



November 24, 2021

Aedis Architects
387 S. First St., Suite 300
San Jose, CA 95113

Subject: Borel Middle School HVAC Replacement
San Mateo - Foster City School District
Aedis Project No. 2021005
DSA Application #01-119557

ADDENDUM NO. 1

CHANGES AND/OR CLARIFICATIONS OF THE DRAWINGS AND SPECIFICATIONS ARE AS FOLLOWS:

SPECIFICATIONS

ITEM NO. 1.1: TABLE OF CONTENTS

Add: 31 23 16 TRENCHING

ITEM NO. 1.2: SECTION 32 13 26 - TRENCHING

Add: The specification in its entirety per 32 13 26 Trenching.

ITEM NO. 1.3: SECTION 32 31 13 - CHAIN LINK FENCES AND GATES

Add: 2.4 SWING GATES D. Hardware
Item 5.: Panic Hardware: CD 990AX-L-WH-6280 SNB with Gate closer/Hinge:
SureClose Pivot: SM AT90W"

DRAWINGS

ARCHITECTURAL

ITEM NO. 1.4: DRAWING SHEET T1 – TITLE SHEET

Revise: General Notes 7 to read as "ALL EXISTING FINISHES OR MATERIALS DAMAGED OR DEMOLISHED DUE TO NEW CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL STATE, INCLUDING BUT NOT LIMITED TO REINSTALLING OR REPLACING EXISTING CHAINLINK FENCING AS REQUIRED AND RESTRIPIING PAVING IN KIND. S.E.D. FOR TRENCH ROUTING. VERIFY IN FIELD AND SEE ARCHITECTURAL SITE PLAN FOR STRIPING AT EXISTING PAVING."

ITEM NO. 1.5: DRAWING SHEET A1.02 – SITE PLAN

Add: Trench area to New Site Plan 1/A1.02 & Graphic Key per AD1-A1.02

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ITEM NO. 1.6: DRAWING SHEET A2.01– DEMOLITION FLOOR PLANS -BLDGS A, B, C, & D

- Revise: Reference room 20 for similar scope where occurs in Demolition Floor Plan 2/A2.01 per AD1-A2.01
- Revise: Keynote scope for classrooms 20 and 22 in Demolition Floor Plan 2/A2.01 per AD1-A2.01
- Add: Keynote 9 in Demolition Floor Plan 3/A2.01 per AD1-A2.01
- Remove: Keynote 9 in Demolition Floor Plan 4/A2.01 per AD1-A2.01
- Add: General Sheet Note #J PER AD1-A2.01

ITEM NO. 1.7: DRAWING SHEET A2.02 – DEMOLITION FLOOR PLAN – SCIENCE BLDG

- Add: View 2/A2.02 PARTIAL DEMOLITION FLOOR PLAN – BLDG. G per AD1-A2.02
- Add: General Sheet Note #J per AD1-A2.02
- Revise: Remove and relocate as occurs keynote #5 at Demolition Floor Plan 1/A2.02 per AD1-A2.02
- Revise: Demolition Floor Plan Keynote #5 per AD1-A2.02
- Add: Demolition Floor Plan Keynotes #6 per AD1-A2.02

ITEM NO. 1.8: DRAWING SHEET A3.02– NEW FLOOR PLAN - SCIENCE BLDG & TYP. NEW REFLECTED CEILING PLANS

- Add: View 5/A3.02 New Partial Floor Plan – Bldg. G per AD1-A3.02
- Add: New Floor Plan & RCP Keynote #17 per AD1-A3.02

ITEM NO. 1.9: DRAWING SHEET A5.01 – PARTIAL SITE ROOF PLAN

- Add: Exhaust fan per AD1-A5.01
- Revise: Mechanical platform graphic per AD1-A5.01
- Revise: Roof Plan Keynotes #1 and #2 per AD1-A5.01
- Add: Roof Plan Keynote #5 per AD1-A5.01

ITEM NO. 1.10: DRAWING SHEET A9.10 – INTERIOR DETAILS, WALL TYPSE, AND INTERIOR ELEVATIONS

- Revise: Details 1 & 3 per AD1-A9.10A
- Revise: Detail 6 per AD1-A9.10B

MECHANICAL**ITEM NO. 1.11: DRAWING SHEET MP0.02 – SCHEDULES - MECHANICAL**

- Revise: Classroom split system heat pump schedule per AD1-MP0.02
- Revise: Reference RG-1 Mounting detail per AD1-MP0.02
- Revise: Air Distribution Schedule per AD1-MP0.02
- Add: Exhaust Fan Schedule per AD1-MP0.02

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Add: Roof Hood Schedule per AD1-MP0.02

ITEM NO. 1.12: DRAWING SHEET MP2.01 – FLOOR PLAN – DEMOLITION – BLDG A, B, C, D
MECHANICAL & PLUMBINGS

Add: Cap Bottom Louver per AD1-MP2.01

Add: Demolition Sheet Notes #12 per AD1-MP2.01

ITEM NO. 1.13: DRAWING SHEET MP2.05 – FLOOR PLANS– NEW – BLDGS A & D – MECHANICAL &
PLUMBING

Revise: General note #5 per AD1-MP2.05a

Add: General note #10 per AD1-MP2.05a

Add: Dimension per AD1-MP2.05a.

Revise: Keynote per AD1-MP2.05b.

ITEM NO. 1.14: DRAWING SHEET MP2.06 – FLOOR PLAN – NEW – BLDG B, BLDG C, AND SCIENCE BLDG –
MECHANICAL & PLUMBING

Revise: General Note #5 per AD1-MP2.06a

Add: General Note #10 per AD1-MP2.06a

Revise: Location of RG-1 per AD1-MP2.06a

Revise: Location of RG-1 per AD1-MP2.06b

ITEM NO. 1.15: DRAWING SHEET MP2.07 – PARTIAL ROOF PLAN – NEW – BLDG G – MECHANICAL
& PLUMBING

Add: Exhaust Fan per AD1-MP2.07

Add: Roof Hood per AD1-MP2.07

Revise: General Note #5 per AD1-MP2.07

Revise: New Sheet Note #1 per AD1-MP2.07

Add: New Sheet Notes #4 and 5 per AD1-MP2.07

ITEM NO. 1.16: DRAWING SHEET MP2.08 – PARTIAL ROOF PLAN – NEW – BLDG G – MECHANICAL
& PLUMBING

Add: Existing outside duct per AD1-MP2.08

Add: Existing return register per AD1-MP2.08

Revise: New Sheet Notes #5 per AD1-MP2.08

ITEM NO. 1.17: DRAWING SHEET MP5.01 – CONTROLS – MECHANICAL

Revise: Classroom Split System Heat Pump / Fan Coil unit Control Schematic per
AD1-MP5.01

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ITEM NO. 1.18: DRAWING SHEET MP6.01 – DETAILS – MECHANICAL & PLUMBING

Revise: Detail 2 & 4 per AD1-MP6.01

ITEM NO. 1.19: DRAWING SHEET MP6.02 – DETAILS – MECHANICAL & PLUMBING

Add: New sheet in its entirety per AD1-MP6.02

ELECTRICAL**ITEM NO. 1.20: DRAWING SHEET E1.1 – ELECTRICAL SITE PLAN**

Add: In-grade pull box adjacent to existing switch gear per AD1-E1.1

ITEM NO. 1.21: DRAWING SHEET E3.1 – ELECTRICAL NEW FLOOR PLANS – BLDG A, B, C & D

Add: General Notes #6, as shown clouded on AD1-E3.1

Revise: Electrical plans 1/E3.1, 2/E3.1, 3/E3.1 & 4/E3.1 per AD1-E3.1

ITEM NO. 1.22: DRAWING SHEET E3.3 – ELECTRICAL NEW PARTIAL FLOOR PLAN - BLDG G

Add: Power for Exhaust Fans at building per AD1-E3.3

Add: General Note #9 per AD1-E3.3

Add: Sheet Note #5 per AD1-E3.3

ITEM NO. 1.23: DRAWING SHEET E3.4 – ELECTRICAL NEW PARTIAL FLOOR PLAN - BLDG G

Add: General Notes #9 per on AD1-E3.4

ITEM NO. 1.24: DRAWING SHEET E4.3 – PANEL SCHEDULES

Add: Revise panel schedules per AD1-E4.3

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Aedis Architects
Thang Do, Principal



Electrical, American Consulting Engineers Electrical
Sammy Fernandez



Mechanical, Cypress Engineering Group
Metin Serttunc

Division of the State Architect

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11/24/2021

Attachments:

Specifications:

31 23 16 Trenching (5 pages)

Drawings

ARCHITECTURAL

SHEET AD1-A1.02

SHEET AD1-A2.01

SHEET AD1-A2.02

SHEET AD1-A3.02

SHEET AD1-A5.01

SHEET AD1-A9.10A

SHEET AD1-A9.10B

MECHANICAL

SHEET AD1-MP0.02

SHEET AD1-MP2.01

SHEET AD1-MP2.05a

SHEET AD1-MP2.05b

SHEET AD1-MP2.06a

SHEET AD1-MP2.06b

SHEET AD1-MP2.07

SHEET AD1-MP2.08

SHEET AD1-MP5.01

SHEET AD1-MP6.01

SHEET AD1-MP6.02

ELECTRICAL

SHEET AD1-E1.1

SHEET AD1-E3.1

SHEET AD1-E3.3

SHEET AD1-E3.4

SECTION 312316 – TRENCHING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes excavating trenches for utilities from outside building to final connection point or public right-of-way or utility; compacted fill from top of utility bedding to subgrade elevations; and backfilling and compaction.
- B. Related Sections:
 - 1. Section 03 30 00 – Cast-in-Place Concrete.

1.2 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, or cable.

1.3 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.4 COORDINATION

- A. Section 01 06 00 - Regulatory Requirements.
- B. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.
- C. Verify elevations of existing facilities prior to placing new Work.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Fill and Structural Fill shall be: As specified in the project Soils Report and any supplements to the Soils Report.

2.2 ACCESSORIES

- A. Filter Fabric: Non-biodegradable, woven as manufactured by TC Mirafi, Tenax Corp., Tensar Earth Technologies, Inc. or equal.

PART 3 EXECUTION

3.1 LINES AND GRADES

- A. Grades
 - 1. Pipes shall be laid true to the lines and grades indicated.
 - 2. The grade alignment of the pipe shall be maintained by the use of a string line parallel with the grade line and vertically above the centerline of the pipe. This line shall be established on level batter boards at intervals of not more than 25 feet. Batter boards shall span the trench and be rigidly anchored to substantial posts driven into the ground on each side of the trench. Three adjacent batter boards must be set before laying pipe to provide a check on the grades and line. Elevation and position of the string line shall be determined from the elevation and position of offset points or stakes located along the pipe route. Pipe shall not be laid using side lines for line or grade.
 - 3. As an alternative means of establishing alignment and grade, a "Laser-Beam" instrument may be utilized with a competent operator.
- B. Location of Pipe Lines:
 - 1. The location and approximate depths of the proposed pipe lines are shown on the Drawings.
 - 2. An underground locate service shall be enlisted to discover the location of existing utilities regardless if they are shown on the drawings.
 - 3. The Architect/Engineer reserves the right to make changes in lines, grades, and depths of pipe lines and manholes when such changes are necessary.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Protect plant life, lawns, and other features remaining as a portion of final landscaping.
- C. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- D. Maintain and protect above and below grade utilities which are to remain.
- E. Cut out soft areas of subgrade not capable of compaction in place. Backfill and compact to density equal to or greater than requirements for subsequent backfill material.

3.3 EXCAVATING

- A. Excavate subsoil required for utilities.

- B. Cut trenches sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.
- C. Do not interfere with 45 degree bearing splay of foundations.
- D. Hand trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.
- E. Remove lumped subsoil, boulders, and rock as directed by the Soils Engineer or other inspector.
- F. Correct over excavated areas with backfill and compact replacement as specified for authorized excavation.
- G. Stockpile excavated material on site. Remove excess material not being used from site.

3.4 TRENCHING

- A. Excavations:
 - 1. Excavation shall be dug so that the pipe can be laid and jointed properly. The trench shall be made so that the pipe can be laid to the alignment and depth as shown on the Drawings, and it shall be excavated only so far in advance of pipe laying as permitted by the Architect/Engineer. The excavation shall not be more than two feet wider at the bottom than the outside diameter of the pipe or structure. If there is no interference with construction, or adjacent property, and if soil permits, the Contractor at his own expense shall be permitted to slope the side walls of the excavation starting at a point two (2) feet above the top of pipe.
 - 2. The trench shall be excavated to the depth required so as to provide a uniform and continuous bearing and support for the pipe on bedding material at every point between joints, except where pipe slings or other lifting tackle are withdrawn.
 - 3. Excavation Below Grade:
 - 1) Where excavation indicates that the subsurface materials at the bottom of the trench are in a loose or soft state, the Contractor shall be advised to excavate to a depth where suitable material is encountered, as directed by the Architect/Engineer.
 - 2) Where the bottom of the trench has been excavated by mistake to a greater depth than required, the Contractor shall refill this area using approved material. No additional compensation shall be given to the Contractor. Refilling with earth to bring the bottom of the trench to the proper grade will not be permitted.
 - 4. Excavation within 24 inches of existing utilities shall be governed by specifications of the Owner of the respective utility. The Contractor shall obtain these specifications and follow the same at no extra cost.

5. Excavation and shoring shall adhere to the requirements and safety standards set by OSHA.
- B. Trenching in Advance of Pipe Laying: The trench for the pipe lines shall not be opened for a distance of more than 200 feet at any one time, unless authorized by the Architect/Engineer. At no time will the Contractor be permitted to leave more than 50 feet of trench open at the end of a working day. Adequate protection of open trench shall be provided by the Contractor and the Contractor shall be responsible therefore.

3.5 SHEETING AND BRACING

- A. General:
 1. Sheeting and bracing of all excavations shall conform to the latest statutes of the State of California governing safety of workers in the construction industry. When necessary, in the opinion of the Contractor, adequate sheeting and bracing shall be installed to prevent ground movement that may cause damage or settlement to adjacent structures, pipelines and utilities. Any damage due to settlement because of failure to use sheeting or because of inadequate bracing, or through negligence or fault of the Contractor in any other manner, shall be repaired at the Contractor's expense.
 2. Sides of trenches in unsuitable, loose or soft material, five feet or more in depth, shall be shored, sheeted, braced, sloped, or otherwise supported by means of sufficient strength to protect employees working within them.
- B. Sheeting Requirements:
 3. Where excavations are made with vertical sides which require supporting, the sheeting and bracing shall be of sufficient strength to sustain the sides of the excavations and to prevent movement which could in any way injure the Work, or adjacent structures, or diminish the working space sufficiently to delay the Work. Special precautions shall be taken where there is additional pressure due to the presence of other structures.
 4. It shall be the Contractor's responsibility to select sheeting and bracing of sufficient dimensions and strength and type to adequately support the sides of trenches and excavations.
 5. Sheeting and bracing shall be removed before the completion of the Work.

3.6 BACKFILLING

- A. Backfill trenches to contours and elevations shown on the drawings.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces.
- C. Fill materials shall be as specified in the Soils Report and any supplements to the Soils Report.

- D. Employ a placement method that does not disturb or damage utilities in trench. Jetting of backfill materials to achieve compaction shall not be permitted.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Remove surplus fill materials from site.

3.7 TOLERANCES

- A. Section 01 40 00 - Quality Requirements.
- B. Top Surface of Backfilling Under Paved Areas: Plus or minus 0.05 feet from required elevations.
- C. Top Surface of General Backfilling: Plus or minus 1/10 feet from required elevations.

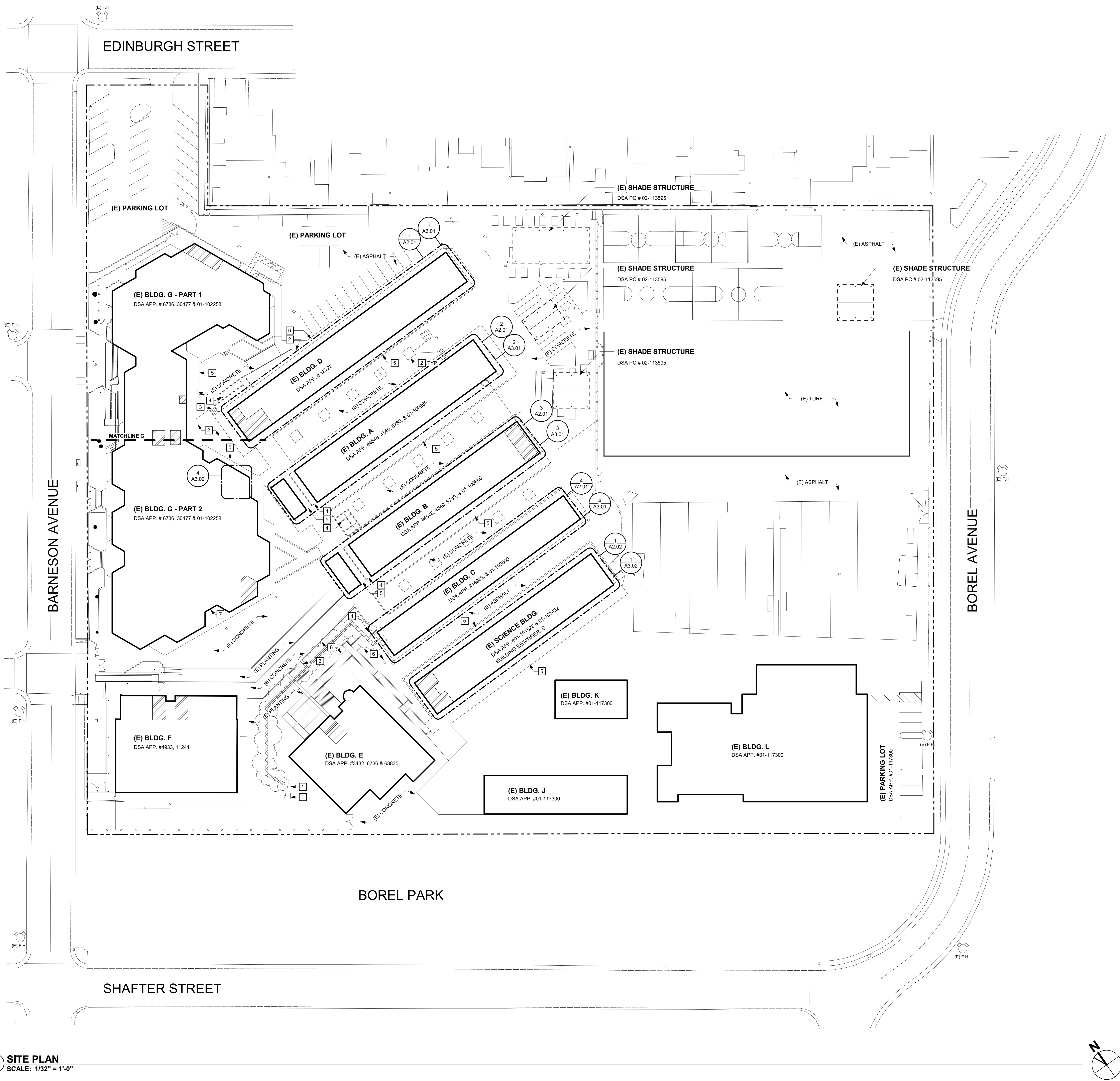
3.8 FIELD QUALITY CONTROL

- A. Compaction testing will be performed by the project Soils Engineer.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

3.9 PROTECTION OF FINISHED WORK

- A. Section 01 70 00 - Execution and Closeout Requirements.
- B. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION



GENERAL SHEET NOTES

- A BUILDINGS ARE UNSPRINKLERED, TYPE V-B CONSTRUCTION UNLESS OTHERWISE NOTED.
- B NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.
- C CONTRACTOR SHALL MAINTAIN FIRE LANE ACCESS THROUGHOUT PROJECT.
- D DO NOT INTERRUPT EXISTING UTILITY SERVICES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AND COORDINATED WITH THE OWNER.
- E PROTECT EXISTING & NEW STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, TREES AND SHRUBS FROM DAMAGE DURING CONSTRUCTION.
- F REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.

SITE PLAN KEYNOTES

- 1 (E) ELECTRICAL EQUIPMENT TO REMAIN, S.E.D.
- 2 (E) PLANTING TO REMAIN.
- 3 (E) CONC. STAIR TO REMAIN.
- 4 (E) CONC. RAMP TO REMAIN.
- 5 (E) CONC. PAVING TO REMAIN.
- 6 (E) ASPHALT PAVING TO REMAIN.
- 7 GAS SHUT OFF SIGN, SEE DETAIL 14/A9.10. LOCATE BETWEEN DOOR SWINGS, SUCH THAT SIGNAGE REMAINS VISIBLE WHEN DOORS ARE IN OPEN POSITION.

GRAPHIC KEY

- EXISTING TOILET ROOMS.
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING COVERED STRUCTURE
- TRENCH FOR ELECTRICAL WORK, S.E.D., 8/SS.01 & DETAILS ON SHEET A8.10
- ASSUMED PROPERTY LINE
- EXISTING FIRE HYDRANT

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PROJECT

BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE

DSA FILE NUMBER 41-26
APPL # 01-119557

REVISIONS

No.	Description	Date
1	Addendum 1	11/17/2021

MILESTONES

DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

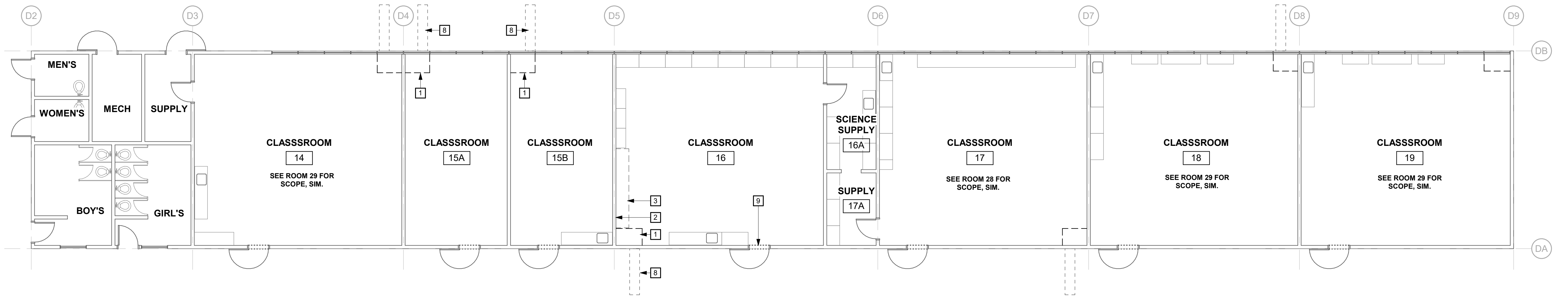
SHEET

SITE PLAN

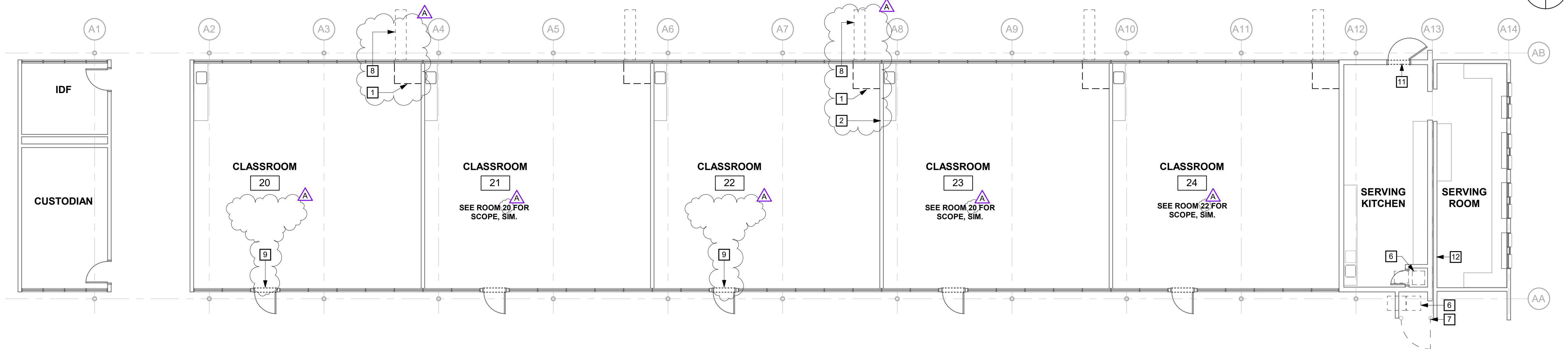
DATE 11/24/2021

JOB # 2021005.07

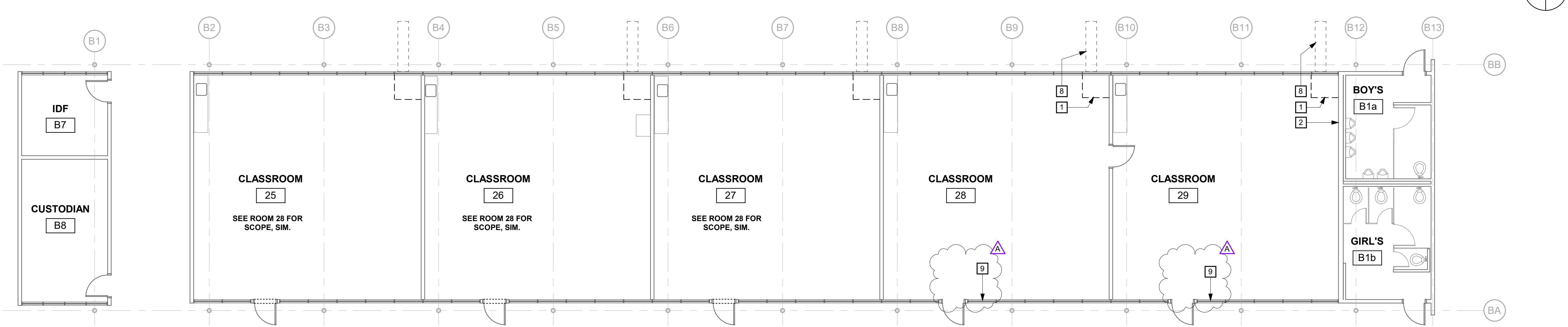
SHEET # AD1-
A1.02



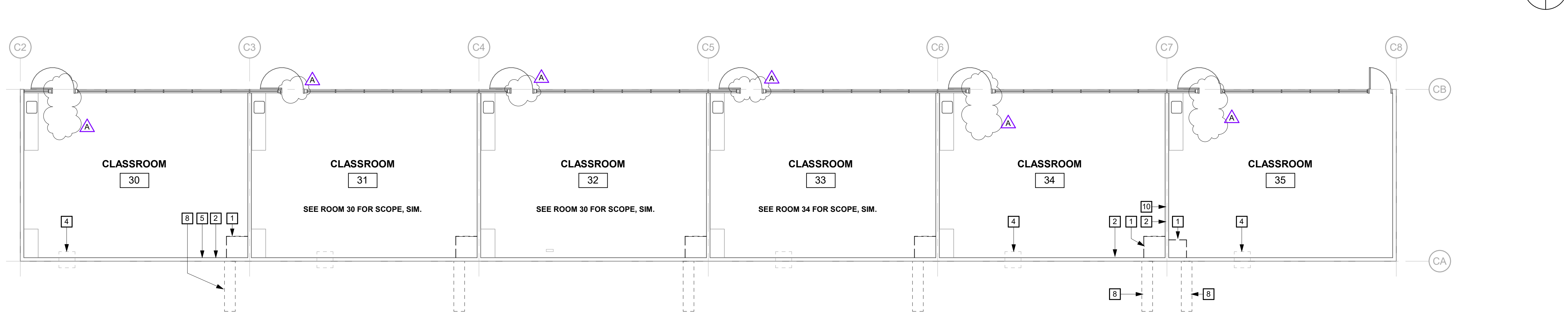
1 DEMOLITION FLOOR PLAN - BLDG D
SCALE: 1/8" = 1'-0"



2 DEMOLITION FLOOR PLAN - BLDG A
SCALE: 1/8" = 1'-0"



3 DEMOLITION FLOOR PLAN - BLDG B
SCALE: 1/8" = 1'-0"



4 DEMOLITION FLOOR PLAN - BLDG C
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

- A ROOM NAMES OR NUMBERS MAY NOT BE CONSISTENT BETWEEN DEMOLITION AND NEW FLOOR PLANS.
- B REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION WORK.
- C VERIFY LIMITS OF DEMOLITION WITH SCOPE OF NEW WORK PRIOR TO COMMENCING WORK.
- D ALL ITEMS SHOWN DASHED ARE TO BE DEMOLISHED UNLESS OTHERWISE NOTED ON PLANS.
- E REMOVE ALL MISCELLANEOUS TRIM, CASEWORK, EQUIPMENT, CONDUIT, BASES, AND OTHER SURFACE MOUNTED ITEMS WHETHER SHOWN OR NOT, AS REQUIRED TO FACILITATE SCOPE OF WORK. REMOVE AND CAP ALL OUTLETS, SWITCHES, WIRES, THERMOSTATS, ETC. TO THEIR SOURCE AS REQUIRED. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF WORK.
- F REMOVE ADJACENT FINISHES AS REQUIRED TO FACILITATE SCOPE OF WORK. PATCH BACK IN KIND.
- G EXISTING EQUIPMENT INDICATED TO BE RELOCATED PER NEW PLAN IS TO BE STORED AND PROTECTED DURING CONSTRUCTION.
- H NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.
- I DIMENSIONS FOR EXISTING BUILDING ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO START OF CONSTRUCTION.
- J "REFER TO 'HVAC AND POWER UPGRADE PROJECT HAZARDOUS MATERIALS SURVEY REPORT.' CONTRACTOR TO ABATE AREAS AFFECTED BY SCOPE OF WORK. REMOVE AND DISPOSE OF MATERIALS PER REPORT RECOMMENDATIONS."

