV 26 ELECTRICAL  
 (6) CONTROLLER INTERFACE FOR COMMUNICATION TO PELICAN WIRELESS THERMOSTAT  
 (7) SMOKE DETECTOR IN SUPPLY AIR DUCT TO SIGNAL FAN SHUT DOWN AND FIRE ALARM SYSTEM

**GENERAL NOTES**


- A. THE PLANS AND SPECIFICATIONS DESCRIBE THE PLUMBING WORK AND HVAC WORK OF THIS PROJECT. ANY ITEMS MENTIONED IN ONE PART SHALL BE AS BINDING AS THOUGH MENTIONED IN BOTH. PROVIDE THE NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS AND SERVICES FOR A COMPLETE FUNCTIONING SYSTEM.
- B. ALL LOCATIONS OF EXISTING UTILITIES, DUCTWORK, AND EQUIPMENT SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK, INCLUDING EXACT LOCATION, SIZE, SERVICE, AND ROUTING OF EXISTING UTILITIES AND DUCTWORK. CONTRACTOR SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY EXISTING CONDITIONS WHICH MAY CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
- C. PLUMBING AND HVAC LAYOUTS INDICATED ON PLANS ARE DIAGRAMMATIC ONLY. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. EXACT LOCATION OF EQUIPMENT, DUCTWORK, AND PIPES SHALL BE COORDINATED WITH OTHER TRADES.
- D. PROVIDE CLEANOUTS PER CPC SECTIONS 707, 719 AND 1101.13.
- E. PROVIDE PLUMBING VENT TERMINATION PER CPC SECTION 906. PLUMBING VENTS SHALL TERMINATE NOT LESS THAN TEN FEET FROM, OR NOT LESS THAN THREE FEET ABOVE, AIR INTAKE OR VENT SHAFT. COORDINATE EXACT LOCATION WITH OTHER TRADES.
- F. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PER CBC SECTIONS 714 AND 717. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE FIRE MARSHAL. SEE ARCHITECTURAL PLANS FOR LOCATION OF FIRE RATED ASSEMBLIES.
- G. THE SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT, DUCTWORK, AND PIPES SHALL CONFORM TO CBC CHAPTER 16A.
- H. PROVIDE FRESH AIR INTAKE SEPARATION FROM EXHAUST TERMINATION AND PLUMBING VENT TERMINATION PER CPC SECTIONS 502, 510.9 AND 518.5, AND CPC SECTION 906. COORDINATE WITH OTHER TRADES.
- I. DUCTWORK SIZES INDICATED ARE INSIDE DIMENSIONS. WHERE ACOUSTIC LINING IS SHOWN, MAINTAIN THE INSIDE CLEAR DIMENSIONS BY INCREASING THE SHEET METAL SIZE TO ACCOMMODATE LINING THICKNESS.
- J. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND GRILLES.

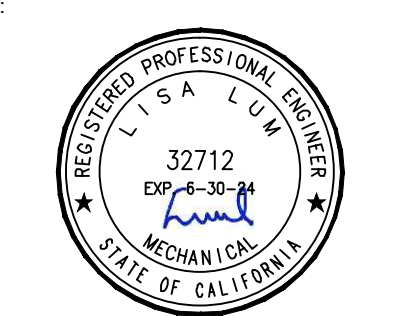
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 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

  
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 by SOMAM, Inc.  
**ARCHITECTURE ENGINEERING INTERIOR DESIGN**  
 6011 N. FRESNO STREET, SUITE 130  
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Professional Seal:  
  
 LISA LUM  
 REGISTERED PROFESSIONAL ARCHITECT  
 STATE OF CALIFORNIA  
 32712  
 09-03-2019  
 MECHANICAL

**GENERAL NOTES - LEGEND**

Job No.: **5525**  
 Sheet No.: **M0.01**  
 Release: **DSA SUBMITTAL** 11/28/22

**GRILLE SCHEDULE**

MARK	LOCATION	DESCRIPTION
A	CEILING SUPPLY	TITUS TDC-AA ALUMINUM FULL LOUVER FACE WITH SQUARE OR RECTANGULAR NECK, TYPE 3 BORDER FOR LAY-IN CEILING, STANDARD #26 WHITE FINISH.
B	CEILING RETURN	TITUS 50F ALUMINUM EGGRATE WITH 1/2x1/2x1/2 GRID, TYPE 3 BORDER FOR LAY-IN CEILING, STANDARD #26 WHITE FINISH.
C	WALL SUPPLY	TITUS 272RL STEEL DOUBLE DEFLECTION SUPPLY GRILLE, 3/4" BLADE SPACING, 20 GAUGE BLADES PARALLEL TO LONG DIMENSION, SET ADJUSTABLE BLADES TO 0 DEGREE DEFLECTION, OPPOSED BLADE DAMPER, STANDARD #26 WHITE FINISH.
D	WALL RETURN	



IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC:  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

Owner:



**BAKERSFIELD  
 CITY SCHOOL  
 DISTRICT**  
 1300 BAKER STREET  
 FRESNO, CA. 93706

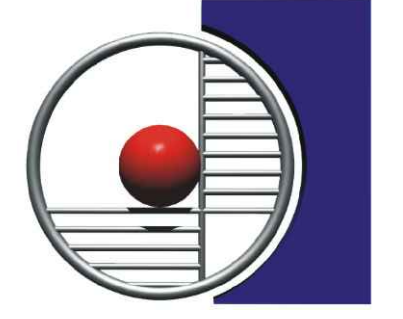
Project Name:

**HVAC REPLACEMENT**

Project Address:

**WASHINGTON  
 MIDDLE SCHOOL**

1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305



**integrated  
 designs**  
 by SOMAM, Inc.

**ARCHITECTURE  
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Sheet Title:

**SCHEDULES**

Job No.:

**5525**

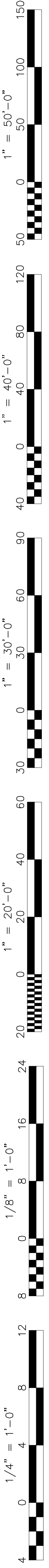
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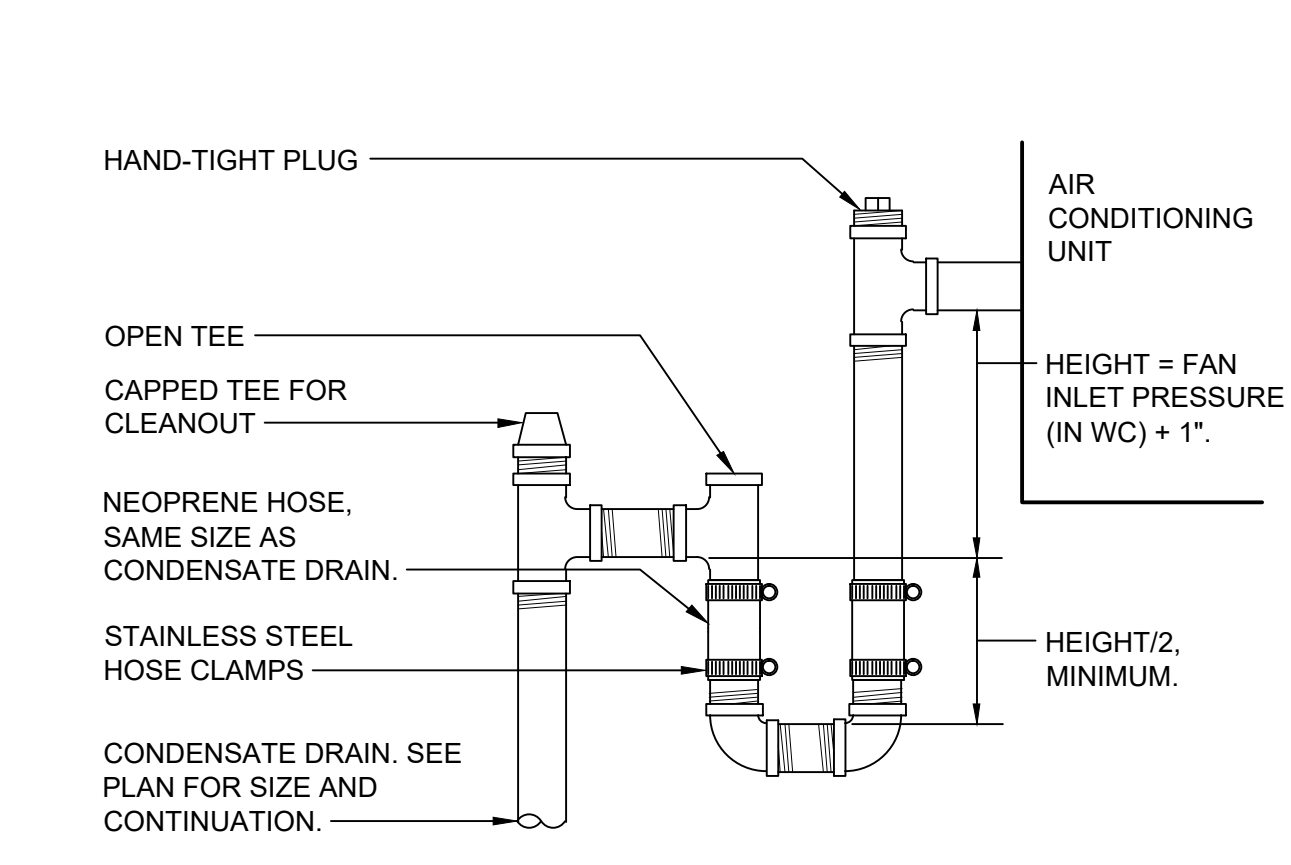
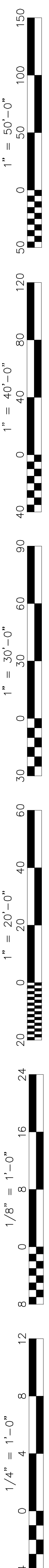
**M0.02**

Release: **DSA SUBMITTAL** 11/28/22

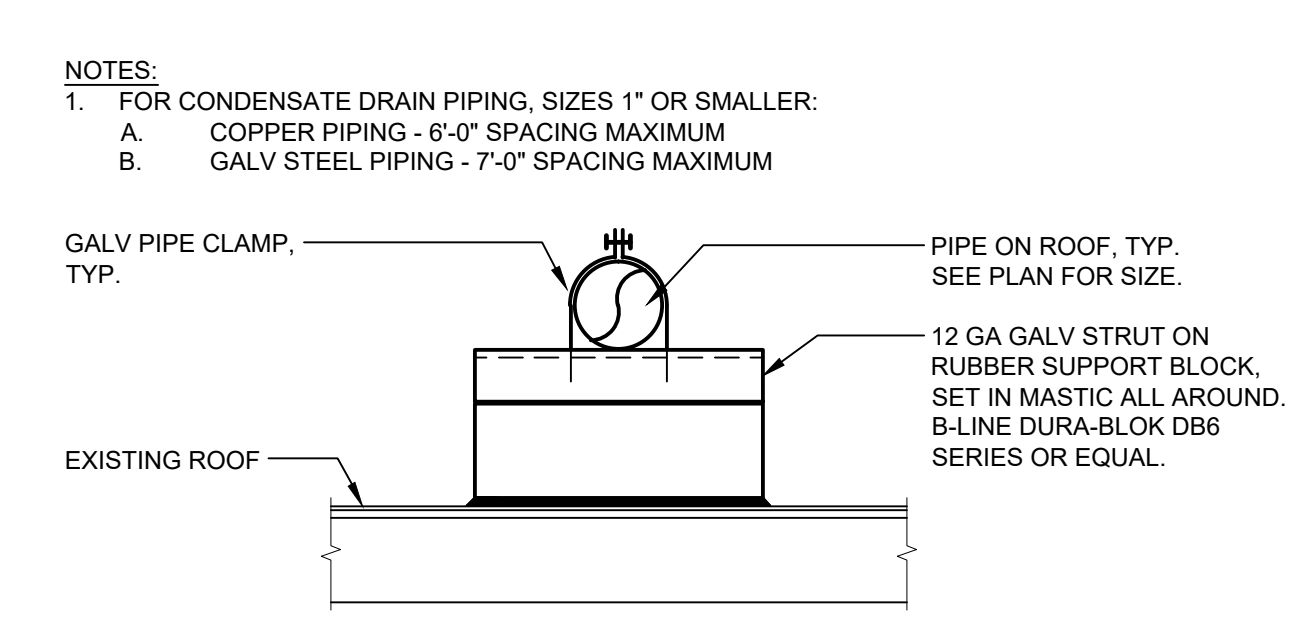
PACKAGE AIR CONDITIONING UNIT SCHEDULE											
MARK	AC G1	AC G2	AC G3	AC G4	AC G5	AC H1	AC H2	AC H3	AC H4	AC H5	AC H6
VOLTS/PHASE	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
MCA / MOCF	27 / 30	19 / 20	19 / 20	27 / 30	27 / 30	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20
FLA / LRA	25 / 65	18 / 49	18 / 49	25 / 65	25 / 65	18 / 49	18 / 49	18 / 49	18 / 49	18 / 49	18 / 49
FUSE SIZE	30	20	20	30	30	20	20	20	20	20	20
BLOWER:											
CFM	2000	1200	1200	2000	2000	1200	1200	1200	1200	1200	1200
DUCT SP (IN WC)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
MINIMUM OSA (CFM)	150	150	150	150	150	150	150	150	150	150	150
HP / BHP	1.5 / 1.19	0.75 / 0.53	0.75 / 0.53	1.5 / 1.19	1.5 / 1.19	0.75 / 0.53	0.75 / 0.53	0.75 / 0.53	0.75 / 0.53	0.75 / 0.53	0.75 / 0.53
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
COOLING:	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES	2 STAGES
TOTAL (MBH)	58.6	33.1	33.1	58.6	58.6	33.1	33.1	33.1	33.1	33.1	33.1
SENSIBLE (MBH)	47.5	25.9	25.9	47.5	47.5	25.9	25.9	25.9	25.9	25.9	25.9
EADB / EAWB (°F)	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
AMBIENT DB (°F)	105	105	105	105	105	105	105	105	105	105	105
REFRIGERANT	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
CONDENSATE CONN	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
SEER / EER AT AHR1	16.2 / 12.2	16.2 / 12.5	16.2 / 12.5	16.2 / 12.2	16.2 / 12.2	16.2 / 12.5	16.2 / 12.5	16.2 / 12.5	16.2 / 12.5	16.2 / 12.5	16.2 / 12.5
HEATING:											
CAPACITY (MBH)	55.9	34.3	34.3	55.9	55.9	34.3	34.3	34.3	34.3	34.3	34.3
EADB (°F)	70	70	70	70	70	70	70	70	70	70	70
AMBIENT DB (°F)	47	47	47	47	47	47	47	47	47	47	47
STRIP HEATER (KW)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
HSFF / COP	8.3 / 3.9	8.3 / 3.8	8.3 / 3.8	8.3 / 3.9	8.3 / 3.9	8.3 / 3.8	8.3 / 3.8	8.3 / 3.8	8.3 / 3.8	8.3 / 3.8	8.3 / 3.8
FILTERS:											
RA: QUANTITY / SIZE	4 / 16x16x2	2 / 16x25x2	2 / 16x25x2	4 / 16x16x2	4 / 16x16x2	2 / 16x25x2	2 / 16x25x2	2 / 16x25x2	2 / 16x25x2	2 / 16x25x2	2 / 16x25x2
TYPE	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
PD, CLEAN (IN WC)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OSA: QUANTITY / SIZE	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1
TYPE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE	WASHABLE
MANUFACTURER											
CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER	50GQCM06	50GQCM04	50GQCM04	50GQCM06	50GQCM06	50GQCM04	50GQCM04	50GQCM04	50GQCM04	50GQCM04	50GQCM04
CONTROL	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)	T'STAT (6)
SERVICE	CLASSROOM G-1	CLASSROOM G-2	CLASSROOM G-2	LIBRARY G-3	LIBRARY G-3	CLASSROOM H-1	CLASSROOM H-1	CLASSROOM H-2	CLASSROOM H-2	CLASSROOM H-3	CLASSROOM H-3
OP WEIGHT (LBS)	800	675	675	800	800	675	675	675	675	675	675
ACCESSORIES	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7),(8)	(1),(2),(3),(4),(5),(7),(8)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)	(1),(2),(3),(4),(5),(7)
NOTES:											
(1) INSULATED ROOF CURB TO MATCH ROOF SLOPE											
(2) HEAVY DUTY CONDENSER COIL GUARD											
(3) HINGED ACCESS PANELS											
(4) CA COMPLIANT ECONOMIZER WITH FDD, FULLY MODULATING DAMPERS, BAROMETRIC RELIEF, AND DEMAND CONTROL VENTILATION											
(5) DISCONNECT BY DIV 26 ELECTRICAL											
(6) CONTROLLER INTERFACE FOR COMMUNICATION TO PELICAN WIRELESS THERMOSTAT											
(7) SMOKE DETECTOR IN SUPPLY AIR DUCT TO SIGNAL FAN SHUT DOWN AND FIRE ALARM SYSTEM											
(8) UL 867 AND 2998 LISTED NPBI TYPE ION GENERATOR POWERED BY UNIT, iWAVE-C											

PACKAGE AIR CONDITIONING UNIT SCHEDULE			
MARK	AC A1	AC A2	AC A3
VOLTS/PHASE	460/3	460/3	460/3
MCA / MOCF	27 / 30	27 / 30	23 / 25
FLA / LRA	25 / 65	25 / 65	21 / 53
FUSE SIZE	30	30	25
BLOWER:			
CFM	2000	2000	1600
DUCT SP (IN WC)	0.8	0.8	0.8
MINIMUM OSA (CFM)	160	160	100
HP / BHP	1.5 / 1.19	1.5 / 1.19	1 / 0.79
DRIVE	DIRECT	DIRECT	DIRECT
COOLING:	2 STAGES	2 STAGES	2 STAGES
TOTAL (MBH)	58.6	58.6	44.5
SENSIBLE (MBH)	47.5	47.5	35
EADB / EAWB (°F)	80 / 67	80 / 67	80 / 67
AMBIENT DB (°F)	105	105	105
REFRIGERANT	R410A	R410A	R410A
CONDENSATE CONN	3/4"	3/4"	3/4"
SEER / EER AT AHR1	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2
HEATING:			
CAPACITY (MBH)	55.9	55.9	45.6
EADB (°F)	70	70	70
AMBIENT DB (°F)	47	47	47
STRIP HEATER (KW)	5.5	5.5	5.5
HSFF / COP	8.3 / 3.9	8.3 / 3.9	8.3 / 3.7
FILTERS:			
RA: QUANTITY / SIZE	4 / 16x16x2	4 / 16x16x2	4 / 16x16x2
TYPE	MERV 13	MERV 13	MERV 13
PD, CLEAN (IN WC)	0.3	0.3	0.3
OSA: QUANTITY / SIZE	1 / 20x24x1	1 / 20x24x1	1 / 20x24x1
TYPE	WASHABLE	WASHABLE	WASHABLE
MANUFACTURER			
CARRIER	CARRIER	CARRIER	CARRIER
TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER	50GQCM06	50GQCM06	50GQCM05
CONTROL	(E) T'STAT (6)	(E) T'STAT (6)	(E) T'STAT (6)
SERVICE	BLDG A	BLDG A	BLDG A
OP WEIGHT (LBS)	800	800	800
ACCESSORIES	(1),(2),(3),(4),(5),(7),(8)	(1),(2),(3),(4),(5),(7),(8)	(1),(2),(3),(4),(5),(7),(8)
NOTES:			
(1) INSULATED ROOF CURB TO MATCH ROOF SLOPE			
(2) HEAVY DUTY CONDENSER COIL GUARD			
(3) HINGED ACCESS PANELS			
(4) CA COMPLIANT ECONOMIZER WITH FDD, FULLY MODULATING DAMPERS, AND BAROMETRIC RELIEF			
(5) DISCONNECT BY DIV 26 ELECTRICAL			
(6) PROVIDE CONTROLLER INTERFACE FOR COMMUNICATION TO EXISTING PELICAN WIRELESS THERMOSTAT			
(7) SMOKE DETECTOR IN SUPPLY AIR DUCT TO SIGNAL FAN SHUT DOWN AND FIRE ALARM SYSTEM			
(8) UL 867 AND 2998 LISTED NPBI TYPE ION GENERATOR POWERED BY UNIT, iWAVE-C			





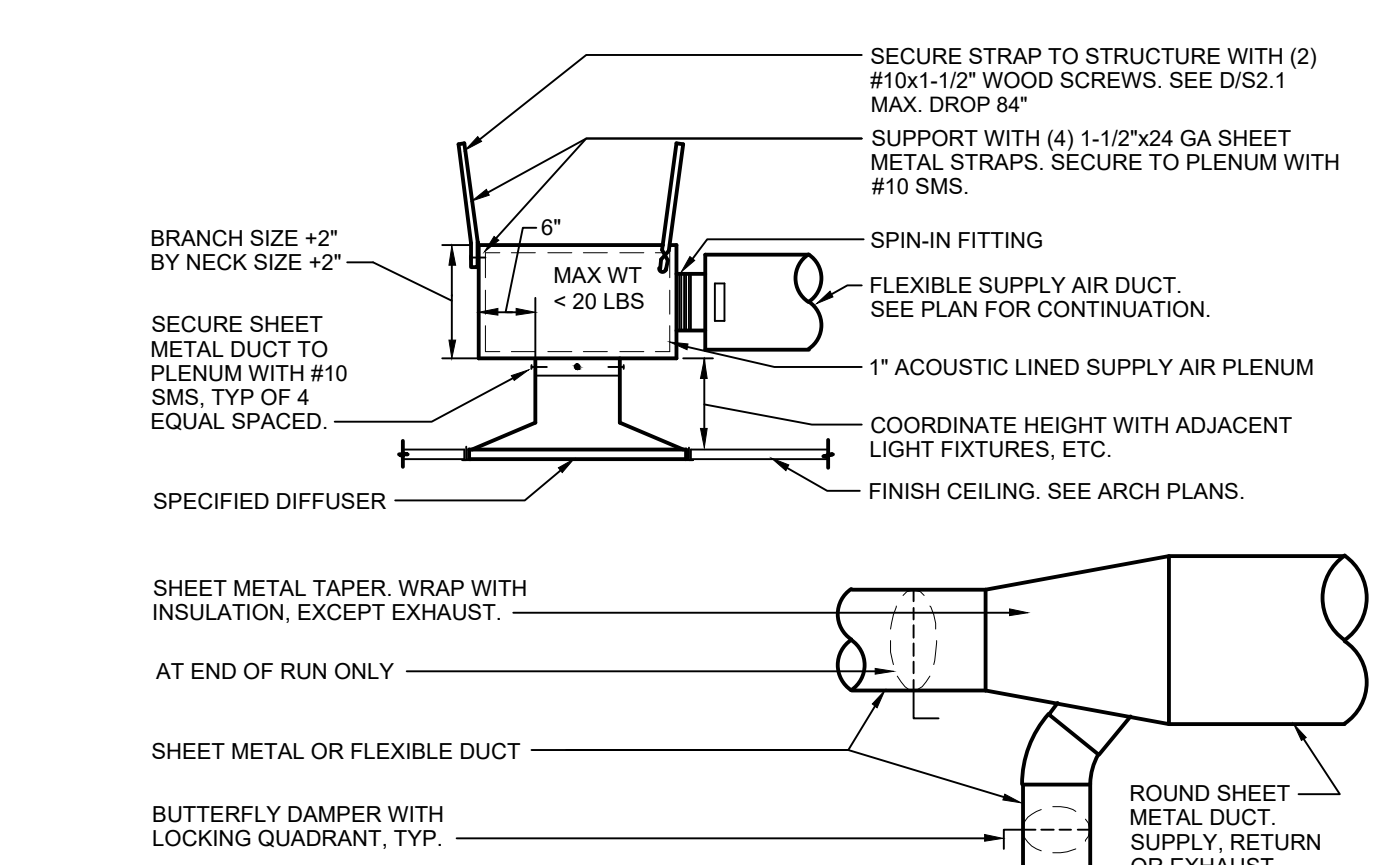
**6** CONDENSATE DRAIN CONNECTION - DRAW THRU  
 NO.11 SCALE: N.T.S.



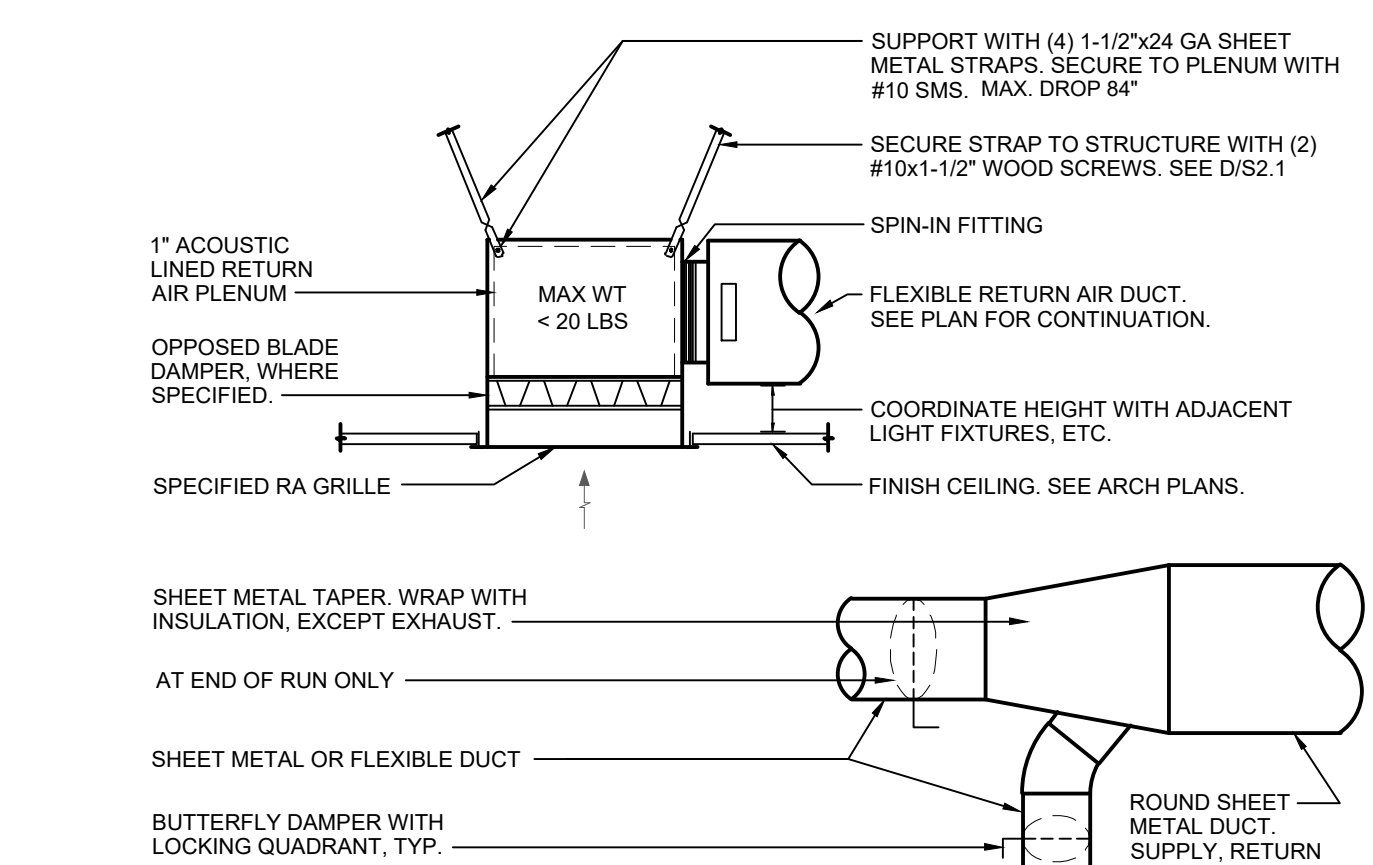
**7** PIPE SUPPORT - ROOF  
 NO.11 SCALE: N.T.S.



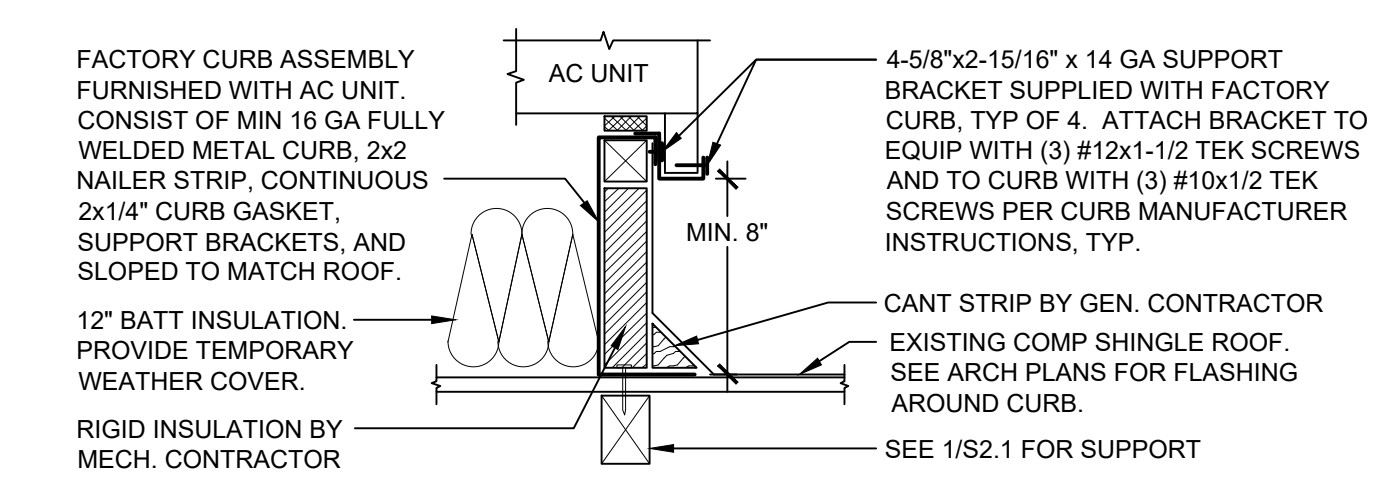
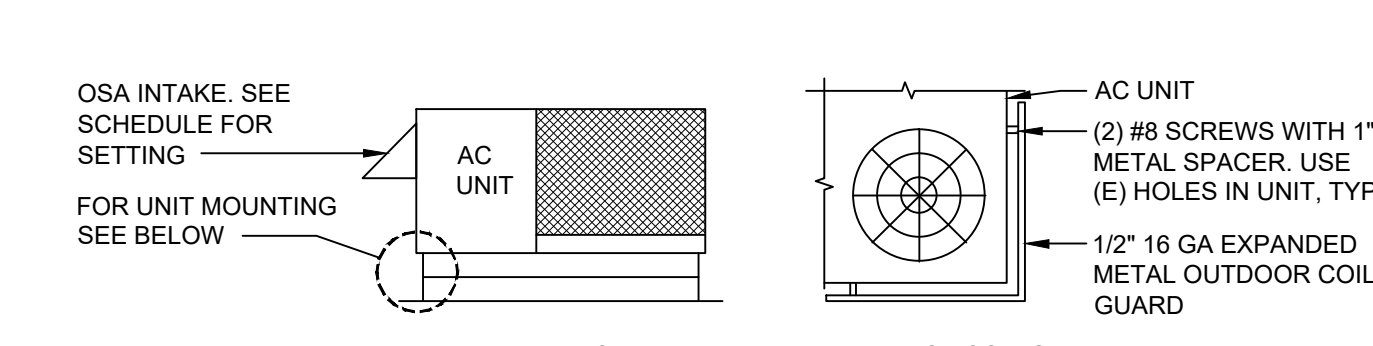
**4** DUCT SUPPORT - ROUND  
 NO.11 SCALE: N.T.S.



**1** TYPICAL SUPPLY AIR DEVICE - BRANCH DUCT  
 NO.11 SCALE: N.T.S.



**2** TYPICAL RETURN/EXHAUST AIR DEVICE - BRANCH DUCT  
 NO.11 SCALE: N.T.S.



**3** AC UNIT MOUNTING  
 NO.11 SCALE: N.T.S.

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 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

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**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93305

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**HVAC REPLACEMENT**

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**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

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**DETAILS**

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Job No.: **5525**

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Sheet No.: **M0.11**

Release: **DSA SUBMITTAL** 11/28/22

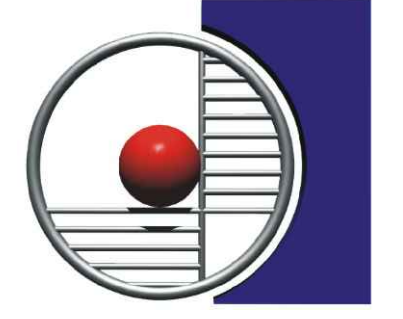
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**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**

Project Address:  
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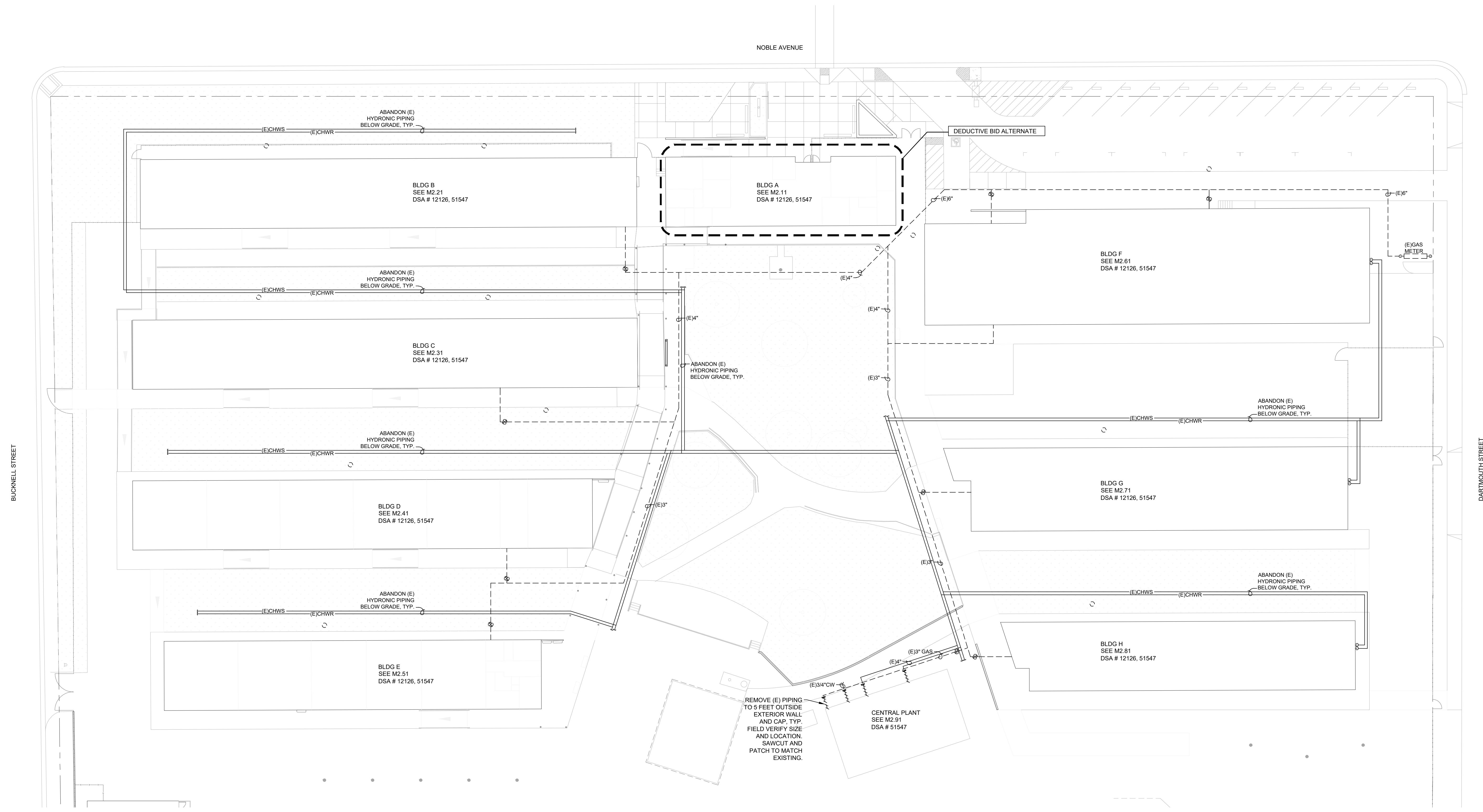
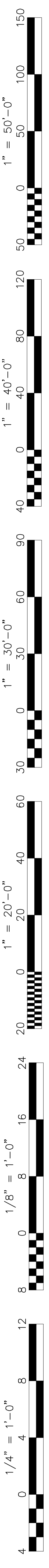
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Sheet Title:  
**MECHANICAL SITE PLAN**

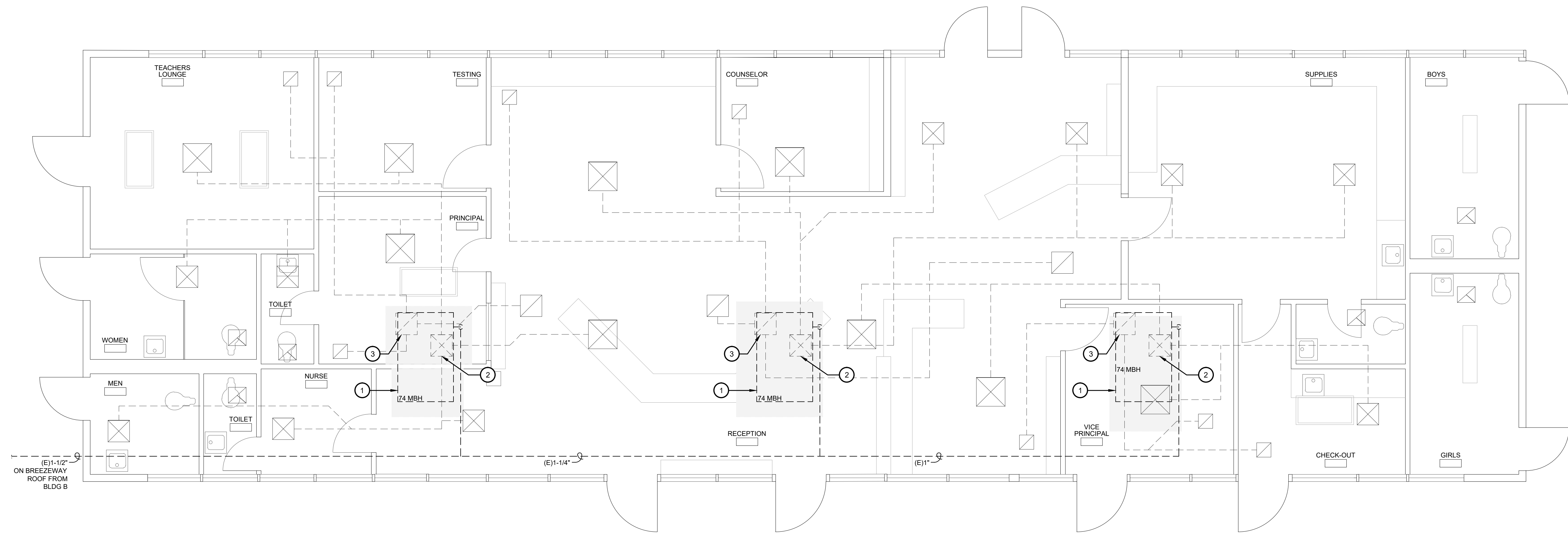
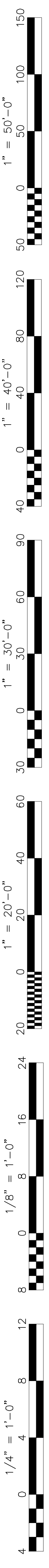
Job No.:  
**5525**

Sheet No.:  
**M1.11**  
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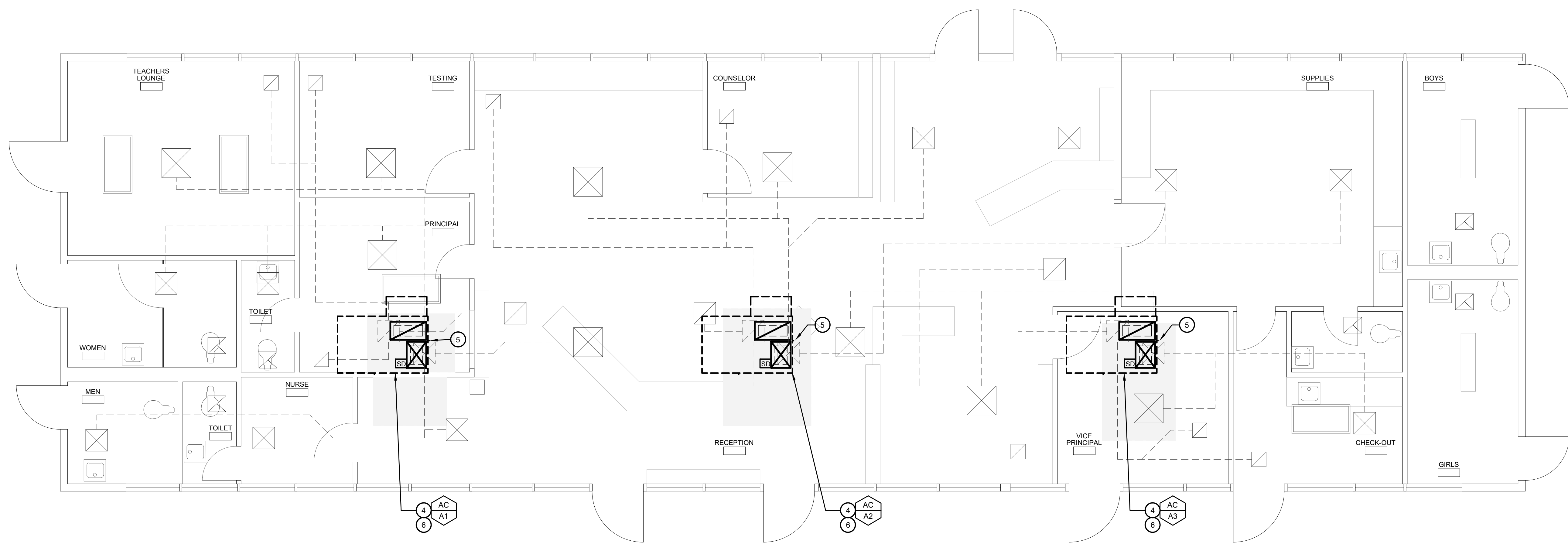


**MECHANICAL SITE PLAN  
 HVAC REPLACEMENT**

SCALE: 1" = 20'

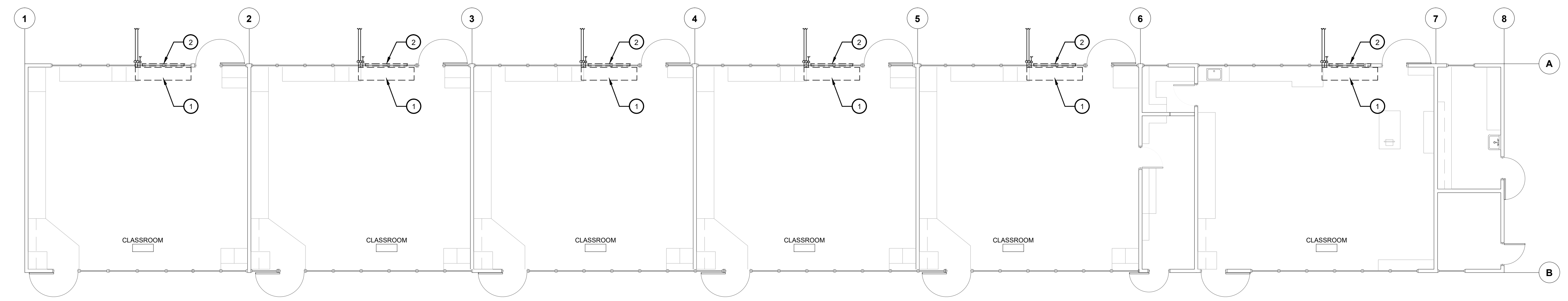
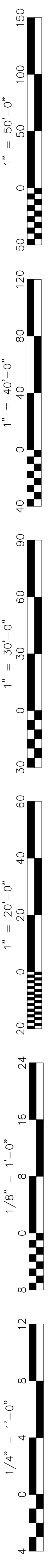


**MECHANICAL PLAN - BLDG A - DEMO**  
**HVAC REPLACEMENT**  
 SCALE: 1/4" = 1'-0"

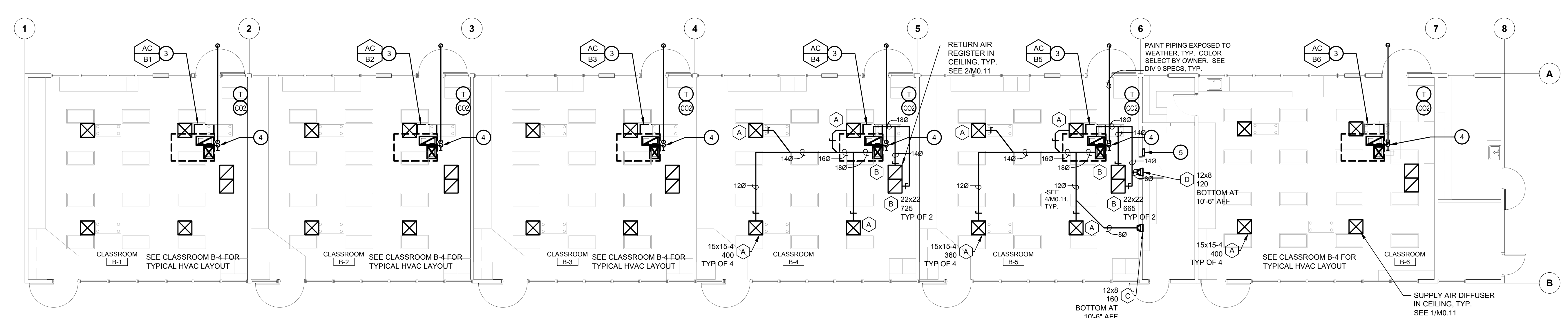


**MECHANICAL PLAN - BLDG A - IMPROVEMENTS**  
**HVAC REPLACEMENT**  
 SCALE: 1/4" = 1'-0"

<p><b>KEY NOTES</b></p> <ol style="list-style-type: none"> <li>1. REMOVE EXISTING GASELEC PACKAGE UNIT ON ROOF AND REPLACE WITH NEW HEAT PUMP. EXISTING DUCTWORK, GRILLES, AND THERMOSTATS TO REMAIN. DISCONNECT GAS AND CAP. DISCONNECT CONDENSATE AND PREPARE FOR RE-CONNECTION TO NEW UNIT. PATCH OPENINGS TO MATCH EXISTING</li> <li>2. RE-USE EXISTING 18x18 SUPPLY AIR PLENUM AND PREPARE FOR CONNECTION TO NEW UNIT. FIELD VERIFY SIZE AND LOCATION.</li> <li>3. RE-USE EXISTING 18x18 RETURN AIR PLENUM AND PREPARE FOR CONNECTION TO NEW UNIT. FIELD VERIFY SIZE AND LOCATION.</li> <li>4. NEW AC UNIT ON ROOF. PROVIDE DUCT TRANSITIONS AS NEEDED FOR RE-CONNECTION TO EXISTING SUPPLY AIR PLENUM AND RETURN AIR PLENUM.</li> <li>5. CONNECT 2" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11 AND RE-CONNECT TO EXISTING CONDENSATE PIPING. RE-ROUTE AND PROVIDE TRANSITIONS AS NEEDED.</li> <li>6. PERFORM TEST AND BALANCE AT THE UNIT.</li> </ol>	<p>IDENTIFICATION STAMP          DIV. OF THE STATE ARCHITECT</p> <p>APP: 03-122490 INC:          REVIEWED FOR:          SS <input type="checkbox"/> FLS <input checked="" type="checkbox"/> ACS <input type="checkbox"/>          DATE: 07/27/2023</p>
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<p>Project Name:</p> <p><b>HVAC REPLACEMENT</b></p>	
<p>Project Address:</p> <p><b>WASHINGTON MIDDLE SCHOOL</b>          1101 NOBLE AVENUE          BAKERSFIELD, CA 93305</p>	
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<p>Job No.:</p> <p><b>5525</b></p>	
<p>Sheet No.:</p> <p><b>M2.11</b></p> <p>Release: DSA SUBMITTAL 11/28/22</p>	

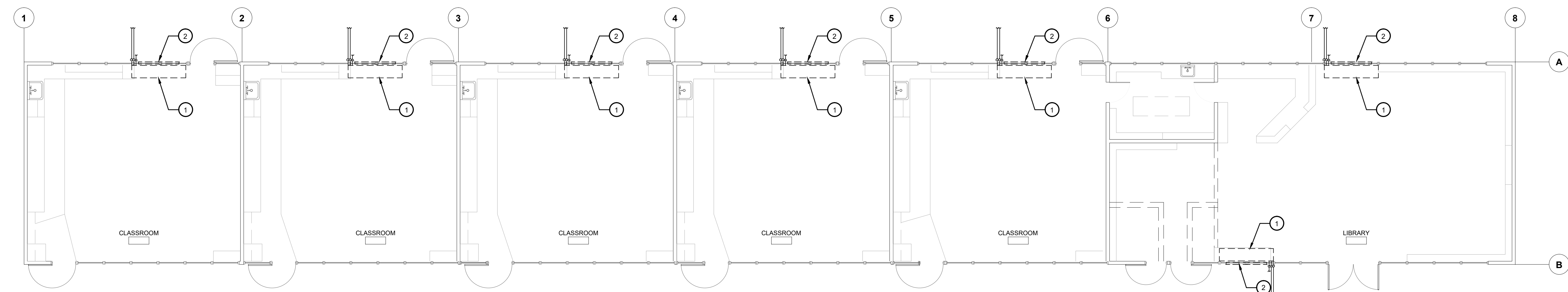
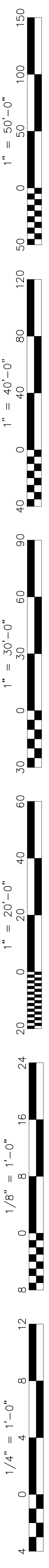


**MECHANICAL PLAN - BLDG B - DEMO**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'

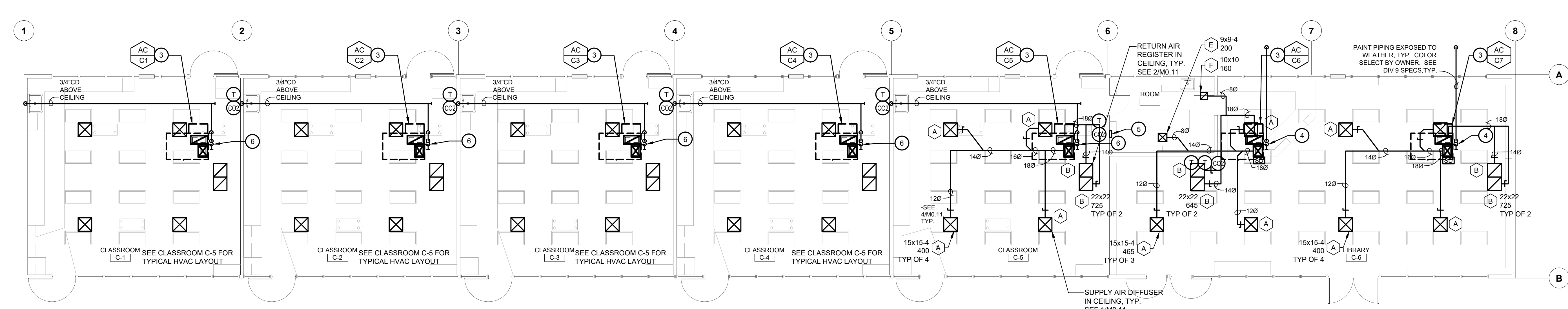


**MECHANICAL PLAN - BLDG B - IMPROVEMENTS**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'

<p><b>KEY NOTES</b></p> <ol style="list-style-type: none"> <li>1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP, TYP.</li> <li>2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE. TYP.</li> <li>3. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF. BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/M.11</li> <li>4. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M.11 AND DISCHARGE TO ROOF GUTTER WITH AIR GAP.</li> <li>5. HVAC WIRELESS GATEWAY. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120" WALL OUTLET AND ETHERNET CONNECTION.</li> </ol>	<p>IDENTIFICATION STAMP          DIV. OF THE STATE ARCHITECT          APP: 03-122490 INC:          REVIEWED FOR          SS <input checked="" type="checkbox"/> FLS <input checked="" type="checkbox"/> ACS <input type="checkbox"/>          DATE: 07/27/2023</p>
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<p>Project Name:  <b>HVAC REPLACEMENT</b></p>	
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<p>Job No.:  <b>5525</b></p>	
<p>Sheet No.:  <b>M2.21</b></p> <p>Release: <b>DSA SUBMITTAL</b> 11/28/22</p>	

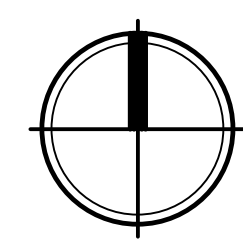
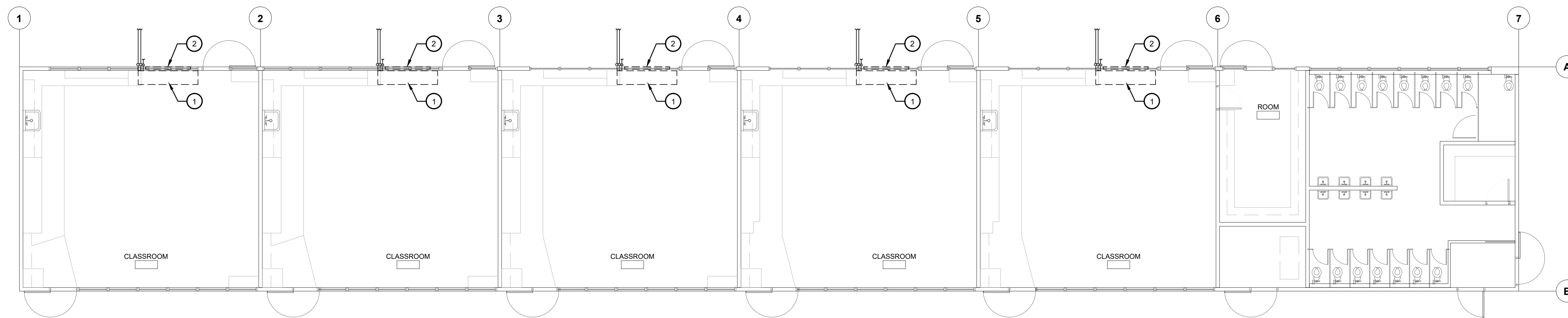


**MECHANICAL PLAN - BLDG C - DEMO**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'



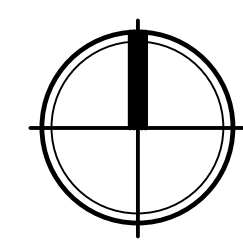
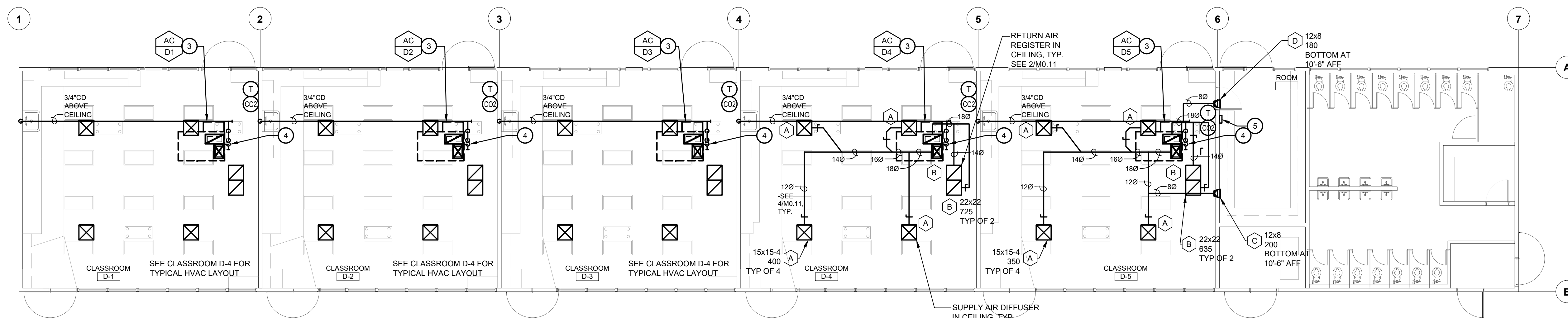
**MECHANICAL PLAN - BLDG C - IMPROVEMENTS**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'

<b>KEY NOTES</b>	
<ol style="list-style-type: none"> <li>REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.</li> <li>REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE. TYP.</li> <li>AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF, BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/M0.11</li> <li>CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11 AND DISCHARGE TO ROOF GUTTER WITH AIR GAP.</li> <li>HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120/1 WALL OUTLET.</li> <li>CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11. DROP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK. TYP. PATCH OPENINGS TO MATCH EXISTING.</li> </ol>	
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<p>Project Name:  <b>HVAC REPLACEMENT</b></p>	
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<p>Job No.:  <b>5525</b></p>	
<p>Sheet No.:  <b>M2.31</b></p>	
<p>Release: <b>DSA SUBMITTAL</b> 11/28/22</p>	



**MECHANICAL PLAN - BLDG D - DEMO**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

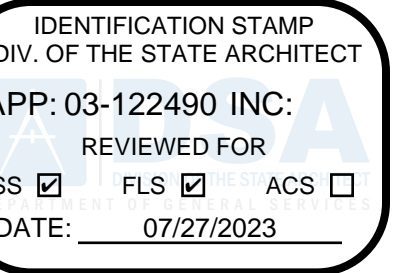


**MECHANICAL PLAN - BLDG D - IMPROVEMENTS**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

**KEY NOTES**

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE. TYP.
3. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF, BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/MO.11
4. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11. DROP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK. TYP. PATCH OPENINGS TO MATCH EXISTING.
5. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 1201 WALL OUTLET



**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93305

Project Name:  
**HVAC REPLACEMENT**

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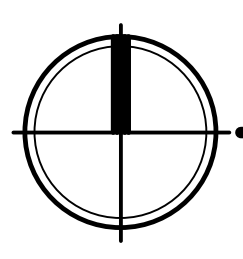
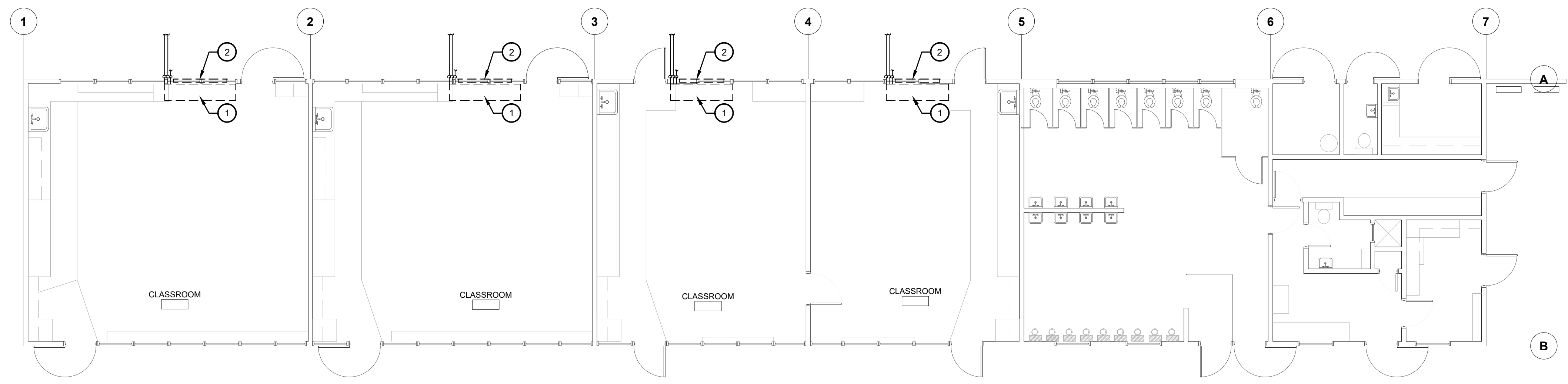
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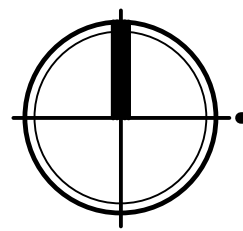
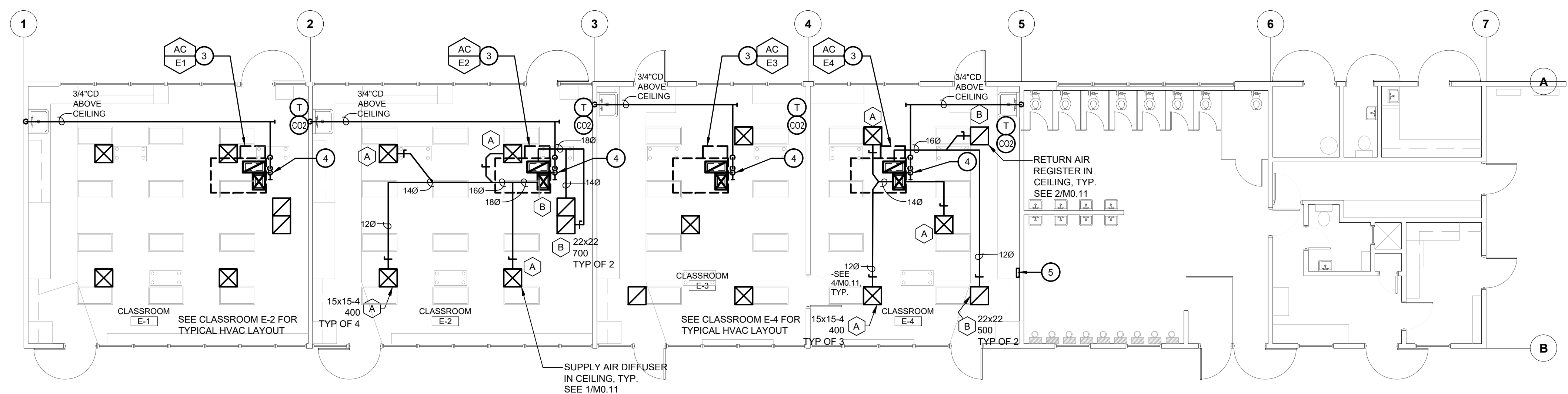
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**MECHANICAL PLAN - BLDG E - DEMO**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"



**MECHANICAL PLAN - BLDG E - IMPROVEMENTS**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

**KEY NOTES**

- REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE (E) PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
- REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE. TYP.
- AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF, BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/MO.11
- CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11. DROP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK. TYP. PATCH OPENINGS TO MATCH EXISTING.
- HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 1201 WALL OUTLET.

