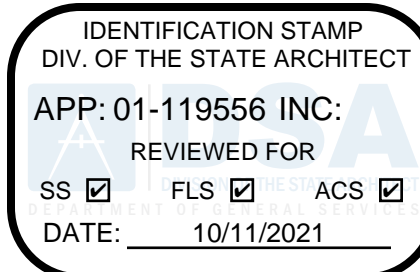


ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

600 36TH AVENUE, SAN MATEO, CA 94403

SAN MATEO-FOSTER CITY SCHOOL DISTRICT CONSTRUCTION DOCUMENTS

DSA FILE NUMBER **41-26**
DSA APPLICATION NUMBER **01-119556**
PTN **69039-105**



aedis
architects

www.aedisarchitects.com
387 S. 1st Street, Suite 300
San Jose, CA 95113
tel: (408) 300-5100
fax: (408) 300-5121

PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

ABBREVIATIONS

A.B.	ABOVE	A.C.	ACROUSTIC TILE	ADJ.	ADJUSTABLE	A.F.F.	ALUMINUM	A.P.	ACCESS PANEL	APPROX.	APPROXIMATELY	ARCH.	ARCHITECT	BD.	BOARD	BLKG.	BLOCKING	BM.	BEAM	B.M.	BENCH MARK	BOT.	BOTTOM	BTWN.	BETWEEN	B.W.	BOTH WAYS	CAB.	CATCH BASIN	C.C. or O.C.	CENTER TO CENTER	CEM.	CEMENT	CER.	CERAMIC TILE	C.G.	CORNER GUARD	C.I.	CAST IRON	C.J.	CONTROL JOINT	CLG.	CEILING	CLKG.	CEILING	CMU.	CONCRETE MASONRY UNIT	CNTR.	COUNTER	C.O.	CLEANOUT	COL.	COLUMN	CONC.	CONCRETE	CONSTR.	CONSTRUCTION	CONT.	CONTINUOUS	CONTR.	CONTRACTOR	CTR.	CONCRETE PIPE	CTR.	CENTER	CTSK.	COUNTER SUNK	C.W.	COLD WATER	P.TD.	PAINTED PARTITION	D.A.	DISABLED ACCESS	DBL.	DOUBLE	D.F.	DRINKING FOUNTAIN	D.F.R.	DOUGLAS FIR	DTL.	DETAIL	Ø	DIAMETER	DM.	DIMENSION	DISP.	DISPOSAL	DN.	DOWN	DTT.	DOWN	DR.	DOOR	DOWNPOUT	DWG.	DRAWING	(E)	EXISTING	E.	EAST	E.A.	EXPANSION JOINT	ELEC.	ELECTRICAL	EL.	ELEVATION	ELEV.	ELEVATOR	ENCL.	ENCLOSURE	EQ.	EQUAL	EQUIP.	EQUIPMENT	E.W.	EACH WAY	E.W.C.	ELECTRIC WATER COOLER	EXP.	EXPANDED	EXT.	EXTERIOR	F.A.	FIRE ALARM	F.D.	FLOOR DRAIN	FDM.	FOUNDATION	F.E.	FIRE EXTINGUISHER	F.E.C.	FIRE EXTINGUISHER CABINET	F.H.	FIRE HYDRANT	F.H.C.	FIRE HOSE CABINET	F.H.S.M.S.	FLAT HEAD SHEET METAL SCREW	F.H.W.S.	FLAT HEAD WOOD SCREW	FIN.	FINISH	FL. or FLR.	FLOOR	F.O.F.	FACE OF FINISH	F.O.M.	FACE OF MASONRY	F.O.S.	FACE OF STUD	F.S.	FINISH SLAB	FT.	FOOT OR FEET	FTG.	FOOTING	FURR.	FURRING	GA.	GAUGE	GALV.	GALVANIZED	G.B.	GRAB BAR	GL.	GALVANIZED IRON	GLU-LAM.	GLUE-LAMINATED	GND.	GROUND	GR.	GRADE	GYP.	GYPSUM	VERT.	VERTICAL	H.B.	HOLE BIBB	H.C.	HOLLOW CORE	HWD.	HARDWOOD	HWDR.	HARDWARE	H.M.	HOLLOW METAL	HORIZ.	HORIZONTAL	HT.	HEIGHT	I.D.	INSIDE DIAMETER	INSUL.	INSULATION	INT.	INTERIOR	INV.	INVERT	W.	WOOD	W.C.	WATER CLOSET	WD.	WOOD	W.H.	WATER HEATER	WO.	WOOD	WIDERS.	WIDERS OCCURS	WP.	WATERPROOF / WEATHERPROOF	W.P.T.	WORKING POINT	W.R.	WATER RESISTANT	WT.	WEIGHT	K.D.	KILN DRIED
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BOARD OF TRUSTEES

KENNETH CHIN (PRESIDENT)
ALISON PROCTOR (VICE PRESIDENT)
SHARA WATKINS (CLERK)
NOELIA CORZO (MEMBER)
LISA WARREN (MEMBER)

DISTRICT SUPERINTENDANT
DR. JOAN ROSAS

CONSULTANTS

MECHANICAL

CYPRESS ENGINEERING GROUP
8 HARRIS COURT, SUITE A8
MONTEREY, CA 93940
(831) 218-1802

ELECTRICAL

AMERICAN CONSULTING ENGINEERS ELECTRICAL, INC.
1550 THE ALAMEDA, SUITE 200
SAN JOSE, CA 95126
(408) 236-2312

STRUCTURAL

BASE DESIGN, INC.
582 MARKET STREET, SUITE 1042
SAN FRANCISCO, CA 94104
(415) 455-2997

REFERENCE STANDARDS

PARTIAL LIST OF APPLICABLE STANDARDS (AS REFERENCED IN 2019 CBC - CHAPTER 35 & CFC):

ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36) 2010 EDITION

APPLICABLE CODES

- 2019 BUILDING STANDARDS ADMINISTRATION CODE (PART 1, TITLE 24, CCR)
- 2019 CALIFORNIA BUILDING CODE (PART 2, VOLUMES 1 AND 2, TITLE 24, CCR)
- 2019 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)
- 2019 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)
- 2019 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)
- 2019 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)
- 2019 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)
- 2019 CALGREEN BUILDING STANDARDS CODE (PART 11, TITLE 24, CCR)
- 2019 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)
- TITLE 19, CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

ADMINISTRATIVE REQUIREMENTS

- A COPY OF PART 1 TO 5 CCR SHALL BE KEPT ON SITE AT ALL TIMES.
- ALL CONSTRUCTION CHANGE DOCUMENTS AND ADDENDA TO BE SIGNED BY THE ARCHITECT, THE OWNER, AND APPROVED BY DSA. CONSTRUCTION CHANGE DOCUMENTS ARE NOT VALID UNTIL APPROVED BY DSA PER SECTION 4-338, PART 1, TITLE 24, CCR.
- ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335.
- TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335.
- DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO PLACEMENT OF CONCRETE PER SECTION 4-331.
- INSPECTOR SHALL BE APPROVED BY DSA. INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-333(b). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342.
- SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH 4-334.
- CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (FORM 6) IN ACCORDANCE WITH SECTION 4-336 AND 4-343.
- THE ARCHITECT AND THE STRUCTURAL ENGINEERS SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(a) AND 4-341.
- THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343.
- THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS THE (RE)CONSTRUCTION OF A SCHOOL BUILDING(S) IN ACCORDANCE WITH TITLE 24, C.C.R. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID C.C.R. A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
- DSA IS NOT SUBJECT TO ARBITRATION.
- CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
- A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
- A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

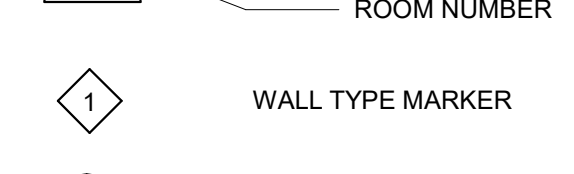
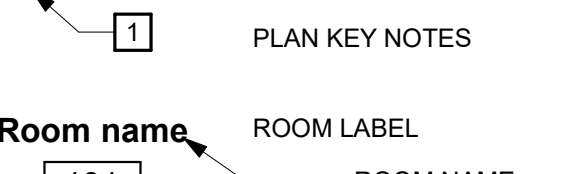
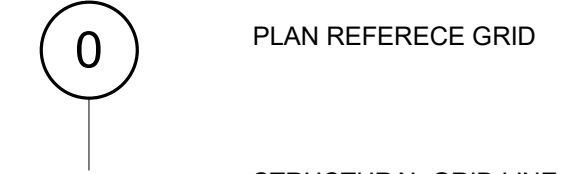
SYMBOL LEGEND

REFER TO ARCHITECTURAL FLOOR PLAN SHEETS AND CONSULTANT DRAWINGS FOR ADDITIONAL SYMBOLS AND REFERENCE DESIGNATIONS

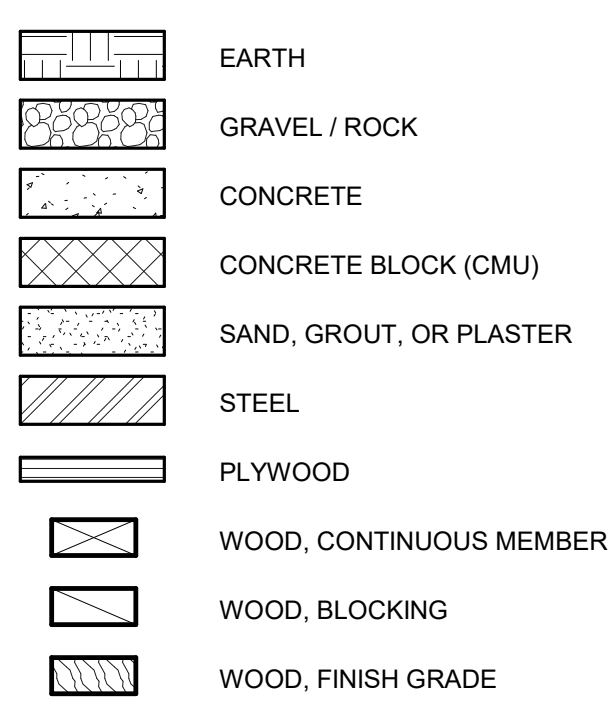
DIMENSION REFERENCE



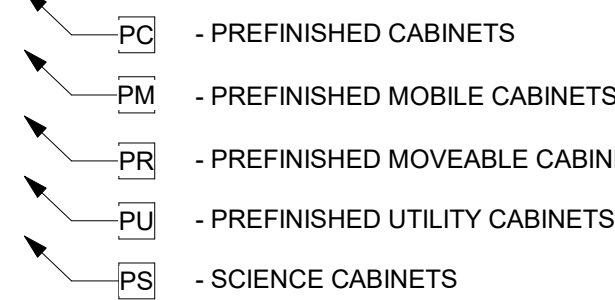
TAGS AND MARKERS



MATERIALS REFERENCE



CABINET TYPES

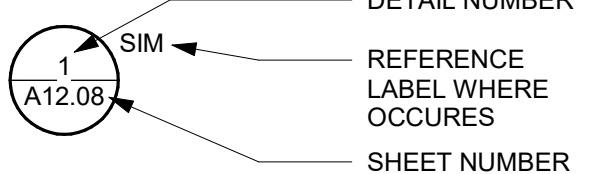


NOTE: REFER TO SPECIFICATIONS FOR SPECIFIC CABINET TYPE REQUIREMENTS.

SECTION REFERENCE



DETAIL REFERENCE



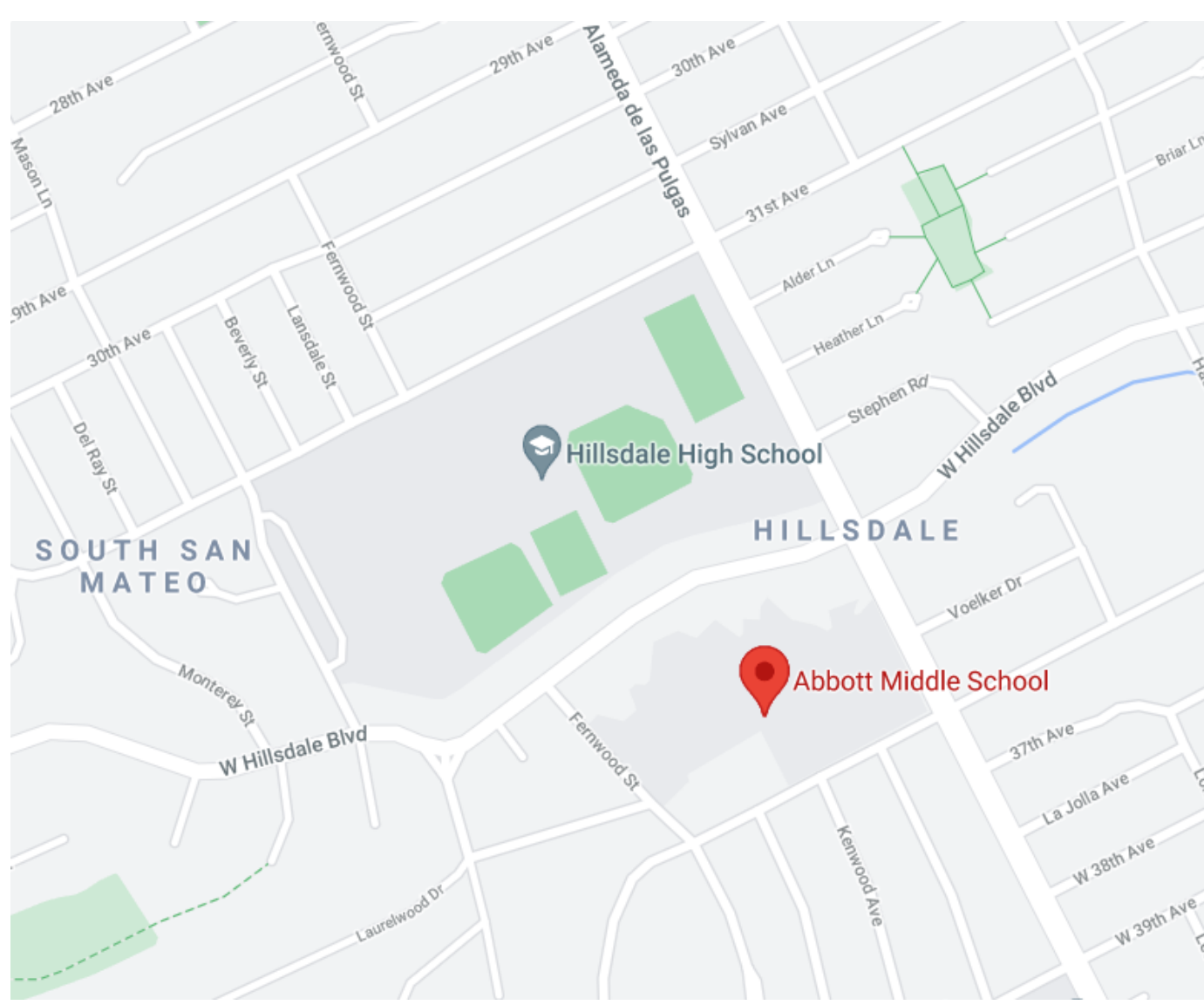
GENERAL NOTES

- ITEMS OF A CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, OR ELECTRICAL NATURE MAY NOT APPEAR ON THE ARCHITECTURAL DRAWINGS. SEE APPROPRIATE DRAWINGS FOR THESE ITEMS.
- DIVISION OF THE STATE ARCHITECT (DSA) APPROVAL OF THIS APPLICATION DOES NOT INCLUDE FUTURE OR N.I.C. ITEMS.
- ALL DEFERRED APPROVAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND THE APPROPRIATE CONSULTING ENGINEER FOR REVIEW & APPROVAL PRIOR TO SUBMITTING TO DSA FOR CHECKING & APPROVAL.
- PRIOR TO BIDDING, THE GENERAL CONTRACTOR SHALL VISIT & INSPECT THE SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AFFECTING THE NEW WORK. THE GENERAL CONTRACTOR SHALL NOT DISPUTE, COMPLAIN, OR ASSERT THAT THERE IS ANY MISUNDERSTANDING IN REGARDS TO LOCATION, EXTENT, NATURE, OR AMOUNT OF WORK TO BE PERFORMED UNDER THIS CONTRACT DUE TO THE CONTRACTOR'S FAILURE TO INSPECT THE SITE AND/OR FAILURE TO INSPECT THE CONTRACT DOCUMENTS.
- THE GENERAL CONTRACTOR & SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATING & VERIFYING ALL EXISTING UNDERGROUND UTILITIES IN ALL AREAS OF THE NEW WORK PRIOR TO COMMENCEMENT OF EXCAVATION. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ROUTING LOCATIONS AS BEST DETERMINED FROM EXISTING DRAWINGS & BY THE SCHOOL DISTRICT, BUT SHOULD NOT BE CONSTRUED TO REPRESENT ALL EXISTING UTILITIES.
- ANY ALTERATIONS OF EXISTING FACILITIES TO ACCOMMODATE THE INSTALLATION OF NEW WORK SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
- ALL EXISTING FINISHES OR MATERIALS DAMAGED OR DEMOLISHED DUE TO NEW CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL STATE OR REPLACED WITH NEW MATERIALS FINISHED TO MATCH EXISTING.
- CONTRACTOR SHALL COORDINATE ALL WORK TO AVOID DISRUPTION OF STUDENTS OR TEACHERS DURING SCHOOL HOURS. ANY DISRUPTION OF POWER, TELEPHONE, OR HVAC SYSTEMS MUST BE COORDINATED AND APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO ANY WORK COMMENCING.
- COMPLIANCE WITH CFC CHAPTER 33 (FIRE SAFETY DURING CONSTRUCTION) WILL BE ENFORCED.
- ALL ITEMS ARE TO BE PROVIDED AS NEW, UNLESS OTHERWISE NOTED AS (E).

DEFERRED APPROVAL ITEMS

- NONE

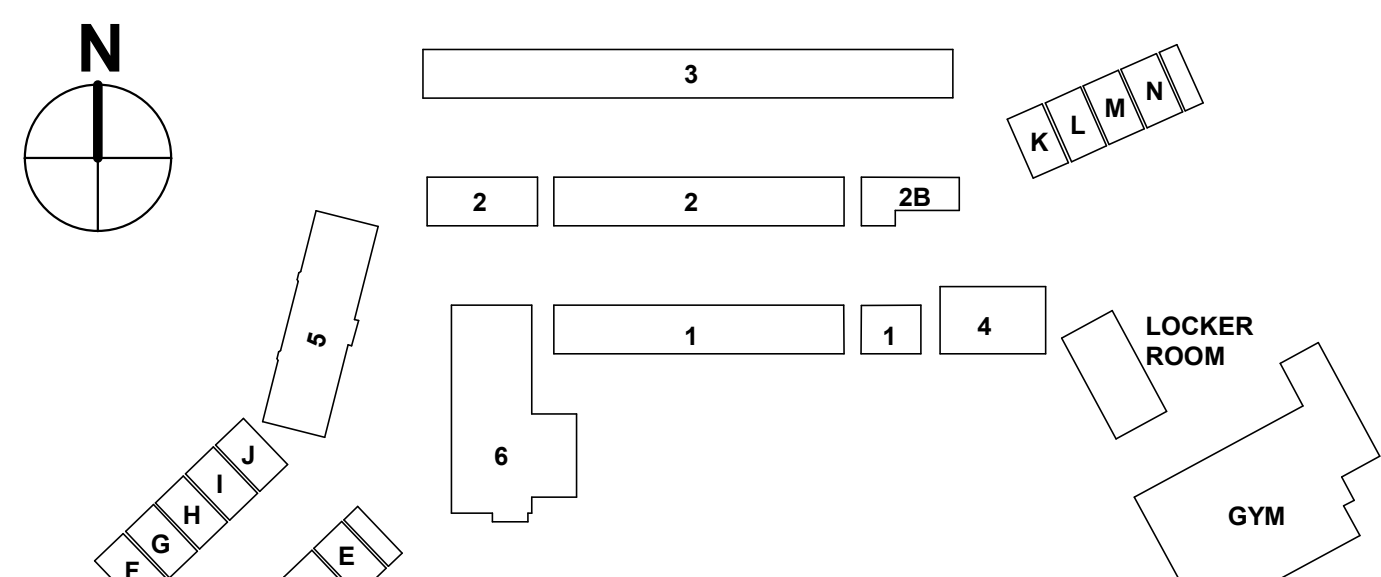
LOCATION MAP



SCOPE OF WORK

SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO ADDITION AND REPLACEMENT OF HVAC EQUIPMENT AND ENCLOSURES.

BUILDING KEY



DRAWING INDEX

- | | |
|----|-------------|
| T1 | TITLE SHEET |
|----|-------------|
- #### ARCHITECTURAL
- | | |
|--------|--|
| A1.02 | SITE PLAN |
| A2.01 | DEMOLITION FLOOR PLAN - WINGS 1, 2, & 3 |
| A2.02 | DEMOLITION FLOOR PLANS - MULTIPURPOSE BLDG |
| A3.01 | NEW FLOOR PLANS - WINGS 1, 2, & 3 |
| A3.02 | NEW FLOOR PLANS - MULTIPURPOSE BLDG & MEDIA CENTER |
| A4.01 | REFLECTED CEILING PLANS |
| A5.01 | SITE ROOF PLAN |
| A8.10 | EXTERIOR DETAILS |
| A9.10 | INTERIOR DETAILS, WALL TYPES, AND INTERIOR ELEVATIONS |
| A11.01 | FINISH SCHEDULE & OPENING SCHEDULE, LEGENDS, & DETAILS |

STRUCTURAL

- | | |
|-------|--|
| S1.01 | ABBREVIATIONS AND GENERAL NOTES |
| S2.01 | EXISTING ROOF FRAMING PLANS - WINGS 1, 2 & 3 |
| S2.02 | EXISTING ROOF FRAMING PLANS - MULTIPURPOSE BLDG & MUSIC BLDG |
| S8.01 | FRAMING DETAILS AND NAILING SCHEDULE |

MECHANICAL

- | | |
|--------|--|
| MP0.01 | SYMBOL LEGENDS, ABBREVIATIONS, NOTES - MECHANICAL |
| MP0.02 | SCHEDULES - MECHANICAL |
| MP0.03 | SCHEDULES - MECHANICAL |
| MP2.01 | FLOOR PLANS - DEMO - WINGS 1 & 2 - MECHANICAL & PLUMBING |
| MP2.02 | FLOOR PLAN - DEMO - WING 3 - MECHANICAL & PLUMBING |
| MP2.03 | FLOOR PLANS - DEMO - MUSIC BLDG & MEDIA CENTER - MECHANICAL & PLUMBING |
| MP2.04 | FLOOR PLANS - DEMO - MULTIPURPOSE BUILDING - MECHANICAL & PLUMBING |
| MP2.05 | FLOOR PLANS - DEMO - RELOCATABLE BUILDINGS - MECHANICAL & PLUMBING |
| MP2.06 | FLOOR PLANS - NEW - WINGS 1 & 2 - MECHANICAL & PLUMBING |
| MP2.07 | FLOOR PLANS - NEW - WING 3 - MECHANICAL & PLUMBING |
| MP2.08 | FLOOR PLANS - NEW - MUSIC BLDG & MEDIA CENTER - MECHANICAL & PLUMBING |
| MP2.09 | FLOOR PLANS - NEW - MULTIPURPOSE BUILDING - MECHANICAL & PLUMBING |
| MP2.10 | FLOOR PLANS - NEW - RELOCATABLE BUILDINGS - MECHANICAL & PLUMBING |
| MP5.01 | CONTROLS - MECHANICAL |
| MP5.02 | CONTROLS - MECHANICAL |
| MP6.01 | DETAILS - MECHANICAL & PLUMBING |
| MP6.02 | DETAILS - MECHANICAL & PLUMBING |
| MP7.01 | EXISTING FLOOR PLANS - WING 1 - MECHANICAL / TAB WORK |
| MP7.02 | EXISTING FLOOR PLANS - SATELLITE KITCHEN, MULTIPURPOSE BLDG 2ND FLOOR CLASSROOM, MUSIC BLDG & MEDIA CENTER MECHANICAL / TAB WORK |
| MP7.03 | EXISTING FLOOR PLANS - WING 3 SCIENCE CLASSROOM 37 - MECHANICAL / TAB WORK |
| MP8.01 | TITLE 24 DOCUMENTS - MECHANICAL |
| MP8.02 | TITLE 24 DOCUMENTS - MECHANICAL |

ELECTRICAL

- | | |
|------|--|
| E0.1 | ELECTRICAL COVER SHEET |
| E1.1 | ELECTRICAL SITE PLAN |
| E2.1 | ELECTRICAL PLAN - DEMOLITION - WINGS 1, 2, & 3 |
| E2.2 | ELECTRICAL PLAN - DEMOLITION - MUSIC BLDG & MEDIA CENTER |
| E2.3 | ELECTRICAL PLAN - DEMOLITION - MULTIPURPOSE BLDG |
| E2.4 | ELECTRICAL PLAN - DEMOLITION - RELOCATABLE BUILDINGS |
| E3.1 | ELECTRICAL PLAN - NEW - WINGS 1, 2, & 3 |
| E3.2 | ELECTRICAL PLAN - NEW - MUSIC & MEDIA CENTER |
| E3.3 | ELECTRICAL PLAN - NEW - MULTIPURPOSE BLDG |
| E3.4 | ELECTRICAL PLAN - NEW - RELOCATABLE BUILDINGS |
| E4.1 | DEMO SINGLE LINE DIAGRAM |
| E4.2 | NEW SINGLE LINE DIAGRAM |
| E4.3 | PANEL SCHEDULES |
| E5.1 | ELECTRICAL DETAILS |
| E5.2 | ELECTRICAL DETAILS |

TOTAL SHEET COUNT: 52

MILESTONES
SD
90% CD
DSA SUB
BACKCHECK

DATE
09/29/21
JOB #
2021005.06
SHEET #
T1

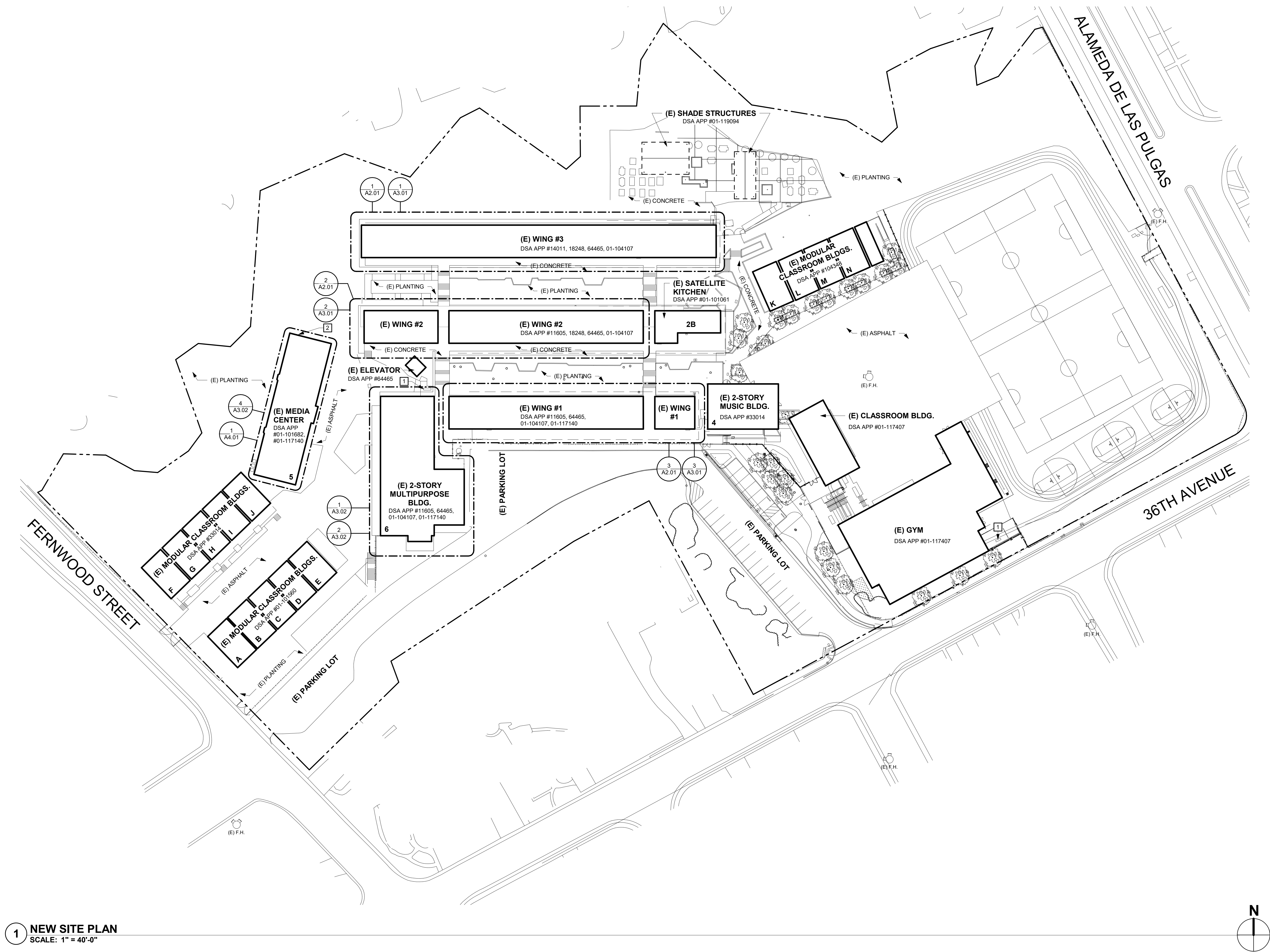
THANG DO
PRINCIPAL IN CHARGE
C-018127
CALIFORNIA LICENSE NUMBER

DATE
09/29/21
DATE -
11/30/21
EXPIRATION DATE

THE STATEMENT OF GENERAL CONFORMANCE "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1, Section 4-317(b))

DATE
09/29/21
JOB #
2021005.06
SHEET #
T1

9/29/2021 6:30:57 PM
C:\Users\kbailey\Documents\2021005.06_Abbott MS - HVAC Replacement_Central(2019 version)_kbailey\KXPJP.rvt



1 NEW SITE PLAN
SCALE: 1" = 40'-0"

- GENERAL SHEET NOTES**
- A BUILDINGS ARE UNSPRINKLERED, TYPE V-B CONSTRUCTION UNLESS OTEHRWISE 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) SWITCHBOARD, S.E.D.
 - 2 REMOVE (E) MECHANICAL UNITS AND HOUSEKEEPING PAD. PREP FOR NEW WORK, S.M.D. AND SEE A3.02.

- GRAPHIC KEY**
- EXISTING CONSTRUCTION TO REMAIN
 - EXISTING COVERED STRUCTURE
 - PROPERTY LINE
 - EXISTING FIRE HYDRANT

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-119556 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 10/11/2021

aedis
architects
www.aedisarchitects.com
387 S. 1st Street, Suite 300
San Jose, CA 95113
tel: (408)-300-5100
fax: (408)-300-5121

PROJECT

ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

CONSULTANT

STAMP

STATE

DSA FILE NUMBER **41-26**

APPL # **01-119556**

REVISIONS

No.	Description	Date
1		

MILESTONES

DD	
90% CD	
DSA SUB	06/03/21
BACKCHECK	09/29/21

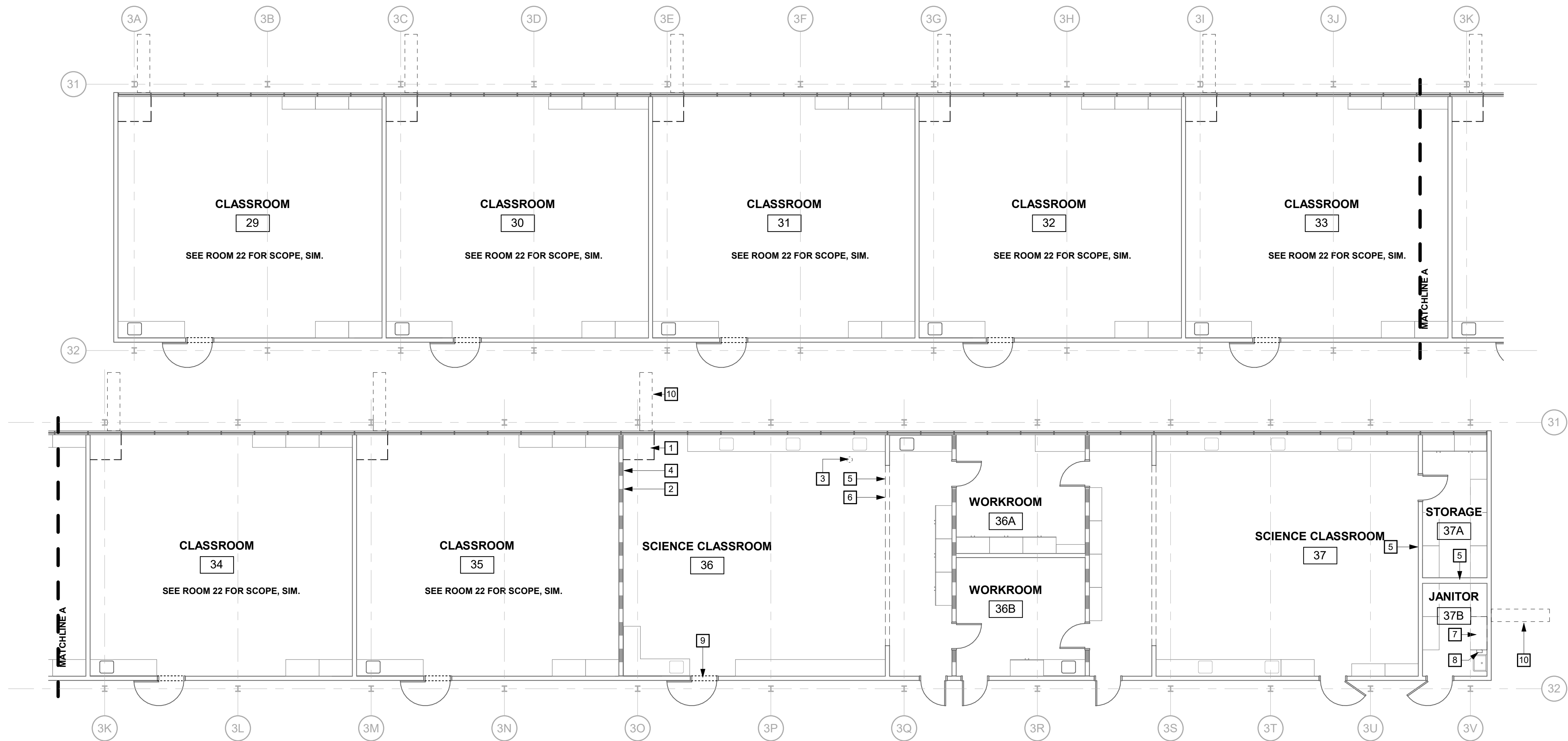
SHEET

SITE PLAN

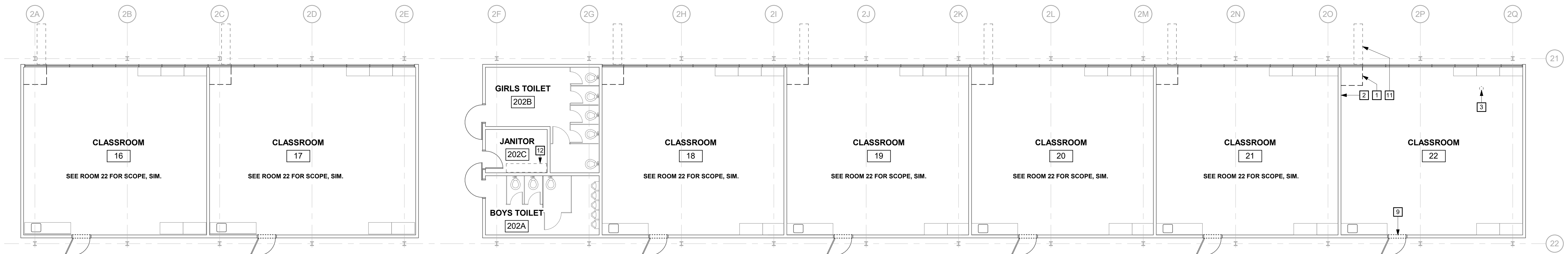
DATE **09/29/2021**

JOB # **2021005.06**

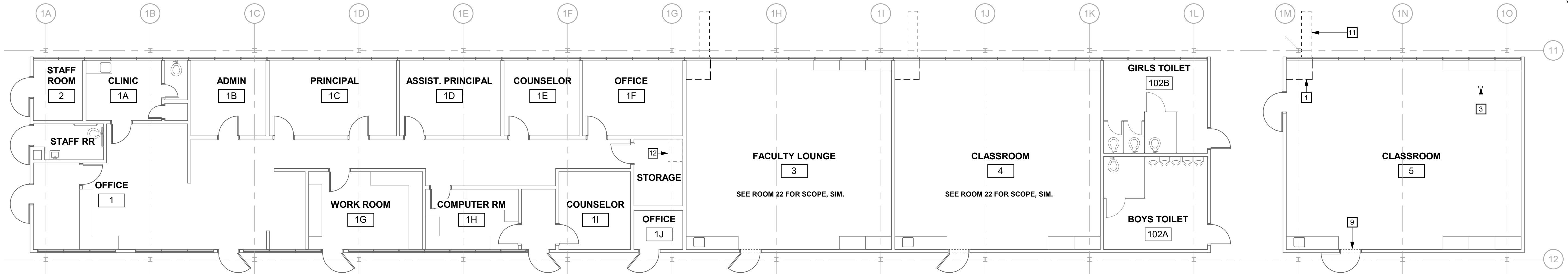
SHEET # **A1.02**



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



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



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

GENERAL SHEET NOTES

- ROOM NAMES OR NUMBERS MAY NOT BE CONSISTENT BETWEEN DEMOLITION AND NEW FLOOR PLANS.
- REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL DEMOLITION WORK.
- VERIFY LIMITS OF DEMOLITION WITH SCOPE OF NEW WORK PRIOR TO COMMENCING WORK.
- ALL ITEMS SHOWN DASHED ARE TO BE DEMOLISHED UNLESS OTHERWISE NOTED ON PLANS.
- 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.
- REMOVE ADJACENT FINISHES AS REQUIRED TO FACILITATE SCOPE OF WORK. PATCH BACK IN KIND.
- EXISTING EQUIPMENT INDICATED TO BE RELOCATED PER NEW PLAN IS TO BE STORED AND PROTECTED DURING CONSTRUCTION.
- NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA

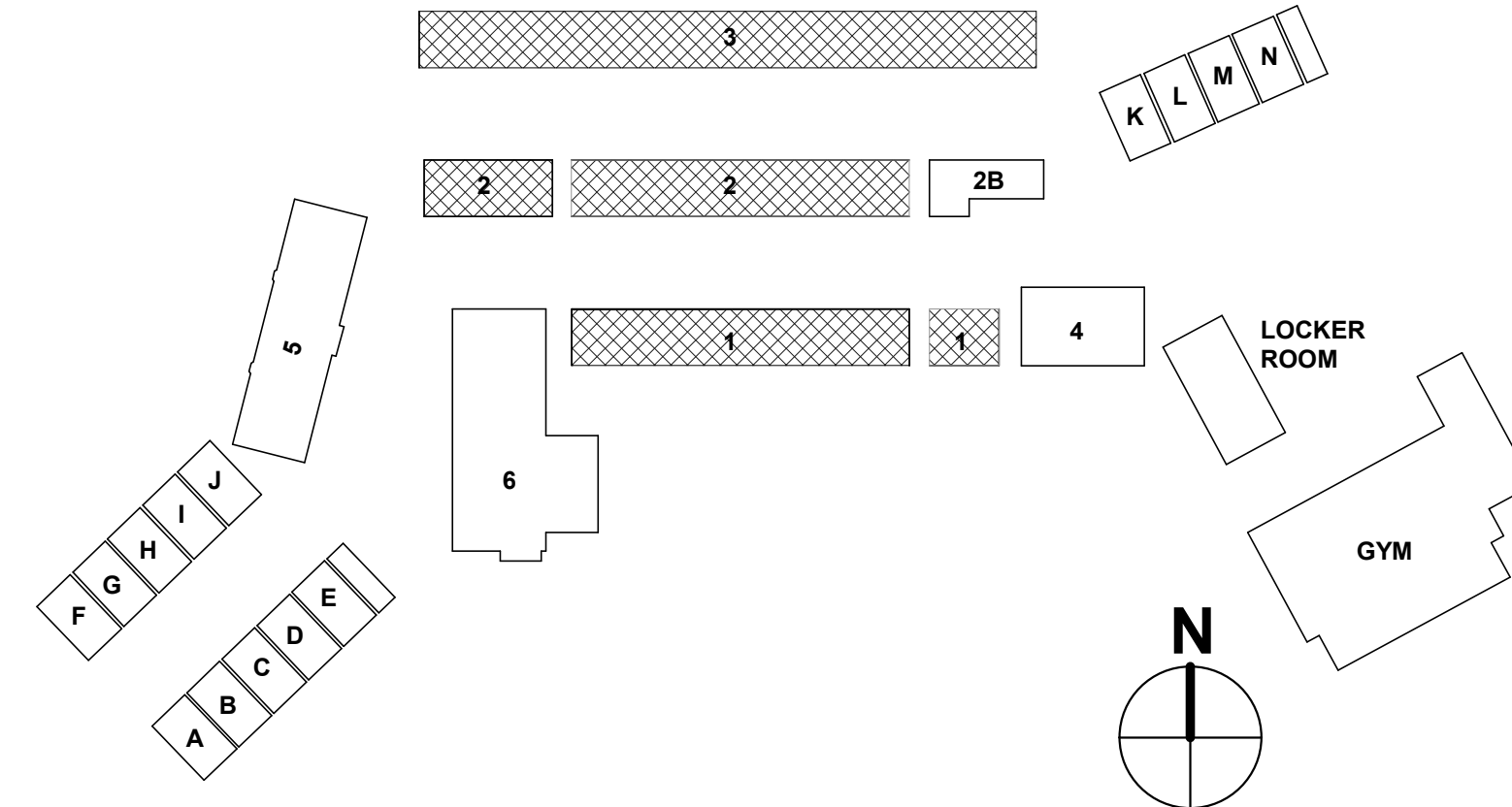
DEMOLITION FLOOR PLAN KEYNOTES

- REMOVE (E) MECHANICAL UNIT AND ENCLOSURE, S.M.D.
- RECONFIGURE (E) WIREMOLD, SHORTEN CONFIGURATION TIGHT TO NEW ENCLOSURE AND PROVIDE END CAP. SEE NEW FLOOR PLAN FOR MORE INFORMATION.
- RELOCATE (E) CEILING MOUNTED OCCUPANCY SENSOR, COORDINATED TO NEW DUCT LAYOUT, S.M.D. REPLACE CEILING TILE.
- RELOCATE (E) DATA OUTLET, COORDINATED TO RECONFIGURED WIREMOLD. LOCATE A.F.F. 15" MIN. TO 48" MAX.
- CUT AND PREP OPENING FOR MECHANICAL WORK, S.M.D.
- (E) CASED OPENING ABOVE TO REMAIN.
- REMOVE (E) CABINET
- SALVAGE (E) CLEANER DISPENSER FOR REINSTALLATION
- REMOVE (E) WINDOW GLAZING ABOVE AND PREP FOR NEW WORK, S.M.D.
- REMOVE PAVING AND PREP FOR NEW WORK, S.M.D.
- REMOVE PAVING AND PREP PLAYING AREA FOR NEW WORK, S.M.D.
- REMOVE (E) FULL HEIGHT CASEWORK.

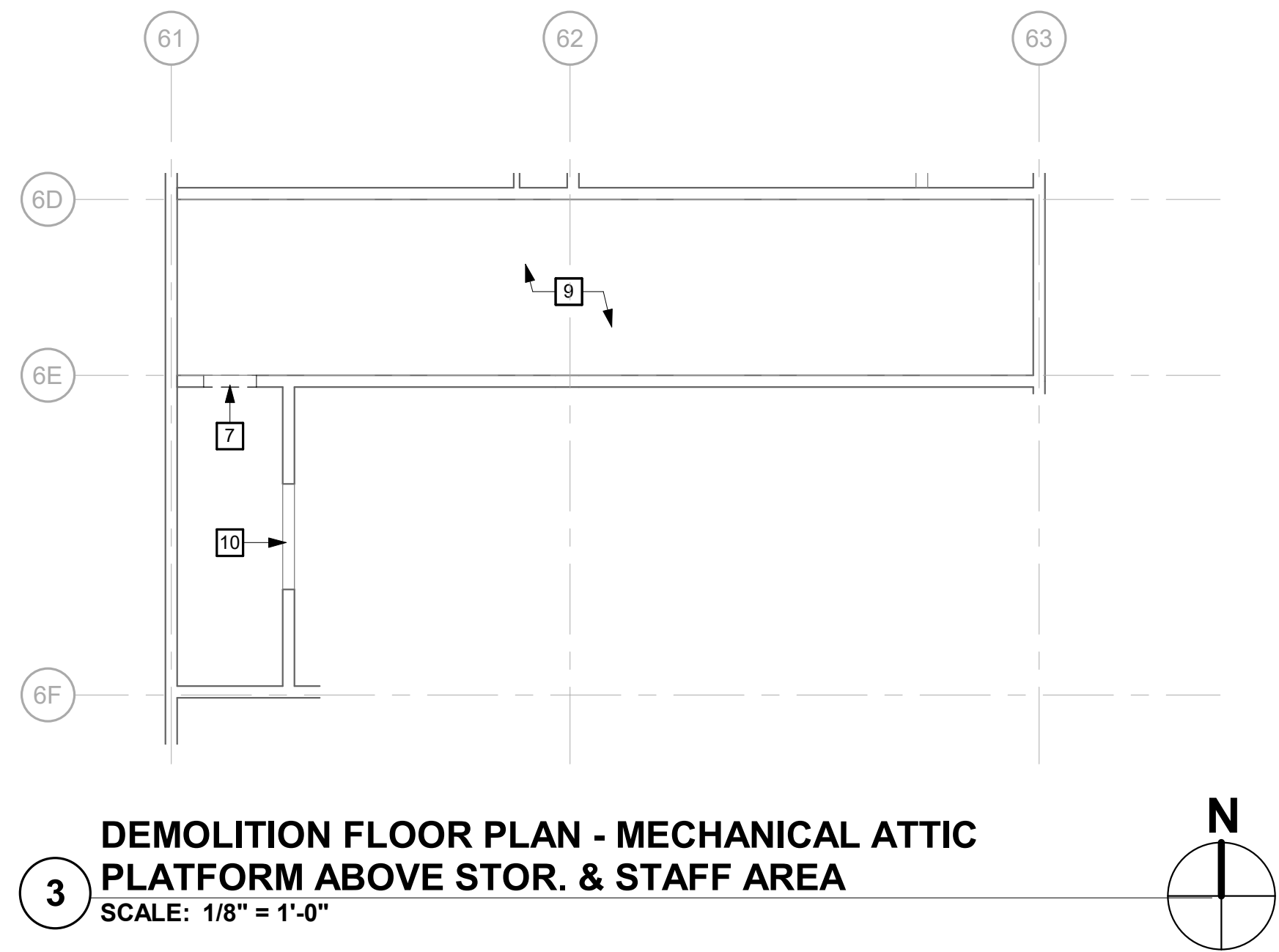
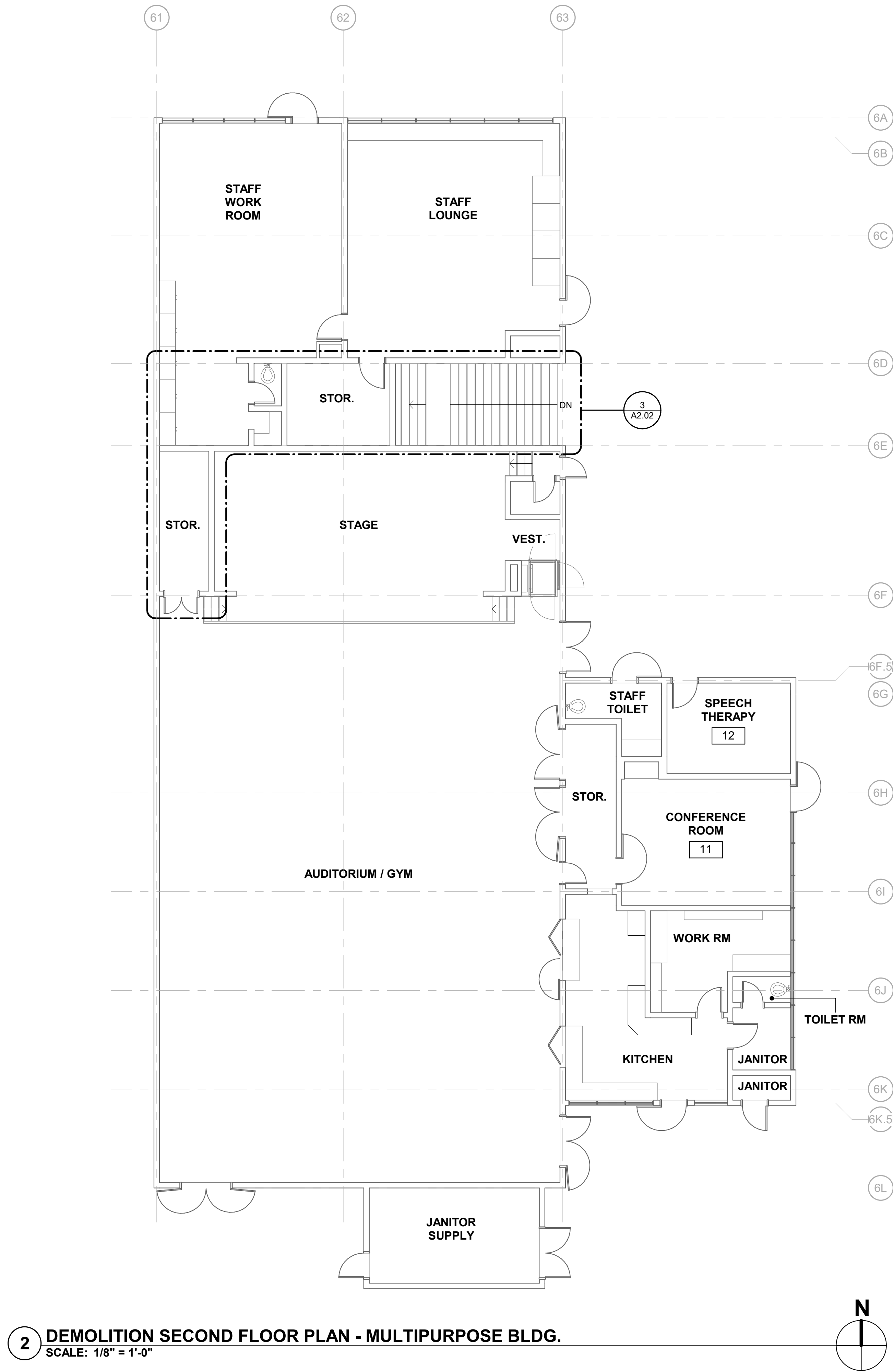
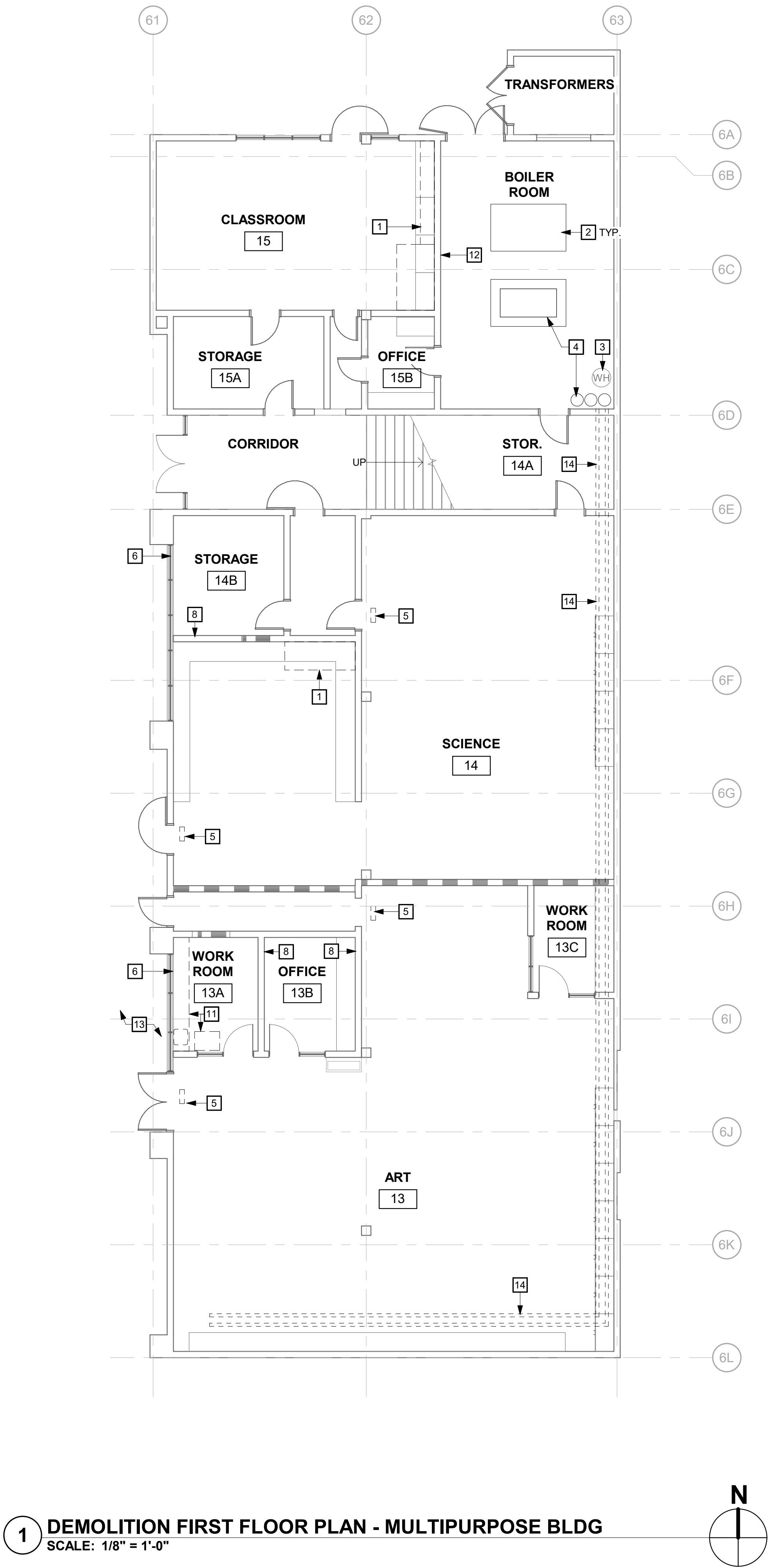
GRAPHIC KEY

- WALL TYPES:
- EXISTING NONRATED WALL TO REMAIN.
 - EXISTING 1 HR. RATED WALL TO REMAIN.
 - EXISTING STOREFRONT OR WINDOW TO REMAIN.

BUILDING KEY



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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

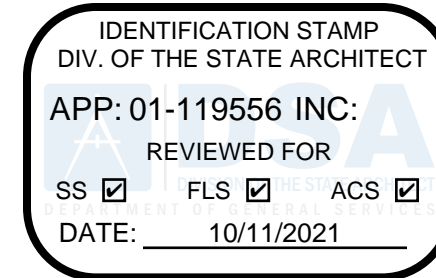
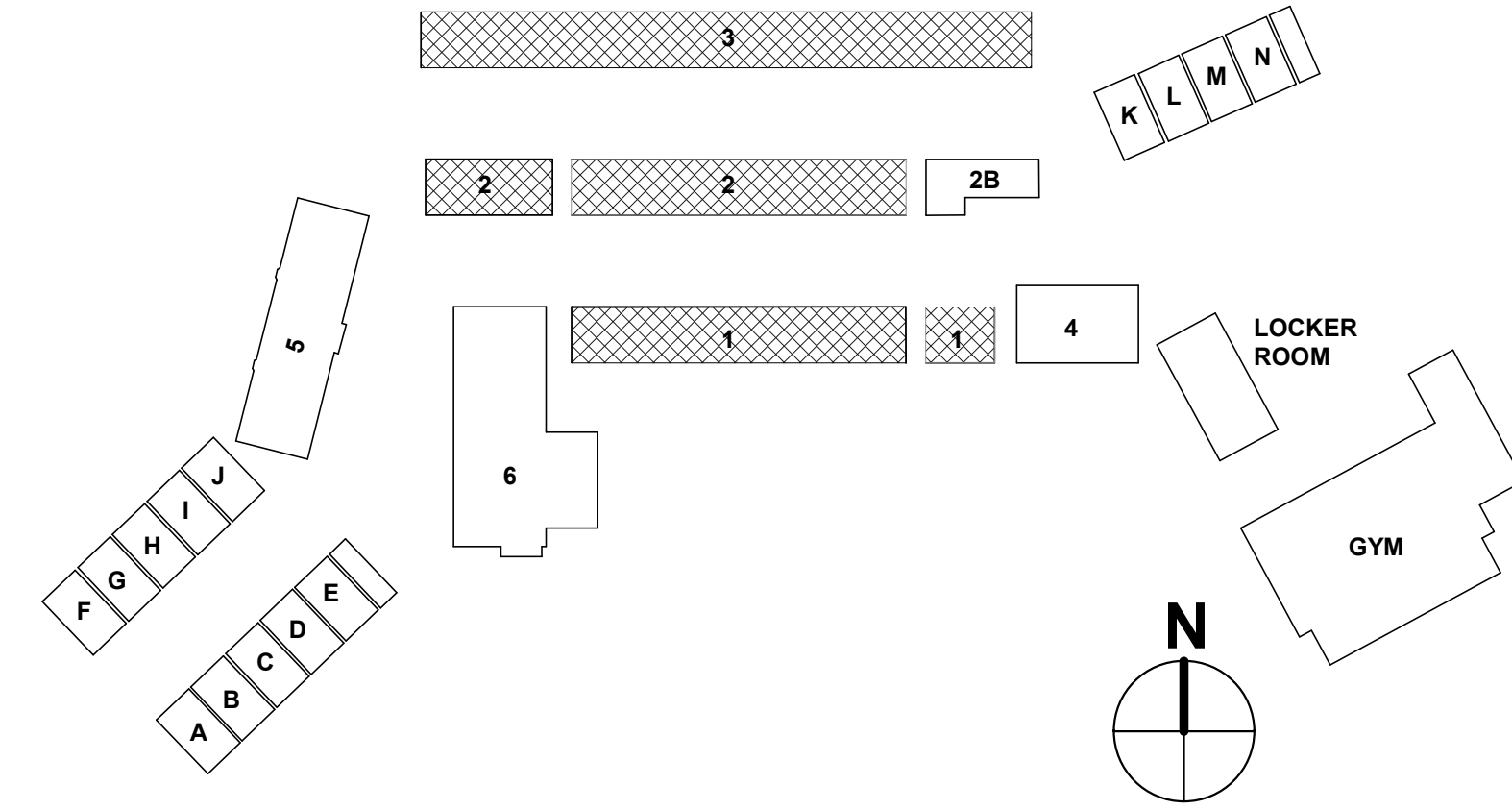
DEMOLITION FLOOR PLAN KEYNOTES

- 1 REMOVE AND REPLACE (E) ACT GLUE-UP TILES AT REMOVED MECHANICAL SYSTEM.
- 2 (E) HOUSEKEEPING PAD TO REMAIN
- 3 (E) WATER HEATER TO REMAIN, S.M.D.
- 4 (E) BOILER SYSTEM TO REMAIN, S.M.D.
- 5 (E) ILLUMINATED EXIT SIGN TO REMAIN
- 6 REMOVE (E) GLAZING, S.M.D.
- 7 REMOVE (E) ACCESS PANEL; CUT AND PREP OPENING FOR (N) DOOR. SEE NEW FLOOR PLAN
- 8 CUT AND PREP OPENING FOR MECHANICAL WORK, S.M.D.
- 9 (E) EXPOSED FRAMING OF CEILING BELOW TO REMAIN
- 10 (E) OPENING TO REMAIN
- 11 REMOVE (E) CABINET, COUNTERTOP, AND SINK. S.M.D. PATCH AND PAINT WALL AT REMOVED CABINET TO MATCH ADJACENT.
- 12 PREP FOR NEW WORK, REFER TO A3.02
- 13 PREP AREA FOR NEW WORK, S.M.D. & SEE A3.02
- 14 REMOVED ABANDONED PIPING, S.M.D. REMOVE HANGERS FLUSH TO STRUCTURE. PATCH OPENINGS AT WALL.

GRAPHIC KEY

- WALL TYPES:**
- EXISTING NONRATED WALL TO REMAIN.
- EXISTING 1 HR. RATED WALL TO REMAIN.
- EXISTING STOREFRONT OR WINDOW TO REMAIN.

BUILDING KEY



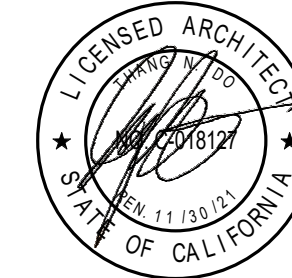
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PROJECT
**ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE
DSA FILE NUMBER **41-26**
APPL # **01-119556**

REVISIONS

No. Description Date

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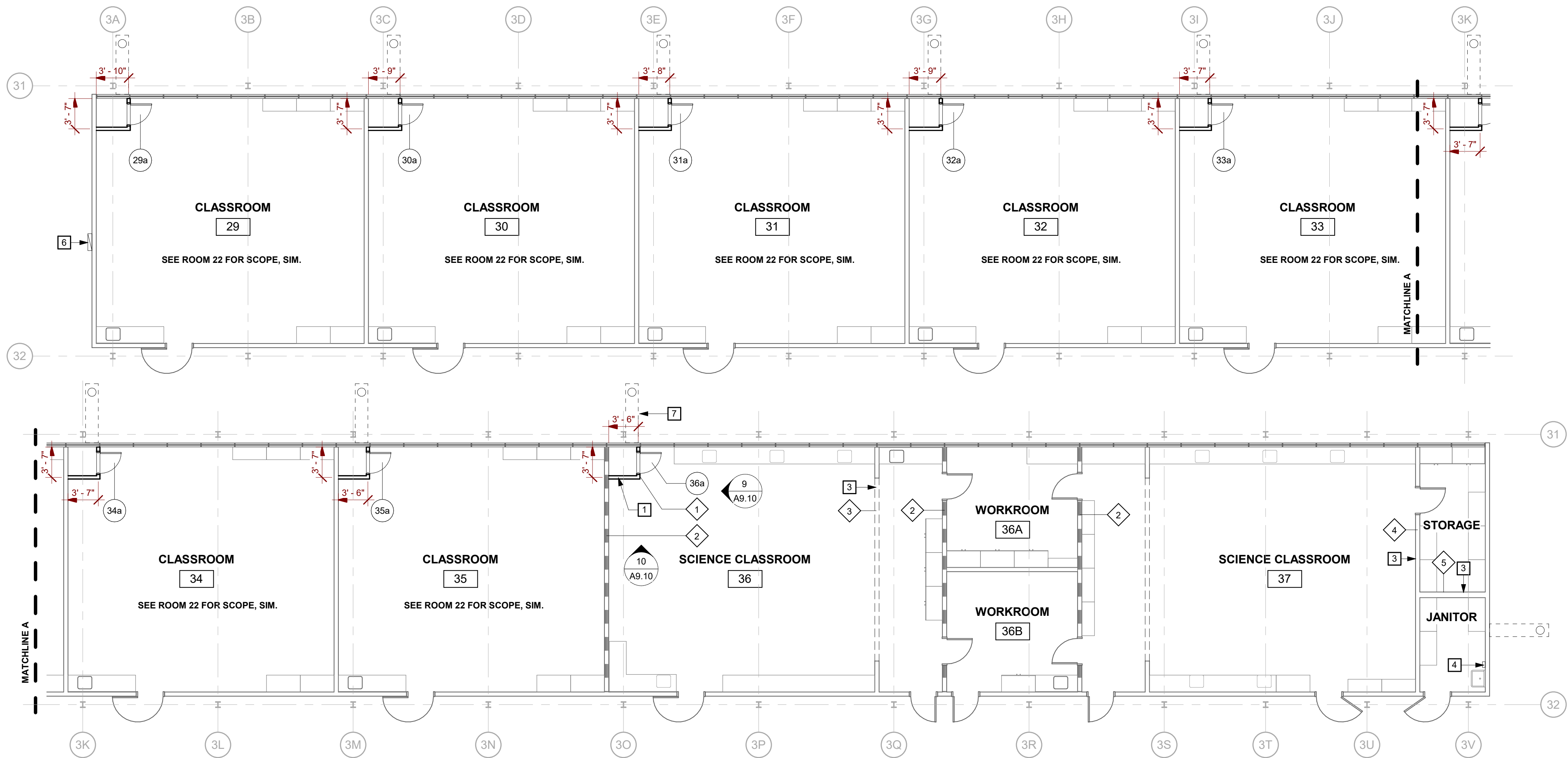
MILESTONES
DD
90% CD
DSA SUB 06/03/21
BACKCHECK 09/29/21

SHEET

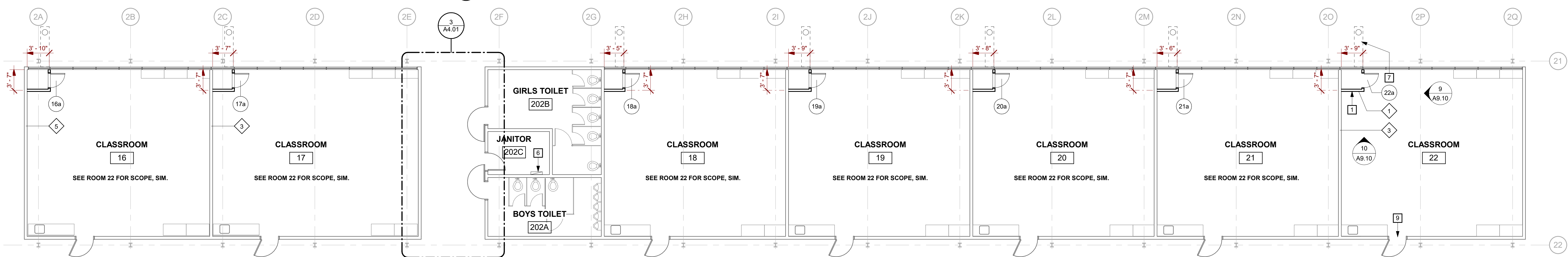
**DEMOLITION
FLOOR PLANS -
MULTIPURPOSE
BLDG**

DATE **09/29/2021**
JOB # **2021005.06**
SHEET #

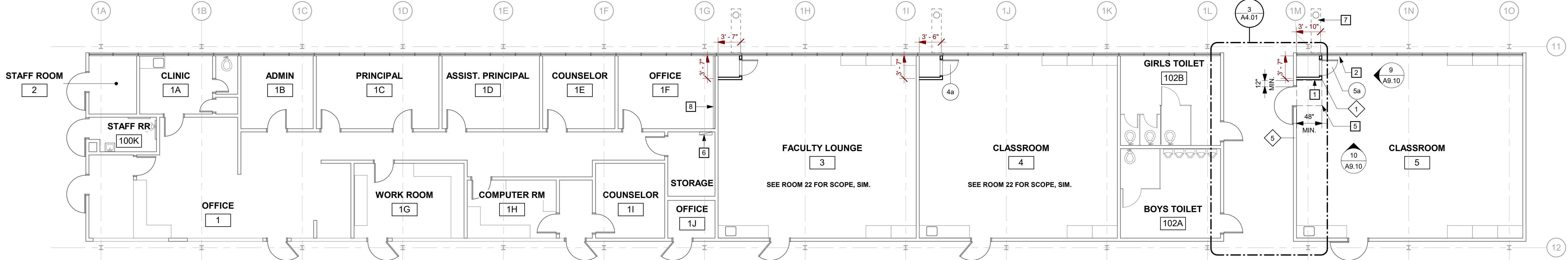
A2.02



1 NEW FLOOR PLAN - WING 3
SCALE: 1/8" = 1'-0"



2 NEW FLOOR PLAN - WING 2
SCALE: 1/8" = 1'-0"



3 NEW FLOOR PLAN - WING 1
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

- ROOM NAMES OR NUMBERS MAY NOT BE CONSISTENT BETWEEN FLOOR PLANS.
- REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.
- DIMENSIONS FOR EXISTING BUILDING ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO START OF CONSTRUCTION.
- SCRIBE FINISHES TIGHT TO ADJACENT CONDITIONS INCLUDING WALL FINISHES, WINDOWS, AND DUCTWORK.
- REMOVE AND REPLACE (E) WALL BASE AS REQUIRED FOR NEW CONSTRUCTION. PROVIDE NEW WALL BASE AT ALL REMOVED CASEWORK, NEW PARTITION WALLS, OR PATCHED FLOORING.
- 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.

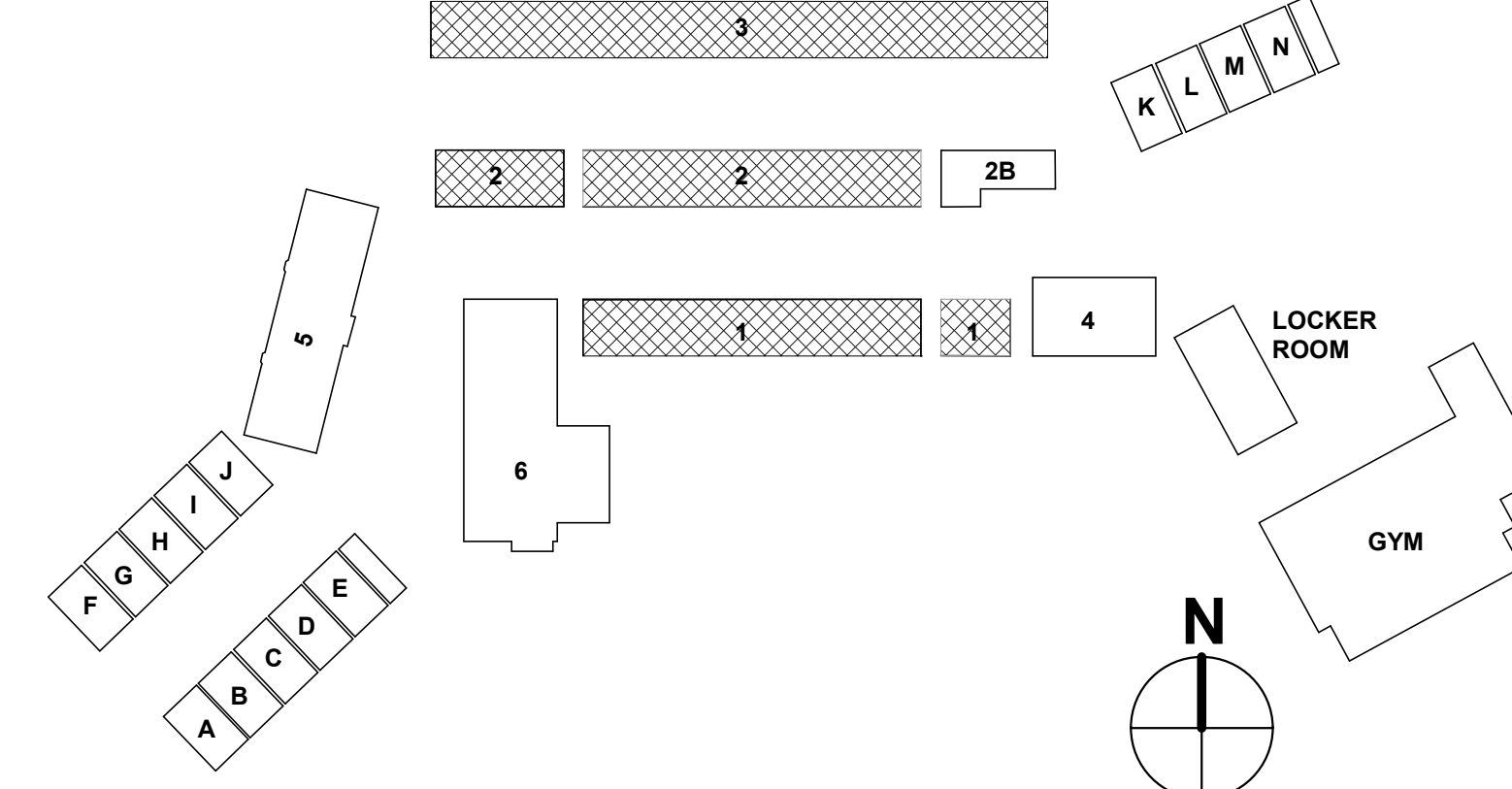
NEW FLOOR PLAN KEYNOTES

- FULL HEIGHT FRAMED MECHANICAL ENCLOSURE. MAINTAIN MIN. INTERIOR CLR. PER DETAIL 16/A9.10. PATCH ADJACENT FINISHES INCLUDING BUT NOT LIMITED TO WALLS AND CEILINGS. RECONFIGURE A.C.T. GRID AND REPLACE ACOUSTICAL TILES. V.I.F. FREE AND FIXED END OF GRID AND REPLACE IN KIND. SEE DETAILS 15/A9.10, 11/A9.10, & 12/A9.10.
- RECONFIGURE (E) WIREMOLD. SHORTEN CONFIGURATION TIGHT TO NEW ENCLOSURE AND PROVIDE END CAP. RELOCATE (E) OUTLET 6" FROM (N) WALL FINISH.
- PATCH OPENING TIGHT TO MECHANICAL WORK. S.M.D. AND SEE DETAIL 7/A9.10.
- REINSTALL SALVAGED (E) CLEANER DISPENSER. 40" MAX A.F.F.
- MAINTAIN DOOR CLEARANCE AS NOTED FOR FRONT APPROACH PUSH SIDE, WITH CLOSER AND LATCH.
- ELECTRICAL PANEL. PROVIDE BACKING. S.E.D.
- PATCH PAVING AT DRY WELL. SEE 6/A9.10 AND S.M.D.
- INTERIOR CONDUIT ENCLOSURE. SEE 20/A9.10 AND S.E.D.
- DAMPER @ (E) WINDOW FRAME. S.M.D.

GRAPHIC KEY

- WALL TYPES:
- EXISTING NONRATED WALL TO REMAIN.
 - EXISTING 1 HR. RATED WALL TO REMAIN.
 - EXISTING STOREFRONT OR WINDOW TO REMAIN.
 - WALL TYPE. REFER TO SHEET A9.10 FOR WALL TYPE DESCRIPTION, TYP.
 - STUD WALL

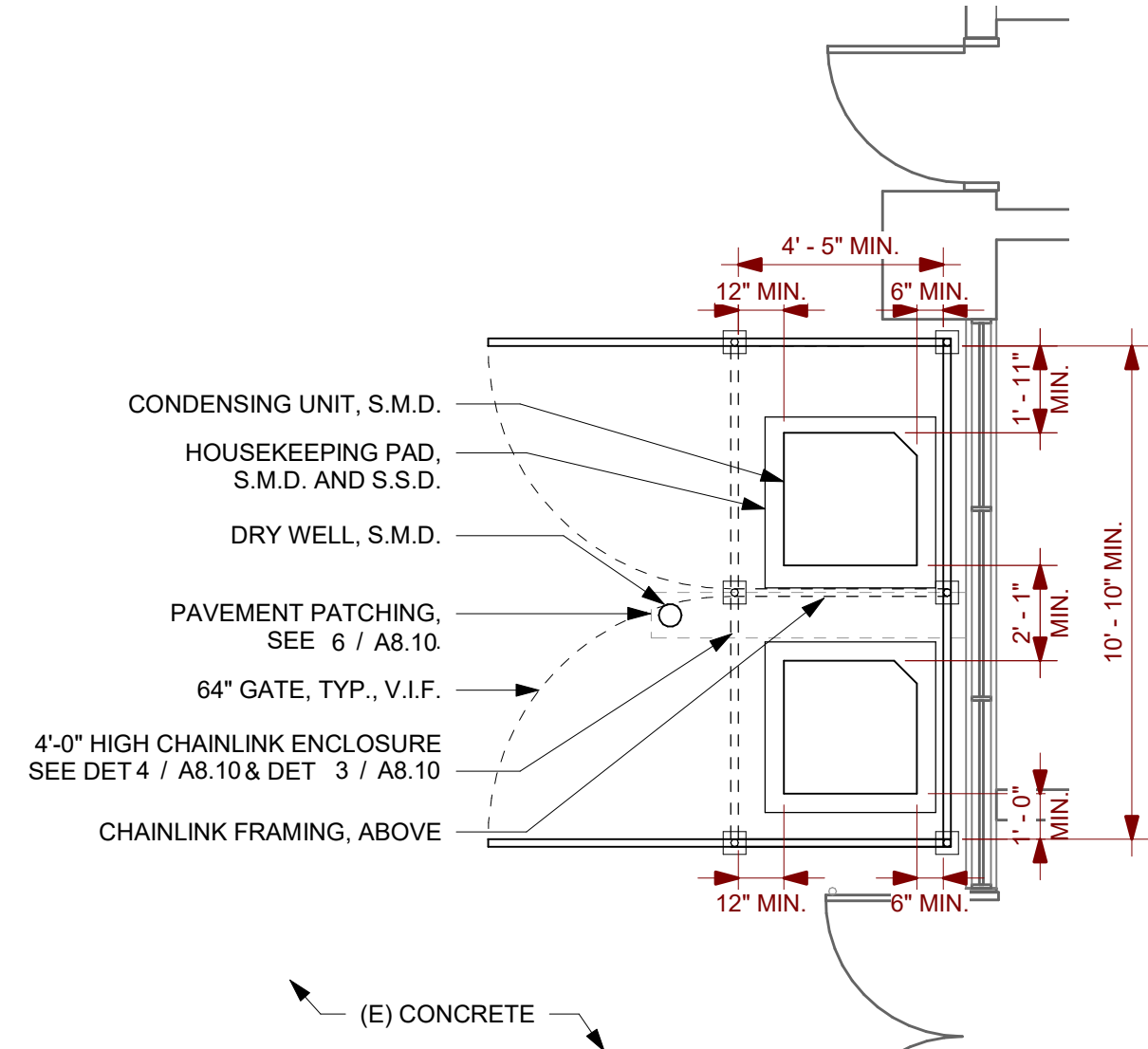
BUILDING KEY



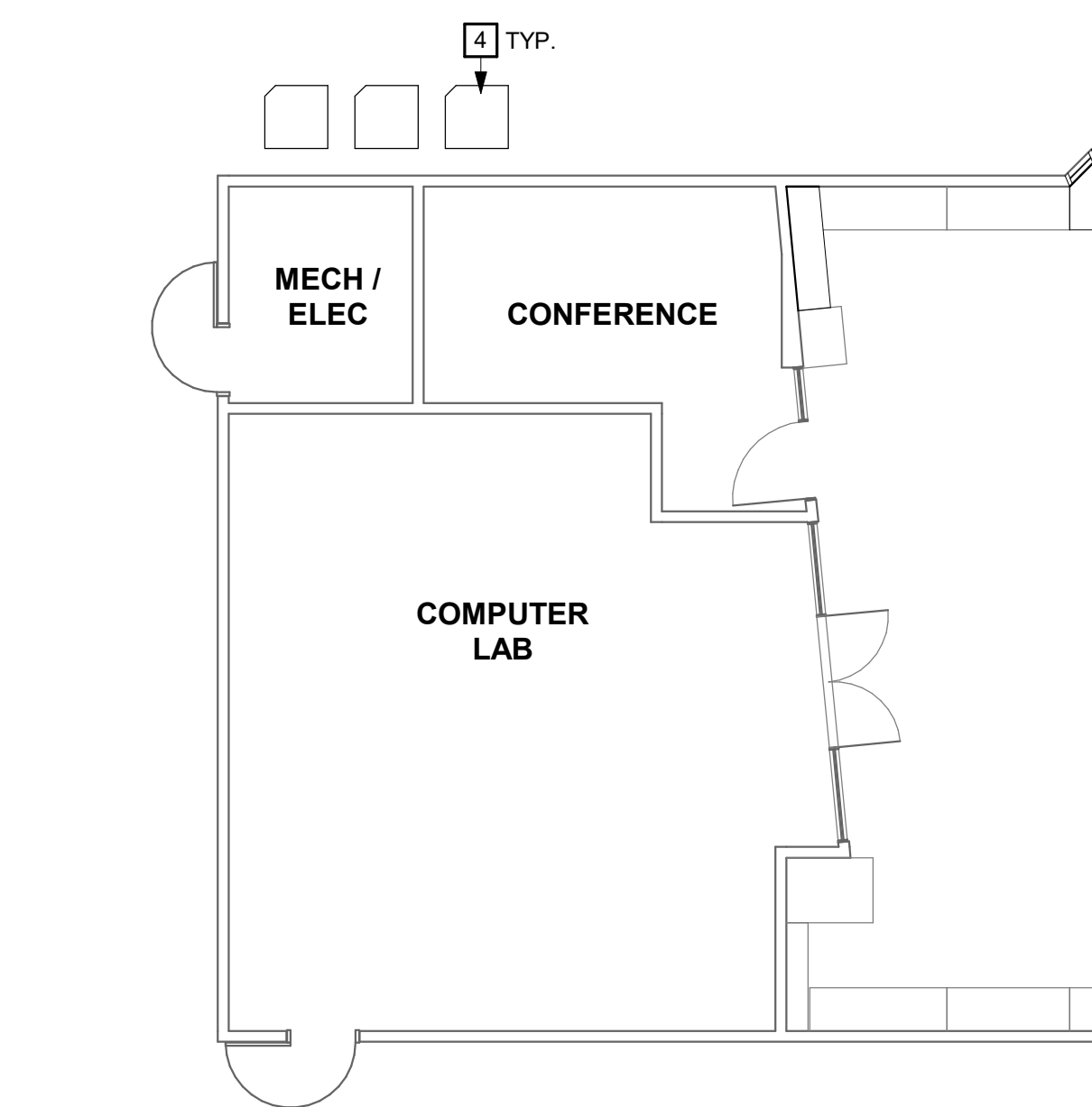
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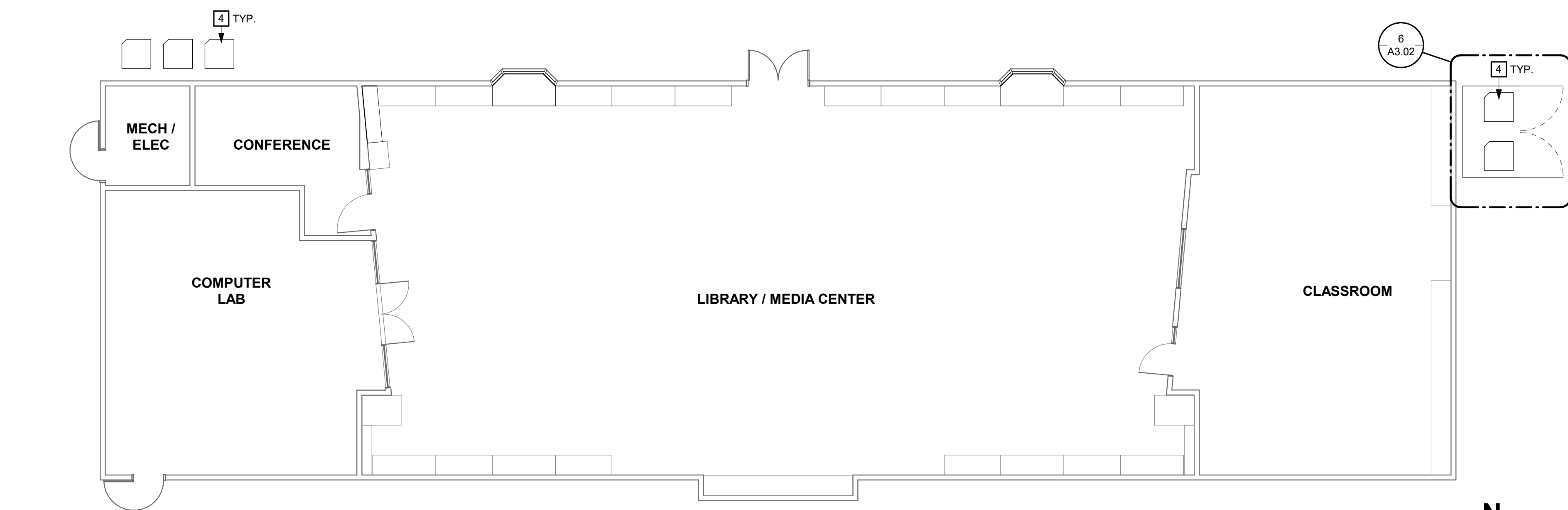
6 ENLARGED MECHANICAL ENCLOSURE, MEDIA CENTER
SCALE: 1/4" = 1'-0"



5 ENLARGED MECHANICAL ENCLOSURE, MULTIPURPOSE BLDG
SCALE: 1/4" = 1'-0"



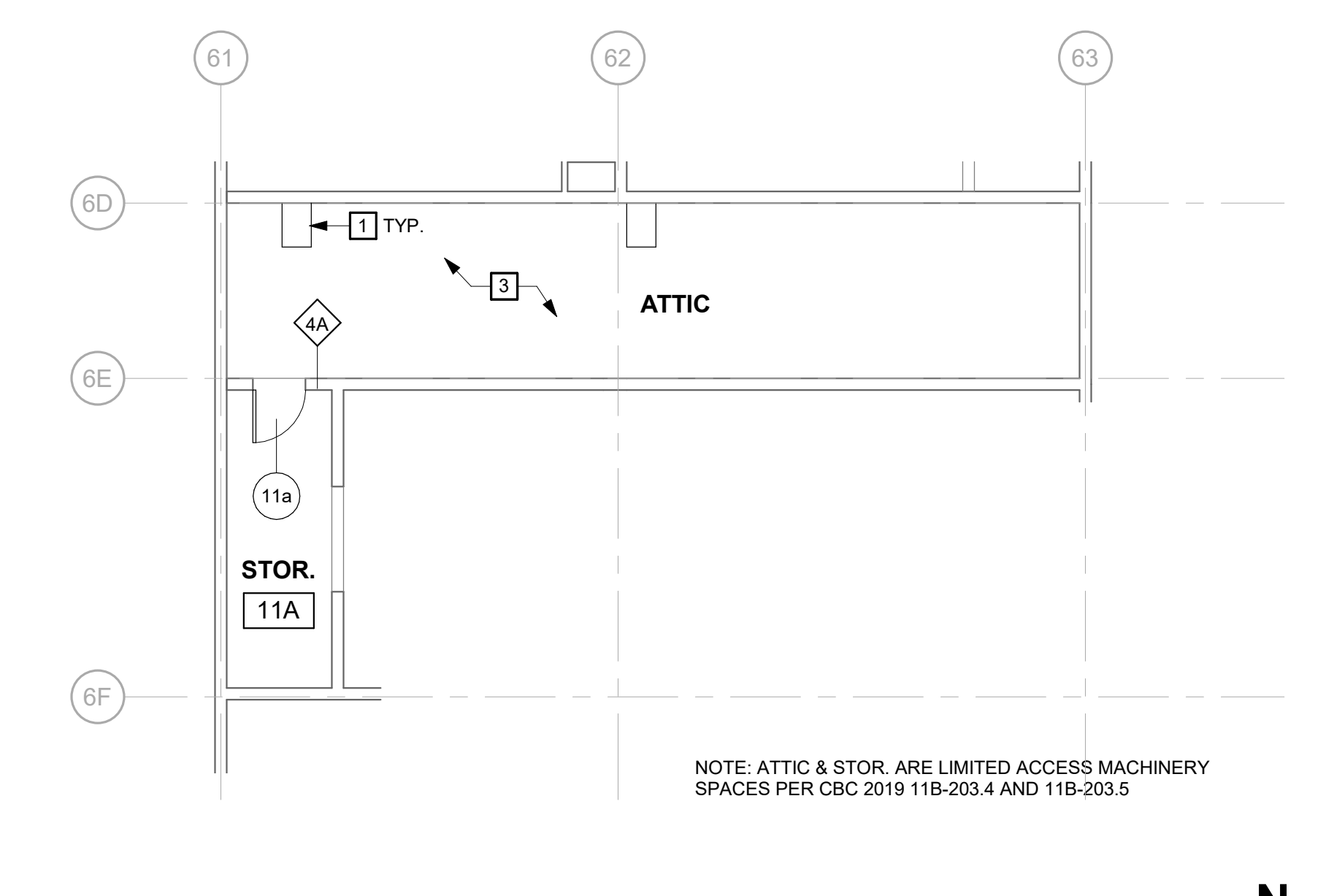
4 NEW FLOOR PLAN - MEDIA CENTER
SCALE: 1/8" = 1'-0"



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

2 NEW SECOND FLOOR PLAN - MULTIPURPOSE BLDG
SCALE: 1/8" = 1'-0"

3 FLOOR PLAN - MECHANICAL ATTIC PLATFORM ABOVE STOR. & STAFF AREA
SCALE: 1/8" = 1'-0"



GENERAL SHEET NOTES

- A ROOM NAMES OR NUMBERS MAY NOT BE CONSISTENT BETWEEN FLOOR PLANS.
- B REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.
- C DIMENSIONS FOR EXISTING BUILDING ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO START OF CONSTRUCTION.
- D SCRIBE FINISHES TIGHT TO ADJACENT CONDITIONS INCLUDING WALL FINISHES, WINDOWS, AND DUCTWORK.
- E REMOVE AND REPLACE (E) WALL BASE AS REQUIRED FOR NEW CONSTRUCTION. PROVIDE NEW WALL BASE AT ALL REMOVED CASEWORK, NEW PARTITION WALLS, OR PATCHED FLOORING.
- F 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.

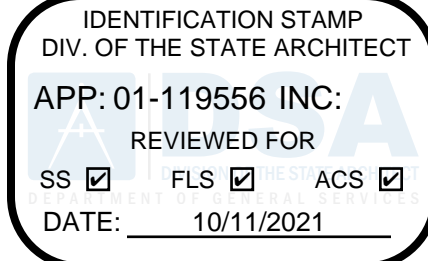
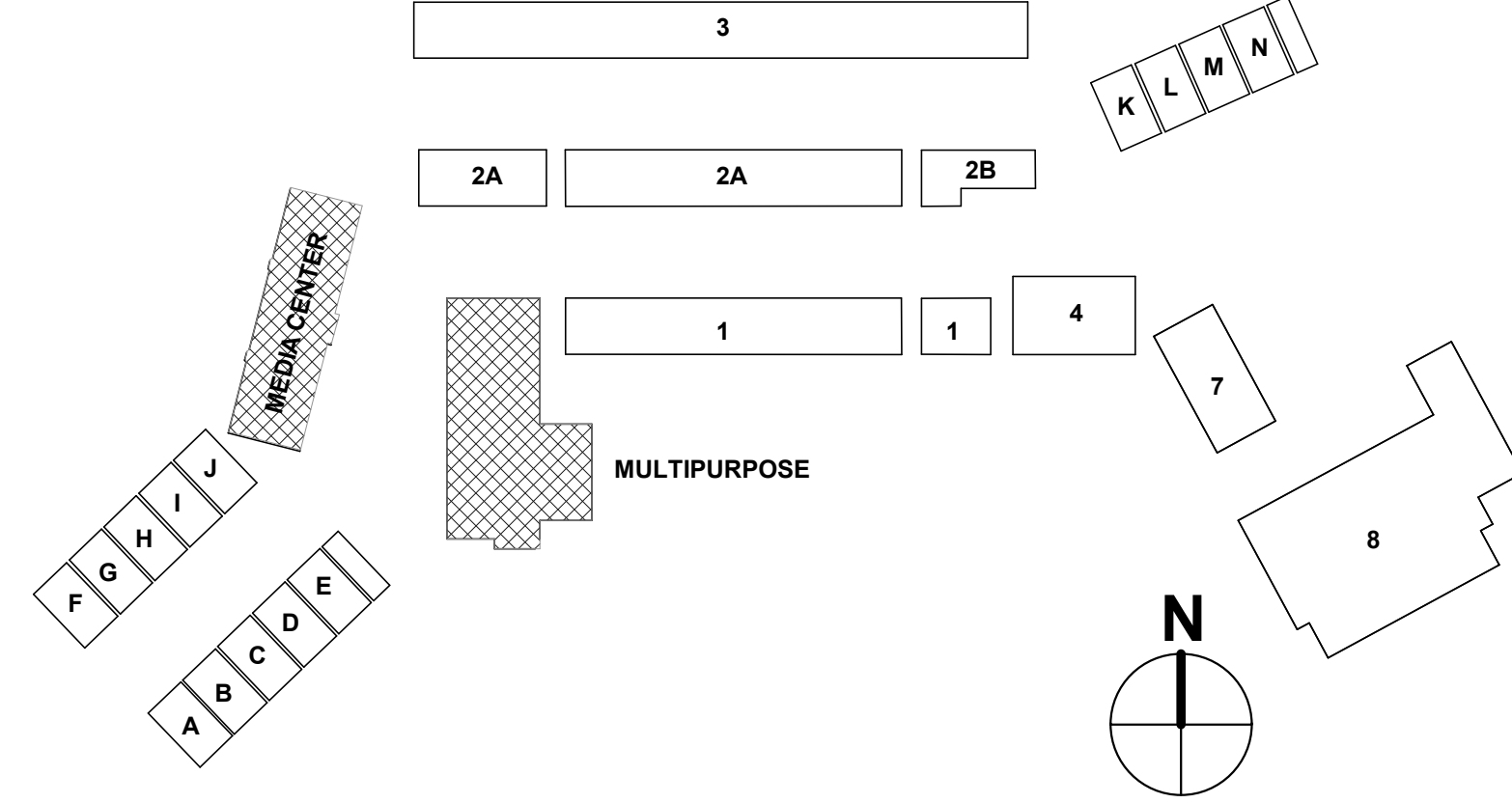
NEW FLOOR PLAN KEYNOTES

- 1 MECHANICAL UNIT, S.M.D.
- 2 INFILL LOUVER AT (E) WINDOW FRAME, S.M.D.
- 3 S.M.D. FOR NEW ACCESS PLATFORM EXTENTS
- 4 MECHANICAL EQUIPMENT ON HOUSEKEEPING PAD, S.M.D.
- 5 PATCH OPENING TIGHT TO MECHANICAL WORK, S.M.D AND SEE DETAIL 7/A8.10.
- 6 ELECTRICAL PANEL, PROVIDE BACKING, S.E.D.

GRAPHIC KEY

- WALL TYPES:
- EXISTING NONRATED WALL TO REMAIN.
- EXISTING 1 HR. RATED WALL TO REMAIN.
- EXISTING STOREFRONT OR WINDOW TO REMAIN.
- WALL TYPE. REFER TO SHEET A8.10 FOR WALL TYPE DESCRIPTION, TYP.
- STUD WALL

BUILDING KEY

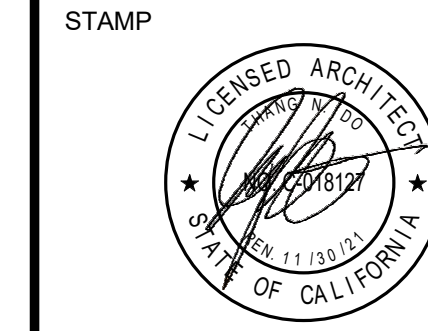


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REPLACEMENT

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SCHOOL DISTRICT
CONSULTANT



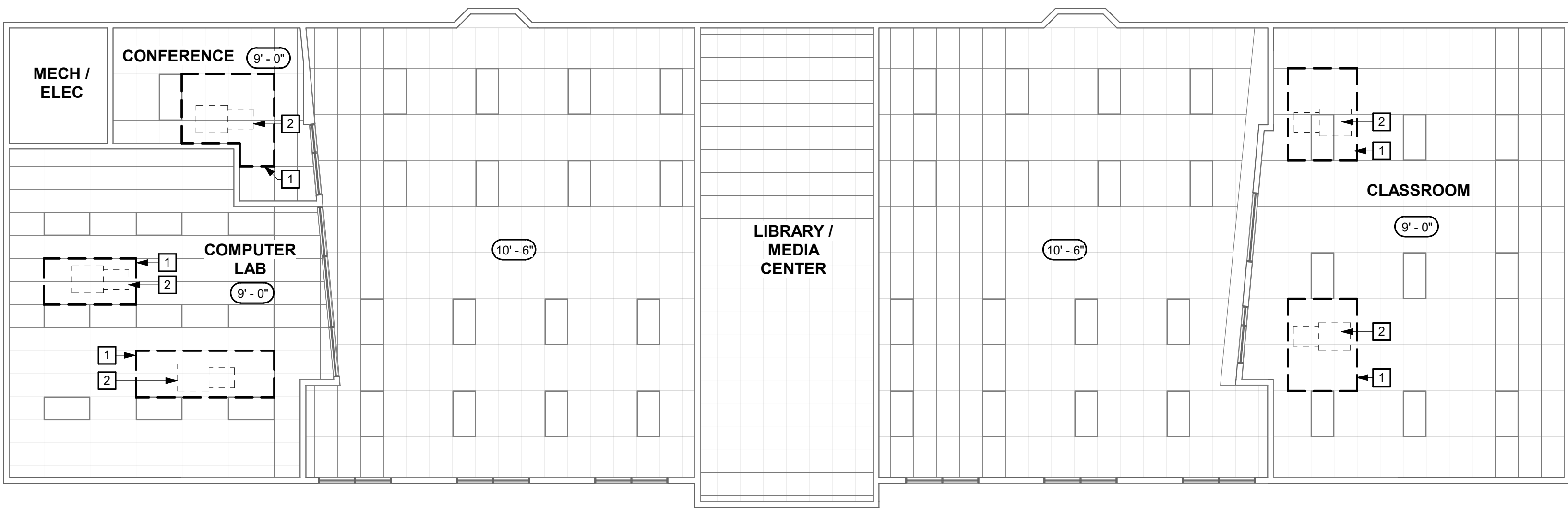
STATE
DSA FILE NUMBER 41-26
APPL # 01-119556

REVISIONS
No. Description Date

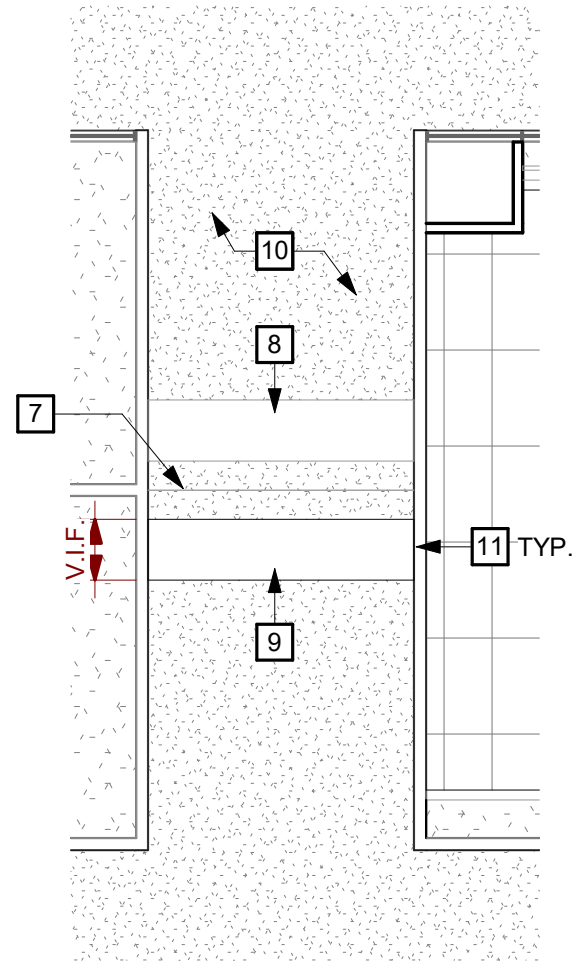
MILESTONES
DD
90% CD
DSA SUB 06/03/21
BACKCHECK 09/29/21

SHEET
NEW FLOOR
PLANS -
MULTIPURPOSE
BLDG & MEDIA
CENTER

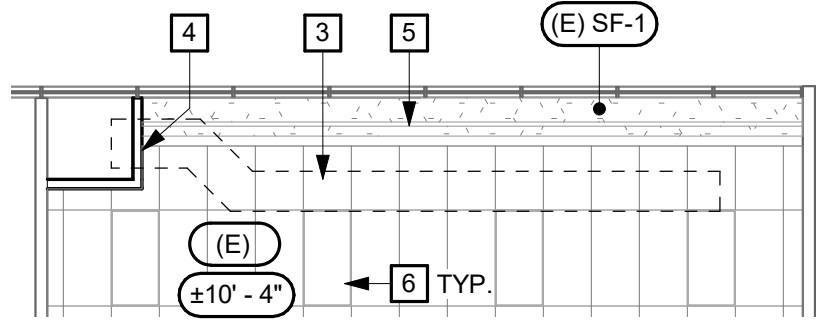
DATE 09/29/2021
JOB # 2021005.06
SHEET # A3.02



1 REFLECTED CEILING PLAN - MEDIA CENTER
SCALE: 1/8" = 1'-0"



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



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

GENERAL SHEET NOTES

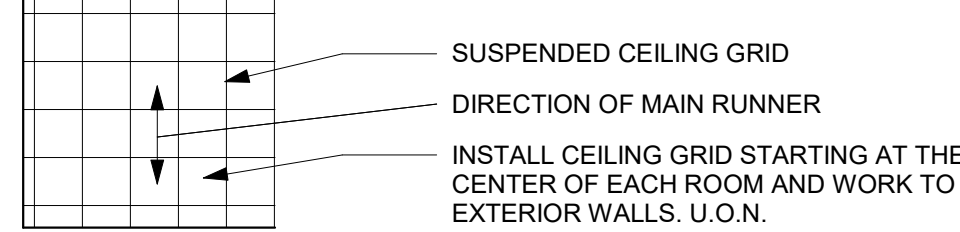
- A REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.
- B REFER TO FINISH SCHEDULE ON SHEET A11.10 FOR CEILING FINISHES NOT SHOWN.
- C RECONFIGURE A.C.T. GRID TIGHT TO NEW MECHANICAL ENCLOSURE WALL FINISH, PROVIDE NEW LAY IN CEILING TILES AT RECONFIGURED AREA. AREA CUT OR ALTERED IN EACH ROOM SHALL NOT EXCEED 10 PERCENT OF THE ENTIRE CEILING AREA.
- D SCRIBE FINISHES TIGHT TO ADJACENT CONDITIONS INCLUDING BUT NOT LIMITED TO WALL FINISHES, WINDOWS, CURTAIN RAILS, AND DUCTWORK.
- E PROVIDE NEW CEILING TILE MATCHING ADJACENT TILES WHERE EXISTING LIGHTS, SPEAKERS OR OTHER EQUIPMENT WERE REMOVED.