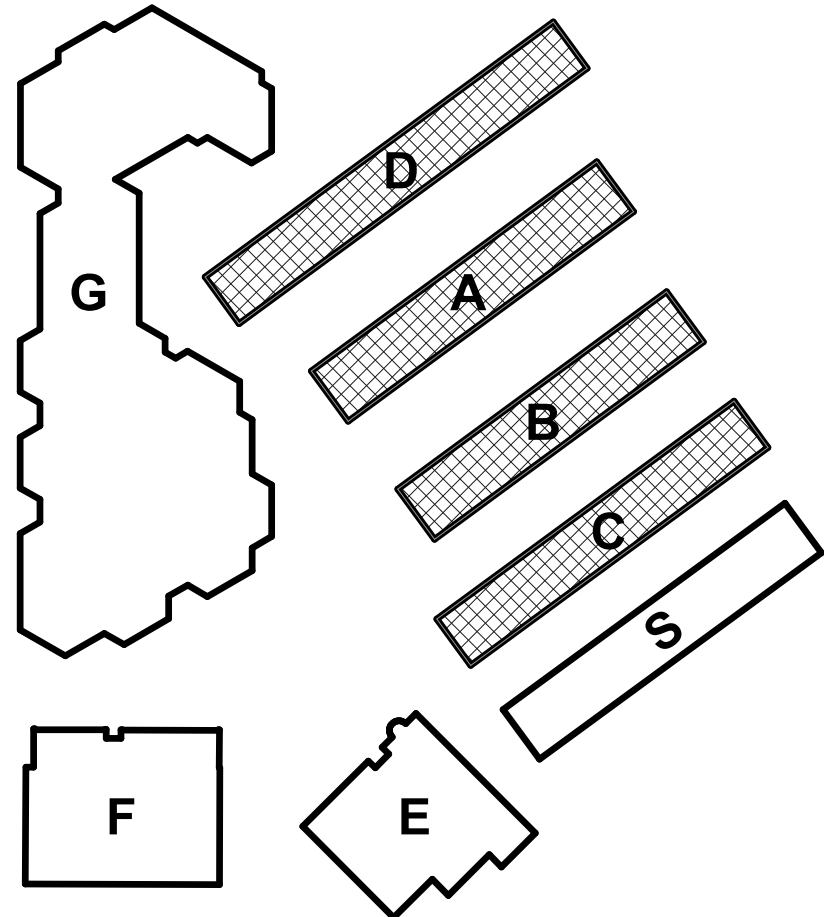
DEMOLITION FLOOR PLAN KEYNOTES

- 1 REMOVE (E) MECHANICAL UNIT AND METAL ENCLOSURE, S.M.D.
- 2 RECONFIGURE (E) WIREMOLD. SHORTEN CONFIGURATION TIGHT TO NEW ENCLOSURE AND PROVIDE END CAP.
- 3 REMOVE (E) 12" BASE CASEWORK.
- 4 REMOVE (E) A/C UNIT AND SURROUNDING (E) GLAZING. PREP FOR NEW WORK.
- 5 SALVAGE (E) 4" X 4" TACK PANEL AND TURN OVER TO DISTRICT.
- 6 REMOVE (E) MECHANICAL UNIT, S.M.D.
- 7 (E) CHAINLINK FENCE AND GATE TO BE REMOVED. GRIND DOWN POLE AND INFILL W/ CONCRETE, FLUSH TO ADJACENT.
- 8 REMOVE PAVING AND PREP FOR NEW WORK, S.M.D.
- 9 REMOVE (E) WINDOW GLAZING ABOVE AND PREP FOR NEW WORK, S.M.D.
- 10 REMOVE (E) TACK PANEL AND TURN OVER TO DISTRICT.
- 11 CUT AND PREP OPENING FOR NEW WORK, S.M.D. DO NOT OVERCUT.
- 12 PREP FOR NEW WORK, S.M.D.

GRAPHIC KEY

- EXISTING WALL TO REMAIN.
- EXISTING STOREFRONT OR WINDOW TO REMAIN.

BUILDING KEY



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architects

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PROJECT

BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE

DSA FILE NUMBER

41-26

APPL #

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REVISIONS

No.	Description	Date
1	Addendum 1	11/24/2021

MILESTONES

DD

90% CD

DSA SUB

06/04/2021

BACKCHECK

10/06/2021

SHEET

DEMOLITION
FLOOR PLANS -
BLDGs A, B, C, &
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DATE

11/24/2021

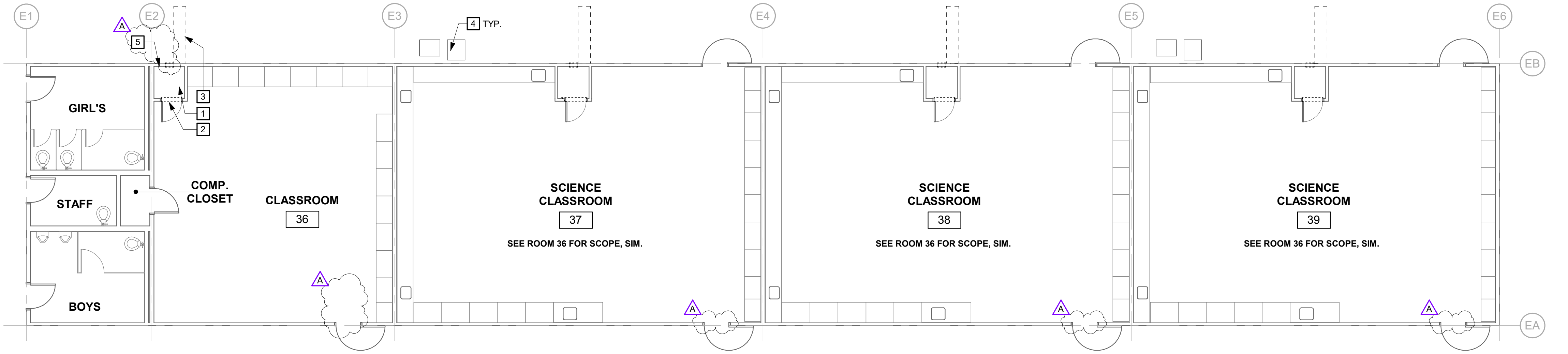
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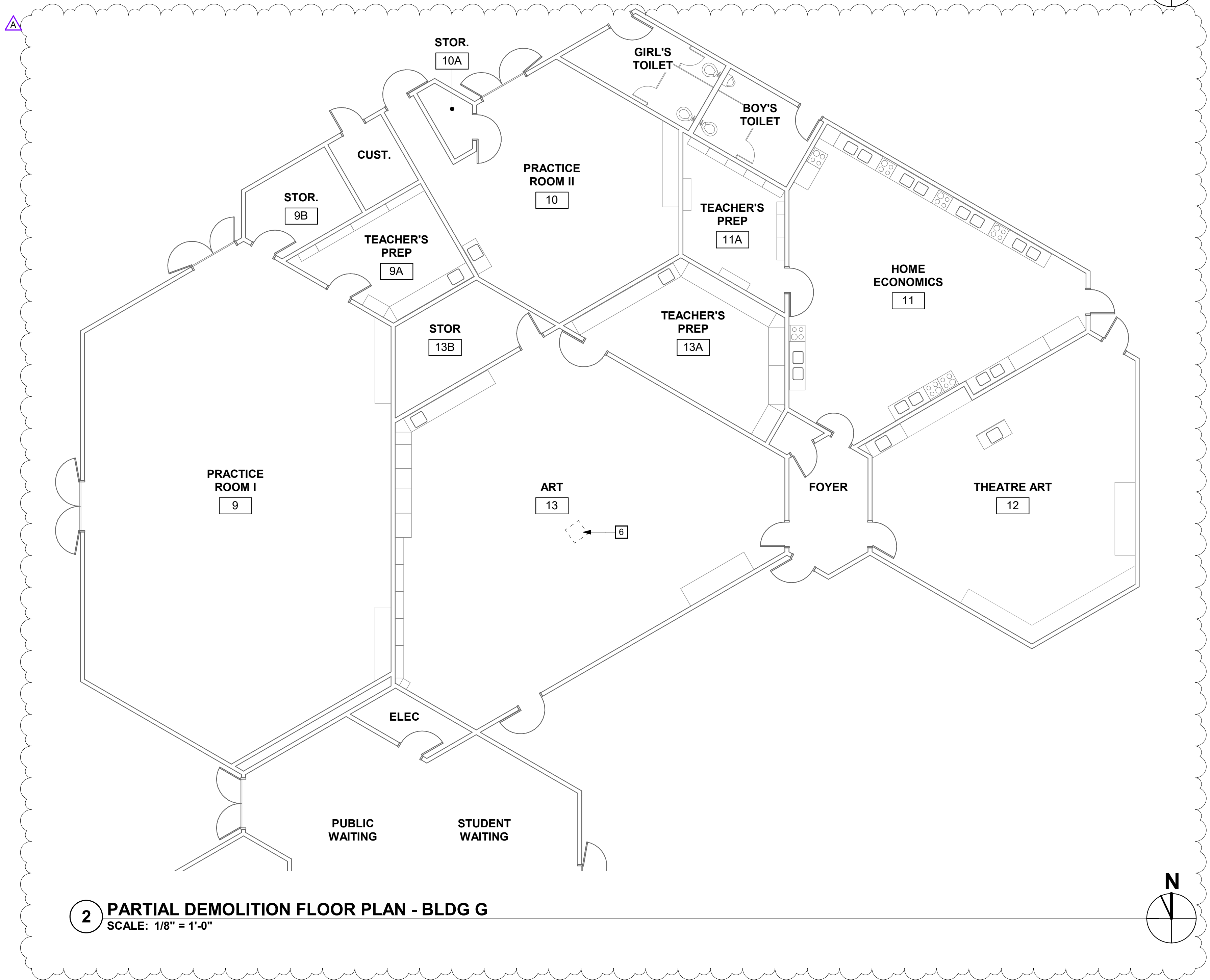
SHEET #

AD1-

A2.01



1 DEMOLITION FLOOR PLAN - SCIENCE BLDG
SCALE: 1/8" = 1'-0"



2 PARTIAL DEMOLITION FLOOR PLAN - BLDG G
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- C VERIFY LIMITS OF DEMOLITION WITH SCOPE OF NEW WORK PRIOR TO COMMENCING WORK.
- D ALL ITEMS SHOWN DASHED ARE TO BE DEMOLISHED UNLESS OTHERWISE NOTED ON PLANS.
- E REMOVE ALL MISCELLANEOUS TRIM, CASEWORK, EQUIPMENT, CONDUIT, BASES, AND OTHER SURFACE MOUNTED ITEMS WHETHER SHOWN OR NOT, AS REQUIRED TO FACILITATE SCOPE OF WORK. REMOVE AND CAP ALL OUTLETS, SWITCHES, WIRES, THERMOSTATS, ETC. TO THEIR SOURCE AS REQUIRED. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF WORK.
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- H NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.
- I DIMENSIONS FOR EXISTING BUILDING ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO START OF CONSTRUCTION.
- J REFER TO "HVAC AND POWER UPGRADE PROJECT HAZARDOUS MATERIALS SURVEY REPORT." CONTRACTOR TO ABATE AREAS AFFECTED BY SCOPE OF WORK. REMOVE AND DISPOSE OF MATERIALS PER REPORT RECOMMENDATIONS.

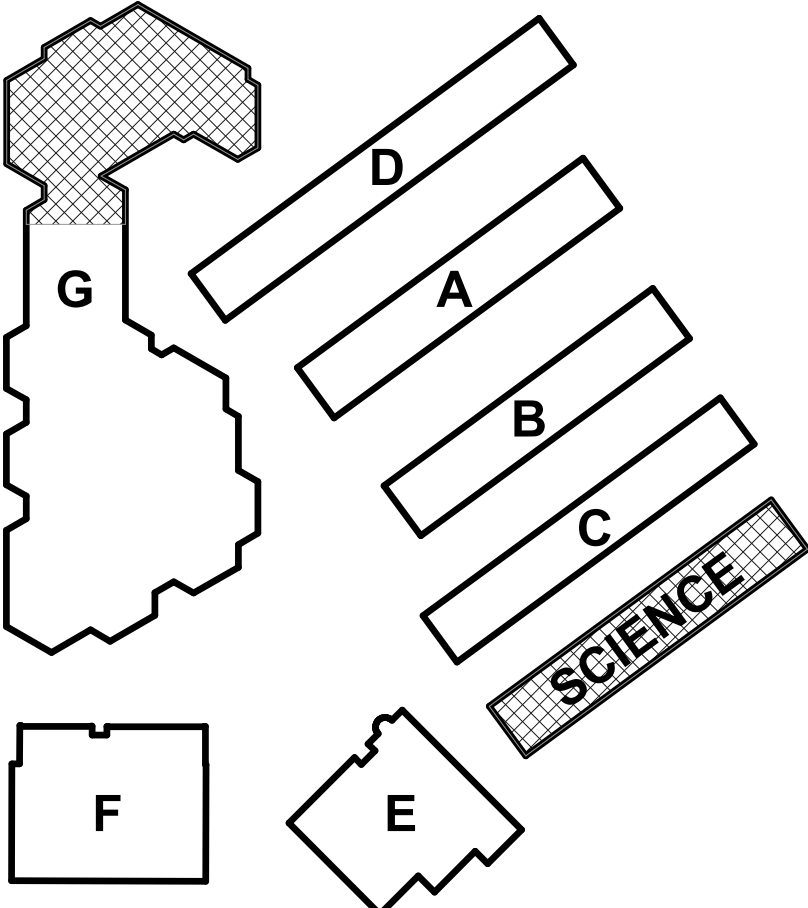
DEMOLITION FLOOR PLAN KEYNOTES

- 1 REMOVE (E) MECHANICAL UNIT, S.M.D.
- 2 CUT AND PREP OPENING FOR NEW WORK, S.M.D. DO NOT OVERTCUT.
- 3 REMOVE PAVING AND PREP FOR NEW WORK, S.M.D.
- 4 (E) MECHANICAL EQUIPMENT TO REMAIN.
- 5 REMOVE (E) OA LOUVER, PREP FOR NEW WORK, S.M.D.
- 6 REMOVE AND SALVAGE (E) ACOUSTICAL CEILING TILES AT SUSPENDED CEILING AS REQUIRED FOR CONSTRUCTION ACCESS FOR EXHAUST FAN. DO NOT ALTER GRID

GRAPHIC KEY

- EXISTING WALL TO REMAIN.
- EXISTING STOREFRONT OR WINDOW TO REMAIN.

BUILDING KEY



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PROJECT

BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE

DSA FILE NUMBER 41-26
APPL # 01-119557

REVISIONS

No.	Description	Date
1	Addendum 1	11/24/2021

MILESTONES

DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

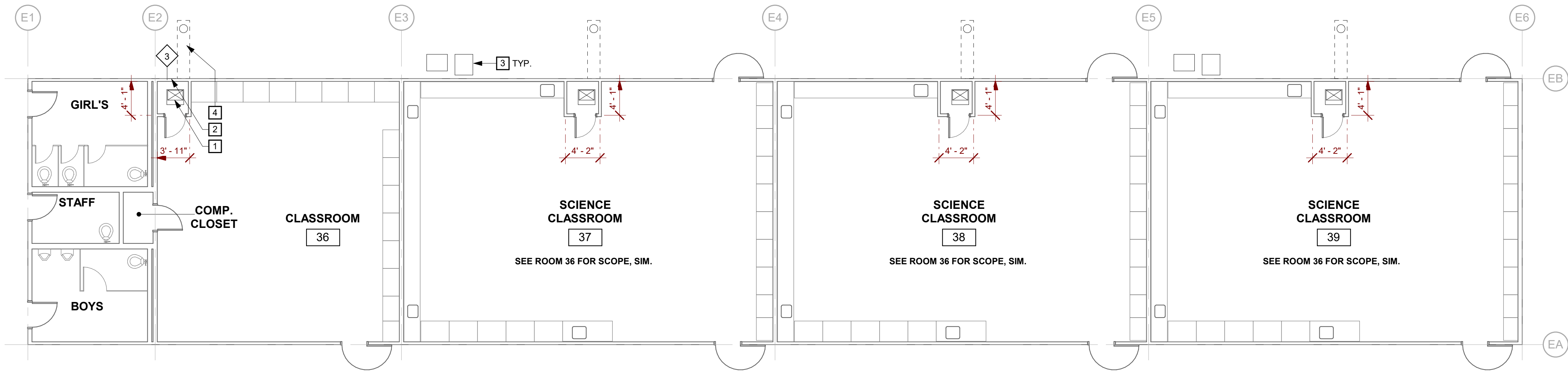
SHEET

DEMOLITION
FLOOR PLAN -
SCIENCE BLDG

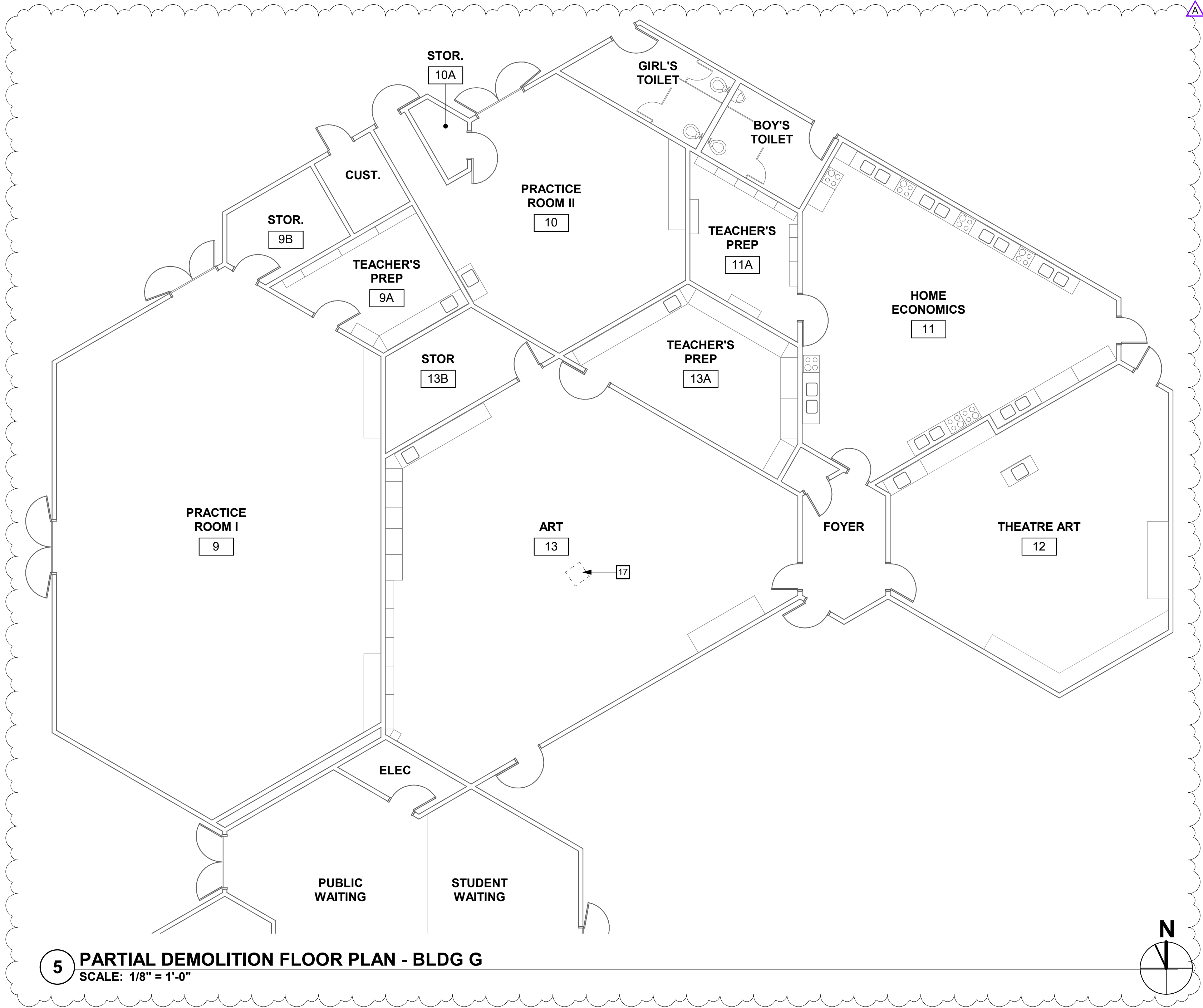
DATE 11/24/2021

JOB # 2021005.07

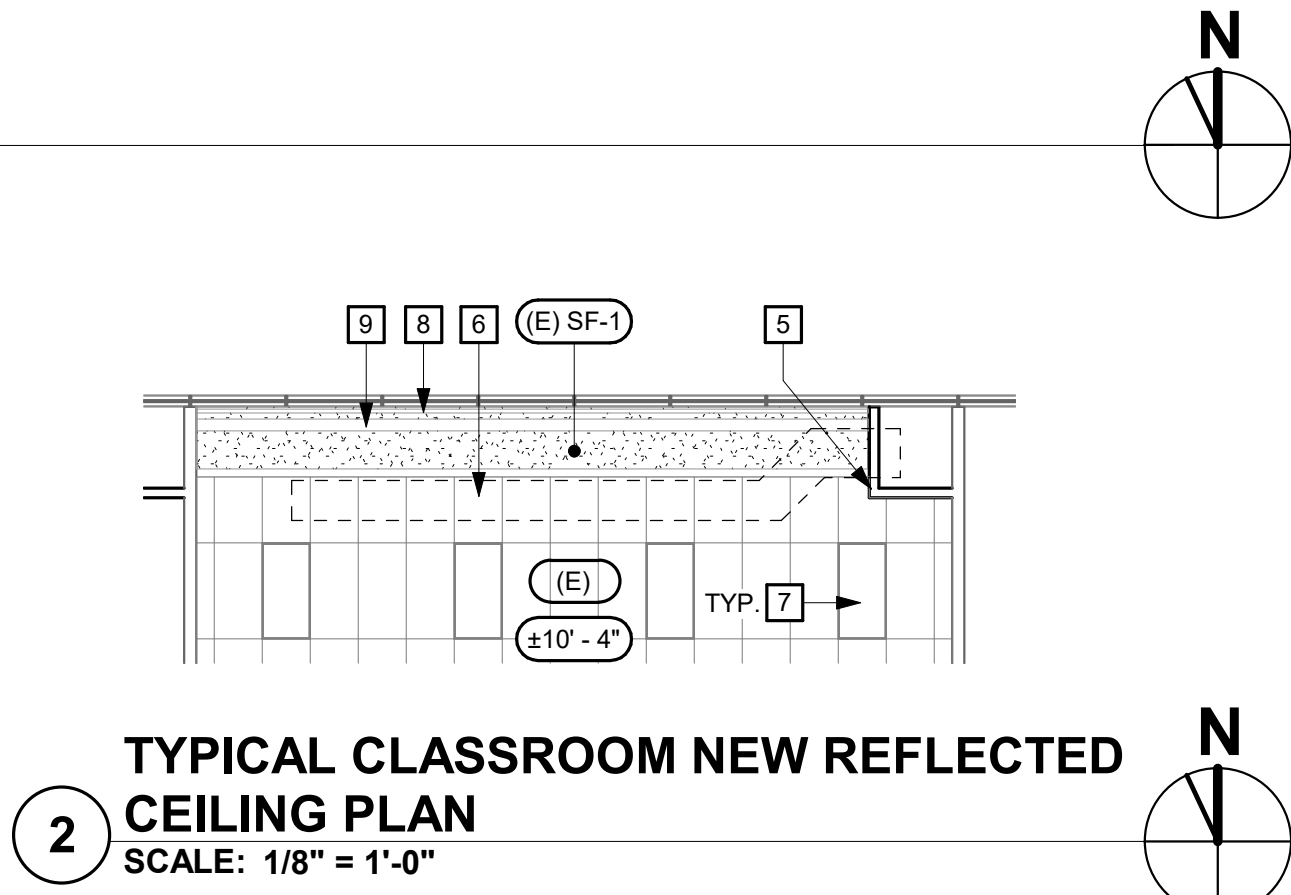
SHEET # AD1-
A2.02



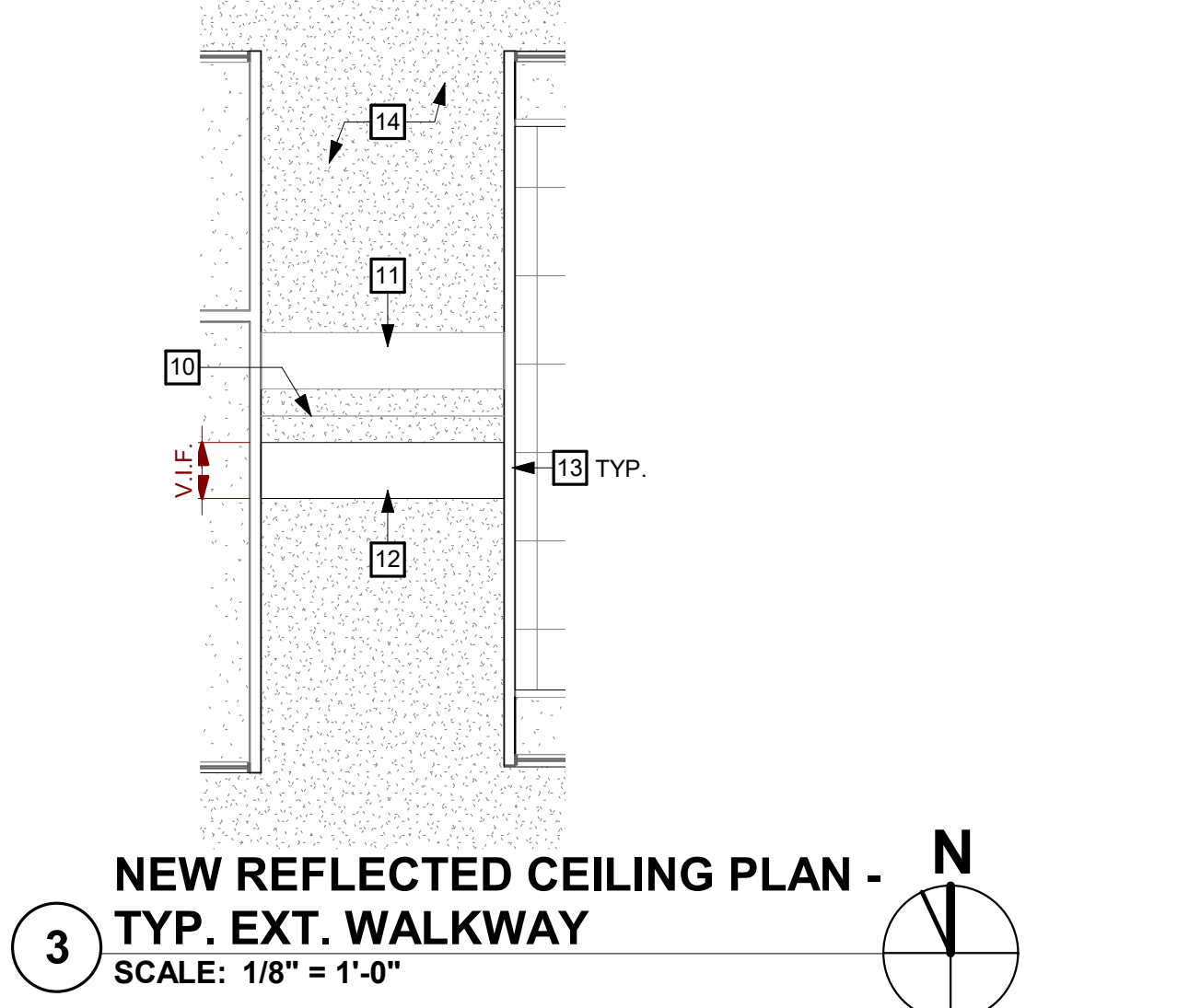
1 NEW FLOOR PLAN - SCIENCE BLDG
SCALE: 1/8" = 1'-0"