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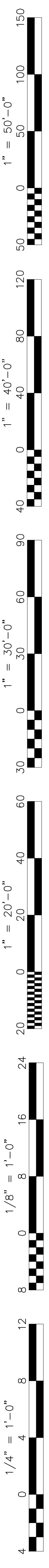
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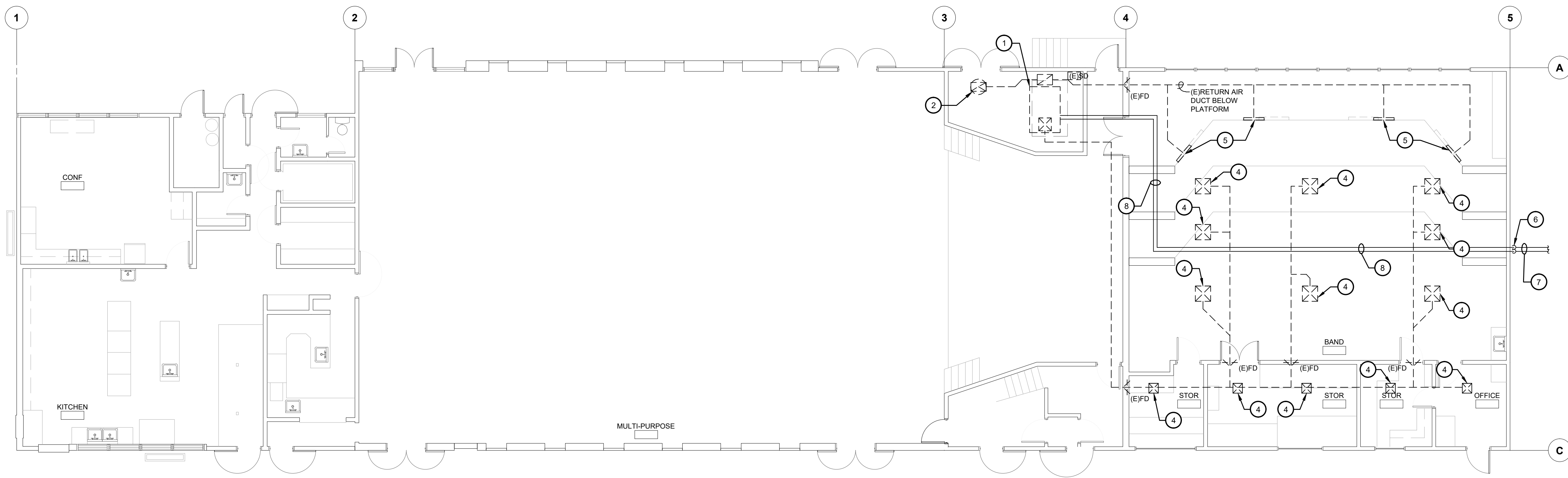
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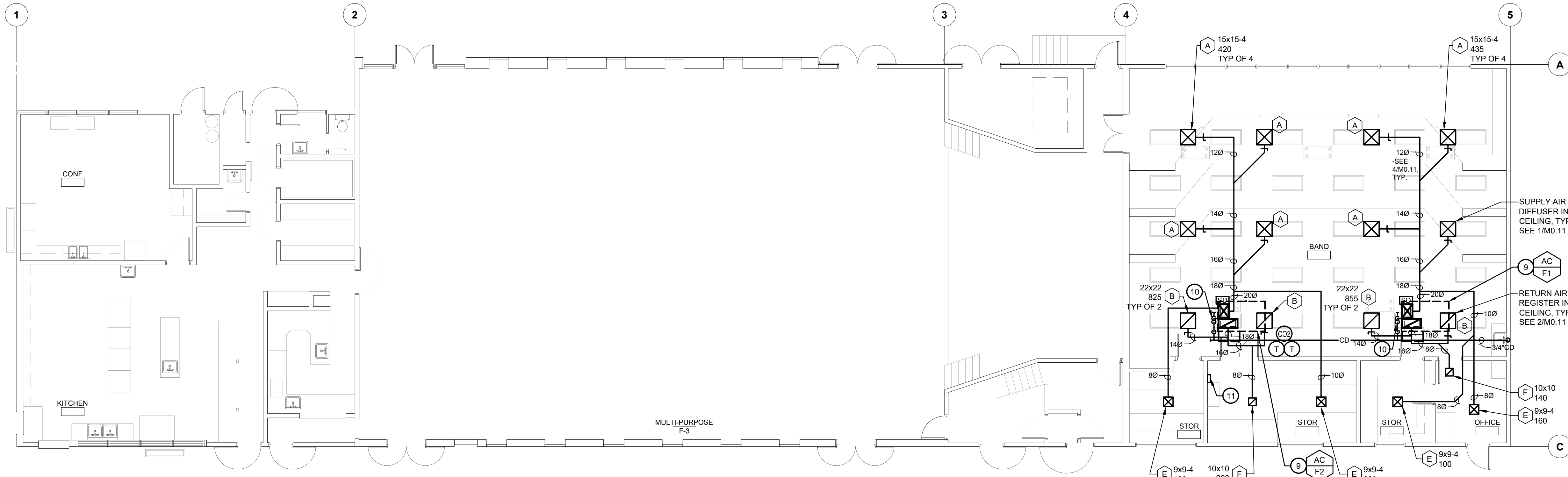






**MECHANICAL PLAN - BLDG F - DEMO**  
**HVAC REPLACEMENT**

SCALE: 1/8" = 1'-0"




**MECHANICAL PLAN - BLDG F - IMPROVEMENTS**  
**HVAC REPLACEMENT**

SCALE: 1/8" = 1'-0"

**KEY NOTES**

1. REMOVE EXISTING FAN COIL AND ALL RELATED COMPONENTS, DUCTWORK, GRILLES, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. PATCH OPENINGS TO MATCH EXISTING.
2. REMOVE EXISTING EXHAUST FAN ON ROOF AND ALL RELATED COMPONENTS, DUCTWORK, GRILLES, CONTROLS, ETC. TYP. PATCH OPENINGS TO MATCH EXISTING.
3. NOT USED
4. REMOVE EXISTING SUPPLY AIR GRILLE AND DUCTWORK. TYP. FIELD VERIFY LOCATION. PATCH OPENINGS TO MATCH EXISTING.
5. REMOVE EXISTING RETURN AIR GRILLE AND DUCTWORK. TYP. FIELD VERIFY LOCATION. PATCH OPENINGS TO MATCH EXISTING.
6. REMOVE EXISTING HYDRONIC PIPING RISER. FIELD VERIFY LOCATION. PATCH OPENINGS TO MATCH EXISTING.
7. REMOVE EXISTING HYDRONIC PIPING BELOW GRADE TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP. FIELD VERIFY LOCATION. SAWCUT AND PATCH OPENINGS TO MATCH EXISTING.
8. REMOVE EXISTING HYDRONIC PIPING ABOVE CEILING. TYP. FIELD VERIFY LOCATION.
9. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 26x12(L) RA PLENUM DROP THRU ROOF BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3M0.11
10. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6M0.11. DRCP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK. PATCH OPENINGS TO MATCH EXISTING. PAINT EXPOSED PIPING TO MATCH ADJACENT SURFACES. SEE DIV 09 SPECS.
11. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120/1 WALL OUTLET.

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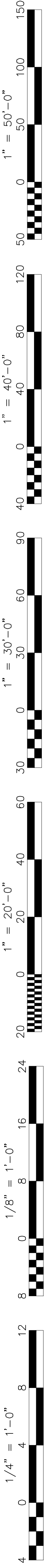
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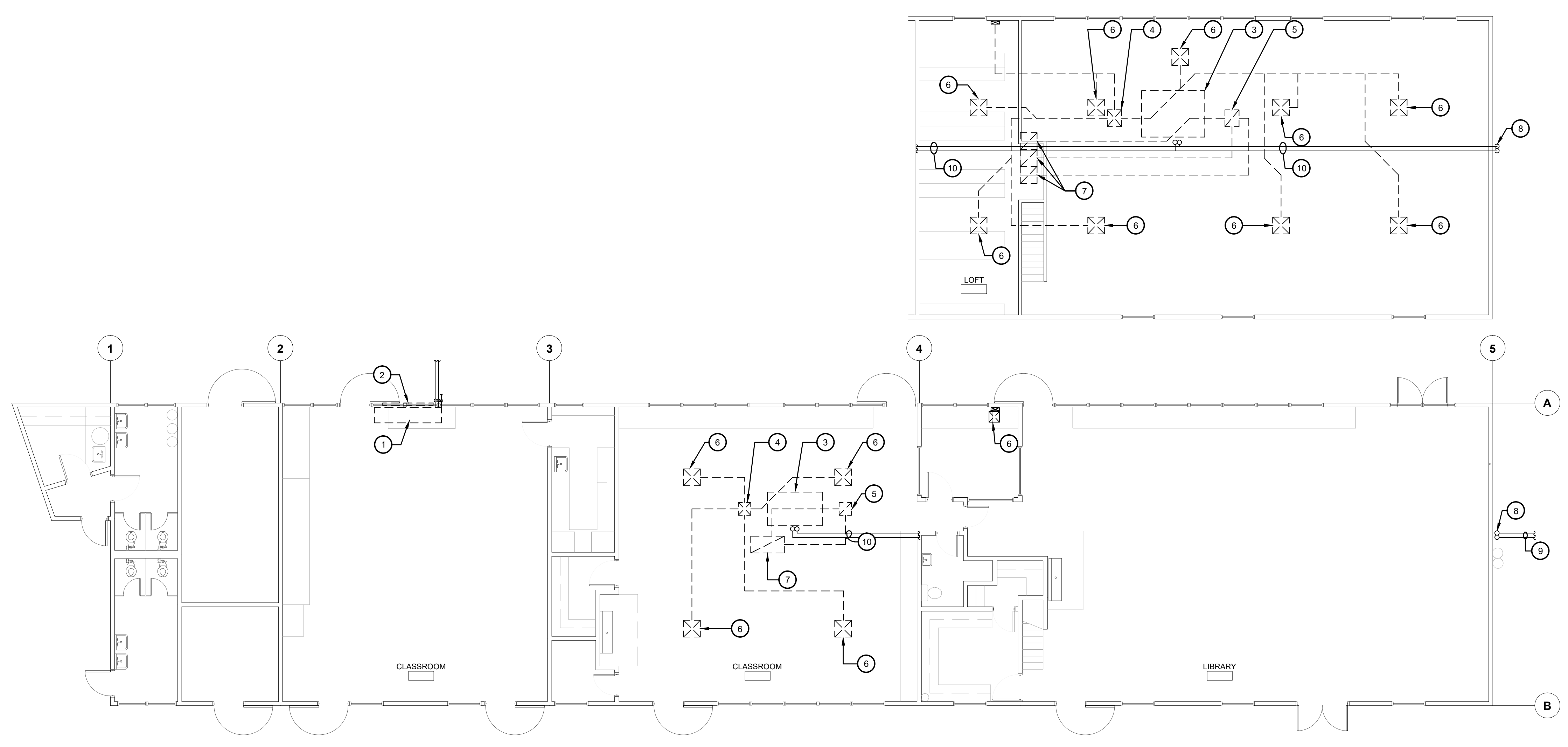
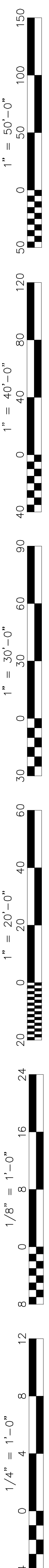
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**MECHANICAL PLAN - BLDG F**

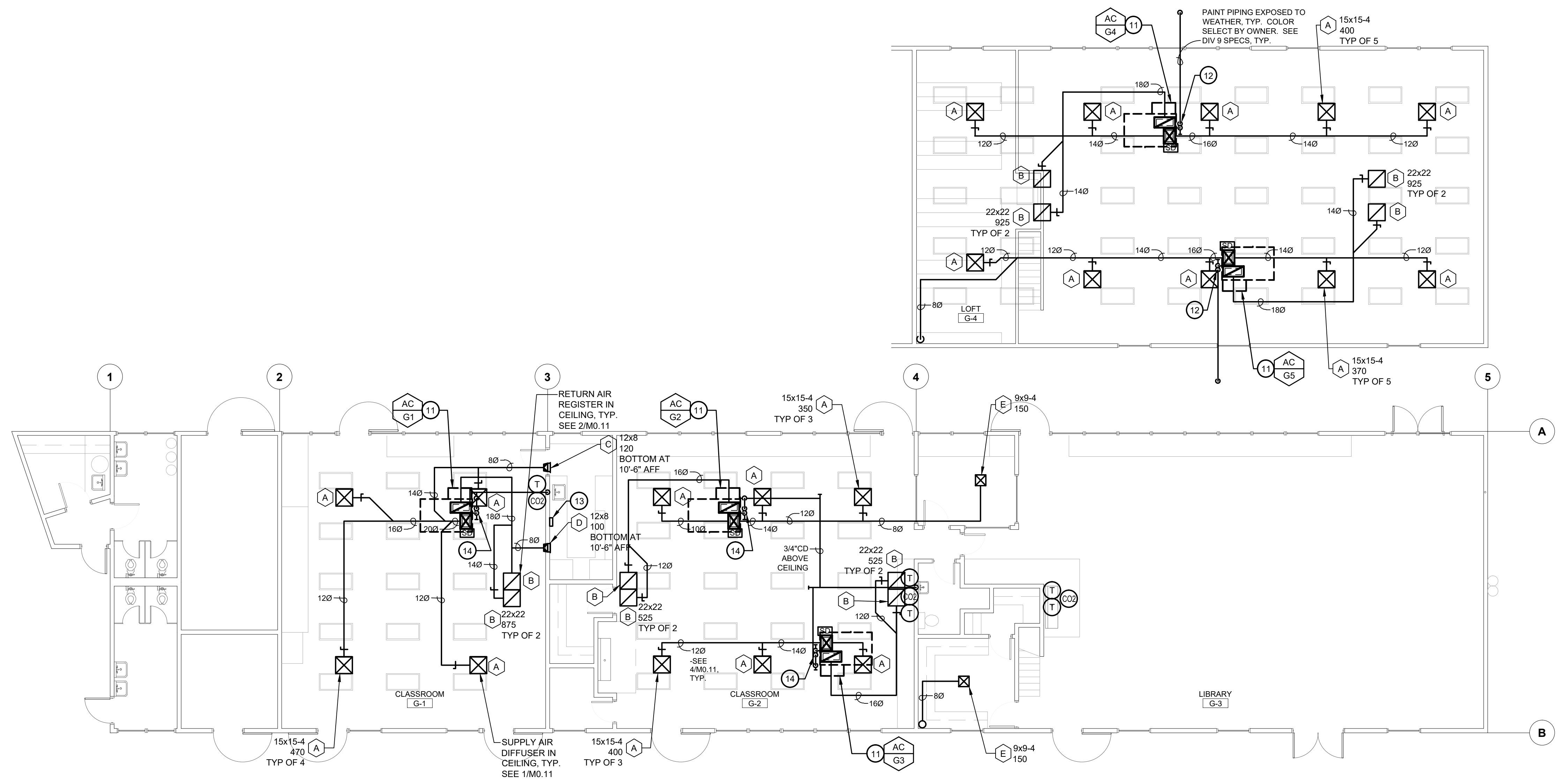
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**MECHANICAL PLAN - BLDG G - DEMO**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'



**MECHANICAL PLAN - BLDG G - IMPROVEMENTS**  
**HVAC REPLACEMENT**  
 SCALE: 1/8" = 1'

**KEY NOTES**

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE EXISTING PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP, TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE, TYP.
3. REMOVE EXISTING AIR HANDLING UNIT ON ROOF AND ALL RELATED COMPONENTS, DUCTWORK, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. PATCH OPENINGS TO MATCH EXISTING.
4. REMOVE EXISTING SUPPLY DUCT THRU ROOF. FIELD VERIFY LOCATION. PATCH OPENING TO MATCH EXISTING.
5. REMOVE EXISTING RETURN DUCT THRU ROOF. FIELD VERIFY LOCATION. PATCH OPENING TO MATCH EXISTING.
6. REMOVE EXISTING SUPPLY AIR GRILLE AND DUCTWORK. FIELD VERIFY LOCATION.
7. REMOVE EXISTING RETURN AIR GRILLE AND DUCTWORK. FIELD VERIFY LOCATION.
8. REMOVE EXISTING HYDRONIC PIPING RISER, TYP. FIELD VERIFY LOCATION. PATCH OPENINGS TO MATCH EXISTING.
9. REMOVE EXISTING HYDRONIC PIPING BELOW GRADE TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP, TYP. SAWCUT AND PATCH OPENINGS TO MATCH EXISTING.
10. REMOVE EXISTING HYDRONIC ABOVE CEILING, TYP. FIELD VERIFY LOCATION.
11. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 28x12(L) RA PLENUM DROP THRU ROOF, BETWEEN STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/M0.11
12. CONNECT 3/4"CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11 AND DISCHARGE TO ROOF GUTTER WITH AIR GAP.
13. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120"1 WALL OUTLET.
14. CONNECT 3/4"CD TO AC UNIT ON ROOF WITH TRAP PER 6/M0.11. DROP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK/LAV. TYP. PATCH OPENINGS TO MATCH EXISTING.

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 BAKERSFIELD, CA 93305

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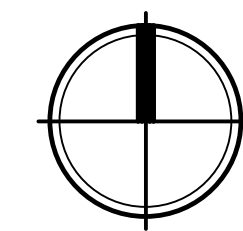
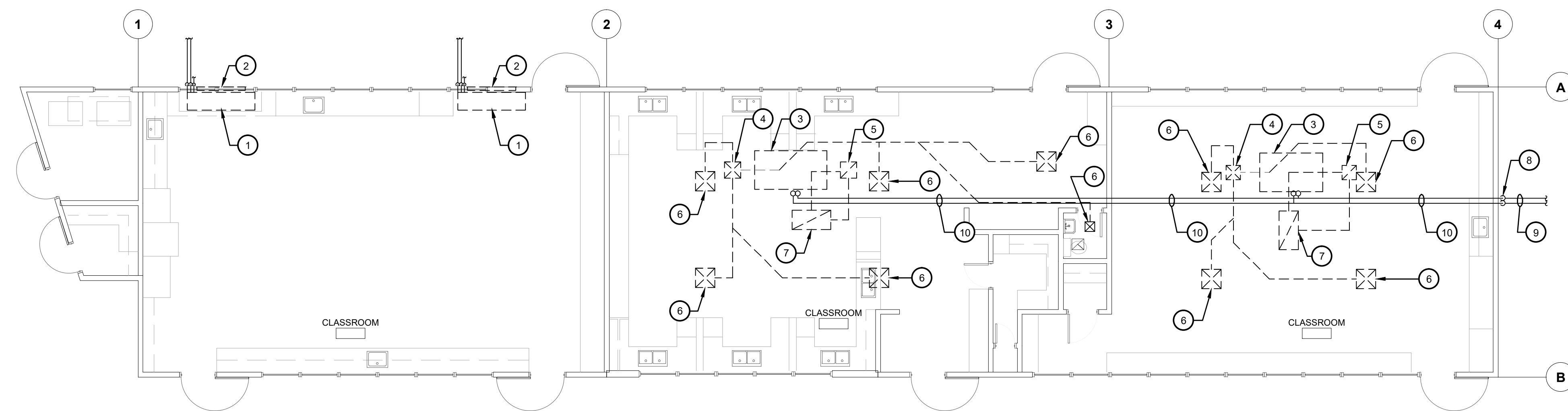
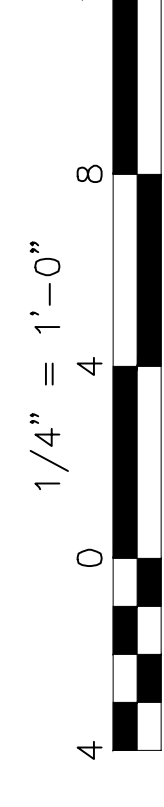
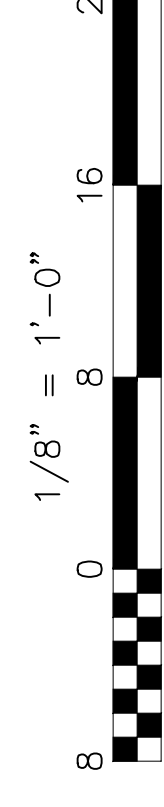
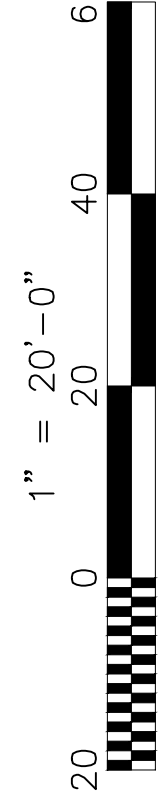
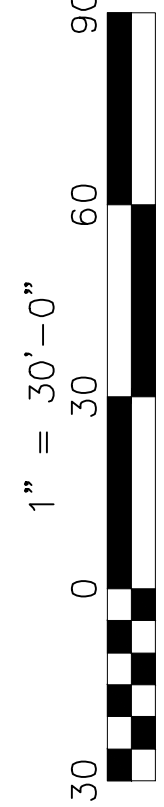
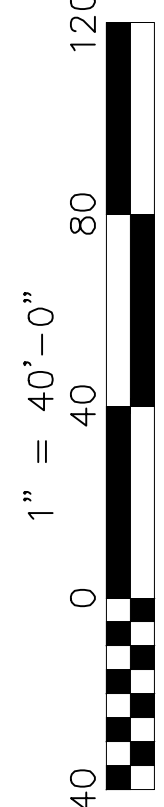
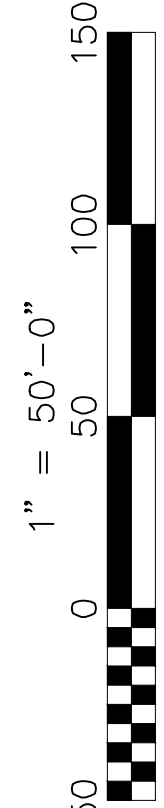
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**MECHANICAL PLAN - BLDG G**

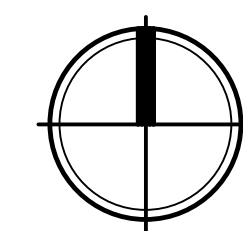
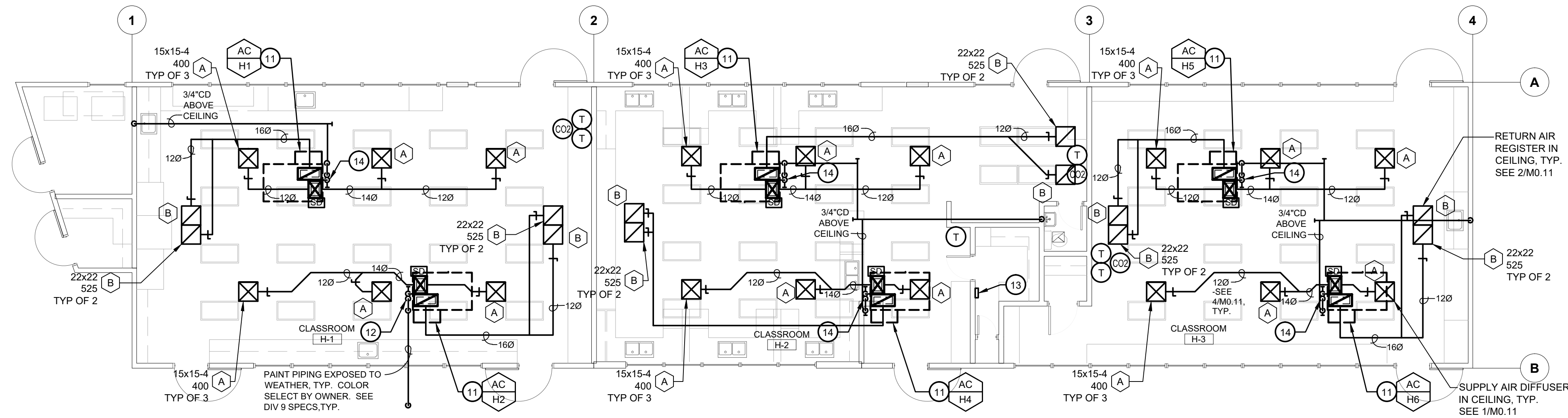
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**MECHANICAL PLAN - BLDG H - DEMO**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

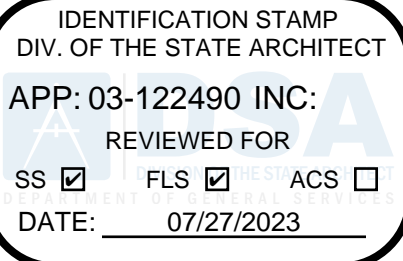


**MECHANICAL PLAN - BLDG H - IMPROVEMENTS**  
HVAC REPLACEMENT

SCALE: 1/8" = 1'-0"

**KEY NOTES**

1. REMOVE EXISTING UNIT VENTILATOR AND ALL RELATED COMPONENTS, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. REMOVE EXISTING PIPING TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP.
2. REMOVE EXISTING OSA LOUVER AND DUCT THRU WALL. REMOVE EXISTING PIPING AND CAP BELOW GRADE. TYP.
3. REMOVE EXISTING AIR HANDLING UNIT ON ROOF AND ALL RELATED COMPONENTS. DUCTWORK, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER. PATCH OPENINGS TO MATCH EXISTING.
4. REMOVE EXISTING SUPPLY DUCT THRU ROOF. FIELD VERIFY LOCATION. PATCH OPENING TO MATCH EXISTING.
5. REMOVE EXISTING RETURN DUCT THRU ROOF. FIELD VERIFY LOCATION. PATCH OPENING TO MATCH EXISTING.
6. REMOVE EXISTING SUPPLY AIR GRILLE AND DUCTWORK. FIELD VERIFY LOCATION.
7. REMOVE EXISTING RETURN AIR GRILLE AND DUCTWORK. FIELD VERIFY LOCATION.
8. REMOVE EXISTING HYDRONIC PIPING RISER. TYP. FIELD VERIFY LOCATION. PATCH OPENINGS TO MATCH EXISTING.
9. REMOVE EXISTING HYDRONIC PIPING BELOW GRADE TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP. SAWCUT AND PATCH TO MATCH EXISTING.
10. REMOVE EXISTING HYDRONIC PIPING ABOVE CEILING. TYP. FIELD VERIFY LOCATION.
11. AC UNIT ON ROOF WITH 18x14(L) SA PLENUM AND 28x12(L) RA PLENUM DROP THRU ROOF. BETWEEN EXISTING STRUCTURAL MEMBERS. PROVIDE TRANSITIONS AS NEEDED. FIELD VERIFY EXACT LOCATION. SEE 3/MO.11
12. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11 AND DISCHARGE TO ROOF GUTTER WITH AIR GAP.
13. HVAC WIRELESS REPEATER. COORDINATE EXACT LOCATION WITH OWNER. PROVIDE 120" WALL OUTLET.
14. CONNECT 3/4" CD TO AC UNIT ON ROOF WITH TRAP PER 6/MO.11, DROP DOWN THRU ROOF AND DISCHARGE TO TAILPIECE OF SINK/LAV. TYP. PATCH OPENINGS TO MATCH EXISTING.



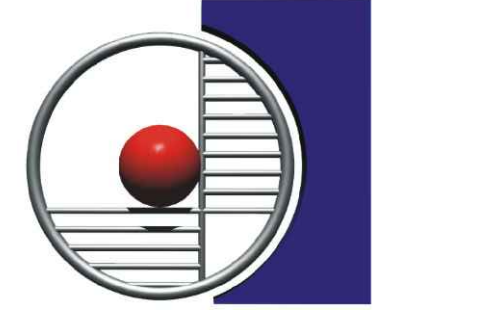
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BAKERSFIELD, CA 93305

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**HVAC REPLACEMENT**

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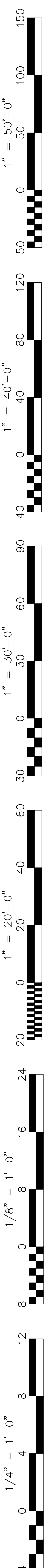
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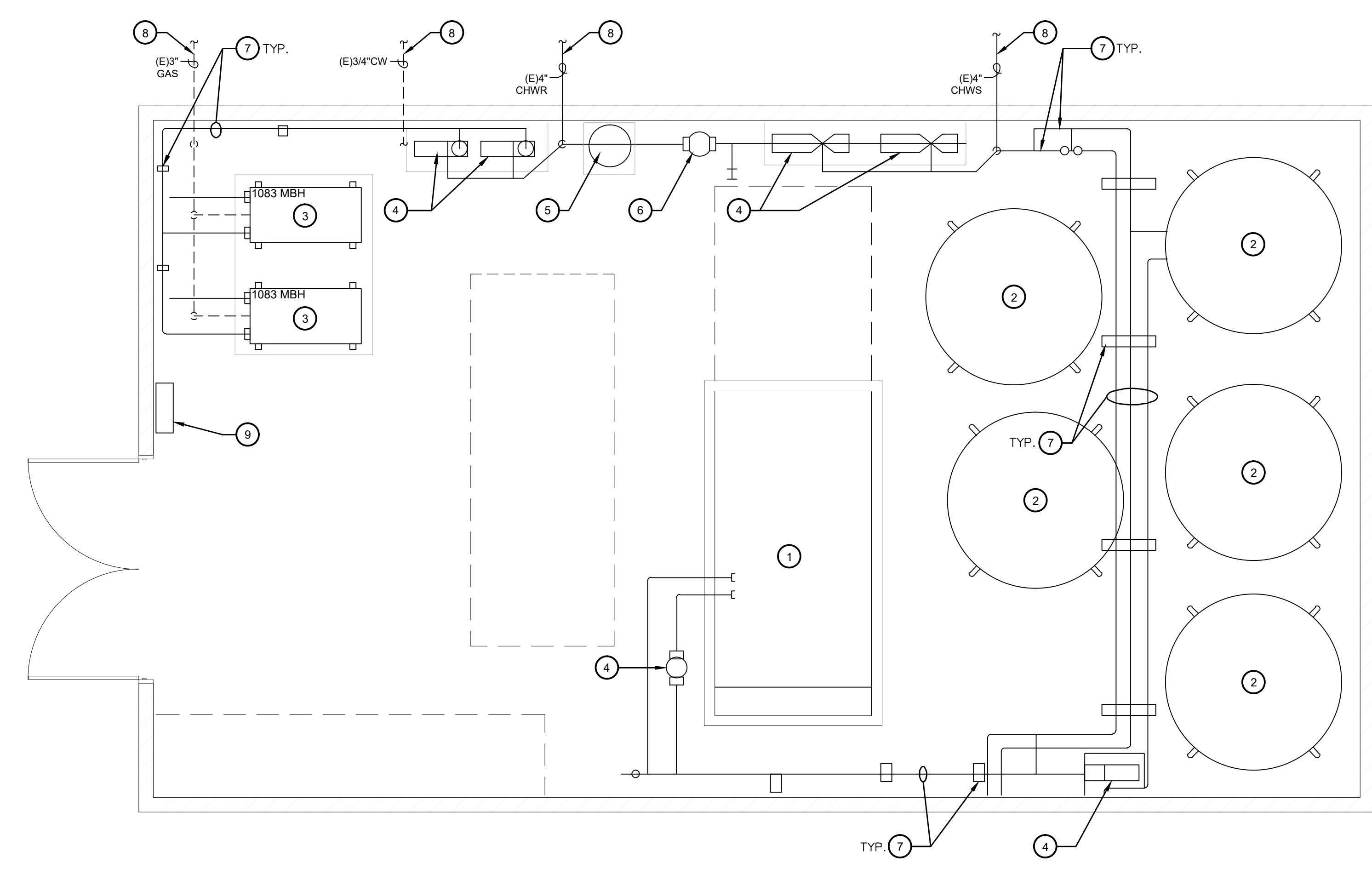
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**MECHANICAL PLAN - BLDG H**

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NOTE:  
CENTRAL PLANT SHALL REMAIN IN OPERATION UNTIL ALL ASSOCIATED AIR HANDLING UNITS HAVE BEEN REMOVED.




 **MECHANICAL PLAN - CENTRAL PLANT**  
HVAC REPLACEMENT SCALE: 1/4" = 1'-0"

**KEY NOTES**

1. REMOVE EXISTING AIR COOLED CHILLER AND ALL RELATED COMPONENTS, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER.
2. REMOVE EXISTING ICE STORAGE TANK AND ALL RELATED COMPONENTS, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER.
3. REMOVE EXISTING HYDRONIC BOILER AND ALL RELATED COMPONENTS, PIPING, ETC. TYP. SALVAGE EMS CONTROLLERS AND/OR DEVICES AND DELIVER TO OWNER.
4. REMOVE EXISTING PUMP AND ALL RELATED COMPONENTS, PIPING, CONTROLS, ETC. TYP.
5. REMOVE EXISTING EXPANSION TANK AND ALL RELATED COMPONENTS, PIPING, ETC. TYP.
6. REMOVE EXISTING AIR SEPARATOR AND ALL RELATED COMPONENTS, PIPING, ETC. TYP.
7. REMOVE EXISTING PIPING AND SUPPORT, TYP.
8. REMOVE EXISTING PIPING BELOW GRADE TO 5 FEET OUTSIDE EXTERIOR WALL AND CAP. TYP. FIELD VERIFY SIZE AND LOCATION. SAWCUT AND PATCH TO MATCH EXISTING.
9. SALVAGE EXISTING HVAC CONTROL PANEL AND DELIVER TO OWNER.

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BAKERSFIELD, CA 93305

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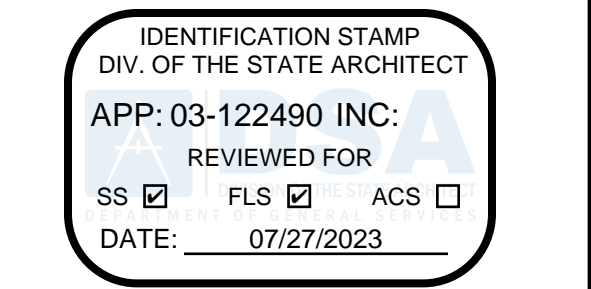
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**MECHANICAL PLAN - CENTRAL PLANT**

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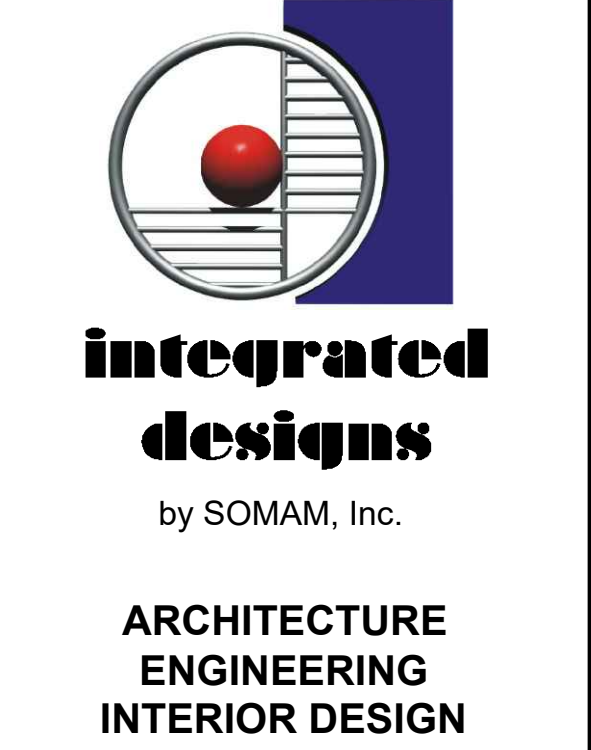




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M3.02
Release: DSA SUBMITTAL 11/28/22

Mechanical Systems table for sheet M3.02. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-G4-G5, AC-H1-H2, and AC-H3-H4 with their respective specifications.

Mechanical Systems table for sheet M3.03. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-H4-H4, AC-H5-H6, and AC-A1.

Mechanical Systems table for sheet M3.04. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-H5-H6, AC-A2, and AC-A3.

Mechanical Systems table for sheet M3.05. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-C4, AC-C5, AC-C6-C7, AC-C8, AC-C9, AC-C10, AC-C11, AC-C12, AC-C13, AC-C14, AC-C15, AC-C16, AC-C17, AC-C18, AC-C19, AC-C20, AC-C21, AC-C22, AC-C23, AC-C24, AC-C25, AC-C26, AC-C27, AC-C28, AC-C29, AC-C30, AC-C31, AC-C32, AC-C33, AC-C34, AC-C35, AC-C36, AC-C37, AC-C38, AC-C39, AC-C40, AC-C41, AC-C42, AC-C43, AC-C44, AC-C45, AC-C46, AC-C47, AC-C48, AC-C49, AC-C50.

Mechanical Systems table for sheet M3.06. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-A1, AC-B6, and AC-B7.

Mechanical Systems table for sheet M3.07. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-A2, AC-A3, and AC-C2.

Mechanical Systems table for sheet M3.08. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-B1, AC-B2, AC-B3, AC-B4, AC-B5, AC-B6, AC-B7, AC-B8, AC-B9, AC-B10, AC-B11, AC-B12, AC-B13, AC-B14, AC-B15, AC-B16, AC-B17, AC-B18, AC-B19, AC-B20, AC-B21, AC-B22, AC-B23, AC-B24, AC-B25, AC-B26, AC-B27, AC-B28, AC-B29, AC-B30, AC-B31, AC-B32, AC-B33, AC-B34, AC-B35, AC-B36, AC-B37, AC-B38, AC-B39, AC-B40, AC-B41, AC-B42, AC-B43, AC-B44, AC-B45, AC-B46, AC-B47, AC-B48, AC-B49, AC-B50.

Mechanical Systems table for sheet M3.09. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-B1, AC-B2, AC-B3, AC-B4, AC-B5, AC-B6, AC-B7, AC-B8, AC-B9, AC-B10, AC-B11, AC-B12, AC-B13, AC-B14, AC-B15, AC-B16, AC-B17, AC-B18, AC-B19, AC-B20, AC-B21, AC-B22, AC-B23, AC-B24, AC-B25, AC-B26, AC-B27, AC-B28, AC-B29, AC-B30, AC-B31, AC-B32, AC-B33, AC-B34, AC-B35, AC-B36, AC-B37, AC-B38, AC-B39, AC-B40, AC-B41, AC-B42, AC-B43, AC-B44, AC-B45, AC-B46, AC-B47, AC-B48, AC-B49, AC-B50.

Mechanical Systems table for sheet M3.10. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-B6, AC-B7, and AC-C6-C7.

Mechanical Systems table for sheet M3.11. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-C1, AC-C2, and AC-C4.

Mechanical Systems table for sheet M3.12. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-C4, AC-C5, AC-C6, AC-C7, AC-C8, AC-C9, AC-C10, AC-C11, AC-C12, AC-C13, AC-C14, AC-C15, AC-C16, AC-C17, AC-C18, AC-C19, AC-C20, AC-C21, AC-C22, AC-C23, AC-C24, AC-C25, AC-C26, AC-C27, AC-C28, AC-C29, AC-C30, AC-C31, AC-C32, AC-C33, AC-C34, AC-C35, AC-C36, AC-C37, AC-C38, AC-C39, AC-C40, AC-C41, AC-C42, AC-C43, AC-C44, AC-C45, AC-C46, AC-C47, AC-C48, AC-C49, AC-C50.

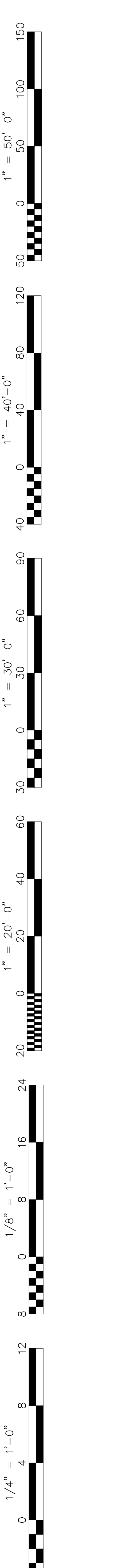
Mechanical Systems table for sheet M3.13. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-C5, AC-C6, AC-C7, AC-C8, AC-C9, AC-C10, AC-C11, AC-C12, AC-C13, AC-C14, AC-C15, AC-C16, AC-C17, AC-C18, AC-C19, AC-C20, AC-C21, AC-C22, AC-C23, AC-C24, AC-C25, AC-C26, AC-C27, AC-C28, AC-C29, AC-C30, AC-C31, AC-C32, AC-C33, AC-C34, AC-C35, AC-C36, AC-C37, AC-C38, AC-C39, AC-C40, AC-C41, AC-C42, AC-C43, AC-C44, AC-C45, AC-C46, AC-C47, AC-C48, AC-C49, AC-C50.

Mechanical Systems table for sheet M3.14. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-D1 and AC-D2.

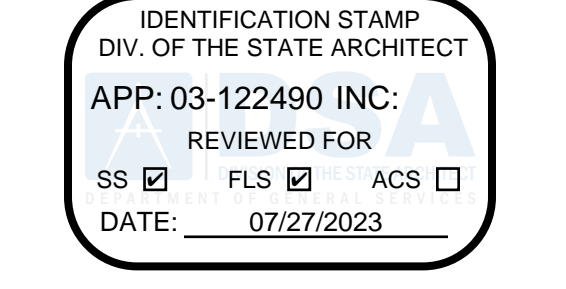
Mechanical Systems table for sheet M3.15. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-D3 and AC-D4.

Mechanical Systems table for sheet M3.16. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-D5 and AC-E1.

Mechanical Systems table for sheet M3.17. Includes sections for H. FAN SYSTEMS & AIR ECONOMIZERS, SYSTEM CONTROLS, and VENTILATION AND INDOOR AIR QUALITY. Lists various system types like AC-E2 and AC-E3.







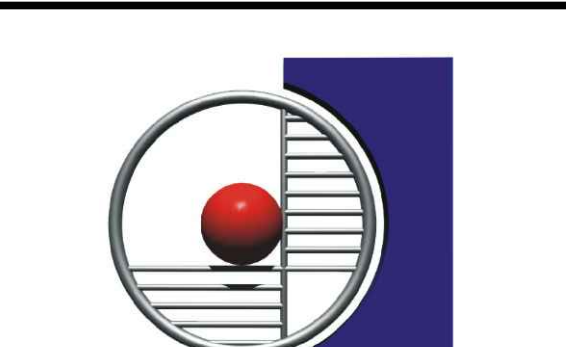
APP: 03-122490 INC. REVIEWED FOR DATE: 07/27/2023

Owner: BAKERSFIELD CITY SCHOOL DISTRICT 1300 BAKER STREET BAKERSFIELD, CA 93305

Project Name: HVAC REPLACEMENT

Project Address: WASHINGTON MIDDLE SCHOOL

1101 NOBLE AVENUE BAKERSFIELD, CA 93305



ARCHITECTURE ENGINEERING INTERIOR DESIGN

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Stamp: 32712 DP-A-30-MECHANICAL STATE OF CALIFORNIA

Sheet Title: TITLE 24 DOCS

Job No.: 5525

Sheet No.: M3.04 Release: DSA SUBMITTAL 11/28/22

Mechanical Systems Certificate of Compliance (Page 48 of 42) for AC-E3 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 49 of 42) for AC-E4 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 50 of 42) for AC-F1-F2 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 51 of 42) for AC-G1 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 52 of 42) for AC-F1-F2 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 53 of 42) for AC-G1 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 54 of 42) for AC-G2-G3 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 55 of 42) for AC-G4-G5 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 56 of 42) for AC-G2-G3 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 57 of 42) for AC-G4-G5 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 58 of 42) for AC-G6-G7 ductwork and piping. Includes compliance tables and distribution details.

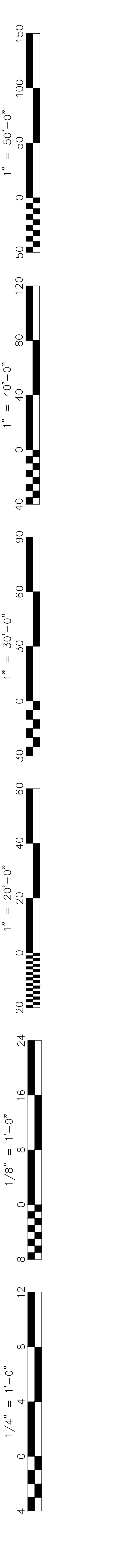
Mechanical Systems Certificate of Compliance (Page 59 of 42) for AC-G8-G9 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 60 of 42) for AC-G10-G11 ductwork and piping. Includes compliance tables and distribution details.

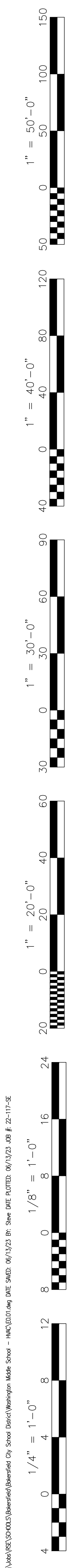
Mechanical Systems Certificate of Compliance (Page 61 of 42) for AC-G12-G13 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 62 of 42) for AC-G14-G15 ductwork and piping. Includes compliance tables and distribution details.

Mechanical Systems Certificate of Compliance (Page 63 of 42) for AC-G16-G17 ductwork and piping. Includes compliance tables and distribution details.







FIXTURE SCHEDULE									
FIXTURE SYMBOL (3-A-43); 3 = CIRCUIT NUMBER, A = FIXTURE TYPE, 43 = FIXTURE WATTAGE									
TYPE	WATTS	LAMPS	VOLT	MANUFACTURER	CATALOG NO.	MOUNT	NOTES	WEIGHT	
A	43	L.E.D.	120-277V	LITHONIA	EPAN-24-6000-LHE-80CR-100-MN-EZT-TY01	T-BAR	PER #1/E5.00	15 LBS	
AE	43	L.E.D.		LITHONIA	EPAN-24-6000-LHE-80CR-100-MN-EZT-TY01	T-BAR	PER #1/E5.00 (1)	15 LBS	
B	39	L.E.D.		LITHONIA	BLWP4-48-HE-ADP-ETI-LP840-N100	SURFACE	PER #2/E5.00	10 LBS	
BE	39	L.E.D.		LITHONIA	BLWP4-48-HE-ADP-ETI-LP840-N100-E10W/LCP	SURFACE	PER #2/E5.00 (1)	10 LBS	
CE	39	L.E.D.		LITHONIA	BLWP4-48-HE-ADP-ETI-LP840-N100-E10W/LCP	WALL	(1), (3)	10 LBS	
X	2	L.E.D.	120-277V	LITHONIA	LHQ-LED-R-HO	SURFACE	SINGLE FACE EXIT SIGN WITH LIGHT WITH EMERGENCY BATTERY PACK	(2)	5 LBS

**FIXTURE SCHEDULE NOTES:**

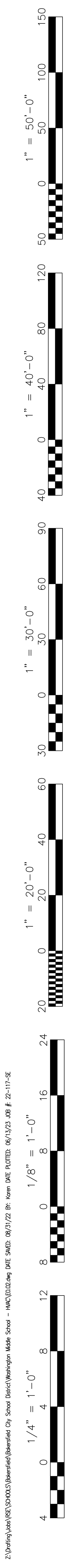
- LIGHT FIXTURE SHALL BE EQUIPPED WITH AN EMERGENCY BATTERY PACK TO OPERATE THE L.E.D. DRIVER AT 10 WATTS OF CONSTANT POWER IN THE EMERGENCY MODE FOR A MINIMUM OF 90 MINUTES. PULL UNSWITCHED CIRCUIT TO EMERGENCY BATTERY PACK. REFER TO LIGHTING PLANS FOR EXACT LOCATIONS AND DETAIL PER #3/E5.00 FOR WIRING REQUIREMENTS.
- LIGHT FIXTURE SHALL BE EQUIPPED WITH AN EMERGENCY BATTERY PACK TO OPERATE THE EMERGENCY LIGHTS IN THE EMERGENCY MODE FOR A MINIMUM OF 90 MINUTES. PULL UNSWITCHED CIRCUIT TO EMERGENCY BATTERY PACK. REFER TO LIGHTING PLANS FOR EXACT LOCATIONS AND DETAIL PER #3/E5.00 FOR WIRING REQUIREMENTS.
- SEE LIGHTING PLANS FOR MOUNTING HEIGHTS.

ELECTRICAL SYMBOLS	
ALL DIMENSIONS TO CENTER OF BOX, U.O.N.	
3-	CIRCUIT NUMBER (3-A-43)
-A-	FIXTURE TYPE (3-A-43)
43	FIXTURE WATTAGE (3-A-43)
⊕	HOME RUN 3/4" C - MIN. PANEL A, CIRCUIT #3
→	CONDUIT RUN IN WALL OR ATTIC (1/2" C - 2 #12 AWG THWN + 1 #12 GND)
↔	CONDUIT RUN IN FLOOR OR UG (1/2" C - 2 #12 AWG THWN + 1 #12 GND)
⊕	ANY CONDUIT RUN - 1/2" C - 3 #12 AWG THWN + 1 #12 GND
⊕	1 - 3/4" C - 4 #12 AWG THWN + 1 #12 GND
⊕	1 - 3/4" C - 5 #12 AWG THWN + 1 #12 GND
⊕	1 - 1" C - 6 #12 AWG THWN + 1 #12 GND
→	CONDUIT STUB - CAPPED AND LABELED
⊕	ELECTRICAL KEYNOTE #1, REFER TO NOTES ON SAME SHEET.
U.O.N.	UNLESS OTHERWISE NOTED
W.P.	WEATHERPROOF
⊕	TERMINAL CABINET (SIZE AS SHOWN)
⊕	ELECTRICAL PANEL BOARD
⊕	SINGLE 20A RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	DUPLEX RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	G.F.C.I. DUPLEX RECEPTACLE MOUNTED ON ROOF
⊕	QUADRUPLX RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	G.F.C.I. DUPLEX RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	SURGE PROTECTED DUPLEX RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	SURGE PROTECTED QUADRUPLX RECEPTACLE IN WALL (45" MIN. TO BOTTOM OF BOX)
⊕	EXT LIGHT, WALL MOUNTED
⊕	EXT LIGHT, CEILING MOUNTED
⊕	WALL MOUNTED LIGHT FIXTURE (MOUNT AS SHOWN)
⊕	LIGHT FIXTURE
⊕	NETWORK CABLE - CATEGORY 5e CABLE, LENGTH AS REQUIRED
⊕	LIGHT FIXTURE WITH LIGHT EMBEDDED CONTROLS
⊕	LIGHT FIXTURE EQUIPPED WITH EMERGENCY BATTERY PACK
⊕	THEATRICAL LIGHT
⊕	LIGHT SWITCH (4'-0" MAX. TO TOP OF BOX, U.O.N.)
⊕	ON/OFF SWITCH WITH RAISE/LOWER DIMMING CONTROL (4'-0" MAX. TO TOP OF BOX, U.O.N.)
⊕	360° OCCUPANCY SENSOR (DUAL TECHNOLOGY), CEILING MOUNTED
⊕	OCCUPANCY SENSOR WALL SWITCH, LOW VOLTAGE (4'-0" MAX. TO TOP OF BOX, U.O.N.)
⊕	ON/OFF SWITCH (4'-0" MAX. TO TOP OF BOX, U.O.N.)
⊕	ON/OFF DIGITAL KEYSWITCH (4'-0" MAX. TO TOP OF BOX, U.O.N.)
⊕	JUNCTION BOX EQUIPPED WITH BLANK COVER
⊕	JUNCTION BOX EQUIPPED WITH BLANK COVER AND FLEX CONNECTION
⊕	COMBINATION HEAVY-DUTY FUSED SAFETY SWITCH/MAGNETIC STARTER
⊕	MOTOR
⊕	HEAVY-DUTY FUSED SAFETY SWITCH
⊕	SMOKE DETECTOR MOUNTED ON CEILING
⊕	HEAT DETECTOR, MOUNTED ON ROOF
⊕	HEAT DETECTOR, MOUNTED IN ATTIC
⊕	ADDRESSABLE MONITOR MODULE
⊕	ADDRESSABLE DUAL MONITOR MODULE
⊕	CONTROL RELAY
⊕	DUCT DETECTOR
⊕	FIRE ALARM VISUAL STROBE/35 CANDELA (WALL MOUNTED)
⊕	FIRE ALARM VISUAL STROBE/30 CANDELA (WALL MOUNTED)
⊕	FIRE ALARM VISUAL STROBE/75 CANDELA (WALL MOUNTED)
⊕	FIRE ALARM SPEAKER/30 CANDELA VISUAL STROBE (WALL MOUNTED)
⊕	FIRE ALARM SPEAKER/75 CANDELA VISUAL STROBE (WALL MOUNTED)
⊕	FIRE ALARM EXTERIOR SPEAKER IN WALL
⊕	WATERFLOW SWITCH AT FIRE SPRINKLER RISER
⊕	TAMPER SWITCH AT FIRE DEPT. CONNECTION 'F.D.C.'
⊕	ELECTRIC BELL (FOR FIRE SPRINKLER RISER)
E	SUBSCRIPT DENOTES EXISTING SHALL REMAIN
R	SUBSCRIPT DENOTES EXISTING SHALL BE REMOVED
ER	DENOTES EXISTING BRANCH CIRCUITING/HOMERUN TO BE REMOVED

SEISMIC ANCHORAGE REQUIREMENTS	
<b>MECHANICAL, ELECTRICAL, AND PLUMBING ANCHORAGE NOTE</b>	
ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.	
1.	ALL PERMANENT EQUIPMENT AND COMPONENTS.
2.	TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRE) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. PERMANENTLY ATTACHED SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 120/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3.	TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPES AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.	
A.	COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B.	COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.	
<b>PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE</b>	
PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8 AND 2019 CBC SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.	
THE METHOD OF SHOWING BRACINGS AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACINGS AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (e.g., GSHP OPH FOR 2019 CBC OR LATER) COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.	
MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).	
MP	MD PP E - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
MP	MD PP E - OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI PRE-APPROVAL (OP#16) 80043.

**ELECTRICAL SYMBOLS NOTES:**

- REFER TO FIRE ALARM DEVICES ELEVATION, DETAIL #3/E5.22 FOR RESPECTIVE MOUNTING HEIGHTS.
- AT EXTERIOR LOCATIONS, PROVIDE WEATHER-RESISTANT TYPE G.F.C.I. DUPLEX RECEPTACLES, LEVITON #55362-W/W OR EQUAL. AT DAMP LOCATIONS, PROVIDE A DECAST WEATHERPROOF LOCKABLE COVER, RACO #5028-0 OR EQUAL. AT WET LOCATIONS, PROVIDE A DECAST WEATHERPROOF WHILE-IN-USE LOCKABLE COVER, RED DOT KKSUV OR EQUAL.
- REFER TO FIRE ALARM PLAN, SHEET #E3.20 FOR DEVICE INFORMATION.
- ACUITY CONTROLS #HPD-KEY-WH. PROVIDE DECORATOR STYLE STAINLESS STEEL WALLPLATE.
- ACUITY CONTROLS #HPD#A-WH OR EQUAL. PROVIDE DECORATOR STYLE STAINLESS STEEL WALLPLATE.
- ACUITY CONTROLS #HWX-PDT-LV-WH OR EQUAL. PROVIDE DECORATOR STYLE STAINLESS STEEL WALLPLATE.
- RESERVED.
- ACUITY CONTROLS #CAT #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30, #31, #32, #33, #34, #35, #36, #37, #38, #39, #40, #41, #42, #43, #44, #45, #46, #47, #48, #49, #50, #51, #52, #53, #54, #55, #56, #57, #58, #59, #60, #61, #62, #63, #64, #65, #66, #67, #68, #69, #70, #71, #72, #73, #74, #75, #76, #77, #78, #79, #80, #81, #82, #83, #84, #85, #86, #87, #88, #89, #90, #91, #92, #93, #94, #95, #96, #97, #98, #99, #100, #101, #102, #103, #104, #105, #106, #107, #108, #109, #110, #111, #112, #113, #114, #115, #116, #117, #118, #119, #120, #121, #122, #123, #124, #125, #126, #127, #128, #129, #130, #131, #132, #133, #134, #135, #136, #137, #138, #139, #140, #141, #142, #143, #144, #145, #146, #147, #148, #149, #150, #151, #152, #153, #154, #155, #156, #157, #158, #159, #160, #161, #162, #163, #164, #165, #166, #167, #168, #169, #170, #171, #172, #173, #174, #175, #176, #177, #178, #179, #180, #181, 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STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 04/21) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 1 of 7  
 Project Address: 1101 NOBLE AVENUE BAKERSFIELD CA 93305 Date Prepared: 08-31-2022

**A. GENERAL INFORMATION**

01 Project Location (City)	BAKERSFIELD	04 Total Conditioned Floor Area (ft <sup>2</sup> )	36,380
02 Climate Zone	13	05 Total Unconditioned Floor Area (ft <sup>2</sup> )	
03 Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	

Office  Retail  Warehouse  Hotel/Motel  School  Support Areas  
 Parking Garage  High-Rise Residential  Warehouse  Relocatable  Healthcare  Other (write in):

**B. PROJECT SCOPE**

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

01 Scope of Work	02 Conditioned Spaces	03 Unconditioned Spaces	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft <sup>2</sup> )	Calculation Method	Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System	Area Category	36,380		
<input type="checkbox"/> Altered Lighting System				
Total Area of Work (ft <sup>2</sup> )		36,380		

**C. COMPLIANCE RESULTS**

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES WITH EXCEPTIONAL CONDITIONS" refer to Table D, for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)				Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04	05	06	07	08	
Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Additional §140.6(c)2G (+)	Tailored §140.6(c)3	Total Allowed (Watts)	Total Designed (Watts)	PAF Control Credits §140.6(d)2 (-)	Total Adjusted (Watts)		05 Must be ≥ 08 §140.6
(See Table I)	(See Table I)	(See Table J)	(See Table K)		(See Table F)	(See Table P)			
Conditioned:	25,152.75			25,152.75	20,615		20,615		COMPLIES
Unconditioned:	Table Continued								

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> April 2021

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**Controls Compliance (See Table H for Details)** **COMPLIES**  
**Rated Power Reduction Compliance (See Table G for Details)** **Not Applicable**

**D. EXCEPTIONAL CONDITIONS**

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.  
 No exceptional conditions apply to this project.

**E. ADDITIONAL REMARKS**

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

**F. INDOOR LIGHTING FIXTURE SCHEDULE**

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change*	Watts per luminaire <sup>2</sup>	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector Pass Fail
A, AE	LED EDGE LITE FLAT PANEL			43	Mfr. Spec <sup>2</sup>	425		18,275	
B, BE	LED WRAP			39	Mfr. Spec <sup>2</sup>	58		2,262	
C, CE	LED WRAP WALL BRACKET			39	Mfr. Spec <sup>2</sup>	2		78	
Total Designed Watts CONDITIONED SPACES:						20,615			

<sup>1</sup> FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.  
<sup>2</sup> Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c). Wattage used must be the maximum rated for the luminaire, not the lamp.

**G. MODULAR LIGHTING SYSTEMS**  
 This Section Does Not Apply

**H. INDOOR LIGHTING CONTROLS (Not Including PAFs)**

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Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a \* is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

**Building Level Controls**

01 Mandatory Demand Response §110.12(c)	02 Shut-Off Controls §130.1(c)	03 Field Inspector Pass Fail
Not Required ≤ 10,000 SF	Whole Building Timeswitch	

**Area Level Controls**

04	05	06	07	08	09	10	11	12
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylight Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector Pass Fail
CLASSROOMS	Classroom, Lecture, Training, Vocational	Manual ON/OFF	Dimmer	Occ. Sensor	Included	Included		
RESTROOMS	Restroom	Manual ON/OFF	Dimmer	Occ. Sensor	NA	NA		
STORAGE	Commercial and Industrial Storage	Manual ON/OFF	Dimmer	Occ. Sensor	NA	NA		
ELECTRICAL ROOM	Electrical, Mechanical, Telephone Rooms	Manual ON/OFF	Dimmer	Occ. Sensor	NA	NA		
LIBRARY	Library - Reading Area	Manual ON/OFF	Dimmer	Occ. Sensor	Included	Included		

\*NOTES: Controls with a \* require a note in the space below explaining how compliance is achieved.  
 EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting;  
 EXCEPTION 1 to §130.1(b)2

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(d) are being used.