DEMOLITION & NEW REFLECTED CEILING PLAN KEYNOTES

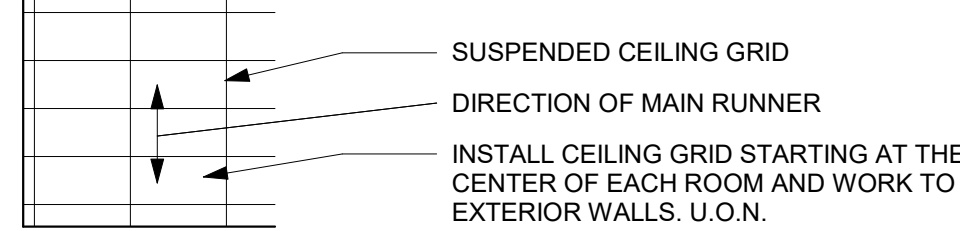
- 1 SALVAGE AND REINSTALL (E) ACT GRID AS REQUIRED FOR MECHANICAL AND PLUMBING INSTALLATION. S.M.D. AND S.E.D. FOR SCOPE OF WORK. DO NOT CUT OR ALTER GRID LAYOUT.
- 2 MECHANICAL UNIT, S.M.D.
- 3 EXPOSED SUSPENDED DUCTWORK OBTAINED FOR CLARITY. S.M.D.
- 4 REPLACE PERIMETER TRIM AND PROVIDE NEW CEILING TILE ADJACENT. REPLACE FREE AND FIXED ENDS IN KIND. SEE DETAILS 15/A9.10, 11/A9.10, & 12/A9.10.
- 5 (E) CURTAIN TRACK
- 6 (E) LIGHT FIXTURE
- 7 (E) RIDGE
- 8 (E) PAINTED SHEET METAL CONDUIT ENCLOSURE TO REMAIN.
- 9 PAINTED 18 GA. SHEET METAL CONDUIT ENCLOSURE. SEE DETAIL 18/A8.10 AND S.E.D.
- 10 (E) CEMENT PLASTER FINISH.
- 11 S.E.D. FOR CONDUIT PENETRATION DETAIL.

GRAPHIC KEY

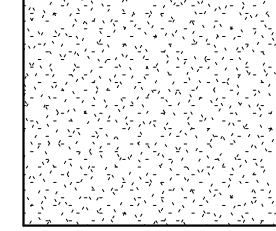
(E) 2'-0" x 2'-0" A.C.T. SUSPENDED CEILING SYSTEM



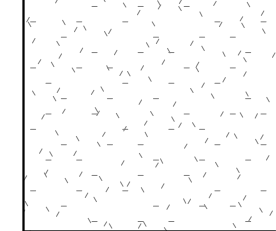
(E) 2'-0" x 4'-0" A.C.T. SUSPENDED CEILING SYSTEM



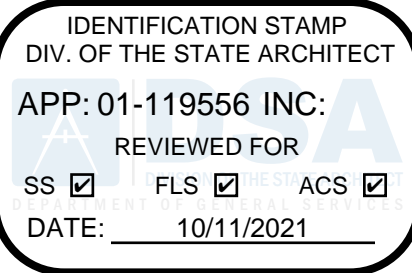
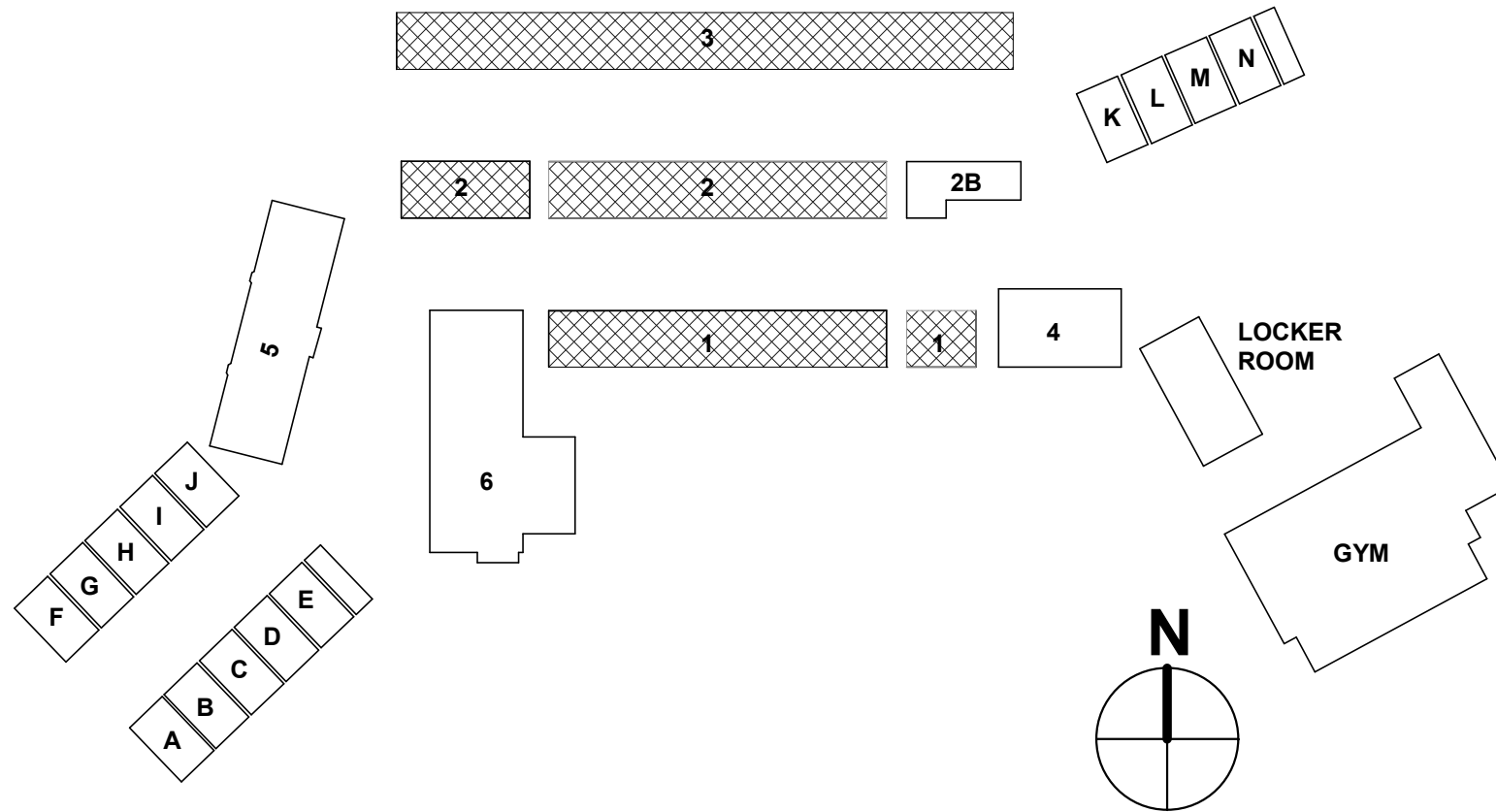
(E) CEMENT PLASTER SOFFIT



(E) GYPSUM SOFFIT



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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE

DSA FILE NUMBER 41-26
APPL # 01-119556

REVISIONS

No. Description Date



MILESTONES

DD
90% CD
DSA SUB 06/03/21
BACKCHECK 09/29/21

SHEET

REFLECTED
CEILING PLANS

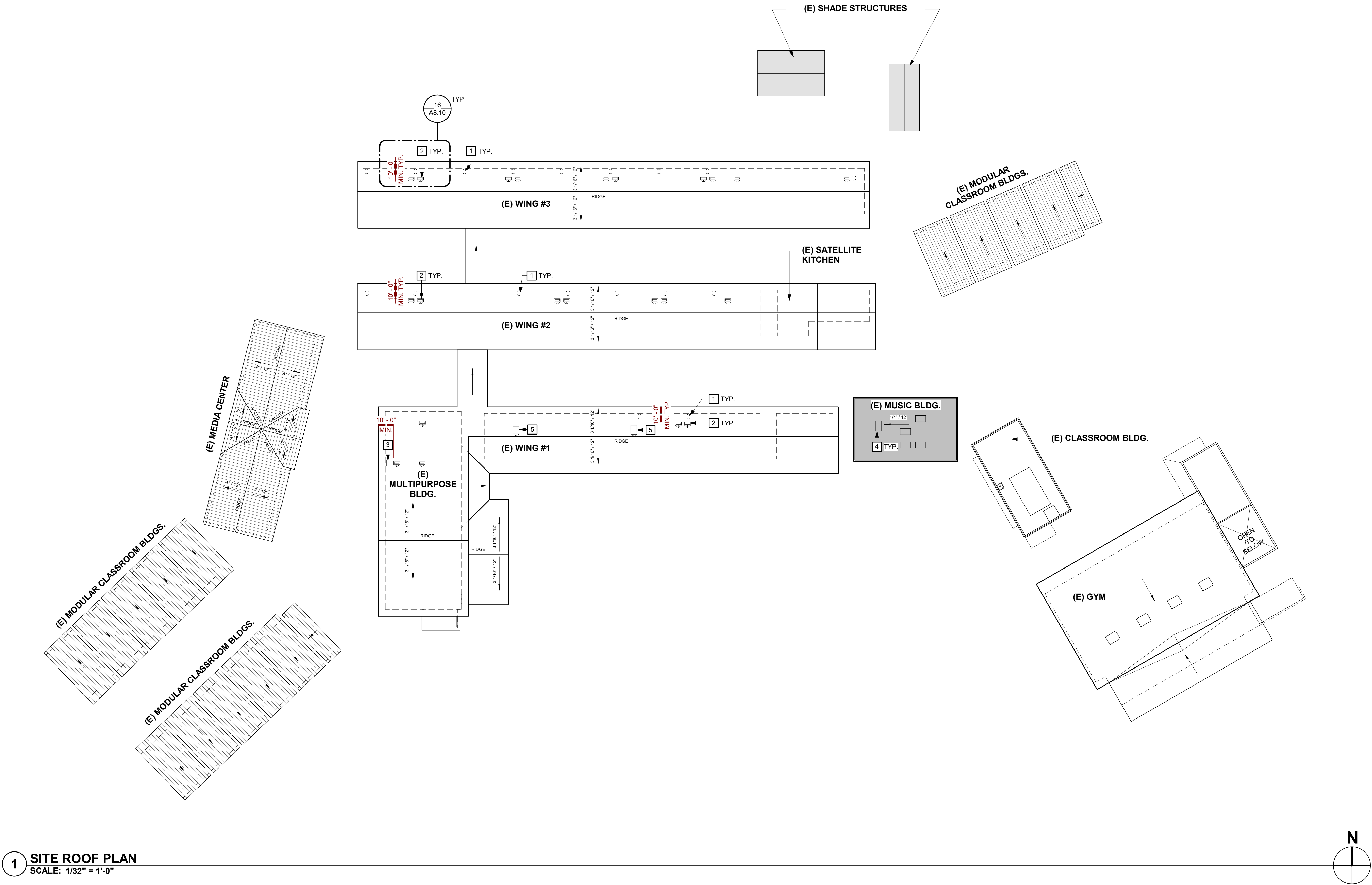
DATE 09/29/2021

JOB # 2021005.06

SHEET #

A4.01

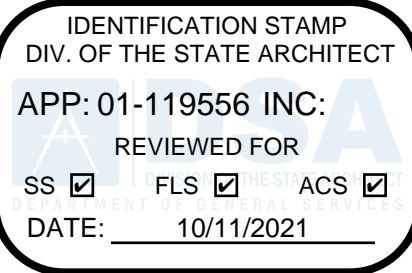
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1 SITE ROOF PLAN
SCALE: 1/32" = 1'-0"

GENERAL SHEET NOTES

- A REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXTENT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK.
- B SIZE OF MECHANICAL EQUIPMENT PADS ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY REQUIRED PAD DIMENSION WITH EQUIPMENT MANUFACTURER.



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MILESTONES

DD

90% CD

DSA SUB 06/03/21

BACKCHECK 09/29/21

SHEET

SITE ROOF PLAN

DATE 09/29/2021

JOB # 2021005.06

SHEET #

A5.01

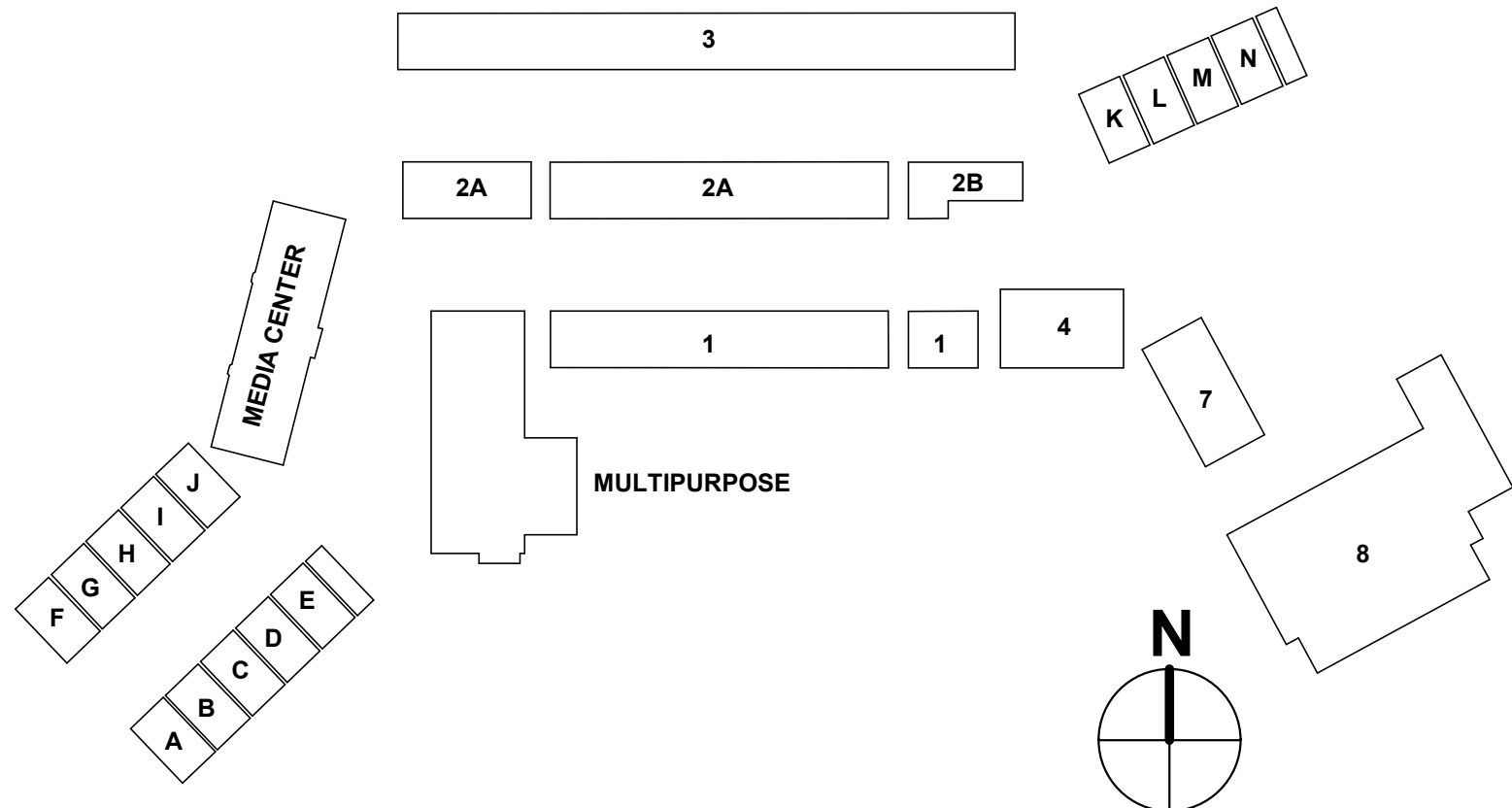
ROOF PLAN KEYNOTES

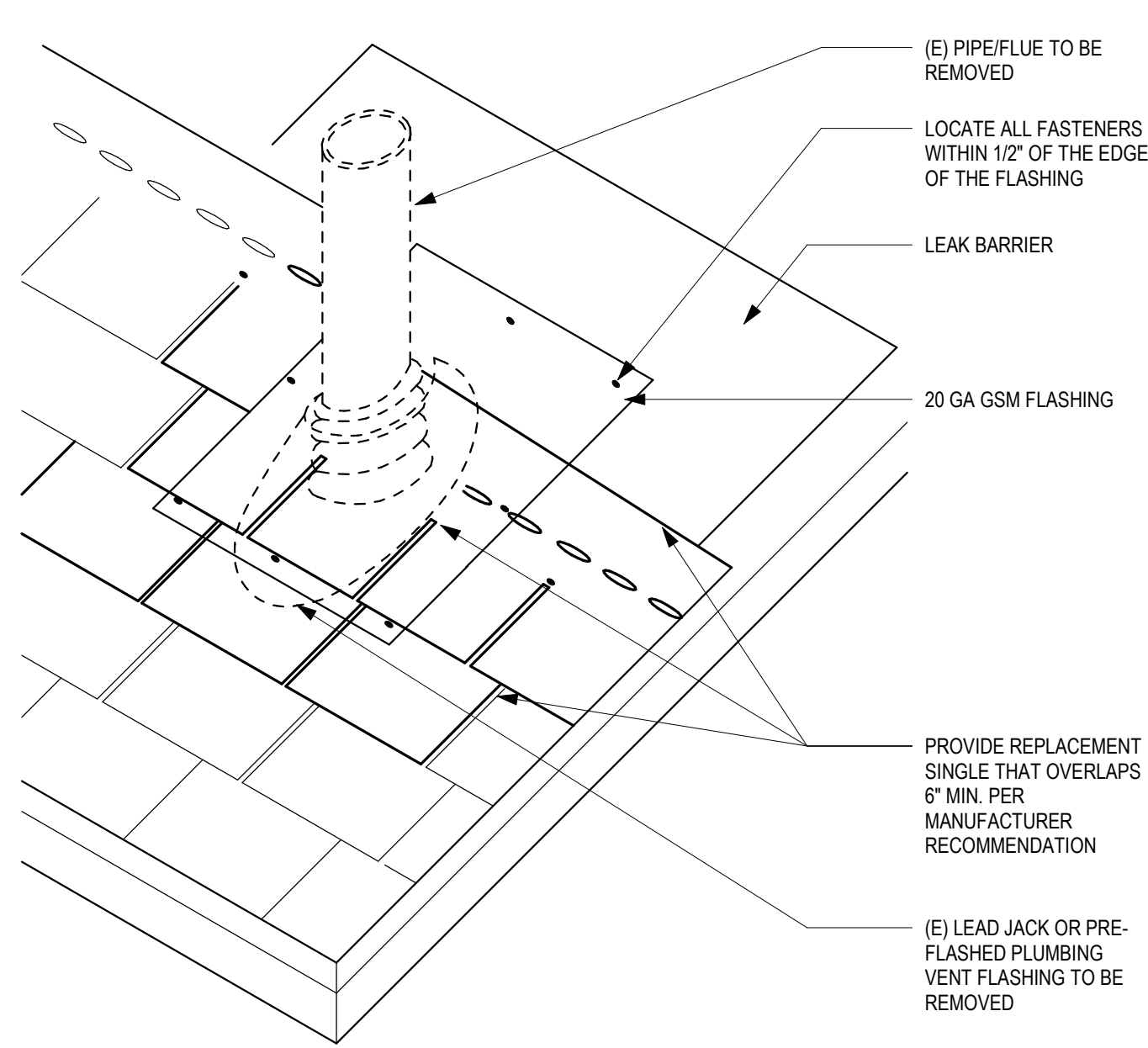
- 1 PATCH (E) PENETRATION AT REMOVED FLUE AND COMBUSTION AIR INTAKE AND PATCH (N) PENETRATIONS. S.M.D. AND SEE DETAIL 17/A8.10
- 2 MECHANICAL UNIT ON PLATFORM WITH CRICKET. S.M.D. AND SEE DETAIL 10/A8.10
- 3 (E) AIR INTAKE TO REMAIN. S.M.D.
- 4 MECHANICAL UNIT ON PLATFORM. S.M.D. AND SEE DETAIL 19/A8.10. REMOVE (E) CURB AND REPLACE WITH NEW IN SAME LOCATION.
- 5 MECHANICAL UNIT ON PLATFORM WITH CRICKET. S.M.D. AND SEE DETAIL 10/A8.10. REMOVE (E) CURB AND REPLACE WITH NEW IN SAME LOCATION.

GRAPHIC KEY

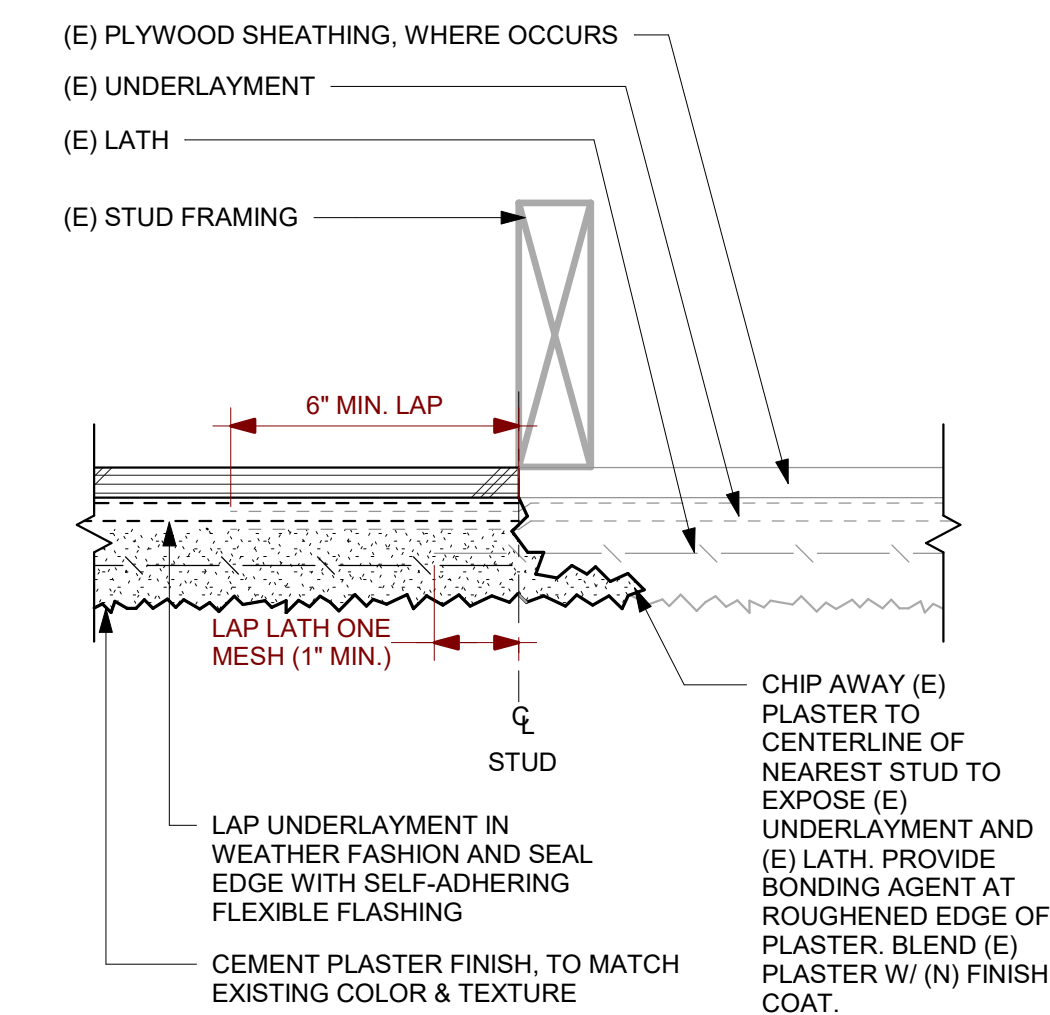
- | | |
|--|---|
| | (E) ASPHALT SHINGLE, CLASS C MINIMUM |
| | (E) SINGLE PLY ROOFING, CLASS C MINIMUM |
| | (E) STANDING SEAM, CLASS C MINIMUM |
| | (E) METAL ROOFING |
| | OUTLINE OF WALL BELOW |

BUILDING KEY

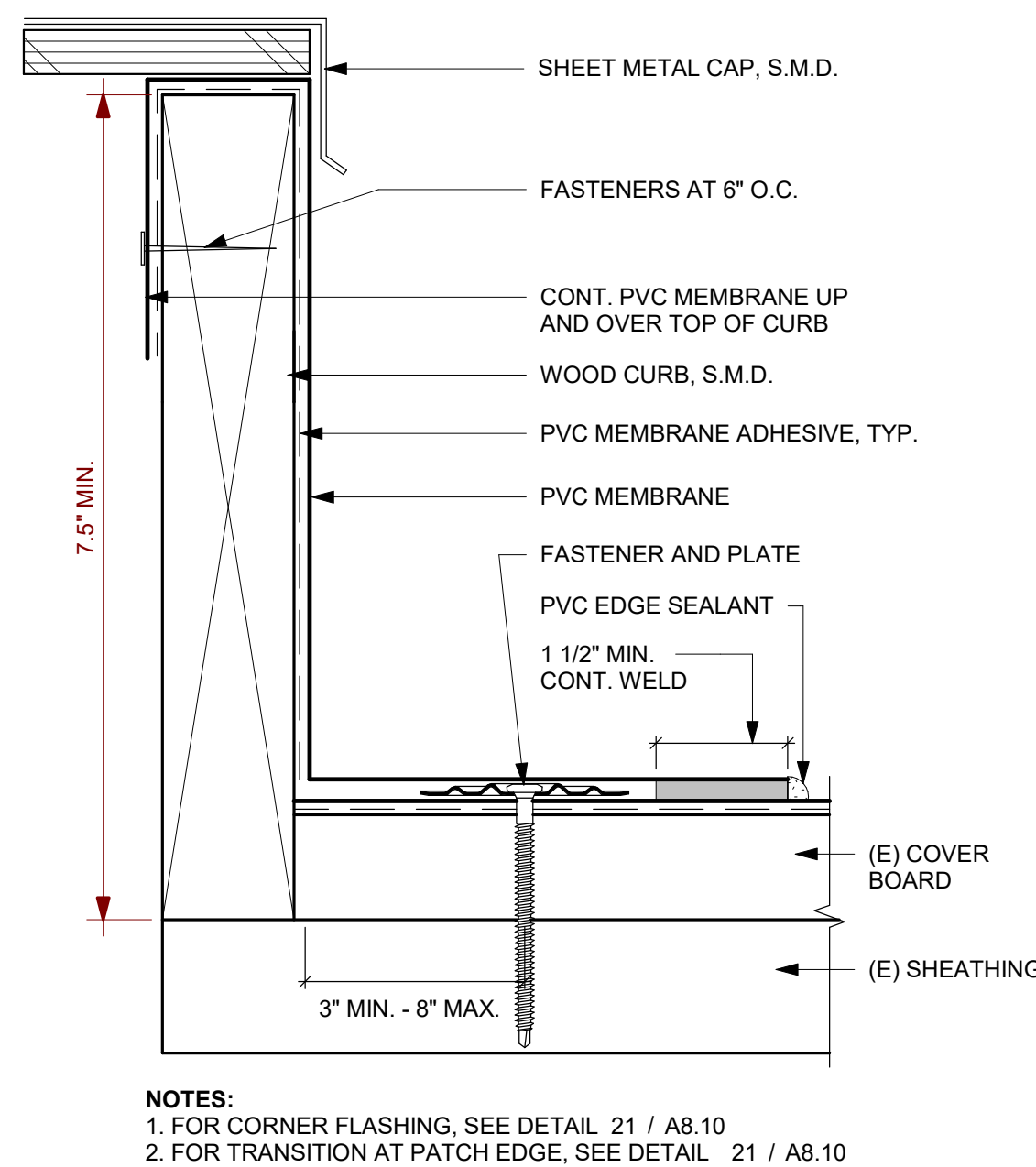




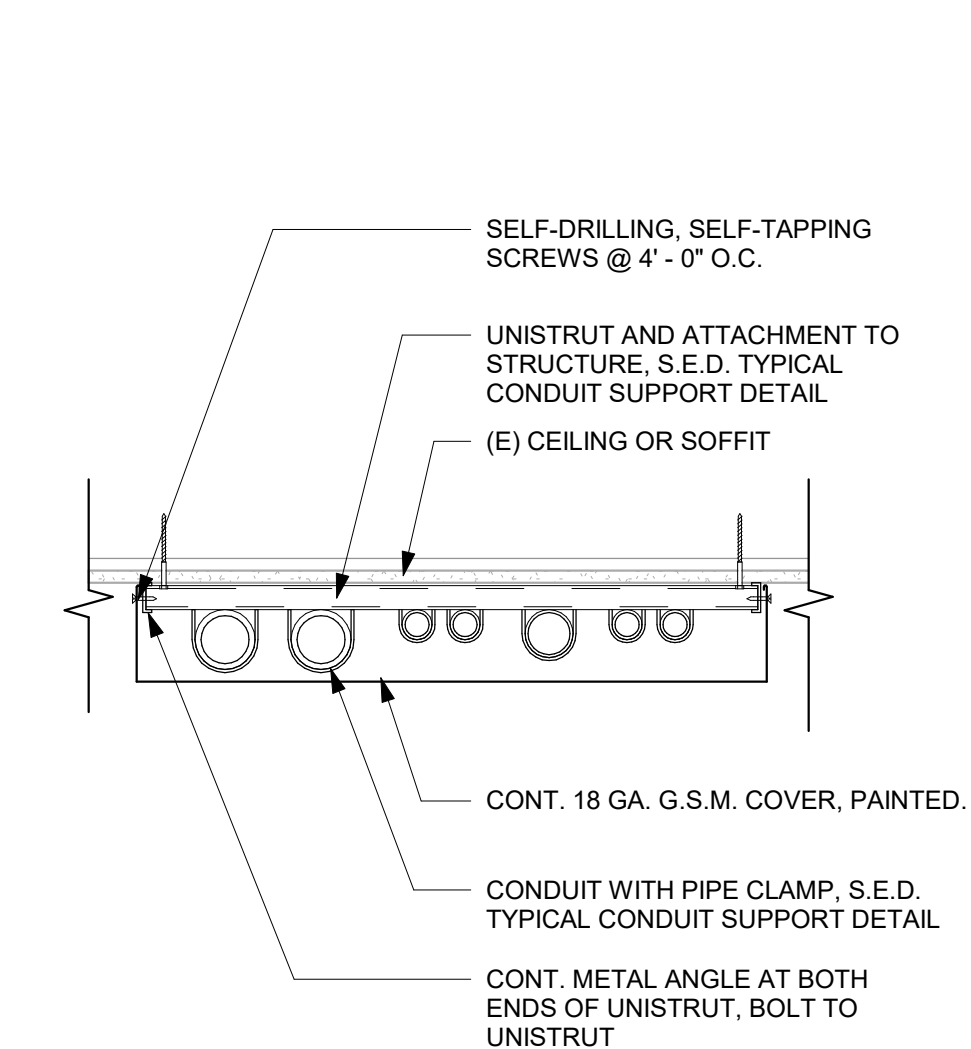
17 ROOF PATCH AT REMOVED PIPES
SCALE: 3" = 1'-0"



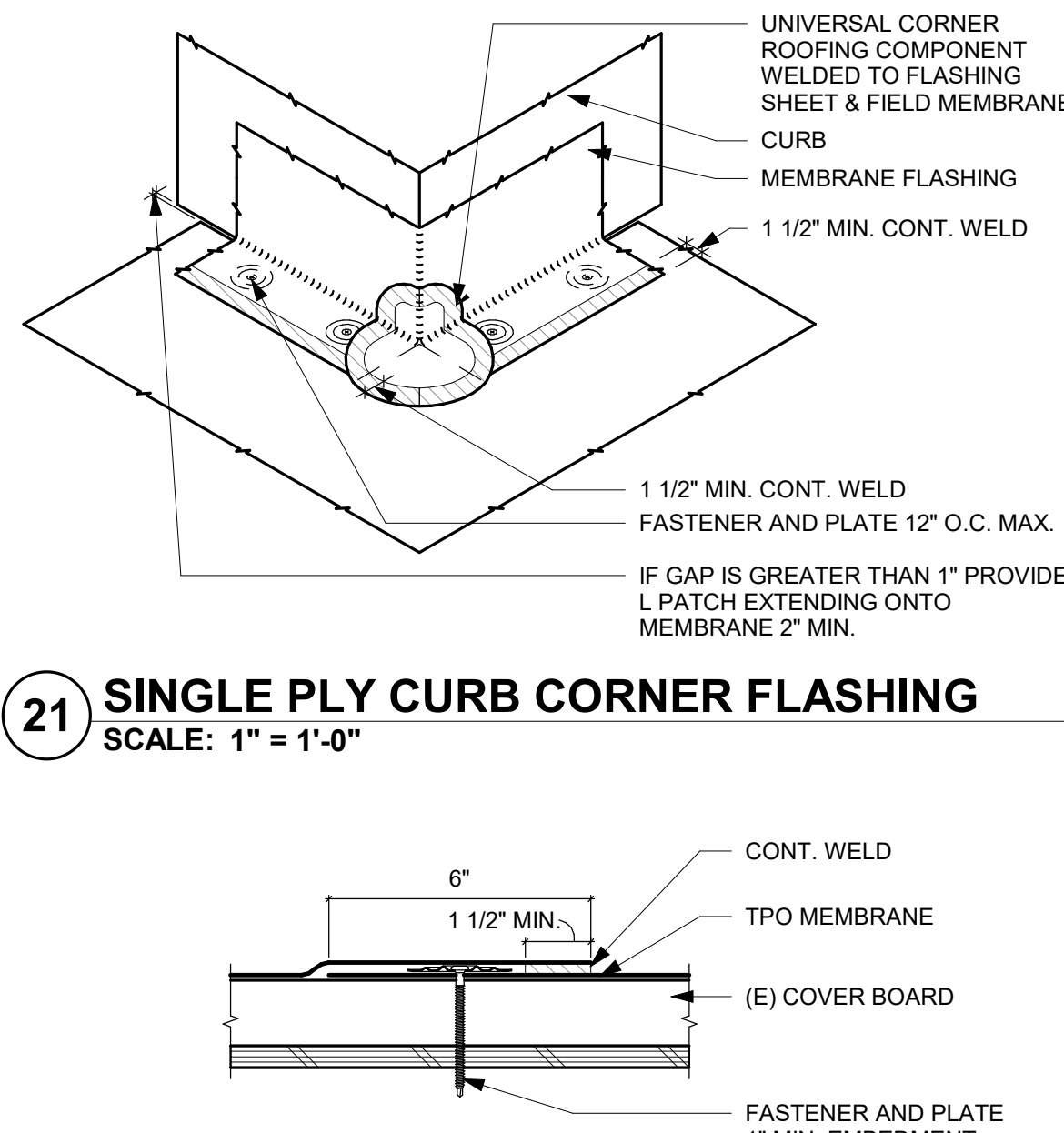
18 CEMENT PLASTER PATCHING
SCALE: 3" = 1'-0"



19 SINGLE PLY CURB FLASHING
SCALE: 6" = 1'-0"

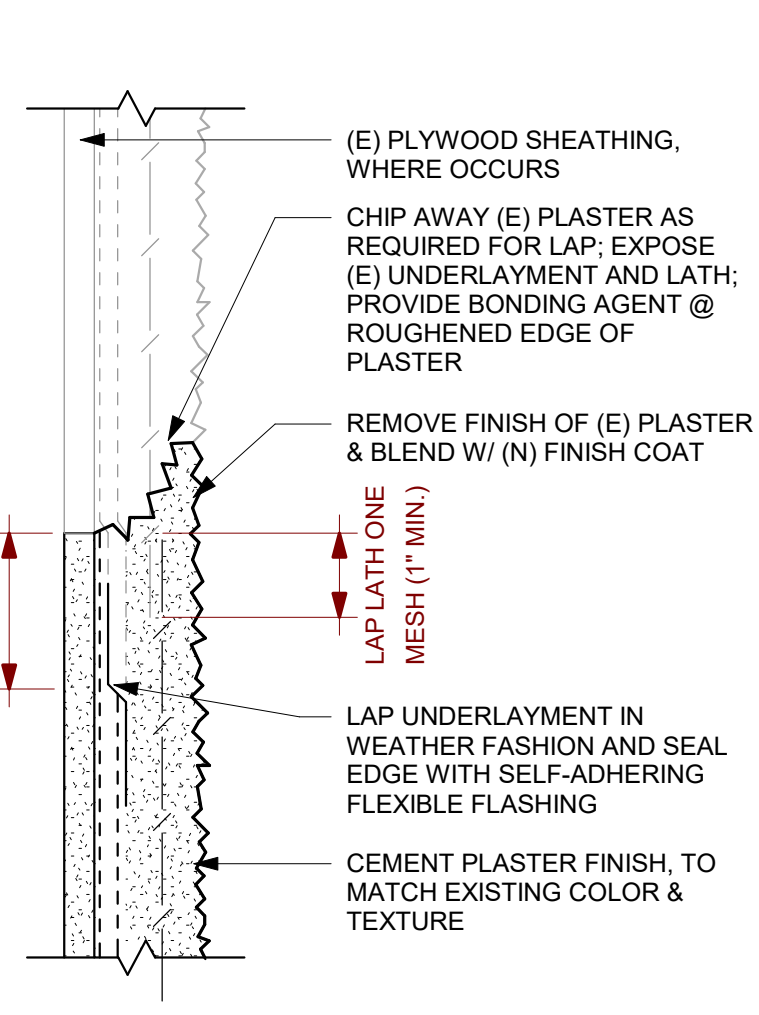


20 CONDUIT ENCLOSURE
SCALE: 1 1/2" = 1'-0"



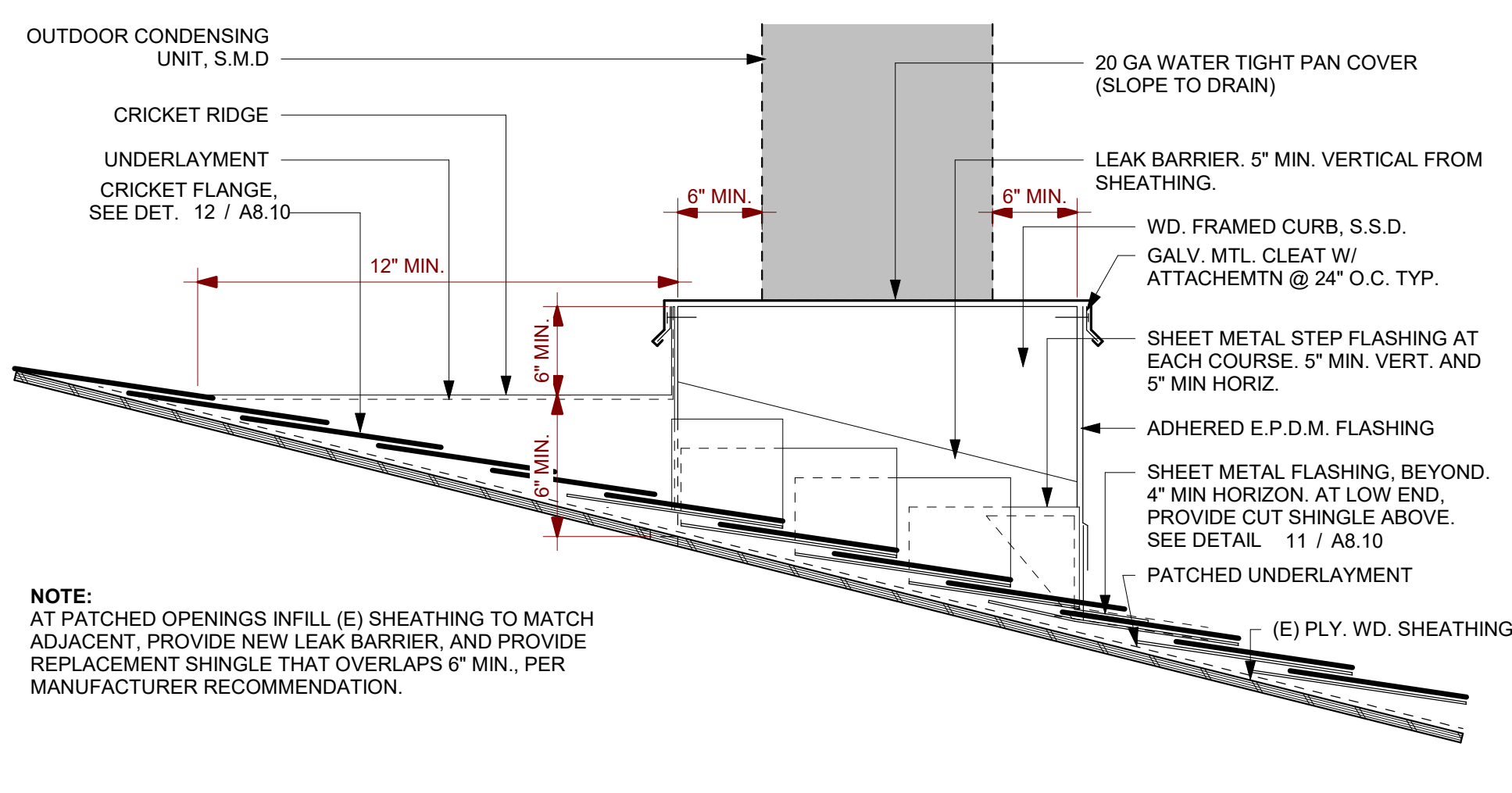
21 SINGLE PLY CURB CORNER FLASHING
SCALE: 1" = 1'-0"

13 SINGLE PLY ROOFING PATCH EDGE
SCALE: 3" = 1'-0"



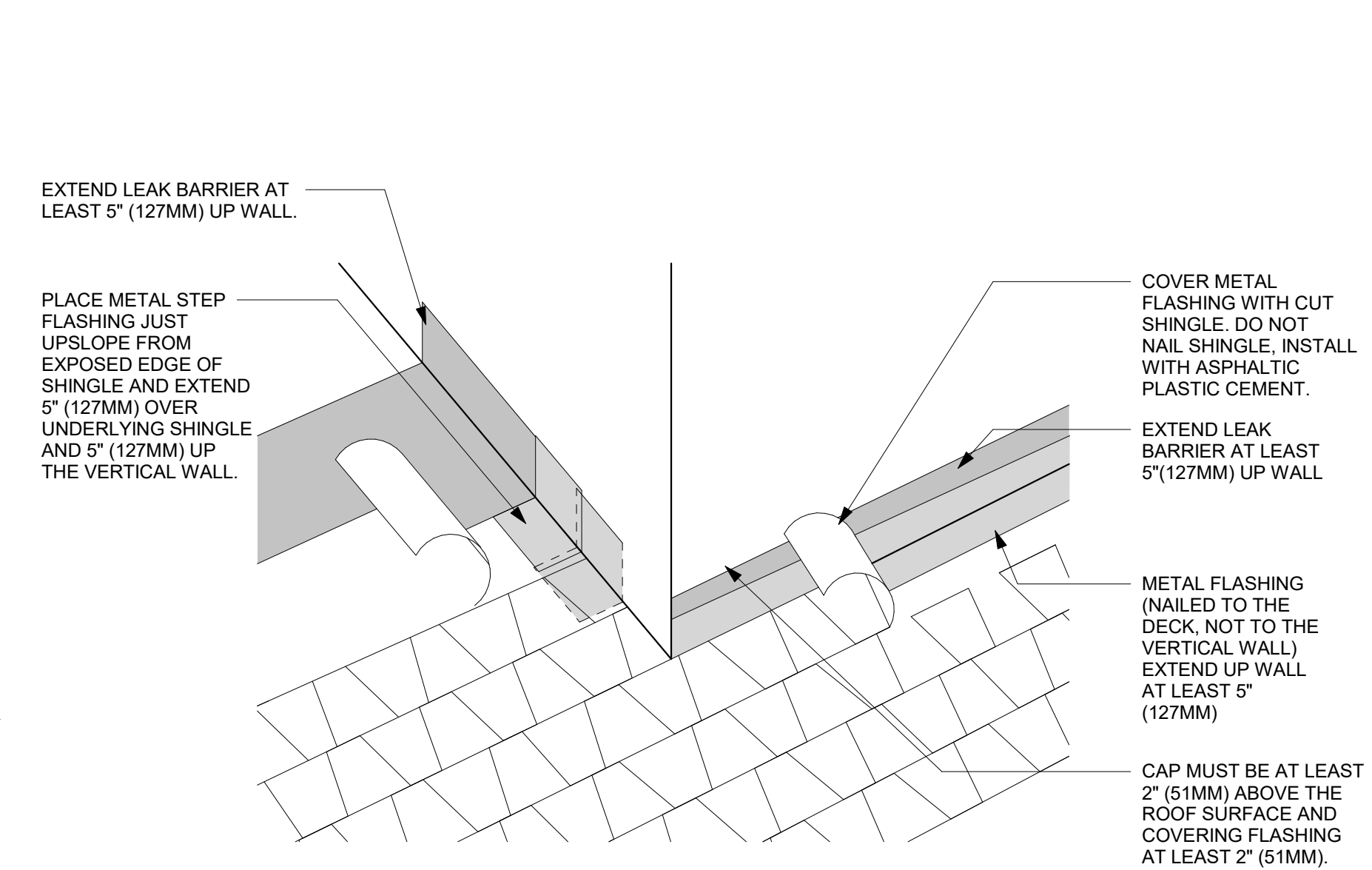
SECTION AT HORIZONTAL PATCH

9 ASPHALT/CONCRETE JOINT
SCALE: 1 1/2" = 1'-0"

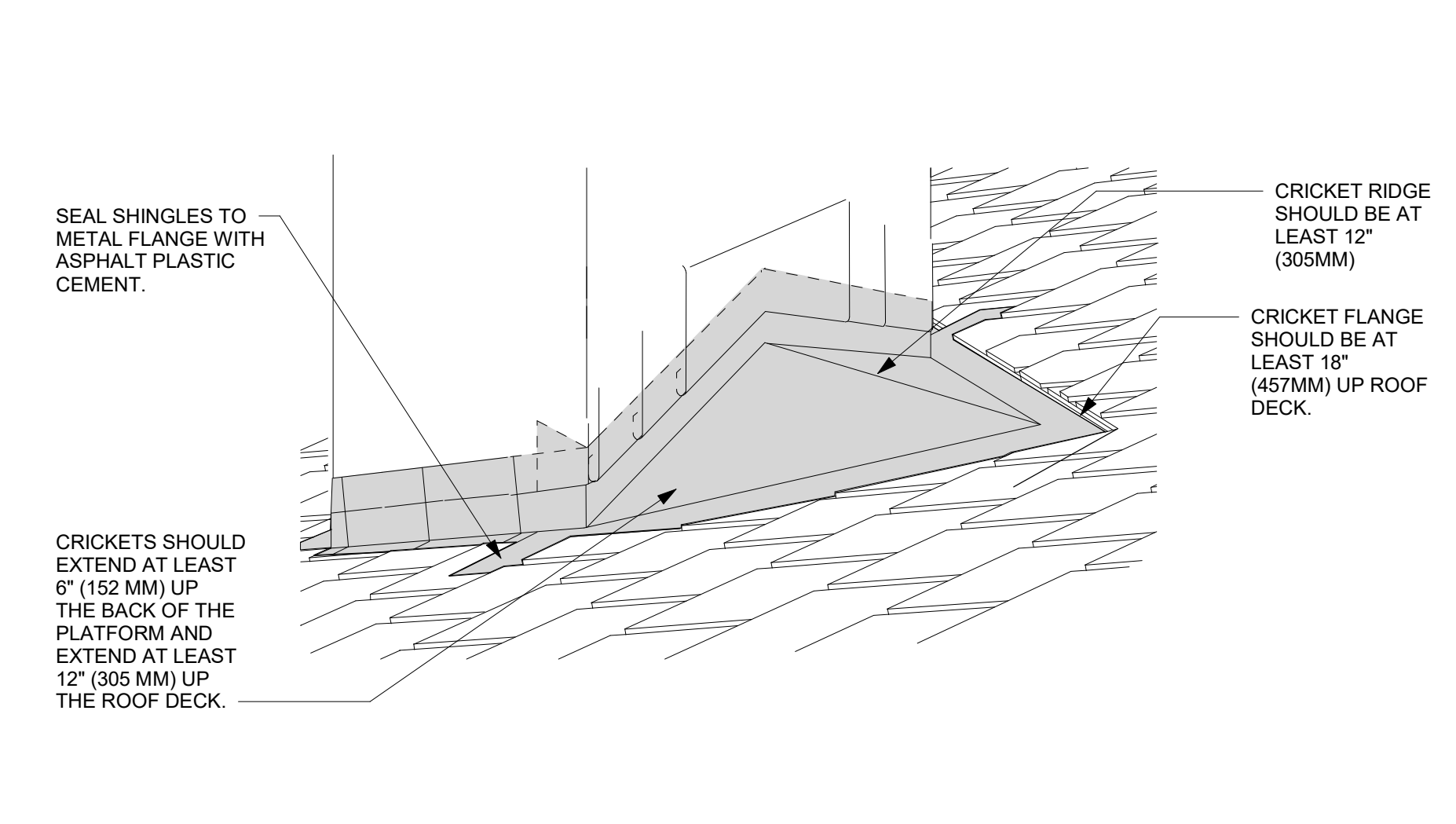


NOTE: AT PATCHED OPENINGS INFILL (E) SHEATHING TO MATCH ADJACENT. PROVIDE NEW LEAK BARRIER, AND PROVIDE REPLACEMENT SHINGLE THAT OVERLAPS 6" MIN. PER MANUFACTURER RECOMMENDATION.

10 SHINGLE SIDE FLASHING
SCALE: 1 1/2" = 1'-0"

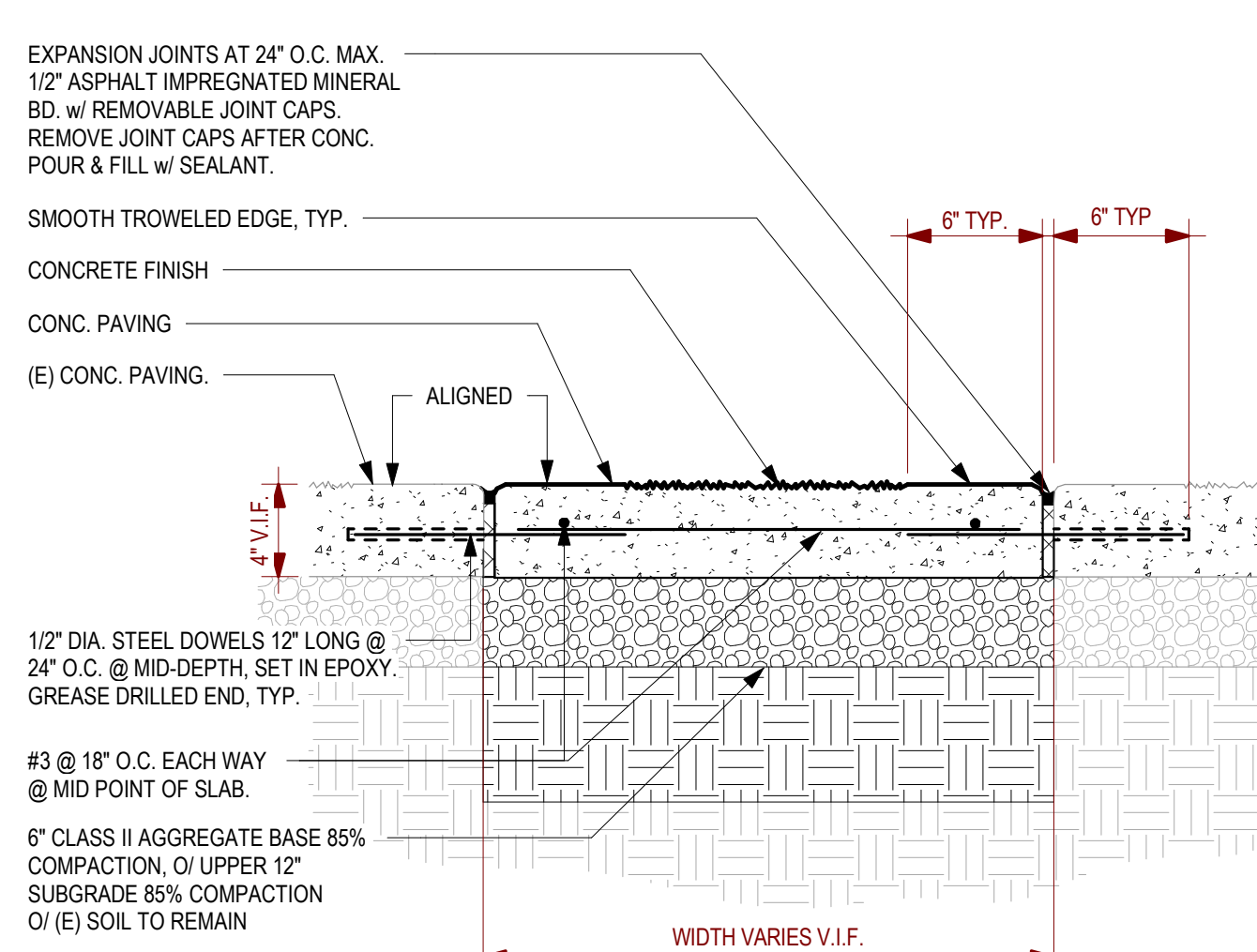


11 SHINGLE LOWER FLASHING
SCALE: 1" = 1'-0"

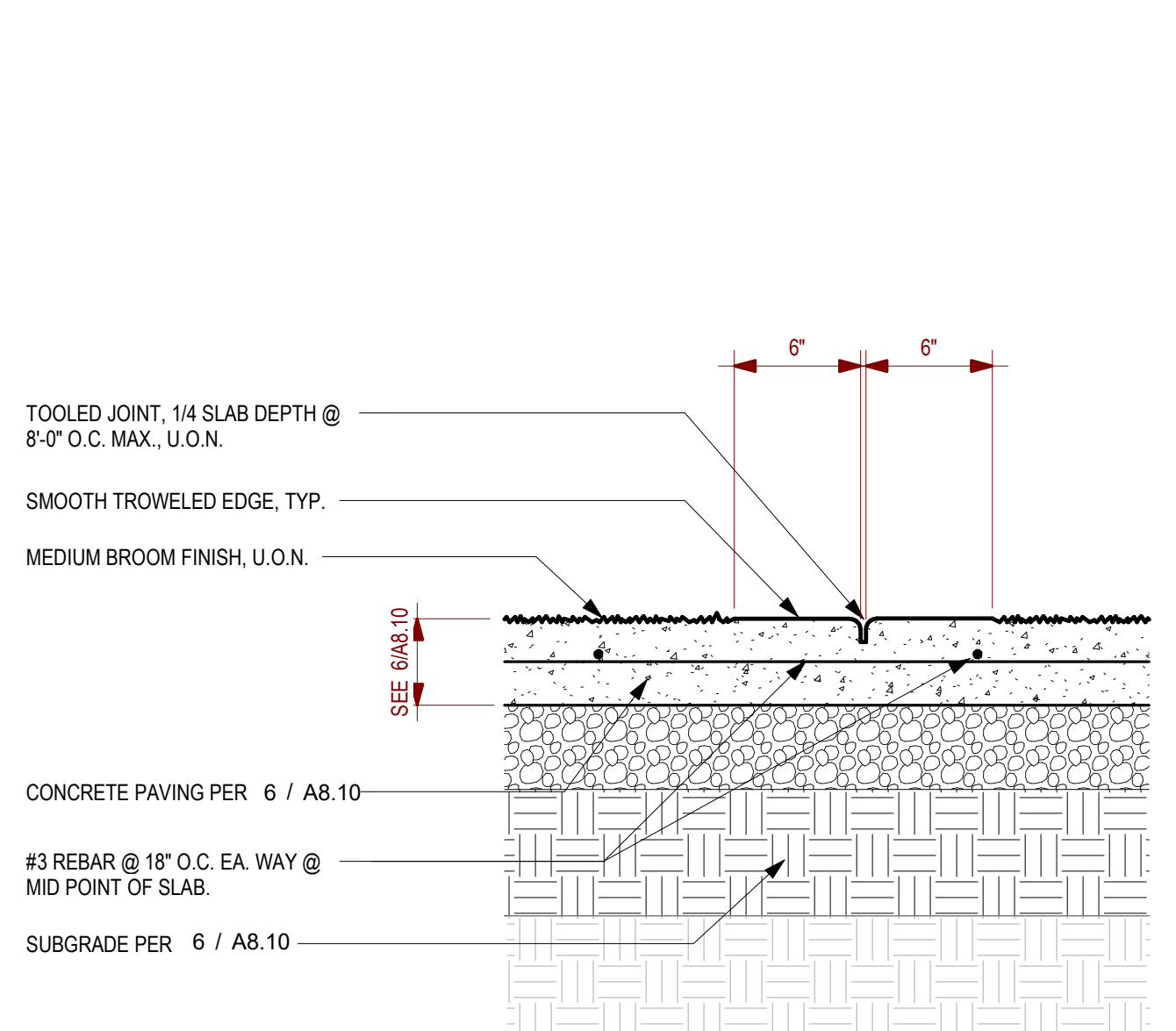


12 CRICKET SHINGLE FLASHING
SCALE: 1/2" = 1'-0"

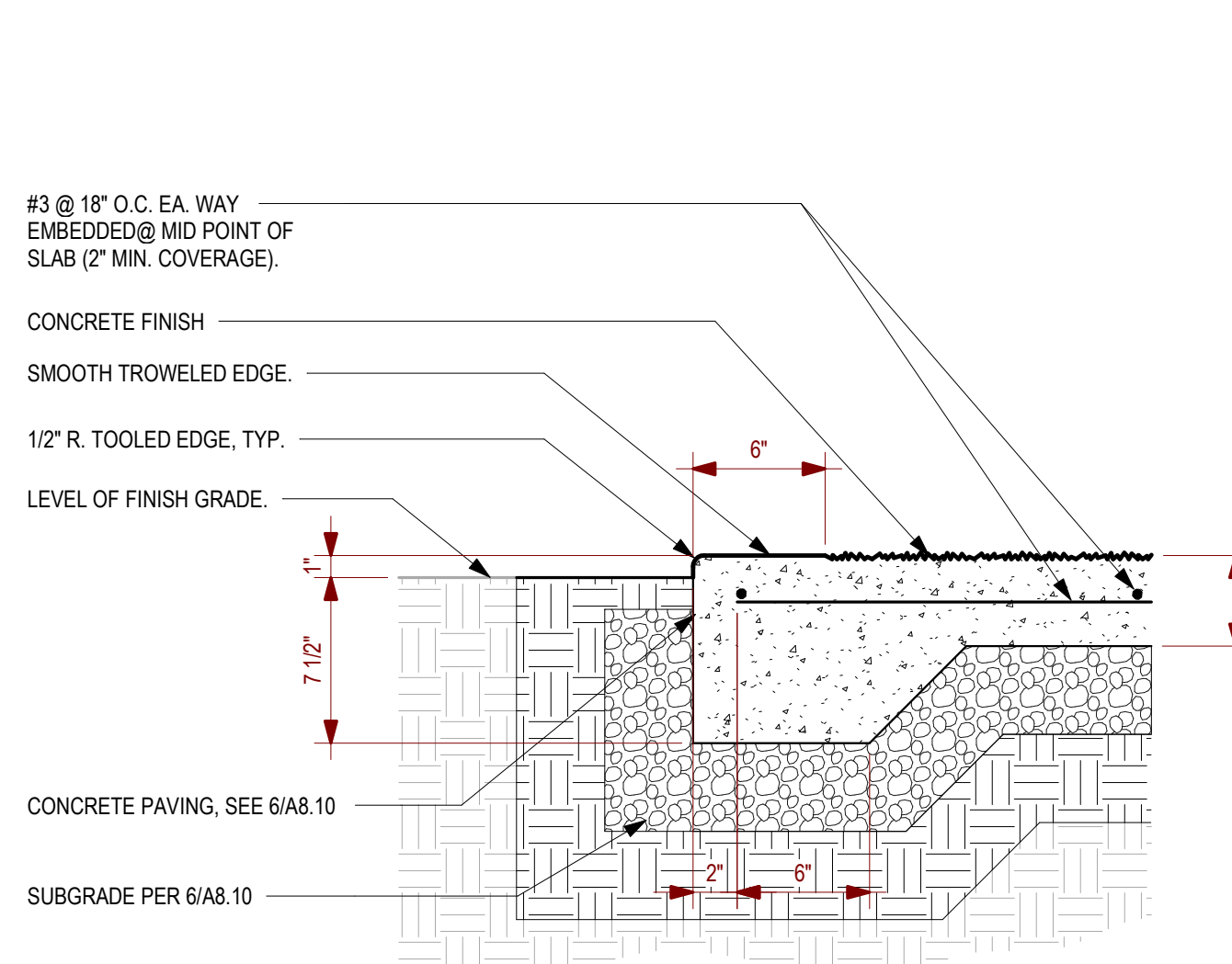
5 EDGE OF ASPHALT PAVING
SCALE: 1" = 1'-0"



6 CONCRETE PATCH
SCALE: 1 1/2" = 1'-0"

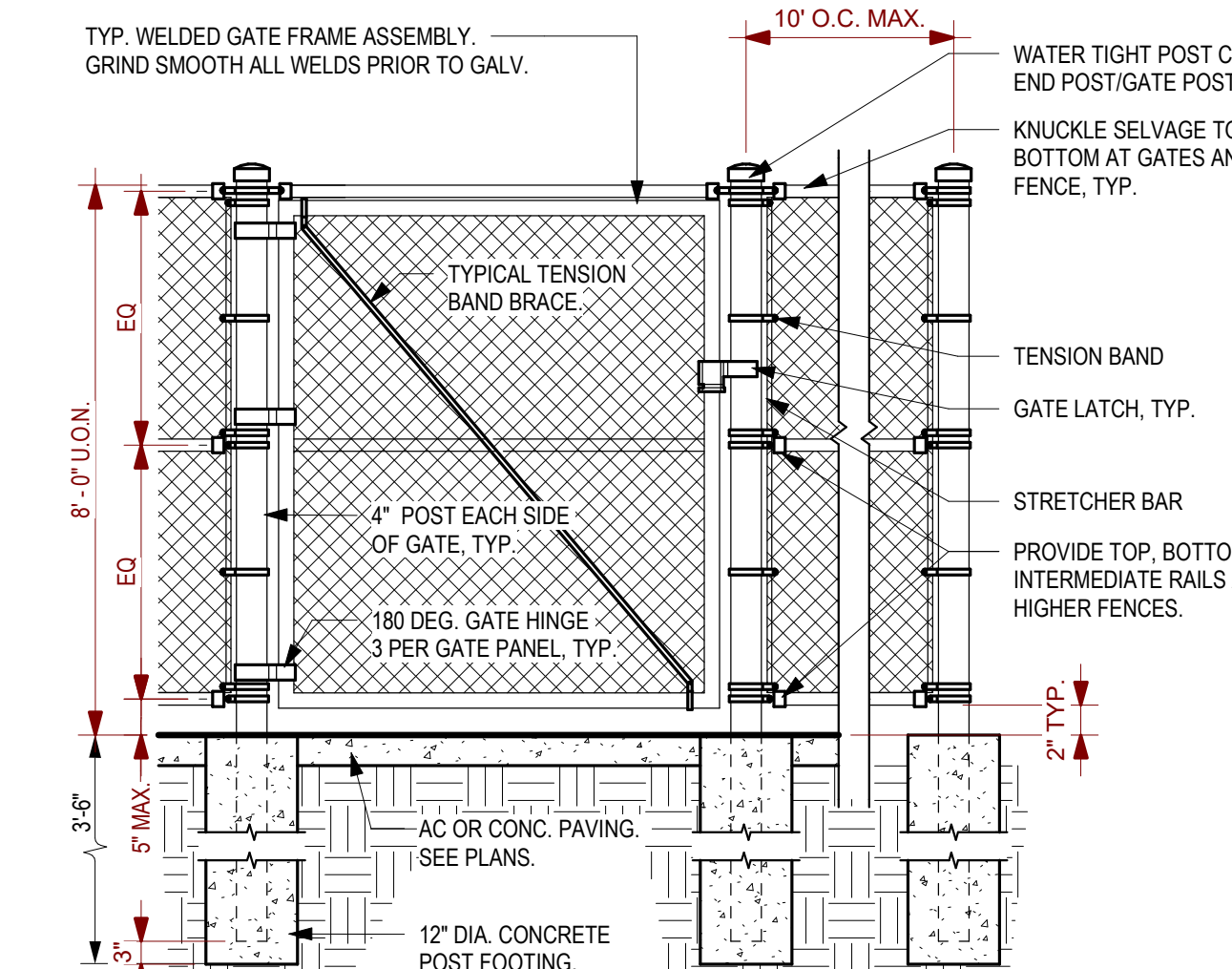


7 TOOLED JOINT (TJ)
SCALE: 1 1/2" = 1'-0"

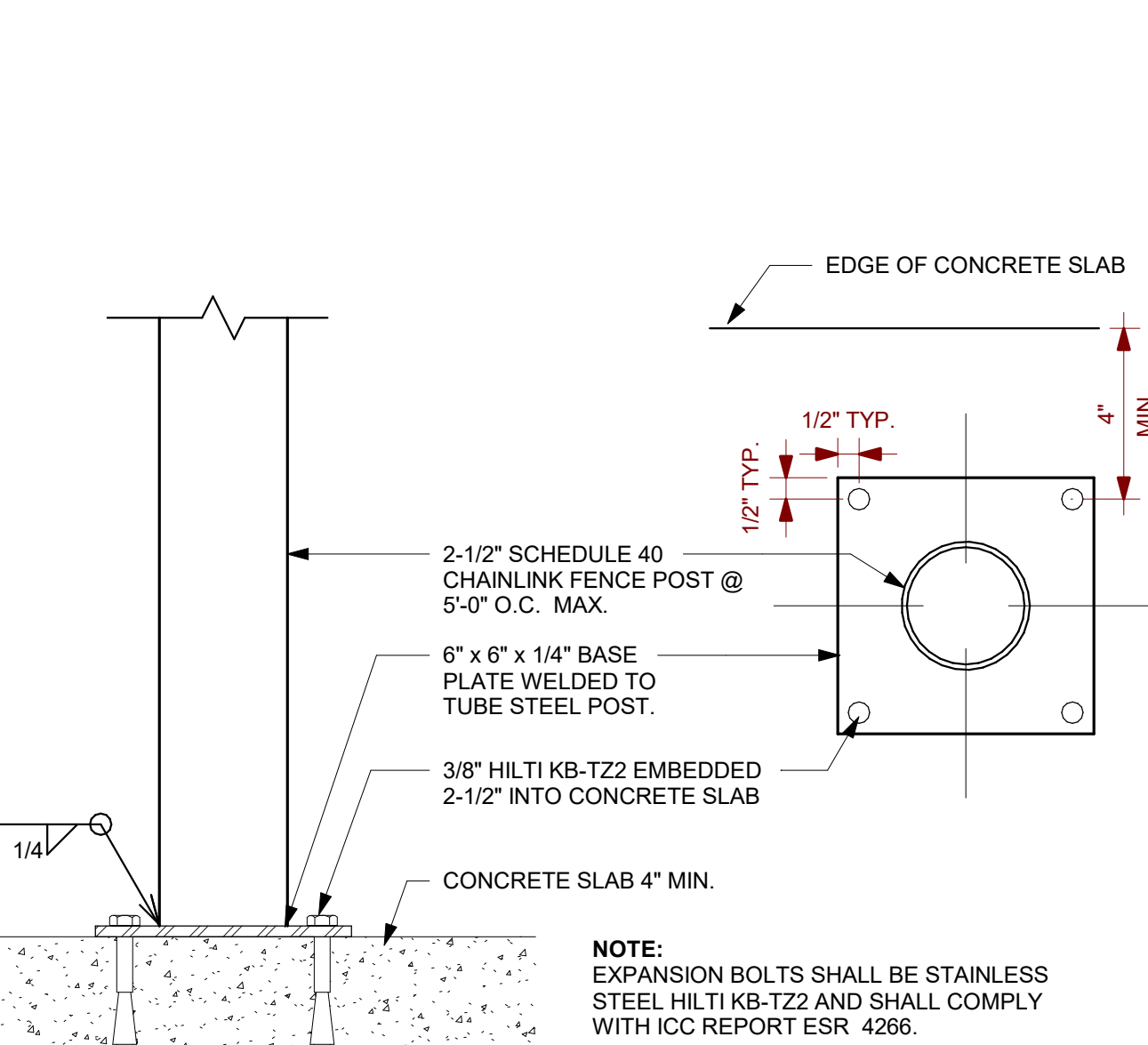


8 EDGE OF CONCRETE PAVING
SCALE: 1 1/2" = 1'-0"

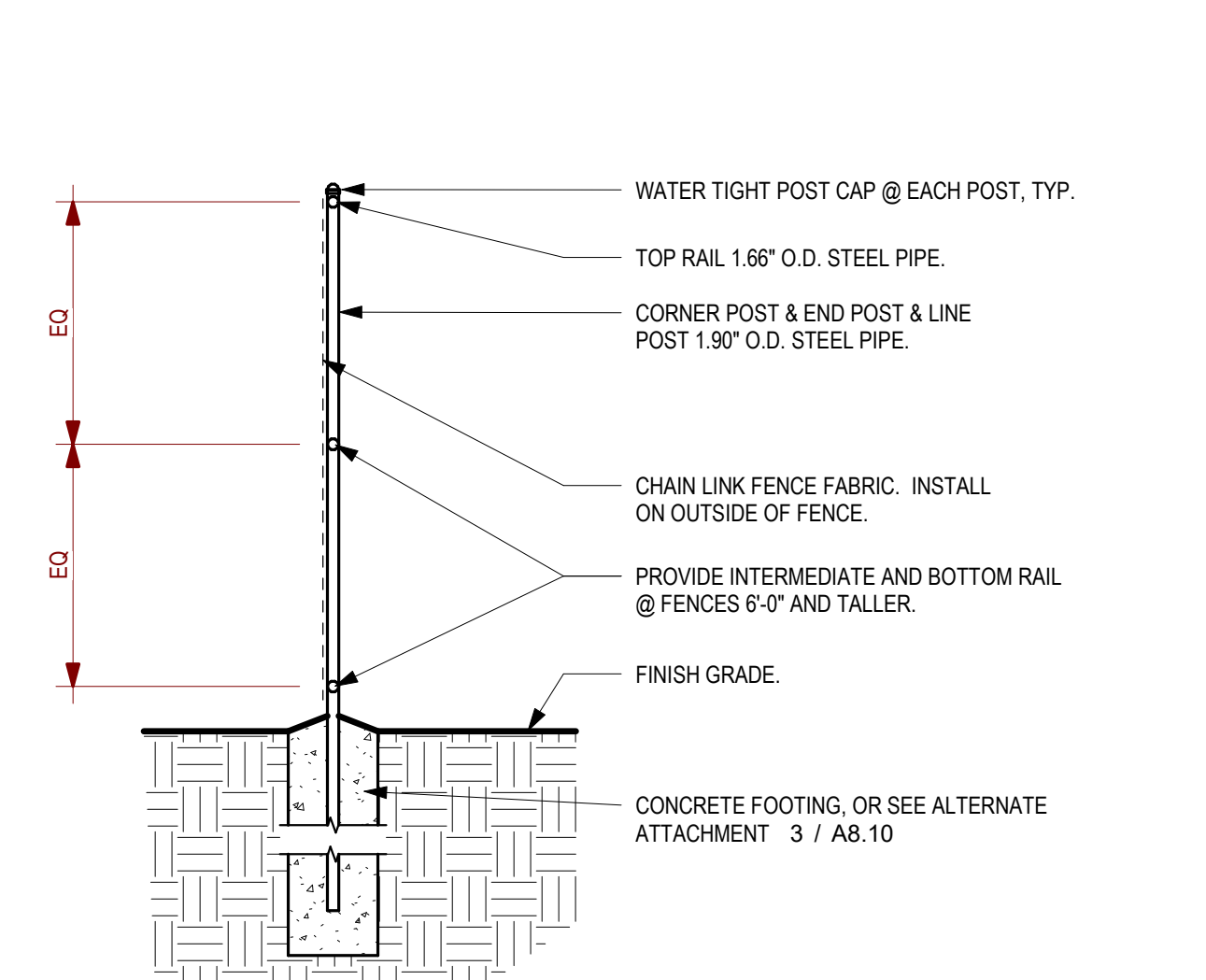
1 REQ'D TEMPORARY CONSTRUCTION FENCE
SCALE: 1/2" = 1'-0"



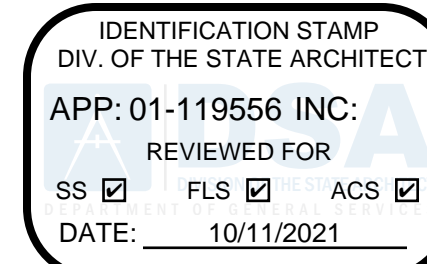
2 TYPICAL CHAINLINK GATE (SINGLE)
SCALE: 1/2" = 1'-0"



3 CHAINLINK FENCE BASE PLATE ANCHORAGE
SCALE: 3" = 1'-0"



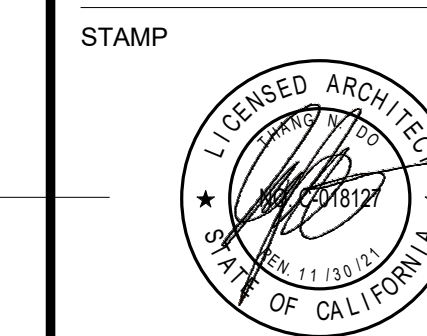
4 TYPICAL CHAINLINK FENCE
SCALE: 1/2" = 1'-0"



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PROJECT
ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT
CONSULTANT



STATE FILE NUMBER
DSA FILE NUMBER 41-26
APPL # 01-119556

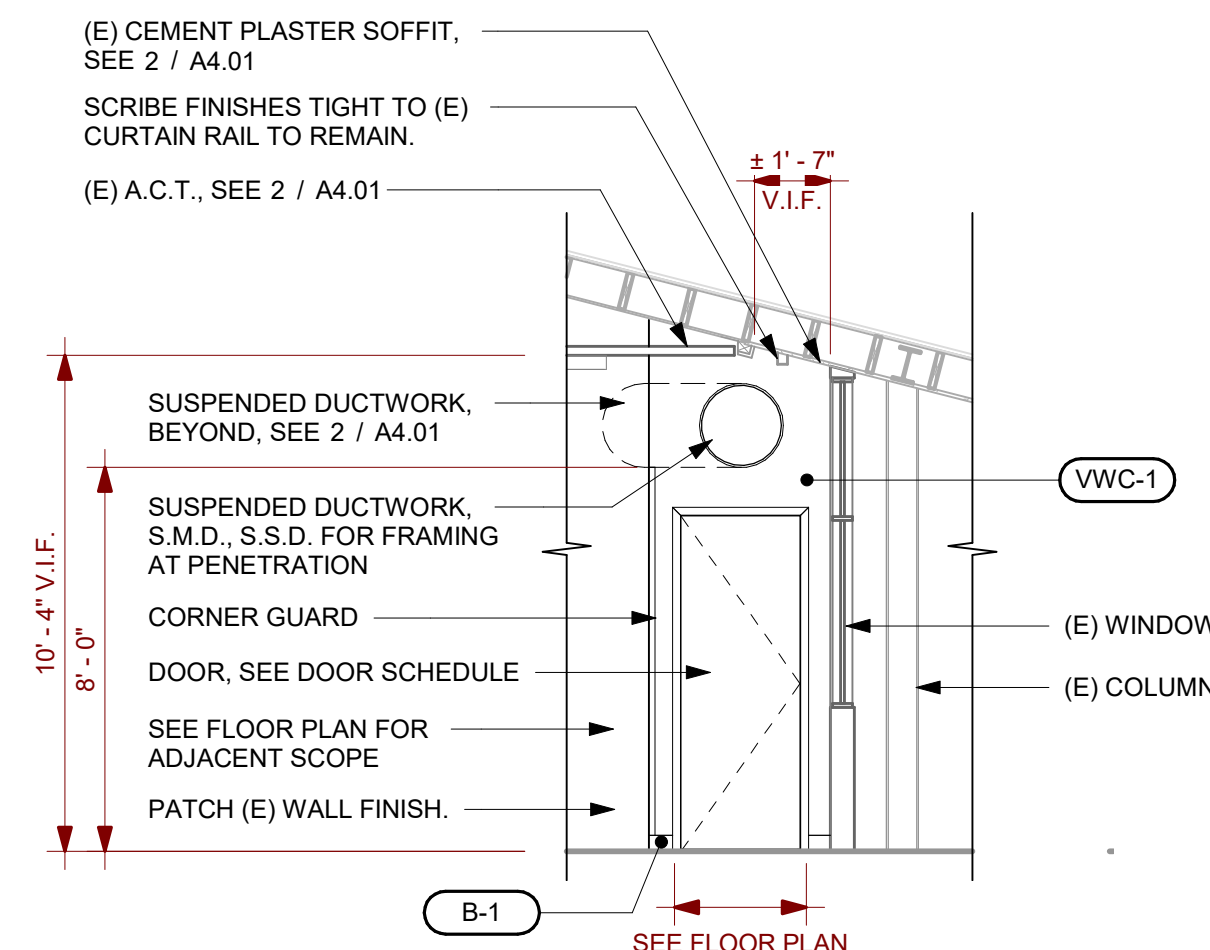
REVISIONS
No. Description Date

MILESTONES
DD
90% CD
DSA SUB 06/03/21
BACKCHECK 09/29/21

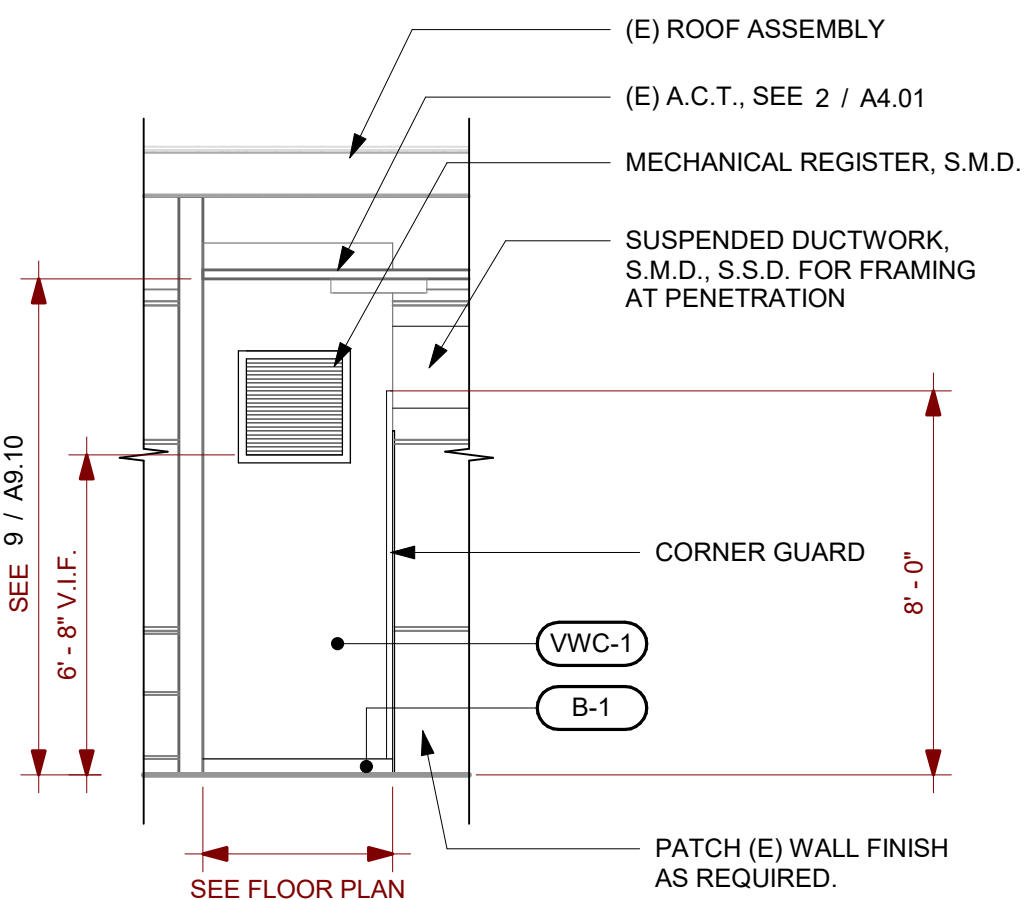
SHEET
EXTERIOR DETAILS

DATE 09/29/2021
JOB # 2021005.06
SHEET #

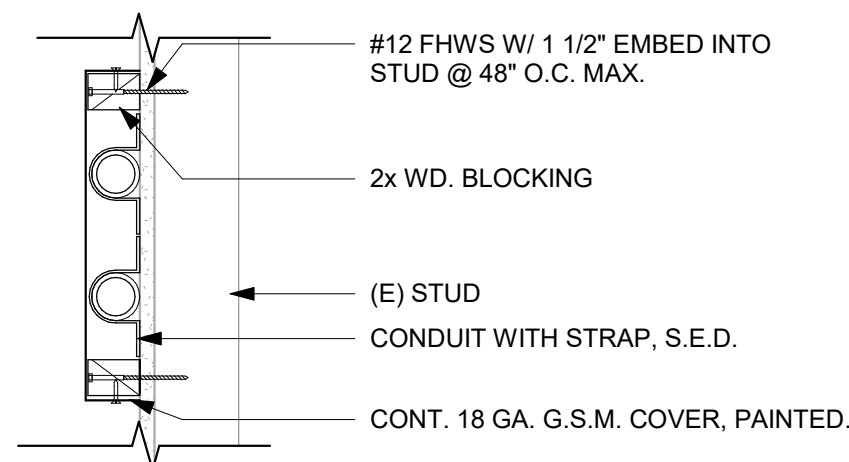
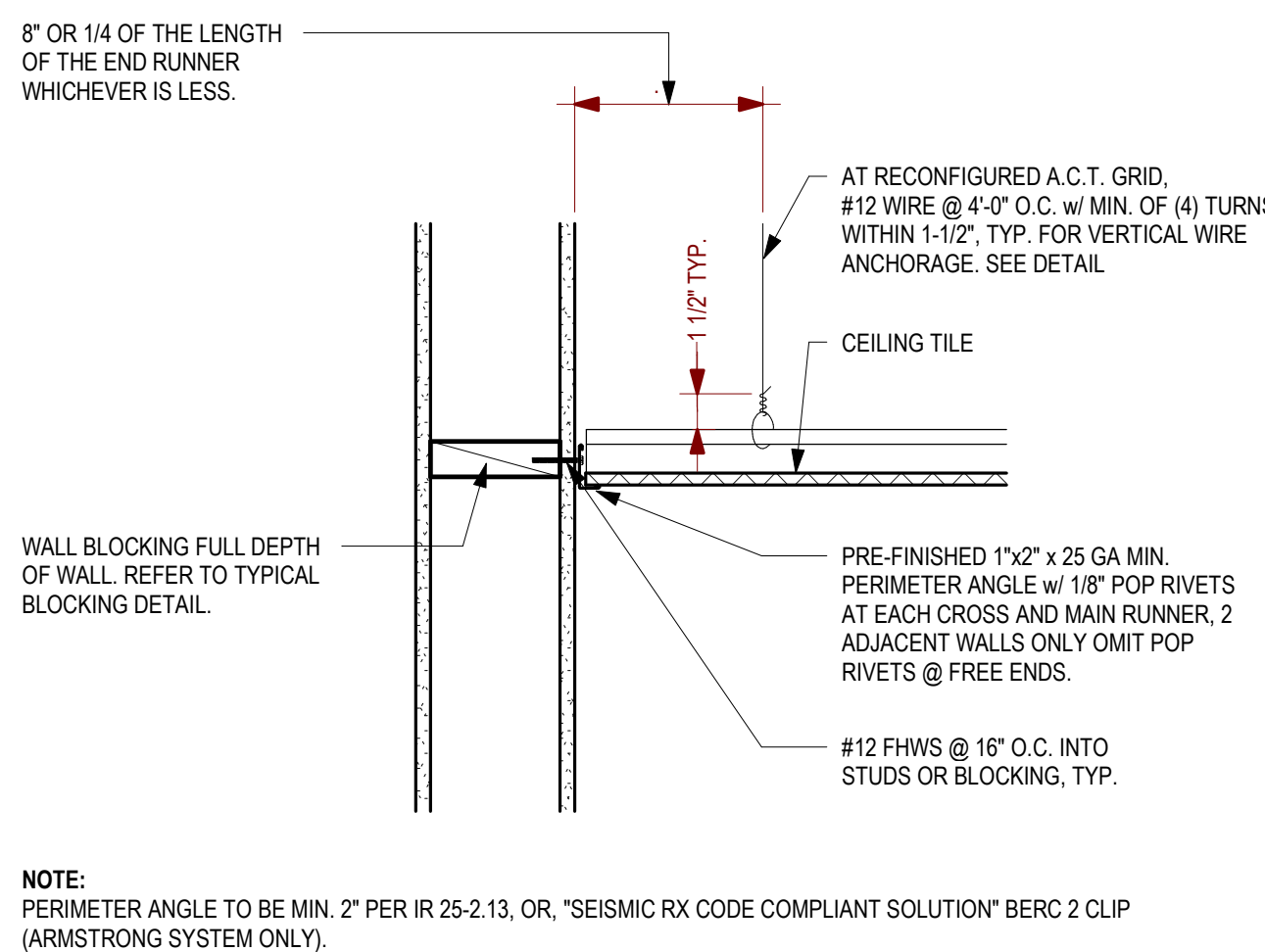
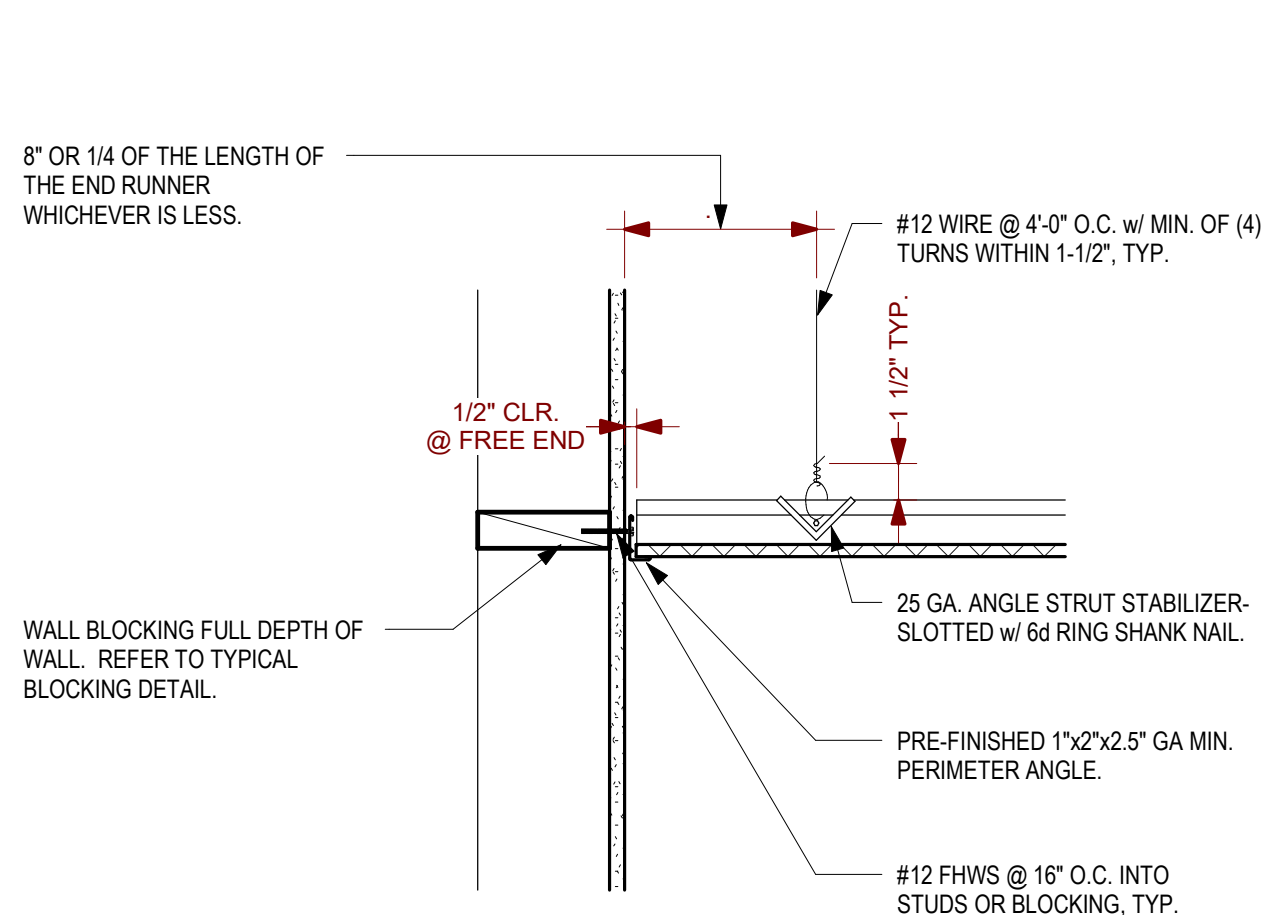
A8.10



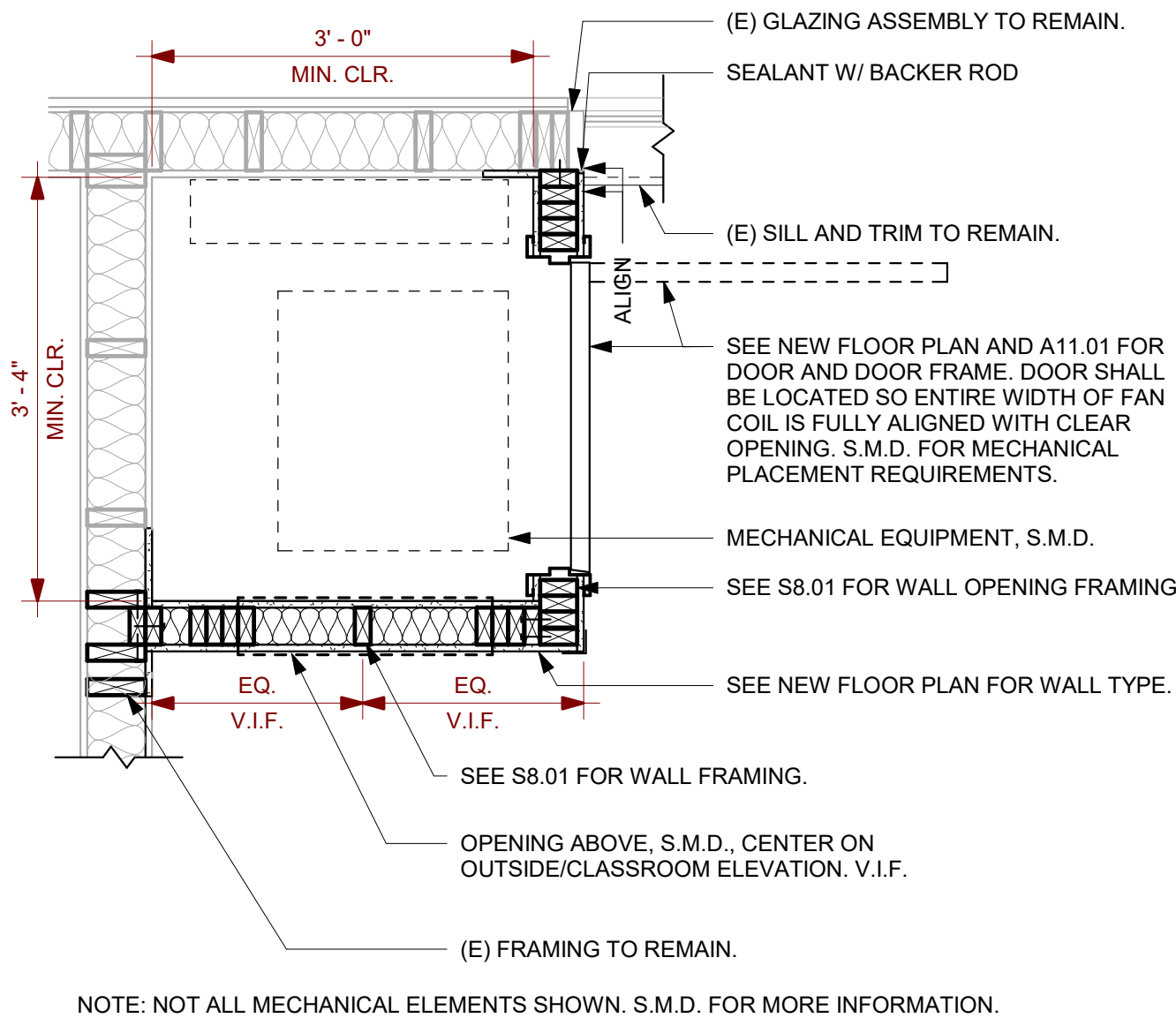
9 HVAC ENCLOSURE TYPICAL ELEVATION
SCALE: 1/4" = 1'-0"



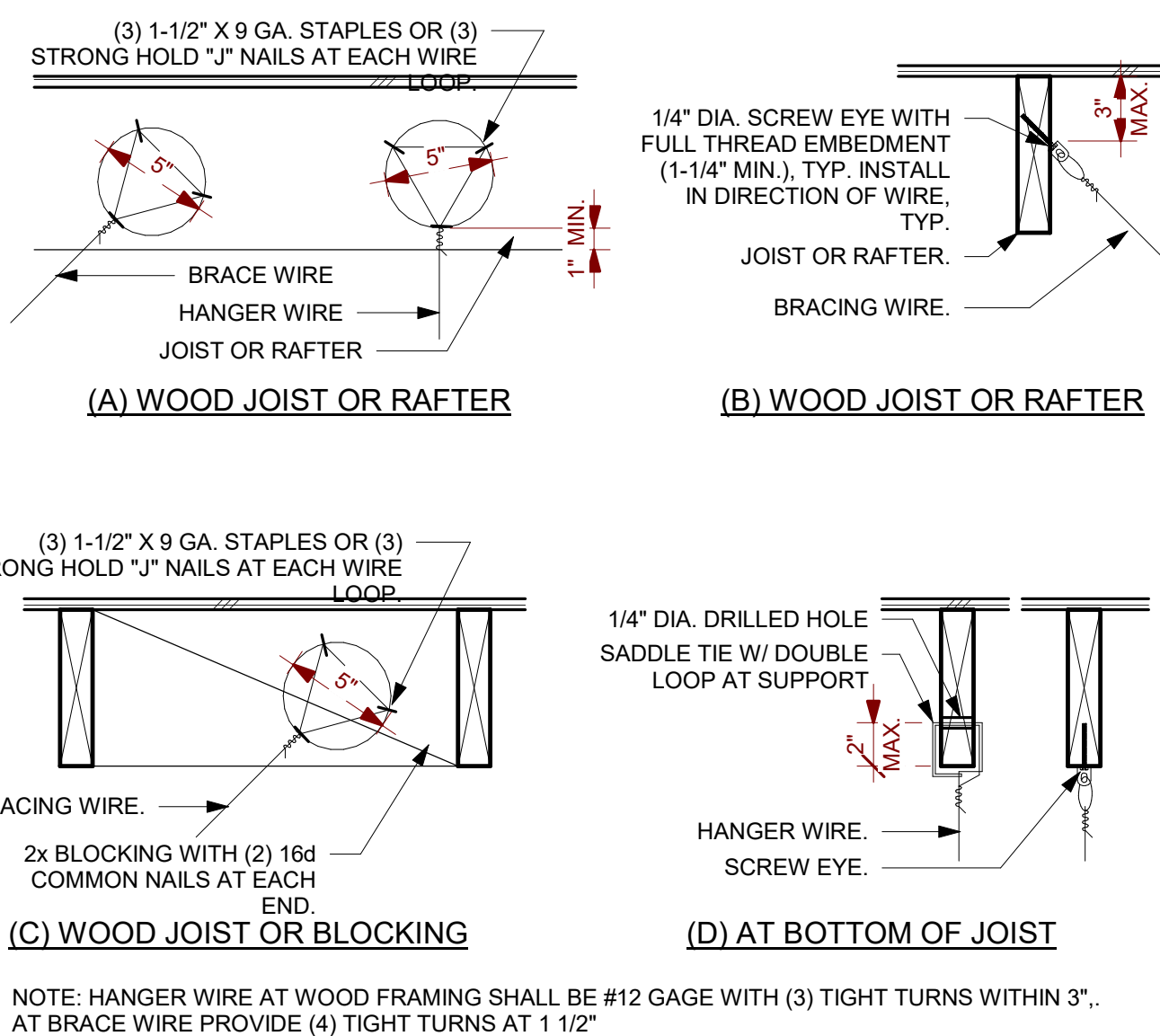
10 HVAC ENCLOSURE TYPICAL ELEVATION
SCALE: 1/4" = 1'-0"



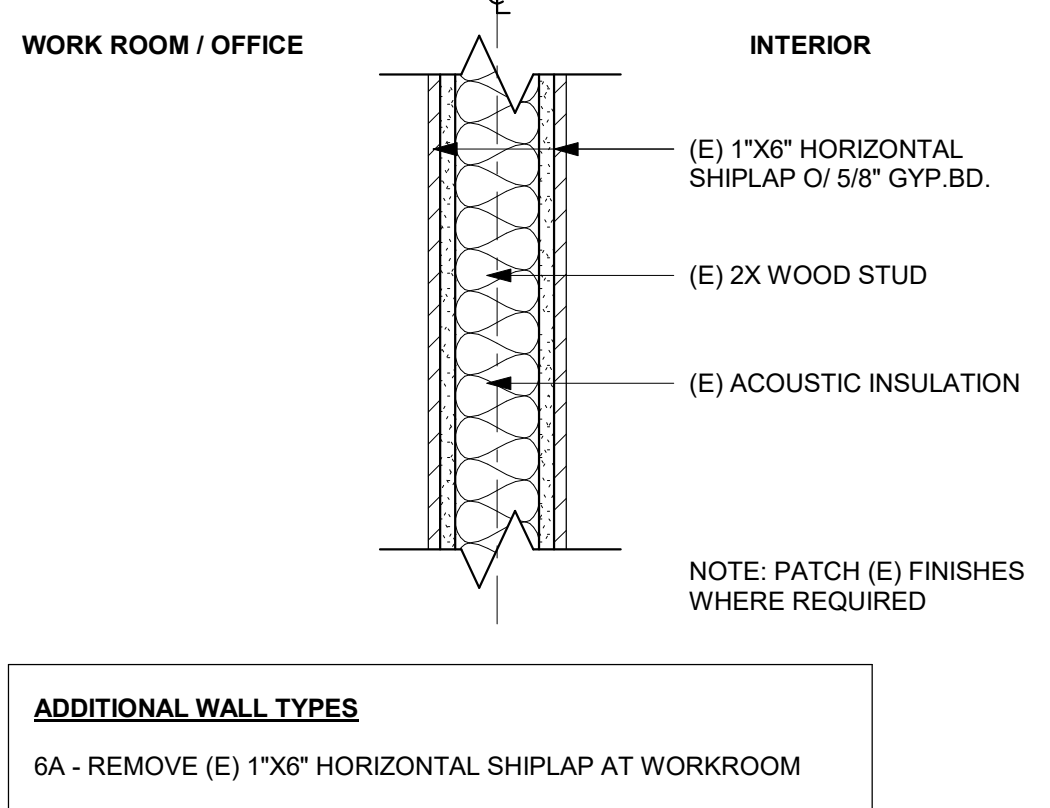
20 CONDUIT ENCLOSURE, INTERIOR
SCALE: 1 1/2" = 1'-0"



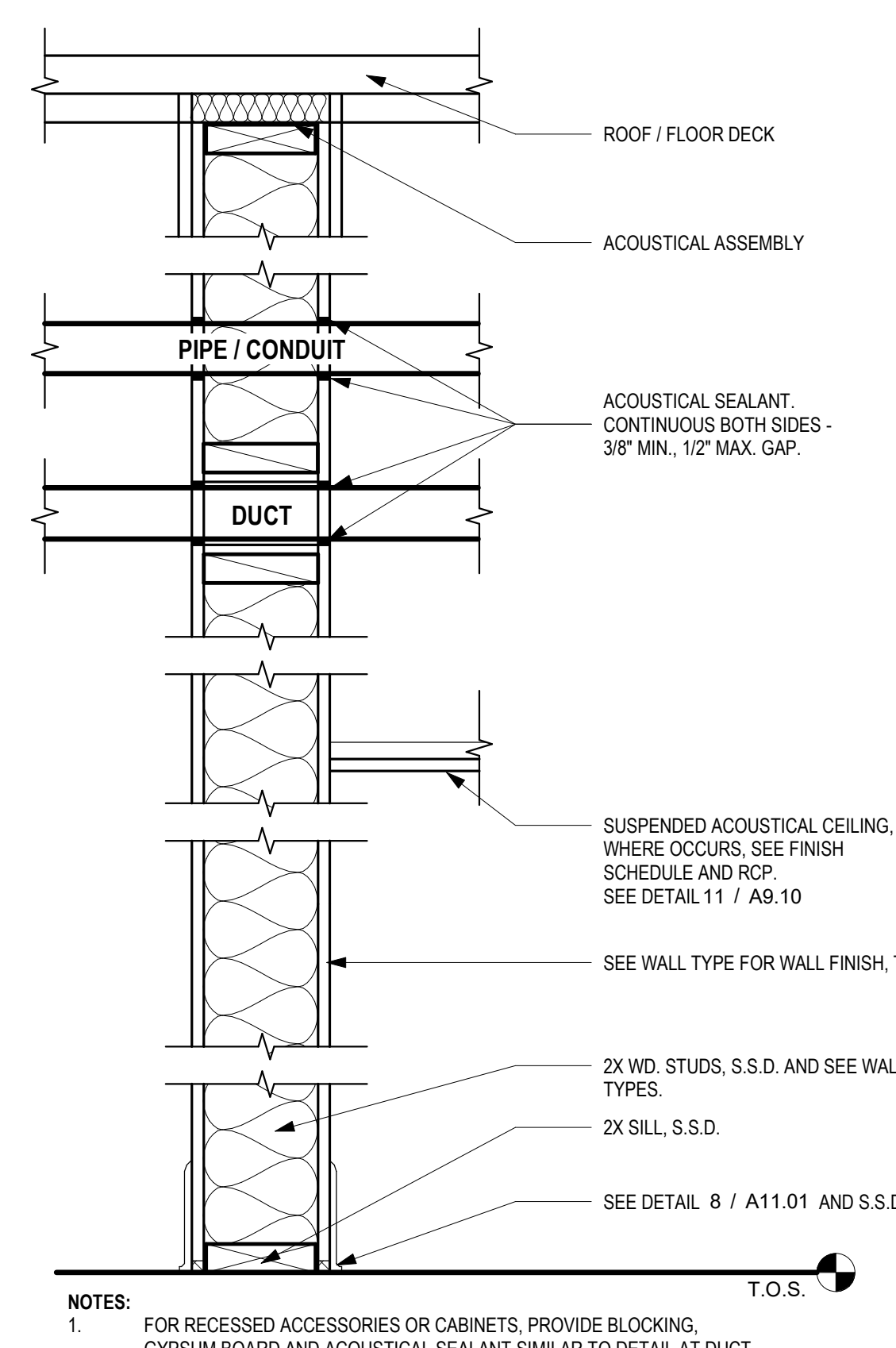
16 MECH. ENCLOSURE CLEARANCES, TYP.
SCALE: 3/4" = 1'-0"



