

# WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION

2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA

## PROJECT DATA

### LEGEND

SYMBOLS	ABBREVIATIONS
	GRID LINES
	GATE SYMBOL
	DOOR SYMBOL DOOR NUMBER
	WINDOW SYMBOL WINDOW NUMBER T = TEMPERED WH/OCCURS
	REVISION NUMBER
	WORK POINT CONTROL POINT/DATUM POINT ELEVATION
	MATCH LINE (SHADED PORTION IS THE SIDE SHOWN)
	NORTH ARROW
	BUILDING SECTION SHEET NUMBER
	WALL SECTION SHEET NUMBER
	DETAIL NUMBER SHEET NUMBER
	ROOM NUMBER/NAME SHEET REFERENCE OF ROOM
	REVISED FINISH GRADE EXISTING GRADE CALLED (E)
	SIGNS SEE SCHEDULE A.5.0
	KITCHEN EQUIPMENT
	ADA CLEARANCE SEE SCHEDULE

### GENERAL NOTES

NOTHING IN THE DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT AN INSTALLATION THAT COULD BE IN VIOLATION OF THE APPLICABLE CODES, ORDINANCES, REGULATIONS, RESTRICTIONS, ETC. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN FULL ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, REGULATIONS.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY. DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE DRAWINGS SHALL CAUSE THE CONTRACTOR TO NOTIFY THE ARCHITECT PRIOR TO MAKING ANY CHANGES IN THE WORK.

THE DRAWINGS, IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED HEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT/OWNER AND NO PART THEREOF SHALL BE COPIED OR DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THESE DOCUMENTS HAVE BEEN PREPARED AND WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS CONSTITUTES CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE ARCHITECT WILL NOT BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS.

MISPLACEMENT, ADDITION, OR OMISSION OF ANY WORD, LETTER, FIGURE, PUNCTUATION MARK, ETC., SHALL IN NO WAY CHANGE OR ALTER THE TRUE INTENT, SPIRIT, OR MEANING OF THE DRAWINGS. THE CONTRACTOR SHALL STUDY AND COMPARE ALL DRAWINGS AND SHALL REPORT ANY ERRORS, OMISSIONS, OR INCONSISTENCIES TO THE ARCHITECT BEFORE COMMENCING WORK IN THAT AREA.

ALL WORK SHALL BE IN CONFORMANCE WITH THE CURRENTLY ADOPTED EDITION OF THE:

- PART 1 2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R.
- PART 2 2019 CALIFORNIA BUILDING CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL BUILDING CODE, VOLUME 1 AND 2 WITH CALIFORNIA AMENDMENTS)
- PART 3 2019 CALIFORNIA ELECTRICAL CODE, TITLE 24 C.C.R. (2017 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)
- PART 4 2019 CALIFORNIA MECHANICAL CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
- PART 5 2019 CALIFORNIA PLUMBING CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO AND CALIFORNIA AMENDMENTS)
- PART 6 2019 CALIFORNIA FIRE CODE, TITLE 24 C.C.R.
- PART 7 2019 CALIFORNIA HISTORICAL BUILDING CODE, TITLE 24 C.C.R.
- PART 8 2019 CALIFORNIA FIRE CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL FIRE CODE COUNCIL)
- PART 10 2019 CALIFORNIA EXISTING BUILDING CODE, TITLE 24 C.C.R. (2018 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS) WITH 2019 CALIFORNIA HISTORICAL BUILDING CODE, TITLE 24, PART 8 & 2019 CALIFORNIA REFERENCED STANDARDS CODE, TITLE 24, PART 12
- PART 11 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN CODE), TITLE 24 C.C.R.
- PART 12 2019 CALIFORNIA REFERENCE STANDARDS CODE, TITLE 24 C.C.R.

PARTIAL LIST OF APPLICABLE STANDARDS:

- NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS 2018 EDITION
- NFPA 13 AUTOMATIC SPRINKLER SYSTEMS (CALIFORNIA AMENDED) 2018 EDITION
- NFPA 14 STANDPIPE SYSTEMS (CALIFORNIA AMENDED) 2018 EDITION
- NFPA 17 DRY CHEMICAL EXTINGUISHING SYSTEMS 2017 EDITION
- NFPA 17A WET CHEMICAL EXTINGUISHING SYSTEMS 2017 EDITION
- NFPA 20 STATIONARY PUMPS 2019 EDITION
- NFPA 24 PRIVATE FIRE SERVICE MAINS (CALIFORNIA AMENDED) 2019 EDITION
- NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) 2018 EDITION (NOTE SEE UL STANDARD 1971 FOR "VISUAL DEVICES")
- NFPA 253 CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS 2018 EDITION
- NFPA 2001 CLEAN AGENT FIRE EXTINGUISHING SYSTEMS 2018 EDITION (REFERENCE CODE SECTION FOR NFPA STANDARDS-CBC (SFM) 3504.1)

IF CONFLICTS BETWEEN VARIOUS ELEMENTS (ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL) OF THE WORK OF THE DRAWINGS ARE DISCOVERED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT.

THESE PROPOSED PLANS WERE BASED ON PLANS BY OTHERS, FURNISHED BY THE OWNER, INDICATING WORK OF PREVIOUS CONTRACTS PER AFI 4751. THE EXISTING PLANS PER AFI 4751 WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S REVIEW UPON REQUEST. THE OWNER, THE ARCHITECT AND THE ENGINEERS SHALL ASSUME NO RESPONSIBILITY FOR THE EXISTING CONDITIONS AND MEASUREMENTS INDICATED ON THESE PROPOSED PLANS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING MEASUREMENTS AND CONDITIONS NECESSARY TO PROVIDE COMPLETE WORK AS INDICATED BY THE INTENT OF THESE PLANS PRIOR TO PROCEEDING WITH WORK OF THIS CONTRACT.

EXISTING DIMENSIONS INDICATED ON THESE PROPOSED DRAWINGS HAVE BEEN PROVIDED FROM INFORMATION OBTAINED FROM THE DISTRICT. THE CONTRACTOR SHALL USE WHAT MEANS NECESSARY TO VERIFY THE DIMENSIONS IN THE AREAS OF DESIGNATED WORK. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO STARTING WORK IN THE AREA OF QUESTION.

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDA, A CONSTRUCTION CHANGE DOCUMENT APPROVED BY THE COUNTY OF KERN.

A "CLASS 2" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, C.C.R.

GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LEGAL ORDINANCES.

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATIONS, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITION SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT (CCD TYPE A) OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY COUNTY OF KERN BEFORE PROCEEDING WITH THE REPAIR WORK.

CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR ACCEPTED BY THE ARCHITECT AND ENGINEER WITH THE APPROVAL OF COUNTY OF KERN REPRESENTATIVE.

### SCOPE OF WORK

BASE BID: ALL LABOR, MATERIALS, AND EQUIPMENT AS REQUIRED FOR THE DEMOLITION OF THE WORK INDICATED INCLUDING HAZARDOUS MATERIAL REMOVAL AND CONSTRUCTION OF SITE WORK FOR ADA PATH OF TRAVEL AND BUILDING WORK TO INCLUDE BUT NOT NECESSARILY LIMITED TO, PATCHING OF (E) ROOF MATERIAL, INSULATION, DOORS, FRAMES AND HARDWARE, NON-BEARING WALLS, FINISHES, CEILING, ELECTRICAL, LIGHTING, FIRE ALARM, PLUMBING AND HVAC AS INDICATED BY PLANS AND/OR SPECIFICATIONS CONTAINED HEREIN.

FOR DSA, WORK FOR EACH BUILDING SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO:

- UNIT 'A1': CEILING, LIGHTING, RESTROOMS, FIRE ALARM AND HVAC.
- UNIT 'A2': CEILING, LIGHTING, RESTROOMS, FIRE ALARM AND HVAC.
- UNIT 'A2B': CEILING, LIGHTING, RESTROOMS, FIRE ALARM AND HVAC.
- UNIT 'A3': FRAMING, CEILING, LIGHTING, RESTROOMS, FIRE ALARM AND HVAC.

### HAZARDOUS MATERIAL REMOVAL NOTES

- THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY BOTH THE OWNER AND THE ARCHITECT IF ASBESTOS OR OTHER HAZARDOUS CONTAMINATING MATERIAL ARE UNCOVERED IN ANY LOCATION OTHER THAN INDICATED IN THESE PLANS OR SPECIFICATIONS WHERE WORK OF THIS CONTRACT IS SCHEDULED.
- COST OF HAZARDOUS MATERIAL REMOVAL/ASBESTOS ABATEMENT SHALL BE BORE BY THE GENERAL CONTRACTOR, AS PART OF THIS CONTRACT. ASBESTOS AND HAZARDOUS MATERIAL TESTING WORK AND SERVICES BY THE CERTIFIED ASBESTOS CONSULTANT ARE NOT A PART OF THE CONTRACT. THE OWNER WILL EMPLOY THE CERTIFIED ASBESTOS ABATEMENT CONSULTANT AND PAY ALL COST OF TESTING.
- THE COST OF AND SUBSEQUENT REMOVAL OF OTHER BUILDING MATERIALS CONTAINING HAZARDOUS MATERIALS SHALL BE A PART OF THIS CONTRACT. CONTRACTOR SHALL BE REQUIRED TO CONTRACT THE REMOVAL OF ANY AND ALL HAZARDOUS MATERIALS PER REQUIREMENTS AND REGULATIONS PER O.S.H.A., A.H.J.E.R.A. AND N.E.S.I.A.P. AND ANY OR ALL OTHER APPLICABLE FEDERAL AND STATE REGULATIONS.
- IT SHALL BE CLEARLY UNDERSTOOD BY THE CONTRACTOR AND THE OWNER THAT THE ARCHITECT IS NOT RESPONSIBLE IN ANY WAY WHATSOEVER FOR THE DETECTION OF THE PRESENCE OF ANY HAZARDOUS MATERIALS OR THE ABATEMENT OR REMOVAL THERE OF.
- AFTER THE CERTIFIED ASBESTOS CONSULTANT HAS CERTIFIED THE ENVIRONMENT IS FREE OF ASBESTOS FIBERS (AIR SAMPLES AND THE LABORATORY TESTS), THE GENERAL CONTRACTOR SHALL COMPLETE THE WORK OF THIS CONTRACT.
- IF THE GENERAL CONTRACTOR'S RESPONSIBILITY TO KEEP THE OWNER AND THE ARCHITECT INFORMED AS OF WHEN THE ASBESTOS ABATEMENT AND HAZARDOUS MATERIALS CONTRACTOR WILL BE REQUIRED TO COMMENCE THEIR WORK.
- IT SHALL BE UNDERSTOOD THAT THE OWNER, THE ARCHITECT AND THE ENGINEER MAKE NO IMPLIED OR EXPRESSED WARRANTY OR GUARANTEE THAT THE LIST OF PRODUCTS/ FINISHES CONTAINING HAZARDOUS BUILDING MATERIALS IS COMPREHENSIVE.
- SEE SPECIFICATION SECTION 02 62 00 HAZARDOUS MATERIALS ABATEMENT AND REMOVAL FOR A LIST OF IDENTIFIED MATERIALS REQUIRING ABATEMENT.