**Conditioned Spaces**

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01	02	03	04	05	06
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft <sup>2</sup> )	Area (ft <sup>2</sup> )	Allowed Wattage (Watts)	Additional Allowances / Adjustment Area Category PAF
CLASSROOM	Classroom, Lecture, Training, Vocational	0.7	28,990	20,293	
STORAGE	Commercial and Industrial Storage	0.6	2,845	1,707	
RESTROOM	Restroom	0.65	2,115	1,374.75	
ELECTRICAL ROOM	Electrical, Mechanical, Telephone Rooms	0.4	415	166	
LIBRARY	Library - Reading Area	0.8	2,015	1,612	
TOTAL:			36,380	25,152.75	See Tables J or P for detail

**J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM**  
 This Section Does Not Apply

**K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**  
 This Section Does Not Apply

**L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY**  
 This Section Does Not Apply

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING**  
 This Section Does Not Apply

**N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS**  
 This Section Does Not Apply

**O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE**  
 This Section Does Not Apply

**P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))**  
 This Section Does Not Apply

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**Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS**  
 This Section Does Not Apply

**R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS**  
 This Section Does Not Apply

**S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)**  
 This Section Does Not Apply

**T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Table Instructions: 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://www2.energy.ca.gov/title24/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRCC/](https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCC/)

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> April 2021

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 04/21) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 6 of 7  
 Project Address: 1101 NOBLE AVENUE BAKERSFIELD CA 93305 Date Prepared: 08-31-2022

**U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Table Instructions: 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 any with "A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> April 2021

STATE OF CALIFORNIA  
**Indoor Lighting**  
 NRCC-LTI-E (Created 04/21) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 7 of 7  
 Project Address: 1101 NOBLE AVENUE BAKERSFIELD CA 93305 Date Prepared: 08-31-2022

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

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

Documentation Author Name: STEVEN EASTHAM Documentation Author Signature:

Company: ROSE SING EASTHAM AND ASSOCIATES Signature Date: 08-31-2022

Address: 131 SOUTH DUNWORTH STREET CEA/HERS Certification Identification (if applicable):  
 City/State/Zip: VISALIA, CA 93292-6705 Phone: (559)733-2671 EXT. 101

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

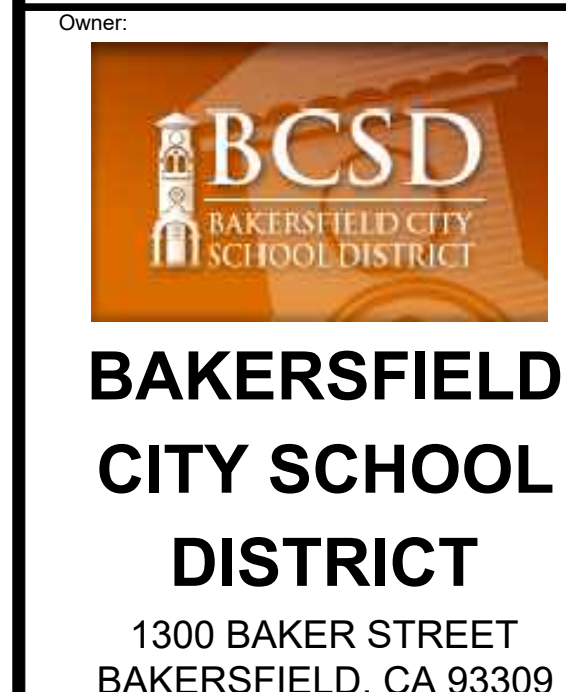
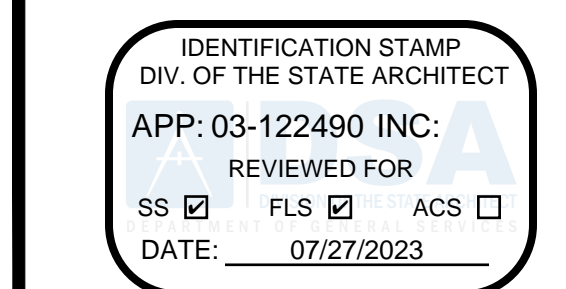
- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features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

Responsible Designer Name: STEVEN EASTHAM Responsible Designer Signature:

Company: ROSE SING EASTHAM AND ASSOCIATES Date Signed: 08-31-2022

Address: 131 SOUTH DUNWORTH STREET License: E18786  
 City/State/Zip: VISALIA, CA 93292-6705 Phone: (559)733-2671 EXT. 101

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> April 2021



Project Name: **CENTRAL PLANT REPLACEMENT**

Project Address: **WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE BAKERSFIELD, CA 93305



6011 N. FRESNO STREET, SUITE 130  
FRESNO CALIFORNIA 93710  
P: (559) 436-0881 F: (559) 436-0887  
E: design@somam.com  
integrateddesigns.com

Stamp: \_\_\_\_\_

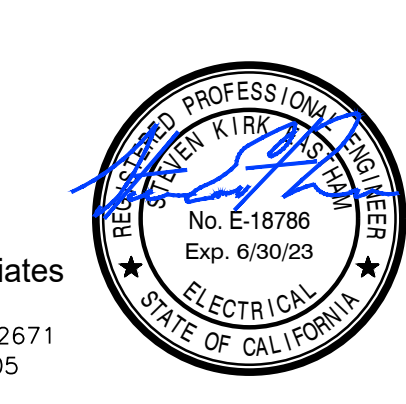
Sheet Title: **INDOOR LIGHTING COMPLIANCE**

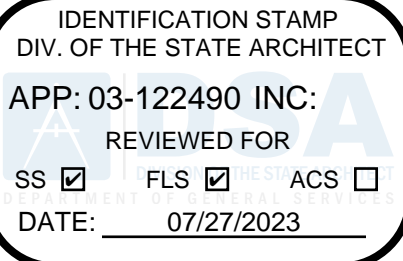
Job No.: **5525**

Sheet No.: **E0.02**

Revision: DSA BACKCHECK Issue Date: 06-13-2023

Rose Sing Eastham & Associates  
Electrical Consultants  
131 S. Dunworth - (559)733-2671  
Visalia, California 93292-6705

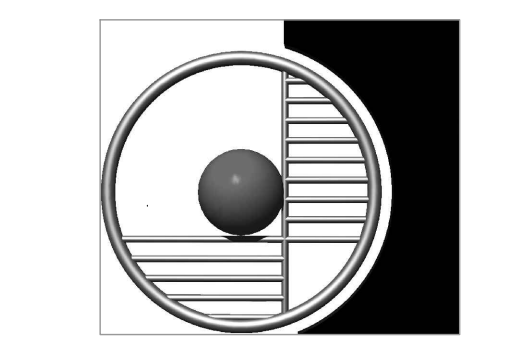




**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305



**integrated designs**  
by SOMAM, Inc.

**ARCHITECTURE ENGINEERING INTERIOR DESIGN**

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Stamp:

Sheet Title:  
**ELECTRICAL POWER DISTRIBUTION**

Job No.:  
**5525**

Sheet No.:  
**E0.03**

Revised: DSA BACKCHECK Issue Date: 06-13-2023

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
NRC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRC-ELC-E

CERTIFICATE OF COMPLIANCE  
Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 5 of 5  
Project Address: 1101 NOBLE AVE. BAKERSFIELD, CA 93305 Date Prepared: 08-31-2022

**F. SERVICE ELECTRICAL METERING**  
This Section Does Not Apply

**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**  
Table Instructions: Complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Using the dropdown choices in column 03, indicate the load types included for each service. Any load types that are not included in the service do not need to be shown.

Electrical Service Designation/Description	01	MSB	02	03	04	05
Load Type per Table 130.5-B <sup>1</sup>			Minimum Required Separation of Load per Table 130.5-B	Compliance Method <sup>2</sup>	Location of Requirements in Construction Documents	Field Inspector
HVAC systems and components			All HVAC in aggregate and each HVAC load rated at least 50 kVA	Method 2	E4.02	Pass Fail
Lighting including exit, egress and exterior			All lighting disaggregated by floor, type or area	Method 2	E4.02	Pass Fail
Plug loads and appliances < 25kVA			All plug load separated by floor, type or area. All groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 2	E4.02	Pass Fail

\* NOTES: If "Other" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.

**H. VOLTAGE DROP**  
Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)(2)(ii).

Electrical Service Designation/Description	01	02	03	04	05
		Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations <sup>1</sup>	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector
				E4.02	Pass Fail

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
NRC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRC-ELC-E

CERTIFICATE OF COMPLIANCE  
Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 3 of 5  
Project Address: 1101 NOBLE AVE. BAKERSFIELD, CA 93305 Date Prepared: 08-31-2022

**F. SERVICE ELECTRICAL METERING**  
This Section Does Not Apply

**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**  
Table Instructions: Complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Using the dropdown choices in column 03, indicate the load types included for each service. Any load types that are not included in the service do not need to be shown.

Electrical Service Designation/Description	01	MSB	02	03	04	05
Load Type per Table 130.5-B <sup>1</sup>			Minimum Required Separation of Load per Table 130.5-B	Compliance Method <sup>2</sup>	Location of Requirements in Construction Documents	Field Inspector
HVAC systems and components			All HVAC in aggregate and each HVAC load rated at least 50 kVA	Method 2	E4.02	Pass Fail
Lighting including exit, egress and exterior			All lighting disaggregated by floor, type or area	Method 2	E4.02	Pass Fail
Plug loads and appliances < 25kVA			All plug load separated by floor, type or area. All groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 2	E4.02	Pass Fail

\* NOTES: If "Other" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.

**H. VOLTAGE DROP**  
Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)(2)(ii).

Electrical Service Designation/Description	01	02	03	04	05
		Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations <sup>1</sup>	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector
				E4.02	Pass Fail

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
NRC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRC-ELC-E

CERTIFICATE OF COMPLIANCE  
Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 1 of 5  
Project Address: 1101 NOBLE AVE. BAKERSFIELD, CA 93305 Date Prepared: 08-31-2022

**A. GENERAL INFORMATION**

01 Project Location (city) BAKERSFIELD 02 Occupancy Types Within Project:

Office  Retail  Warehouse  Hotel/ Motel  School  Support Areas  
 Parking Garage  High-Rise Residential  Relocatable  Healthcare Facilities  Other (Write In):

**B. PROJECT SCOPE**  
Table Instructions: Include any electrical service systems that are within the scope of the permit application.

Electrical Service Designation/Description	01	02	03	04	05
MSB	New electrical service equipment & meter		Rating (kVA) 1,330	Utility Provided Metering System Exception to §130.5(a) <sup>2</sup>	System subject to CA Elec Code Article 517 Exception to §130.5(a)(b)
DSA	Add/Alt to feeders and branch circuits only				
DSB	Add/Alt to feeders and branch circuits only				
DSC	Add/Alt to feeders and branch circuits only				
DSD	Add/Alt to feeders and branch circuits only				
DSE	Add/Alt to feeders and branch circuits only				
DSF	Add/Alt to feeders and branch circuits only				

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
NRC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRC-ELC-E

CERTIFICATE OF COMPLIANCE  
Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 2 of 5  
Project Address: 1101 NOBLE AVE. BAKERSFIELD, CA 93305 Date Prepared: 08-31-2022

Electrical Service Designation/Description	01	02	03	04	05
DSG	Add/Alt to feeders and branch circuits only				Demand Response Controls
DSH	Add/Alt to feeders and branch circuits only				Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRC-MCH, NRC-LTI and NRC-LTS will indicate when demand response controls are required.

\* FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.  
2 Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

**C. COMPLIANCE RESULTS**  
Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D for guidance and review the Table that indicates "No".

01	02	03	04	05			
Service Electrical Metering §130.5(a)	AND	Separation for Monitoring §130.5(b)	AND	Voltage Drop §130.5(c)	AND	Controlled Receptacles §130.5(d)	05
(See Table F)		(See Table G)		(See Table H)		(See Table I)	COMPLIES with Exceptional Conditions

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

Table B indicates the project is exempt from §130.5(a) Service Electrical Metering requirements because the utility company has provided the project a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

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

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
NRC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRC-ELC-E

CERTIFICATE OF COMPLIANCE  
Project Name: WASHINGTON MIDDLE SCHOOL CENTRAL PLANT REPLACEMENT Report Page: Page 4 of 5  
Project Address: 1101 NOBLE AVE. BAKERSFIELD, CA 93305 Date Prepared: 08-31-2022

Electrical Service Designation/Description	01	02	03	04	05
		Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations <sup>1</sup>	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector
MSB		<input checked="" type="checkbox"/> Voltage drop < 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c)) <sup>2</sup>	In construction documents	E4.02	Pass Fail

\* NOTES: If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.  
1 FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

**I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES**  
Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

01	02	03	04	05	06
Room Name or Description	Location/ Type of Controlled Receptacles	Shut-Off Controls	Permanent Durable Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector
NA	NA: No applicable space types on this service		<input type="checkbox"/>		Pass Fail

\* If "Other" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.

**J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
Table Instructions: 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://www2.energy.ca.gov/title24/2019standards/2019\\_compliance\\_documents/Nonresidential\\_documents/NRC/](https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_documents/NRC/)

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-ELC-01-E - Must be submitted for all buildings.	Pass Fail

**K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
There are no Certificates of Acceptance applicable to electrical power distribution requirements.

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

Rose Sing Eastham & Associates  
Electrical Consultants  
131 S. Dunworth - (559) 733-2671  
Visalia, California 93292-6705



NOTES (THIS SHEET ONLY):

- 1 REFER TO ENLARGED SITE ELECTRICAL PLAN - DEMOLITION, SHEET #E1.01 AND ENLARGED SITE ELECTRICAL PLAN - NEW, SHEET #E1.02 FOR ADDITIONAL WORK IN THIS AREA.

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

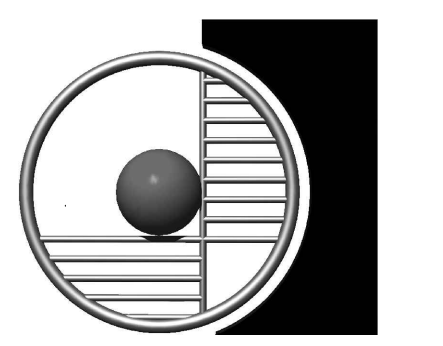


**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**

1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305



**integrated designs**  
 by SOMAM, Inc.

**ARCHITECTURE  
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6011 N. FRESNO STREET, SUITE 130  
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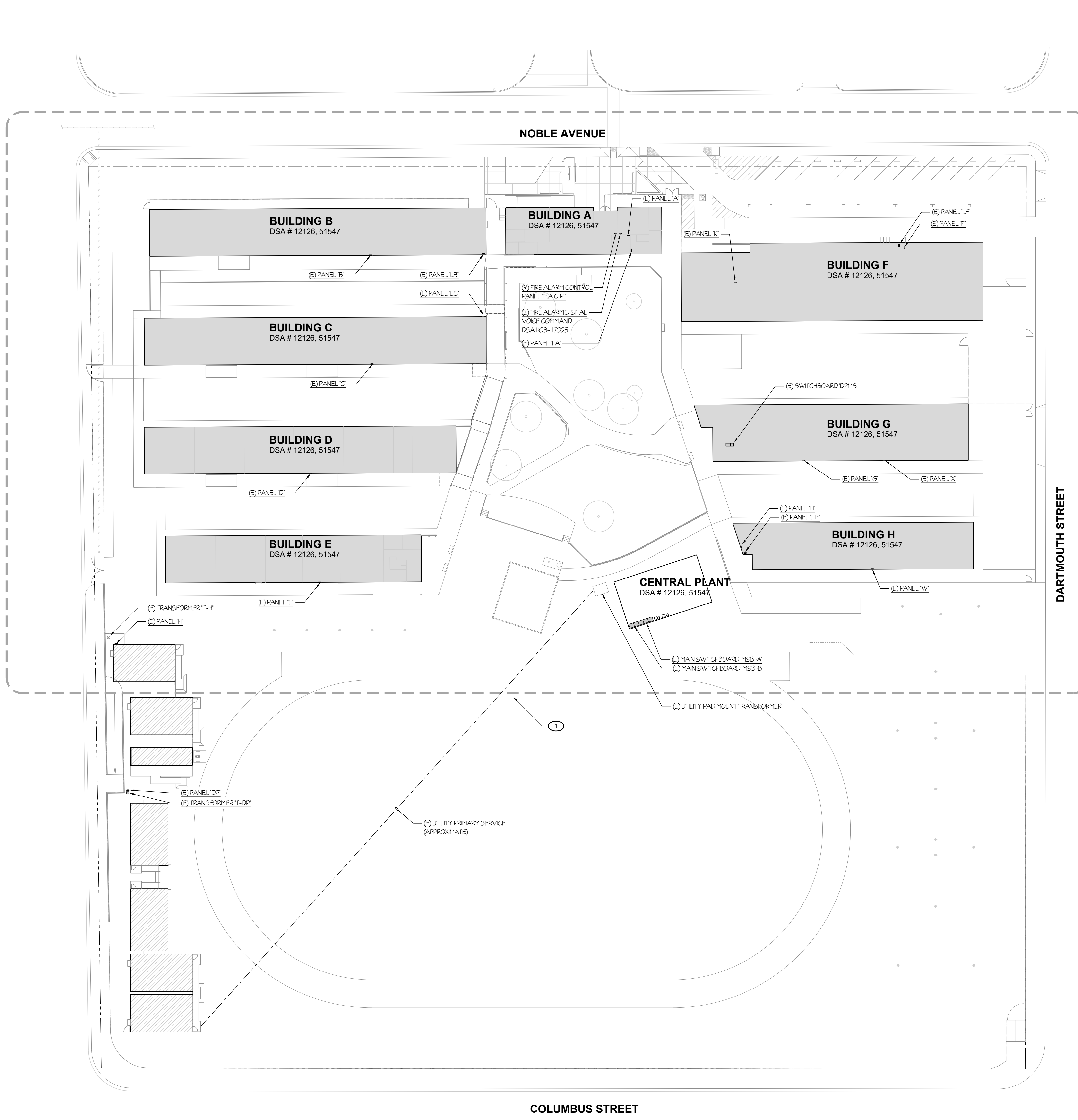
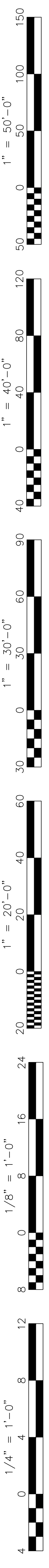
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Sheet Title:  
**SITE ELECTRICAL PLAN**

Job No.:  
**5525**

Sheet No.:  
**E1.00**

Release: DSA BACKCHECK Issue Date: 06-13-2023



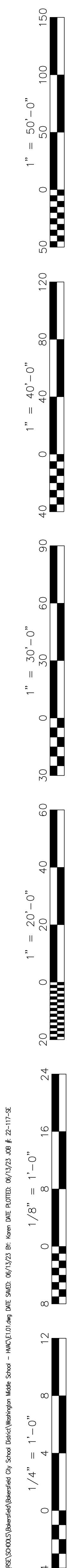
**SITE ELECTRICAL PLAN  
 CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 30'-0"

**EQUIPMENT BID PACKAGE  
 12/6/22**

Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoorth - (559) 733-2671  
 Visalia, California 93292-6705





- NOTES (THIS SHEET ONLY):**
- EXISTING PANEL SHALL BE REPLACED IN SAME LOCATION. PROVIDE NEW FEED PER SHEET #E1.02 AND ONE-LINE DIAGRAM, SHEET #EA.01. REFER TO DETAIL #9/ES.00 FOR MOUNTING REQUIREMENTS.
  - CONDUCTORS SHALL BE REMOVED FROM EXISTING CONDUIT(S) PER ONE-LINE DIAGRAM EXISTING CONDUIT ALLOWED TO BE ABANDONED IN PLACE AND MARKED 'SPARE'.
  - EXISTING PANEL SHALL BE REPLACED IN SAME LOCATION. PROVIDE NEW FEED PER SHEET #E1.02 AND ONE-LINE DIAGRAM, SHEET #EA.01. REFER TO DETAIL #9/ES.00 FOR MOUNTING REQUIREMENTS.
  - COORDINATE WITH UTILITY FOR REMOVAL OF EXISTING PAD MOUNT TRANSFORMER. EXISTING PRIMARY CONNECTION SHALL BE EXTENDED TO NEW MAIN SERVICE LOCATION PER APPROVED UTILITY DRAWINGS.
- GENERAL NOTE:**  
CONTRACTOR SHALL SURVEY ALL UNDERGROUND ROUTES FOR EXISTING UTILITIES.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

APP: 03-122490 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 07/27/2023

---

Owner:  
**BAKERSFIELD CITY SCHOOL DISTRICT**

**BAKERSFIELD CITY SCHOOL DISTRICT**

**DISTRICT**

1300 BAKER STREET  
BAKERSFIELD, CA 93309

---

Project Name:  
**CENTRAL PLANT REPLACEMENT**

---

Project Address:  
**WASHINGTON MIDDLE SCHOOL**

1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

---

**integrated designs**  
by SOMAM, Inc.

**ARCHITECTURE  
ENGINEERING  
INTERIOR DESIGN**

6011 N. FRESNO STREET, SUITE 130  
FRESNO CALIFORNIA 93710  
P: (559) 436-0881 F: (559) 436-0887  
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Sheet Title:  
**ENLARGED SITE ELECTRICAL PLAN-DEMO**

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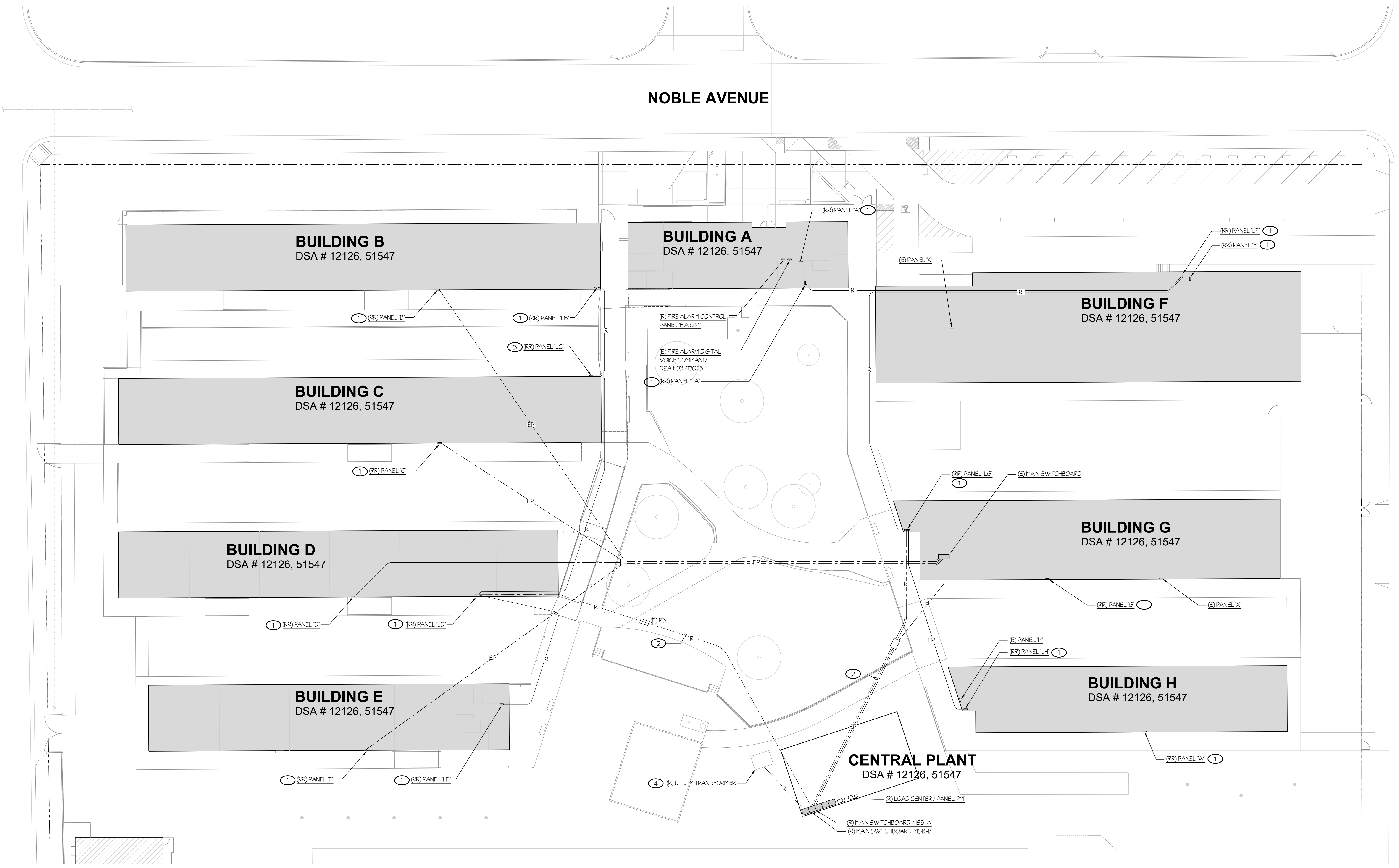
Job No.:  
**5525**

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Sheet No.:  
**E1.01**

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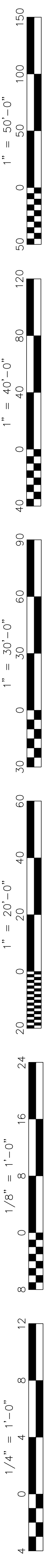
Release: DSA BACKCHECK Issue Date: 06-13-2023



**ENLARGED SITE ELECTRICAL PLAN-DEMOLITION  
CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 20'-0"

Rose Sing Eastham & Associates  
Electrical Consultants  
131 S. Dunwoorth - (559) 733-2671  
Visalia, California 93292-6705



- NOTES (THIS SHEET ONLY):**
- NEW CONDUIT AND CONDUCTORS PER ONE LINE DIAGRAM.
  - ROUTE CONDUIT EXPOSED ON TOP SIDE OF COVERED WALKWAY. TYPICAL. REFER TO DETAILS #15/E5.00, #16/E5.00, #17/E5.00 FOR TIE IN TO EACH BUILDING.
  - REFER TO DETAIL #6/E5.00 FOR MOUNTING REQUIREMENTS.
  - REFER TO ONE LINE DIAGRAM SHEET #E4.01 AND DETAIL #7/E5.00 FOR ADDITIONAL REQUIREMENTS.
  - PROVIDE NEW CONDUIT PER APPROVED UTILITY DRAWINGS EXPECTED TO BE (6) 4" CONDUITS.
  - PROVIDE TEMPORARY CONNECTION TO CHILLER SECTION FOR OPERATION OF EQUIPMENT DURING CONSTRUCTION PHASES. CONNECTION SHALL BE REMOVED AT END OF PROJECT.
  - EXISTING BRANCH CIRCUITS FOR PANELS 'DP' AND 'HF' SHALL BE INTERCEPTED AND EXTENDED TO NEW MAIN SWITCH-BOARD 'MSB' AS REQUIRED. REFER TO ONE LINE DIAGRAMS ON SHEETS #E4.00 AND #E4.01.
  - REPLACE EXISTING PANEL WITH NEW AND CONNECT TO NEW DISTRIBUTION PANEL PER ONE LINE DIAGRAM ON SHEET #E4.02. REFER TO DETAIL #6/E5.00 FOR SURFACE MOUNTING REQUIREMENTS, AND DETAIL #14/E5.00 FOR FLUSH MOUNTING REQUIREMENTS.
  - REPLACE EXISTING PANEL WITH NEW AND CONNECT TO NEW DISTRIBUTION PANEL PER ONE LINE DIAGRAM ON SHEET #E4.02. REFER TO DETAIL #9/E5.00 FOR MOUNTING REQUIREMENTS.
  - REFER TO TRENCH DETAIL #4/E5.00 FOR REQUIREMENTS.
  - PROVIDE NEW CONDUIT PER APPROVED UTILITY DRAWINGS EXPECTED TO BE (1) 5" CONDUIT. COORDINATE UTILITY CONNECTION LOCATION WITH APPROVED UTILITY DRAWINGS.
  - PROVIDE PAD PER PG&E STYLE IE PER PG&E STANDARD # 045292 TO BE VERIFIED WITH APPROVED UTILITY DRAWINGS. REFER TO DETAIL #2/E5.01.
  - EXISTING CONDUIT / CONDUCTORS TO PANELS 'DP' AND 'H', INTERCEPT AND CONNECT TO NEW CIRCUITS. PER ONE-LINE DIAGRAM ON SHEET #E4.01.

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR:  
 SS  FLS  ACS   
 DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

by SOMAM, Inc.

**ARCHITECTURE ENGINEERING INTERIOR DESIGN**  
 6011 N. FRESNO STREET, SUITE 130  
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 E: design@somam.com  
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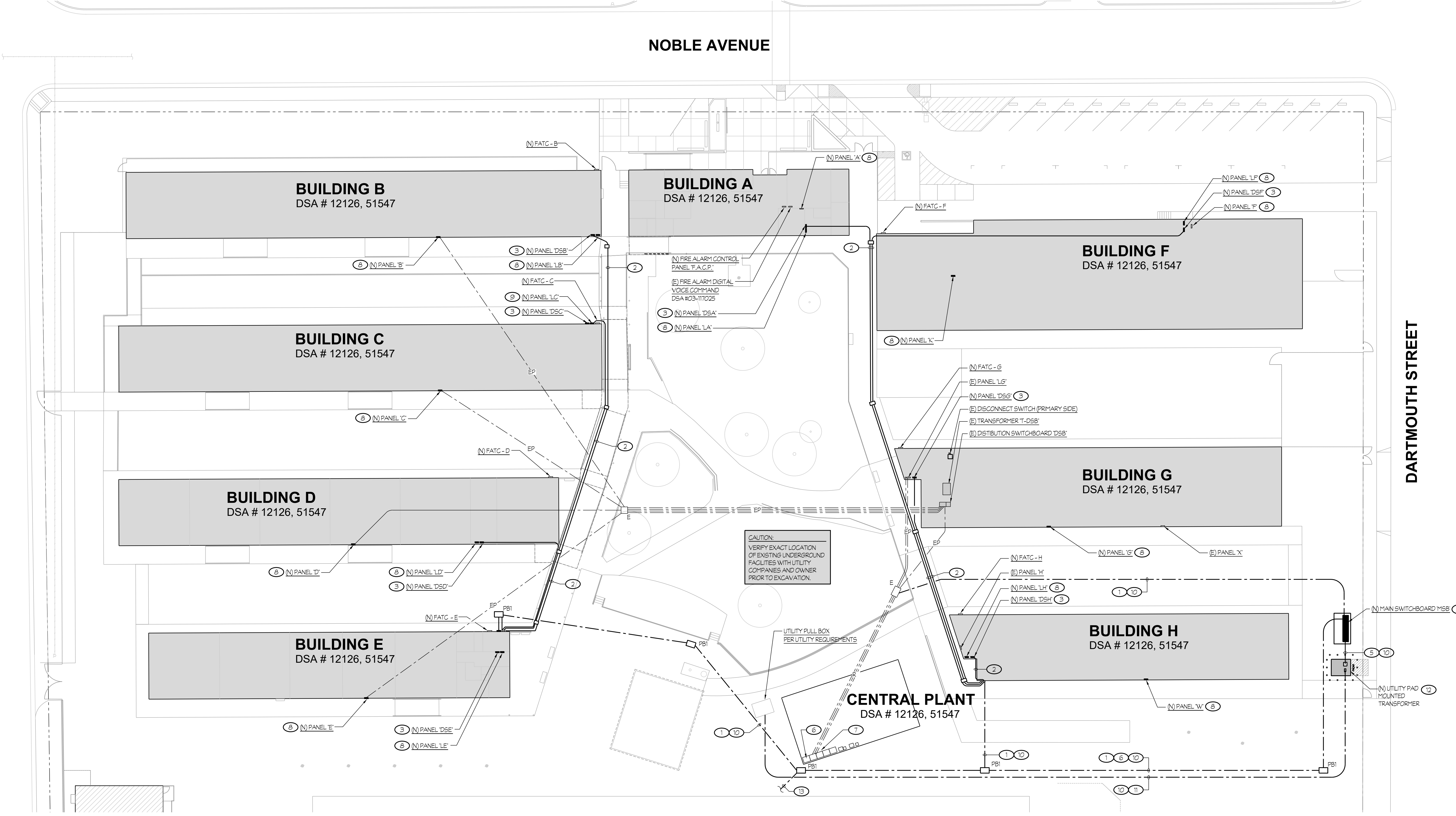
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Sheet Title:  
**ENLARGED SITE ELECTRICAL PLAN-NEW**

Job No.: **5525**

Sheet No.: **E1.02**

Release: DSA BACKCHECK Issue Date: 06-13-2023

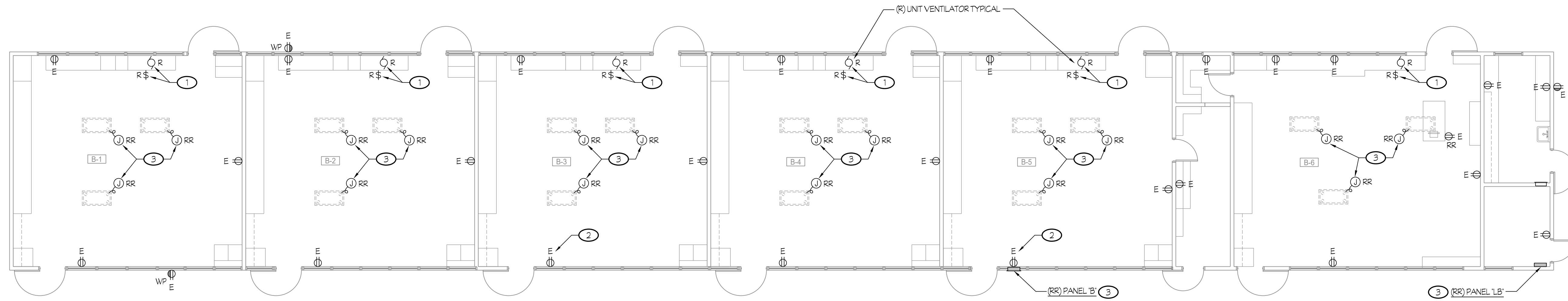


**ENLARGED SITE ELECTRICAL PLAN - NEW**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1" = 20'-0"  
 Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoorth - (559) 733-2671  
 Visalia, California 93292-6705



1" = 50'-0"  
 1" = 40'-0"  
 1" = 30'-0"  
 1" = 20'-0"  
 1" = 1'-0"  
 1/8" = 1'-0"  
 1/4" = 1'-0"

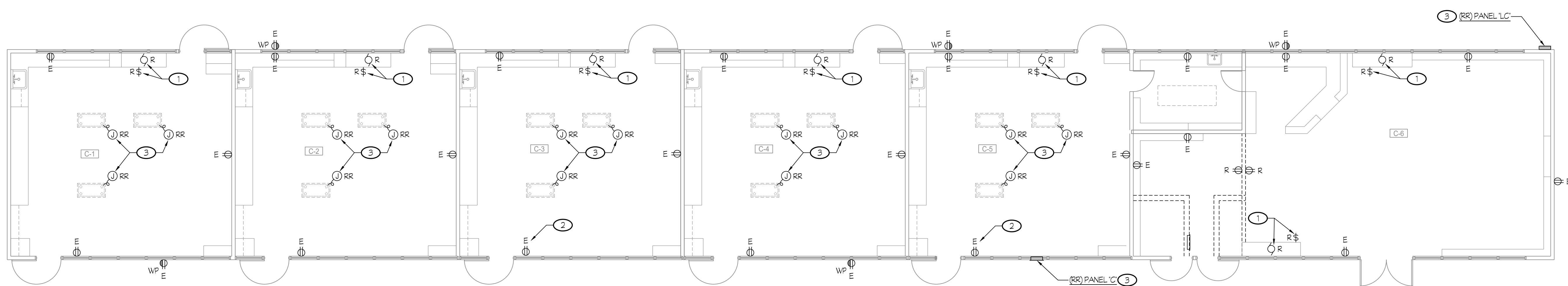


**NOTES (THIS SHEET ONLY):**

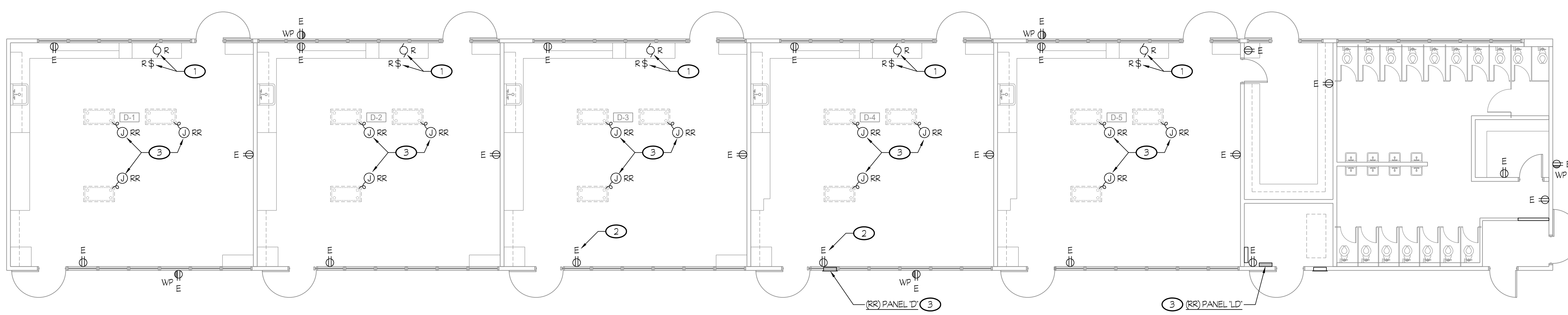
- TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'R': DISCONNECT AND REMOVE EXISTING DEVICES INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
- TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N.: EXISTING DEVICE TO REMAIN. RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY UPSTREAM DEVICES REMOVED.
- TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'RR' REMOVE AND RELOCATED EXISTING DEVICE IN SIMILAR LOCATION; ADJUST WIRING AND CONDUIT TO RECONNECT TO REPLACED DEVICE AS REQUIRED TO CLEAR WAY FOR NEW CONSTRUCTION.

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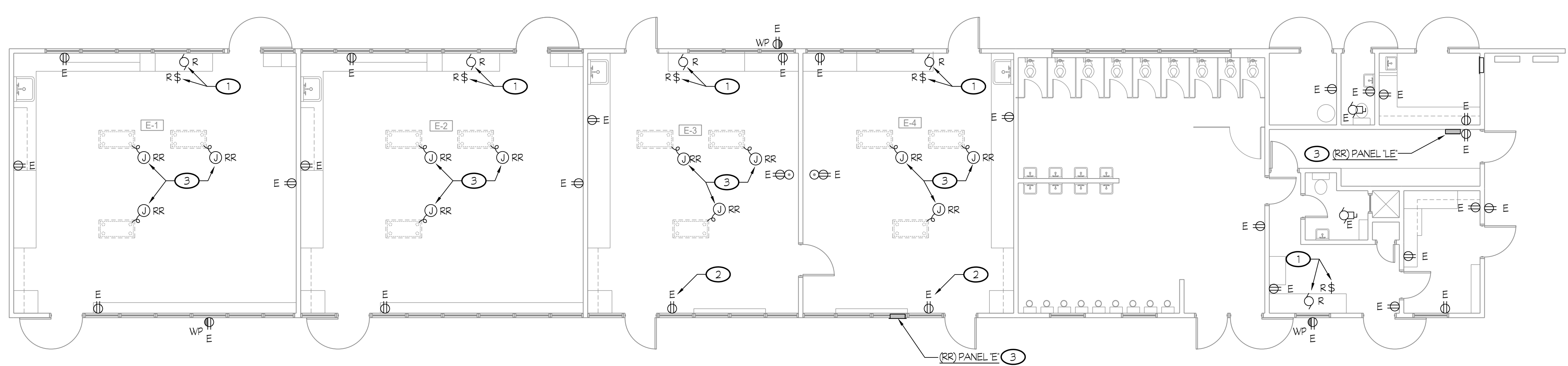
**1 DEMOLITION POWER PLAN - BUILDING "B"**  
**CENTRAL PLANT REPLACEMENT**  
 SCALE: 1/8" = 1'-0"



**2 DEMOLITION POWER PLAN - BUILDING "C"**  
**CENTRAL PLANT REPLACEMENT**  
 SCALE: 1/8" = 1'-0"



**3 DEMOLITION POWER PLAN - BUILDING "D"**  
**CENTRAL PLANT REPLACEMENT**  
 SCALE: 1/8" = 1'-0"



**4 DEMOLITION POWER PLAN - BUILDING "E"**  
**CENTRAL PLANT REPLACEMENT**  
 SCALE: 1/8" = 1'-0"

ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
B-1	CLASSROOM	C-1	CLASSROOM
B-2	CLASSROOM	C-2	CLASSROOM
B-3	CLASSROOM	C-3	CLASSROOM
B-4	CLASSROOM	C-4	CLASSROOM
B-5	CLASSROOM	C-5	CLASSROOM
B-6	SCIENCE CLASSROOM	C-6	LIBRARY

ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
D-1	CLASSROOM	E-1	CLASSROOM
D-2	CLASSROOM	E-2	CLASSROOM
D-3	CLASSROOM	E-3	CLASSROOM
D-4	CLASSROOM	E-4	CLASSROOM
D-5	CLASSROOM		

Owner:  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
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Project Name:  
**CENTRAL PLANT REPLACEMENT**

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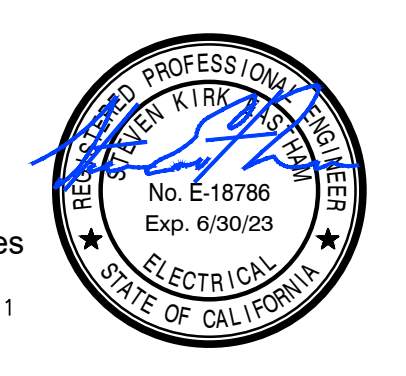
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**DEMOLITION POWER PLANS BLDGS "B, C, D & E"**

Job No.: **5525**

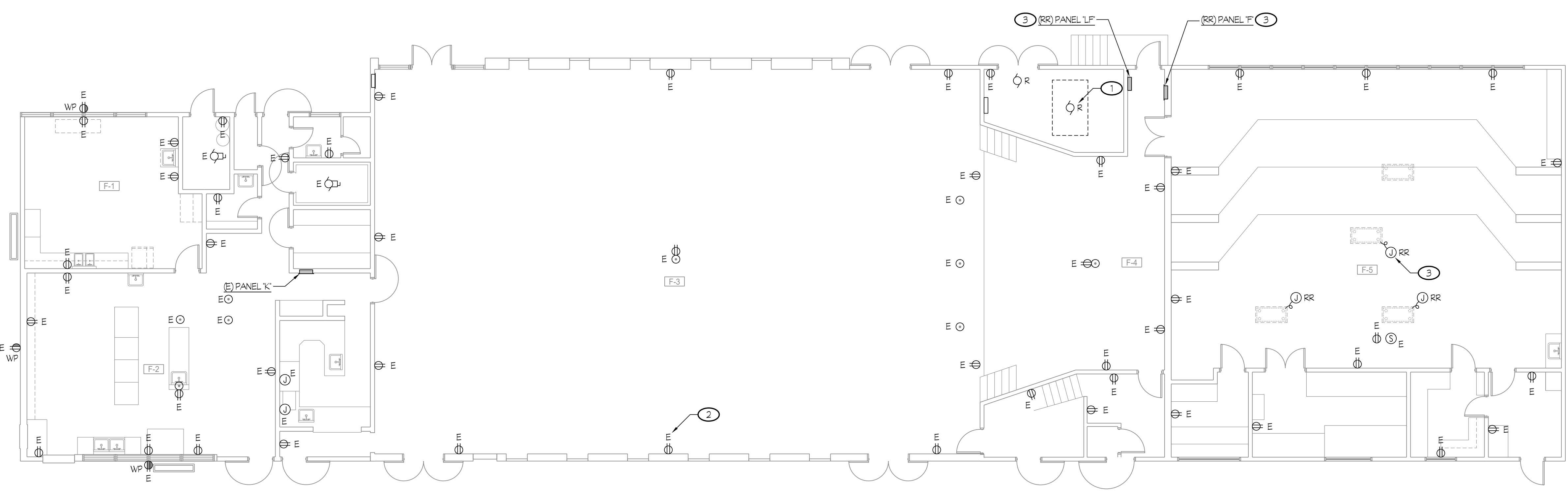
Sheet No.: **E2.00**

Release: DSA BACKCHECK Issue Date: 06-13-2023

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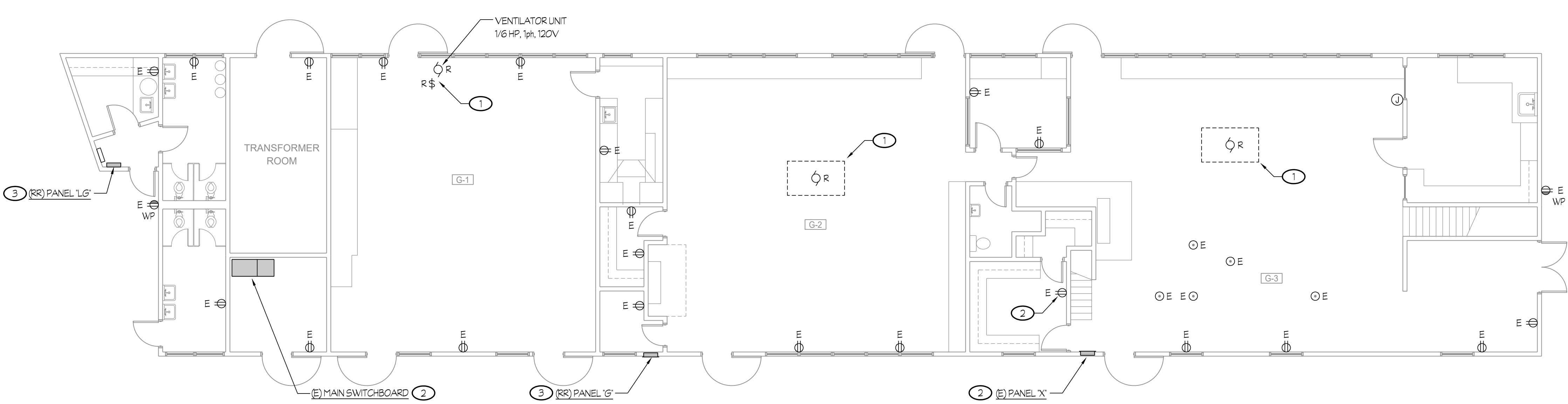


1" = 50'-0"  
 1" = 40'-0"  
 1" = 30'-0"  
 1" = 20'-0"  
 1" = 1'-0"  
 1/8" = 1'-0"  
 1/4" = 1'-0"



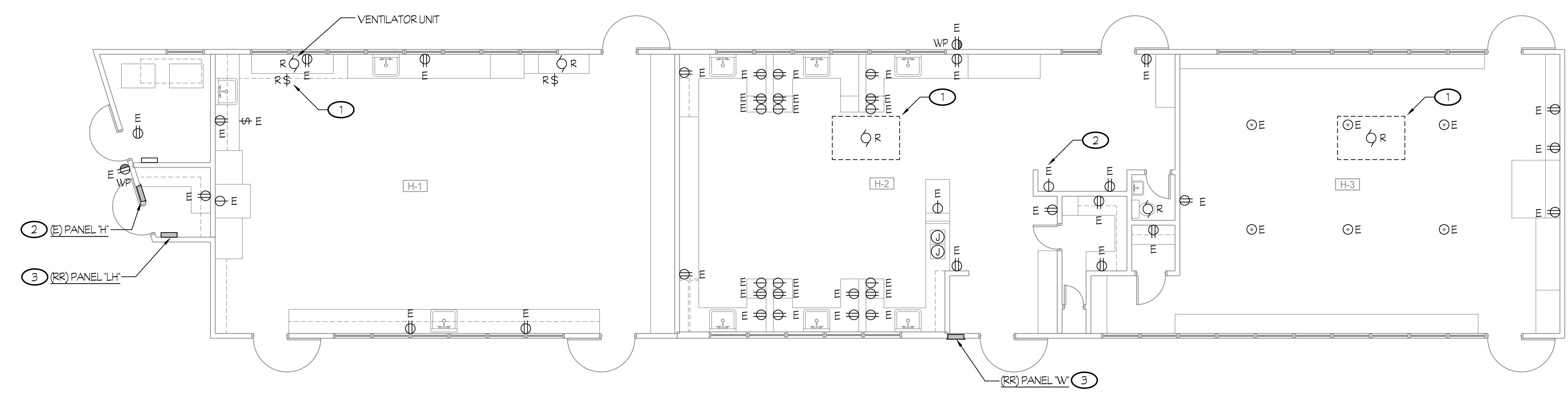
1 DEMOLITION POWER PLAN - BUILDING "F"  
 CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"



2 DEMOLITION POWER PLAN - BUILDING "G"  
 CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"



3 DEMOLITION POWER PLAN - BUILDING "H"  
 CENTRAL PLANT REPLACEMENT

1/8" = 1'-0"

- NOTES (THIS SHEET ONLY):
- 1 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E'. DISCONNECT AND REMOVE EXISTING DEVICES INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
  - 2 TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N. EXISTING DEVICES TO REMAIN. RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY UPSTREAM DEVICES REMOVED.
  - 3 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'RR' REMOVE AND RELOCATED EXISTING DEVICES IN SIMILAR LOCATION. ADJUST WIRING AND CONDUIT TO RECONNECT TO REPLACED DEVICES AS REQUIRED TO CLEAR WAY FOR NEW CONSTRUCTION.

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 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
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 1300 BAKER STREET  
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Project Name:  
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Project Address:  
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ROOM LEGEND	
#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

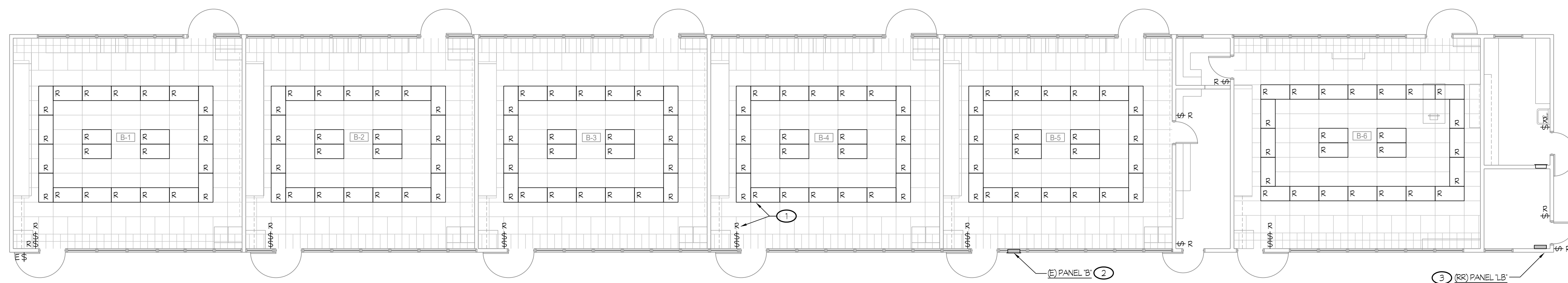
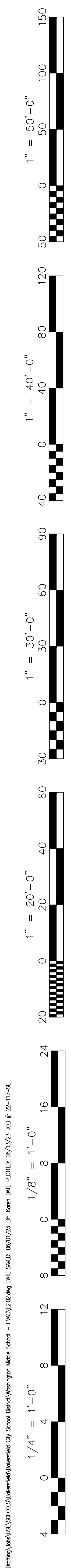
ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM

Stamp:  
 Sheet Title:  
**DEMOLITION POWER PLANS - BLDG "F, G & H"**  
 Job No.: **5525**  
 Sheet No.: **E2.01**  
 Release: DSA BACKCHECK Issue Date: 06-13-2023

Professional Engineer Seal for Robert Eastham, No. E-16796, Exp. 6/30/23, State of California.  
 Release: DSA BACKCHECK Issue Date: 06-13-2023

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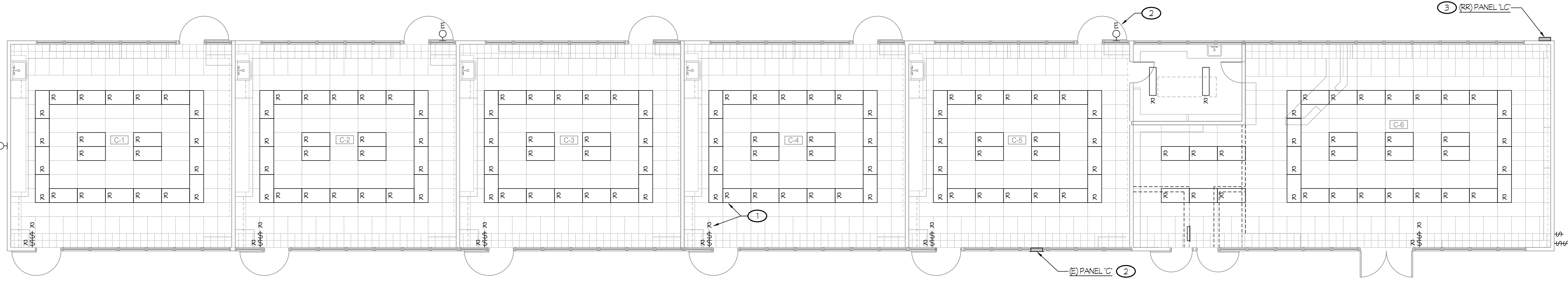


**NOTES (THIS SHEET ONLY):**

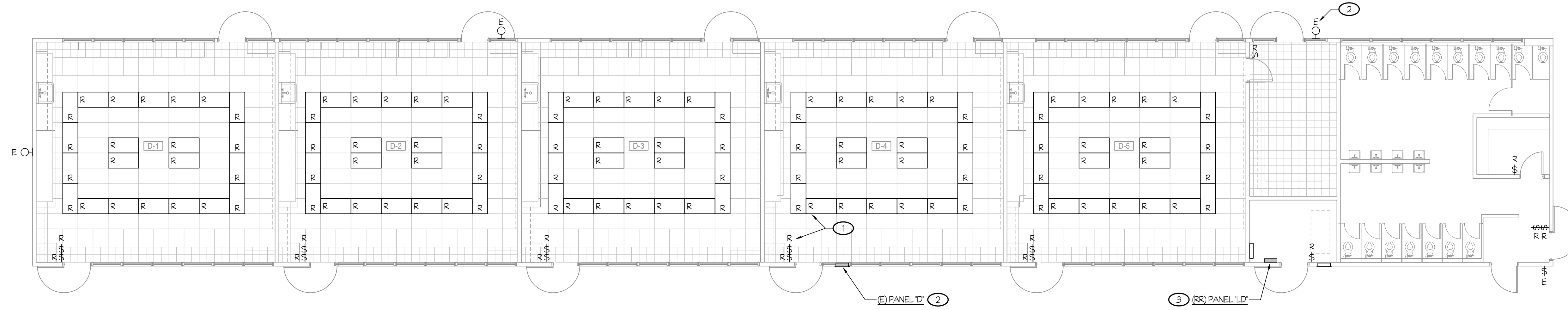
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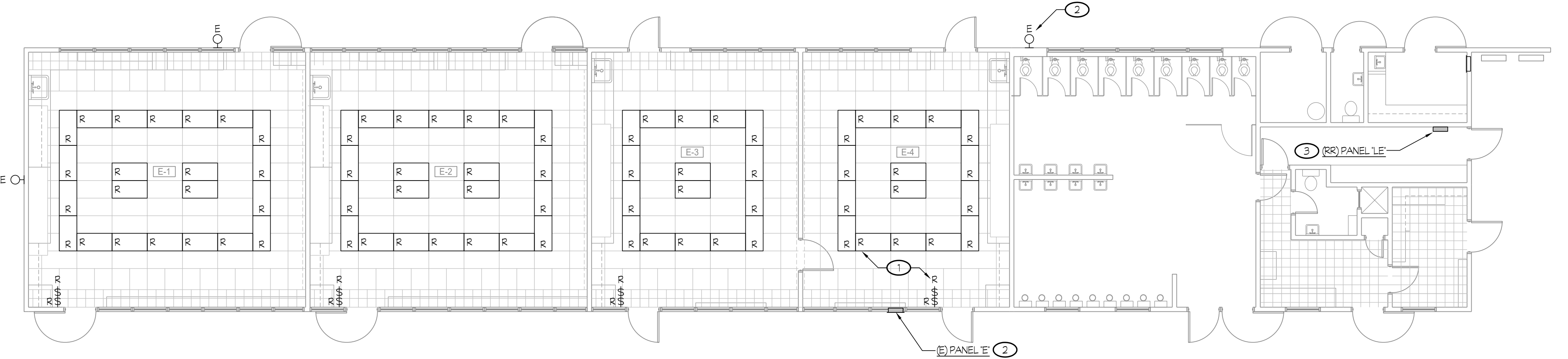
**1 DEMOLITION LIGHTING PLAN - BUILDING "B"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**2 DEMOLITION LIGHTING PLAN - BUILDING "C"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**3 DEMOLITION LIGHTING PLAN - BUILDING "D"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**4 DEMOLITION LIGHTING PLAN - BUILDING "E"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"

Owner:  
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ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
B-1	CLASSROOM	C-1	CLASSROOM
B-2	CLASSROOM	C-2	CLASSROOM
B-3	CLASSROOM	C-3	CLASSROOM
B-4	CLASSROOM	C-4	CLASSROOM
B-5	CLASSROOM	C-5	CLASSROOM
B-6	SCIENCE CLASSROOM	C-6	LIBRARY

ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
D-1	CLASSROOM	E-1	CLASSROOM
D-2	CLASSROOM	E-2	CLASSROOM
D-3	CLASSROOM	E-3	CLASSROOM
D-4	CLASSROOM	E-4	CLASSROOM
D-5	CLASSROOM		

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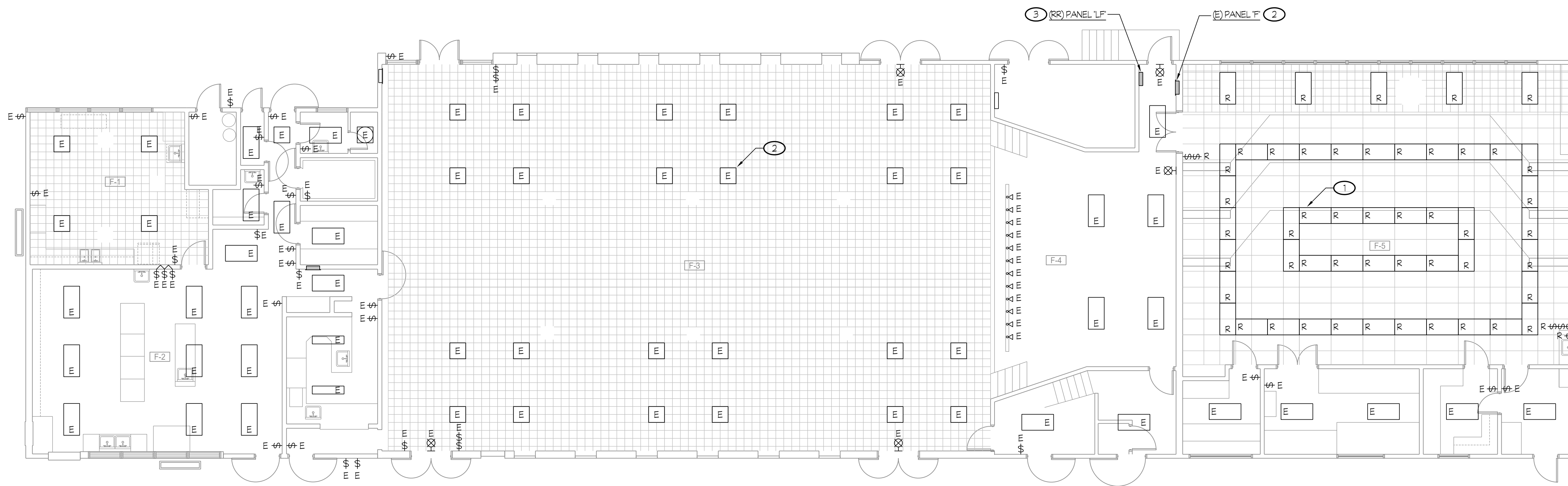
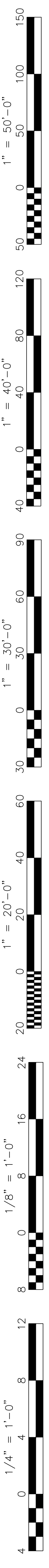
Sheet Title:  
**DEMOLITION LIGHTING PLANS BLDGS "B, C, D & E"**

Job No.: **5525**

Sheet No.: **E2.02**

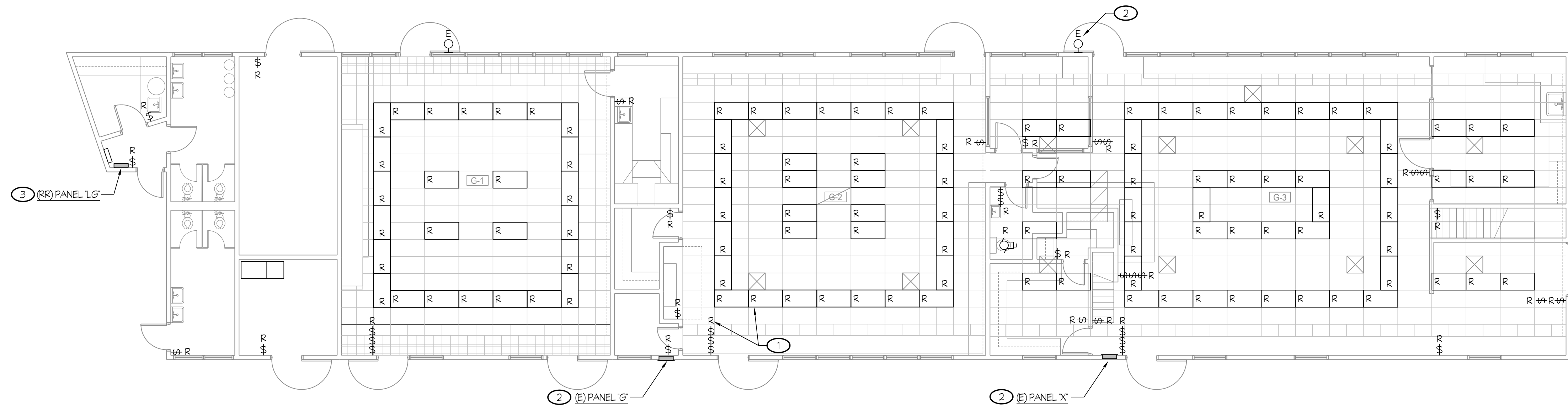
Revision: DSA BACKCHECK Issue Date: 06-13-2023

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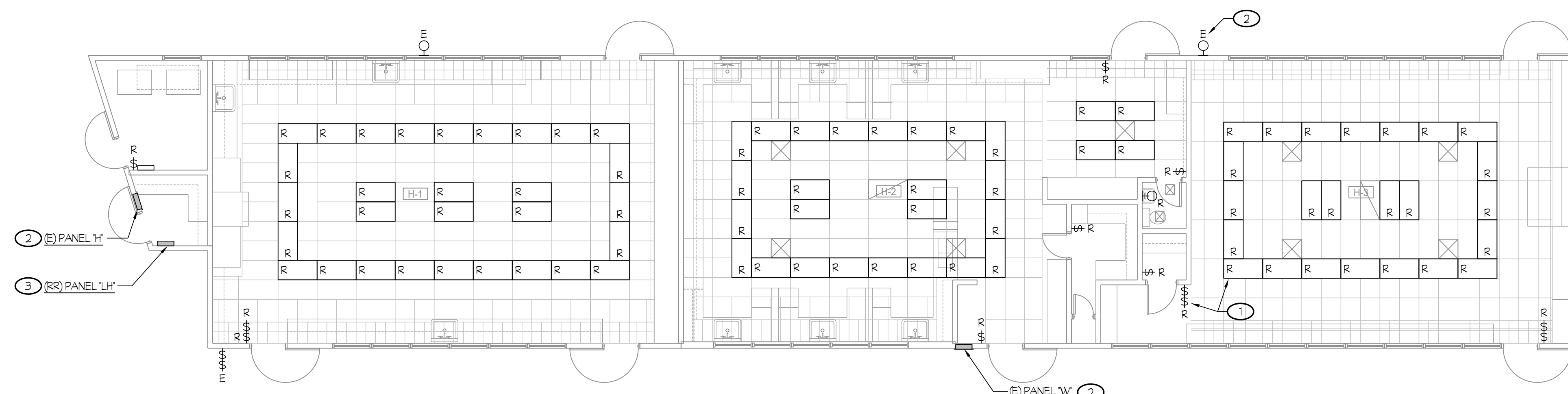
1 DEMOLITION LIGHTING PLAN - BUILDING "F"  
CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"



2 DEMOLITION LIGHTING PLAN - BUILDING "G"  
CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"



3 DEMOLITION LIGHTING PLAN - BUILDING "H"  
CENTRAL PLANT REPLACEMENT

1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

- 1 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', DISCONNECT AND REMOVE EXISTING DEVICES INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
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SS  FLS  ACS   
DATE: 07/27/2023

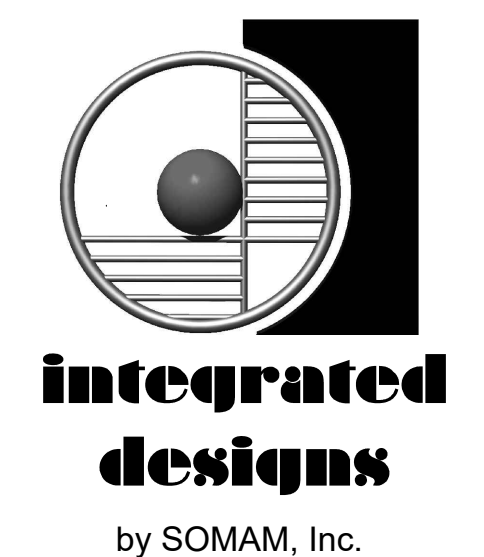


**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**

1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305



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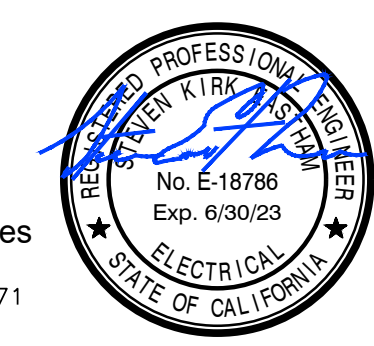
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#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM

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Electrical Consultants  
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Visalia, California 93292-6705



Sheet Title:  
**DEMOLITION LIGHTING PLANS - BLDG "F, G & H"**

Job No.: **5525**


Sheet No.: **E2.03**

Release: DSA BACKCHECK Issue Date: 06-13-2023

**NOTES (THIS SHEET ONLY):**

- ① TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'R'. DISCONNECT AND REMOVE EXISTING DEVICE INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
- ② TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N. EXISTING DEVICE TO REMAIN. RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY UPSTREAM DEVICES REMOVED.
- ③ TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'RR' REMOVE AND RELOCATE EXISTING DEVICE IN SIMILAR LOCATION. ADJUST WIRING AND CONDUIT TO RECONNECT TO REPLACED DEVICE AS REQUIRED TO CLEAR WAY FOR NEW CONSTRUCTION.
- ④ COORDINATE WITH CONTRACTOR, IF REQUIRED, REMOVE AND REINSTALL LIGHT FIXTURES REQUIRED TO CLEAR WAY FOR DEMOLITION. OTHERWISE, EXISTING LIGHT FIXTURES TO REMAIN. REINSTALL LIGHT FIXTURE, PER DETAIL #2/E5.00.