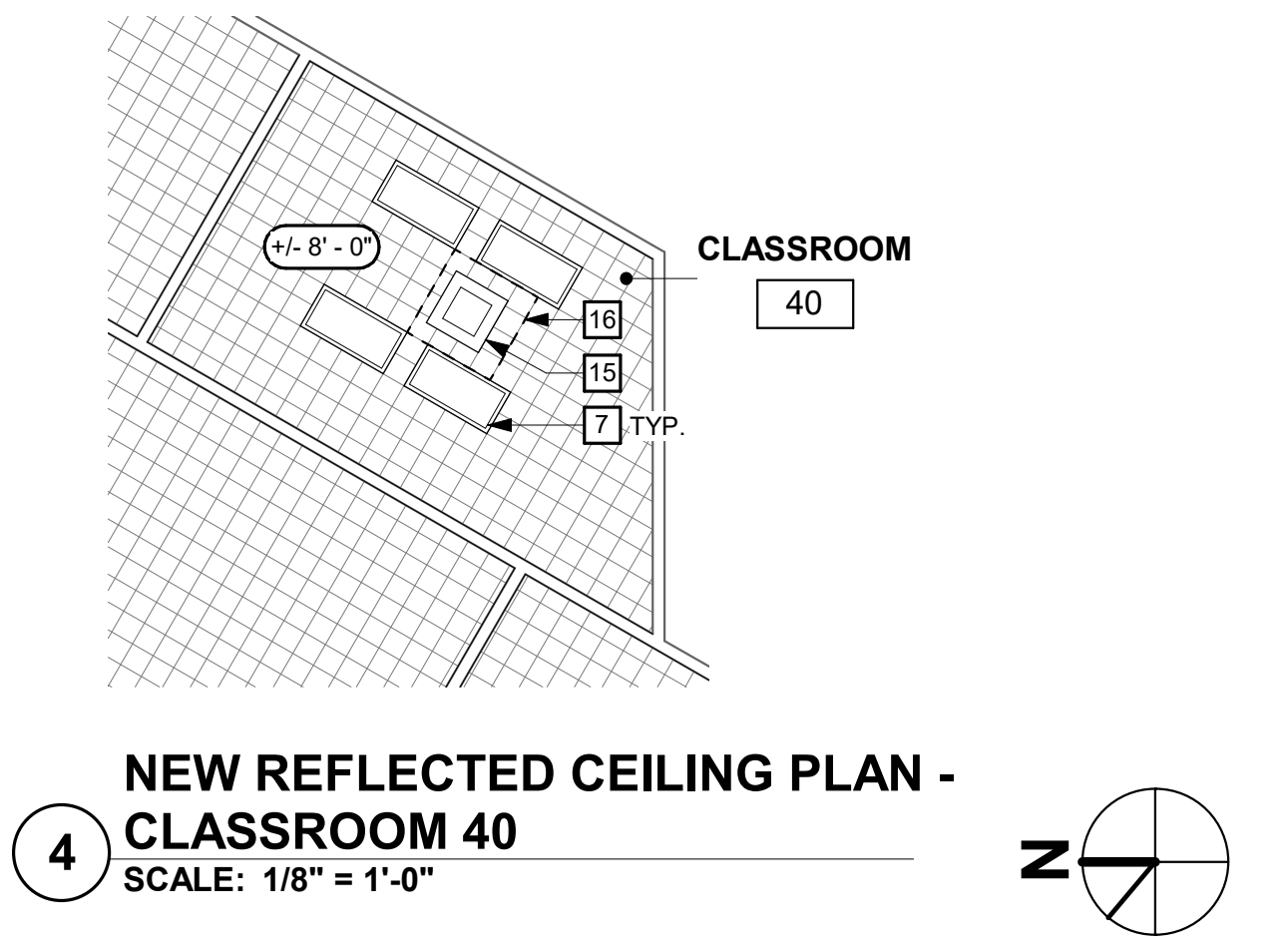
5 PARTIAL DEMOLITION FLOOR PLAN - BLDG G
SCALE: 1/8" = 1'-0"



2 TYPICAL CLASSROOM NEW REFLECTED
CEILING PLAN
SCALE: 1/8" = 1'-0"



3 NEW REFLECTED CEILING PLAN -
TYP. EXT. WALKWAY
SCALE: 1/8" = 1'-0"



4 NEW REFLECTED CEILING PLAN -
CLASSROOM 40
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

- A REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.
- B DIMENSIONS FOR EXISTING BUILDING ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO START OF CONSTRUCTION.
- C PATCH AND PAINT WALL AT REMOVED CASEWORK, REMOVED WALL MOUNTED BOARDS, OR RECONFIGURED RACEWAY.
- D SCRIBE FINISHES TIGHT TO ADJACENT CONDITIONS INCLUDING WALL FINISHES, WINDOWS, AND DUCTWORK.
- E PROVIDE NEW WALL BASE AT ALL REMOVED CASEWORK, NEW PARTITION WALLS, OR PATCHED FLOORING.
- F REFER TO FINISH SCHEDULE ON SHEET A11.01 FOR CEILING FINISHES NOT SHOWN.
- G RECONFIGURE A.C.T. GRID TIGHT TO NEW MECHANICAL ENCLOSURE WALL FINISH. PROVIDE NEW LAY IN CEILING TILES AT RECONFIGURED AREA. AREA CUT OR ALTERED IN EACH ROOM SHALL NOT EXCEED 10 PERCENT OF THE ENTIRE CEILING AREA.
- H PROVIDE NEW CEILING TILE MATCHING ADJACENT TILES WHERE EXISTING LIGHTS, SPEAKERS OR OTHER EQUIPMENT WERE REMOVED.

NEW FLOOR PLAN & RCP KEYNOTES

- 1 MECHANICAL EQUIPMENT, SEE DETAIL 20/A8.10, S.M.D. REMOVE (E) ROOFING TO SUBSTRATE AND PREP OPENING FOR NEW WORK.
- 2 AT REGISTER OR LOUVER, PATCH WALL TO MATCH ADJACENT.
- 3 MECHANICAL EQUIPMENT, S.M.D. LOCATE NEW HOUSEKEEPING PAD SO (E) R.W.L. DOES NOT DRAIN ONTO PAD. V.I.F.
- 4 PATCH PAVING AT DRY WELL. SEE A1.02, 2/A8.10, 9/A8.10, AND S.M.D.
- 5 REPLACE PERIMETER TRIM AND PROVIDE NEW CEILING TILE ADJACENT. REPLACE FREE AND FIXED ENDS IN KIND. SEE DETAIL S.15/A8.10, 11/A8.10, & 12/A8.10.
- 6 EXPOSED SUSPENDED DUCTWORK OBSOURED FOR CLARITY, S.M.D.
- 7 (E) LIGHT FIXTURE
- 8 (E) CURTAIN TRACK; LOCATION VARIES, V.I.F.
- 9 (E) PAINTED METAL ENCLOSURE, WHERE OCCURS V.I.F.
- 10 (E) RIDGE
- 11 (E) PAINTED SHEET METAL CONDUIT ENCLOSURE TO REMAIN.
- 12 PAINTED 18 GA. SHEET METAL CONDUIT ENCLOSURE. SEE DETAIL 13/A8.10 AND S.E.D. S.E.D. FOR CONDUIT PENETRATION DETAIL.
- 14 (E) CEMENT PLASTER FINISH.
- 15 MECHANICAL EQUIPMENT, S.M.D.
- 16 REPLACE AND PAINT GLUE-UP A.C.T. AT REMOVED MECHANICAL UNIT PRIOR TO INSTALLATION OF NEW UNIT.
- 17 PREP AND REINSTALL ACOUSTICAL CEILING TILES AT EXHAUST FAN.

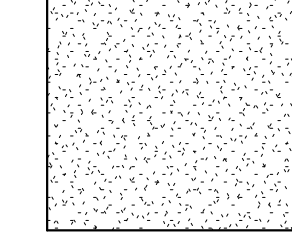
GRAPHIC KEY

- EXISTING NONRATED WALL TO REMAIN.
- EXISTING STOREFRONT OR WINDOW TO REMAIN.
- WALL TYPE. REFER TO SHEET A9.10 FOR WALL TYPE DESCRIPTION, TYP.
- STUD WALL

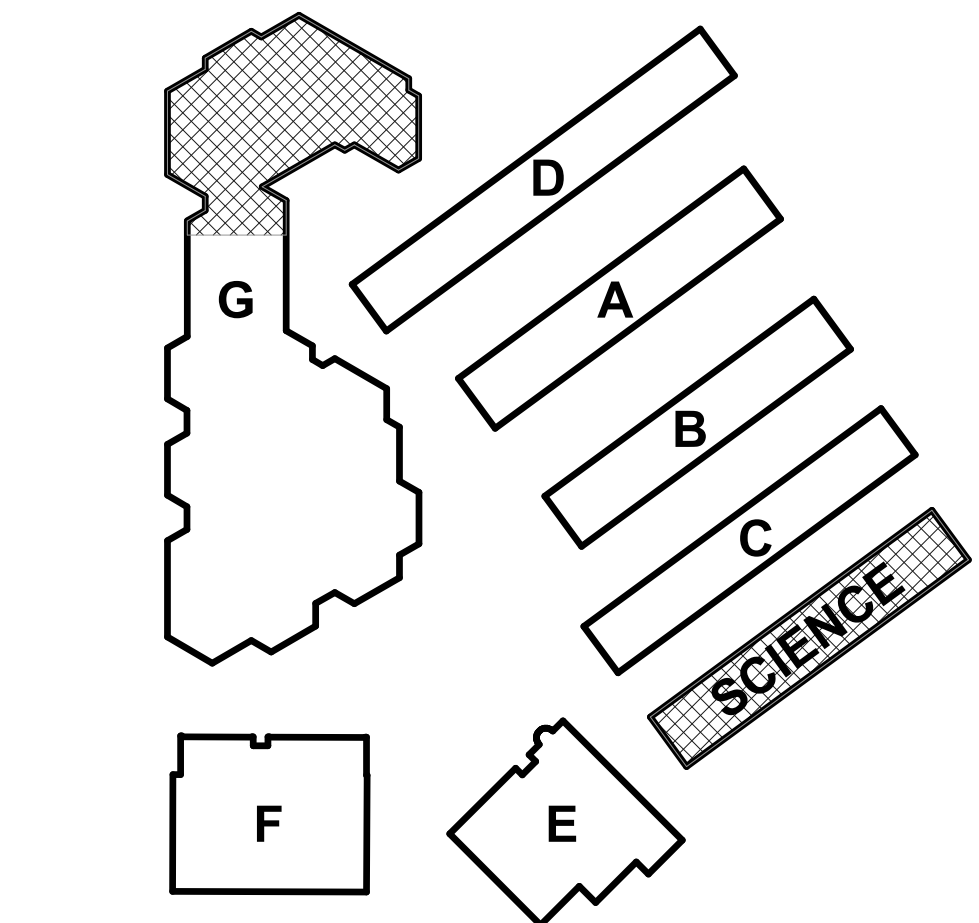
(E) 2'-0" x 4'-0" A.C.T. SUSPENDED CEILING SYSTEM

- SUSPENDED CEILING GRID
- DIRECTION OF MAIN RUNNER
- INSTALL CEILING GRID STARTING AT THE CENTER OF EACH ROOM AND WORK TO EXTERIOR WALLS. U.O.N.

(E) CEMENT PLASTER SOFFIT



BUILDING KEY



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PROJECT

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DSA FILE NUMBER 41-26
APPL # 01-119557

REVISIONS

No.	Description	Date
1	Addendum 1	11/24/2021

MILESTONES

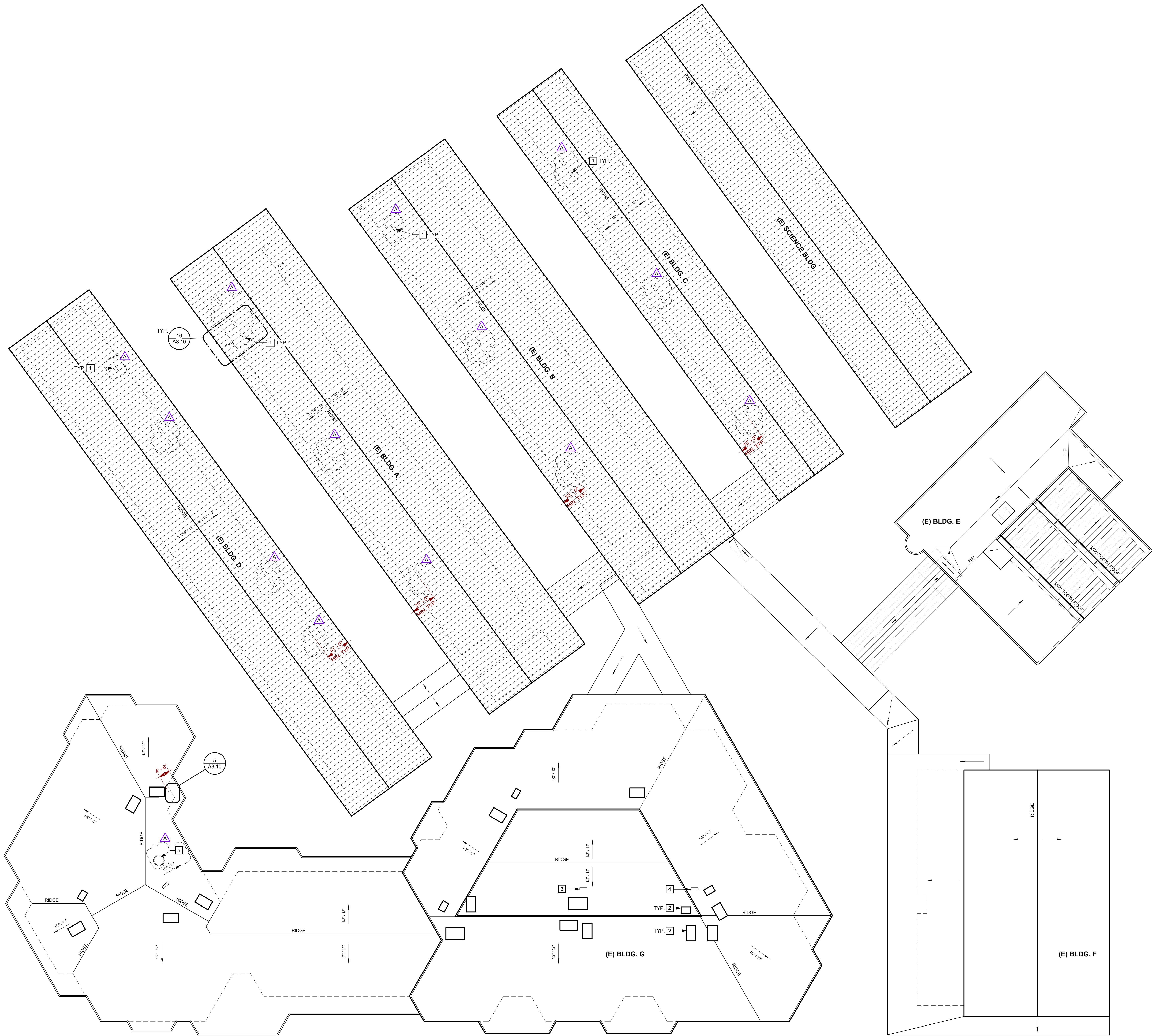
DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

SHEET

NEW FLOOR
PLAN - SCIENCE
BLDG & TYP.
NEW
REFLECTED
CEILING PLANS

DATE 11/24/2021
JOB # 2021005.07
SHEET # AD1-
A3.02

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1 PARTIAL SITE ROOF PLAN
SCALE: 1/16" = 1'-0"

GENERAL SHEET NOTES

- A REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTENT OF MECHANICAL AND ELECTRICAL WORK.
- B SIZE OF MECHANICAL EQUIPMENT PADS ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY REQUIRED PAD DIMENSION WITH EQUIPMENT MANUFACTURER.
- C (E) FLUES AND AIR INTAKES NOT SHOWN AT STANDING SEAM ROOFING. ABANDON IN PLACE. S.M.D.

ROOF PLAN KEYNOTES

- 1 MECHANICAL UNIT ON PLATFORM. REMOVE (E) ROOFING TO SUBSTRATE FOR CONSTRUCTION ACCESS. S.M.D. AND SEE DETAIL 10/A8.10. PAINT MECHANICAL UNIT TO MATCH ROOF COLOR. DETAIL 19/A8.10.
- 2 MECHANICAL UNIT. S.M.D. REMOVE EXISTING CURB PRIOR TO PROVIDING NEW. PATCH ROOFING. SEE DETAIL 19/A8.10.
- 3 ELECTRICAL PANEL AT (E) MOUNT. S.E.D.
- 4 ELECTRICAL PANEL. S.E.D. AND SEE DETAIL 17/A8.10.
- 5 MECHANICAL EQUIPMENT. SEE DETAIL 20/A8.10. S.M.D. REMOVE (E) ROOFING TO SUBSTRATE AND PREP OPENING FOR NEW WORK.

GRAPHIC KEY

- (E) STANDING SEAM, CLASS C MINIMUM
- (E) SINGLE PLY ROOFING, CLASS C MINIMUM
- OUTLINE OF WALL BELOW

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PROJECT

BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
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STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No.	Description	Date
1	Addendum 1	11/24/21

MILESTONES

DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

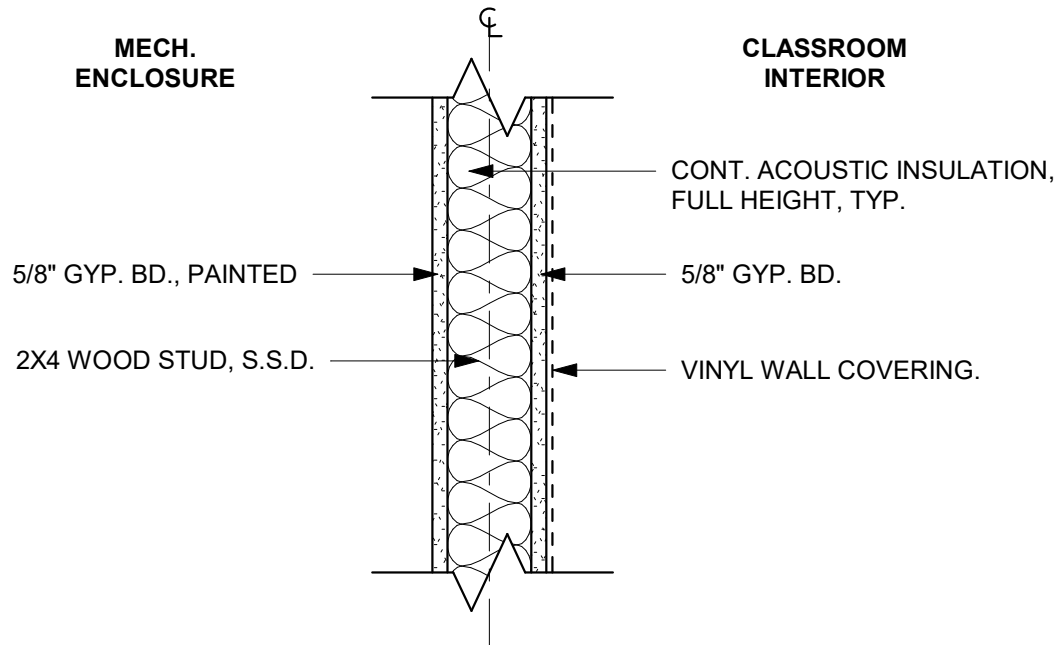
SHEET

PARTIAL SITE
ROOF PLAN

DATE 11/24/2021

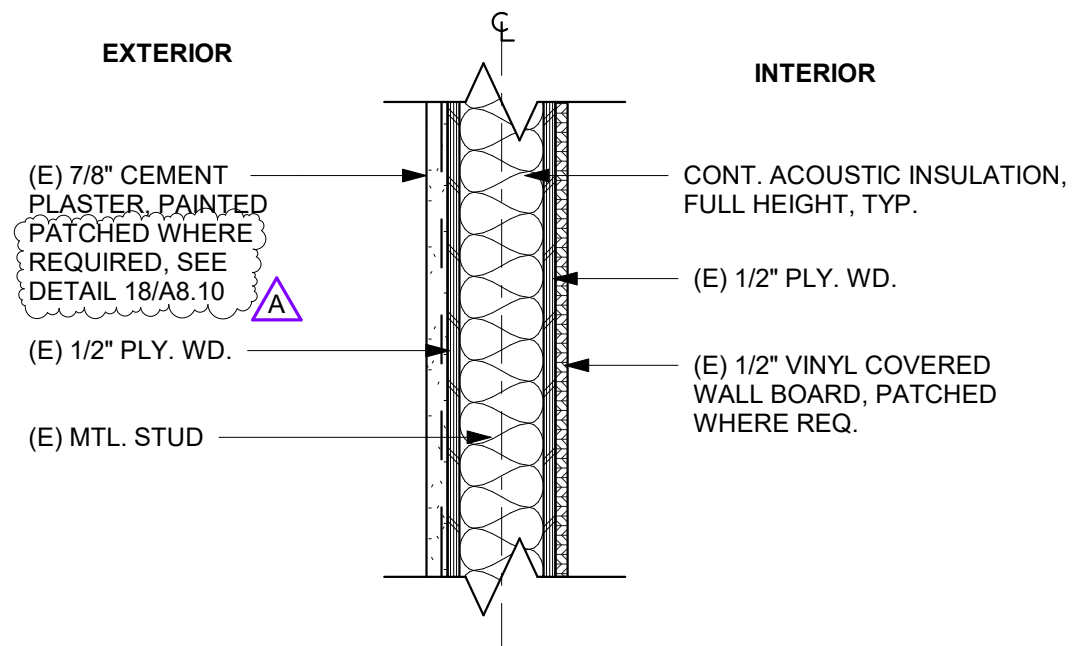
JOB # 2021005.07

SHEET # AD1-
A5.01




NOTE:
SEE DETAIL 6/A9.10 FOR TYPICAL SOUND TREATED NONRATED WALL.

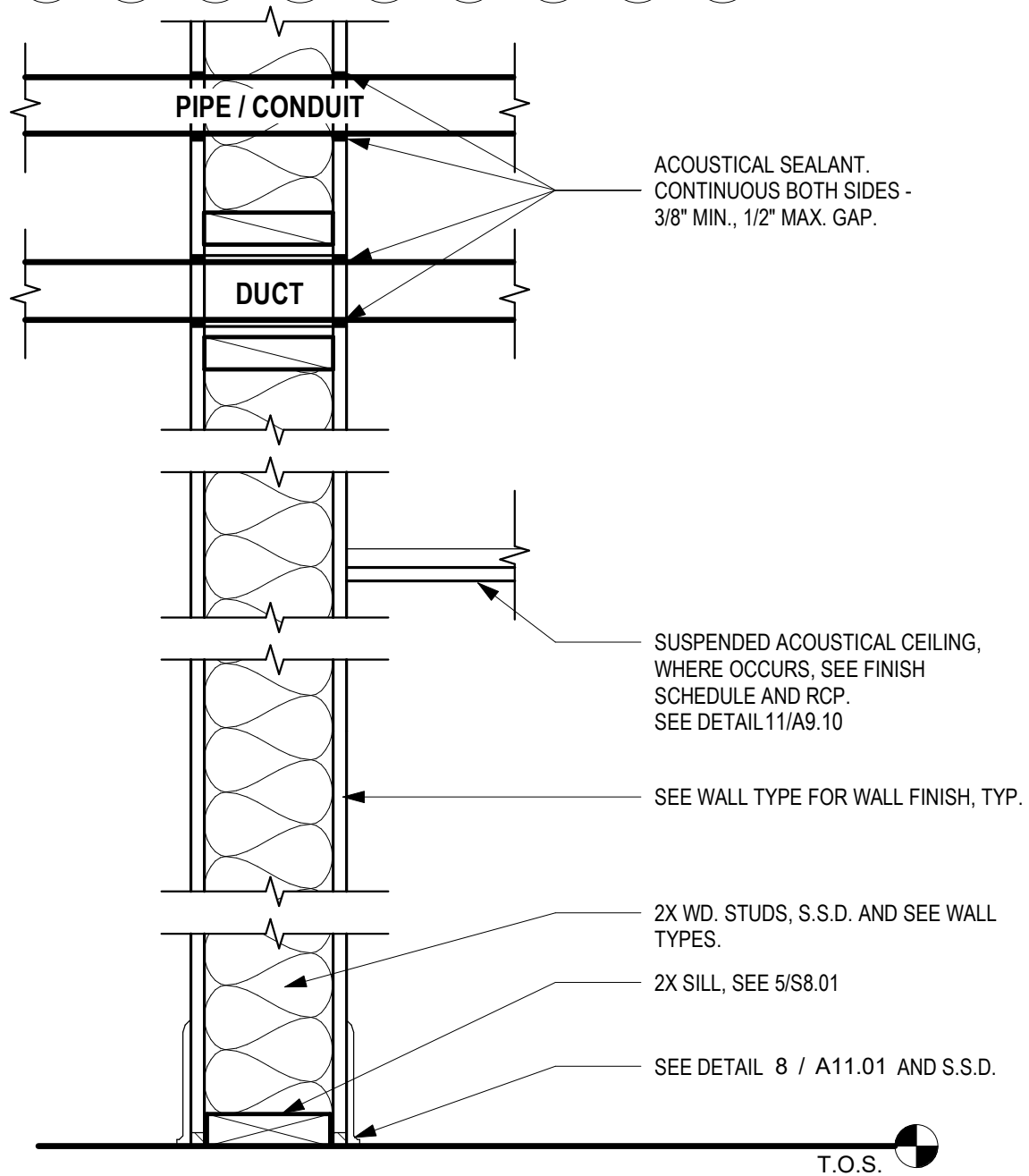
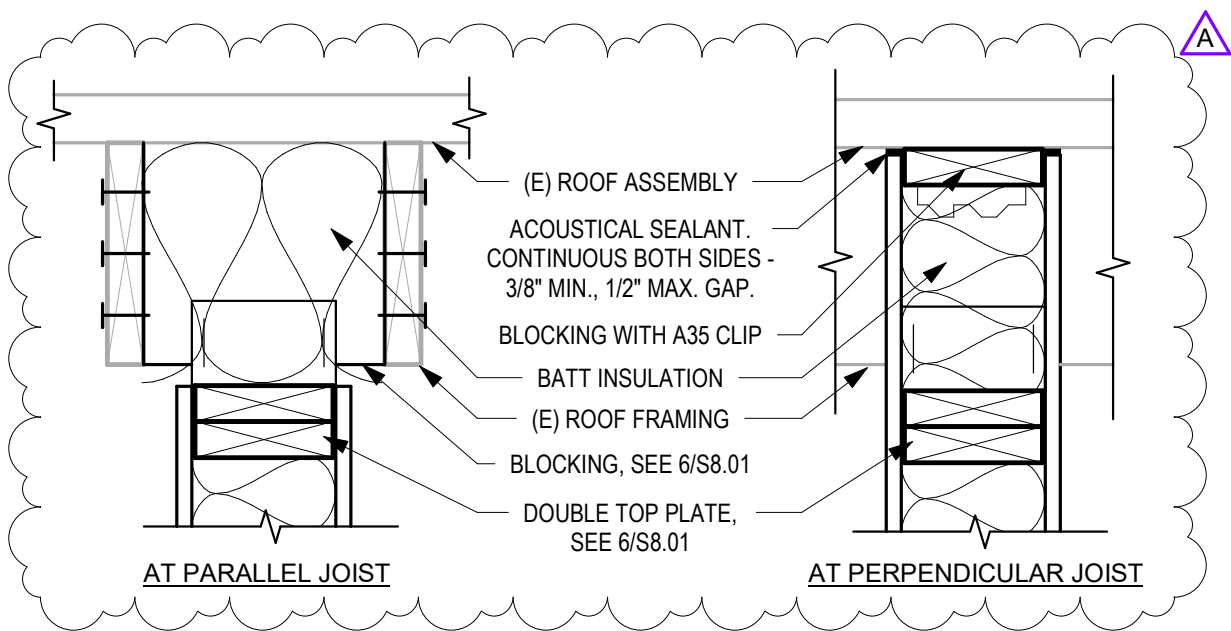
1 WALL TYPE 1 - MECH. ENCLOSURE
SCALE: 1 1/2" = 1'-0"



3 (E) WALL TYPE 3 - VINYL COVERED WALL BD.
SCALE: 1 1/2" = 1'-0"



		BOREL MIDDLE SCHOOL - HVAC REPLACEMENT	
		SAN MATEO-FOSTER CITY SCHOOL DISTRICT	
387 S. 1st Street, Suite 300 San Jose, CA., 95113 tel: (408) 300 - 5160 fax: (408) 300 - 5121	FILE NO.: 41-26	AD1-A9.10A	
	APPL NO.: 01-119557		
	JOB NO. 2021005.07		
	DATE 11/24/2021		



NOTES:

1. FOR RECESSED ACCESSORIES OR CABINETS, PROVIDE BLOCKING, GYPSUM BOARD AND ACOUSTICAL SEALANT SIMILAR TO DETAIL AT DUCT.