### SITE DATA

SEISMIC DESIGN LOADS:	
SEISMIC IMPORTANCE FACTOR (I <sub>e</sub> )	1.25
RISK CATEGORY	II
Seismic Importance Factor (I <sub>e</sub> )	0.932g
Seismic Importance Factor (I <sub>e</sub> )	0.338g
SEISMIC SITE CLASS:	
S <sub>1</sub>	0.749g
S <sub>2</sub>	0.749g
S <sub>3</sub>	0.749g
SEISMIC DESIGN CATEGORY:	D
ULTIMATE DESIGN WIND SPEED:	94
WIND EXPOSURE:	0.4
TOPOGRAPHIC FACTOR:	1.0
CLIMATE ZONE:	13
FLOOD HAZARD:	DESIGNATION: ZONE X, (FIRM) PANEL 2282, SEPTEMBER 26, 2008

### SHEET INDEX

TITLE	PLUMBING	ELECTRICAL	STRUCTURAL	MECHANICAL
T0.0 TITLE SHEET, SHEET INDEX & VICINITY MAP	P1.0 PLUMBING SITE PLAN, NOTES, SCHEDULE	E1.00 ELECT. SITE PLAN, SYMBOL LEGEND, SINGLE LINE, DETAILS AND NOTES	S0.1 GENERAL NOTES	M1.0 MECHANICAL SITE PLAN, SCHEDULES, AND NOTES
C1 GRADING PLAN	P2.0 PLUMBING PLAN - UNIT 'A1' & 'A2'	E2.10 UNITS A1, A2A, A2B & A3 LIGHTING FLOOR PLANS, DETAILS AND NOTES	S1.1 TYPICAL DETAILS	M1.1 MECHANICAL DETAILS
A1.0 OVERALL SITE PLAN	P2.1 PLUMBING PLAN & DEMO PLAN - UNIT 'A2'	E3.10 UNITS A1, A2A, A2B & A3 DAYLIT LIGHTING FLOOR PLANS & NOTES	S1.2 TYPICAL DETAILS	M1.2 MECHANICAL DETAILS
A1.1 PARTIAL DEMO PLAN, PARTIAL FLOOR PLAN & FLOOR PLAN UNIT 'A1'	P2.2 PLUMBING PLAN & DEMO PLAN - UNIT 'A3'	E3.20 UNITS A1, A2A, A2B & A3 FIRE ALARM FLOOR PLANS	S1.3 TYPICAL DETAILS	M1.3 MECHANICAL DETAILS
A2.1 DEMO FLOOR PLAN & FLOOR PLAN UNIT 'A2A'	P3.0 BRACING DETAILS	E4.00 NOTES	S2.1A PARTIAL ROOF FRAMING PLAN	M2.0 MECHANICAL FLOOR PLAN - UNIT 'A1'
A2.2 DEMO PLAN, FLOOR PLAN & ENLARGED FLOOR PLAN UNIT 'A2B'		E4.10 UNITS A1, A2A, A2B & A3 FIRE ALARM FLOOR PLANS	S2.1B PARTIAL ROOF FRAMING PLAN	M2.1 BUILDING 'A1' TITLE-24
A2.3 PARTIAL DEMO FLOOR PLANS & PARTIAL FLOOR PLANS UNIT 'A3'		E5.00 SCHEDULES	S2.1C PARTIAL ROOF FRAMING PLAN	M2.2 BUILDING 'A1' TITLE-24
A4.0 REFLECTED CEILING PLAN UNIT 'A1'		E6.00 NACCC REPORT		M2.3 BUILDING 'A2A' & 'A2B' TITLE-24
A4.1 REFLECTED CEILING PLAN & JOIST PLAN UNITS 'A2A', 'A2B' & 'A3'		E7.00 TITLE 24 REPORT BUILDING 'A1'		M2.4 BUILDING 'A2A' & 'A2B' TITLE-24
A5.0 DOOR SCHEDULE, ROOM FINISH SCHEDULE & DETAILS		E7.02 TITLE 24 REPORT BUILDING 'A2B'		M2.5 BUILDING 'A3' TITLE-24
A6.0 PARTIAL ROOF PLAN UNIT 'A1', 'A2A' & 'A2B'		E7.03 TITLE 24 REPORT BUILDING 'A3'		M2.6 BUILDING 'A3' TITLE-24
A6.1 PARTIAL ROOF PLAN UNIT 'A3'				
A8.0 SECTIONS				
A9.0 INTERIOR ELEVATIONS				
A9.1 INTERIOR ELEVATIONS				
A10.0 DETAILS				
A10.1 DETAILS				
A10.2 DETAILS				

### DESIGN TEAM

OWNER	CONSULTING ENGINEERS
BAKERSFIELD CITY SCHOOL DISTRICT 1300 BAKER STREET BAKERSFIELD, CA. 93305 (661) 631-4600 FAX (661) 326-1485	CIVIL SWANSON ENGINEERING 2000 OAK ST., SUITE 150 BAKERSFIELD, CA. 93301 (661) 831-4919 FAX (661) 831-4929
ARCHITECT SCARCHITECT INC. 1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA. 93309 (661) 397-4377 FAX (661) 397-4378	STRUCTURAL JOHN A. MARTIN & ASSOCIATES 950 SOUTH GRAND AVE. LOS ANGELES, CA. 90015 (213) 483-6490 FAX (213) 744-1515
	ELECTRICAL DPG ENGINEERING, INC. 6702 N. CEDAR AVE., SUITE 205 FRESNO, CA. 93710 (559) 276-5144 FAX (559) 900-4929
	MECHANICAL/ PLUMBING BASKIN MECHANICAL ENGINEERS INC. 5500 MING AVE., SUITE 251 BAKERSFIELD, CA. 93309 (661) 397-2114 FAX (661) 397-2116

### VICINITY MAP



IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA

ARCHITECT  
Inc.

1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM

STEPHEN J. CORBIN, N.CARB, AIA, LEED®-AP

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.C.R.

MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL AT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.

A LISTING OF CERTIFIED AT CAN BE FOUND AT:  
HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.

THE ACCEPTANCE TESTING PROCEDURE MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

TITLE SHEET,  
SHEET INDEX &  
VICINITY MAP

MARK	DATE	REVISIONS

JOB NO.  
1318  
DRAWN:  
ED, FS  
CHECKED:  
BCW  
DATE:  
4/2/24

SCALE: NTS  
1 OF 61 SHEETS

# SAN EMIDIO STREET

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122918 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 05/08/2024

PTN : 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
 FAX: (661) 397-4378  
 WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, N.CARB, AIA, LEED®-AP

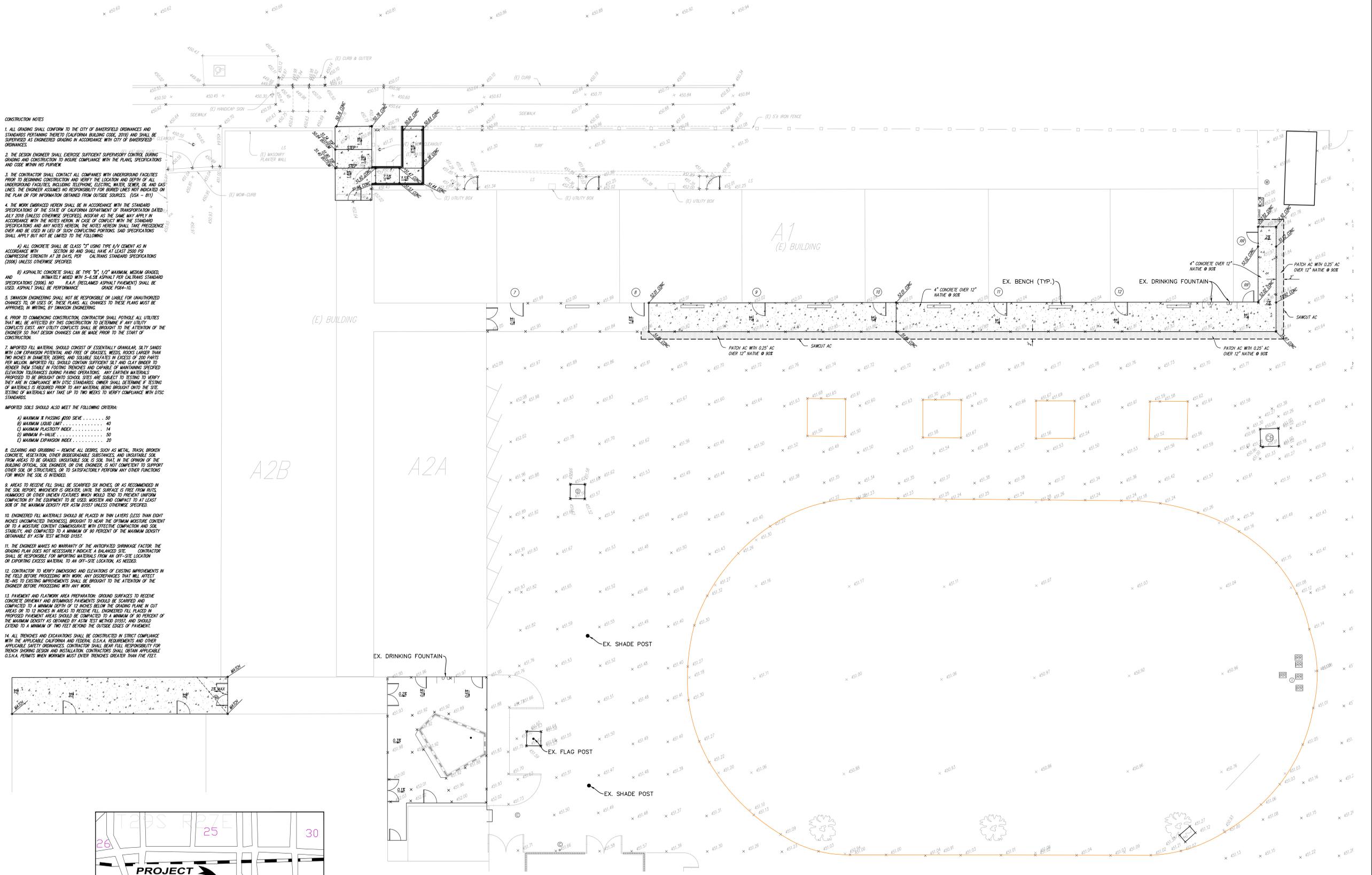
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



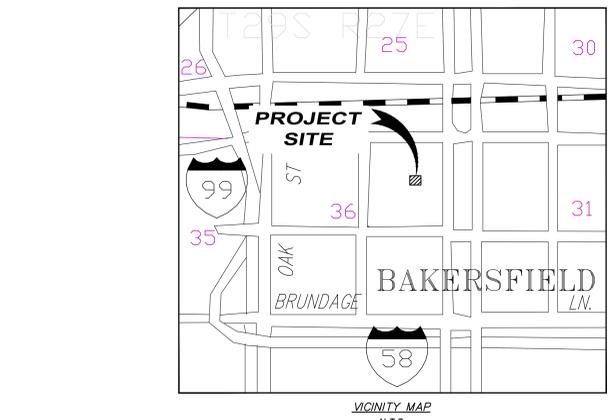
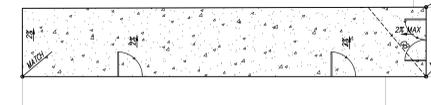
## GRADING PLAN

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. \_\_\_\_\_  
 DRAWN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: 03-27-2023  
 1 OF SHEETS