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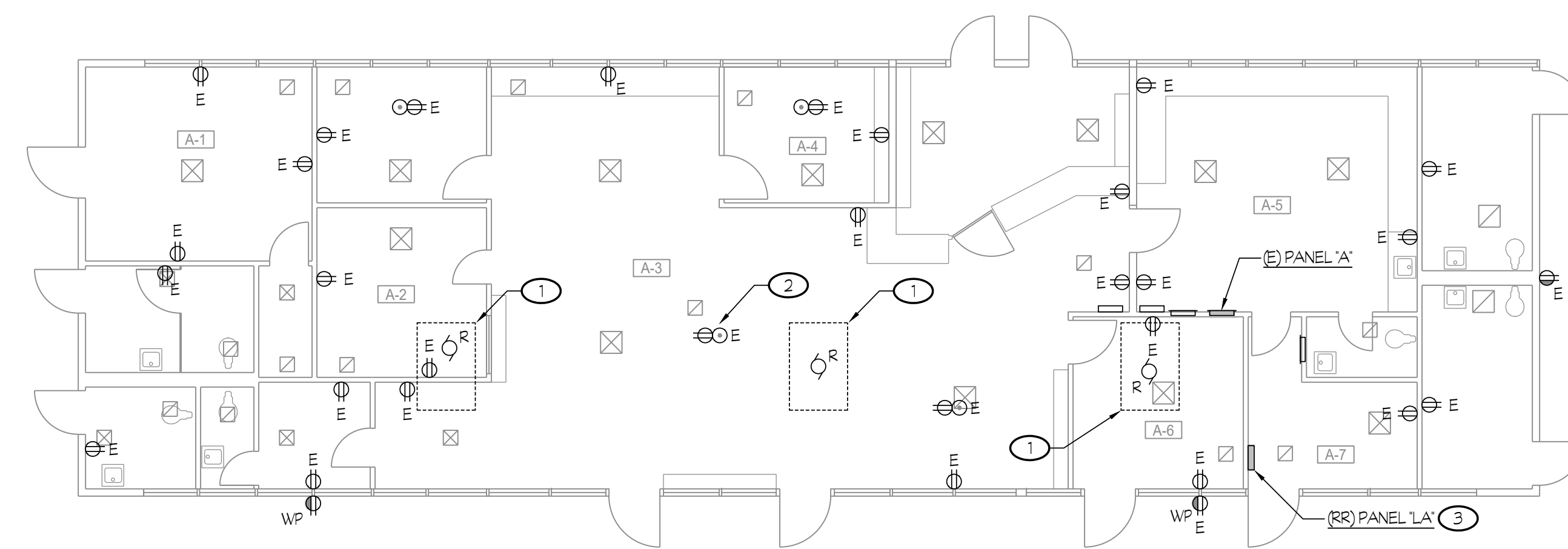
Stamp:

Sheet Title:  
**DEMOLITION ELECTRICAL PLAN - BUILDING "A"**

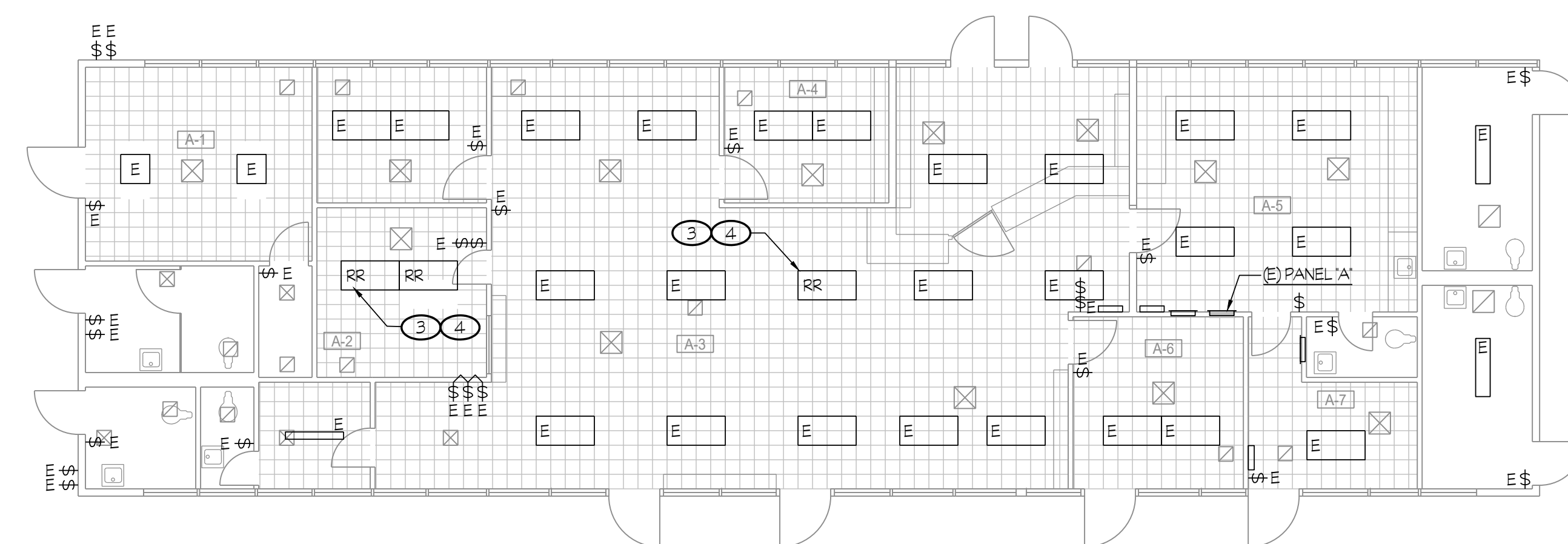
Job No.: **5525**

Sheet No.: **E2.04**

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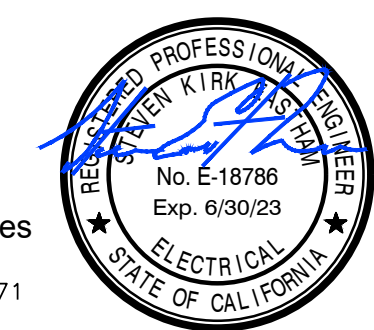


① **DEMOLITION POWER PLAN - BUILDING "A"**  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



② **DEMOLITION LIGHTING PLAN - BUILDING "A"**  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"

#	ROOM NAME
A-1	TEACHERS LOUNGE
A-2	PRINCIPAL
A-3	RECEPTION
A-4	COUNSELOR
A-5	SUPPLIES
A-6	VICE PRINCIPAL
A-7	CHECK OUT

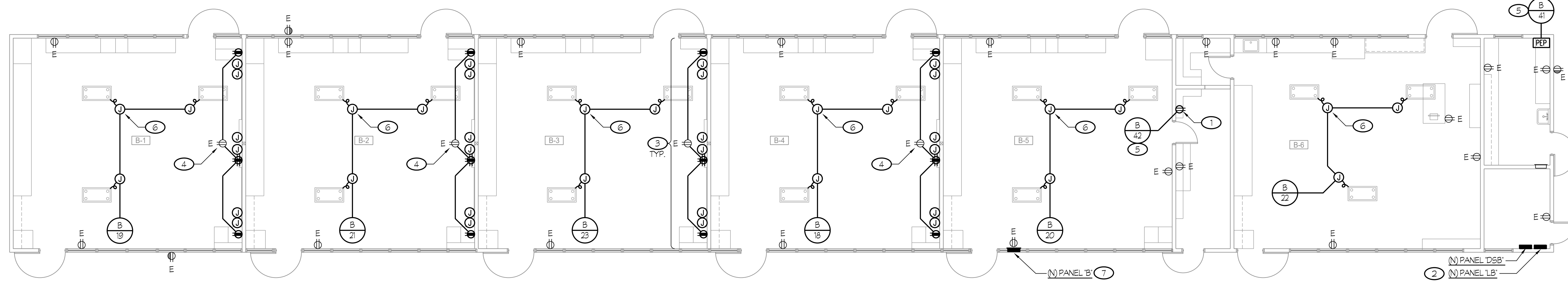


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 Visalia, California 93292-6705

150  
 100  
 50  
 0  
 50  
 100  
 150  
 1" = 50'-0"  
 120  
 80  
 40  
 0  
 40  
 80  
 120  
 1" = 40'-0"  
 90  
 60  
 30  
 0  
 30  
 60  
 90  
 1" = 30'-0"  
 60  
 40  
 20  
 0  
 20  
 40  
 60  
 80  
 1" = 20'-0"  
 24  
 16  
 8  
 0  
 8  
 16  
 24  
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 8  
 4  
 0  
 4  
 8  
 12  
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 4  
 0  
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 8  
 12  
 1" = 1'-0"  
 4  
 0  
 4  
 8  
 12  
 1" = 1'-0"

Z:\Drawing\Jobs\5525\5525-003\Bakersfield\Bakersfield City School District\Washington Middle School - HVAC\2124.dwg DATE PLOTTED: 06/13/23 BY: sven DATE PLOTTED: 06/13/23 JOB #: 22-11P-5E

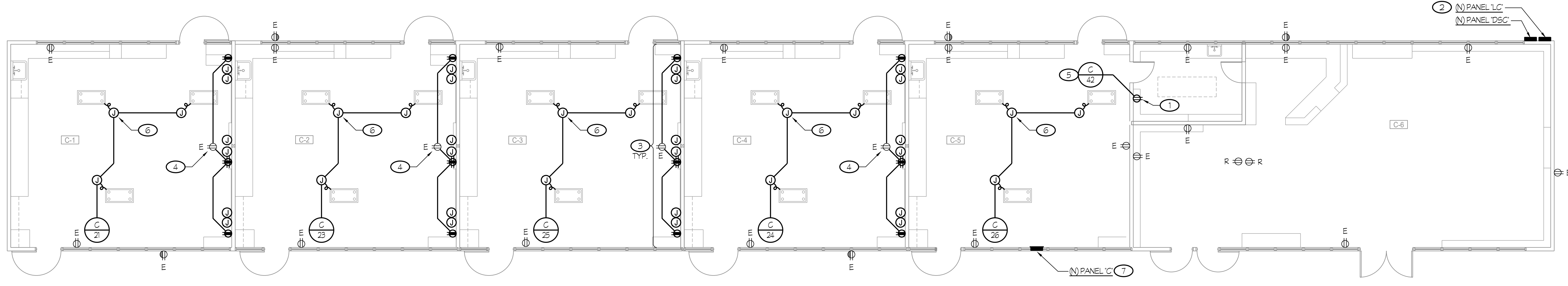
1" = 50'-0"  
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 1/8" = 1'-0"  
 1/4" = 1'-0"



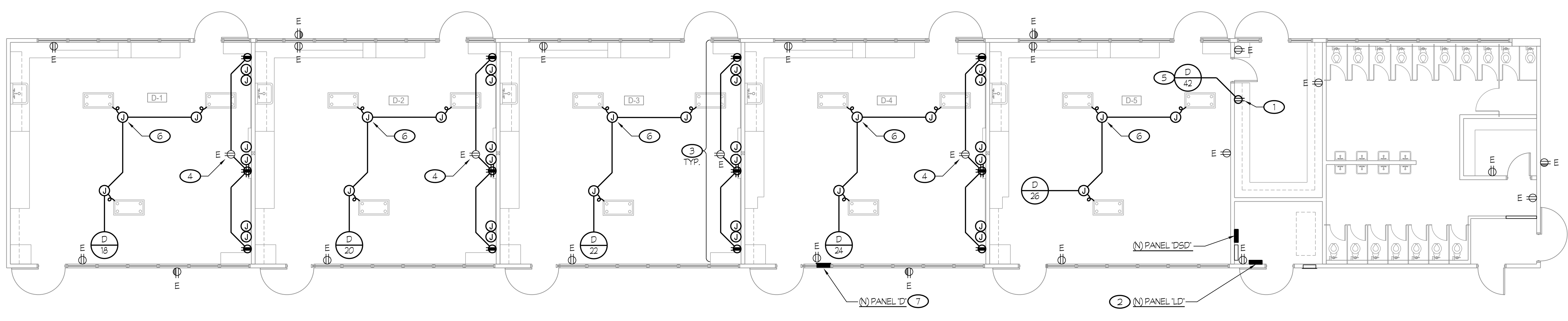
- NOTES (THIS SHEET ONLY):**
- COORDINATE EXACT LOCATION OF RECEPTACLE WITH MECHANICAL CONTROLLER AS REQUIRED.
  - REPLACE EXISTING PANEL WITH NEW AND CONNECT PER ONE-LINE DIAGRAM ON SHEET #E4.02. REFER TO DETAIL #E5.00 FOR MOUNTING REQUIREMENTS.
  - REFER TO DETAIL #E2.E0.01 FOR TYPICAL TEACHER WALL ELEVATION.
  - CONNECT TO EXISTING 120V CIRCUIT.
  - PROVIDE (1) 20A CIRCUIT BREAKER IN EXISTING PANEL MATCHING STYLE, TYPE, AND RATING. ACCEPTABLE TO CONNECT TO SPARE BREAKER AS AVAILABLE.
  - RECONNECT EXISTING MECHANICAL EQUIPMENT. EXTEND EXISTING CIRCUIT AS REQUIRED. TYPICAL.
  - REPLACE EXISTING PANEL WITH NEW. NEW PANEL SHALL FACE INTERIOR OF BUILDING. INSTALL PER DETAIL #E4.E5.00. EXTERIOR WALL SHALL BE PATCHED AS REQUIRED.

**GENERAL NOTES**  
 1. REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.

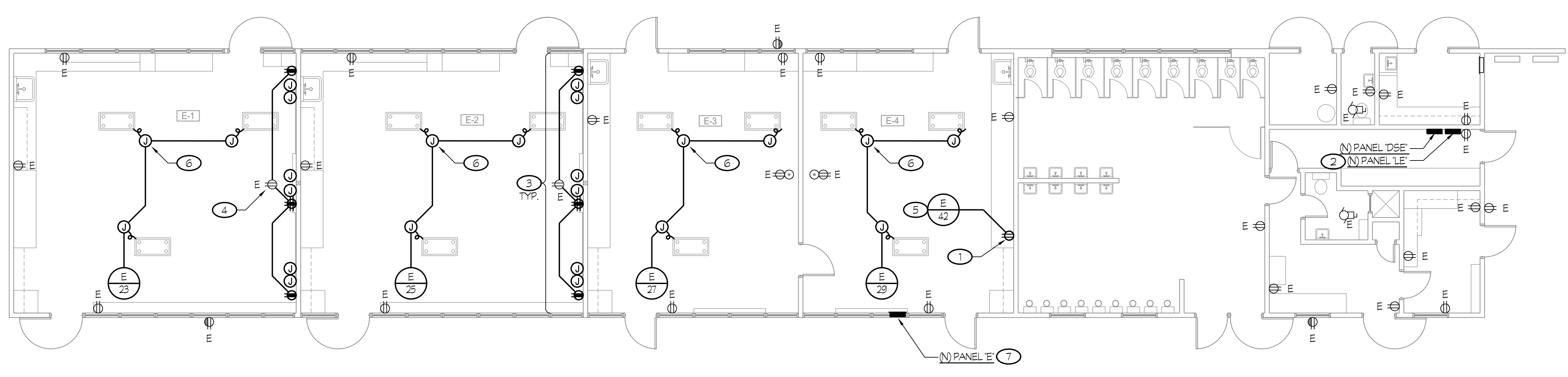
**1 NEW POWER PLAN - BUILDING "B"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**2 NEW POWER PLAN - BUILDING "C"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**3 NEW POWER PLAN - BUILDING "D"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**4 NEW POWER PLAN - BUILDING "E"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"

#	ROOM NAME
B-1	CLASSROOM
B-2	CLASSROOM
B-3	CLASSROOM
B-4	CLASSROOM
B-5	CLASSROOM
B-6	SCIENCE CLASSROOM

#	ROOM NAME
C-1	CLASSROOM
C-2	CLASSROOM
C-3	CLASSROOM
C-4	CLASSROOM
C-5	CLASSROOM
C-6	LIBRARY

#	ROOM NAME
D-1	CLASSROOM
D-2	CLASSROOM
D-3	CLASSROOM
D-4	CLASSROOM
D-5	CLASSROOM

#	ROOM NAME
E-1	CLASSROOM
E-2	CLASSROOM
E-3	CLASSROOM
E-4	CLASSROOM

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 APP: 03-122490 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

**integrated designs**  
 by SOMAM, Inc.

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 P:(559) 436-0881 F:(559) 436-0887  
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Sheet Title:  
**NEW POWER PLANS BLDGS "B, C, D & E"**

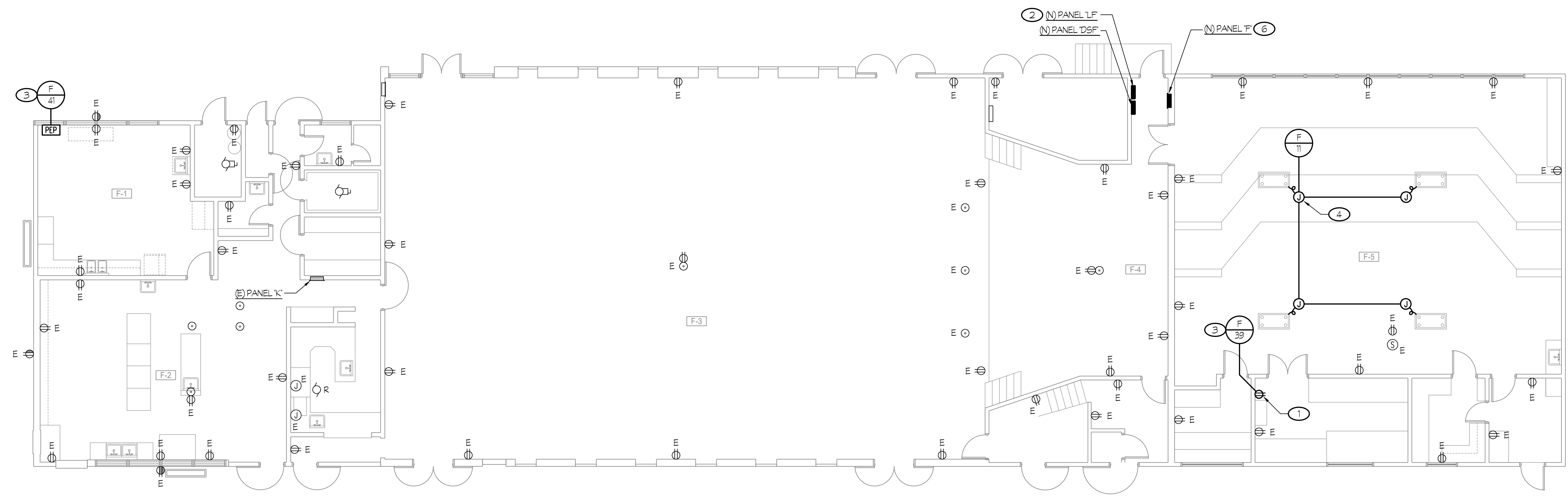
Job No.: **5525**

Sheet No.: **E2.10**

Revised: DSA BACKCHECK Issue Date: 06-13-2023

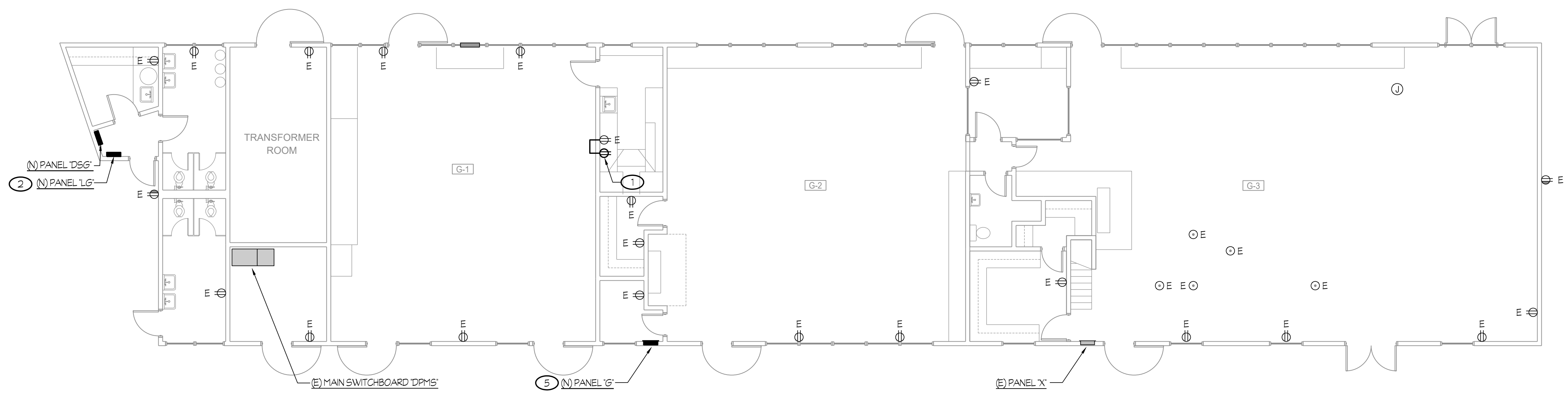
Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoorth - (559) 733-2671  
 Visalia, California 93292-6705

1" = 50'-0"  
 1" = 40'-0"  
 1" = 30'-0"  
 1" = 20'-0"  
 1" = 1'-0"  
 1/8" = 1'-0"  
 1/4" = 1'-0"



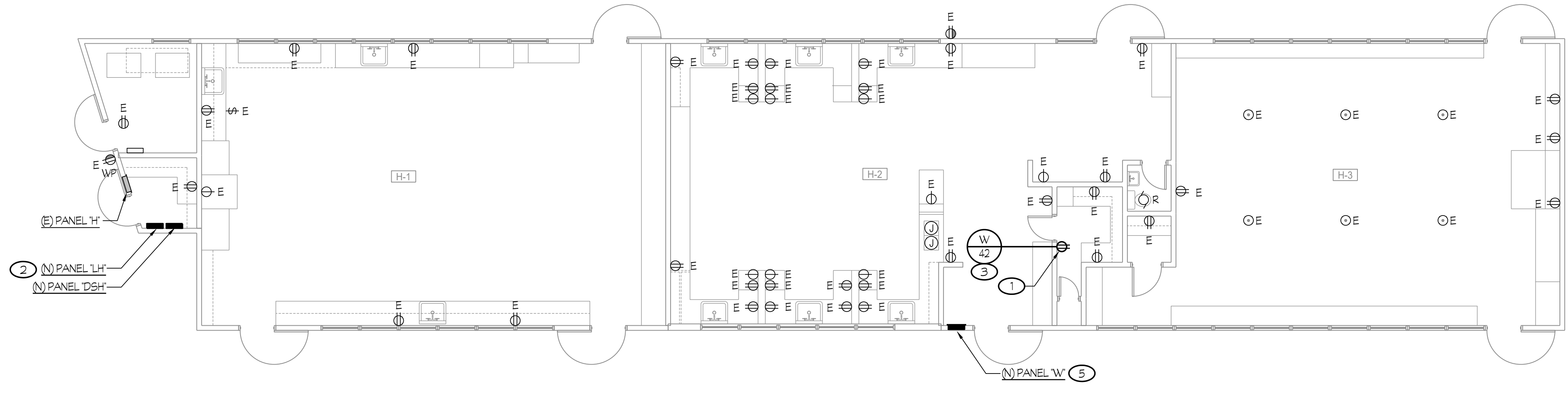
1 **NEW POWER PLAN - BUILDING "F"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



2 **NEW POWER PLAN - BUILDING "G"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



3 **NEW POWER PLAN - BUILDING "H"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"

- NOTES (THIS SHEET ONLY):**
- COORDINATE EXACT LOCATION OF RECEPTACLE WITH MECHANICAL CONTROLLER AS REQUIRED.
  - REPLACE EXISTING PANEL WITH NEW AND CONNECT PER ONE-LINE DIAGRAM ON SHEET #E4.02. REFER TO DETAIL #E6.E5.00 FOR MOUNTING REQUIREMENTS.
  - PROVIDE (1) 20A CIRCUIT BREAKER IN EXISTING PANEL MATCHING STYLE, TYPE, AND RATING. ACCEPTABLE TO CONNECT TO SPARE BREAKER AS AVAILABLE.
  - RECONNECT EXISTING MECHANICAL EQUIPMENT. EXTEND EXISTING CIRCUIT AS REQUIRED. TYPICAL.
  - REPLACE EXISTING PANEL WITH NEW. NEW PANEL SHALL FACE INTERIOR OF BUILDING. INSTALL PER DETAIL #H4.E5.00. EXTERIOR WALL SHALL BE PATCHED AS REQUIRED.
  - REPLACE EXISTING PANEL WITH NEW. NEW PANEL SHALL FACE INTERIOR OF BUILDING. INSTALL PER DETAIL #H4.E5.00.

**GENERAL NOTES**

- REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.

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**BAKERSFIELD CITY SCHOOL DISTRICT**  
**1300 BAKER STREET**  
**BAKERSFIELD, CA 93309**

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
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ROOM LEGEND	
#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM

Stamp:  
 Sheet Title:  
**NEW POWER PLANS - BLDG "F, G & H"**  
 Job No.: **5525**  
 Sheet No.: **E2.11**  
 Release: DSA BACKCHECK Issue Date: 06-13-2023

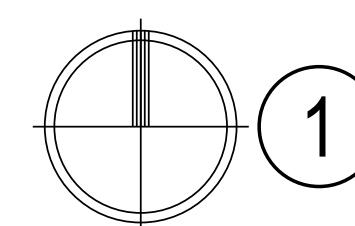
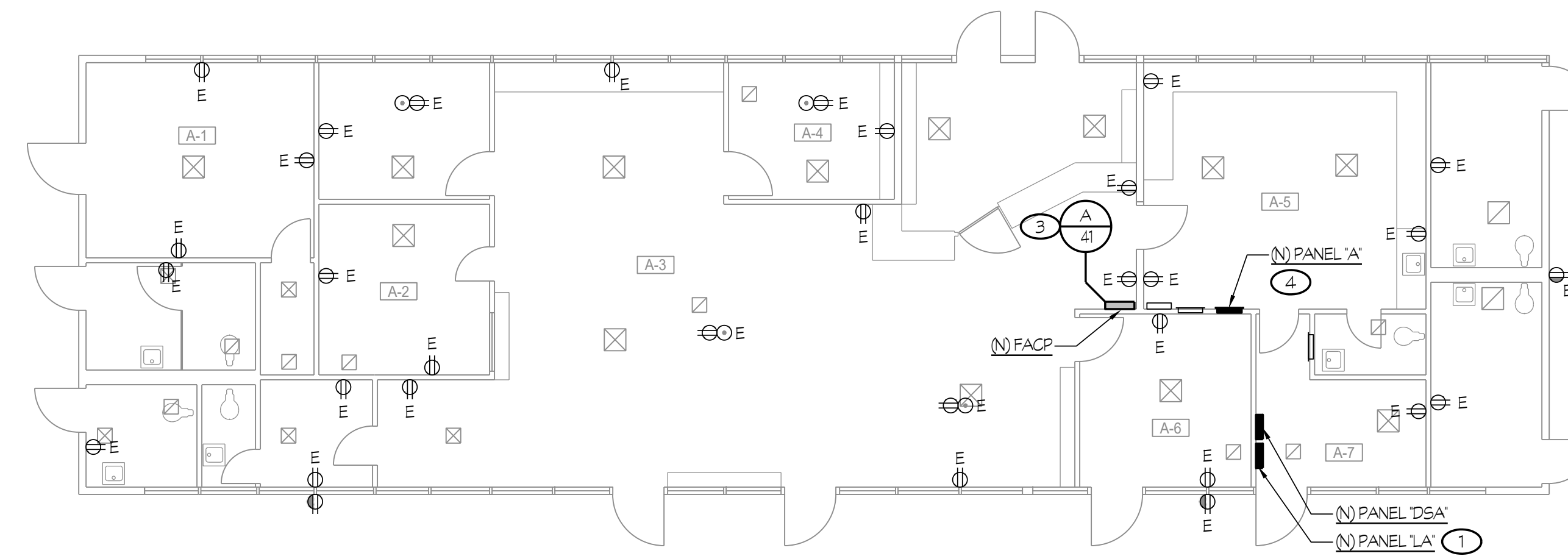
Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoorth - (559) 733-2671  
 Visalia, California 93292-6705

**NOTES (THIS SHEET ONLY):**

- 1 REPLACE EXISTING PANEL WITH NEW AND CONNECT PER ONE-LINE DIAGRAM ON SHEET #E4-02. REFER TO DETAIL #E5.00 FOR MOUNTING REQUIREMENTS.
- 2 COORDINATE WITH CONTRACTOR. IF REQUIRED, REMOVE AND REINSTALL LIGHT FIXTURES REQUIRED TO CLEAR WAY FOR DEMOLITION. OTHERWISE, EXISTING LIGHT FIXTURES TO REMAIN. REINSTALL LIGHT FIXTURE, PER DETAIL #E2.00.
- 3 PROVIDE (1) 20A CIRCUIT BREAKER IN EXISTING PANEL, MATCHING STYLE, TYPE, AND RATING. ACCEPTABLE TO CONNECT TO SPARE BREAKER AS AVAILABLE.
- 4 REPLACE EXISTING PANEL WITH NEW. NEW PANEL SHALL FACE INTERIOR OF BUILDING. INSTALL PER DETAIL #E4.00, FOR MOUNTING REQUIREMENTS.
- 5 PROVIDE 30A, 480V, 3-PHASE FUSED DISCONNECT SWITCH WITH 30A FUSES (TO BE VERIFIED WITH NAMEPLATE) AND CONNECT TO MECHANICAL UNIT AS REQUIRED.
- 6 3/4" C - 3 #10 + 1 #10 GND.

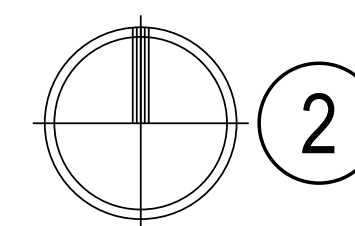
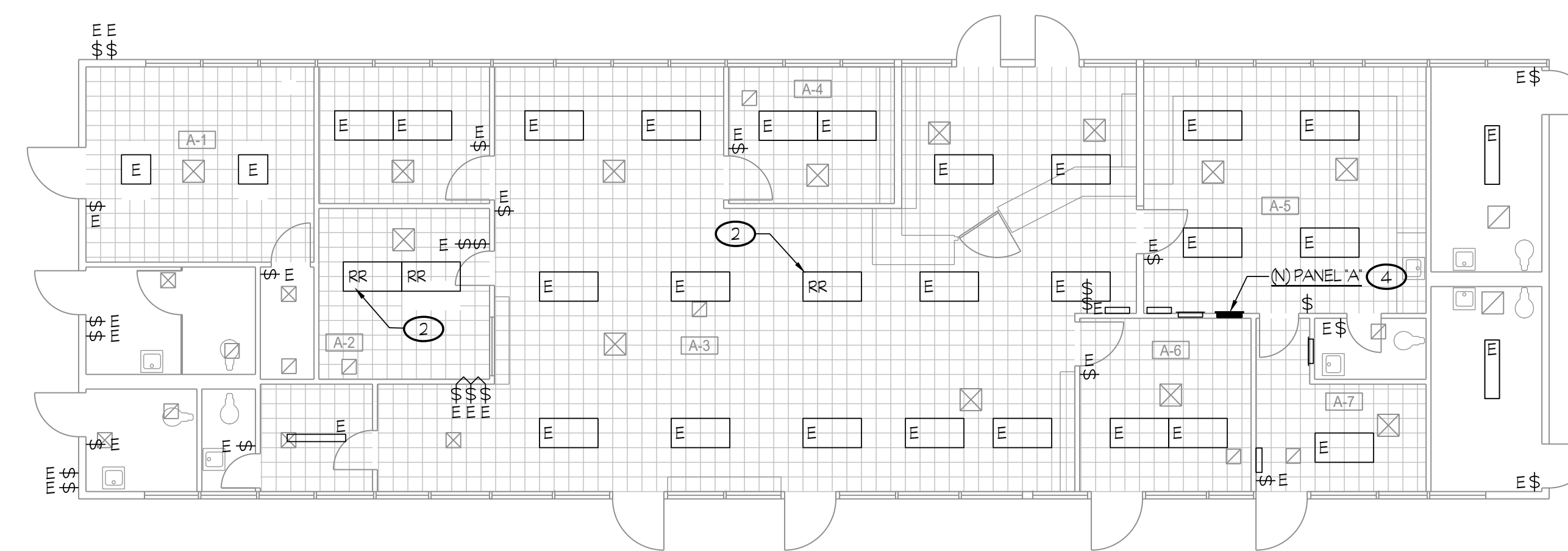
**GENERAL NOTES**

1. REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.



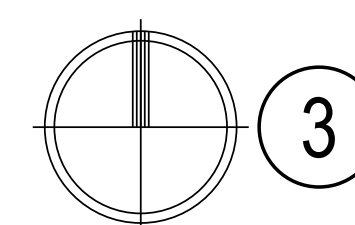
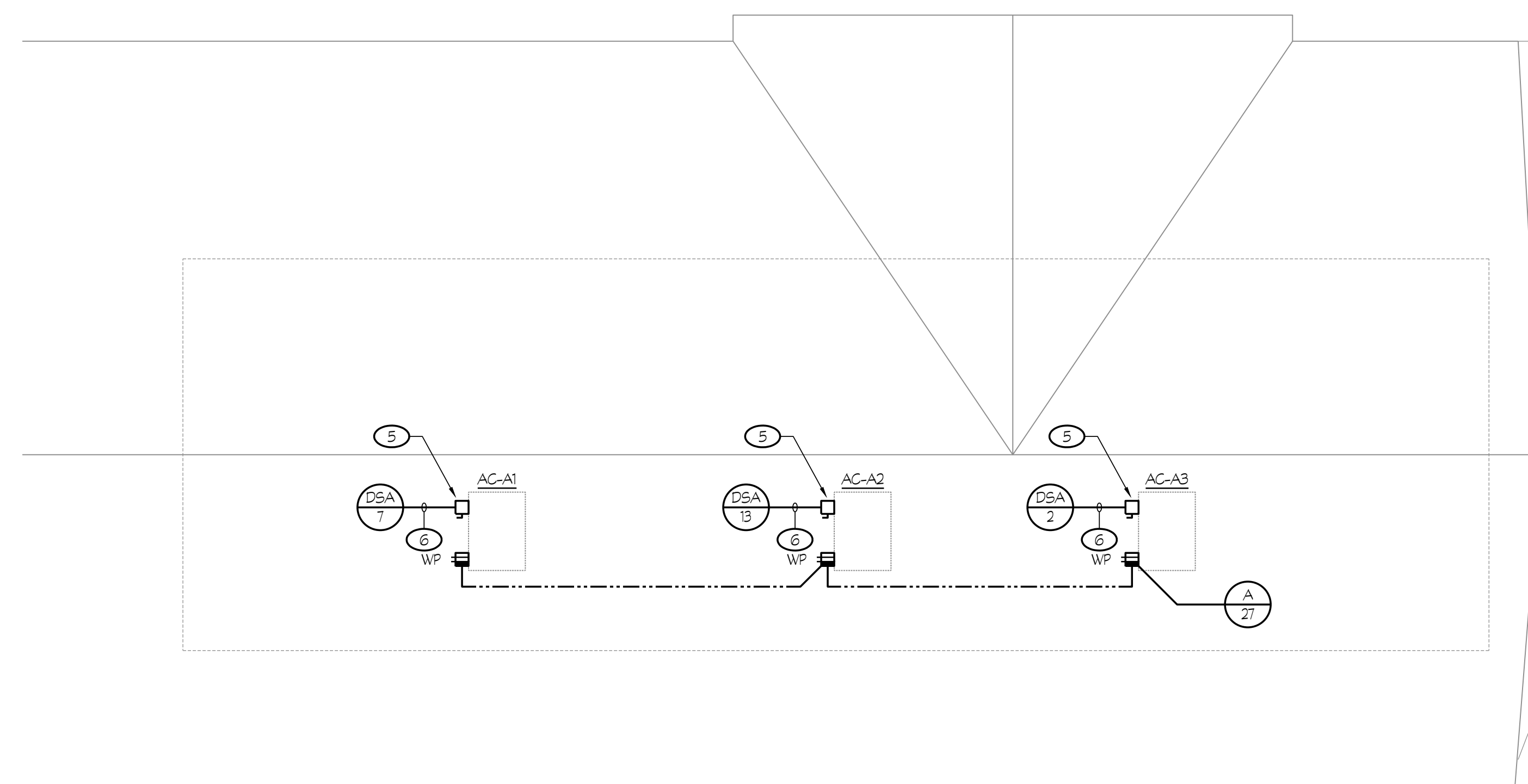
**1 NEW POWER PLAN - BUILDING "A"  
CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



**2 NEW LIGHTING PLAN - BUILDING "A"  
CENTRAL PLANT REPLACEMENT**

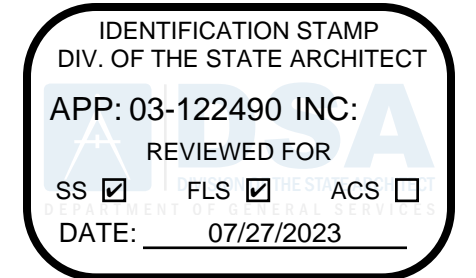
SCALE: 1/8" = 1'-0"



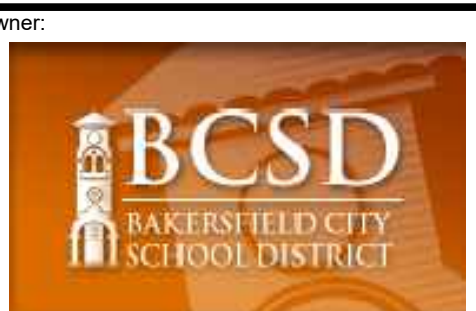
**3 NEW ROOF ELECTRICAL PLAN - BUILDING "A"  
CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"

ROOM LEGEND	
#	ROOM NAME
A-1	TEACHERS LOUNGE
A-2	PRINCIPAL
A-3	RECEPTION
A-4	COUNSELOR
A-5	SUPPLIES
A-6	VICE PRINCIPAL
A-7	CHECK OUT



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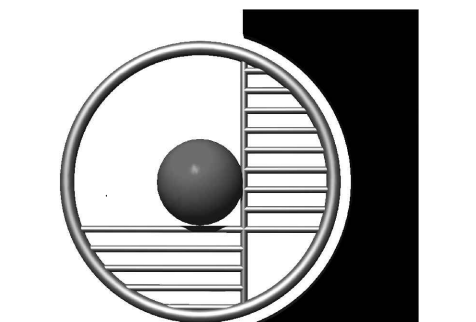


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CITY SCHOOL  
DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT  
REPLACEMENT**

Project Address:  
**WASHINGTON  
MIDDLE SCHOOL**

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BAKERSFIELD, CA 93305



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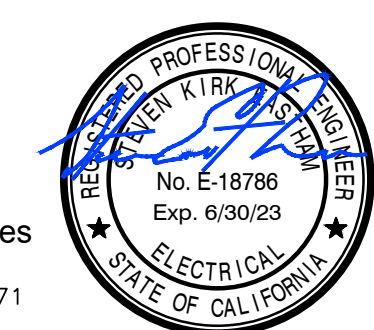
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**NEW  
ELECTRICAL PLAN  
- BUILDING "A"**

Job No.:  
**5525**

Sheet No.:  
**E2.12**

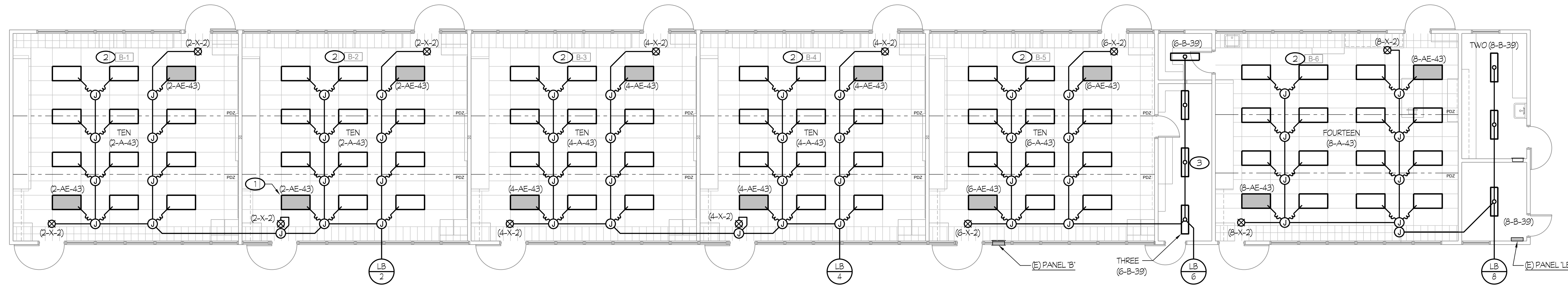
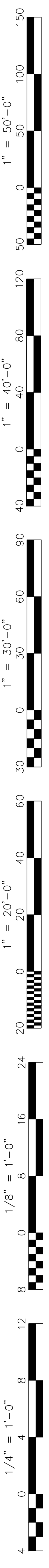
Release: DSA BACKCHECK Issue Date: 06-13-2023

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131 S. Sunnyside - (559) 733-2671  
Visalia, California 93292-6705



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1/4" = 1'-0"  
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1" = 40'-0"  
1" = 50'-0"

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**NOTES (THIS SHEET ONLY):**

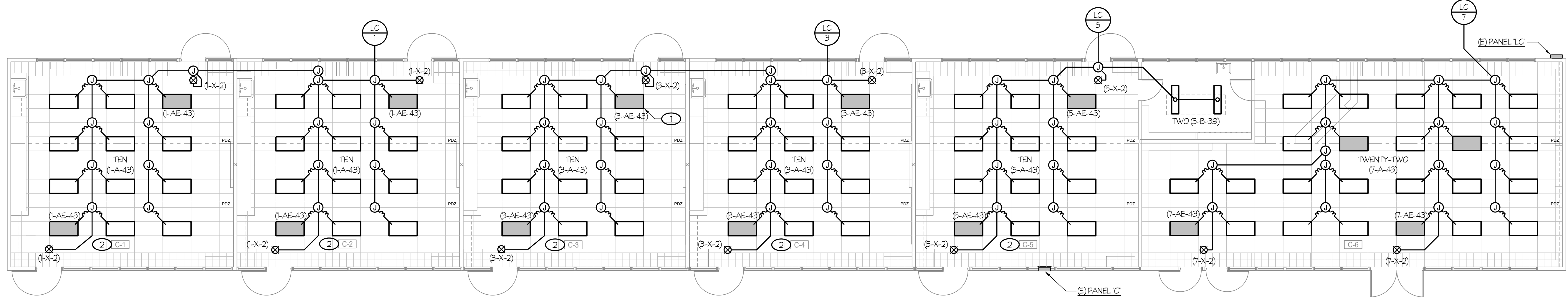
- 1 SYMBOL DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #3/E5.00.
- 2 REFER TO TYPICAL LIGHTING CONTROL PLAN, #1/E2.22 FOR ADDITIONAL WORK.
- 3 REFER TO TYPICAL LIGHTING CONTROL PLAN, #2/E2.22 FOR ADDITIONAL WORK.

**GENERAL NOTES**

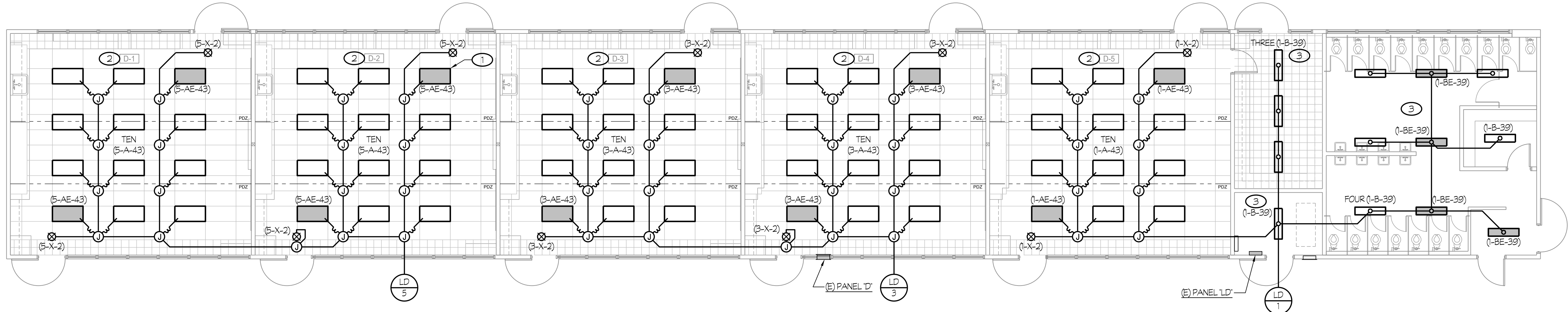
- 1 REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.

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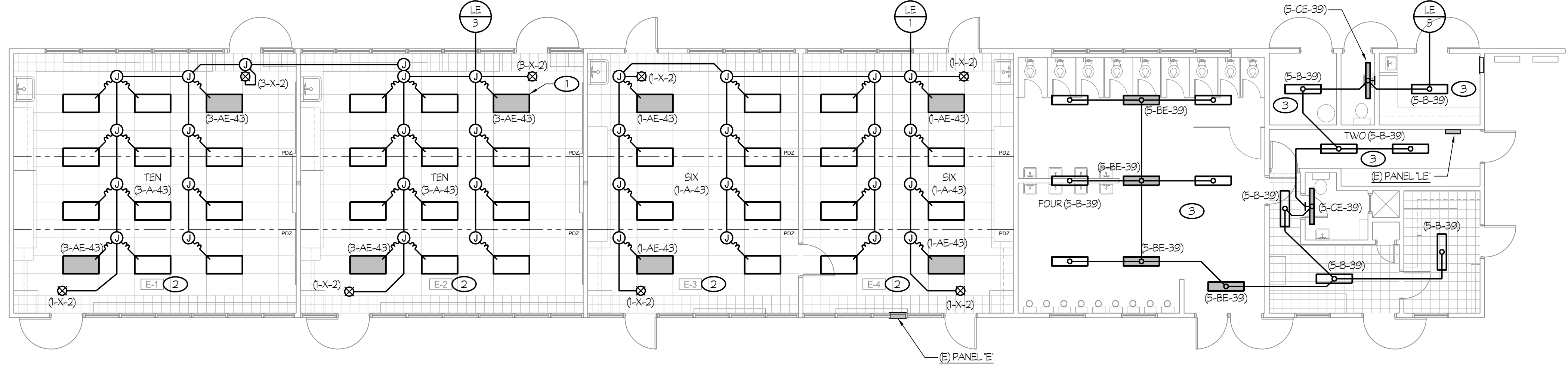
**1 NEW LIGHTING PLAN - BUILDING "B"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**2 NEW LIGHTING PLAN - BUILDING "C"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**3 NEW LIGHTING PLAN - BUILDING "D"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**4 NEW LIGHTING PLAN - BUILDING "E"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"

ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
B-1	CLASSROOM	C-1	CLASSROOM
B-2	CLASSROOM	C-2	CLASSROOM
B-3	CLASSROOM	C-3	CLASSROOM
B-4	CLASSROOM	C-4	CLASSROOM
B-5	CLASSROOM	C-5	CLASSROOM
B-6	SCIENCE CLASSROOM	C-6	LIBRARY

ROOM LEGEND		ROOM LEGEND	
#	ROOM NAME	#	ROOM NAME
D-1	CLASSROOM	E-1	CLASSROOM
D-2	CLASSROOM	E-2	CLASSROOM
D-3	CLASSROOM	E-3	CLASSROOM
D-4	CLASSROOM	E-4	CLASSROOM
D-5	CLASSROOM		

Owner:  
 BAKERSFIELD CITY SCHOOL DISTRICT  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

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Sheet Title:  
**NEW LIGHTING PLANS BLDGS "B, C, D & E"**

Job No.: **5525**

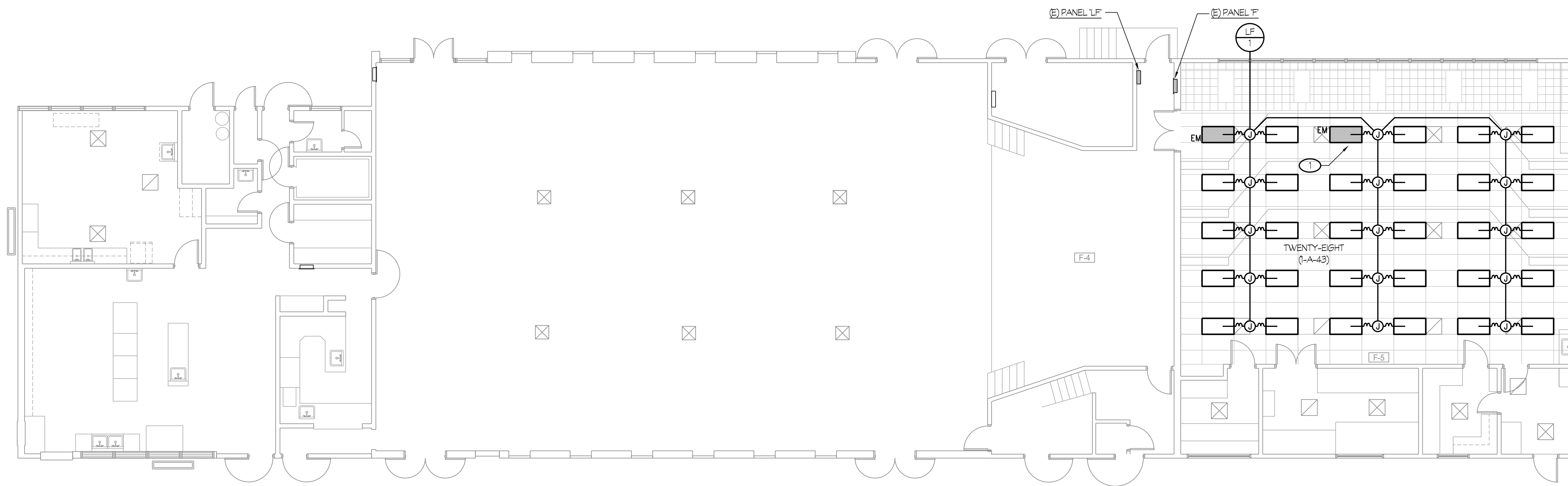
Sheet No.: **E2.20**

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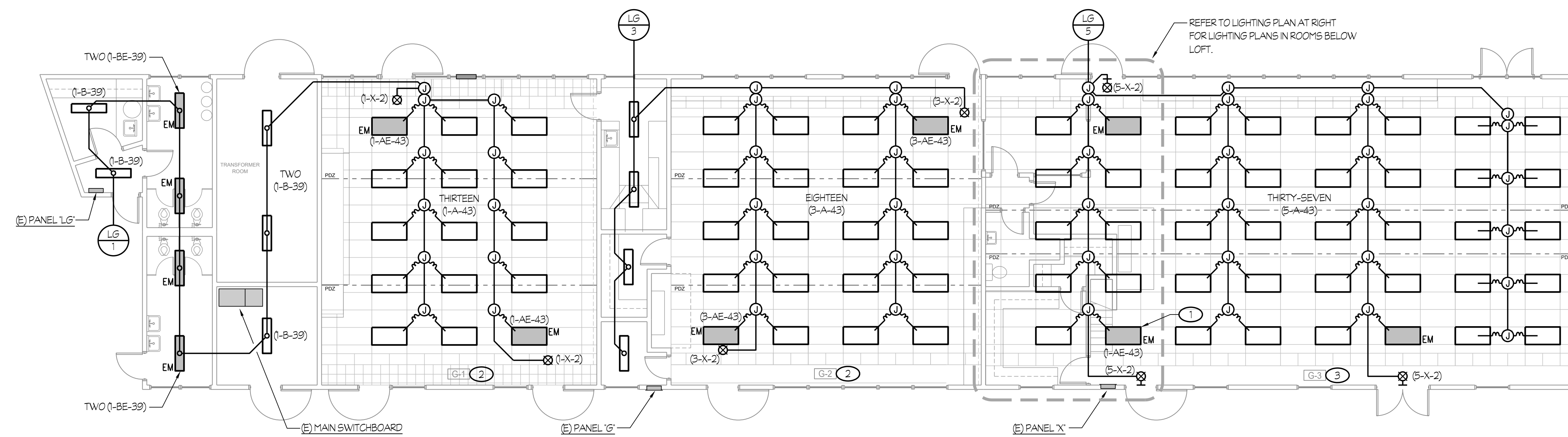


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1/4" = 1'-0"  
1" = 20'-0"  
1" = 30'-0"  
1" = 40'-0"  
1" = 50'-0"



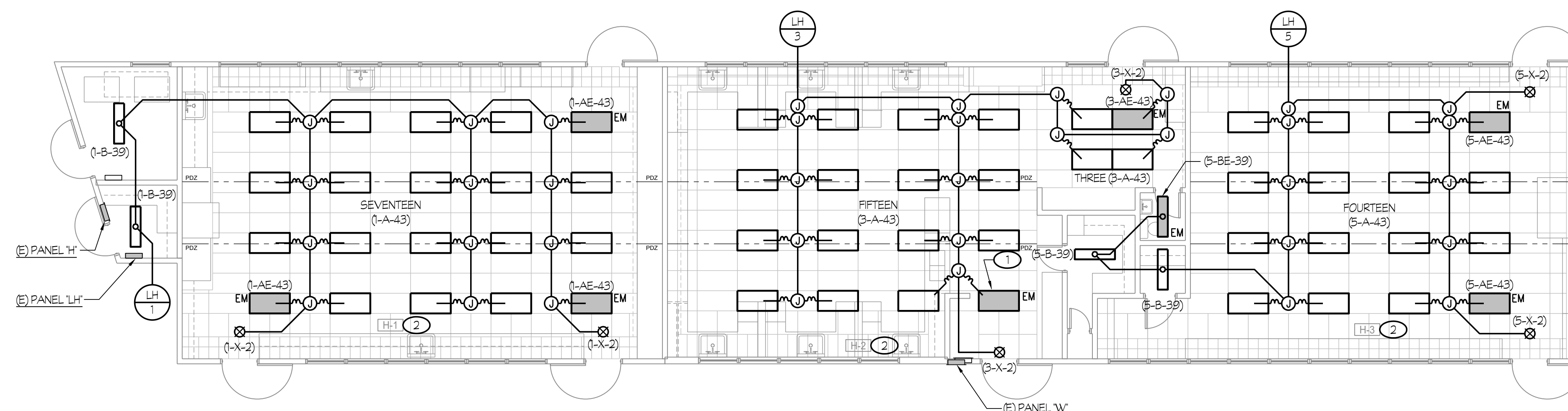
1 **NEW LIGHTING PLAN - BUILDING "F"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



2 **NEW LIGHTING PLAN - BUILDING "G"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



4 **NEW LIGHTING PLAN - BUILDING "H"**  
**CENTRAL PLANT REPLACEMENT**

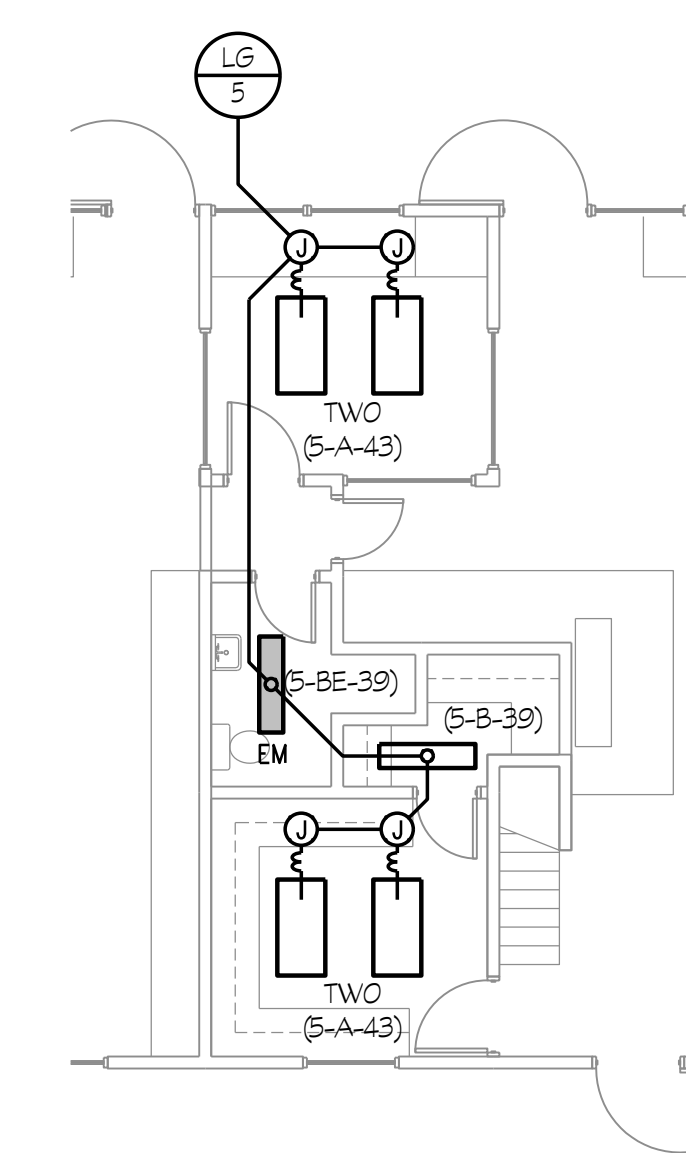
SCALE: 1/8" = 1'-0"

**NOTES (THIS SHEET ONLY):**

- SYMBOL DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #3/E5.00.
- REFER TO TYPICAL LIGHTING CONTROL PLAN, #1/E2.22 FOR ADDITIONAL WORK.
- REFER TO TYPICAL LIGHTING CONTROL PLAN, #4/E2.22 FOR ADDITIONAL WORK.

**GENERAL NOTES**

- REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.