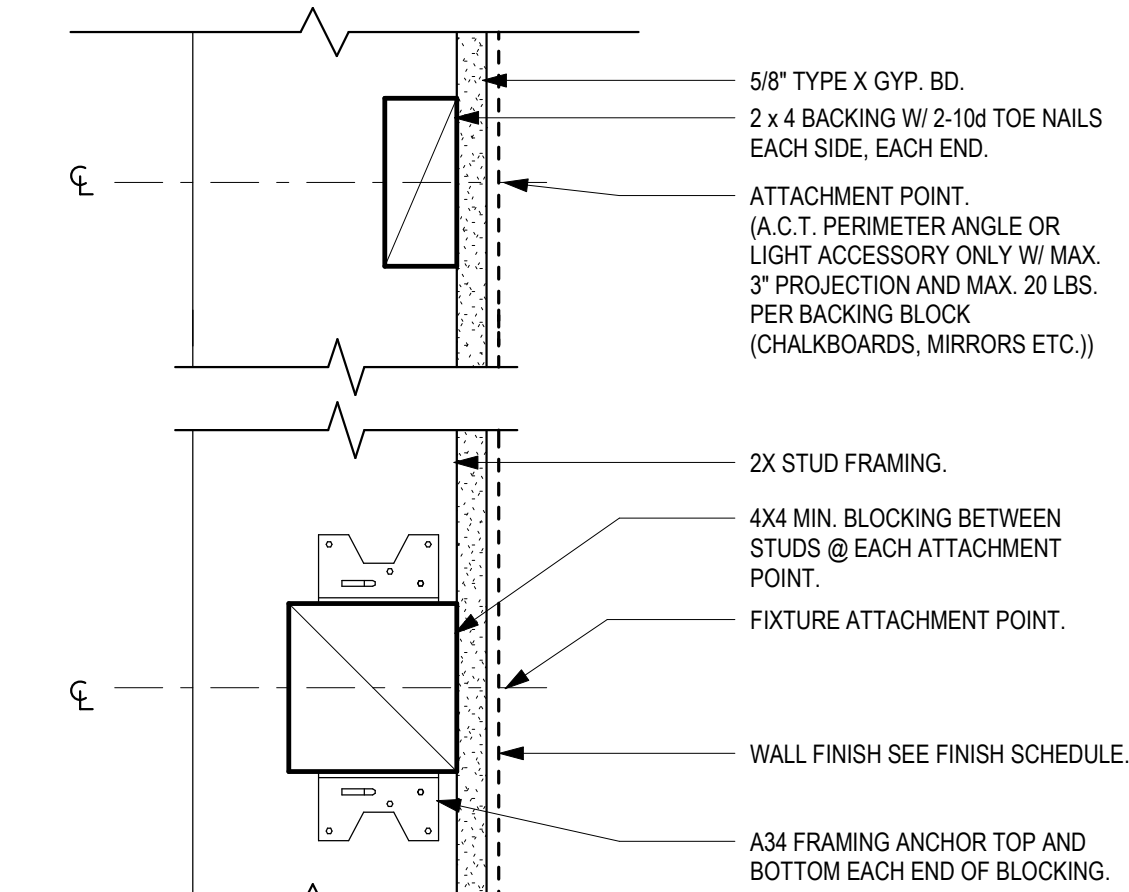
12 WIRE ATTACHMENT AT WOOD FRAMING
SCALE: 1 1/2" = 1'-0"



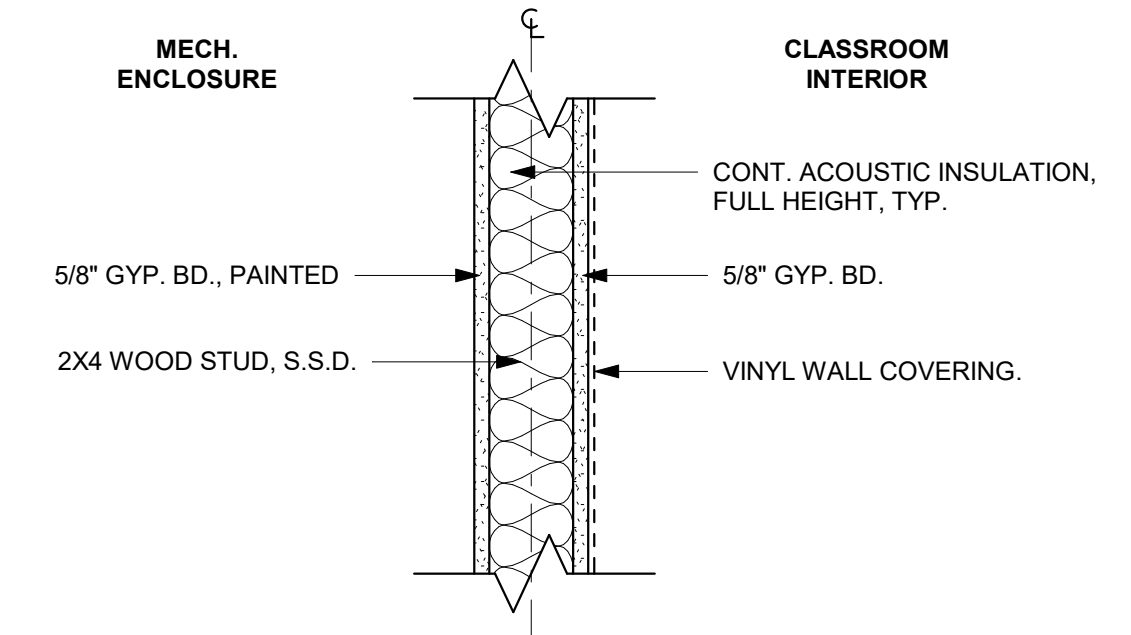
6 E WALL TYPE 6 - HORIZONTAL SHIPLAP
SCALE: 1 1/2" = 1'-0"



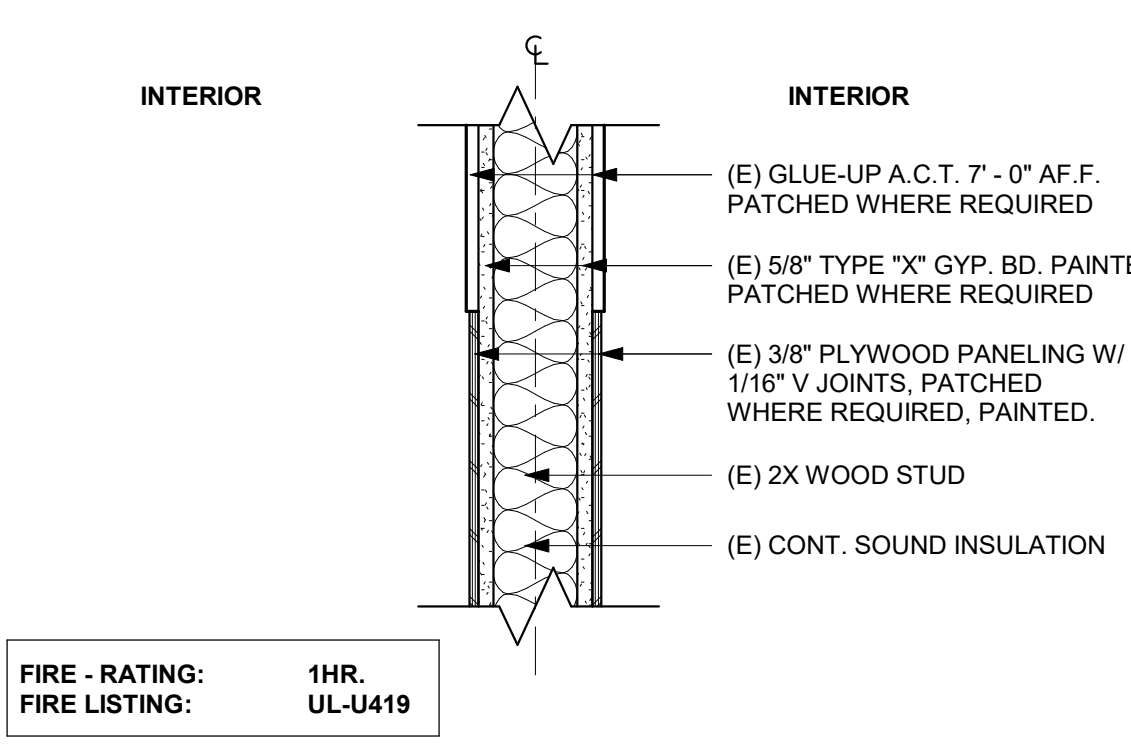
7 TYPICAL SOUND TREATED NONRATED WALL
SCALE: 1 1/2" = 1'-0"



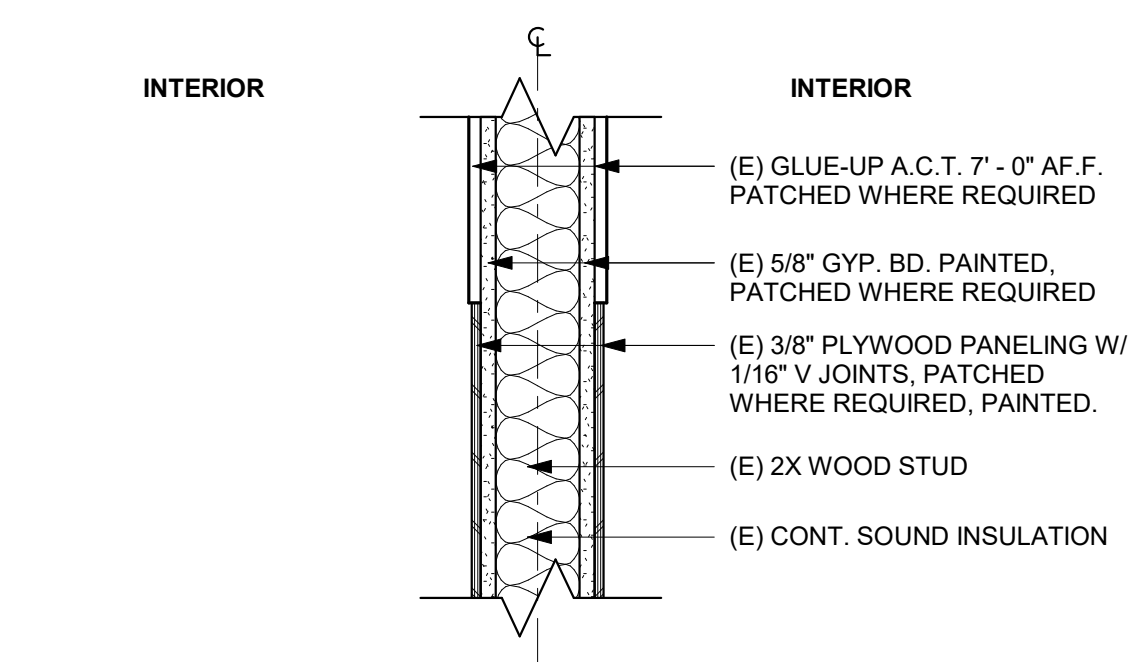
8 TYPICAL WOOD WALL BACKING/ BLOCKING
SCALE: 3" = 1'-0"



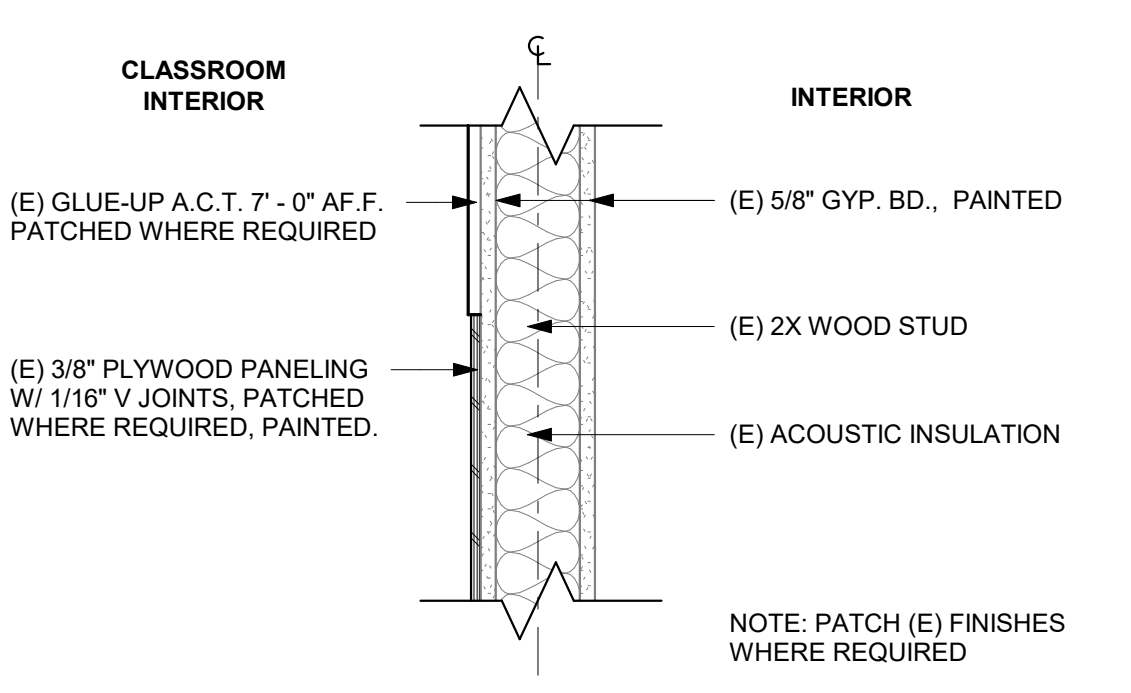
1 WALL TYPE - MECHANICAL ENCLOSURE
SCALE: 1 1/2" = 1'-0"



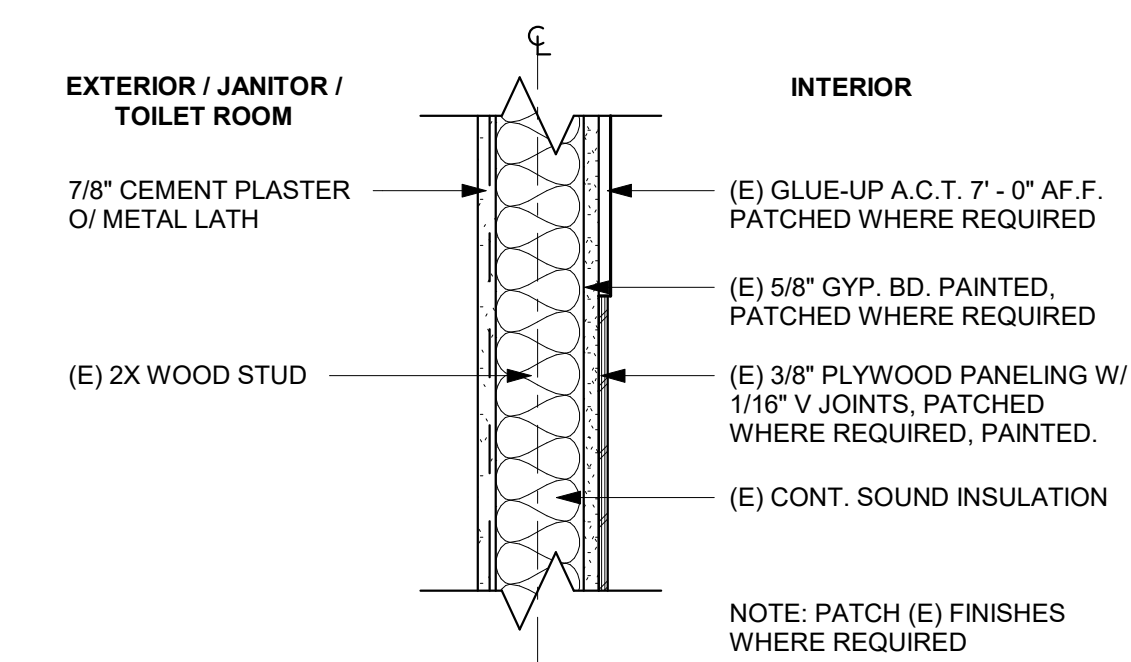
2 E WALL TYPE 2 - 1 HR PARTITION
SCALE: 1 1/2" = 1'-0"



3 E WALL TYPE 3 - GLUE-UP ACT
SCALE: 1 1/2" = 1'-0"



4 E WALL TYPE 4 - GLUE-UP ACT / GYP. BD.
SCALE: 1 1/2" = 1'-0"



5 E WALL TYPE 5 - CEMENT PLASTER
SCALE: 1 1/2" = 1'-0"

DOOR SCHEDULE											
DOOR ID	OPENING SIZE		DOOR		FRAME		DETAILS (Sheet A11.01 U.O.N.)				HARDWARE GROUP
	WIDTH	HEIGHT	TYPE	FINISH	TYPE	FINISH	HEAD	JAMB-1	JAMB-2	SILL	
3a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
4a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
5a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
11a	3'-0"	2'-6"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01		01
16a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
17a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
18a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
19a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
20a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
21a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
22a	2'-6"	7'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
29a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
30a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
31a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
32a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
33a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
34a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4B/A11.01	01
35a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4A/A11.01	01
36a	2'-6"	5'-0"	A	P-2	F1	P-3	11/A11.01	11/A11.01	11/A11.01	4A/A11.01	01

DOOR SCHEDULE GENERAL NOTES

- 1 CONTRACTOR SHALL COORDINATE, PRIOR FABRICATION, DOOR FRAME DEPTH TO ACCEPT ALL WALL FINISHES AS DETAILED IN THE DRAWINGS.

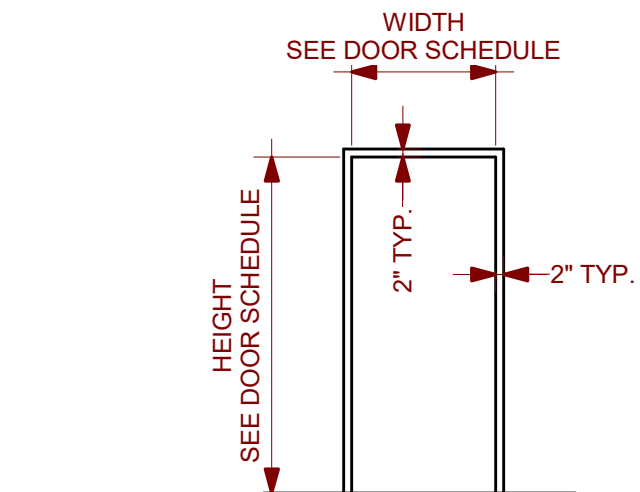
FINISH LEGEND

MARK	DESCRIPTION	MFR. / BRAND	COLOR / FINISH	COMMENTS
(E) CONC-1	(E) CONCRETE, SEALED			
(E) CPT-1	(E) CARPET (SHEET)			
(E) SF-1	(E) CEMENT PLASTER SOFFIT			
(E) VCT-1	(E) VINYL COMPOSITION TILE			
ACT-1	2'-0" X 4'-0" ACOUSTICAL CEILING TILES	SEE SPECS.		SEE 11/A9.10
ACT-2	1'-0" X 1'-0" ACOUSTICAL CEILING TILES	SEE SPECS.		
B-1	4" RUBBER TOP SET BASE	SEE SPECS.		SEE 8/A11.10
CONC-2	CONCRETE, PAINTED			
GB-1	GYPSUM BOARD	SEE SPECS.		
P-1	PAINT			
P-2	PAINT			
P-3	PAINT			
PLY-1	PLYWOOD	SEE SPECS.		
VWC-1	VINYL WALL COVERING	SEE SPECS.		
WD-1	WOOD PLANK, PAINTED			

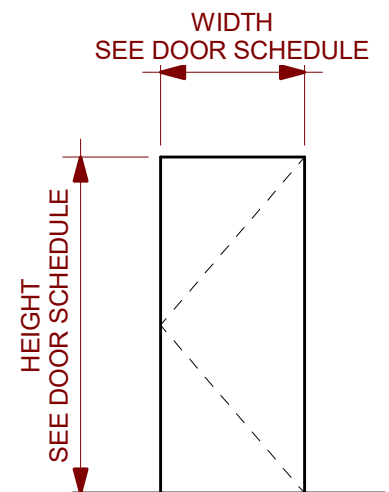
FINISH SCHEDULE						
ROOM		FLOOR		WALL FINISH	CEILING FINISH	COMMENTS
NUMBER	NAME	FLOOR FINISH	BASE FINISH			
3	FACULTY LOUNGE	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
4	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
5	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
11B	STAFF LOUNGE					
13	ART	(E)CONC-1	B-1	VWC-1, GB-1, WD-1	(E) CONC-2	
13A	WORK ROOM	(E)CONC-1	B-1	VWC-1, GB-1	(E) CONC-2	
14	SCIENCE	(E)VCT-1	B-1	VWC-1, GB-1, WD-1	ACT-2	
14B	STORAGE	(E)CT-1	B-1	VWC-1, GB-1	ACT-2	
15	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-2	
16	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
17	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
18	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
19	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
20	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
21	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
22	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
29	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
30	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
31	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
32	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
33	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
34	CLASSROOM	(E)CPT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
35	CLASSROOM	(E)VCT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	
36	SCIENCE CLASSROOM	(E)VCT-1	B-1	VWC-1, GB-1	ACT-1, (E) SF-1	

GENERAL FINISH SCHEDULE NOTES

- A WHERE MULTIPLE FINISHES ARE CALLED OUT, REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF INDIVIDUAL FINISHES.
- B PROVIDE FINISHES TO COMPLY WITH FLAME SPREAD & SMOKE DENSITY REQUIREMENTS OF CBC 803 and 804.
- C PATCH FINISHES TO MATCH ADJACENT AT ALL SURFACES REMOVED TO FACILITATE CONSTRUCTION.
- D EXISTING FINISHES THAT MIGHT OCCUR OUTSIDE OF THE AREA OF WORK HAVE BEEN OMITTED.
- E (E) FLOORING INDICATED FOR REFERENCE ONLY



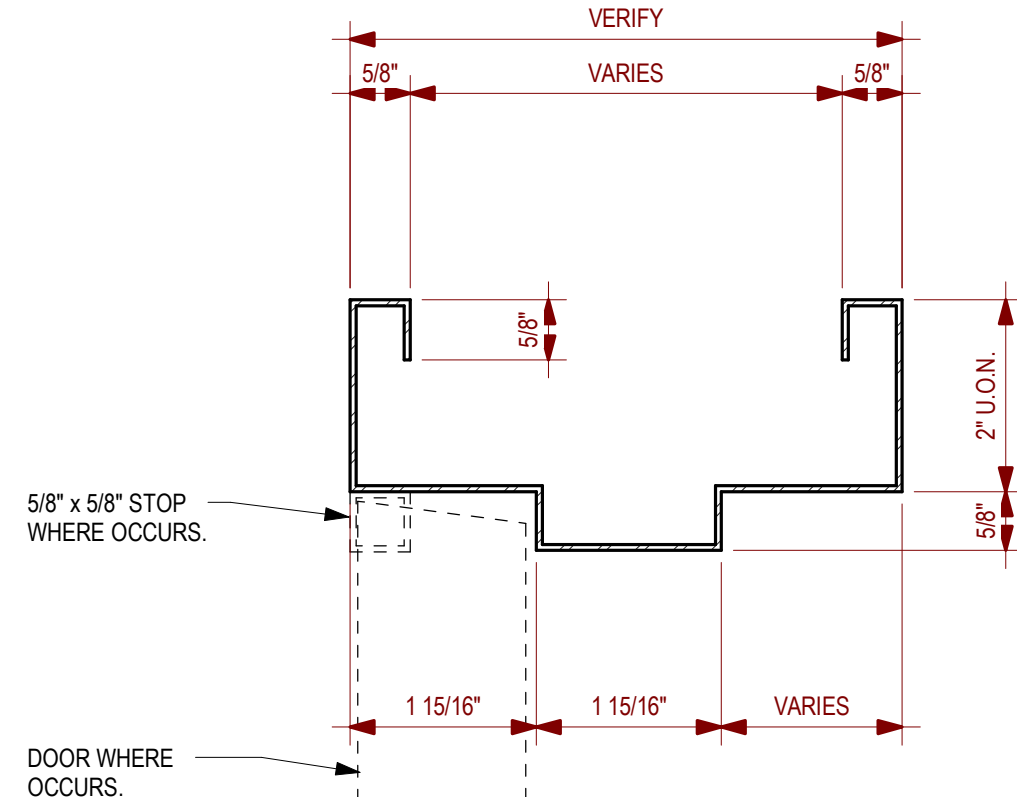
F1 METAL



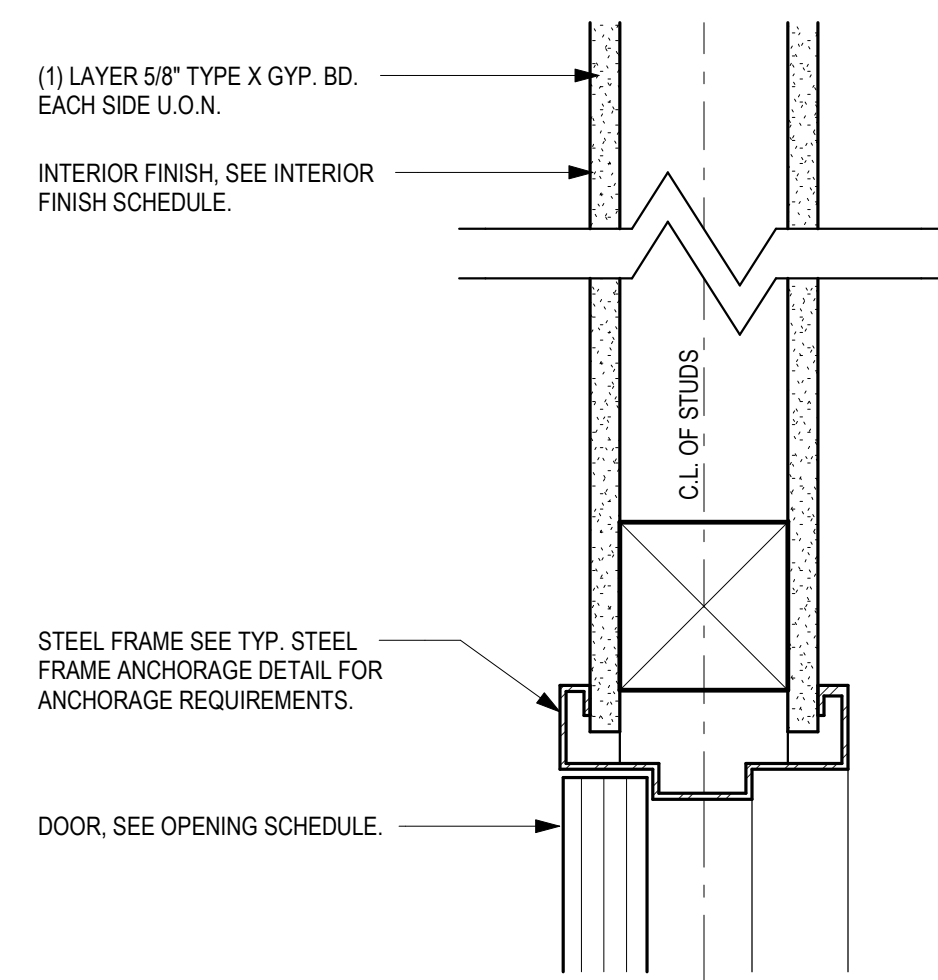
A WOOD
RATED - 0 MIN

FRAME TYPES
SCALE: 1/4" = 1'-0"

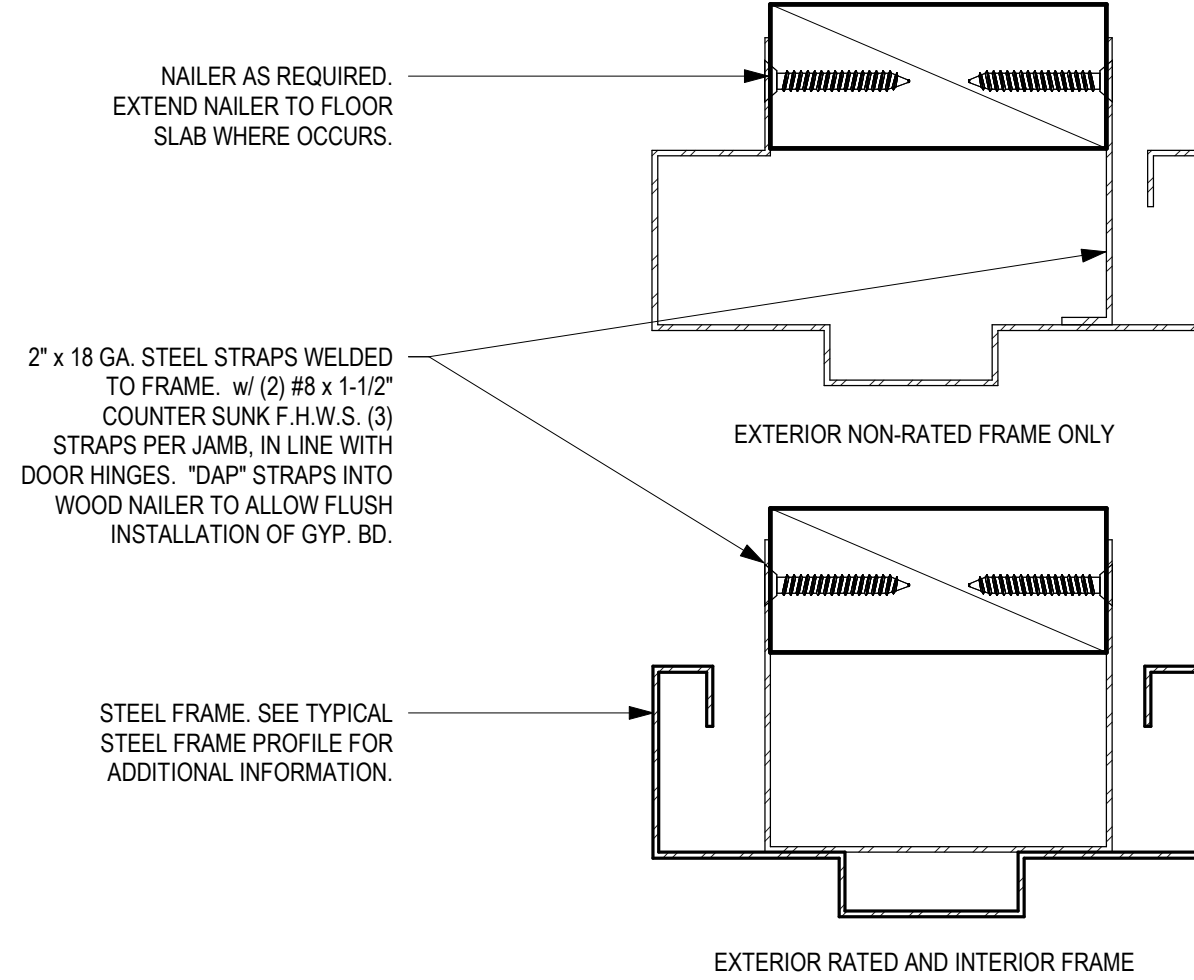
DOOR TYPES
SCALE: 1/4" = 1'-0"



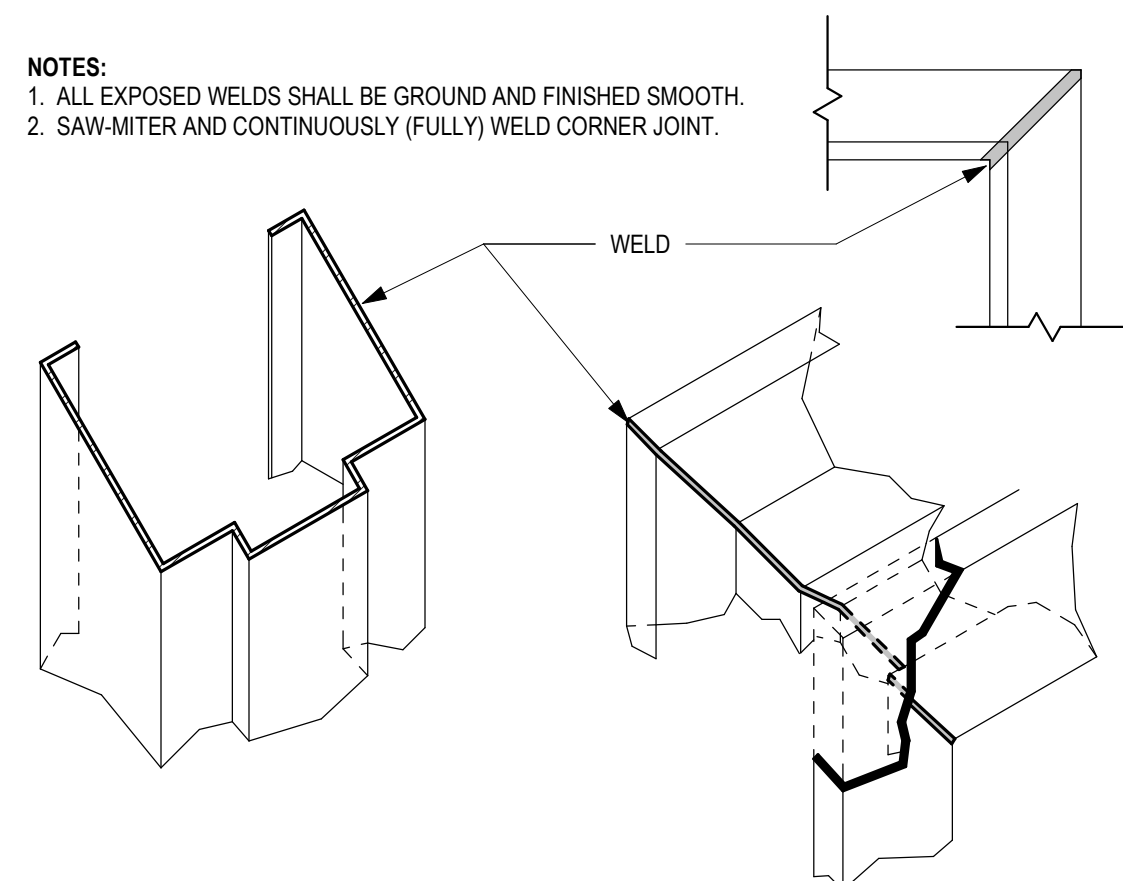
10 TYPICAL STEEL FRAME DOOR PROFILE
SCALE: 6" = 1'-0"



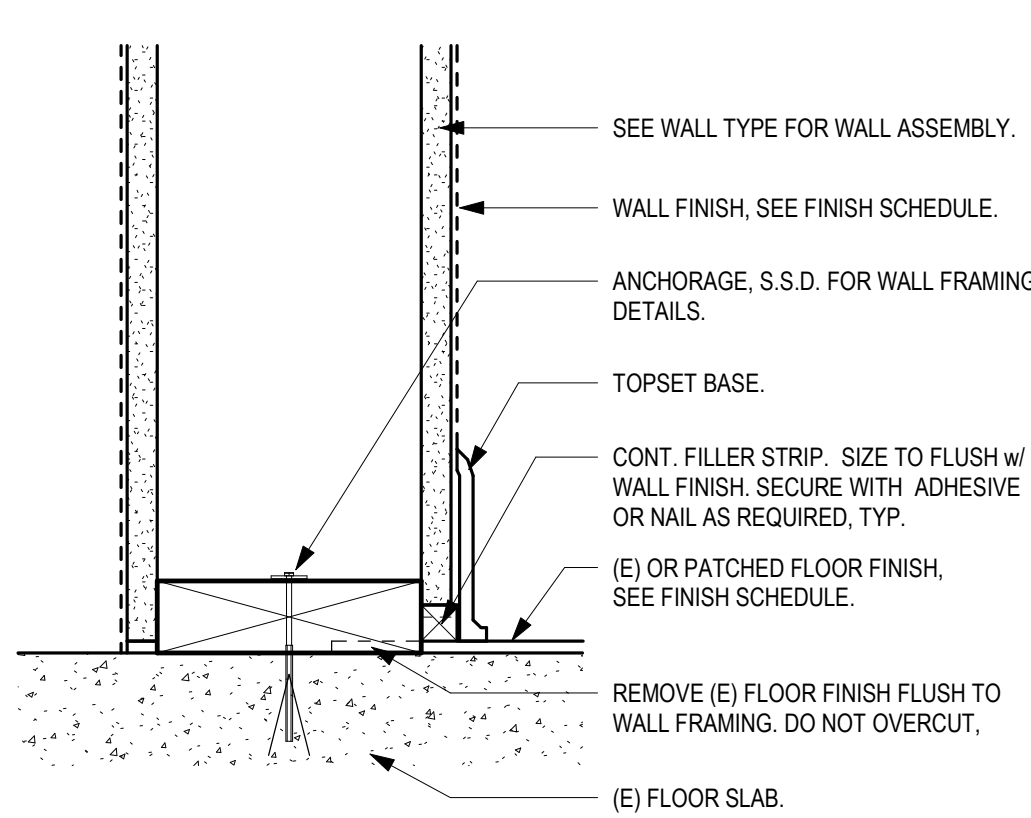
11 INTERIOR STEEL FRAME HEAD AND JAMB
SCALE: 3" = 1'-0"



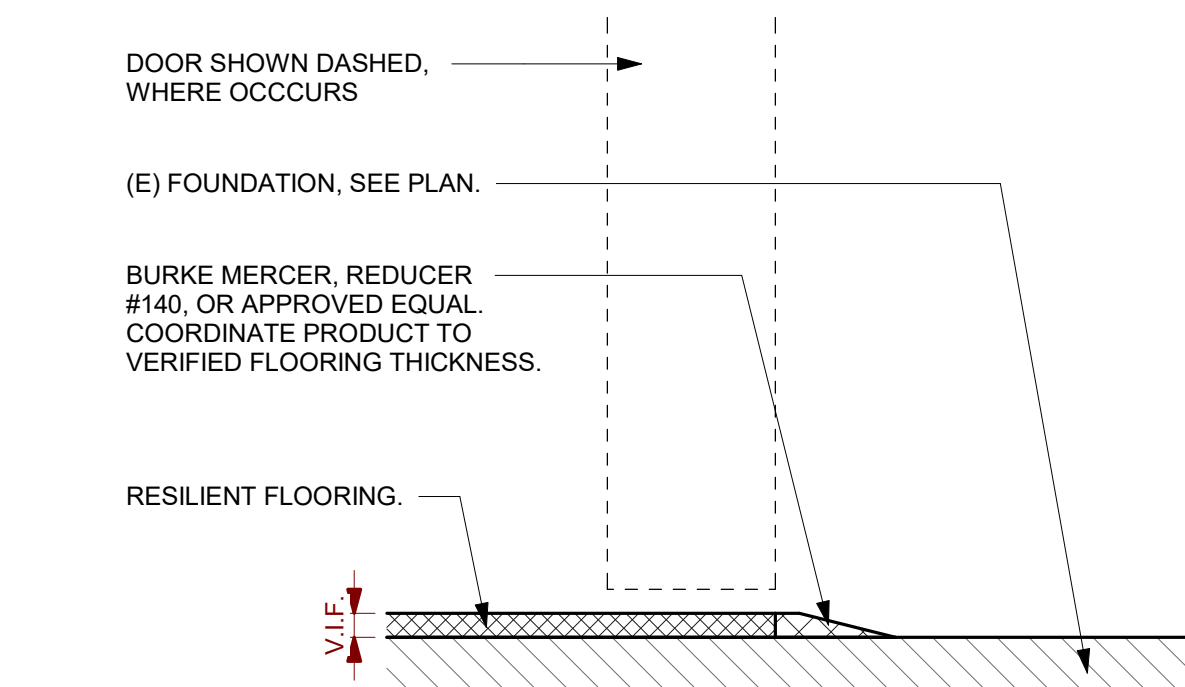
7 TYPICAL STEEL FRAME ANCHORAGE
SCALE: 6" = 1'-0"



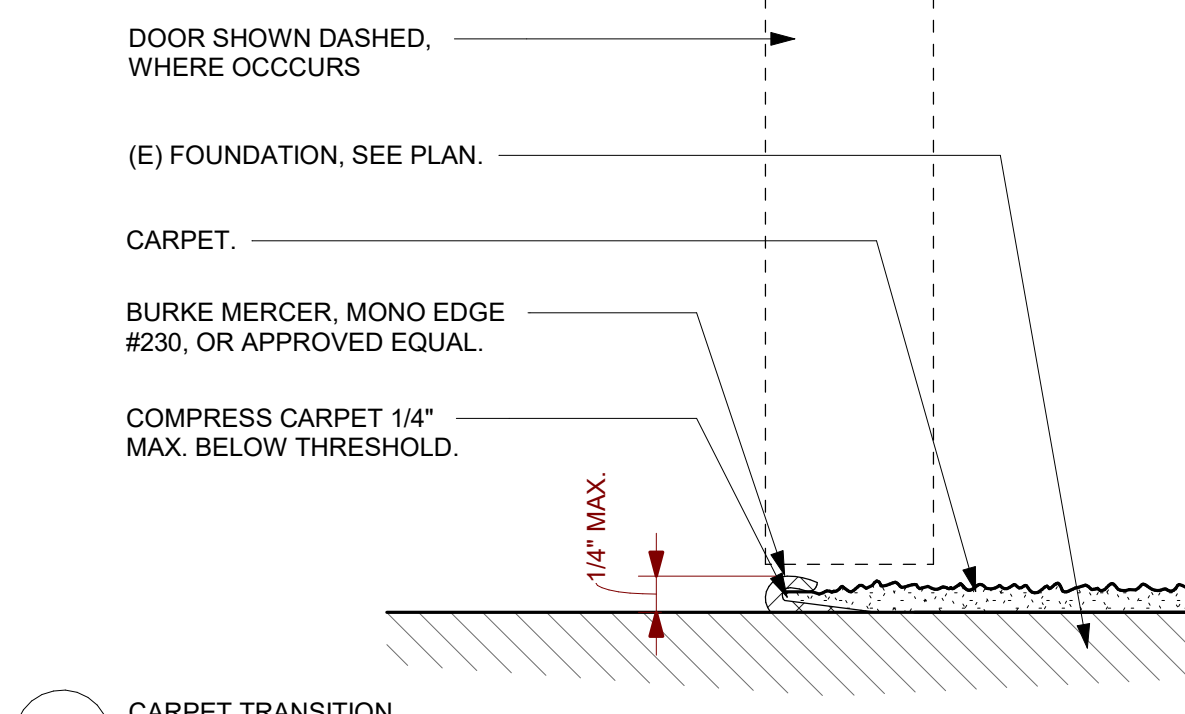
12 TYP. WELDING @ STEEL FRAME CORNER
SCALE: 1 : 1



8 INTERIOR WALL BASE
SCALE: 3" = 1'-0"

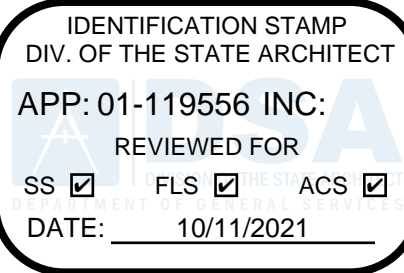


A RESILIENT FLOORING TRANSITION



B CARPET TRANSITION

4 FLOORING TRANSITION
SCALE: 6" = 1'-0"



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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

STAMP



STATE

DSA FILE NUMBER 41-26
APPL # 01-119556

REVISIONS

No. Description Date

△

MILESTONES

DD
90% CD
DSA SUB 06/03/21
BACKCHECK 09/29/21

SHEET

FINISH
SCHEDULE &
OPENING
SCHEDULE,
LEGENDS, &
DETAILS

DATE 09/29/2021
JOB # 2021005.06

SHEET #

A11.01

I. GENERAL REQUIREMENTS

A. THE STRUCTURAL DRAWINGS AND PROJECT SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THE MEANS, METHODS, PROCEDURES AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

B. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL AND PROPERTY ON AND AROUND THE JOBSITE. THE CONTRACTOR SHALL PROVIDE SHORING, BRACING, GUYS, ETC. IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL STANDARDS.

C. ALL CONSTRUCTION, TESTING, AND INSPECTIONS SHALL CONFORM TO THE BUILDING CODE REFERENCED UNDER THE HEADING "BASIS OF DESIGN" BELOW.

D. STANDARDS REFERENCED IN THESE DRAWINGS SHALL BE THE LATEST EDITION, UNLESS OTHERWISE NOTED.

E. SEE DRAWINGS OTHER THAN STRUCTURAL FOR: FLOOR FINISHES; DEPRESSIONS IN FLOOR SLABS; OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MEP FEATURES; EXTERIOR PAVING; CURBS; SLOPES; DRAINS; PADS; NON-STRUCTURAL PARTITIONS; EMBEDDED ITEMS; ETC. COORDINATE THESE ITEMS WITH THE STRUCTURAL DRAWINGS.

F. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT.

G. OMISSIONS OR DISCREPANCIES BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.

H. DO NOT SCALE THE DRAWINGS; USE WRITTEN DIMENSIONS ONLY. WHERE NO DIMENSIONS ARE PROVIDED OR WHERE DIMENSIONS PROVIDED CONFLICT WITH OTHER DRAWINGS, CONSULT THE ARCHITECT AND SEOR BEFORE PROCEEDING WITH THE WORK.

I. WHERE MEMBER LOCATIONS ARE NOT DIMENSIONED, MEMBERS SHALL BE LOCATED ON COLUMN LINES OR EQUALLY SPACED BETWEEN MEMBERS ON COLUMN LINES OR BETWEEN MEMBERS OTHERWISE LOCATED. CENTERLINES OF COLUMNS, WALLS, FRAMING MEMBERS, AND FOUNDATIONS COINCIDE WITH GRIDLINES, UNLESS OTHERWISE NOTED.

J. TYPICAL DETAILS ARE INTENDED TO APPLY TO APPLICABLE SITUATIONS, UNLESS OTHERWISE NOTED. TYPICAL DETAILS MAY NOT BE SPECIFICALLY LOCATED.

K. DETAILS SHALL BE APPLIED TO EVERY LIKE CONDITION WHETHER OR NOT THEY ARE REFERENCED IN EVERY INSTANCE. FOR CONDITIONS NOT SPECIFICALLY SHOWN, USE DETAILS SIMILAR TO THOSE PROVIDED.

L. THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOADS ARE PLACED.

II. EXISTING CONSTRUCTION

A. WORK SHOWN IS NEW UNLESS OTHERWISE NOTED AS EXISTING, (E).

B. EXISTING CONSTRUCTION SHOWN IN THESE DRAWINGS WAS OBTAINED FROM AS-BUILT DRAWINGS AND INDICATED FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, REVIEW ALL AVAILABLE EXISTING DRAWINGS AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SEOR OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.

C. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE AND SMALL TOOLS IN ORDER TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE BUILDING. IF EXISTING STRUCTURAL MEMBERS NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE SEOR SHALL BE NOTIFIED IMMEDIATELY. APPROVAL SHALL BE OBTAINED PRIOR TO REMOVAL OF THE EXISTING MEMBERS.

D. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW INSTALLATION OF THE NEW WORK. THE EXISTING CONSTRUCTION SHALL BE CONNECTED AND/OR EMBEDDED INTO THE NEW CONSTRUCTION AS SHOWN OR SPECIFIED.

E. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE SPECIFIED BY A LICENSED CIVIL OR STRUCTURAL ENGINEERING IN THE STATE OF CALIFORNIA TO BE RETAINED BY THE CONTRACTOR. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.

F. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BEFORE BEGINNING WORK. SPECIAL CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN IN SERVICE DURING CONSTRUCTION.

G. THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE CAUSED DURING OPERATIONS WITH SIMILAR MATERIALS AND WORKMANSHIP.

H. THE CONTRACTOR SHALL LOCATE EXISTING REINFORCING STEEL WHERE EXISTING CONCRETE IS TO BE CUT, CORED OR SAWN. LOCATION SHALL BE DONE USING A NON-DESTRUCTIVE METHOD. DO NOT DAMAGE EXISTING REINFORCING WITHOUT NOTIFYING THE ARCHITECT AND SEOR.

III. BASIS OF DESIGN

A. THE STRUCTURAL DESIGN OF THIS PROJECT IS GOVERNED BY THE 2019 CALIFORNIA BUILDING CODE (CBC) WITH SSI/DSA AMMENDMENTS.

B. RISK CATEGORY = III

D. LIVE LOADS:
1. ROOF = 20 PSF

E. WIND DESIGN DATA:
1. BASIC WIND SPEED = 100 mph (3 SECOND GUST)
2. EXPOSURE CATEGORY = C

F. SEISMIC DESIGN DATA:
1. I = 1.25
2. Fa = 1.2
3. Fv = N/A
4. Ss = 2.032
5. S1 = 0.84
6. SDS = 1.626
7. SD1 = N/A
8. SITE CLASS = D (DEFAULT)
9. SEISMIC DESIGN CATEGORY = D

IV. WOOD

A. ALL WOOD FRAMING SHALL CONFORM TO NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION AND APA PDS, PLYWOOD DESIGN SPECIFICATION.

B. ALL WOOD FRAMING SHALL BE DOUGLAS FIR LARCH, UNLESS OTHERWISE NOTED. GRADE SHALL BE AS FOLLOWS:
1. WALL STUDS = NO 2
2. SILL PLATES = PRESSURE TREATED
3. BLOCKING AND MISCELLANEOUS = NO 2

C. REJECTION OF WOOD MEMBERS: THE PROVISION IN DOC PS 20 (AS REFERENCED BY CBC 2303.1.1) WHICH PERMITS FIVE PERCENT OF THE MATERIAL TO FALL BELOW GRADE SHALL NOT BE CONSTRUED TO PERMIT BELOW-GRADE MATERIAL TO BE USED AS LOAD-CARRYING MEMBERS WHICH HAVE BEEN DESIGNED FOR SPECIFIC ALLOWABLE STRESSES AND ACCEPTABLE SAFETY FACTORS. MATERIALS WHICH FALL BELOW GRADE SHALL BE REJECTED FOR LOAD-CARRYING USE. WOOD MEMBERS WHICH ARE REQUIRED TO CARRY DESIGN LOADS AND WHICH THE PROJECT ARCHITECT, SEOR OR INSPECTOR JUDGE TO BE MISGRADED SHALL BE REINSPECTED BY A QUALIFIED LUMBER GRADING INSPECTOR TO VERIFY THE PROPER GRADING OF THE MATERIAL. WOOD MEMBERS WHICH HAVE PERMISSIBLE GRADE CHARACTERISTICS OR DEFECTS IN SUCH COMBINATION AS TO AFFECT THE SERVICEABILITY OF THE MEMBER SHALL BE REJECTED BY THE PROJECT INSPECTOR WITH THE CONCURRENCE OF THE ARCHITECT OR SEOR.

D. ALL LUMBER IN CONTACT WITH CONCRETE OR CONCRETE MASONRY 0'-8" OR LESS ABOVE THE GROUND SHALL BE PRESSURE TREATED.

E. MAXIMUM MOISTURE CONTENT SHALL BE 15% AT TIME OF FRAMING FOR NEW WOOD MEMBERS ADJACENT TO EXISTING WOOD MEMBERS. ALL OTHER MEMBERS SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF FRAMING. REFER TO ARCHITECTURAL DRAWINGS, PROJECT SPECIFICATIONS AND CLADDING MANUFACTURERS' INFORMATION FOR MORE STRINGENT MOISTURE CONTENT REQUIREMENTS.

F. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG TIE OR EQUAL PRODUCT IF APPROVED BY SEOR. SIMPSON DESIGNATIONS USED IN THESE DRAWINGS.

G. NAILS SHALL BE COMMON WIRE GAGE, UNLESS OTHERWISE NOTED AND CONFORM TO CBC TABLE 2304.10.1. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL OF THE PROJECT ARCHITECT, STRUCTURAL ENGINEER AND DSA.

H. LAG BOLTS AND UNFINISHED MACHINE BOLTS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

I. ANCHOR RODS SHALL CONFORM TO ASTM F1554 GR 36.

J. FASTENERS INSTALLED IN PRESSURE TREATED OR FIRE RETARDANT TREATED WOOD SHALL BE GALVANIZED.

K. PROVIDE LATERAL SUPPORT FOR BEAMS, JOISTS, AND RAFTERS PER CBC SECTION 2308.8.5.

V. POST-INSTALLED ANCHORS

A. POST-INSTALLED ANCHORS INCLUDE EXPANSION ANCHORS, EPOXY ANCHORS AND REINFORCING STEEL DOWELS, SCREW ANCHORS AND POWDER-ACTUATED FASTENERS, AS DETAILED IN THE DRAWINGS.

B. DO NOT DAMAGE OR CUT EXISTING REINFORCING STEEL WHILE INSTALLING POST-INSTALLED ANCHORS. NOTIFY SEOR IF EXISTING REINFORCING STEEL INTERFERES WITH INSTALLATION OF POST-INSTALLED ANCHORS.

C. ALL MIS-DRILLED OR UNACCEPTABLE HOLES SHALL NOT BE USED AND SHALL BE GROUTED SOLID.

D. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE ICC-ES REPORT AND MANUFACTURER'S RECOMMENDATIONS.

E. PROVIDE SPECIAL INSPECTION FOR THE INSTALLATION OF ALL POST-INSTALLED ANCHORS, UNLESS OTHERWISE NOTED.

F. FIELD TEST POST-INSTALLED ANCHORS, UNLESS OTHERWISE NOTED. FIELD TESTING SHALL BE IN COMPLIANCE WITH THE FOLLOWING:
1. 10% OF POST-INSTALLED ANCHORS USED FOR SILL PLATE BOLTING SHALL BE TESTED; 100% OF ALL OTHER POST-INSTALLED ANCHORS USED FOR STRUTURAL APPLICATIONS SHALL BE TESTED.
2. 50% OF POST-INSTALLED ANCHORS USED FOR NON-STRUCTURAL APPLICATIONS SHALL BE TESTED, INCLUDING ONE HALF OF ALL ANCHORS IN EACH GROUP.
a. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE THAT ARE UNTESTED SHALL BE TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS.
b. NO TESTING REQUIRED FOR POWDER-ACTUATED FASTENERS USED TO ATTACH TRACKS OF INTERIOR, NON-STRUCTURAL PARTITION WALLS WHERE THERE ARE AT LEAST THREE FASTENERS PER PIECE OF TRACK.
3. NO TESTING REQUIRED OF REINFORCING STEEL DOWELS ACROSS COLD JOINTS IN CONCRETE SLABS ON GRADE.
4. TORQUE TESTING MAY BE USED FOR TORQUE CONTROLLED POST-INSTALLED ANCHORS; TENSION TEST ALL OTHER POST-INSTALLED ANCHORS.
5. TORQUE TESTING SHALL BE IN ACCORDANCE WITH CBC SECTION 1910A.5.5.2.
6. TENSION TESTING SHALL BE IN ACCORDANCE WITH CBC SECTION 1910A.5.5.1.
7. ALL FIELD TESTING SHALL BE DONE UNDER THE OBSERVATION OF THE PROJECT INSPECTOR.
8. TESTING SHALL OCCUR AT LEAST 24 HOURS AFTER THE ANCHOR HAS BEEN INSTALLED.

G. EPOXY ANCHORS AND REINFORCING STEEL DOWELS
1. FOR INSTALLATION IN CONCRETE, EPOXY SHALL BE ONE OF THE FOLLOWING:
a. SET-XP PER ICC-ES ESR-2508 AS MANUFACTURED BY SIMPSON STRONG TIE
b. HIT-RE 500-SD PER ICC-ES ESR-2322 AS MANUFACTURED BY HILTI, INC.
c. HY-200 MAX-SD PER ICC-ES ESR-2013 AS MANUFACTURED BY HILTI, INC.
2. FOR INSTALLATION IN FULLY-GROUTED MASONRY, EPOXY SHALL BE ONE OF THE FOLLOWING:
a. SET-HIGH STRENGTH PER ICC-ES ESR-2508 AS MANUFACTURED BY SIMPSON STRONG TIE
b. HY-150 PER ICC-ES ESR-1967 AS MANUFACTURED BY HILTI, INC.
3. EPOXIED ANCHOR RODS SHALL BE CARBON STEEL THREADED RODS PER APPROPRIATE ICC-ES REPORT; EPOXIED REINFORCING STEEL DOWELS SHALL BE ASTM A615 GR 60 UNLESS OTHERWISE NOTED. MINIMUM ANCHOR EMBEDMENT AND TENSION TEST VALUES ARE AS FOLLOWS:

EPOXY ANCHORS IN NORMAL-WEIGHT CONCRETE (f'c = 3000 PSI MIN)				
THREADED ROD DIAMETER (IN)	EMBED (IN)	TENSION TEST VALUE (LBS)		
		HY-200 MAX-SD	HIT-RE 500-SD	SET-XP
3/8	3	3360	3510	3620
1/2	4	6010	6150	5690
5/8	5	9440	9330	7640
3/4	6	7120	12860	9770
7/8	7	15750	13620	12250
1	8	20670	16440	15430
1 1/4	10	32500	22060	24100

ANCHORS SHALL NOT BE INSTALLED INTO CONCRETE THAT IS LESS THAN 21 DAYS OLD.

H. EXPANSION ANCHORS
1. FOR INSTALLATION IN CONCRETE, EXPANSION ANCHORS SHALL BE ONE OF THE FOLLOWING:
a. STRONG BOLT 2 PER ICC-ES ESR-3037 AS MANUFACTURED BY SIMPSON STRONG TIE.
b. KWIK BOLT T22 PER ICC-ES ESR-4266 AS MANUFACTURED BY HILTI, INC.
2. USE STAINLESS STEEL AT EXTERIOR, WEATHER-EXPOSED OR DAMP LOCATIONS. CARBON STEEL EXPANSION ANCHORS MAY BE USED AT ALL OTHER LOCATION, UNLESS OTHERWISE NOTED.
3. MINIMUM ANCHOR EMBEDMENT AND TORQUE TEST VALUES ARE AS FOLLOWS:

KWIK BOLT T22 IN NORMAL WEIGHT CONCRETE (f'c = 3000 PSI MIN)			
ANCHOR DIAMETER (IN)	EMBED (IN)	MINIMUM HOLE	TORQUE TEST
			VALUE (FT-LBS)
3/8	2 5/16	2 5/8	30
1/2	2 3/8	2 5/8	50
5/8	4 1/16	4 3/4	60
3/4	5 9/16	5 3/4	125

STRONG BOLT 2 IN NORMAL WEIGHT CONCRETE (f'c = 3000 PSI MIN)			
ANCHOR DIAMETER (IN)	EMBED (IN)	MINIMUM HOLE	TORQUE TEST
			VALUE (FT-LBS)
3/8	1 7/8	2	30
1/2	2 3/4	3	60
5/8	5 3/8	5 3/8	90
3/4	5 1/4	6	150

4. WHERE EXPANSION ANCHORS ARE INSTALLED IN CONTACT WITH WOOD FRAMING, PROVIDE AN OVERSIZE WASHER IN ORDER TO ACHIEVE TORQUE REQUIRED BY ICC-ES REPORT. USE 1/4"x3"x3" WASHER, MINIMUM.
5. CONTRACTOR SHALL PROVIDE ANCHORS WITH SUFFICIENT TOTAL LENGTH FOR THE SPECIFIED EMBEDMENT LENGTH, THICKNESS OF FASTENED PART, WASHER AND NUT.

I. SCREW ANCHORS
1. FOR INSTALLATION IN CONCRETE, SCREW ANCHORS SHALL BE ONE OF THE FOLLOWING:
a. TITEN HD PER ICC-ES ESR-2713 AS MANUFACTURED BY SIMPSON STRONG TIE.
b. KWIK HUS-EZ PER ICC-ES ESR-3027 AS MANUFACTURED BY HILTI, INC.
2. MINIMUM ANCHOR EMBEDMENT AND TENSION TEST VALUES ARE AS FOLLOWS:

TITEN HD IN NORMAL WEIGHT CONCRETE (f'c = 3000 PSI MIN)			
ANCHOR DIAMETER (IN)	EMBED (IN)	MINIMUM HOLE	TENSION TEST
			VALUE (FT-LBS)
3/8	2 1/2	3	1200
1/2	3 1/4	3 3/4	2973
5/8	4	4 1/2	3935
3/4	5 1/2	6	5895

KWIK HUS-EZ IN NORMAL WEIGHT CONCRETE (f'c = 3000 PSI MIN)			
ANCHOR DIAMETER (IN)	EMBED (IN)	MINIMUM HOLE	TENSION TEST
			VALUE (FT-LBS)
1/4	2 1/2	2 7/8	1133
3/8	2 1/2	2 3/4	2093
1/2	2 1/4	2 5/8	1547
5/8	3 1/4	3 5/8	3049
3/4	4	4 3/8	4118

J. POWDER-ACTUATED FASTENERS
1. PAF SHALL BE ONE OF THE FOLLOWING:
a. SIMPSON STRONG TIE POWDER-ACTUATED FASTENERS PER ICC-ES ESR-2136 FOR ANCHORAGE OF METAL TO CONCRETE, MASONRY OR STEEL.
b. HILTI, INC. X-U PER ICC-ES ESR-2289 FOR ANCHORAGE OF METAL TO CONCRETE, MASONRY OR STEEL.
c. HILTI, INC. X-CP 72 PER ICC-ES ESR-2379 FOR ANCHORAGE OF SILL PLATES TO CONCRETE.
d. DEWALT POWDER-ACTUATED FASTENERS PER ICC-ES ESR-2024 FOR ANCHORAGE OF METAL TO CONCRETE, MASONRY OR STEEL AND ANCHORAGE OF WOOD SILLS TO CONCRETE.
2. PROVIDE 0.08"x1.1"x1.1" SQUARE OR 0.08"x1.425" DIAMETER ROUND WASHER AT EACH PAF.
3. MINIMUM PAF EMBED INTO CONCRETE SHALL BE 1", UNLESS OTHERWISE NOTED.
4. MINIMUM PAF EMBED INTO STEEL SHALL BE PER MANUFACTURER.

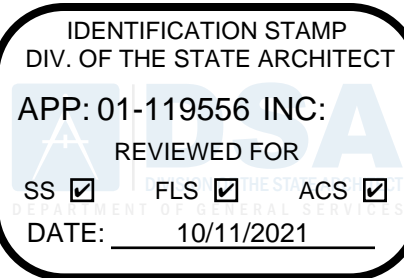
VI. STRUCTURAL TESTS / SPECIAL INSPECTIONS

A. THE FOLLOWING ITEMS ARE EXEMPT FROM DSA REQUIREMENTS FOR STRUCTURAL TESTS / SPECIAL INSPECTION, SEE DSA FORM 103 AND SPECIFICATIONS:

1. TESTING OF REINFORCING BARS IS NOT REQUIRED SUBJECT TO THE REQUIREMENTS AND LIMITATIONS GIVEN IN CBC SECTION 1910A.2.
2. BATCH PLANT INSPECTION OF CONCRETE IS WAIVED IN COMPLIANCE WITH CBC SECTION 1705A.3.3.2. SEE SPECIFICATIONS FOR REQUIRED CERTIFICATION OF CEMENT AND REINFORCING, TAKING AND SAMPLING OF STRENGTH TEST, AND PROVISION OF WEIGHMASTER'S BATCH TICKETS.

ABBREVIATION

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
(E)	EXISTING	LLV	LONG LEG VERTICAL
(N)	NEW	LOC	LOCATION
AB	ANCHOR BOLT	LONG	LONGITUDINAL
ADDL	ADDITIONAL	LW	LIGHTWEIGHT
ALT	ALTERNATE	LWC	LIGHTWEIGHT CONCRETE
APPRX	APPROXIMATE	MATL	MATERIAL
AR	ANCHOR ROD	MAX	MAXIMUM
ARCH	ARCHITECT OR ARCHITECTURAL	MB	UNFINISHED MACHINE BOLT
AVG	AVERAGE	MECH	MECHANICAL
BLDG	BUILDING	MEP	MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
BLKG	BLOCKING		
BM	BEAM	MEZZ	MEZZANINE
BOT	BOTTOM	MFR	MANUFACTURER
BRDG	BRIDGING	MID	MIDDLE
BTWN	BETWEEN	MIN	MINIMUM
CIP	CAST-IN-PLACE	MISC	MISCELLANEOUS
CJ	CONTROL CONSTRUCTION JOINT	MTL	METAL
CJP	COMPLETE JOINT PENETRATION	N/A	NOT APPLICABLE
CL	CENTER LINE	NIC	NOT IN CONTRACT
CLR	CLEAR OR CLEARANCE	NO	NUMBER
COL	COLUMN	NOM	NOMINAL
CONC	CONCRETE	NS	NEAR SIDE
CONN	CONNECTION(S)	NTS	NOT TO SCALE
CONST	CONSTRUCTION	NW	NORMAL WEIGHT
CONT	CONTINUOUS	NWC	NORMALWEIGHT CONCRETE
CTR	CENTER	OC	ON CENTER
CTRD	CENTERED	OD	OUTSIDE DIAMETER
CTRSK	COUNTERSINK	OF	OUTSIDE FACE
db	DIAMETER OF BOLT OR REBAR	OH	OPPOSITE HAND
DBL	DOUBLE	OPNG(S)	OPENING(S)
DEMO	DEMOLISH	OPP	OPPOSITE
DET	DETAIL	OSB	ORIENTED STRAND BOARD
DF	DOUGLAS FIR	PAF	POWDER ACTUATED FASTENER
DIA	DIAMETER	PERP	PERPENDICULAR
DIAG	DIAGONAL	PL	PLATE
DIM(S)	DIMENSION(S)	PLY	PLYWOOD
DL	DEAD LOAD	PSF	POUNDS PER SQUARE FOOT
DWG(S)	DRAWING(S)	PSI	POUNDS PER SQUARE INCH
DWL	DOWEL(S)	PSL	PARALLEL STRAND LUMBER
EA	EACH	RAD	RADIUS
ECC	ECCENTRICITY	REF	REFERENCE
EF	EACH FACE	REINF	REINFORCE(D) (ING) OR (MENT)
EJ	EXPANSION JOINT	REQD	REQUIRED
EL	ELEVATION	REV	REVISION
ELEC	ELECTRICAL	RWD	REDWOOD
EMBED	EMBEDMENT	SAD	SEE ARCHITECTURAL DRAWINGS
EN	EDGE NAIL	SCD	SEE CIVIL DRAWINGS
ENGR	ENGINEER	SCHED	SCHEDULE(D)
EOS	EDGE OF SLAB	SECT	SECTION
EQ	EQUAL	SEOR	STRUCTURAL ENGINEER OF RECORD
EQUIP	EQUIPMENT		
ES	EACH SIDE	SF	SQUARE FOOT (FEET)
EW	EACH WAY	SHT	SHEET
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SLRS	SEISMIC LOAD RESISTING SYSTEM
FF	FINISH FLOOR		
FIN	FINISH(ED)	SMD	SEE MECHANICAL DRAWINGS
FLR	FLOOR	SMS	SHEET METAL SCREW(S)
FN	FIELD NAILING	SOG	SLAB ON GRADE
FND	FOUNDATION	SP	SPACE
FO	FACE OF	SPEC(S)	SPECIFICATION(S)
FRM'G	FRAMING	SQ	SQUARE
FS	FAR SIDE	STAG'G'D	STAGGERED
FTG	FOOTING	STD	STANDARD
GA	GAGE, GAUGE	STIFF	STIFFENER
GALV	GALVANIZED	STL	STEEL
GB	GRADE BEAM	STR	STRUCTURE
GEN	GENERAL	STRCTL	STRUCTURAL
GLB	GLUE-LAMINATED BEAM	SYMM	SYMMETRICAL
GR	GRADE	T&B	TOP AND BOTTOM
GYP	GYPSUM	T&G	TONGUE AND GROOVE
HD	HOLDOWN	TD	TIE DOWN
HDR	HEADER	TEMP	TEMPERATURE OR TEMPORARY
HGR	HANGER	THK	THICK OR THICKNESS
HK	HOOK	THRD'D	THREADED
HORIZ	HORIZONTAL	TO	TOP OF
HT	HEIGHT	TRANSV	TRANSVERSE
HVAC	HEATING VENTING AND AIR CONDITIONING	TYP	TYPICAL
	INSIDE DIAMETER	UON	UNLESS OTHERWISE NOTED
ID	INSIDE FACE	VERT	VERTICAL
IF	INFORMATION	VIF	VERIFY IN FIELD
INFO	INTERIOR	W/	WITH
INT	JOIST HANGER	W/O	WITHOUT
JH	JOIST(S)	WD	WOOD
JST(S)	JOINT	WF	WIDE FLANGE
JT	JOINT	WP	WORK POINT
LBS	POUNDS	WT	WEIGHT
LL	LIVE LOAD	WWR	WELDED WIRE REINFORCEMENT
LLH	LONG LEG HORIZONTAL		



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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

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STAMP



STATE

FILE NUMBER
DSA FILE NUMBER
41-26

APPL #
01-119556

REVISIONS

No. Description Date

MILESTONES

DD
90% CD
DSA SUB 06/03/2021
BACKCHECK 09/29/2021

SHEET

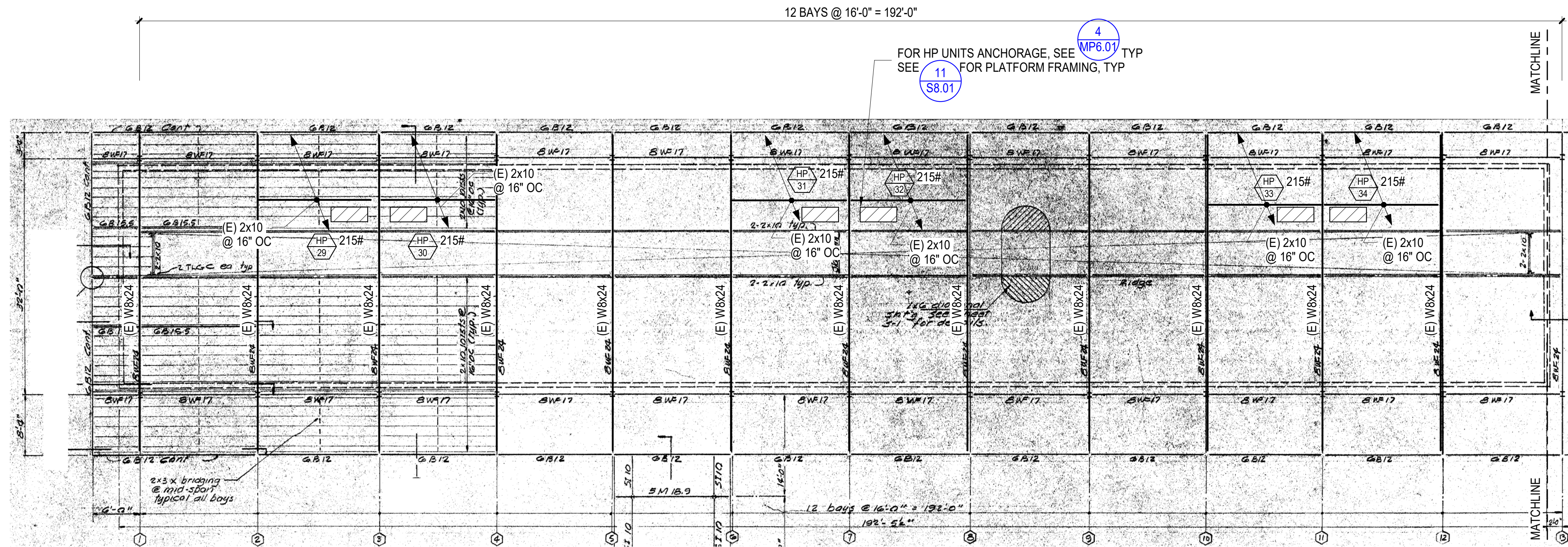
ABBREVIATIONS
AND GENERAL
NOTES

DATE
09/29/2021

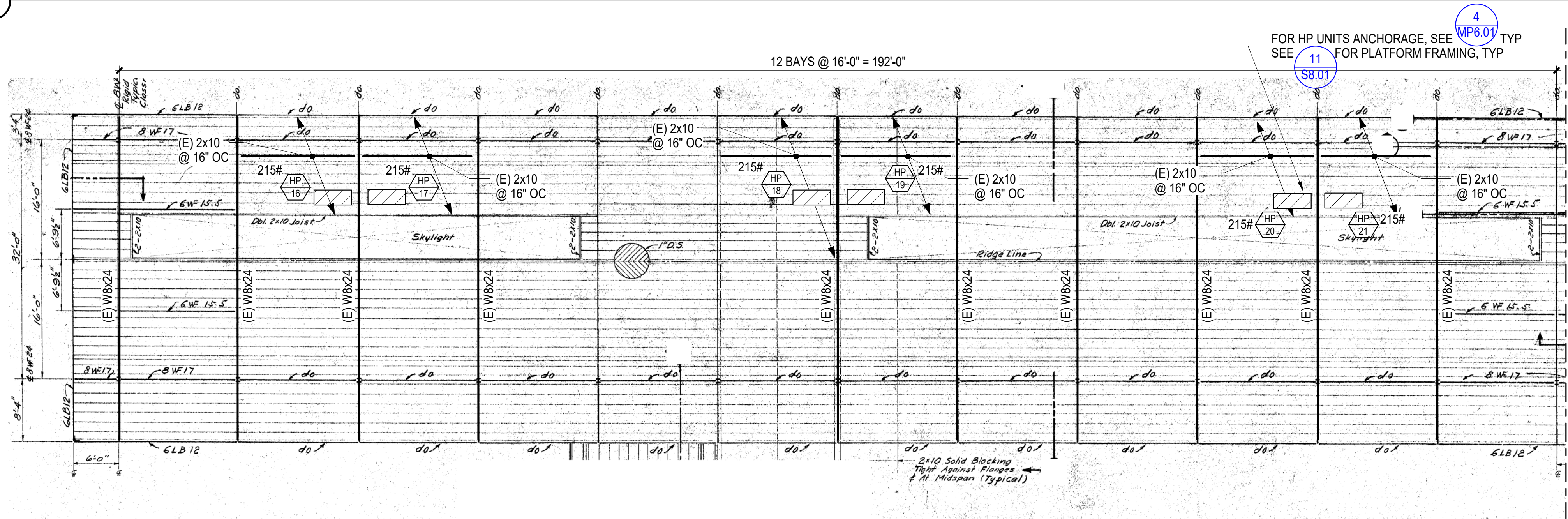
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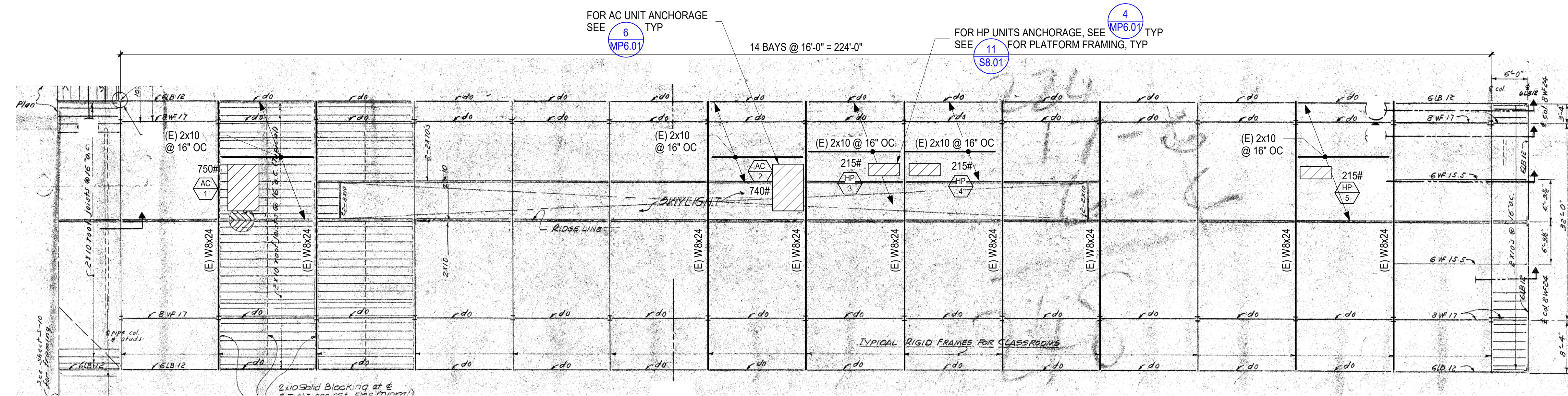
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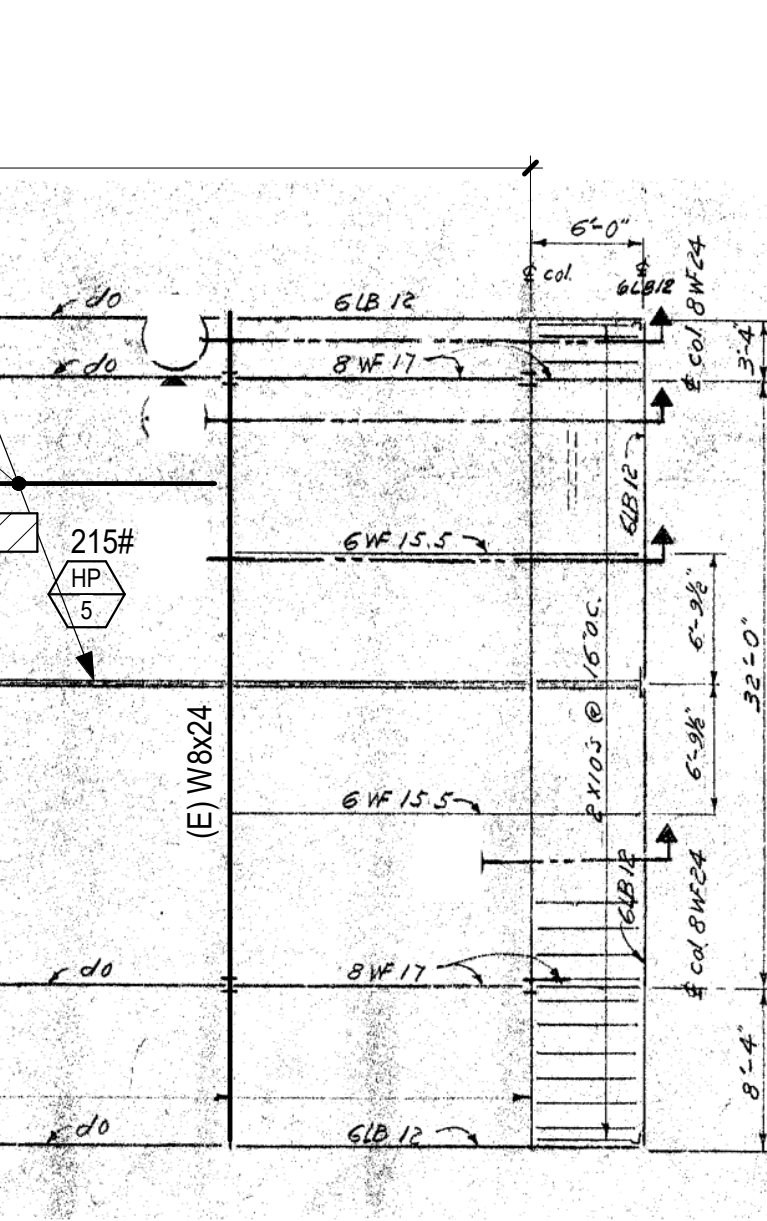
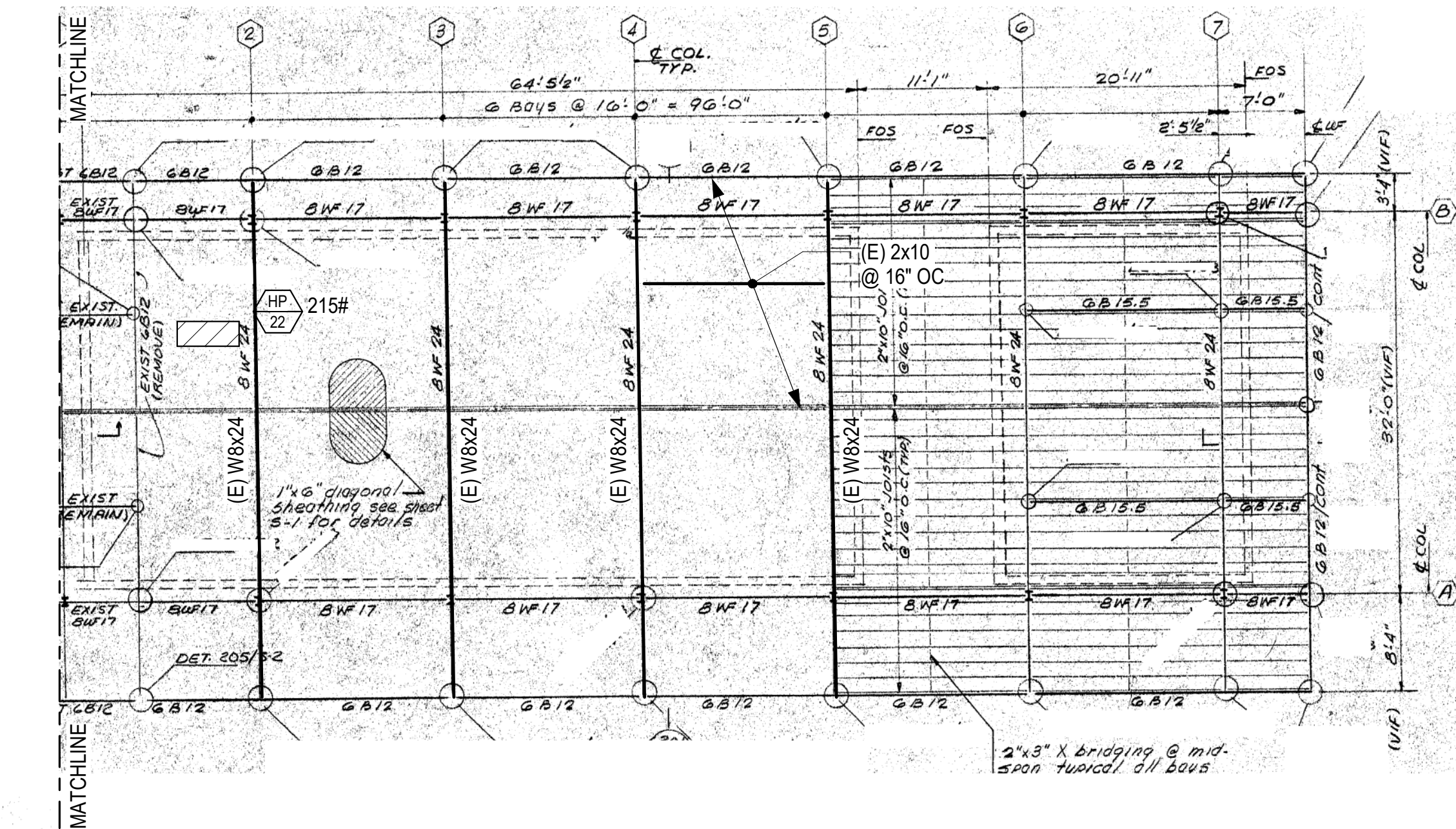
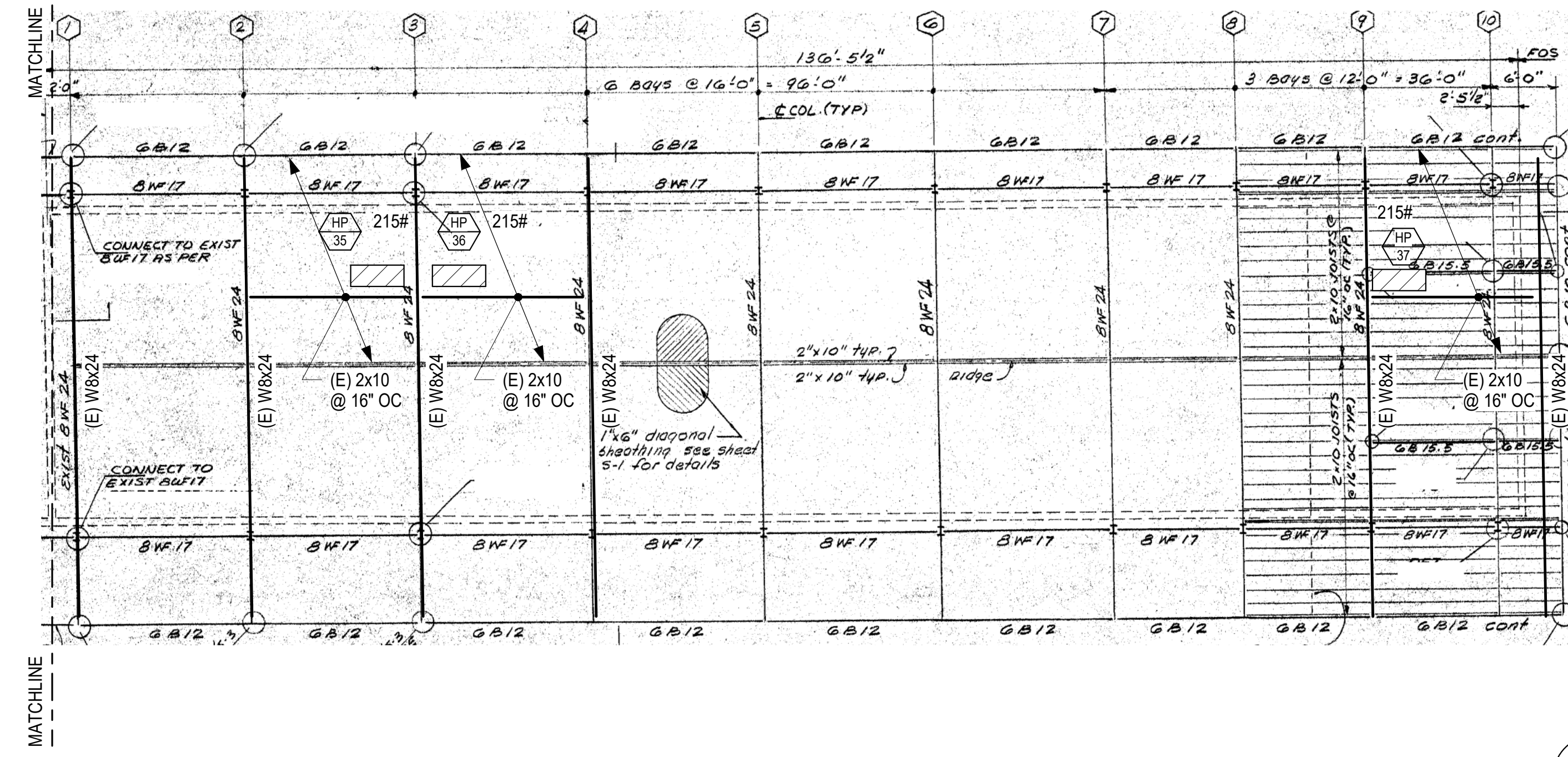
1 EXISTING ROOF FRAMING PLAN - WING 3



2 EXISTING ROOF FRAMING PLAN - WING 2



3 EXISTING ROOF FRAMING PLAN - WING 1



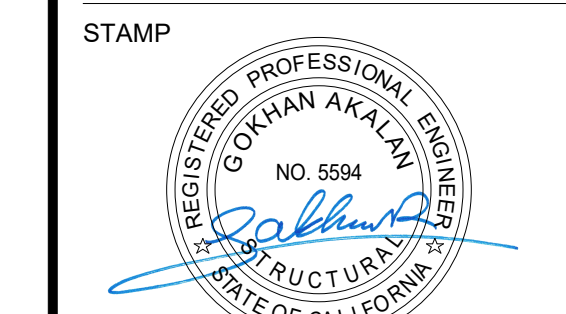
- SHEET NOTES:**
- LOCATIONS OF MECHANICAL UNITS ARE SHOWN FOR REFERENCE ONLY. FOR EXACT UNIT LAYOUT, SEE S8.10.
 - EXISTING STRUCTURAL FRAMING PLAN SHOWN IS TAKEN FROM DSA APPROVED AS-BUILT DRAWINGS AND IS SHOWN FOR REFERENCE ONLY.
 - SEE GENERAL NOTES ON SHEET S1.01.
 - SEE TYPICAL FRAMING DETAILS ON SHEET S8.01.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-119556 INC.
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 10/11/2021

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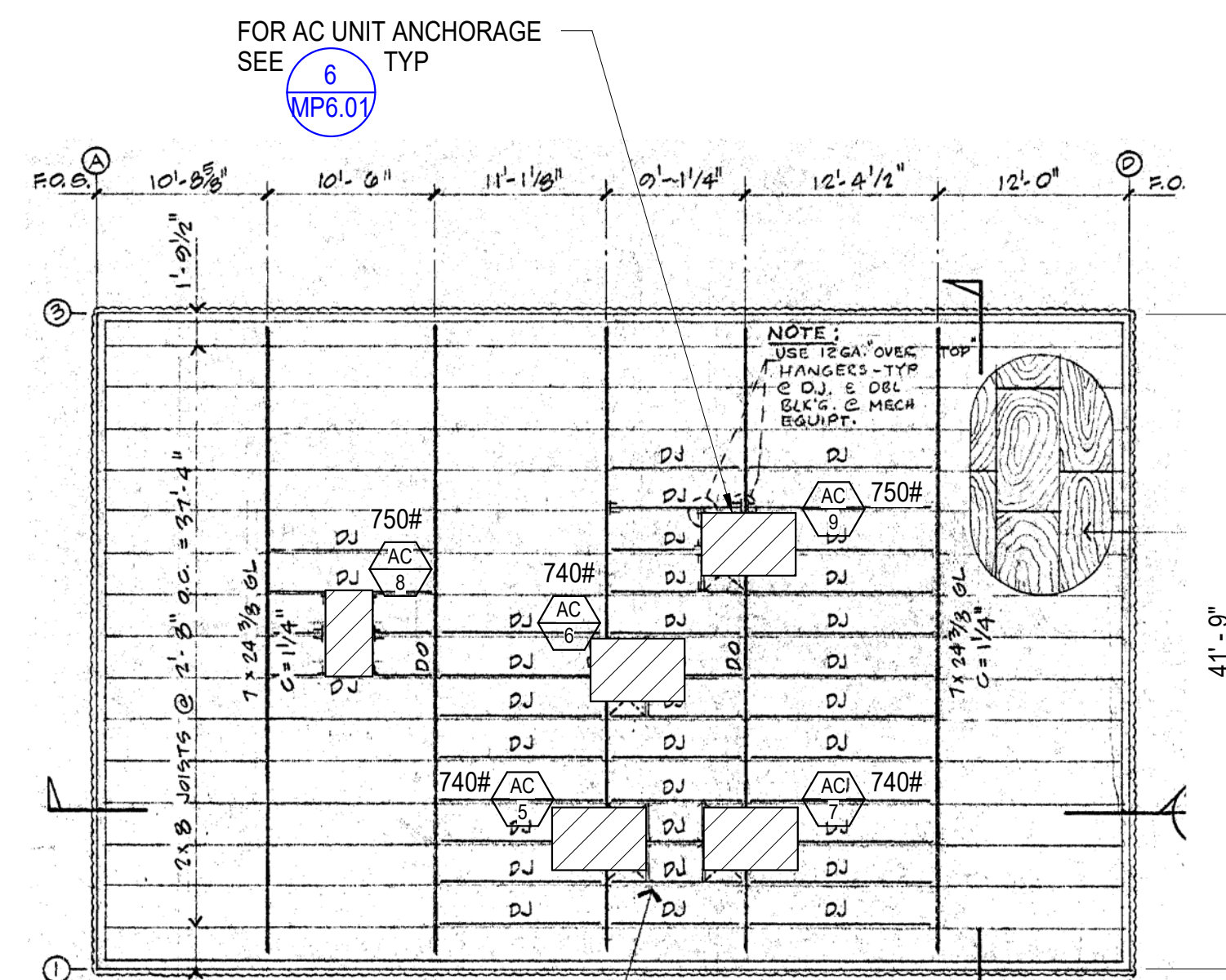
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EXISTING ROOF FRAMING PLANS - WINGS 1, 2 & 3

DATE 09/29/2021
JOB # 2021005.06
SHEET #

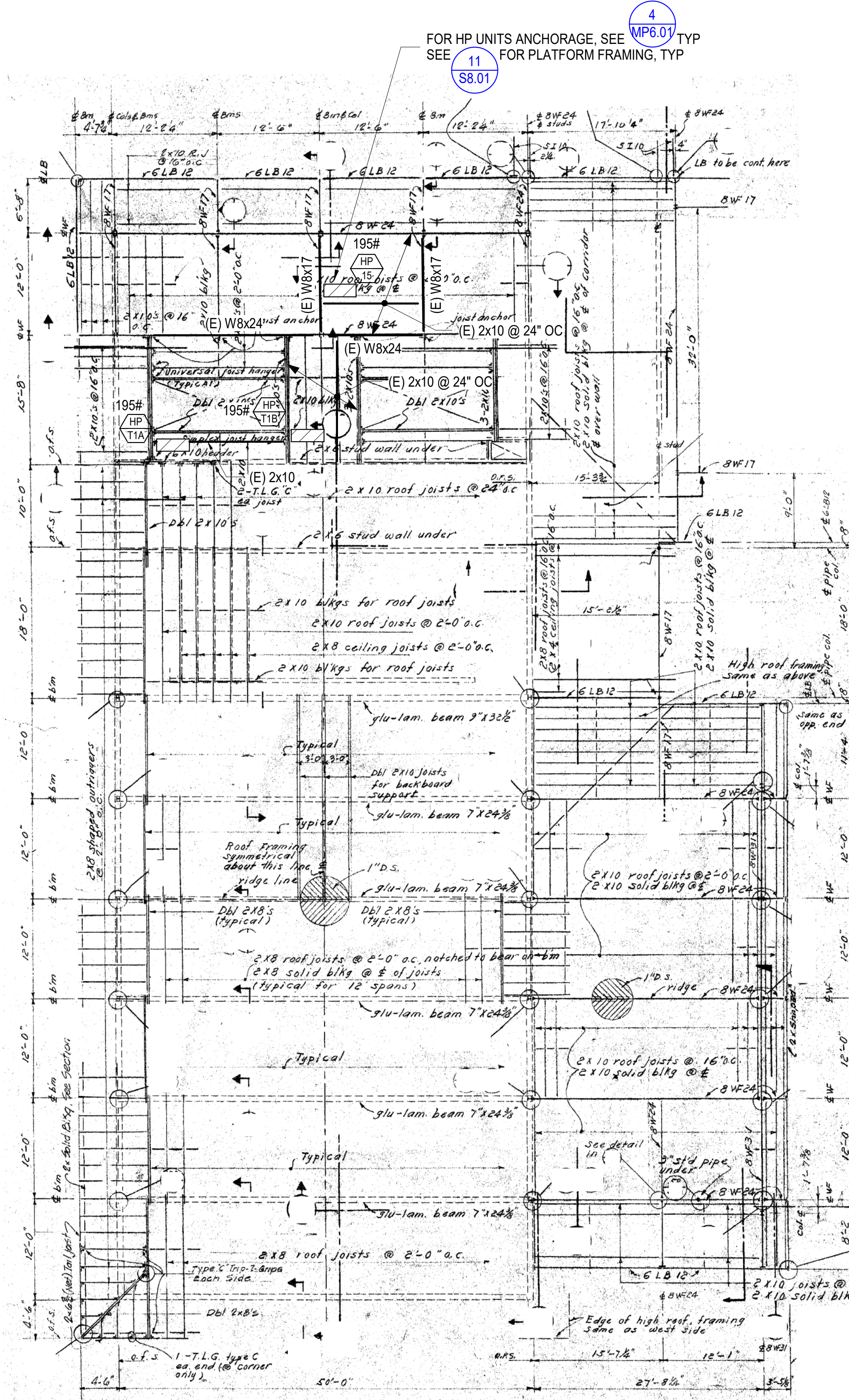
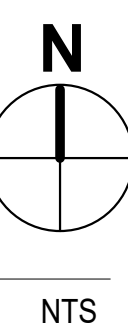
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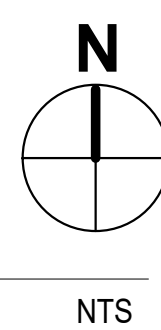
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- SEE GENERAL NOTES ON SHEET S1.01.
- SEE TYPICAL FRAMING DETAILS ON SHEET S8.01.



2 EXISTING ROOF FRAMING PLAN - MUSIC BLDG



1 EXISTING ROOF FRAMING PLAN - MULTIPURPOSE BLDG

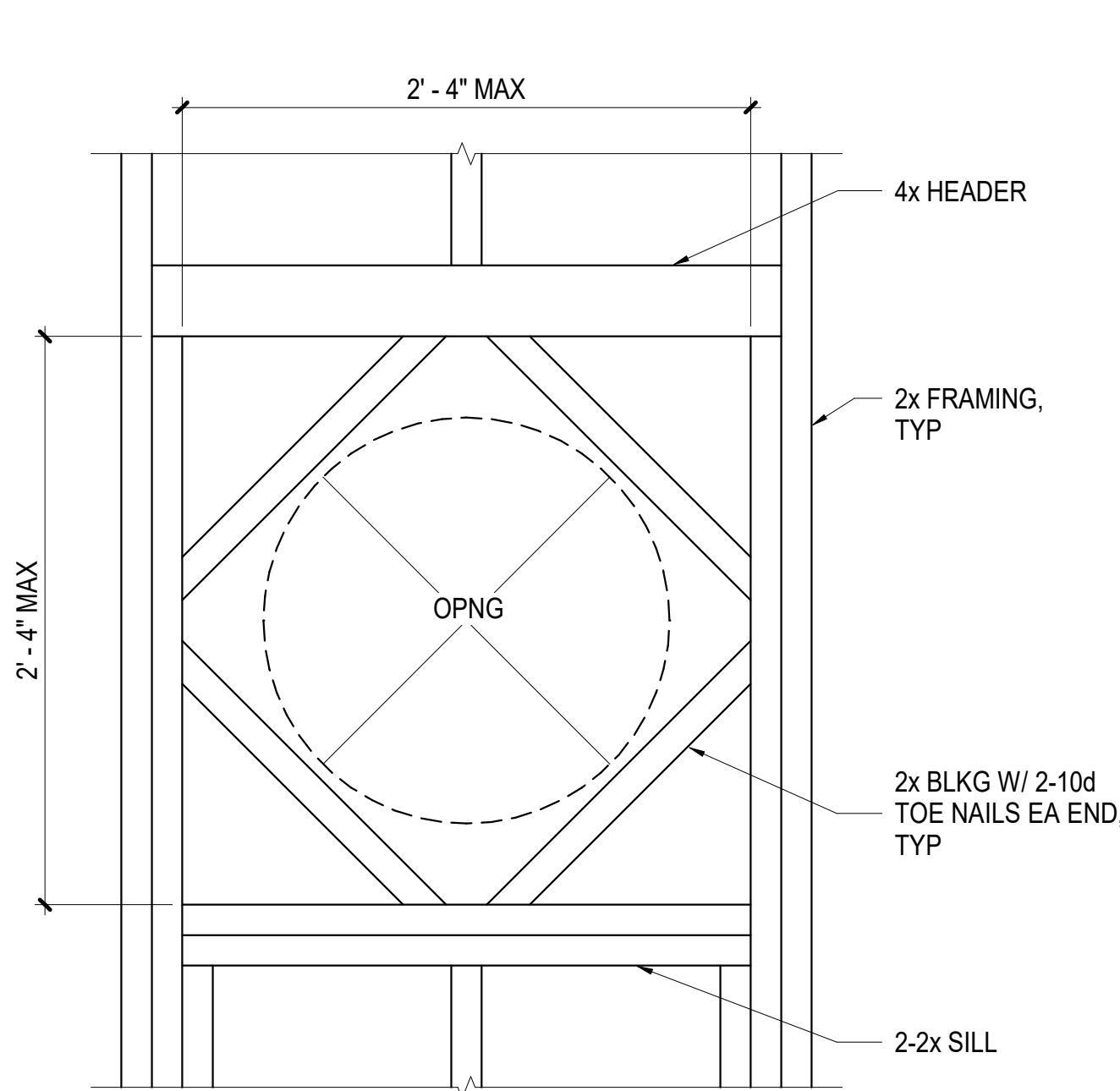


FASTENING SCHEDULE		
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF		
1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below	3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Each end, toenail
Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common (2 1/2" x 0.131") 2-3" x 0.131" nails 2-3" 14 gage staples	Each end, toenail
	2-16 d common (3 1/2" x 0.162") 3-3" x 0.131" nails 3-3" 14 gage staples	End nail
Flat blocking to truss and web filler	16d common (3 1/2" x 0.162") @ 6" o.c. 3" x 0.131" nails @ 6" o.c. 3" x 14 gage staples @ 6" o.c.	Face nail
2. Ceiling joists to top plate	3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Each joist, toenail
3. Ceiling joist not attached to parallel rafter, laps over partitions (no thrust)	3-16d common (3 1/2" x 0.163") 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Face nail
4. Ceiling joist attached to parallel rafter (heel joint)	Per Table 2308.7.3.1, CBC 2019	Face nail
5. Collar tie to rafter	3-10d common (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	Face nail
6. Rafter or roof truss to top plate	3-10 common (3" x 0.148"); or 3-16d box (3 1/2" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131 nails; or 4-3" 14 gage staples, 7/16" crown	Toenail
		Toenail
7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown; or 3-10d common (3 1/2" x 0.148"); or 4-16d box (3 1/2" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	End nail
		Toenail
WALL		
8. Stud to stud (not at braced wall panels)	16d common (3 1/2" x 0.162"); 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	24" o.c. face nail 16" o.c. face nail
9. Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common (3 1/2" x 0.162"); or 16d box (3 1/2" x 0.135"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	16" o.c. face nail 12" o.c. face nail 12" o.c. face nail
10. Built-up header (2" to 2" header)	16d common (3 1/2" x 0.162"); or 16d box (3 1/2" x 0.135")	16" o.c. each edge, face nail 12" o.c. each edge, face nail
11. Continuous header to stud	4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128")	Toenail
12. Top plate to top plate	16d common (3 1/2" x 0.162"); or 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown	16" o.c. face nail 12" o.c. face nail
13. Top plate to top plate, at end joints	8-16d common (3 1/2" x 0.162"); or 12-10d box (3" x 0.128"); or 12-3" x 0.131" nails; or 12-3" 14 gage staples, 7/16" crown	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
14. Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 1/2" x 0.163"); or 16d box (3 1/2" x 0.135"); or 3" x 0.131" nails; or 3" 14 gage staples, 7/16" crown	16" o.c. face nail 12" o.c. face nail
15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common (3 1/2" x 0.162"); or 3-16d box (3 1/2" x 0.135"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown	16" o.c. face nail
16. Stud to top or bottom plate	4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 7/16" crown; or 2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Toenail End nail
17. Top plates, laps at corners and intersections	2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 7/16" crown	Face nail
18. 1" brace to each stud and plate	2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, 7/16" crown	Face nail
19. 1" x 6" sheathing to each bearing	2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128")	Face nail
20. 1" x 8" and wider sheathing to each bearing	3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128")	Face nail

- For St: 1 inch = 25.4 mm.
- a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. Nails for wall sheathing are permitted to be common, box or casing.
- b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
- c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.
- d. RRSR-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.