6

TYPICAL SOUND TREATED NONRATED WALL

SCALE: 1 1/2" = 1'-0"



		BOREL MIDDLE SCHOOL - HVAC REPLACEMENT	
		SAN MATEO-FOSTER CITY SCHOOL DISTRICT	
FILE NO.:	41-26	SHEET	
APPL NO.:	01-119557	AD1-A9.10B	
JOB NO.	2021005.07		
DATE	11/24/2021		

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AIR DISTRIBUTION SCHEDULE						
TAG	MANUFACTURER	MODEL NO.	DESCRIPTION	BORDER TYPE	MOUNTING DETAIL	NOTES
HSS-1	TITUS	S300FL	HIGH SIDEWALL SUPPLY	TYPE 1	17MP6.01	1, 2, 4
HSS-2	TITUS	272FS	HIGH SIDEWALL SUPPLY	TYPE 1	13MP6.01	1, 2
HSR-1	TITUS	350RL	HIGH SIDEWALL RETURN	TYPE 1	13MP6.01	2, 3
LSR-1	TITUS	350RL	LOW SIDEWALL RETURN	TYPE 1	13MP6.01	2, 3
RG-1	TITUS	30R	RELIEF GRILLE	SURFACE MOUNT	2M6.02	2, 5
EG-1	TITUS	30R	EXHAUST/INTAKE GRILLE	SURFACE MOUNT	3M6.02	2

1. SET BLADES AT 22.5° DEFLECTION.
2. PRIME AND PAINT PER ARCHITECT'S INSTRUCTIONS. REGISTER COLOR SELECTED BY ARCHITECT.
3. PROVIDE WITH AIRSAN COMPACT DUCT SILENCER.
4. PROVIDE WITH ASD AIR SCOOP DEVICE.
5. CONTRACTOR TO FIELD VERIFY (E) DIMENSIONS PRIOR TO ORDERING.

CLASSROOM SPLIT SYSTEM HEAT PUMPS SCHEDULE - CONTINUED																		
TAG	MANUFACTURER	MODEL	BUILDING	LOCATION	COOLING TOTAL MBH	HEATING TOTAL MBH	AIRFLOW CFM	OUTSIDE AIR CFM	REFRIGERANT LIQUID	PIPING GAS	SEER	HSFP	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
													V / PH	MCA	MOCP			
FC-36	SAMSUNG	AC054KNZDCHIAA	SCIENCE BLDG	CLASSROOM 36	54	60	1200	450	3/8"	3/4"	-	-	NOTE 8			164	12MP6.01	2, 3, 4, 5, 6, 7, 8
HP-36	SAMSUNG	AC054KXADCHIAA		SLAB	-	-	3/8"	3/4"	17.1	9.0	208 / 1	42	70	212	16MP6.01	1		
FC-37	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 37	54	60	1600	450	3/8"	3/4"	-	-	NOTE 8			164	12MP6.01	2, 3, 4, 5, 6, 7, 8
HP-37	SAMSUNG	AC054KXADCHIAA		SLAB	-	-	3/8"	3/4"	17.1	9.0	208 / 1	42	70	212	16MP6.01	1		
FC-38	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 38	54	60	1600	450	3/8"	3/4"	-	-	NOTE 8			164	12MP6.01	2, 3, 4, 5, 6, 7, 8
HP-38	SAMSUNG	AC054KXADCHIAA		SLAB	-	-	3/8"	3/4"	17.1	9.0	208 / 1	42	70	212	16MP6.01	1		
FC-39	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 39	54	60	1600	450	3/8"	3/4"	-	-	NOTE 8			164	12MP6.01	2, 3, 4, 5, 6, 7, 8
HP-39	SAMSUNG	AC054KXADCHIAA		SLAB	-	-	3/8"	3/4"	17.1	9.0	208 / 1	42	70	212	16MP6.01	1		

1. SPLIT SYSTEM SHALL BE ABLE TO OPERATE AT 94% HEATING CAPACITY DOWN TO 32°F OUTDOOR AMBIENT TEMPERATURE.
2. CFM BASED ON 0.55 ESP.
3. PROVIDE WITH SAMSUNG MM-A60UN 24VAC THERMOSTAT ADAPTER AND 24VAC TRANSFORMER.
4. PROVIDE WITH DELTA CONTROLS THERMOSTAT WITH CO2 SENSOR. SEE MP5.01 FOR CONTROLS.
5. PROVIDE WITH CONDENSATE PUMP.
6. PROVIDE WITH 4" MERV-13 FILTERS WITH FILTER ACCESS PANEL.
7. FAN COIL SHALL BE ADJUSTED TO OPERATE AT CONSTANT SPEED AT INDICATED CFM.
8. INDOOR UNIT POWERED BY OUTDOOR UNIT.

PACKAGED ROOFTOP AIR CONDITIONING UNITS SCHEDULE																			
TAG	MANUFACTURER	MODEL NO.	COOLING MBH		GAS HEATING MBH		AIRFLOW CFM	ESP IN. W.G.	OUTSIDE AIR CFM	FAN RPM	MOTOR BHP	SEER	AFUE %	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
			TOTAL	SENSIBLE	INPUT	OUTPUT								V / PH	MCA	MOCP			
AC-1	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-2	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-3	CARRIER	48VGN24	23.0	21.9	40	33	850	0.8	350	1050	0.36	15	81	208 / 1	19.4	30	350	14MP6.01	1, 2, 3, 7, 8, 9
AC-4	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-5	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-6	CARRIER	48JCDV04	36.3	32.8	50 67	40 54	1200	1.0	450	2059	0.64	20	81	208 / 3	22	30	670	2MP6.01	1, 2, 3, 4, 9
AC-8	CARRIER	48VGN30	29.1	27.3	40	32	850	0.8	350	1050	0.36	15	78	208 / 3	16.2	20	355	14MP6.01	1, 2, 3, 7, 8, 9
AC-9	CARRIER	48JCDV04	36.3	32.8	50 67	40 54	1200	1.0	450	2059	0.64	20	81	208 / 3	22	30	670	2MP6.01	1, 2, 3, 4, 9
AC-10	CARRIER	48HCD008	93.3	85.2	90 125	73 103	3000	1.2	450	939	1.79	13.8	82	208 / 3	41	50	1100	2MP6.01	1, 2, 3, 6, 9
AC-11	CARRIER	48HCD008	93.3	85.2	90 125	73 103	3000	1.2	450	939	1.79	13.8	82	208 / 3	41	50	1100	2MP6.01	1, 2, 3, 6, 9
AC-12	CARRIER	48VGN30	29.1	27.3	40	32	850	0.8	350	1050	0.36	15	78	208 / 3	16.2	20	355	14MP6.01	1, 2, 3, 7, 8, 9
AC-13	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-14	CARRIER	48VGN30	29.1	27.3	40	32	850	0.8	350	1050	0.36	15	78	208 / 3	16.2	20	355	14MP6.01	1, 2, 3, 7, 8, 9
AC-15	CARRIER	48JCDV04	36.3	32.8	50 67	40 54	1200	1.0	450	2059	0.64	20	81	208 / 3	22	30	670	2MP6.01	1, 2, 3, 4, 9
AC-16	CARRIER	48JCDV05	49.3	45.7	50 67	40 54	1600	1.0	450	2883	1.46	20	81	208 / 3	25	30	695	2MP6.01	1, 2, 3, 4, 9
AC-17	CARRIER	48JCDV04	36.3	32.8	50 67	40 54	1200	1.0	450	2059	0.64	20	81	208 / 3	22	30	670	2MP6.01	1, 2, 3, 4, 9
AC-18	CARRIER	48VGN30	29.1	27.3	40	32	850	0.8	350	1050	0.36	15	78	208 / 3	16.2	20	355	14MP6.01	1, 2, 3, 7, 8, 9
AC-19	CARRIER	48FCOM07	72.4	67.3	67	54	2400	1.0	450	2589	1.86	15	81	208 / 3	30	45	710	2MP6.01	1, 2, 3, 5, 9
AC-20	CARRIER	48JCDV04	36.3	32.8	50 67	40 54	1200	1.0	450	2059	0.64	20	81	208 / 3	22	30	670	2MP6.01	1, 2, 3, 4, 9

1. WEIGHT INCLUDES ALL OPTIONS AND ACCESSORIES.
2. PROVIDE WITH DELTA CONTROLS THERMOSTAT WITH CO2 SENSOR. SEE MP5.01 FOR CONTROLS.
3. PROVIDE WITH MERV 13 FILTERS.
4. PROVIDE WITH LOW LEAK ECONOMIZER WITH BAROMETRIC RELIEF, VARIABLE SPEED COOLING CAPACITY, HIGH STATIC DIRECT DRIVE FAN, LOUVERED HAIL GUARDS, HINGED ACCESS PANELS, UNPOWERED CONVENIENCE OUTLET, PHASE MONITOR, AND E-COAT COILS.
5. PROVIDE WITH LOW LEAK ECONOMIZER WITH BAROMETRIC RELIEF, TWO STAGE COOLING, HIGH STATIC DIRECT DRIVE FAN, LOUVERED HAIL GUARDS, HINGED ACCESS PANELS, UNPOWERED CONVENIENCE OUTLET, PHASE MONITOR, AND E-COAT COILS.
6. PROVIDE WITH LOW LEAK ECONOMIZER WITH BAROMETRIC RELIEF, TWO STAGE COOLING, MEDIUM STATIC BELT DRIVE FAN, LOUVERED HAIL GUARDS, HINGED ACCESS PANELS, UNPOWERED CONVENIENCE OUTLET, PHASE MONITOR, TWO-SPEED INDOOR FAN MOTOR VFD CONTROLLER, AND E-COAT COILS.
7. PROVIDE WITH LOW NOX, TIN-PLATED INDOOR COIL HARPINS, CRANKCASE HEATER, AND TIME GUARD II.
8. PROVIDE WITH MICROMETIL CURB ADAPTOR. CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB DIMENSIONS.
9. PROVIDE MICROMETIL ROOF CURB TO MATCH EXISTING.

SPLIT SYSTEM AIR CONDITIONERS SCHEDULE																	
TAG	MANUFACTURER	MODEL	WING / BUILDING	LOCATION	COOLING TOTAL MBH	HEATING TOTAL MBH	AIRFLOW CFM	REFRIGERANT PIPING LIQUID	GAS	SEER	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES	
											V / PH	MCA	MOCP				
SSO-A-1	SAMSUNG	AR24TSFYBWKVCV	BUILDING A	ROOF	22	24	—	1/4"	5/8"	18	208 / 1	20	30	125	3MP6.01		
SSI-A-1	SAMSUNG	AR24TSFYBWKVCV		SERVING ROOM			657	1/4"	5/8"	—		NOTE 1			30	6MP6.01	2, 3, 4, 5

1. INDOOR UNITS ARE POWERED BY OUTDOOR UNIT.
2. PROVIDE WITH WALL MOUNTING BRACKET.
3. PROVIDE WITH SAMSUNG WALL MOUNTED THERMOSTAT.
4. PROVIDE WITH BACNET INTERFACE CARD. SEE MP5.01 FOR CONTROLS.
5. PROVIDE WITH CONDENSATE PUMP.

SPLIT SYSTEM HEAT PUMPS SCHEDULE																	
TAG	MANUFACTURER	MODEL	WING / BUILDING	LOCATION	COOLING TOTAL MBH	HEATING TOTAL MBH	AIRFLOW CFM	REFRIGERANT LIQUID	PIPING GAS	SEER	HSFP	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
												V / PH	MCA	MOCP			
SSO-G-1	SAMSUNG	AC018JXADCHIAA	BUILDING G	ROOF	18	20	—	1/4"	1/2"	20.1	10	208 / 1	8.1	15	100	3MP6.01	
SSI-G-1	SAMSUNG	AC018NN4DCHIAA		CLASSROOM 40			580	1/4"	1/2"	—	—	NOTE 1			35	10MP6.01	2, 3, 4, 5

1. INDOOR UNITS ARE POWERED BY OUTDOOR UNIT.
2. VERIFY REFRIGERANT PIPE SIZES AND ROUTING LIMITATIONS WITH MANUFACTURER PRIOR TO INSTALLATION.
3. PROVIDE WITH SAMSUNG WALL MOUNTED THERMOSTAT.
4. PROVIDE WITH BACNET INTERFACE CARD. SEE MP5.01 FOR CONTROLS.
5. WITH BUILT-IN CONDENSATE PUMP.

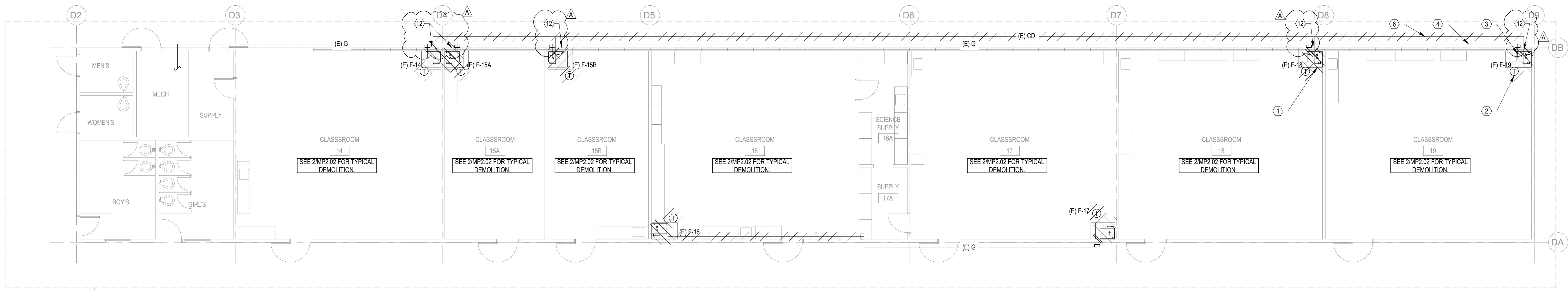
EXHAUST FANS SCHEDULE												
TAG	MANUFACTURER	MODEL NO.	AREA SERVED	AIRFLOW CFM	ESP IN. W.G.	FAN RPM	SOUND POWER SONES	MOTOR		WEIGHT LBS	MOUNTING DETAIL	NOTES
								HP / WATTS	V / PH			
EF-G-1	GREENHECK	G-140-VG	BLDG G ART 13	1000	0.25	742	5.6	1/4	115 / 1	75	1MP6.02	1, 2, 3, 4, 5

1. WEIGHT INCLUDES ACCESSORIES.
2. PROVIDE WITH UL LISTING, FAN MOUNTED SPEED CONTROL, GRAVITY OPERATED BACKDRAFT DAMPER, AND BIRDSCREEN.
3. PROVIDE WITH GREENHECK ROOF CURB.
4. WITH 16" DUCT TO 24x24 EG-1 GRILLE. SEE AIR DISTRIBUTION SCHEDULE.
5. EXHAUST FAN SHALL BE CONTROLLED BY LINE VOLTAGE HUMIDISTAT RH SETPOINT. EXHAUST FAN SHALL ALSO BE ALLOWED TO MANUALLY OPERATED VIA TIMER SWITCH IN PARALLEL WITH HUMIDISTAT.

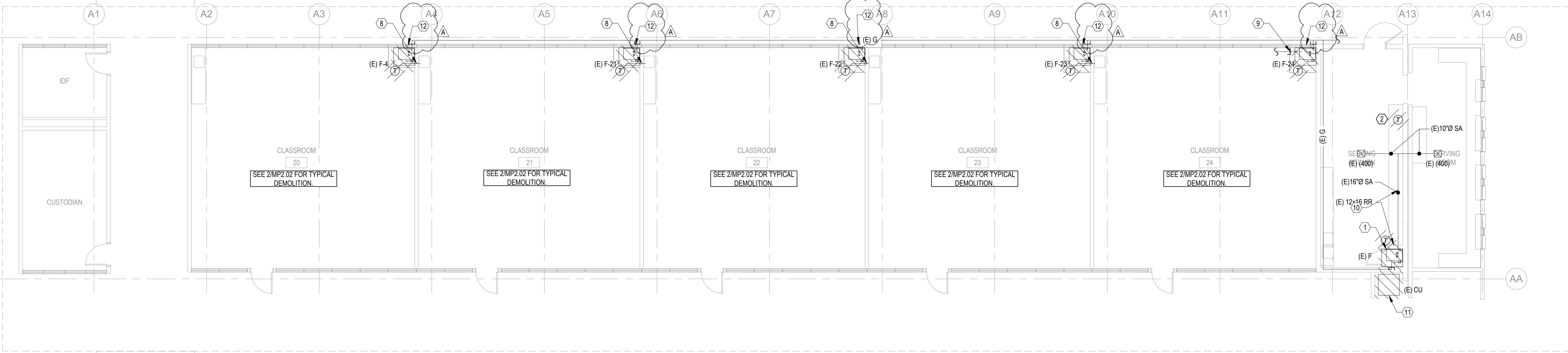
ROOF HOODS SCHEDULE										
TAG	MANUFACTURER	MODEL NO.	AREA SERVED	TYPE	THROAT SIZE	HOOD SIZE	CURB CAP SIZE	WEIGHT LBS	MOUNTING DETAIL	NOTES
AI-G-1	GREENHECK	GRSI-20	BLDG G ART 13	INTAKE	20"Ø	35.5"Ø	30" x 30"	55	1MP6.02	1, 2, 3, 4

1. WEIGHT INCLUDES ACCESSORIES.
2. PROVIDE WITH BACKDRAFT DAMPER, AND INSECT SCREEN.
3. PROVIDE WITH GREENHECK ROOF CURB.
4. WITH 16" DUCT TO 24x24 EG-1. SEE AIR DISTRIBUTION SCHEDULE.

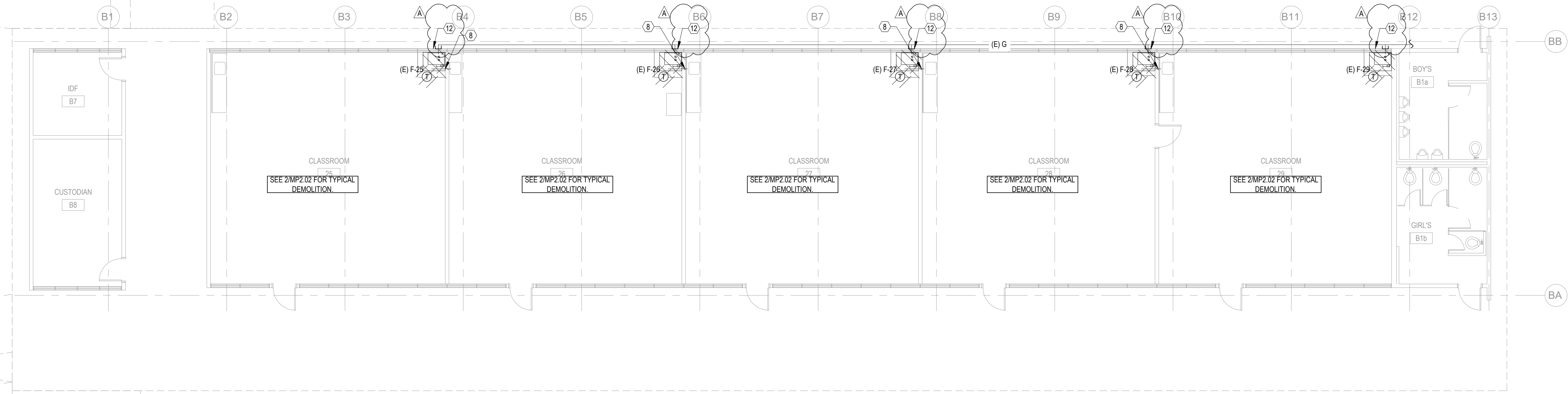
CLASSROOM SPLIT SYSTEM HEAT PUMPS SCHEDULE																		
TAG	MANUFACTURER	MODEL	BUILDING	LOCATION	COOLING TOTAL MBH	HEATING TOTAL MBH	AIRFLOW CFM	OUTSIDE AIR CFM	REFRIGERANT PIPING LIQUID	GAS	SEER	HSFP	ELECTRICAL V/PH	MCA	MOCP	WEIGHT LBS	MOUNTING DETAIL	NOTES
FC-14	SAMSUNG	AM054TNZDCHIAA	BLDG D	CLASSROOM 14	53	61	1150	450	3/8"	3/4"	-	-	208 / 1	2.6	15	164	1MP6.01	2, 3, 4, 5, 6, 7
HP-14	SAMSUNG	AM053TXMDCCHIAA		ROOF	-	-	-	-	3/8"	3/4"	17.5	10	208 / 1	34	50	212	3MP6.01	1
FC-15A	SAMSUNG	AC030JXADCHIAA		CLASSROOM 15A	33	36	650	200	3/8"	3/4"	-	-	NOTE 8			125	1MP6.01	2, 3, 4, 5, 6, 7, 8
HP-15A	SAMSUNG	AC030KNZDCHIAA		ROOF	-	-	-	-	3/8"	3/4"	19.6	3.33	208 / 1	34	50	155	3MP6.01	1
FC-15B	SAMSUNG	AC030JXADCHIAA		CLASSROOM 15B	33	36	650	200	3/8"	5/8"	-	-	NOTE 8			125	1MP6.01	2, 3, 4, 5, 6, 7, 8
HP-15B	SAMSUNG	AC030KNZDCHIAA		ROOF	-	-	-	-	3/8"	5/8"	19.6	3.33	208 / 1	21.7	35	155	3MP6.01	1
FC-16	SAMSUNG	AM054TNZDCHIAA		CLASSROOM 16	53	61	1150	450	3/8"	3/4"	-	-	208 / 1	2.6	15	164	1MP6.01	2, 3, 4, 5, 6, 7
HP-16	SAMSUNG	AM053TXMDCCHIAA		ROOF	-	-	-	-	3/8"	3/4"	17.5	10	208 / 1	34	50	212	3MP6.01	1
FC-17	SAMSUNG	AM054TNZDCHIAA		CLASSROOM 17	53	61	1150	450	3/8"	3/4"	-	-	208 / 1	2.6	15	164	1MP6.01	2, 3, 4, 5, 6, 7
HP-17	SAMSUNG	AM053TXMDCCHIAA		ROOF	-	-	-	-	3/8"	3/4"	17.5	10	208 / 1	34	50	212	3MP6.01	1
FC-18	SAMSUNG	AM054TNZDCHIAA	BLDG A	CLASSROOM 18	53	61	1150	450	3/8"	3/4"	-	-	208 / 1	2.6	15	164	1MP6.01	2, 3, 4, 5, 6, 7
HP-18	SAMSUNG	AM053TXMDCCHIAA		ROOF	-	-	-	-	3/8"	3/4"	17.5	10	208 / 1	34	50	212	3MP6.01	1
FC-19	SAMSUNG	AM054TNZDCHIAA		CLASSROOM 19	53	61	1150	450	3/8"	3/4"	-	-	208 / 1	2.6	15	164	1MP6.01	2, 3, 4,



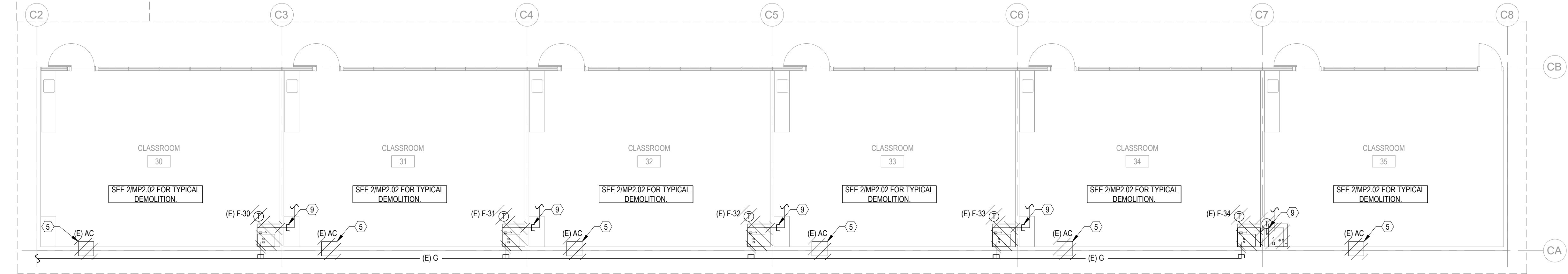
1 FLOOR PLAN - BLDG D - DEMO - MECHANICAL & PLUMBING
MP2.01 SCALE: 1/8" = 1'-0"



2 FLOOR PLAN - BLDG A - DEMO - MECHANICAL & PLUMBING
MP2.01 SCALE: 1/8" = 1'-0"



3 FLOOR PLAN - BLDG B - DEMO - MECHANICAL & PLUMBING
MP2.01 SCALE: 1/8" = 1'-0"



4 FLOOR PLAN - BLDG C - DEMO - MECHANICAL & PLUMBING
MP2.01 SCALE: 1/8" = 1'-0"

GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING AND NEW BUILDING STRUCTURES, SERVICES AND OWNER'S PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
- COORDINATE THE LOCATIONS OF ROOF/WALL OPENINGS, PENETRATIONS, DUCTWORK AND ALL MECHANICAL EQUIPMENT WITH RESPECT TO BUILDING STRUCTURE AND OTHER BUILDING SERVICES TO AVOID CONFLICT.

DEMOLITION SHEET NOTES

- REMOVE (E) FURNACE ENCLOSURE AND FURNACE, COMPLETE. SEE 3MP2.02 FOR TYPICAL FURNACE DEMO.
- REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) FURNACE. TYP. SALVAGE (E) THERMOSTATS AND CONTROLLERS, AND RETURN 30% OF THE EQUIPMENT TO THE DISTRICT.
- REMOVE (E) GAS BRANCH PIPE FROM FURNACE BACK TO (E) GAS MAIN. CAP (E) BRANCH LINE AT MAIN. TYP. PATCH AND REPAIR CEILING TILES / ROOF PER ARCHITECT'S DRAWINGS.
- (E) GAS MAIN TO REMAIN. TYP.
- REMOVE (E) WINDOW AC UNIT. SEE ARCHITECT'S DRAWINGS FOR WINDOW REPLACEMENT.
- REMOVE (E) CD MAIN.
- REMOVE (E) CONDENSING UNIT.
- REMOVE (E) CD PIPE THAT DRAINS TO SINK TAILPIECE.
- REMOVE (E) CONDENSATE DRAIN BRANCH PIPE BACK ABOVE CEILING. CAP AND ABANDON (E) CD MAIN ABOVE CEILING. PATCH AND REPAIR CEILING PER ARCHITECT'S DRAWINGS.
- (E) DUCTWORK TO REMAIN.
- REMOVE (E) CONDENSING UNIT AND REFRIGERANT PIPING.
- CAP BOTTOM LOUVER AT INTERIOR.