- CONSTRUCTION NOTES**
- ALL GRADING SHALL CONFORM TO THE CITY OF BAKERSFIELD ORDINANCES AND STANDARDS PERTAINING THERETO (CALIFORNIA BUILDING CODE, 2019) AND SHALL BE SUPERSEDED AS ENGINEERED GRADING IN ACCORDANCE WITH CITY OF BAKERSFIELD ORDINANCES.
  - THE DESIGN ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODE WITHIN HIS PURVIEW.
  - THE CONTRACTOR SHALL CONTACT ALL COMPANIES WITH UNDERGROUND FACILITIES PRIOR TO BEGINNING CONSTRUCTION AND VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND FACILITIES, INCLUDING TELEPHONE, ELECTRIC, WATER, SEWER, OIL AND GAS LINES. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR BURIED LINES NOT INDICATED ON THE PLAN OR FOR INFORMATION OBTAINED FROM OUTSIDE SOURCES. (USA - 811)
  - THE WORK EMPRACED HEREIN SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED JULY 2018 (UNLESS OTHERWISE SPECIFIED), INsofar AS THE SAME MAY APPLY IN ACCORDANCE WITH THE NOTES HEREON. IN CASE OF CONFLICT WITH THE STANDARD SPECIFICATIONS AND ANY NOTES HEREON, THE NOTES HEREON SHALL TAKE PRECEDENCE OVER AND BE USED IN LIEU OF SUCH CONFLICTING PORTIONS. SAID SPECIFICATIONS SHALL APPLY BUT NOT BE LIMITED TO THE FOLLOWING:
    - ALL CONCRETE SHALL BE CLASS "3" USING TYPE 1/4 CEMENT AS IN ACCORDANCE WITH SECTION 801 AND SHALL HAVE AT LEAST 2000 PSI COMPRESSIVE STRENGTH AT 28 DAYS FOR CALIFORNIA STANDARD SPECIFICATIONS (2008) UNLESS OTHERWISE SPECIFIED.
    - ASPHALTIC CONCRETE SHALL BE TYPE "D", 1/2" MAXIMUM MEDIUM GRADED AND INTIMATELY MIXED WITH 5-6.5% ASPHALT PER CALIFORNIA STANDARD SPECIFICATIONS (2008) AND SHALL BE PERFORMED.
  - SWANSON ENGINEERING SHALL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY SWANSON ENGINEERING.
  - PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL POT-HOLE ALL UTILITIES THAT WILL BE AFFECTED BY THIS CONSTRUCTION TO DETERMINE IF ANY UTILITY CONFLICTS EXIST. ANY UTILITY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT DESIGN CHANGES CAN BE MADE PRIOR TO THE START OF CONSTRUCTION.
  - IMPORTED FILL MATERIAL SHOULD CONSIST OF ESSENTIALLY GRANULAR, SILTY SANDS WITH LOW EXPANSION POTENTIAL AND FREE OF GRASSES, WEEDS, ROCKS LARGER THAN TWO INCHES IN DIAMETER, DEBRIS, AND SOLUBLE SULFATES IN EXCESS OF 200 PARTS PER MILLION. IMPORTED FILL SHOULD CONTAIN SUFFICIENT SILT AND CLAY BINDER TO RENDER FILL STABLE IN FLOODING TRENCHES AND CAPABLE OF MAINTAINING SPECIFIED ELEVATION TOLERANCES DURING PLACING OPERATIONS. ANY EARTHEN MATERIALS PROPOSED TO BE BROUGHT ONTO SCHOOL SITES ARE SUBJECT TO TESTING TO VERIFY THEY ARE IN COMPLIANCE WITH DTS STANDARDS. OWNER SHALL DETERMINE IF TESTING OF MATERIALS IS REQUIRED PRIOR TO ANY MATERIAL BEING BROUGHT ONTO THE SITE. TESTING OF MATERIALS MAY TAKE UP TO TWO WEEKS TO VERIFY COMPLIANCE WITH DTS STANDARDS.
- IMPORTED SOILS SHOULD ALSO MEET THE FOLLOWING CRITERIA:
- MAXIMUM % PASSING #200 SIEVE . . . . . 50
  - MAXIMUM LIQUID LIMIT . . . . . 40
  - MAXIMUM PLASTICITY INDEX . . . . . 14
  - MINIMUM P-CURVE . . . . . 50
  - MAXIMUM EXPANSION INDEX . . . . . 20
- CLEARING AND GRUBBING - REMOVE ALL DEBRIS, SUCH AS METAL, TRASH, BROKEN CONCRETE, VEGETATION, OTHER BIODEGRADABLE SUBSTANCES, AND UNSUITABLE SOIL FROM AREAS TO BE GRADED. UNSUITABLE SOIL IS SOIL THAT, IN THE OPINION OF THE BUILDING OFFICIAL, SOIL ENGINEER, OR CIVIL ENGINEER, IS NOT COMPETENT TO SUPPORT OTHER SOIL OR STRUCTURES, OR TO SATISFACTORILY PERFORM ANY OTHER FUNCTIONS FOR WHICH THE SOIL IS INTENDED.
  - AREAS TO RECEIVE FILL SHALL BE SCARIFIED SIX INCHES, OR AS RECOMMENDED IN THE SOIL REPORT, WHICHEVER IS GREATER, UNTIL THE SURFACE IS FREE FROM ROOTS, STUMPS OR OTHER UNWANTED FEATURES WHICH WOULD TEND TO PREVENT UNIFORM COMPACTION BY THE EQUIPMENT TO BE USED. MOISTEN AND COMPACT TO AT LEAST 90% OF THE MAXIMUM DENSITY PER ASTM D1557 UNLESS OTHERWISE SPECIFIED.
  - ENGINEERED FILL MATERIALS SHOULD BE PLACED IN TWIN LAYERS (LESS THAN EIGHT INCHES UNCOMPACTED THICKNESS) BROUGHT TO NEAR THE OPTIMUM MOISTURE CONTENT OR TO A MOISTURE CONTENT COMMENSURATE WITH EFFECTIVE COMPACTION AND SOIL STABILITY, AND COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE BY ASTM TEST METHOD D1557.
  - THE ENGINEER MAKES NO WARRANTY OF THE ANTICIPATED SHRINKAGE FACTOR. THE GRADING PLAN DOES NOT NECESSARILY INDICATE A BALANCED SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING MATERIALS FROM AN OFF-SITE LOCATION OR EXPORTING EXCESS MATERIAL TO AN OFF-SITE LOCATION, AS NEEDED.
  - CONTRACTOR TO VERIFY DIMENSIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS IN THE FIELD BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES THAT WILL AFFECT RE-AND TO EXISTING IMPROVEMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
  - PAVEMENT AND FLATWORK AREA PREPARATION: GROUND SURFACES TO RECEIVE CONCRETE DRIVEWAY AND BITUMINOUS PAVEMENTS SHOULD BE SCARIFIED AND COMPACTED TO A MINIMUM DEPTH OF 12 INCHES BELOW THE GRADING PLANE IN CUT AREAS OR TO 12 INCHES IN AREAS TO RECEIVE FILL. ENGINEERED FILL PLACED IN PROPOSED PAVEMENT AREAS SHOULD BE COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DENSITY AS OBTAINED BY ASTM TEST METHOD D1557, AND SHOULD EXTEND TO A MINIMUM OF TWO FEET BEYOND THE OUTSIDE EDGES OF PAVEMENT.
  - ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHIELDING DESIGN AND INSTALLATION. CONTRACTORS SHALL OBTAIN APPLICABLE O.S.H.A. TRAINING WHEN WORKING WITH TRENCHES DEEPER THAN FIVE FEET.



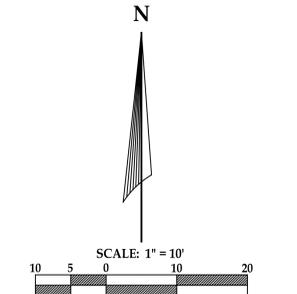
- LEGEND:**
- |   |                       |
|---|-----------------------|
| ⊙ | EXISTING FIRE HYDRANT |
| ⊖ | EXISTING POWER POLE   |
| ⊕ | EXISTING STREET LIGHT |
| ⊙ | FOUND MONUMENT        |
| ⊖ | EXISTING TRAFFIC SIGN |
- ABBREVIATIONS:**
- |        |                     |
|--------|---------------------|
| (E)    | EXISTING            |
| TYP.   | TYPICAL             |
| FD     | FOUND               |
| BK     | BOOK                |
| PG.    | PAGE                |
| C.O.C. | COUNTY OF KERN      |
| C.O.B. | CITY OF BAKERSFIELD |
| CONC   | CONCRETE            |
| A.C.   | ASPHALT PAVEMENT    |
| FG     | FRESH GRADE         |
| EP     | EDGE OF PAVEMENT    |
| TC     | TOP OF CURB         |
| FL     | FLOWLINE            |
| FF     | FINISHED FLOOR      |
| FP     | FINISHED PAD        |
| TP     | TOP OF PAVEMENT     |
| GB     | GRADE BREAK         |

**LOCAL BENCHMARK**  
 SET PK. NAL APPROXIMATELY 236 FEET EAST AND 23 FEET NORTH OF THE CENTERLINE INTERSECTION OF "A" STREET AND SAN EMIDIO STREET.  
 ELEVATION = 450.75'

**ADDRESS**  
 2201 SAN EMIDIO STREET, BAKERSFIELD

**APN**  
 007-084-04

**UTILITY NOTE**  
 NOT ALL UTILITIES WERE LOCATED BY THIS SURVEY AND SWANSON ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR UNDERGROUND UTILITIES OR FACILITIES NOT SHOWN OR FOR INFORMATION OBTAINED FROM OUTSIDE SOURCES.



**SWANSON ENGINEERING, INC.**  
 2000 OAK STREET SUITE 150 ~ BAKERSFIELD, CA 93301  
 P: (661) 831-4919; F: (661) 873-4777  
 JCB - 22-035

**SITE PLAN GENERAL NOTES:**

- SEE ELECTRICAL SITE PLANS FOR ADDITIONAL SITE RELATED WORK. CONTRACTOR SHALL COORDINATE ALL WORK AS REQ'D TO ENSURE A COMPLETE & FINISHED PROJECT.
- CONTRACTOR TO TAKE ALL NECESSARY AND REQUIRED MEASURES TO PROTECT (E) IRRIGATION & TURF AREAS WITHIN THE JOB SITE, AND SHALL BE RESPONSIBLE TO REPLACE ANY OR ALL BROKEN IRRIGATION SYSTEMS, RESEED TURF AS REQUIRED.
- CONTRACTOR TO FV ALL (E) UTILITY BOXES, (E) VALVES, ETC. IN AREA OF SCHEDULED WORK, DEMO, REMOVE, RELOCATE AND/OR MODIFY AS NECESSARY TO COMPLETE THE WORK INDICATED. NOTIFY THE ARCHITECT OF ANY DISCREPANCY BETWEEN EXISTING CONDITIONS AND PLANS.
- CONTRACTOR SHALL PATCH & MATCH ANY ADJACENT SURFACES DAMAGED AS A RESULT OF PERFORMING THE WORK REQUIRED.

**PATH OF TRAVEL:**

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS, AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECTS WORK THROUGH DETAILS, DRAININGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