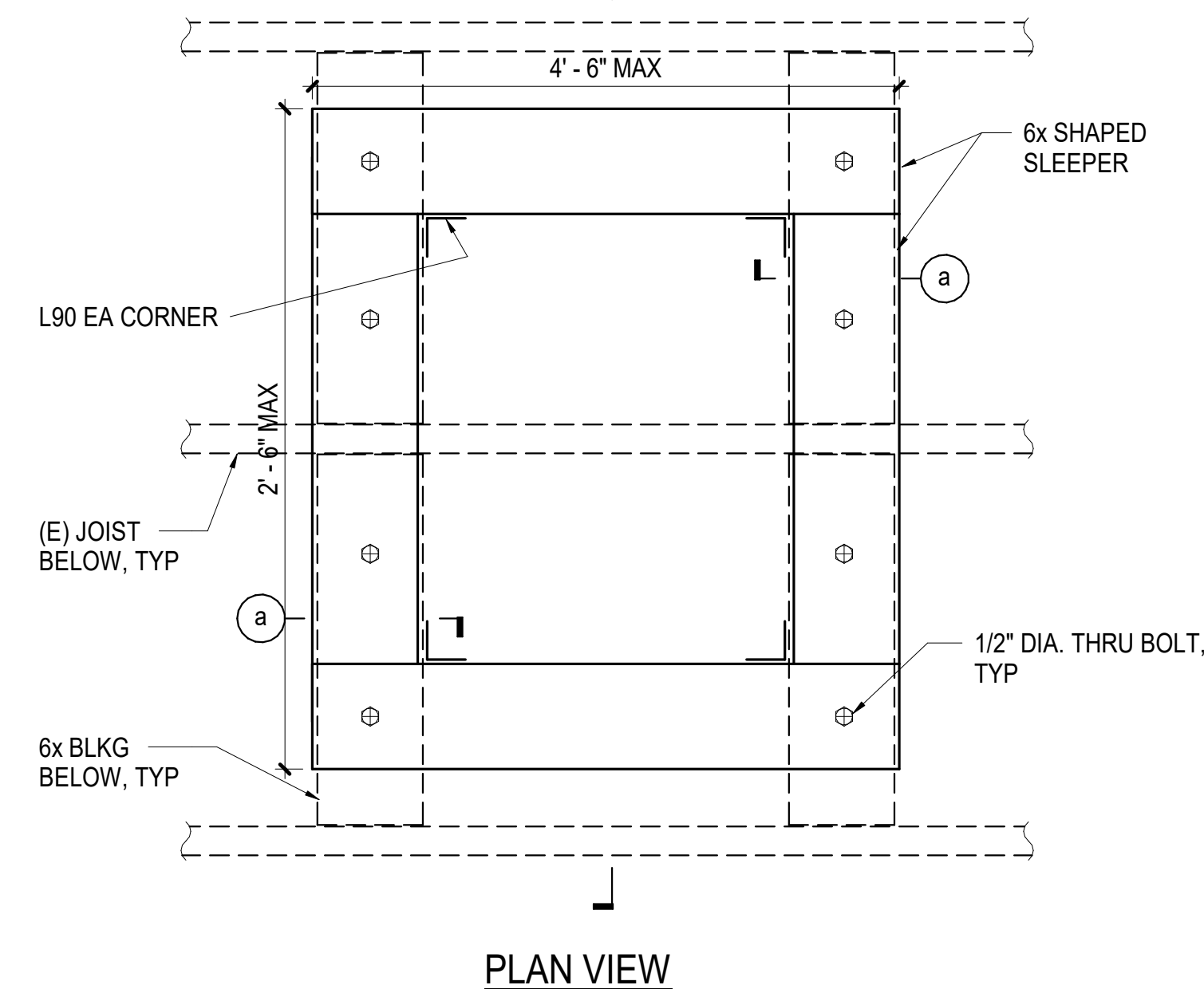
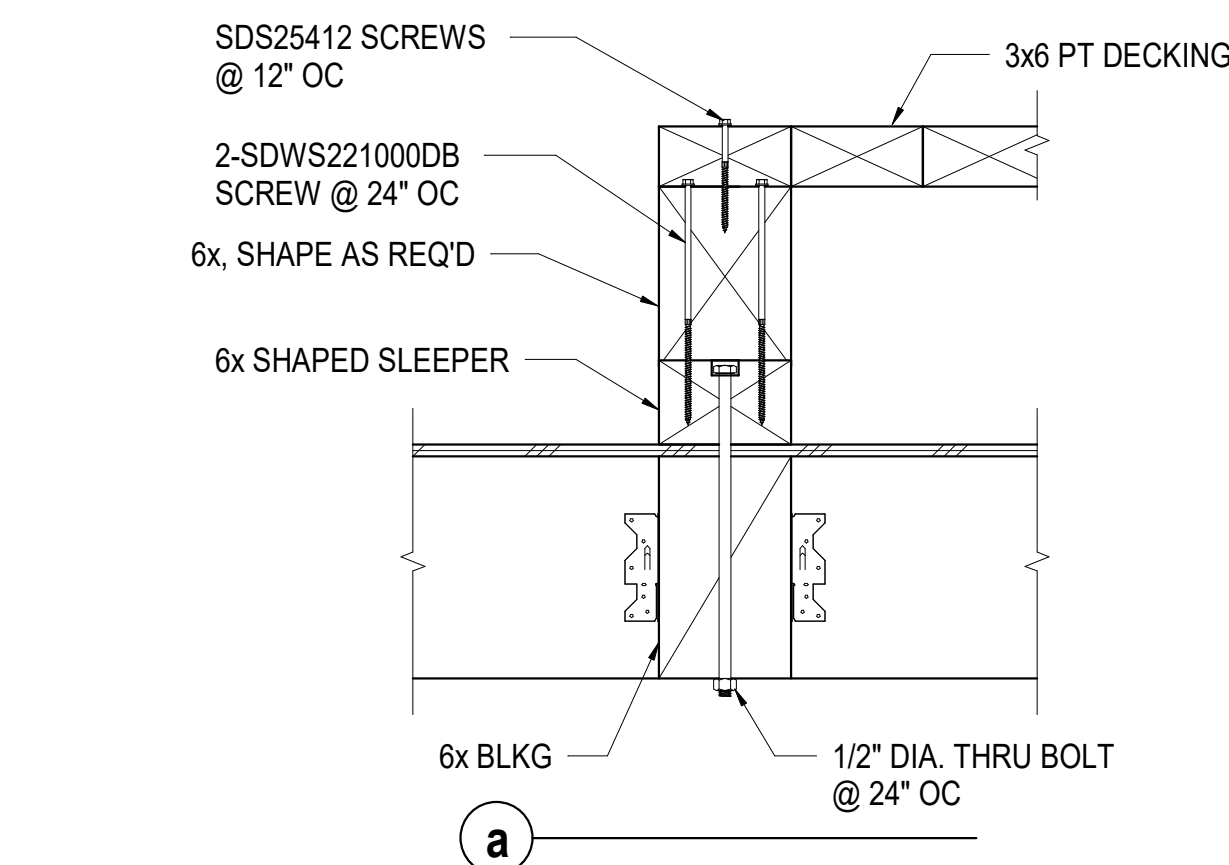
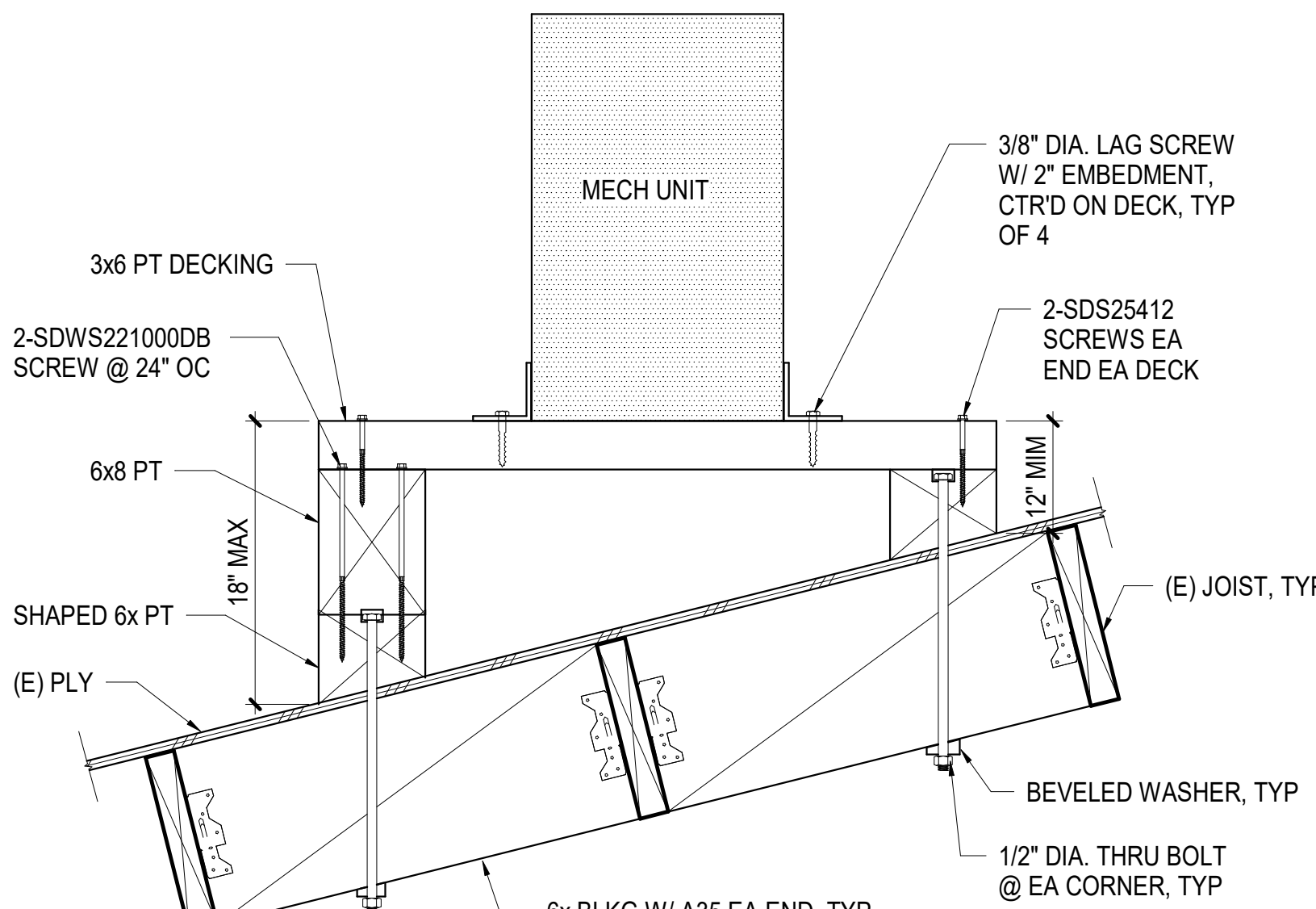
12 NAILING SCHEDULE

11 MECH UNIT PLATFORM FRAMING DETAIL

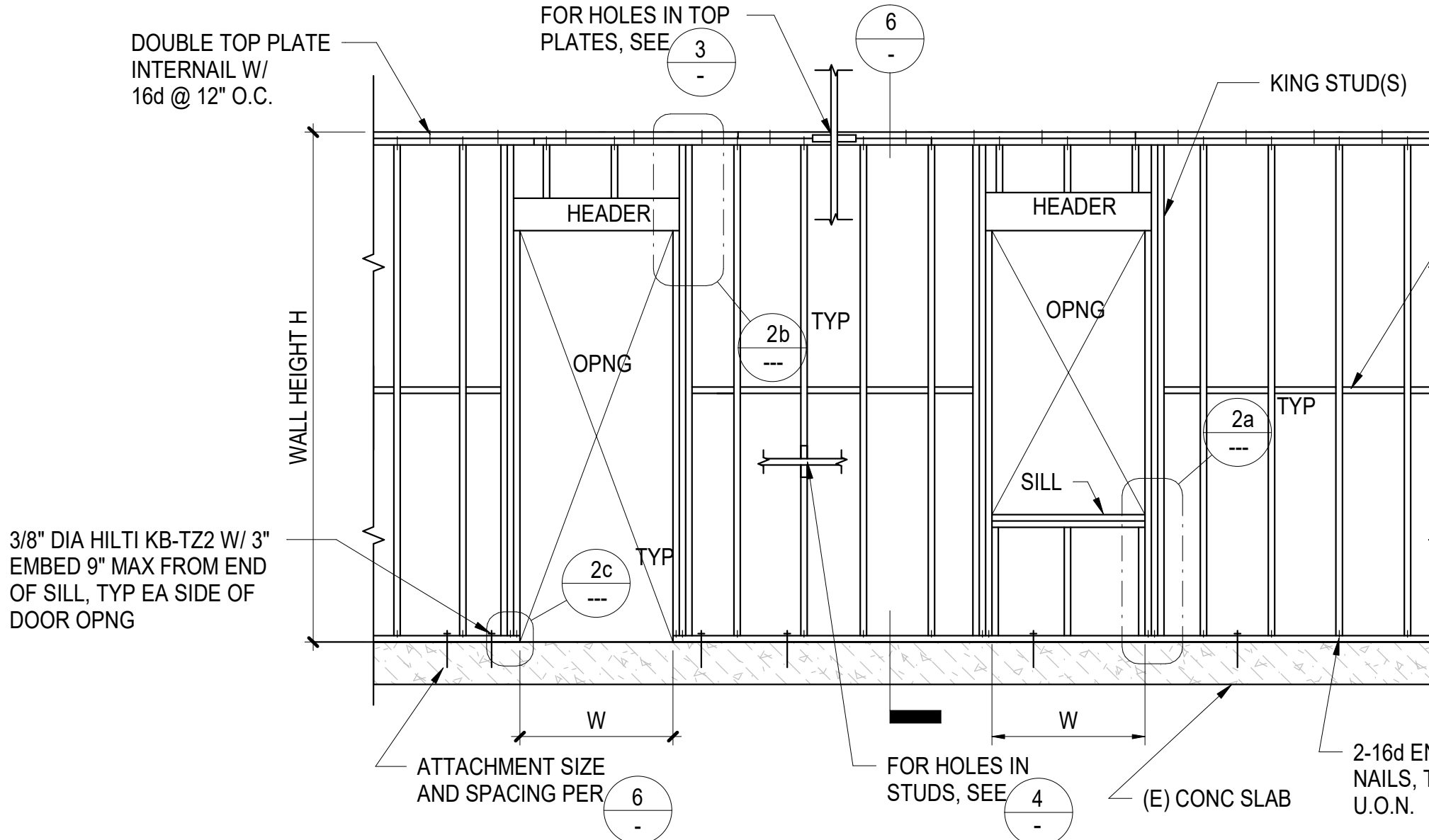


NOTES:
1. FOR INFO NOT SHOWN OR NOTED, SEE 5

9 FRAMING DETAIL AT ROUND OPENING



PLAN VIEW

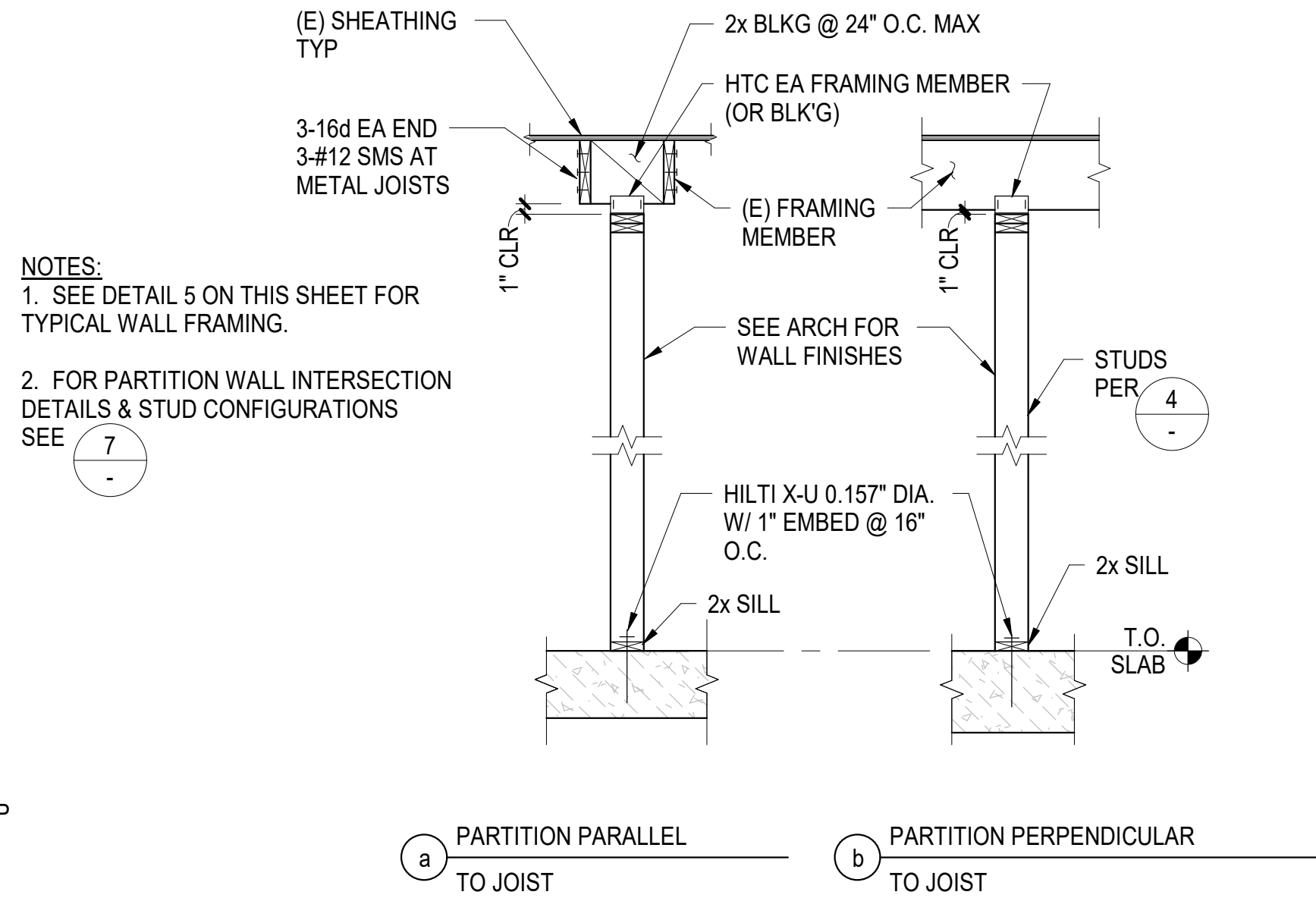


NON-BEARING WALL STUD SCHEDULE		
WALL HEIGHT	STUD SIZE	SPACING
H < 13'-0"	2x4	16"

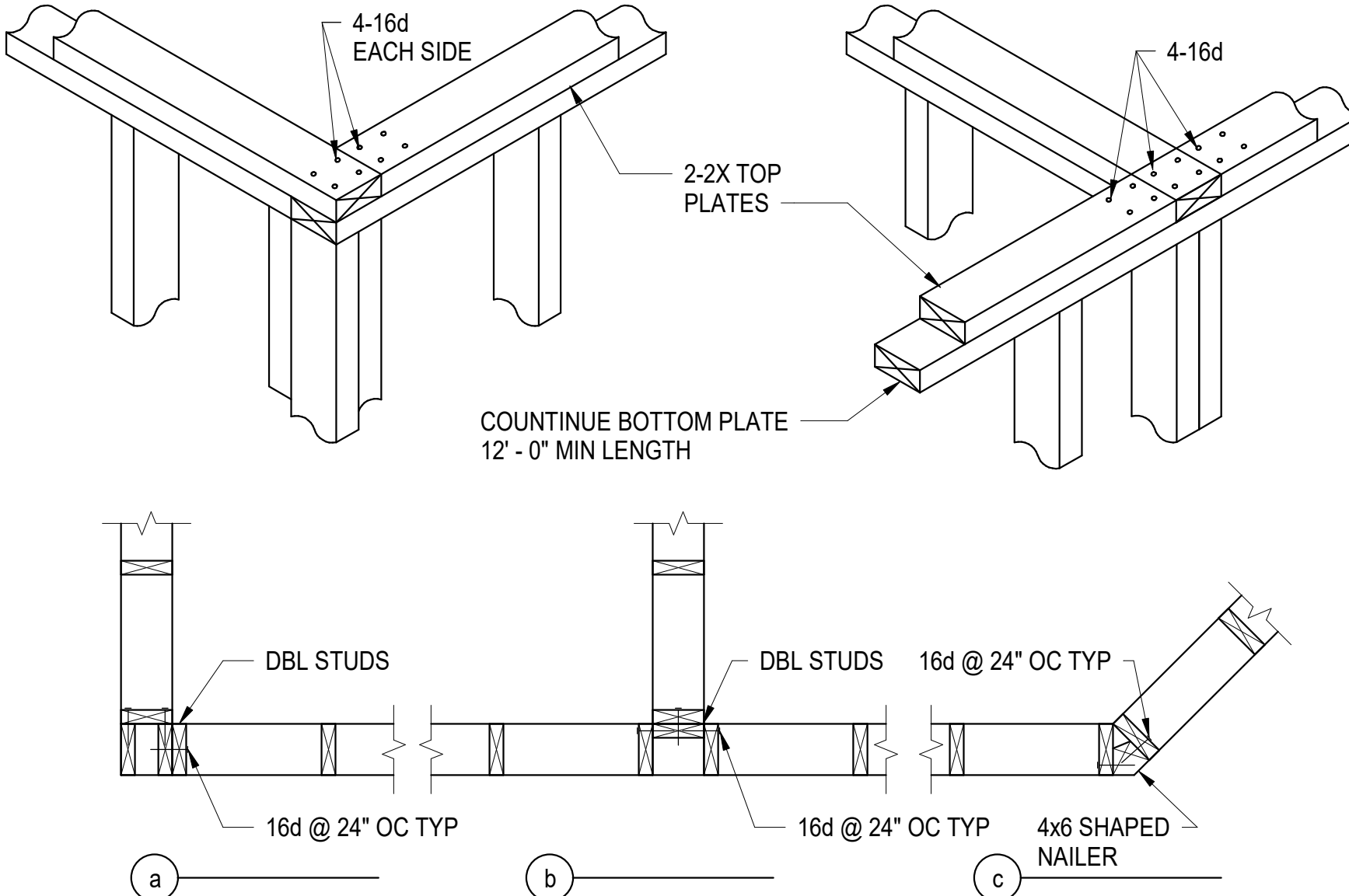
NON-BEARING WALL SCHEDULE AT OPENINGS				
OPENING WIDTH	KING STUD(S)	HEADER DEPTH	BEARING STUD(S)	SILL
W < 4'-6"	2x	4x	1-2x	2-2x

NOTE:
STUD, SILL, AND HEADER WIDTHS TO MATCH WALL FRAMING SIZE.

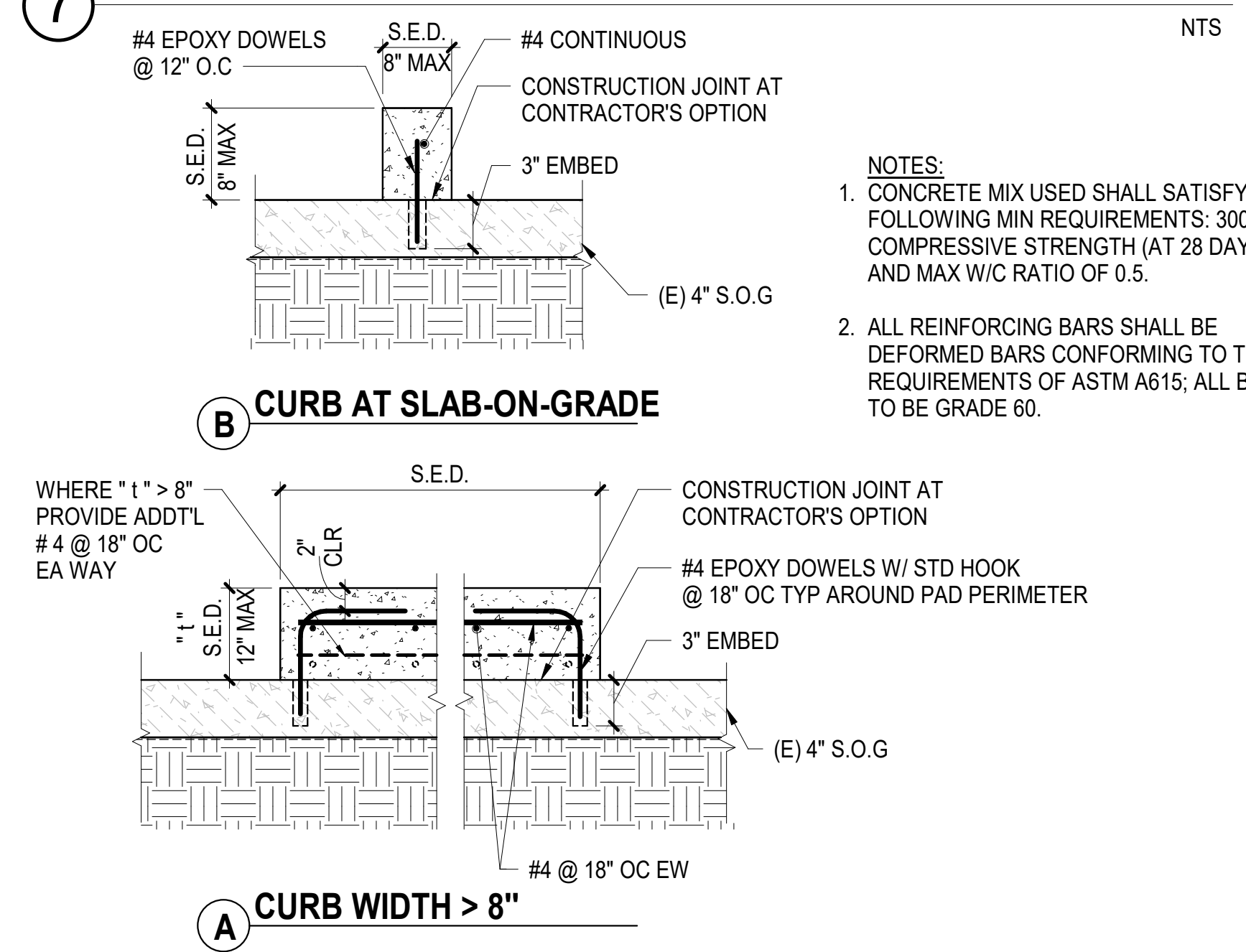
5 TYPICAL INTERIOR NON-BEARING WALL FRAMING



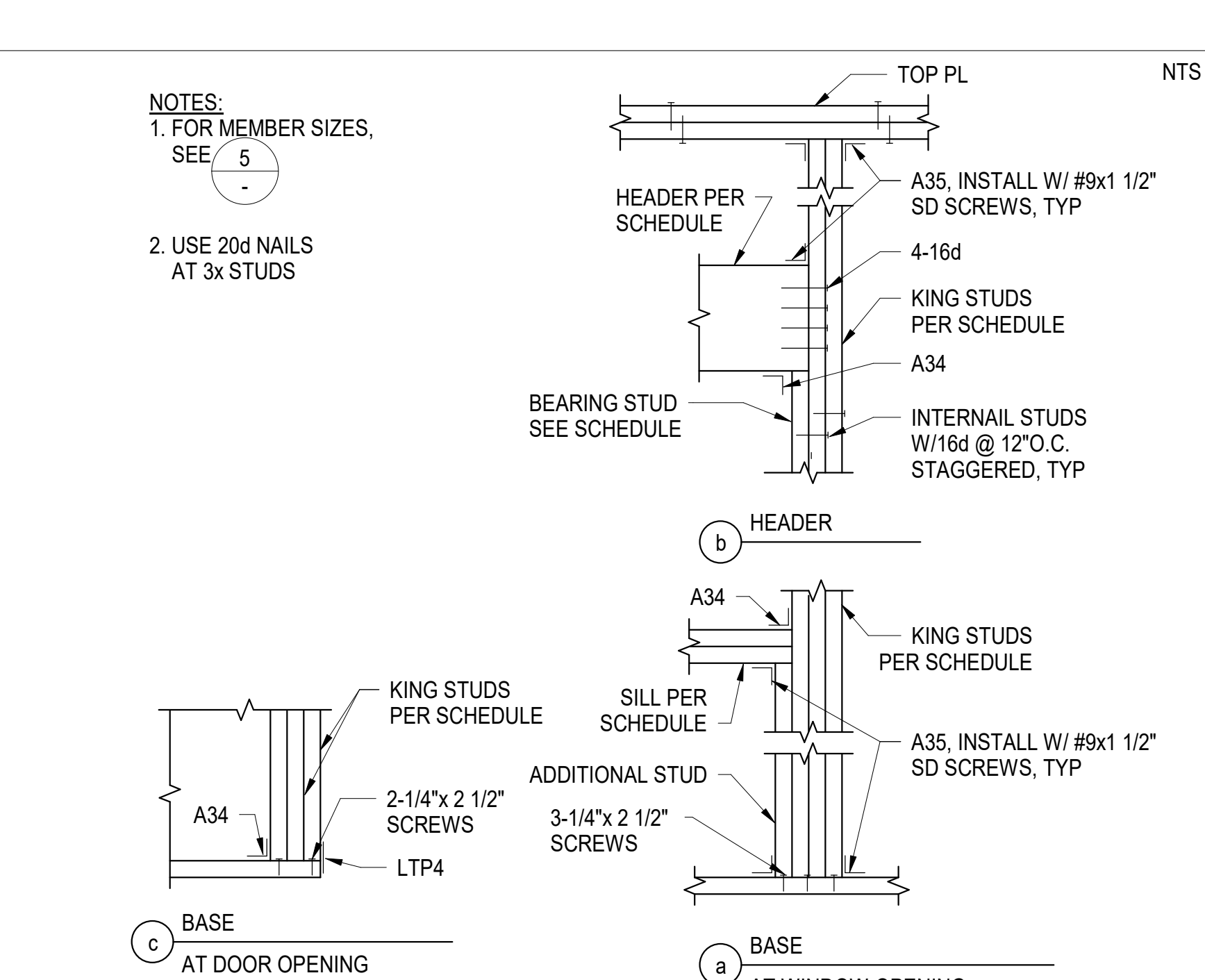
6 NON-BEARING WALL PARTITION



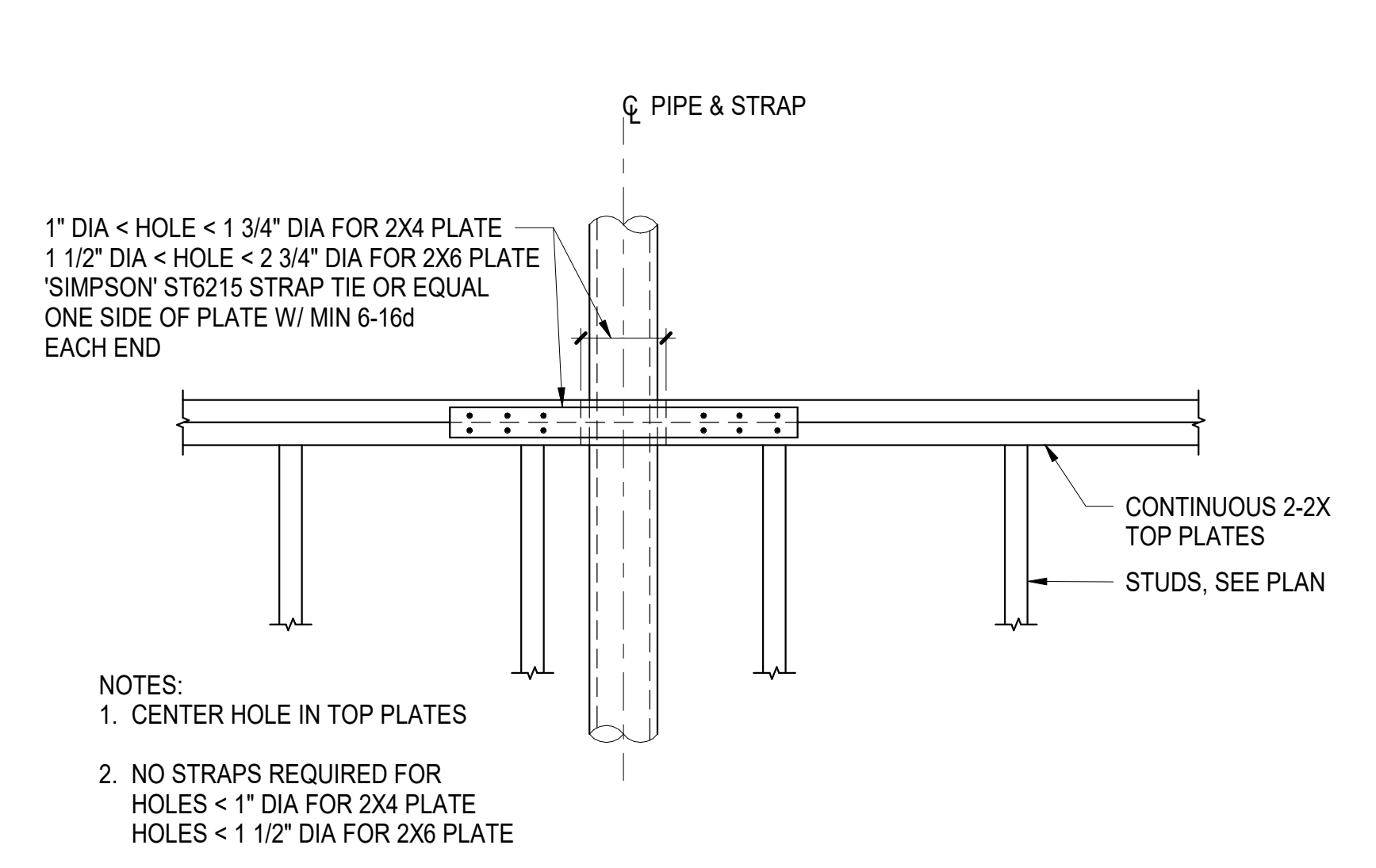
7 WALL INTERSECTIONS



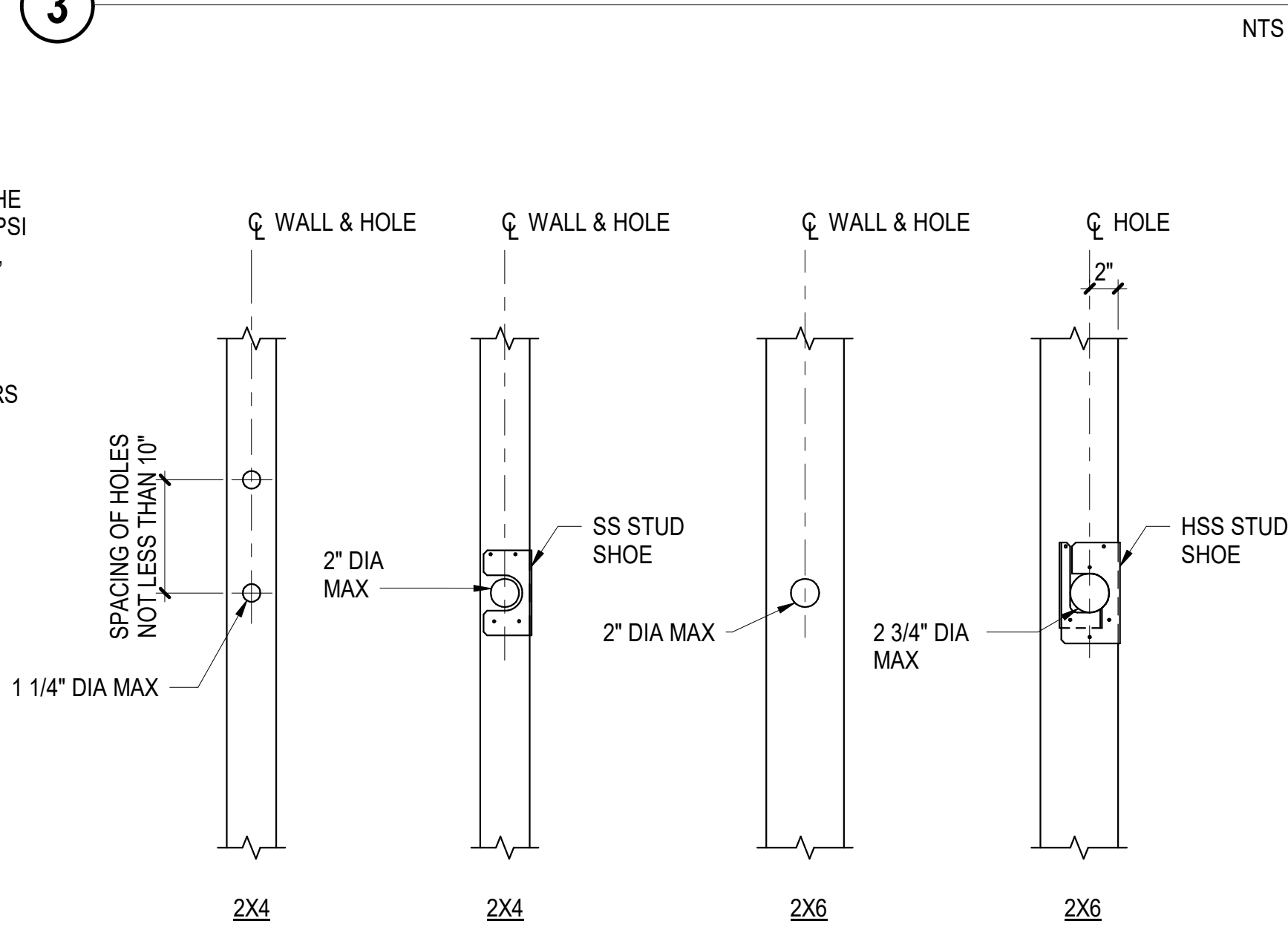
8 CURBS AND HOUSEKEEPING PADS AT (E) S.O.G



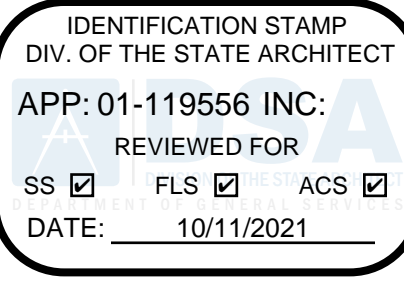
2 WALL OPENING



3 TOP PLATE PENETRATIONS



4 PENETRATIONS IN STUDS



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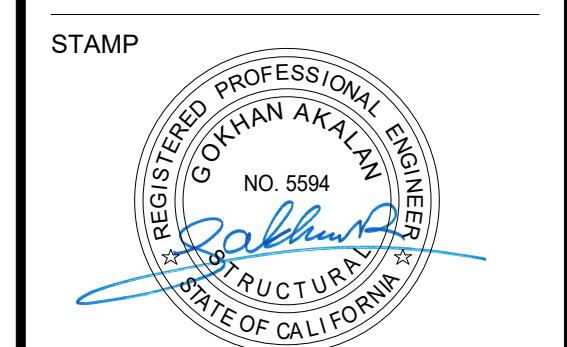
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STATE
DSA FILE NUMBER 41-26

APPL # 01-119556

REVISIONS

No. Description Date

MILESTONES
DD
90% CD
DSA SUB 06/03/2021
BACKCHECK 09/29/2021

SHEET
**FRAMING DETAILS
AND NAILING
SCHEDULE**

DATE 09/29/2021
JOB # 2021005.06

SHEET #
S8.01

		ABBREVIATIONS	LIST OF GOVERNING CODES
		<div><div><div>°F AND DEGREES FAHRENHEIT</div><div>AAV AUTOMATIC AIR VENT</div><div>AC AIR CONDITIONER</div><div>AD ACCESS DOOR</div><div>AFF ABOVE FINISH FLOOR</div><div>AFUE ANNUAL FUEL UTILIZATION EFFICIENCY</div><div>AL ACOUSTICALLY LINED</div><div>AMP AMPERE</div><div>AP ACCESS PANEL</div><div>APPROX APPROXIMATE</div><div>ARCH ARCHITECT/ARCHITECTURAL</div><div>BDD BACK DRAFT DAMPER</div><div>BFP BACK FLOW PREVENTER</div><div>BHP BRAKE HORSEPOWER</div><div>BLDG BUILDING</div><div>BOD BOTTOM OF DUCT</div><div>BOP BOTTOM OF PIPE</div><div>BTU BRITISH THERMAL UNIT</div><div>BTUH BRITISH THERMAL UNITS PER HOUR</div><div>BTWN BETWEEN</div><div>CA COMBUSTION AIR</div><div>CFH CUBIC FEET PER HOUR</div><div>CFM CUBIC FEET PER MINUTE</div><div>CHWR CHILLED WATER RETURN</div><div>CHWS CHILLED WATER SUPPLY</div><div>CIRC CIRCULATING</div><div>CL CENTERLINE</div><div>CLG COOLING, CEILING</div><div>CLR CLEAR</div><div>CONC CONCRETE</div><div>CONN CONNECTION</div><div>CONT CONTINUED, CONTINUATION</div><div>COOL COOLING</div><div>COP COEFFICIENT OF PERFORMANCE</div><div>DB DRY BULB</div><div>DF DRINKING FOUNTAIN</div><div>DIL DOOR LOUVER</div><div>DN DOWN</div><div>DP DIFFERENTIAL PRESSURE</div><div>DWGS DRAWINGS</div><div>(E) EXISTING</div><div>EA EXHAUST AIR</div><div>EAD EXHAUST AIR DAMPER</div><div>EAT ENTERING AIR TEMPERATURE</div><div>EDB ENTERING DRY BULB</div><div>EER ENERGY EFFICIENCY RATIO</div><div>EFF EFFICIENCY</div><div>ELEC ELECTRICAL</div><div>ELEV ELEVATION</div><div>ENT ENTERING</div></div><div><div>EQ EQUIP</div><div>ESP EXTERNAL STATIC PRESSURE</div><div>EW ENTERING WATER</div><div>EWB ENTERING WET BULB</div><div>EWV ENTERING WATER TEMPERATURE</div><div>EXT EXTERIOR</div><div>FD FLOOR DRAIN</div><div>FFE FINISHED FLOOR ELEVATION</div><div>FLA FULL LOAD AMPS</div><div>FLEX FLEXIBLE</div><div>FPM FEET PER MINUTE</div><div>FS FLOOR SINK</div><div>FT FEET</div><div>FT HD FEET HEAD</div><div>FTR FLUE THRU ROOF</div><div>GA GALLON</div><div>GPM GALLONS PER MINUTE</div><div>HP HORSEPOWER</div><div>HR HOUR</div><div>HTG HEATING</div><div>HZ HERTZ</div><div>IE INVERT ELEVATION</div><div>IN INCH</div><div>INV INVERT</div><div>KW KILOWATTS</div><div>KWH KILOWATT HOUR</div><div>LAT LEAVING AIR TEMPERATURE</div><div>LBS POUNDS</div><div>LVR LOUVER</div><div>LWT LEAVING WATER TEMPERATURE</div><div>LWB LEAVING WET BULB</div><div>MAD, MD MANUAL AIR DAMPER</div><div>MAV MANUAL AIR VENT</div><div>MAX MAXIMUM</div><div>MBH 1000 BTU PER HOUR</div><div>MCA MINIMUM CIRCUIT AMPS</div><div>MCP MECHANICAL CONTROL PANEL</div><div>MECH MECHANICAL</div><div>MFR MANUFACTURER</div><div>MIN MINIMUM</div><div>MOCP MAXIMUM OVERCURRENT PROTECTION</div><div>(N) NEW</div><div>NC NORMALLY CLOSED</div><div>NIC NOT IN CONTRACT</div><div>NO NORMALLY OPEN</div><div>NTS NOT TO SCALE</div><div>OA OUTSIDE AIR</div><div>OAD OUTSIDE AIR DAMPER</div><div>OC ON CENTER</div></div><div><div>OD OUTSIDE DIAMETER</div><div>PD PRESSURE DROP</div><div>PH PHASE</div><div>PLF POUNDS PER LINEAR FOOT</div><div>POC POINT OF CONNECTION</div><div>PRV PRESSURE REDUCING VALVE</div><div>PSI (G) POUNDS PER SQUARE INCH (GAUGE)</div><div>(ABSOLUTE)</div><div>PRESSURE/TEMPERATURE</div><div>QTY QUANTITY</div><div>RA RETURN AIR</div><div>RAO RETURN AIR DAMPER</div><div>RH RELATIVE HUMIDITY</div><div>RL REFRIGERANT LIQUID</div><div>RM ROOM</div><div>RPM REVOLUTIONS PER MINUTE</div><div>RS REFRIGERANT SUCTION</div><div>RV RELIEF VALVE</div><div>SA SUPPLY AIR</div><div>SC SENSIBLE COOLING</div><div>SEER SEASONAL ENERGY EFFICIENCY RATIO</div><div>SD SMOKE DAMPER</div><div>SM SHEET METAL</div><div>SOV SHUT-OFF VALVE</div><div>SP STATIC PRESSURE</div><div>SPEC SPECIFICATION</div><div>SQ SQUARE</div><div>SOFT, FT² SQUARE FEET</div><div>SQIN, IN² SQUARE INCHES</div><div>STRUCT STRUCTURAL</div><div>T THERMOSTAT, "X" INDICATES DEVICE</div><div>TC TOTAL COOLING</div><div>TDH TOTAL DYNAMIC HEAD</div><div>TEMP TEMPERATURE</div><div>THRU THROUGH</div><div>TSP TOTAL STATIC PRESSURE</div><div>TV TURNING VANES</div><div>TYP TYPICAL</div><div>UL UNDERWRITER'S LABORATORIES</div><div>UN UNLESS OTHERWISE NOTED</div><div>V VOLT</div><div>VFD VARIABLE FREQUENCY DRIVE</div><div>VTR VENT THROUGH ROOF</div><div>W WATTS</div><div>WI WITH</div><div>WB WET BULB</div><div>WC WATER COLUMN</div><div>WH WATER HEATER</div><div>WT WEIGHT</div></div></div>	<div>2019 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA FIRE CODE (CFC), PART 7, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24, C.C.R.</div> <div>2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, C.C.R.</div> <div>TITLE 19, C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.</div> <div>ALL SECTION NUMBERS BELOW REFER TO GROUP 1, CHAPTER 4, PART 1, TITLE 24, C.C.R.</div> <div>1. ADDENDA, CONSTRUCTION CHANGES PER SECTION 4-338.</div> <div>2. INSPECTOR APPROVED BY DSA, INSPECTOR AND CONTINUOUS INSPECTION OF WORK PER SECTION 4-333(b) AND 4-342.</div> <div>3. TESTS AND TESTING LABORATORY PER SECTION 4-335.</div> <div>4. SPECIAL INSPECTION PER SECTION 4-333(a).</div> <div>5. CONTRACTOR SHALL SUBMIT VERIFIED REPORTS PER SECTION 4-336 AND 4-343(a).</div> <div>6. ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, C.C.R. - DUTIES OF ARCHITECT, STRUCTURAL ENGINEER OR PROFESSIONAL ENGINEER PER SECTION 4-333(a) AND 4-341.</div> <div>7. GOVERNING CODES: TITLE 24.</div> <div>8. A COPY OF PARTS 1, 2, 3, 4, AND 5 OF TITLE 24 SHALL BE KEPT AVAILABLE IN THE FIELD DURING CONSTRUCTION.</div> <div>9. DSA SHALL BE NOTIFIED OF START OF CONSTRUCTION PER SECTION 4-331.</div> <div>10. SUPERVISION BY THE DIVISION OF THE STATE ARCHITECT PER SECTION 4-334.</div>
	DSA GENERAL NOTES	SYMBOL LEGEND	GENERAL NOTES
	<div>1. THE INTENT OF THE CONTRACT DOCUMENTS IS TO MODERNIZE THE SCHOOL'S CAMPUS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.</div> <div>2. THE SEISMIC SUPPORT AND ANCHORAGE OF THE EQUIPMENT DESCRIBED ON THESE DRAWINGS HAVE BEEN ENGINEERED BY THE ENGINEER OF RECORD FOR CONFORMANCE WITH APPROPRIATE BUILDING CODES. THE ENGINEER OF RECORD WAS NOT RESPONSIBLE FOR THE EQUIPMENT DESIGN.</div> <div>3. ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE CRITERIA FROM CHAPTER 16A CALIFORNIA BUILDING CODE (CBC) 2019.</div> <div>4. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE DIVISION OF THE STATE ARCHITECT.</div> <div>5. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.</div>	<div><div><div><div>SINGLE LINE SYMBOL</div><div>DOUBLE LINE SYMBOL</div><div>DESCRIPTION</div></div><div><div></div><div>LONG SWEEP 90° ELBOW - RECTANGULAR, ROUND OR OVAL</div></div><div><div></div><div>45° ELBOW - RECTANGULAR, ROUND OR OVAL</div></div><div><div></div><div>30° ELBOW - RECTANGULAR, ROUND OR OVAL</div></div><div><div></div><div>90° ELBOW - RECTANGULAR DUCT WITH TURNING VANES</div></div><div><div></div><div>45° LATERAL - ROUND TO ROUND OR OVAL TO OVAL</div></div><div><div></div><div>90° TAKEOFF WITH 45° TAPER - RECTANGULAR TO RECTANGULAR (FOR BRANCH TAKEOFF LONGER THAN 50", USE 15)</div></div><div><div></div><div>90° TAKEOFF WITH 45° ELONGATED TEE - ROUND TO ROUND</div></div><div><div></div><div>Y BRANCH - ROUND OR OVAL DUCT</div></div><div><div></div><div>90° RADIUS SPLIT - RECTANGULAR DUCT, PROVIDE SPLITTER DAMPER, XY PROPORTIONAL SPLIT</div></div><div><div></div><div>90° RECTANGULAR SPLIT - RECTANGULAR DUCT, PROVIDE SPLITTER DAMPER, XY PROPORTIONAL SPLIT</div></div><div><div></div><div>TRANSITION: RECTANGULAR TO ROUND OR RECTANGULAR TO OVAL</div></div><div><div></div><div>FLEXIBLE DUCT - ROUND</div></div><div><div></div><div>FLEXIBLE DUCT - RECTANGULAR</div></div></div><div><div><div><div>SINGLE LINE SYMBOL</div><div>DOUBLE LINE SYMBOL</div><div>DESCRIPTION</div></div><div><div></div><div>SECTION AT SUPPLY AIR OR MAKE-UP AIR DUCT UP</div></div><div><div></div><div>SECTION AT RETURN AIR OR COMBUSTION AIR DUCT UP</div></div><div><div></div><div>SECTION AT EXHAUST AIR OR RELIEF AIR DUCT UP</div></div><div><div></div><div>SUPPLY AIR DUCT DOWN</div></div><div><div></div><div>RETURN AIR DUCT DOWN</div></div><div><div></div><div>EXHAUST AIR DUCT DOWN</div></div><div><div></div><div>ROUND DUCT UP - SUPPLY, RETURN OR EXHAUST</div></div><div><div></div><div>ROUND DUCT DOWN - SUPPLY, RETURN OR EXHAUST</div></div><div><div></div><div>CEILING DIFFUSER - ONE, TWO, THREE AND FOUR WAY THROW</div></div><div><div></div><div>CEILING - RETURN AND EXHAUST REGISTERS</div></div><div><div></div><div>SIDEWALL - SUPPLY DIFFUSER, RETURN AND EXHAUST REGISTERS</div></div><div><div></div><div>MANUAL BALANCE DAMPER WITH DUCT ACCESS DOOR</div></div><div><div></div><div>MOTORIZED BALANCE DAMPER WITH DUCT ACCESS DOOR</div></div><div><div></div><div>FIRE DAMPER WITH DUCT ACCESS DOOR FIRE/SMOKE DAMPER WITH DUCT ACCESS DOOR</div></div><div><div></div><div>ACOUSTICALLY LINED DUCT. DIMENSIONS ARE INSIDE</div></div><div><div></div><div>REGISTER NECK SIZE AND TAG DESIGN CFM</div></div><div><div></div><div>PANEL AT T-BAR CEILING</div></div></div></div></div>	<div>1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF FINAL BID TO VERIFY ALL EXISTING SITE CONDITIONS WHICH MAY AFFECT THE COMPLETION OF THE INSTALLATION. ALL METHODS AND REQUIREMENTS FOR INSTALLATION SHALL BE DETERMINED PRIOR TO BID DATE. CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY REQUIRED MODIFICATIONS WHICH ARE NOT REFERENCED ON THESE PLANS PRIOR TO SUBMITTING BID. SUBMITTAL OF THE CONTRACTOR'S BID DEMONSTRATES THE CONTRACTOR'S AWARENESS OF ALL SITE CONDITIONS AND REQUIRED WORK TO BE PERFORMED.</div> <div>2. CONTRACTOR SHALL INCLUDE AND PROVIDE IN BID ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATIONAL INSTALLATION OF ALL SYSTEMS.</div> <div>3. THE DRAWINGS INCLUDED IN THIS SET ARE DIAGRAMMATIC. THEY ARE REPRESENTATIVE OF THE ENGINEER OF RECORD'S DESIGN INTENT FOR ALL EQUIPMENT AND RELATED PIPING ETC. INDIVIDUAL POWER NEEDS, CONTROLS AND OTHER CONNECTIONS SHALL BE COORDINATED AND COMPLETED/ PROVIDED FOR COMPLETE SYSTEM OPERATION BY CONTRACTOR.</div> <div>4. EVERYTHING IS NEW UNLESS OTHERWISE NOTED.</div> <div>5. EQUIPMENT LOCATIONS AND PIPE ROUTING ARE NOT PRECISE AND SHALL BE COORDINATED, VERIFIED, AND DETERMINED IN THE FIELD. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ROUTE PIPING IN LOCATIONS WHICH MEET CODE REQUIREMENTS AND DO NOT INTERFERE WITH ANY BUILDING STRUCTURES, UTILITIES, OR OTHER TRADE EQUIPMENT.</div> <div>6. (E) DUCTWORK, PIPING AND ITEMS TO BE REMOVED ARE SHOWN HATCHED. SEE LEGEND. COORDINATE CLOSELY WITH (N) DUCTWORK AND P.O.C.'S SHOWN. ALL OTHER (E) DUCTWORK, ETC. TO REMAIN.</div> <div>7. REMOVE ALL ABANDONED PIPING, DUCTWORK, EQUIPMENT, WIRING, EQUIPMENT, AND FIXTURES INTERFERING WITH NEW WORK WHETHER NEW WORK IS ARCHITECTURAL, STRUCTURAL, MECHANICAL, OR ELECTRICAL.</div> <div>8. ABANDON IN PLACE. BEHIND NEW FINISHES ALL PIPING, WIRING, AND DUCTWORK NOT INTERFERING WITH NEW WORK UNLESS REQUIRED FOR CONTINUED SERVICE.</div> <div>9. ALL EQUIPMENT, EQUIPMENT CONNECTIONS, PIPING, MOUNTING LOCATIONS ETC. ARE TO BE VERIFIED WITH OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO BEGINNING OF THE ROUGH-IN.</div> <div>10. ALL WORK SHALL BE PERFORMED TO STATE, LOCAL, NATIONAL AND DISTRICT STANDARDS AND CODES. COORDINATE SPECIFIC REQUIREMENTS WITH DISTRICT STANDARDS AND AUTHORITY HAVING JURISDICTION.</div> <div>11. ALL EQUIPMENT SHALL BE NEW AND CLEARLY LABELED AND IDENTIFIED. LABELS SHALL NOT BE COVERED BY OTHER CONSTRUCTION ELEMENTS.</div> <div>12. UNLESS OTHERWISE NOTED IN CONTRACT DOCUMENTS, CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT AND WORK FOR A PERIOD OF ONE YEAR.</div> <div>13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAW CUTTING, CORE DRILLING, PATCHING, REFINISHING, ETC. AS REQUIRED FOR INSTALLATION OF SYSTEMS. ANY PENETRATIONS OR OPENINGS MADE IN WALLS OR STRUCTURES SHALL BE PATCHED AND/OR SEALED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE WALL OR STRUCTURE.</div> <div>14. CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT AND SHALL INCLUDE THE PRICE OF INSTALLING ALL CONNECTIONS AS REQUIRED IN THEIR BIDS.</div> <div>15. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE APPROVAL OF THE ENGINEER OF RECORD. ALL APPROVALS BY THE ENGINEER OF RECORD MUST BE SECURED PRIOR TO COMPLETION OF ANY PURCHASE ORDERS OR ROUGH-IN WORK.</div> <div>16. THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS ARE TO BE CONSIDERED CONTRACT DOCUMENTS FOR AGENCY REVIEW APPROVAL AND CONTRACTOR BIDDING PURPOSES.</div> <div>17. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A COMPLETE SET OF AS-BUILT DRAWINGS.</div> <div>18. ANY AND ALL WORK THAT REQUIRES AN INTERRUPTION TO BUILDING SERVICES(S) (ELECTRICAL/HVAC/PLUMBING ETC.) MUST BE COORDINATED WITH THE DISTRICT A MINIMUM OF 48 HOURS IN ADVANCE. ANY SERVICE DOWNTIME SHALL NOT OCCUR DURING SCHOOL OPERATION HOURS.</div> <div>19. IN INSTANCES WHERE A CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS AND INSTALLATION MANUALS FOR THE PROJECT EXISTS, THE CONTRACTOR SHALL ADHERE TO THE MORE STRINGENT REQUIREMENT.</div> <div>20. ANY EXISTING BUILDING STRUCTURES OR SURFACES DAMAGED BY DEMOLITION OR DURING INSTALLATION ACTIVITIES SHALL BE REPAIRED, PATCHED, AND/OR REFINISHED TO THE SATISFACTION OF THE OWNER.</div> <div>21. FURNISH AND INSTALL MANUAL AIR DAMPERS AT ALL DUCT BRANCH TAKEOFFS TO A SINGLE SUPPLY DIFFUSER.</div> <div>22. FOR ALL VOLUME DAMPERS LOCATED ABOVE CEILINGS, PROVIDE 12" LONG 1/2" WIDE FLUORESCENT ORANGE TAPE TO MARK DAMPER LOCATIONS.</div> <div>23. ALL DUCTWORK, CONDUITS, BOXES, SURFACE MOUNTED RACEWAYS, SUPPORT DEVICES, AND ASSOCIATED FITTINGS SHALL BE MOUNTED IN CONCEALED LOCATIONS ABOVE CEILINGS, DUCTS, TRUSSES, BEAMS, ETC. WHERE WORK HAS TO BE INSTALLED IN EXPOSED LOCATIONS, IT SHALL BE PAINTED TO MATCH THE ADJACENT SURFACES OR PER ARCHITECT'S DIRECTION.</div> <div>24. CONTRACTOR SHALL PREPARE AND SUBMIT THE CALIFORNIA ENERGY COMMISSION TITLE 24 CERTIFICATE OF ACCEPTANCE FORMS RELATED TO INSTALLED EQUIPMENT AND SYSTEMS.</div> <div>25. SAFETY: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.</div> <div>26. CONTRACTOR'S EQUIPMENT: COORDINATE WITH OWNER'S REPRESENTATIVE FOR APPROVED LOCATION OF JOB SITE ACCESS, PARKING, AND LOCATION OF CONTRACTOR'S EQUIPMENT AND MATERIAL STORAGE AREA. COORDINATE WITH OWNER FOR LOCATION AND PROCEDURES.</div> <div>27. ALL BUILDING MATERIALS MUST BE ASBESTOS FREE.</div> <div>28. CONSTRUCTION SCHEDULING: CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH OWNER'S REPRESENTATIVE PRIOR TO SCHEDULING AND START OF THE WORK. CONTRACTOR SHALL PROVIDE PROTECTION TO ALL EXISTING SPACES AND SYSTEMS WHICH ARE IN USE, ADJOINING THE PROJECT, AND NOT PART OF THE PROJECT.</div> <div>29. TITLE 24 COMPLIANCE: THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS (2019 CBC). SHOULD ANY CONDITIONS BE DISCOVERED NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN THE FINISHED WORK DOES NOT COMPLY WITH 2019 CBC, A CONSTRUCTION CHANGE DOCUMENT OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK, SHALL BE SUBMITTED TO AND APPROVED BY THE DSA BEFORE PROCEEDING WITH THE WORK.</div>
	PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE		DRAWING INDEX
	<div>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 SECTION 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.</div> <div>THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2013 BC 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.</div> <div>MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E).</div> <div>MP <input type="checkbox"/> MD <input type="checkbox"/> PP <input type="checkbox"/> E <input type="checkbox"/> - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.</div> <div>MP <input checked="" type="checkbox"/> MD <input checked="" type="checkbox"/> PP <input type="checkbox"/> E <input type="checkbox"/> - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #0043-13, "MASON WEST, INC. SEISMIC RESTRAINT GUIDELINES FOR SUSPENDED DISTRIBUTION SYSTEMS" OR #0052-13, "B-LINE/TOLCO SEISMIC RESTRAINT SYSTEMS GUIDELINES"</div>	<div><div><div>SYMBOL</div><div>ABBRV.</div><div>IDENTIFICATION</div></div><div><div></div><div>CAP</div><div>CONTINUATION</div></div><div><div></div><div>UNION</div><div>LINE BREAK</div></div><div><div></div><div>CKV</div><div>CHECK VALVE</div></div><div><div></div><div>T&PRV</div><div>TEMP. & PRESS. RELIEF VALVE</div></div><div><div></div><div>VALVE</div><div>CONCENTRIC & ECCENTRIC REDUCERS</div></div><div><div></div><div>AD, AP</div><div>ACCESS DOOR, ACCESS PANEL</div></div><div><div></div><div>MAV</div><div>MANUAL AIR VENT</div></div><div><div></div><div>T</div><div>THERMOSTAT MOUNTED @ 48" AFF. MAX.</div></div><div><div></div><div>CO2</div><div>CARBON DIOXIDE (CO2) SENSOR</div></div></div> <div><div><div>SYMBOL</div><div>ABBRV.</div><div>IDENTIFICATION</div></div><div><div></div><div>P.O.C.</div><div>POINT OF CONNECTION</div></div><div><div></div><div></div><div>REMOVE EXISTING</div></div><div><div></div><div></div><div>TEE DOWN</div></div><div><div></div><div></div><div>90 DOWN</div></div><div><div></div><div></div><div>EQUIPMENT DESIGNATION</div></div><div><div></div><div></div><div>TAG NUMBER</div></div><div><div></div><div></div><div>SECTION 1 / SHEET M2.1</div></div></div>	<div>MP0.01 SYMBOL LEGENDS, ABBREVIATIONS, NOTES - MECHANICAL</div> <div>MP0.02 SCHEDULES - MECHANICAL</div> <div>MP0.03 SCHEDULES - MECHANICAL</div> <div>MP2.01 FLOOR PLANS - DEMO - WINGS 1 & 2 - MECHANICAL & PLUMBING</div> <div>MP2.02 FLOOR PLAN - DEMO - WING 3 - MECHANICAL & PLUMBING</div> <div>MP2.03 FLOOR PLANS - DEMO - MUSIC BLDG & MEDIA CENTER - MECHANICAL & PLUMBING</div> <div>MP2.04 FLOOR PLANS - DEMO - MULTIPURPOSE BUILDING - MECHANICAL & PLUMBING</div> <div>MP2.05 FLOOR PLANS - DEMO - RELOCATABLE BUILDINGS - MECHANICAL & PLUMBING</div> <div>MP2.06 FLOOR PLANS - NEW - WINGS 1 & 2 - MECHANICAL & PLUMBING</div> <div>MP2.07 FLOOR PLAN - NEW - WING 3 - MECHANICAL & PLUMBING</div> <div>MP2.08 FLOOR PLANS - NEW - MUSIC BLDG & MEDIA CENTER - MECHANICAL & PLUMBING</div> <div>MP2.09 FLOOR PLANS - NEW - MULTIPURPOSE BUILDING - MECHANICAL & PLUMBING</div> <div>MP2.10 FLOOR PLANS - NEW - RELOCATABLE BUILDINGS - MECHANICAL & PLUMBING</div> <div>MP6.01 CONTROLS - MECHANICAL</div> <div>MP5.02 CONTROLS - MECHANICAL</div> <div>MP6.01 DETAILS - MECHANICAL & PLUMBING</div> <div>MP6.02 DETAILS - MECHANICAL & PLUMBING</div> <div>MP7.01 EXISTING FLOOR PLANS - WING 1 - MECHANICAL / TAB WORK</div> <div>MP7.02 EXISTING FLOOR PLANS - SATELLITE KITCHEN, MULTIPURPOSE BLDG 2ND FLOOR CLASSROOM, MUSIC BLDG, & MEDIA CENTER - MECHANICAL / TAB WORK</div> <div>MP7.03 EXISTING FLOOR PLANS - WING 3 SCIENCE CLASSROOM 37 - MECHANICAL / TAB WORK</div> <div>MP8.01 TITLE 24 DOCUMENTS - MECHANICAL</div> <div>MP8.02 TITLE 24 DOCUMENTS - MECHANICAL</div>

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APP: 01-119556 INC:
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DATE: 10/11/2021

aedis
architects

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San Jose, CA 95118
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PROJECT
ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

DEC 08 NO. 2109
CYPRESS
Engineering Group
HVAC, Plumbing, Fire Protection
Building Systems, Mechanical
Electrical, Structural, and
Environmental Compliance
Training & Technical Support
551 E. 1st St., Suite A3
8th Floor, Suite A3
Monterey, CA 93940
cypresseng.com

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REGISTERED PROFESSIONAL ENGINEER
No. M31059
EXP. JUNE 30, 2023
MECHANICAL
STATE OF CALIFORNIA

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

REVISIONS
No. Description Date
△

MILESTONES
DO
90% CD
DSA SUB
06/03/2021
BACKCHECK
10/05/2021

SHEET
SYMBOL
LEGENDS,
ABBREVIATIONS,
NOTES -
MECHANICAL

DATE
09/28/2021
JOB #
2021005.06
SHEET #

MP0.01

PACKAGED ROOFTOP AIR CONDITIONING UNITS SCHEDULE																					
TAG	MANUFACTURER	MODEL NO.	BUILDING	AREA SERVED	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	48JCEV06	WING 1	ADMINISTRATION	59.06	53.82	82 110	65 88	1990	0.60	450	1959	0.80	19	80	208 / 3	26	30	750	6/MP6.01	1, 2, 3, 4
AC-2	CARRIER	48VCE05		ADMINISTRATION	47.81	44.72	82 110	65 88	1600	0.60	450	1682	0.51	20	80	208 / 3	25	30	740	6/MP6.01	1, 2, 3, 4
AC-3	CARRIER	48VCE05		PE STORAGE 8	47.81	44.72	82 110	65 88	1600	0.60	450	1682	0.51	20	80	208 / 3	25	30	740	6/MP6.01	1, 2, 3, 4
AC-4	CARRIER	48VCE05	MUSIC BLDG	CLUB ROOM 9	47.81	44.72	82 110	65 88	1600	0.60	450	1682	0.51	20	80	208 / 3	25	30	740	6/MP6.01	1, 2, 3, 4
AC-5	CARRIER	48VCE05		CLUB ROOM 9	47.81	44.72	82 110	65 88	1600	0.60	450	1682	0.51	20	80	208 / 3	25	30	740	6/MP6.01	1, 2, 3, 4
AC-6	CARRIER	48JCEV06		BAND ROOM 6	59.06	53.82	82 110	65 88	1990	0.60	450	1959	0.80	19	80	208 / 3	26	30	750	6/MP6.01	1, 2, 3, 4
AC-7	CARRIER	48JCEV06		CLASSROOM 7, STORAGE, OFFICES, PRACTICE ROOM, CONF.	59.06	53.82	82 110	65 88	1990	0.60	450	1959	0.80	19	80	208 / 3	26	30	750	6/MP6.01	1, 2, 3, 4

1. WEIGHT INCLUDES ALL OPTIONS AND ACCESSORIES.

2. PROVIDE WITH LOW LEAK ECONOMIZER WITH BAROMETRIC RELIEF, MEDIUM GAS HEAT, VARIABLE SPEED COOLING CAPACITY, HIGH STATIC DIRECT DRIVE FAN, LOUVERED HAIL GUARDS, HINGED ACCESS PANELS, UNPOWERED CONVENIENCE OUTLET, PHASE MONITOR, AND E-COAT COILS.
3. PROVIDE WITH MERV 13 FILTERS.

4. PROVIDE WITH DELTA CONTROLS THERMOSTAT WITH CO2 SENSOR. SEE MP5.01 FOR CONTROLS.

PACKAGED INDOOR WALL HEAT PUMPS SCHEDULE																		
TAG	MANUFACTURER	MODEL NO.	AREA SERVED	COOLING MBH		HEATING MBH	AIRFLOW CFM	ESP IN. W.G.	OUTSIDE AIR CFM	MOTOR HP	EER	COP	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
				TOTAL	SENSIBLE								V / PH	MCA	MOCP			
WHP-1	BARD	Q48H4-809	PREP AREA 207, SERVING AREA 207A	49.8	31.5	39.5	1500	0.5	200	1/2	11.0	3.3	208 / 3	54	60	530	12MP/6.01	1, 2, 3, 4

1. PROVIDE WITH COMMERCIAL ROOM VENTILATOR AND 2" MERV 13 FILTERS.

2. PROVIDE WITH 10 KW ELECTRIC HEAT.

3. PROVIDE WITH WALL SLEEVE WITH SPLITTER PLATE, CABINET EXTENSION AND AMCA RATED OUTDOOR LOUVER, PRIME AND PAINT TO MATCH EXISTING FINISH.
4. PROVIDE WITH DELTA CONTROLS THERMOSTAT.

5. MP5.02 FOR CONTROLS.

WALL HEAT PUMPS SCHEDULE																	
TAG	MANUFACTURER	MODEL NO.	AREA SERVED	COOLING MBH	HEATING MBH	AIRFLOW CFM	ESP IN. W.G.	OUTSIDE AIR CFM	MOTOR HP	EER	COP	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
												V / PH	MCA	MOCp			
WHP-23	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-24	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-25	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-26	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-38	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-39	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-40	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-41	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-42	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-43	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-44	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-45	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-46	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3
WHP-47	BARD	T42S1-A05	SEE PLANS	39.5	39	1250	0.25"	300	3/4	11.0	3.3	208 / 1	57	60	600	7/MP6.01	1, 2, 3

1. PROVIDE WITH 9KW ELECTRIC HEAT.

2. PROVIDE WITH COMMERCIAL ROOM VENTILATOR AND 2" MERV 13 FILTERS.
3. PROVIDE WITH DELTA CONTROLS THERMOSTAT WITH CO2 SENSOR. SEE MP5.02 FOR CONTROLS.

AIR DISTRIBUTION SCHEDULE						
TAG	MANUFACTURER	MODEL NO.	DESCRIPTION	BORDER TYPE	MOUNTING DETAIL	NOTES
HSS-1	TITUS	S300FL	HIGH SIDEWALL SUPPLY	TYPE 1	13/MP6.01	1, 2, 4
HSS-2	TITUS	300RL	HIGH SIDE SUPPLY	TYPE 1	14/MP6.01	1, 2
HSR-1	TITUS	350RL	HIGH SIDEWALL RETURN	TYPE 1	14/MP6.01	2
LSR-1	TITUS	350RL	LOW SIDEWALL RETURN	TYPE 1	14/MP6.01	2, 3
RG-1	TITUS	30RL	RELIEF GRILLE	TYPE 1	17/MP6.01	2, 5

1. SET BLADES AT 22.5° DEFLECTION.

2. PRIME AND PAINT PER ARCHITECT'S INSTRUCTIONS. REGISTER COLOR SELECTED BY ARCHITECT.

3. PROVIDE WITH ARJAN 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																		
TAG	MANUFACTURER	MODEL	BUILDING	LOCATION	COOLING	HEATING	AIRFLOW CFM	OUTSIDE AIR CFM	REFRIGERANT PIPING		SEER	HSPF	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
					TOTAL MBH	TOTAL MBH			LIQUID	GAS			V / PH	MCA	MOPC			
FC-3	SAMSUNG	AC054KNZDCHIAA	WING 1	CLASSROOM 3	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-3	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-4	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 4	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-4	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-5	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 5	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-5	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-T-1A	SAMSUNG	AC042KNZDCHIAA	MULTI-PURPOSE BUILDING	STAFF WORK ROOM	42	47	1000	350	3/8"	5/8"	—	—	NOTE 8			125	1/MP6.02	2, 3, 4, 5, 6, 7, 8,
HP-T-1A	SAMSUNG	AC042KXADCHIAA		EXTERIOR			—	—	3/8"	5/8"	18.4	9.6	208 / 1	26.4	40	195	4/MP6.01	1
FC-T-1B	SAMSUNG	AC042KNZDCHIAA		STAFF LOUNGE	42	47	1000	350	3/8"	5/8"	—	—	NOTE 8			125	1/MP6.02	2, 3, 4, 5, 6, 7, 8, 9
HP-T-1B	SAMSUNG	AC042KXADCHIAA		EXTERIOR			—	—	3/8"	5/8"	18.4	9.6	208 / 1	26.4	40	195	4/MP6.01	1
FC-15	SAMSUNG	AC030MNHDCIAA		CLASSROOM 15	30	32	670	180	3/8"	5/8"	—	—	NOTE 8			125	2/MP6.02	2, 4, 7, 8, 10
HP-15	SAMSUNG	AC030JXSCCCHIAA		EXTERIOR			—	—	3/8"	5/8"	19.0	10.1	208 / 1	32	45	212	4/MP6.01	1
FC-16	SAMSUNG	AC054KNZDCHIAA	WING 2	CLASSROOM 16	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-16	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-17	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 17	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-17	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-18	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 18	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-18	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-19	SAMSUNG	AC054KNZDCHIAA	WING 2	CLASSROOM 19	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-19	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-20	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 20	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-20	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-21	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 21	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-21	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-22	SAMSUNG	AC054KNZDCHIAA	WING 2	CLASSROOM 22	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-22	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-29	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 29	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-29	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-30	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 30	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-30	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-31	SAMSUNG	AC054KNZDCHIAA	CLASSROOM 31	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8	
HP-31	SAMSUNG	AC054KXADCHIAA	ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1	
FC-32	SAMSUNG	AC054KNZDCHIAA	CLASSROOM 32	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8	
HP-32	SAMSUNG	AC054KXADCHIAA	ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1	
FC-33	SAMSUNG	AC054KNZDCHIAA	WING 3	CLASSROOM 33	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-33	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-34	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 34	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-34	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-35	SAMSUNG	AC054KNZDCHIAA		CLASSROOM 35	54	60	1150	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8
HP-35	SAMSUNG	AC054KXADCHIAA		ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1
FC-36	SAMSUNG	AC054KNZDCHIAA	CLASSROOM 36	54	60	1400	450	3/8"	3/4"	—	—	NOTE 8			165	1/MP6.01	2, 3, 4, 6, 7, 8	
HP-36	SAMSUNG	AC054KXADCHIAA	ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1	
FC-37	SAMSUNG	AC054KNZDCHIAA	JANITOR 37B	54	60	1400	450	3/8"	3/4"	—	—	NOTE 8			165	2/MP6.01	2, 3, 4, 6, 7, 8	
HP-37	SAMSUNG	AC054KXADCHIAA	ROOF			—	—	3/8"	3/4"	17.1	9.0	208 / 1	42	70	215	4/MP6.01	1	

GAS FIRED FURNACE SCHEDULE																	
TAG	MANUFACTURER	MODEL NO.	BUILDING	LOCATION	GAS HEATING		AIRFLOW CFM	ESP IN. W.G.	OUTSIDE AIR CFM	FAN RPM	AFUE %	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
					INPUT MBH	OUTPUT MBH						MOTOR HP	V / PH	MCCP			
F-13	CARRIER	59TN6B120C24	MULTI- PURPOSE BLDG	ART 13	78 120	76 117	1820	0.8	450	VARIABLE	96	1	115 / 1	20	195	3/MP6.01	1, 2, 3
F-14	CARRIER	59TN6B120C24		SCIENCE 14	78 120	76 117	1820	0.8	450	VARIABLE	96	1	115 / 1	20	195	3/MP6.01	1, 2, 3
F-A	CARRIER	58TP1A090V2120	MEDIA CENTER / LIBRARY	CONF	84	68	1600	0.8	450	VARIABLE	80	3/4	115 / 1	15	145	6/MP7.02	1, 2, 3, 4
F-B	CARRIER	58TP1A090V2120		CONTROL ROOM	84	68	1600	0.8	450	VARIABLE	80	3/4	115 / 1	15	145	6/MP7.02	1, 2, 3, 4
F-C	CARRIER	58TP1A090V2120		CONF	84	68	1600	0.8	450	VARIABLE	80	3/4	115 / 1	15	145	6/MP7.02	1, 2, 3, 4
F-D	CARRIER	58TP1A090V2120		COMPUTER LAB	84	68	1600	0.8	450	VARIABLE	80	3/4	115 / 1	15	145	6/MP7.02	1, 2, 3, 4
F-E	CARRIER	58TP1A090V2120		COMPUTER LAB	84	68	1200	0.8	450	VARIABLE	80	3/4	115 / 1	15	145	6/MP7.02	1, 2, 3, 4

1. PROVIDE WITH CONDENSATE NEUTRALIZER KIT AND CONCENTRIC VENT KIT.
2. PROVIDE WITH DELTA THERMOSTAT WITH CO2 SENSOR. SEE MP5.02 FOR CONTROLS.
3. PROVIDE WITH HINGED ACCESS FILTER BOX AND MERV 13 FILTERS.
4. HORIZONTAL CONFIGURATION.

COOLING COILS SCHEDULE											
TAG	MANUFACTURER	MODEL NO.	CONDENSING UNIT	BUILDING	LOCATION	NOMINAL CAPACITY TONS	COOLING	REFRIGERANT PIPING		WEIGHT LBS	NOTES
							TOTAL MBH	LIQUID	GAS		
CC-13	CARRIER	CNPVP6024	CU-13	MULTI- PURPOSE BLDG	ART 13	5.0	53.3	3/8"	7/8"	80	1
CC-14	CARRIER	CNPVP6024	CU-14		SCIENCE 14	5.0	53.3	3/8"	7/8"	80	1
CC-A	CARRIER	CNPHP4821	CU-A	MEDIA CENTER / LIBRARY	CONF	4.0	44.5	3/8"	7/8"	65	1
CC-B	CARRIER	CNPHP4821	CU-B		CONTROL ROOM	4.0	44.5	3/8"	7/8"	65	1
CC-C	CARRIER	CNPHP4821	CU-C		CONF	4.0	44.5	3/8"	7/8"	65	1
CC-D	CARRIER	CNPHP4821	CU-D		COMPUTER LAB	4.0	44.5	3/8"	7/8"	65	1
CC-E	CARRIER	CNPHP4821	CU-E		COMPUTER LAB	3.0	34.4	3/8"	7/8"	65	1

1. VERIFY REFRIGERANT PIPE SIZES AND ROUTING LIMITATIONS WITH MANUFACTURER PRIOR TO INSTALLATION.

CONDENSING UNITS SCHEDULE																
TAG	MANUFACTURER	MODEL NO.	COOLING COIL	BUILDING	LOCATION	NOMINAL CAPACITY TONS	COOLING	REFRIGERANT PIPING		SEER	ELECTRICAL			WEIGHT LBS	MOUNTING DETAIL	NOTES
							TOTAL MBH	LIQUID	GAS		V / PH	MCA	MCCP			
CU-13	CARRIER	24ANB760	CC-13	MULTI-PURPOSE BLDG	SLAB	5.0	53.3	3/8"	1-1/8"	17	208 / 1	37.3	60	355	16/MP6.01	1
CU-14	CARRIER	24ANB760	CC-14		SLAB	5.0	53.3	3/8"	1-1/8"	17	208 / 1	37.3	60	355	16/MP6.01	1
CU-A	CARRIER	24ANB748	CC-A	MEDIA CENTER / LIBRARY	SLAB	4.0	44.5	3/8"	1-1/8"	17	208 / 1	27.8	40	200	16/MP6.01	1
CU-B	CARRIER	24ANB748	CC-B		SLAB	4.0	44.5	3/8"	1-1/8"	17	208 / 1	27.8	40	200	16/MP6.01	1
CU-C	CARRIER	24ANB748	CC-C		SLAB	4.0	44.5	3/8"	1-1/8"	17	208 / 1	27.8	40	200	16/MP6.01	1
CU-D	CARRIER	24ANB748	CC-D		SLAB	4.0	44.5	3/8"	1-1/8"	17	208 / 1	27.8	40	200	16/MP6.01	1
CU-E	CARRIER	24ANB736	CC-E		SLAB	3.0	34.4	3/8"	7/8"	17	208 / 1	19.8	35	175	16/MP6.01	1

1. VERIFY REFRIGERANT PIPE SIZES AND ROUTING LIMITATIONS WITH MANUFACTURER PRIOR TO INSTALLATION.

IDENTIFICATION STAMP
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APP: 01-119556 INC:
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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

DEC 08 NO. 2109

CYPRESS
Engineering Group

HVAC, Plumbing, Fire Protection
Mechanical, Electrical, and
Environmental Compliance
Training & Technical Support

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Menlo Park, CA 94025
cypresseng.com

STAMP



STATE

DSA FILE NUMBER

41-26

APPL #

01-119557

REVISIONS

No. Description Date



MILESTONES

DD

90% CD

DSA SUB

06/03/2021

BACKCHECK

10/05/2021

SHEET

SCHEDULES-
MECHANICAL

DATE

09/28/2021

JOB #

2021005.06

SHEET #

MP0.03

DEMOLITION SHEET NOTES

1. REMOVE (E) FURNACE ENCLOSURE AND FURNACE, COMPLETE, TYP. SEE 3MP2.01 FOR TYPICAL FURNACE DEMO.

2. REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) FURNACE. SALVAGE (E) THERMOSTAT AND UNIT CONTROLLERS. 30% OF THE EQUIPMENT NEEDS TO BE RETURNED TO THE DISTRICT.

3. 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.

4. REMOVE (E) GAS BRANCH PIPE BACK TO (E) GAS MAIN. CAP AND ABANDON (E) GAS MAIN ABOVE CEILING. PATCH AND REPAIR CEILING TILES / ROOF PER ARCHITECT'S DRAWINGS.

5. (E) GAS SHUT OFF VALVE IN VALVE BOX. CLOSE VALVE BEFORE STARTING GAS DEMO WORK ON THIS WING.

6. (E) GAS SHUT OFF VALVE ON MANIFOLD RISER FURTHER UPSTREAM. CLOSE VALVE BEFORE STARTING DEMO WORK ON THIS WING.

7. REMOVE (E) ROOFTOP AC UNIT. (E) ROOF CURB TO REMAIN. PROTECT (E) OPENINGS FOR CONNECTION TO NEW AC UNIT. DISCONNECT (E) GAS PIPE FROM (E) AC UNIT. REMOVE (E) GAS PIPE UP TO AND INCLUDING SHUT OFF VALVE. DISCONNECT (E) CD PIPE FROM (E) AC UNIT. REMOVE (E) CD PIPE UP TO AND INCLUDING TRAP.

8. REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) AC UNIT. SALVAGE (E) THERMOSTAT AND UNIT CONTROLLERS AND RETURN TO DISTRICT.

9. REMOVE (E) INDOOR WALL HEAT PUMP. PRESERVE (E) WALL OPENING FOR NEW UNIT. (E) DUCTWORK TO REMAIN. (SEE EXISTING REFERENCE DRAWINGS ON 1MP7.02.) DISCONNECT (E) CONDENSATE DRAIN PIPE AT THE UNIT. PRESERVE OPEN END FOR CONNECTION TO NEW UNIT. REMOVE (E) THERMOSTAT AND WIRING. SALVAGE (E) THERMOSTAT AND RETURN TO DISTRICT.

10. ABANDON (E) GAS AND (E) CONDENSATE DRAIN PIPES ABOVE CEILING, TYP.

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.

4. RECYCLE R22 REFRIGERANT FROM ALL UNITS TO BE REMOVED AND RETURN TO DISTRICT.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-119556 INC:
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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

DECISION NO. 2109

CYPRESS
Engineering Group

HVAC, Plumbing, Fire Protection
Mechanical, Electrical, Structural
Environmental Remediation
Training & Technical Support

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San Mateo, CA 94401
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STAMP

REGISTERED PROFESSIONAL ENGINEER
MECHANICAL
No. M31059
EXP. JUNE 30, 2023
STATE OF CALIFORNIA

STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No.	Description	Date

MILESTONES

DD

90% CD

DSA SUB 06/03/2021

BACKCHECK 10/05/2021

SHEET

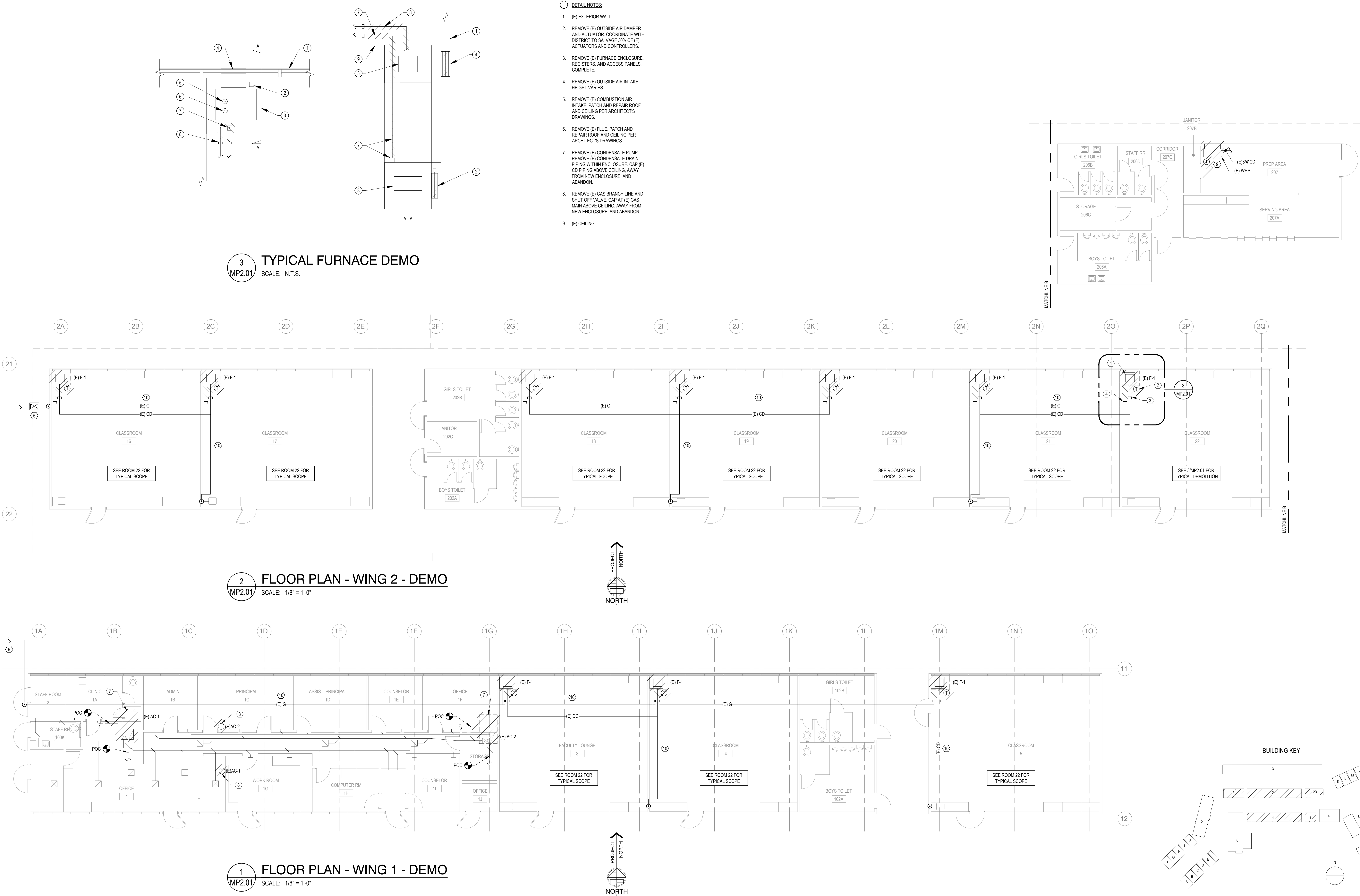
FLOOR PLANS -
DEMO -
WINGS 1 & 2 -
MECHANICAL &
PLUMBING

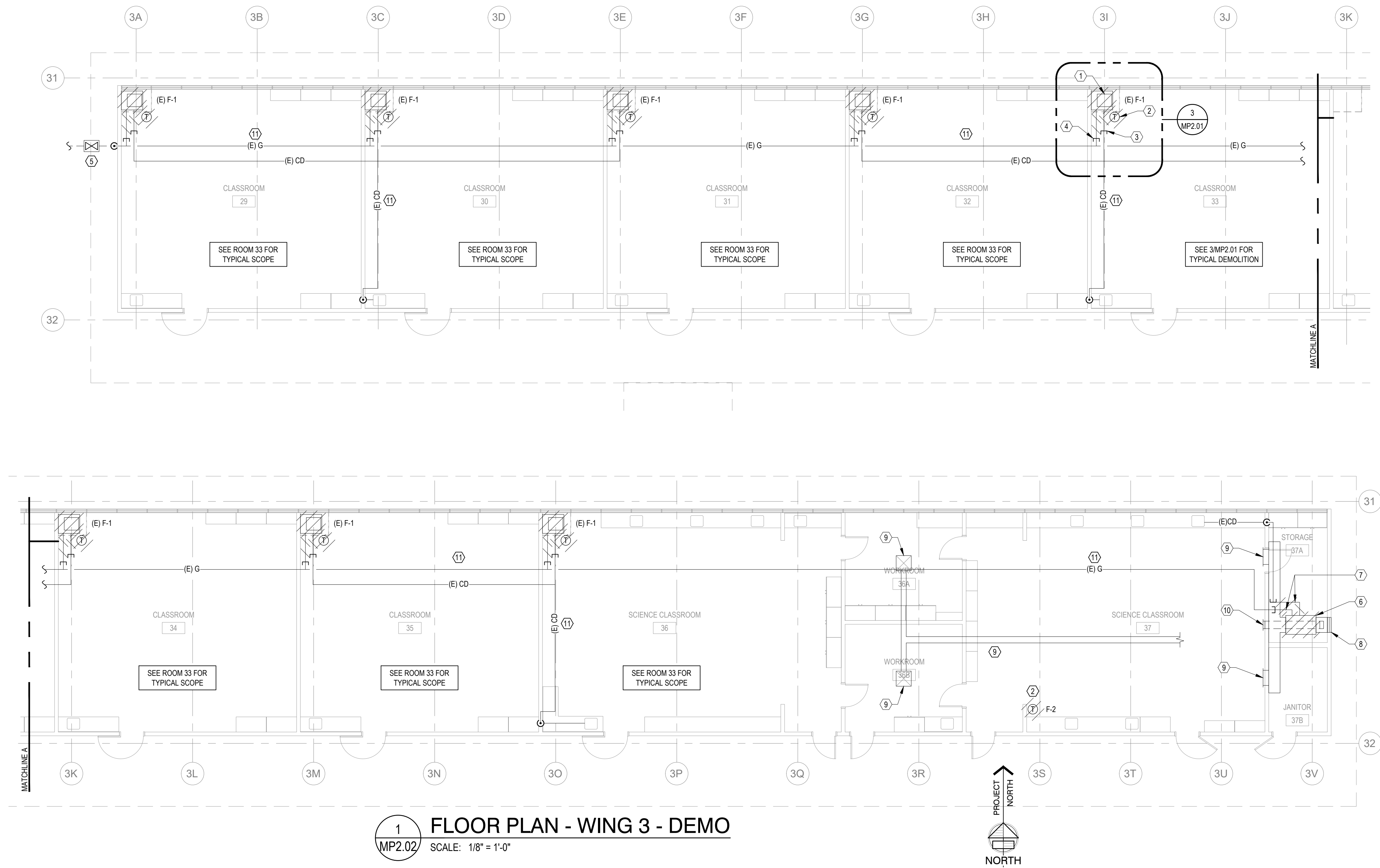
DATE 09/28/2021

JOB # 2021005.06

SHEET #

MP2.01





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.

(E) DEMOLITION SHEET NOTES

1.

REMOVE (E) FURNACE ENCLOSURE AND FURNACE, COMPLETE, TYP. SEE 3MP2.01 FOR TYPICAL FURNACE DEMO.

2.

REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) FURNACE. SALVAGE (E) THERMOSTAT AND UNIT CONTROLLERS AND RETURN TO DISTRICT.

3.

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.

4.

REMOVE (E) GAS BRANCH PIPE BACK TO (E) GAS MAIN. CAP AND ABANDON (E) GAS MAIN ABOVE CEILING. PATCH AND REPAIR CEILING TILES / ROOF PER ARCHITECT'S DRAWINGS.

5.

(E) GAS SHUT OFF VALVE IN VALVE BOX. CLOSE VALVE BEFORE STARTING GAS DEMO WORK ON THIS WING.

6.

REMOVE (E) FURNACE AND ALL FURNACE SUPPORTS. REMOVE (E) FLUE AND (E) COMBUSTION AIR INTAKE. PATCH AND REPAIR CEILING AND ROOF PER ARCHITECT'S DRAWINGS.

7.

CAP (E) GAS AND CONDENSATE DRAIN PIPES AT THE WALL, INSIDE THE STORAGE ROOM, AND ABANDON.

8.

REMOVE (E) OUTSIDE AIR DUCT AND OUTSIDE AIR DAMPER. (E) OUTSIDE AIR LOUVER TO REMAIN.

9.

(E) SUPPLY DUCTWORK AND REGISTERS TO REMAIN.

10.

REMOVE (E) RETURN REGISTER, DAMPER, AND DUCTWORK.

11.

ABANDON (E) GAS AND (E) CONDENSATE DRAIN PIPES ABOVE CEILING, TYP.

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PROJECT

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DEC 08 NO. 2109

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STAMP

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MECHANICAL
STATE OF CALIFORNIA

STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No.	Description	Date
1		

MILESTONES

DD

90% CD

DSA SUB 06/03/2021

BACKCHECK 10/05/2021

SHEET

FLOOR PLAN -
DEMO - WING 3 -
MECHANICAL &
PLUMBING

DATE 09/28/2021

JOB # 2021005.06

SHEET # MP2.02

DEMOLITION SHEET NOTES

1.

REMOVE (E) ROOFTOP AC UNIT. REMOVE (E) ROOF CURB. PROTECT (E) DUCT OPENINGS FOR CONNECTION TO NEW AC UNIT. DISCONNECT (E) GAS PIPE FROM (E) AC UNIT. REMOVE (E) GAS PIPE UP TO AND INCLUDING SHUT OFF VALVE. DISCONNECT (E) CO PIPE FROM (E) AC UNIT. REMOVE (E) CO PIPE UP TO AND INCLUDING TRAP. TYP OF (S).

2.

(E) DUCTWORK AND REGISTERS TO REMAIN, TYP.

3.

REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) AC UNIT, TYP. SALVAGE (E) THERMOSTAT AND RETURN TO DISTRICT.

4.

REMOVE (E) FURNACE AND (E) COOLING COIL ABOVE CEILING. (E) SUPPORTS, FLUE, COMBUSTION AIR INTAKE, GAS PIPE, AND CONDENSATE DRAIN PIPE TO REMAIN.

5.

REMOVE (E) CONDENSING UNIT AND REFRIGERANT PIPING.

6.

REMOVE (E) THERMOSTAT AND WIRING BACK TO (E) FURNACE, TYP. SALVAGE (E) THERMOSTAT AND RETURN TO DISTRICT.

7.

(E) CONDENSATE CAGE TO REMAIN.

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.

SEE MP7.02 FOR EXISTING DUCTWORK AND REGISTERS.

4.

RECYCLE R22 REFRIGERANT FROM ALL UNITS TO BE REMOVED AND RETURN TO DISTRICT.