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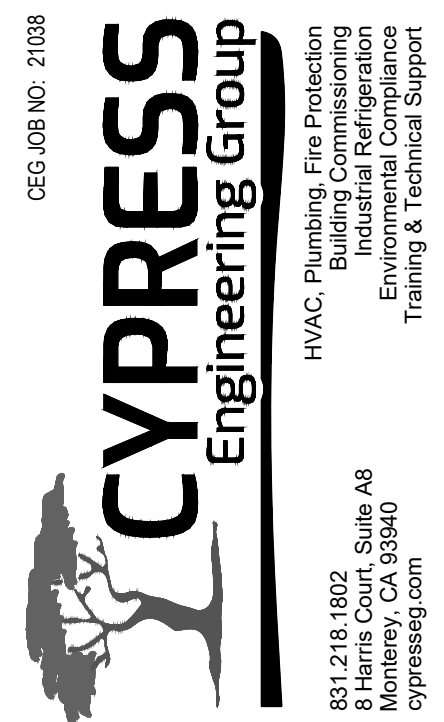
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PROJECT

BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



STAMP



STATE

DSA FILE NUMBER 41-26
APPL. # 01-119557

REVISIONS

No.	Description	Date
1	Addendum 1	11/24/2021

MILESTONES

DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

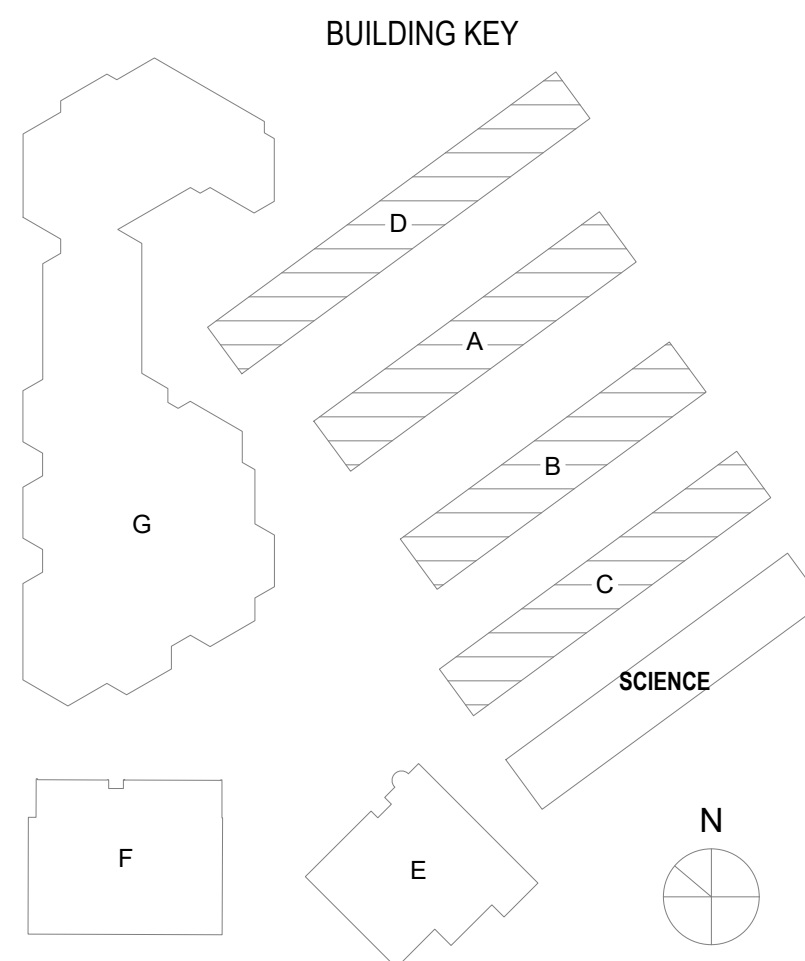
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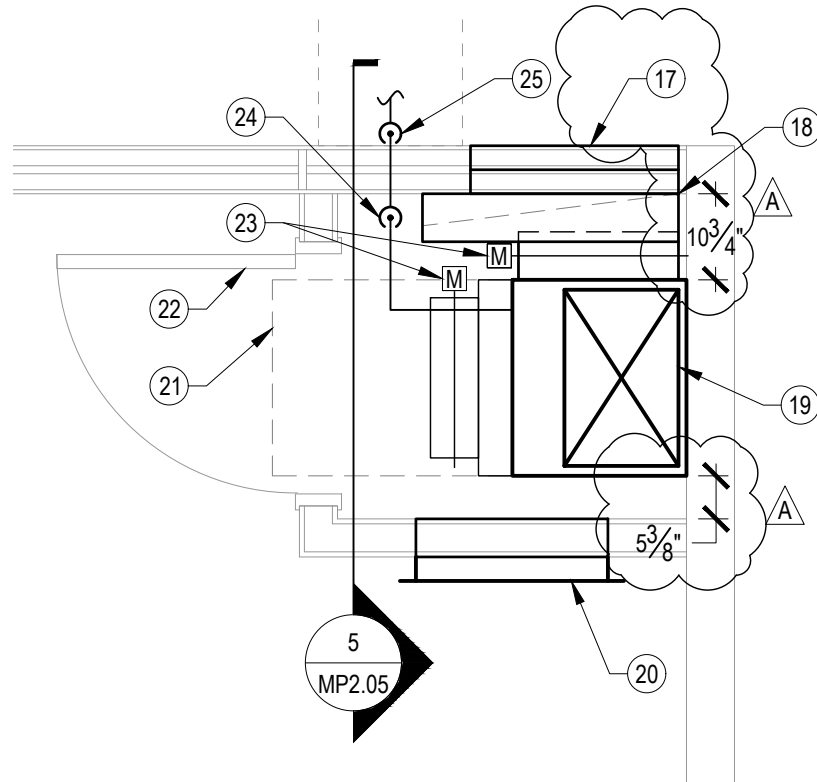
FLOOR PLANS -
DEMO - BLDGS A,
B, C & D -
MECHANICAL &
PLUMBING

DATE 11/24/2021

JOB # 2021005.07

SHEET # AD1-
MP2.01



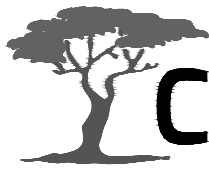


GENERAL NOTES

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3. EQUIPMENT MOUNTING DETAIL REFERENCES SHOWN ON SCHEDULES ON SHEET MP0.02.
4. FOR CLARITY, ABANDONED CD PIPING AND (E) GAS MAINS ARE NOT SHOWN ON THIS PLAN. SEE MP2.01.
5. PAINT ALL EXPOSED DUCTWORK, SUPPORTS, AND REGISTERS TO MATCH ADJACENT. ^A
6. SEE DETAIL 7/MP6.01 FOR PIPE SUPPORT ON ROOF.
7. CONTRACTOR TO PROVIDE AND INSTALL THERMOSTAT WIRING AND ASSOCIATED CONDUITS FOR ALL NEW HVAC EQUIPMENT AND CONNECTIONS.
8. CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.
9. PAINT HEAT PUMPS ON ROOF TO MATCH (E) ROOF COLOR.
10. PAINT ALL EXPOSED CONDENSATE PIPING AT EXTERIOR TO MATCH ADJACENT. ^A

4
MP2.05

FLOOR PLAN - ENCLOSURE
 SCALE: NONE

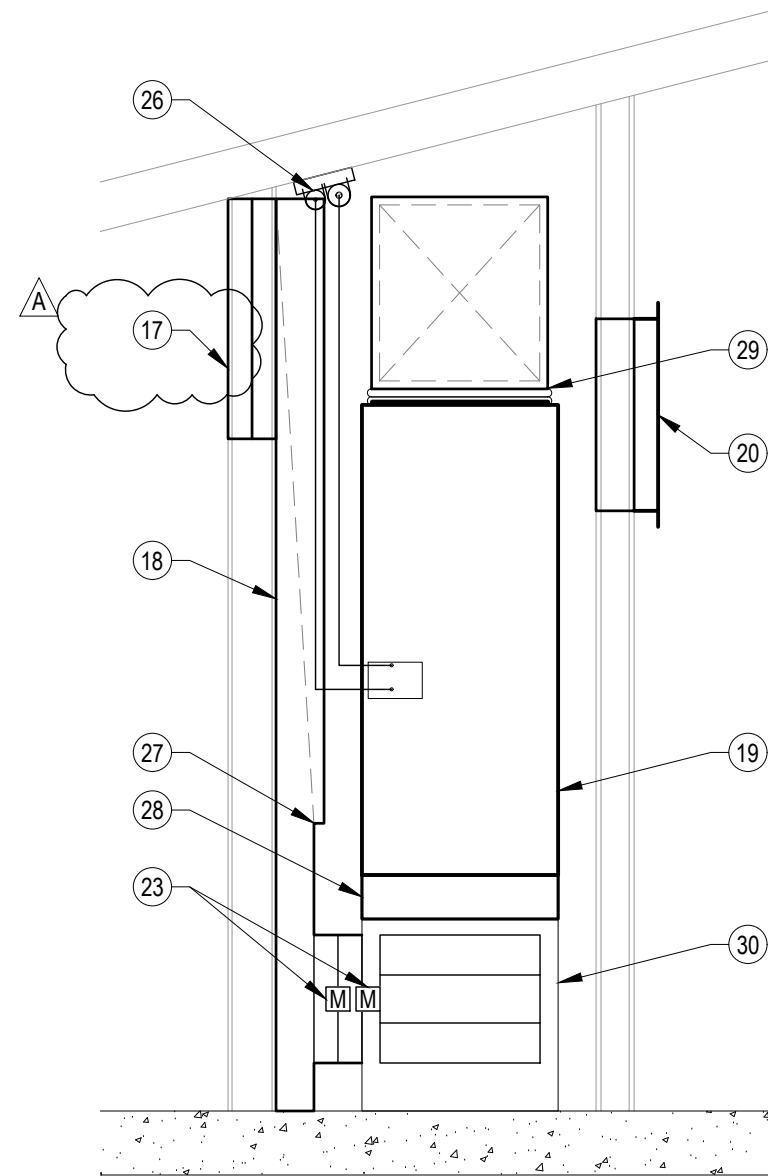


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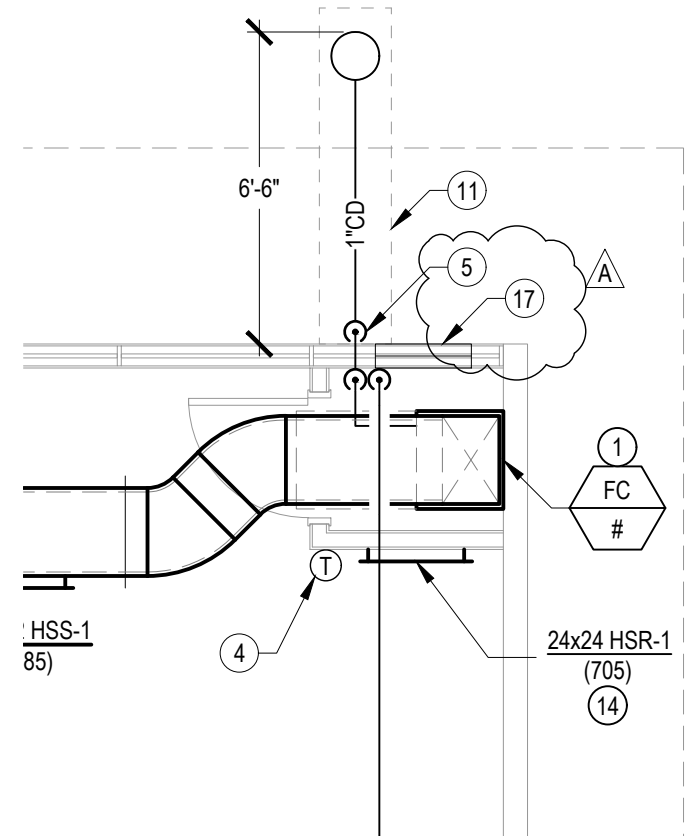
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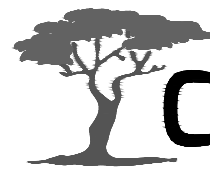
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		SAN MATEO-FOSTER CITY SCHOOL DISTRICT	
387 S. 1st Street, Suite 300 San Jose, CA., 95113	tel: (408) 300 - 5160 fax: (408) 300 - 5121	FILE NO.:	41-26
		APPL NO.:	01-119557
		JOB NO.	2021005.07
		DATE	11/24/2021
		SHEET REF. SHEET MP2.05 AD1-MP2.05a	



5
SECTION - ENCLOSURE
 MP2.05 SCALE: NONE



1
ENLARGED PLAN - TYPICAL CLASSROOM
 MP2.05 SCALE: 1/4" = 1'-0"



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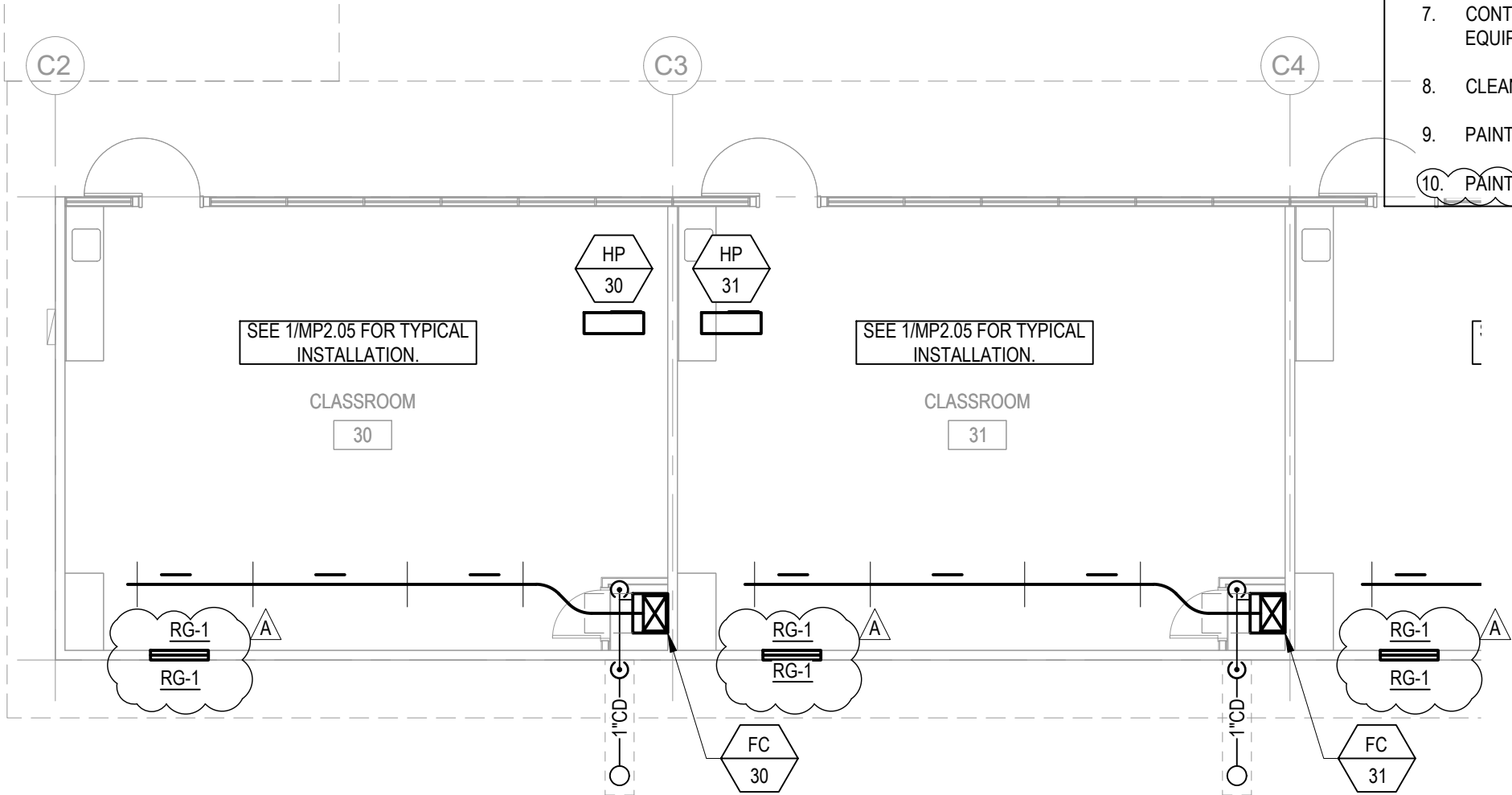
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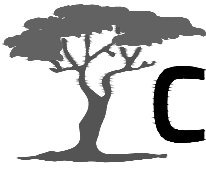
SHEET
 REF. SHEET MP2.05
AD1-MP2.05b

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING AND NEW BUILDING STRUCTURES, SERVICES AND OWNER'S PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
2. COORDINATE THE LOCATIONS OF ROOF/ WALL OPENINGS, PENETRATIONS, DUCTWORK AND ALL MECHANICAL EQUIPMENT WITH RESPECT TO BUILDING STRUCTURE AND OTHER BUILDING SERVICES TO AVOID CONFLICT.
3. EQUIPMENT MOUNTING DETAIL REFERENCES SHOWN ON SCHEDULES ON SHEET MP0.02.
4. FOR CLARITY, ABANDONED CD PIPING AND (E) GAS MAINS ARE NOT SHOWN ON THIS PLAN. SEE MP2.01.
5. PAINT ALL EXPOSED DUCTWORK, SUPPORTS, AND REGISTERS TO MATCH ADJACENT. ^A
6. SEE DETAIL 7/MP6.01 FOR PIPE SUPPORT ON ROOF.
7. CONTRACTOR TO PROVIDE AND INSTALL THERMOSTAT WIRING AND ASSOCIATED CONDUITS FOR ALL NEW HVAC EQUIPMENT AND CONNECTIONS.
8. CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.
9. PAINT HEAT PUMPS ON ROOF TO MATCH (E) ROOF COLOR.
10. PAINT ALL EXPOSED CONDENSATE PIPING AT EXTERIOR TO MATCH ADJACENT. ^A



2 FLOOR PLAN - BLDG C - NEW - MECHANICAL & PLUMBING
MP2.06 SCALE: 1/8" = 1'-0"



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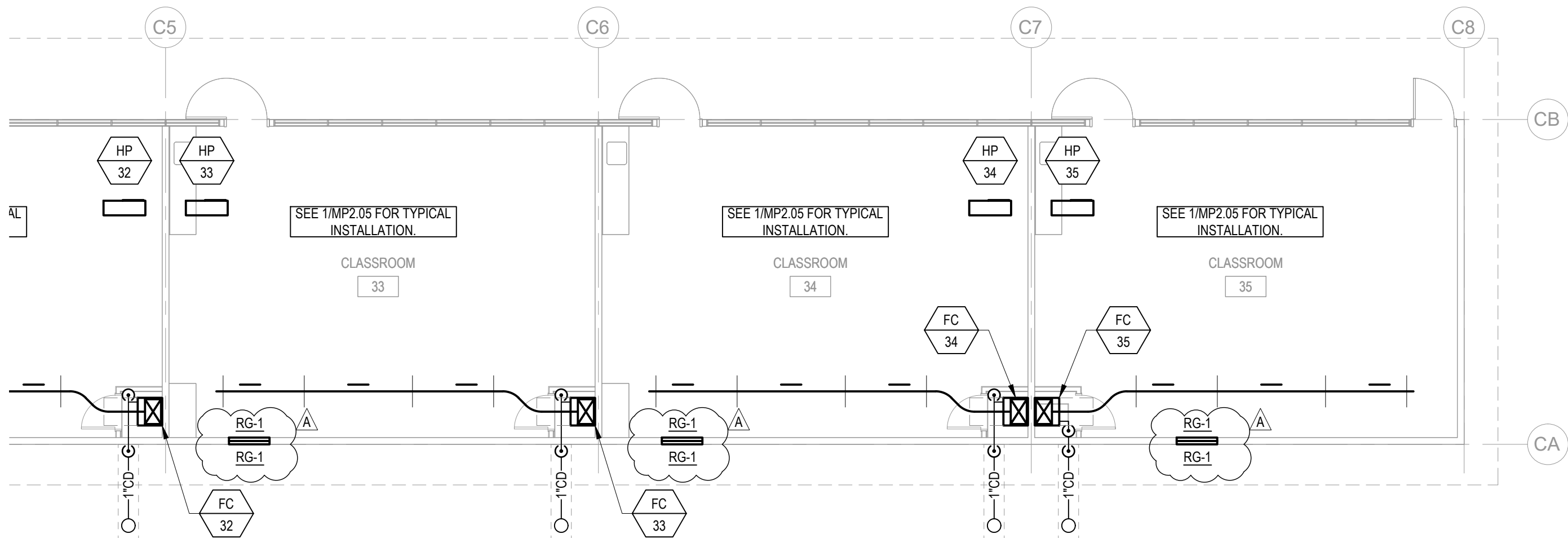
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DATE 11/24/2021

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REF. SHEET MP2.06

AD1-MP2.06a



2
MP2.06

FLOOR PLAN - BLDG C - NEW - MECHANICAL & PLUMBING


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

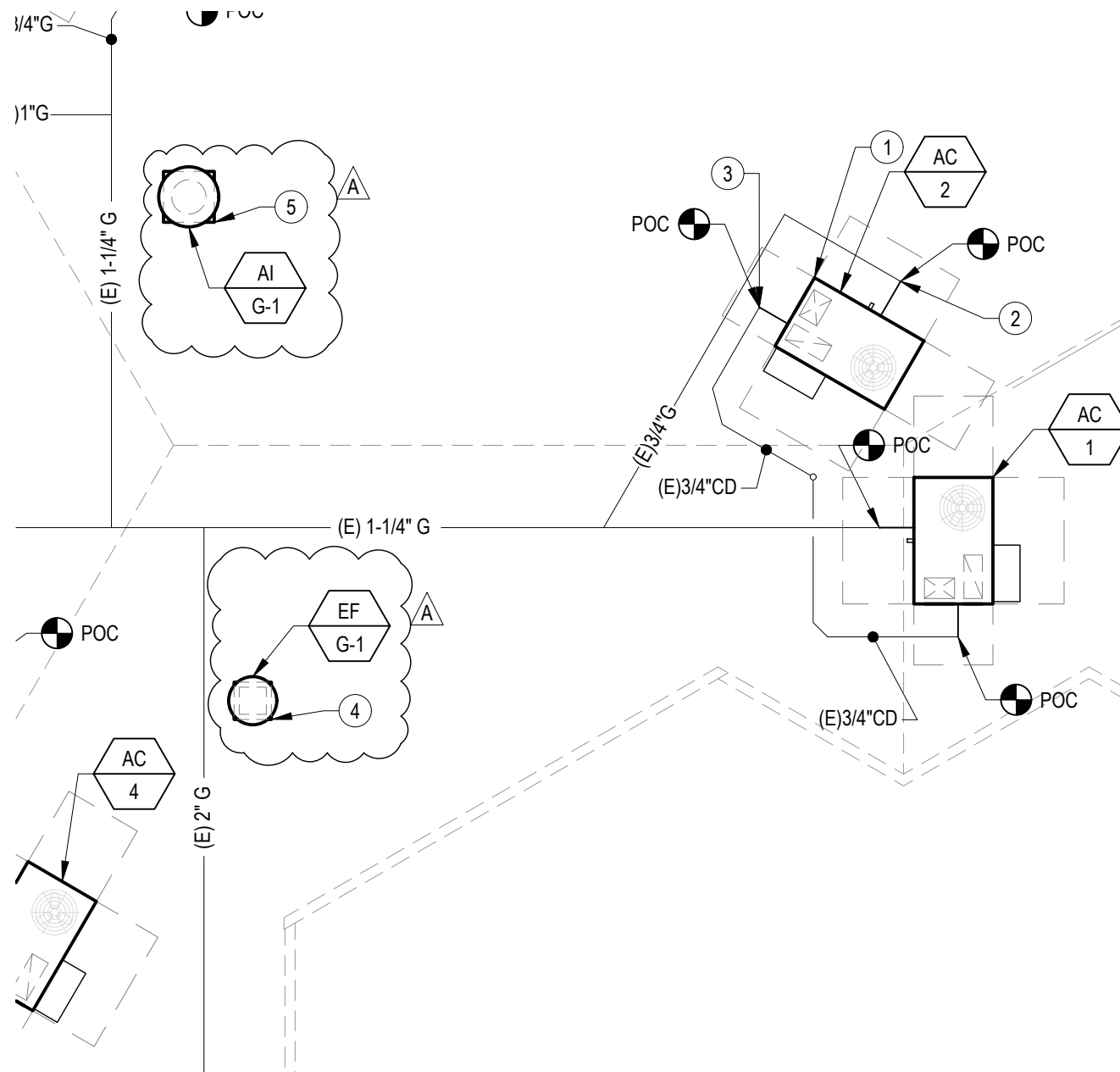


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DATE	11/24/2021		
		SHEET REF. SHEET MP2.06 AD1-MP2.06b	



GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING AND NEW BUILDING STRUCTURES, SERVICES AND OWNER'S PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION.
- COORDINATE THE LOCATIONS OF ROOF/ WALL OPENINGS, PENETRATIONS, DUCTWORK AND ALL MECHANICAL EQUIPMENT WITH RESPECT TO BUILDING STRUCTURE AND OTHER BUILDING SERVICES TO AVOID CONFLICT.
- EQUIPMENT MOUNTING DETAIL REFERENCES SHOWN ON SCHEDULES ON SHEET MP0.02.
- FOR CLARITY, ABANDONED CD PIPING AND (E) GAS MAINS ARE NOT SHOWN ON THIS PLAN. SEE MP2.01.
- PAINT ALL EXPOSED DUCTWORK, SUPPORTS, AND REGISTERS TO MATCH ADJACENT.
- SEE DETAIL 7/MP6.01 FOR PIPE SUPPORT ON ROOF.
- CONTRACTOR TO PROVIDE AND INSTALL THERMOSTAT WIRING AND ASSOCIATED CONDUITS FOR ALL NEW HVAC EQUIPMENT AND CONNECTIONS.
- CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.
- PAINT HEAT PUMPS ON ROOF TO MATCH (E) ROOF COLOR.

NEW SHEET NOTES

- INSTALL NEW ROOFTOP AC UNIT ON NEW ROOF CURB. ENSURE CORRECT UNIT ORIENTATION AND CONNECT TO (E) SUPPLY AND RETURN DUCTWORK, TYP. OF (6).
- INSTALL NEW GAS PIPING FROM POC, TYP. (DOWNSTREAM OF SHUTOFF VALVE) AND CONNECT TO NEW AC UNIT. INSTALL NEW GAS PIPING WITH DIRT LEG AND FLEX CONNECTION AT NEW AC UNIT. CONNECT TO AC UNIT PER 9/MP6.01.
- INSTALL NEW CONDENSATE DRAIN PIPING WITH NEW TRAP AND CONNECT TO (E) CD PIPE, TYP. CONNECT TO AC UNIT PER 9/MP6.01.
- INSTALL EXHAUST FAN ON ROOF. LOCATE 10 FT MIN FROM ALL AIR INTAKE OPENINGS.
- INSTALL AIR INTAKE HOOD ON ROOF. LOCATE 10 FT MIN FROM EXHAUST AIR OPENINGS.