3 **NEW LIGHTING PLAN - BUILDING "G"**  
**ROOMS BELOW**  
**CENTRAL PLANT REPLACEMENT**

ROOM LEGEND	
#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM

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BAKERSFIELD, CA 93309

Project Name:  
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Project Address:  
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by SOMAM, Inc.  
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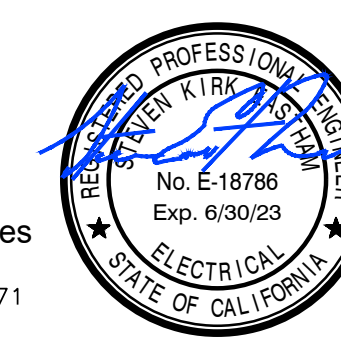
Sheet Title:  
**NEW LIGHTING PLANS - BLDG "F, G & H"**

Job No.: **5525**

Sheet No.: **E2.21**

Released: DSA BACKCHECK Issue Date: 06-13-2023

Rose Sing Eastham & Associates  
Electrical Consultants  
131 S. Dunwoorth - (559) 733-2671  
Visalia, California 93292-6705





NOTES (THIS SHEET ONLY):

- ① --- C5 --- DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 P/N-PAR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #HPL52 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
- ② IN STUDENT RESTROOMS WITH PARTITIONED STALLS, PROVIDE CEILING MOUNTED OCCUPANCY SENSOR (DUAL TECHNOLOGY) AND KEYED WALL SWITCH. IN STAFF OR SINGLE USE RESTROOMS, PROVIDE WALL SWITCH WITH OCCUPANCY SENSOR (DUAL TECHNOLOGY). TYPICAL FOR RESTROOMS WITH NEW LIGHTS.
- ③ REFER TO DETAIL #10/EE.00 FOR WIRING DIAGRAM OF CONTROL DEVICES. TYPICAL

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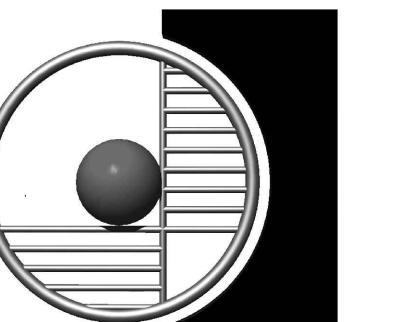


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1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**

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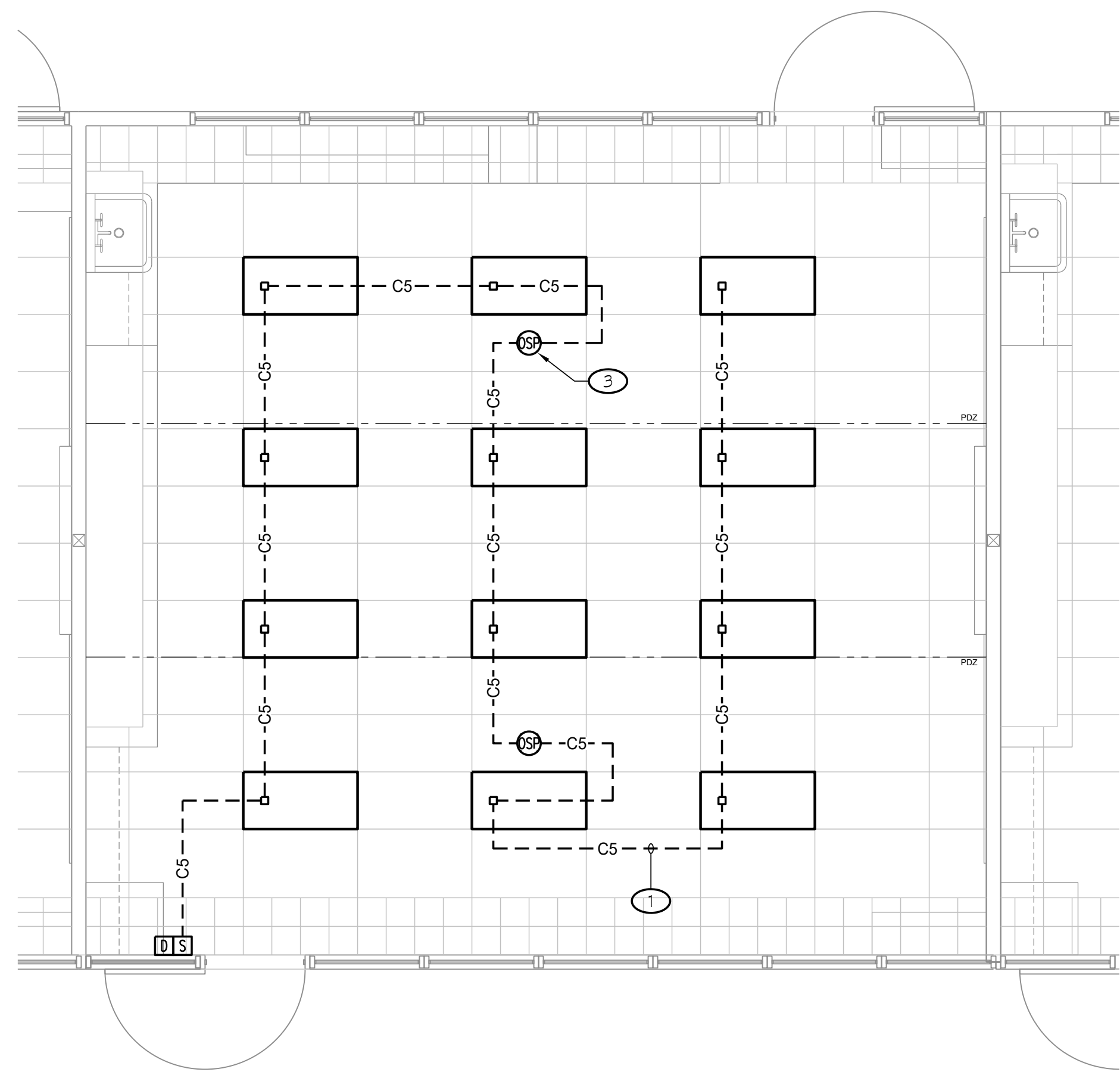
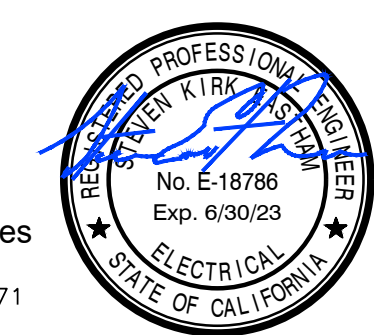
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**TYPICAL LIGHTING CONTROL PLANS**

Job No.: **5525**

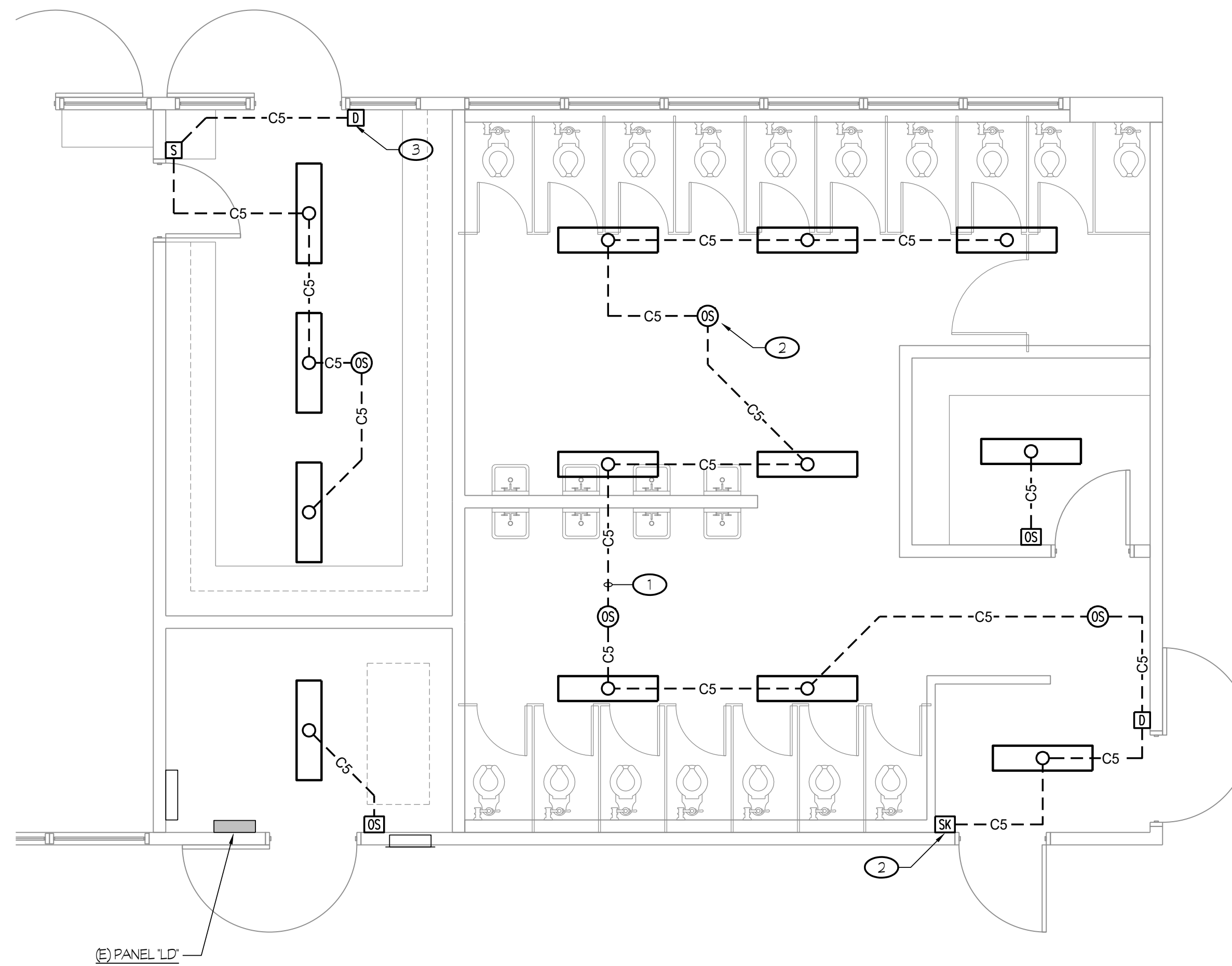
Sheet No.: **E2.22**

Released: DSA BACKCHECK Issue Date: 06-13-2023

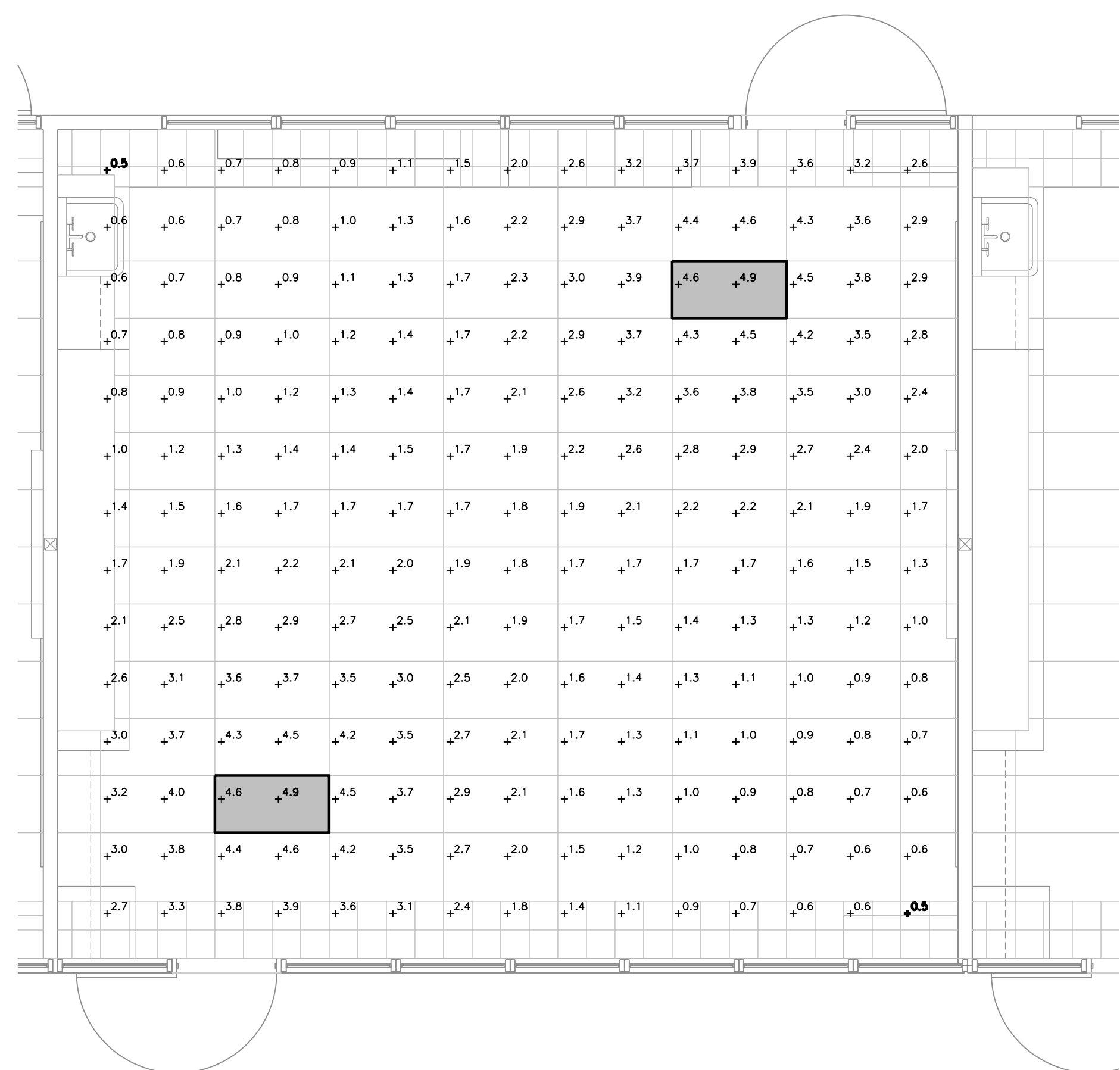
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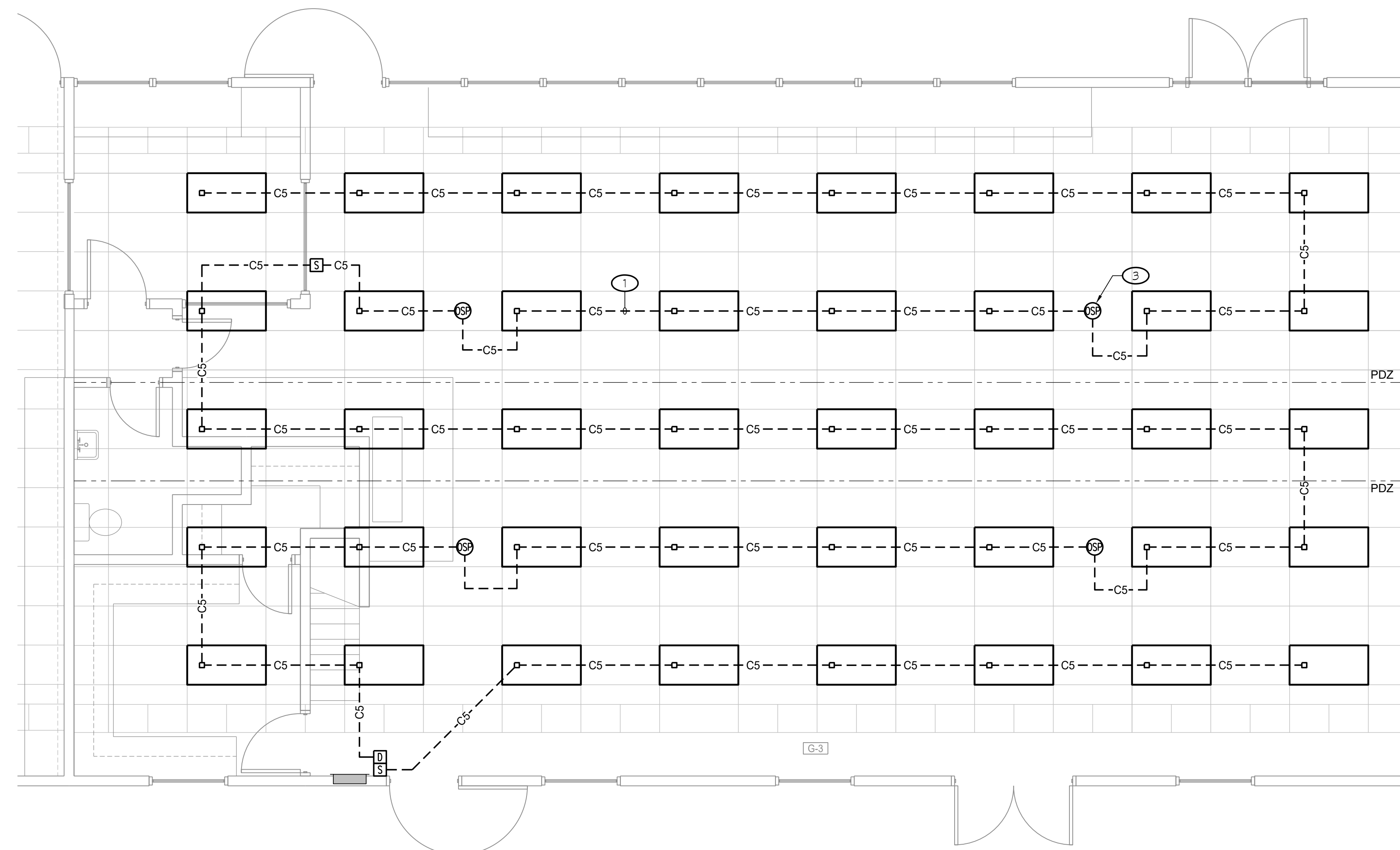
① **TYPICAL LIGHTING CONTROL PLAN**  
CENTRAL PLANT REPLACEMENT SCALE: 1/4" = 1'-0"



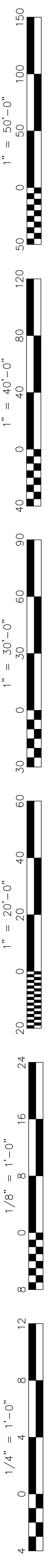
② **TYPICAL LIGHTING CONTROL PLAN**  
CENTRAL PLANT REPLACEMENT SCALE: 1/4" = 1'-0"



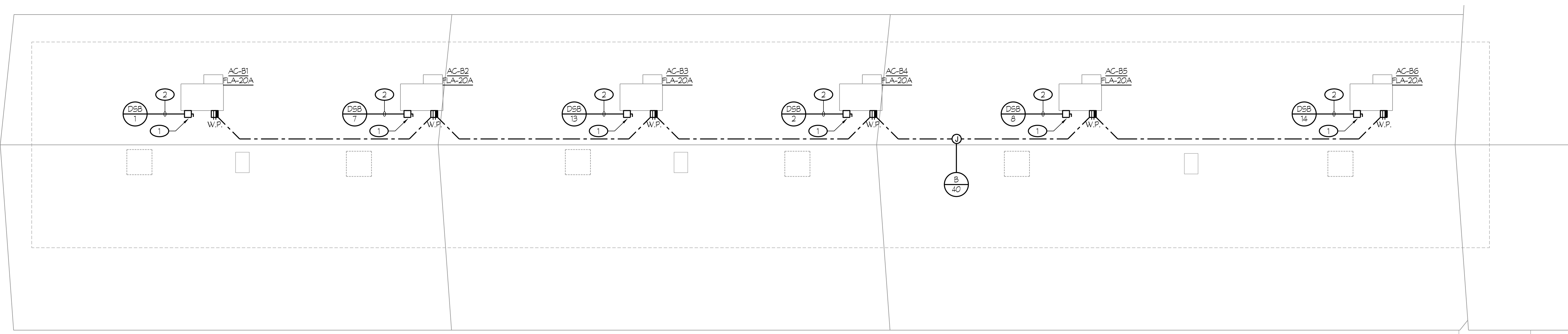
③ **TYPICAL CLASSROOM EMERGENCY LIGHTING PHOTOMETRIC PLAN**  
CENTRAL PLANT REPLACEMENT SCALE: 1/4" = 1'-0"



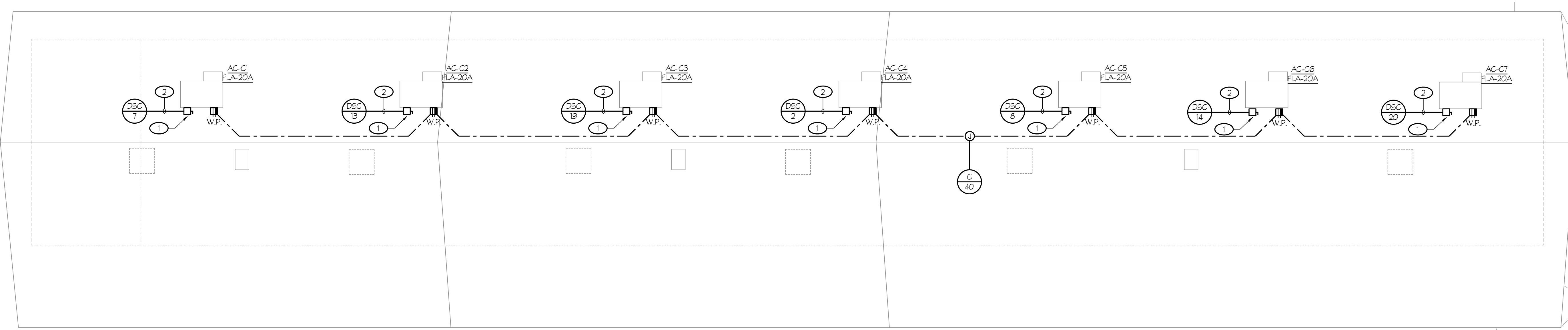
④ **LIBRARY LIGHTING CONTROL PLAN - BUILDING "G"**  
CENTRAL PLANT REPLACEMENT SCALE: 1/4" = 1'-0"



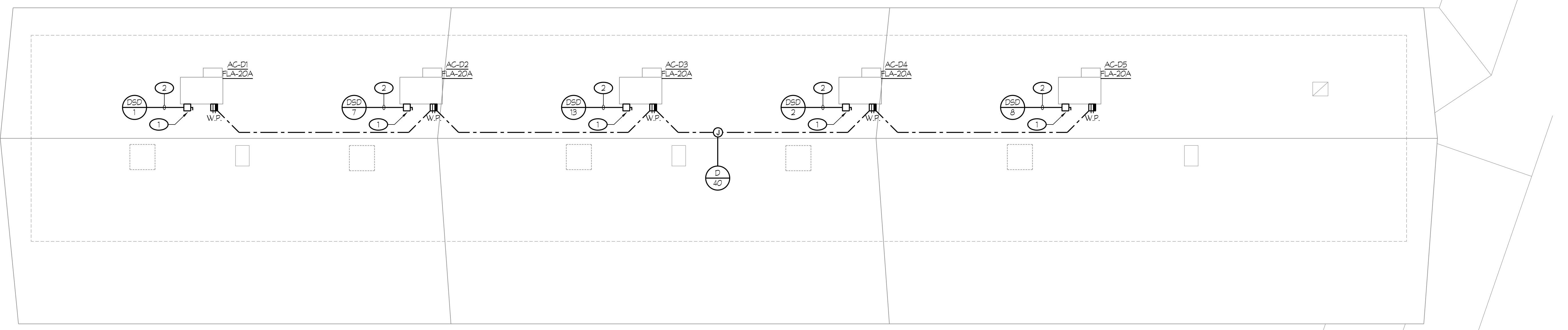
150  
100  
50  
0  
50  
100  
150  
1" = 50'-0"  
40  
0  
40  
80  
120  
1" = 40'-0"  
90  
0  
30  
60  
120  
1" = 30'-0"  
80  
0  
20  
40  
60  
120  
1" = 20'-0"  
24  
0  
8  
16  
24  
1" = 1'-0"  
8  
0  
4  
8  
12  
16  
24  
1" = 1'-0"  
4  
0  
4  
8  
12  
16  
24  
1" = 1'-0"



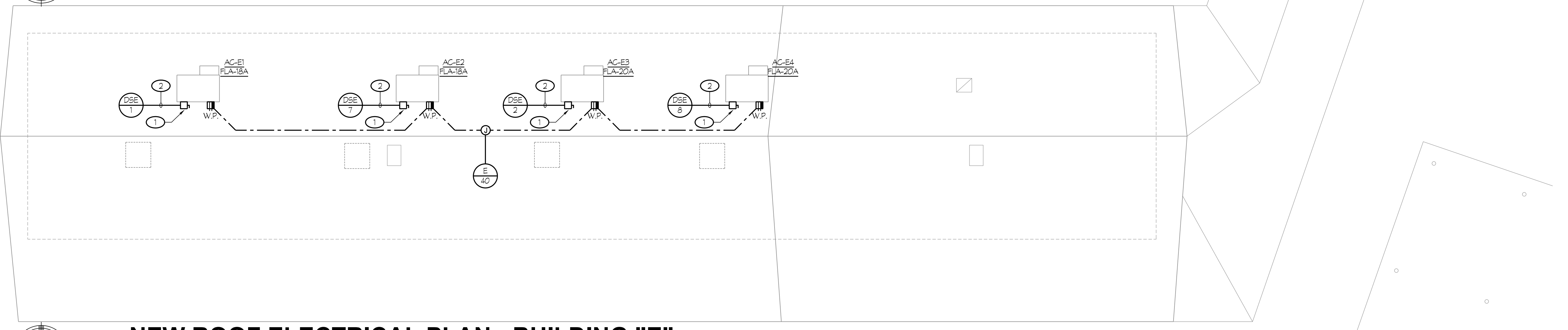
**1 NEW ROOF ELECTRICAL PLAN - BUILDING "B"**  
CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



**2 NEW ROOF ELECTRICAL PLAN - BUILDING "C"**  
CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



**3 NEW ROOF ELECTRICAL PLAN - BUILDING "D"**  
CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"




**4 NEW ROOF ELECTRICAL PLAN - BUILDING "E"**  
CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"

**NOTES (THIS SHEET ONLY):**  
 1. PROVIDE 30A, 480V, 3-POLE FUSED DISCONNECT SWITCH WITH 20A FUSES (TO BE VERIFIED WITH NAMEPLATE) AND CONNECT TO MECHANICAL UNIT AS REQUIRED.  
 2. 3/4" C-3 #10-1 #10 GND.

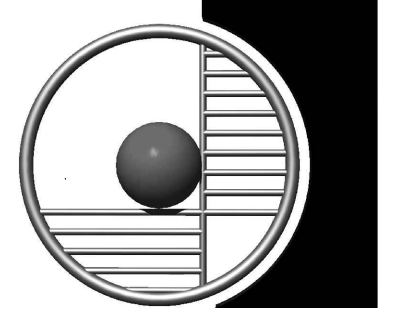
**GENERAL NOTES**  
 1. REFER TO DETAILS ON SHEET #E2.01 FOR CONDUIT MOUNTING REQUIREMENTS.

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Owner:  
  
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**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
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**NEW ROOF ELECTRICAL PLANS  
 BLDGS "B, C, D & E"**

Job No.:  
**5525**

Sheet No.:  
**E2.30**

Released: DSA BACKCHECK Issue Date: 06-13-2023

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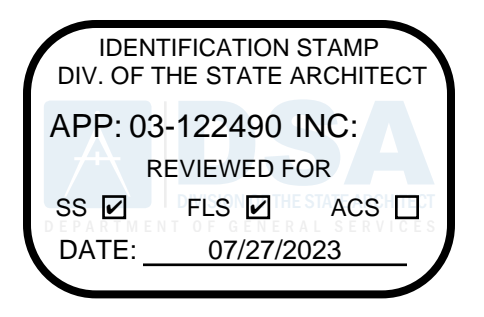
  
 No. E-16786  
 Exp. 03/02/23  
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**NOTES (THIS SHEET ONLY):**

- 1 PROVIDE 30A 480V, 3-POLE FUSED DISCONNECT SWITCH WITH 20A FUSES TO BE VERIFIED WITH NAMEPLATE AND CONNECT TO MECHANICAL UNIT AS REQUIRED.
- 2 3/4" C - 3 #10 + 1 #10 GND.
- 3 PROVIDE WEATHERPROOF 30A, 480V, 3-POLE FUSED DISCONNECT SWITCH WITH 30A FUSES TO BE VERIFIED WITH NAMEPLATE AND CONNECT TO MECHANICAL UNIT AS REQUIRED.
- 4 3/4" C - 3 #12 + 1 #12 GND.

**GENERAL NOTES**

1. REFER TO DETAILS ON SHEET #E2.01 FOR CONDUIT MOUNTING REQUIREMENTS.



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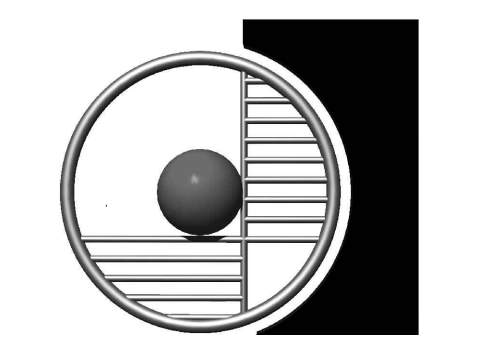


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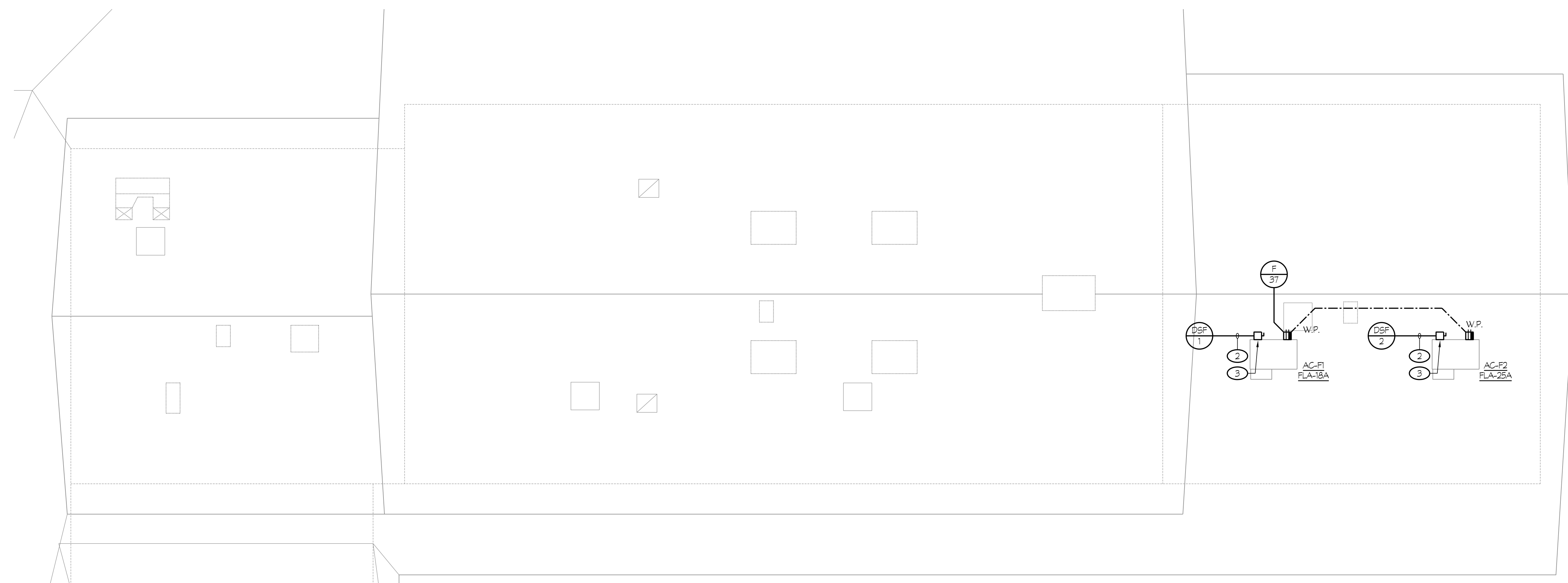
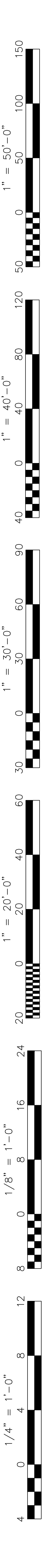
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Sheet Title:  
**NEW POWER PLANS - BLDG "F, G & H"**

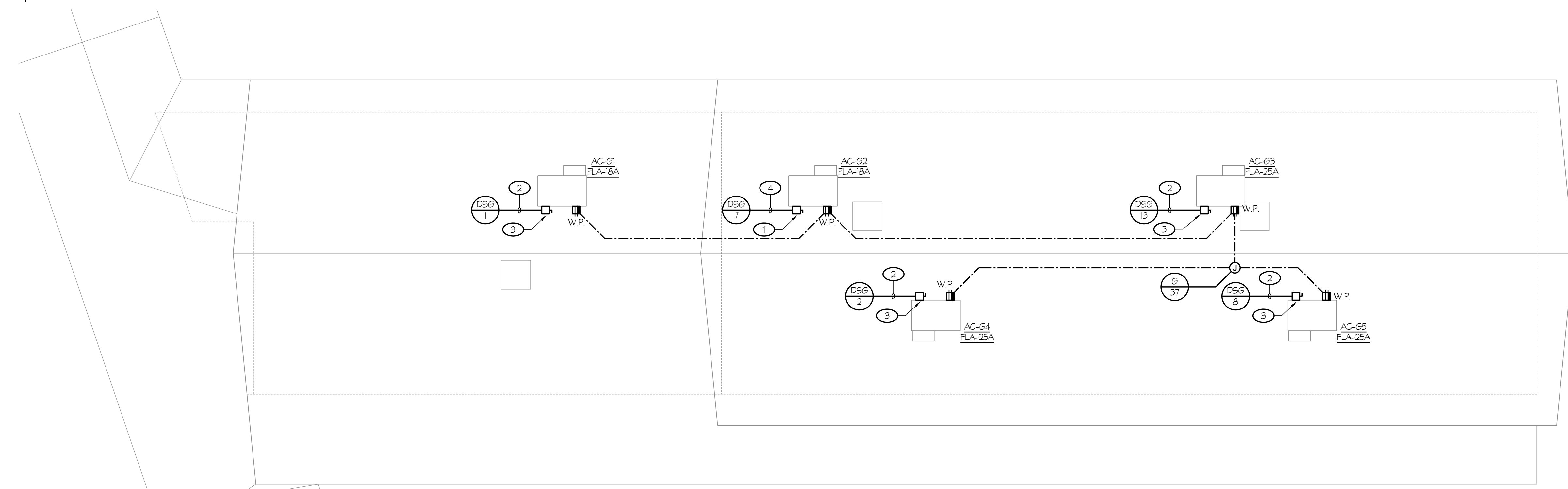
Job No.:  
**5525**

Sheet No.:  
**E2.31**

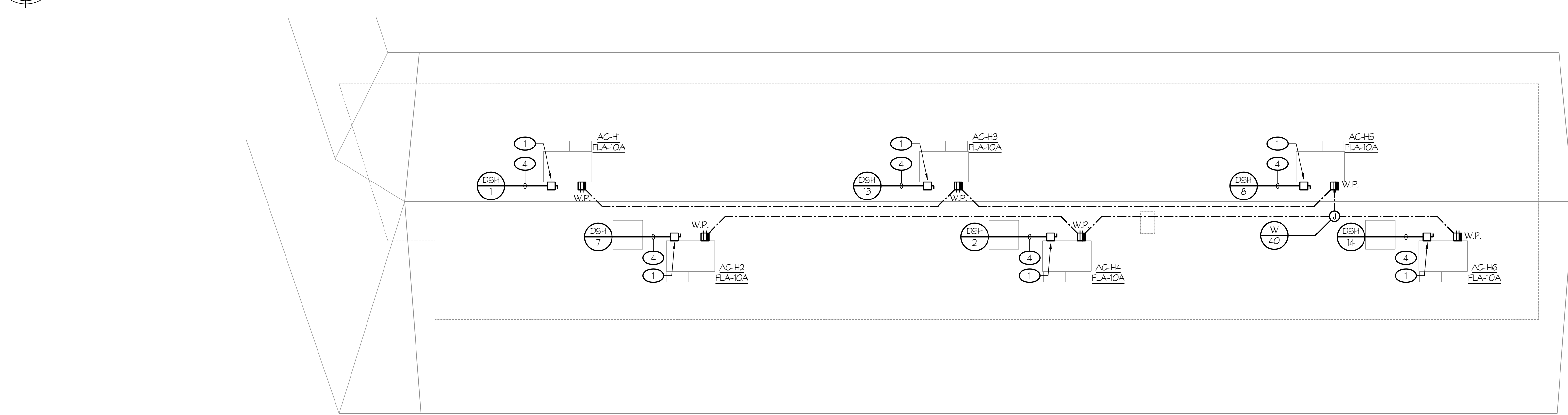
Release: DSA BACKCHECK Issue Date: 06-13-2023



**1 NEW ROOF ELECTRICAL PLAN - BUILDING "F"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**2 NEW ROOF ELECTRICAL PLAN - BUILDING "G"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**3 NEW ROOF ELECTRICAL PLAN - BUILDING "H"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"

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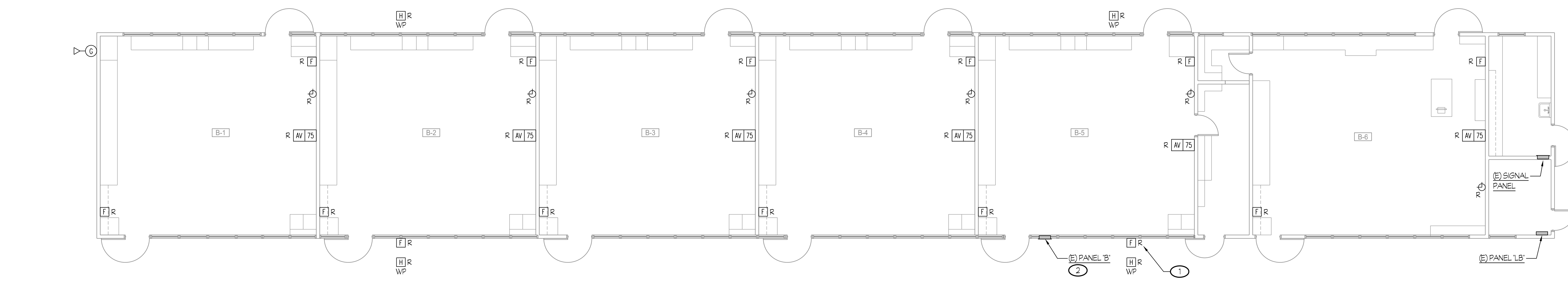


NOTES (THIS SHEET ONLY):

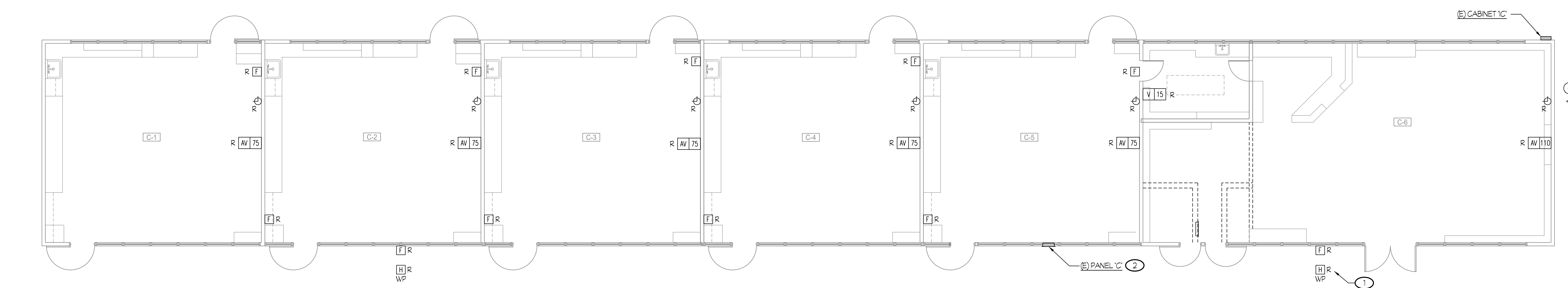
- 1 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'R'. DISCONNECT AND REMOVE EXISTING DEVICE INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
- 2 TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N. EXISTING DEVICE TO REMAIN. RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY LPSTREAM DEVICES REMOVED.

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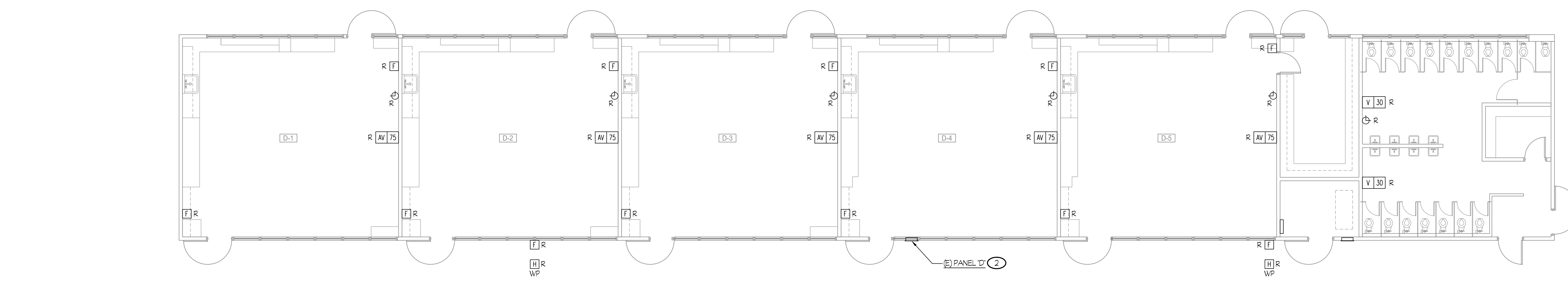
1" = 50'-0"  
 1" = 40'-0"  
 1" = 30'-0"  
 1" = 20'-0"  
 1" = 1'-0"  
 1/8" = 1'-0"  
 1/4" = 1'-0"



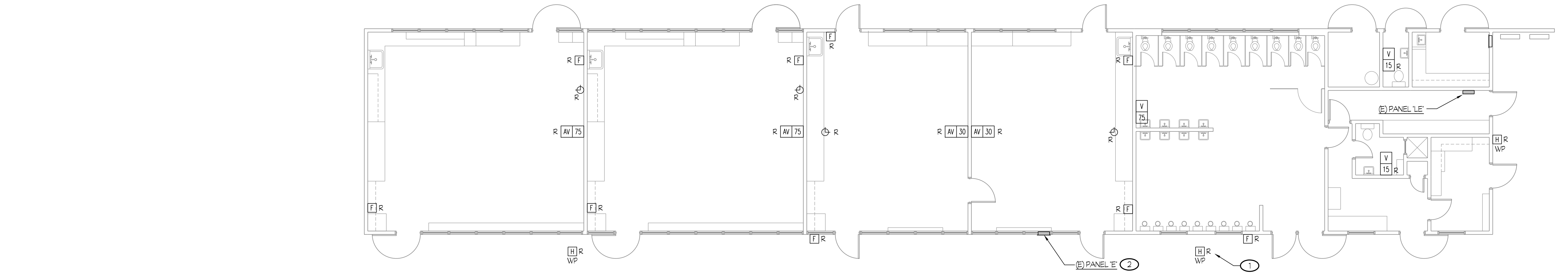
1 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "B"  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



2 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "C"  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



3 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "D"  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"



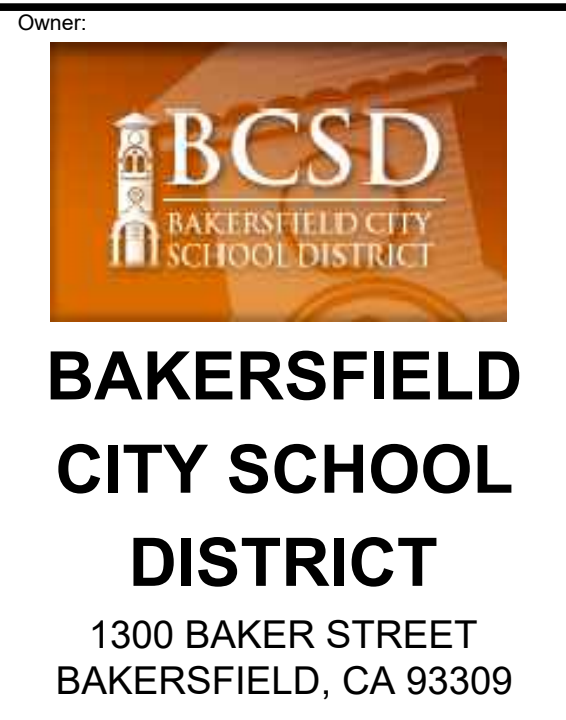
4 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "E"  
 CENTRAL PLANT REPLACEMENT SCALE: 1/8" = 1'-0"

#	ROOM NAME
B-1	CLASSROOM
B-2	CLASSROOM
B-3	CLASSROOM
B-4	CLASSROOM
B-5	CLASSROOM
B-6	SCIENCE CLASSROOM

#	ROOM NAME
C-1	CLASSROOM
C-2	CLASSROOM
C-3	CLASSROOM
C-4	CLASSROOM
C-5	CLASSROOM
C-6	LIBRARY

#	ROOM NAME
D-1	CLASSROOM
D-2	CLASSROOM
D-3	CLASSROOM
D-4	CLASSROOM
D-5	CLASSROOM

#	ROOM NAME
E-1	CLASSROOM
E-2	CLASSROOM
E-3	CLASSROOM
E-4	CLASSROOM



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**DEMOLITION FIRE ALARM / SIGNALS PLAN BLDGS "B, C, D & E"**

Job No.: **5525**  
 Sheet No.: **E3.00**  
 Release: DSA BACKCHECK Issue Date: 06-13-2023

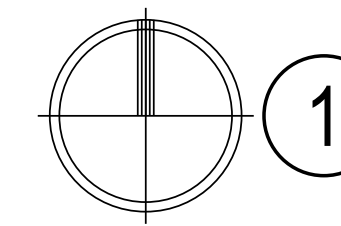
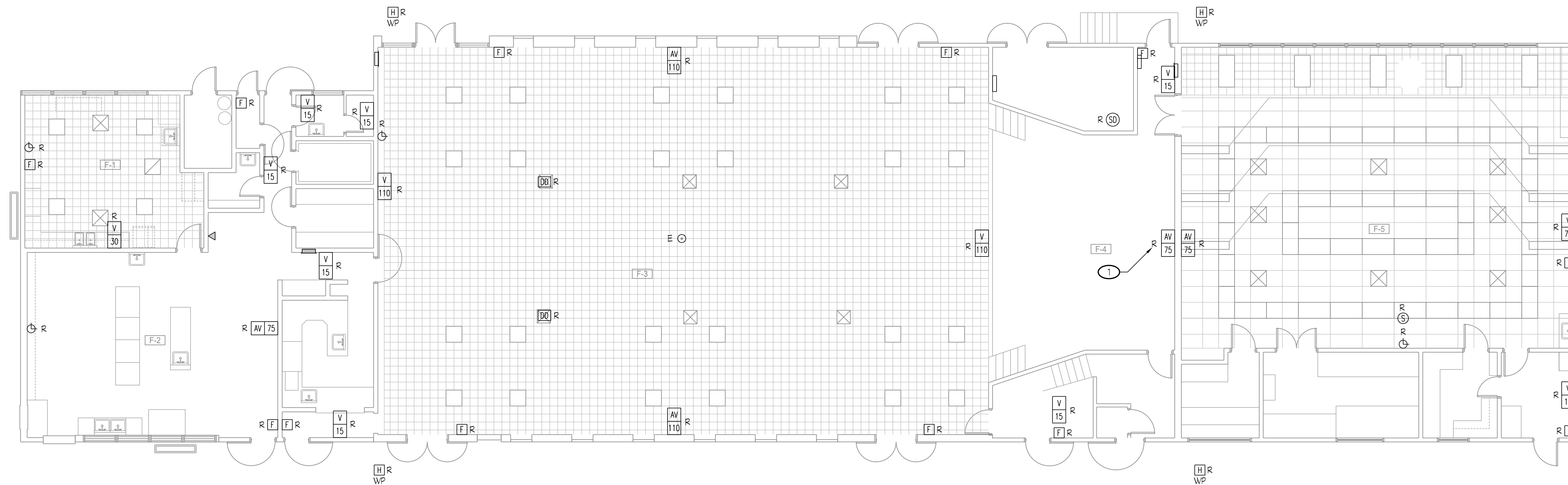
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NOTES (THIS SHEET ONLY):

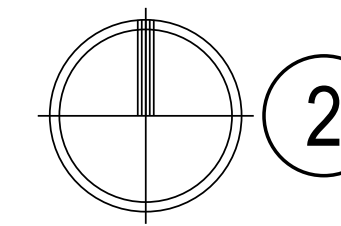
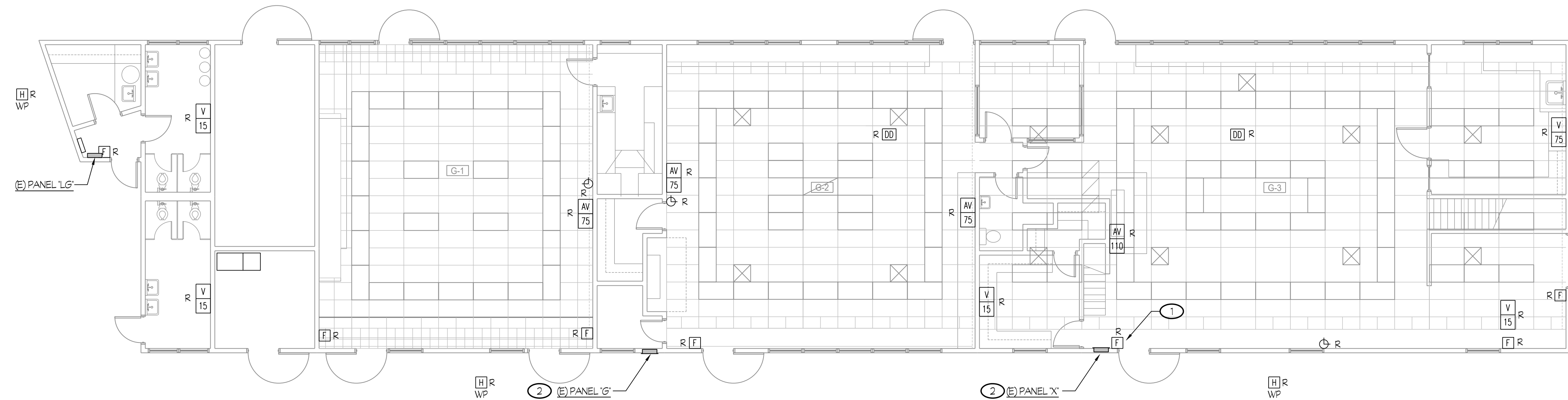
- 1 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', DISCONNECT AND REMOVE EXISTING DEVICES INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
- 2 TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N., EXISTING DEVICES TO REMAIN, RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY UPSTREAM DEVICES REMOVED.

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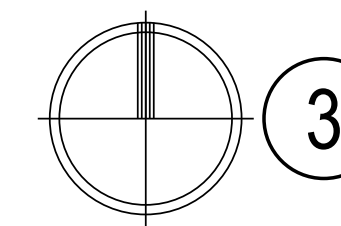
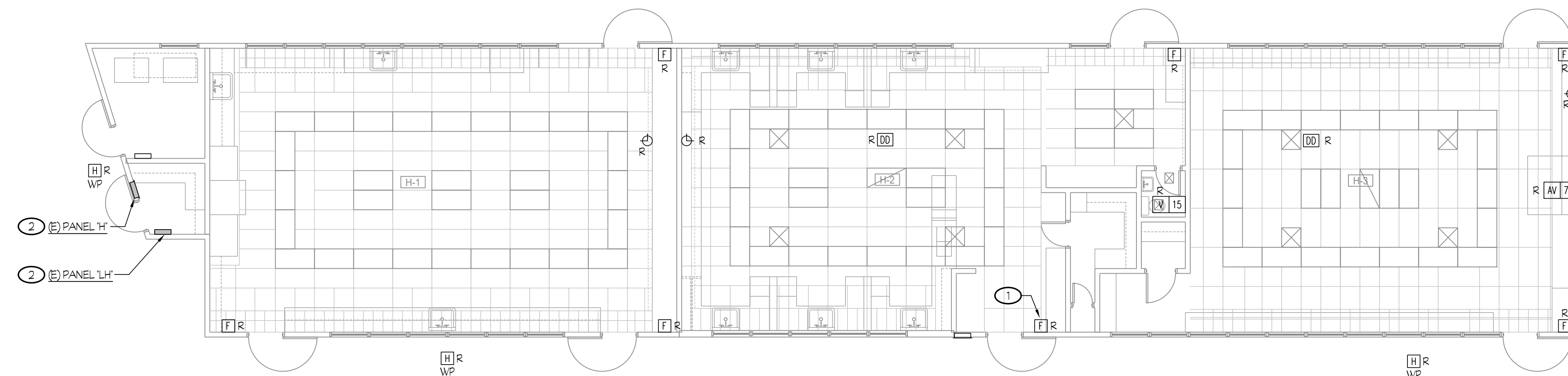
1 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "F"  
 CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"



2 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "G"  
 CENTRAL PLANT REPLACEMENT

SCALE: 1/8" = 1'-0"




3 DEMOLITION FIRE ALARM / SIGNALS PLAN - BUILDING "H"  
 CENTRAL PLANT REPLACEMENT

1/8" = 1'-0"

ROOM LEGEND	
#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM

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**DEMOLITION FIRE ALARM/SIGNALS PLAN - BLDG "F, G & H"**

Job No.: **5525**

Sheet No.: **E3.01**

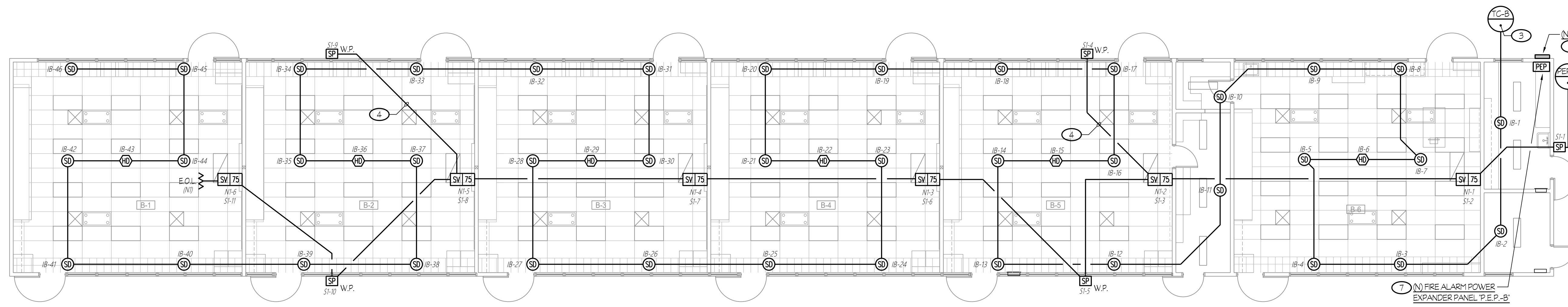
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Vertical scale bars on the left side of the page, indicating dimensions for each plan: 1" = 50'-0", 1" = 40'-0", 1" = 30'-0", 1" = 20'-0", 1" = 1'-0", 1/8" = 1'-0", 1/4" = 1'-0".

Vertical text on the far left edge: Z:\Drawing\Jobs\2023\10.03\Bakersfield\Bakersfield City School District\Washington Middle School - HVAC\1310.dwg DATE: 5/31/23 BY: som DATE PLOTTED: 06/13/23 JOB #: 22-117-56

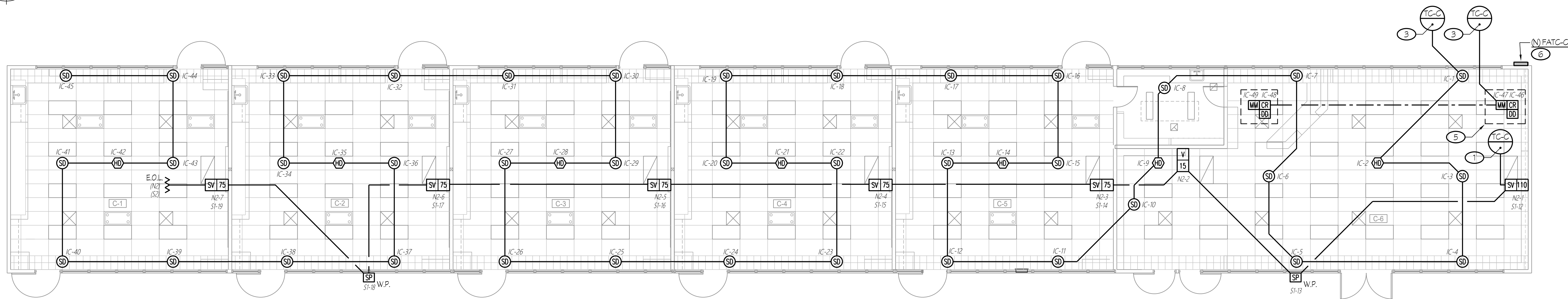


- NOTES (THIS SHEET ONLY):**
- 1/2" - ONE FN CABLE, ONE FSP CABLE, TYPICAL FOR NOTIFICATION CIRCUIT.
  - 3/4" - ONE FN CABLE, TWO FSP CABLES.
  - 1/2" - ONE FA' CABLE, TYPICAL FOR INITIATING CIRCUIT.
  - 3/4" - TWO FSP CABLES.
  - MOUNTED ON ROOF, AT HVAC LOCATIONS, TYPICAL.
  - REFER TO DETAIL 85/E3.22 FOR MOUNTING REQUIREMENTS.
  - REFER TO DETAIL 85/E3.22 FOR MOUNTING REQUIREMENTS.
  - 3/4" - TWO FN CABLES.

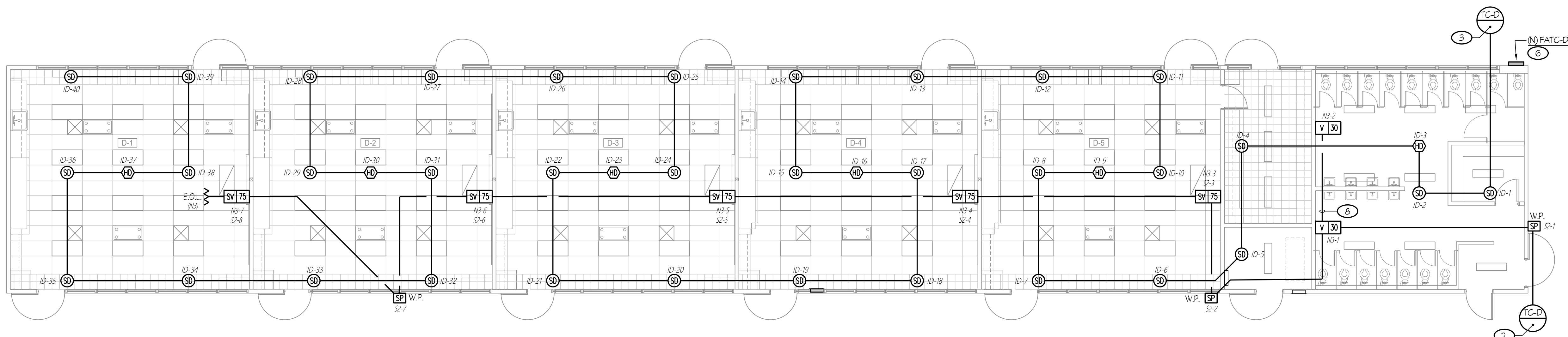
**GENERAL NOTES**

- REFER TO DETAILS ON SHEET HES-01 FOR CONDUIT MOUNTING REQUIREMENTS.

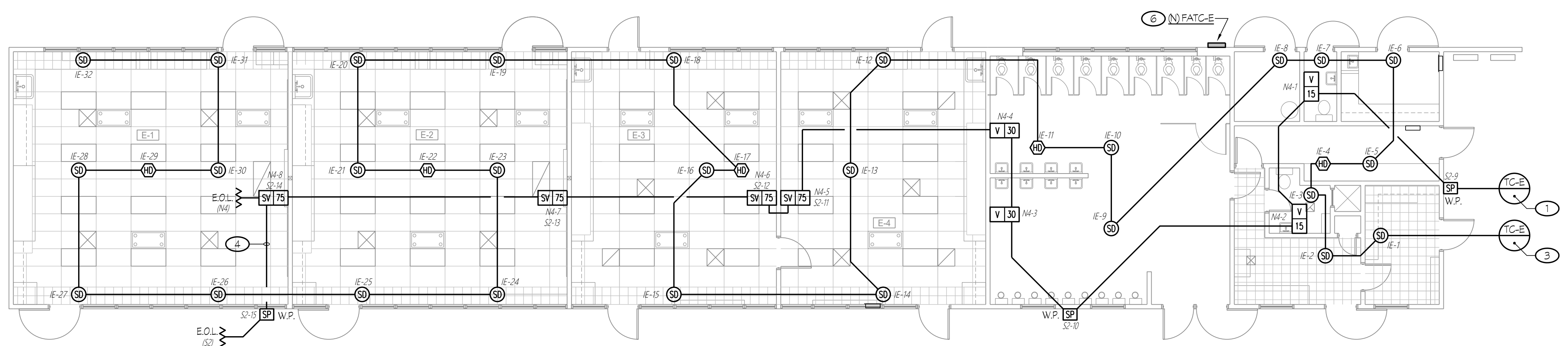
**1 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "B"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**2 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "C"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**3 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "D"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"



**4 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "E"**  
**CENTRAL PLANT REPLACEMENT** SCALE: 1/8" = 1'-0"


ROOM LEGEND	
#	ROOM NAME
B-1	CLASSROOM
B-2	CLASSROOM
B-3	CLASSROOM
B-4	CLASSROOM
B-5	CLASSROOM
B-6	SCIENCE CLASSROOM

ROOM LEGEND	
#	ROOM NAME
C-1	CLASSROOM
C-2	CLASSROOM
C-3	CLASSROOM
C-4	CLASSROOM
C-5	CLASSROOM
C-6	LIBRARY

ROOM LEGEND	
#	ROOM NAME
D-1	CLASSROOM
D-2	CLASSROOM
D-3	CLASSROOM
D-4	CLASSROOM
D-5	CLASSROOM

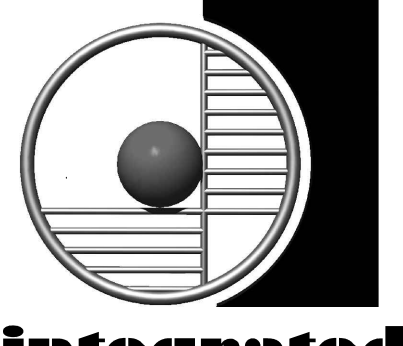
ROOM LEGEND	
#	ROOM NAME
E-1	CLASSROOM
E-2	CLASSROOM
E-3	CLASSROOM
E-4	CLASSROOM

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 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 07/27/2023

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
 1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305

  
 by SOMAM, Inc.  
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Stamp:  
 Sheet Title:  
**NEW FIRE ALARM / SIGNALS PLAN BLDGS "B, C, D & E"**

Job No.: **5525**  
 Sheet No.: **E3.10**  
 Release: DSA BACKCHECK Issue Date: 06-13-2023


Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Sunworth - (559) 733-2671  
 Visalia, California 93292-6705

  
 No. E-16786  
 Exp. 06/30/23  
 STATE OF CALIFORNIA

- NOTES (THIS SHEET ONLY):**
- 1/2" - ONE FN CABLE, ONE FSP CABLE, TYPICAL FOR NOTIFICATION CIRCUIT.
  - 1/2" - ONE FN CABLE, TWO FSP CABLES.
  - 1/2" - ONE FA CABLE, TYPICAL FOR INITIATING CIRCUIT.
  - 1/2" - ONE FN CABLE.
  - 3/4" - TWO FSP CABLE.
  - MOUNTED ON ROOF, AT HVAC LOCATIONS, TYPICAL.
  - TO SMOKE DETECTOR BELOW LOFT.
  - TO SMOKE DETECTOR ABOVE LOFT.
  - TO NOTIFICATION DEVICE IN BATHROOM BELOW LOFT.
  - TO NOTIFICATION DEVICE IN ROOM 15-2.
  - TO OUTDOOR SPEAKER OUTSIDE OF ROOM 15-3.
  - TO NOTIFICATION DEVICE BELOW LOFT IN ROOM 15-3.
  - REFER TO DETAIL #5/E3.22 FOR MOUNTING REQUIREMENTS.
  - REFER TO DETAIL #5/E3.22 FOR MOUNTING REQUIREMENTS.
  - 1/2" - ONE FSP CABLE.

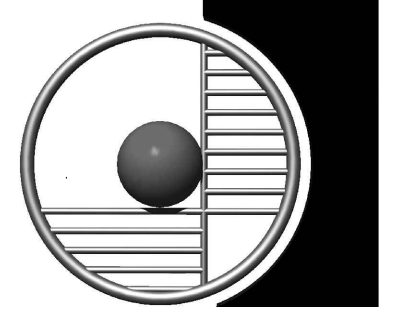
**GENERAL NOTES**

- REFER TO DETAILS ON SHEET #E5.01 FOR CONDUIT MOUNTING REQUIREMENTS.

Owner:  
  
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**integrated designs**  
 by SOMAM, Inc.