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STATE
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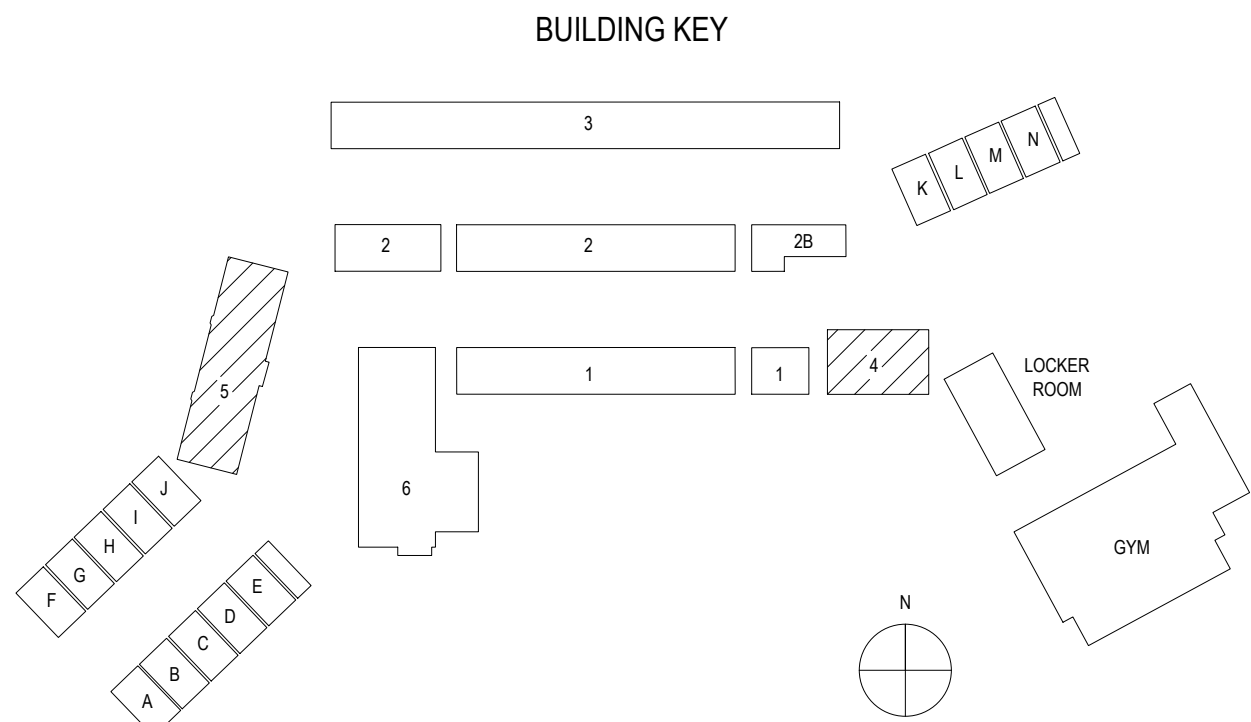
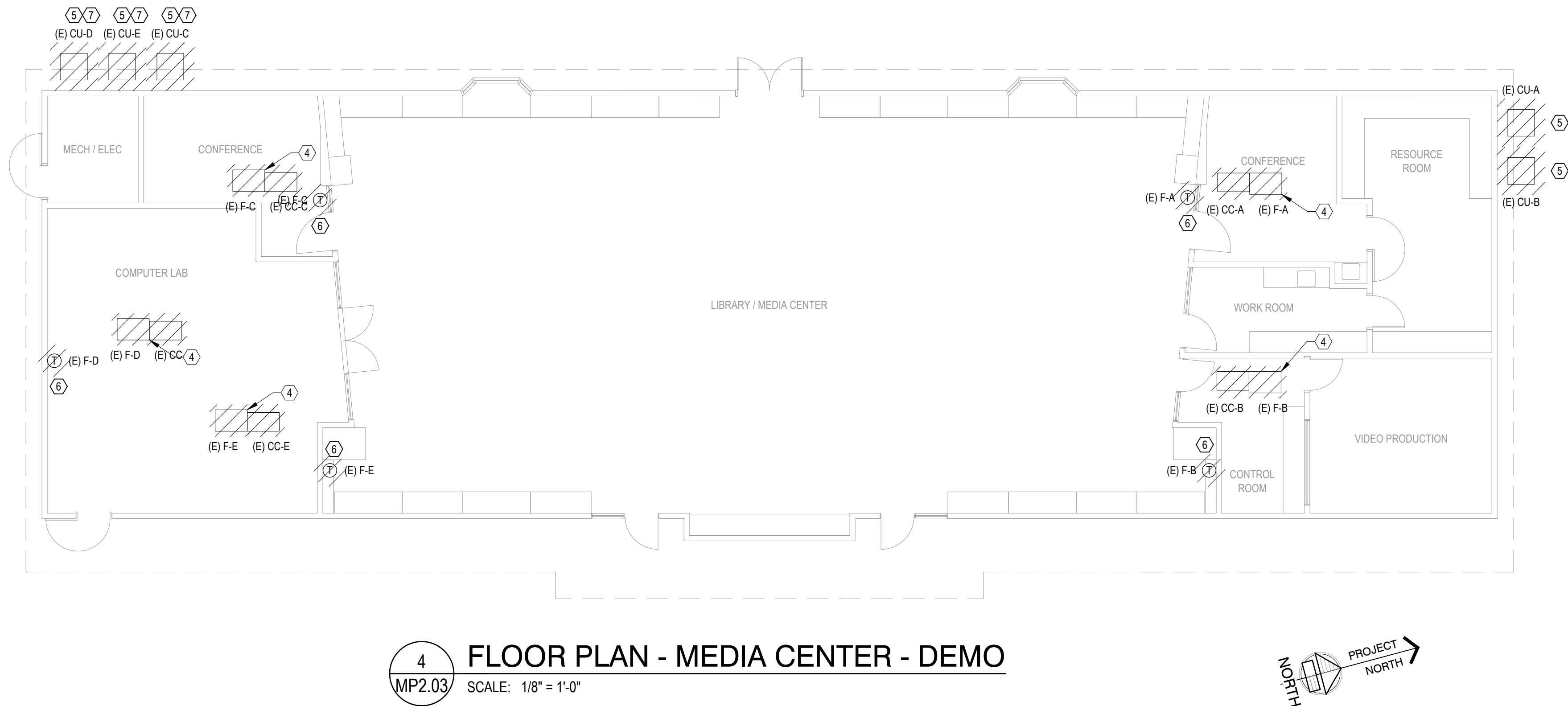
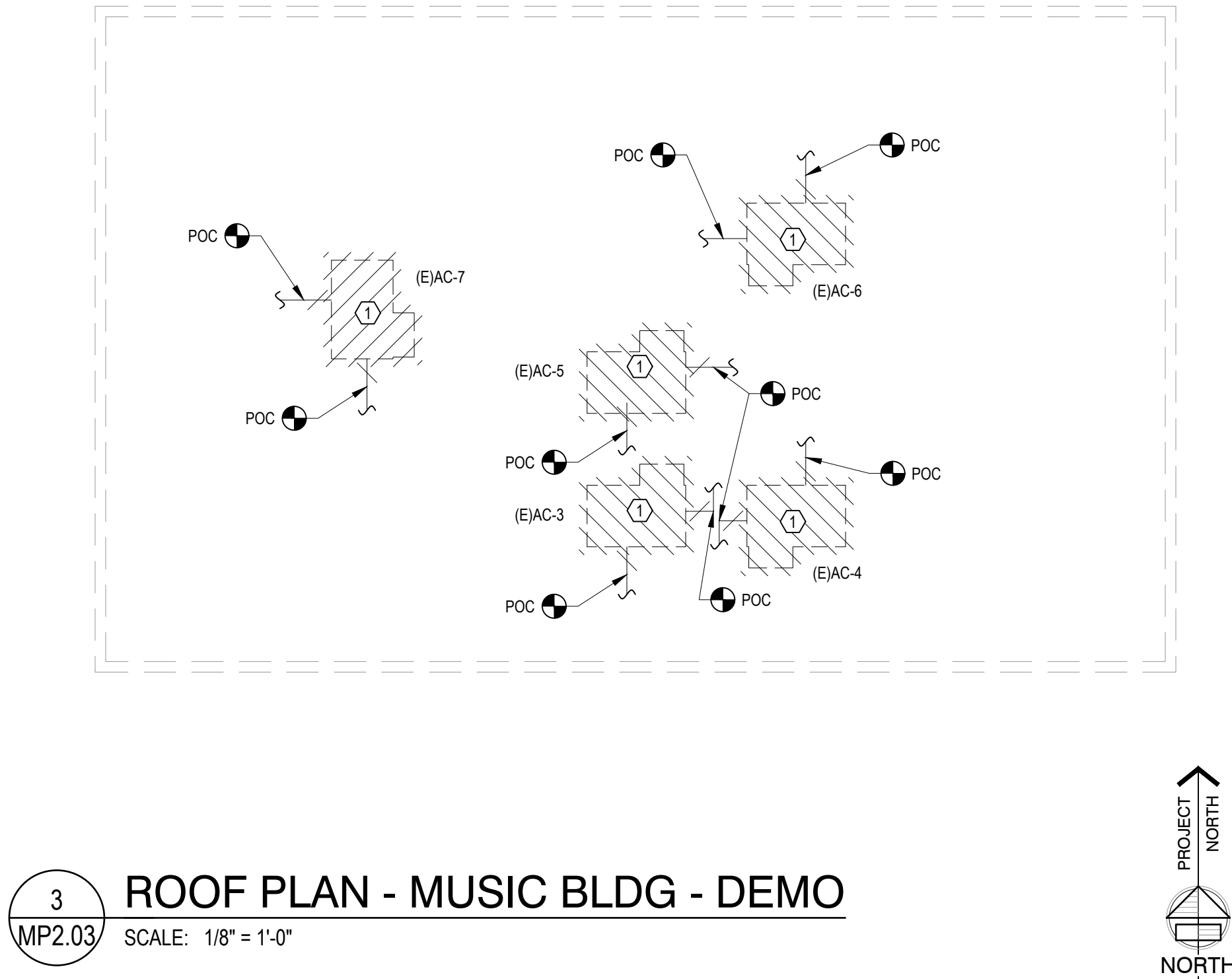
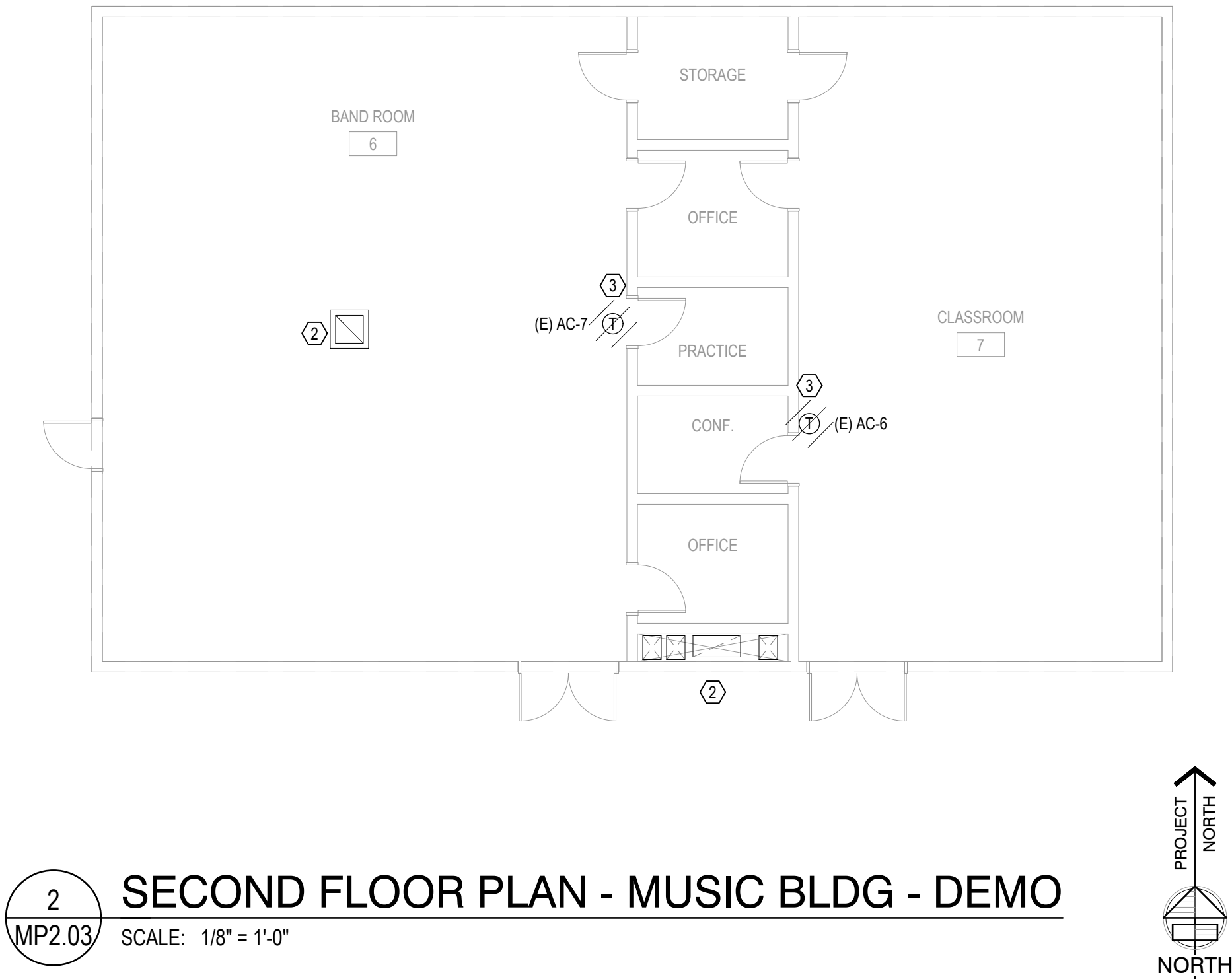
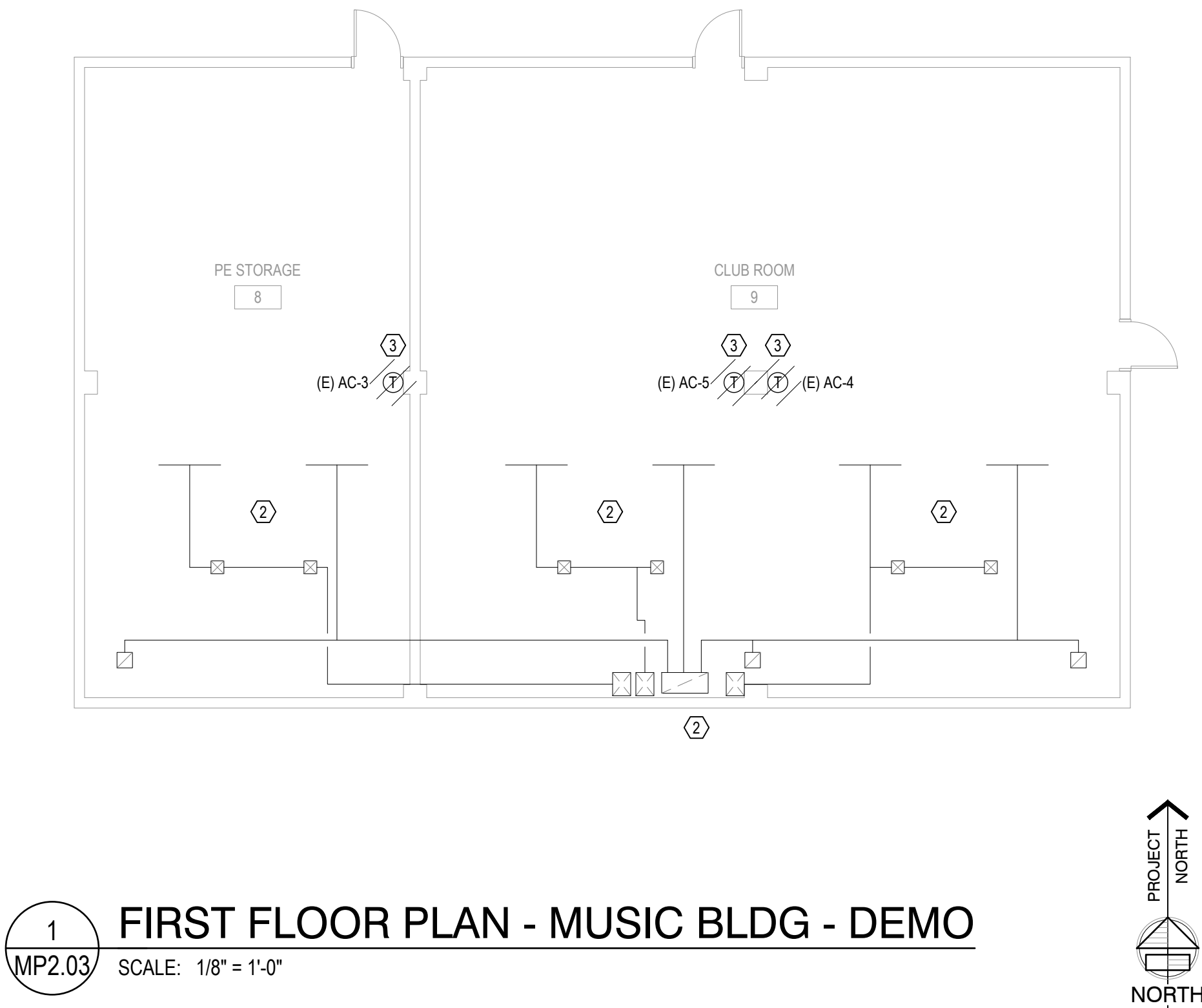
REVISIONS
No. Description Date

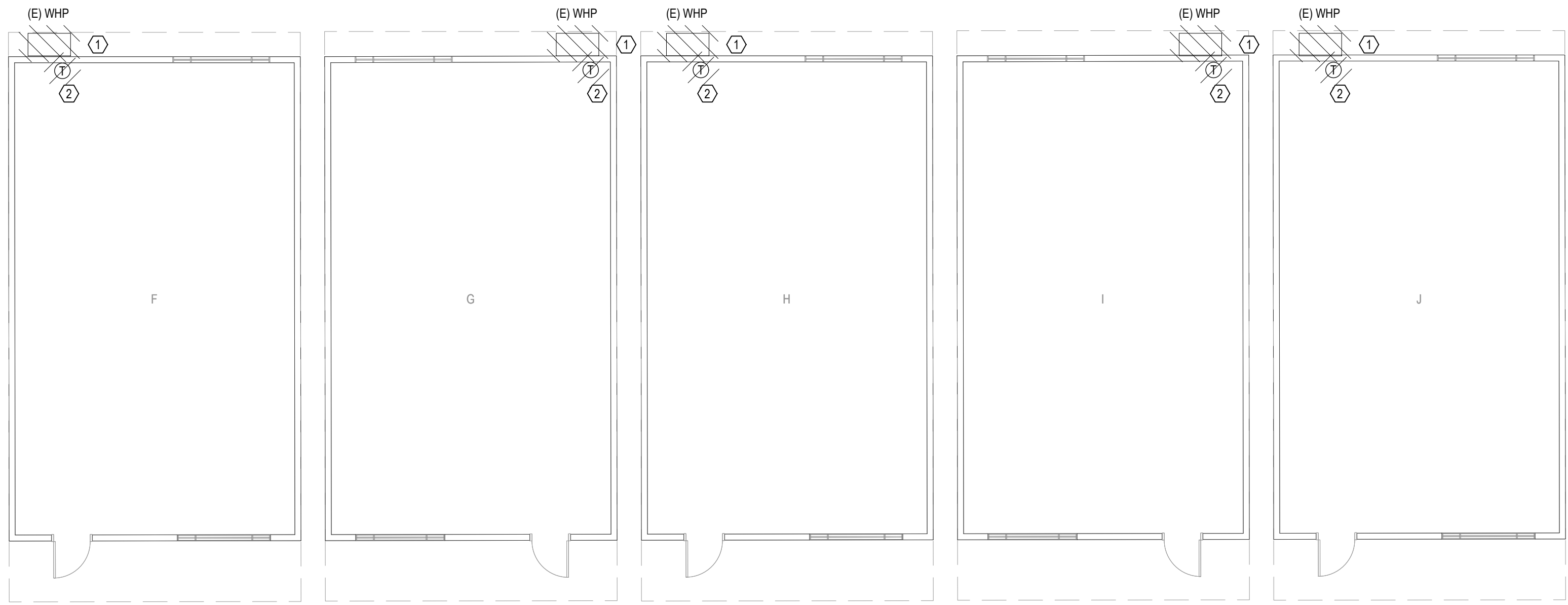
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MILESTONES
DD
90% CD
DSA SUB 06/03/2021
BACKCHECK 10/05/2021

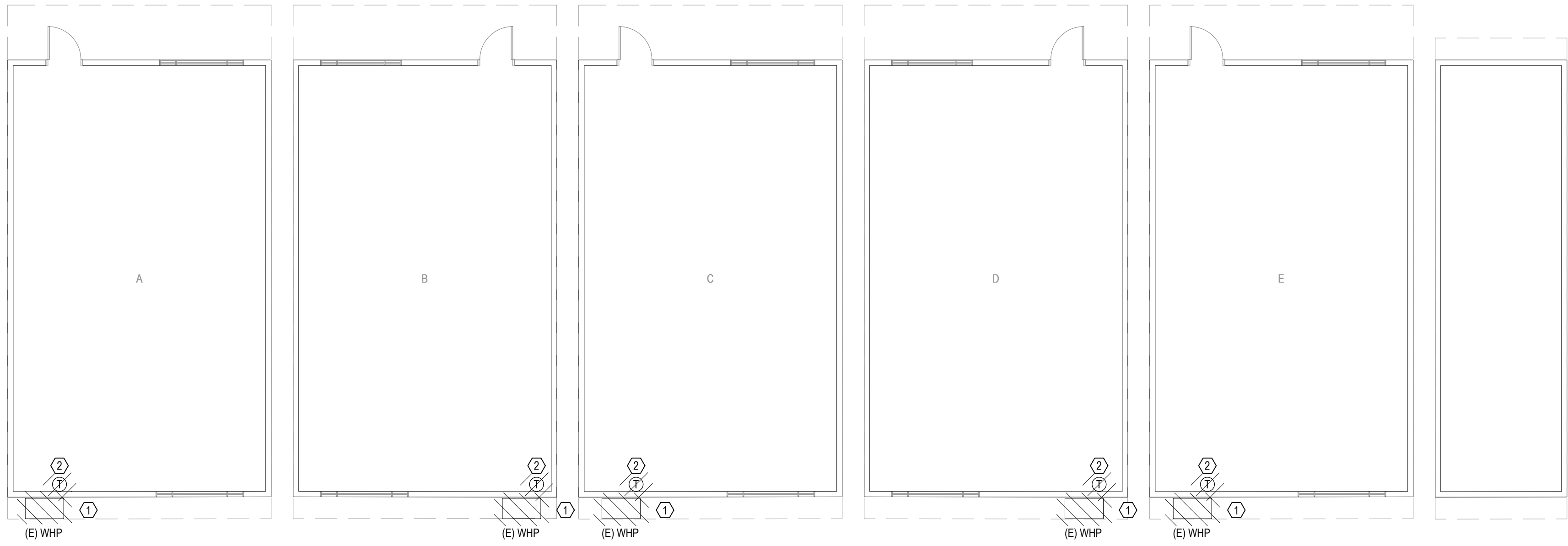
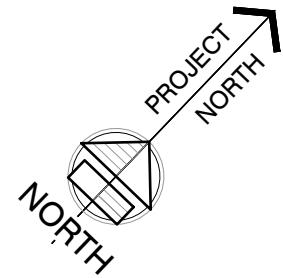
SHEET
FLOOR PLANS -
DEMO -
MUSIC BLDG &
MEDIA CENTER -
MECHANICAL &
PLUMBING

DATE 09/28/2021
JOB # 2021005.06
SHEET # MP2.03

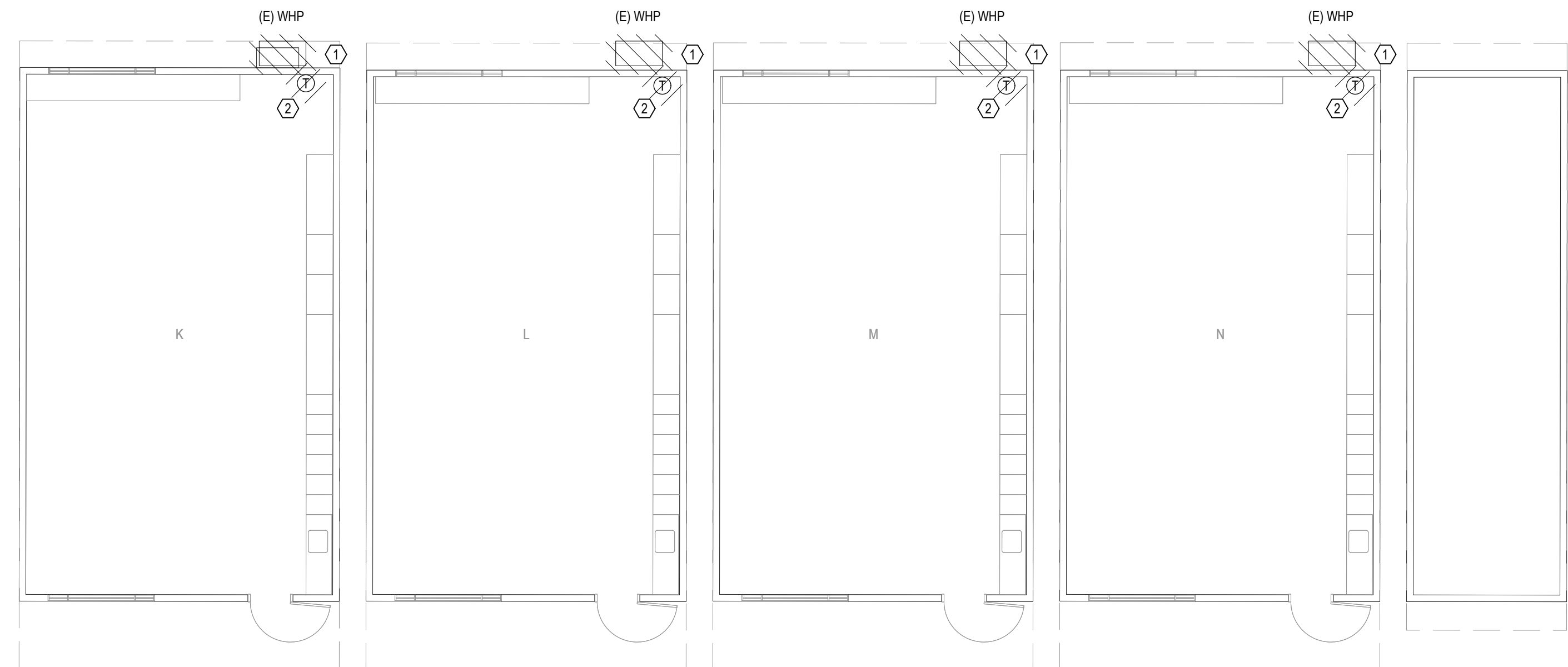
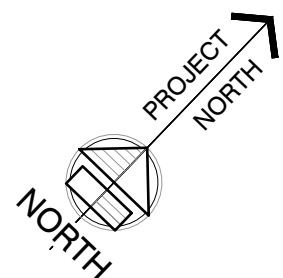




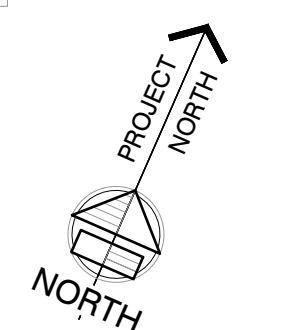
1 FLOOR PLAN - RELOCATABLES - DEMO
MP2.05 SCALE: 1/8" = 1'-0"



2 FLOOR PLAN - RELOCATABLES - DEMO
MP2.05 SCALE: 1/8" = 1'-0"



3 FLOOR PLAN - RELOCATABLES - DEMO
MP2.05 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.
- RECYCLE R22 REFRIGERANT FROM ALL UNITS TO BE REMOVED AND RETURN TO DISTRICT.

DEMOLITION SHEET NOTES

- REMOVE (E) WALL MOUNTED HEAT PUMP FROM EACH RELOCATABLE CLASSROOM. TYP. PRESERVE (E) OPENINGS FOR NEW WALL MOUNTED HEAT PUMP. PROTECT OPENINGS FROM WEATHER CONDITIONS DURING CONSTRUCTION UNTIL NEW INSTALLATION IS COMPLETE.
- REMOVE (E) THERMOSTAT AND WIRING. TYP. SALVAGE (E) THERMOSTAT AND UNIT CONTROLLERS AND RETURN TO DISTRICT.

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PROJECT
ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT
CYPRESS
Engineering Group
DECISION NO. 2109
HVAC, Plumbing, Fire Protection
Building Construction
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STAMP
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No. M31059
EXP. JUNE 30, 2023
MECHANICAL
STATE OF CALIFORNIA

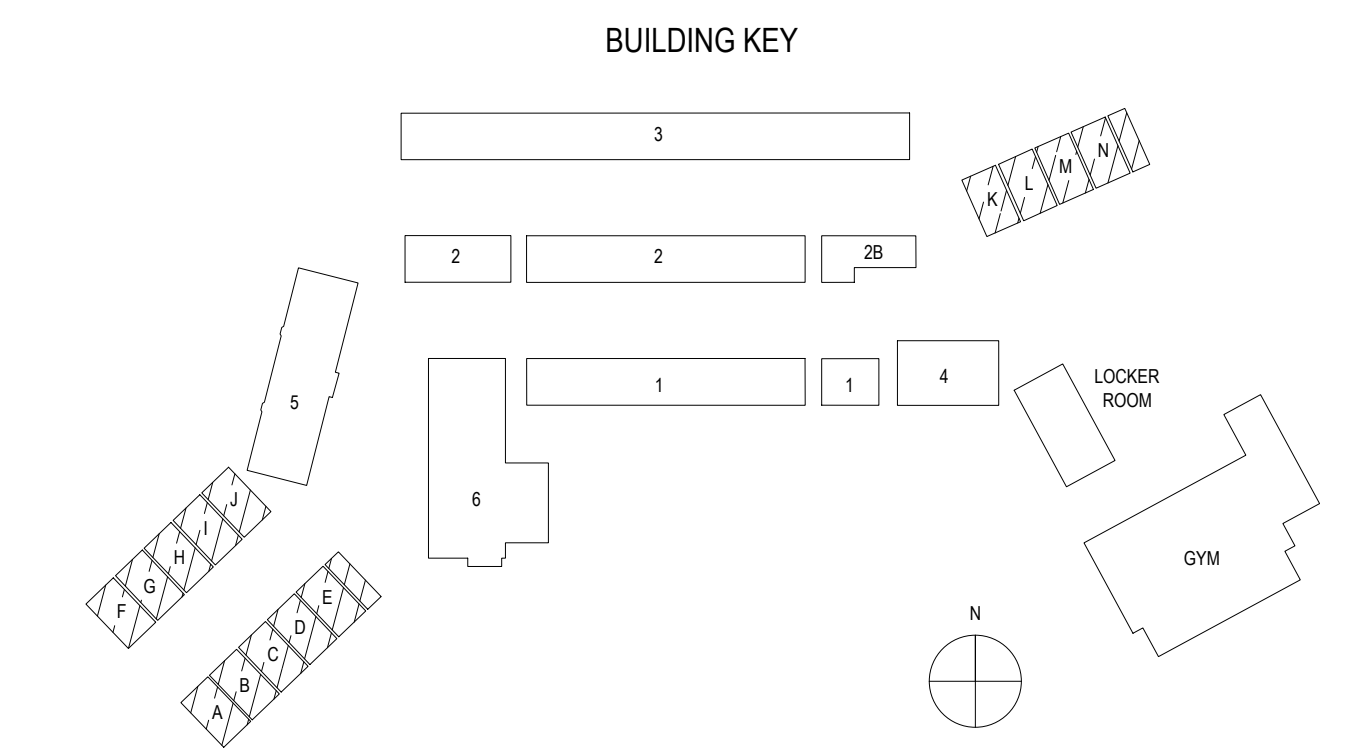
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DSA FILE NUMBER 41-26
APPL # 01-119557

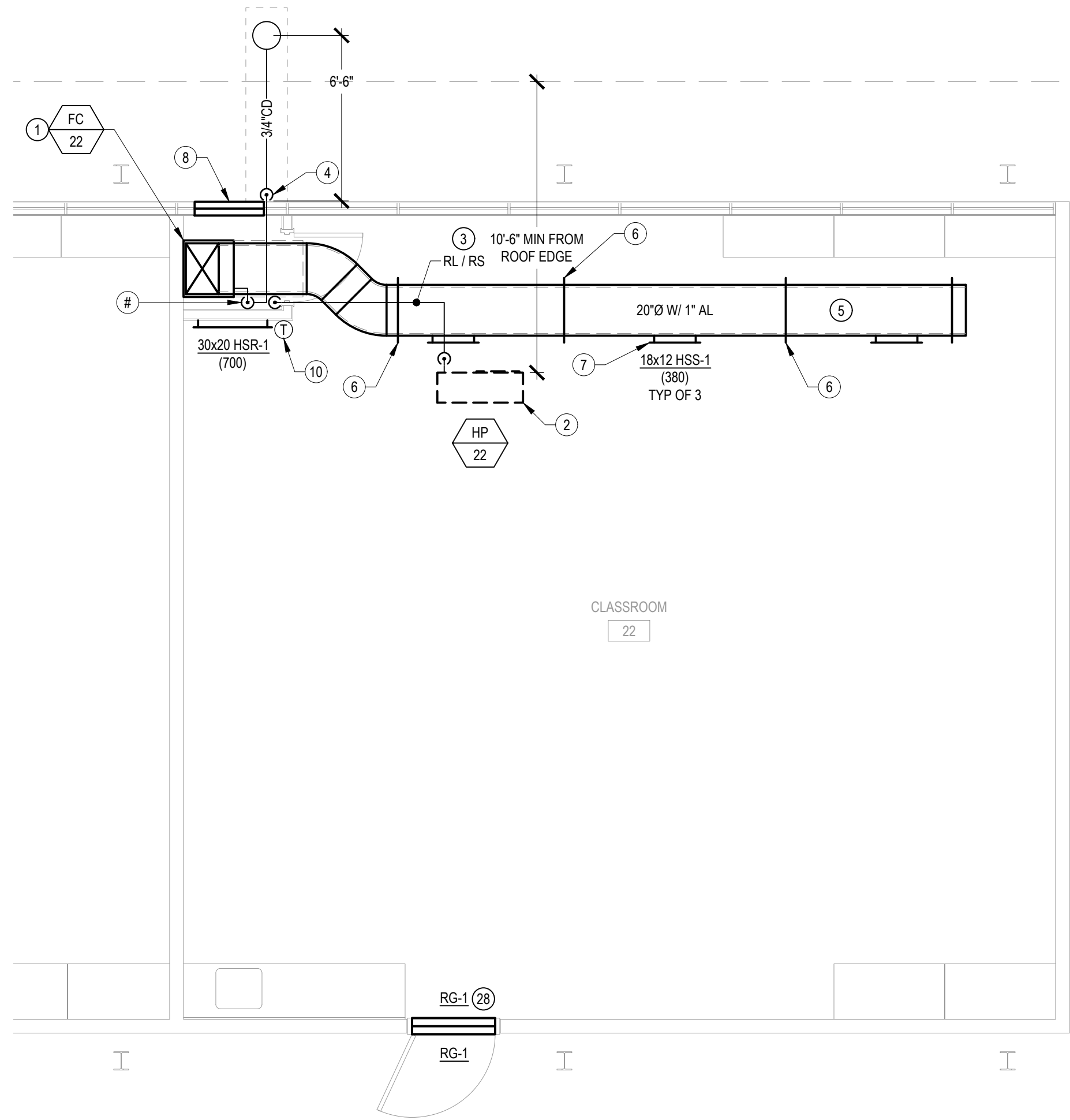
REVISIONS
No. Description Date
△

MILESTONES
DD
90% CD
DSA SUB 06/03/2021
BACKCHECK 10/05/2021

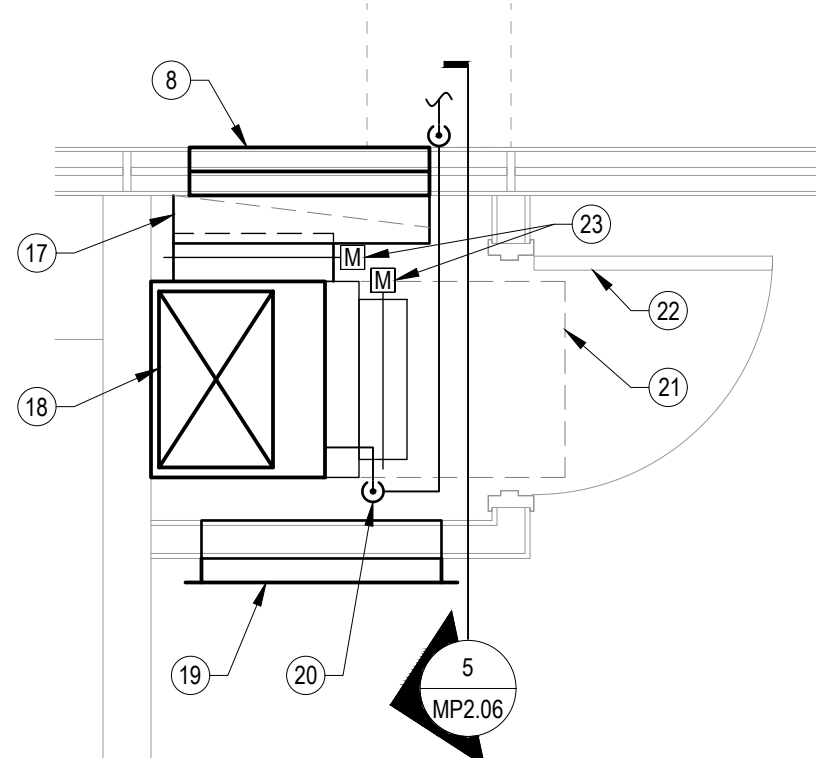
SHEET
FLOOR PLANS -
DEMO -
RELOCATABLE
BUILDINGS -
MECHANICAL &
PLUMBING

DATE 09/28/2021
JOB # 2021005.06
SHEET # MP2.05

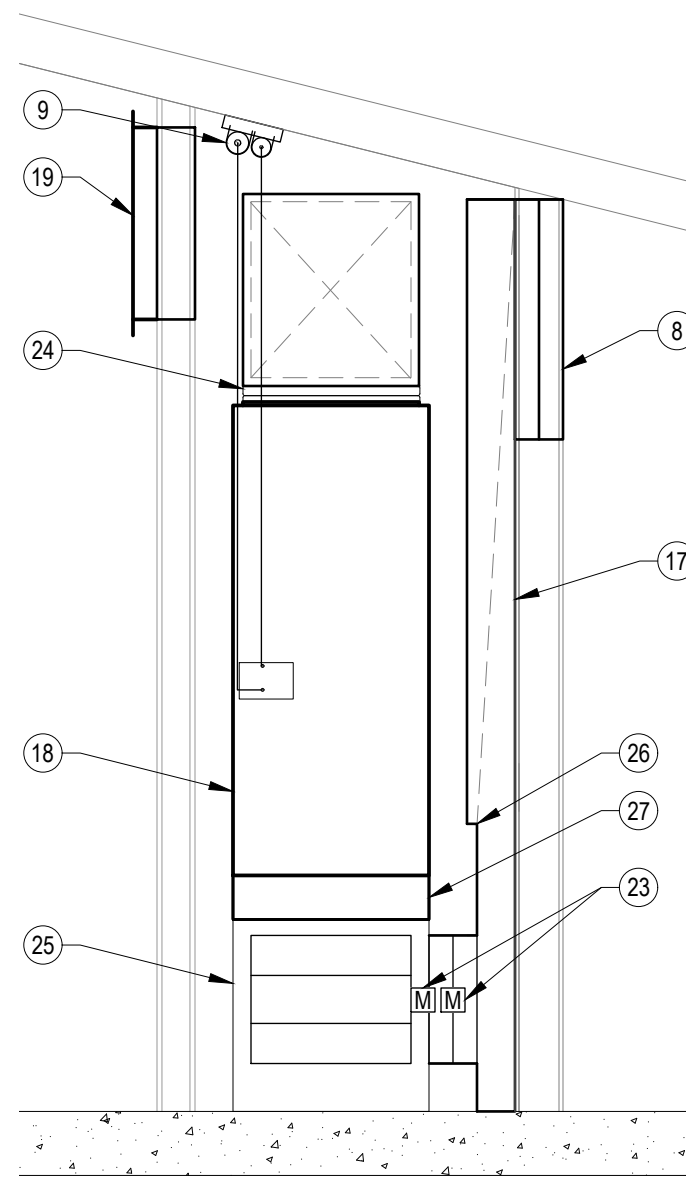




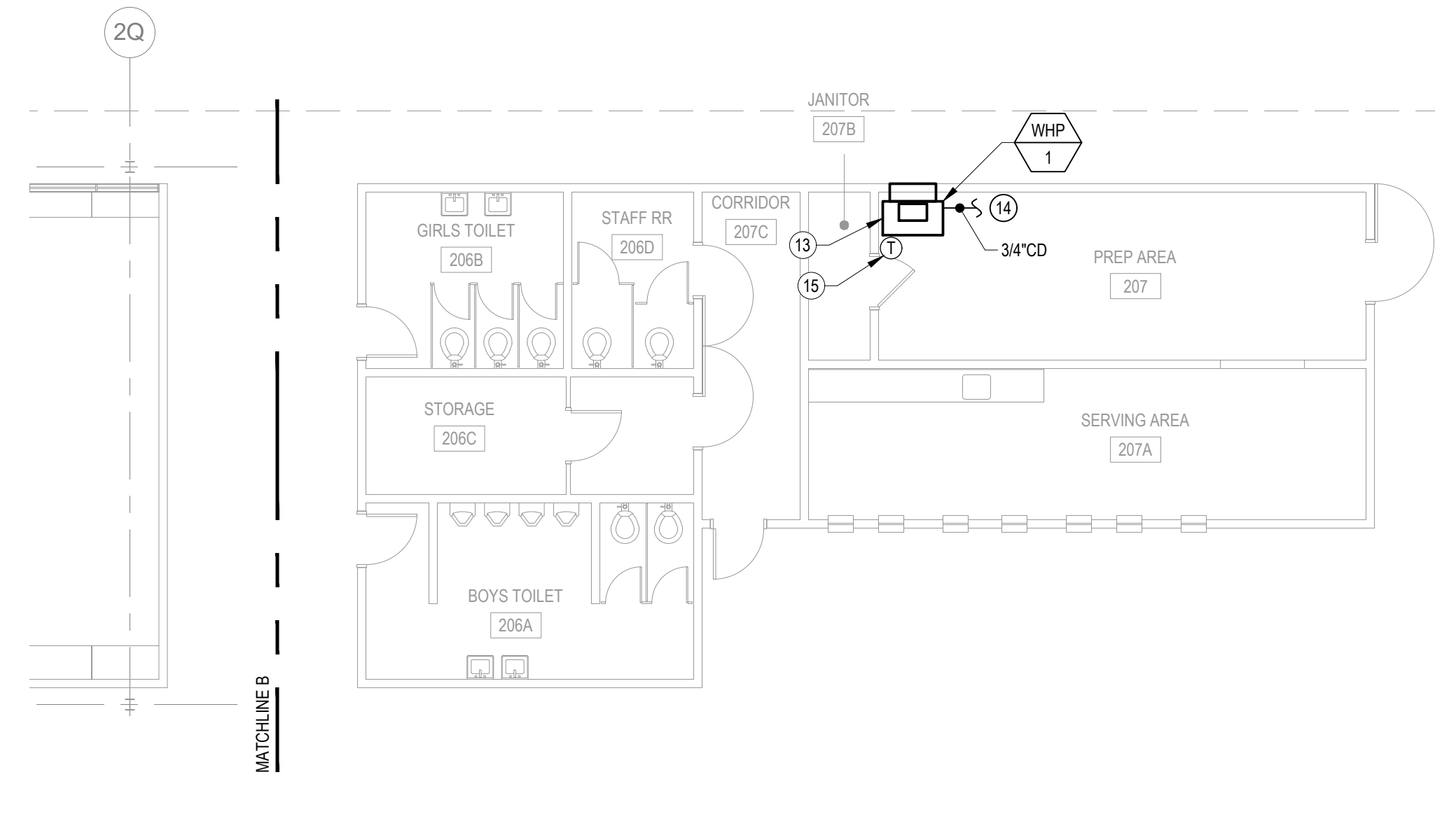
3 PARTIAL FLOOR PLAN - TYPICAL CLASSROOM
MP2.06 SCALE: 1/4" = 1'-0"



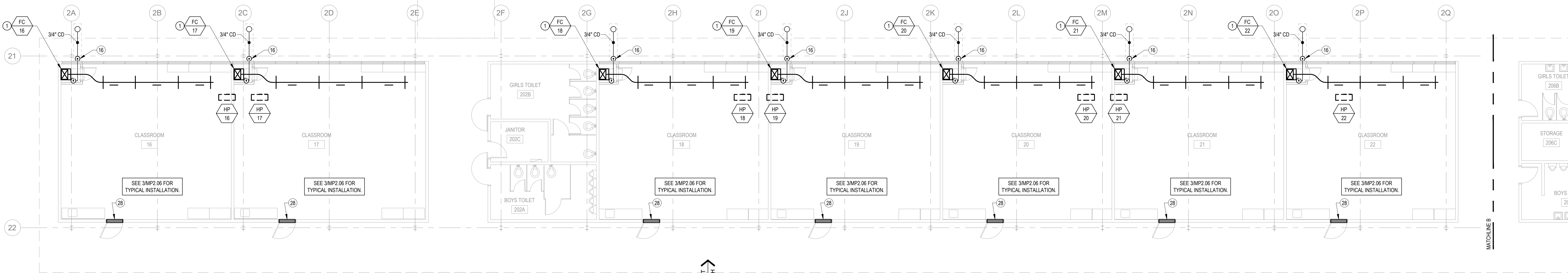
4 FLOOR PLAN - ENCLOSURE
MP2.06 SCALE: NONE



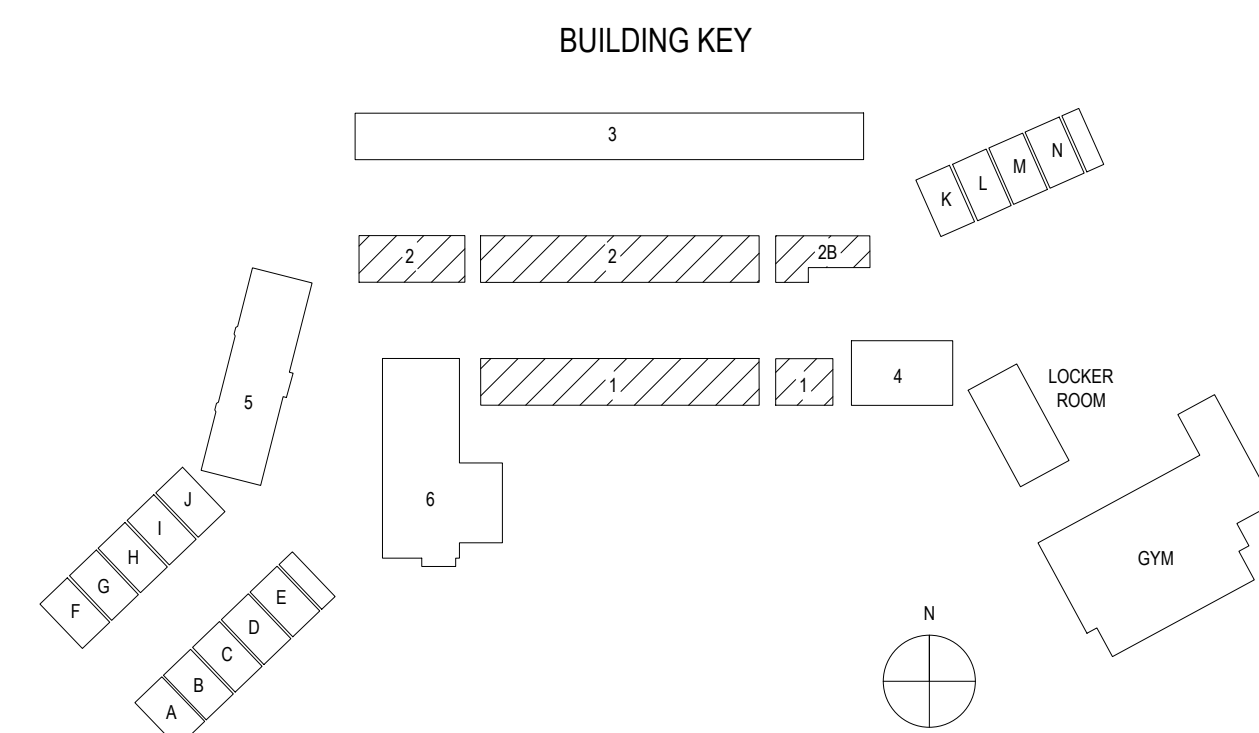
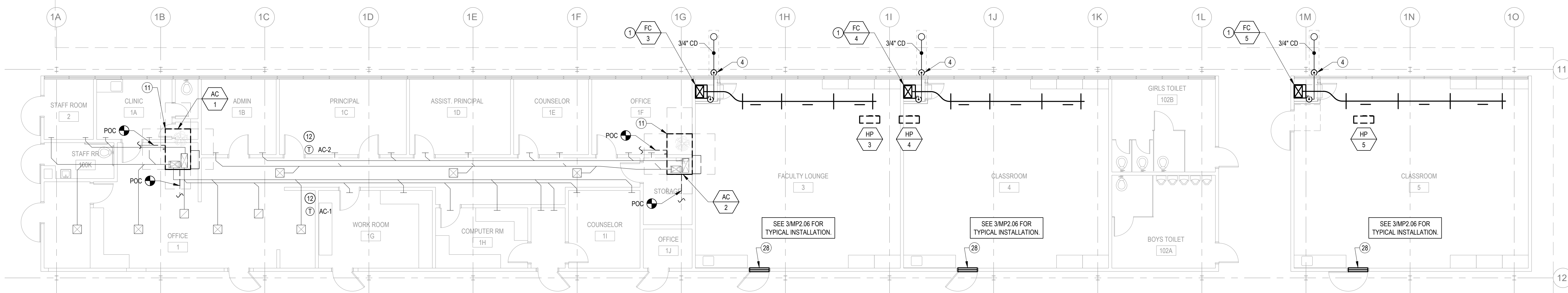
5 SECTION - ENCLOSURE
MP2.06 SCALE: NONE



2 FLOOR PLAN - WING 2 - NEW
MP2.06 SCALE: 1/8" = 1'-0"



1 FLOOR PLAN - WING 1 - NEW
MP2.06 SCALE: 1/8" = 1'-0"



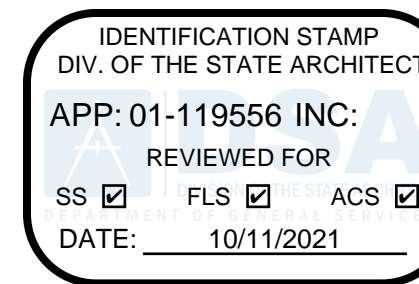
1. INSTALL FAN COIL, TYP. SEE 4MP2.06 AND 5MP2.06 FOR TYPICAL FAN COIL INSTALLATION. SEE 1MP6.01 FOR TYPICAL FAN COIL MOUNTING.
2. INSTALL HEAT PUMP ON ROOF, MIN 10 FT AWAY FROM EDGE OF ROOF, TYP. SEE FLOOR PLANS FOR ACTUAL LOCATION OF EACH UNIT.
3. INSTALL REFRIGERANT PIPING FROM HEAT PUMP TO FAN COIL, TYP. MINIMIZE EXPOSED PIPING ON ROOF. PENETRATE ROOF WITHIN 36" OF HEAT PUMP. RUN PIPE CONCEALED ABOVE T-BAR CEILING TO FAN COIL ENCLOSURE. PENETRATE FAN COIL ENCLOSURE WALL ABOVE CEILING. ENSURE REFRIGERANT PIPING DOES NOT BLOCK FILTER ACCESS.
4. CD FROM FAN COIL. DROP CD TIGHT TO EXTERIOR WALL TO BELOW GRADE. AND ROUTE TO CD DRYWELL. PROVIDE CLEANOUT FOR EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135°. SEE DETAILS 8MP6.01 FOR CD CONNECTION TO EQUIPMENT AND 3MP6.02 FOR CD DRYWELL.
5. INSTALL EXPOSED SUPPLY DUCT.
6. INSTALL DUCT SUPPORT, TYP. SEE DETAIL 9MP6.01.
7. INSTALL FACE OPERABLE KEY EXTRACTOR, TYP. FOR ALL SUPPLY REGISTERS. SEE 13MP6.01.
8. INSTALL OUTSIDE AIR LOUVER. SIZE TO MATCH FULL WIDTH AND HEIGHT OF (E) WINDOW PANEL (48" x 35" NOMINAL). FIELD VERIFY EXACT FRAME SIZE BEFORE ORDERING LOUVER.
9. REFRIGERANT PIPING FROM HEAT PUMP TO FAN COIL. SEE 15MP6.01 FOR PIPE SUPPORT.

10. INSTALL THERMOSTAT ON WALL AND WIRE TO NEW FAN COIL, TYP.
11. INSTALL ROFTOP AC UNIT ON ROOF CURB, TYP. OF 2. ENSURE CORRECT UNIT ORIENTATION AND CONNECT TO (E) SUPPLY AND RETURN DUCTWORK. INSTALL GAS PIPE FROM POC TO AC UNIT. INSTALL GAS PIPE WITH SHUTOFF VALVE, DIRT LEG, AND FLEX CONNECTION AT AC UNIT. INSTALL CONDENSATE DRAIN PIPE WITH TRAP AND CONNECT TO (E) CD PIPE. FOR PIPE SUPPORTS, SEE DETAIL 11MP6.01. CONNECT TO AC UNIT PER 8MP6.01.
12. INSTALL THERMOSTAT ON WALL AND WIRE TO AC UNIT, TYP. OF (2).
13. INSTALL INDOOR WALL HEAT PUMP. CONNECT TO (E) WALL OPENING AND (E) SUPPLY DUCTWORK.
14. PIPE CONDENSATE DRAIN FROM HEAT PUMP TO (E) CONDENSATE DRAIN PIPE. SEE DETAIL 9MP6.01 FOR CONDENSATE DRAIN CONNECTION TO EQUIPMENT.
15. INSTALL THERMOSTAT ON INDOOR WALL HEAT PUMP, TYP.
16. CD FROM FAN COIL. DROP CD TIGHT TO EXTERIOR WALL TO ABOVE EXTERIOR CONCRETE WALL. DROP CD TIGHT TO EXTERIOR CONCRETE WALL TO BELOW GRADE. ROUTE TO CD DRYWELL IN LANDSCAPE AREA. SEE DETAILS 9MP6.01 FOR CD CONNECTION TO EQUIPMENT AND 3MP6.02 FOR CD DRYWELL.
17. 6"x32" OUTSIDE AIR DUCT DOWN TO MIXING PLENUM.
18. FAN COIL. SEE PLANS FOR LOCATION.
19. 30"x20" RETURN REGISTER HSR-1 WITH GRILLE SILENCER.

20. CD FROM FAN COIL. DROP PIPE DOWN TO ENCLOSURE FLOOR AT LEFT SIDE OF UNIT. ENSURING PIPE DOES NOT BLOCK FILTER ACCESS. THEN RUN ALONG FLOOR TO EXTERIOR WALL. CONNECT TO (E) CD PIPE INSIDE ENCLOSURE. PROVIDE CLEANOUT FOR EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135°. SEE 8MP6.01 FOR CONNECTION TO UNIT.
21. CLEARANCE REQUIRED FOR FILTER REPLACEMENT.
22. 30" FULL HEIGHT DOOR. SEE ARCHITECTS DRAWINGS.
23. 20"x16" MOTORIZED DAMPER (LOW VOLTAGE).
24. FLEX DUCT AT CONNECTION TO UNIT.
25. MIXING PLENUM BELOW FAN COIL.
26. DUCT TRANSITION TO ALLOW DAMPER CONNECTION.
27. FILTER BOX THAT CAN FIT 4" OR 2" FILTER.
28. MOTORIZED RELIEF DAMPER AND RETURN GRILLE (RG-1) MOUNTED ON BOTH SIDES OF RELIEF OPENING. DAMPER AND GRILLE TO MATCH (E) FRAME. +/- 44"x32". VERIFY IN FIELD, TYP.

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. FOR CLARITY, ABANDONED CONDENSATE DRAIN PIPES AND (E) GAS MAINS ARE NOT SHOWN ON THIS PLAN. SEE MP2.01.
4. PAINT ALL EXPOSED DUCTWORK AND REGISTERS.
5. SEE DETAIL 11MP6.01 FOR PIPE SUPPORT ON ROOF.
6. EQUIPMENT MOUNTING DETAIL REFERENCE SHOWN ON SCHEDULES ON SHEETS MP0.02 AND MP0.03.
7. CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.



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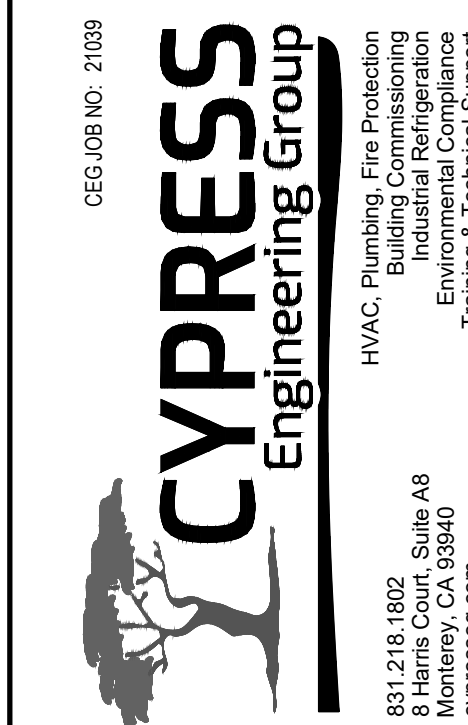
www.aedisarchitects.com
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San Jose, CA 95113
tel: (408) 300-5160
fax: (408) 300-5121

PROJECT

**ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



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.

FOR CLARITY, ABANDONED CONDENSATE DRAIN PIPES AND (E) GAS MAINS ARE NOT SHOWN ON THIS PLAN. SEE MP2.02.

4.

PAIN ALL EXPOSED DUCTWORK AND REGISTERS.

5.

SEE DETAIL 11/MP6.01 FOR PIPE SUPPORT ON ROOF.

6.

EQUIPMENT MOUNTING DETAIL REFERENCE SHOWN ON SCHEDULES ON SHEETS MP0.02 AND MP0.03.

5.

CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.

NEW SHEET NOTES

1.

INSTALL HEAT PUMP ON ROOF, MIN 10 FT WAY FROM EDGE OF ROOF, TYP.

2.

INSTALL FAN COIL UNIT, SEE 1/MP6.01 FOR TYPICAL FAN COIL INSTALLATION.

3.

CD FROM FAN COIL UNIT, DROP CD TIGHT TO EXTERIOR WALL TO BELOW GRADE, ROUTE TO CD DRYWELL, SEE DETAILS 8/MP6.01 FOR CONNECTION TO EQUIPMENT AND 3/MP6.02 FOR CD DRYWELL.

4.

SAWCUT, REPAIR AND PATCH TO MATCH EXISTING.

5.

MOTORIZED RELIEF DAMPER AND RETURN GRILLE (RG-1) MOUNTED ON BOTH SIDES OF RELIEF OPENING. DAMPER AND GRILLE TO MATCH (E) FRAME, +/- 44"x32", VERIFY IN FIELD, TYP.

6.

INSTALL FIRE SMOKE DAMPER IN (E) DUCT.

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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

DEC 08 NO. 2109

CYPRESS
Engineering Group

HVAC, Plumbing, Fire Protection
Building Systems, Mechanical
Environmental Performance
Training & Technical Support

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Menlo Park, CA 94025
cypresseng.com

STAMP

REGISTERED PROFESSIONAL ENGINEER
No. M31059
EXP. JUNE 30, 2023
MECHANICAL
STATE OF CALIFORNIA

STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No.	Description	Date
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MILESTONES

DD

90% CD

DSA SUB 06/03/2021

BACKCHECK 10/05/2021

SHEET

FLOOR PLAN -
NEW - WING 3 -
MECHANICAL &
PLUMBING

DATE 09/28/2021

JOB # 2021005.06

SHEET #

MP2.07

1 FLOOR PLAN - WING 3 - NEW
SCALE: 1/8" = 1'-0"

The floor plan shows Wing 3 of the Abbott Middle School. It includes classrooms 29 through 33, science classrooms 34 through 37, and a storage area. Mechanical equipment is indicated by symbols for fan coil units (FC), heat pumps (HP), and ductwork (CD). Notes specify the installation of 3/MP2.06 for typical installations. A north arrow points towards the top of the page.

2 PARTIAL FLOOR PLAN - WING 3 - NEW
SCALE: 1/4" = 1'-0"

This partial floor plan shows the mechanical details of Wing 3. It includes a north arrow pointing towards the top right. Key features include a 16x16 return duct, a 24x12 supply duct, and a 30x12 HSR-1 (850) duct. Notes specify the installation of 3/MP2.06 for typical installations. A north arrow points towards the top of the page.

BUILDING KEY

The building key shows the location of Wing 3 relative to other building components. It includes a north arrow pointing towards the top right. Key features include a 16x16 return duct, a 24x12 supply duct, and a 30x12 HSR-1 (850) duct. Notes specify the installation of 3/MP2.06 for typical installations. A north arrow points towards the top of the page.

NEW SHEET NOTES

1. INSTALL ROOFTOP AC UNIT ON (E) ROOF CURB. ENSURE CORRECT UNIT ORIENTATION AND CONNECT TO (E) SUPPLY AND RETURN DUCTWORK, TYP.

2. INSTALL GAS PIPE FROM POC TO AC UNIT. INSTALL GAS PIPE WITH SHUTOFF VALVE, DIRT LEG, AND FLEX CONNECTION AT AC UNIT. INSTALL CONDENSATE DRAIN PIPE WITH TRAP AND CONNECT TO (E) CD PIPE. FOR PIPE SUPPORT ON ROOF, SEE DETAIL 11/MP6.01. CONNECT TO AC UNIT PER 8/MP6.01.

3. INSTALL CONDENSATE DRAIN PIPE WITH TRAP AND CONNECT TO (E) CD PIPE. CONNECT TO AC UNIT PER 8/MP6.01.

4. INSTALL THERMOSTAT ON WALL AND WIRE TO AC UNIT, TYP OF (S).

5. INSTALL CONDENSING UNIT ON HOUSEKEEPING PAD, CONNECT REFRIGERANT PIPING TO COOLING COIL.

6. INSTALL COOLING COIL IN CEILING SPACE AND CONNECT TO (E) DUCTWORK. PROVIDE FLEX CONNECTOR AT DUCT CONNECTION. INSTALL DRAIN PAN UNDER COIL. CONNECT CONDENSATE DRAIN TO (E) CD AND ADD SECONDARY CD PIPE.

7. INSTALL FURNACE IN CEILING SPACE AND CONNECT TO (E) DUCTWORK. INSTALL COMBUSTION AIR INTAKE. CONNECT FLUE PIPE TO (E) FLUE AT BOTTOM OF ROOF STRUCTURE.

8. INSTALL FILTER BOX AND CONNECT TO FURNACE. PROVIDE FLEX CONNECTOR AT FURNACE CONNECTION. FILTER

9. BOX SHALL HAVE SIDE ACCESS, WITH HINGED ACCESS PANEL AND TOOL-LESS CAM LOCKS.

10. CONNECT (E) GAS TO NEW FURNACE PER 8/MP6.01.

11. INSTALL THERMOSTAT ON WALL AND WIRE TO HVAC EQUIPMENT.

GENERAL NOTES

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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 REFERENCE SHOWN ON SCHEDULES ON SHEETS MP0.02 AND MP0.03.

4. CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.

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REVISIONS

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MILESTONES

DD	
90% CD	
DSA SUB	06/03/2021
BACKCHECK	10/05/2021

SHEET

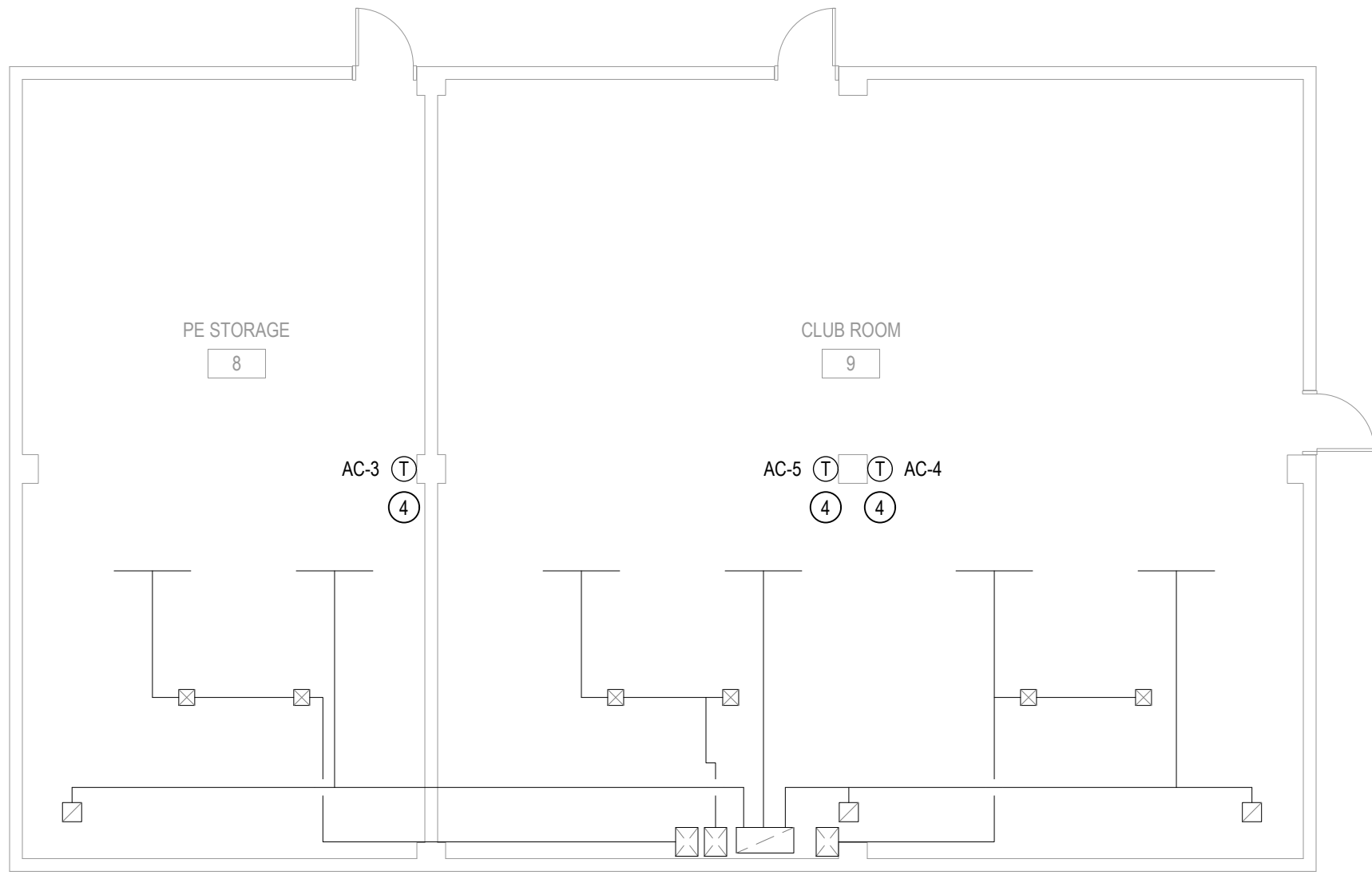
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NEW -
MUSIC BLDG &
MEDIA CENTER -
MECHANICAL &
PLUMBING

DATE 09/28/2021

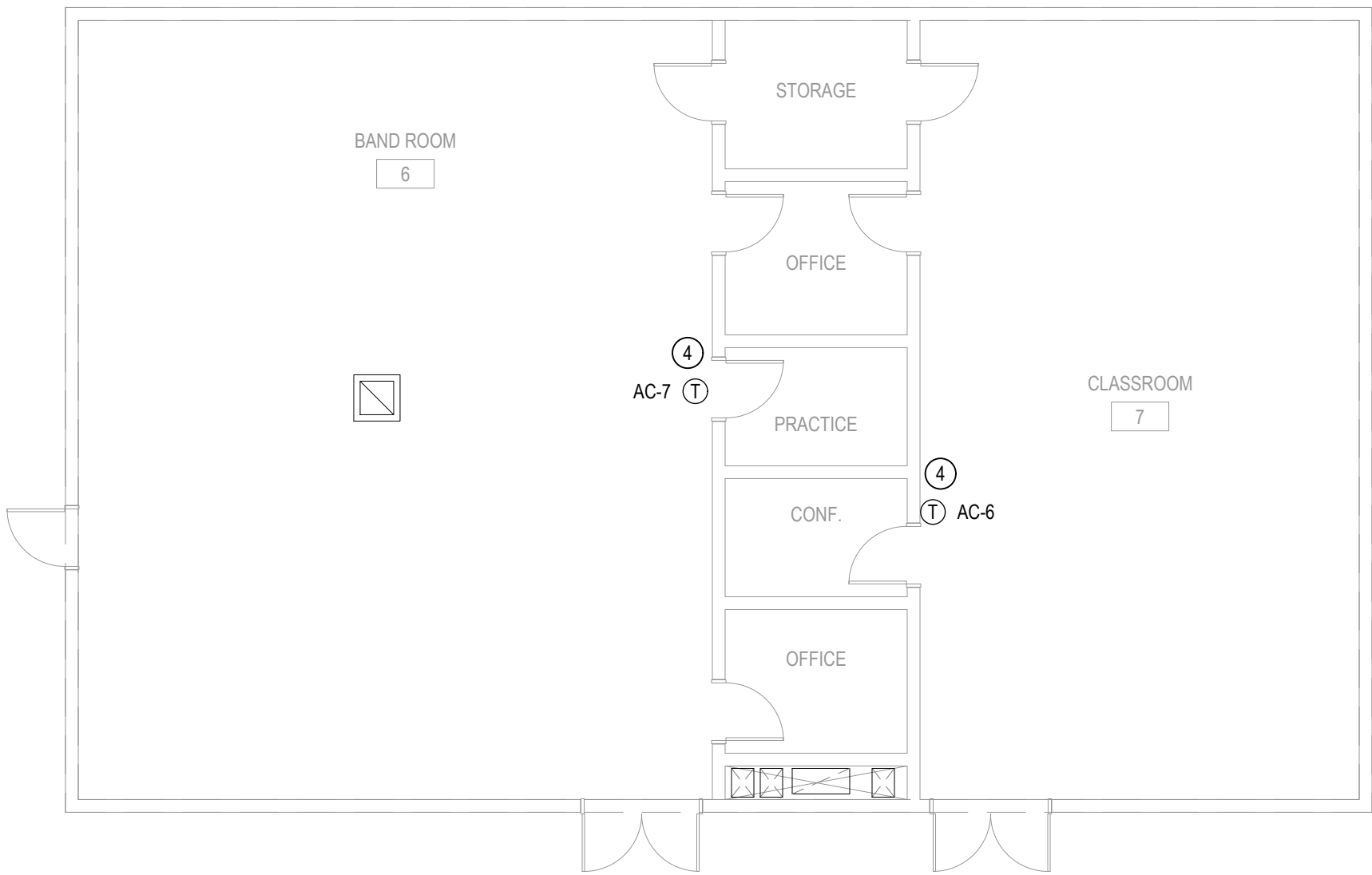
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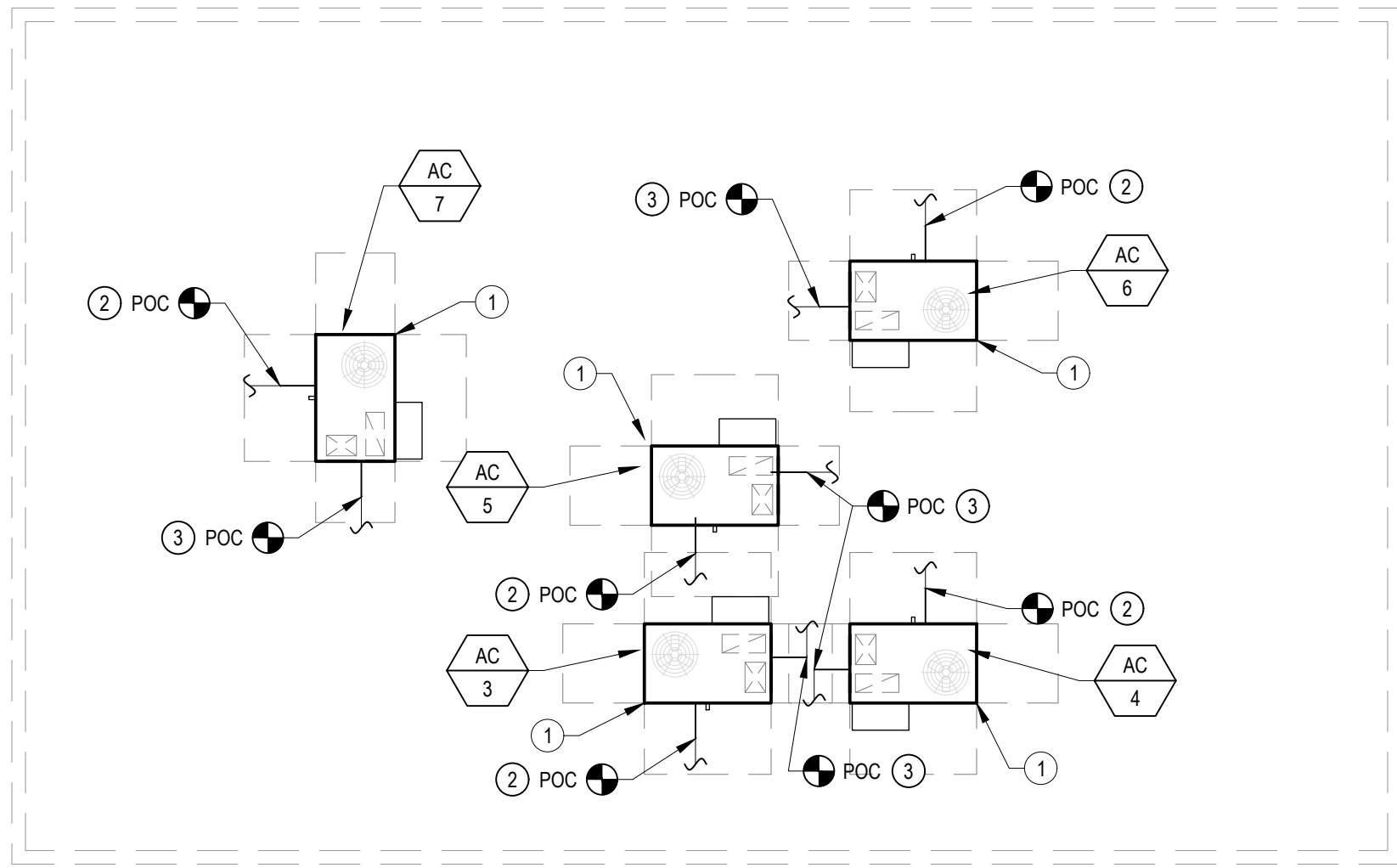
MP2.08



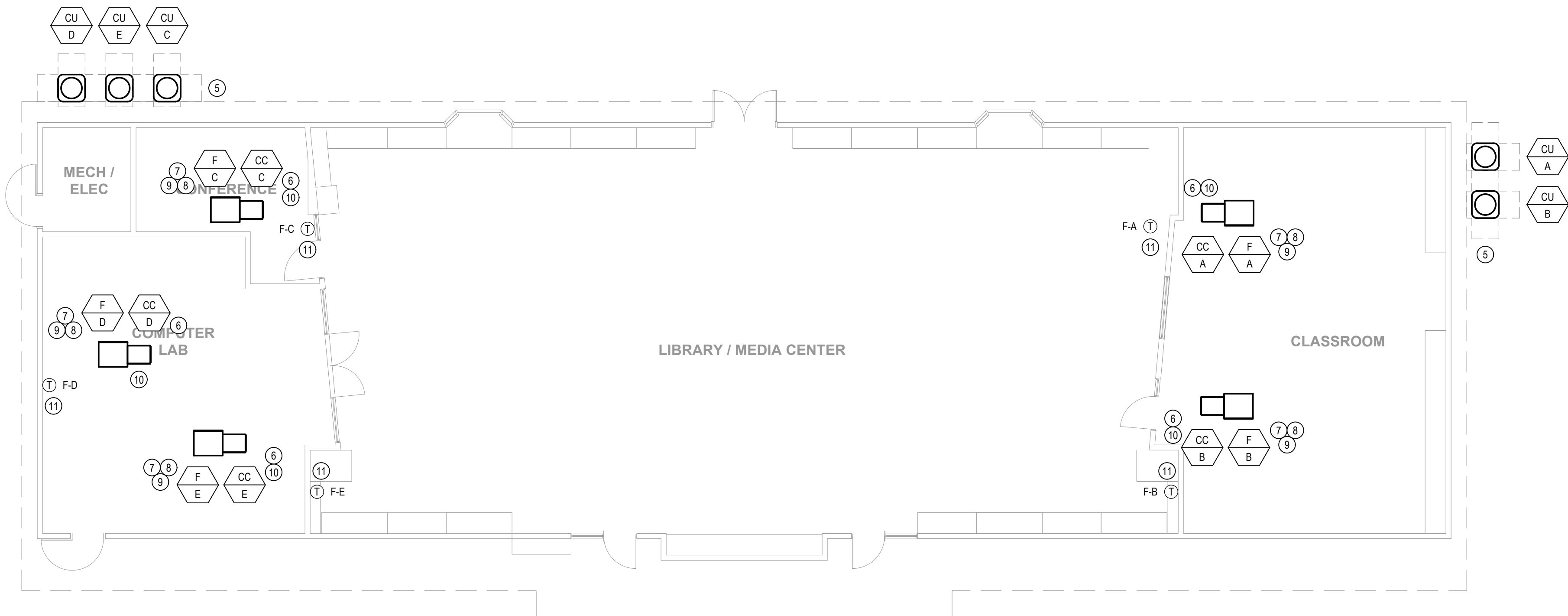
1 FIRST FLOOR PLAN - MUSIC BLDG - NEW
MP2.08 SCALE: 1/8" = 1'-0"



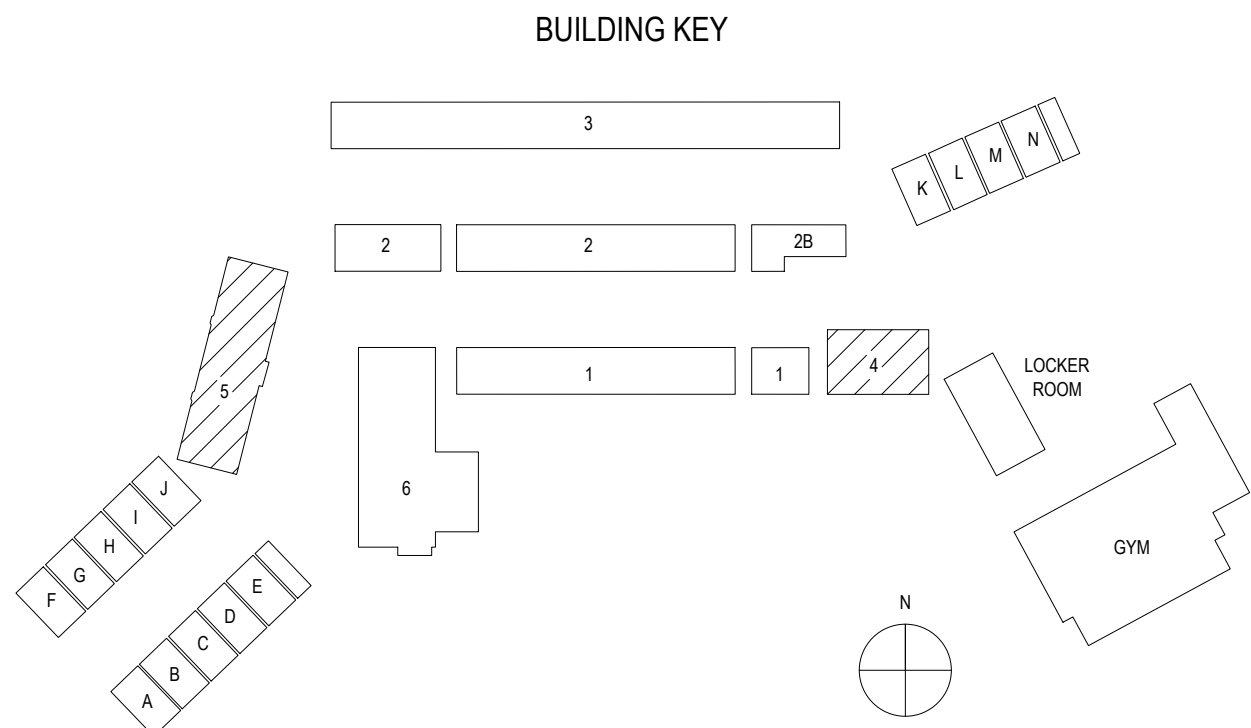
2 SECOND FLOOR PLAN - MUSIC BLDG - NEW
MP2.08 SCALE: 1/8" = 1'-0"



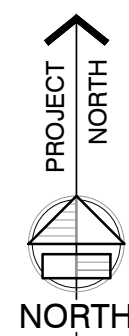
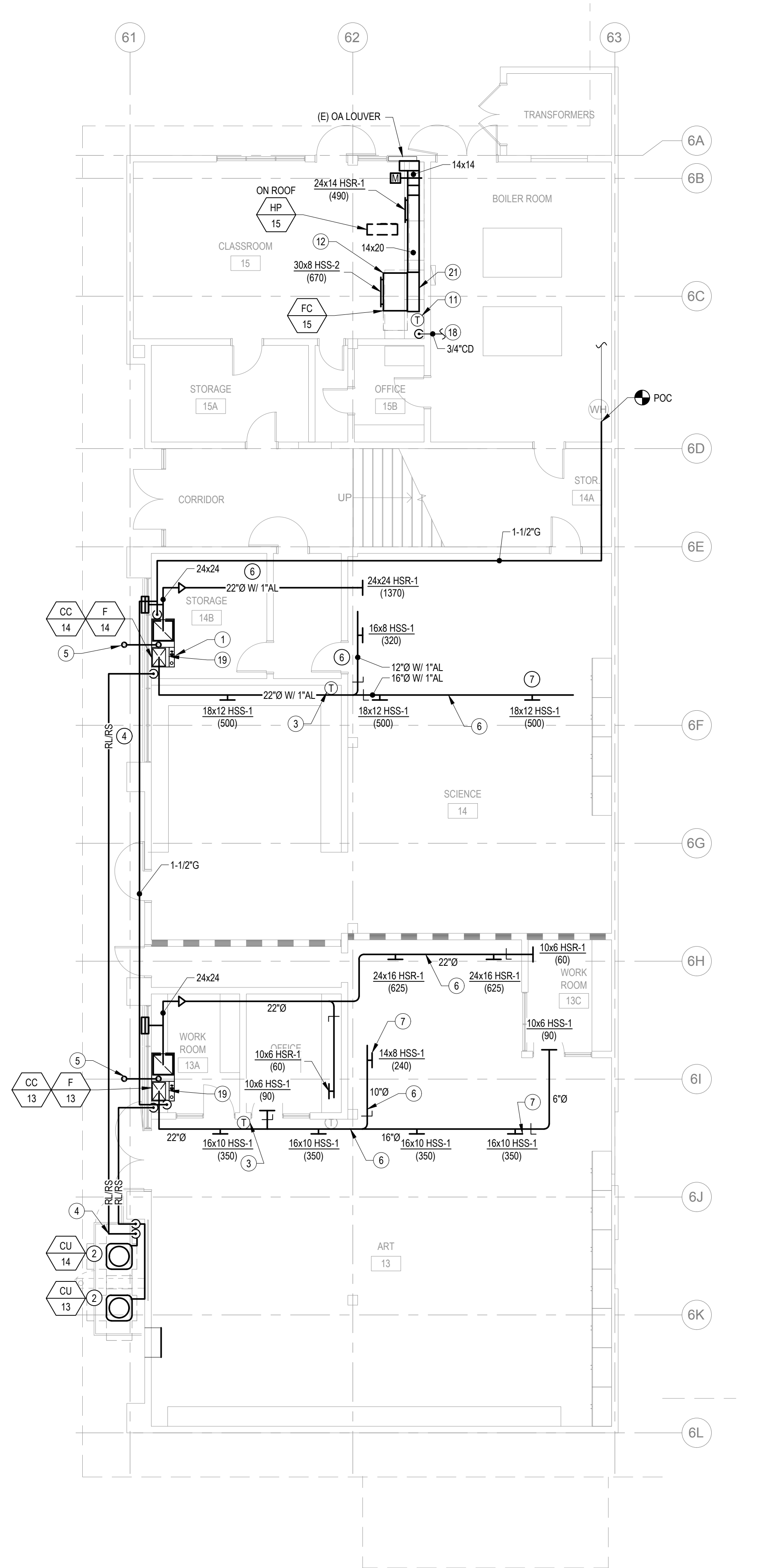
3 ROOF PLAN - MUSIC BLDG - NEW
MP2.08 SCALE: 1/8" = 1'-0"



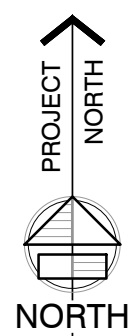
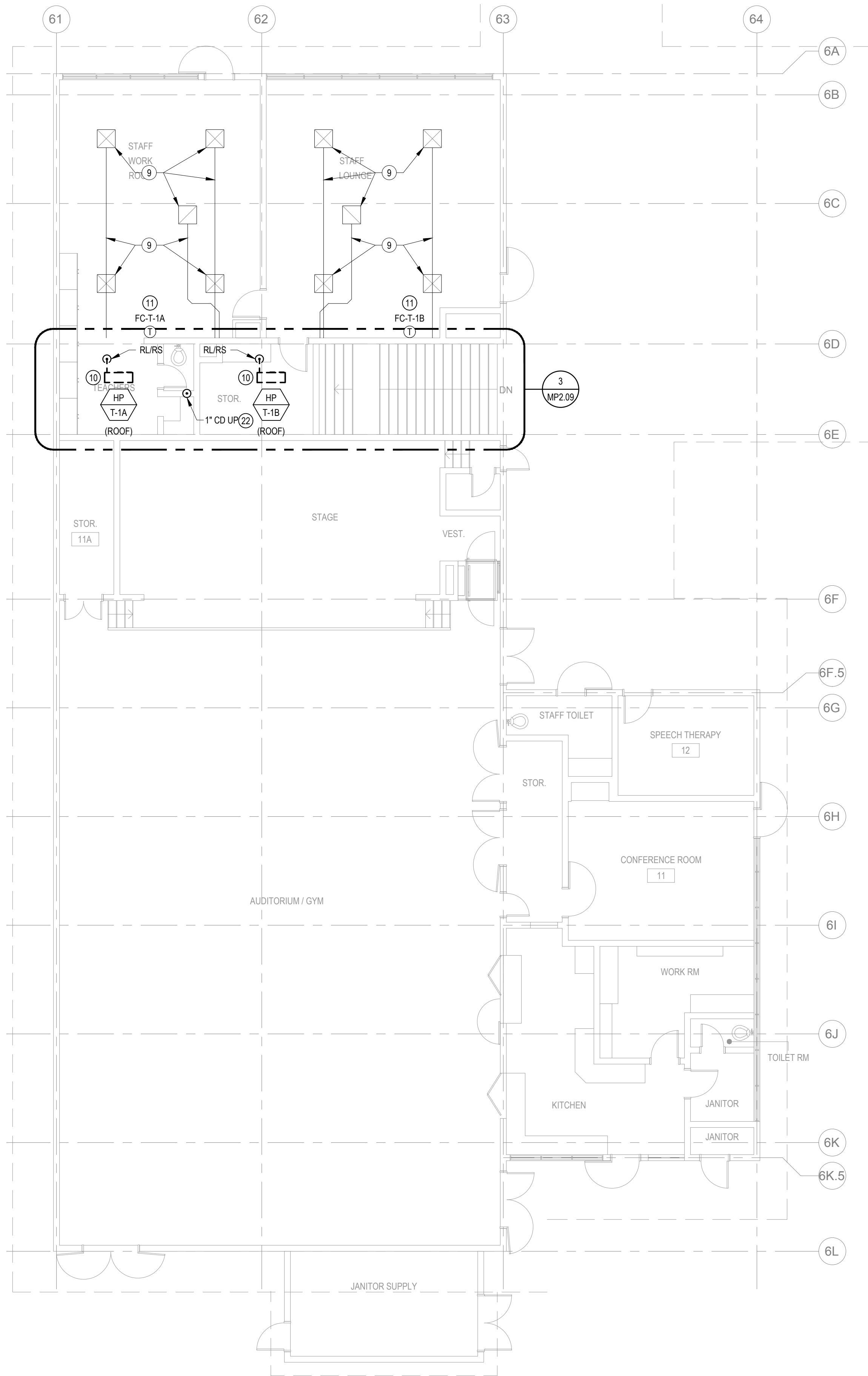
4 FLOOR PLAN - MEDIA CENTER - NEW
MP2.08 SCALE: 1/8" = 1'-0"



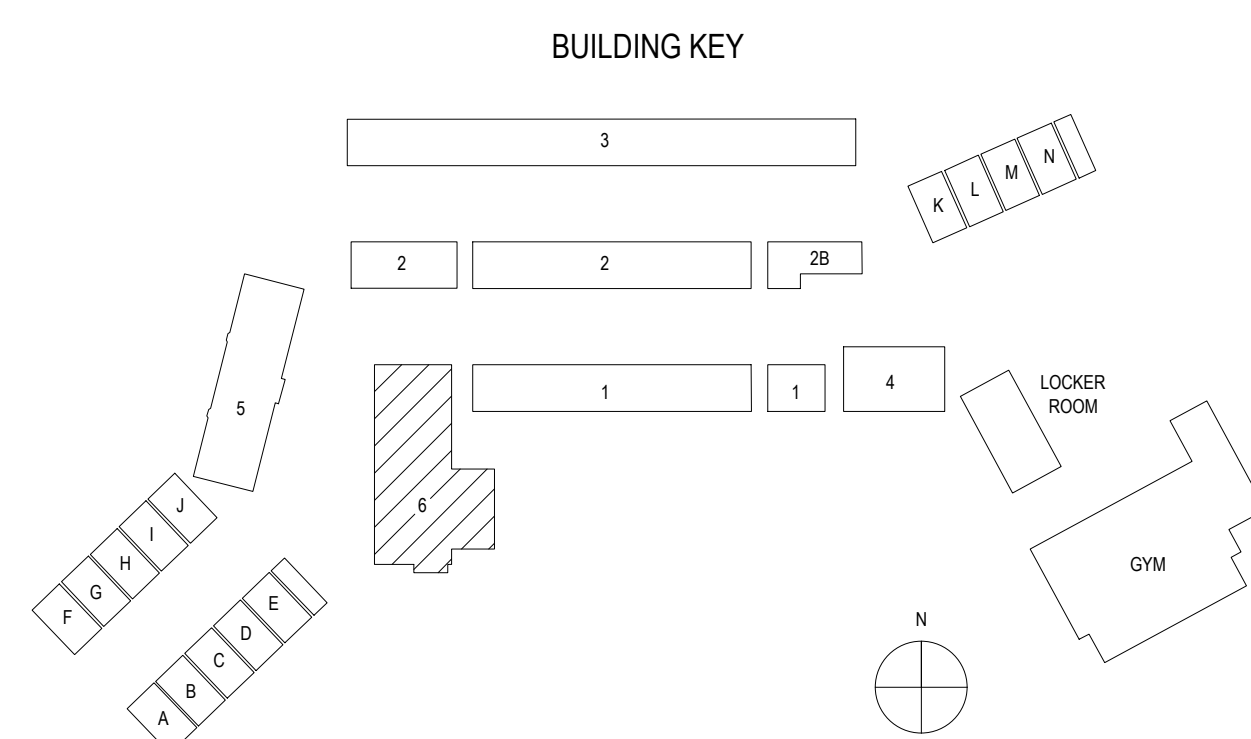
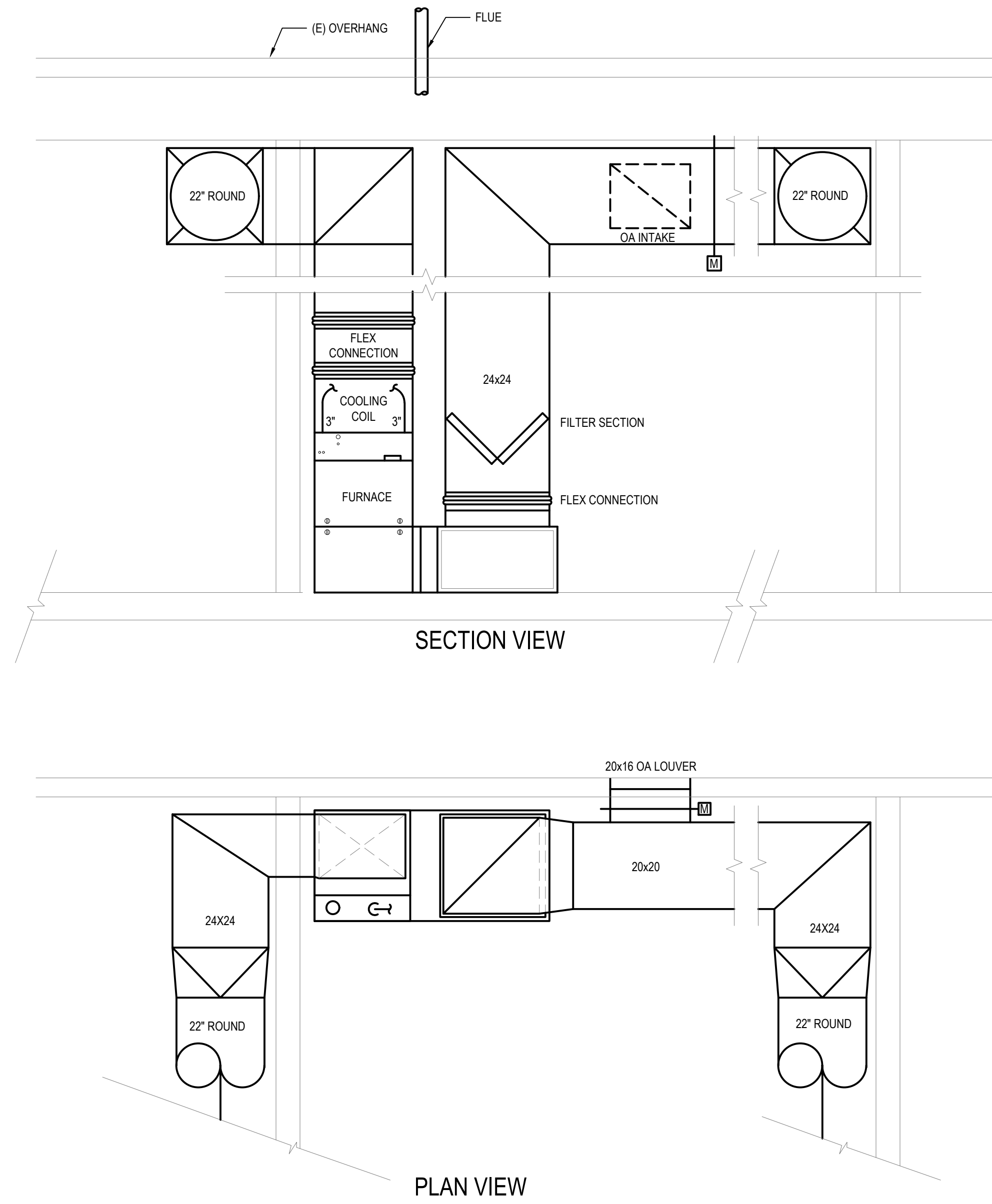
1 FIRST FLOOR PLAN - MULTIPURPSE BLDG - NEW
MP2.09 SCALE: 1/8" = 1'-0"



2 SECOND FLOOR PLAN - MULTIPURPSE BLDG - NEW
MP2.09 SCALE: 1/8" = 1'-0"



4 ENLARGED FLOOR PLAN AND SECTION TYP. FOR F-13 and F-14
MP2.09 SCALE: NONE



- 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 REFERENCE SHOWN ON SCHEDULES ON SHEETS MP0.02 AND MP0.03.
 - CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.
- NEW SHEET NOTES**
- INSTALL FURNACE AND COOLING COIL.
 - INSTALL CONDENSING UNIT ON HOUSEKEEPING PAD.
 - INSTALL THERMOSTAT ON WALL AND WIRE TO FURNACE AND COOLING COIL.
 - INSTALL REFRIGERANT PIPING UNDER OVERHANG. BE SURE TO CLEAR COLUMNS.
 - INSTALL COMBUSTION AIR INTAKE AND FLUE IN CONCENTRIC VENT. PENETRATE SIDE OF WALL AND UP THRU OVERHANG.
 - INSTALL EXPOSED DUCTWORK, TYP.
 - INSTALL FACE OPERABLE KEY EXTRACTOR, TYP. FOR ALL SUPPLY REGISTERS.
 - (E) OUTSIDE AIR LOUVER.
 - (E) DUCTWORK AND REGISTERS.
 - INSTALL HEAT PUMP ON ROOF. CLOSE TO FAN COIL IN ATTIC SPACE. MIN 10 FT AWAY FROM EDGE OF ROOF. RUN REFRIGERANT PIPING ON ROOF AND PENETRATE ABOVE FAN COIL.
 - INSTALL THERMOSTAT ON WALL AND WIRE TO FAN COIL.
 - INSTALL FAN COIL.
 - INSTALL REFRIGERANT PIPING FROM HEAT PUMP ON ROOF.
 - (E) INTAKE HOOD ON ROOF.
 - INSTALL OUTSIDE AIR DUCT AND CONNECT TO MIXING PLENUM ABOVE FAN COIL.
 - INSTALL RETURN AIR DUCT TO CONNECT (E) RETURN AIR DUCT TO MIXING PLENUM ABOVE FAN COIL.
 - INSTALL SUPPLY AIR DUCT TO CONNECT (E) SUPPLY AIR DUCT TO FAN COIL SUPPLY AT BOTTOM OF FAN COIL.
 - RUN CD TO FLOOR SINK IN BOILER ROOM.
 - INSTALL CONDENSATE DRAIN FROM FURNACE (AFTER NEUTRALIZER) AND COOLING COIL TO (E) PLUMBING FIXTURE WITH TRAP.
 - INSTALL CONDENSATE DRAIN FROM FAN COILS IN ATTIC SPACE TO CLASSROOM SINK TAILPIECE.
 - INSTALL FB-DS2 FILTER BOX.
 - CONNECT CD TO SINK TAIL PIPE.
 - INSULATE (E) SUPPLY AND (E) RETURN DUCTWORK.
 - 3/4" PLYWOOD ATTACHED TO (E) STRUCTURE W/ #12 AT 12" O.C.

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PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

CEC 008 NO. 2109
CYPRESS
Engineering Group
HVAC, Plumbing, Fire Protection
Building Construction
Environmental Remediation
Training & Technical Support
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8th Floor, Suite A3
Monterey, CA 93940
cypresseng.com

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STATE

DSA FILE NUMBER

41-26

APPL. #

01-119557

REVISIONS

No. Description Date

△

MILESTONES

DD

90% CD

DSA SUB

BACKCHECK

06/03/2021

10/05/2021

SHEET

FLOOR PLANS -
NEW -
MULTIPURPOSE
BUILDING -
MECHANICAL &
PLUMBING

DATE

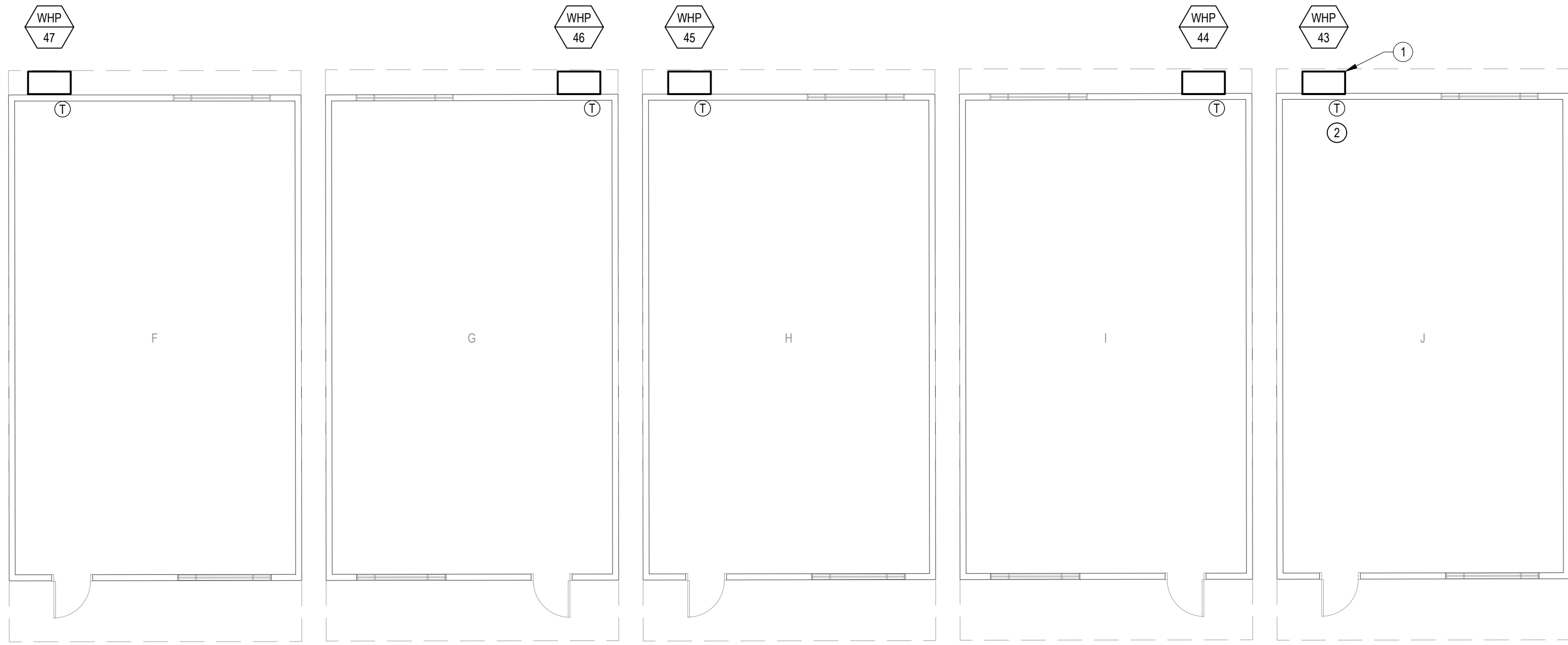
09/28/2021

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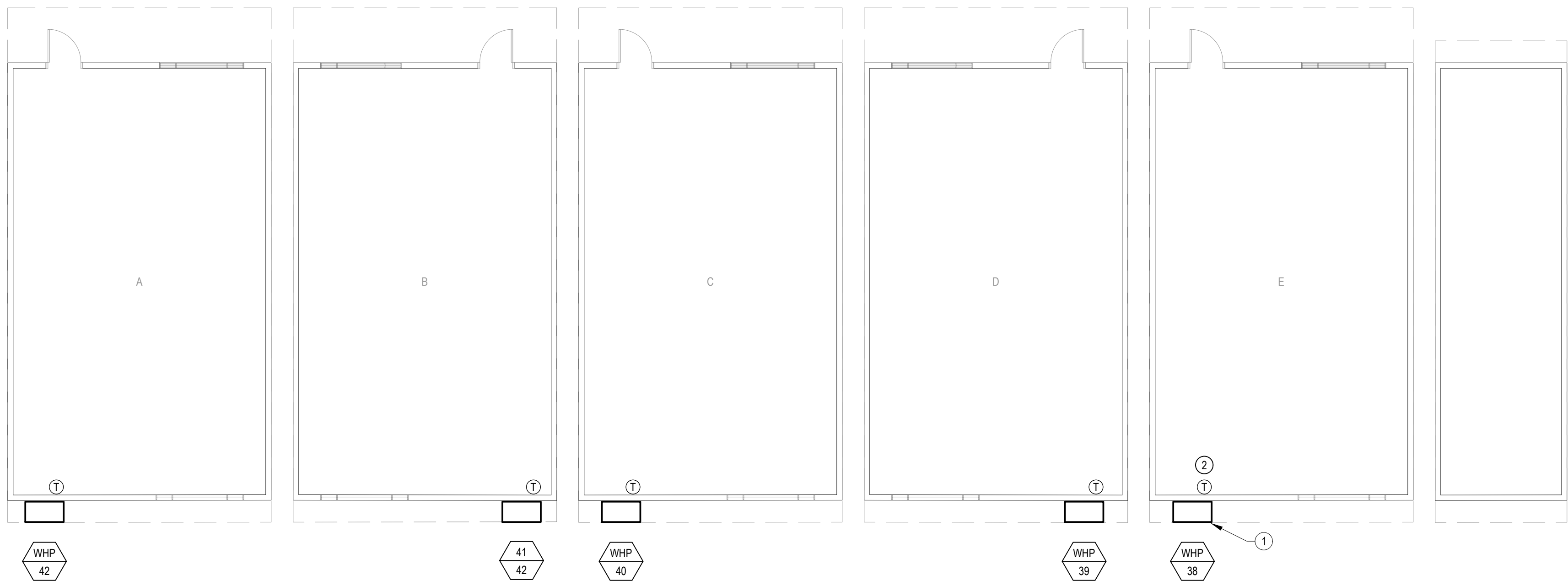
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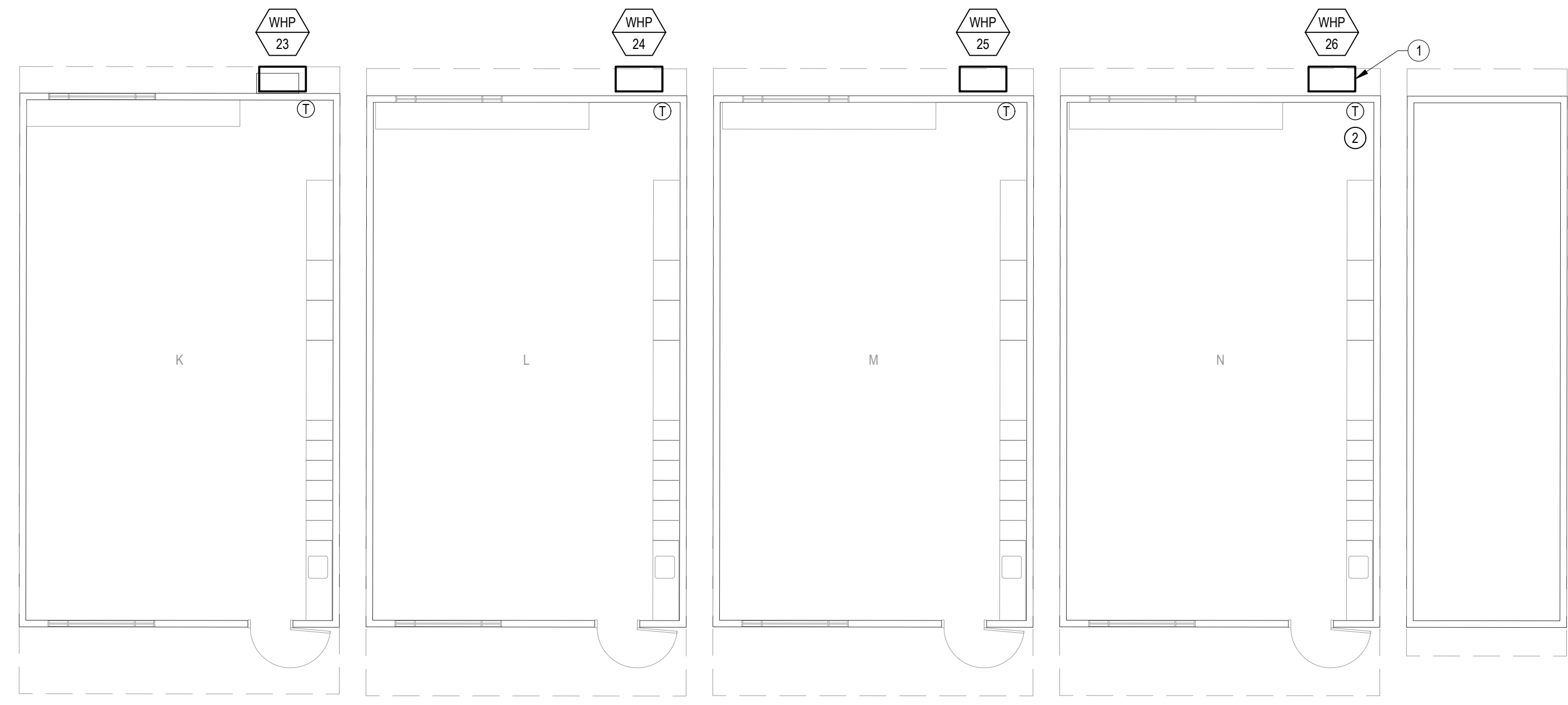
MP2.09



1 FLOOR PLAN - RELOCATABLE BLDGS - NEW
MP2.10 SCALE: 1/8" = 1'-0"



2 FLOOR PLAN - RELOCATABLE BLDGS - NEW
MP2.10 SCALE: 1/8" = 1'-0"



3 FLOOR PLAN - RELOCATABLE BLDGS - NEW
MP2.10 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.
- EQUIPMENT MOUNTING DETAIL REFERENCE SHOWN ON SCHEDULES ON SHEETS MP0.02 AND MP0.03.
- CLEAN ALL (E) DUCTWORK AND REGISTERS PER SPECIFICATION 23 01 30.

NEW SHEET NOTES

- INSTALL WALL MOUNTED HEAT PUMP, TYP.
- INSTALL THERMOSTAT ON WALL AND WIRE TO WALL MOUNTED HEAT PUMP, TYP.