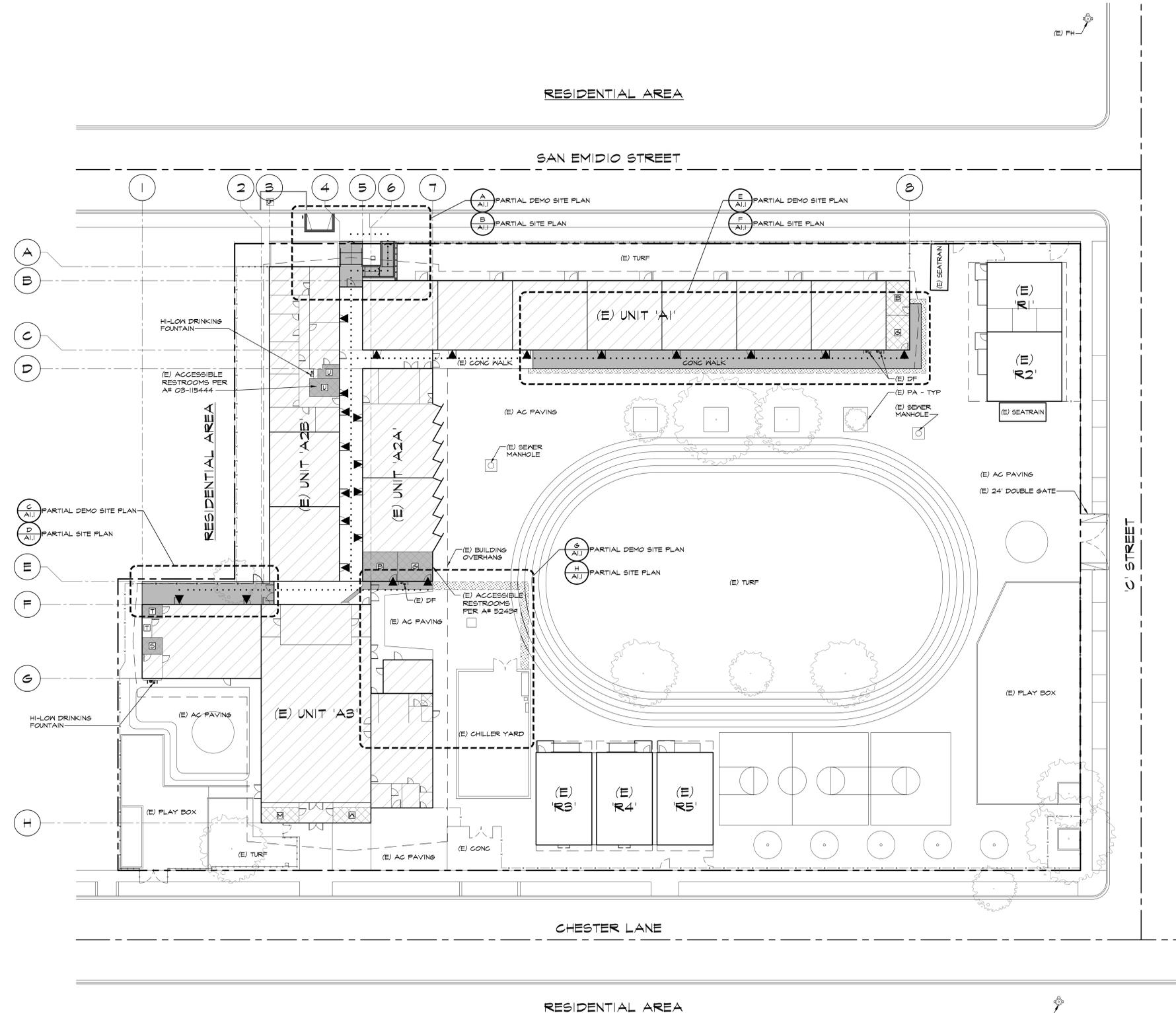
DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

CAMPUS DIRECTORY		
BLDG #	BUILDING DESCRIPTION	DSA #
(E) UNIT 'A1'	CLASSROOMS, RESTROOMS	#1645, #52434, #03-115444
(E) UNIT 'A2A'	CLASSROOMS, RESTROOMS	#1645, #52434, #03-115444
(E) UNIT 'A2B'	ADMINISTRATION / CLASSROOMS	#1645, #52434
(E) UNIT 'A3'	CLASSROOM, KITCHEN, MULTI-PURPOSE, LOUNGE	#1645, #52434
(E) R1'	SPECIAL ED	#3022
(E) R2'	LIBRARY	#3022
(E) R3'	MODULAR CLASSROOM	#03-115444
(E) R4'	MODULAR CLASSROOM	#03-115444
(E) R5'	MODULAR CLASSROOM	#03-116176

BUILDING CODE ANALYSIS							
BUILDING DESIGNATION	BLDG OCC. TYPE	TYPE OF CONST	BASIC ALLOWABLE AREA	ACTUAL HT STRY/FT	ALLOWABLE STORIES/HT ABV GRADE	ACTUAL AREA TOTAL	TOTAL SQUARE FOOTAGE
(E) UNIT 'A1'	E	V-B	9,500	1 STRY/14'-0"	1 STRY/14'-0"	8,524 SF	8,524 < 9,500 ., OK
(E) UNIT 'A2A'	E	V-B	9,500	1 STRY/14'-0"	1 STRY/14'-0"	2,901 SF	2,901 < 9,500 ., OK
(E) UNIT 'A2B'	E	V-B	9,500	1 STRY/14'-0"	1 STRY/14'-0"	4,088 SF	4,088 < 9,500 ., OK
(E) UNIT 'A3'	A-2 / E	V-B	15,500	1 STRY/14'-0"	2 STRY/14'-0"	8,104 SF	8,104 < 15,500 ., OK

**LEGEND:**

- NO WORK SCHEDULE FOR THIS BUILDING
- AREA OF SCHEDULED WORK PER THIS APPLICATION
- (E) ACCESSIBLE RESTROOM
- ACCESSIBLE RESTROOM PER THIS APPLICATION
- CONCRETE WALK \*BATCH INSPECTION IS EXEMPT PER DSA 105
- AC PAVING - SEE CIVIL
- PROPERTY LINE
- (E) STEEL FENCE
- (E) CHAIN LINK FENCE
- STEEL FENCE
- CHAIN LINK FENCE
- PATH OF TRAVEL
- (E) FH



IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA

**ARCHITECT**  
**SC** ARCHITECT INC.  
1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, NCA, AIA, LEED AP  
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**OVERALL SITE PLAN**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318  
DRAWN: ED, FS  
CHECKED: BCW  
DATE: 4/2/24

**1.0**  
3 OF 61 SHEETS

**NOTE:**

NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA

**LEGEND:**

- AREA OF SCHEDULED WORK PER THIS APPLICATION
- (E) ACCESSIBLE RESTROOM
- ACCESSIBLE RESTROOM PER THIS APPLICATION
- DEMO CONG WALK/ AC PAVING AS REQ'D
- EXCAVATE TURF AS REQ'D
- CONCRETE WALK \*BATCH INSPECTION IS EXEMPT PER DSA 103
- AC PAVING - SEE CIVIL
- TO BE DEMOLISHED
- DEMO/REMOVE (E) FENCE
- (E) STEEL FENCE
- (E) CHAIN LINK FENCE
- STEEL FENCE
- CHAIN LINK FENCE

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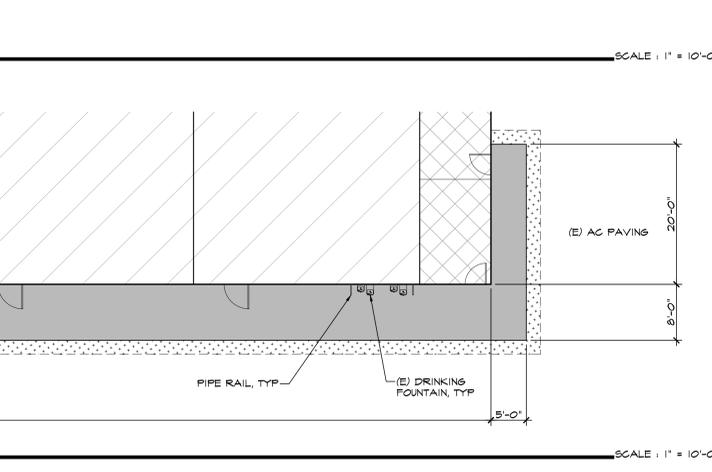
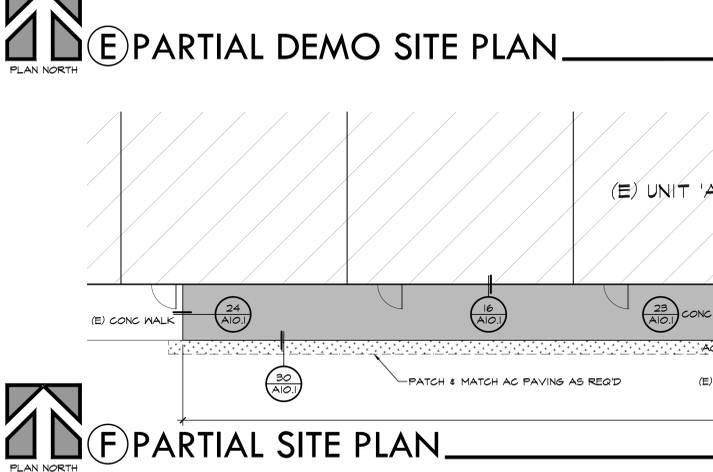
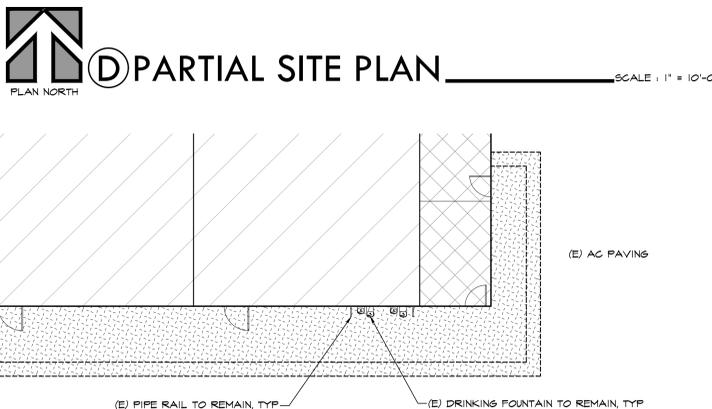
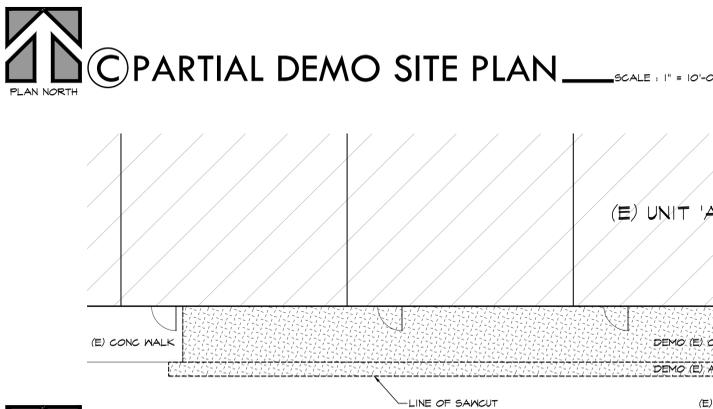
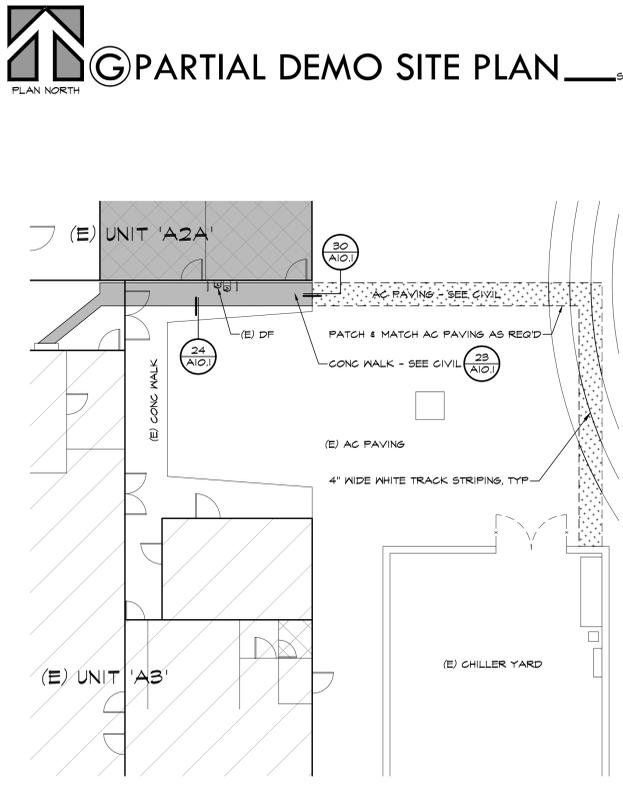
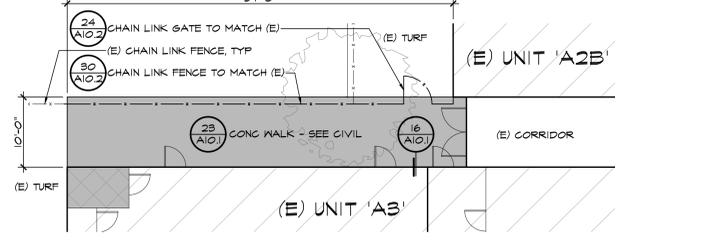
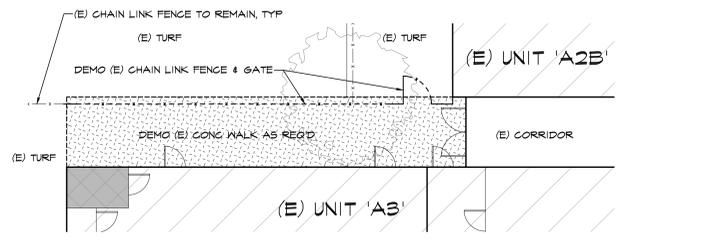
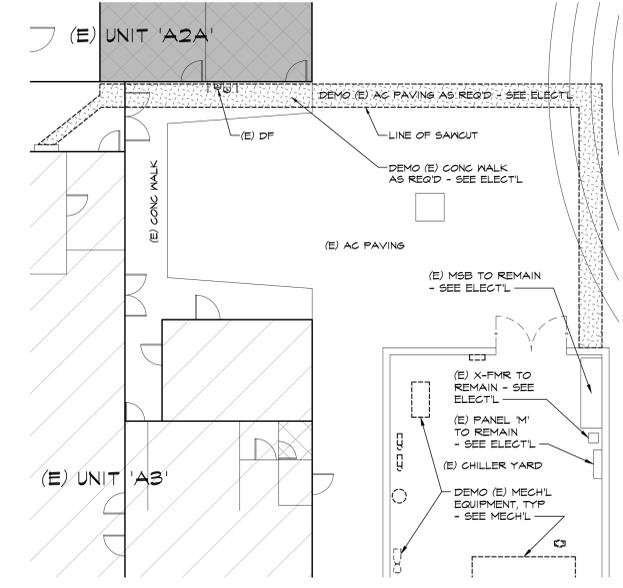
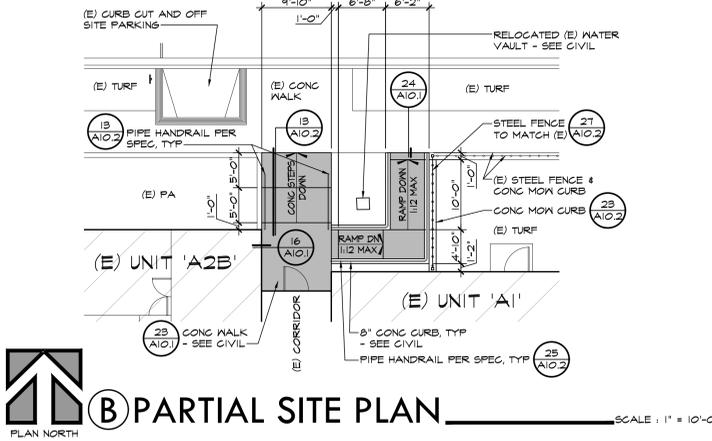
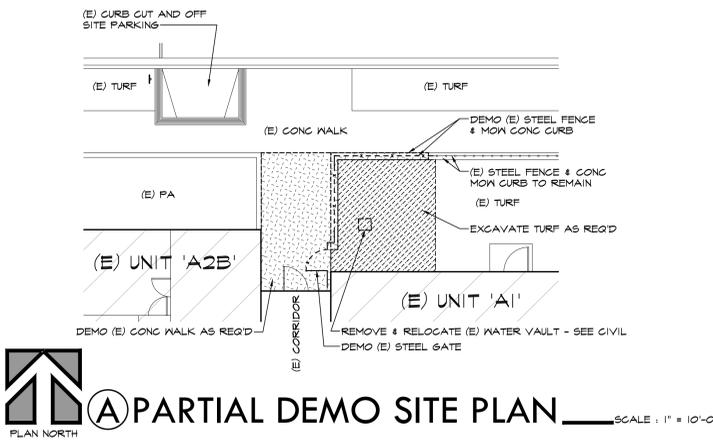
STEPHEN J. CORBIN, N.C.A.R.B., AIA, LEED<sup>®</sup>-AP  
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**PARTIAL SITE PLANS**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.	1318
DRAWN:	ED, FS
CHECKED:	BCW
DATE:	4/2/24