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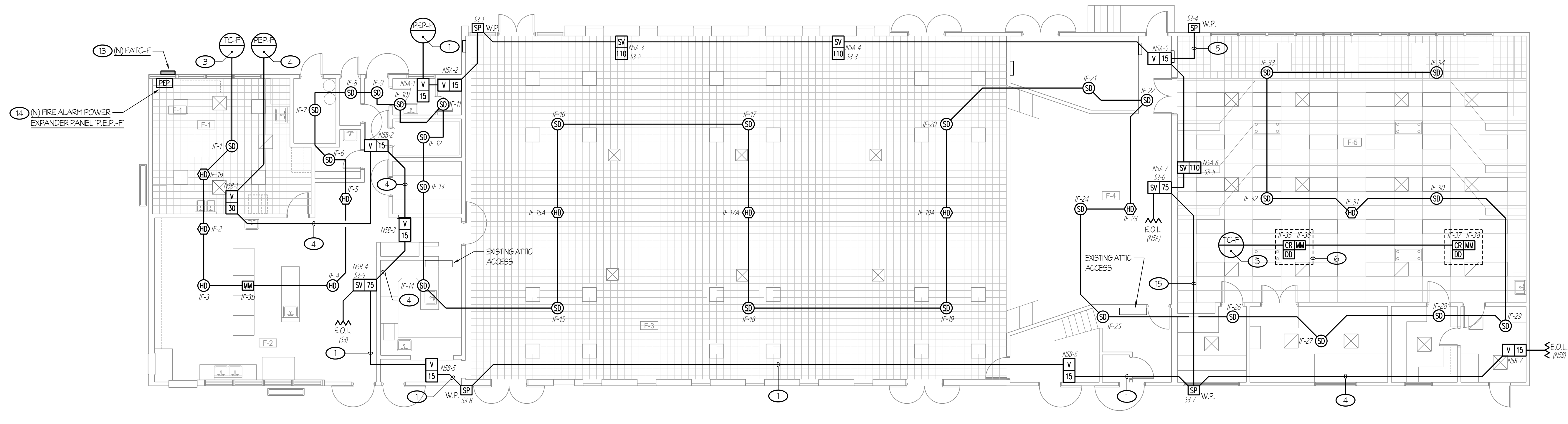
Sheet Title:  
**NEW FIRE ALARM /  
 SIGNALS PLAN  
 - BLDG "F, G & H"**

Job No.:  
**5525**

Sheet No.:  
**E3.11**

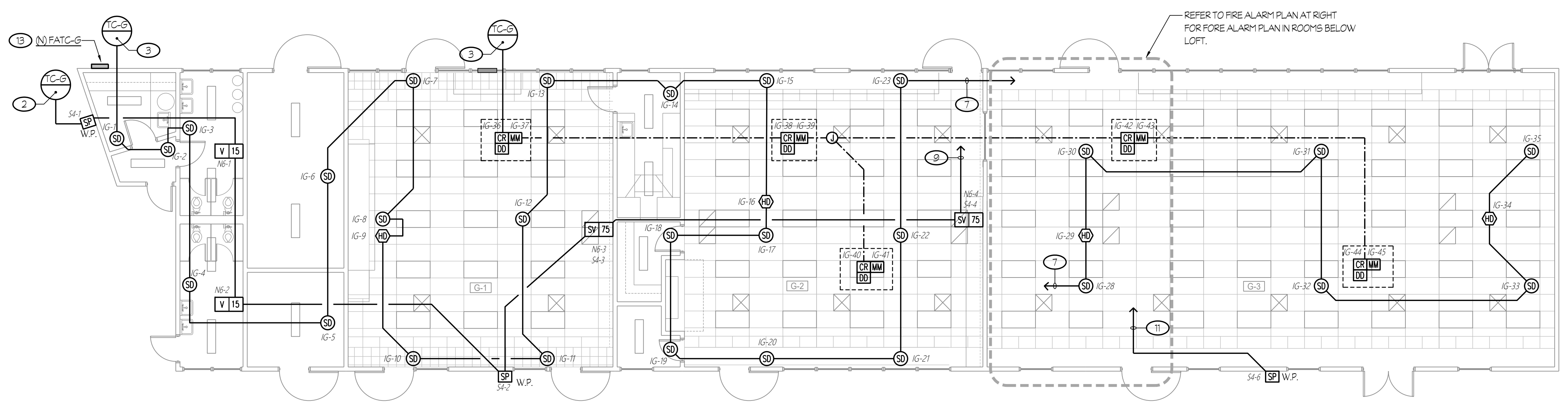
Revision: DSA BACKCHECK Issue Date: 06-13-2023

150  
100  
50  
0  
50  
100  
150  
1" = 50'-0"  
40  
0  
40  
80  
120  
1" = 40'-0"  
90  
0  
30  
60  
1" = 30'-0"  
60  
0  
20  
40  
1" = 20'-0"  
20  
0  
4  
8  
12  
1" = 12'-0"  
8  
0  
4  
8  
12  
1" = 12'-0"  
4  
0  
4  
8  
12  
1" = 12'-0"



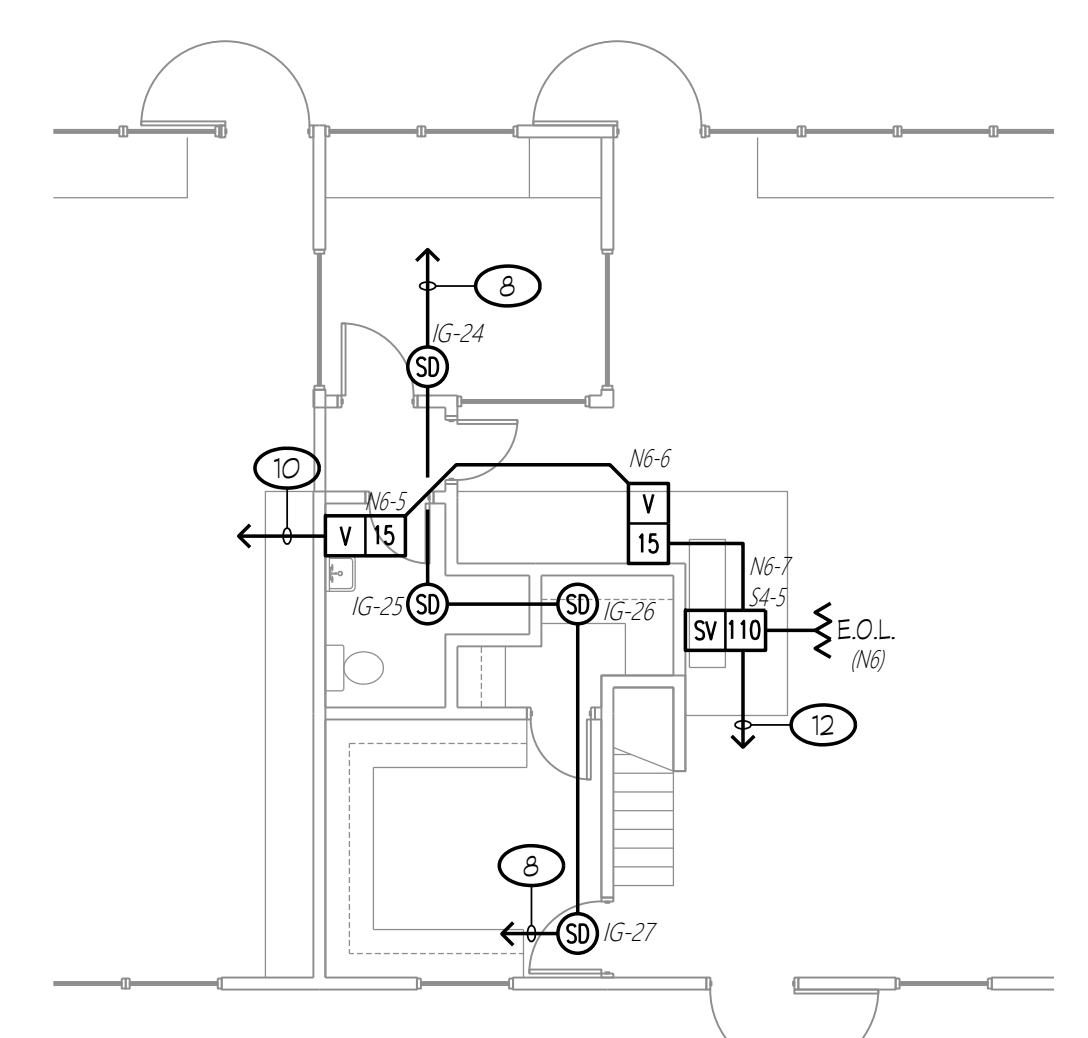
**1 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "F"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"

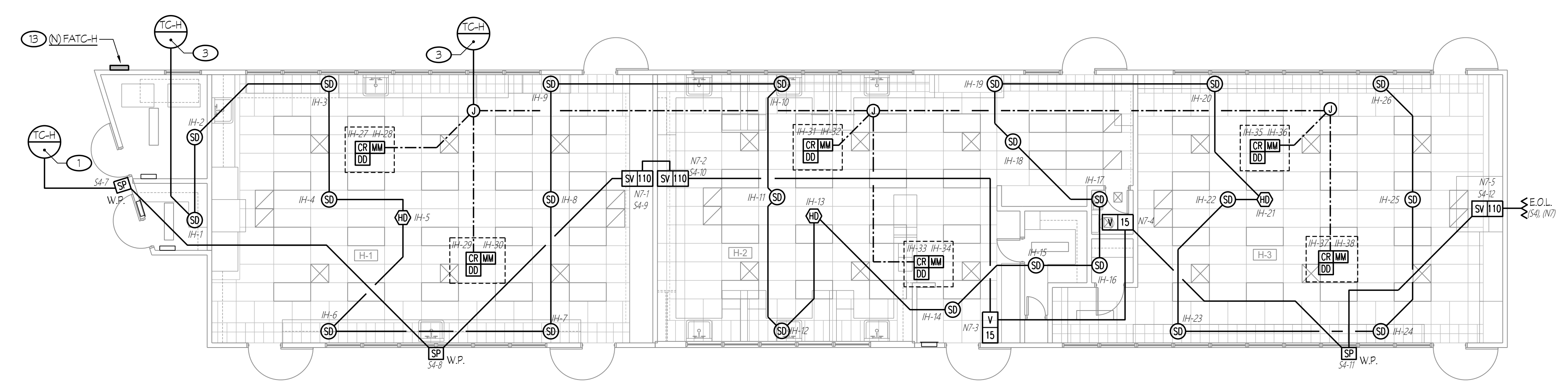


**2 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "G"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"



**3 NEW FIRE ALARM PLAN - BUILDING "G"**  
**ROOMS BELOW CENTRAL PLANT REPLACEMENT**



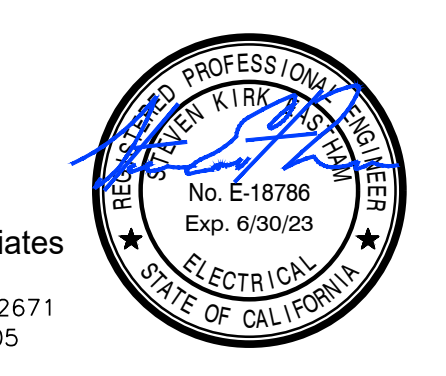
**4 NEW FIRE ALARM / SIGNALS PLAN - BUILDING "H"**  
**CENTRAL PLANT REPLACEMENT**

1/8" = 1'-0"

ROOM LEGEND	
#	ROOM NAME
F-1	CONFERENCE
F-2	KITCHEN
F-3	MULTI-PURPOSE
F-4	PLATFORM
F-5	MUSIC CLASSROOM

ROOM LEGEND	
#	ROOM NAME
G-1	MUSIC CLASSROOM
G-2	METAL SHOP CLASSROOM
G-3	WOOD SHOP CLASSROOM
G-4	LOFT
G-5	LOFT

ROOM LEGEND	
#	ROOM NAME
H-1	ART/CRAFTS CLASSROOM
H-2	HOMEMAKING CLASSROOM
H-3	HOMEMAKING CLASSROOM



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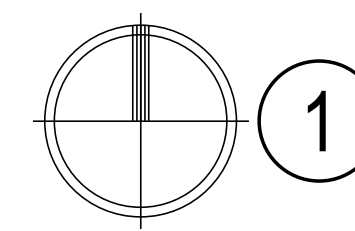
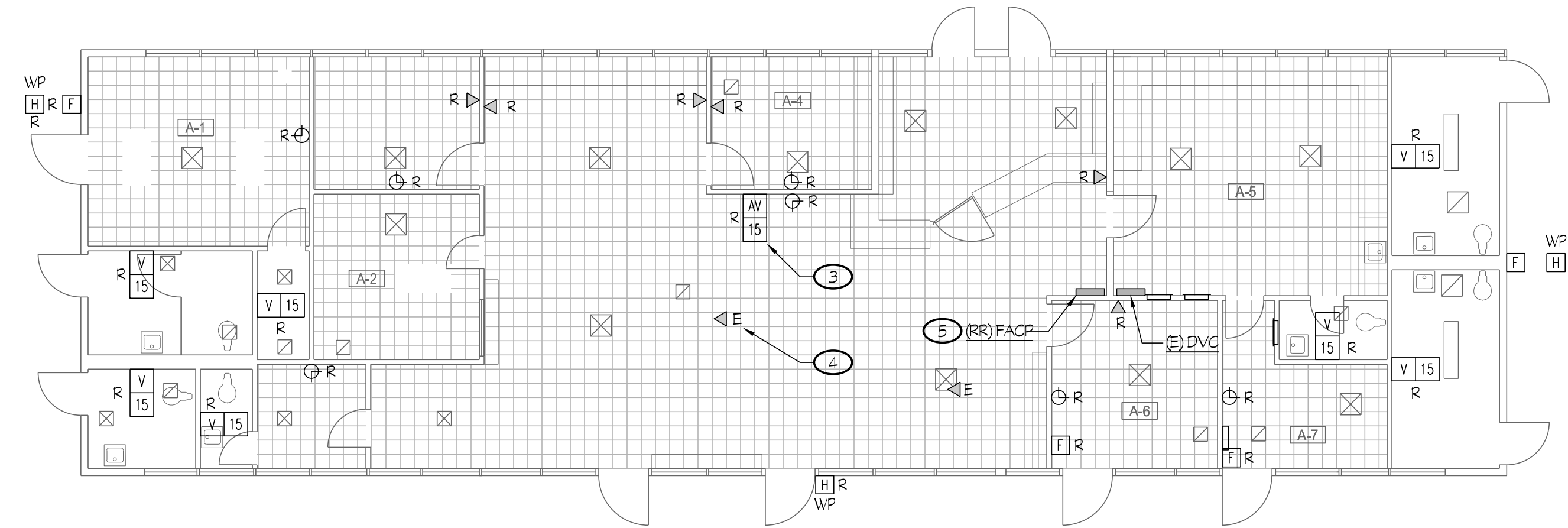
IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR:  
 SS  FLS  ACS   
 DATE: 07/27/2023

**NOTES (THIS SHEET ONLY):**

- 1 1/2" C - ONE FN CABLE, ONE FSP CABLE, TYPICAL FOR NOTIFICATION CIRCUIT.
- 2 1/2" C - ONE FN CABLE, TYPICAL FOR INITIATING CIRCUIT.
- 3 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'R'. DISCONNECT AND REMOVE EXISTING DEVICE INCLUDING CIRCUIT WIRING AND CONDUIT TO SOURCE OF SUPPLY OR REMAINING FEEDING DEVICE, U.O.N.
- 4 TYPICAL OF EXISTING ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'E', U.O.N. EXISTING DEVICE TO REMAIN, RECONNECT TO EXISTING CIRCUIT AS REQUIRED FOR ANY UPSTREAM DEVICES REMOVED.
- 5 TYPICAL OF ELECTRICAL DEVICES, KEYNOTED WITH SUBSCRIPT 'RR' REMOVE AND RELOCATED EXISTING DEVICE IN SIMILAR LOCATION, ADJUST WIRING AND CONDUIT TO RECONNECT TO REPLACED DEVICE AS REQUIRED TO CLEAR WAY FOR NEW CONSTRUCTION.
- 6 REFER TO DETAIL #4/E3.22 FOR MOUNTING REQUIREMENTS.
- 7 3/4" C - TWO FSP CABLE.
- 8 MOUNTED ON ROOF, AT HVAC LOCATIONS, TYPICAL.

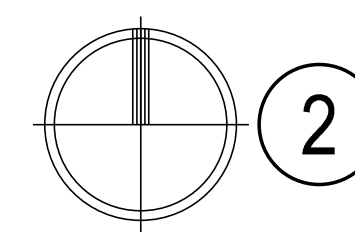
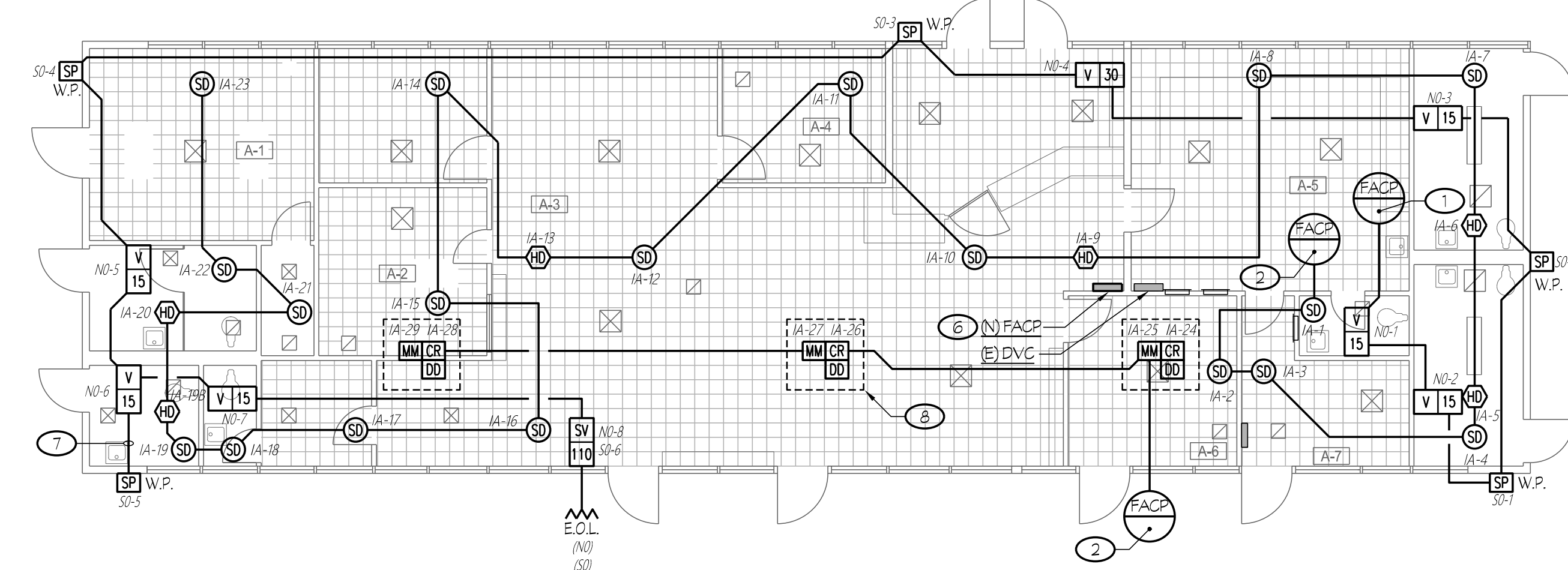
**GENERAL NOTES**

- 1 REFER TO DETAILS ON SHEET #E5.07 FOR CONDUIT MOUNTING REQUIREMENTS.



**1 DEMOLITION FIRE ALARM PLAN - BUILDING "A"**  
**CENTRAL PLANT REPLACEMENT**

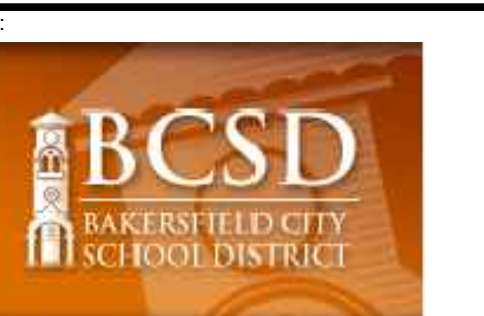
SCALE: 1/8" = 1'-0"



**2 NEW FIRE ALARM PLAN - BUILDING "A"**  
**CENTRAL PLANT REPLACEMENT**

SCALE: 1/8" = 1'-0"

ROOM LEGEND	
#	ROOM NAME
A-1	TEACHERS LOUNGE
A-2	PRINCIPAL
A-3	RECEPTION
A-4	COUNSELOR
A-5	SUPPLIES
A-6	VICE PRINCIPAL
A-7	CHECK OUT

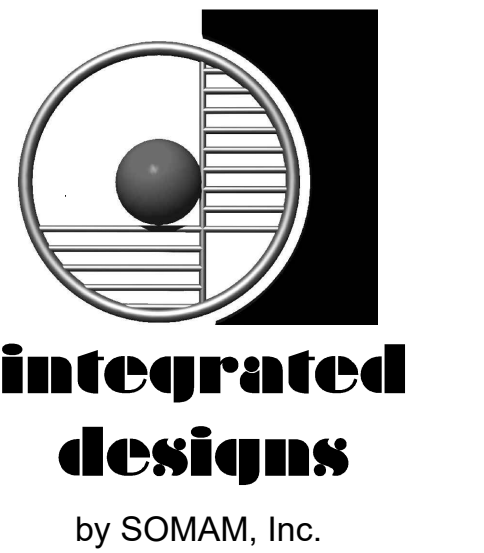


**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**

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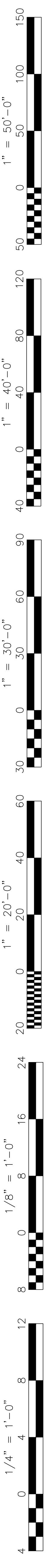
Sheet Title:  
**FIRE ALARM / SIGNALS PLANS - BUILDING "A"**

Job No.:  
**5525**

Sheet No.:  
**E3.12**

Release: DSA BACKCHECK Issue Date: 06-13-2023

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Z:\Drawing\Auto\EST\304.003\Bakersfield\Bakersfield City School District\Washington Middle School - HVAC\E1.12.dwg DATE: 5/4/23 BY: SRE DATE PLOTTED: 6/13/23 JOB #: 22-115-5E



FIRE ALARM SYSTEM EQUIPMENT LEGEND					
SYMBOL	DESCRIPTION	MODEL #	CSPM LISTING #	BACKBOX REQUIREMENTS (B)	MOUNTING HEIGHT (TO CENTER U.O.N.)
<b>FCP</b>	NEW FIRE ALARM CONTROL PANEL F.A.C.P. #A	NOTIFIER #N16/DVC-EM	7165-0028.0516	---	---
	EXISTING NETWORK CONTROL ANNUNCIATOR	NOTIFIER #NCA-2	---	---	---
<b>NDV</b>	EXISTING DIGITAL VOICE COMMAND EXISTING KEYPAD	NOTIFIER #NDV-EM	7165-0028.0243	---	---
	EXISTING MICROPHONE/MIC WELL ASBY	NOTIFIER #NDV-C4	---	---	---
<b>DAPS</b>	FIRE ALARM DIGITAL AMPLIFIER D.A.P.S.	NOTIFIER #DAP-5070	7315-0028.0248	NOTIFIER REGOR-C4/EQ28-C4 AND #NFS-LBB BATTERY BOX	+60" A.F.F.
<b>PEP</b>	FIRE ALARM ADDRESSABLE POWER SUPPLY 'A.P.S.'	NOTIFIER #ACPS-610	7315-0028.0248	NOTIFIER REGOR-B4/EG28-B4	+60" A.F.F.
<b>SD</b>	ADDRESSABLE SMOKE DETECTOR	NOTIFIER #FSP-851/B210LP	7272-0028.0206 7300-1653.0109	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 5/8" RAISED RING	PER DETAIL #1/E3.22
<b>HD</b>	ADDRESSABLE HEAT DETECTOR MOUNTED ON CEILING	NOTIFIER #FST-851/B210LP	7272-0028.0196 7300-1653.0109	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 5/8" RAISED RING	PER DETAIL #1/E3.22
<b>HD</b>	ADDRESSABLE HEAT DETECTOR MOUNTED IN ATTIC (90"*)	NOTIFIER #FST-851/B210LP	7272-0028.0196 7300-1653.0109	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 5/8" RAISED RING	PER DETAIL #1/E3.22 (E)
<b>RD</b>	DUCT SMOKE DETECTOR (BY MECHANICAL CONTRACTOR)	ADR PRODUCTS #S1-501	3240-1004.0108	---	---
<b>MM</b>	ADDRESSABLE MONITOR MODULE	NOTIFIER #FMR-1	7300-0028.0219	4" SQ. x 2 1/8" DP. OUTLET BOX	---
<b>RM</b>	ADDRESSABLE RELAY MODULE	NOTIFIER #FR-1	7300-0028.0219	4" SQ. x 2 1/8" DP. OUTLET BOX	---
<b>DM</b>	ADDRESSABLE DUAL MONITOR MODULE	NOTIFIER #DFM-1	7315-0028.0219	4" SQ. x 2 1/8" DP. OUTLET BOX	---
<b>V 15</b>	VISUAL STROBE, 15 CANDELA WALL MOUNTED	SYSTEM SENSOR #SRL	7125-1653.0504	4" SQ. x 2 1/8" DP. OUTLET BOX	PER DETAIL #3/E3.22
<b>V 15</b>	VISUAL STROBE, 15 CANDELA WALL MOUNTED (CANDELA RATING AS NOTED)	SYSTEM SENSOR #SPSRL	7320-1653.0505	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 1 1/2" DP. BOX EXTENSION	PER DETAIL #3/E3.22
<b>W.P.</b>	EXTERIOR SPEAKER, WEATHERPROOF	SYSTEM SENSOR #SPRKL-11MVB8	7320-1653.0201	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 1 1/2" DP. BOX EXTENSION	(C, D)
<b>E.O.L.</b>	END OF LINE RESISTOR	NOTIFIER	---	---	---
<b>FA</b>	CABLE ADDRESSABLE FIRE ALARM CABLE	WEST PENN #D390	7161-0859.0101	---	---
<b>FSP</b>	CABLE FIRE ALARM SPEAKER CABLE	WEST PENN #975-BL	7161-0859.0101	---	---
<b>SFA</b>	CABLE ADDRESSABLE FIRE ALARM CABLE (OUTDOORS)	WEST PENN #AQ225	7161-0859.0101	---	---
<b>SFSP</b>	CABLE FIRE ALARM SPEAKER CABLE (OUTDOORS)	WEST PENN #AQ293	7161-0859.0101	---	---
<b>FN</b>	CABLE FIRE ALARM NOTIFICATION CABLE #12 AWG (INDOORS)	WEST PENN #1998	7161-0859.0101	---	---

- NOTES (FIRE ALARM SYSTEM EQUIPMENT SPECIFICATIONS):**
- END OF LINE RESISTORS SHALL BE 10K FOR NOTIFICATION APPLIANCE CIRCUITS FEEDING FROM FIRE ALARM CONTROL PANEL AND 2.2K FOR NOTIFICATION APPLIANCE CIRCUITS FEEDING FROM FIRE ALARM POWER EXPANDER PANELS.
  - VERIFY BACKBOX REQUIREMENTS WITH THE FIRE ALARM SYSTEM EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
  - PROVIDED WITH WEATHERPROOF BACKBOX H2BLP.
  - SEE RESPECTIVE FIRE ALARM PLAN FOR MOUNTING HEIGHT.
  - PROVIDE ACCESS PANEL AT INACCESSIBLE ATTIC SPACES AS REQUIRED FOR HEAT DETECTOR ACCESS.

VOLTAGE DROP CALCULATIONS (OHMS LAW)	
$\text{VOLTAGE DROP} = 2 \left( \frac{\text{DC RESISTANCE AT } 75^{\circ}\text{C}}{\text{FROM TABLE 8, C.E.C.}} \right) \left( \frac{\text{LENGTH OF CIRCUIT}}{1000} \right) (\text{CURRENT})$	
$\text{PERCENT VOLTAGE DROP} = \frac{\text{VOLTAGE DROP}}{\text{NOMINAL VOLTAGE}} \times 100$	
<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 6 x 0.043A = 0.258A</p> <p>V 30 : 1 x 0.063A = 0.063A</p> <p>SV 110 : 1 x 0.148A = 0.148A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{280}{1000}\right)</math> (0.469) = 0.483 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.483}{24} \times 100 = 2.01\%</math></p>	<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>SV 75 : 6 x 0.107A = 0.642A</p> <p>0.642A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{338}{1000}\right)</math> (0.642) = 0.852 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.852}{24} \times 100 = 3.55\%</math></p>
<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 1 x 0.043A = 0.043A</p> <p>SV 75 : 5 x 0.107A = 0.535A</p> <p>SV 110 : 1 x 0.148A = 0.148A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{247}{1000}\right)</math> (0.726) = 0.660 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.660}{24} \times 100 = 2.87\%</math></p>	<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 2 x 0.063A = 0.126A</p> <p>SV 75 : 5 x 0.107A = 0.535A</p> <p>0.661A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{245}{1000}\right)</math> (0.661) = 0.641 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.641}{24} \times 100 = 2.67\%</math></p>
<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 3 x 0.043A = 0.129A</p> <p>SV 75 : 1 x 0.107A = 0.107A</p> <p>SV 110 : 3 x 0.148A = 0.444A</p> <p>0.680A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{180}{1000}\right)</math> (0.680) = 0.485 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.485}{24} \times 100 = 2.02\%</math></p>	<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 5 x 0.043A = 0.215A</p> <p>V 30 : 1 x 0.063A = 0.063A</p> <p>SV 75 : 1 x 0.107A = 0.107A</p> <p>0.385A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{250}{1000}\right)</math> (0.385) = 0.361 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.361}{24} \times 100 = 1.59\%</math></p>
<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 4 x 0.043A = 0.172A</p> <p>SV 75 : 2 x 0.107A = 0.214A</p> <p>SV 110 : 1 x 0.148A = 0.148A</p> <p>0.534A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{170}{1000}\right)</math> (0.534) = 0.359 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.359}{24} \times 100 = 1.50\%</math></p>	<p>1. NOTIFICATION APPLIANCE CIRCUIT 'W1':</p> <p>V 15 : 2 x 0.043A = 0.086A</p> <p>SV 75 : 1 x 0.107A = 0.107A</p> <p>SV 110 : 2 x 0.148A = 0.296A</p> <p>0.489A</p> <p>VOLTAGE DROP = 2(1.98) <math>\left(\frac{215}{1000}\right)</math> (0.489) = 0.416 V.D.</p> <p>PERCENT VOLTAGE DROP = <math>\frac{0.416}{24} \times 100 = 1.73\%</math></p>

FIRE ALARM POWER EXPANDER PANEL 'P.E.P. - B' BATTERY CALCULATION					
DESCRIPTION	QUANTITY	SUPV. CURRENT		ALARM CURRENT	
		EACH	SUB-TOTAL	EACH	SUB-TOTAL
POWER EXPANDER PANEL	1	0.120	0.120	0.120	0.120
15cd STROBE (WALL)	3	---	---	0.043	0.129
30cd STROBE (WALL)	4	---	---	0.063	0.252
SPEAKER/75cd STROBE (WALL)	20	---	---	0.107	2.140
SPEAKER/110cd STROBE (WALL)	1	---	---	0.148	0.148
TOTALS			0.120		2.789

TOTAL ALARM CURRENT OF 2.789 x 0.250 (5 MINUTES) = 0.697 A.H.  
 TOTAL SUPERVISORY CURRENT OF 0.120 x 24 HOURS = 2.88 A.H.  
 TOTAL A.M.P. HOURS REQUIRED = 3.577 A.H.  
 x 1.2 SAFETY FACTOR = 4.29 A.H.

PROVIDE 7.0 AMP HOUR BATTERIES  
 (A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AUDIO AMPLIFIER.

FIRE ALARM POWER EXPANDER PANEL 'P.E.P. - F' BATTERY CALCULATION					
DESCRIPTION	QUANTITY	SUPV. CURRENT		ALARM CURRENT	
		EACH	SUB-TOTAL	EACH	SUB-TOTAL
POWER EXPANDER PANEL	1	0.120	0.120	0.120	0.120
15cd STROBE (WALL)	14	---	---	0.043	0.602
30cd STROBE (WALL)	1	---	---	0.063	0.063
SPEAKER/75cd STROBE (WALL)	5	---	---	0.107	0.535
SPEAKER/110cd STROBE (WALL)	6	---	---	0.148	0.888
TOTALS			0.120		2.208

TOTAL ALARM CURRENT OF 2.208 x 0.250 (5 MINUTES) = 0.552 A.H.  
 TOTAL SUPERVISORY CURRENT OF 0.120 x 24 HOURS = 2.88 A.H.  
 TOTAL A.M.P. HOURS REQUIRED = 3.432 A.H.  
 x 1.2 SAFETY FACTOR = 4.12 A.H.

PROVIDE 7.0 AMP HOUR BATTERIES  
 (A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AUDIO AMPLIFIER.

- ### FIRE ALARM SYSTEM GENERAL NOTES
- APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35.
  - INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.
  - UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR. TEST SHALL INCLUDE ALL INFORMATION PER NFPA 72 4.6.2.4 AND FIGURE 7.8.2(a) AND READ OUT VERIFICATION FROM FIRE CONTROL STATION.
  - A STAFFED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
  - ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
  - DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
  - ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, 11, OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
  - WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
  - WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
  - AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPABLE SPACE WITHIN THE BUILDING.
  - AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN FOR A FIRE ALARM SIGNAL. AUDIBLE DEVICES SHALL ALSO SOUND A TEMPORAL CODE 4 PATTERN FOR A CARBON MONOXIDE SIGNAL. THE EXISTING FIRE ALARM CONTROL PANEL SHALL PROVIDE BOTH SIGNALS.
  - THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
  - VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISIBLE DEVICES WITH 55 FROM EACH OTHER SHALL BE SYNCHRONIZED.
  - UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
  - ALL FIRE ALARM WIRING SHALL BE FPL OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
  - PER CBC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPICE THE WIRE. ALL BOXES TO BE SIZED PER CBC.
  - SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1" FROM FIRE SPRINKLERS OR 3" FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
  - ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILING, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
  - FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
  - A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE 'ON' POSITION. THE CIRCUIT BREAKER SHALL BE LABELED 'FIRE ALARM CIRCUIT CONTROL'. CIRCUIT ID TO BE LABELED AT FIRE PANELS/EXTENDERS.
  - THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED SYSTEM RECORD OF COMPLETION PER NFPA 72, FIGURE 17.8.2.
  - FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
  - MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (BY VO) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
  - THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORS PER CBC SECTION 901.6.2.
  - SUPERVISORY MONITORS SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
  - OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
  - PROVIDE AN ENGRAVED NAMEPLATE INDICATING THE D.S.A. APPLICATION NUMBER, FILE NUMBER AND DATE OF MODIFICATIONS AT EXISTING FIRE ALARM CONTROL PANEL 'F.A.C.P. #A', AT EXISTING DIGITAL AMPLIFIER/ADDRESSABLE POWER SUPPLY 'D.A.P.S. #A' AND AT EXISTING FIRE ALARM POWER EXPANDER PANEL 'P.E.P. #R' AND AT EXISTING FIRE ALARM POWER EXPANDER PANEL 'P.E.P. #R'.
    - THE PRIMARY POWER SUPPLY TO EXISTING FIRE ALARM CONTROL PANEL 'F.A.C.P. #A', TO EXISTING DIGITAL AMPLIFIER/ADDRESSABLE POWER SUPPLY 'D.A.P.S. #A' AND TO EXISTING FIRE ALARM POWER EXPANDER PANEL 'P.E.P. #R' SHALL BE IN ACCORDANCE WITH NFPA 72 10.6.5 AND AS FOLLOWS:
      - THE CIRCUIT BREAKER FEEDING THE RESPECTIVE PANEL SHALL BE LOCATED IN A LOCKED ROOM OR BEHIND A LOCKABLE DOOR AND BE READILY ACCESSIBLE TO AUTHORIZED PERSONNEL ONLY.
      - THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH A LOCK-ON ACCESSORY. PAINT LOCK-ON ACCESSORY 'RED' IN COLOR.
      - THE CIRCUIT BREAKER SHALL HAVE AN ENGRAVED NAMEPLATE THAT IDENTIFIES IT AS A FIRE ALARM CIRCUIT. THIS ENGRAVED NAMEPLATE SHALL HAVE WHITE LETTERS ON A RED BACKGROUND. MOUNT ONTO THE INTERIOR TRIM AND LOCATE ADJACENT TO CIRCUIT BREAKER WHERE POSSIBLE.
      - THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT EXISTING FIRE ALARM CONTROL PANEL 'F.A.C.P. #A', AT EXISTING DIGITAL AMPLIFIER/ADDRESSABLE POWER SUPPLY 'D.A.P.S. #A' AND AT EXISTING FIRE ALARM POWER EXPANDER PANEL 'P.E.P. #R'. PROVIDE AN ENGRAVED NAMEPLATE (WHITE LETTERS ON A RED BACKGROUND) WHICH INDICATES THIS.
    - ALL ENGRAVED NAMEPLATES SHALL BE ATTACHED TO THE FRONT OF THE RESPECTIVE ENCLOSURE WITH SCREWS OR RIVETS.
  - PROVIDE A COPY OF THE BATTERY CALCULATION AT EXISTING FIRE ALARM CONTROL PANEL 'F.A.C.P. #A', AT EXISTING DIGITAL AMPLIFIER/ADDRESSABLE POWER SUPPLY 'D.A.P.S. #A' AND AT EXISTING FIRE ALARM POWER EXPANDER PANEL 'P.E.P. #R'. BATTERY CALCULATION SHALL CONTAIN INFORMATION AS NOTED ON SCHEDULES AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF DOOR.

SPEAKER dB LOSS CALCULATIONS												
SPEAKER CIRCUIT	SPEAKER VOLTAGE	WIRE SIZE	RESISTANCE PER FOOT	FEET REQUIRED ON CIRCUIT	WIRE RESISTANCE	TOTAL WATTAGE OF SPEAKERS ON CIRCUIT	SPEAKER CURRENT (A.M.P.S)	RESISTANCE OF SPEAKER LOAD	WIRE SIZE	ACTUAL VOLTAGE AT SPEAKER LOAD	ACTUAL WATTS AT SPEAKER LOAD	dB LOSS
S1	70	18	0.0178	260	3.32	11	0.16	445.45	18	69.482	10.838	-0.06
S7	70	18	0.0178	980	12.52	26	0.37	188.46	18	65.638	22.861	-0.56
S2	70	18	0.0178	780	9.97	21	0.30	233.53	18	67.132	19.834	-0.36
S3	70	18	0.0178	325	4.15	13	0.19	316.82	18	69.237	12.78	-0.10
S4	70	18	0.0178	665	6.50	18	0.26	272.22	18	67.881	16.927	-0.27

**NOTE:**  
 CALCULATIONS ARE BASED ON EACH OF THE INTERIOR SPEAKERS TAPPED AT 1 WATT AND EACH OF THE EXTERIOR SPEAKERS TAPPED AT 2 WATTS.

FIRE ALARM LEVEL OF AUDIBILITY	
ALARM INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL BE SO LOCATED AND UNOBSERVED AS TO CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15dB ABOVE AMBIENT NOISE LEVELS MEASURED FOUR FEET ABOVE THE FLOOR INSIDE BUILDING.	
AMBIENT NOISE LEVELS SHALL BE CONSIDERED TO MEAN THAT WHICH CAN NORMALLY BE EXPECTED TO EXIST WHEN THE FACILITY BUILDINGS ROOMS OR AREAS ARE FUNCTIONING UNDER NORMAL OPERATIVE OR WORKING CONDITIONS.	
THE FIRE ALARM SIGNAL SHALL COMPLY WITH THE CALIFORNIA EDUCATION CODE, SECTIONS 33000 AND 33004, AND BE A TEMPORAL PATTERN, CODE 3 AND THEN FOLLOWED BY ANY VOICE MESSAGES.	

SCHOOLS FIRE ALARM REQUIREMENTS	
THE FIRE ALARM SYSTEM SHALL CONFORM TO CALIFORNIA BUILDING CODE, SECTION 907.2.3; CALIFORNIA ELECTRICAL CODE, ARTICLE 760 AND CALIFORNIA FIRE CODE, CHAPTER 9, SECTION 907.	
UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING FIRE AGENCY, NFPA 72. IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET 15db OVER AMBIENT NOISE LEVELS, ADDITIONAL FIRE ALARM SIGNALING DEVICES MAY BE REQUIRED BY THE ENFORCING FIRE AGENCY.	
FIRE ALARM SYSTEM CERTIFICATION AND DESCRIPTION SHALL BE PROVIDED FOR TESTING AND A PLASTIC LAMINATED COPY SHALL REMAIN (WITH INSTRUCTIONS) AT THE FIRE ALARM CONTROL PANEL PER NFPA 72.	
THE FIRE ALARM CERTIFICATE OF COMPLETION FORM IN NFPA 72 SHALL BE COMPLETED, SIGNED AND SUBMITTED.	

SCOPE OF WORK	
1.	CONNECT NEW DEVICES TO NEW AUTOMATIC FIRE ALARM SYSTEM FOR AREAS OF REMODEL INCLUDING INITIATING AND NOTIFICATION DEVICES.
2.	PROVIDE FIRE ALARM CONTROL PANEL, POWER EXPANDER PANELS, ADDRESSABLE INITIATION DEVICES, NOTIFICATION APPLIANCES, CONDUIT, CABINGS, AND CONDUCTORS AS SHOWN ON THE DRAWINGS.

FIRE ALARM MONITORING NOTE	
AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE SITED AS EITHER ULTRACENTRAL STATION OR ULTRACENTRAL AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD PFI 301. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.	

FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION	
THE SCHOOL DISTRICT PROVIDE A ON-SITE FIRE WATCH IN THE EVENT THAT THE EXISTING FIRE ALARM SYSTEM IS IMPAIRED AND/OR INTERRUPTED DURING CONSTRUCTION PER CALIFORNIA FIRE CODE, SECTION 3304, ARTICLE 3304.5.	

FIRE ALARM CONTROL PANEL 'F.A.C.P.' BATTERY CALCULATION					
DESCRIPTION	QUANTITY	SUPV. CURRENT		ALARM CURRENT	
		EACH	SUB-TOTAL	EACH	SUB-TOTAL
FIRE ALARM CONTROL PANEL	1	0.360	0.360	0.360	0.360
POWER EXPANDER PANEL	2	0.00013	0.00026	0.00013	0.00026
SMOKE DETECTOR	243	0.00003	0.0729	0.0065	1.579
HEAT DETECTOR	46	0.00003	0.0138	0.0085	0.286
MONITOR MODULE	18	0.000375	0.0068	0.005	0.090
CONTROL RELAY	18	0.00023	0.0041	0.0065	0.117
TOTALS			0.458		2.432

TOTAL ALARM CURRENT OF 2.432 x 0.250 (5 MINUTES) = 0.608 A.H.  
 TOTAL SUPERVISORY CURRENT OF 0.458 x 24 HOURS = 10.992 A.H.  
 TOTAL A.M.P. HOURS REQUIRED = 11.600 A.H.  
 x 1.2 SAFETY FACTOR = 13.92 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

EXISTING FIRE ALARM DIGITAL VOICE COMMAND 'D.V.C.' BATTERY CALCULATION					
DESCRIPTION	QUANTITY	SUPV. CURRENT		ALARM CURRENT	
		EACH	SUB-TOTAL	EACH	SUB-TOTAL
EXISTING AUDIO AMPLIFIER	1	0.13	0.13	1.00	1.00
NEW AUDIO AMPLIFIER 'DAPS'	1	0.049	0.049	2.300	2.300
NETWORK VOICE GATEWAY	1	0.150	0.150	0.150	0.150
TOTALS			0.770		3.450

TOTAL ALARM CURRENT OF 3.450 x 0.250 (5 MINUTES) = 0.863 A.H.  
 TOTAL SUPERVISORY CURRENT OF 0.770 x 24 HOURS = 19.343 A.H.  
 TOTAL A.M.P. HOURS REQUIRED = 20.206 A.H.  
 x 1.2 SAFETY FACTOR = 24.247 A.H.

PROVIDE 24.0 AMP HOUR BATTERIES  
 (A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AUDIO AMPLIFIER.

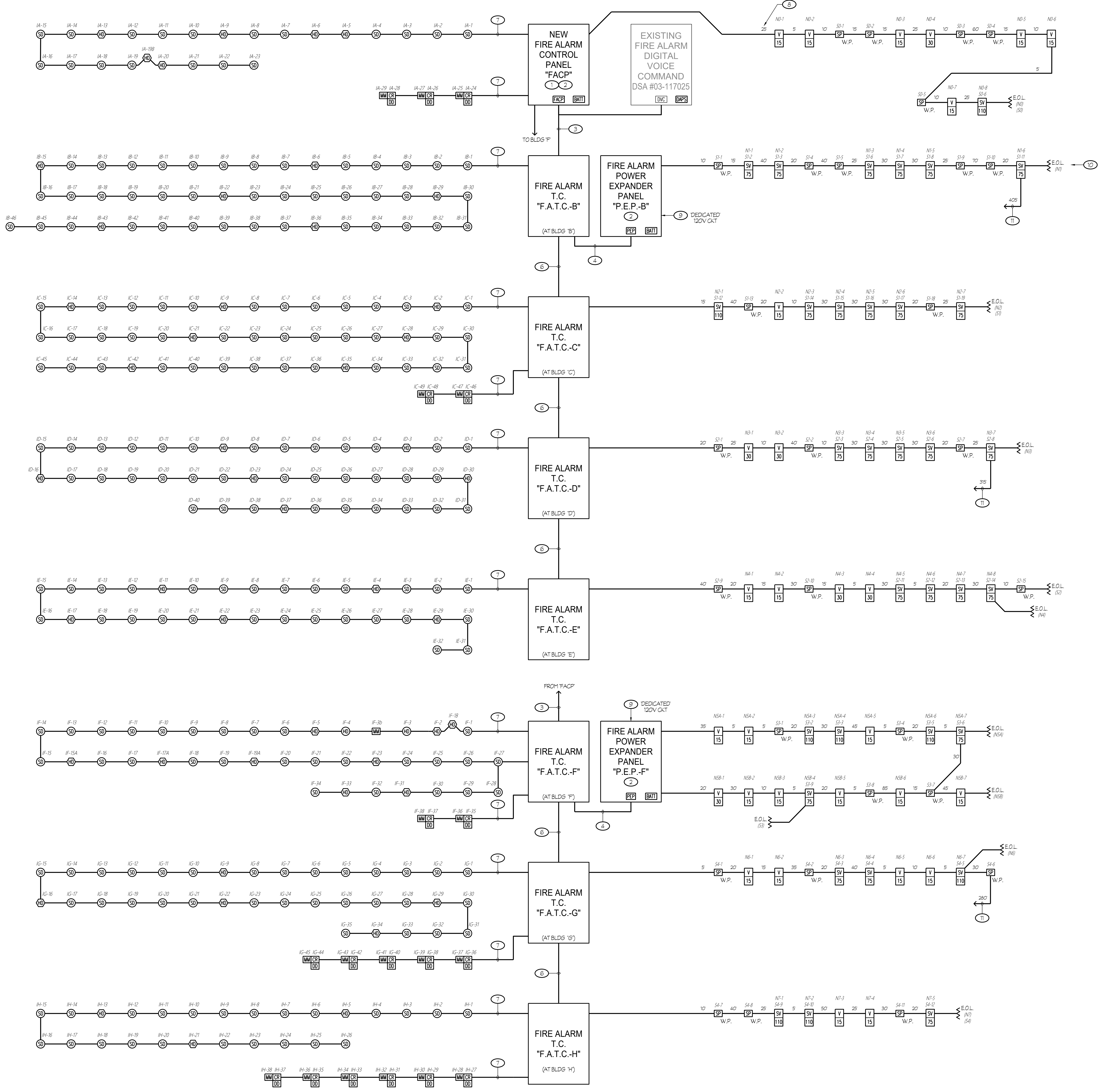
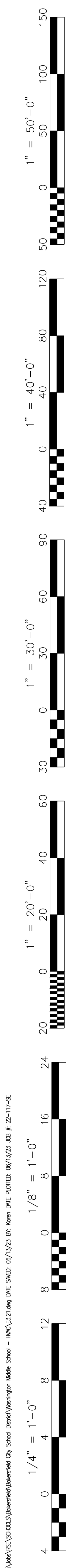
**COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL**

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM PER G.F.C. SECTION 907.3.5 AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (G.F.C. SECTION 907.2.3.5).



Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoody - (559) 733-2671  
 Vis



- NOTES (THIS SHEET ONLY):**
- PROVIDE ALL PROGRAMMING NECESSARY FOR NEW COMPONENTS AND EXISTING FIRE ALARM DEVICES AS REQUIRED.
  - PROVIDE BATTERIES PER RESPECTIVE BATTERY CALCULATION.
  - TC - TWO SFA CABLES, ONE SFSP CABLE.
  - TC - ONE SFA CABLE, ONE SFSP CABLE.
  - 1'C - ONE SFA CABLE, ONE SFSP CABLE, 4 #12 (NAC).
  - TC - ONE SFA CABLE, ONE SFSP CABLE, 2 #12 (NAC).
  - REFER TO RESPECTIVE FIRE ALARM PLAN FOR CONDUIT AND CABLES/CONDUCTOR REQUIREMENTS. TYPICAL.
  - LENGTHS INDICATED WERE USED FOR CALCULATIONS/DESIGN PURPOSES ONLY AND BASED UPON THE DIAGRAMMATIC LAYOUT SHOWN ON THE DRAWINGS. LENGTHS SHALL NOT BE USED FOR BIDDING.
  - CIRCUIT BREAKER SHALL BE EQUIPPED WITH A LOCK-ON ACCESSORY. PROVIDE AN ENGRAVED NAMEPLATE, FIRE ALARM - LEAVE ON. NAMEPLATE SHALL HAVE WHITE LETTERS ON A RED BACKGROUND. PAINT LOCK-ON ACCESSORY RED IN COLOR.
  - DN DENOTES END OF LINE RESISTOR ON NOTIFICATION APPLIANCE CIRCUIT. RESISTORS SUPPLIED WITH CONTROL EXPANDER PANELS AS REQUIRED. LOCATE RESISTORS AT END OF LINE APPLIANCES (CLASS 'B' WIRING), TYPICAL.
  - SPEAKER CIRCUIT ROUTED TO NEXT BUILDING.

RESULT OF OPERATION	TYPE OF INITIATION			
	AREA SMOKE/HEAT DETECTOR (1)	LOSS OF POWER	SHORT CIRCUIT/GROUND FAULT	SMOKE DETECTOR FOR DOOR RELEASING
ANNUNCIATE ALARM AT FIRE ALARM CONTROL PANEL	YES	---	---	YES
ANNUNCIATE TROUBLE AT FIRE ALARM CONTROL PANEL	---	YES	YES	---
ANNUNCIATE SUPERVISORY AT FIRE ALARM CONTROL PANEL	---	---	---	---
ACTIVATE ALL AUDIBLE AND VISUAL ALARM SIGNALS	YES	---	---	YES
TRANSFER TO BATTERY BACK-UP	---	YES	---	---
SHUTDOWN RESPECTIVE A/C UNIT	YES	---	---	---
CLOSE SMOKE/FIRE DAMPER	YES	YES	---	---
ANNUNCIATE AT 24 HR ATTENDED LOCATION	YES	YES	---	YES
CENTRAL STATION FOR MONITORING (ALARM)	YES	---	---	YES
CENTRAL STATION FOR MONITORING (TROUBLE)	---	YES	---	---
CENTRAL STATION FOR MONITORING (SUPERVISORY)	---	---	---	---

(1) THIS OPERATION SHALL BE ACCOMPLISHED BY UTILIZING THE TOTAL SMOKE COVERAGE SYSTEM TO ACTIVATE THE RESPECTIVE RELAY MODULE. THE CONTACTS SHALL BE PROGRAMMED TO OPEN, THIS DE-ENERGIZES THE 120V POWER TO THE ACTUATOR OF THE SMOKE/FIRE DAMPER OR OPENING THE H.V.A.C. CONTROL CIRCUIT.


**COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL**

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THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122490 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 07/27/2023

---

Owner:  
  
**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

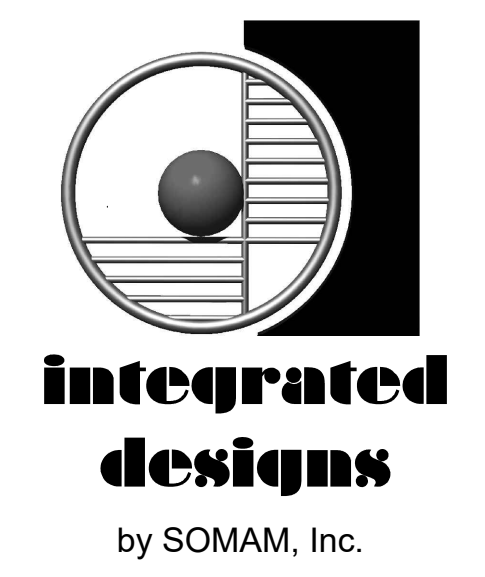
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Project Name:  
**CENTRAL PLANT REPLACEMENT**

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Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

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by SOMAM, Inc.  
**ARCHITECTURE ENGINEERING INTERIOR DESIGN**

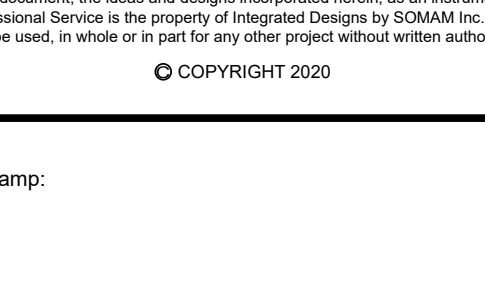
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**FIRE ALARM SYSTEM RISER DIAGRAM**

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Job No.: **5525**

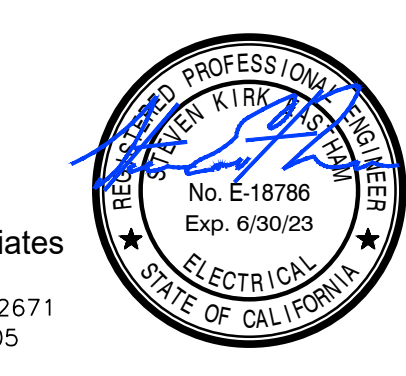
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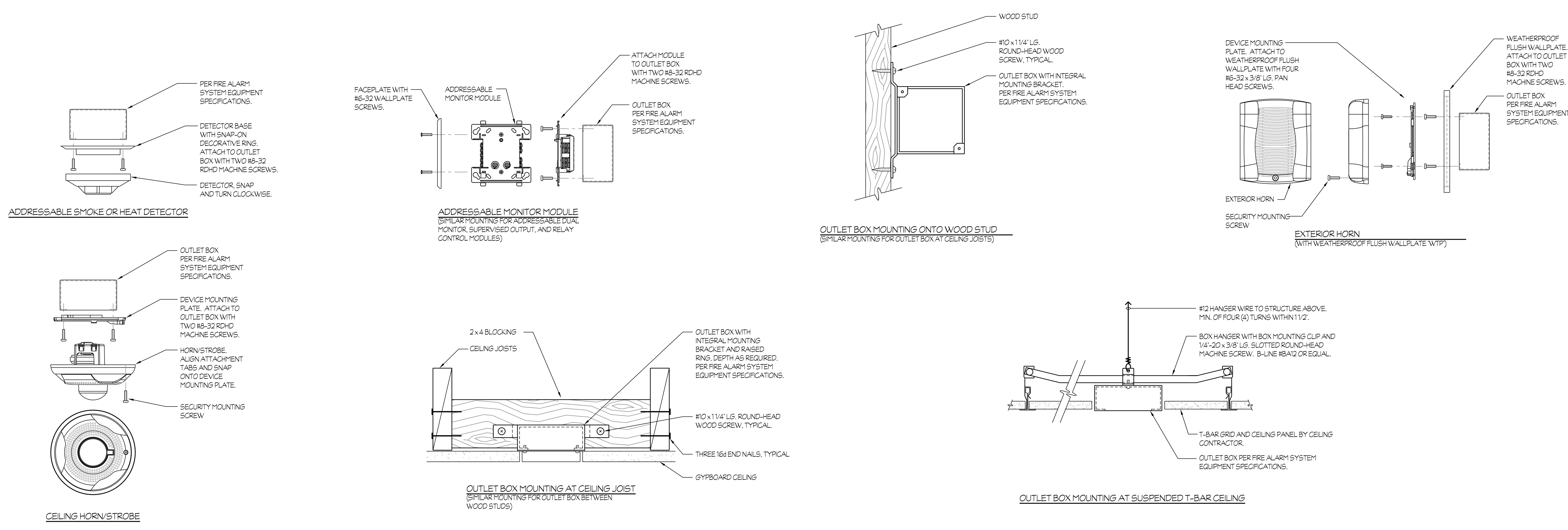
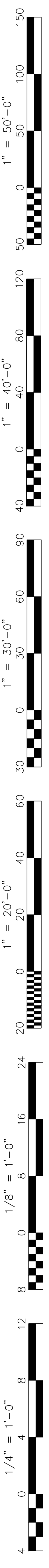
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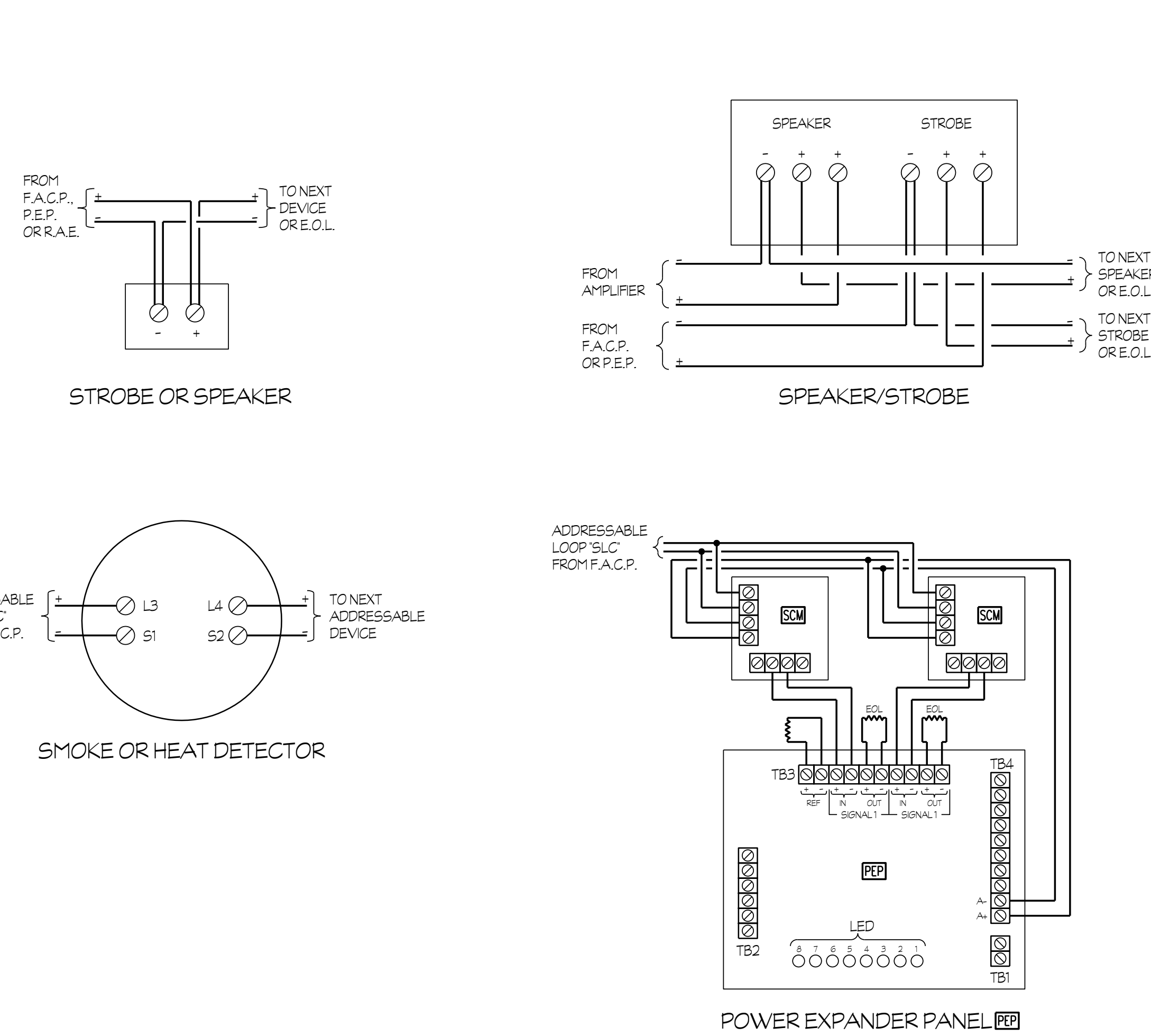
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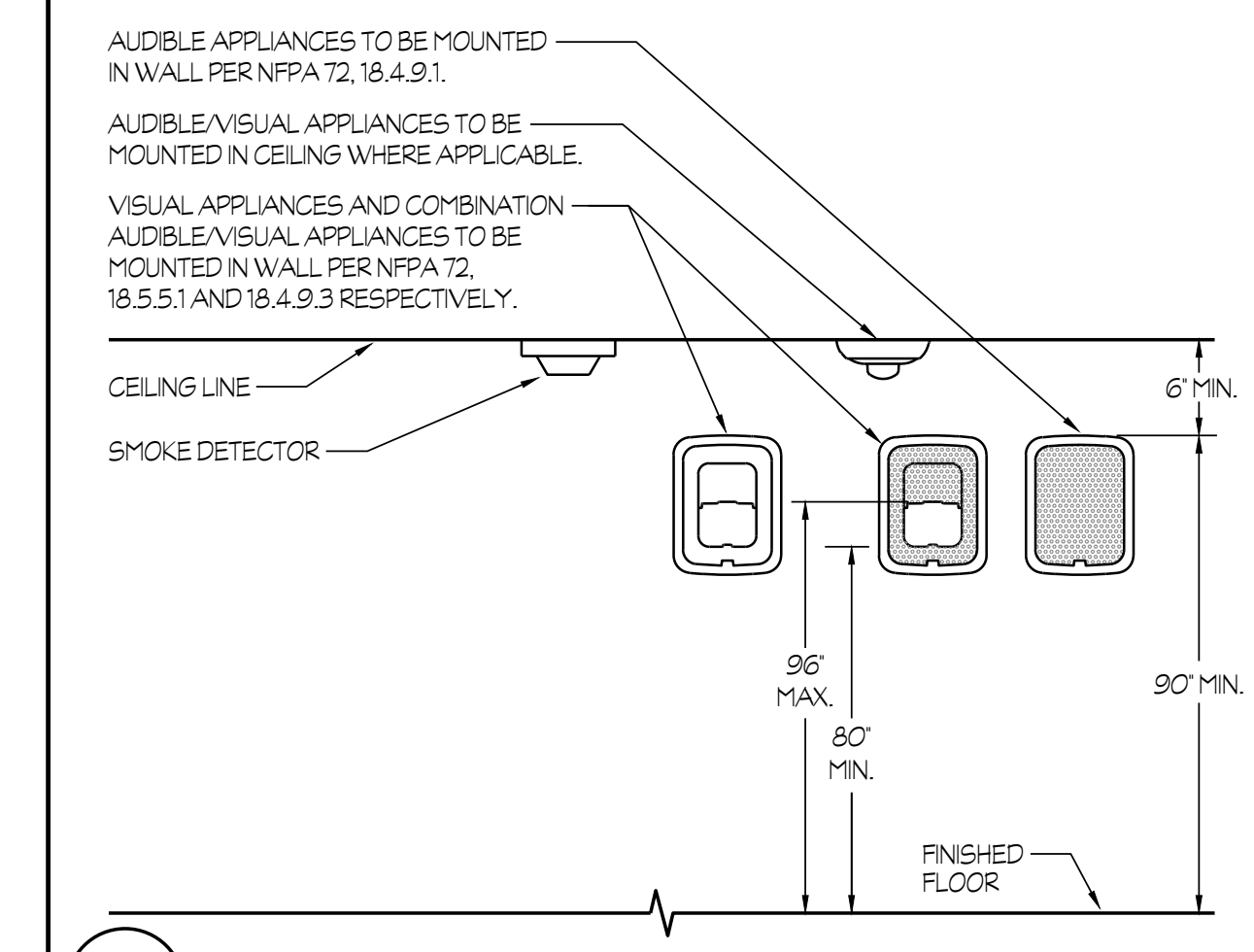