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PROJECT

ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

CONSULTANT

DECISION NO. 2109

CYPRESS Engineering Group

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

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REGISTERED PROFESSIONAL ENGINEER
No. M31059
EXP. JUNE 30, 2023
MECHANICAL
STATE OF CALIFORNIA

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

REVISIONS

No.	Description	Date
1		

MILESTONES

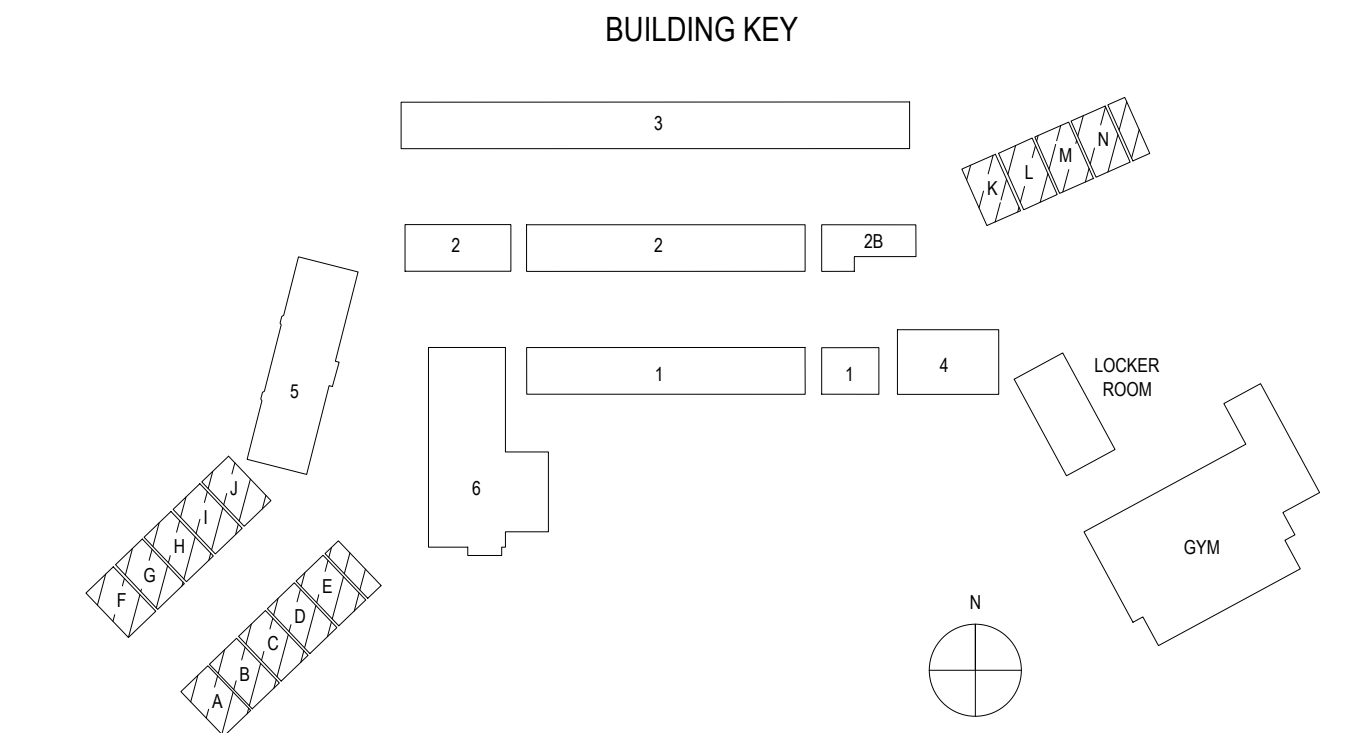
DD	
90% CD	
DSA SUB	06/03/2021
BACKCHECK	10/05/2021

SHEET

FLOOR PLANS - NEW - RELOCATABLE BUILDINGS - MECHANICAL & PLUMBING

DATE 09/28/2021
JOB # 2021005.06
SHEET #

MP2.10



- 1. A EACH FURNACE / CONDENSING UNIT UNIT WILL BE DIRECTLY CONTROLLED BY ITS OWN DEDICATED EMS [ENERGY MANAGEMENT SYSTEM] UNITARY CONTROLLER.
- 2. EMS UNITARY CONTROLLER WILL BE CONNECTED TO A WALL MOUNTED ELECTRONIC THERMOSTAT.
- 3. ELECTRONIC THERMOSTAT SHALL HAVE AN INTERFACE WHICH INCLUDES: 1) PUSHBUTTONS FOR WARMER/COLDER TEMPERATURE CONTROL, 2) VISUAL DISPLAY OF ROOM TEMPERATURE, 3) COOL AND 3) AFTER-HOURS OPERATION OF THER. CONTROL, WITH USER ADJUSTABLE DURATION, THE AFTER-HOURS OVERSIDE DURATION SHALL HAVE THE ABILITY TO BE LIMITED FROM THE FRONT END.
- 4. EMS UNITARY CONTROLLER SHALL BE WIRED TO MANUFACTURER'S THERMOSTAT ADAPTER.
- 5. UNIT FAN OPERATION
 - a. WHEN THE ZONE IS IN OCCUPIED MODE OR IN AFTER-HOURS MODE, THE FAN SHALL RUN CONTINUOUSLY.
 - b. DURING THE UNOCCUPIED MODE AS DETERMINED BY EMS TIME SCHEDULE, THE UNIT FAN CYCLES WITH DEMAND AND THE TEMPERATURE IS CONTROLLED BY THE UNOCCUPIED SPACE TEMPERATURE HEATING AND COOLING SETPOINTS.
- 6. MINIMUM OUTDOOR AIR VENTILATION
 - a. DURING OCCUPIED MODE OR AFTER-HOURS MODE, THE OUTSIDE AIR DAMPER SHALL BE COMMANDED BY THE EMS UNITARY CONTROLLER TO MAINTAIN A POSITION WHICH SATISFIES THE MINIMUM OUTDOOR AIR VENTILATION REQUIREMENTS FOR THE ZONE. (DAMPER POSITION(S) DETERMINED BY AIR BALANCE CONTRACTOR. RETURN AIR DAMPER SHALL BE ADJUSTED TO BE INVERSE OF OUTSIDE AIR DAMPER.
- 7. DEMAND CONTROL VENTILATION
 - a. IF ROOM CO2 LEVELS RISE ABOVE 1000 PPM (ADJ.) THE OUTSIDE AIR DAMPER SHALL BE MODULATED OPEN TO MAXIMUM POSITION UNTIL CO2 LEVELS DROP BELOW 800 PPM (ADJ.).
- 8. AUTOMATIC DEMAND REDUCTION CONTROLS
 - a. EMS SHALL BE PROGRAMMED WITH CAPABILITY TO IMPLEMENT CENTRALIZED DEMAND SCHED FOR ALL NON-CRITICAL ZONES UPON CALL FOR AUTOMATIC DEMAND REDUCTION. CRITICAL ZONES SHALL NOT BE IMPACTED BY DEMAND SCHED CONSERVATION MEASURES.
- 9. ZONE PRE-OCCUPANCY PURGE
 - a. THE EMS SHALL SCHEDULE THE ZONE TO BE IN OCCUPIED MODE ONE HOUR(ADJ.) PRIOR TO THE ACTUAL TIME OF ANTICIPATED OCCUPANCY.
- 10. ECONOMIZER CONTROL.
 - a. EMS UNITARY CONTROLLER SHALL BE DIRECTLY CONNECTED TO DISCHARGE AIR AND RETURN AIR TEMPERATURE SENSORS. GLOBAL COOL PROGRAMMING SHALL BE USED TO BROADCAST CENTRALIZED AMBIENT OUTSIDE AIR TEMPERATURE.
 - b. EMS UNITARY CONTROLLER SHALL ALSO BE DIRECTLY CONNECTED TO ECONOMIZER (OUTSIDE/RETURN AIR) DAMPER ACTUATOR, INCLUDING POSITION FEEDBACK SIGNAL.
 - c. SEE MINIMUM OUTDOOR AIR VENTILATION FOR OUTSIDE AIR DAMPER MINIMUM CFM SETPOINT.
 - d. THE EMS UNITARY CONTROLLER SHALL CONTINUOUSLY COMPARE THE CURRENT COOL TEMPERATURE TO THE ESTABLISHED AIR ECONOMIZER HIGH LIMIT SHUT OFF/ ECOM LOCK OUT TEMPERATURE SET POINT (ADJUSTABLE) AND RETURN AIR TEMPERATURE.
 - e. WHEN CURRENT COOL TEMPERATURE SET POINT IS LESS THAN OR EQUAL TO ECOM LOCK OUT TEMP AND THE RETURN AIR TEMPERATURE, EMS UNITARY CONTROLLER SHALL USE THE OUTSIDE AIR FOR FREE COOL.
 - f. WHEN THE OUTDOOR AIR DAMPER IS OPEN 100% FOR MORE THAN 5 MINUTES (ADJUSTABLE) AND THE NEED-COOLING SIGNAL CONTINUES TO INCREASE OR REACHES A MAXIMUM OF 100%, MECHANICAL COOLING WILL BE ACTIVATED.
 - g. WHEN THE OUTDOOR AIR DAMPER IS OPEN 100% FOR MORE THAN 5 MINUTES (ADJUSTABLE) AND THE DISCHARGE AIR TEMPERATURE REMAINS ABOVE 55°F (ADJUSTABLE) AND CURRENT COOL TEMPERATURE SET POINT IS LESS THAN ECOM LOCK OUT TEMP AND RETURN AIR TEMP.
 - h. WHEN COOL TEMP IS ABOVE ECOM LOCK OUT TEMP OR RETURN AIR TEMP, ECONOMIZER WILL BE DEACTIVATED AND ECONOMIZER SHALL BE COMMANDED TO MINIMUM CFM SETPOINT.
 - i. ECONOMIZER WILL BE COMMANDED TO MINIMUM CFM SETPOINT WHEN UNIT IS IN HEATING MODE.
 - j. WHEN UNIT FAN IS NOT OPERATING, OUTSIDE AIR DAMPER SHALL BE COMMANDED CLOSED.



1. SYSTEM OVERVIEW

- A. EACH HEAT PUMP UNIT WILL BE DIRECTLY CONTROLLED BY ITS OWN DEDICATED EMS (ENERGY MANAGEMENT SYSTEM) UNITARY CONTROLLER.
- B. EMS UNITARY CONTROLLER WILL BE CONNECTED TO A WALL MOUNTED ELECTRONIC ZONE THERMOSTAT
- C. ELECTRONIC THERMOSTAT SHALL HAVE AN INTERFACE WHICH INCLUDES: 1) PUSHBUTTONS FOR WARMER/COOLER SETPOINT CONTROL; 2) VISUAL DISPLAY OF ROOM TEMPERATURE AND CO2; AND 3) AFTER HOURS OVERRIDE TIME CONTROL, WITH USER ADJUSTABLE DURATION. THE AFTER-HOURS OVERRIDE DURATION SHALL HAVE THE ABILITY TO BE LIMITED FROM THE FRONT-END.

2. UNIT FAN OPERATION

- A. WHEN THE ZONE IS IN OCCUPIED MODE OR IN AFTERHOURS MODE, THE FAN SHALL RUN CONTINUOUSLY.
- B. DURATION SHALL BE PROGRAMMED MODE AS DETERMINED BY THE ZONE. THE UNIT FAN CYCLES WITH DEMAND AND THE TEMPERATURE IS CONTROLLED BY THE UNOCCUPIED SPACE TEMPERATURE HEATING AND COOLING SETPOINTS.

3. MINIMUM OUTDOOR AIR VENTILATION

- A. THE MINIMUM OUTDOOR AIR FLOW RATE, THE OUTSIDE AIR DAMPER SHALL BE COMMANDED BY THE UNITS OWN INTERNAL CONTROLLER TO MAINTAIN A POSITION WHICH SATISFIES THE MINIMUM OUTDOOR AIR VENTILATION REQUIREMENTS FOR THE ZONE. DAMPER POSITIONING IS DETERMINED BY AIR BALANCING CONTRACTOR.

4. AUTOMATIC DEMAND REDUCTION CONTROLS

- A. EMS SHALL BE PROGRAMMED WITH CAPABILITY TO IMPLEMENT CENTRALIZED DEMAND SHED FOR ALL NON-CRITICAL ZONES UPON CALL FOR AUTOMATIC DEMAND REDUCTION. CRITICAL ZONES SHALL NOT BE IMPACTED BY DEMAND SHED CONSERVATION MEASURES.

5. ZONE PRE-OCCUPANCY PURGE

- A. THE EMS SCHED SCHEDULE THE ZONE TO BE IN OCCUPIED MODE ONE HOUR PRIOR TO THE ACTUAL TIME OF ANTICIPATED OCCUPANCY.

7. HEATING OPERATION

- A. THE CONTROLLER COMPARES THE HEATING SETPOINT WITH THE SPACE TEMPERATURE AND DETERMINES A NEED-HEATING CONTROL SIGNAL. TO ENGAGE THE COMPRESSOR AND REVERSING VALVE (ACCORDING TO HEAT PUMP UNIT MANUFACTURERS INSTRUCTION FOR HEATING-CYCLE) TO MAINTAIN THE HEAT SETPOINT.

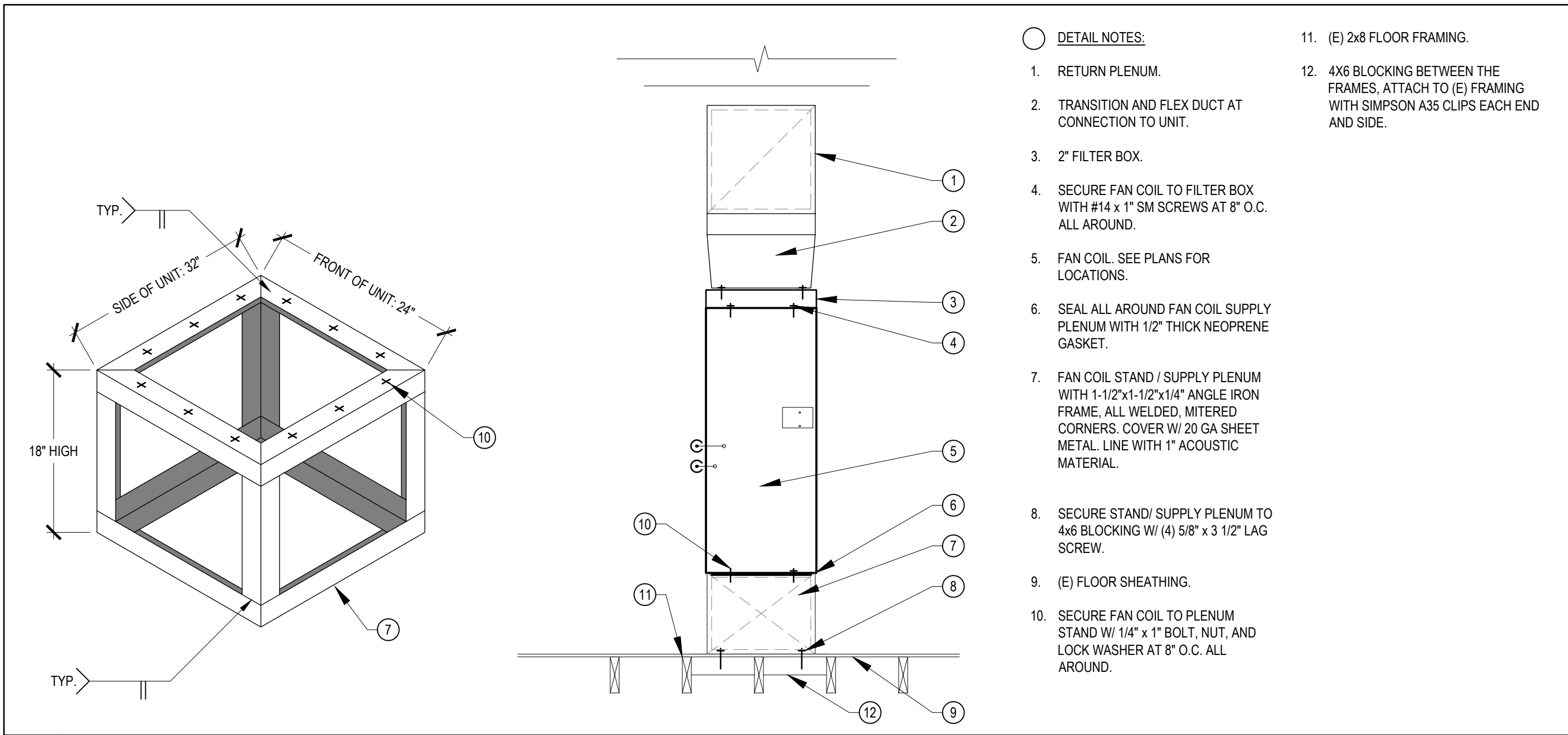


8. IF FURTHER HEATING IS REQUIRED AFTER COMPRESSOR/REVERSING VALVE HEATING IS ACTIVE FOR 15 MINUTES (ADJUSTABLE), ENGAGE AUXILIARY ELECTRIC HEAT.
9. COOLING OPERATION
 - A. THE CONTROLLER COMPARES THE COOLING SETPOINT WITH THE SPACE TEMPERATURE AND DETERMINES A NEED-COOLING SIGNAL.
 - B. THE CONTROLLER WILL ENGAGE THE COMPRESSOR AND REVERSING VALVE (ACCORDING TO HEAT PUMP UNIT MANUFACTURER'S INSTRUCTION FOR COOLING CYCLE) TO MAINTAIN THE ROOM SET POINT.
9. SETPOINTS
 - A. OCCUPIED HOURS SETPOINTS SHALL BE 68°F TO 74°F (USER ADJUSTABLE AT THERMOSTAT WITHIN THIS RANGE).
 - B. UNOCCUPIED HOURS SETPOINTS SHALL BE 50°F HEATING AND 80°F COOLING.
9. DEADBAND SHALL BE 2°F
10. THE FOLLOWING CONDITIONS SHALL BE MONITORED AND DISPLAYED AT EMS OPERATOR WORKSTATION/GRAPHICAL USER INTERFACE:
 - A. SUPPLY AIR TEMPERATURE.
 - B. OUTSIDE AIR TEMPERATURE.
 - C. ROOM TEMPERATURE.
 - D. ROOM CO2 LEVEL.
 - E. CURRENT MODE (HEATING/COLING/FAN).
 - F. FAN STATUS (THROUGH CURRENT SWITCH).
11. ALARMS - AT A MINIMUM THE FOLLOWING ALARMS SHALL BE DISPLAYED ON THE GRAPHICAL USER INTERFACE:
 - A. ROOM TEMPERATURE OUT OF BOUNDS.
 - B. ROOM CO2 TOO HIGH.
 - C. FAN NOT RUNNING (IN OCCUPIED MODE).

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MP5.02

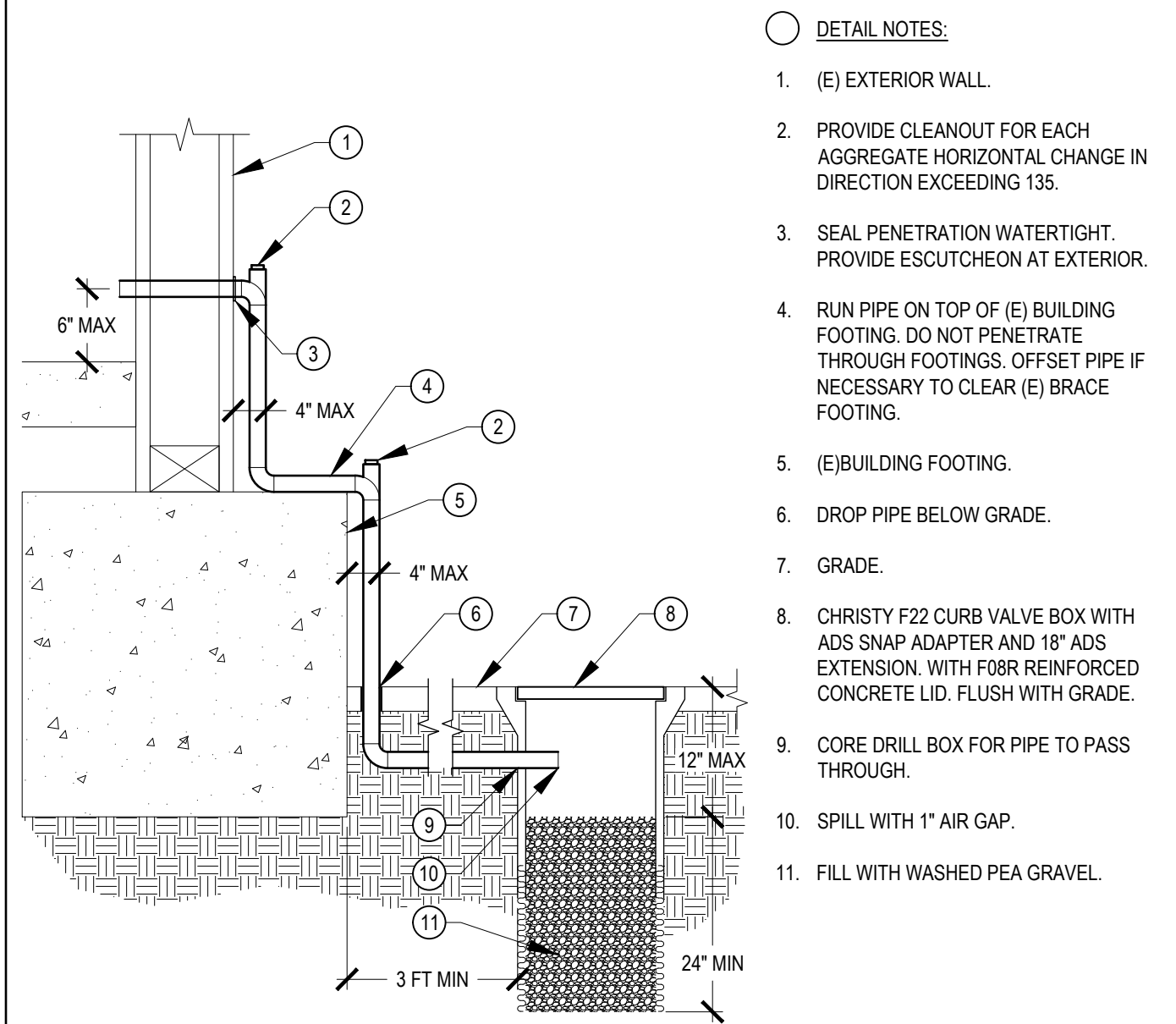


DETAIL NOTES:

1. RETURN PLENUM.
2. TRANSITION AND FLEX DUCT AT CONNECTION TO UNIT.
3. 2" FILTER BOX.
4. SECURE FAN COIL TO FILTER BOX WITH #14 x 1" SM SCREWS AT 8" O.C. ALL AROUND.
5. FAN COIL. SEE PLANS FOR LOCATIONS.
6. SEAL ALL AROUND FAN COIL. SUPPLY PLENUM WITH 1/2" THICK NEOPRENE GASKET.
7. FAN COIL STAND / SUPPLY PLENUM WITH 1-1/2"x1-1/2"x1/4" ANGLE IRON FRAME. ALL WELDED. MITERED CORNERS. COVER W/ 20 GA SHEET METAL. LINE WITH 1" ACOUSTIC MATERIAL.
8. SECURE STAND/ SUPPLY PLENUM TO 4x6 BLOCKING W/ (4) 5/8" x 3 1/2" LAG SCREW.
9. (E) FLOOR SHEATHING.
10. SECURE FAN COIL TO PLENUM STAND W/ 1/4" x 1" BOLT, NUT, AND LOCK WASHER AT 8" O.C. ALL AROUND.
11. (E) 2x6 FLOOR FRAMING.
12. 4X6 BLOCKING BETWEEN THE FRAMES. ATTACH TO (E) FRAMING WITH SIMPSON A35 CLIPS EACH END AND SIDE.

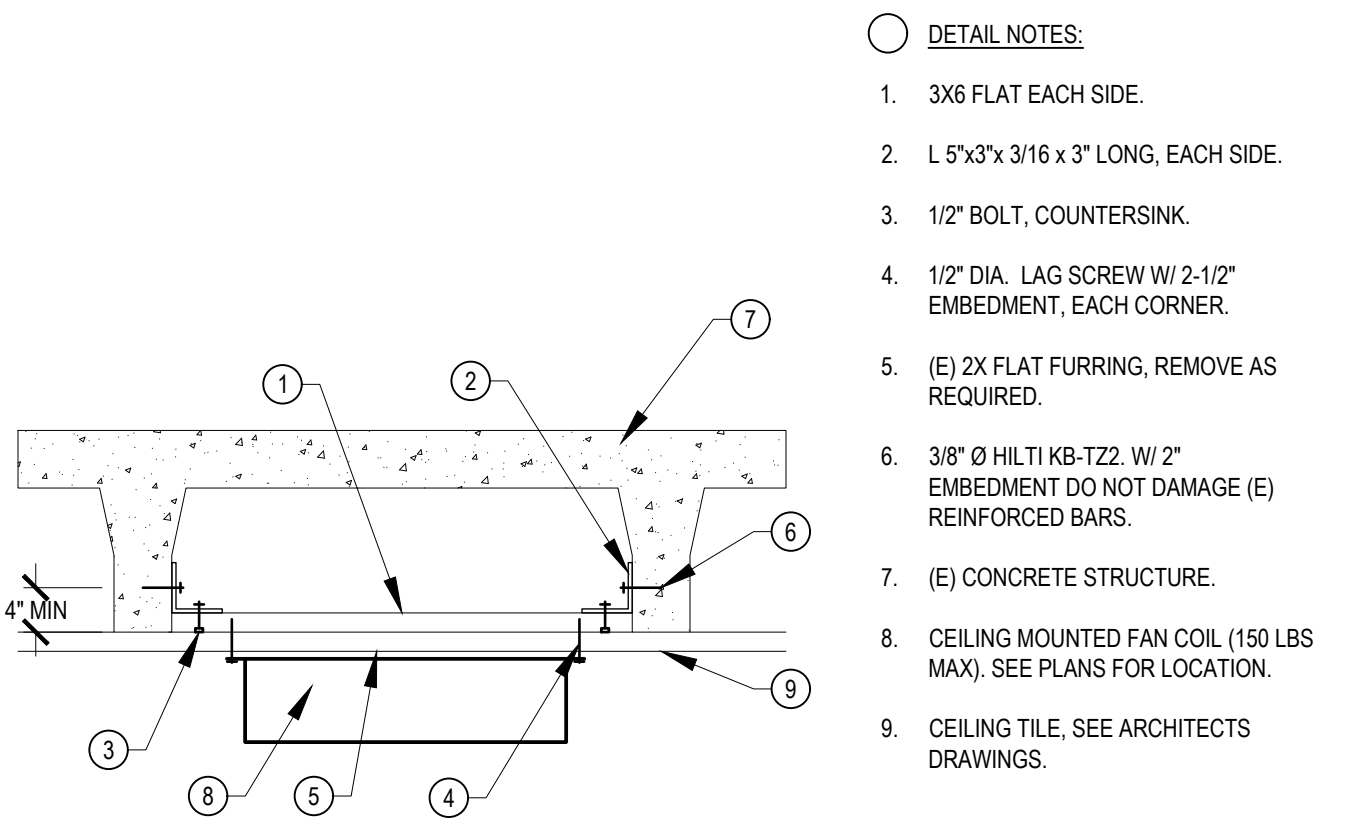
1 FAN COIL UNIT MOUNTING

N.T.S.



DETAIL NOTES:

1. (E) EXTERIOR WALL.
2. PROVIDE CLEANOUT FOR EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135.
3. SEAL PENETRATION WATERTIGHT. PROVIDE ESCUTCHEON AT EXTERIOR.
4. RUN PIPE ON TOP OF (E) BUILDING FOOTING. DO NOT PENETRATE THROUGH FOOTINGS. OFFSET PIPE IF NECESSARY TO CLEAR (E) BRACE FOOTING.
5. (E) BUILDING FOOTING.
6. DROP PIPE BELOW GRADE.
7. GRADE.
8. CHRISTY F22 CURB VALVE BOX WITH ADS SNAP ADAPTER AND 18" ADS EXTENSION. WITH FIBER REINFORCED CONCRETE LID. FLUSH WITH GRADE.
9. CORE DRILL BOX FOR PIPE TO PASS THROUGH.
10. SPILL WITH 1" AIR GAP.
11. FILL WITH WASHED PEA GRAVEL.



DETAIL NOTES:

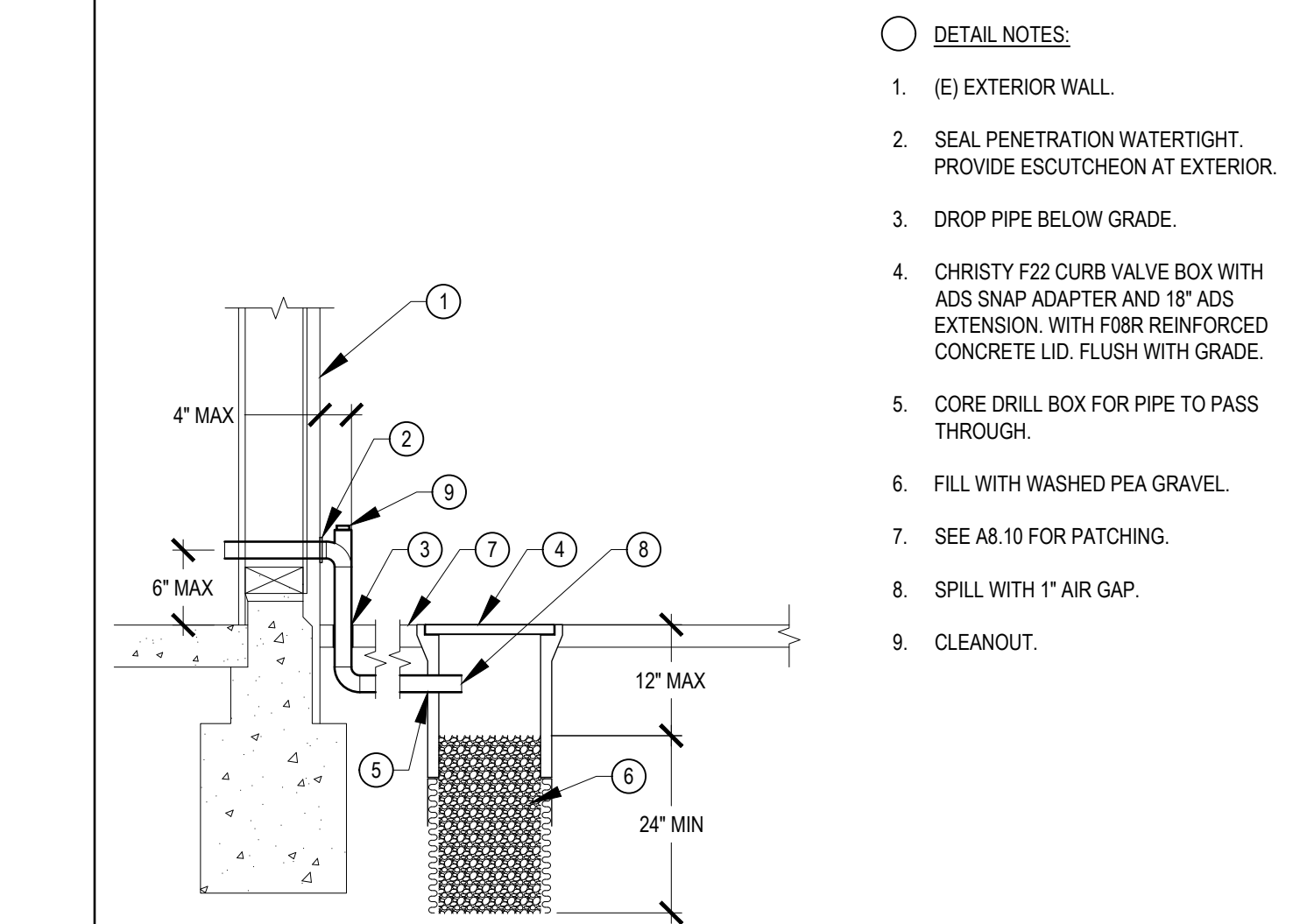
1. 3X6 FLAT EACH SIDE.
2. L 5"x3"x 3/16 x 3" LONG, EACH SIDE.
3. 1/2" BOLT, COUNTERSINK.
4. 1/2" DIA. LAG SCREW W/ 2-1/2" EMBEDMENT, EACH CORNER.
5. (E) 2X FLATT FURRING, REMOVE AS REQUIRED.
6. 3/8" Ø HILTI KB-T22. W/ 2" EMBEDMENT. DO NOT DAMAGE (E) REINFORCED BARS.
7. (E) CONCRETE STRUCTURE.
8. CEILING MOUNTED FAN COIL (150 LBS MAX). SEE PLANS FOR LOCATION.
9. CEILING TILE. SEE ARCHITECTS DRAWINGS.

NOTES:

1. DO NOT DAMAGE (E) REINF. BARS.

5 CONDENSATE DRYWELL AROUND BUILDING FOOTING

2 CEILING MOUNTED FAN COIL

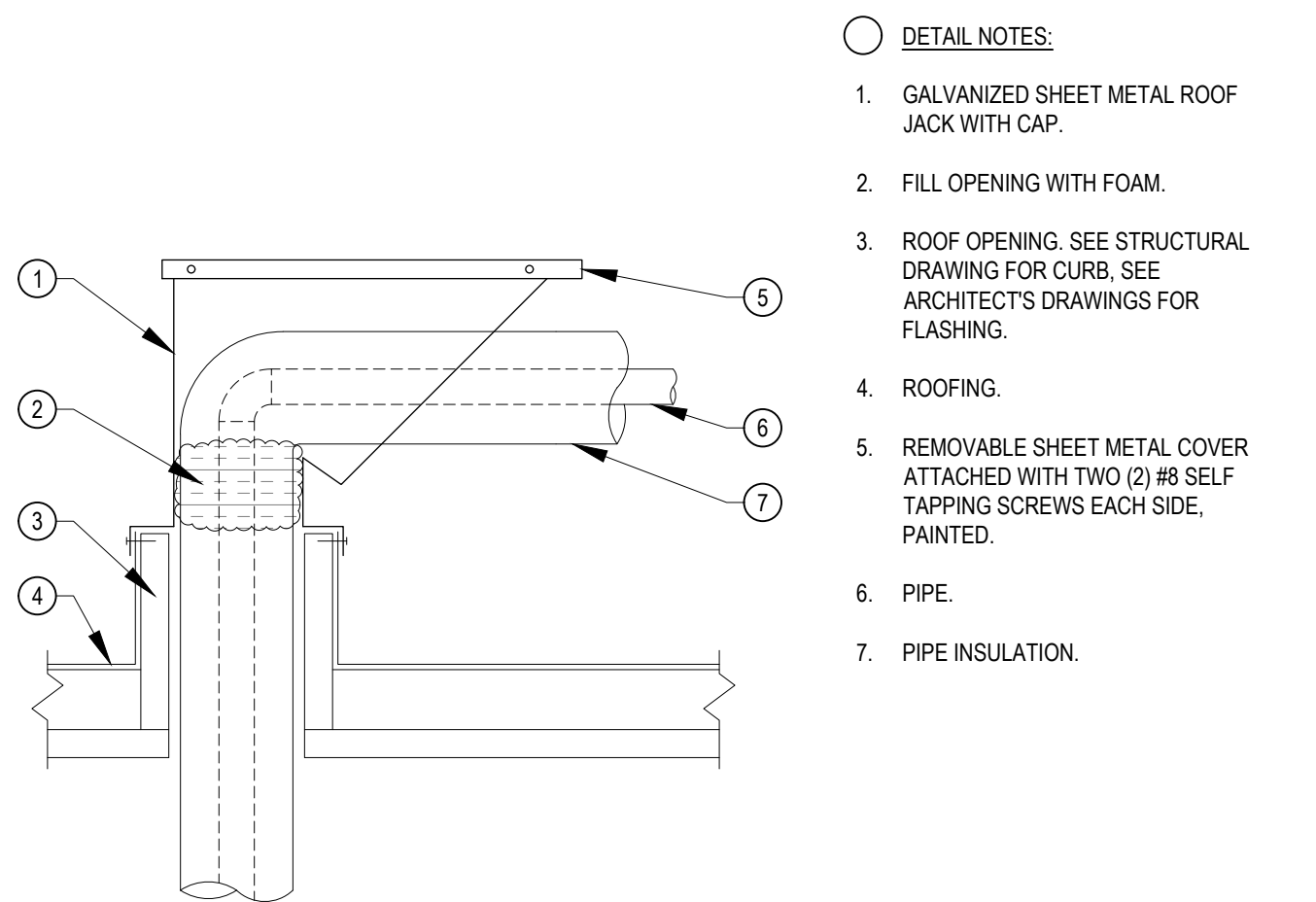


DETAIL NOTES:

1. (E) EXTERIOR WALL.
2. SEAL PENETRATION WATERTIGHT. PROVIDE ESCUTCHEON AT EXTERIOR.
3. DROP PIPE BELOW GRADE.
4. CHRISTY F22 CURB VALVE BOX WITH ADS SNAP ADAPTER AND 18" ADS EXTENSION. WITH FIBER REINFORCED CONCRETE LID. FLUSH WITH GRADE.
5. CORE DRILL BOX FOR PIPE TO PASS THROUGH.
6. FILL WITH WASHED PEA GRAVEL.
7. SEE A8.10 FOR PATCHING.
8. SPILL WITH 1" AIR GAP.
9. CLEANOUT.

3 CONDENSATE DRYWELL

N.T.S.



DETAIL NOTES:

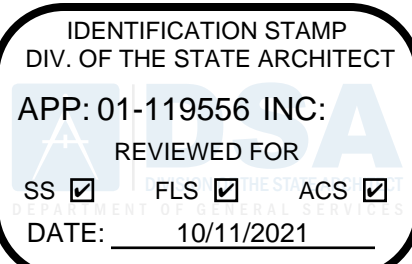
1. GALVANIZED SHEET METAL ROOF JACK WITH CAP.
2. FILL OPENING WITH FOAM.
3. ROOF OPENING. SEE STRUCTURAL DRAWING FOR CURB. SEE ARCHITECT'S DRAWINGS FOR FLASHING.
4. ROOFING.
5. REMOVABLE SHEET METAL COVER ATTACHED WITH TWO (2) #8 SELF TAPPING SCREWS EACH SIDE. PAINTED.
6. PIPE.
7. PIPE INSULATION.

NOTES:

1. EXPOSED PIPING SHALL HAVE ALUMINUM JACKET.

4 PIPING ROOF JACK

N.T.S.



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SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT

DEC 08 NO. 2109

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APPL # 01-119557

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MILESTONES

DD
90% CD
DSA SUB 06/03/2021
BACKCHECK 10/05/2021

SHEET

**DETAILS -
MECHANICAL &
PLUMBING**

DATE 09/28/2021

JOB # 2021005.06

SHEET #

MP6.02

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ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

CONSULTANT

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 **CYPRESS**
Engineering Group

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Mechanical, Electrical, Instrumentation
Industrial Refrigeration
Environmental Compliance

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DSA FILE NUMBER

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MILESTONES

DD

DD
333: 35

90% CD

DSA SUB

BACKCHECK

SHEET

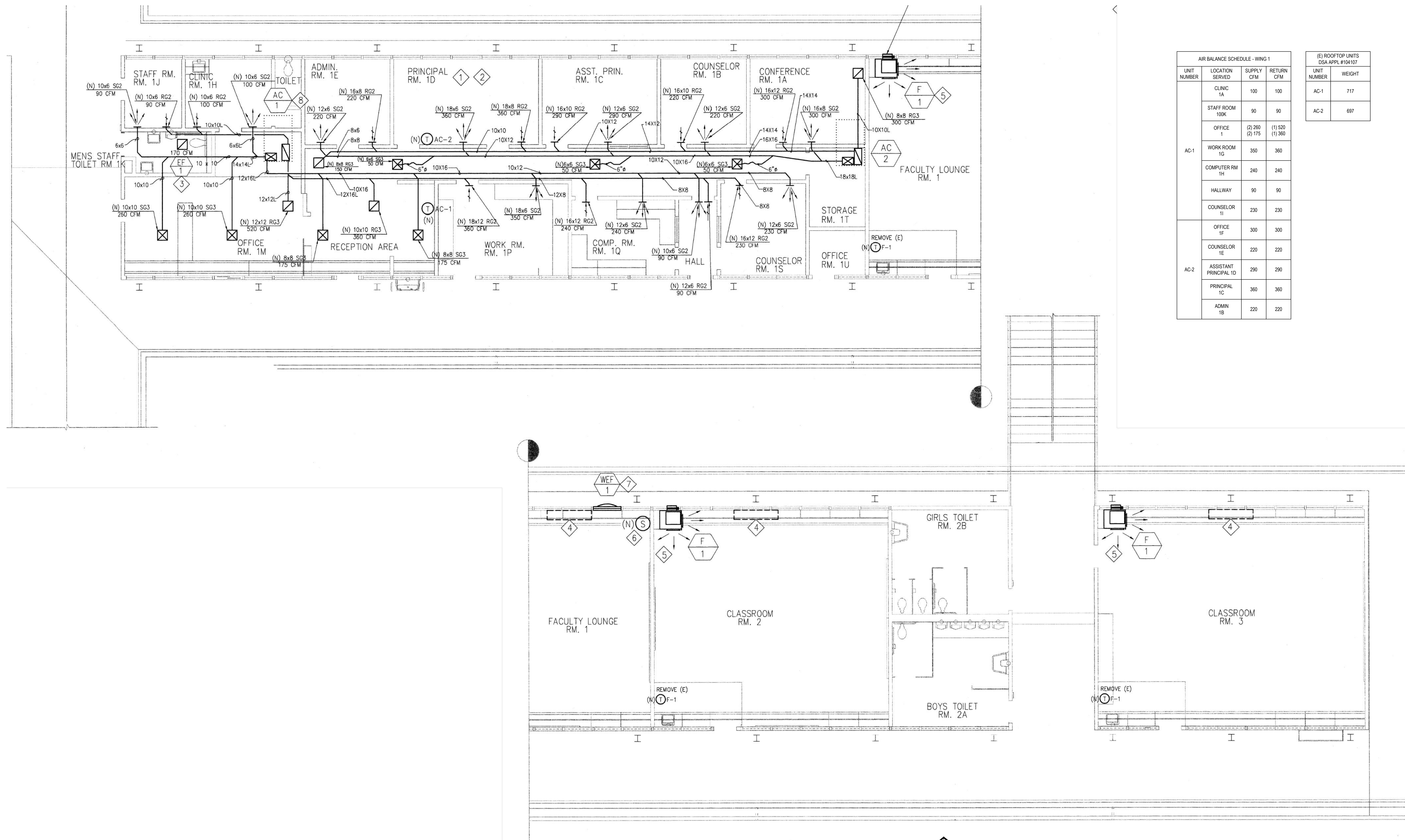
**EXISTING FLOOR
PLANS - WING 1 -
MECHANICAL /
TAB WORK**

DATE 09/28/2021

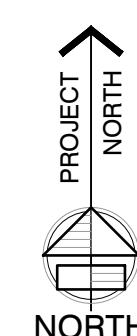
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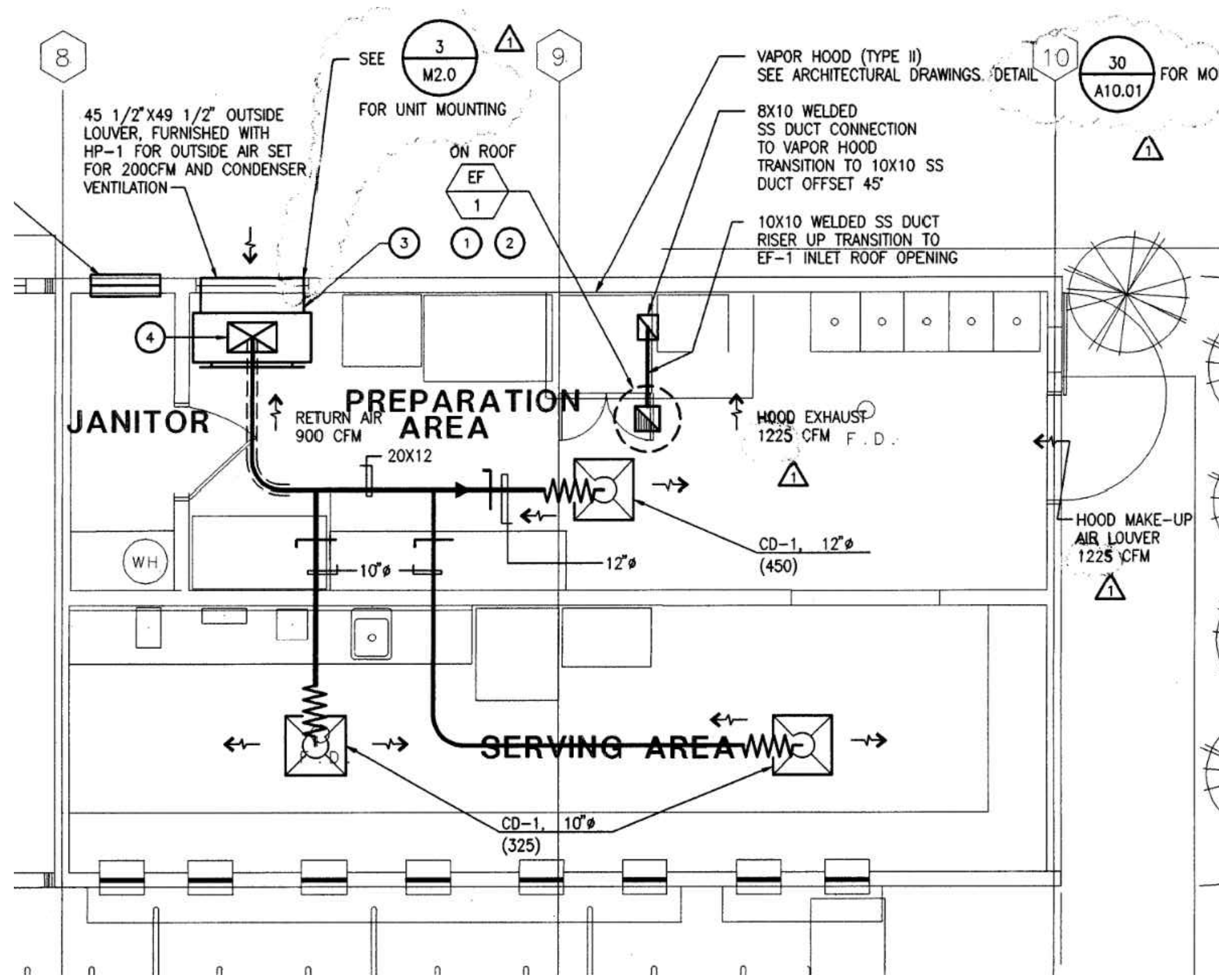
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MP7.01

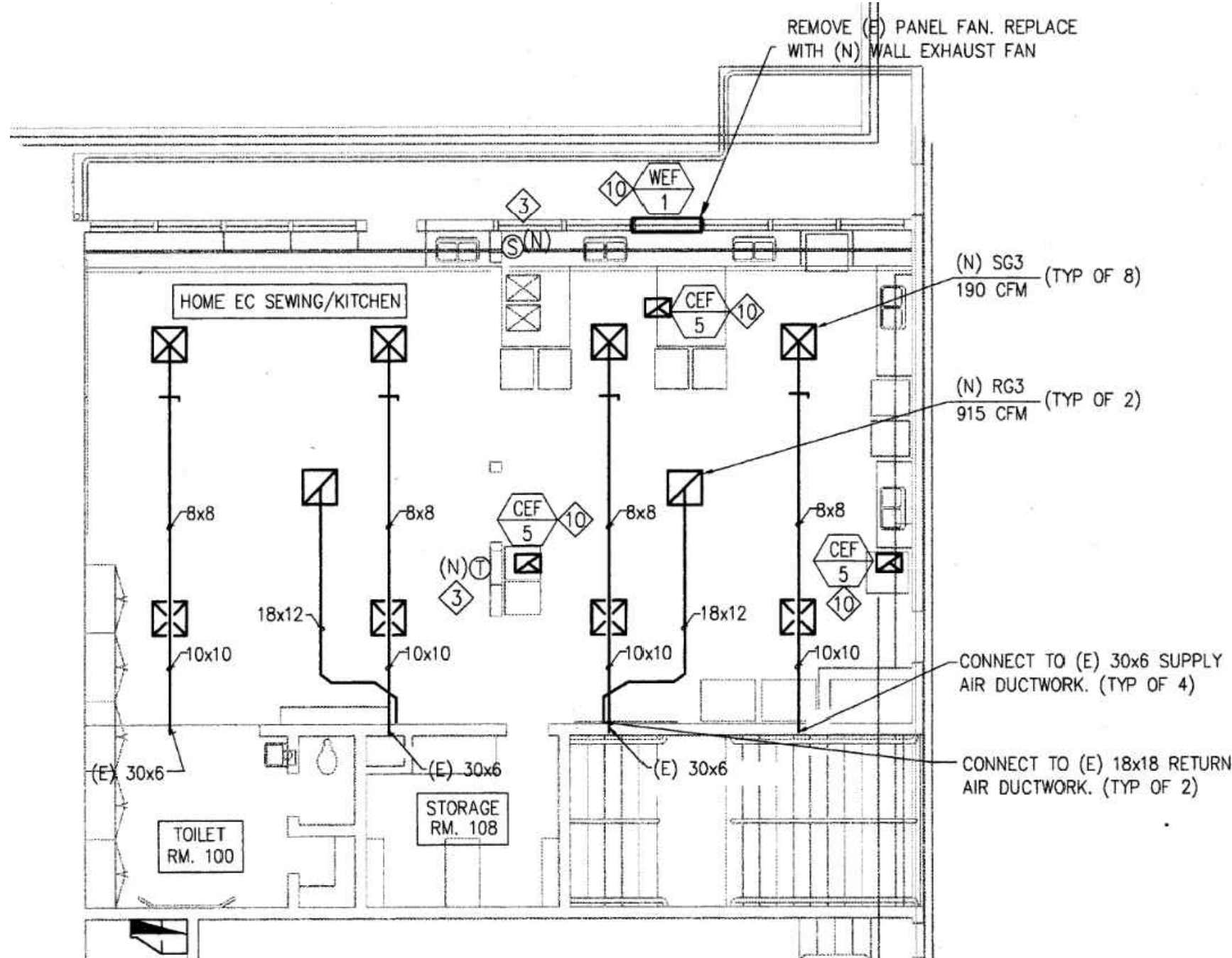


1 WING 1 - EXISTING FLOOR PLAN - REFERENCE ONLY
MP7.01 SCALE: ---



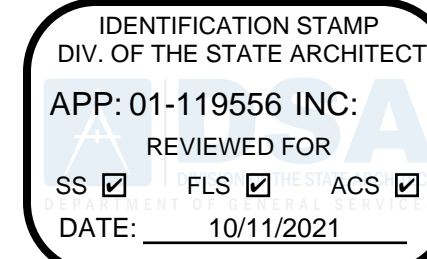


UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
WHP-1	PREP AREA 207	450	900
	SERVING AREA 207A	(2) 325	



UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
FC-T-1A	CLASSROOM	(4) 190	915
FC-T-1B	CLASSROOM	(4) 190	915

- GENERAL NOTES
- EXISTING FLOOR PLANS FROM RECORD DRAWINGS, APPROVED UNDER DSA APPL #104107 AND APPL #101682, SHOWN FOR REFERENCE ONLY.
 - ADJUST AND BALANCE AIR FLOW TO CFMS SHOWN ON AIR BALANCE SCHEDULE FOR EACH BUILDING.
 - REMOVE (E) THERMOSTATS AND INSTALL NEW THERMOSTAT IN SAME LOCATION. WIRE NEW THERMOSTAT TO NEW EQUIPMENT.



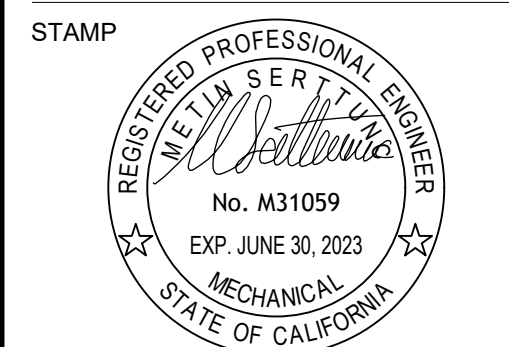
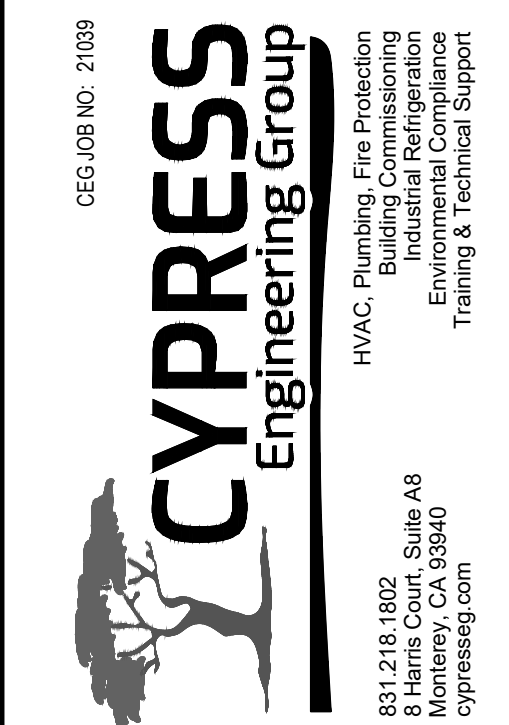
aedis
architects

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387 S. 1st Street, Suite 300
San Jose, CA 95113
tel: (408)-300-5160
fax: (408)-300-5121

PROJECT
ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

CONSULTANT



STATE
DSA FILE NUMBER **41-26**
APPL # **01-119557**

REVISIONS
No. Description Date

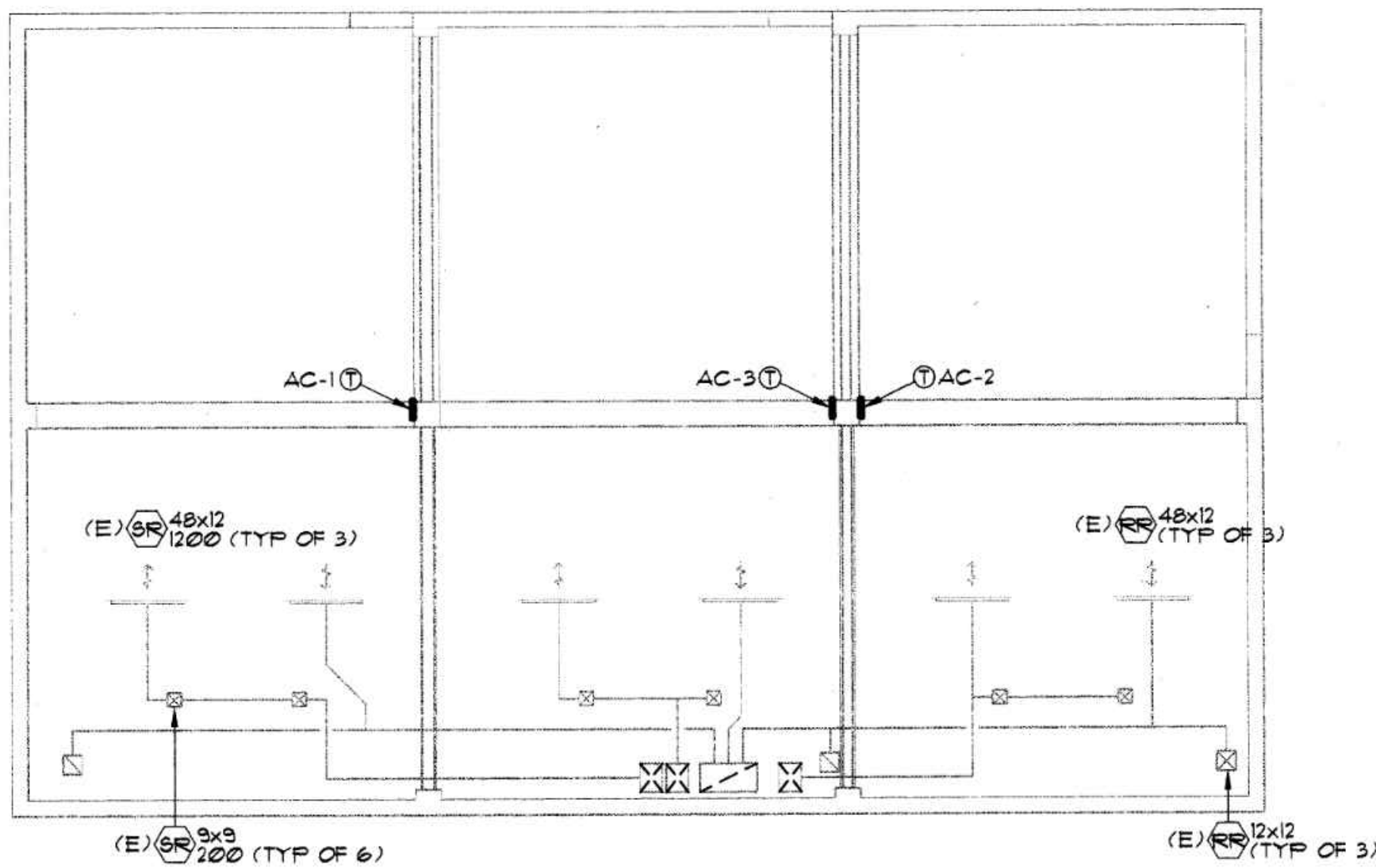


MILESTONES
DD
90% CD
DSA SUB
BACKCHECK

SHEET
EXISTING FLOOR PLANS - SATELLITE KITCHEN, MULTIPURPOSE BLDG 2ND FLOOR CLASSROOM, MUSIC BLDG, & MEDIA CENTER - MECHANICAL / TAB WORK

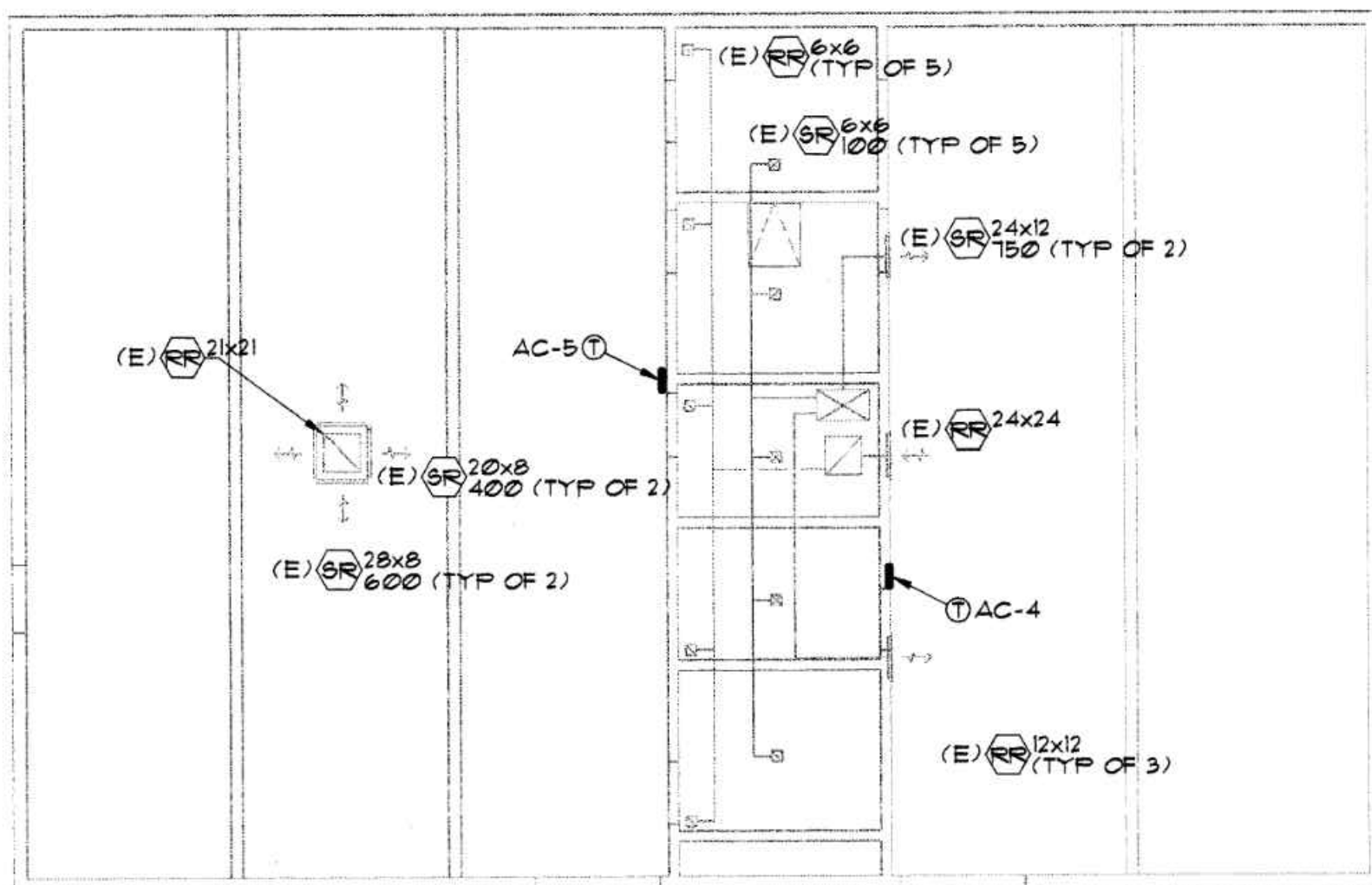
DATE **09/28/2021**
JOB # **2021005.06**

SHEET #
MP7.02



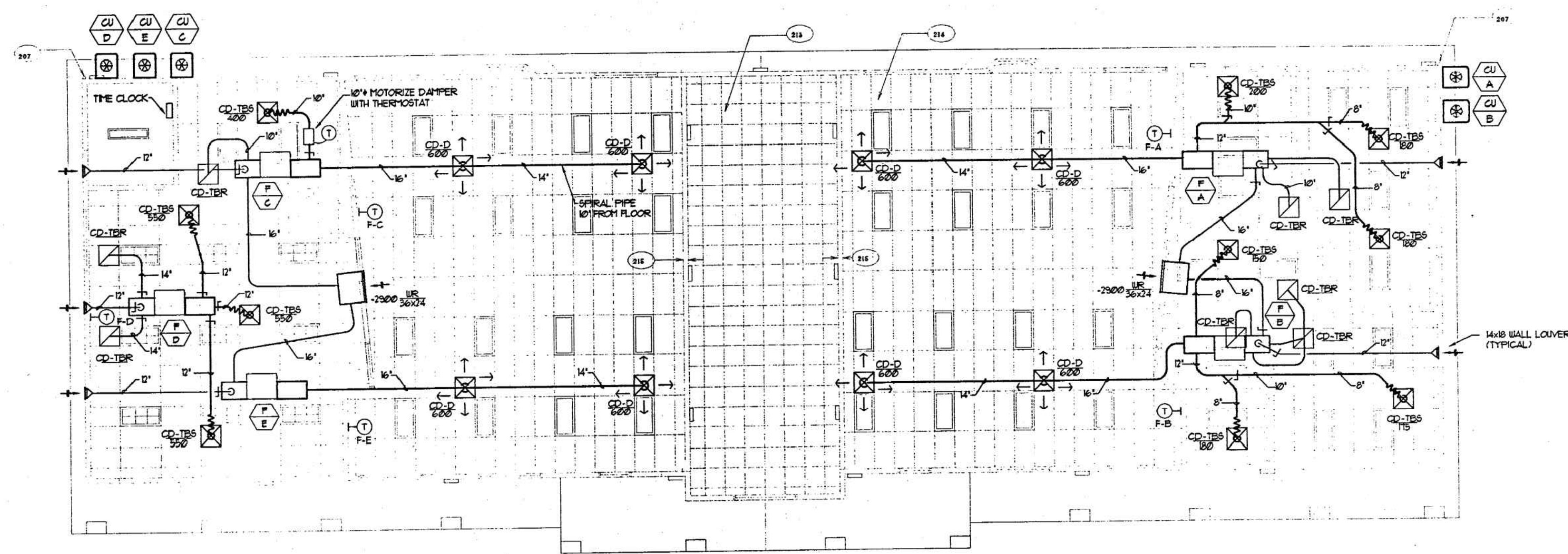
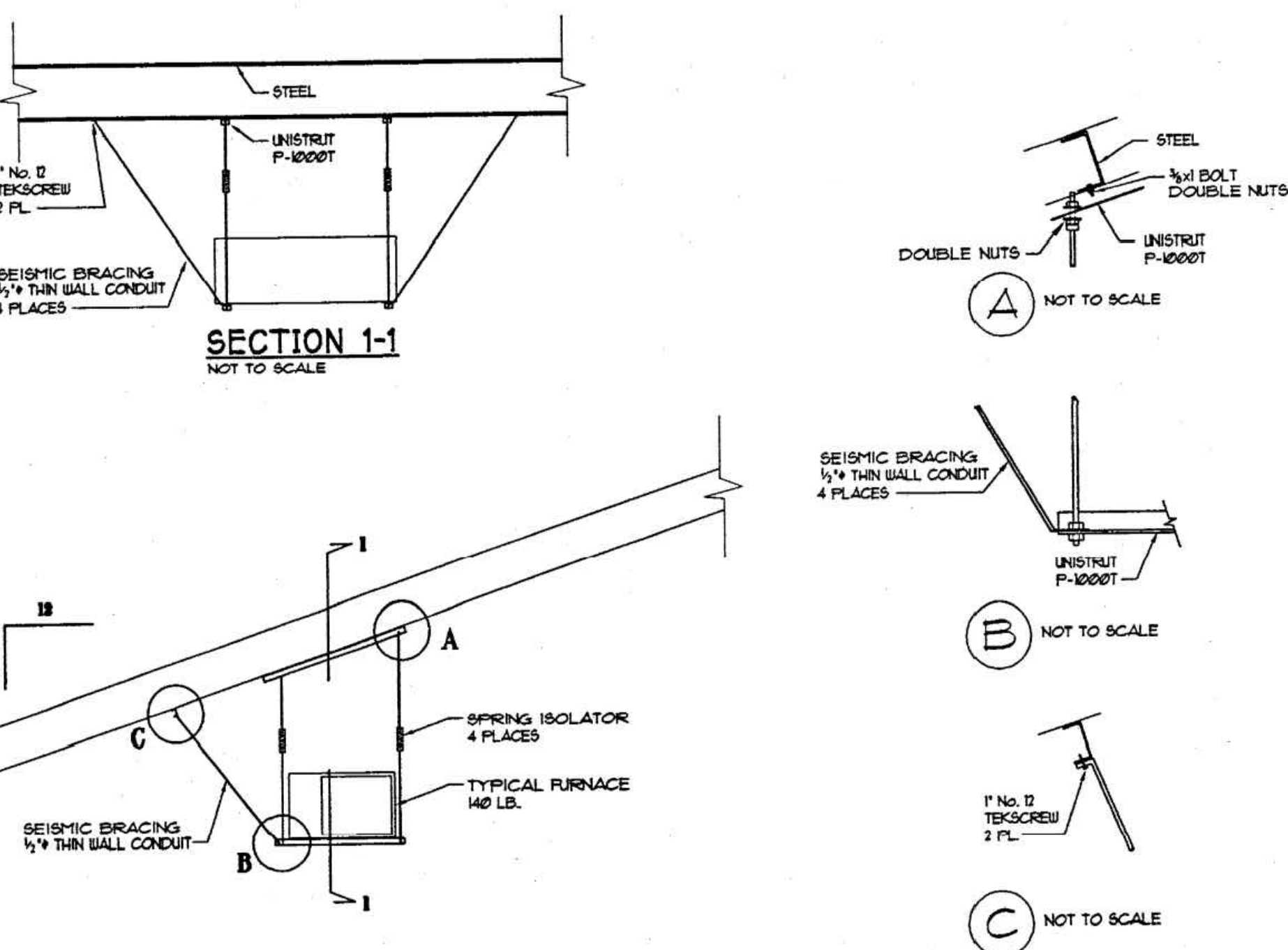
UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
AC-3	PE STORAGE 8	(2) 200 (1) 1200	(1) 400 (1) 1200
AC-4	CLUB ROOM 9	(2) 200 (1) 1200	(2) 400 (2) 1200
AC-5		(2) 200 (1) 1200	

UNIT NUMBER	WEIGHT
AC-3	697
AC-4	697
AC-5	697



UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
AC-6	BAND ROOM 6	1990	1990
AC-7	STORAGE	100	100
	OFFICE	100	100
	PRACTICE	100	100
	CONF	100	100
	OFFICE	100	100
	CLASSROOM 7	(2) 750	(1) 1500

UNIT NUMBER	WEIGHT
AC-6	717
AC-7	717



UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
F-A	CONFERENCE		
	RESOURCE ROOM		
	LIBRARY / MEDIA CENTER		
F-B	LIBRARY / MEDIA CENTER		
	WORK ROOM		
	CONTROL ROOM		
F-C	VIDEO PRODUCTION		
	CONFERENCE		
F-E	LIBRARY / MEDIA CENTER		
F-D	COMPUTER LAB		

UNIT NUMBER	WEIGHT
F-A	140
F-B	140
F-C	140
F-E	140
F-D	140

6 MEDIA CENTER - EXISTING DETAILS - REFERENCE ONLY
MP7.02 SCALE: --- DSA APPL # 101682


5 MEDIA CENTER - EXISTING FLOOR PLAN - REFERENCE ONLY
MP7.02 SCALE: ---

- IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-119556 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 10/11/2021

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387 S. 1st Street, Suite 300
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tel: (408)-300-5160
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ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

CEG-018 NO. 21039

 **CYPRESS**
Engineering Group

833.218.1602 Suite A3
10000 Wilshire Blvd.
Monteirey, CA 93940
cypresseng.com

HVAC, Plumbing, Fire Protection
Building Commissioning
Energy Audits
Environmental Compliance
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REVISIONS

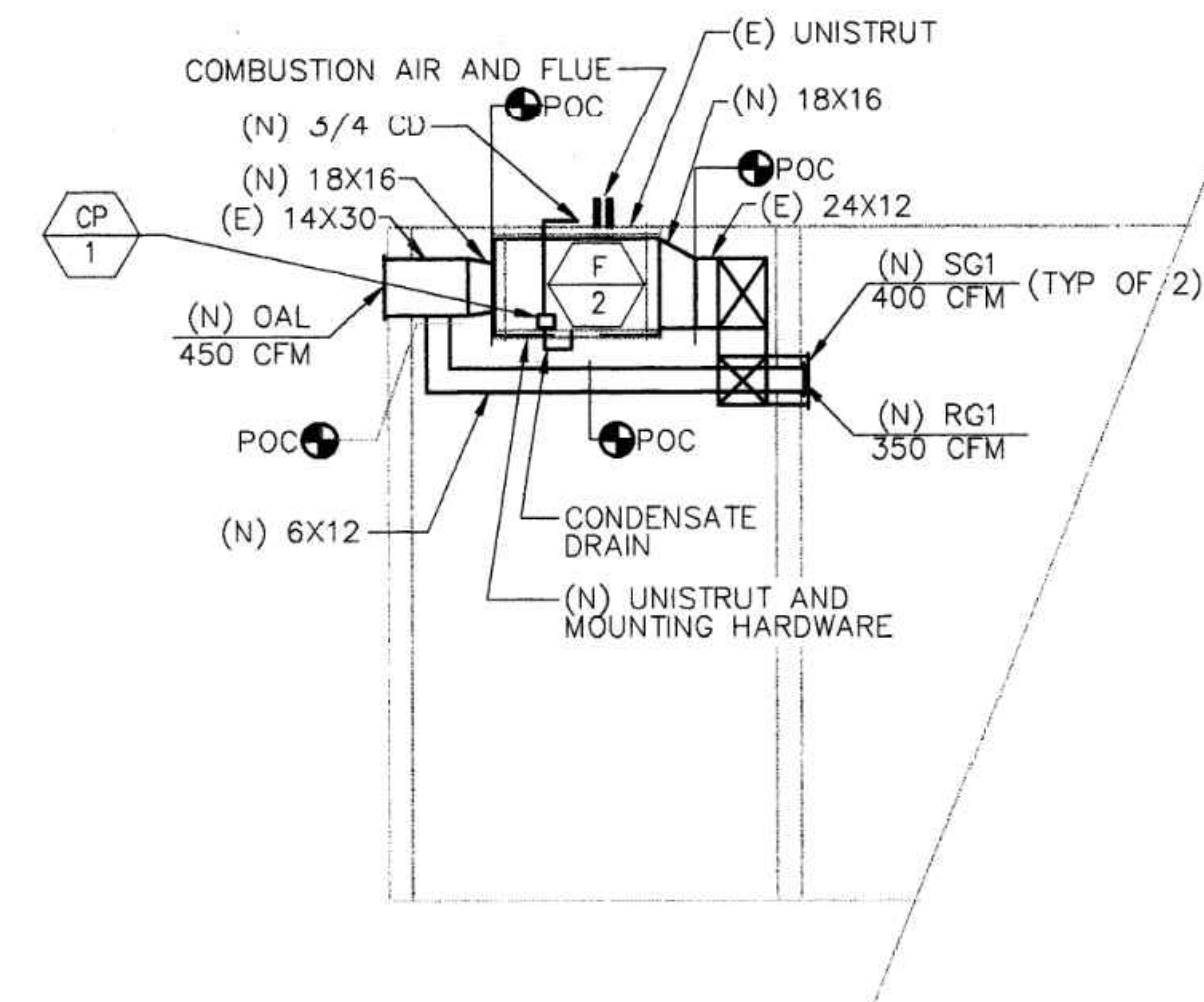
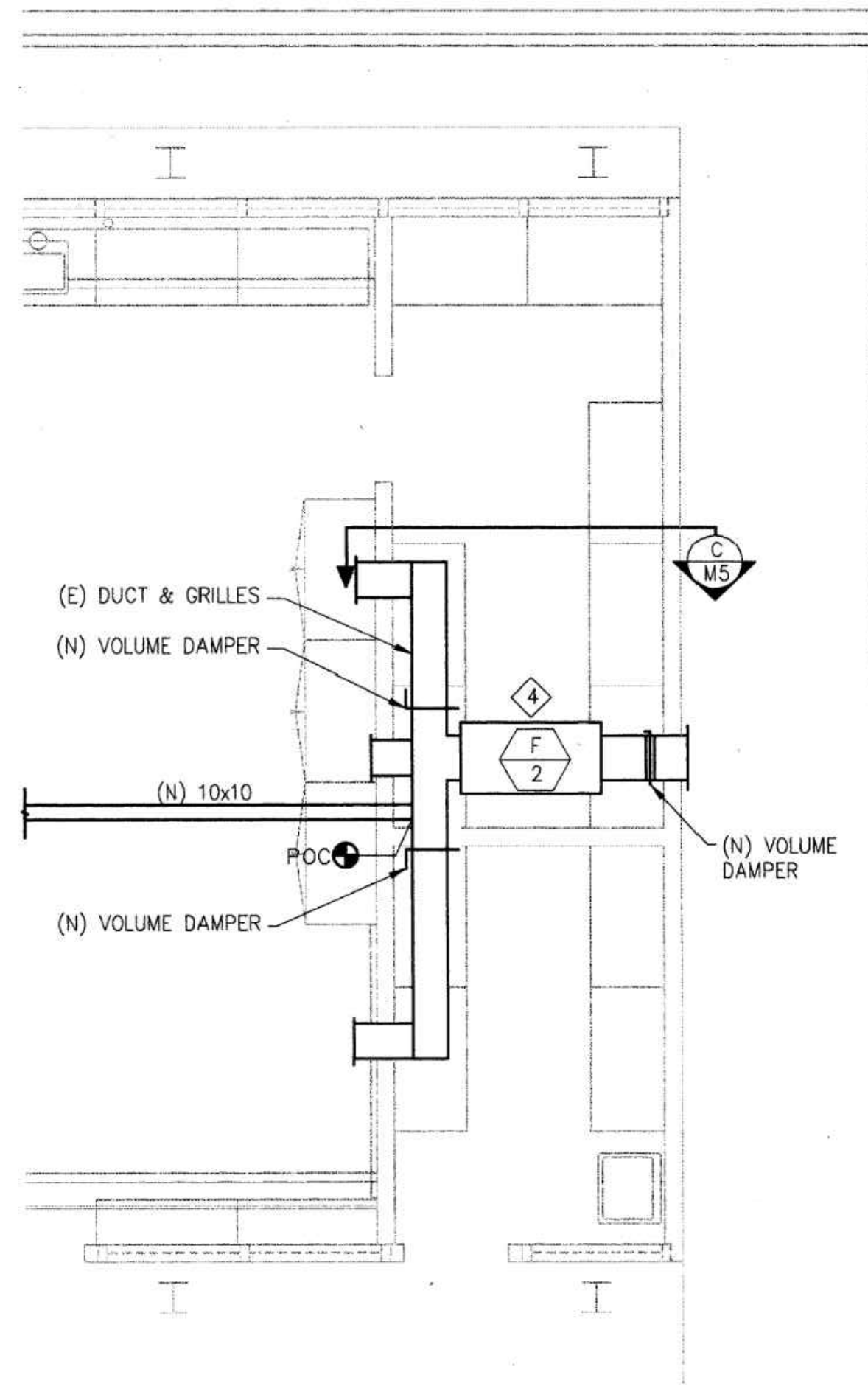
No.	Description	Date
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DD	
90% CD	
DSA SUB	06/03/2021
BACKCHECK	10/05/2021

**EXISTING FLOOR
PLANS - WING 3
SCIENCE
CLASSROOM 37 -
MECHANICAL / TAB
WORK**

SHEET #

MP7.03



AIR BALANCE SCHEDULE - WING 3			
UNIT NUMBER	LOCATION SERVED	SUPPLY CFM	RETURN CFM
FC-37	SCIENCE CLASSROOM 37	(2) 400	350
	WORKROOM 36A	275	
	WORKROOM 36B	275	

1 SCIENCE CLASSROOM 37 - PARTIAL EXISTING FLOOR PLANS - FOR REFERENCE ONLY
MP7.03 SCALE: ---

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 7 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

Table Continued

17		Duct system shall be sealed in accordance with the California Mechanical Code.
----	--	--

M. COOLING TOWERS

This Section Does Not Apply

N. 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://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/.

YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
				Pass	Fail
		NRCC-MCH-01-E - Must be submitted for all buildings.			

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 8 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

O. 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 can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/.

YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
				Pass	Fail
		NRCC-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.			
		NRCC-MCH-03-A Constant Volume Single Zone HVAC. NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".			
		NRCC-MCH-04-A Air Distribution Duct Leakage			
		NRCC-MCH-05-A Air Economizer Controls			
		NRCC-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)(3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.			
		NRCC-MCH-07-A Supply Fan Variable Flow Controls			
		NRCC-MCH-08-A Valve Leakage Test			
		NRCC-MCH-09-A Supply Water Temperature Reset Controls			
		NRCC-MCH-10-A Hydronic System Variable Flow Controls			
		NRCC-MCH-11-A Automatic Demand Shed Controls			

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 9 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

		NRCC-MCH-12-A FDD for Packaged Direct Expansion Units			
		NRCC-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance			
		NRCC-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance. NOTE: This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".			
		NRCC-MCH-15-A Thermal Energy Storage (TES) System Acceptance. NOTE: This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice-Ball) Systems are included in the scope, permit applicant should move this form to "Yes".			
		NRCC-MCH-16-A Supply Air Temperature Reset Controls			
		NRCC-MCH-17-A Condenser Water Temperature Reset Controls			
		NRCC-MCH-18 Energy Management Control Systems			
		NRCC-MCH-19 Occupancy Sensor Controls			
		NRCC-MCH-20 Multi-Family Ventilation			
		NRCC-MCH-21 Multi-Family Envelope Leakage			

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 4 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats §110.2(b) & (c)¹, §120.2(a) or §141.0(b)(2)²	Shut-Off Controls §120.2(a)	Isolation Zone Controls §120.2(a)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
HP/FC	single zone	≤ 25,000 ft²	EMCS	EMCS	NA: Single Zone	EMCS	NA: Single Zone	NA: Alteration project
WHP	single zone	≤ 25,000 ft²	EMCS	EMCS	NA: Single Zone	EMCS	NA: Single Zone	NA: Alteration project
AC	single zone	≤ 25,000 ft²	EMCS	EMCS	NA: Single Zone	EMCS	NA: Single Zone	NA: Alteration project
F/CU	single zone	≤ 25,000 ft²	EMCS	EMCS	NA: Single Zone	EMCS	NA: Single Zone	NA: Alteration project

¹ FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

² NOTES: Controls with a "1" require a note in the space below explaining how compliance is achieved.

EX: System 1: SA Temp Reset: Exempt because zones compliant with §140.4(d); EXCEPTION 1 to §140.4(f)

J. VENTILATION AND INDOOR AIR QUALITY

Table Instructions: Complete the following Table to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(a)(3) for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

01	<input type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	<input type="checkbox"/>	Check this box if the project includes Nonresidential or Hotel/Motel spaces
03	<input type="checkbox"/>	Check this box if the project includes new or altered high-rise residential dwelling units
03	<input type="checkbox"/>	Check the box if the project is using natural ventilation in any spaces to meet required ventilation rates per §120.1(c)(2).

Nonresidential and Hotel/ Motel Ventilation Systems

Table Continued

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 5 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

Table Continued

System Name:	HP/FC	System Design OA CFM Air Flow:	450	System Design Transfer Air CFM:	0	Air Filtration per §120.1(c) and §141.0(b)(2)²		
08	09	10	11	12	13	14	15	16
Space Name or Item Tag	Occupancy Type¹	Conditioned Floor Area (ft²)	# of showerheads / toilets	# of people²	Required Min OA CFM	Required Minimum CFM	Provided per Design CFM	DCV or Occupant Sensor Controls per §120.1(d)(3), §120.1(d)(5) & §120.2(e)(3)³
HP/FC	Classroom (age 5-18)	1,000			150		0	DCV Occ Sensor NA: Not required space type

17 Total System Required Min OA CFM

150

18 Ventilation for this System Complies?

Yes

Nonresidential and Hotel/ Motel Ventilation Systems

Table Continued

Table Continued

System Name:	WHP	System Design OA CFM Air Flow:	450	System Design Transfer Air CFM:	0	Air Filtration per §120.1(c) and §141.0(b)(2)²		
08	09	10	11	12	13	14	15	16
Space Name or Item Tag	Occupancy Type¹	Conditioned Floor Area (ft²)	# of showerheads / toilets	# of people²	Required Min OA CFM	Required Minimum CFM	Provided per Design CFM	DCV or Occupant Sensor Controls per §120.1(d)(3), §120.1(d)(5) & §120.2(e)(3)³
WHP	Classroom (age 5-18)	1,000			150		0	DCV Occ Sensor NA: Not required space type

17 Total System Required Min OA CFM

150

18 Ventilation for this System Complies?

Yes

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 6 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

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

² Air filtration requirements apply to the following three system types per §120.1(c)(2): space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

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

⁴ See Standards Tables 120.1-A and 120.2-B.

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

⁶ §120.2(e)(3) requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stock aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).

K. TERMINAL BOX CONTROLS

This Section Does Not Apply

L. DISTRIBUTION (DUCTWORK AND PIPING)

Table Instructions: Complete the following tables to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(f) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct system(s):

11	No	The scope of the project includes only duct systems serving healthcare facilities.
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	No	The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
	<input type="checkbox"/>	Outdoors
	<input type="checkbox"/>	In a space directly under a roof that has a U-factor greater than the U-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)(1) or if the roof has fixed vents or openings to the outside/ unconditioned spaces
	<input type="checkbox"/>	In an unconditioned crawlspace
	<input type="checkbox"/>	In other unconditioned spaces
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.

Table Continued

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 1 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

A. GENERAL INFORMATION

01 Project Location (city)

San Mateo

04 Total Conditioned Floor Area

02 Climate Zone

3

05 Total Unconditioned Floor Area

03 Occupancy Types Within Project:

06 # of Stories (Habitable Above Grade)

1

☐ Office (B)

☐ Retail (M)

☐ Non-refrigerated Warehouse (S)

☐ Hotel/ Motel Guest Rooms (R-1)

☒ School (E)

☐ Healthcare Facility (I)

☐ High-Rise Residential (R-2/R-3)

☐ Relocatable Class Bldg (E)

☐ Other (Write in):

¹ FOOTNOTES: Climate zone can be determined on the California Energy Commission's website at http://www.energy.ca.gov/maps/renewable/building_climate_zones.html

B. PROJECT SCOPE

Table Instructions: Include any mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)(2) for alterations.

My project consists of (check all that apply)

01	02	03
Air System(s)	Wet System Components	Dry System Components
<input checked="" type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
Mechanical Controls	<input type="checkbox"/> Hydronic System Piping	<input type="checkbox"/> Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input checked="" type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork (existing to remain, altered or new)
	<input type="checkbox"/> Chillers	<input checked="" type="checkbox"/> Ventilation
	<input type="checkbox"/> Boilers	<input type="checkbox"/> Zonal Systems/ Terminal Boxes

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.

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

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 2 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

D. EXCEPTIONAL CONDITIONS

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

Selections made in Table O have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table Instructions: Complete the following equipment schedules to show compliance with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b), and §140.4(c) or §141.0(b)(2) for alterations.

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

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 & Title 20	Smallest Size Available¹ §140.4(a)	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output² (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP/FC	Unitary heat pumps (no elec. resistance)	Air cooled, split (1 phase)	Yes	60	60	0	54	54		
WHP	Unitary heat pumps	Air cooled, package (1 phase)	Yes	48	48	12	48	48		
AC	Unitary AC/ Condensers	AC, air cooled, package (3 phase)	Yes	88	110	0	38	48		
F/CU	Furnace + AC	AC, air cooled, split + warm-air central furnace, gas-fired	Yes	78	80	0	48	48		

Table Continued

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E (Created 09/2020)

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-E

CERTIFICATE OF COMPLIANCE

Project Name: Abbott Middle School - HVAC Replacement

Report Page: Page 3 of 12

Project Address: 600 36th Avenue, San Mateo, CA 94403

Date Prepared: 2021-05-08

Table Continued

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

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

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

⁴ Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).

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

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency
HP/FC	<65,000		HSPF	8.2	9	SEER	14	17.1
WHP	<65,000		HSPF	8	8	SEER	14	14
AC	<65,000				0.8	SEER	13	20
F/CU	≥45kBtu/h cooling/ <225kBtu/h heating		AFUE	0.8	0.96	EER	11.7	12
						SEER	14	17

G. PUMPS

This Section Does Not Apply

H. FAN SYSTEMS & AIR ECONOMIZERS

This Section Does Not Apply

I. SYSTEM CONTROLS

Table Instructions: Complete the following Table to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)(2) for altered space conditioning systems.

Table Continued

CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - 2019 NONRESIDENTIAL COMPLIANCE: <http://www.energy.ca.gov/title24/2019standards/>

SEPTEMBER 2020

aedis architects

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387 S. 1st Street, Suite 300
San Jose, CA 95118
t e l : (4 0 8) - 3 0 0 - 5 1 6 0
f a x : (4 0 8) - 3 0 0 - 5 1 2 1

PROJECT

ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT

CONSULTANT

DEC 08/2020 2109

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

REVISIONS
No. Description Date

△

MILESTONES

DO
90% CD
DSA SUB 06/03/2021
BACKCHECK 10/05/2021

SHEET

TITLE 24 DOCUMENTS - MECHANICAL

DATE 09/28/2021
JOB # 2021005.06

SHEET #

MP8.01

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 09/2020)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: Abbott Middle School - HVAC Replacement
Project Address: 600 36th Avenue, San Mateo, CA 94403
Report Page: Page 10 of 12
Date Prepared: 2021-05-08

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
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 completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-MCH-27 High-rise Residential NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-MCH-32 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 09/2020)
CALIFORNIA ENERGY COMMISSION

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Q. MANDATORY MEASURES DOCUMENTATION LOCATION
Table Instructions: Indicate where mandatory measures are documented in the plan set or construction documentation. For any mandatory measures that do not apply, mark the plan sheet or construction document location as "N/A", any active cells that are left blank will result in non-compliance in Table C.

01	02
	Plan sheet or construction document location
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block:	No
03	04
Mandatory Measure	Plan sheet or construction document location
Heating Equipment Efficiency per §110.1	MP0.02
Cooling Equipment Efficiency per §110.1	MP0.02
Furnace Standby Loss Control per §110.2(d)	NA
Duct Insulation per §120.4	23 05 00
Heating Hot Water Equipment Efficiency per §110.1	NA
Cooling Chilled and Condenser Water Equipment Efficiency per §110.1	NA
Open and Closed Circuit Cooling Towers conductivity of flow-based controls per §110.2(e)	NA
Open and Closed Circuit Cooling Towers Flow Meter with analog output per §110.2(e)	NA
Open and Closed Circuit Cooling Towers Overflow Alarm per §110.2(e)	NA
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per §110.2(e)	NA
Pipe Insulation per §120.3(b)	NA
Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per §120.9	NA
Heat Pump with Supplementary Electric Resistance Heater Controls per §110.2(b)	NA
The air duct and plenum system is designed per §120.4(a)-(f)	Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	NA

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 09/2020)
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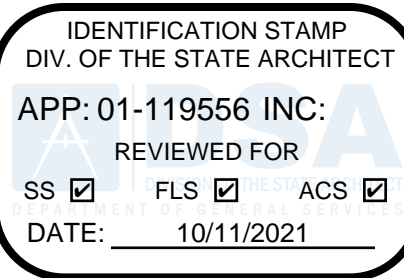
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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Chahan Shah
Company: Cypress Engineering Group
Address: 8 Harris Court, Suite A8
City/State/Zip: Monterey, CA 93940
Documentation Author Signature: *Chahan S. Shah*
Signature Date: 5/8/21
CEA/HERS Certification Identification (if applicable):
Phone: 8312181802

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

Responsible Designer Name: Metin Serttunc
Company: Cypress Engineering Group
Address: 8 Harris Court, Suite A8
City/State/Zip: Monterey, CA 93940
Responsible Designer Signature: *Metin Serttunc*
Date Signed: 5/8/21
License: M31059
Phone: 8312181802



aedis
architects

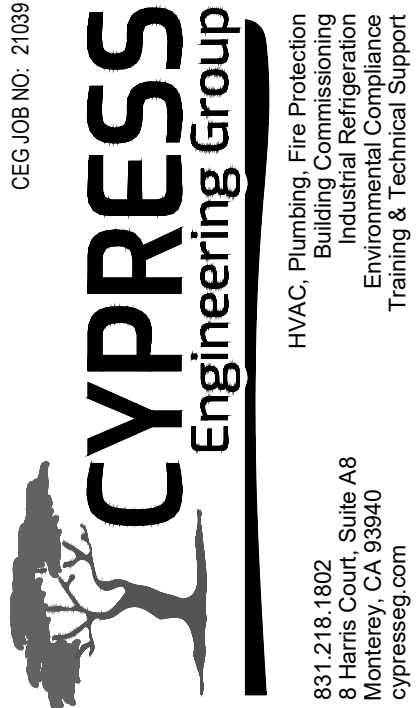
www.aedisarchitects.com
387 S. 1st Street, Suite 300
San Jose, CA 95118
tel: (408)-300-5160
fax: (408)-300-5121

PROJECT

ABBOTT 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



MILESTONES

DD

90% CD

DSA SUB

06/03/2021

BACKCHECK

10/05/2021

SHEET

TITLE 24
DOCUMENTS -
MECHANICAL

DATE

09/28/2021

JOB #

2021005.06

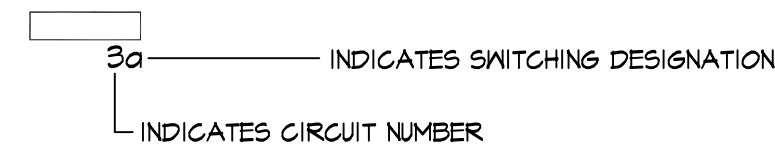
SHEET #

MP8.02

SYMBOL LIST:

	PLAN, DETAIL OR SECTION DESIGNATION.
	ROOM NUMBER.
	SHEET REFERENCE SYMBOL - SEE ASSOCIATED NOTE ON SAME SHEET.
	FEEDER SCHEDULE SYMBOL.
	MECHANICAL EQUIPMENT TAG.
	INDICATES FIXTURE TYPE
LUMINAIRE SYMBOLS	
	LUMINAIRE - SEE SCHEDULE.
	LUMINAIRE - SEE SCHEDULE.
	LUMINAIRE - SEE SCHEDULE.
	POLE MOUNTED LUMINAIRE - SEE SCHEDULE.
	POLE MOUNTED LUMINAIRE - SEE SCHEDULE.
	LUMINAIRE - SEE SCHEDULE.
	LUMINAIRE - SEE SCHEDULE.
	LUMINAIRE WALL MOUNTED-SEE SCHEDULE.
	EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
	EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
	EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
	EMERGENCY LUMINAIRE WALL MOUNTED- PROVIDE EM BATTERY BALLAST
	EXIT LIGHT SINGLE FACE - SEE SCHEDULE.
	EXIT LIGHT SINGLE FACE (WITH ARROW)- SEE SCHEDULE.
	EXIT LIGHT (DOUBLE FACED WITH ARROW)- SEE SCHEDULE.
	EMERGENCY BATTERY PACK EXIT LIGHT INSTALL AS DIRECTED.

TYPICAL LUMINAIRE NOMENCLATURE



SWITCH SYMBOLS

	SINGLE POLE SWITCH, + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
	SINGLE POLE SWITCH, + 48" AFF TO THE TOP OF THE OUTLET BOX, a = CIRCUIT CONTROLLED.
	THREE WAY SWITCH + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
	FOUR WAY SWITCH + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
	MOTOR RATED SWITCH
	WALL MOUNTED 120V VOLTAGE "DATA LINE" SWITCH +48" FROM TOP OF BOX UON, a = CIRCUIT CONTROLLED
	LIGHTINGS OCCUPANCY SENSOR
	MOTION DETECTOR POWER PACK
	ONE CIRCUIT WALL SWITCH WITH BUILT IN OCCUPANCY SENSOR. CONNECT SWITCHINGS TO LIGHTING FIXTURES AS REQUIRED. MOUNT AT +48" AFF TO THE TOP OF THE SWITCH BOX UON.

RECEPTACLE SYMBOLS

	CONVENIENCE RECEPTACLE - DUPLEX AT + 18" AFF AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	GFCI CONVENIENCE RECEPTACLE - DUPLEX AT +18" AFF AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	RECEPTACLE - DOUBLE DUPLEX AT + 18" AFF AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	SINGLE RECEPTACLE - NEMA 5-20R UON, AT + 18" AFF AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	SINGLE RECEPTACLE - NEMA 1-21 - 208 VOLT, THREE PHASE, 5 WIRE, AT + 18" AFF UON AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	DOUBLE DUPLEX RECEPTACLE WITH (1) CONTROLLED DUPLEX AND (1) UNCONTROLLED DUPLEX, AT +18" AFF AND NOT LESS THAN 15" FROM BOTTOM OF BOX U.ON.
	3-CHANNEL SURFACE RACEWAY, INSTALL AT +36" AFF UON. RACEWAY SHALL BE WIREMOLD #5500.
	FLOOR BOX WITH (2) DUPLEX RECEPTACLES AND DATA OUTLETS. QUANTITY OF DATA OUTLETS AS INDICATED ON THE FLOOR PLANS.

POWER DISTRIBUTION SYMBOLS

	PANELBOARD - SURFACE OR FLUSH MOUNTED.
	LIGHTING CONTROL CABINET.
	EMERGENCY POWER INVERTER.
	JUNCTION BOX - CEILING OR WALL MOUNTED, SIZE PER CEC, TAPE AND TAG WIRES.
	MAIN SWITCHBOARD OR DISTRIBUTION PANEL.
	MOTOR
	RATINGS AS INDICATED.
	UNUSED DISCONNECT SWITCH - RATINGS AS INDICATED.
	FUSED DISCONNECT SWITCH - SIZE FUSES PER MOTOR MANUFACTURER'S RECOMMENDATIONS, RATING AS INDICATED.
	MAGNETIC STARTER - NEMA SIZE INDICATED.
	TRANSFORMER - SEE SINGLE LINE FOR REQUIREMENTS.
	GROUND ROD.
	IN-GRADE ELECTRICAL PULL BOX WITH TRAFFIC RATED LID.
	IN-GRADE LIGHTINGS PULL BOX WITH TRAFFIC RATED LID.
	IN-GRADE COMMUNICATION PULL BOX WITH TRAFFIC RATED LID.
	SINGLE EV CHARGER FOR BUS
	DOUBLE EV CHARGER FOR CAR

POWER DISTRIBUTION SINGLE LINE SYMBOLS

	DRAW-OUT CIRCUIT BREAKER.
	CIRCUIT BREAKER.
	FUSED SWITCH.
	"PS1E" METER IV CURRENT TRANSFORMER.
	TRANSFORMER.
	NORMALLY OPENED, AUXILIARY CONTACT.
	NORMALLY CLOSED, AUXILIARY CONTACT.
	AUTOMATIC TRANSFER SWITCH.
	EMERGENCY GENERATOR.

WIRING & CONDUIT RUN SYMBOLS

	CONDUIT - CONCEALED IN WALLS OR CEILING.
	CONDUIT - EXPOSED.
	CONDUIT - IN OR BELOW FLOOR, 3/4" MIN.
	EXISTING CONDUIT, CABLES OR DEVICE
	CONDUIT - HOME RUN TO PANEL, TERMINAL CABINET, ETC. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF #12 AWG WIRES. CROSSHATCH WITH SUBSCRIPT '6' INDICATES GREEN GROUND WIRE. SIZE CONDUIT ACCORDINGS TO SPECIFICATIONS AND APPLICABLE CODE. CROSSHATCHES WITH "10" INDICATES WIRE SIZE OTHER THAN #12'S.
	FLEX CONDUIT WITH CONNECTION.
	CONDUIT - STUB UP.
	CONDUIT - STUB DOWN.
	CONDUIT EMERGENCY SYSTEM.
	CAPPED CONDUIT.
	CONDUIT CONTINUATION.

MATTSTOPPER DIGITAL LIGHTING MANAGEMENT CONTROLS

	MATTSTOPPER LMCP24
	MATTSTOPPER LMRC-101
	MATTSTOPPER LMRC-211
	MATTSTOPPER LMRC-212
	MATTSTOPPER LMRC-213
	MATTSTOPPER LMDC-100, CEILING MOUNT
	MATTSTOPPER LM2X-101, + 48" AFF TO TOP OF THE BOX UON.
	MATTSTOPPER LMLS-500, CEILING/WALL MOUNT
	MATTSTOPPER LMSH-101, + 48" AFF TO TOP OF THE BOX UON.
	MATTSTOPPER LMSH-102, + 48" AFF TO TOP OF THE BOX UON.

COMMUNICATIONS SYMBOLS

	18" FLOOR MOUNTED DATA RACK.
	DATA/TEL STATION AT 18" AFF UON WITH (1) DATA OUTLET. CONNECT DATA/TEL OUTLETS OUTLETS PER THE DATA/TEL RISER DIAGRAM. STUB CONDUIT INTO AVAILABLE CEILING SPACE.
	DATA/TEL STATION AT 18" AFF UON WITH (2) DATA OUTLETS. CONNECT DATA/TEL OUTLETS OUTLETS PER THE DATA/TEL RISER DIAGRAM. STUB CONDUIT INTO AVAILABLE CEILING SPACE.
	(2) DATA OUTLETS FOR WIRELESS ACCESS POINT EQUIPMENT TO BE MOUNTED IN CEILING CHASE.
	INTERIOR SPEAKER WALL MOUNTED AT + 8'-0" AFF UON. CONNECT SPEAKER PER THE PA/CLOCK RISER DIAGRAM
	CEILING MOUNTED SPEAKER. CONNECT SPEAKER PER THE PA/CLOCK RISER DIAGRAM
	FLUSH MOUNTED EXTERIOR SPEAKER AT + 8'-0" AFF UON. CONNECT EXTERIOR SPEAKER PER THE PA/CLOCK RISER DIAGRAM.
	COMBINATION FLUSH MOUNTED CLOCK/SPEAKER DEVICE AT +8'-0" AFF UON. CONNECT CLOCK/SPEAKER PER THE PA/CLOCK RISER DIAGRAM. PROVIDE 3/4" TO ACCESSIBLE CEILINGS.
	HDMI DEVICE. CONNECT PER A 4 1/2" EXTRA DEEP BOX WITH A 2 GANG RING THROUGH 1 1/2" TO CEILING.

FIRE ALARM SYMBOLS

	FIRE ALARM CONTROL PANEL.
	REMOTE POWER SUPPLY.
	EVAC SPEAKER AMPLIFIER.
	FIRE ALARM RISER CABINET.
	REMOTE FIRE ALARM ANNUNCIATOR.
	SMOKE DETECTOR
	PULL STATION
	HORN STROBE

GENERAL ANCHORAGE NOTES:

MEP COMPONENT ANCHORAGE NOTE.

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 2014 CBC, SECTIONS 1617A1.18 THOUGH 1617A1.26 AND ASCE 7-16 CHAPTER 13, 26, AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- 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 10/120 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- 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, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

- 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.
- 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 HANG 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.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.9 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2014 CBC, SECTION 1617A1.24, 1617A1.25 AND 1617A1.26.

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. OSHPD OPM FOR 2015 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 BRACINGS OF THE DISTRIBUTION SYSTEM. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGERS 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 OSHPD PRE-APPROVED (OPM #) # .0048-18.