1
MP2.07

PARTIAL ROOF PLAN - BLDG G - NEW - MECHANICAL & PLUMBING

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



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SAN MATEO-FOSTER CITY SCHOOL DISTRICT

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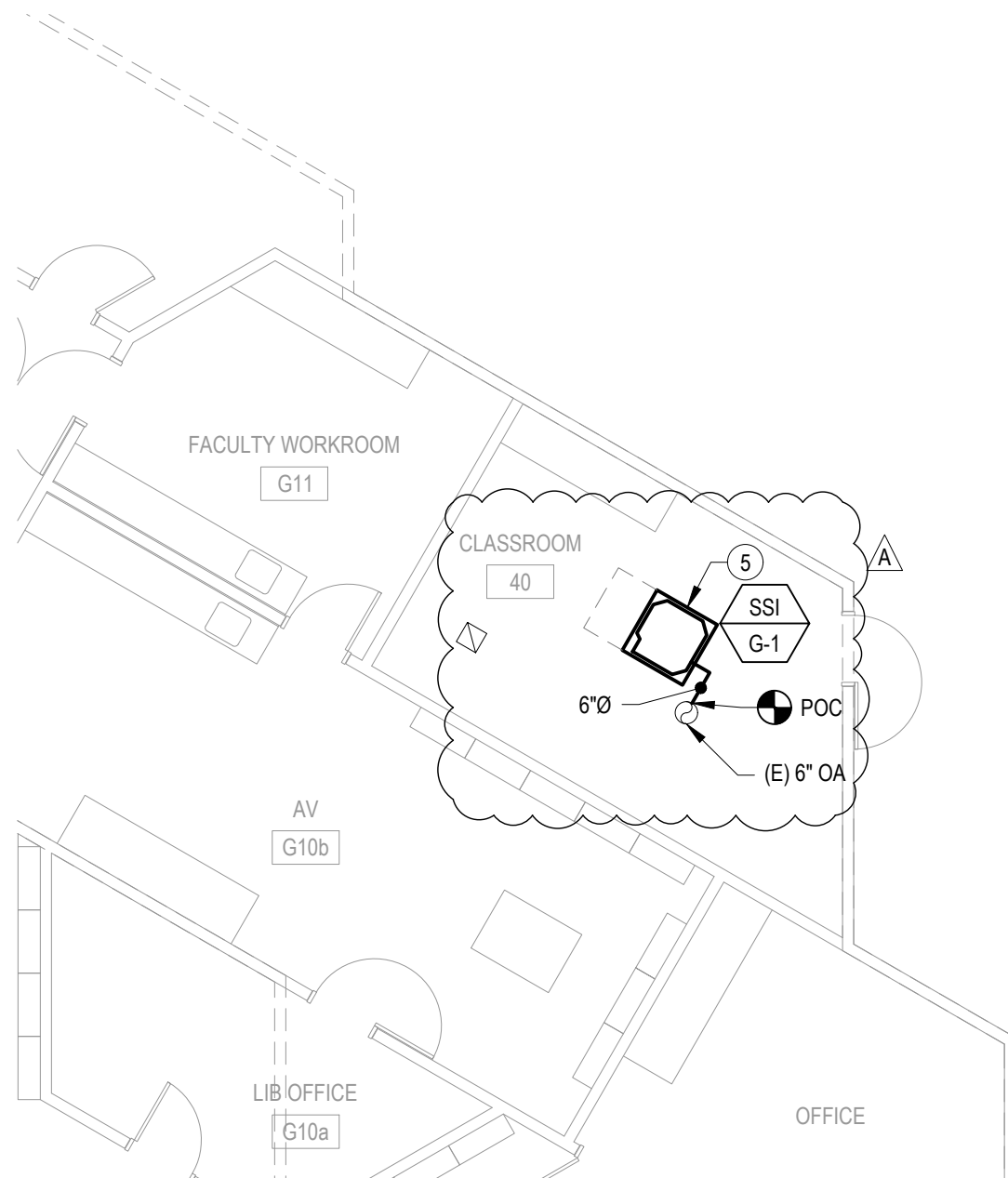
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SHEET REF. SHEET MP2.07

AD1-MP2.07



BLDG G CLASSROOM 40 PARTIAL FLOOR PLAN - NEW

2
MP2.08

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

NEW SHEET NOTES

1. INSTALL NEW ROOFTOP AC UNIT ON NEW ROOF CURB. ENSURE CORRECT UNIT ORIENTATION AND CONNECT TO (E) SUPPLY AND RETURN DUCTWORK, TYP OF (13).
2. INSTALL NEW GAS PIPING FROM POC, TYP. (DOWNSTREAM OF SHUTOFF VALVE) AND CONNECT TO NEW AC UNIT. INSTALL NEW GAS PIPING WITH DIRT LEG AND FLEX CONNECTION AT NEW AC UNIT. CONNECT TO AC UNIT PER 9/MP6.01.
3. INSTALL NEW CONDENSATE DRAIN PIPING WITH NEW TRAP AND CONNECT TO (E) CD PIPE, TYP. CONNECT TO AC UNIT PER 9/MP6.01.
4. INSTALL HEAT PUMP CONDENSING UNIT ON (E) CURB. INSTALL REFRIGERANT PIPING FROM HEAT PUMP TO FAN COIL. USE EXISTING ROOF PENETRATIONS.
5. INSTALL FAN COIL INSIDE CLASSROOM. CONNECT TO (E) CD PIPING. INSTALL THERMOSTAT IN SAME LOCATION AS EXISTING THERMOSTAT AND WIRE TO NEW FAN COIL. INSTALL OUTSIDE AIR DUCT FROM SSI-G-1 TO (E) 6" OUTSIDE AIR DUCT.

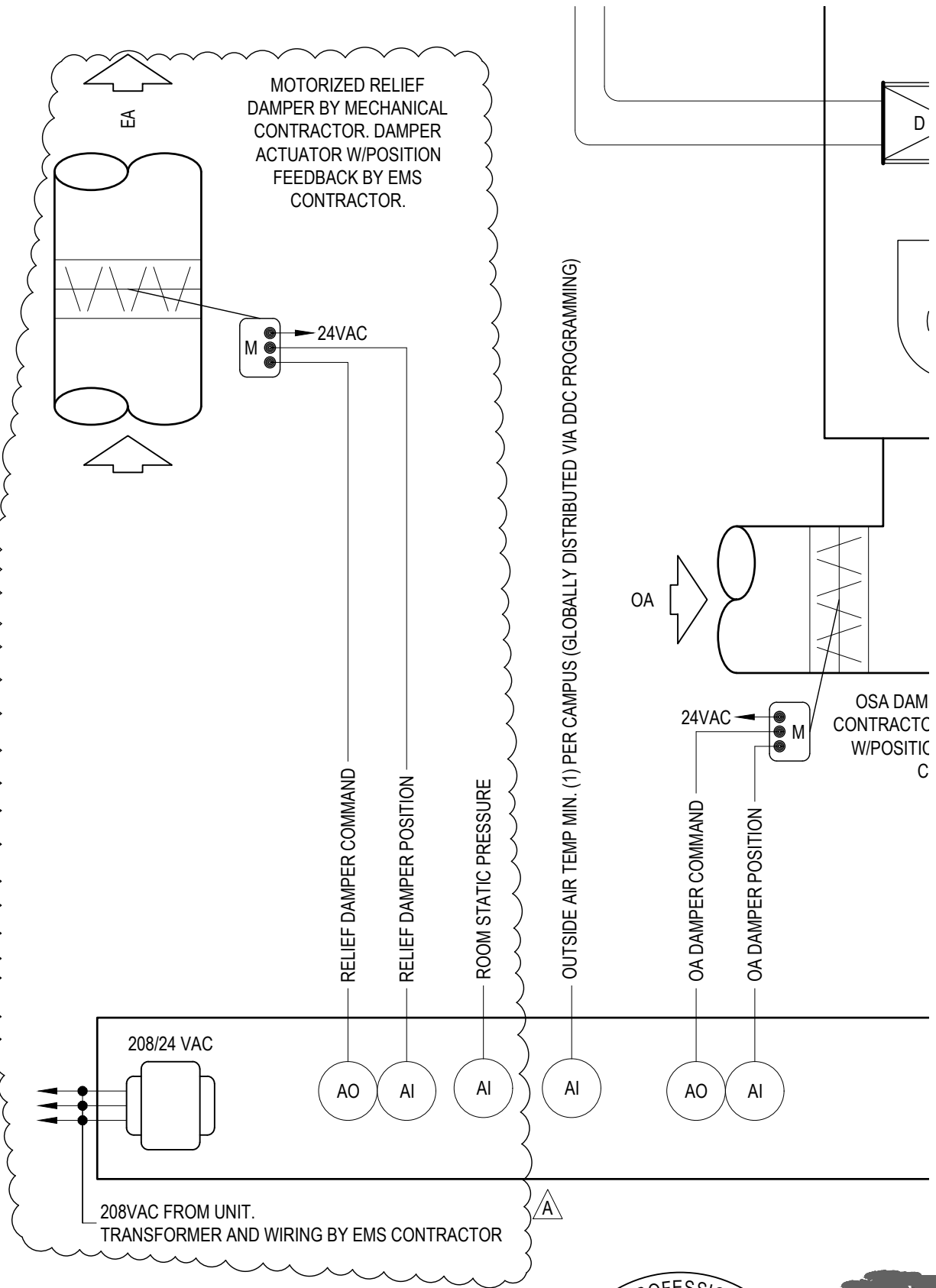


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		APPL NO.: 01-119557	REF. SHEET MP2.08
		JOB NO. 2021005.07	AD1-MP2.08
		DATE 11/24/2021	



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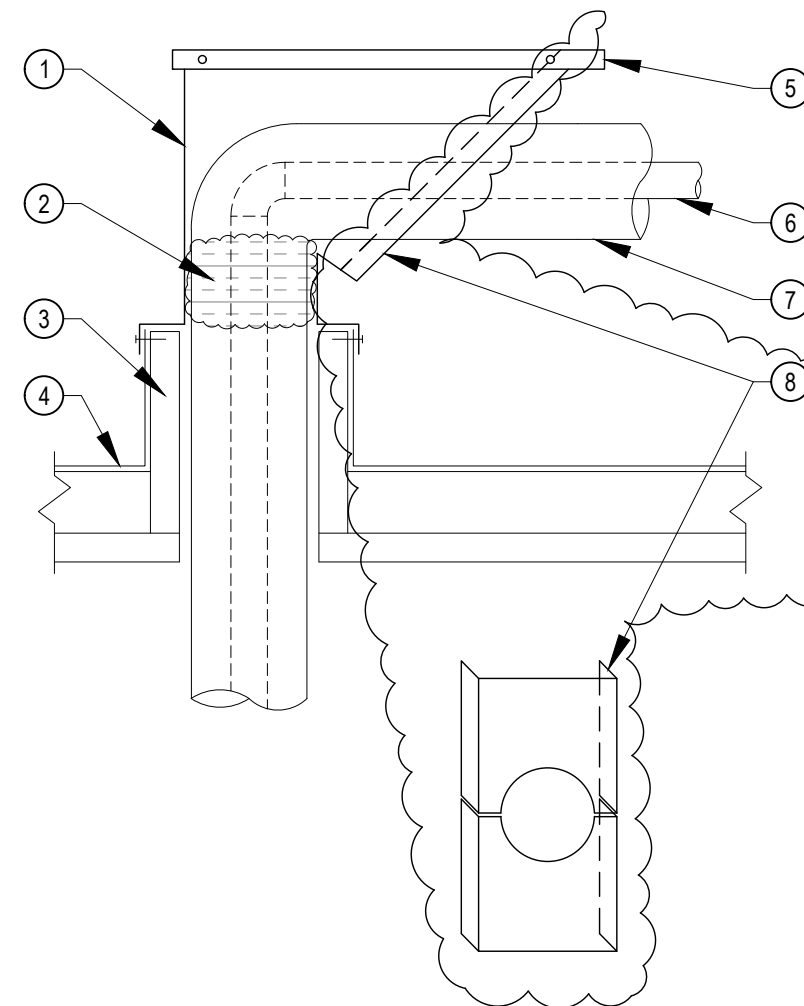
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BOREL MIDDLE SCHOOL -
HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

FILE NO.: 41-26
APPL NO.: 01-119557
JOB NO.: 2021005.07
DATE: 11/24/2021

SHEET
REF. SHEET MP5.01
AD1-MP5.01



○ DETAIL NOTES:

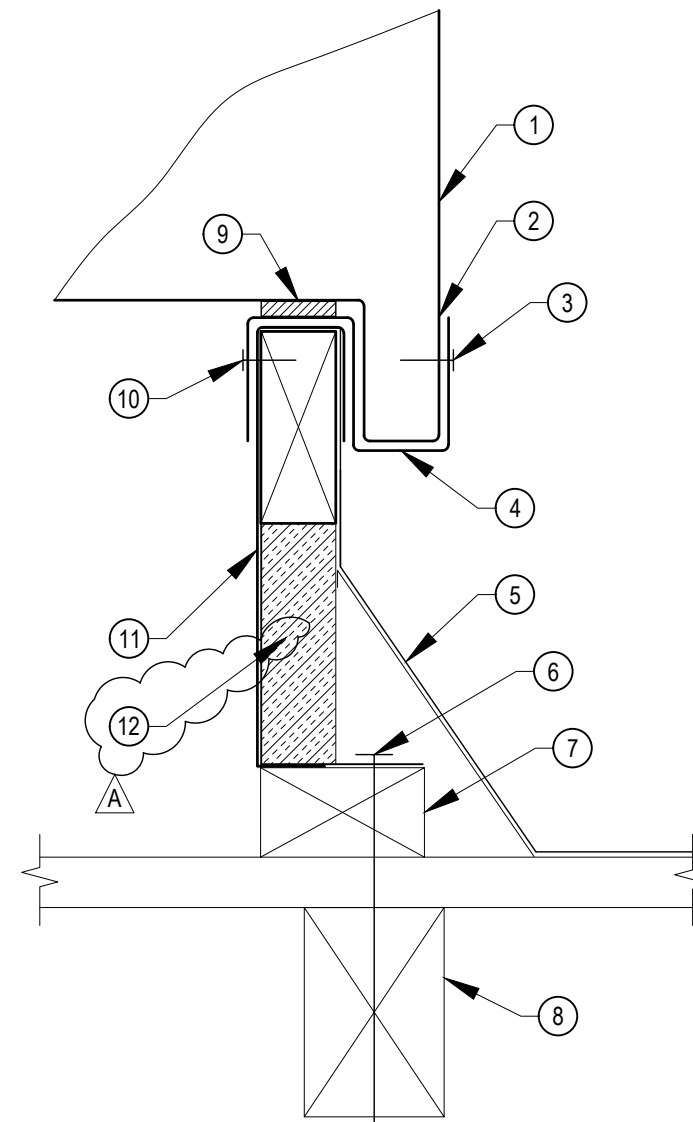
1. GALVANIZED SHEET METAL ROOF JACK WITH CAP.
2. FILL OPENING WITH FOAM.
3. ROOF OPENING. SEE STRUCTURAL DRAWING FOR CURB, SEE ARCHITECT'S DRAWINGS FOR FLASHING.
4. ROOFING.
5. REMOVABLE SHEET METAL COVER ATTACHED WITH TWO (2) #8 SELF TAPPING SCREWS EACH SIDE, PAINTED.
6. PIPE.
7. PIPE INSULATION.
8. 2 PIECE 20 GA. GALVANIZED SHEET METAL COVER W/ 1-1/2" FLANGES ATTACHED W/ #12 SMS @4" O.C.

NOTES:

1. EXPOSED PIPING SHALL HAVE ALUMINUM JACKET.

4 PIPING ROOF JACK

N.T.S.



○ DETAIL NOTES:

1. UNIT. FOR LOCATION, SEE PLANS.
2. UNIT BASE RAIL.
3. SECURE HOLD DOWN TO UNIT BASE RAIL WITH (4) #10 x1/2" TEK SCREWS.
4. MICROMETL UNIT HOLD DOWNS, TYPICAL OF 2 PER SIDE.
5. ROOFING, SEE ARCHITECTS DRAWINGS.
6. (E) 5/8"Ø THRU BOLT @ 36" O.C. VERIFY IN FIELD, RE-ATTACH TO CURB.
7. (E) LEVELING RAIL.
8. (E) 4X6 BLOCKING.
9. SEALING GASKET.
10. SECURE HOLD DOWN TO UNIT CURB WITH (4) #10 x 1/2" TEK SCREWS, TYP.
11. MICROMETL ROOF CURB W/ WOOD NAILER. MATCH EXISTING CURB.
12. RIGID INSULATION.

2 ROOFTOP AIR CONDITIONER MOUNTING ON ROOF CURB A

N.T.S.

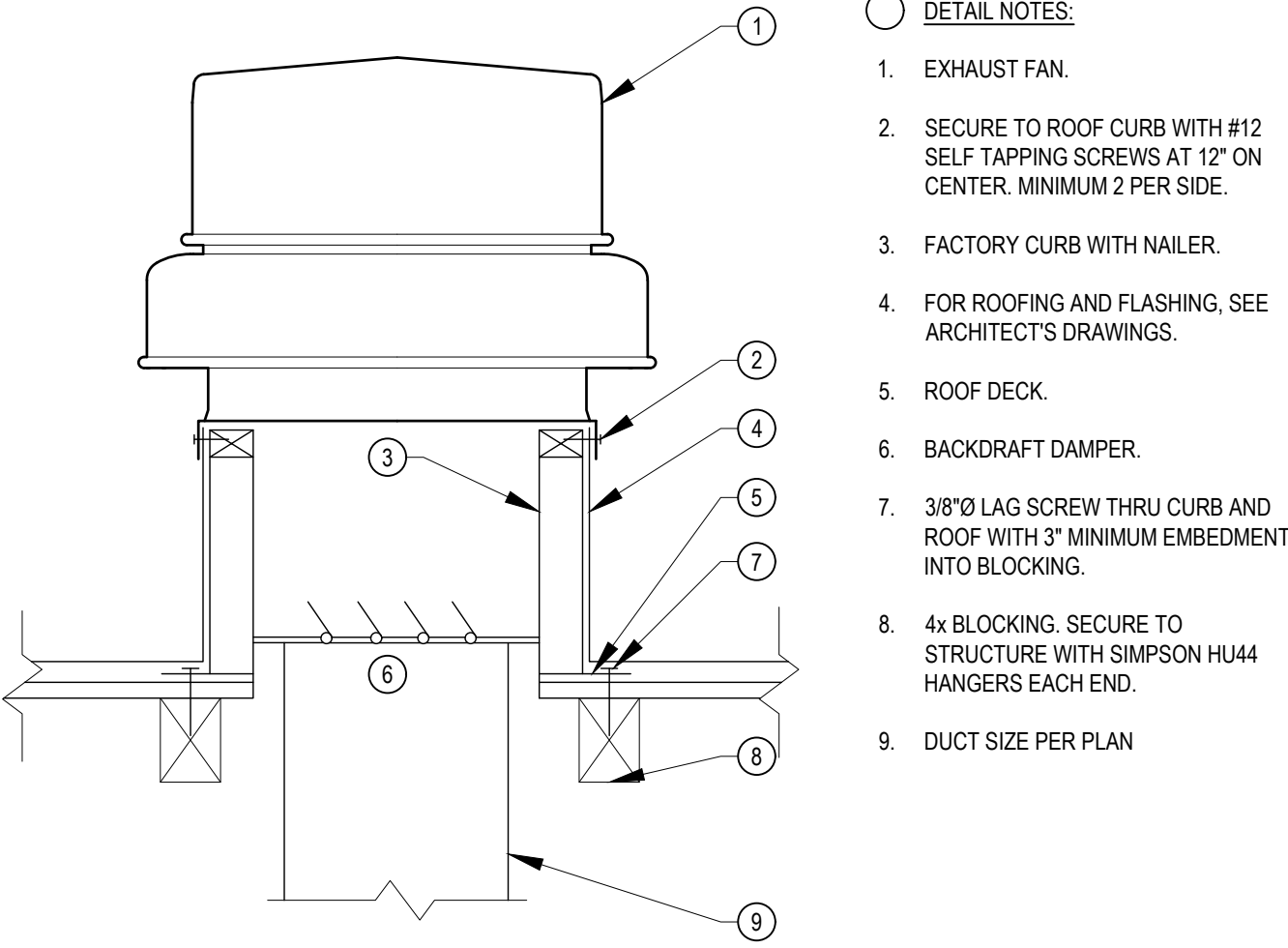


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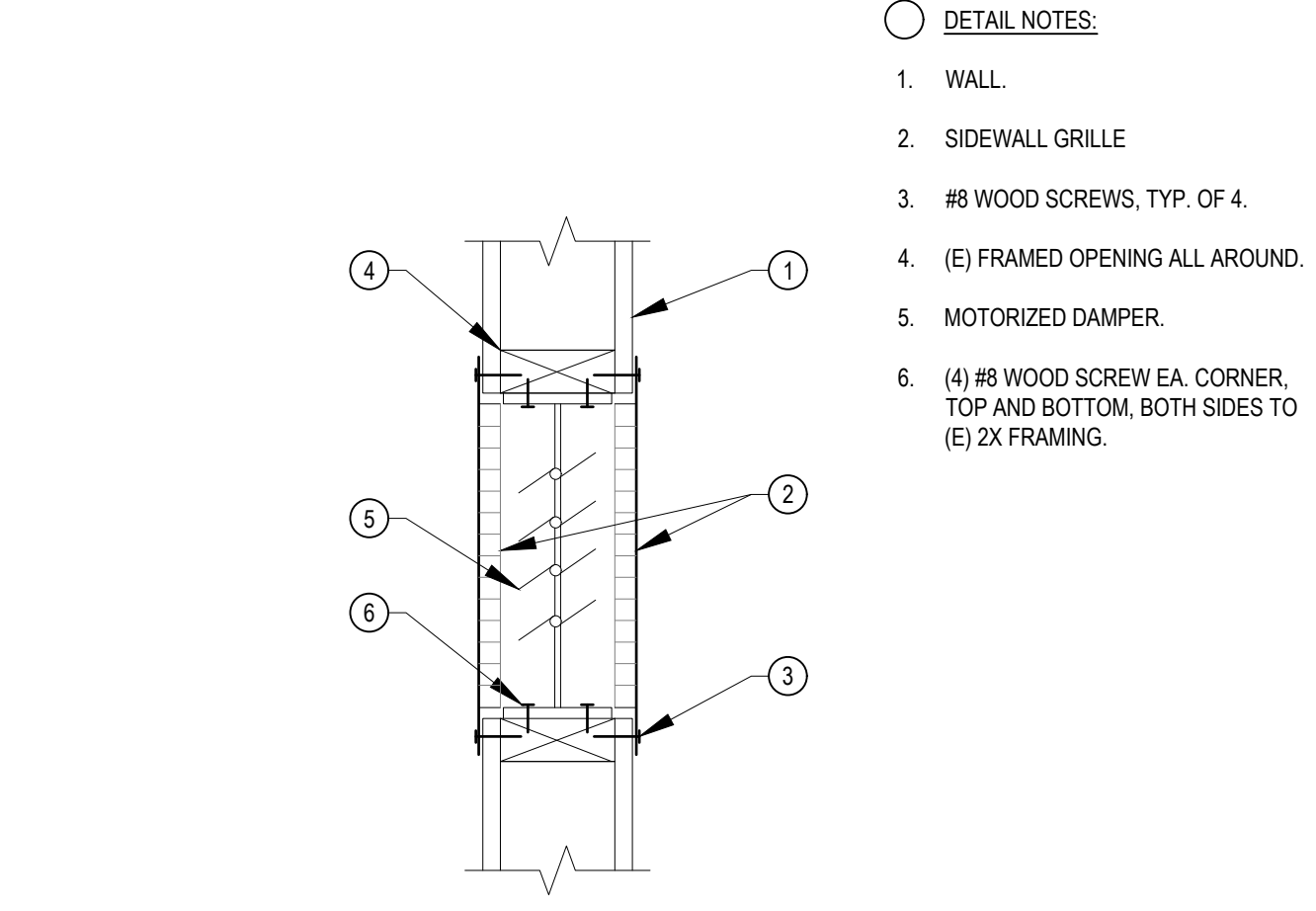
HVAC, Plumbing, Fire Protection
Building Commissioning
Industrial Refrigeration
Environmental Compliance
Training & Technical Support

CEG JOB NO: 21038

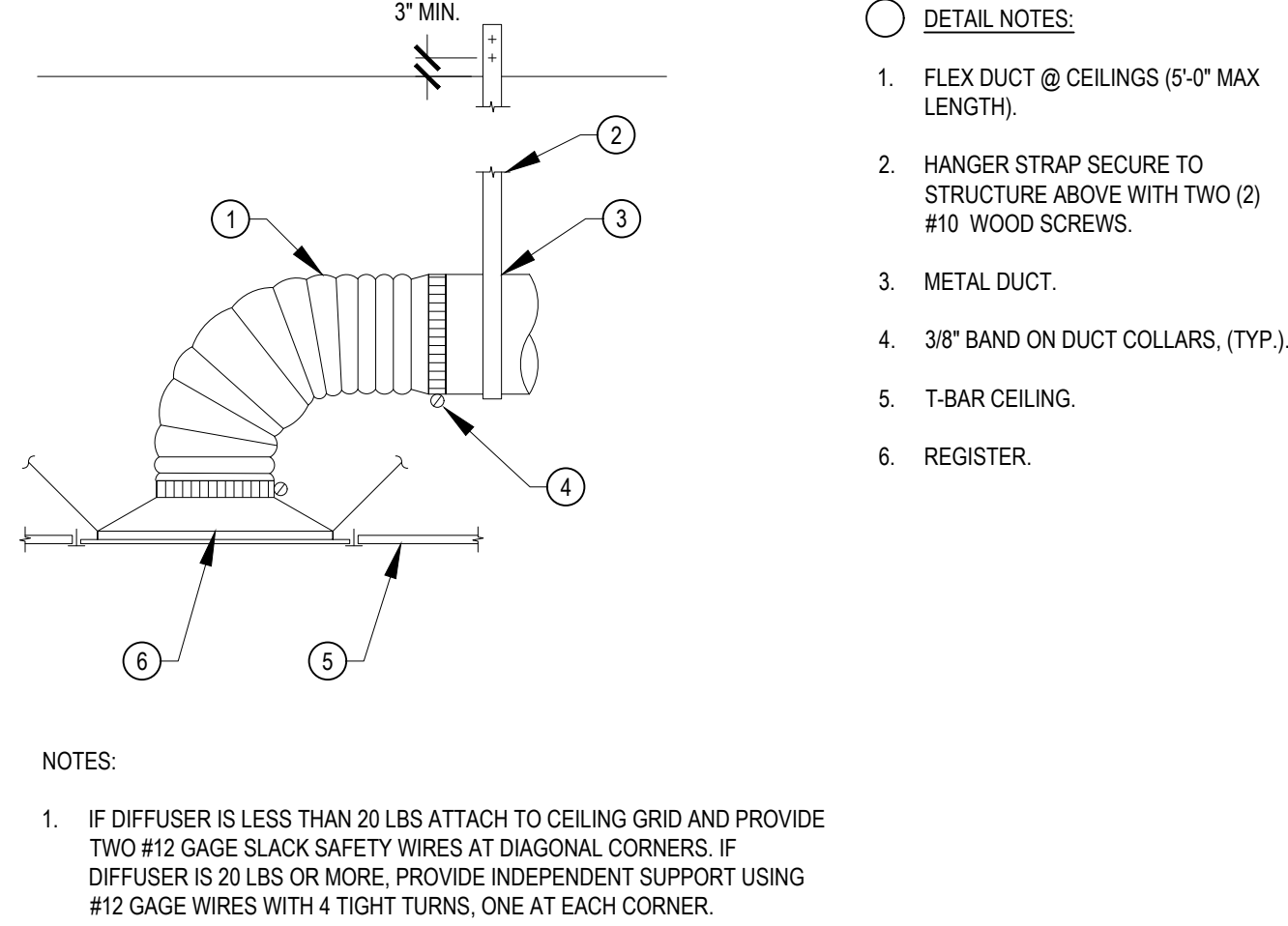
		BOREL MIDDLE SCHOOL - HVAC REPLACEMENT	
		SAN MATEO-FOSTER CITY SCHOOL DISTRICT	
387 S. 1st Street, Suite 300 San Jose, CA., 95113	tel: (408) 300 - 5160 fax: (408) 300 - 5121	FILE NO.: 41-26	SHEET
		APPL NO.: 01-119557	REF. SHEET MP6.01
		JOB NO. 2021005.07	AD1-MP6.01
		DATE 11/24/2021	