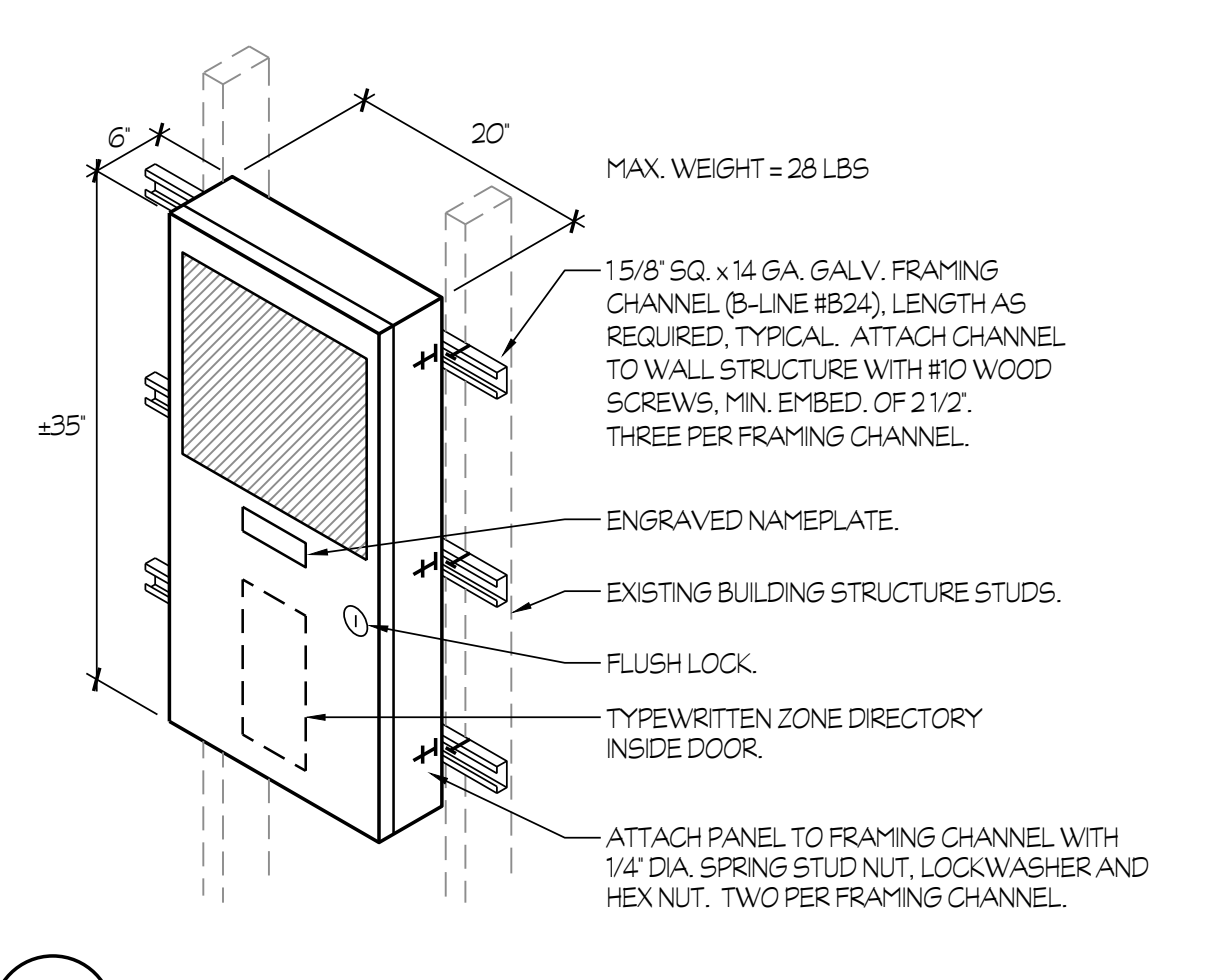
**1 FIRE ALARM DEVICES MOUNTING**



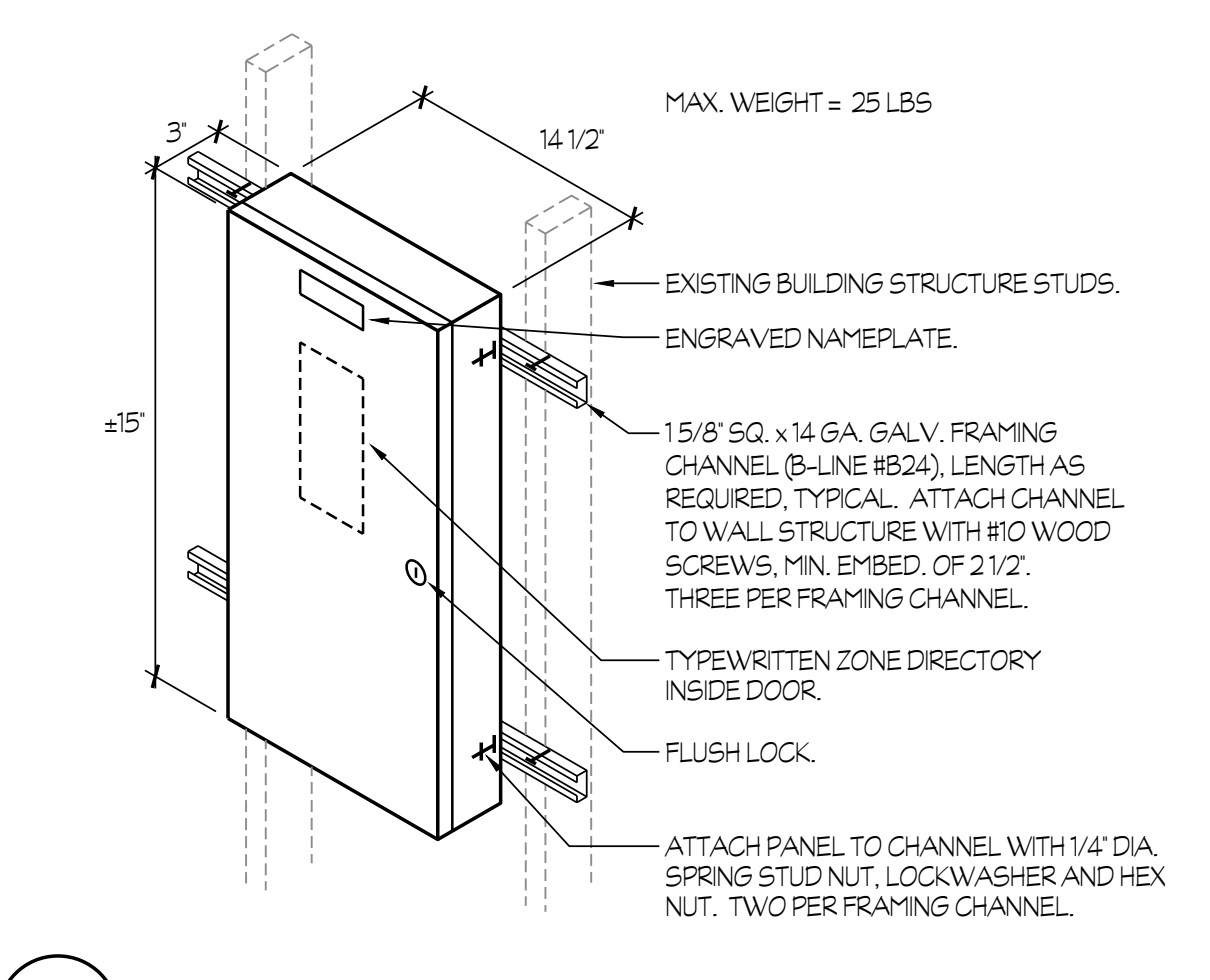
**2 FIRE ALARM DEVICES WIRING DIAGRAMS**



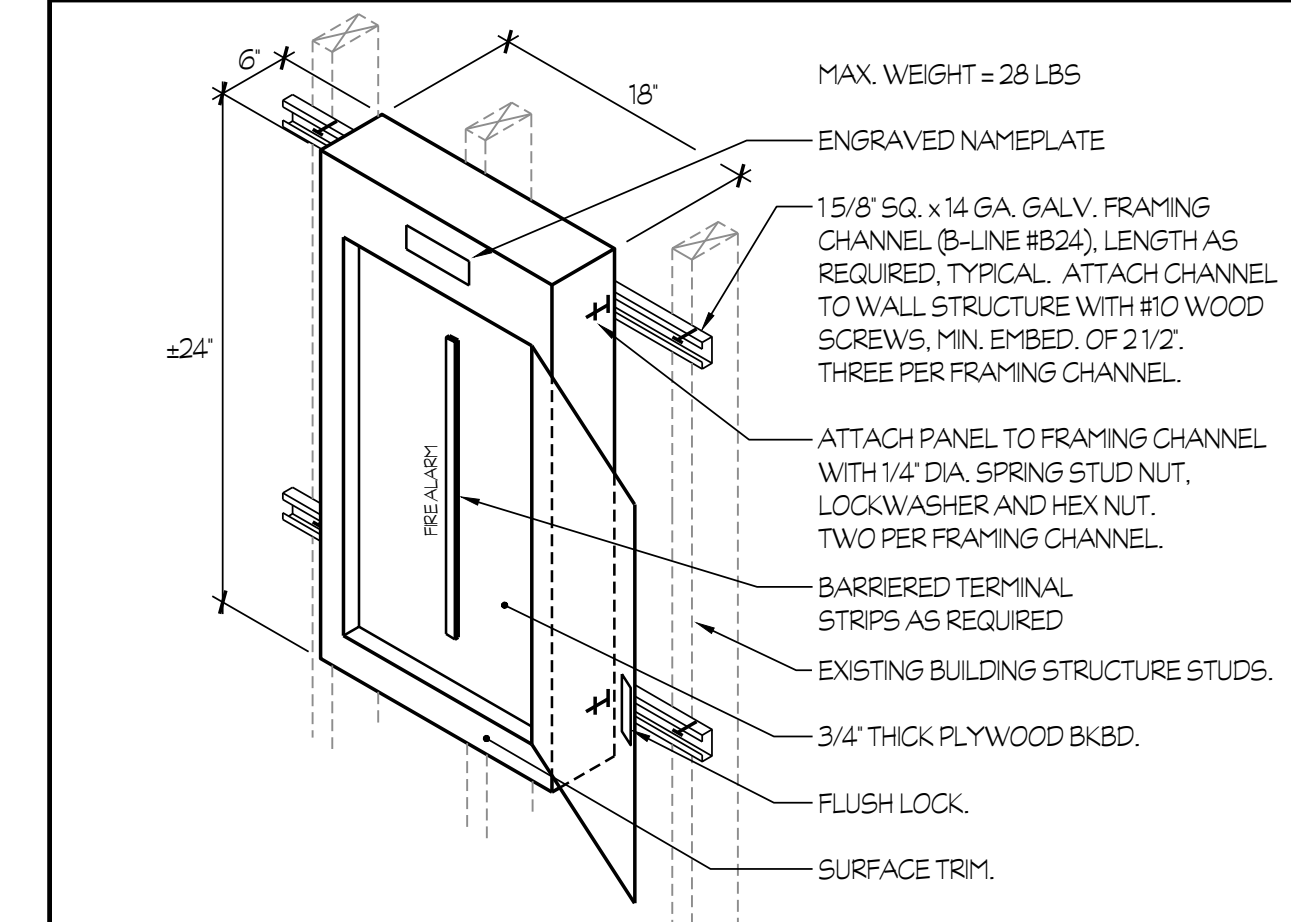
**3 FIRE ALARM DEVICES ELEVATION**



**4 FIRE ALARM W.P. CONTROL PANEL 'F.A.C.P.' MOUNTING**



**5 FIRE ALARM POWER EXPANDER PANEL 'P.E.P.' MOUNTING**



**6 FIRE ALARM TERMINAL CABINET 'F.A.T.C.' MOUNTING**

**COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL**

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THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

Rose Sing Eastham & Associates  
Electrical Consultants  
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Visalia, California 93292-6705

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APP: 03-122490 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 07/27/2023

Owner:  
**BCSD**  
BAKERSFIELD CITY SCHOOL DISTRICT

**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
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Architecture  
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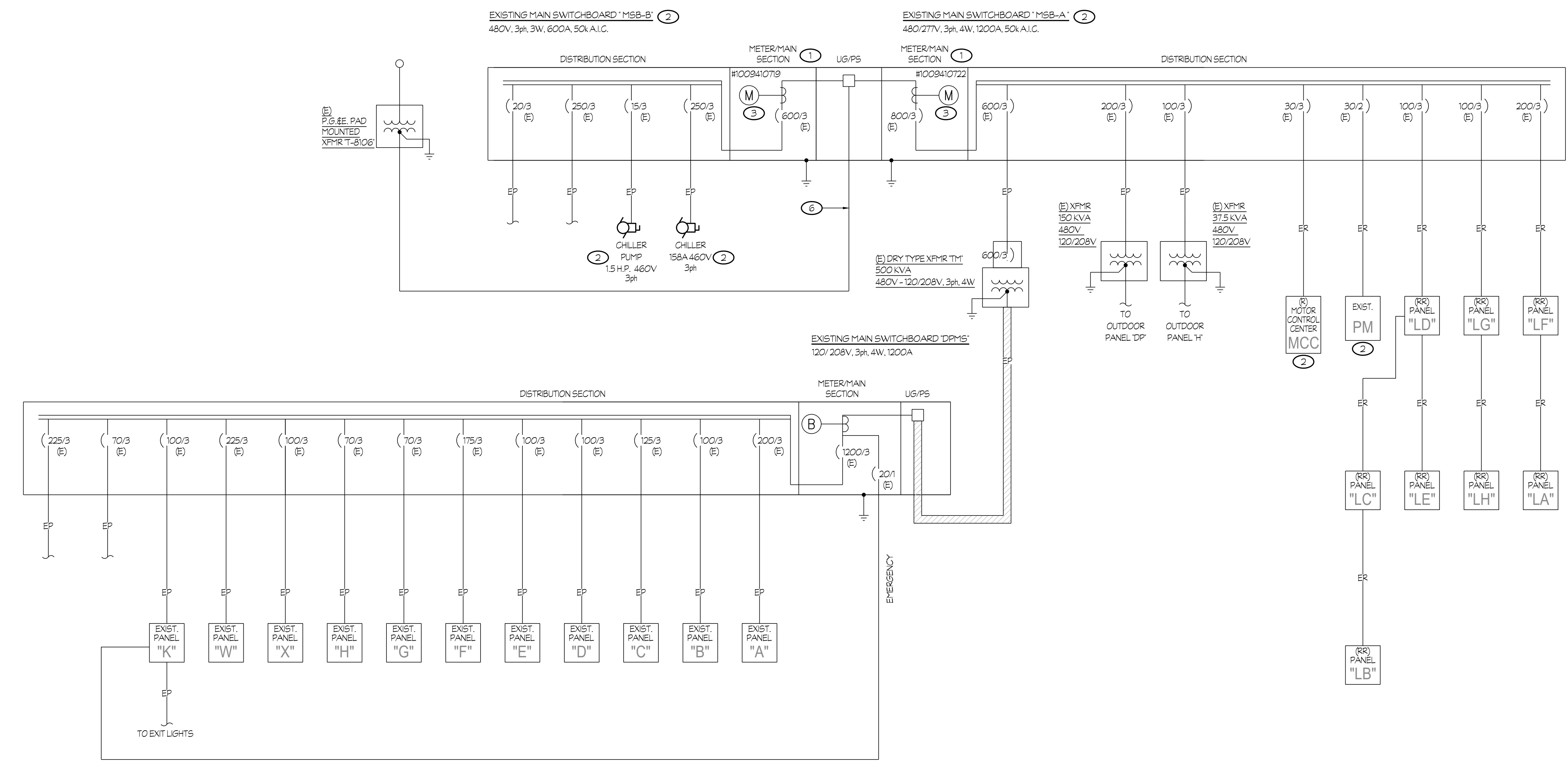
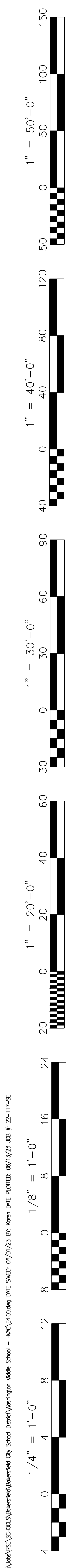
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Professional Engineer  
No. E-16796  
Exp. 01/01/23  
STATE OF CALIFORNIA

Sheet Title:  
**FIRE ALARM DETAILS**

Job No.: **5525**


Sheet No.: **E3.22**

Revision: DSA BACKCHECK Issue Date: 06-13-2023



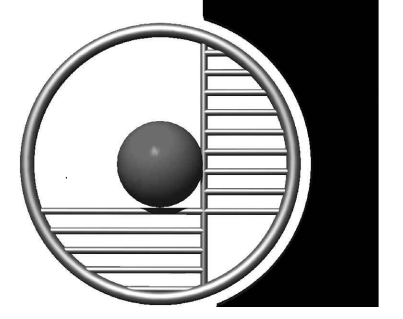
- NOTES (FOR SHEETS E4.01 AND E4.02 ONLY):
- EXISTING UTILITY FEED SHALL BE DISCONNECTED. PROVIDE NEW CONNECTION FROM NEW BOARD "MSB2" TO FEED EXISTING BOARD DURING CONSTRUCTION, AS SHOWN ON SHEET E4.01.
  - EXISTING CHILLER EQUIPMENT SHALL REMAIN IN SERVICE DURING CONSTRUCTION ACTIVITIES. EQUIPMENT SHALL BE DISCONNECTED AND REMOVED AT THE END OF NEW CONSTRUCTION.
  - RETURN UTILITY METER EQUIPMENT TO UTILITY COMPANY AND PROVIDE CONNECTION TO POWER DISTRIBUTION BOARDS.
  - EP \_\_\_\_\_ DENOTES EXISTING FEEDER AND/OR SPARE CONDUIT(S) SHALL REMAIN, UNLESS OTHERWISE NOTED.
  - ER \_\_\_\_\_ DENOTES EXISTING BRANCH CIRCUITING/HOMERUN TO BE REMOVED.
  - EXISTING FEED SHALL BE INTERCEPTED AND REROUTED TO NEW BOARD FOR TEMPORARY CONNECTION. REFER TO SHEET E4.01.

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 by SOMAM, Inc.  
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Sheet Title:  
**ONE LINE DIAGRAM - DEMO**

Job No.:  
**5525**

Sheet No.:  
**E4.00**

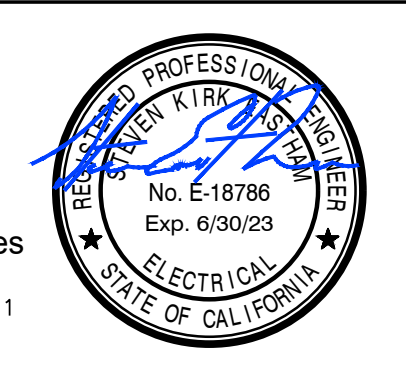
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 **ONE LINE DIAGRAM - DEMO**  
**CENTRAL PLANT REPLACEMENT**

NTS

 **EQUIPMENT BID PACKAGE**  
 12/6/22

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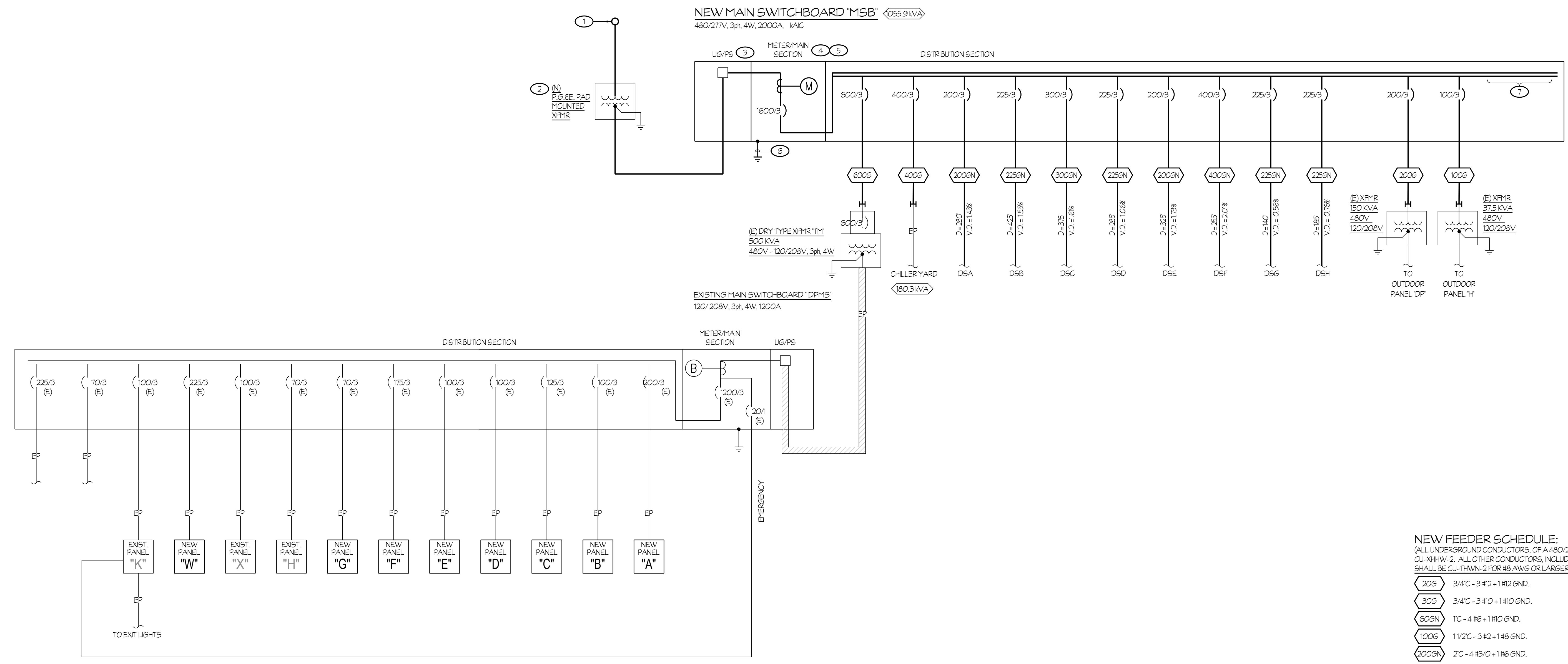


**NEW MAIN SWBD 'MSB' LOAD CALCULATION:**

MAXIMUM DEMAND PER P.G. & E. RECORDS FOR MAIN SWBD 'MSB' METER #1009410722	232.4 kVA
PLUS DEMAND FACTOR PER C.E.C. 220.35	58.1 kVA
SUB-TOTAL	290.5 kVA
NEW 'CONNECTED' LOAD BEING ADDED	765.4 kVA
H.V.A.C. x 125%	765.4 kVA
SUB-TOTAL	1555.9 kVA
FUTURE CLASSROOM BUILDING	100 kVA
TOTAL	1655.9 kVA
AT 480/277V 3ph 4W	1381 AMP

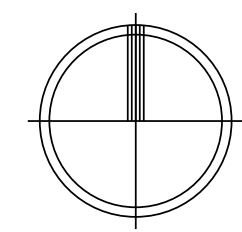
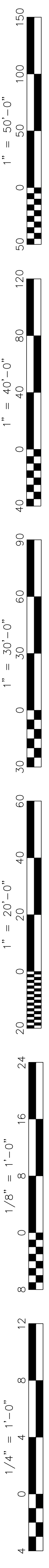
THEREFORE, THE NEW 1600 AMP MAIN SWITCHBOARD IS SUFFICIENT.

- NOTES (FOR SHEETS E4.01 AND E4.02 ONLY):**
- P.G. & E. POWER POLE. VERIFY EXACT LOCATION AND RISER QUADRANT WITH P.G. & E. PRIOR TO ROUGH-IN.
  - NEW CONCRETE PAD FOR P.G. & E. PROVIDED TRANSFORMER. COORDINATE WITH APPROVED P.G. & E. DRAWINGS.
  - PROVIDE LANDING LUGS PER P.G. & E. REQUIREMENTS.
  - PROVIDE METERING FACILITIES PER P.G. & E. REQUIREMENTS.
  - MAIN CIRCUIT BREAKER SHALL BE 100% RATED ELECTRONIC TYPE, EQUIPPED WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS-OFF TYPE AND GROUND FAULT TYPE CONFIGURATIONS. MAIN CIRCUIT BREAKER SHALL ALSO BE EQUIPPED WITH A TRIP INDICATOR AND LOCAL CURRENT METER. SQUARE D BRK. SERIES OR EQUAL.
  - 1#3/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #12/ES.00.
  - PROVIDE WITH SPACE AND MOUNTING HARDWARE FOR MINIMUM (6) 400 A FRAMES.
  - REFER TO PANEL SCHEDULE ON SHEET E4.03 FOR ADDITIONAL INFORMATION. TYPICAL FOR NEW PANELS SHOWN.



**NEW FEEDER SCHEDULE:**  
 (ALL UNDERGROUND CONDUCTORS, OF A 480/277V POWER SYSTEM, SHALL BE TYPE CU-XHHW-2. ALL OTHER CONDUCTORS, INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER.)

20G	3/4" - 3 #12 + 1 #2 GND.
30G	3/4" - 3 #10 + 1 #10 GND.
60GN	1" - 4 #6 + 1 #10 GND.
100G	1 1/2" - 3 #2 + 1 #8 GND.
200GN	2" - 4 #3/0 + 1 #6 GND.
200G	2" - 3 #3/0 + 1 #6 GND.
225GN	2 1/2" - 4 #4/0 + 1 #4 GND.
300GN	3" - 4 #250kcmil + 1 #4 GND.
400G	3" - 3 #500kcmil + 1 #2 GND.
400GN	4" - 4 #500kcmil + 1 #2 GND.
600G	(2) 3" - 3 #350kcmil + 1 #1 GND. EACH




**ONLINE DIAGRAM**  
**CENTRAL PLANT REPLACEMENT**

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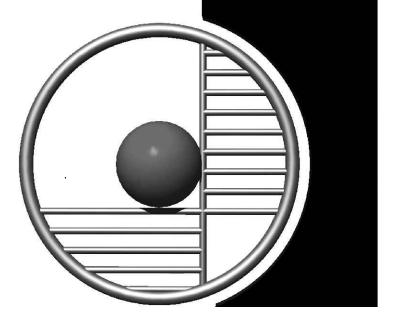
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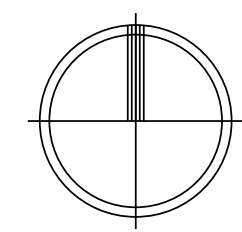
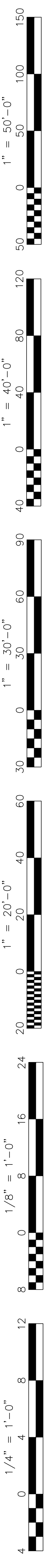
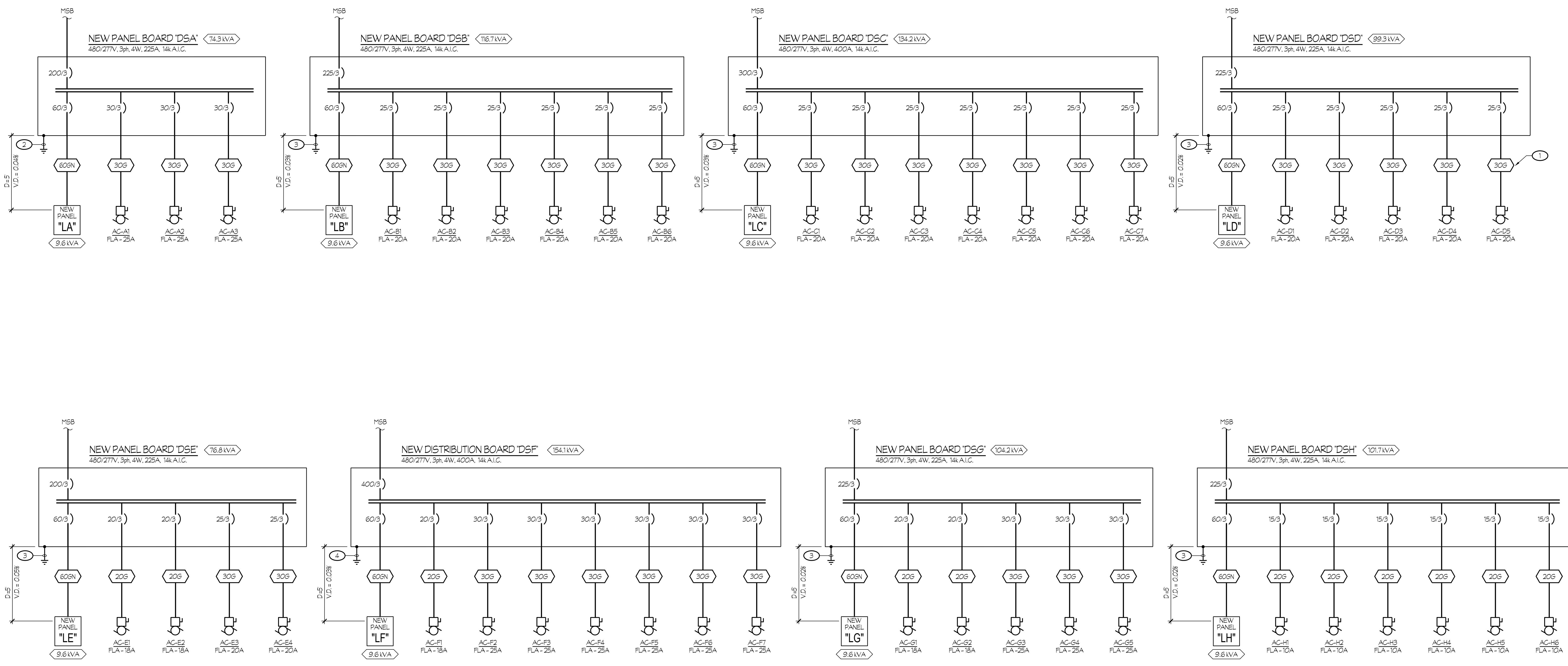
Sheet Title:  
**ONLINE DIAGRAM**

Job No.:  
**5525**

Sheet No.:  
**E4.01**

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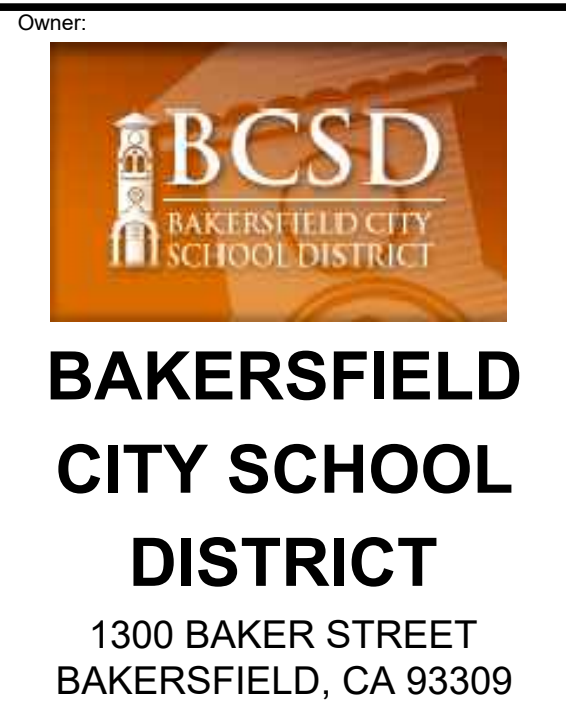
- NOTES (THIS SHEET ONLY):
- REFER TO FEEDER SCHEDULE ON SHEET E4.01, TYPICAL.
  - PROVIDE 1 #4 GND. PER DETAIL #13/E5.00.
  - PROVIDE 1 #2 GND. PER DETAIL #13/E5.00.
  - PROVIDE 1 #10 GND. PER DETAIL #13/E5.00.



**ONLINE DIAGRAM**  
**CENTRAL PLANT REPLACEMENT**

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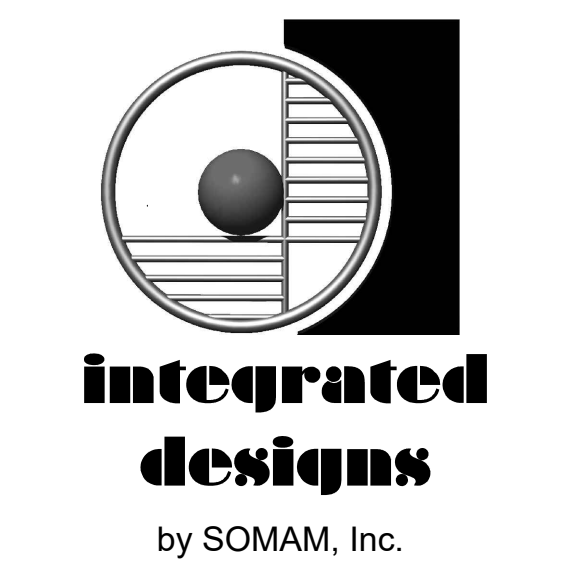
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Sheet No.:  
**E4.02**

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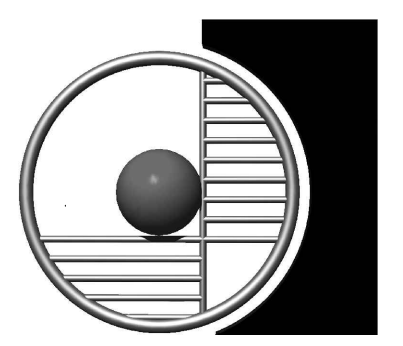


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Sheet Title:  
**PANEL SCHEDULES**

Job No.:  
**5525**

Sheet No.:  
**E4.04**

Revision: DSA BACKCHECK Issue Date: 06-13-2023

120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT										10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH SURF MOUNTING									
Ckt	Circuit	LOAD: V.A.			DESCRIPTION	LOAD: V.A.			Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit			
		A	B	C		A	B	C											
1	201	1440			(E) LOAD				2250	301	2								
3	301		1000		(E) LOAD				2250	301	4								
5	201			12200	(E) LOAD				2250	301	6								
7	201	1000			RECEPT.				1000	201	8								
9	202		1000		(E) LOAD				1100	201	10								
11	201			1200	RECEPT.				1000	201	12								
13	201	1000			(E) LOAD				500	201	14								
15	703		500		(E) LOAD				1800	201	16								
17				1050	RECEPT.					201	18								
19					TIME CLOCK (FOR A.C.)						20								
21	703				(E) LOAD					703	22								
23					MAIN UNIT/ CENTER A.C.						24								
25	201				(E) LOAD						26								
27	201		540		RECEPT - WP ON ROOF						28								
29	201				SPARE						30								
31	201				SPARE						32								
33	201				SPARE						34								
35	201				SPARE						36								
37	201				SPARE						38								
39	201				SPARE						40								
41	201				FIRE ALARM "FACP"						42								
LOAD SUMMARY										A	B	C	TOTAL CALCULATED						
CONNECTED LOAD (VA):										6240	7340	16950	LOAD FOR PANEL:						
25% LCL/LML (VA):										0	0	0	30530 VA						
TOTAL LOAD (VA):										6240	7340	16950							
TOTAL LOAD (AMPS):										52.0	61.2	141.3							

120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT										10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH SURF MOUNTING									
Ckt	Circuit	LOAD: V.A.			DESCRIPTION	LOAD: V.A.			Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit			
		A	B	C		A	B	C											
1	301	2250			(E) LOAD				2250	301	2								
3	301		2250		(E) LOAD				2250	301	4								
5	301			2250	(E) LOAD				2250	301	6								
7	301	2250			(E) LOAD				2250	301	8								
9	301		2250		(E) LOAD				2250	301	10								
11	201			2250	(E) LOAD				2250	301	12								
13	201	1400			(E) LOAD				1000	201	14								
15	201		1000		RECEPT.				1000	201	16								
17	201			1000	RECEPT.				600	201	18								
19	201	600			AIR PURIFIER				600	201	20								
21	201		600		AIR PURIFIER				600	201	22								
23	201			600	AIR PURIFIER					201	24								
25	201				SPARE					201	26								
27	201				SPARE					201	28								
29	201				SPARE					201	30								
31	201				SPARE					201	32								
33	201				SPARE					201	34								
35	201				SPARE					201	36								
37	201				SPARE					201	38								
39	201				SPARE				1080	201	40								
41	201				FIRE ALARM "P.E.P.-B"						42								
LOAD SUMMARY										A	B	C	TOTAL CALCULATED						
CONNECTED LOAD (VA):										14200	13640	11200	LOAD FOR PANEL:						
25% LCL/LML (VA):										0	0	0	38940 VA						
TOTAL LOAD (VA):										14200	13640	11200							
TOTAL LOAD (AMPS):										119.3	112.8	93.3							

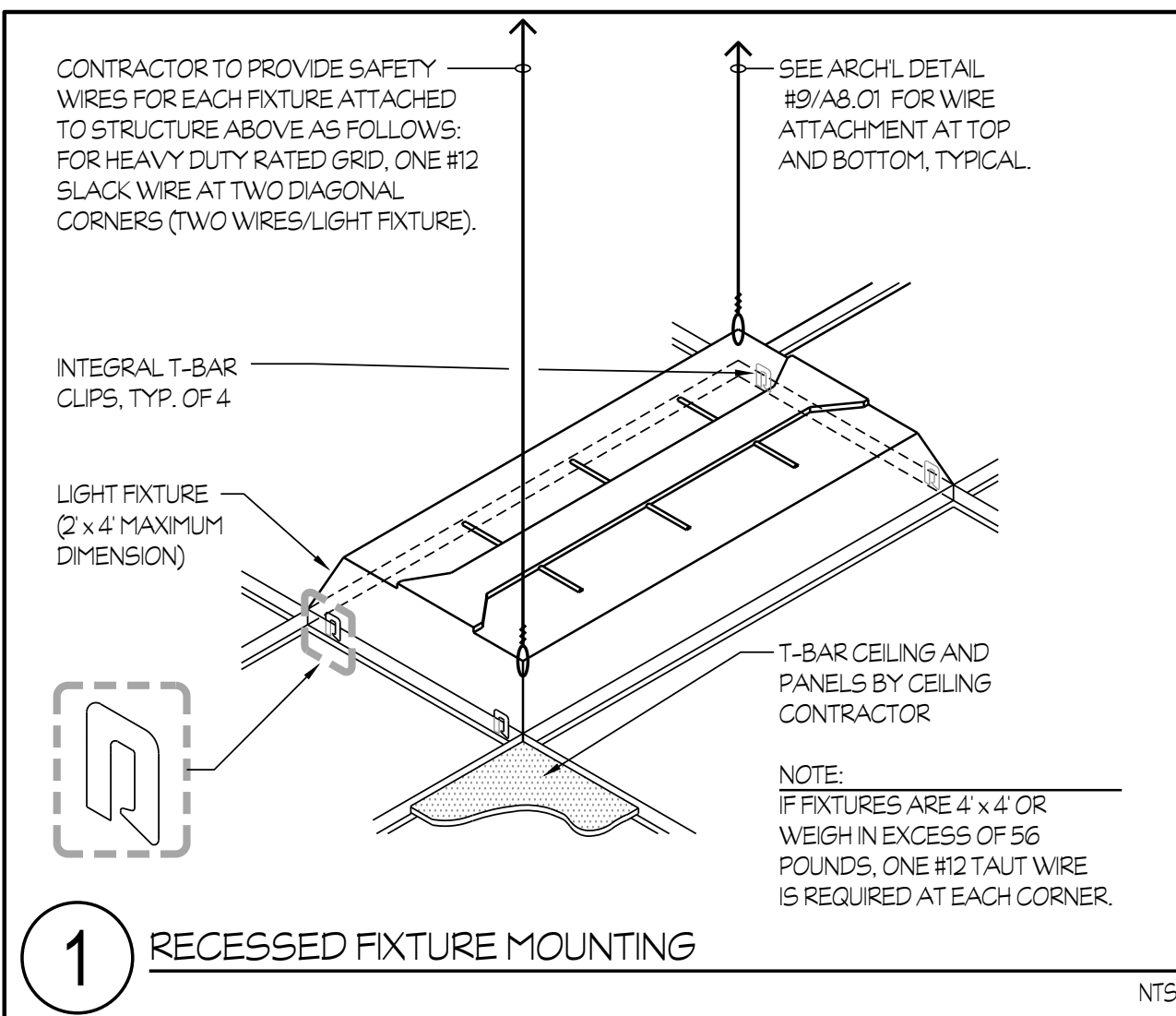
120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT										10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH SURF MOUNTING									
Ckt	Circuit	LOAD: V.A.			DESCRIPTION	LOAD: V.A.			Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit			
		A	B	C		A	B	C											
1	301	2250			(E) LOAD				2250	301	2								
3	301		2250		(E) LOAD				2250	301	4								
5	301			2250	(E) LOAD				2250	301	6								
7	301	2250			(E) LOAD				2250	301	8								
9	301		2250		(E) LOAD				2250	301	10								
11	301			2250	(E) LOAD				2250	301	12								
13	201	1400			(E) LOAD				1000	201	14								
15	201		1000		RECEPT.				1000	201	16								
17	201			1000	RECEPT.				600	201	18								
19	201	600			AIR PURIFIER				600	201	20								
21	201		600		AIR PURIFIER				600	201	22								
23	201			600	AIR PURIFIER					201	24								
25	201				SPARE					201	26								
27	201				SPARE					201	28								
29	201				SPARE					201	30								
31	201				SPARE					201	32								
33	201				SPARE					201	34								
35	201				SPARE					201	36								
37	201				SPARE					201	38								
39	201				SPARE				1080	201	40								
41	201				FIRE ALARM "P.E.P.-B"						42								
LOAD SUMMARY										A	B	C	TOTAL CALCULATED						
CONNECTED LOAD (VA):										12600	13280	11700	LOAD FOR PANEL:						
25% LCL/LML (VA):										0	0	0	37580 VA						
TOTAL LOAD (VA):										12600	13280	11700							
TOTAL LOAD (AMPS):										105.0	110.7	97.5							

120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT										10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH SURF MOUNTING									
Ckt	Circuit	LOAD: V.A.			DESCRIPTION	LOAD: V.A.			Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit			
		A	B	C		A	B	C											
1	201	1440			(E) LOAD				2250	301	2								
3	201		1000		(E) LOAD				1400	201	4								
5	201			12200	(E) LOAD				1500	201	6								
7	201	1000			RECEPT.				1000	201	8								
9	202		1000		(E) LOAD				1100	201	10								
11	201			1200	RECEPT.				1000	201	12								
13	201	1000			(E) LOAD				500	201	14								
15	703		500		(E) LOAD				1800	201	16								
17				1050	RECEPT.					201	18								
19					TIME CLOCK (FOR A.C.)						20								
21	703				(E) LOAD					703	22								
23					MAIN UNIT/ CENTER A.C.						24								
25	201				(E) LOAD						26								
27	201		540		RECEPT - WP ON ROOF						28								
29	201				SPARE						30								
31	201				SPARE						32								
33	201				SPARE						34								
35	201				SPARE						36								
37	201				SPARE						38								
39	201				SPARE						40								
41	201				FIRE ALARM "FACP"						42								
LOAD SUMMARY										A	B	C	TOTAL CALCULATED						
CONNECTED LOAD (VA):										6240	7340	16950	LOAD FOR PANEL:						
25% LCL/LML (VA):										0	0	0	30530 VA						
TOTAL LOAD (VA):										6240	7340	16950							
TOTAL LOAD (AMPS):										52.0	61.2	141.3							

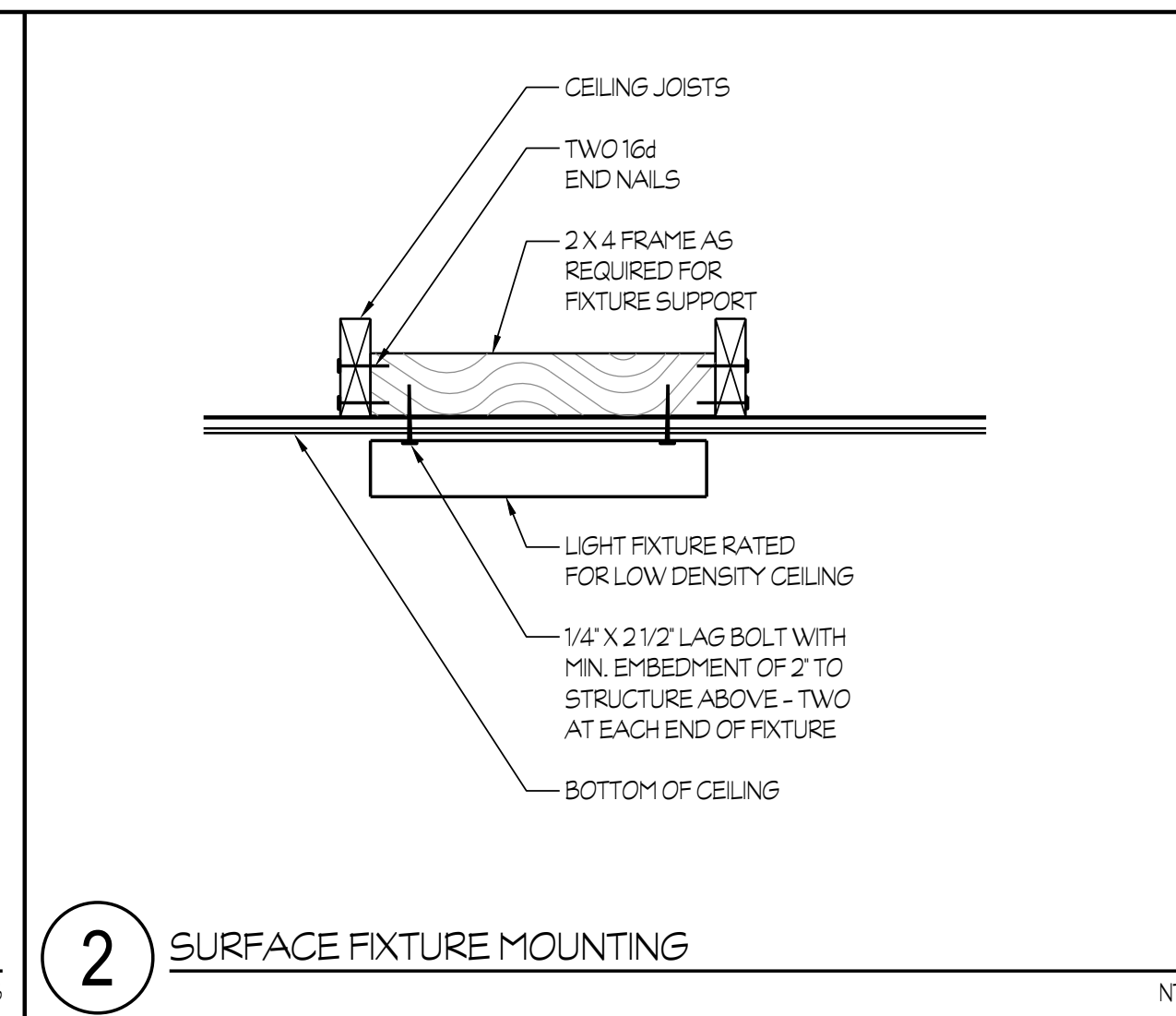
120/208V, 3 PH, 4 W 225 A. BUSSING 225 A. MAIN BKR. 42 CIRCUIT										10K BREAKER A.I.C. 5 3/4" MAX. ENCL. DEPTH SURF MOUNTING									
Ckt	Circuit	LOAD: V.A.			DESCRIPTION	LOAD: V.A.			Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit	Circuit			
		A	B	C		A	B	C											
1	201	1500			(E) LOAD				1500	201	2								
3	201		1500		(E) LOAD				1500	201	4								
5	201			1500	(E) LOAD				1500	201	6								
7	201	1500			(E) LOAD				1500	201	8								
9	201		1200		(E) LOAD				1500	201	10								



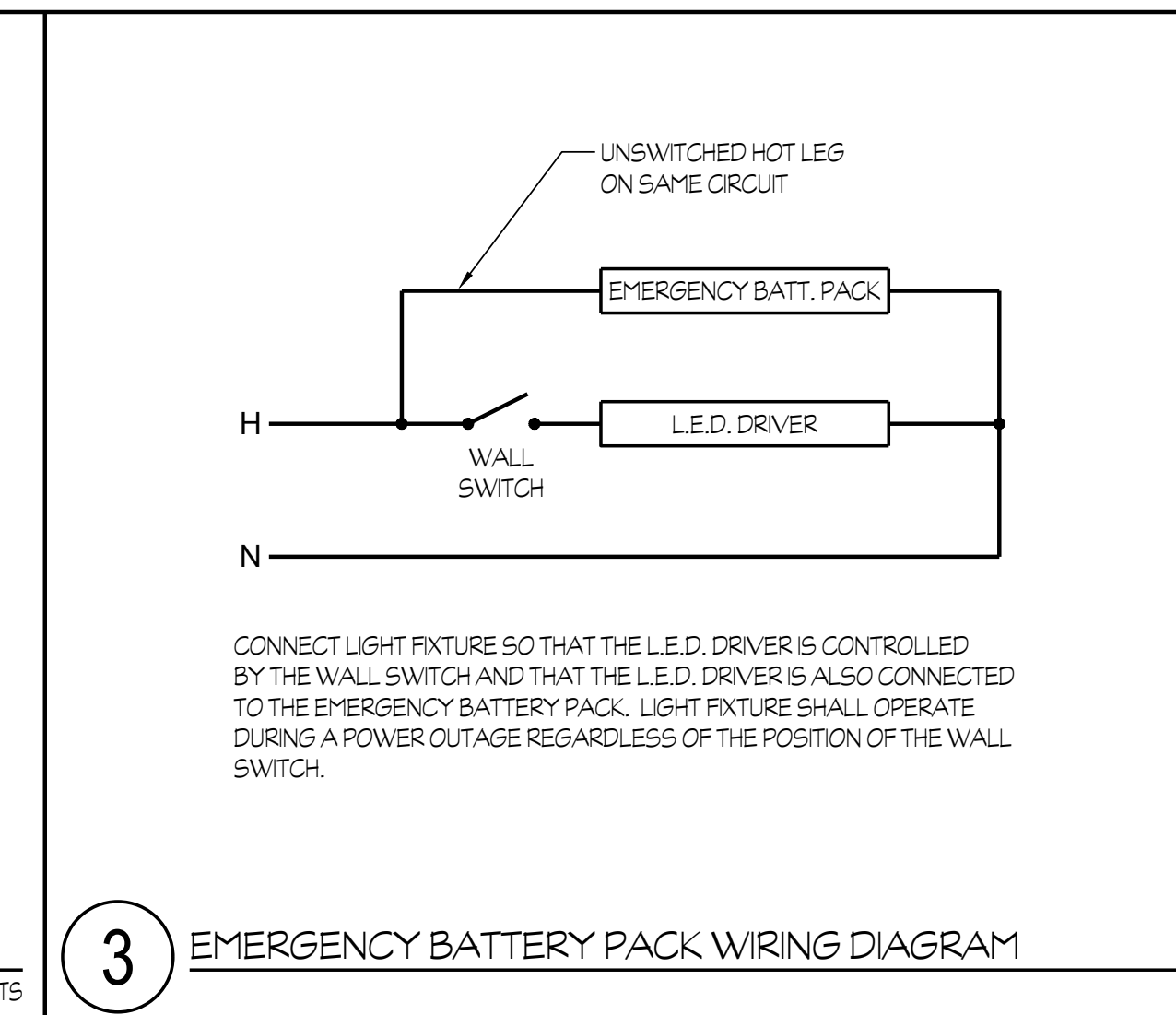
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1" = 40'-0"  
1" = 30'-0"  
1" = 20'-0"  
1" = 1'-0"  
1/8" = 1'-0"



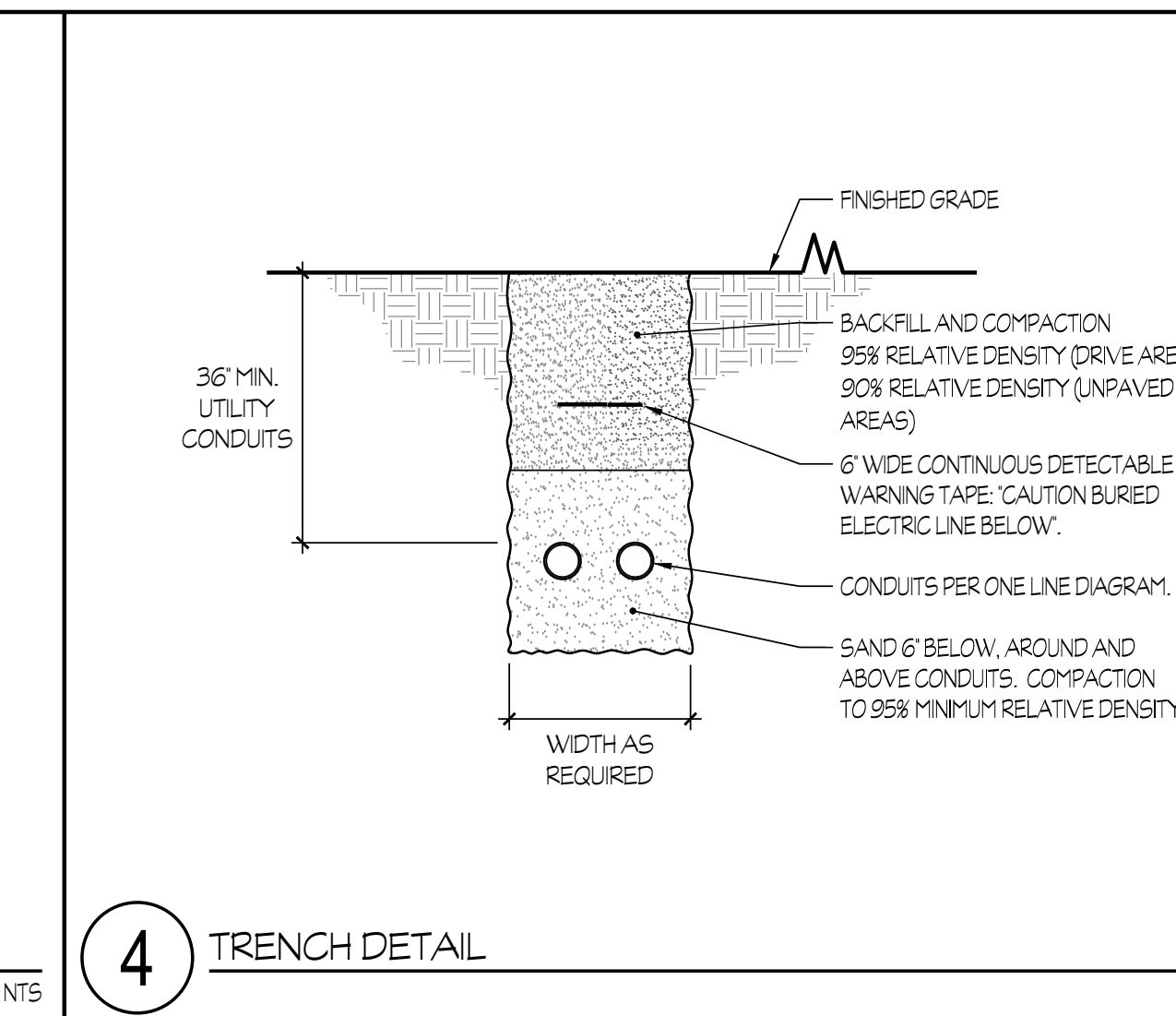
1 RECESSED FIXTURE MOUNTING NTS



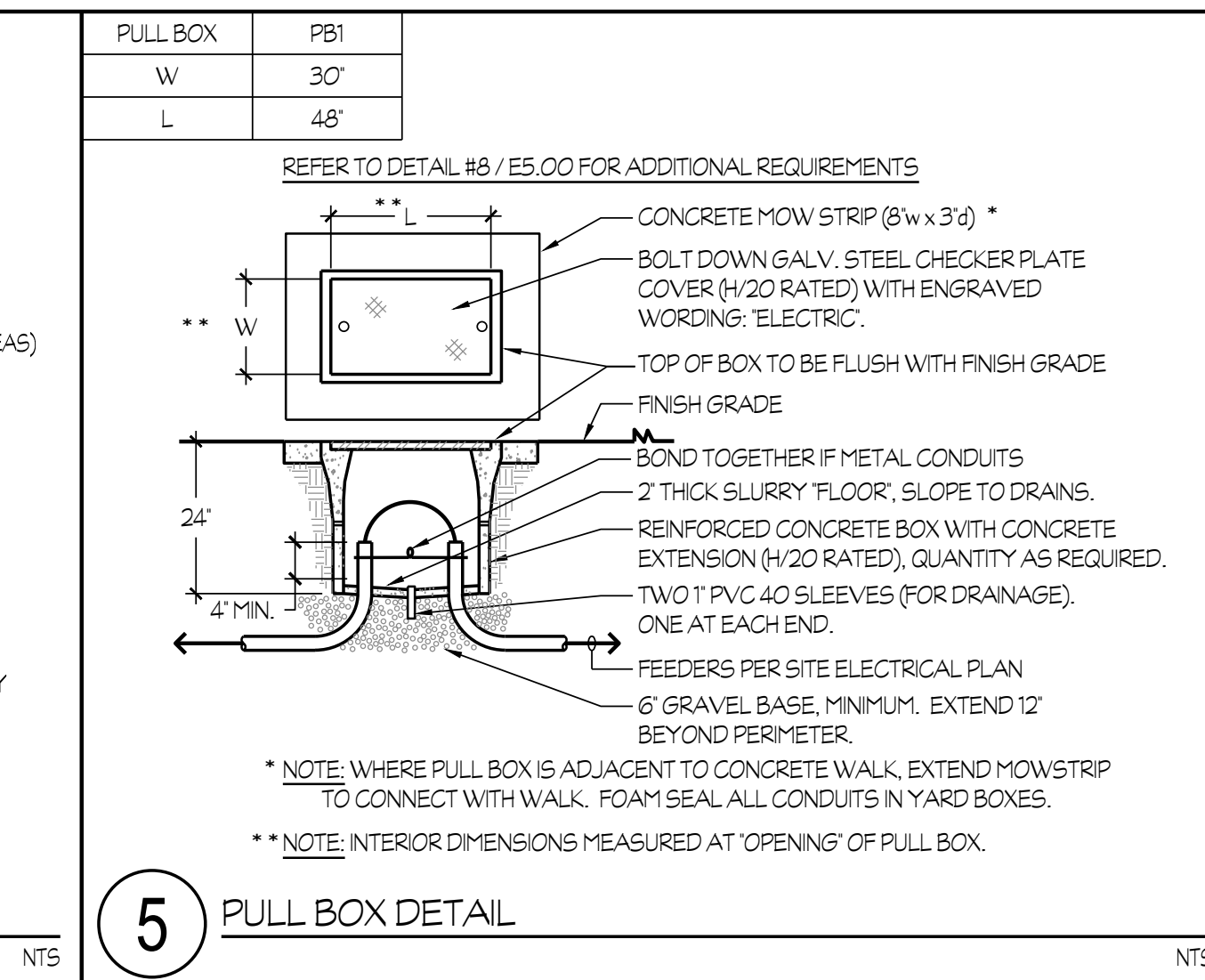
2 SURFACE FIXTURE MOUNTING NTS



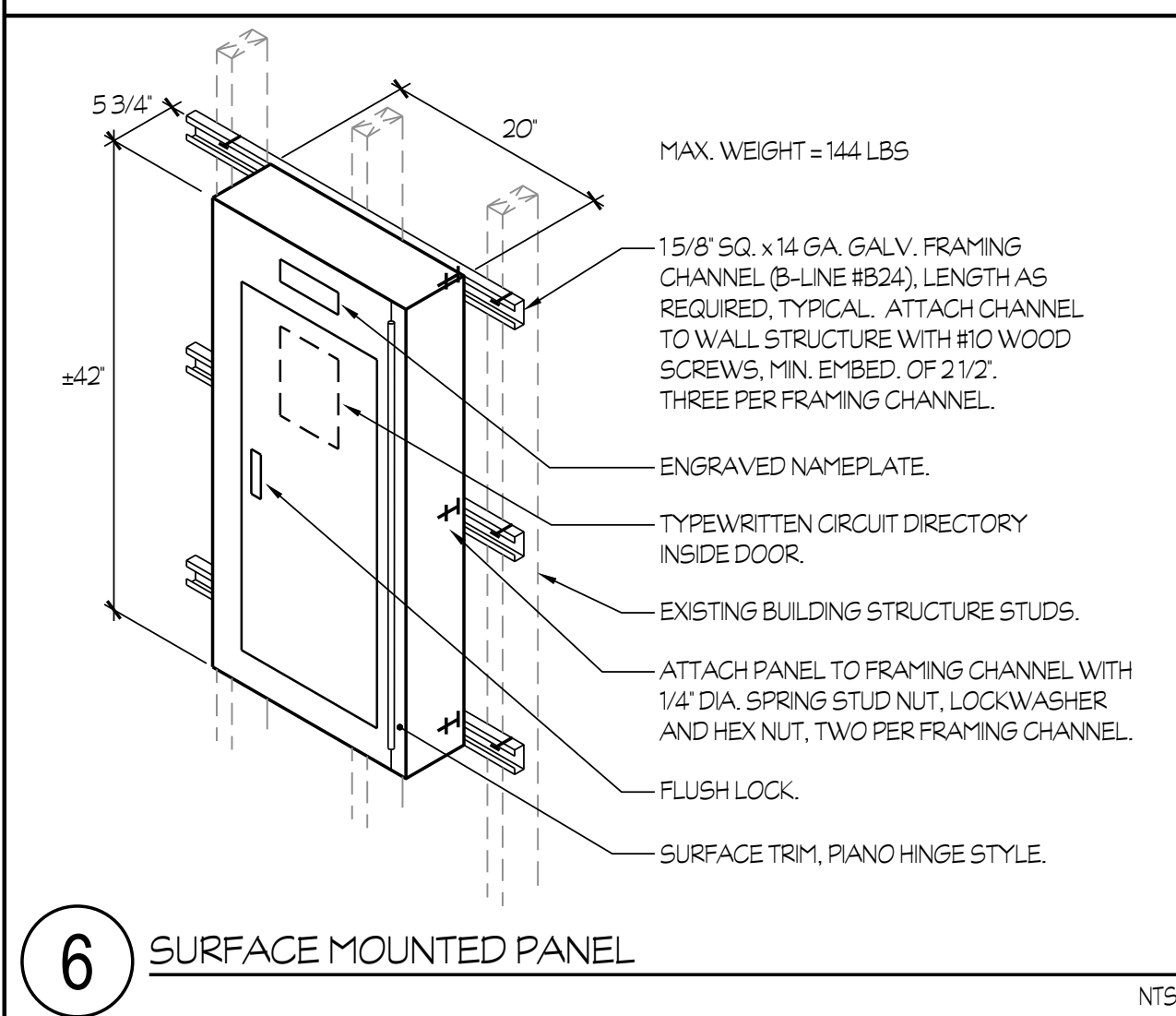
3 EMERGENCY BATTERY PACK WIRING DIAGRAM NTS