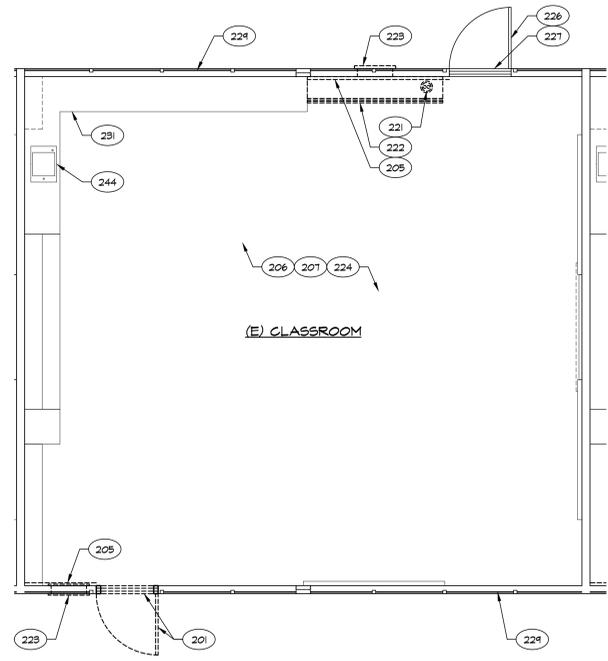
KEYNOTES	
201	DEMO (E) DOOR, FRAME, HARDWARE & THRESHOLD
202	DEMO (E) DOOR & HARDWARE, (E) FRAME TO REMAIN
203	DEMO (E) 2x STUD WALL, FIN & CAREFULLY CHIP OUT CONC CURB WH/ OCCURS AS REQ'D
204	DEMO (E) 2x FURRING
205	DEMO (E) WALL FINISH
206	DEMO (E) T-BAR CEILING SYSTEM, LIGHTING & BATT INSULATION
207	DEMO (E) 1/2" ACOUSTIC CEILING TILE
208	DEMO (E) CABINET / SHELVING
209	DEMO (E) SOLID TOILET PARTITIONS
210	REMOVE & RELOCATE (E) GRAB BAR
211	DEMO (E) PAPER TOWEL DISPENSER
212	REMOVE & RELOCATE (E) PAPER TOWEL DISPENSER
213	DEMO (E) SOAP DISPENSER
214	DEMO (E) TOILET PAPER DISPENSER
215	REMOVE & RELOCATE (E) TOILET SEAT COVER DISPENSER
216	DEMO (E) TOILET / URINAL
217	REMOVE & RELOCATE (E) TOILET / URINAL
218	DEMO (E) LAVATORY / SINK
219	DEMO (E) FLOOR DRAIN / CLEANOUT
220	DEMO (E) DRINKING FOUNTAIN
221	DEMO (E) PIPE COVER, SUPPLY / RETURN WATER LINES & GAP BELOW GRADE
222	DEMO (E) UNIT VENTILATOR
223	DEMO (E) LOUVER
224	REMOVE & REINSTALL (E) RECESSED AIR FILTER
225	DEMO (E) 1/2" STD PIPE RAIL
226	(E) DOOR TO REMAIN
227	(E) THRESHOLD TO REMAIN
228	(E) REDUCER STRIP TO REMAIN
229	(E) WINDOW TO REMAIN
230	(E) STOREFRONT TO REMAIN
231	(E) CABINET / COUNTER TO REMAIN
232	(E) MIRROR TO REMAIN
233	(E) SOLID TOILET PARTITIONS TO REMAIN
234	(E) GRAB BAR TO REMAIN
235	RELOCATED (E) GRAB BAR
236	(E) PAPER TOWEL DISPENSER TO REMAIN
237	RELOCATED (E) PAPER TOWEL DISPENSER
238	(E) SOAP DISPENSER TO REMAIN
239	(E) TOILET PAPER DISPENSER TO REMAIN
240	(E) TOILET SEAT COVER DISPENSER TO REMAIN
241	RELOCATED (E) TOILET SEAT COVER DISPENSER
242	(E) TOILET / URINAL TO REMAIN
243	RELOCATED (E) TOILET / URINAL - SEE PLUMBING PLANS
244	(E) LAVATORY / SINK TO REMAIN
245	(E) FLOOR DRAIN / CLEANOUT TO REMAIN
246	(E) DRINKING FOUNTAIN TO REMAIN
247	(E) 1/2" STD PIPE RAIL TO REMAIN
248	(E) METAL LOUVERS TO REMAIN
249	DOOR PER SCHEDULE
250	THRESHOLD PER SCHEDULE
251	REDUCER STRIP PER SCHEDULE
252	WINDOW PER SCHEDULE
253	2 1/2" DEPRESS CONC SLAB
254	PATCH & MATCH (E) CONC SLAB AS REQ'D
255	CONC SLAB IN-FILL
256	PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
257	WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D
258	FLAM BASE CABS AND / OR UPPER CABS
259	SOLID PLASTIC PARTITIONS
260	GRAB BAR - 48" AT SIDE AND 36" AT BACK
261	RECESSED TOILET PAPER DISPENSER PER SPEC
262	TOILET AND REQUIREMENTS - SEE PLUMBING PLANS
263	LAVATORY / SINK AND REQUIREMENTS - SEE PLUMBING PLANS
264	DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS
265	PIPE RAIL PER SPEC
266	FIRE EXTINGUISHER

ADA REQ'D MIN CLEARANCES	
□	30" X 48"
□	48" X 48"
□	48" X 54"
□	48" X 60"
□	54" X 60"
□	60" X 60"
□	60" X 66"
□	60" DIA

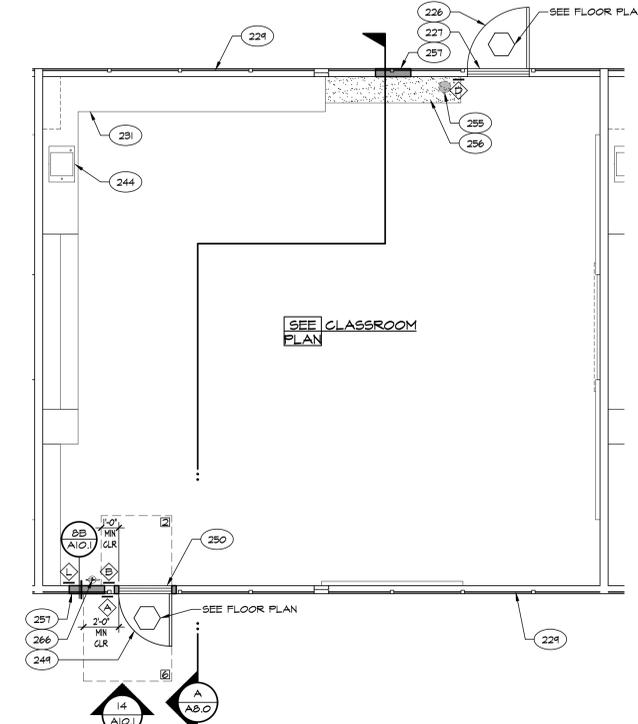
**LEGEND:**

- (E) 2x6 WOOD STUD WALL
- 2x WALL IN-FILL
- CONC SLAB IN-FILL
- PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
- SIGNAGE