GENERAL NOTES:

- THE CONTRACTOR SHALL BE LICENSED BY THE STATE OF CALIFORNIA C-10 AND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. MATERIALS AND EQUIPMENT SHALL BE U.L. LISTED AND LABELED FOR THE APPLICATION.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTION FEES REQUIRED BY THIS CONTRACT WORK.
- PRIOR TO SUBMITTING A BID THE CONTRACTOR SHALL VISIT THE SITE, REVIEW THE EXISTING CONDITIONS AND ALLOW FOR LABOR, MATERIAL AND COORDINATION THAT IS NECESSARY TO PROVIDE A COMPLETE INSTALLATION OF EACH SYSTEM. THE CONTRACTOR SHALL OBTAIN AND BE FAMILIAR WITH ALL OTHER TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL WORK NOTED AND CALLED OUT ON ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN OTHER TRADES ON PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY AND SHALL PROVIDE INSURANCE COVERAGE AS NECESSARY FOR LIABILITY, PERSONAL, PROPERTY DAMAGE, TO FULLY PROTECT THE OWNER, ARCHITECT AND ENGINEER FROM ANY AND ALL CLAIMS RESULTING FROM THIS WORK.
- THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS AT THE PROJECT SITE INDICATING ALL MODIFICATIONS TO ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL, AT THE CONCLUSION OF THE PROJECT PROVIDE ACCURATE "AS-BUILT" DRAWINGS. "AS-BUILT" DRAWINGS SHALL SHOW ACTUAL CHANGES TO ORIGINAL ELECTRICAL DRAWINGS, SHOW LOCATIONS OF PULL BOXES, CONDUIT RUNS AND WIRING CHANGES. THE CONTRACTOR SHALL PROVIDE ONE (1) HARDCOPY SET OF DOCUMENT DRAWINGS AND ONE (1) SET OF DOCUMENT DRAWINGS IN ELECTRONIC CAD FILE THAT REPRESENTS THE ACTUAL "AS-BUILTS". CAD FILES SHALL BE AUTOCAD 2010 FORMAT.
- ALL MATERIALS PROVIDED TO THE PROJECT SHALL BE NEW. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL INCIDENTAL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A CONSTRUCTION SCHEDULE OF ELECTRICAL WORK. THE CONSTRUCTION SCHEDULE SHALL IDENTIFY ALL SIGNIFICANT MILESTONES WITH COMPLETION DATES.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED "CUTTING, PATCHING, EXCAVATION, BACKFILL, AND REPAIRS" NECESSARY TO RESTORE DAMAGED SURFACES TO EQUAL OR BETTER THAN ORIGINAL CONDITIONS EXISTING AT START OF WORK. THE CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICES ALERT" FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF UNDERGROUND WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING ALL EXPOSED CONDUITS AND ELECTRICAL EQUIPMENT. REFER TO ARCHITECT'S PAINTING SECTION FOR REQUIREMENTS.
- ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOORS SHALL BE WEATHERPROOF. EXTERIOR CONDUITS RUN INTO BUILDINGS SHALL BE INSTALLED WITH FLASHING, GULCHED AND SEALED. CONDUITS FOR EXTERIOR ELECTRICAL DEVICES SHALL BE RUN INSIDE BUILDING UNLESS OTHERWISE NOTED ON DRAWINGS. ALL EXTERIOR CONDUITS SHALL BE "R55" UNLESS OTHERWISE NOTED ON DRAWINGS.
- ALL CONDUITS UNLESS OTHERWISE NOTED ON DRAWINGS SHALL HAVE A MINIMUM: TWO (2) #12S WITH ONE (1) #12 GROUND. "TICK" MARKS SHOWN ON CIRCUITRY ARE FOR "ROUGH" ESTIMATING ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRES AND WIRE SIZES REQUIRED BY LATEST CODE.
- COORDINATE ALL CONDUIT RUNS, ELECTRICAL EQUIPMENT AND PANELS WITH ALL OTHER WORK TO AVOID CONFLICTS.
- SEE ARCHITECTURAL DOCUMENTS FOR EXACT PLACEMENT OF LIGHTING FIXTURES AND DEVICES. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CEILING TYPES FROM ARCHITECTURAL DOCUMENTS AND PROVIDE AND INSTALL ALL REQUIRED FIXTURE MOUNTING HARDWARE. PROVIDE AND INSTALL U.L. LISTED FIRE STOP ENCLOSURES FOR ALL RECESSED FIXTURES IN FIRE RATED CEILINGS.
- THE CONTRACTOR SHALL PROVIDE IN EVERY CONDUIT A DRAN STRING FOR USE IN FUTURE CONSTRUCTION.
- POWER FEEDERS MAY NOT BE SHOWN ON THE DRAWINGS. REFER TO THE SINGLE LINE DIAGRAM FOR CONDUIT AND FEEDER INFORMATION. ALL DRAWINGS ARE DIAGRAMMATIC INDICATING LOCATION OR POSITION OF EQUIPMENT. FIELD VERIFY CONDITIONS PRIOR TO INSTALLATION OF ANY WORK.
- MANUFACTURER'S RECOMMENDATIONS FOR CONDUCTOR SIZES, CIRCUIT BREAKER OR FUSE PROTECTION OF ELECTRICALLY OPERATED EQUIPMENT MAY DIFFER FROM THOSE INDICATED ON DRAWINGS. CONTRACTOR SHALL CONFIRM RATINGS PRIOR TO ORDERING EQUIPMENT. PROVIDE ELECTRICAL PROTECTION TO EQUIPMENT IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS AND PER NATIONAL ELECTRICAL CODE REQUIREMENTS.
- CONTRACTOR SHALL REVIEW EQUIPMENT REQUIREMENTS OF OTHER TRADES AND PROVIDE POWER CIRCUITS AND CONNECTIONS TO ELECTRICALLY OPERATED EQUIPMENT.
- EFFECTIVELY BOND ELECTRICAL CABINETS, ENCLOSURES AND CONDUIT RACEWAYS TO CODE APPROVED GROUND AS PART OF THE CONTINUOUS GROUNDING SYSTEM.
- MEASURE THE 3-PHASE AND PHASE TO NEUTRAL SERVICE VOLTAGE FOR 208/120V PANELS PRIOR TO ENERGIZING ANY PANELS OR EQUIPMENT. AVOID ENERGIZING 208/120V PANELS PHASE TO NEUTRAL VOLTAGE ABOVE 150 VOLTS. TRANSFORMER TAP SETTINGS MAY REQUIRE CHANGING.
- MEASURE THE 1-PHASE AND PHASE TO NEUTRAL SERVICE VOLTAGE FOR 240/120V PANELS PRIOR TO ENERGIZING ANY PANELS OR EQUIPMENT. AVOID ENERGIZING 240/120V PANELS PHASE TO NEUTRAL VOLTAGE ABOVE 150 VOLTS.
- DO NOT SUBSTITUTE SPECIFIED MATERIAL OR EQUIPMENT WITHOUT FIRST OBTAINING APPROVAL FROM THE OWNER OR HIS REPRESENTATIVE.
- IDENTIFY ALL ABOVE CEILING JUNCTION BOXES COVERS WITH PANEL AND CIRCUITS IN LEGIBLE PRINT USING BLACK INDELEIBLE INK. ABOVE CEILING JUNCTION BOXES SHALL ALSO BE LABELED AT THE REAR INTERIOR BOX WITH AN INDELEIBLE BLACK MARKER.
- LABEL ALL WALL AND/OR WIREMOLD MOUNTED OUTLET DEVICES WITH PANEL CIRCUIT IDENTIFICATION WITH BOLD TYPE-PRINTED LABELING. BLACK LETTERING ON WHITE BACKGROUND PREFERRED.
- DERATE CONDUCTORS IN RACEWAYS IN ACCORDANCE WITH NEC CODE REQUIREMENTS. PANEL FEEDERS TO WIREMOLDS CAN ENTER AT VARIOUS LOCATIONS TO LIMIT CONDUCTOR CIRCUITS PER WIREMOLD CAPACITIES.

DRAWING INDEX	
SHEET NO.	SHEET TITLE
E0.1	ELECTRICAL COVER SHEET
E1.1	ELECTRICAL SITE PLAN
E2.1	ELECTRICAL DEMOLITION FLOOR PLANS - WINGS #1, #2 & #3
E2.2	ELECTRICAL DEMOLITION FLOOR PLANS - MUSIC BLDG. & MEDIA CENTER
E2.3	ELECTRICAL DEMOLITION FLOOR PLANS - MULTIPURPOSE BUILDINGS
E2.4	ELECTRICAL DEMOLITION FLOOR PLANS - RELOCATABLE BUILDINGS
E3.1	ELECTRICAL NEW FLOOR PLANS - WINGS #1, #2 & #3
E3.2	ELECTRICAL NEW FLOOR PLANS - MUSIC BLDG. & MEDIA CENTER
E3.3	ELECTRICAL NEW FLOOR PLANS - MULTIPURPOSE BUILDINGS
E3.4	ELECTRICAL NEW FLOOR PLANS - RELOCATABLE BUILDINGS
E4.1	DEMO SINGLE LINE DIAGRAM
E4.2	NEW SINGLE LINE DIAGRAM
E4.3	PANEL SCHEDULES
E5.1	ELECTRICAL DETAILS
E5.2	ELECTRICAL DETAILS

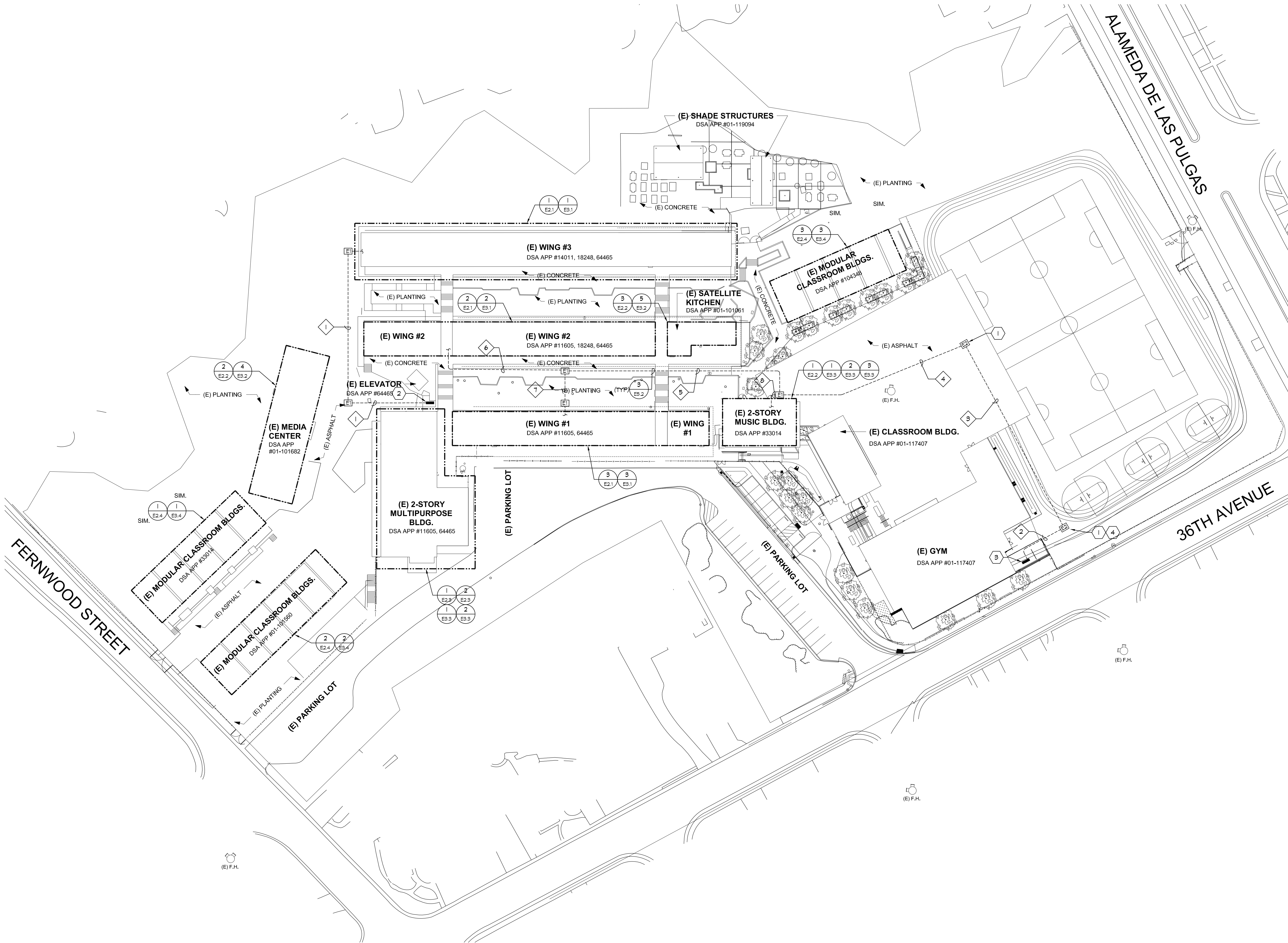
ABBREVIATIONS

A	AMPERE
ABV	ABOVE
AF	AMP FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CD	CANDELAS
CKT	CIRCUIT
CL	CENTER LINE
CL6	CEILING
CO	CONDUIT ONLY
CTR	CENTER
(D)	DEMOLISH
DET	DETAIL
DM	DIMENSION
DISTR	DISTRIBUTION
DWS	DRAWING
(E)	EXISTING
EM	EMERGENCY
EQPT	EQUIPMENT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
(F)	FUTURE
FIN	FINISH
FL	FLOOR
6' AND	GROUND
HST	HEIGHT
HP	HORSEPOWER
IC	INTERCOM
IDT	INTERMEDIATE DISTRIBUTION FRAME
JB	JUNCTION BOX
KALC	KILOAMPERE INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KVA	KILOVAH
LTS	LIGHTING
MC	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MH	MANHOLE
MTD	MOUNTED
MTS	MOUNTING
(N)	NEW
NC	NORMALLY CLOSED
NG	NOT IN CONTRACT
NEG	NOT IN ELECTRICAL CONTRACT
NO	NUMBER NORMALLY OPEN
NTS	NOT TO SCALE
O.C.	ON CENTER
PA	POLE CIRCUIT BREAKER
PA	PUBLIC ADDRESS
PB	PULL BOX
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
(R)	EXISTING TO BE RELOCATED
REQD	REQUIRED
REGT	REQUIREMENT(S)
RM	ROOM
RSC	RIGID STEEL CONDUIT
SHT	SHEET
SH	SWITCH
SHBD	SWITCHBOARD
TC	TERMINAL CABINET
TEL	TELEPHONE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHERPROOF
XTHR	TRANSFORMER

IDENTIFICATION STAMP
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APP: 01-119556 INC:
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SS ☒ FLS ☒ ACS ☒
DATE: 10/11/2021

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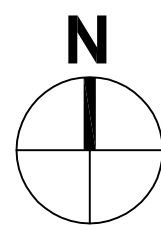
PROJECT
ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT
CONSULTANT
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
E16880
Exp. 06/30/24
American Consulting Engineers
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Job # E021033100
408/236-2312
408/236-2314
STATE
FILE NUMBER
41-26
APPL #
01-119557
REVISIONS
No. Description Date
MILESTONES
DD
90% CD
DSA SUB
06/03/2021
BACKCHECK
SHEET
ELECTRICAL
COVER SHEET
DATE
06/03/2021
JOB #
2021005.06
SHEET #
E0.1



1
E1.1

ELECTRICAL SITE PLAN

SCALE: 1" = 40'-0"



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 BUILDING, 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 TRENCHING SHALL BE INSTALLED PER DETAIL 3/ES.2.
5. SEE DEMOLITION SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
6. SEE NEW SINGLE LINE DIAGRAM FOR FEEDER, CABLE, AND CONDUIT REQUIREMENTS.

SHEET NOTES:

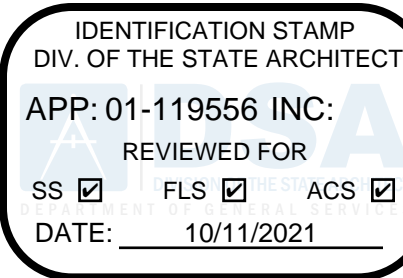
- 1 EXISTING IN-GRADE BOX.
- 2 EXISTING MAIN SWITCHBOARD #1.
- 3 EXISTING MAIN SWITCHBOARD #2.
- 4 SPLICE CABLES INSIDE THIS EXISTING IN-GRADE ELECTRICAL PULL BOX. PROVIDE POLARIS SUBMERSIBLE SPLICE CONNECTORS.

CONDUIT SCHEDULE:

- 1 (N) (3) 3" C - PANEL 'EM'
- 2 (E) (1) 4" C - PNL 'A' (MUSIC BUILDINGS)
(E) (1) 4" C - PNL 'A' (WING 1)
(N) (1) 4" C - PNL 'DM' (WING 2)
- 3 (E) (2) 4" C - PNL 'A' (MUSIC BUILDINGS)
(N) (3) 4" C - PNL 'A' (WING 1)
(N) (3) 4" C - PNL 'DM' (WING 2)
- 4 (E) (2) 4" C - PNL 'A' (MUSIC BUILDINGS)
(N) (3) 4" C - PNL 'A' (WING 1)
(N) (3) 4" C - PNL 'DM' (WING 2)
- 5 (N) (4) 4" C - PNL 'DM' (WING 2)
(N) (3) 4" C - PNL 'A' (WING 1)
- 6 (N) (3) 4" C - PNL 'DM' (WING 2)
- 7 (N) (3) 4" C - PNL 'A' (WING 1)
- 8 (N) (2) 4" C - PNL 'A' (MUSIC BUILDING)

PULLBOX SCHEDULE:

- 1 - NEW B2436 ELECTRIC / POWER PULLBOX WITH TRAFFIC RATED LID, LABEL LID 'POWER'.
- 2 - EXISTING B2436 ELECTRIC / POWER PULLBOX WITH TRAFFIC RATED LID, LABEL LID 'POWER'.



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PROJECT
**ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT
CONSULTANT



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Electrical, Inc.**

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JOB # E101-0332-00 FAX 408/236-2312

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

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No. Description Date

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MILESTONES
DD
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DSA SUB 06/03/2021
BACKCHECK

SHEET
**ELECTRICAL
SITE PLAN**

DATE 06/03/2021
JOB # 2021005.06
SHEET #

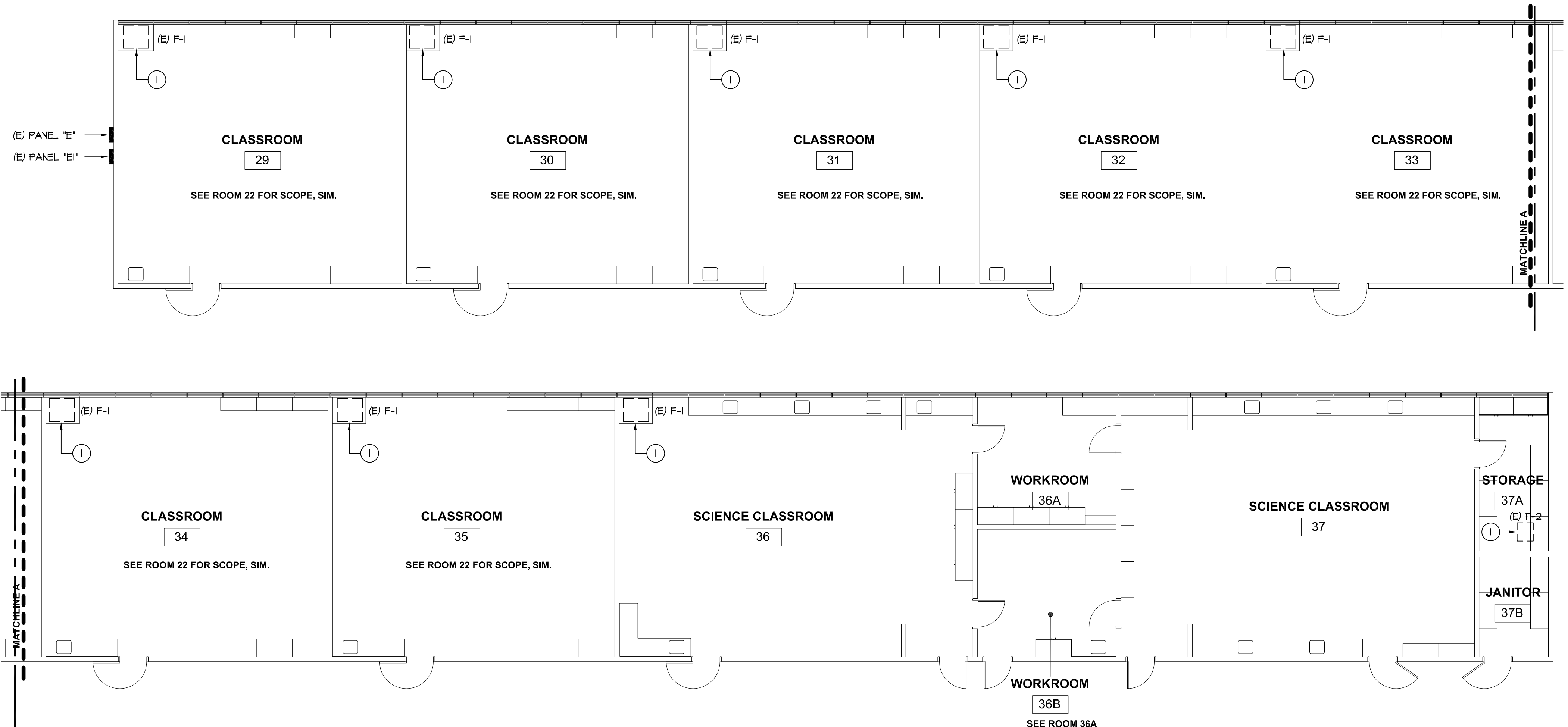
E1.1

GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL DEMO REQUIREMENTS.
2. EXISTING ELECTRICAL PANELS ARE TO REMAIN.
3. SEE NEW ELECTRICAL FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
4. SEE DEMO AND NEW SINGLE LINE DIAGRAMS FOR ADDITIONAL REQUIREMENTS.

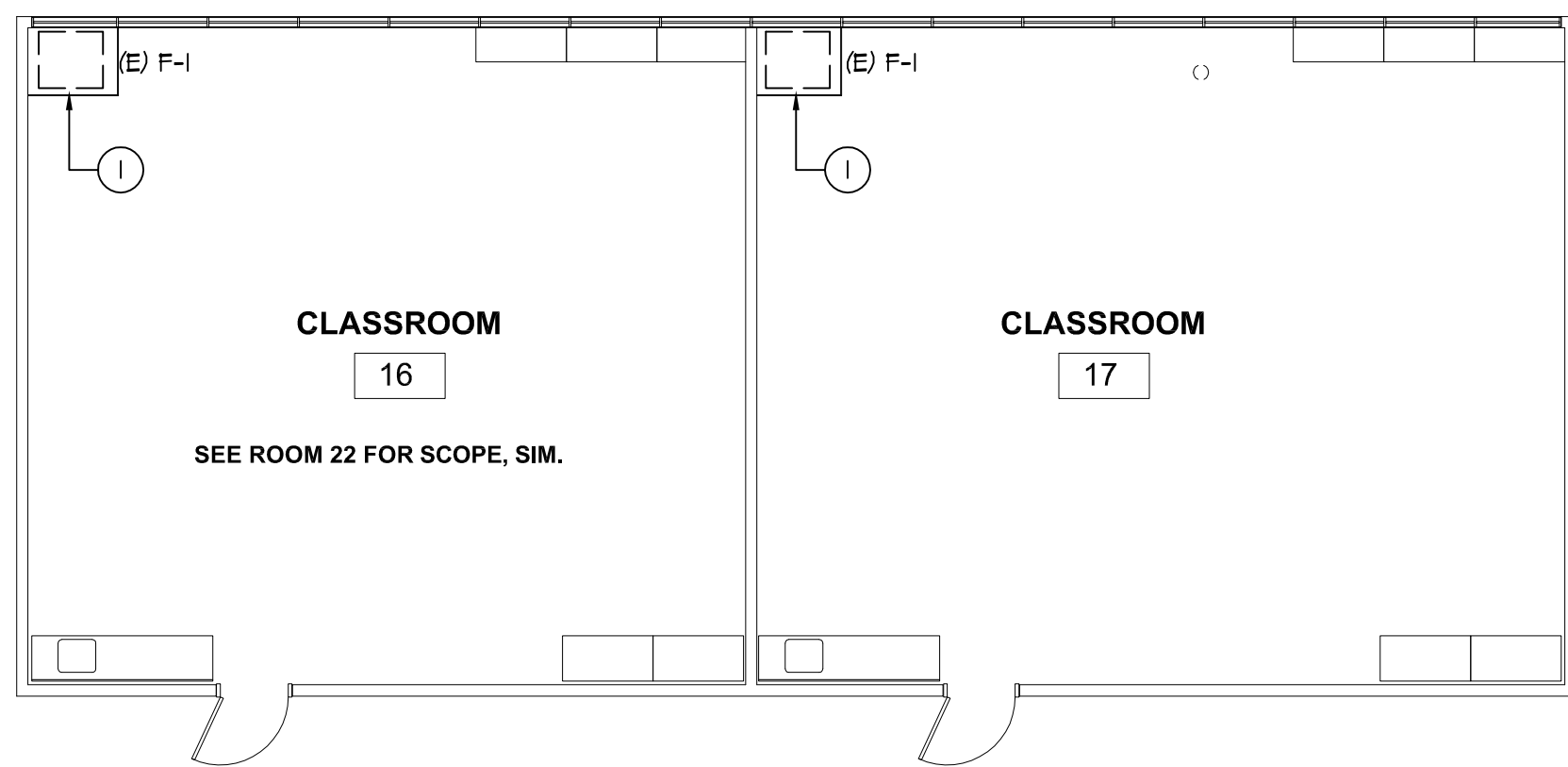
DEMOLITION SHEET NOTES:

1. EXISTING MECHANICAL UNIT TO BE DEMOLISHED. PULL EXISTING ELECTRICAL CIRCUITRY BACK TO SOURCE AND REMOVE. REMOVE ALL CONDUITS, PIPES AND DISCONNECT SWITCH ASSOCIATED WITH THE DEMOLISHED UNIT.



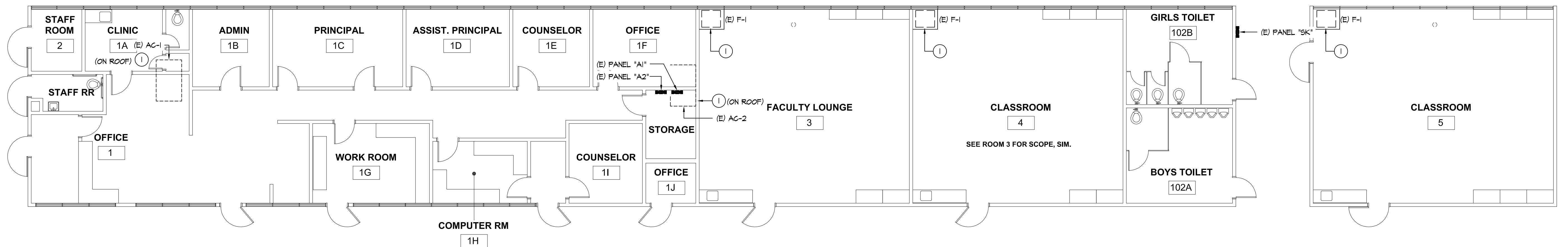
1 ELECTRICAL DEMO FLOOR PLAN - WING 3

E2.1 SCALE: 1/8" = 1'-0"



2 ELECTRICAL DEMO FLOOR PLAN - WING 2

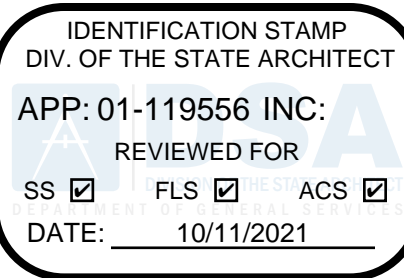
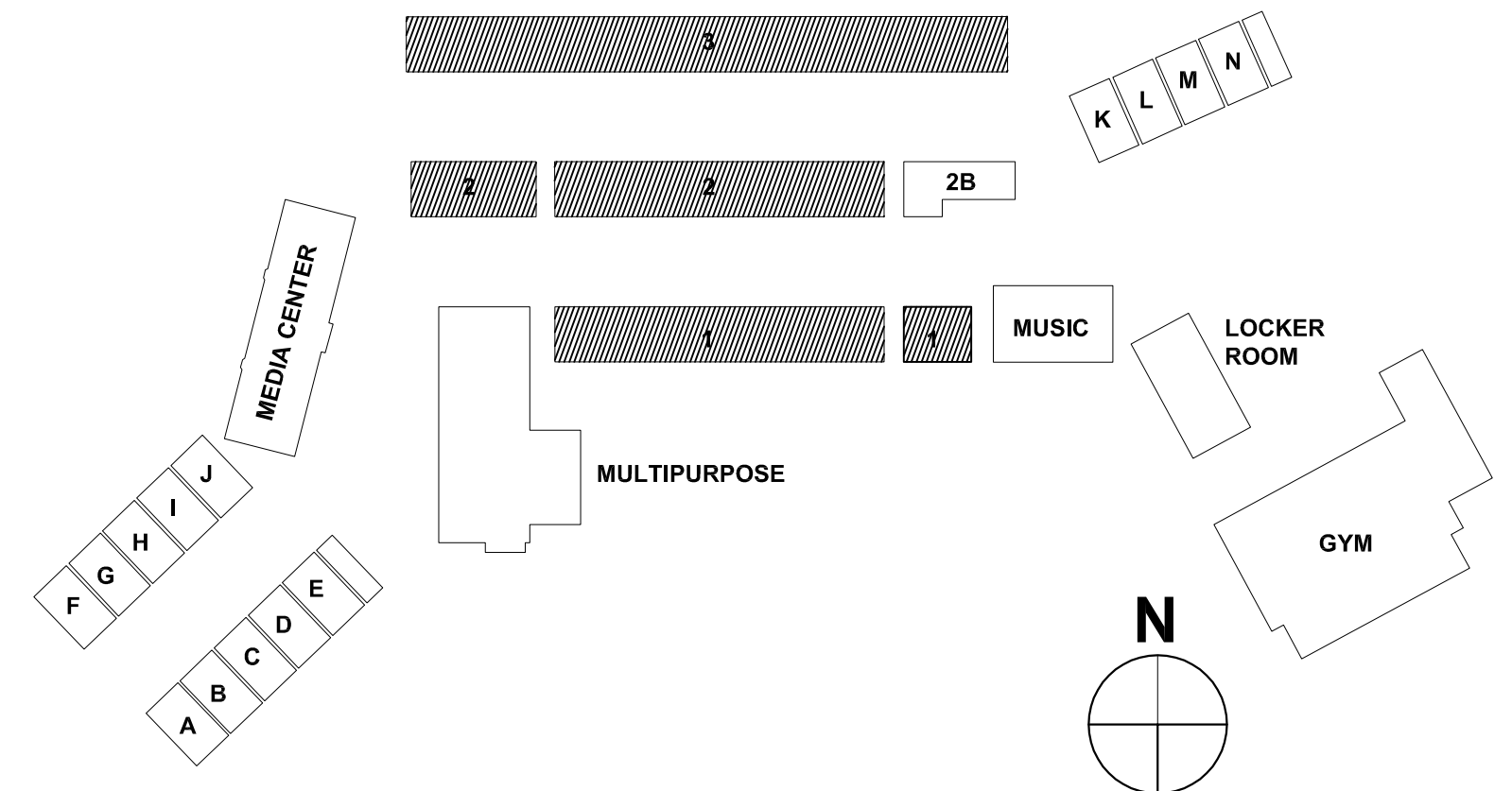
E2.1 SCALE: 1/8" = 1'-0"



3 ELECTRICAL DEMO FLOOR PLAN - WING 1

E2.1 SCALE: 1/8" = 1'-0"

BUILDING KEY

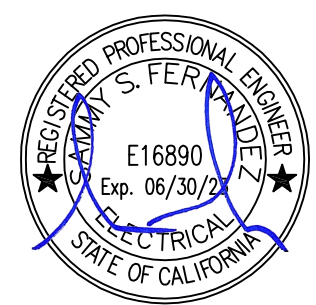


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ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

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ELECTRICAL
DEMO FLOOR
PLANS -
WINGS 1, 2 & 3

DATE 06/03/2021
JOB # 2021005.06
SHEET #

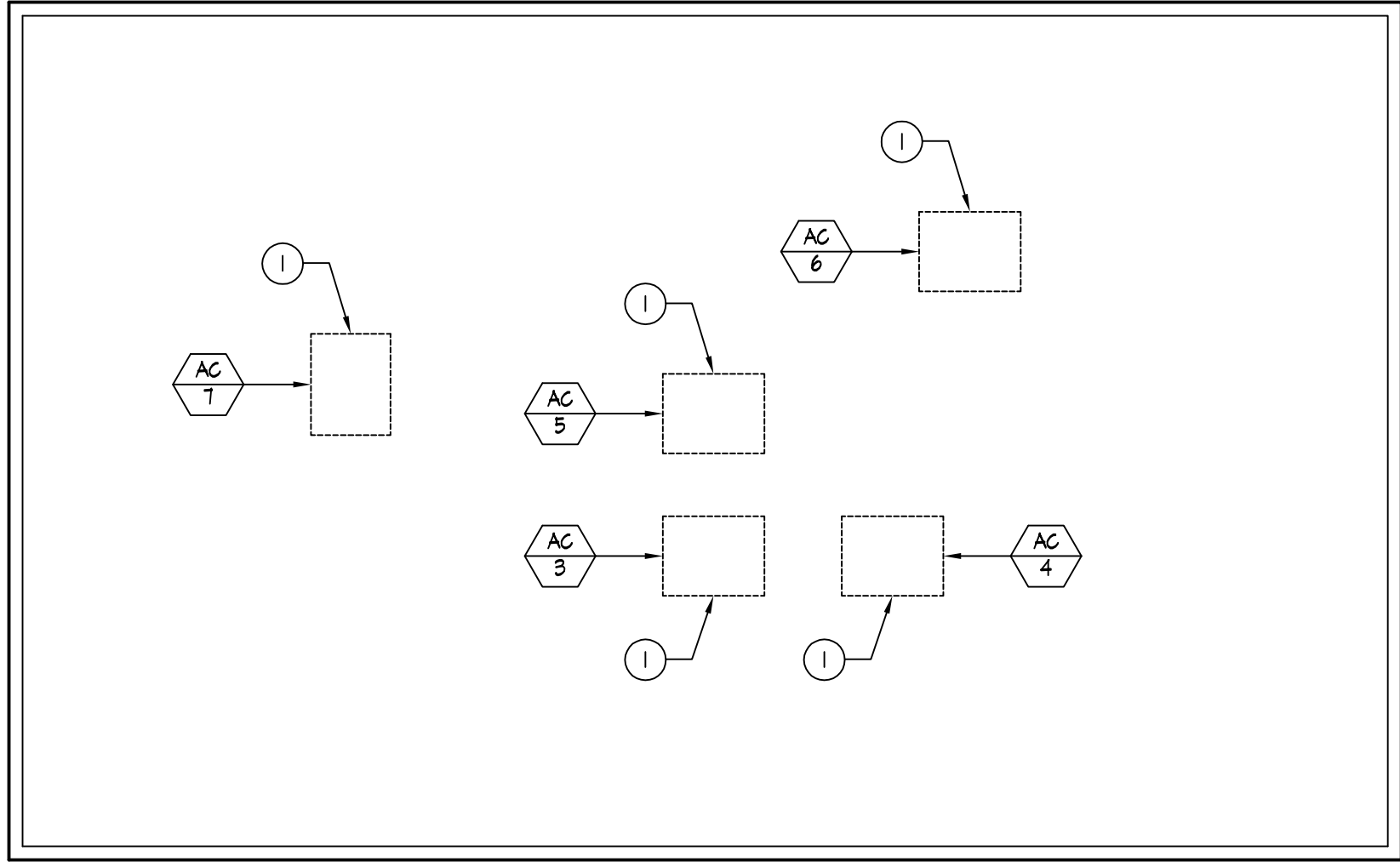
E2.1

GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL DEMO REQUIREMENTS.
2. EXISTING ELECTRICAL PANELS ARE TO REMAIN.
3. SEE NEW ELECTRICAL FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
4. SEE DEMO AND NEW SINGLE LINE DIAGRAMS FOR ADDITIONAL REQUIREMENTS.

DEMOLITION SHEET NOTES:

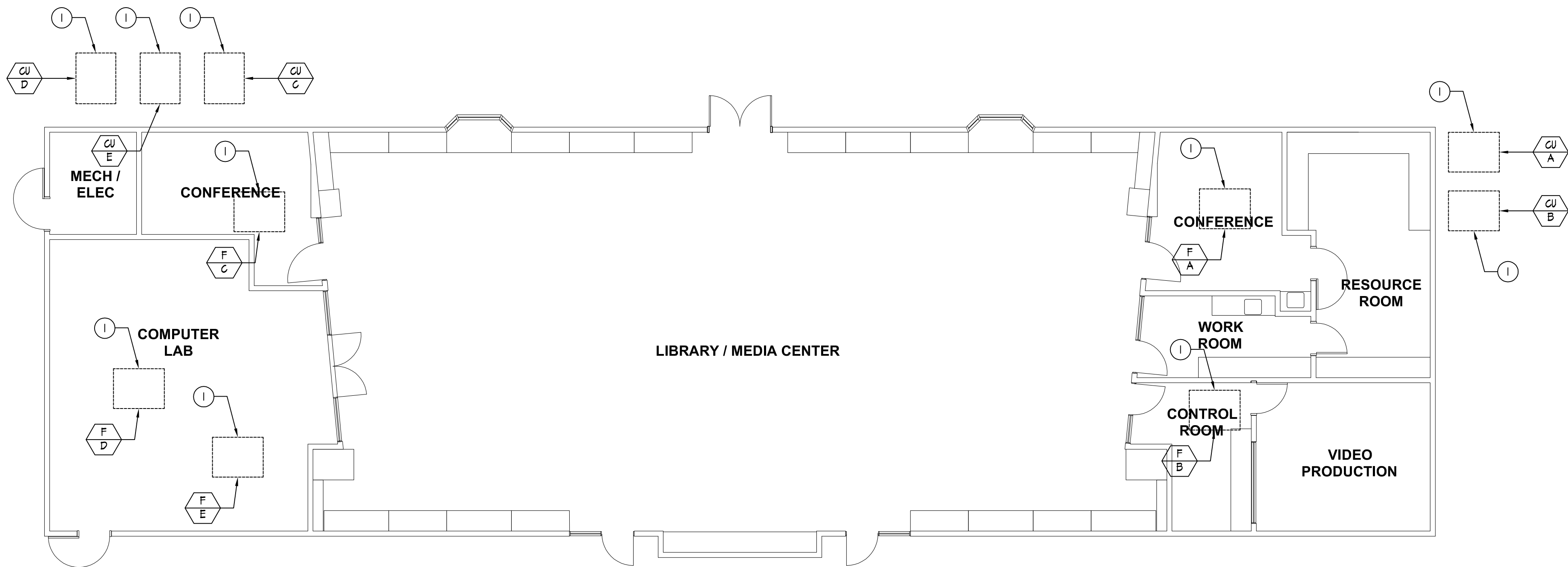
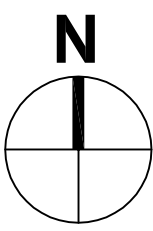
- ① EXISTING MECHANICAL UNIT TO BE DEMOLISHED. PULL EXISTING ELECTRICAL CIRCUITRY BACK TO SOURCE AND REMOVE. REMOVE ALL CONDUITS, J-BOXES AND DISCONNECT SWITCH ASSOCIATED WITH THE DEMOLISHED UNIT.



**ELECTRICAL DEMO ROOF PLAN -
MUSIC BLDG.**

1
E2.2

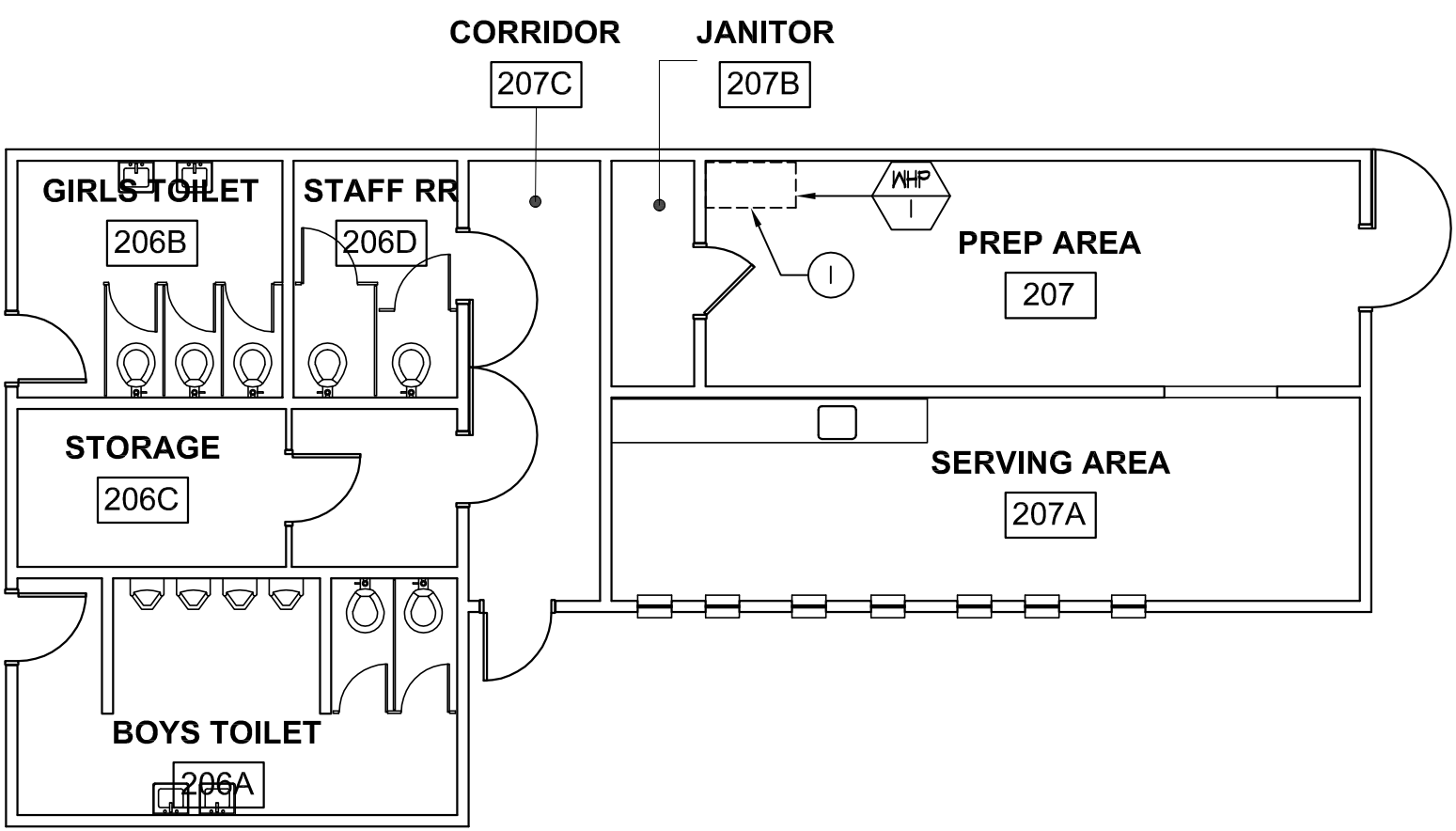
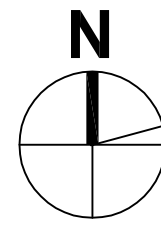
SCALE: 1/8" = 1'-0"



ELECTRICAL DEMO FLOOR PLAN - MEDIA CENTER

2
E2.2

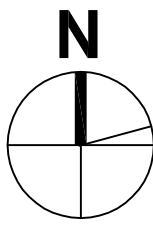
SCALE: 1/8" = 1'-0"



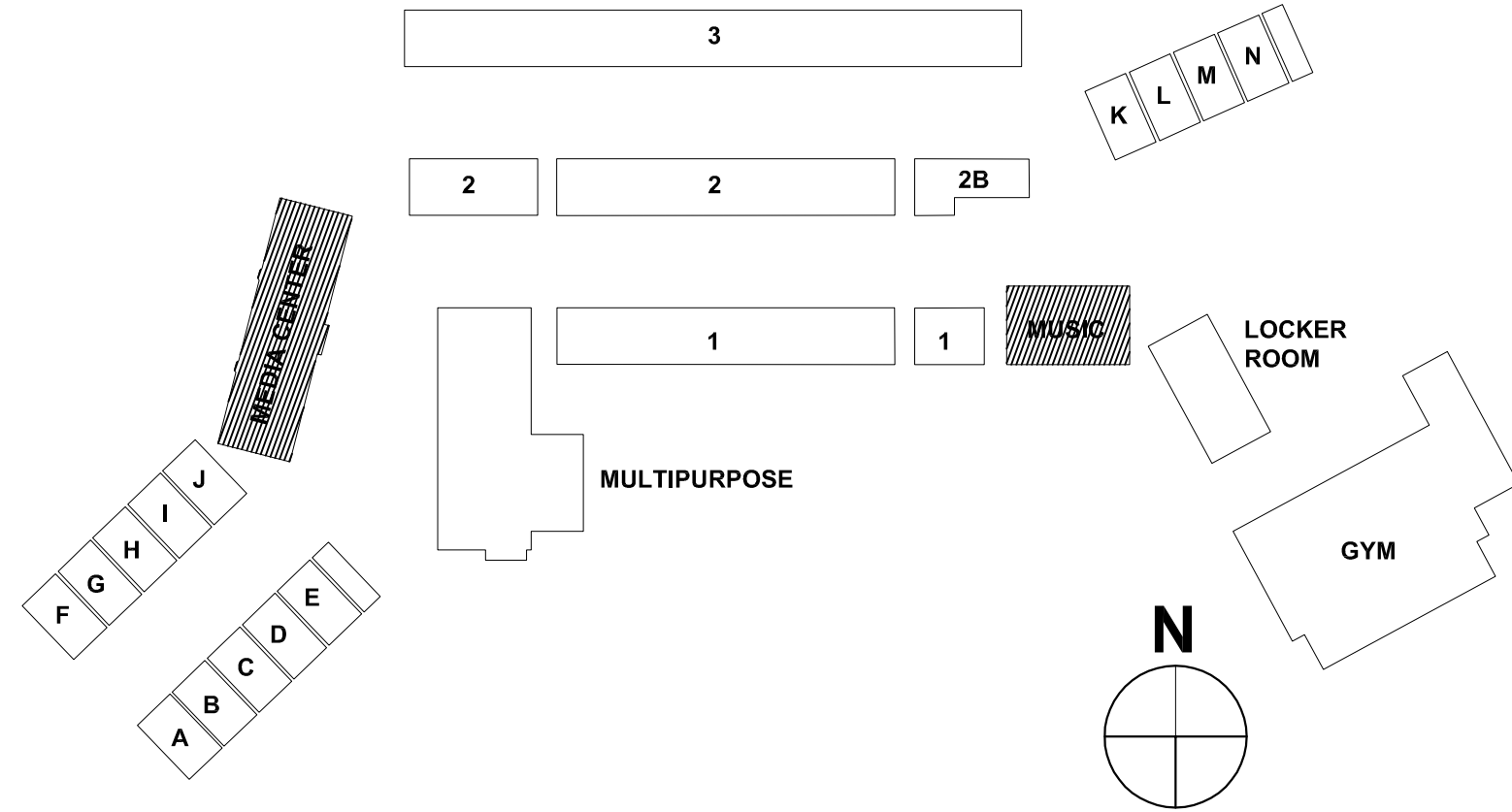
ELECTRICAL DEMO FLOOR PLAN - SATELLITE KITCHEN

3
E2.2

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



BUILDING KEY



PROJECT
**ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT
CONSULTANT



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Fax: 408/236-2314

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SHEET
**ELECTRICAL
DEMO FLOOR
PLANS -
MUSIC BLDG.
AND MEDIA
CENTER**

DATE 06/03/2021
JOB # 2021005.06
SHEET #

E2.2

PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



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Electrical, Inc.**
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JOB # E2.3 408/236-2312

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BACKCHECK

SHEET

**ELECTRICAL
DEMO FLOOR
PLANS -
MULTIPURPOSE
BLDG.**

DATE 06/03/2021

JOB # 2021005.06

SHEET #

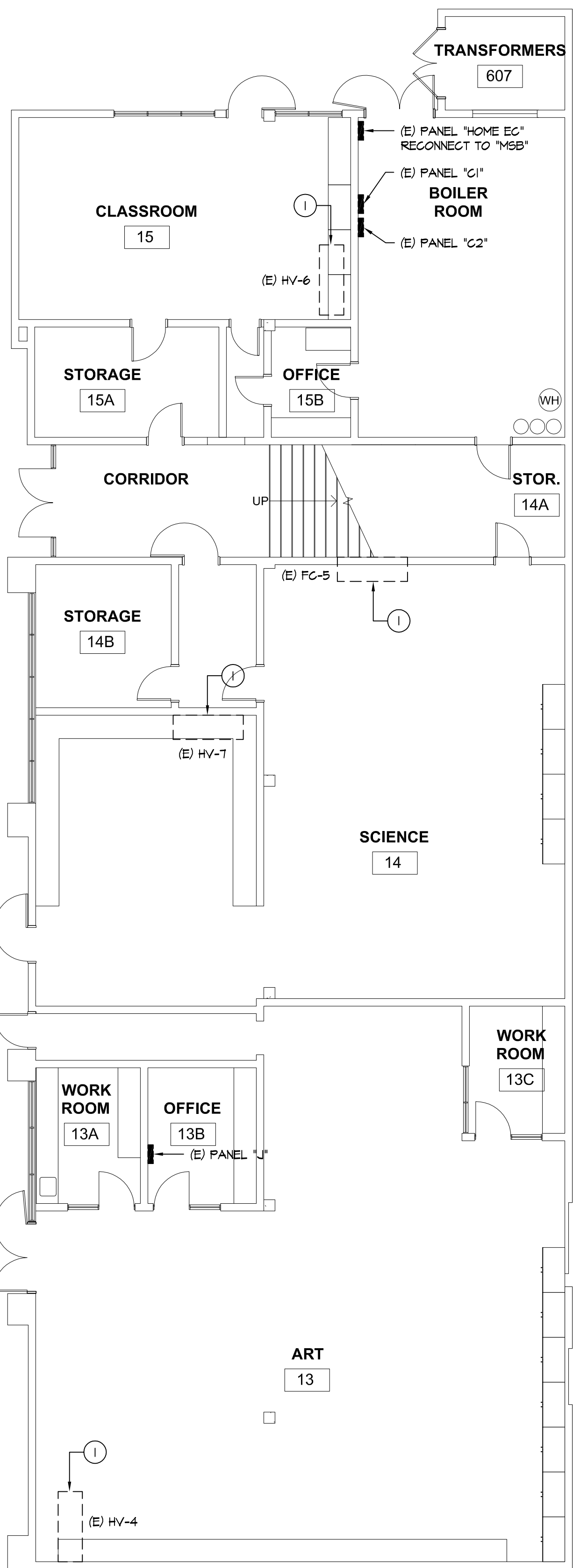
E2.3

GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL DEMO REQUIREMENTS.
2. EXISTING ELECTRICAL PANELS ARE TO REMAIN.
3. SEE NEW ELECTRICAL FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
4. SEE DEMO AND NEW SINGLE LINE DIAGRAMS FOR ADDITIONAL REQUIREMENTS.

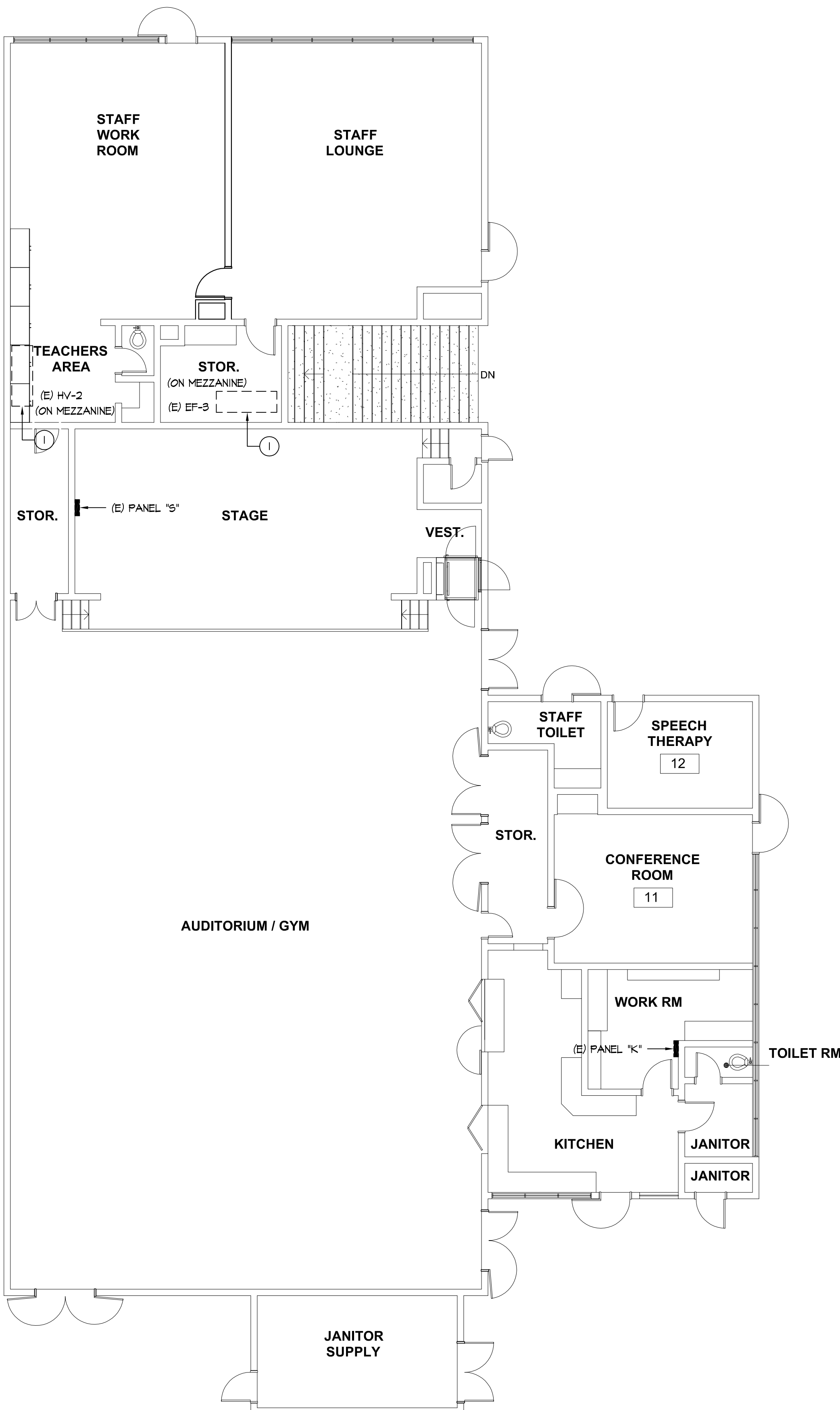
DEMOLITION SHEET NOTES:

1. EXISTING MECHANICAL UNIT TO BE DEMOLISHED. PULL EXISTING ELECTRICAL CIRCUITRY BACK TO SOURCE AND REMOVE. REMOVE ALL CONDUITS, J-BOXES AND DISCONNECT SWITCH ASSOCIATED WITH THE DEMOLISHED UNIT.



**ELECTRICAL DEMO FIRST FLOOR PLAN -
MULTIPURPOSE BLDG.**

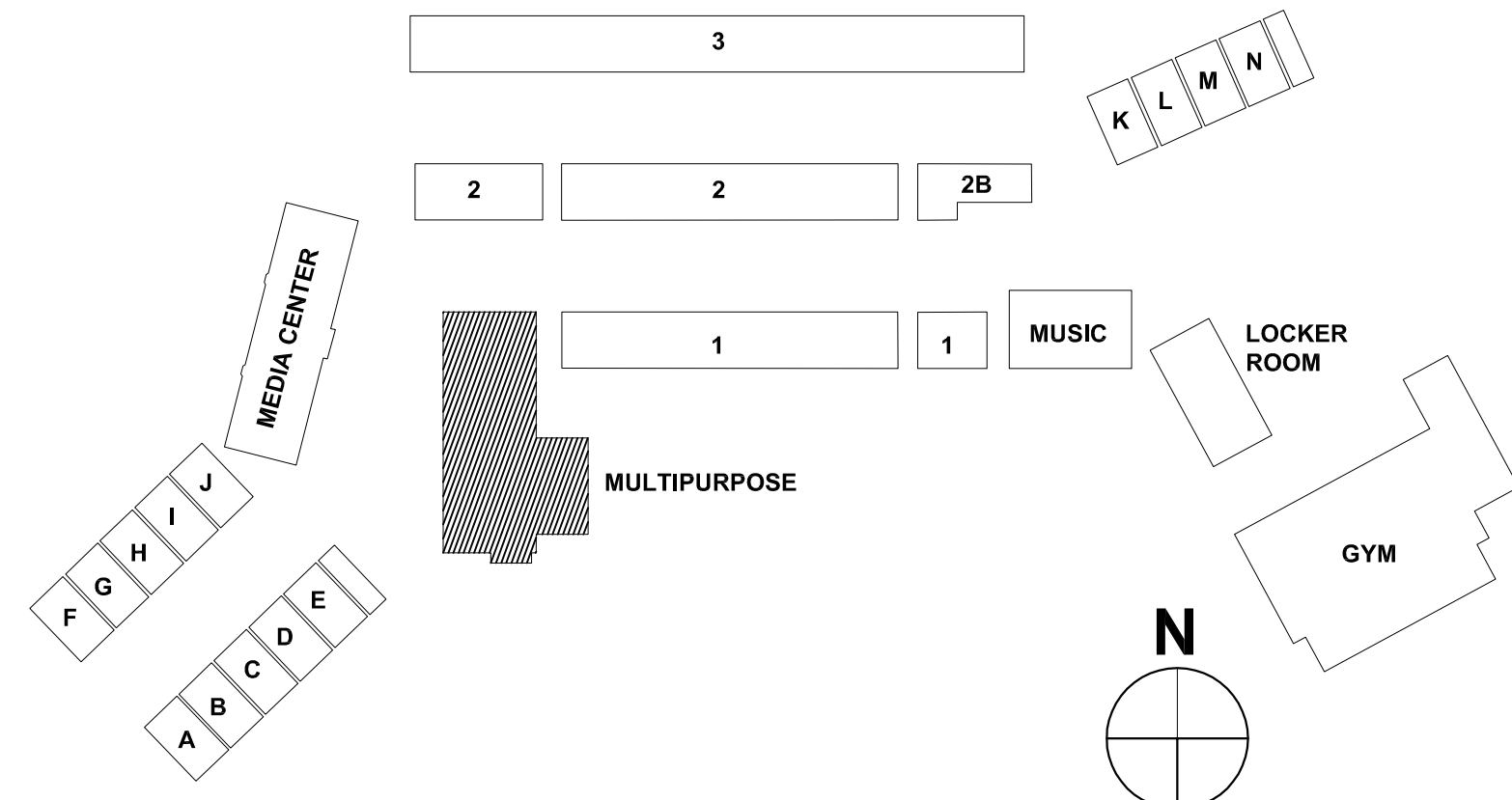
SCALE: 1/8" = 1'-0"



**ELECTRICAL DEMO SECOND FLOOR PLAN -
MULTIPURPOSE BLDG.**

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

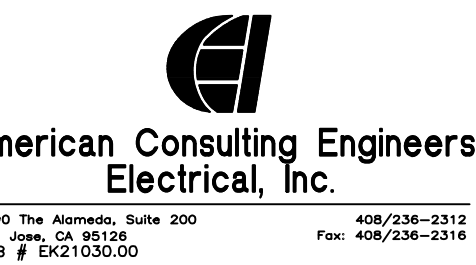
BUILDING KEY





1. CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL DEMO REQUIREMENTS.
2. EXISTING ELECTRICAL PANELS ARE TO REMAIN.
3. SEE NEW ELECTRICAL FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
4. SEE DEMO AND NEW SINGLE LINE DIAGRAMS FOR ADDITIONAL REQUIREMENTS.

- ① EXISTING MECHANICAL UNIT TO BE DEMOLISHED. PULL EXISTING ELECTRICAL CIRCUITRY BACK TO SOURCE AND REMOVE. REMOVE ALL CONDUITS, J-BOXES AND DISCONNECT SWITCH ASSOCIATED WITH THE DEMOLISHED UNIT.
- ② EXISTING ELECTRICAL PANEL TO REMAIN.

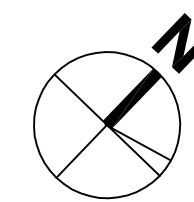


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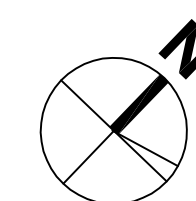
SHEET

DATE	06/03/2021
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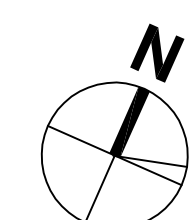
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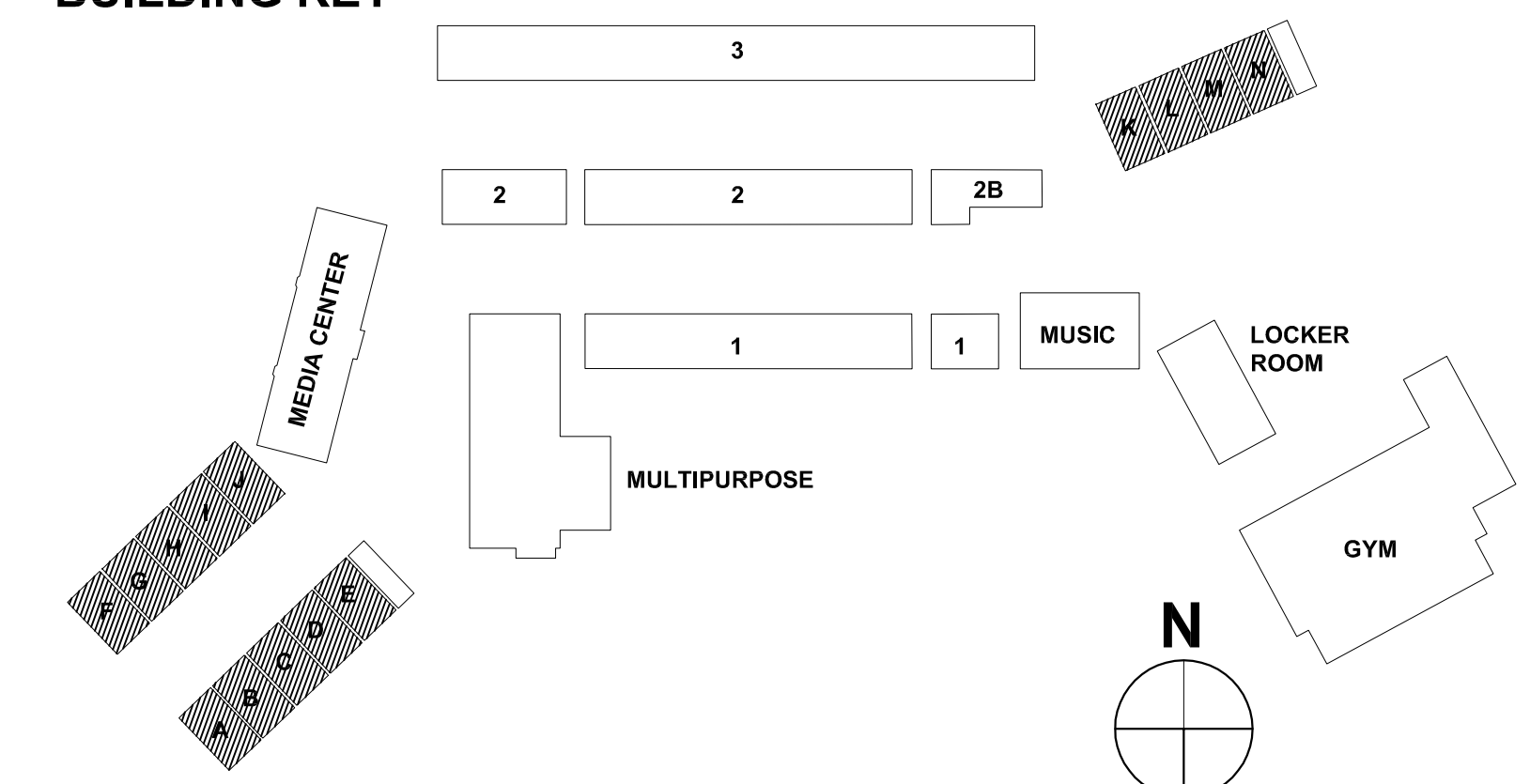
2
E2.4



2
E2.4 SCALE: 1/8" = 1'-0"



ELECTRIC



GENERAL NOTES:

- 1. ALL CONDUITS SHALL BE ROUTED CONCEALED IN CEILING BELOW WHERE POSSIBLE.
- 2. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND POINTS OF CONNECTION FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR. ADJUST LOCATION AND CONNECTION POINTS AS NEEDED.
- 3. SEE PANEL SCHEDULES AND SINGLE LINE DIAGRAM FOR POWER CONNECTION REQUIREMENTS.
- 4. COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- 5. FUSED AND UNFUSED DISCONNECT SWITCHES SHALL BE 600V RATED, HEAVY DUTY CYCLE. FUSES FOR MECHANICAL UNITS SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATION.

SHEET NOTES:

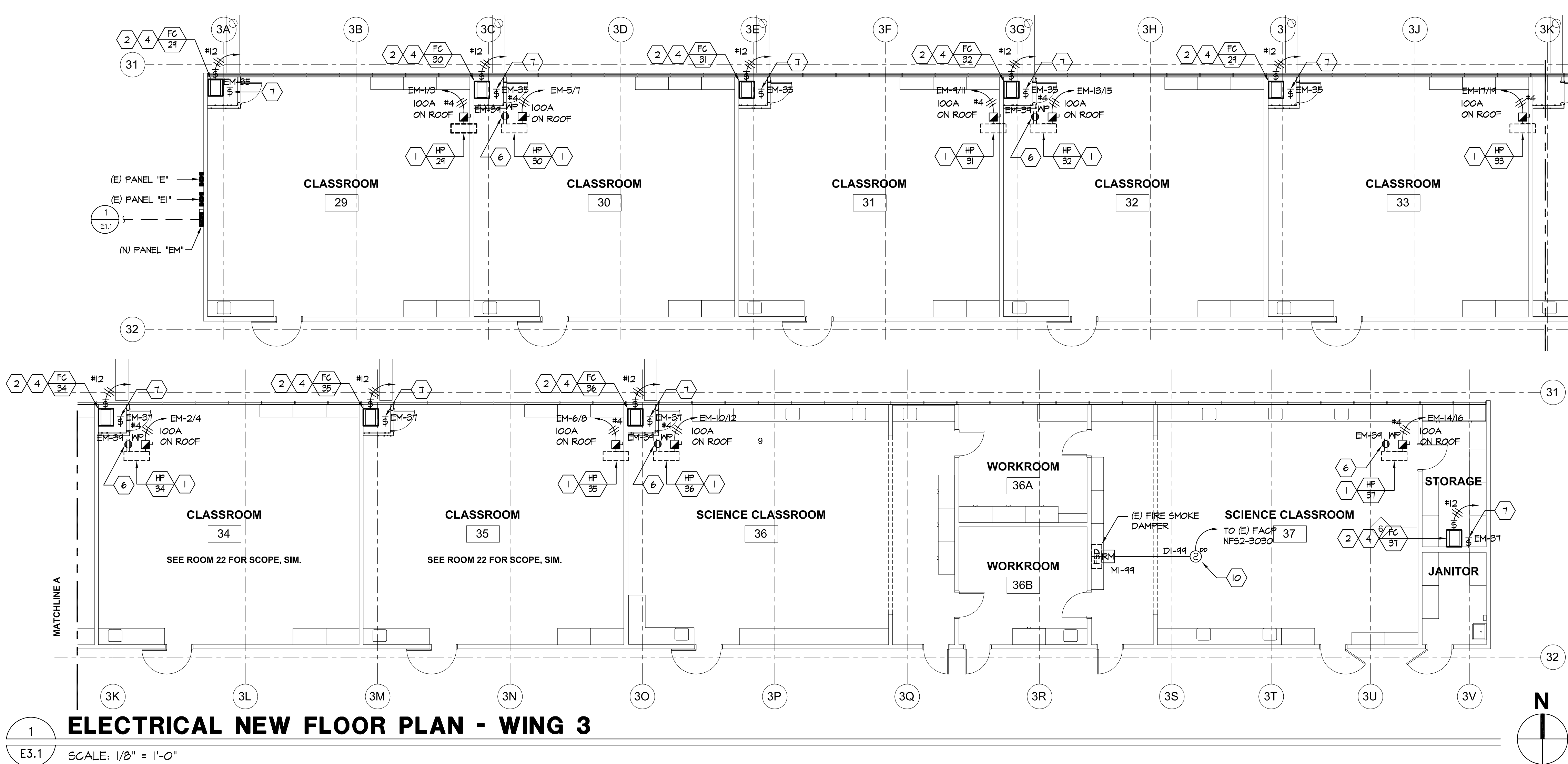
- 1. NEW 100A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 2. NEW 30A-2P, NEMA-1, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 3. MOUNT CONDUIT ADJACENT TO CHASE AND ROUTE ACROSS THE HALLWAY.
- 4. INDOOR UNIT IS POWER BY THE OUTDOOR UNIT. ROUTE POWER CIRCUIT TO ASSOCIATED OUTDOOR UNIT. REFER TO MECHANICAL SCHEDULE MPO.02 FOR ADDITIONAL REQUIREMENTS.
- 5. NEW 60A-3P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 6. PROVIDE NEW WEATHERPROOF 6FCI RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC WPOIMXD "BOSS".
- 7. PROVIDE MOTOR RATED SWITCH AND 120V POWER FOR CONDENSATION PUMP.
- 8. TRANSITIONING CONDUIT FROM UNDERGROUND TO ABOVE GRADE BEFORE COLUMN AND FOOTING TO AVOID. EXTEND CONDUIT TO WALL.
- 9. PROVIDE (N) 40A-3P CIRCUIT BREAKER IN PANEL AND CIRCUIT SPACE INDICATED.
- 10. PROVIDE NEW DUCT SMOKE DETECTOR AND RELAY MODULE FOR EXISTING FIRE SMOKE DAMPER SHUTDOWN. CONNECT NEW DUCT SMOKE DETECTOR TO EXISTING FIRE ALARM PULL STATION IN THE ROOM AS REQUIRED.

CABLE SCHEDULE:

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

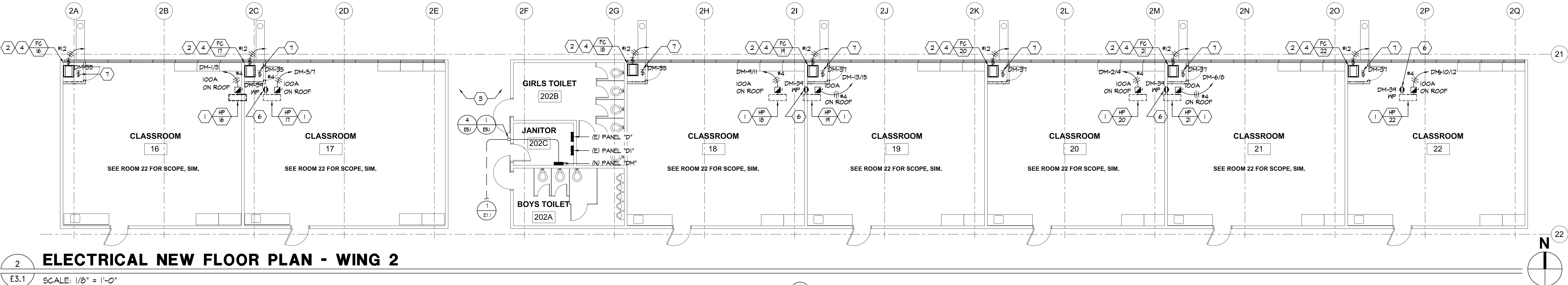
EQUIPMENT SCHEDULE:

RM	FIRE ALARM (N) RELAY MODULE MODEL: NOTIFIER FRM-1 CSFM: 1300-002B-214
DD	FIRE ALARM (N) SMOKE DETECTOR W/ DUCT HOUSING MODEL: NOTIFIER FSP-45/DNR CSFM: 1212-002B-503/3240-1653-204



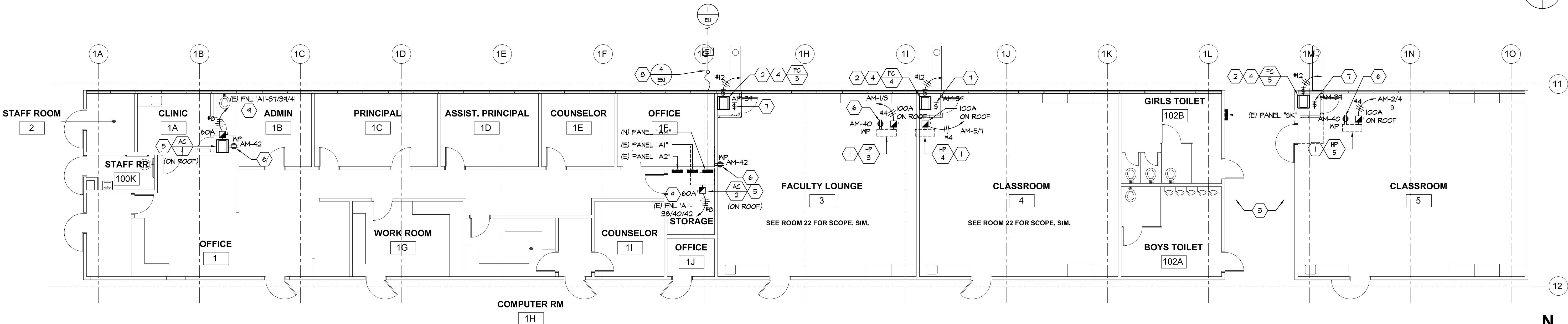
ELECTRICAL NEW FLOOR PLAN - WING 3

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



ELECTRICAL NEW FLOOR PLAN - WING 2

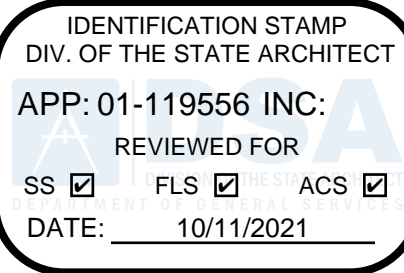
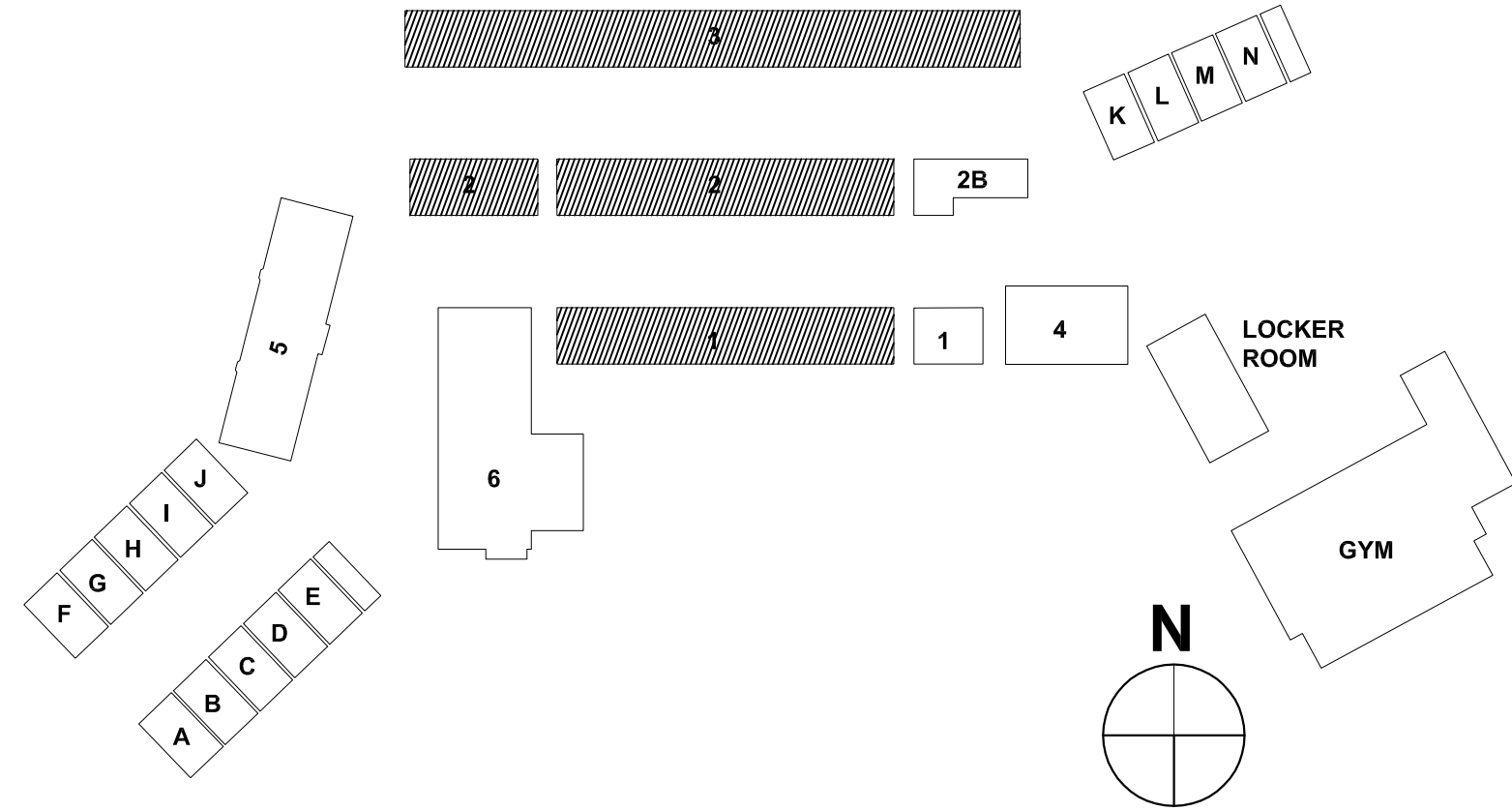
SCALE: 1/8" = 1'-0"



ELECTRICAL NEW FLOOR PLAN - WING 1

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

BUILDING KEY



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PROJECT
ABBOTT MIDDLE SCHOOL - HVAC REPLACEMENT

SAN MATEO-FOSTER CITY SCHOOL DISTRICT
CONSULTANT



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MILESTONES
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BACKCHECK

SHEET
ELECTRICAL NEW FLOOR PLANS - WING 1, 2 & 3

DATE 06/03/2021
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E3.1



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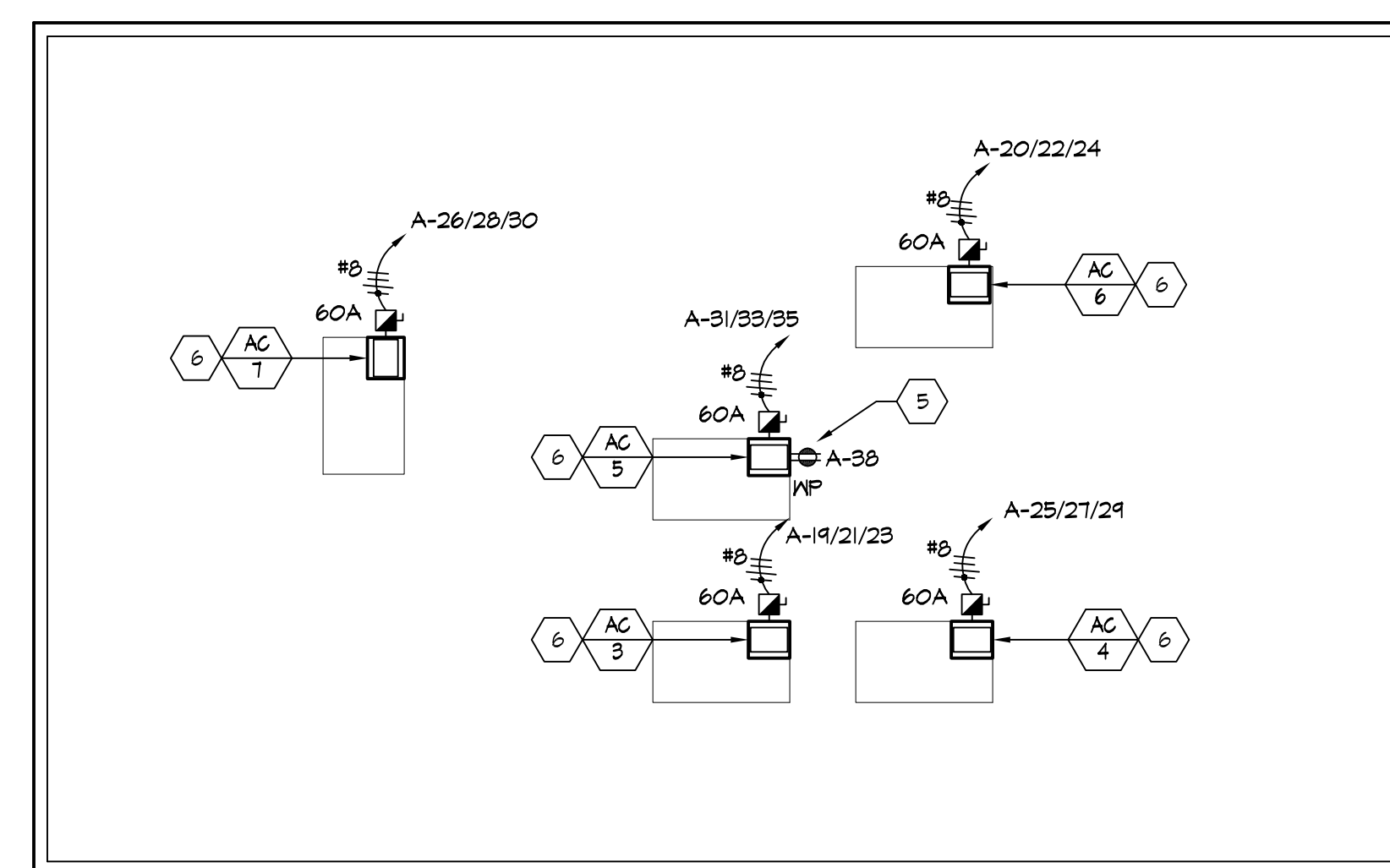
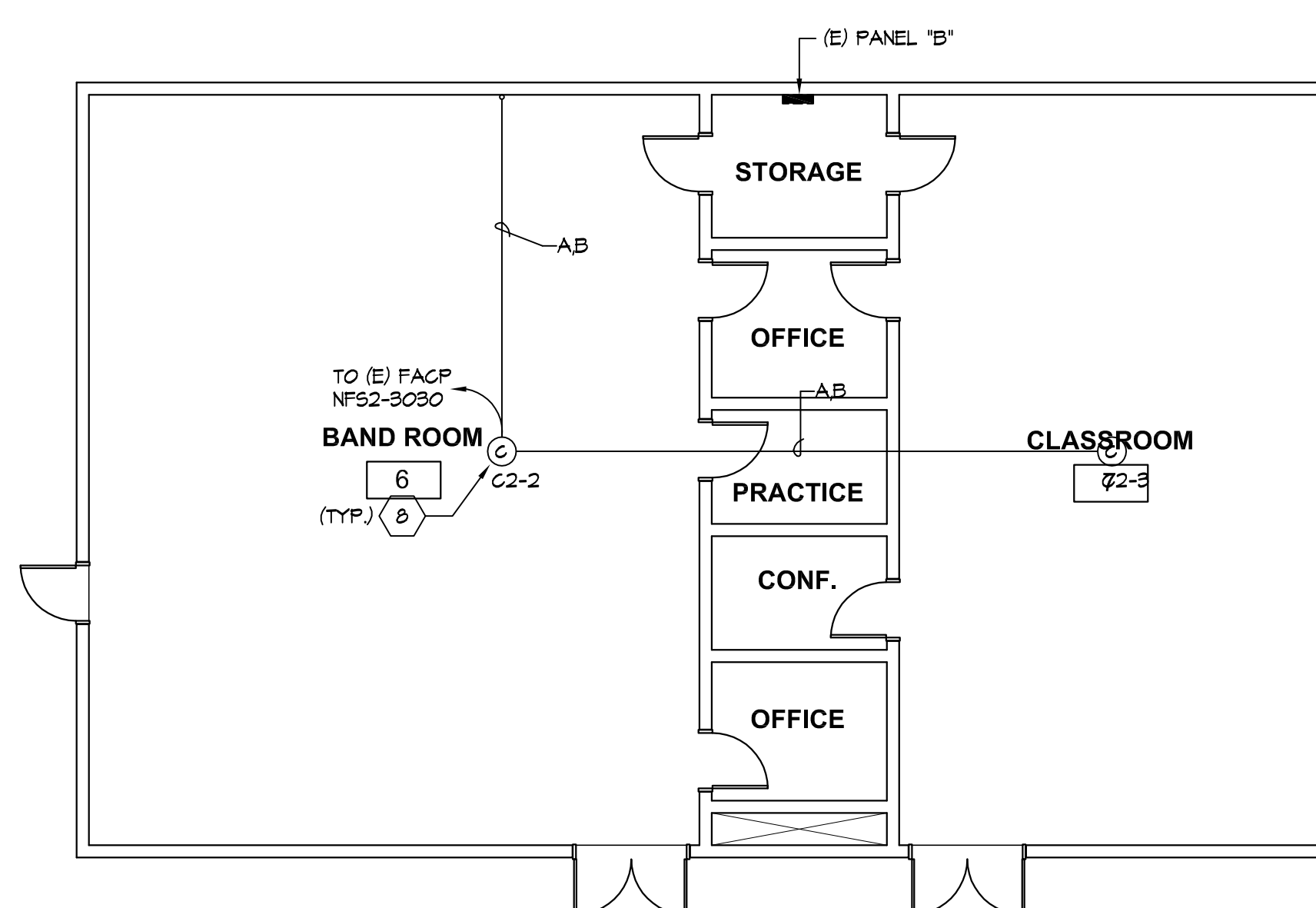
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JOB # 2021005.06

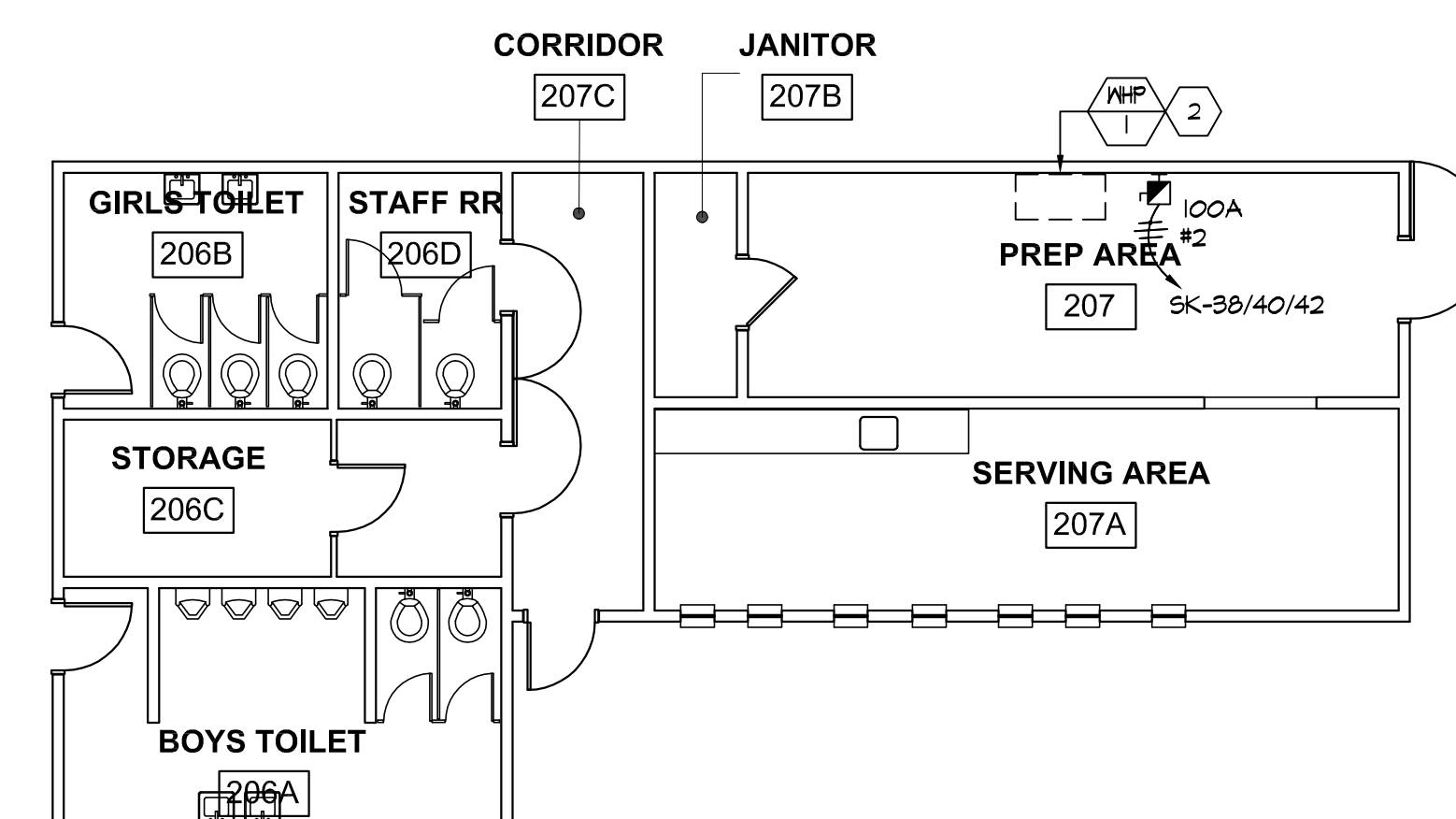
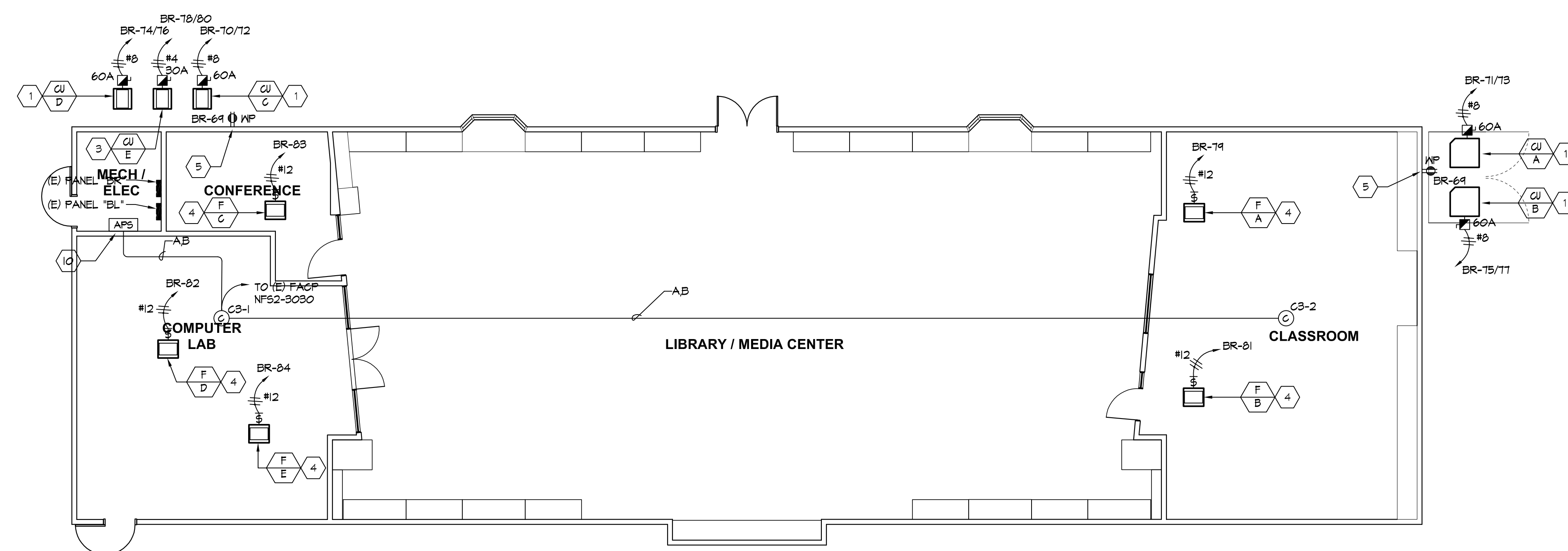
SHEET #

E3.2



ELECTRICAL NEW SECOND FLOOR PLAN - MUSIC BUILDING

ELECTRICAL NEW ROOF FLOOR PLAN - MUSIC BUILDING



ELECTRICAL NEW FLOOR PLAN - SATELLITE KITCHEN

CABLE SCHEDULE:

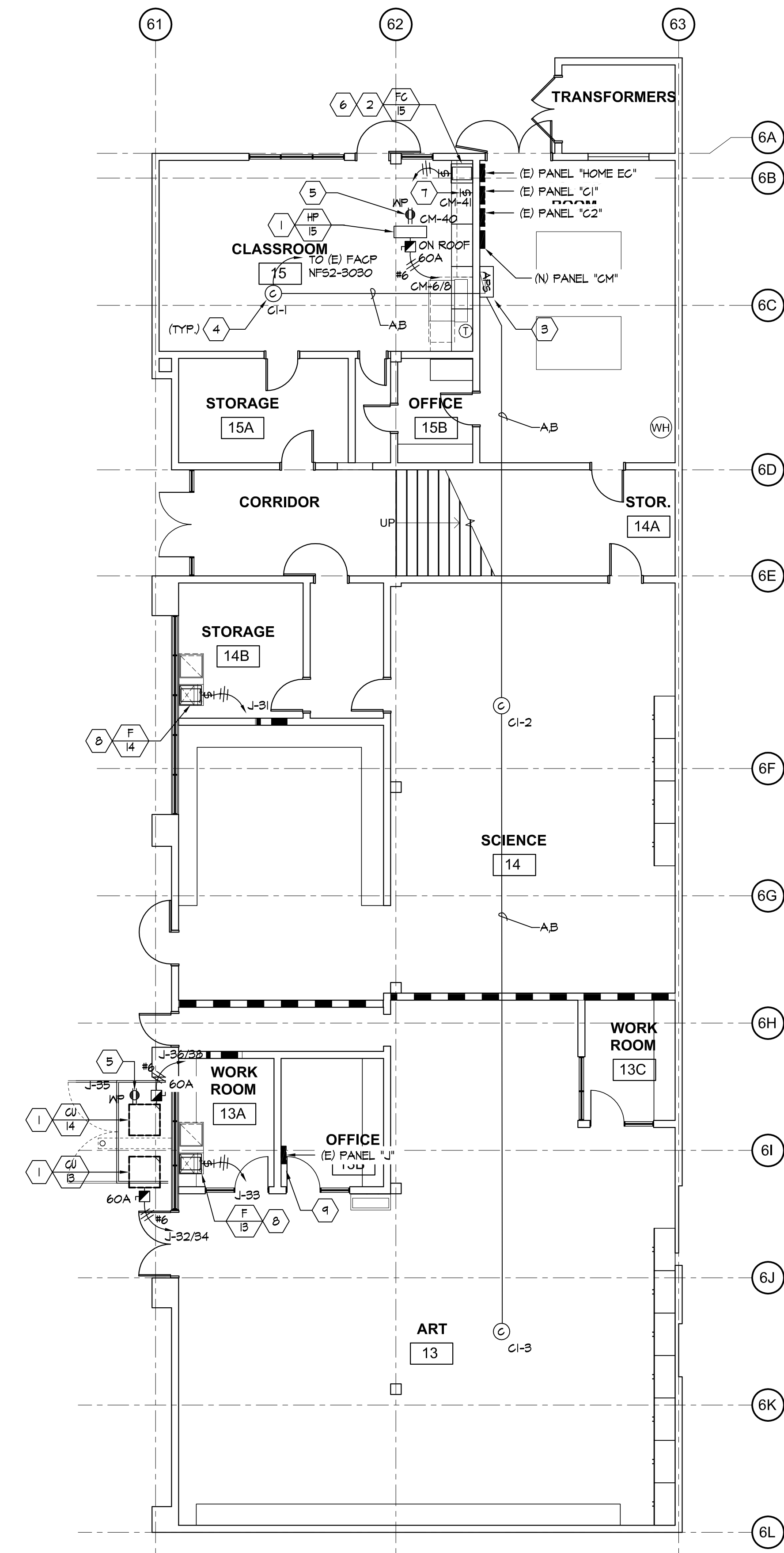
- 1 NEW 60A-3P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 2 NEW 100A-3P, NEMA-1, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 3 NEW 30A-3P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 4 PROVIDE 120V MOTOR-RATED SWITCH.
- 5 PROVIDE NEW WEATHERPROOF 6FCI RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC IPM01MD "BOSS".
- 6 NEW 60A-3P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 7 NEW AUXILIARY 24V POWER SUPPLY FOR CARBON MONOXIDE DETECTORS.
- 8 NEW CARBON MONOXIDE DETECTOR. ROUTE NEW SLG CONNECTION BACK TO EXISTING FIRE ALARM CONTROL PANEL NOTIFIER NFS2-3030 AS REQUIRED.
- 9 CONDUIT TRANSITION AT THIS APPROXIMATELY LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.
- 10 NEW AUXILIARY 24V POWER SUPPLY FOR CARBON MONOXIDE DETECTORS.

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

②	FIRE ALARM: (N) CARBON MONOXIDE DETECTOR W/ BASE MODEL: NOTIFIER F5CO-451/B200S CSFM: 5278-0028-51/7300-1653:109
APS	FIRE ALARM: (N) AUXILIARY POWER SUPPLY MODEL: NOTIFIER FCPS 2450 CSFM: 7315-0028-225

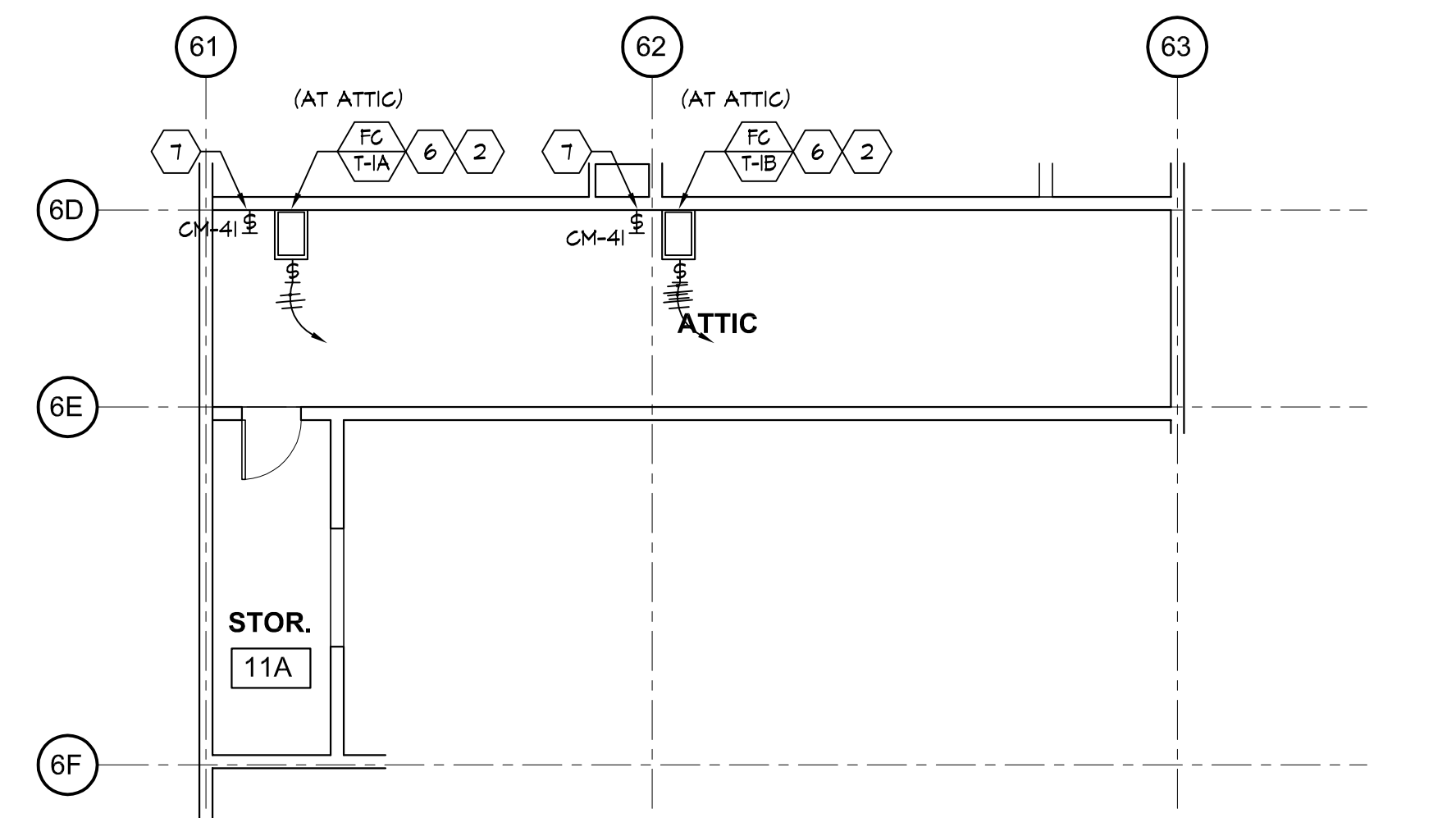
The floor plan of the second floor includes the following rooms and features:

- MEDIA CENTER**: Located on the left side of the plan.
- MULTIPURPOSE**: A large central room.
- GYM**: Located on the right side of the plan.
- LOCKER ROOM**: Located near the gym.
- Rooms 1-6**: Various rooms numbered 1 through 6, distributed across the plan.
- Rooms A-N**: Rooms labeled with letters A through N, arranged in a grid-like pattern on the left and top.
- Compass Rose**: A circular symbol with an 'N' indicating North is towards the top of the page.



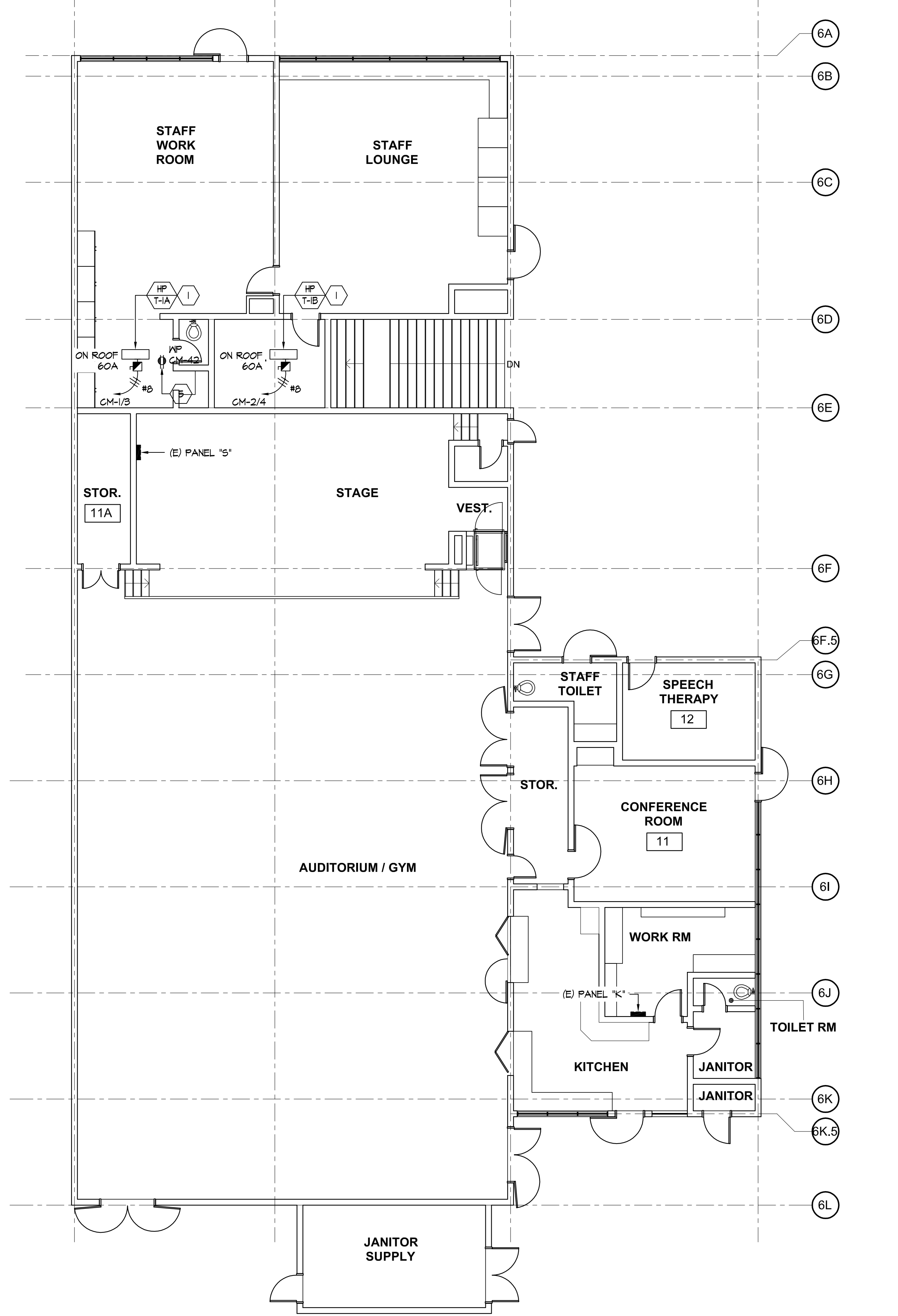
ELECTRICAL NEW FIRST FLOOR PLAN - MULTIPURPOSE BLDG.

1
E3.3 SCALE: 1/8" = 1'-0"



ELECTRICAL NEW ATTIC PLAN - MULTIPURPOSE BLDG.

3
E3.3 SCALE: 1/8" = 1'-0"



ELECTRICAL NEW SECOND FLOOR PLAN - MULTIPURPOSE BLDG.