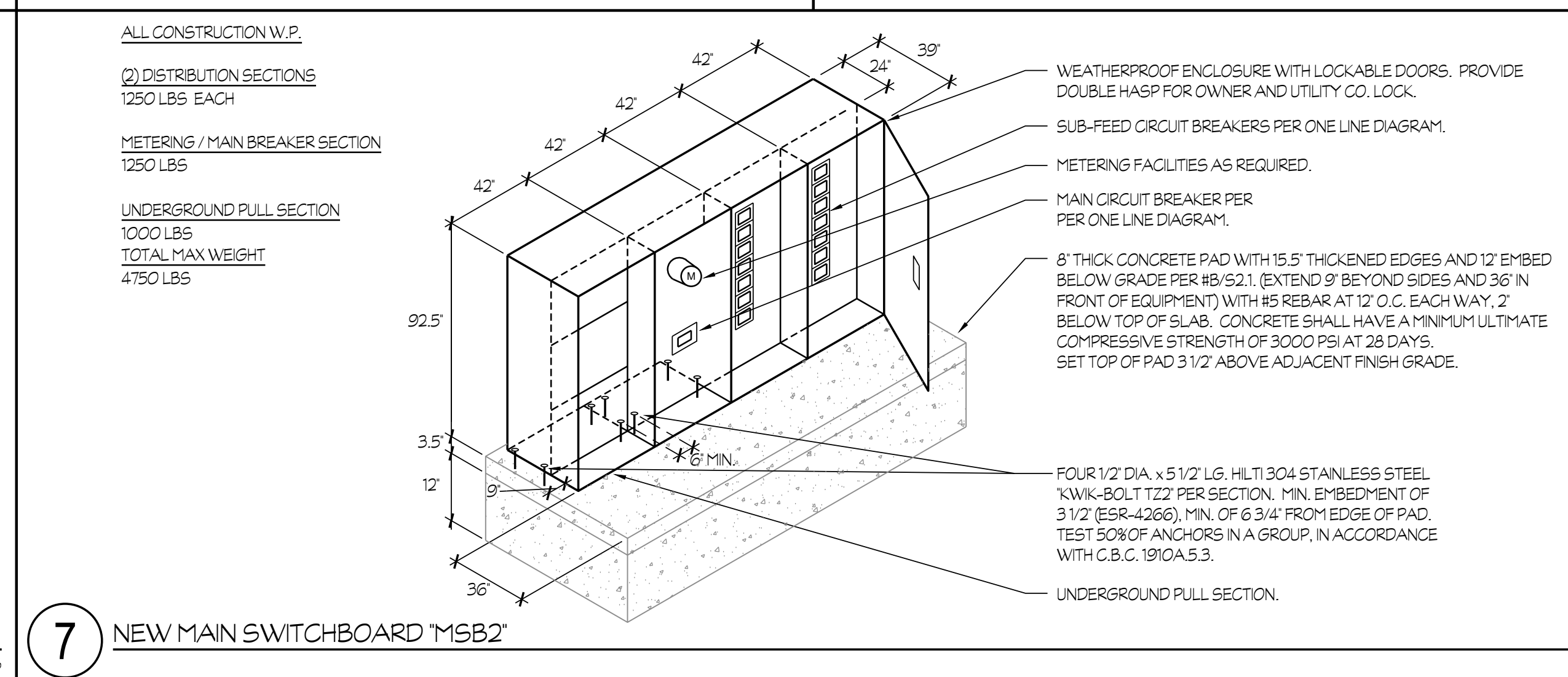
4 TRENCH DETAIL NTS



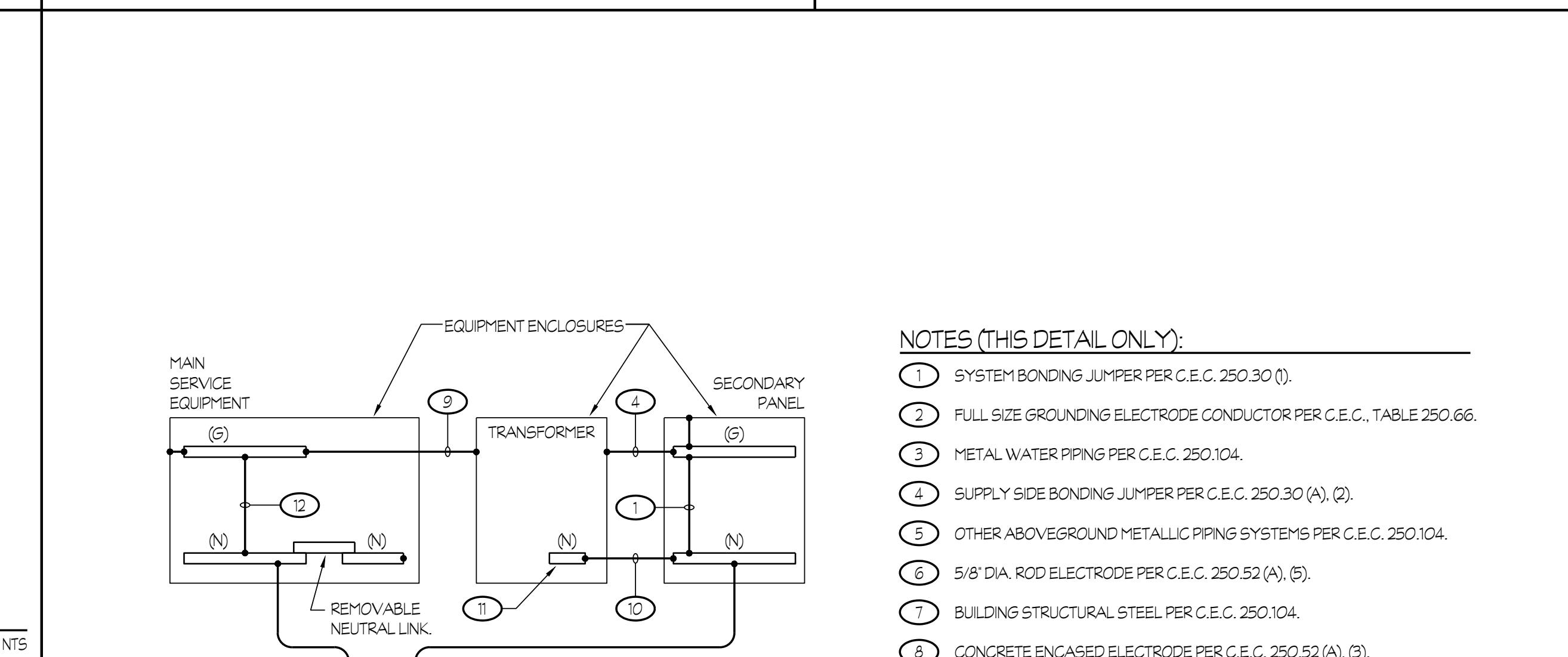
5 PULL BOX DETAIL NTS



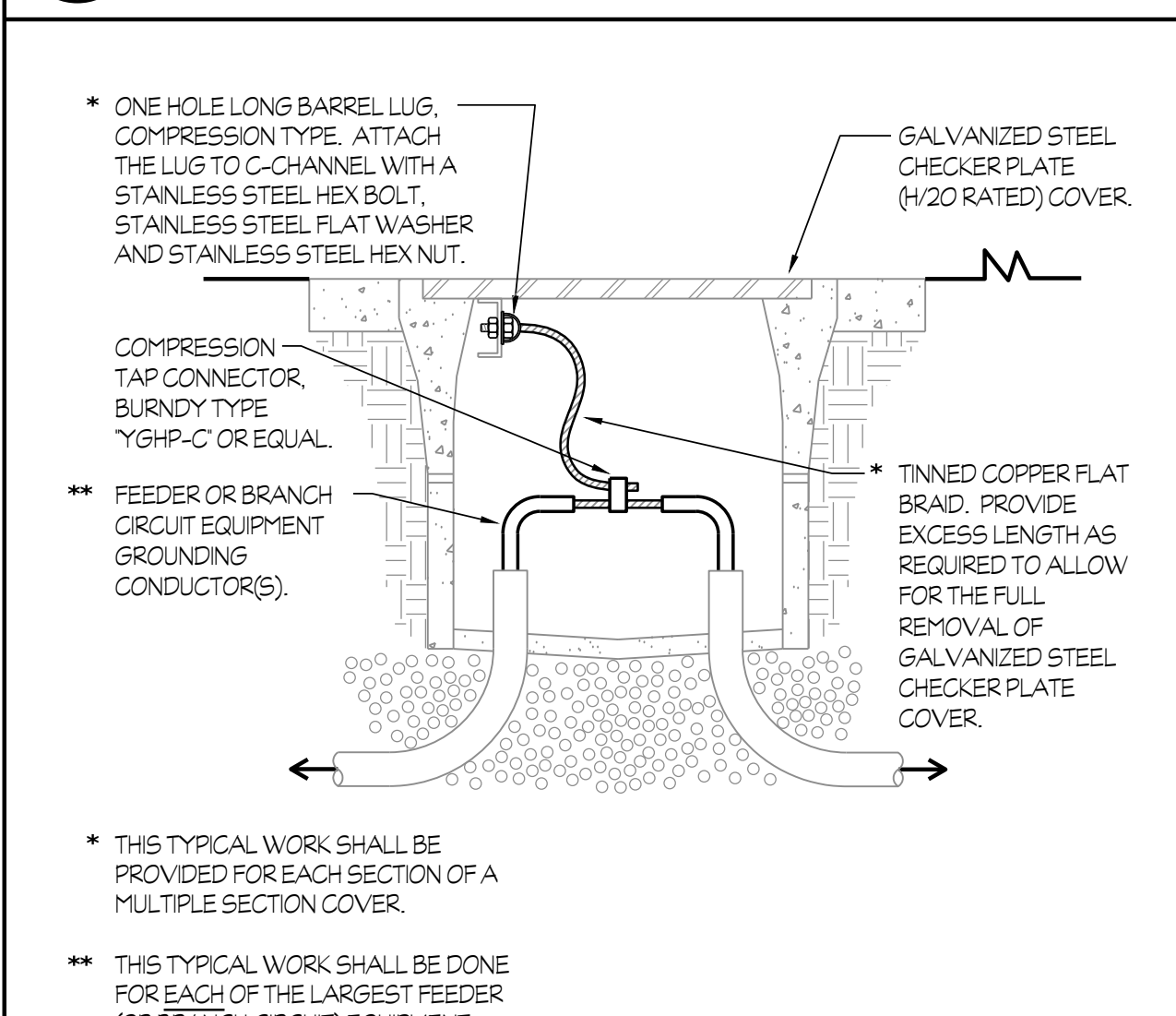
6 SURFACE MOUNTED PANEL NTS



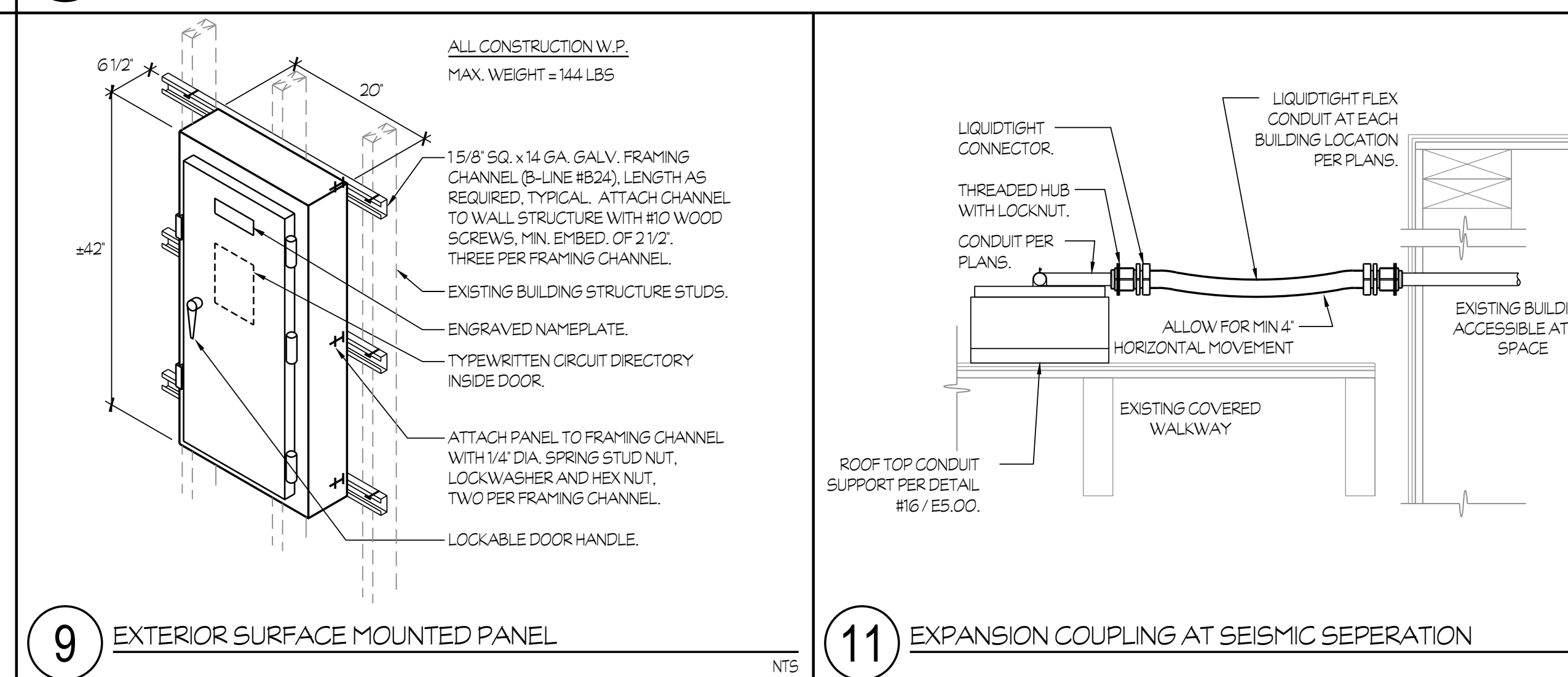
7 NEW MAIN SWITCHBOARD (MSB2) NTS



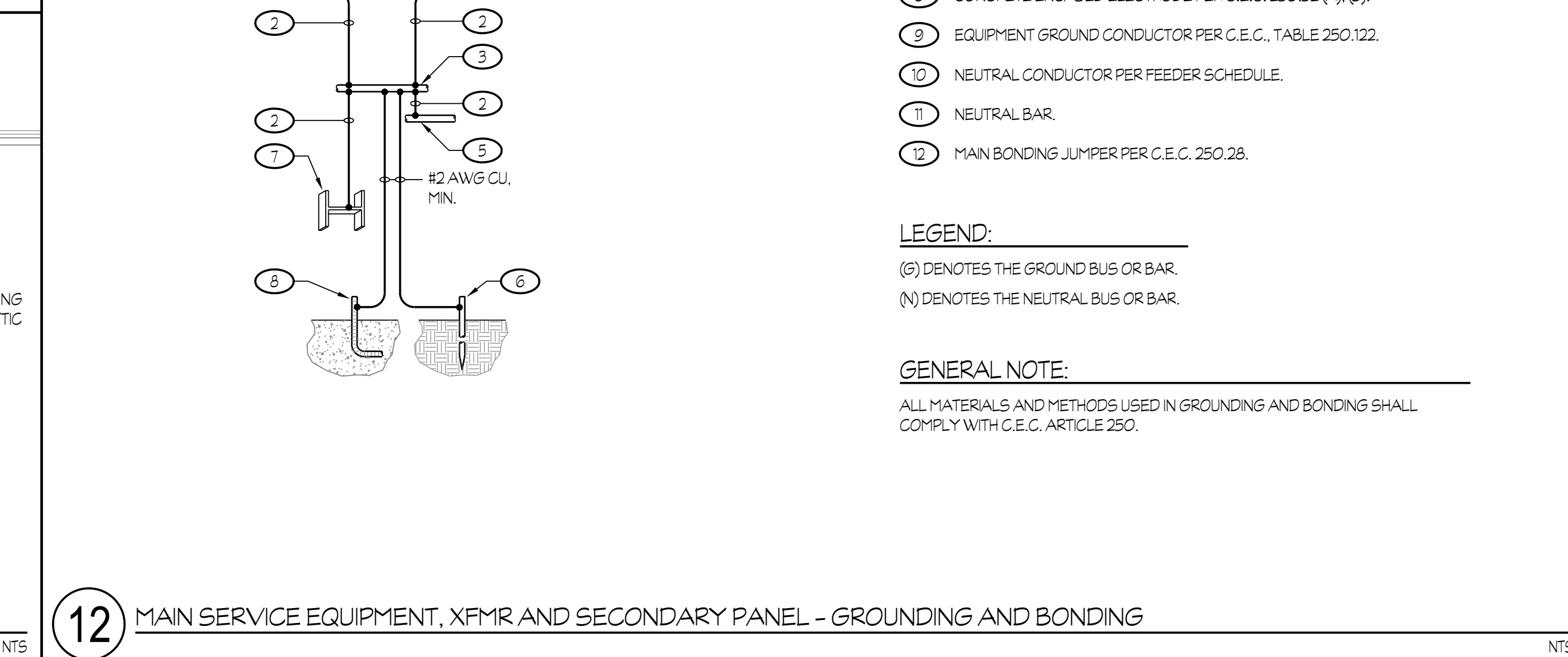
8 MAIN SERVICE EQUIPMENT, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS



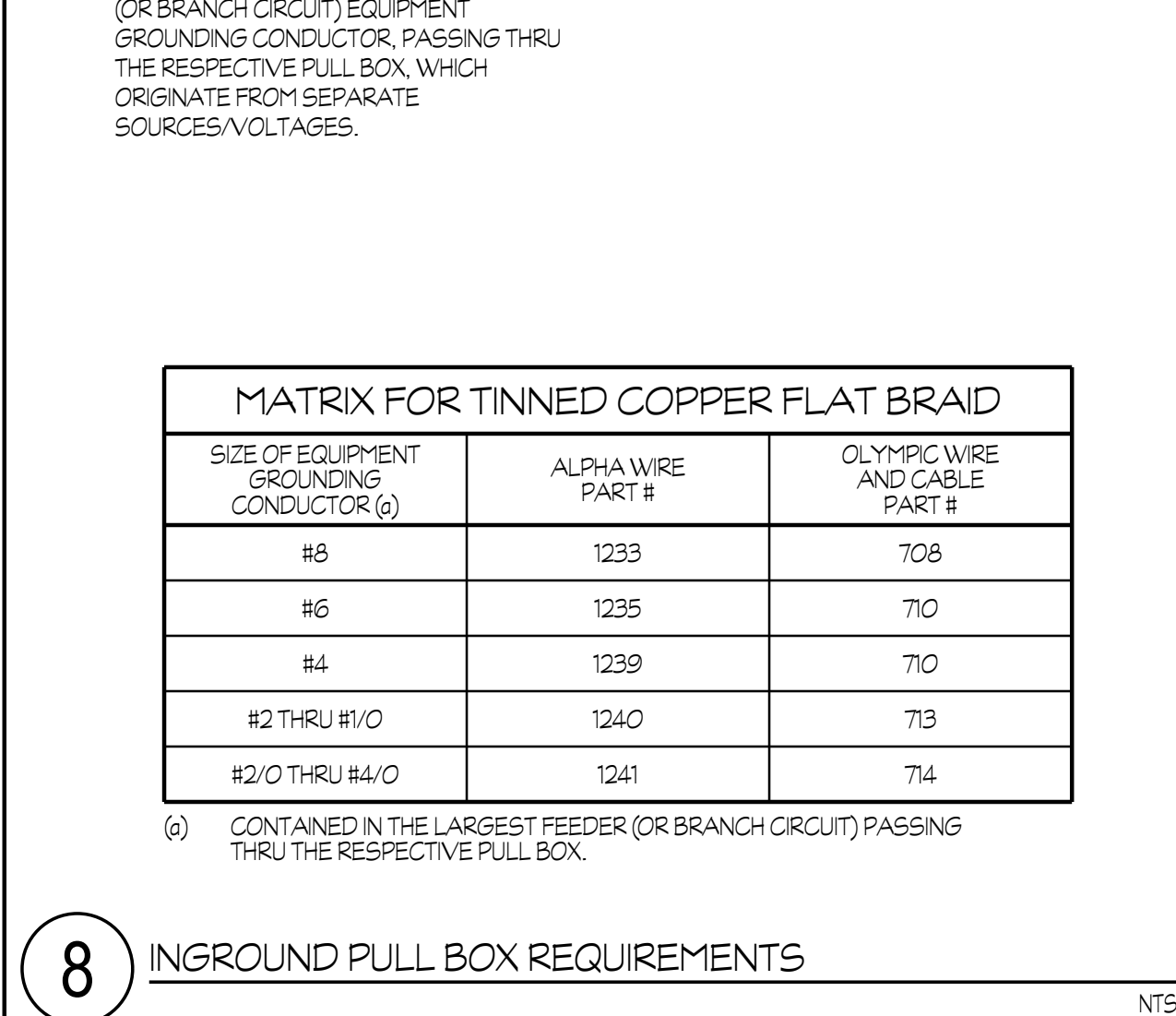
9 EXTERIOR SURFACE MOUNTED PANEL NTS



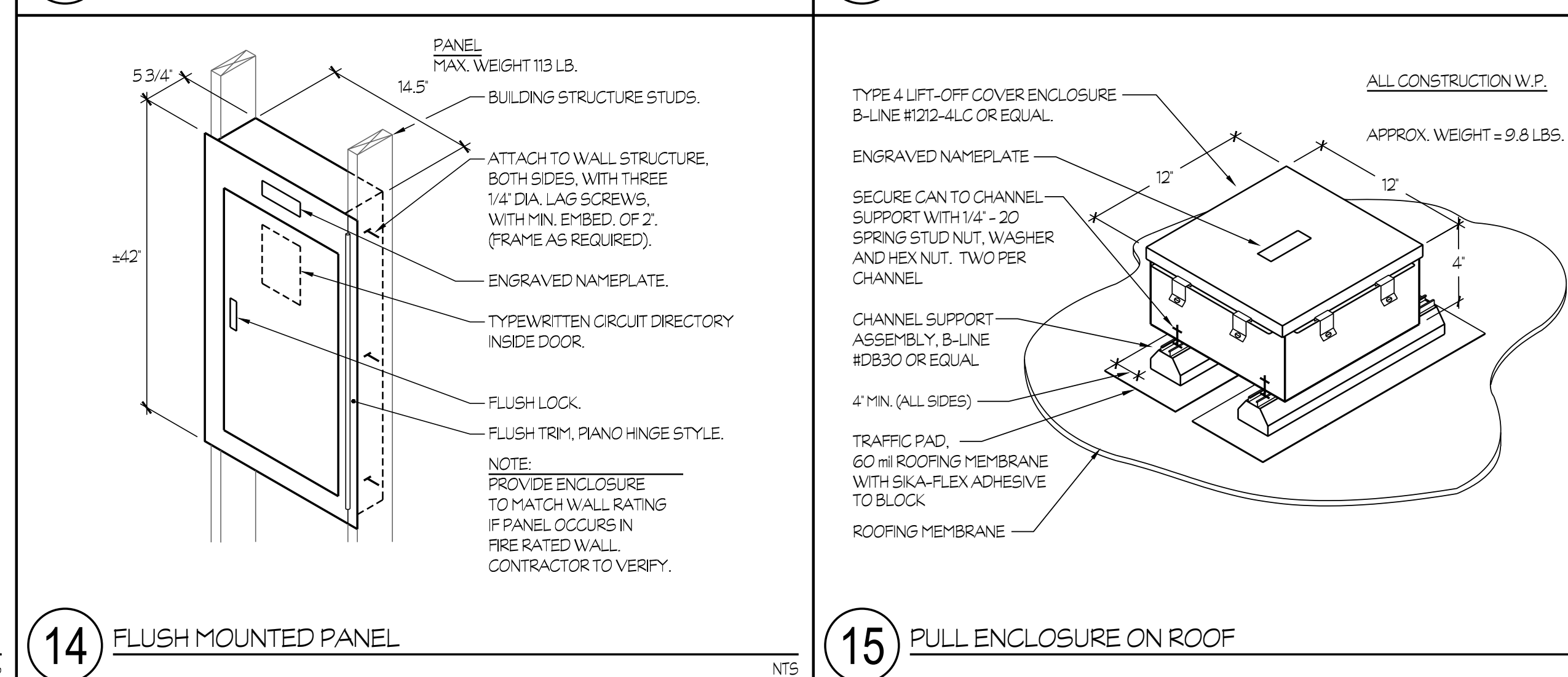
11 EXPANSION COUPLING AT SEISMIC SEPARATION NTS



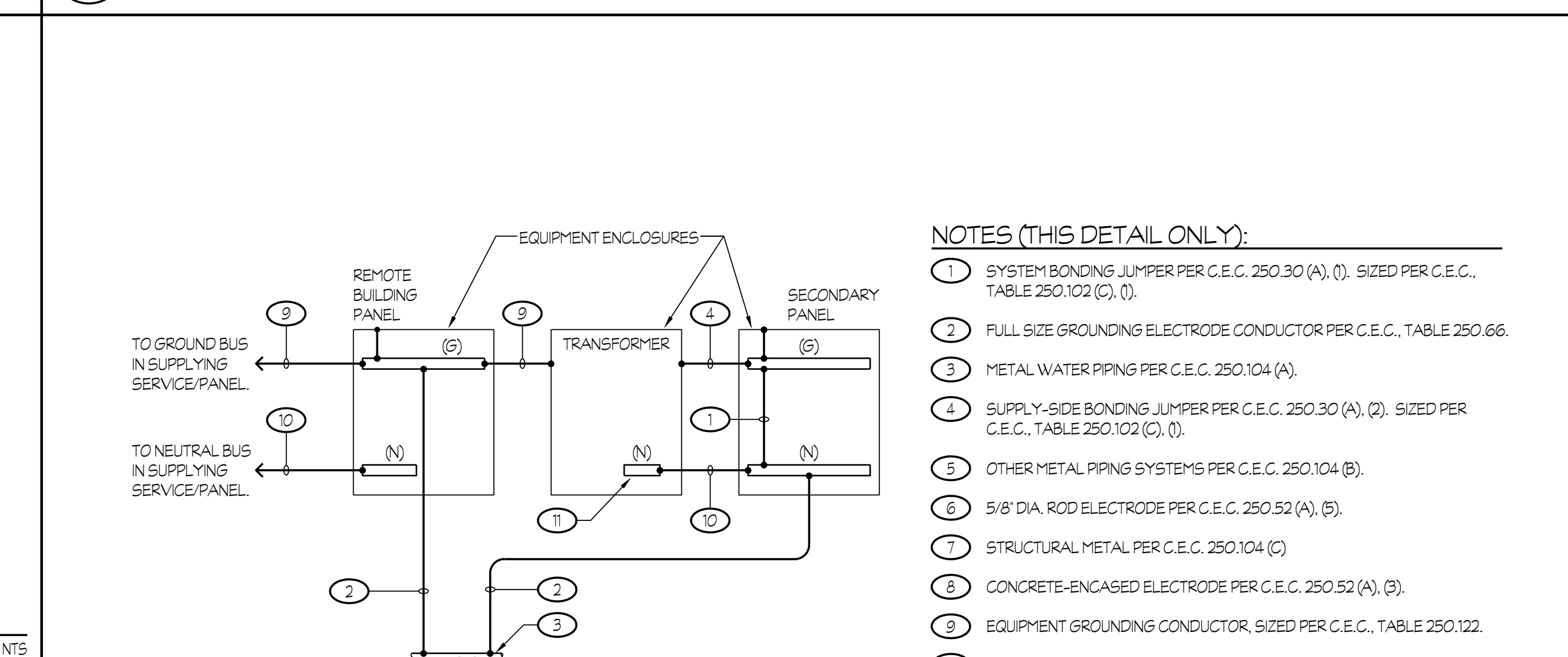
12 MAIN SERVICE EQUIPMENT, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS



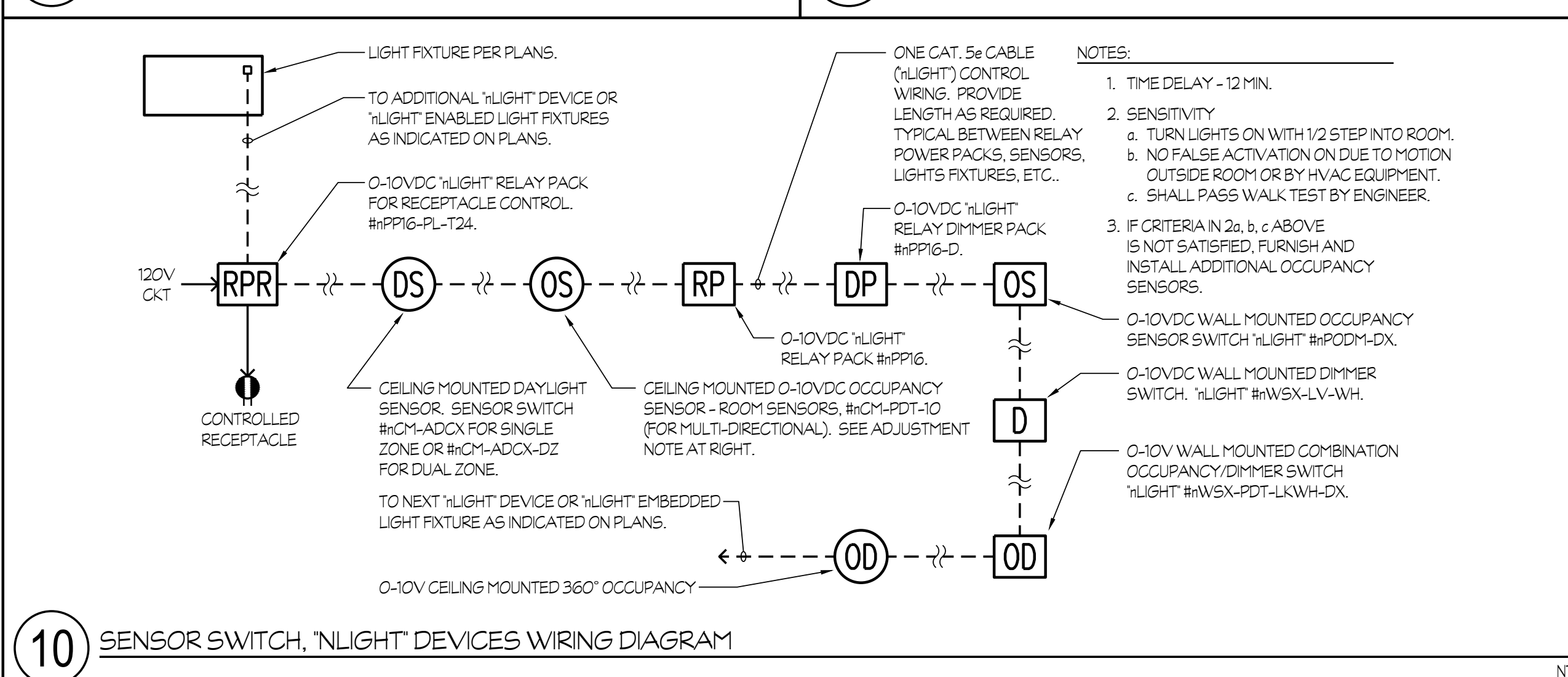
8 INGROUND PULL BOX REQUIREMENTS NTS



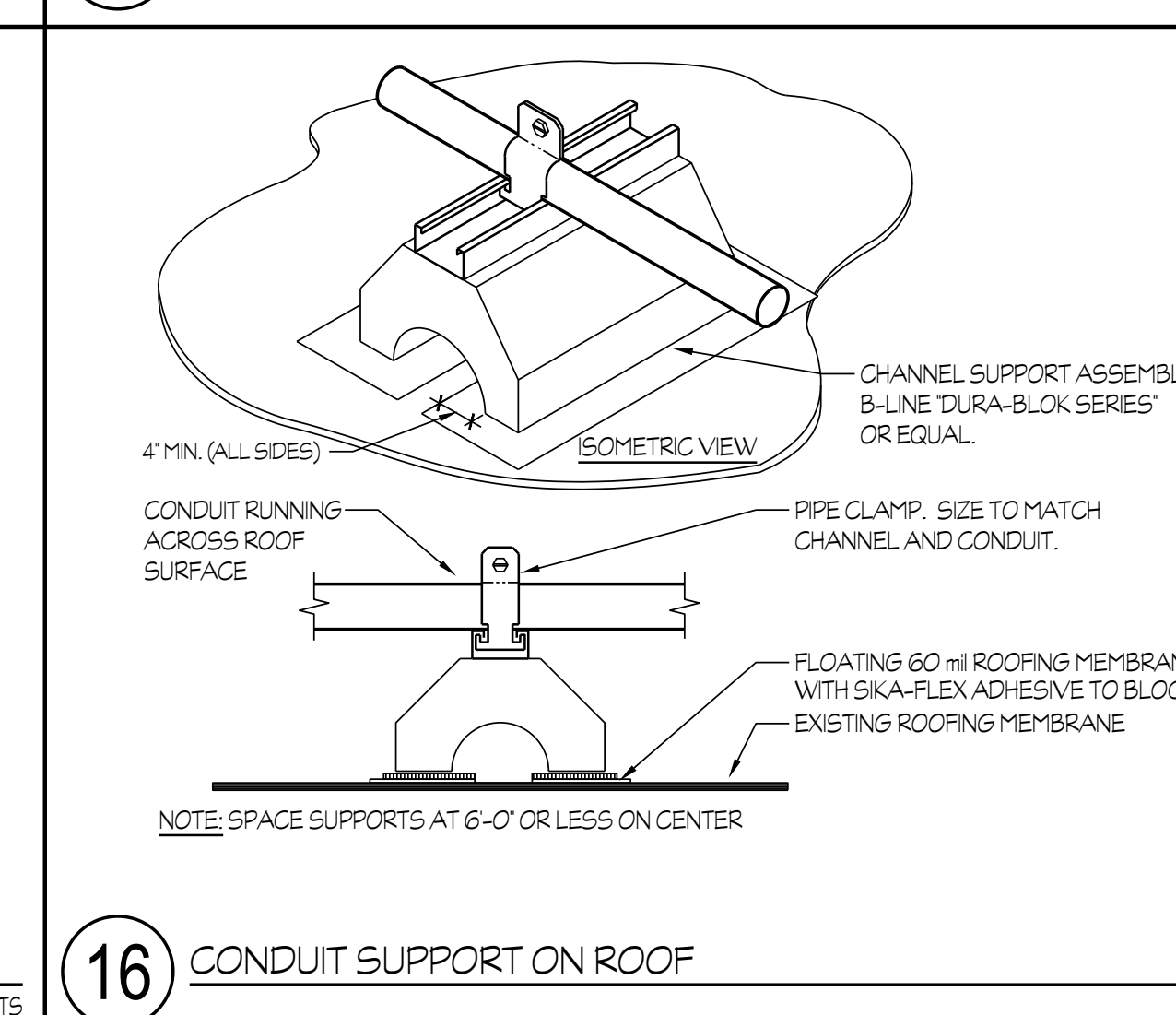
14 FLUSH MOUNTED PANEL NTS



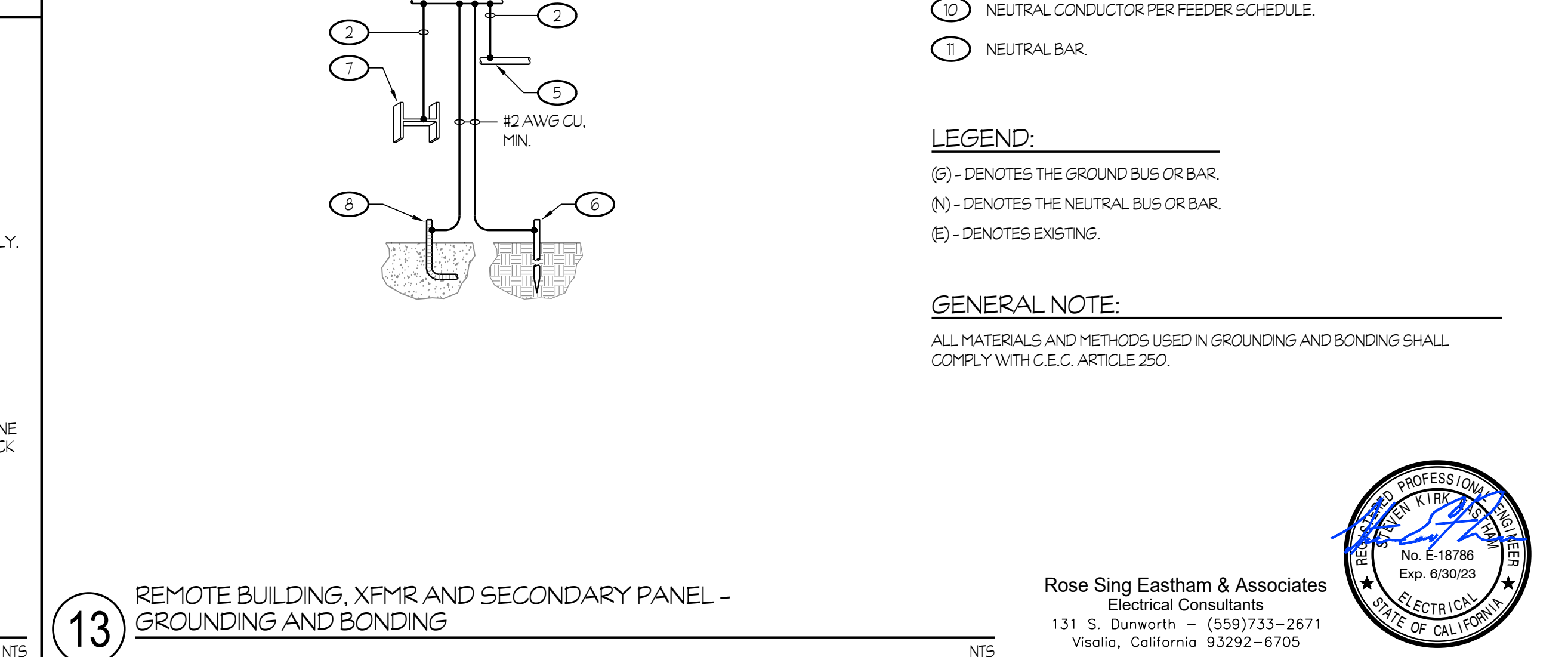
15 PULL ENCLOSURE ON ROOF NTS



10 SENSOR SWITCH, 'NIGHT' DEVICES WIRING DIAGRAM NTS



16 CONDUIT SUPPORT ON ROOF NTS



13 REMOTE BUILDING, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING NTS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122490 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 07/27/2023

Owner:  
**BCSD**  
BAKERSFIELD CITY SCHOOL DISTRICT

**BAKERSFIELD CITY SCHOOL DISTRICT**  
1300 BAKER STREET  
BAKERSFIELD, CA 93309

Project Name:  
**CENTRAL PLANT REPLACEMENT**

Project Address:  
**WASHINGTON MIDDLE SCHOOL**  
1101 NOBLE AVENUE  
BAKERSFIELD, CA 93305

**integrated designs**  
by SOMAM, Inc.

**ARCHITECTURE ENGINEERING INTERIOR DESIGN**  
6011 N. FRESNO STREET, SUITE 130  
FRESNO CALIFORNIA 93710  
P: (559) 436-0881 F: (559) 436-0887  
E: design@somam.com  
integrateddesigns.com

Sheet Title:  
**DETAILS**

Job No.: **5525**

Sheet No.: **E5.00**

Release: DSA BACKCHECK Issue Date: 06-13-2023



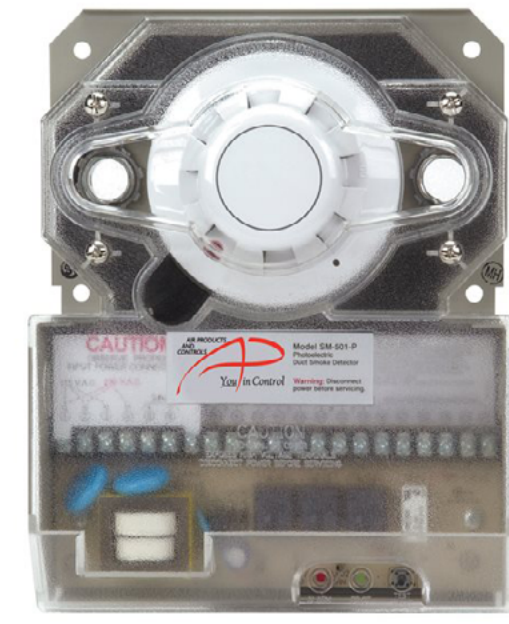
Rose Sing Eastham & Associates  
Electrical Consultants  
131 S. Dunwoorth - (559) 733-2671  
Visalia, California 93292-6705

**DATA SHEET**  
**SM-501-P**  
**PHOTOELECTRIC DUCT SMOKE DETECTOR** AIR PRODUCTS & CONTROLS

**PRODUCT DESCRIPTION**

The SM-501-P is a 4 wire conventional duct smoke detector that provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial, Industrial, and Residential Applications. It has been specially designed to allow linkage of common detector functions for up to 30 detectors.

**AGENCY LISTING**



**PRODUCT FEATURES**

- Operating voltages: 230VAC, 115VAC, 24VAC, 24VDC
- Listed for high temperature applications
- Interconnect up to 30 units for common functions
- UL, CUL, CSFM, and MEA Listed
- Compact Size
- Two sets of 10A form "C" alarm contacts
- One set of 10A form "C" trouble contacts
- Rugged steel back box with clear cover
- Compatible with the WP-1 weatherproof enclosure
- Easy retro-fit/upgrade of discontinued RW Series
- Clear cover fitted with 4 captive screws
- Large terminal connection screws
- Interchangeable "Plug-In" photoelectric heads
- Easy mounting without cover removal
- Advanced detector head design yields internal dust filtering with no additional screens or filters to clean
- Over 15 remote accessories available

**ENGINEERS & ARCHITECTS SPECIFICATIONS**

Air duct smoke detectors shall be Air Products and Controls Inc. SM-501-P. The detectors shall be listed by Underwriters Laboratories per UL 268A. The detectors shall operate at air velocities from 500 feet per minute to 4,000 feet per minute and at temperatures of no greater than 140°F (60°C). The duct detector housings shall be of metal construction and complete mechanical installation may be performed without removal of detector cover.

Visual indication of alarm and power must be provided on the detector front. A manual reset switch shall be located on front of the device. The housing shall contain a detector base which will accept photoelectric detector heads. Detector head shall not require additional filters or screens which must be maintained.

Terminal connections shall be of the screw type and be a minimum of #6 screw (#12 to #22 AWG compatible). Terminals shall be provided for remote pilot, remote alarm indications, strobe/horn and remote test/reset switch. All wiring must comply with local codes and regulations.

Capability for interconnection of up to 30 units shall be provided for common functions.

Visit our Tech support page for [www.apcfire.com/support](http://www.apcfire.com/support) to wire our duct smoke detectors.

Air Products & Controls | 30 Corporate Dr. Auburn Hills MI USA | www.apcfire.com

DS-DU-2 E



**CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION**  
**OFFICE OF THE STATE FIRE MARSHAL**  
**FIRE ENGINEERING & INVESTIGATIONS DIVISION**  
**BUILDING MATERIALS LISTING PROGRAM**

**LISTING SERVICE**

<b>LISTING No.:</b>	3240-1004-0108
<b>CATEGORY:</b>	3240 - DUCT SMOKE DETECTOR HOUSING/BASE
<b>LISTEE:</b>	Apollo America Inc. 30 Corporate Drive, Auburn Hills, MI, 48326 Contact: Howells,Dale (248) 563-8405 (248) 332-8807 Email: dale.howells@apollo-fire.com
<b>DESIGN:</b>	Models SM-501-N and SM-501-P duct smoke detector units. Units consist of an enclosure, relay, electrical components, listed open area detector and sampling and exhausted tubes. All units are four-wire duct detectors. Suffix -N indicates the unit employs an ionization smoke detector head. Suffix -P indicates the unit employs a photoelectric smoke detector head.
	Refer to listee's data sheet for additional detailed product description and operational considerations.
<b>RATING:</b>	24 VAC, 24 VDC, 115 VAC or 230 VAC
<b>INSTALLATION:</b>	In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction.
<b>MARKING:</b>	Listee's name, model number, electrical rating and UL label.
<b>APPROVAL:</b>	Listed as duct detectors for use with separately listed compatible fire alarm control units when installed in HVAC systems with air velocity between 500 and 4000 ft./min.
<b>NOTES:</b>	1. Formerly Air Products and Controls, Inc.

\*Rev. 05-28-2004

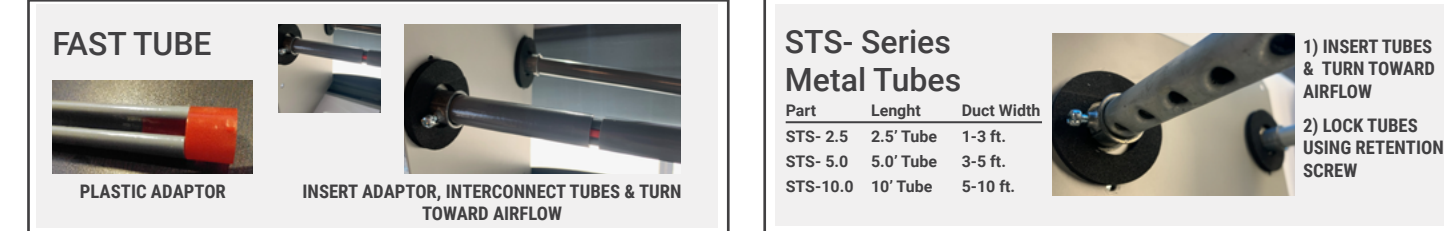


This listing is based upon technical data submitted by the applicant. OSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other suitable information sources.

Date issued: 04/13/2023 Listing Expires: 06/30/2024  
 Authorized By: **Victor Wong**, Program Coordinator  
 Fire Engineering & Investigations Division

Page 1 of 1

**SAMPLING TUBES INSTALLATION**



**PRODUCT SPECIFICATIONS**

<b>MODEL NUMBER:</b>	SL-501-P Photoelectric: 230VAC, 115VAC, 24VAC, 24VDC
<b>DETECTOR HEAD MODEL NUMBER:</b>	55000-328APO
<b>SAMPLING TUBES:</b>	FAST Tube Sectional sampling tube, kit fits up to 90" duct width STS-1.0 Sampling tube for 12" or less duct width STS-2.5 Sampling tube for 6" to 2.5' duct width STS-5.0 Sampling tube for 2.5' to 5.0' duct width STS-10.0 Sampling tube for 5.0' to 10.0' duct width
<b>POWER REQUIREMENTS: (without accessories)</b>	230VAC 12 mA Standby: 115VAC 25 mA 24VAC 35 mA 24VDC 15 mA
<b>Alarm:</b>	230VAC 16 mA 115VAC 32 mA 24VAC 94 mA 24VDC 56 mA
<b>RELAY CONTACT RATING:</b>	<b>Alarm Contacts:</b> Resistive load: 2 sets form "C" rated at 10 Amps @ 115VAC Resistive load: 1 set form "A" rated at 2 Amps Resistive load: 1 set form "C" rated at 10 Amps @ 115VAC <b>Trouble Contacts:</b> Resistive load: 1 set form "C" rated at 10 Amps @ 115VAC
<b>AIR VELOCITY:</b>	500 to 4,000 ft./min.
<b>AMBIENT TEMPERATURE:</b>	SM-501-P 32°F to 140°F (0°C to 60°C)
<b>HUMIDITY:</b>	85 ± 5 % RH (@32 ± 2°C; 86 ± 3.6°F) Non-Condensing / Non-Freezing
<b>WIRING:</b>	Solid or stranded: #12 to #22 AWG terminals
<b>APPROVALS:</b>	UL & CUL Listed (UL268A, UROX, UROX7) File # S2829 CSFM Listed (3240-1004:108)
<b>MATERIAL:</b>	18ga. Grey steel backbox, clear plastic cover (Makrolon 94V-0)
<b>DIMENSIONS:</b>	8 1/4" L x 7 1/4" W x 2 1/4" H
<b>MAX. NET WT.:</b>	3 1/2 lbs.
<b>HARDWARE:</b>	7" exhaust tube, sampling tube end cap, mounting template, test magnet, and mounting hardware included

**ACCESSORIES**

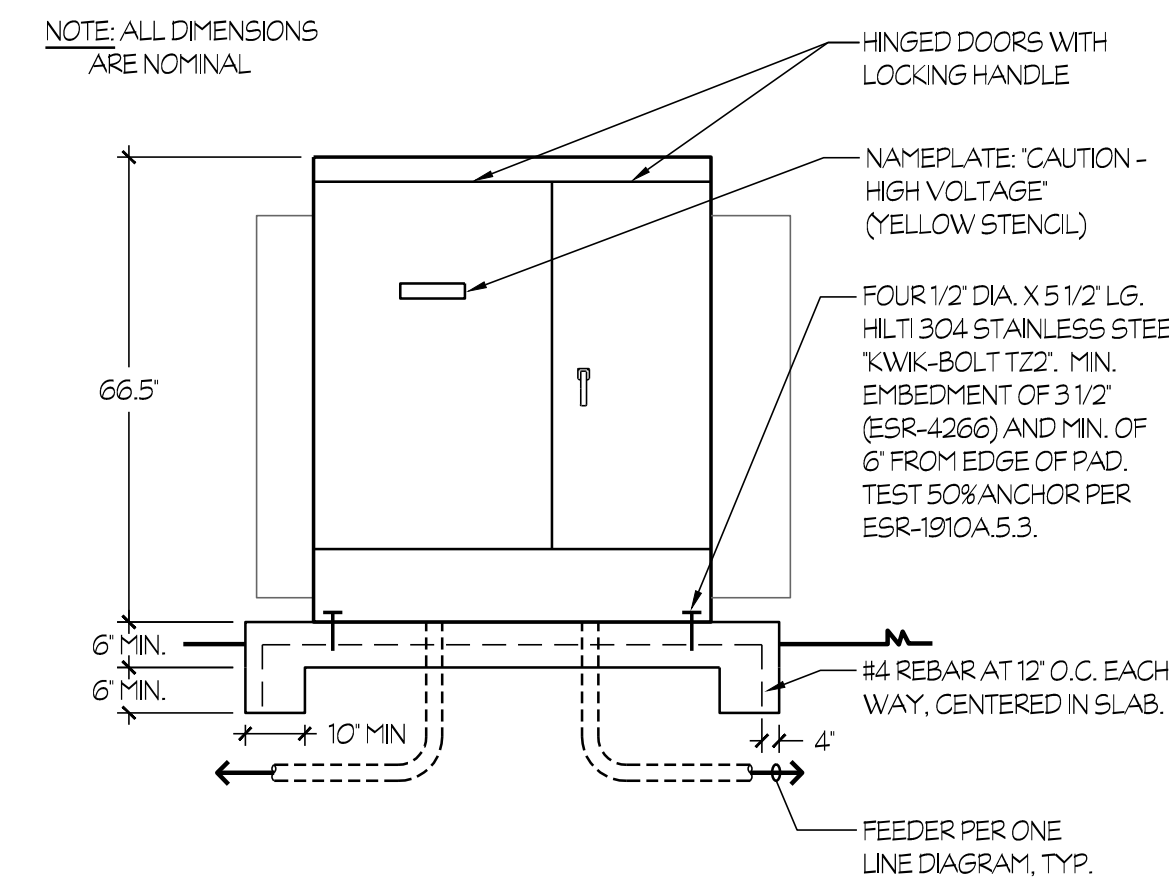
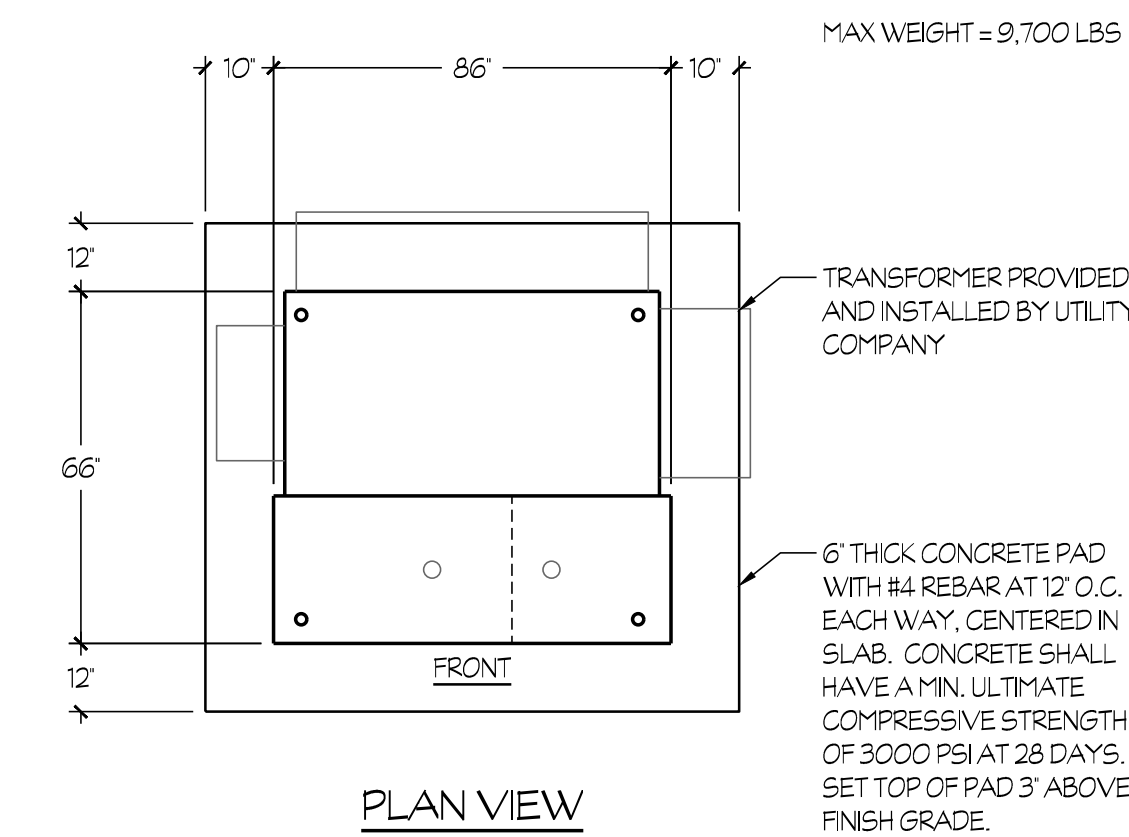
<b>MSR-100 series</b> Remote Stations (test reset function)	<b>TG-1000</b> Solo Smoke Gas
<b>MSR-500 series</b> Remote Stations (test reset function)	<b>TG-2500</b> Centurion Smoke Gas
<b>MS-series</b> Remote Stations (push button & key reset)	<b>T-PB series</b> Power supplies, 24VAC from 115VAC @1.0A input
<b>WP-1</b> Waterproof Enclosure	

FOR MORE PRODUCTS AND INSTALL GUIDES VISIT: [apcfire.com/products](http://apcfire.com/products)

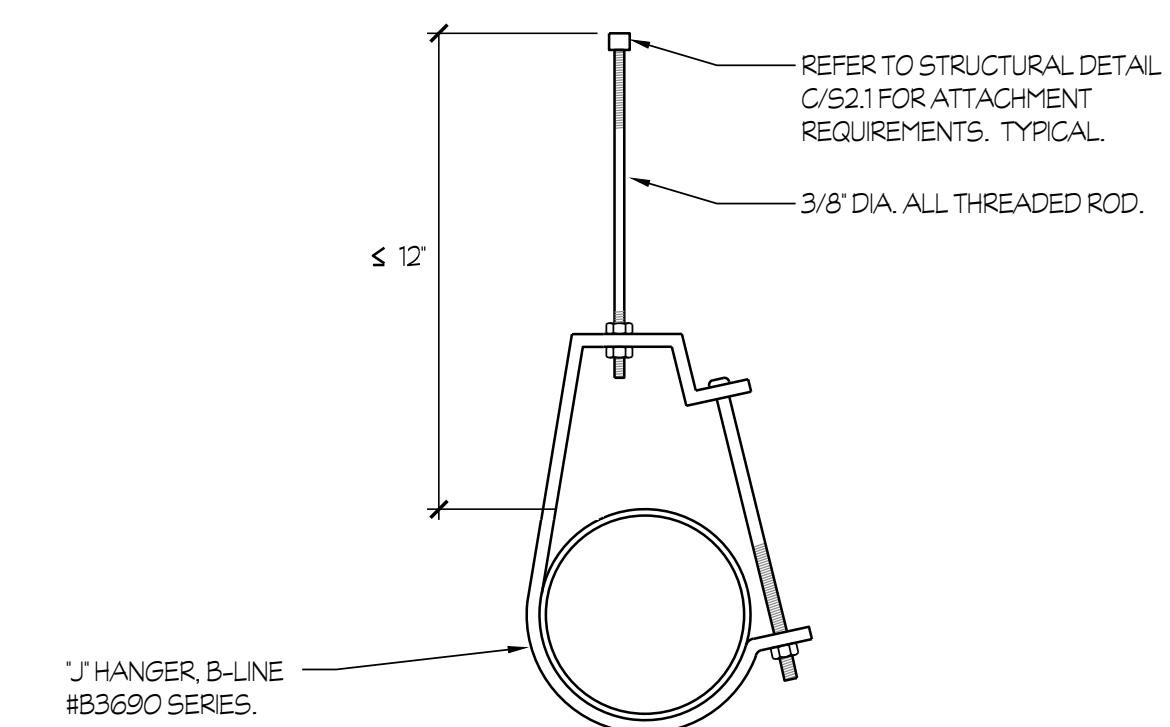


Air Products & Controls | 30 Corporate Dr. Auburn Hills MI USA | www.apcfire.com

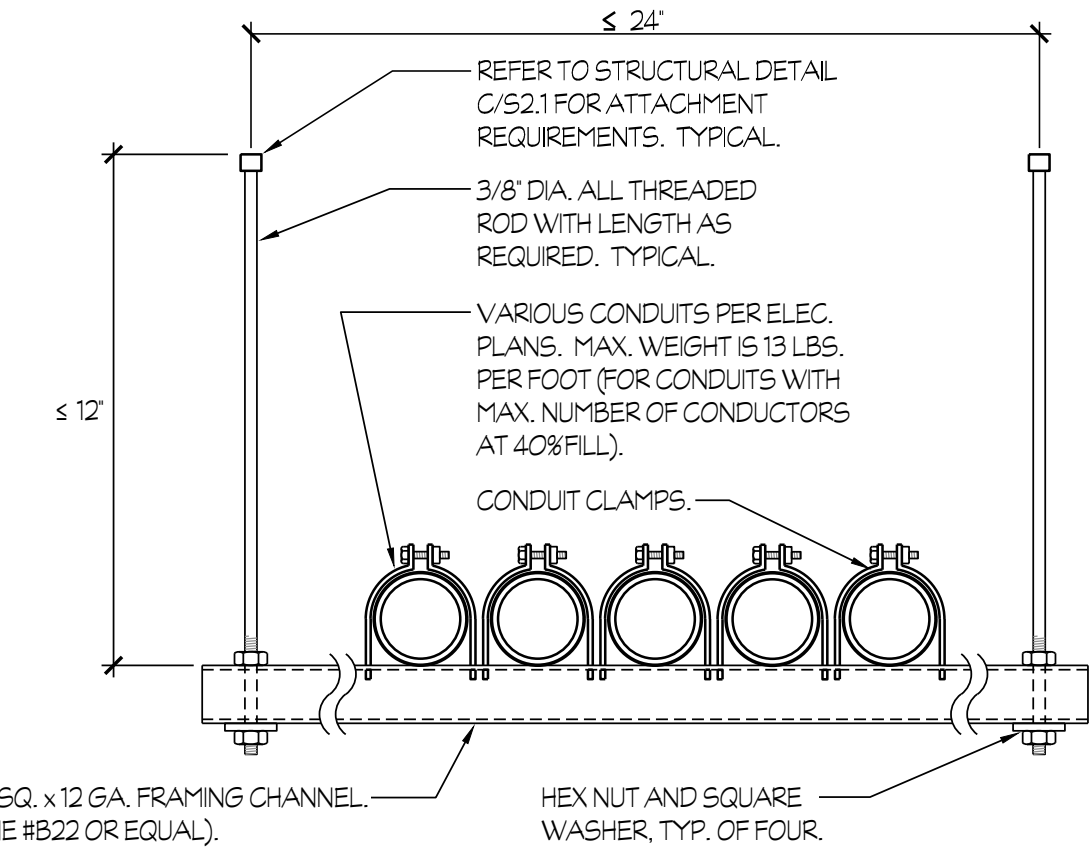
DS-DU-2 E



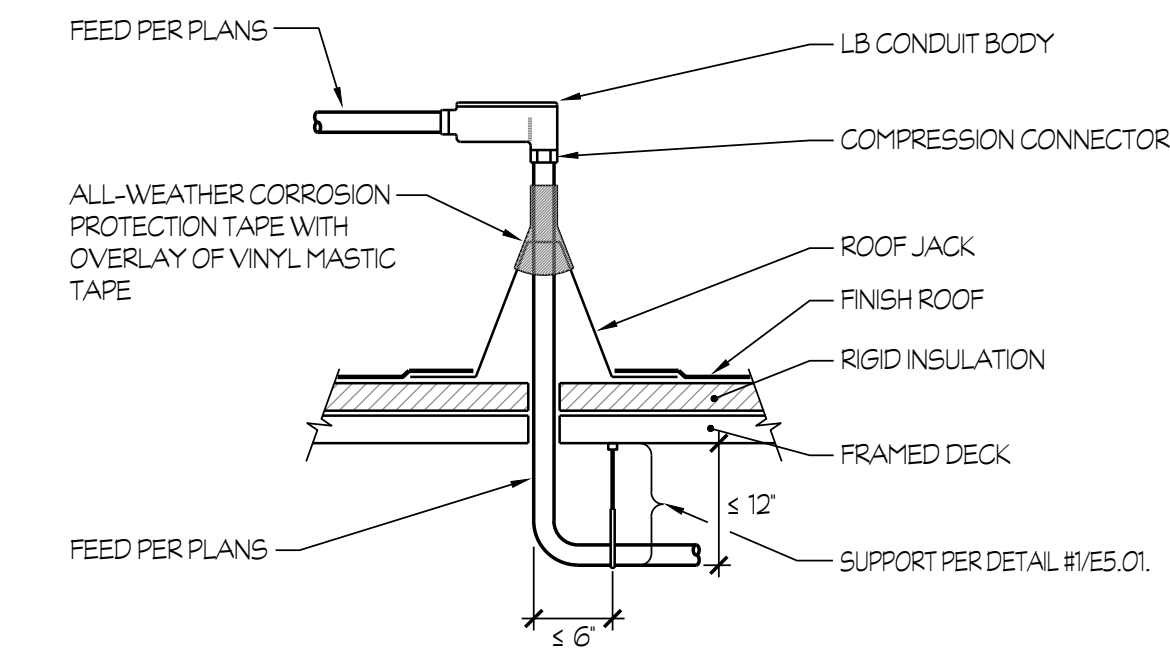
2 UTILITY TRANSFORMER PAD DETAIL



**SINGLE CONDUIT BRACING**



1 CONDUIT BRACING DETAILS



8 ROOF JACK AT ROOF

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122490 INC.  
 REVIEWED FOR:  
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 DATE: 07/27/2023

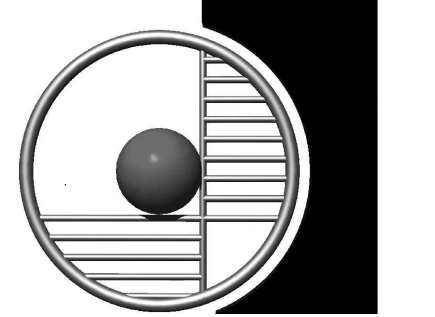


**BAKERSFIELD CITY SCHOOL DISTRICT**  
 1300 BAKER STREET  
 BAKERSFIELD, CA 93309

Project Name:  
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Project Address:  
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1101 NOBLE AVENUE  
 BAKERSFIELD, CA 93305



**integrated designs**  
 by SOMAM, Inc.

**ARCHITECTURE ENGINEERING INTERIOR DESIGN**

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 P:(559) 436-0881 F:(559) 436-0887  
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Sheet Title:  
**DETAILS**

Job No.:  
**5525**

Sheet No.:  
**E5.01**

Release: DSA BACKCHECK Issue Date: 06-13-2023

Rose Sing Eastham & Associates  
 Electrical Consultants  
 131 S. Dunwoorth - (559)733-2671  
 Visalia, California 93292-6705