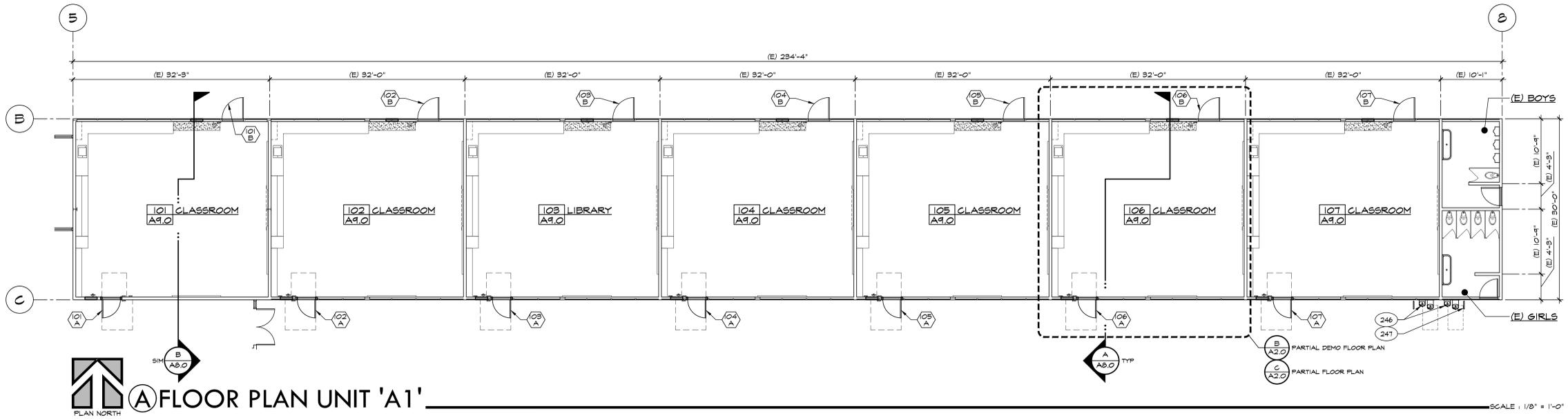
**NOTE:**  
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**B PARTIAL DEMO FLOOR PLAN** SCALE: 1/4" = 1'-0"  
TYPICAL CLASSROOM & LIBRARY



**C PARTIAL FLOOR PLAN** SCALE: 1/4" = 1'-0"  
TYPICAL CLASSROOM & LIBRARY



**A FLOOR PLAN UNIT 'A1'** SCALE: 1/8" = 1'-0"

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**PARTIAL DEMO PLAN, PARTIAL FLOOR PLAN & FLOOR PLAN UNIT 'A1'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318  
DRAWN: ED, FS  
CHECKED: BCW  
DATE: 4/2/24

**2.0**  
OF 61 SHEETS

KEYNOTES		
201	DEMO (E) DOOR, FRAME, HARDWARE & THRESHOLD	234 (E) GRAB BAR TO REMAIN
202	DEMO (E) DOOR & HARDWARE, (E) FRAME TO REMAIN	235 RELOCATED (E) GRAB BAR
203	DEMO (E) 2x STUD WALL, FIN & CAREFULLY CHIP OUT CONC CURB WH/ OCCURS AS REQ'D	236 (E) PAPER TOWEL DISPENSER TO REMAIN
204	DEMO (E) 2x FURRING	237 RELOCATED (E) PAPER TOWEL DISPENSER
205	DEMO (E) WALL FINISH	238 (E) SOAP DISPENSER TO REMAIN
206	DEMO (E) T-BAR CEILING SYSTEM, LIGHTING & BATT INSULATION	239 (E) TOILET PAPER DISPENSER TO REMAIN
207	DEMO (E) 1/2" ACOUSTIC CEILING TILE	240 (E) TOILET SEAT COVER DISPENSER TO REMAIN
208	DEMO (E) CABINET / SHELVING	241 RELOCATED (E) TOILET SEAT COVER DISPENSER
209	DEMO (E) SOLID TOILET PARTITIONS	242 (E) TOILET / URINAL TO REMAIN
210	REMOVE & RELOCATE (E) GRAB BAR	243 RELOCATED (E) TOILET / URINAL - SEE PLUMBING PLANS
211	DEMO (E) PAPER TOWEL DISPENSER	244 (E) LAVATORY / SINK TO REMAIN
212	REMOVE & RELOCATE (E) PAPER TOWEL DISPENSER	245 (E) FLOOR DRAIN / CLEANOUT TO REMAIN
213	DEMO (E) SOAP DISPENSER	246 (E) DRINKING FOUNTAIN TO REMAIN
214	DEMO (E) TOILET PAPER DISPENSER	247 (E) 1/2" STD PIPE RAIL TO REMAIN
215	REMOVE & RELOCATE (E) TOILET SEAT COVER DISPENSER	248 (E) METAL LOUVERS TO REMAIN
216	DEMO (E) TOILET / URINAL	249 DOOR PER SCHEDULE
217	REMOVE & RELOCATE (E) TOILET / URINAL	250 THRESHOLD PER SCHEDULE
218	DEMO (E) LAVATORY / SINK	251 REDUCER STRIP PER SCHEDULE
219	DEMO (E) FLOOR DRAIN / CLEANOUT	252 WINDOW PER SCHEDULE
220	DEMO (E) DRINKING FOUNTAIN	253 2 1/2" DEPRESS CONC SLAB
221	DEMO (E) PIPE COVER, SUPPLY / RETURN WATER LINES & CAP BELOW GRADE	254 PATCH & MATCH (E) CONC SLAB AS REQ'D
222	DEMO (E) UNIT VENTILATOR	255 CONC SLAB IN-FILL
223	DEMO (E) LOUVER	256 PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
224	REMOVE & REINSTALL (E) RECESSED AIR FILTER	257 WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D
225	DEMO (E) 1/2" STD PIPE RAIL	258 FLAM BASE CABS AND / OR UPPER CABS
226	(E) DOOR TO REMAIN	259 SOLID PLASTIC PARTITIONS
227	(E) THRESHOLD TO REMAIN	260 GRAB BAR - 48" AT SIDE AND 36" AT BACK
228	(E) REDUCER STRIP TO REMAIN	261 RECESSED TOILET PAPER DISPENSER PER SPEC
229	(E) WINDOW TO REMAIN	262 TOILET AND REQUIREMENTS - SEE PLUMBING PLANS
230	(E) STOREFRONT TO REMAIN	263 LAVATORY / SINK AND REQUIREMENTS - SEE PLUMBING PLANS
231	(E) CABINET / COUNTER TO REMAIN	264 DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS
232	(E) MIRROR TO REMAIN	265 PIPE RAIL PER SPEC
233	(E) SOLID TOILET PARTITIONS TO REMAIN	266 FIRE EXTINGUISHER

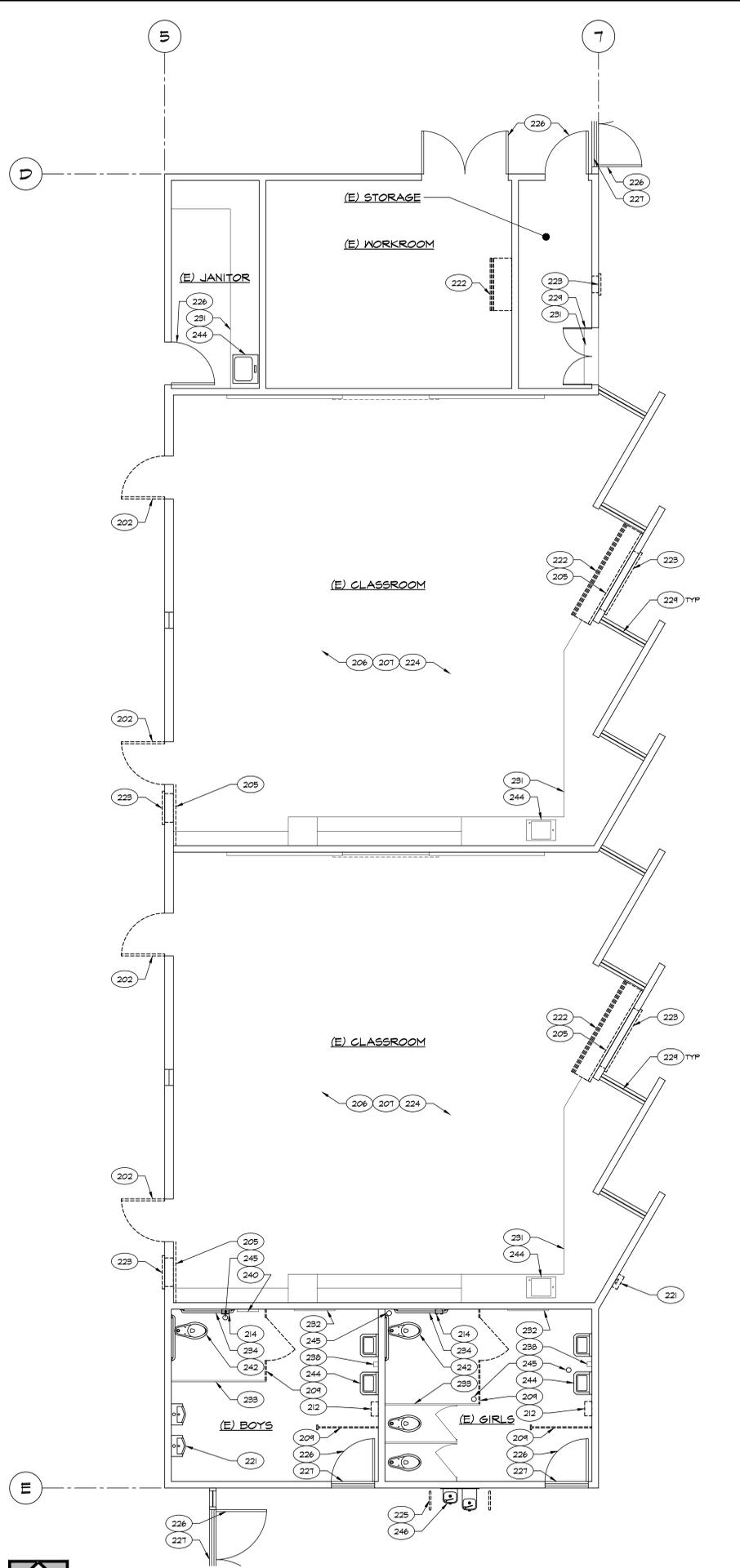
**ADA REQ'D MIN CLEARANCES**

□	30" x 48"
□	48" x 48"
□	48" x 54"
□	48" x 60"
□	54" x 60"
□	60" x 60"
□	60" x 72"
□	60" DIA