9 EXHAUST FAN MOUNTING N.T.S.



2 RELIEF DAMPER MOUNT N.T.S.

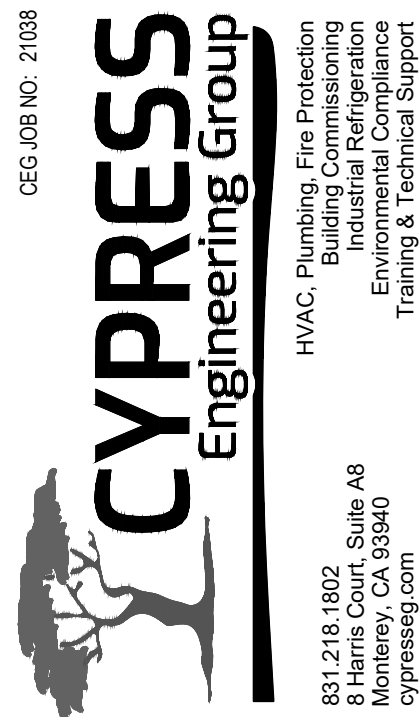


3 REGISTER DETAIL - T-BAR CEILING MOUNTED N.T.S.

PROJECT
BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



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STATE

DSA FILE NUMBER 41-26
APPL # 01-119557

REVISIONS

No. Description Date

MILESTONES

DD
90% CD
DSA SUB 06/04/2021
BACKCHECK 10/06/2021

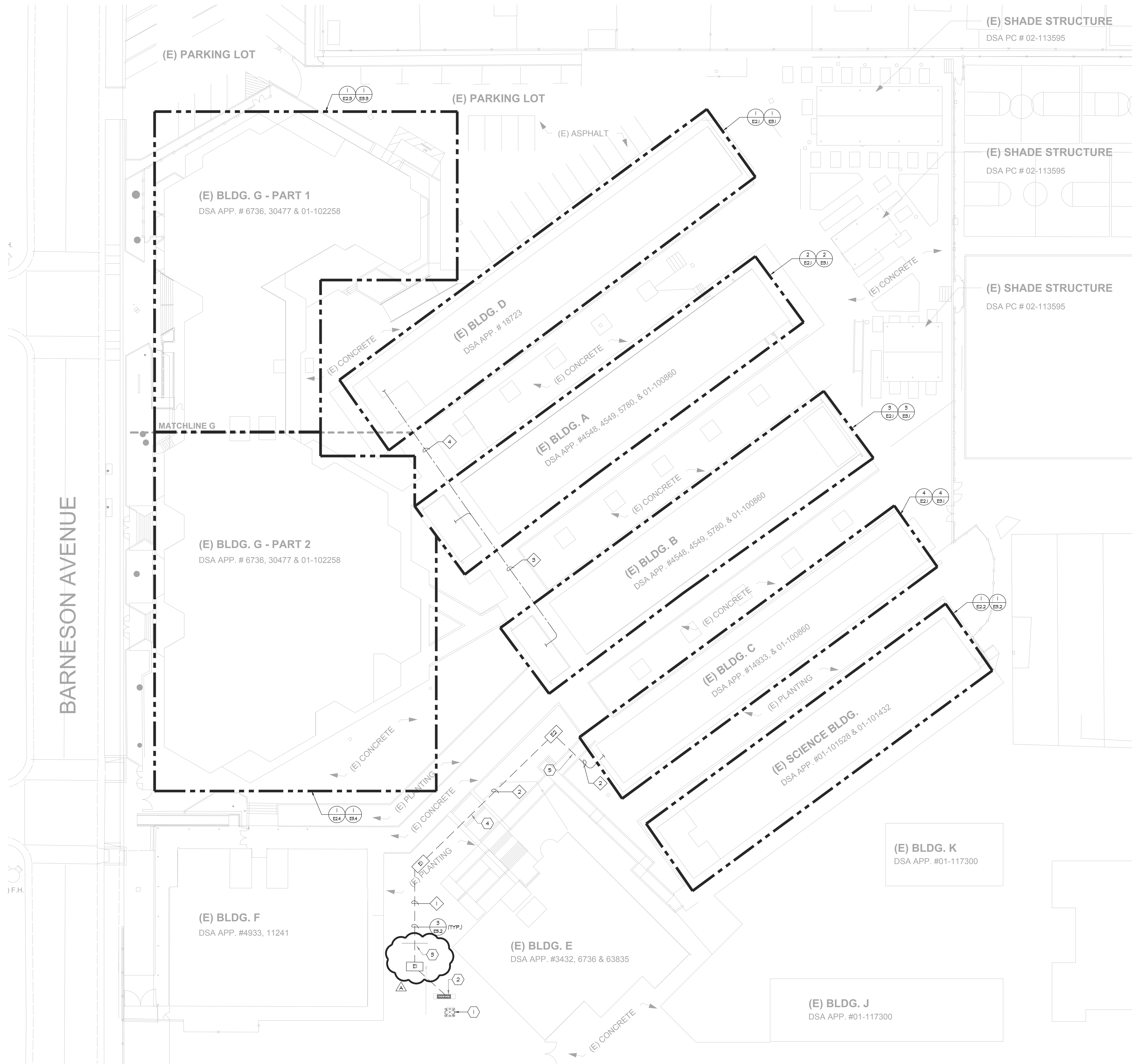
SHEET

DETAILS-
MECHANICAL &
PLUMBING

DATE 11/24/2021

JOB # 2021005.07

SHEET # AD1-
MP6.02



GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE UNDERGROUND REQUIREMENTS WITH ALL OTHER TRADES TO AVOID CONFLICTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SAN CUTTING AND REMOVAL OF EXISTING SURFACES TO FACILITATE UNDERGROUND SYSTEMS. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED AND CUT SURFACES TO MATCH ADJACENT.
3. CONTRACTOR TO SITE SURVEY EXISTING CONDITIONS AND LOCATIONS OF EXISTING UNDERGROUND SYSTEMS, WHERE NEW TRENCH WORK OCCURS PRIOR TO BIDDING. CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO ENSURE EXISTING UNDERGROUND SYSTEMS/CONDUIT/PIPES ARE NOT DAMAGED DURING INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS REQUIRED IN THE EVENT THE EXISTING UNDERGROUND SYSTEMS ARE DAMAGED AS A RESULT OF THE NEW ELECTRICAL TRENCH WORK.
4. ALL ON SITE TRENCH SHALL BE INSTALLED PER 3/ ES.2.
5. SEE DEMO SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
6. SEE NEW SINGLE LINE DIAGRAM FOR FEEDER CABLE AND CONDUIT REQUIREMENTS.

SHEET NOTES:

1. EXISTING PG#E TRANSFORMER TO REMAIN.
2. EXISTING MAIN SWITCHBOARD. STUB NEW CONDUIT INTO EXISTING SWITCHBOARD AS REQUIRED.
3. EXISTING RETAINING WALL AT THIS LOCATION. ROUTE NEW CONDUIT AS REQUIRED.
4. EXISTING STAIRS AT THIS LOCATION. ROUTE NEW CONDUIT AS REQUIRED.
5. EXISTING RAMP AT THIS LOCATION. ROUTE NEW CONDUIT AS REQUIRED.

CONDUIT SCHEDULE:

1. (N) (2) 2" - PNL 1CM
(N) (2) 4" - FUTURE BLDG 1"
2. (N) (2) 2" - PNL 1CM
3. (N) (2) 3" - PNL 1CM
(N) (2) 3" - PNL 1CM
4. (N) (2) 3" - PNL 1CM

PULLBOX SCHEDULE:

1. NEW B3048 ELECTRIC / POWER PULLBOX WITH TRAFFIC RATED LID LABEL LID POWER.
2. NEW B2436 ELECTRIC / POWER PULLBOX WITH TRAFFIC RATED LID LABEL LID POWER.

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PROJECT

BOREL MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER

S. FERRER

E16890

Exp. 06/30/21

ELECTRICAL

STATE OF CALIFORNIA

American Consulting Engineers

Electrical, Inc.

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San Jose, CA 95126
JOB # E121-0330-00

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DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No.	Description	Date
1	ADDENDUM 1	11/24/2021

MILESTONES

DD	
90% CD	
DSA SUB	06/04/2021
BACKCHECK	10/06/2021

SHEET

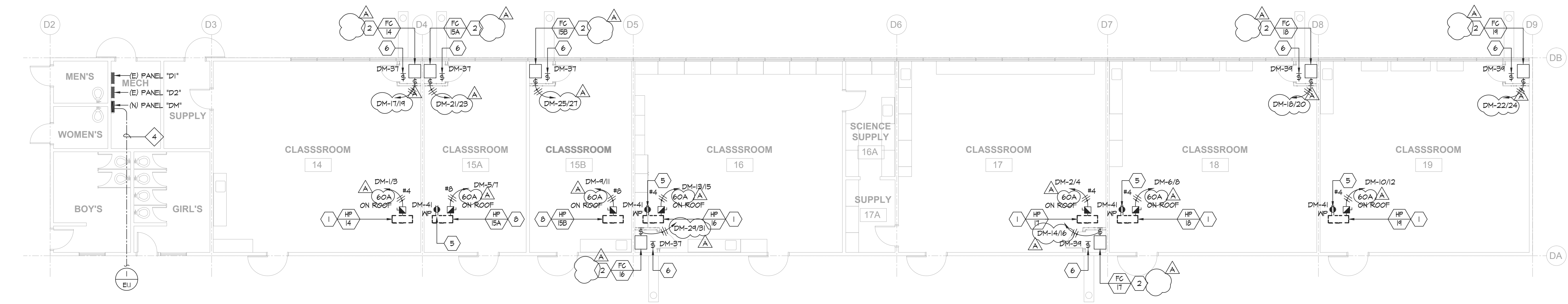
ELECTRICAL SITE PLAN

DATE 11/24/2021

JOB # 2021005.07

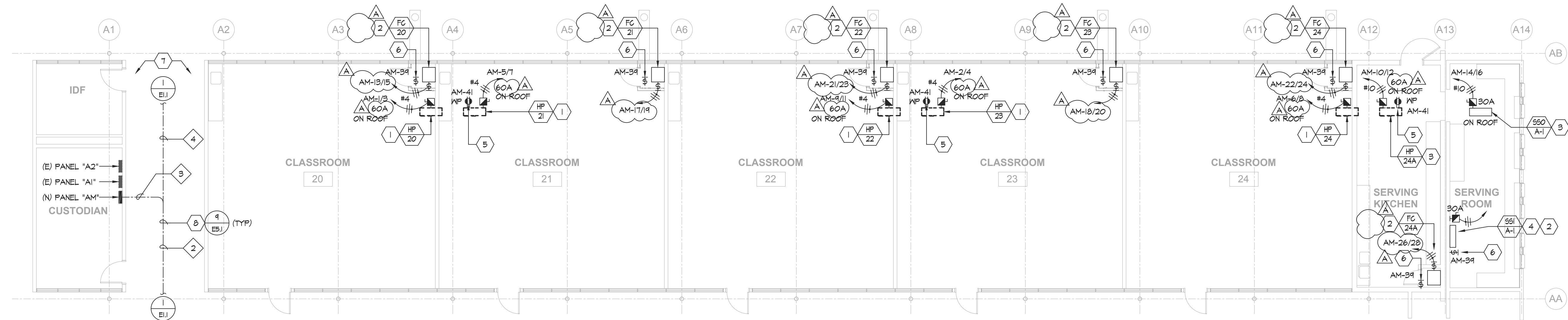
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E1.1



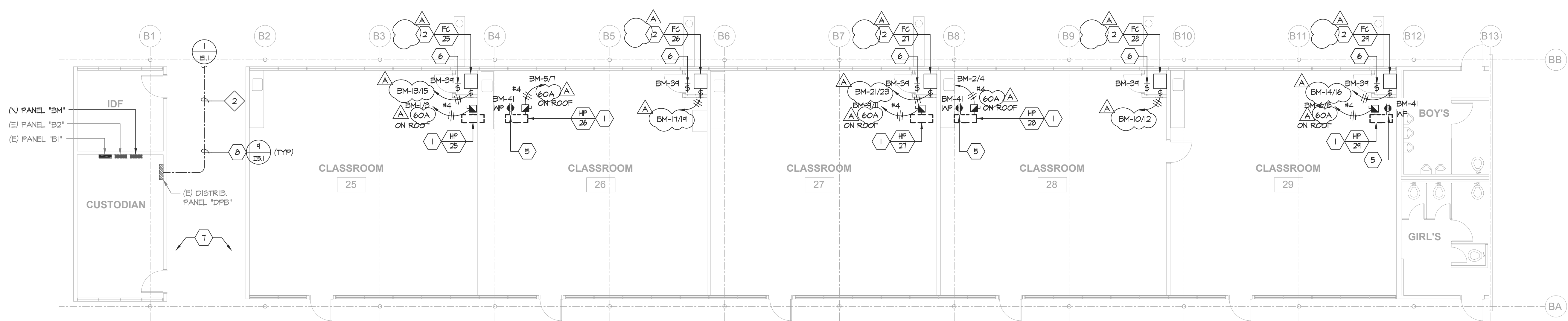
1 ELECTRICAL NEW FLOOR PLAN - BLDG D

E3.1 SCALE: 1/8" = 1'-0"



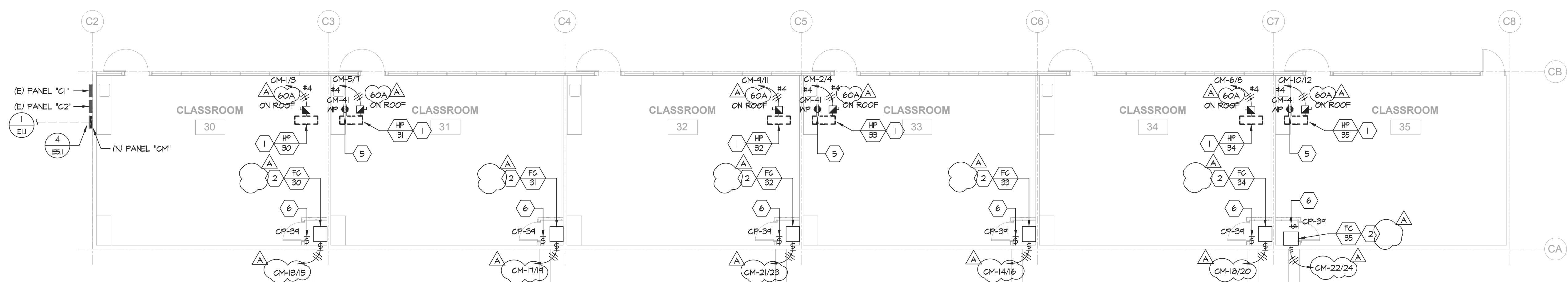
2 ELECTRICAL NEW FLOOR PLAN - BLDG A

E3.1 SCALE: 1/8" = 1'-0"



3 ELECTRICAL NEW FLOOR PLAN - BLDG B

E3.1 SCALE: 1/8" = 1'-0"



4 ELECTRICAL NEW FLOOR PLAN - BLDG C

E3.1 SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- ALL CONDUITS SHALL BE ROUTED CONCEALED IN CEILING BELOW WHERE POSSIBLE. ALL EXPOSED CONDUITS SHALL BE PAINTED.
- CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND POINTS OF CONNECTION FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR. ADJUST LOCATION AND CONNECTION POINTS AS NEEDED.
- SEE PANEL SCHEDULES AND SINGLE LINE DIAGRAM FOR POWER CONNECTION REQUIREMENTS.
- COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- FUSED AND UNFUSED DISCONNECT SWITCHES SHALL BE 600V RATED, HEAVY DUTY CYCLE. FUSES FOR MECHANICAL UNITS SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATION.
- PROVIDE CONDUIT ROOF PENETRATIONS REQUIRED. COORDINATE ROOF PENETRATION LOCATIONS WITH MECHANICAL'S PIPING ROOF PENETRATIONS. ROOF PENETRATION SHALL BE PER DETAIL 4/MP6.01.

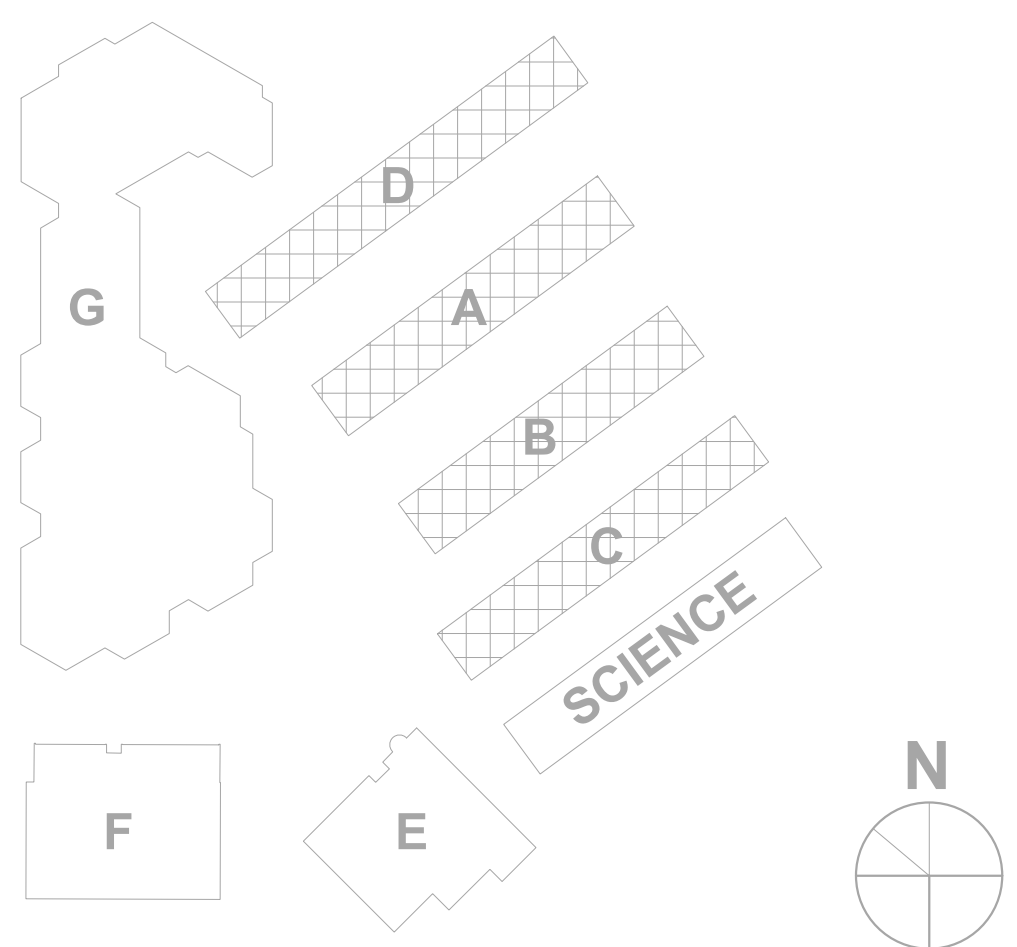
SHEET NOTES:

- NEW 60A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW 30A-2P, NEMA-1, MOTOR-RATED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW 30A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- INDOOR UNIT IS POWER BY THE OUTDOOR UNIT. ROUTE HOMERUN CIRCUIT TO ASSOCIATED OUTDOOR UNIT. REFER TO MECHANICAL SCHEDULE MPO.02 FOR ADDITIONAL REQUIREMENTS.
- PROVIDE NEW WEATHERPROOF GFCI RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC MP101MXD "BOSS".
- PROVIDE MOTOR RATED SWITCH AND 120V POWER FOR CONDENSATION PUMP.
- MOUNT CONDUIT ADJACENT TO CHASE AND ROUTE ACROSS THE HALLWAY.
- NEW 60A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- ROUTE CONDUIT BELOW CANOPY.

CONDUIT SCHEDULE:

- (N) (2) 2" C - FNL CM'
- (N) (2) 3" C - FNL AM'
- (N) (2) 3" C - FNL DM'
- (N) (2) 3" C - FNL AM'
- (N) (2) 3" C - FNL DM'

BUILDING KEY



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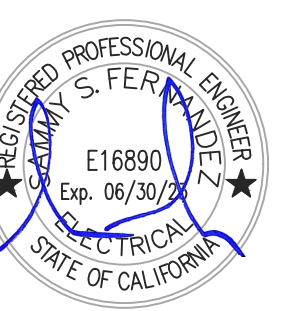
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PROJECT

**BOREL MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



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San Jose, CA 95126
JOB # E3.1/033.00

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DSA FILE NUMBER

41-26

APPL #

01-119557

REVISIONS

No. Description Date

ADDENDUM 1 11/24/2021

MILESTONES

DD

90% CD

DSA SUB 06/04/2021

BACKCHECK 10/06/2021

SHEET

**ELECTRICAL NEW
FLOOR PLANS -
BLDGS A, B, C & D**

DATE

11/24/2021

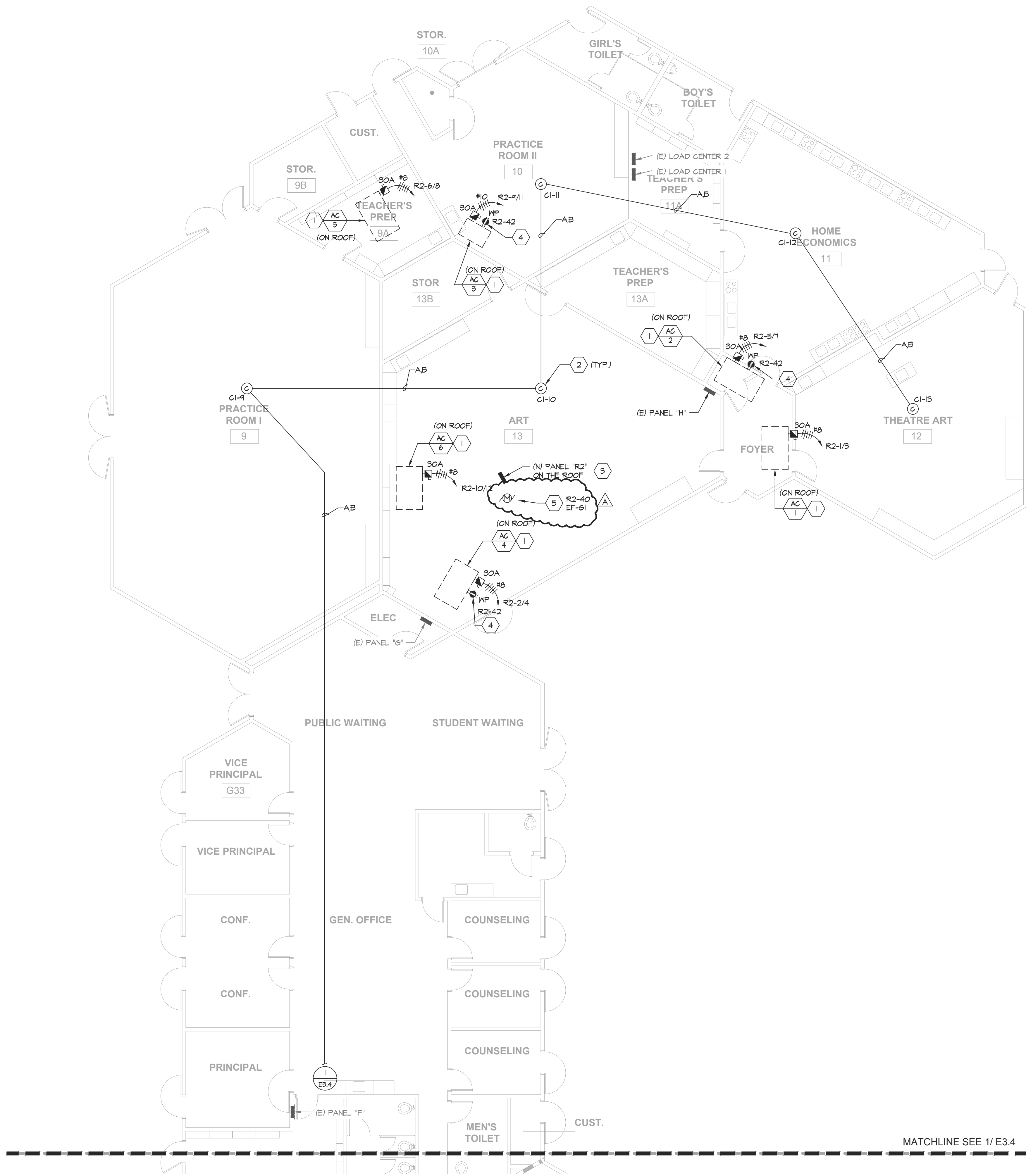
JOB #

2021005.07

SHEET #

AD-1

E3.1



1
E3.3

ELECTRICAL NEW PARTIAL FLOOR PLAN - BLDG G

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



GENERAL NOTES:

- ALL CONDUITS SHALL BE ROUTED CONCEALED IN CEILING BELOW WHERE POSSIBLE. ALL EXPOSED CONDUITS SHALL BE PAINTED.
- CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND POINTS OF CONNECTION FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR. ADJUST LOCATION AND CONNECTION POINTS AS NEEDED.
- SEE PANEL SCHEDULES AND SINGLE LINE DIAGRAM FOR POWER CONNECTION REQUIREMENTS.
- COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- FUSED AND UNFUSED DISCONNECT SWITCHES SHALL BE 600V RATED, HEAVY DUTY CYCLE. FUSES FOR MECHANICAL UNITS SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATION.
- SEE DETAIL 2(E5) FOR ROOF CONDUIT SUPPORT DETAIL.
- SEE DETAIL 3(E5) FOR NEMA-4 PULL BOX ON ROOF DETAIL.
- VISUAL NOTIFICATION IS NOT REQUIRED FOR CO DETECTION PER CBC 11B-215.1.
- ROOFTOP UNITS CIRCUIT HOMERUNS SHALL BE ROUTED EXPOSED ON THE ROOF TO THEIR DESIGNATED PANELS. PROVIDE CONDUIT SLEEPERS AND NEMA-4 PULL BOXES REQUIRED ON THE ROOF TO ROUTE PER CBC.

SHEET NOTES:

- NEW 30A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW CARBON MONOXIDE DETECTOR. ROUTE NEW SLG CONNECTION BACK TO EXISTING FIRE ALARM CONTROL PANEL NOTIFIER NFS2-3030 AS REQUIRED.
- INSTALL NEW PANEL IN THE EXISTING LOCATION ON THE EXISTING ROOF MOUNTED SUPPORTS. NEW PANEL IS THE SAME SIZE AND WEIGHT AS THE PREVIOUS PANEL. CONNECT NEW FEEDERS AND BRANCH CIRCUITS TO PANEL.
- PROVIDE NEW WEATHERPROOF (GFCI) RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC WPICIMD "BOSS".
- PROVIDE NEMA-3R, 120V MOTOR RATED SWITCH FOR ROOFTOP EXHAUST FAN. ROUTE 120V CIRCUIT TO THE PANEL AND CIRCUIT INDICATED. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.