2
E3.3 SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- ALL CONDUITS SHALL BE ROUTED CONCEALED IN CEILING BELOW WHERE POSSIBLE.
- 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 DISCONNECT SWITCHES SHALL BE 600V RATED, HEAVY DUTY CYCLE. FUSES FOR MECHANICAL UNITS SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATION.
- VISUAL NOTIFICATION IS NOT REQUIRED FOR CO DETECTION PER CBC 11B-2151.

SHEET NOTES:

- NEW 60A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- NEW 30A-2P, NEMA-1, 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.
- PROVIDE NEW WEATHERPROOF 6FCI RECEPTACLE. RECEPTACLE SHALL BE MOUNTED ON A WEATHERPROOF BOX WITH WHILE-IN-USE COVER. COVER SHALL BE INTERMATIC WP10MXD "BOSS".
- 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 MOTOR RATED SWITCH AND 120V POWER FOR CONDENSATION PUMP.
- PROVIDE 120V MOTOR RATED SWITCH.
- NEW MECHANICAL CU UNITS CONNECTED TO EXISTING PANEL 'U' ARE SINGLE PHASE. ALL LIGHTING CIRCUITS IN EXISTING PANEL 'U' ARE TO BE REARRANGED SO THEY ARE ON PHASE A AND PHASE B. THE INTENT IS TO PROVIDE A BALANCED LOAD PANEL.

CABLE SCHEDULE:

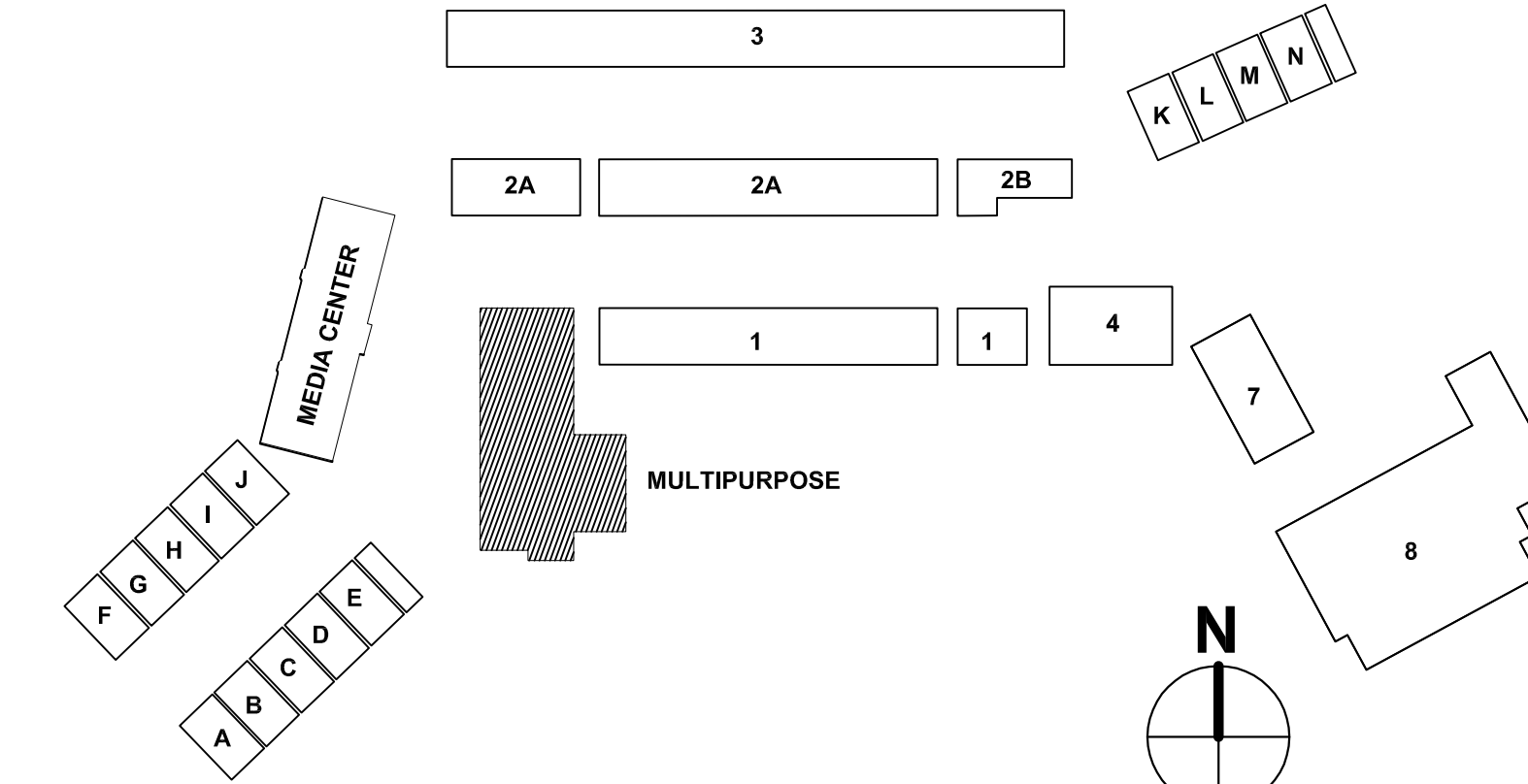
- A - (1) #14 UNSHIELDED TWISTED PAIR FOR SIGNALING LINE CIRCUITS.
B - (2) #12 FOR 24V POWER (CO DETECTOR)

EQUIPMENT SCHEDULE:

①	FIRE ALARM: (N) CARBON MONOXIDE DETECTOR W/ BASE MODEL: NOTIFIER FSCG-HB122005 CSFM: 5278-0028.51/17800-659.104
APS	FIRE ALARM: (N) AUXILIARY POWER SUPPLY MODEL: NOTIFIER FGPS 2458 CSFM: 7315-0028.225

(E) FIRE ALARM CONTROL PANEL - BATTERY CALCULATION						
QUANTITY	MODEL #	DEVICE	SUPPLY CURRENT PER	TOTAL SUPPLY CURRENT	ALARM CURRENT	TOTAL ALARM CURRENT
FIRE ALARM CONTROL PANEL						
1	CPN-NFS2 3030	PACF CENTRAL PROCESSING UNIT	0.1200	0.12	0.1200	0.12
1	KDM-R2	LOG DISPLAY	0.2200	0.22	0.2200	0.22
1	UDACT-2	DIGITAL COMMUNICATOR	0.0820	0.08	0.0810	0.081
1	LC22-30	REMOTE ANNUNCIATOR	0.0480	0.0480	0.0480	0.048
2	LEM-320	LOOP EXPANDER MODULE	0.1000	0.20	0.1000	0.20
2	LCM-320	LOOP CONTROL MODULE	0.1300	0.26	0.1300	0.26
1	DVC-6H	DIGITAL VOICE COMMAND MODULE	0.3000	0.3000	0.3000	0.3000
1	DVC-8D	DIGITAL VOICE COMMAND KEYPAD	0.0800	0.0800	0.0800	0.0800
1	AMPS-24	POWER SUPPLY/BATTERY CHARGER	0.1300	0.1300	0.0000	0.0000
(E) SLC DEVICES						
114	FAPT-581	SMOKE DETECTOR/BASE	0.0008	0.0942	0.0068	0.1410
108	FST-581H	HIGH/ATTIC HEAT DETECTOR/BASE	0.0008	0.0864	0.0068	1.3026
0	FST-581	HEAT DETECTOR/BASE	0.0008	0.0000	0.0068	0.0000
0	FAPT-581	DUST DETECTOR/DNR HOUSING	0.0008	0.0000	0.0068	0.0000
1	NBS-12LX	PULL STATION	0.0004	0.0004	0.0050	0.0050
4	FRM-1	RELAY MODULE	0.0004	0.0016	0.0068	0.0280
2	ISO-X	ISOLATOR MODULE	0.0004	0.0007	0.0110	0.0340
(E) NOTIFICATION DEVICES						
14	SPSCR	CEILING SPEAKER/STROBE 15CD - 0.50 WATT	0.00	0.00	0.16	2.212
19	SPSCR	CEILING SPEAKER/STROBE 30CD - 0.50 WATT	0.00	0.00	0.04	1.222
10	SPSCR	CEILING SPEAKER/STROBE 15CD - 0.50 WATT	0.00	0.00	0.05	0.11
0	SPSCR	CEILING SPEAKER/STROBE 15CD - 0.25 WATT	0.00	0.00	0.05	0
(N) SLC DEVICES						
1	RRM-1	RELAY MODULE	0.0000	0.0000	0.0068	0.0068
1	FSP-451/DNR	DUCT SMOKE DETECTOR	0.0002	0.0002	0.0045	0.0045
0	FSCG-HB1	CARBON MONOXIDE	0.0002	0.0000	0.0045	0.010
			Max. Supv. Current	1.48	Current	7.54
Maximum Supervisory Current:			1.45			
Standby Period 24 hour:			24			
Total Supervisory Reserve:			35.55 (A)			
Maximum Alarm Current:			7.54			
Alarm Period (15 minute):			0.248			
Total Alarm Reserve:			1.84 (B)			
Total Reserve Current: (A + B)			37.42			
Safety Margin (20%):			1.2			
Total Ampere Hours Required:			44.40			
(N) Battery: 2-12V 100 Ampere Hour						

BUILDING KEY



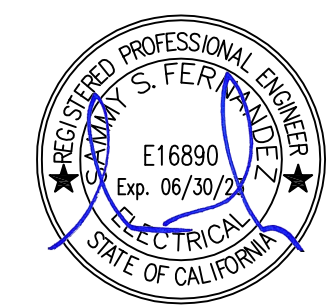
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-119556 INC.
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 10/11/2021

aedis
architects

www.aedisarchitects.com
387 S. 1st Street, Suite 300
San Jose, CA 95113
tel: (408) 300-5160
fax: (408) 300-5121

PROJECT
**ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT**

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT
CONSULTANT



**American Consulting Engineers
Electrical, Inc.**
1380 The Alameda, Suite 200
San Jose, CA 95126
JOB # E321032.00

STAMP

STATE
FILE NUMBER
DSA FILE NUMBER
APPL #

41-26
01-119557

REVISIONS
No. Description Date

MILESTONES
DD
90% CD
DSA SUB
BACKCHECK

SHEET
**ELECTRICAL
NEW FLOOR
PLANS -
MULTIPURPOSE
BLDG**

DATE
JOB #
SHEET #

06/03/2021
2021005.06
E3.3

GENERAL NOTES:

1. ALL CONDUITS SHALL BE ROUTED CONCEALED IN CEILING BELOW WHERE POSSIBLE.
2. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND POINTS OF CONNECTION FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR. ADJUST LOCATION AND CONNECTION POINTS AS NEEDED.
3. SEE PANEL SCHEDULES AND SINGLE LINE DIAGRAM FOR POWER CONNECTION REQUIREMENTS.
4. COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
5. FUSED DISCONNECT SWITCHES SHALL BE 600V RATED, HEAVY DUTY CYCLE. FUSES FOR MECHANICAL UNITS SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATION.

SHEET NOTES:

- 1 NEW 60A-2P, NEMA-3R, FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT.
- 2 PROVIDE NEW 10A-2P CIRCUIT BREAKER IN THE PORTABLE'S EXISTING ELECTRICAL PANEL. INSTALL IN PANEL SPACE MADE AVAILABLE FROM DEMOLITION WORK. CONFIRM EXACT CIRCUIT BREAKER SIZE REQUIRED WITH MECHANICAL UNITS REQUIREMENTS.

PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



**American Consulting Engineers
Electrical, Inc.**
13805 The Alameda, Suite 200, Fremont, CA 94538
JOB # E0210332.00 408/236-2312 FAX 408/236-2314

STAMP

STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No. Description Date



MILESTONES

DD
90% CD
DSA SUB 06/03/2021
BACKCHECK

SHEET

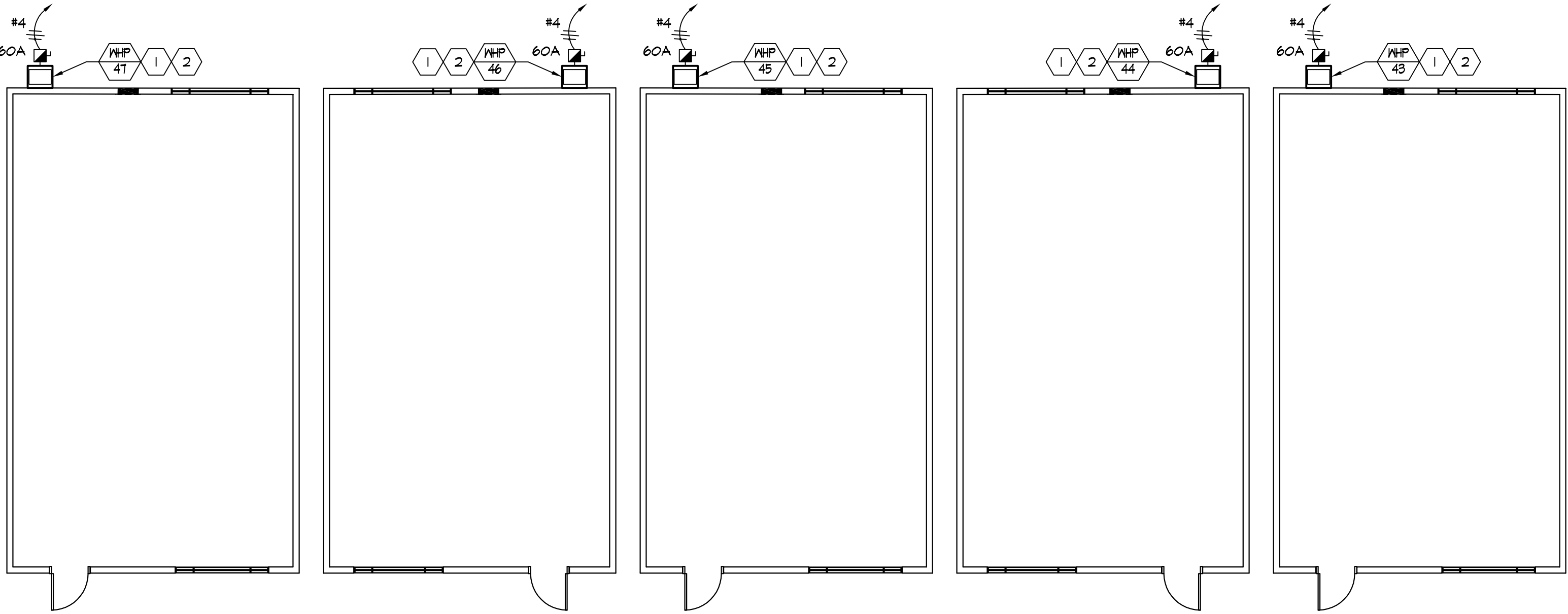
**ELECTRICAL
NEW FLOOR
PLANS -
RELOCATABLE
BUILDINGS**

DATE 06/03/2021

JOB # 2021005.06

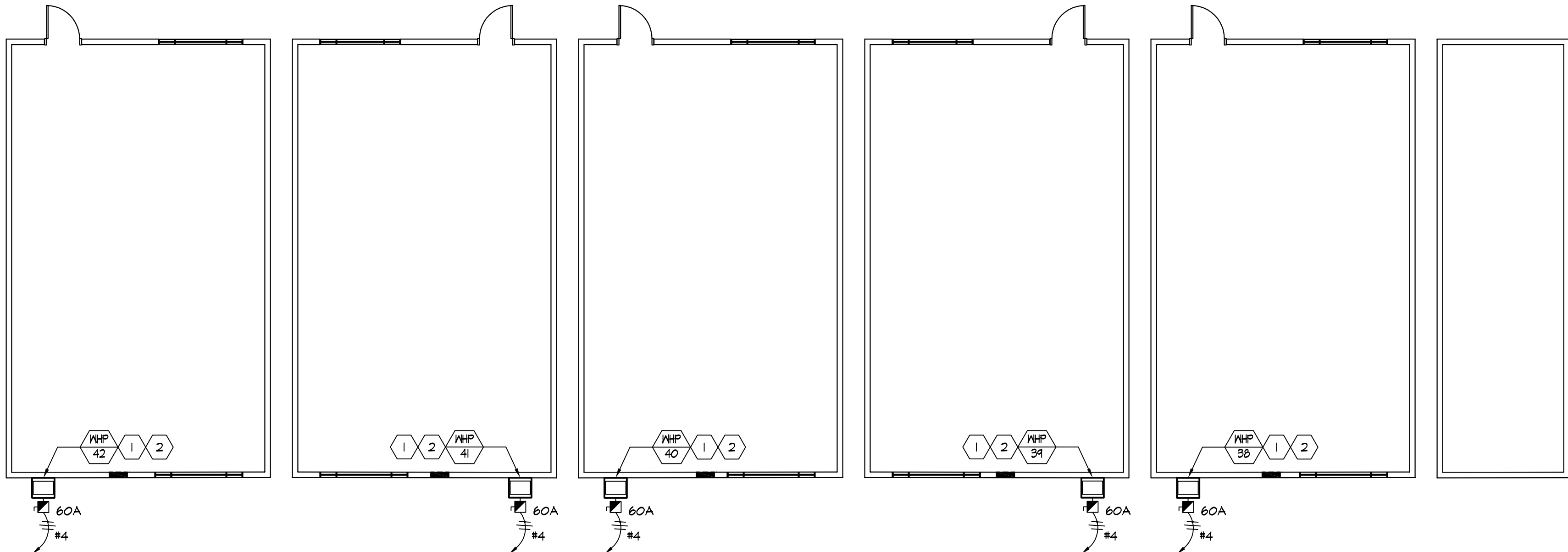
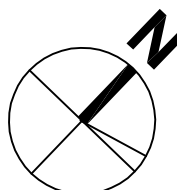
SHEET #

E3.4



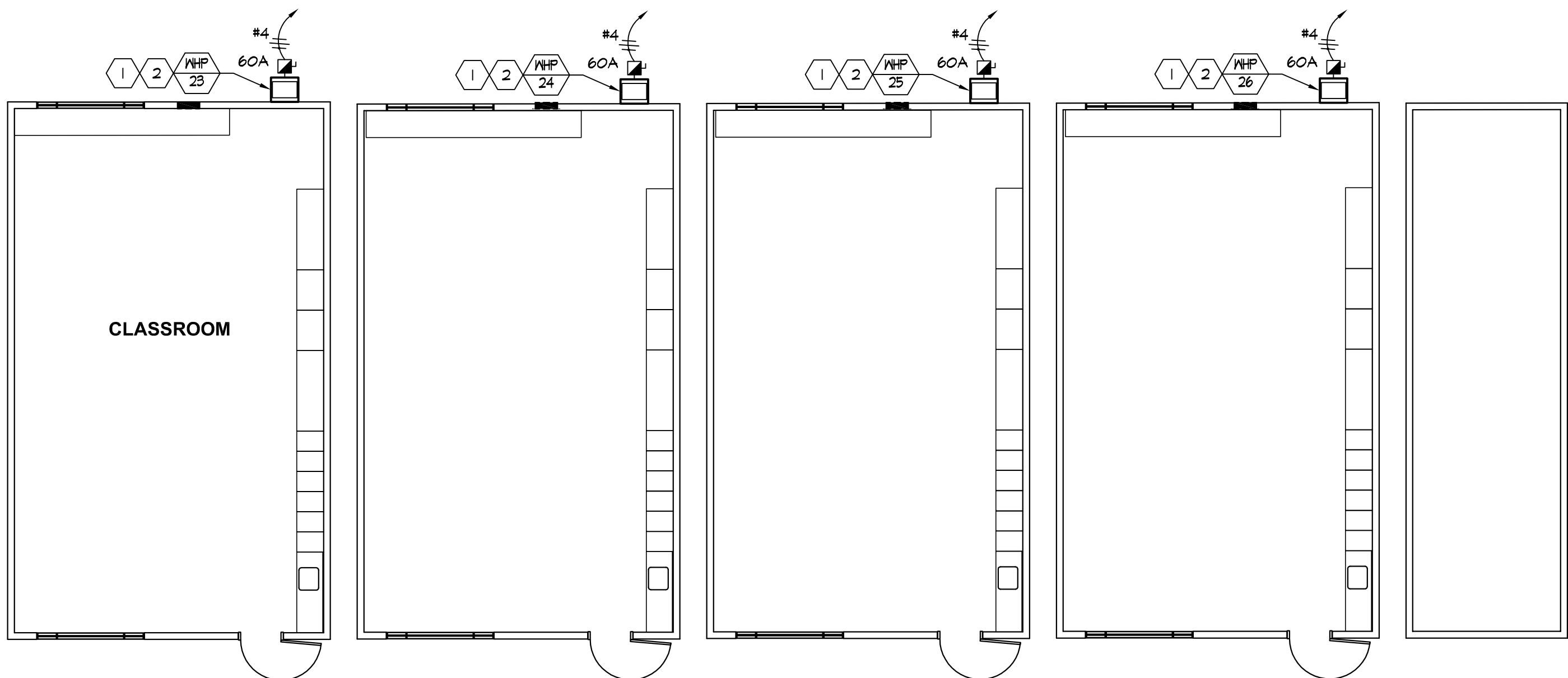
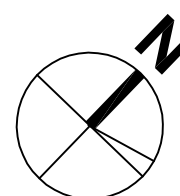
1 ELECTRICAL DEMO FLOOR PLAN - RELOCATABLES

E3.4 SCALE: 1/8" = 1'-0"



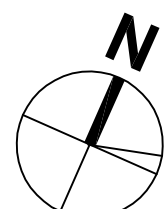
2 ELECTRICAL DEMO FLOOR PLAN - RELOCATABLES

E3.4 SCALE: 1/8" = 1'-0"

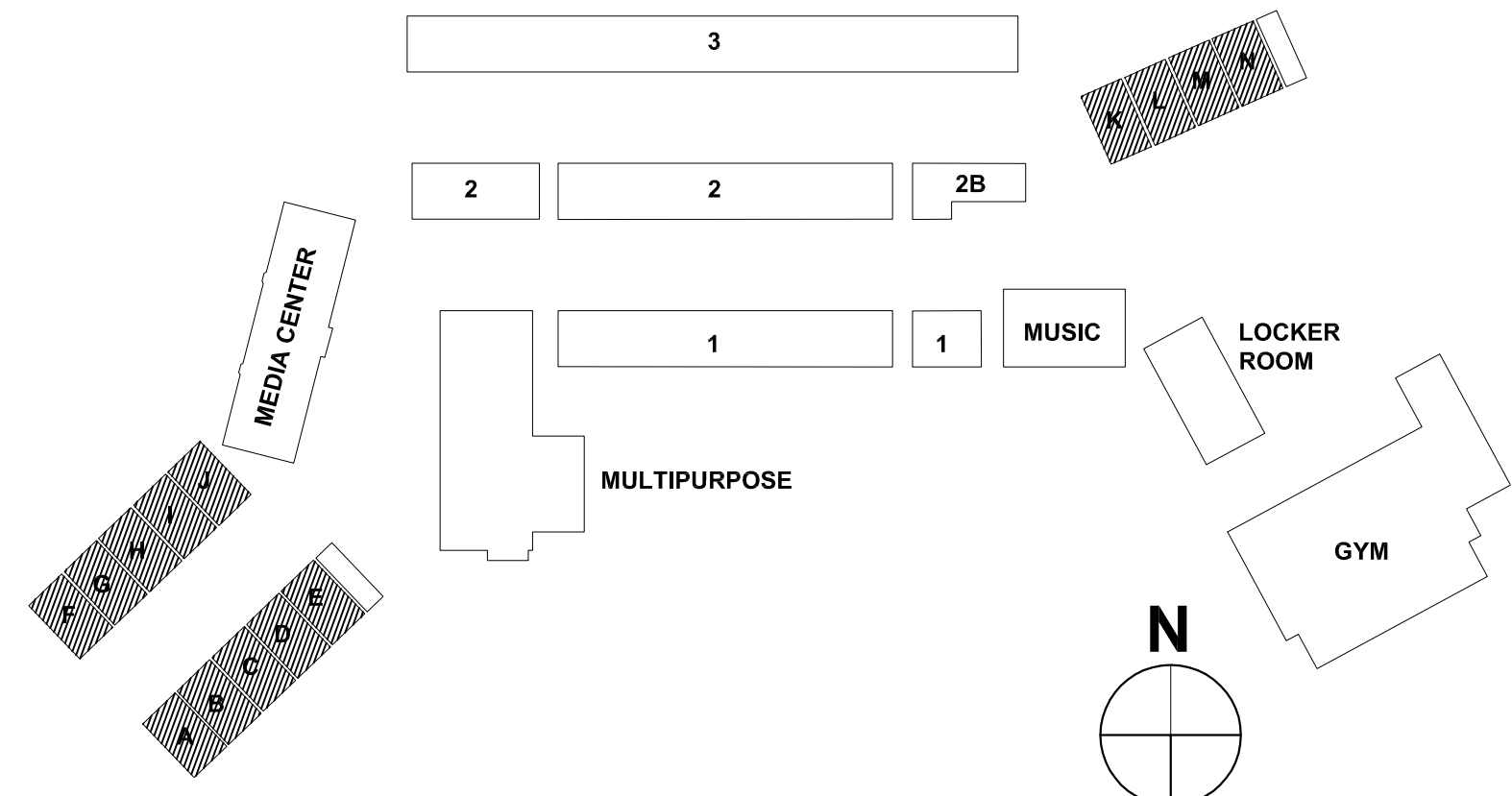


3 ELECTRICAL DEMO FLOOR PLAN - RELOCATABLES

E3.4 SCALE: 1/8" = 1'-0"



BUILDING KEY

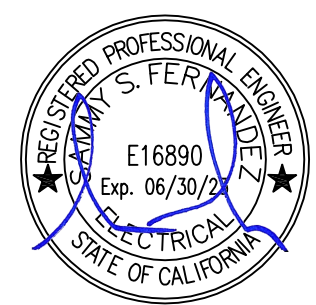


PROJECT

ABBOTT MIDDLE
SCHOOL - HVAC
REPLACEMENT

SAN MATEO-FOSTER CITY
SCHOOL DISTRICT

CONSULTANT



**American Consulting Engineers
Electrical, Inc.**
1380 The Meadows, Suite 200
San Jose, CA 95128
JOB # E210332.00 Fax: 408/236-2312

STAMP

STATE

DSA FILE NUMBER 41-26

APPL # 01-119557

REVISIONS

No. Description Date

△

MILESTONES

DD

90% CD

DSA SUB 06/03/2021

BACKCHECK

SHEET

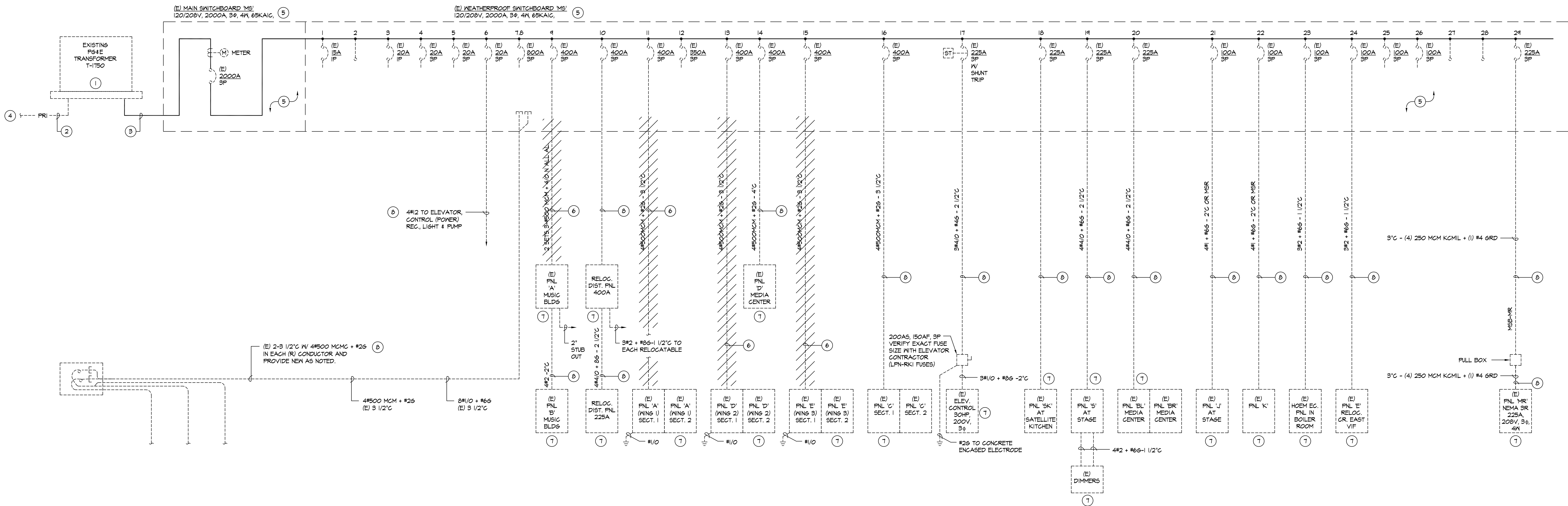
**DEMO SINGLE
LINE DIAGRAM**

DATE 06/03/2021

JOB # 2021005.06

SHEET #

E4.1



GENERAL NOTES:

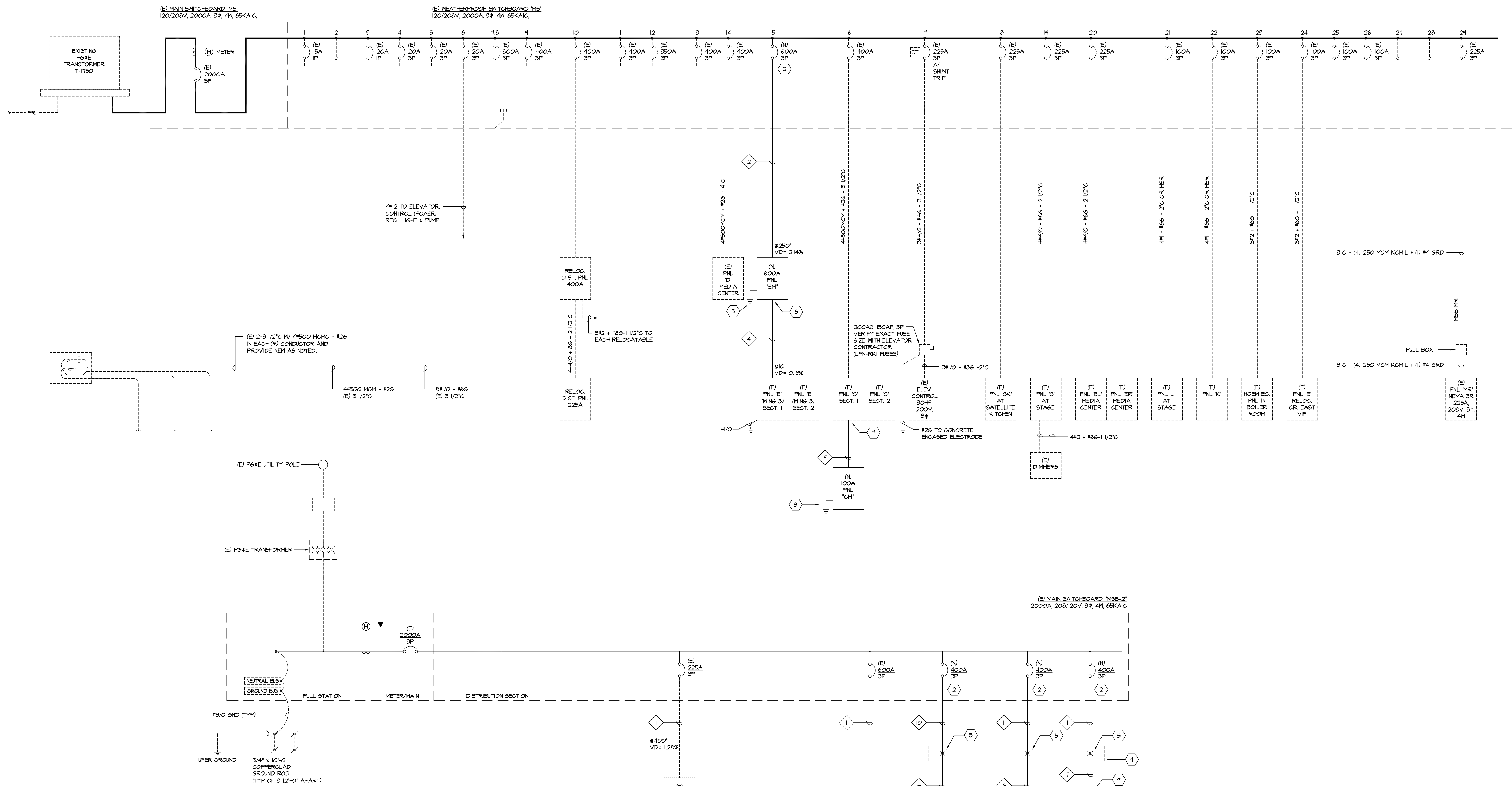
- SEE ELECTRICAL SITE PLAN AND ENLARGED SWITCHGEAR PLAN FOR ADDITIONAL REQUIREMENTS.
- SEE NEW SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- COORDINATE WITH THE PG&E UTILITY COMPANY FOR THE DISCONNECTING AND REMOVAL OF ALL ASSOCIATED EQUIPMENT AND CABLES.

DEMOLITION SHEET NOTES:

- EXISTING PG&E TRANSFORMER TO REMAIN.
- EXISTING PG&E PRIMARY CONDUCTORS TO REMAIN.
- EXISTING PG&E SECONDARY CONDUCTORS TO REMAIN.
- EXISTING PG&E UTILITY POLE TO REMAIN.
- EXISTING MAIN SWITCHBOARD "MS" TO REMAIN.
- EXISTING FEEDERS CABLES TO BE DISCONNECTED FROM EXISTING PANEL. PULL BACK TO SOURCE AND REMOVE.
- EXISTING ELECTRICAL PANEL TO REMAIN.
- EXISTING FEEDER CABLES TO REMAIN.

1 DEMO SINGLE LINE DIAGRAM

E4.1 NOT TO SCALE



GENERAL NOTES:

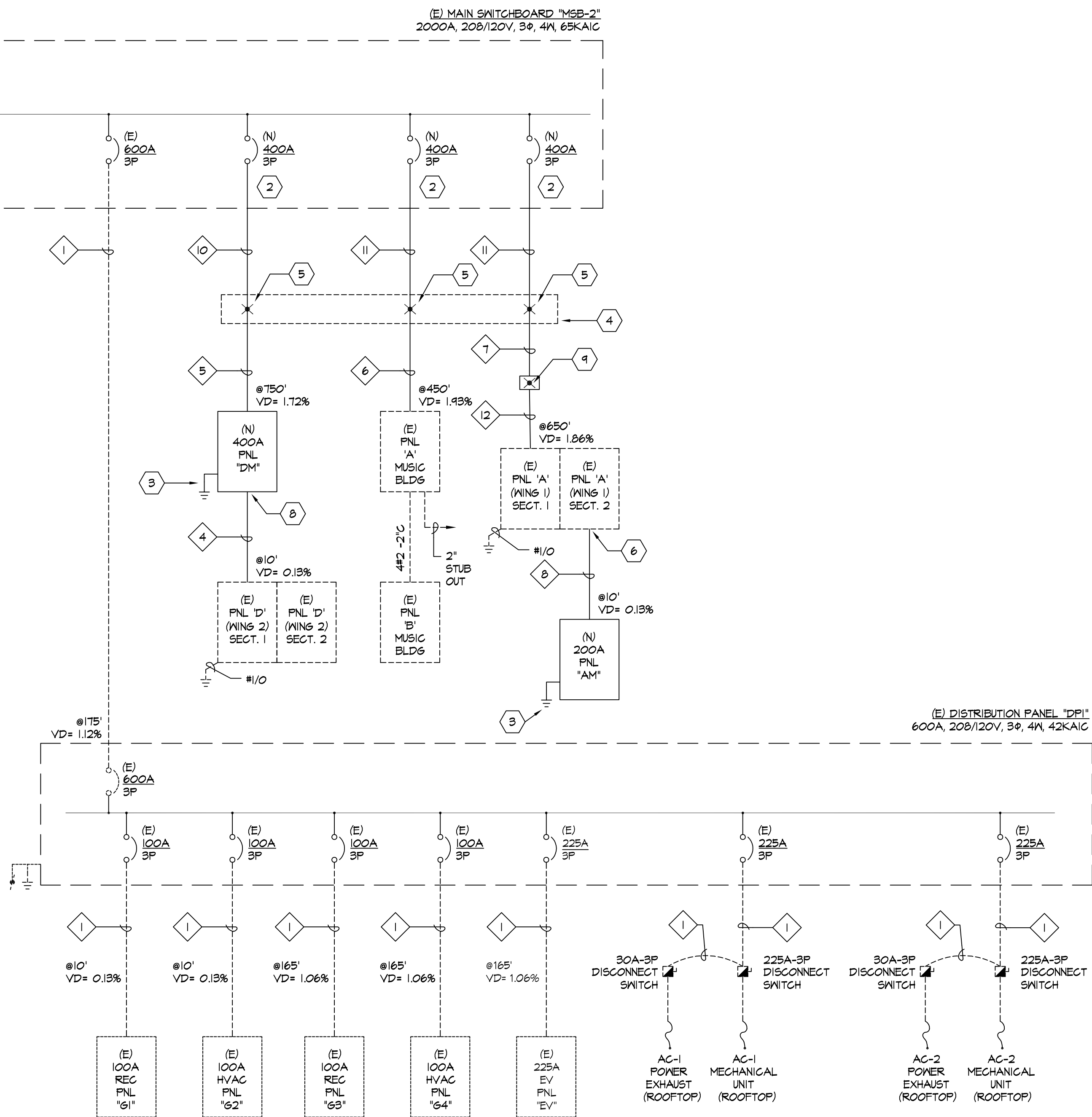
- SEE THE SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE THE REQUIRED ARC FLASH HAZARD WARNING LABEL TO MEET THE REQUIREMENTS OF CEC 110.16. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE MAINTENANCE SWITCH FOR ARC ENERGY REDUCTION TO MEET THE REQUIREMENTS OF CEC 240.81.

FEEDER SCHEDULE:

- EXISTING FEEDER TO REMAIN.
- (N) 3 SETS - (N) 3°C - (N) (4) #250 + (1) #1/0 GND
- (N) 2 1/2°C - (N) (4) #4/0 + (1) #4 GND
- (N) 4°C - (N) (4) #500 + (1) #5 GND
- (N) 3 SETS - (N) 4°C - (N) (4) #500 + (1) #1/0 GND
- (N) 2 SETS - (N) 4°C - (N) (4) #500 + (1) #1/0 GND
- (N) 3 SETS - (N) 4°C - (N) (4) #500 + (1) #1/0 GND
- (N) 4°C - (N) (4) #3/0 + (1) #5 GND
- (N) 1 1/2°C - (N) (4) #2 + (1) #5 GND
- (N) 4°C - (N) (4) #600 + (1) #5 GND
- (E) 4°C WITH (N) (4) #600 + (1) #5 GND
- (N) 2 SETS - (N) 2°C - (N) (4) #3/0 + (1) #5 GND

SHEET NOTES:

- DISCONNECT EXISTING FEEDER AND TURN OFF BREAKER AND LABEL AS SPARE.
- INSTALL NEW CIRCUIT BREAKER IN AVAILABLE SPACE. MATCH EXISTING FRAME STYLE AND AIC. PROVIDE ALL HARDWARE REQUIRED FOR A COMPLETE INSTALLATION.
- GROUND PER CEC.
- EXISTING IN-GRADE ELECTRICAL FULL BOX LOCATED NEAR EXISTING SWITCHGEAR #2. SEE SITE PLAN FOR APPROXIMATE LOCATION AND SPLICE POINT.
- SPLICE CABLES AT INSIDE THE EXISTING IN-GRADE FULL BOX. PROVIDE POLARIS SUBVERSIBLE ELECTRICAL CONNECTORS FOR SPLICING INSIDE THE FULL BOX.
- PROVIDE (N) 200A-3P CIRCUIT BREAKER AND INSTALL INSIDE THE EXISTING PANEL'S SUBFEED SPACE.
- INSTALL (N) 100A-3P CIRCUIT BREAKER IN EXISTING PANEL. REMOVE (3) EXISTING 20A-1P CIRCUIT BREAKERS FROM THE EXISTING PANEL TO INSTALL THE (N) 100A-3P CIRCUIT BREAKER. RECONNECT EXISTING LOADS TO (N) PANEL CM. PROVIDE CIRCUIT BREAKERS, CONDUIT AND CIRCUITRY REQUIRED.
- PROVIDE (N) 400A-3P CIRCUIT BREAKER IN NEW PANEL'S SUBFEED CIRCUIT BREAKER POSITION FOR CONNECTION OF THE EXISTING PANEL.
- PROVIDE UL LIST SPLICE PER NEG INSIDE THE NEW FULL BOX.



PANEL NAME:		(EJA)										FED FROM: MSB-2						
VOLTAGE:		208/120V										MAIN CB: 400 AMP						
PHASE:		3										BUSSING: 400 AMP						
WIRE:		4										MIN. AIC: 10,500						
TYPE:		NEMA 1										SUB-FEED CB:						
MOUNTING:		SURFACE										FEED THRU LUGS: YES						
CIRCUIT DESCRIPTION		LOAD TYPE (KVA)				CB	CKT	PKT	CKT	CB	LOAD TYPE (KVA)				CIRCUIT DESCRIPTION			
		LTG	REC	MTR	NCL	AMP/P	#		#	AMP/P	LTG	REC	MTR	NCL				
(E) LTG-103, 106						20A/1P	1	A	2	20A/1P					(E) LTG-101, 104			
(E) LTG-103, 106						20A/1P	3	B	4	20A/1P					(E) LTG-101, 104			
(E) LTG-103, 106						20A/1P	5	C	6	20A/1P					(E) LTG-101, 104			
(E) LTG-102, 105						20A/1P	7	A	8	20A/1P					(E) EXTLIGHTS			
(E) LTG-102, 105						20A/1P	9	B	10	20A/1P					SPARE			
(E) LTG-102, 105						20A/1P	11	C	12	20A/1P					SPARE			
(E) REC - 101, 102, 103						20A/1P	13	A	14	20A/1P					(E) REC-104, 105, 107			
(E) REC - 101, 102, 103						20A/1P	15	B	16	20A/1P					(E) REC-104, 105, 107			
(E) REC - 101, 102, 103						20A/1P	17	C	18	20A/1P					(E) REC-102, 103			
(N) AC 3 - MUSIC BUILDING						1.40	N#04A	19	A	20	N#04A	1.45				(N) AC 6 - MUSIC BUILDING		
* * * * *						1.40		21	B	22		1.45				* * * * *		
* * * * *						1.40		23	C	24	3P	1.45				* * * * *		
(N) AC 4 - MUSIC BUILDING						1.40	N#04A	25	A	26	N#04A	1.45				(N) AC 7 - MUSIC BUILDING		
* * * * *						1.40		27	B	28		1.45				* * * * *		
* * * * *						1.40		29	C	30	3P	1.45				* * * * *		
(N) AC 5 - MUSIC BUILDING						1.40	N#04A	31	A	32	N#04A	1.45				(E) PNLN 'B'		
* * * * *						1.40		33	B	34		1.45				* * * * *		
* * * * *						1.40		35	C	36	3P	1.45				* * * * *		
SPARE						20A/1P	37	A	38	N#20A/1P	0.18					(N) EXTERIOR GFCI REC. - MUSIC BUILDING		
SPARE						20A/1P	39	B	40	20A/1P						SPARE		
SPARE						20A/1P	41	C	42	20A/1P						SPARE		
		0	0	12.6	0						0	0.2	8.7	0				
CIRCUIT SUMMARY																		
CONNECTED KVA		DEMAND FACTOR		DEMAND KVA		YES/NO		KVA PHASE A (CONNECTED)		KVA PHASE B (CONNECTED)		KVA PHASE C (CONNECTED)		SUB FEED CONNECTED LOAD		TOTAL DEMAND KVA		
(LTG) LIGHTING % 100%		0		1.25		0.0		7.1		7.1		7.1		7.1		7.1		
(REC) RECEIPTS PER 220.44		0.2		1.00		0.2		7.1		7.1		7.1		7.1		7.1		
100KVA x 100% + REMAINDER x 50%		0		0.50		0.0		7.1		7.1		7.1		7.1		7.1		
(MTR) LARGEST MOTOR x 125%		4.4		1.25		5.4		7.1		7.1		7.1		7.1		7.1		
+ REMAINING MOTORS x 100%		17.0		1.00		17.0		7.1		7.1		7.1		7.1		7.1		
TOTAL DEMAND KVA (SEE CALCULATIONS)								22.6		22.6		22.6		22.6		22.6		

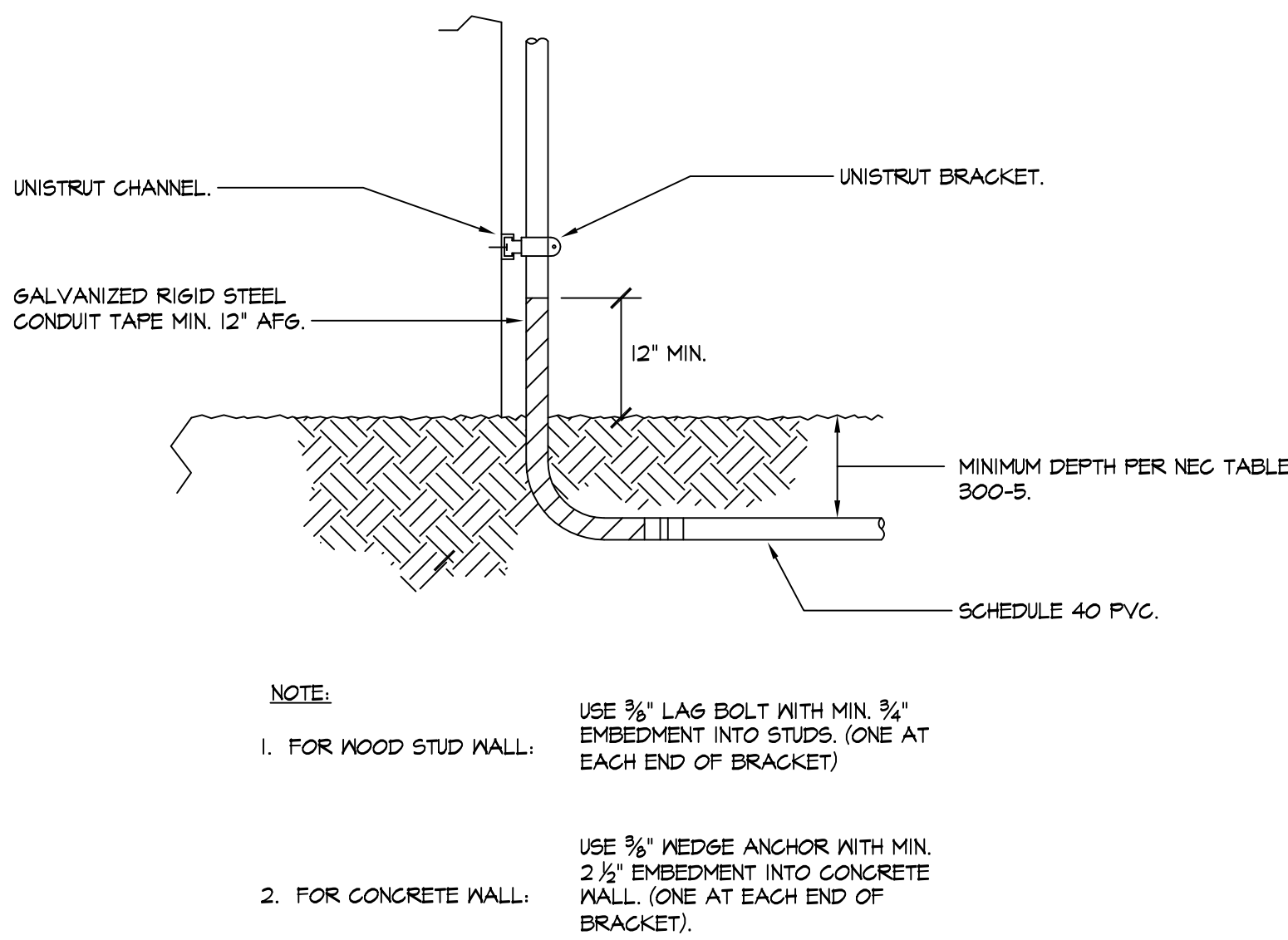
PANEL NAME:	(E)J															FED FROM MSB						
VOLTAGE:	208/120V															MAIN CB T00 AMP						
PHASE:	3															BUSING T00 AMP						
WIRE:	4															MIN AIC 10,000						
TYPE:	NEMA 1															SUB-FEED CB:						
MOUNTING:	SURFACE															FEED THRU LUGS YES						
CIRCUIT DESCRIPTION		LOAD TYPE (KVA)				GB				OKT #				CB				LOAD TYPE (KVA)				CIRCUIT DESCRIPTION
		LTO	REC	MTR	NCL		AMP/HP	#	A	OKT	#	AMP/HP	LTO	REC	MTR	NCL						
(E) LIGHTING - RM 13							20A/1P	1	A		2	20A/1P							(E) LIGHTING - RM 12			
(E) LIGHTING - RM 13							20A/1P	3	B		4	20A/1P							(E) LOAD			
(E) LIGHTING - RM 13							20A/1P	5	C		6	20A/1P							(E) LIGHTING - RM 12			
(E) LIGHTING - RM 13							20A/1P	7	A		8	20A/1P							(E) REC - RM 13 B			
(E) LIGHTING - RM 13							20A/1P	9	B		10	20A/1P							(E) REC - RM 13 A			
(E) LIGHTING - RM 13							20A/1P	11	C		12	20A/1P							(E) REC - RM 13			
(E) TV - RM 13							20A/1P	13	A		14	20A/1P							(E) REC - RM 12 A & C			
(E) FAN - RM 13							20A/1P	15	B		16	20A/1P							(E) REC - RM 13			
(E) LOAD							20A/1P	17	C		18	20A/1P							(E) REC - RM 13			
(E) LOAD							20A/1P	19	A		20	20A/1P							(E) REC - RM 13			
(E) LOAD							20A/1P	21	B		22	20A/1P							(E) LOAD			
(E) LOAD							20A/1P	23	C		24	20A/1P							(E) LOAD			
(E) HW 4							15A	25	A		26	ADA							(F) FLOOD			
* * * * *								27	B		28								(E) LOAD			
* * * * *								3P	C		3P								(E) LOAD			
(N) FURNACE 13- CLASSROOM 13				2.40		N(20A/1P)	31	A	32	N(60A)					3.10				(N) CONDENSING UNIT 13			
(N) FURNACE 14- CLASSROOM 14				2.60		N(20A/1P)	33	B	34	2P					3.10	*	*	*	*			
(N) WEATHERPROOF GFCI REC.		0.36				N(20A/1P)	35	C	36	N(60A)					3.10				(N) CONDENSING UNIT 14			
SPARE						20A/1P	37	A	38	2P					3.10	*	*	*	*			
SPARE						20A/1P	39	B	40	20A/1P									SPARE			
SPARE						20A/1P	41	C	42	20A/1P									SPARE			
		0	0.4	0	4.8								0	0	0	12.4						
LOAD SUMMARY																						
(LTO) LIGHTING % 12%		CONNECTED KVA		DEMAND FACTOR		DEMAND KVA				FULL RATED A/C		Yes/No				KVA PHASE A (CONNECTED)		8.6				
(REC) RECEIPTS PER 220 44		0		1.25						SERIES RATED A/C		N				KVA PHASE B (CONNECTED)		1.5				
(10KW x 100% + REMAINDER x 50%)		0.4		1.00		0.4				SPD		N				KVA PHASE C (CONNECTED)		3.5				
(MTR) LARGEST MOTOR X 125%		0		0.50		0.0				COPPER BUSING		Y				SUB-FEED CONNECTED LOAD						
+ REMAINING MOTORS X 100%		0		1.00		0.0				ALUMINUM BUSING		N				TOTAL DEMAND KVA		17.6				
(MTR) LARGEST MOTOR X 125% + REMAINDER MOTORS X 100%		0.4		1.25		0.0																

PANEL NAME: IEBR										FED FROM: M58-1																				
VOLTAGE: 208/120V										MAIN DIS: MLO																				
PHASE: 3										BUSINESS: 225 AMP																				
WIRE: 3										MIN. AC: 10,000																				
TYPE: NEMA 1										SUB-FEED DIS:																				
MOUNTING: SURFACE										FEED THRU LUGS: YES																				
CIRCUIT DESCRIPTION										CIRCUIT DESCRIPTION																				
LOAD TYPE (KVA)		LTS		REC		MTR		NGL		CB		OCT #		PH		OCT #		CB		LOAD TYPE (KVA)		LTS		REC		MTR		NGL		
EXISTING LOAD	0.72	20A/1P	1	A	2	20A/1P				EXISTING LOAD	0.72	20A/1P	3	B	4	20A/1P				EXISTING LOAD	0.72	20A/1P	3	B	4	20A/1P				
EXISTING LOAD	0.72	20A/1P	3	B	4	20A/1P				EXISTING LOAD	0.72	20A/1P	5	C	6	20A/1P				EXISTING LOAD	0.72	20A/1P	5	C	6	20A/1P				
EXISTING LOAD	0.72	20A/1P	5	C	6	20A/1P				EXISTING LOAD	0.72	20A/1P	7	D	8	20A/1P				EXISTING LOAD	0.72	20A/1P	7	D	8	20A/1P				
EXISTING LOAD	0.72	20A/1P	7	D	8	20A/1P				EXISTING LOAD	0.72	20A/1P	9	E	10	20A/1P				EXISTING LOAD	0.72	20A/1P	9	E	10	20A/1P				
EXISTING LOAD	0.72	20A/1P	9	E	10	20A/1P				EXISTING LOAD	0.72	20A/1P	11	C	12	20A/1P				EXISTING LOAD	0.72	20A/1P	11	C	12	20A/1P				
EXISTING LOAD	0.72	20A/1P	11	C	12	20A/1P				EXISTING LOAD	0.72	20A/1P	13	A	14	20A/1P				EXISTING LOAD	0.72	20A/1P	13	A	14	20A/1P				
EXISTING LOAD	0.72	20A/1P	13	A	14	20A/1P				EXISTING LOAD	0.72	20A/1P	15	B	16	20A/1P				EXISTING LOAD	0.72	20A/1P	15	B	16	20A/1P				
EXISTING LOAD	0.72	20A/1P	15	B	16	20A/1P				EXISTING LOAD	0.72	20A/1P	17	C	18	20A/1P				EXISTING LOAD	0.72	20A/1P	17	C	18	20A/1P				
EXISTING LOAD	0.72	20A/1P	17	C	18	20A/1P				EXISTING LOAD	0.72	20A/1P	19	A	20	20A/1P				EXISTING LOAD	0.72	20A/1P	19	A	20	20A/1P				
EXISTING LOAD	0.72	20A/1P	19	A	20	20A/1P				EXISTING LOAD	0.72	20A/1P	21	B	22	20A/1P				EXISTING LOAD	0.72	20A/1P	21	B	22	20A/1P				
EXISTING LOAD	0.72	20A/1P	21	B	22	20A/1P				EXISTING LOAD	0.72	20A/1P	23	A	24	20A/1P				EXISTING LOAD	0.72	20A/1P	23	A	24	20A/1P				
EXISTING LOAD	0.72	20A/1P	23	A	24	20A/1P				EXISTING LOAD	0.72	20A/1P	25	A	26	20A/1P				EXISTING LOAD	0.72	20A/1P	25	A	26	20A/1P				
EXISTING LOAD	0.72	20A/1P	25	A	26	20A/1P				EXISTING LOAD	0.72	20A/1P	27	B	28	20A/1P				EXISTING LOAD	0.72	20A/1P	27	B	28	20A/1P				
EXISTING LOAD	0.72	20A/1P	27	B	28	20A/1P				EXISTING LOAD	0.72	20A/1P	29	C	30	20A/1P				EXISTING LOAD	0.72	20A/1P	29	C	30	20A/1P				
EXISTING LOAD	0.72	20A/1P	29	C	30	20A/1P				EXISTING LOAD	0.72	20A/1P	31	A	32	20A/1P				EXISTING LOAD	0.72	20A/1P	31	A	32	20A/1P				
EXISTING LOAD	0.72	20A/1P	31	A	32	20A/1P				EXISTING LOAD	0.72	20A/1P	33	B	34	20A/1P				EXISTING LOAD	0.72	20A/1P	33	B	34	20A/1P				
EXISTING LOAD	0.72	20A/1P	33	B	34	20A/1P				EXISTING LOAD	0.72	20A/1P	35	C	36	20A/1P				EXISTING LOAD	0.72	20A/1P	35	C	36	20A/1P				
EXISTING LOAD	0.72	20A/1P	35	C	36	20A/1P				EXISTING LOAD	0.72	20A/1P	37	A	38	20A/1P				EXISTING LOAD	0.72	20A/1P	37	A	38	20A/1P				
EXISTING LOAD	0.72	20A/1P	37	A	38	20A/1P				EXISTING LOAD	0.72	20A/1P	39	B	40	20A/1P				EXISTING LOAD	0.72	20A/1P	39	B	40	20A/1P				
EXISTING LOAD	0.72	20A/1P	39	B	40	20A/1P				EXISTING LOAD	0.72	20A/1P	41	C	42	20A/1P				EXISTING LOAD	0.72	20A/1P	41	C	42	20A/1P				
EXISTING LOAD	0.72	20A/1P	41	C	42	20A/1P				EXISTING LOAD	0.72	20A/1P								EXISTING LOAD	0.72	20A/1P								
PANEL NAME: IEBR										FED FROM: FEED THRU LUGS																				
VOLTAGE: 208/120V										BUSINESS: 225 AMP																				
PHASE: 3										MIN. AC: 10,000																				
WIRE: 3										SUB-FEED DIS:																				
TYPE: NEMA 1										FEED THRU LUGS: NO																				
MOUNTING: SURFACE																														
EXISTING LOAD	0.72	20A/1P	43	A	44	20A/1P				EXISTING LOAD	0.72	20A/1P	45	B	46	20A/1P				EXISTING LOAD	0.72	20A/1P	47	C	48	20A/1P				
EXISTING LOAD	0.72	20A/1P	45	B	46	20A/1P				EXISTING LOAD	0.72	20A/1P	47	C	48	20A/1P				EXISTING LOAD	0.72	20A/1P	49	D	50	20A/1P				
EXISTING LOAD	0.72	20A/1P	47	C	48	20A/1P				EXISTING LOAD	0.72	20A/1P	49	D	50	20A/1P				EXISTING LOAD	0.72	20A/1P	51	E	52	20A/1P				
EXISTING LOAD	0.72	20A/1P	49	D	50	20A/1P				EXISTING LOAD	0.72	20A/1P	51	E	52	20A/1P				EXISTING LOAD	0.72	20A/1P	53	F	54	20A/1P				
EXISTING LOAD	0.72	20A/1P	51	E	52	20A/1P				EXISTING LOAD	0.72	20A/1P	53	F	54	20A/1P				EXISTING LOAD	0.72	20A/1P	55	G	56	20A/1P				
EXISTING LOAD	0.72	20A/1P	53	F	54	20A/1P				EXISTING LOAD	0.72	20A/1P	55	G	56	20A/1P				EXISTING LOAD	0.72	20A/1P	57	H	58	20A/1P				
EXISTING LOAD	0.72	20A/1P	55	G	56	20A/1P				EXISTING LOAD	0.72	20A/1P	57	H	58	20A/1P				EXISTING LOAD	0.72	20A/1P	59	I	60	20A/1P				
EXISTING LOAD	0.72	20A/1P	57	H	58	20A/1P				EXISTING LOAD	0.72	20A/1P	59	I	60	20A/1P				EXISTING LOAD	0.72	20A/1P	61	J	62	20A/1P				
EXISTING LOAD	0.72	20A/1P	59	I	60	20A/1P				EXISTING LOAD	0.72	20A/1P	61	J	62	20A/1P				EXISTING LOAD	0.72	20A/1P	63	K	64	20A/1P				
EXISTING LOAD	0.72	20A/1P	61	J	62	20A/1P				EXISTING LOAD	0.72	20A/1P	63	K	64	20A/1P				EXISTING LOAD	0.72	20A/1P	65	L	66	20A/1P				
EXISTING LOAD	0.72	20A/1P	63	K	64	20A/1P				EXISTING LOAD	0.72	20A/1P	65	L	66	20A/1P				EXISTING LOAD	0.72	20A/1P	67	M	68	20A/1P				
EXISTING LOAD	0.72	20A/1P	65	L	66	20A/1P				EXISTING LOAD	0.72	20A/1P	67	M	68	20A/1P				EXISTING LOAD	0.72	20A/1P	69	N	70	20A/1P				
EXISTING LOAD	0.72	20A/1P	67	M	68	20A/1P				EXISTING LOAD	0.72	20A/1P	69	N	70	20A/1P				EXISTING LOAD	0.72	20A/1P	71	O	72	20A/1P				
EXISTING LOAD	0.36	10A/1P	71	O	72	20A/1P				EXISTING LOAD	0.36	10A/1P	73	P	74	20A/1P				EXISTING LOAD	0.36	10A/1P	75	Q	76	20A/1P				
N1 CONDENSING UNIT A - MEDIA CENTER										N1 CONDENSING UNIT C - MEDIA CENTER																				
2.31										2.31																				
N2 CONDENSING UNIT B - MEDIA CENTER										N2 CONDENSING UNIT D - MEDIA CENTER																				
2.31										2.31																				
N3 CONDENSING UNIT E - MEDIA CENTER										N3 CONDENSING UNIT F - MEDIA CENTER																				
2.31										2.31																				
N4 CONDENSING UNIT G - MEDIA CENTER										N4 CONDENSING UNIT H - MEDIA CENTER																				
1.38										1.38																				
N5 CONDENSING UNIT I - MEDIA CENTER										N5 CONDENSING UNIT J - MEDIA CENTER																				
1.38										1.38																				
N6 CONDENSING UNIT K - MEDIA CENTER										N6 CONDENSING UNIT L - MEDIA CENTER																				
1.38										1.38																				

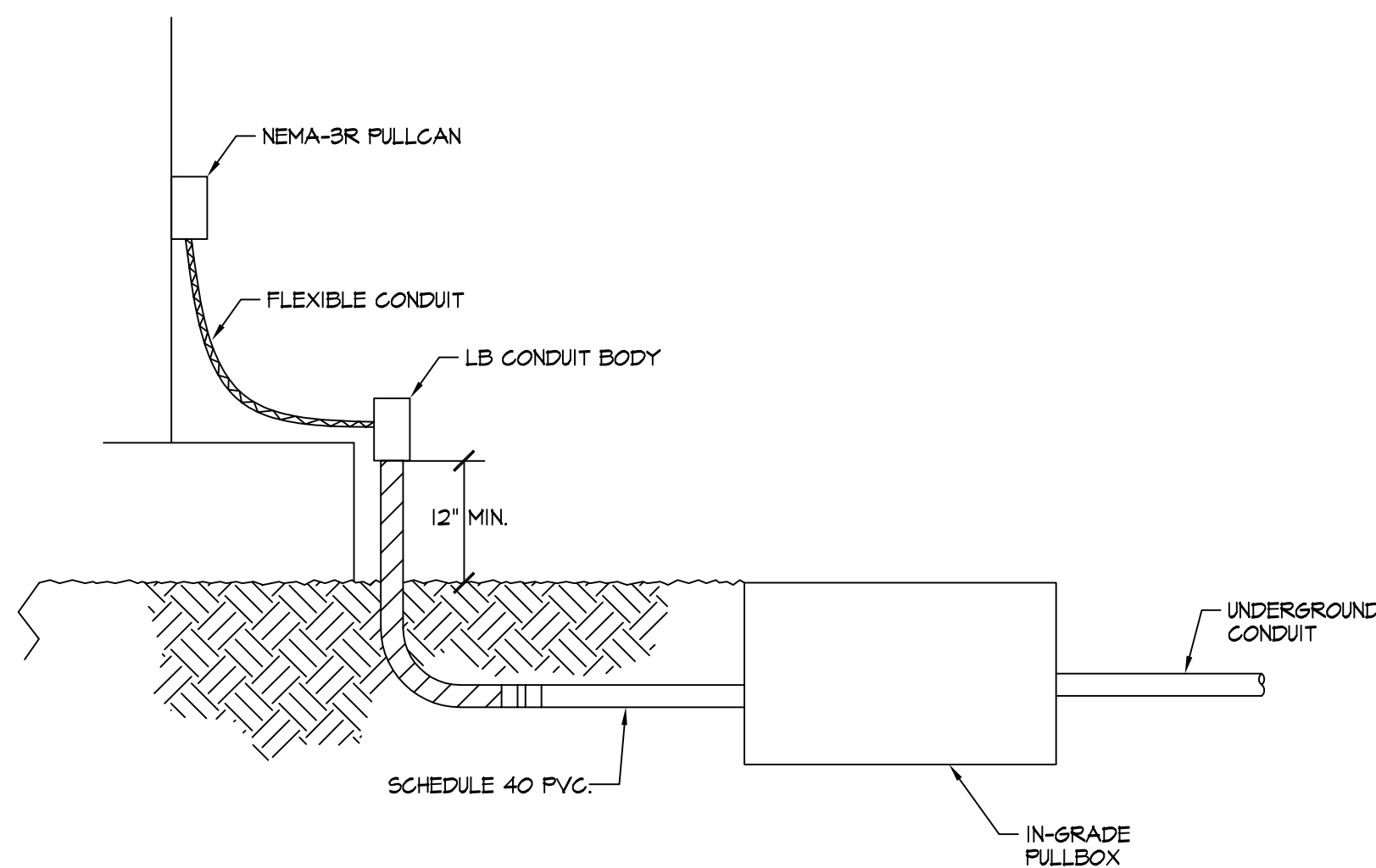
LOAD SUMMARY	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA
(LTO) LIGHTING X 125%	0	1.25	0.0
(REC) RECEPTS PER 220.44	10.0	1.00	10.0
10KVA x 100% + REMAINDER x 50%	38.3	0.50	19.7
(MTR) LARGEST MOTOR X 125%	0	1.25	0.0
+ REMAINING MOTORS x 100%	0	1.00	0.0
(NCL) NON CONTINUOUS LOAD x 100%	28.7	1.00	28.7

	Yes/No
FULL RATED AIC	Y
SERIES RATED AIC	N
SPD	N
COPPER BUSSING	Y
ALUMINUM BUSSING	N

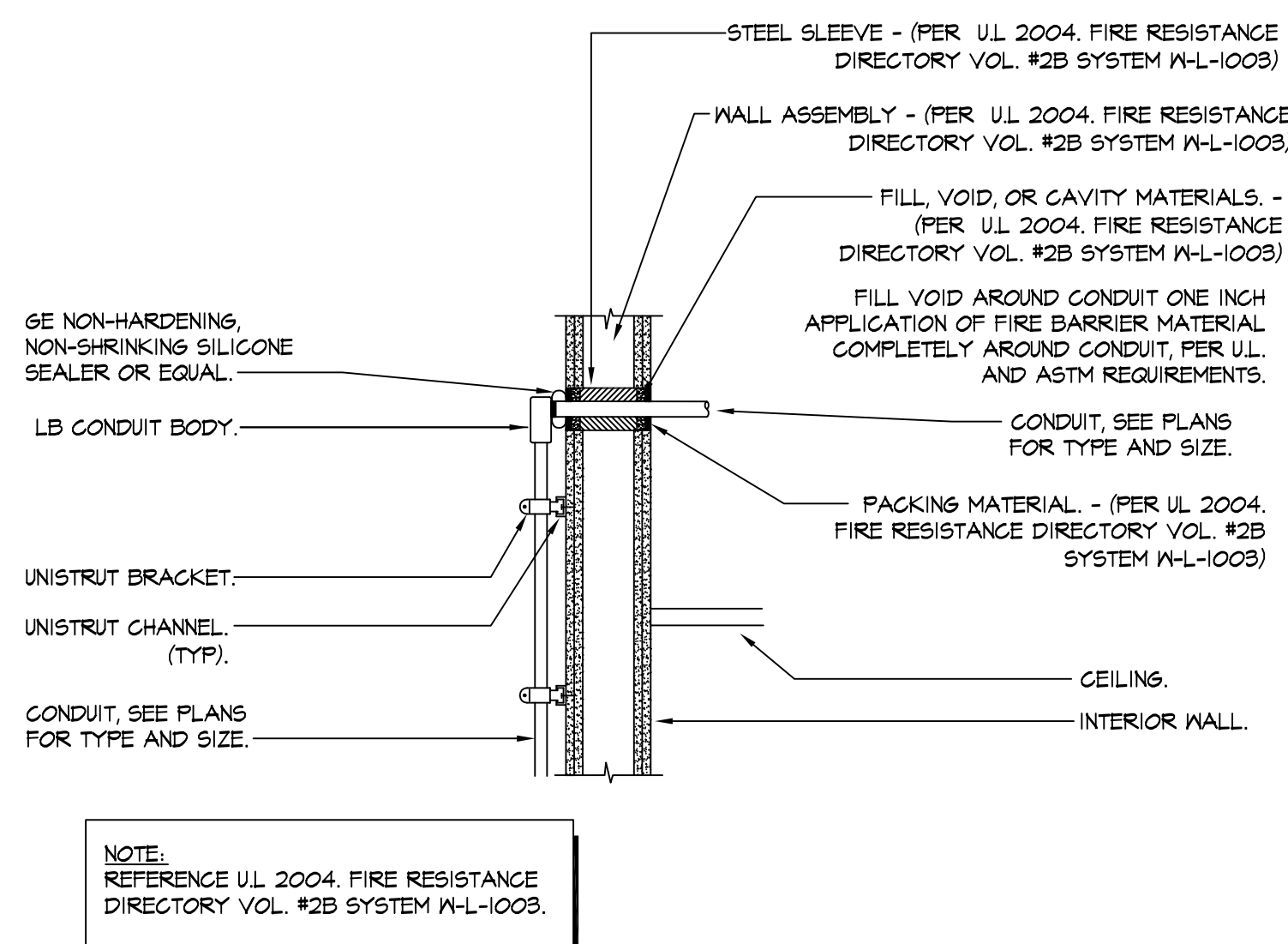
KVA PHASE A (CONNECTED)	24.9
KVA PHASE B (CONNECTED)	25.9
KVA PHASE C (CONNECTED)	27.2
SUB FEED CONNECTED LOAD	
TOTAL DEMAND KVA	58.3
TOTAL LOAD AMPERES	162.1



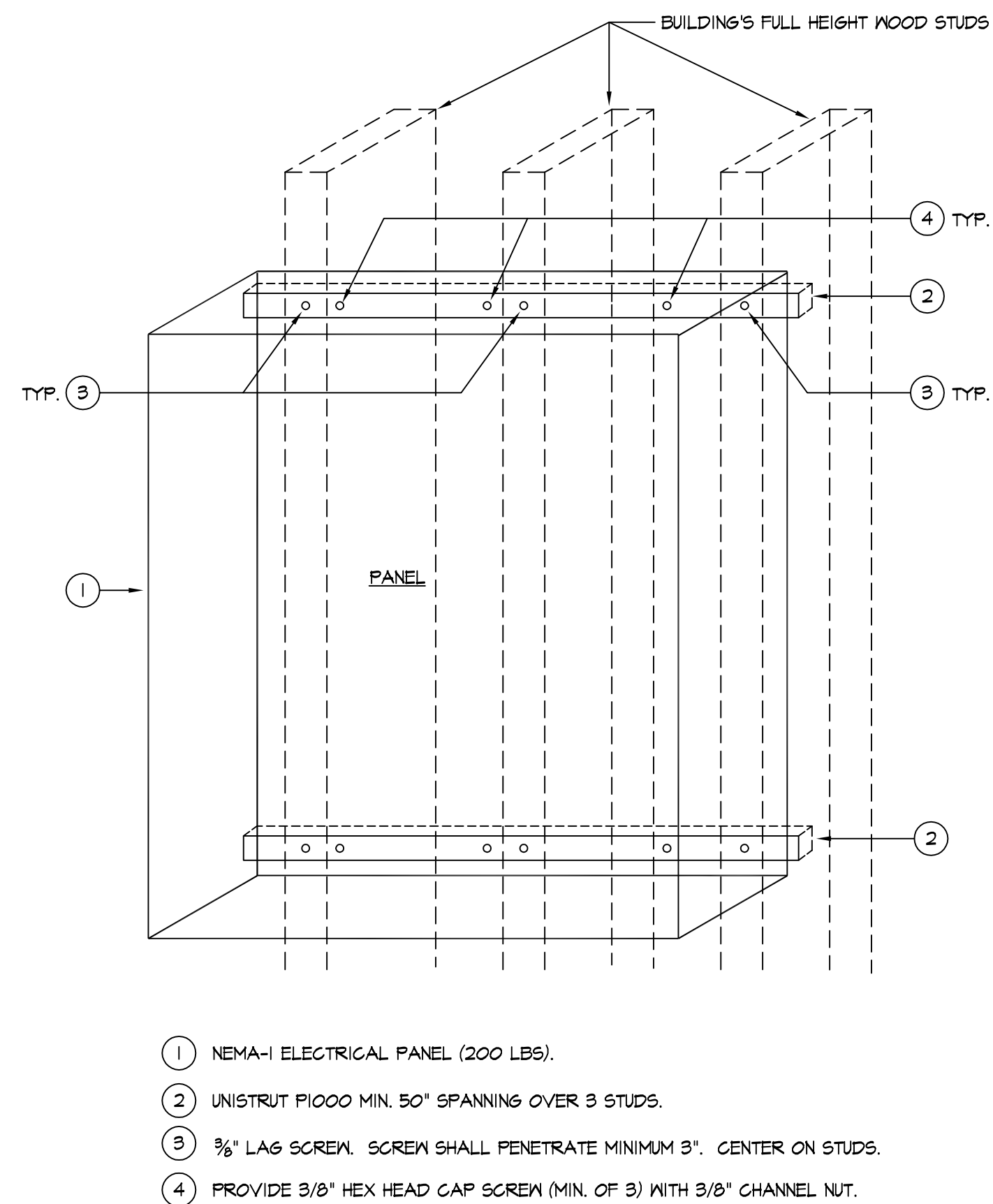
1 UNDERGROUND CONDUIT RISER DETAIL
E5.1 NOT TO SCALE



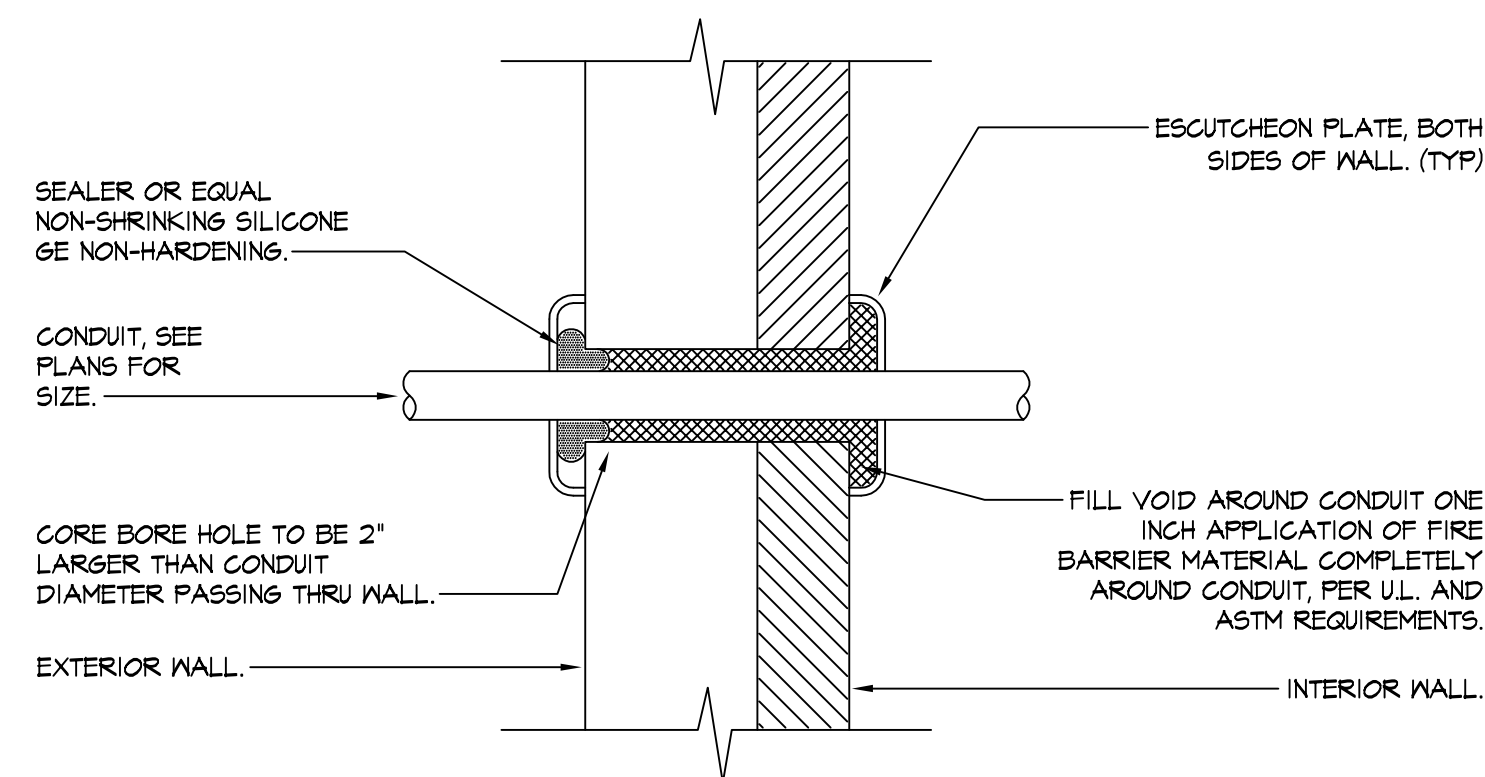
4 UNDERGROUND CONDUIT RISER DETAIL
E5.1 NOT TO SCALE



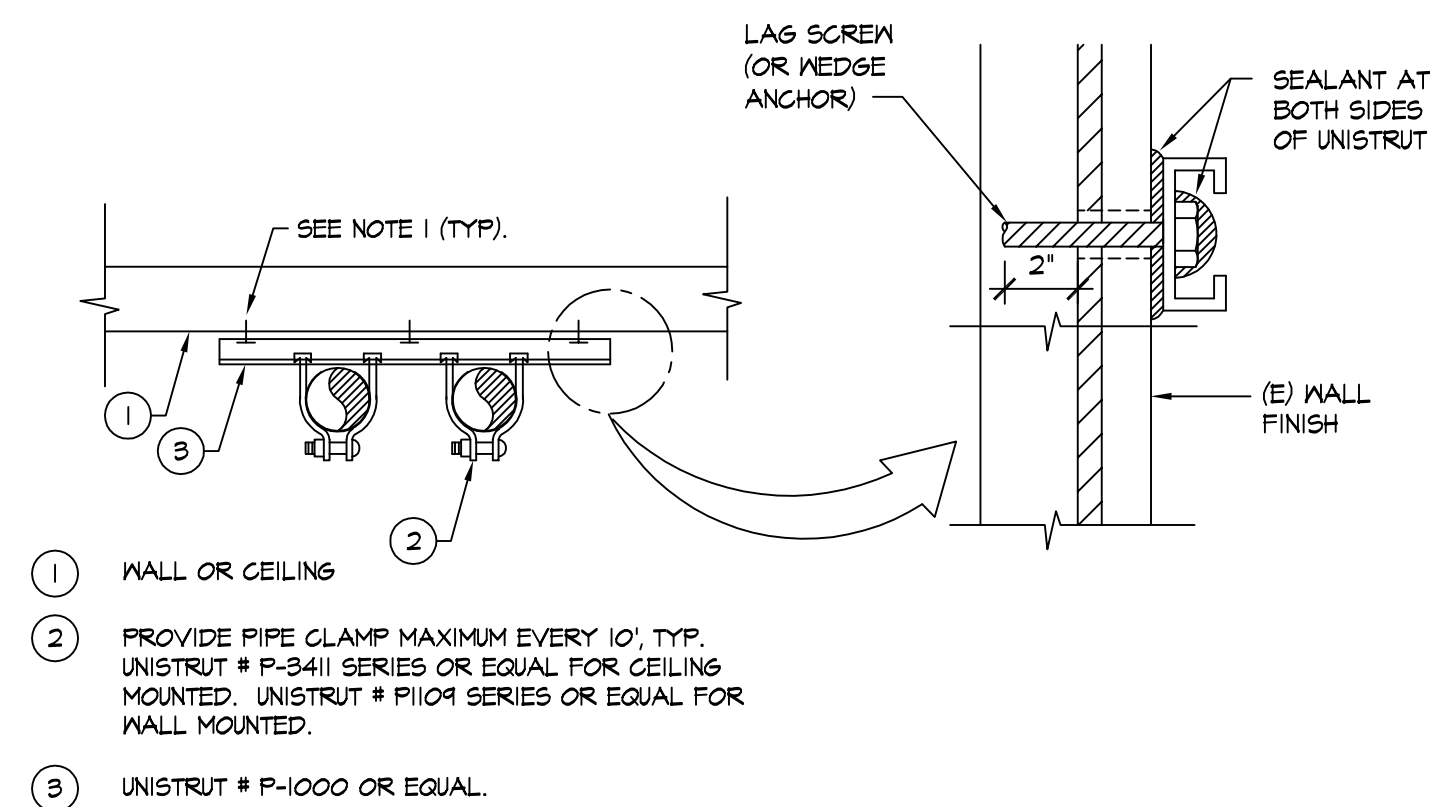
5 CONDUIT RISER AND WALL PENETRATION - POWER
E5.1 NOT TO SCALE



8 WALL MOUNTED PANEL INSTALLATION (100A-600A)
E5.1 NOT TO SCALE



6 CONDUIT WALL PENETRATION DETAIL
E5.1 NOT TO SCALE



9 TYPICAL CONDUIT SUPPORT DETAIL
E5.1 SCALE: NOT TO SCALE

PROJECT

ABBOTT 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



MILESTONES

DD
90% CD
DSA SUB 06/03/2021
BACKCHECK

SHEET

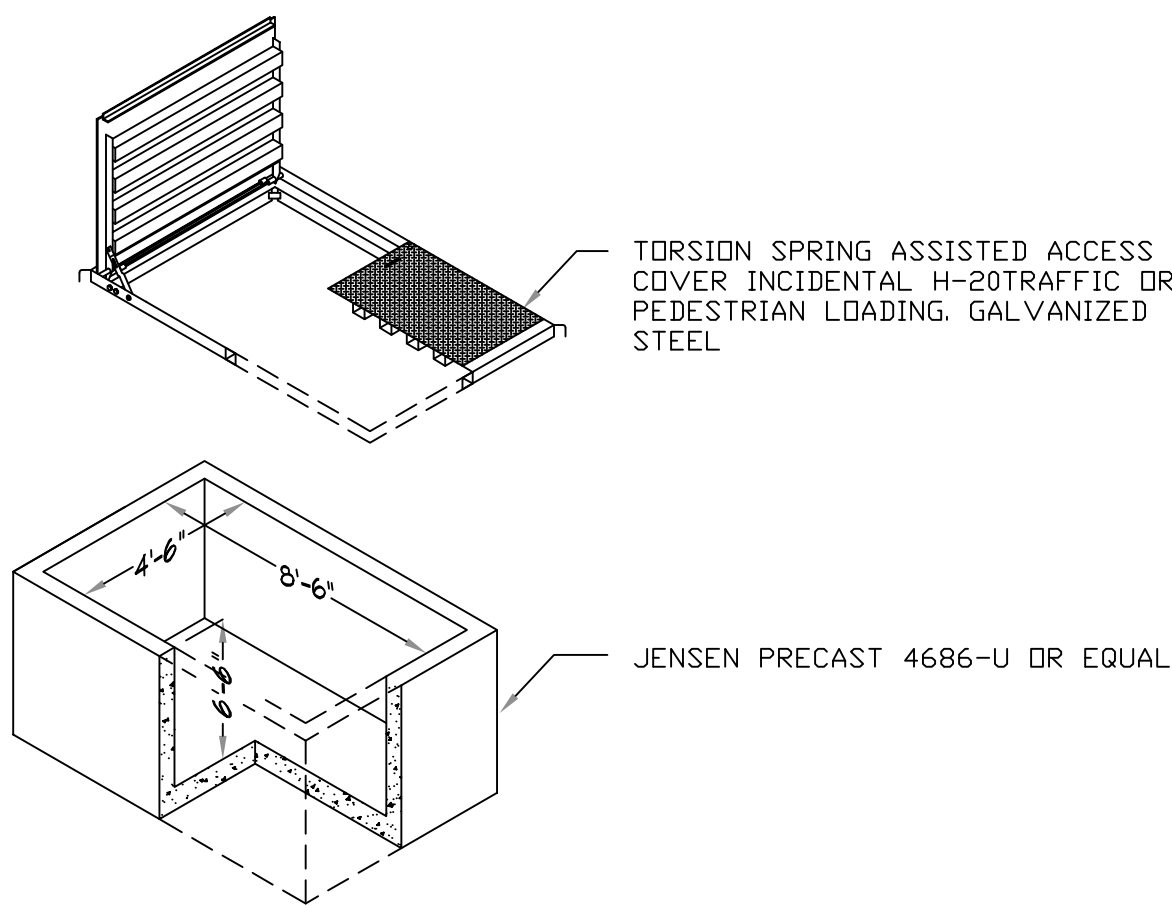
ELECTRICAL
DETAILS

DATE 06/03/2021

JOB # 2021005.06

SHEET #

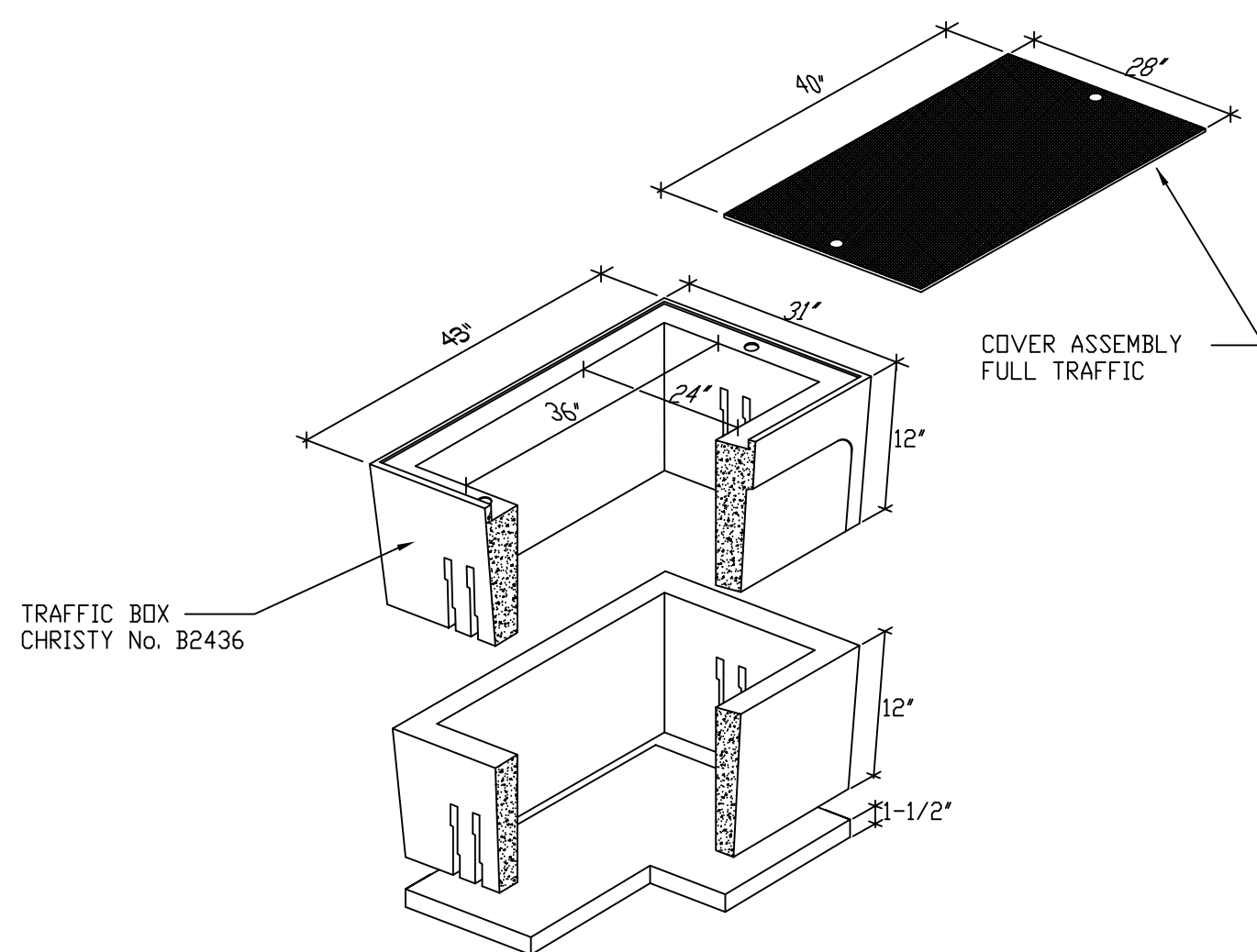
E5.2



NOTES:

1. HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.
2. ALL CONDUITS SHALL ENTER FROM SIDES OF PULL BOX. NO CONDUITS SHALL BE ALLOWED FROM THE BOTTOM OF THE PULL BOX.
3. CONTRACTOR SHALL STACK CONDUITS AS REQUIRED TO MEET THE NEC CODE REQUIREMENTS.
4. PROVIDE BELL ENDS ON ALL CONDUIT.
5. ALL PENETRATIONS INTO BOXES SHALL BE SEALED WITH GROUT.

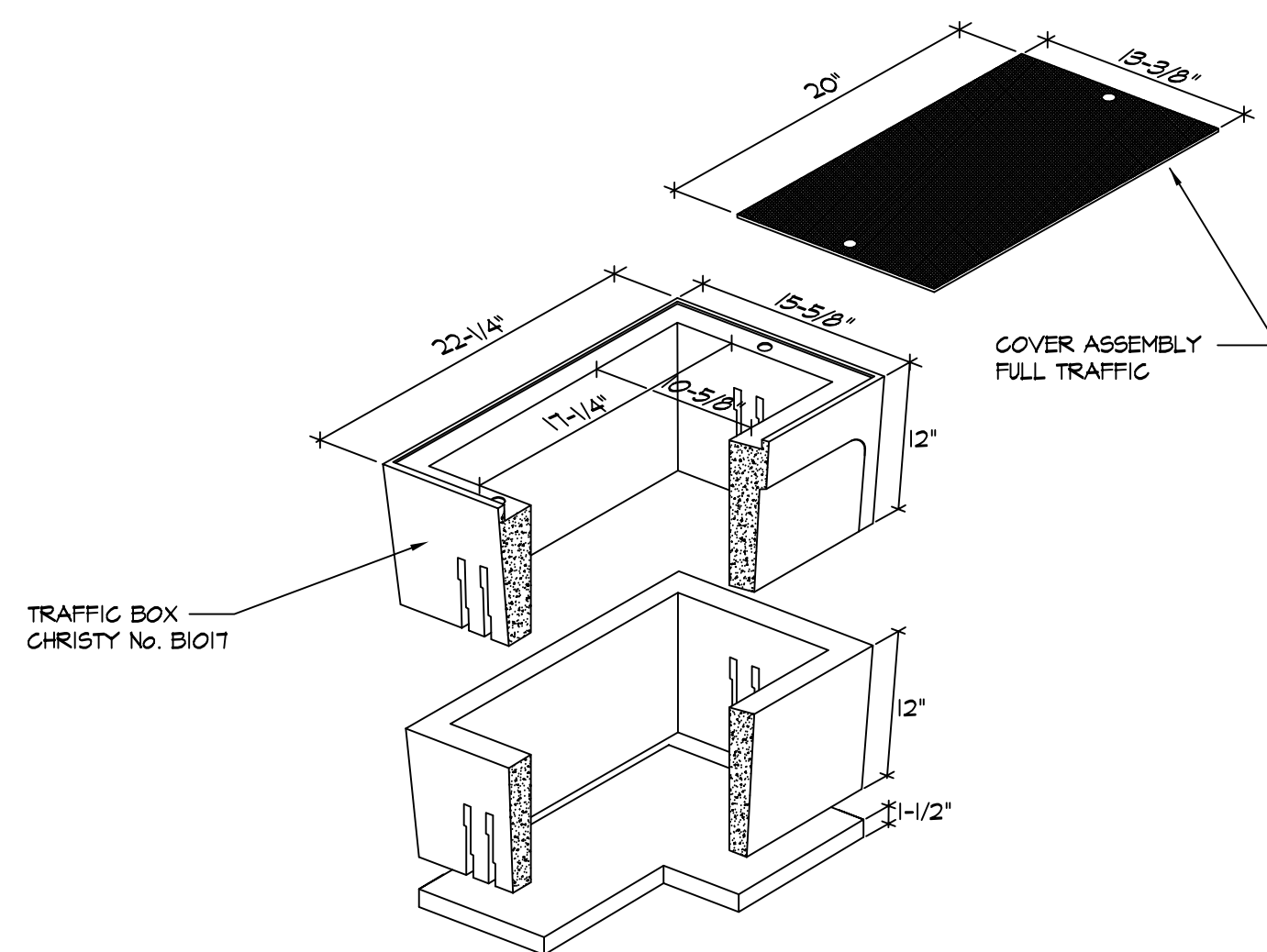
2 4'6" x 8'6" ELECTRICAL VAULT
E5.2 NOT TO SCALE



NOTES:

1. HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.
2. ALL CONDUITS SHALL ENTER FROM SIDES OF PULL BOX. CONTRACTOR SHALL PROVIDE PULL BOX EXTENSION AS REQUIRED. NO CONDUITS SHALL BE ALLOWED FROM THE BOTTOM OF THE PULL BOX.
3. CONTRACTOR SHALL STACK CONDUITS AS REQUIRED TO MEET THE NEC CODE REQUIREMENTS.
4. PROVIDE BELL ENDS ON ALL CONDUIT.
5. ALL PENETRATIONS INTO BOXES SHALL BE SEALED WITH GROUT.

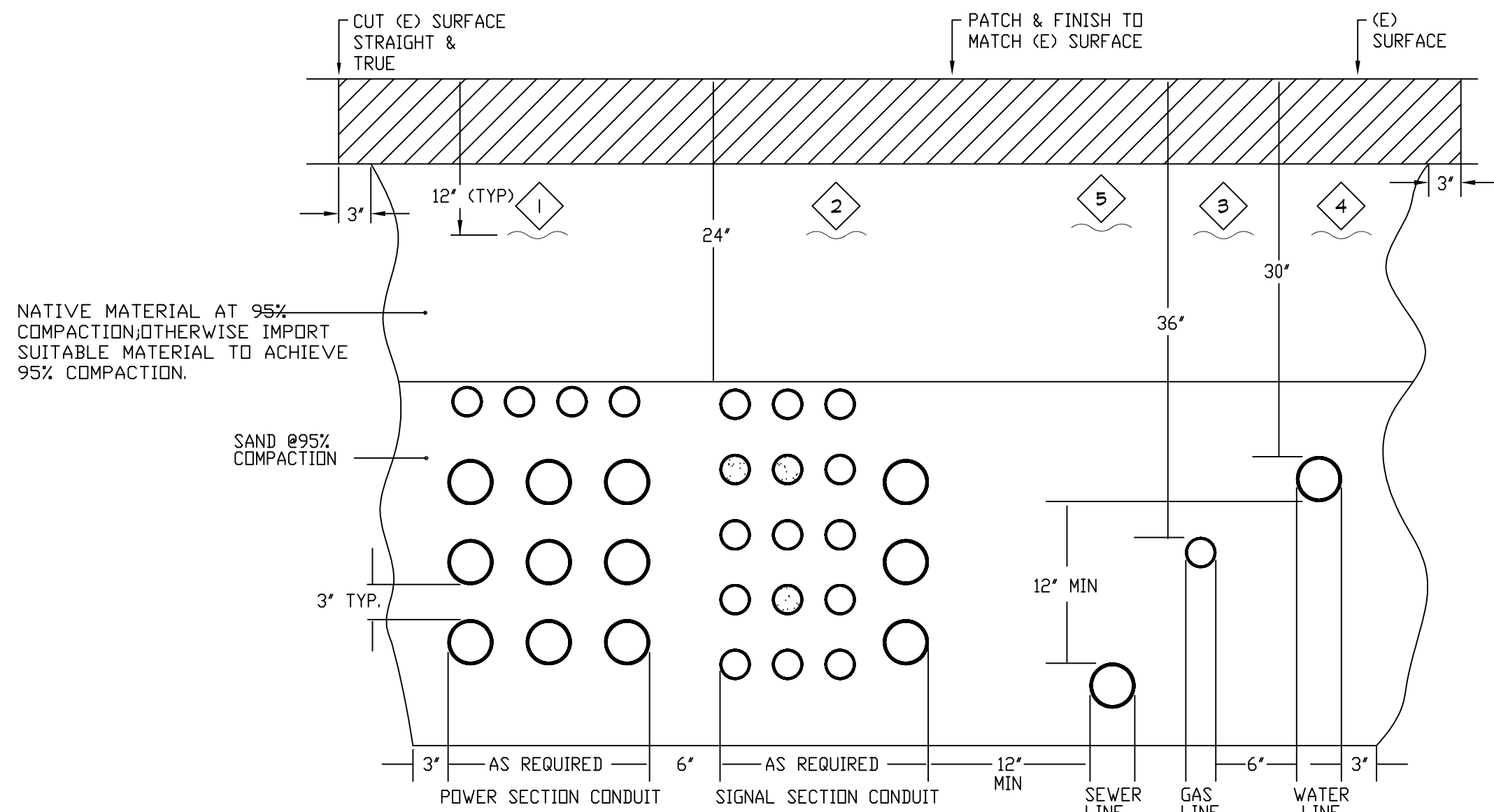
4 B2436 ELECTRICAL VAULT
E5.2 NOT TO SCALE (FULL TRAFFIC COVER)



NOTES:

1. HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.
2. ALL CONDUITS SHALL ENTER FROM SIDES OF PULL BOX. CONTRACTOR SHALL PROVIDE PULL BOX EXTENSION AS REQUIRED. NO CONDUITS SHALL BE ALLOWED FROM THE BOTTOM OF THE PULL BOX.
3. CONTRACTOR SHALL STACK CONDUITS AS REQUIRED TO MEET THE NEC CODE REQUIREMENTS.
4. PROVIDE BELL ENDS ON ALL CONDUIT.

5 B1017 ELECTRICAL VAULT
E5.2 NOT TO SCALE (FULL TRAFFIC COVER)

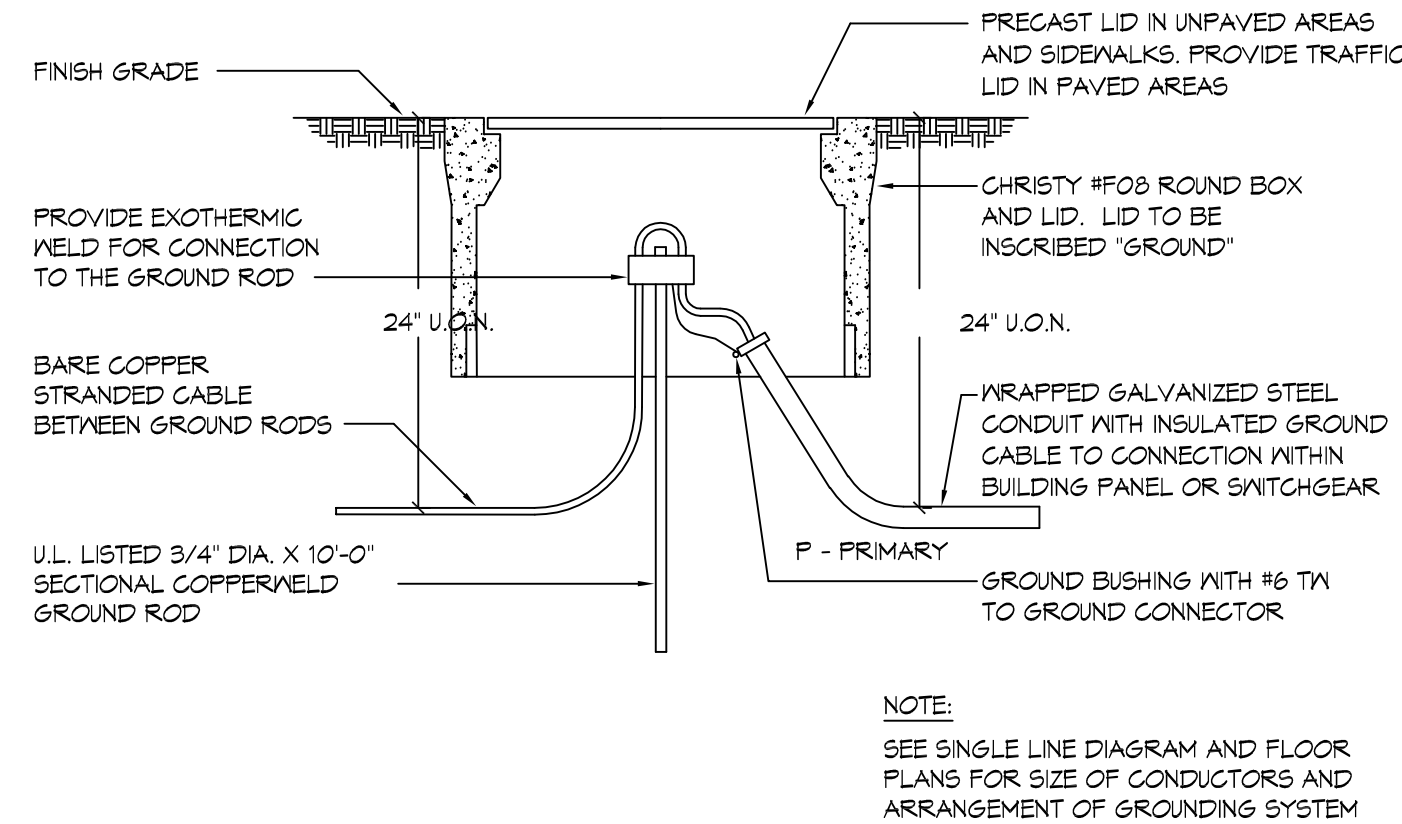


- 1 WARNING TAPE MARKED "POWER"
- 2 WARNING TAPE MARKED "SIGNAL"
- 3 WARNING TAPE MARKED "GAS"
- 4 WARNING TAPE MARKED "WATER"
- 5 WARNING TAPE MARKED "SEWER"

NOTES:

1. ALL ELECTRICAL TRENCH WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
2. MINIMUM SPACING BETWEEN CONDUITS IS 3".
3. SEE SITE/FLOOR PLANS AND SPECIFICATIONS FOR CONDUIT REQUIREMENTS.
4. ALL UNDERGROUND CONDUITS TO BE IN CONFORMANCE WITH DETAIL U55.1

3 TYPICAL JOINT TRENCH & DUCT BANK DETAIL
E5.2 NOT TO SCALE



NOTE:

SEE SINGLE LINE DIAGRAM AND FLOOR PLANS FOR SIZE OF CONDUCTORS AND ARRANGEMENT OF GROUNDING SYSTEM

6 GROUND ROD INSPECTION WELL FOR MULTIPLE GROUND RODS
E5.2 NOT TO SCALE