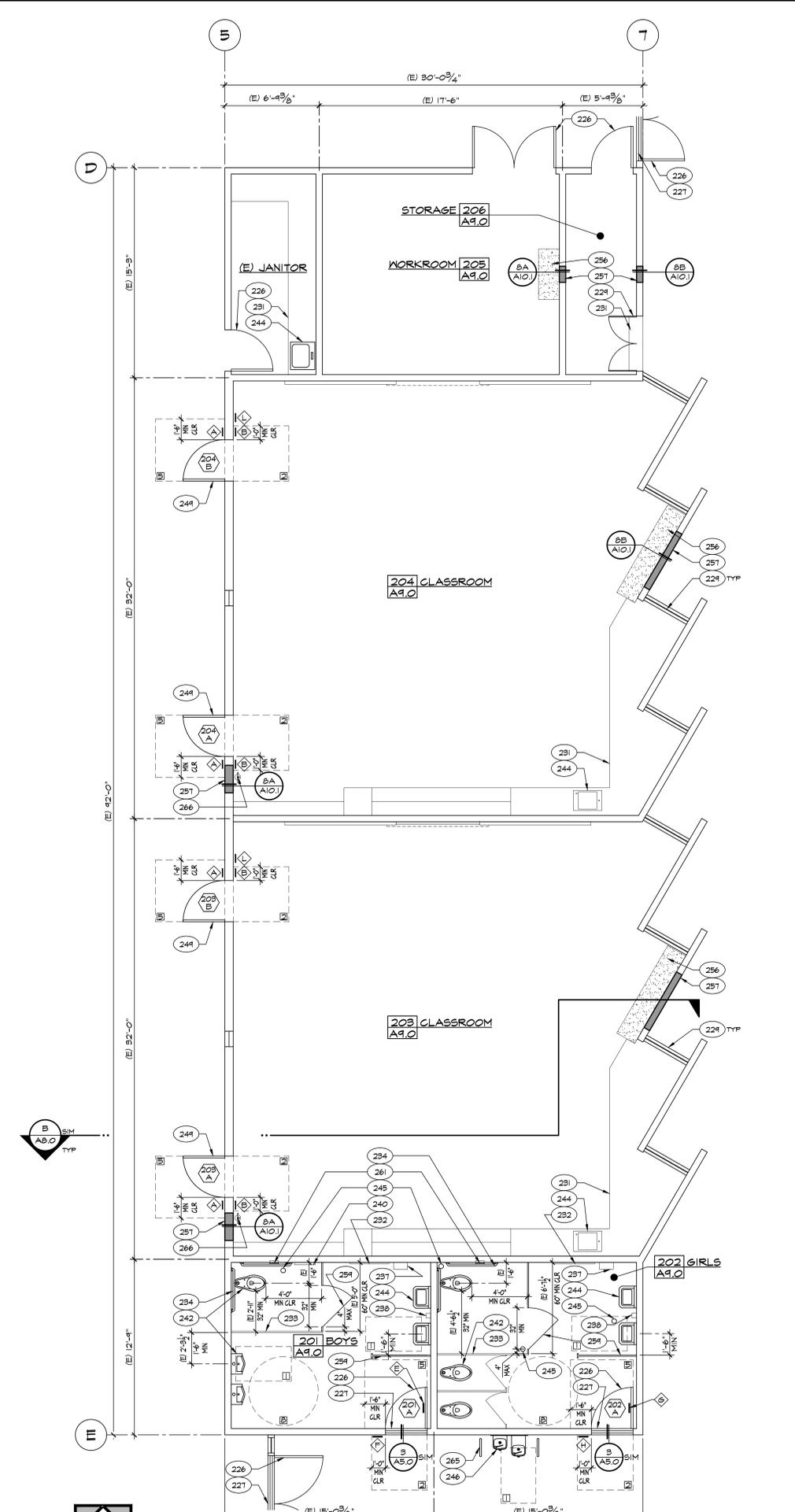
**LEGEND:**

- (E) 2x6 WOOD STUD WALL
- 2x WALL IN-FILL
- PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
- SIGNAGE

**NOTE:**  
NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA



**B DEMO FLOOR PLAN UNIT 'A2A'**  
BOYS / GIRLS - PER A# 52439  
SCALE: 1/4" = 1'-0"



**A FLOOR PLAN UNIT 'A2A'**  
BOYS / GIRLS - PER A# 52439  
SCALE: 1/4" = 1'-0"

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DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, N.CARB, AIA, LEED<sup>®</sup> AP  
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**DEMO FLOOR PLAN & FLOOR PLAN UNIT 'A2A'**

MARK	DATE	REVISIONS
△		
△		
△		

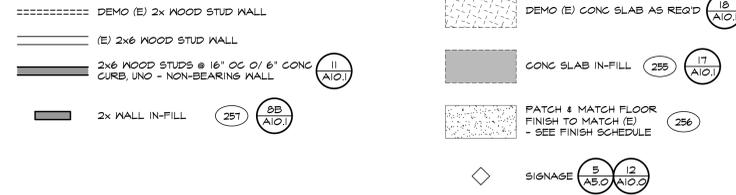
JOB NO.  
1318  
DRAWN:  
ED, FS  
CHECKED:  
BCW  
DATE:  
4/2/24

**2.1**  
6 OF 61 SHEETS

KEYNOTES	
201	DEMO (E) DOOR, FRAME, HARDWARE & THRESHOLD
202	DEMO (E) DOOR & HARDWARE, (E) FRAME TO REMAIN
203	DEMO (E) 2x STUD WALL, FIN & CAREFULLY CHIP OUT CONG CURB WH/ OCCURS AS REQ'D
204	DEMO (E) 2x FURRING
205	DEMO (E) WALL FINISH
206	DEMO (E) T-BAR CEILING SYSTEM, LIGHTING & BATT INSULATION
207	DEMO (E) 1/2" ACOUSTIC CEILING TILE & STRIPPING
208	DEMO (E) CABINET / SHELVING
209	DEMO (E) SOLID TOILET PARTITIONS
210	REMOVE & RELOCATE (E) GRAB BAR
211	DEMO (E) PAPER TONEL DISPENSER
212	REMOVE & RELOCATE (E) PAPER TONEL DISPENSER
213	DEMO (E) SOAP DISPENSER
214	DEMO (E) TOILET PAPER DISPENSER
215	REMOVE & RELOCATE (E) TOILET SEAT COVER DISPENSER
216	DEMO (E) TOILET / URINAL
217	REMOVE & RELOCATE (E) TOILET / URINAL
218	DEMO (E) LAVATORY / SINK
219	DEMO (E) FLOOR DRAIN / CLEANOUT
220	DEMO (E) DRINKING FOUNTAIN
221	DEMO (E) PIPE COVER, SUPPLY / RETURN WATER LINES & GAP BELOW GRADE
222	DEMO (E) UNIT VENTILATOR
223	DEMO (E) LOUVER
224	REMOVE & REINSTALL (E) RECESSED AIR FILTER
225	DEMO (E) 1/2" STD PIPE RAIL
226	(E) DOOR TO REMAIN
227	(E) THRESHOLD TO REMAIN
228	(E) REDUCER STRIP TO REMAIN
229	(E) WINDOW TO REMAIN
230	(E) STOREFRONT TO REMAIN
231	(E) CABINET / COUNTER TO REMAIN
232	(E) MIRROR TO REMAIN
233	(E) SOLID TOILET PARTITIONS TO REMAIN
234	(E) GRAB BAR TO REMAIN
235	RELOCATED (E) GRAB BAR
236	(E) PAPER TONEL DISPENSER TO REMAIN
237	RELOCATED (E) PAPER TONEL DISPENSER
238	(E) SOAP DISPENSER TO REMAIN
239	(E) TOILET PAPER DISPENSER TO REMAIN
240	(E) TOILET SEAT COVER DISPENSER TO REMAIN
241	RELOCATED (E) TOILET SEAT COVER DISPENSER
242	(E) TOILET / URINAL TO REMAIN
243	RELOCATED (E) TOILET / URINAL - SEE PLUMBING PLANS
244	(E) LAVATORY / SINK TO REMAIN
245	(E) FLOOR DRAIN / CLEANOUT TO REMAIN
246	(E) DRINKING FOUNTAIN TO REMAIN
247	(E) 1/2" STD PIPE RAIL TO REMAIN
248	(E) METAL LOUVERS TO REMAIN
249	DOOR PER SCHEDULE
250	THRESHOLD PER SCHEDULE
251	REDUCER STRIP PER SCHEDULE
252	WINDOW PER SCHEDULE
253	1/2" DEPRESS CONG SLAB
254	PATCH & MATCH (E) CONG SLAB AS REQ'D
255	CONG SLAB IN-FILL
256	PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
257	WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D
258	FLAM BASE CABS AND / OR UPPER CABS
259	SOLID PLASTIC PARTITIONS
260	GRAB BAR - 48" AT SIDE AND 36" AT BACK
261	RECESSED TOILET PAPER DISPENSER PER SPEC
262	TOILET AND REQUIREMENTS - SEE PLUMBING PLANS
263	LAVATORY / SINK AND REQUIREMENTS - SEE PLUMBING PLANS
264	DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS
265	PIPE RAIL PER SPEC
266	FIRE EXTINGUISHER

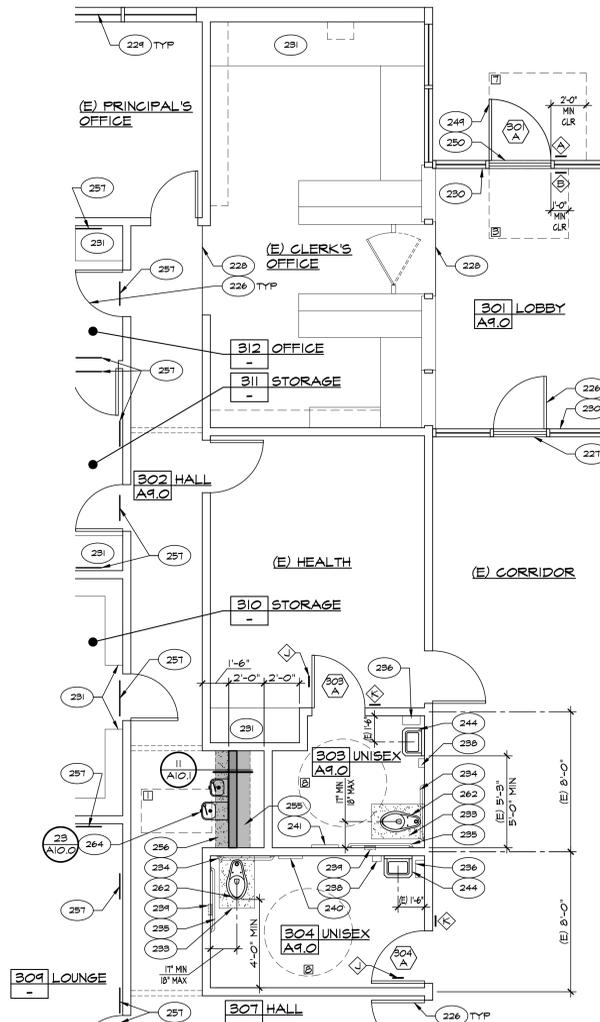
ADA REQ'D MIN CLEARANCES	
□	30" X 48"
□	48" X 48"
□	48" X 54"
□	48" X 60"
□	54" X 60"
□	60" X 60"
□	60" X 66"
□	60" DIA