CABLE SCHEDULE:

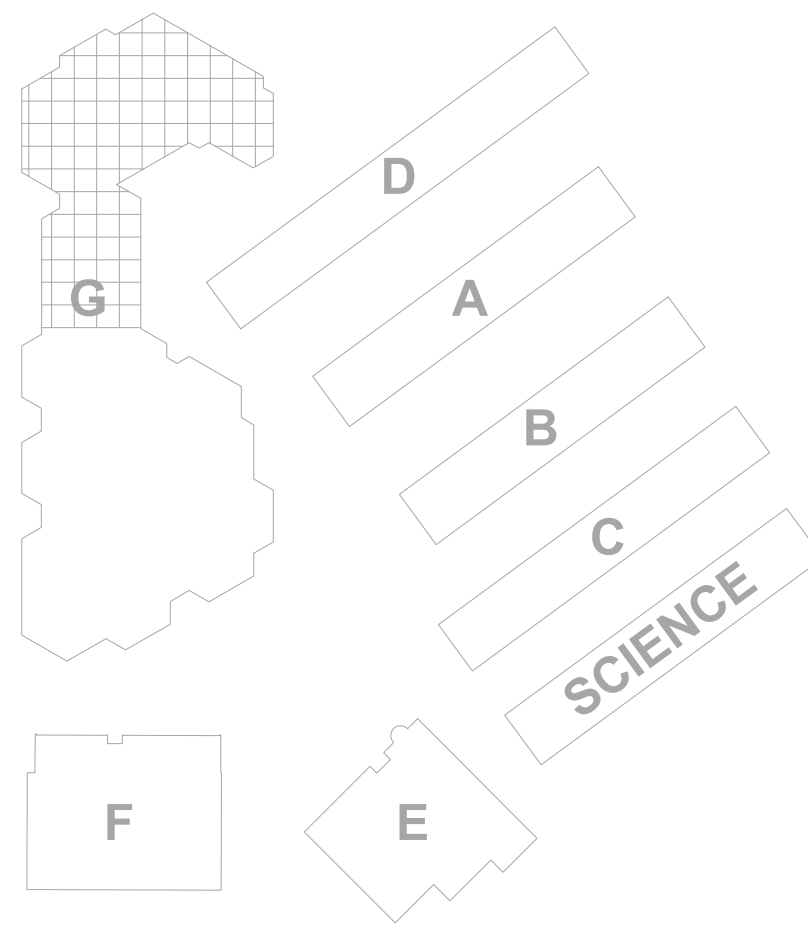
- A - (1) #14 UNSHIELDED TWISTED PAIR FOR SIGNALING LINE CIRCUITS.
B - (2) #12 FOR 24V POWER (BEAM SMOKE DETECTOR)

EQUIPMENT SCHEDULE:

Ⓒ	FIRE ALARM: (N) CARBON MONOXIDE DETECTOR IV/ BASE MODEL: NOTIFIER FSC0-95/B2005 CSFM: 521B-002B-51/7B00-1655-109
APS	FIRE ALARM: (N) AUXILIARY POWER SUPPLY MODEL: NOTIFIER PUPS 2450 CSFM: 1315-002B-225

(E) FIRE ALARM CONTROL PANEL NFS 320 - BATTERY CALCULATION						
QUANTITY	MODEL #	DEVICE	SUPV. CURRENT PER	TOTAL SUPV. CURRENT	ALARM CURRENT	TOTAL ALARM CURRENT
1	CPU/NFS 320	FIRE ALARM CONTROL PANEL FACP CENTRAL PROCESSING UNIT	0.6600	0.66	0.8600	0.86
(E) SLG DEVICES						
37		SMOKE DETECTOR/BASE	0.0000	0.0000	0.0040	0.1480
13		HEAT DETECTOR/BASE	0.0000	0.0000	0.0040	0.0520
2		DUST DETECTOR/DNR HOUSING	0.0000	0.0000	0.0010	0.0020
68		PULL STATION	0.0000	0.0000	0.0010	0.0680
4		RELAY MODULE	0.0010	0.0000	0.0010	0.0040
5		MONITOR MODULE	0.0010	0.0000	0.0010	0.0050
5		CONTROL MODULE	0.0010	0.0000	0.0010	0.0050
6		CO DETECTOR	0.0000	0.0000	0.0010	0.0060
(E) NOTIFICATION DEVICES						
4		HORN STROBE 75CD - 0.50 WATT	0.00	0.00	0.236	0.944
2		HORN STROBE 30CD - 0.50 WATT	0.00	0.00	0.154	0.308
1		HORN STROBE 15CD - 0.50 WATT	0.00	0.00	0.134	0.134
4		STROBE 15CD - 0.25 WATT	0.00	0.00	0.078	0.312
(N) SLG DEVICES						
12	FSC0-951	CARBON MONOXIDE	0.0002	0.0008	0.0045	0.018
			Max. Supv. Current		Max. Alarm Current	
				0.66 Current		2.87
			Maximum Supervisory Current:	0.66		
			Standby Period 24 hour:	24		
			Total Supervisory Reserve:	15.86 (A)		
			Maximum Alarm Current:	2.87		
			Alarm Period (15 minute)	0.249		
			Total Alarm Reserve:	0.71 (B)		
			Total Reserve Current: (A + B)	16.57		
			Safety Margin (20%)	1.2		
			Total Ampere Hours Required:	15.89		
(E) Battery: 2- 12V 35 Ampere Hour						

BUILDING KEY



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PROJECT

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SCHOOL DISTRICT

CONSULTANT



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DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No. Description Date

APPENDUM 1 11/24/2021

MILESTONES

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90% CD

DSA SUB 06/04/2021

BACKCHECK 10/06/2021

SHEET

ELECTRICAL NEW
PARTIAL FLOOR
PLAN - BLDG G

DATE 11/24/2021

JOB # 2021005.07

SHEET # AD-1

E3.3

PROJECT

**BOREL MIDDLE
SCHOOL - HVAC
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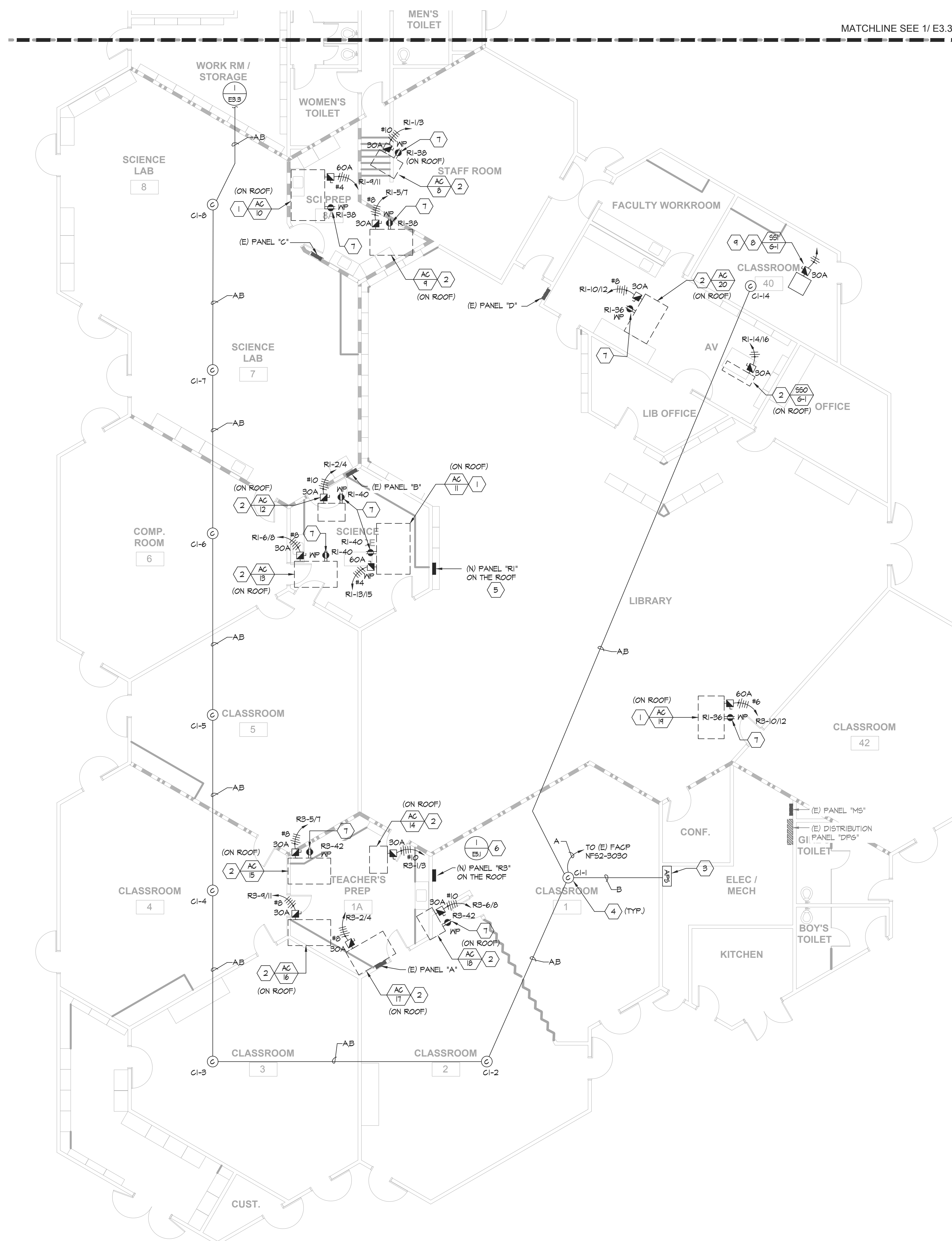
**ELECTRICAL NEW
PARTIAL FLOOR
PLAN - BLDG G**

DATE 11/24/2021

JOB # 2021005.07

SHEET # AD-1

E3.4



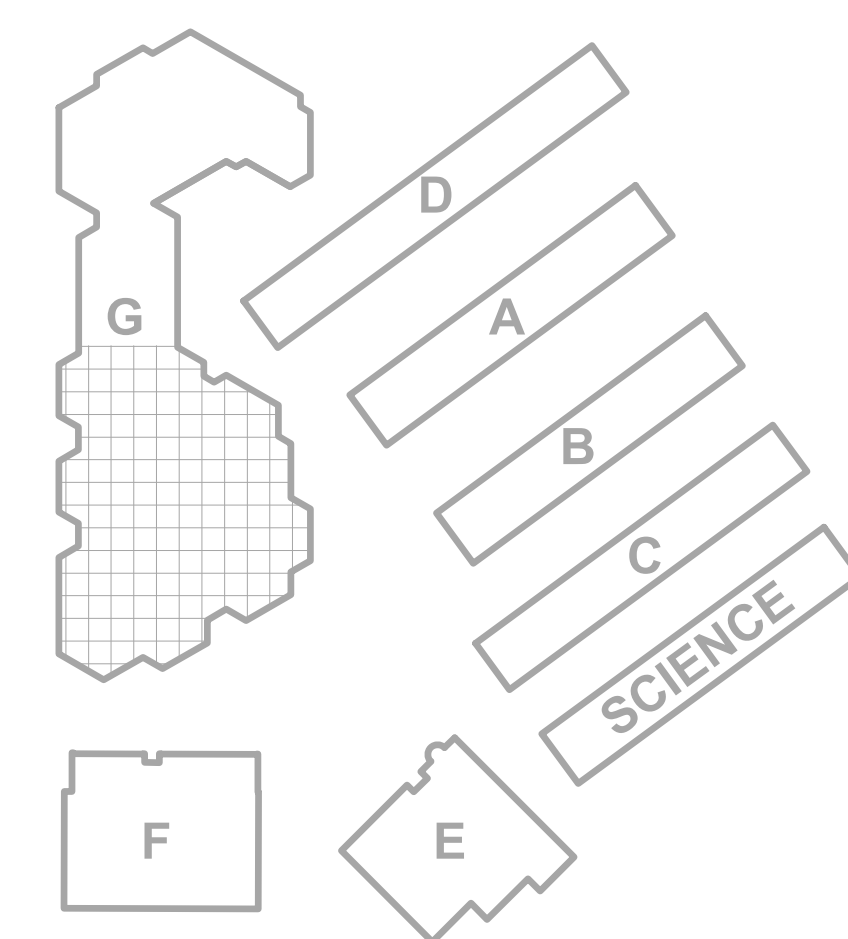
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- COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
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- SEE DETAIL 2/E5.1 FOR ROOF CONDUIT SUPPORT DETAIL.
- SEE DETAIL 3/E5.1 FOR NEMA-4 PULL BOX ON ROOF DETAIL.
- VISUAL NOTIFICATION IS NOT REQUIRED FOR CO DETECTION PER CBC 11B-215.1.
- ROOFTOP UNITS CIRCUIT HOMERUN SHALL BE ROUTED EXPOSED ON THE ROOF TO THEIR DESIGNATED PANELS. PROVIDE CONDUIT SLEEPERS AND NEMA-4 PULL CANS REQUIRED ON THE ROOF TO ROUTE PER GEC.

SHEET NOTES:

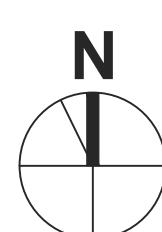
- NEW 60A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW 30A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW AUXILIARY 24V POWER SUPPLY FOR CARBON MONOXIDE DETECTORS.
- NEW CARBON MONOXIDE DETECTOR. ROUTE NEW SLC CONNECTION BACK TO EXISTING FIRE ALARM CONTROL PANEL NOTIFIER NFS2-3030 AS REQUIRED.
- INSTALL NEW PANEL IN THE EXISTING LOCATION ON THE EXISTING ROOF MOUNTED SUPPORTS. NEW PANEL IS THE SAME SIZE AND HEIGHT AS THE PREVIOUS PANEL. CONNECT NEW FEEDERS AND BRANCH CIRCUITS TO PANEL.
- INSTALL NEW PANEL ON NEW ROOF MOUNTED SUPPORTS. CONNECT NEW FEEDERS AND BRANCH CIRCUITS TO PANEL.
- PROVIDE NEW WEATHERPROOF GFCI RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC WPIOMXD "BOSS".
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BUILDING KEY



ELECTRICAL NEW PARTIAL FLOOR PLAN - BLDG G

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



PANEL NAME	AM	FED FROM	PNL DR-1
VOLTAGE	208/120V	MAIN CB	400A-3P
PHASE	3	BUSSING	400 AMP
WIRE	4	MIN. A/C	22,000
TYPE	NEMA 1	SUB-FEED CB	
MOUNTING	SURFACE	FEED THRU LUGS	YES

CIRCUIT DESCRIPTION	LOAD TYPE (KVA)				CB	OKT #	PH	OKT #	CB	LOAD TYPE (KVA)				CIRCUIT DESCRIPTION
	LTG	REC	MTR	NCL						LTG	REC	MTR	NCL	
(N) HEAT PUMP 20 - CLASSROOM 20			3.74		50A	1	A	2	50A			3.74	(N) HEAT PUMP 23 - CLASSROOM 23	
" " " " "					2P	3	B	4		2P			" " " " "	
(N) HEAT PUMP 21 - CLASSROOM 21			3.74		50A	5	C	6	50A			3.74	(N) HEAT PUMP 24 - CLASSROOM 24	
" " " " "					2P	7	A	8		2P			" " " " "	
(N) HEAT PUMP 22 - CLASSROOM 22			3.74		50A	9	B	10	25A			3.74	(N) HEAT PUMP 24A - KITCHEN	
" " " " "					2P	11	C	12				3.74	" " " " "	
(N) FAN COIL 20 - CLASSROOM 20			0.89		15A	13	B	14	30A			1.87	(N) SSO-A-1 / SSI-A-1 - SERVING ROOM	
" " " " "					2P	15	B	16				1.87	" " " " "	
(N) FAN COIL 21 - CLASSROOM 21			0.89		15A	17	C	18	15A			0.89	(N) FAN COIL 23 - CLASSROOM 23	
" " " " "					2P	19	A	20				0.89	" " " " "	
(N) FAN COIL 22 - CLASSROOM 22			0.89		15A	21	B	22	15A			0.89	(N) FAN COIL 24 - CLASSROOM 24	
" " " " "					2P	23	C	24				0.89	" " " " "	
SPARE					20A/1P	25	A	26	15A			0.89	(N) FAN COIL 24A - KITCHEN	
SPARE					20A/1P	27	B	28		2P		0.89	" " " " "	
SPARE					20A/1P	29	C	30	20A/1P				SPARE	
SPARE					20A/1P	31	A	32	20A/1P				SPARE	
SPARE					20A/1P	33	B	34	20A/1P				SPARE	
SPARE					20A/1P	35	C	36	20A/1P				SPARE	
SPARE					20A/1P	37	A	38	225A				(E) PNL 'A1'	
(N) MOTOR RATED SWITCH FOR COND PUMP			0.72		20A/1P	39	B	40					" " " " "	
(N) GFCI WP REC MOUNT ON ROOF - BLDG A					20A/1P	41	C	42	3P				" " " " "	
	0	0.5	0.7	27.8						0	0	0	31.6	

LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	Yes/No	KVA PHASE A (CONNECTED)	20.4
(LTG) LIGHTING X 125%	0	1.25	0.0		KVA PHASE B (CONNECTED)	21.1
(REC) RECEIPTS PER 220.44	0.5	1.00	0.5		KVA PHASE C (CONNECTED)	19.1
10KVA x 100% + REMAINDER x 50%	0	0.50	0.0		SUB FEED CONNECTED LOAD	
(MTR) LARGEST MOTOR X 125%	0.7	1.25	0.9		COPPER BUSSING	Y
+ REMAINING MOTORS x 100%	0	1.00	0.0		ALUMINUM BUSSING	N
(NCL) NON CONTINUOUS LOAD x 100%	59.4	1.00	59.4		TOTAL DEMAND KVA	60.8
					TOTAL LOAD AMPERES	169.0

PANEL NAME	DM	FED FROM: PNL DP-1
VOLTAGE	208/120V	MAIN CB: 400A-3P
PHASE	3	BUSSING: 400 AMP
WIRE	4	MIN A/C: 22,000
TYPE	NEMA 1	SUB-FEED CB:
MOUNTING	SURFACE	FEED THRU LUGS: YES

CIRCUIT DESCRIPTION	LOAD TYPE (KVA)				CB AMP/PH	OKT #	PH	OKT #	CB AMP/PH	LOAD TYPE (KVA)				CIRCUIT DESCRIPTION
	LTG	REC	MTR	NCL						LTG	REC	MTR	NCL	
(N) HEAT PUMP 14 - CLASSROOM 14			3.74	50A	1	A	2		50A			3.74	(N) HEAT PUMP 17 - CLASSROOM 17	
" " " " "			3.74	2P		B	4		2P			3.74	" " " " "	
(N) HEAT PUMP 15A - CLASSROOM 15A			3.74	50A	5	C	6		50A			3.74	(N) HEAT PUMP 18 - CLASSROOM 18	
" " " " "			3.74	2P		A	8		2P			3.74	" " " " "	
(N) HEAT PUMP 15B - CLASSROOM 15B			3.74	50A	9	B	10		50A			3.74	(N) HEAT PUMP 19 - CLASSROOM 19	
" " " " "			3.74	2P		C	12		2P			3.74	" " " " "	
(N) HEAT PUMP 16 - CLASSROOM 16			3.74	2P	13	A	14		15A			0.89	(N) FAN COIL 17 - CLASSROOM 17	
" " " " "			3.74	2P	15	B	16		15A			0.89	" " " " "	
(N) FAN COIL 14 - CLASSROOM 14			0.89	15A	17	C	18		15A			0.89	(N) FAN COIL 18 - CLASSROOM 18	
" " " " "			0.89	2P	19	A	20		2P			0.89	" " " " "	
(N) FAN COIL 15A - CLASSROOM 15A			0.89	15A	21	B	23		15A			0.89	(N) FAN COIL 19 - CLASSROOM 19	
" " " " "			0.89	2P	23	C	24		2P			0.89	" " " " "	
(N) FAN COIL 15B - CLASSROOM 15B			0.89	15A	25	A	26		20A/1P				SPARE	
" " " " "			0.89	2P	27	B	28		20A/1P				SPARE	
(N) FAN COIL 16 - CLASSROOM 16			0.89	15A	29	C	30		20A/1P				SPARE	
" " " " "			0.89	2P	31	A	32		20A/1P				SPARE	
SPARE				20A/1P	33	B	34		20A/1P				SPARE	
SPARE				20A/1P	35	C	36		20A/1P				SPARE	
(N) MOTOR RATED SWITCH FOR COND PUMP - BLDG D			0.48	20A/1P	37	A	38		225A				(E) PNL 'D1'	
" " " " "			0.36	20A/1P	39	B	40						" " " " "	
(N) WEATHERPROOF GFCI RECEPTACLE - BLDG D			0.72	20A/1P	41	C	42		3P				" " " " "	
	0	0.72	0.8	37.1						0	0	0	27.8	

LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	Yes/No	KVA PHASE A (CONNECTED)	23.7
(LTG) LIGHTING X 125%	0	1.25	0.0		KVA PHASE B (CONNECTED)	22.7
(REC) RECEIPTS PER 220.44	0.7	1.00	0.7		KVA PHASE C (CONNECTED)	20.2
10KVA x 100% + REMAINDER x 50%	0	0.50	0.0		SUB FEED CONNECTED LOAD	
(MTR) LARGEST MOTOR X 125%	0.5	1.25	0.6		COPPER BUSSING	Y
+ REMAINING MOTORS x 100%	0.4	1.00	0.4		ALUMINUM BUSSING	N
(NCL) NON CONTINUOUS LOAD x 100%	64.5	1.00	64.5		TOTAL DEMAND KVA	66.6
					TOTAL LOAD AMPERES	185.0

PANEL NAME	(E) P58	FED FROM PNL DP-H								
VOLTAGE	208/120V	MAIN CB MLO								
PHASE	3	BUSBING 400 AMP								
WIRE	4	MIN A/C 10,000								
TYPE	NEMA 1	SUB-FEED CB								
MOUNTING	SURFACE	FEED THRU LUGS YES								
CIRCUIT DESCRIPTION	LOAD TYPE (KVA) LTG REC MTR NCL	CB AMPP #	OKT #	PH #	OKT #	CB AMPP #	LOAD TYPE (KVA) LTG REC MTR NCL	CIRCUIT DESCRIPTION		
(N) HEAT PUMP 38, FAN COIL 38 - CLASSROOM 38		4.37	(N) 70A	1	A	2	(E) 20A/1P	EXISTING LOAD		
" " " " "		4.37	2P	B	4	(E) 20A/1P	0.72	EXISTING LOAD		
EXISTING LOAD		0.72	(E) 20A/1P	5	C	6	(E) 20A/1P	0.72	EXISTING LOAD	
EXISTING LOAD		0.72	(E) 20A/1P	7	A	8	(E) 20A/1P	0.72	EXISTING LOAD	
EXISTING LOAD		0.72	(E) 20A/1P	9	B	10	(E) 20A/1P	0.72	EXISTING LOAD	
EXISTING LOAD		0.72	(E) 20A/1P	11	C	12	(E) 20A/1P	0.72	EXISTING LOAD	
SPACE			(E) 20A/1P	13	A	14	(E) 20A/1P	0.72	EXISTING LOAD	
SPACE			(E) 20A/1P	15	B	16	(E) 20A/1P	0.72	EXISTING LOAD	
SPACE			(E) 20A/1P	17	C	18	(E) 20A/1P	0.72	EXISTING LOAD	
SPACE			(E) 20A/1P	19	A	20			SPACE	
SPACE			(E) 20A/1P	21	B	22			SPACE	
SPACE			(E) 20A/1P	23	C	24			SPACE	
SPACE			(E) 20A/1P	25	A	26			SPACE	
SPACE			(E) 20A/1P	27	B	28			SPACE	
SPACE			(E) 20A/1P	29	C	30			SPACE	
SPACE			(E) 20A/1P	31	A	32			SPACE	
SPACE			(E) 20A/1P	33	B	34			SPACE	
SPACE			(E) 20A/1P	35	C	36			SPACE	
SPACE			(E) 20A/1P	37	A	38	1.00		SPACE	
SPACE			(E) 20A/1P	39	B	40			SPACE	
(N) MOTOR RATED SWITCH FOR COND PUMP - RM 38		0.12	(N) 20A/1P	41	C	42			SPACE	
	0	2.9	0.1	8.7			1.0	6.5	0	0
LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	Yes/No	KVA PHASE A (CONNECTED)	8.2				
(LTG) LIGHTING X 125%	1.0	1.25	1.3		KVA PHASE B (CONNECTED)	7.2				
(REC) RECEIPTS PER 220.44	9.4	1.00	9.4		KVA PHASE C (CONNECTED)	3.7				
10KVA x 100% + REMAINDER x 50%	0	0.50	0.0		SUB FEED CONNECTED LOAD					
(MTR) LARGEST MOTOR X 125%	0.1	1.25	0.2		COPPER BUSSING	Y				
+ REMAINING MOTORS x 100%	0	1.00	0.0		ALUMINUM BUSSING	N				
(NCL) NON CONTINUOUS LOAD x 100%	8.7	1.00	8.7		TOTAL DEMAND KVA	19.5				
					TOTAL LOAD AMPERES	54.2				

PANEL NAME	BM	FED FROM	PNL DP-1
VOLTAGE	208/120V	MAIN CB	400A-3P
PHASE	3	BUSSING	400 AMP
WIRE	4	MIN. A/C	22,000
TYPE	NEMA 1	SUB-FEED CB	
MOUNTING	SURFACE	FEED THRU LUGS	YES

CIRCUIT DESCRIPTION	LOAD TYPE (KVA)				CB AMP	OKT #	PH #	OKT #	CB AMP	LOAD TYPE (KVA)				CIRCUIT DESCRIPTION	
	LTG	REC	MTR	NCL						LTG	REC	MTR	NCL		
(N) HEAT PUMP 25 - CLASSROOM 25				3.74	50A		A	2	50A				3.74	(N) HEAT PUMP 28 - CLASSROOM 28	
" " " " "				3.74	2P		B	4		2P			3.74	" " " " "	
(N) HEAT PUMP 26 - CLASSROOM 26				3.74	50A		C	6	50A				3.74	(N) HEAT PUMP 29 - CLASSROOM 29	
" " " " "				3.74	2P		A	8		2P			3.74	" " " " "	
(N) HEAT PUMP 27 - CLASSROOM 27				3.74	50A		B	10	15A				0.89	(N) FAN COIL 28 - CLASSROOM 28	
" " " " "				3.74	2P		C	12		2P			0.89	" " " " "	
(N) FAN COIL 25 - CLASSROOM 25				0.89	15A		A	13	15A				0.89	(N) FAN COIL 29 - CLASSROOM 29	
" " " " "				0.89	2P		B	15		2P			0.89	" " " " "	
(N) FAN COIL 26 - CLASSROOM 26				0.89	15A		C	16	20A/1P					SPARE	
" " " " "				0.89	2P		A	20	20A/1P					SPARE	
(N) FAN COIL 27 - CLASSROOM 27				0.89	15A		B	22	20A/1P					SPARE	
" " " " "				0.89	2P		C	24	20A/1P					SPARE	
SPARE					20A/1P		25	A	26	20A/1P				SPARE	
SPARE					20A/1P		27	B	28	20A/1P				SPARE	
SPARE					20A/1P		29	C	30	20A/1P				SPARE	
SPARE					20A/1P		31	A	32	20A/1P				SPARE	
SPARE					20A/1P		33	B	34	20A/1P				SPARE	
SPARE					20A/1P		35	C	36	20A/1P				SPARE	
SPARE					20A/1P		37	A	38	225A				(E) PNL 'B1'	
(N) MOTOR RATED SWITCH FOR COND PUMP-BLDG B				0.60	20A/1P		39	B	40					" " " " "	
(N) GFCI WP REC MOUNT ON ROOF-BLDG B				0.54	20A/1P		41	C	42					" " " " "	
				0	0.5		0.6		27.8				0	0	18.6

LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	Yes/No	KVA PHASE A (CONNECTED)	17.7
(LTG) LIGHTING X 125%	0	1.25	0.0		KVA PHASE B (CONNECTED)	15.4
(REC) RECEIPTS PER 220.44	0.5	1.00	0.5		KVA PHASE C (CONNECTED)	14.5
10KVA x 100% + REMAINDER x 50%	0	0.50	0.0		SUB FEED CONNECTED LOAD	
(MTR) LARGEST MOTOR X 125%	0.6	1.25	0.8		COPPER BUSSING	Y
+ REMAINING MOTORS x 100%	0	1.00	0.0		ALUMINUM BUSSING	N
(NCL) NON CONTINUOUS LOAD x 100%	46.4	1.00	46.4		TOTAL DEMAND KVA	47.7
					TOTAL LOAD AMPERES	132.4

PANEL NAME	(E) P56													FED FROM: PNL DP-H												
VOLTAGE	208/120V													MAIN CB: MLO												
PHASE	3													BUSSING: 400 AMP												
WIRE	4													MIN. A/C: 10,000												
TYPE	NEMA 1													SUB-FEED CB:												
MOUNTING:	SURFACE													FEED THRU LUGS: YES												
CIRCUIT DESCRIPTION	LOAD TYPE (KVA)													CIRCUIT DESCRIPTION												
	LTG	REC	MTR	NCL	GB	OKT	PH	OKT	#	GB	AMPP	LTG	REC	MTR	NCL											
(N) HEAT PUMP 36, FAN COIL 36 - CLASSROOM 36				4.37	(N) 70A	1	A	2	(E) 20A/1P	0.72						EXISTING LOAD										
" " " " "				4.37	2P	3	B	4	(E) 20A/1P	0.72						EXISTING LOAD										
EXISTING LOAD	0.72				(E) 20A/1P	5	C	6	(E) 20A/1P	0.72						EXISTING LOAD										
EXISTING LOAD	0.72				(E) 20A/1P	7	A	8	(E) 20A/1P	0.72						EXISTING LOAD										
EXISTING LOAD	0.72				(E) 20A/1P	9	B	10	(E) 20A/1P	0.72						EXISTING LOAD										
EXISTING LOAD	0.72				(E) 20A/1P	11	C	12	(E) 20A/1P	0.72						EXISTING LOAD										
(N) WEATHERPROOF GFCI RECEPTACLE - SCIENCE BLDG	0.36				(N) 20A/1P	13	A	14	(E) 20A/1P	0.72						EXISTING LOAD										
SPACE						15	B	16	(E) 20A/1P	0.72						EXISTING LOAD										
SPACE						17	C	18	(E) 20A/1P	0.72						EXISTING LOAD										
SPACE						19	A	20								SPACE										
SPACE						21	B	22								SPACE										
SPACE						23	C	24								SPACE										
SPACE						25	A	26								SPACE										
SPACE						27	B	28								SPACE										
SPACE						29	C	30								SPACE										
SPACE						31	A	32								SPACE										
SPACE						33	B	34								SPACE										
SPACE						35	C	36								SPACE										
SPACE						37	A	38								SPACE										
SPACE						39	B	40								SPACE										
(N) MOTOR RATED SWITCH FOR COND PUMP - RM 36					(N) 20A/1P	41	C	42								SPACE										
	0	3.2	0.1	8.7						0	6.5	0	0													
LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA							Yes/No		KVA PHASE B (CONNECTED)				7.6										
(LTG) LIGHTING x 125%	0	1.25	0.0							FULL RATED A/C	Y	KVA PHASE C (CONNECTED)				7.2										
(REC) RECEPTS PER 220.44	9.7	1.00	9.7							SERIES RATED A/C	N	KVA PHASE C (CONNECTED)				3.7										
10KVA x 100% + REMAINDER x 50%	0	0.50	0.0							SPD	N	SUB FEED CONNECTED LOAD														
(MTR) LARGEST MOTOR x 125%	0.1	1.25	0.2							COOPER BUSSING	Y															
+ REMAINING MOTORS x 100%	0	1.00	0.0							ALUMINUM BUSSING	N															
(NCL) NON CONTINUOUS LOAD x 100%	8.7	1.00	8.7									TOTAL DEMAND KVA				18.6										
												TOTAL LOAD AMPPERS				51.7										