**LEGEND:**

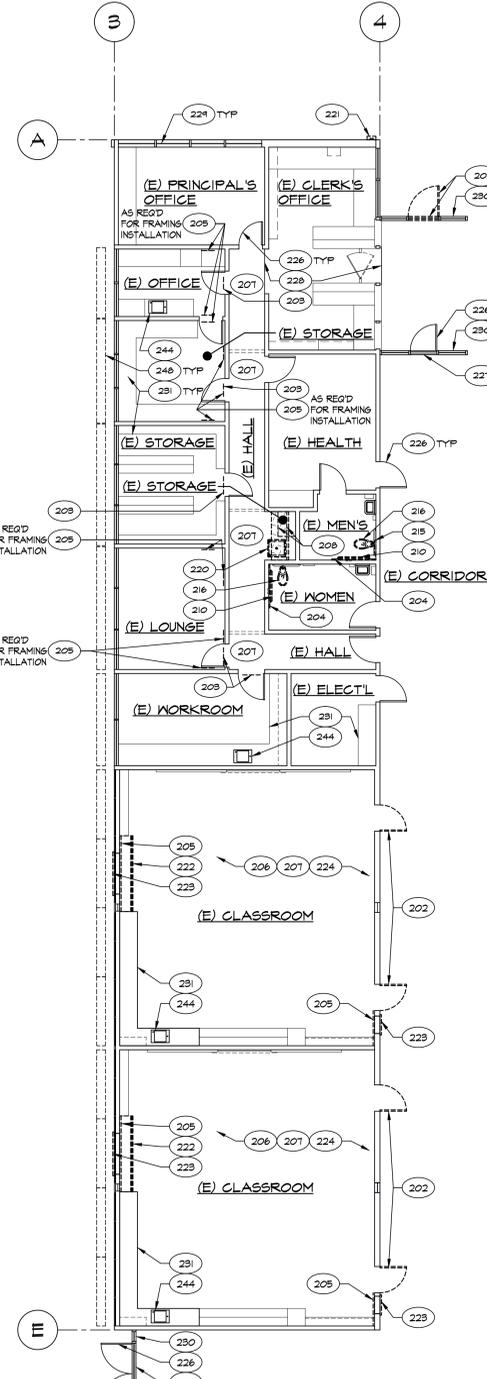


**NOTE:**

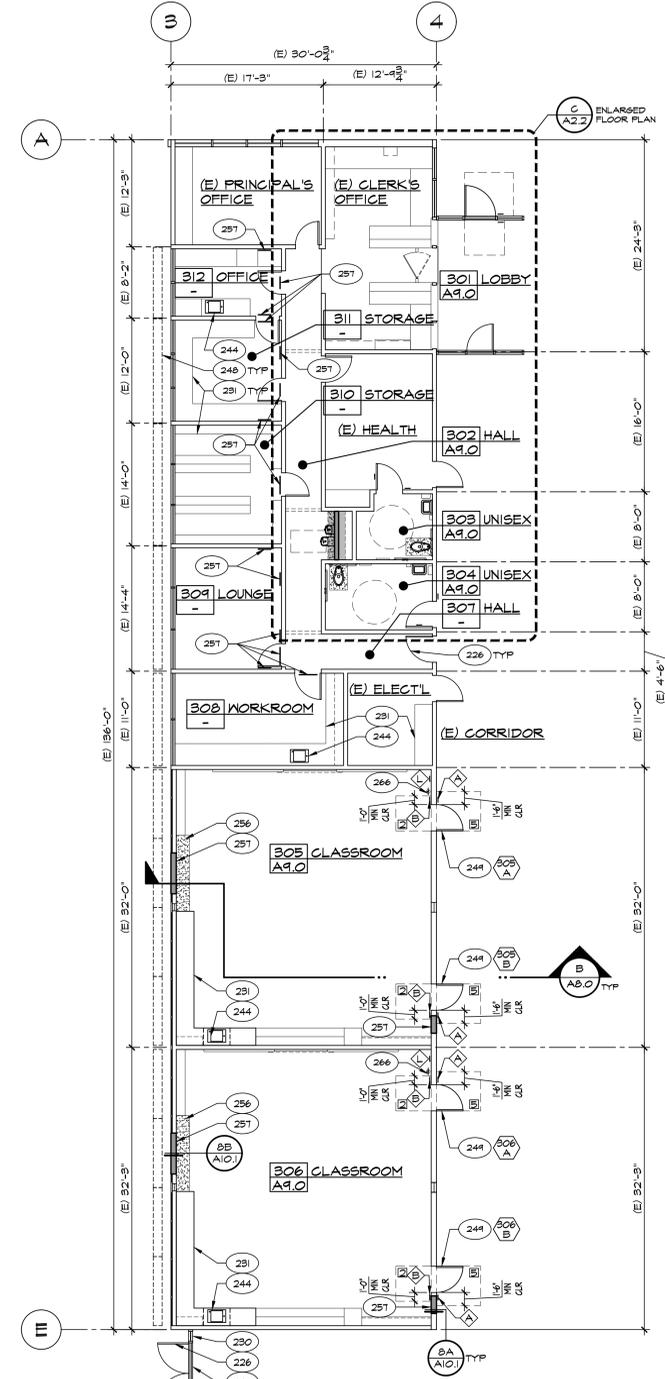
NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY PSA



ENLARGED FLOOR PLAN UNIT 'A2B' SCALE: 1/4" = 1'-0"



DEMO FLOOR PLAN UNIT 'A2B' SCALE: 1/8" = 1'-0"



FLOOR PLAN UNIT 'A2B' SCALE: 1/8" = 1'-0"

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
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**SC**  
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**DEMO PLAN, FLOOR PLAN & ENLARGED FLOOR PLAN UNIT 'A2B'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318  
 DRAWN: ED, FS  
 CHECKED: BCW  
 DATE: 4/2/24

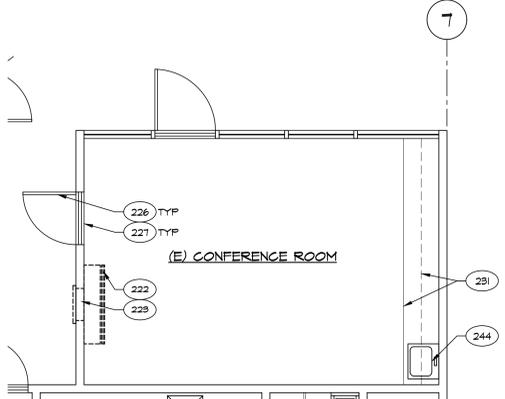
**2.2**  
 7 OF 61 SHEETS

KEYNOTES	
201 DEMO (E) DOOR, FRAME, HARDWARE & THRESHOLD	234 (E) GRAB BAR TO REMAIN
202 DEMO (E) DOOR & HARDWARE, (E) FRAME TO REMAIN	235 RELOCATED (E) GRAB BAR
203 DEMO (E) 2x STUD WALL, FIN & CAREFULLY CHIP OUT CONG CURB WH/ OCCURS AS REQ'D	236 (E) PAPER TONEL DISPENSER TO REMAIN
204 DEMO (E) 2x FURRING	237 RELOCATED (E) PAPER TONEL DISPENSER
205 DEMO (E) WALL FINISH	238 (E) SOAP DISPENSER TO REMAIN
206 DEMO (E) T-BAR CEILING SYSTEM, LIGHTING & BATT INSULATION	239 (E) TOILET PAPER DISPENSER TO REMAIN
207 DEMO (E) 1/2" ACOUSTIC CEILING TILE	240 (E) TOILET SEAT COVER DISPENSER TO REMAIN
208 DEMO (E) CABINET / SHELVING	241 RELOCATED (E) TOILET SEAT COVER DISPENSER
209 DEMO (E) SOLID TOILET PARTITIONS	242 (E) TOILET / URINAL TO REMAIN
210 REMOVE & RELOCATE (E) GRAB BAR	243 RELOCATED (E) TOILET / URINAL - SEE PLUMBING PLANS
211 DEMO (E) PAPER TONEL DISPENSER	244 (E) LAVATORY / SINK TO REMAIN
212 REMOVE & RELOCATE (E) PAPER TONEL DISPENSER	245 (E) FLOOR DRAIN / CLEANOUT TO REMAIN
213 DEMO (E) SOAP DISPENSER	246 (E) DRINKING FOUNTAIN TO REMAIN
214 DEMO (E) TOILET PAPER DISPENSER	247 (E) 1/2" STD PIPE RAIL TO REMAIN
215 REMOVE & RELOCATE (E) TOILET SEAT COVER DISPENSER	248 (E) METAL LOUVERS TO REMAIN
216 DEMO (E) TOILET / URINAL	249 DOOR PER SCHEDULE
217 REMOVE & RELOCATE (E) TOILET / URINAL	250 THRESHOLD PER SCHEDULE
218 DEMO (E) LAVATORY / SINK	251 REDUCER STRIP PER SCHEDULE
219 DEMO (E) FLOOR DRAIN / CLEANOUT	252 WINDOW PER SCHEDULE
220 DEMO (E) DRINKING FOUNTAIN	253 2 1/2" DEPRESS CONG SLAB
221 DEMO (E) PIPE COVER, SUPPLY / RETURN WATER LINES & CAP BELOW GRADE	254 PATCH & MATCH (E) CONG SLAB AS REQ'D
222 DEMO (E) UNIT VENTILATOR	255 CONG SLAB IN-FILL
223 DEMO (E) LOUVER	256 PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
224 REMOVE & REINSTALL (E) RECESSED AIR FILTER	257 WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D
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229 (E) WINDOW TO REMAIN	262 TOILET AND REQUIREMENTS - SEE PLUMBING PLANS
230 (E) STOREFRONT TO REMAIN	263 LAVATORY / SINK AND REQUIREMENTS - SEE PLUMBING PLANS
231 (E) CABINET / COUNTER TO REMAIN	264 DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS
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233 (E) SOLID TOILET PARTITIONS TO REMAIN	266 FIRE EXTINGUISHER

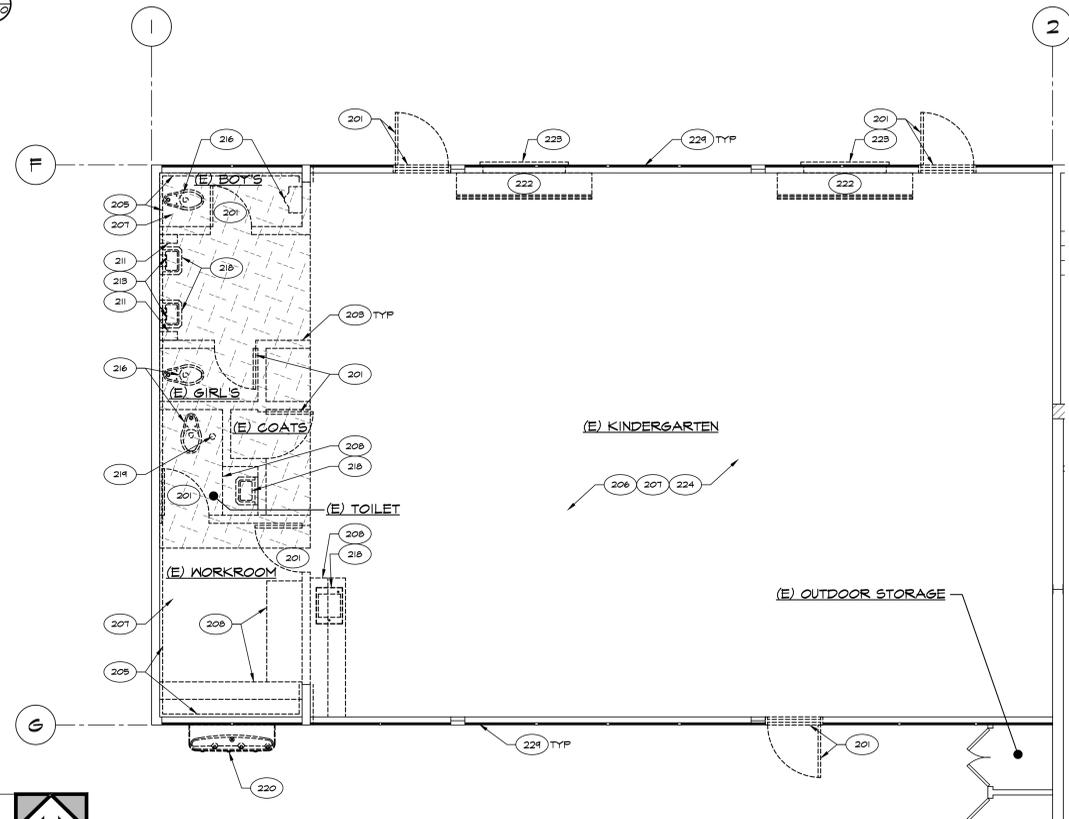
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□	60" X 72"
□	60" DIA

LEGEND:	
-----	DEMO (E) 2x WOOD STUD WALL
-----	(E) 2x6 WOOD STUD WALL
-----	(E) 2x8 WOOD STUD WALL
-----	(E) 10" BRICK WALL
-----	2x6 WOOD STUDS @ 16" OC UNO - NON-BEARING WALL
-----	2x6 WOOD STUDS @ 16" OC O/ 6" CONG CURB W/ INSUL PER SPEC, UNO - NON-BEARING WALL
-----	2x WALL IN-FILL
-----	DEMO (E) CONG SLAB AS REQ'D
-----	2 1/2" DEPRESS CONG SLAB
-----	PATCH & MATCH FLOOR FINISH TO MATCH (E) - SEE FINISH SCHEDULE
-----	SIGNAGE

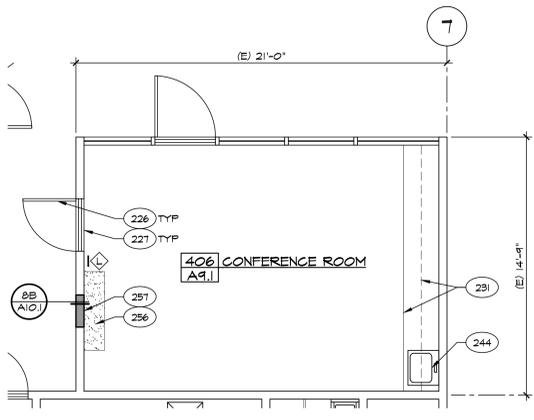
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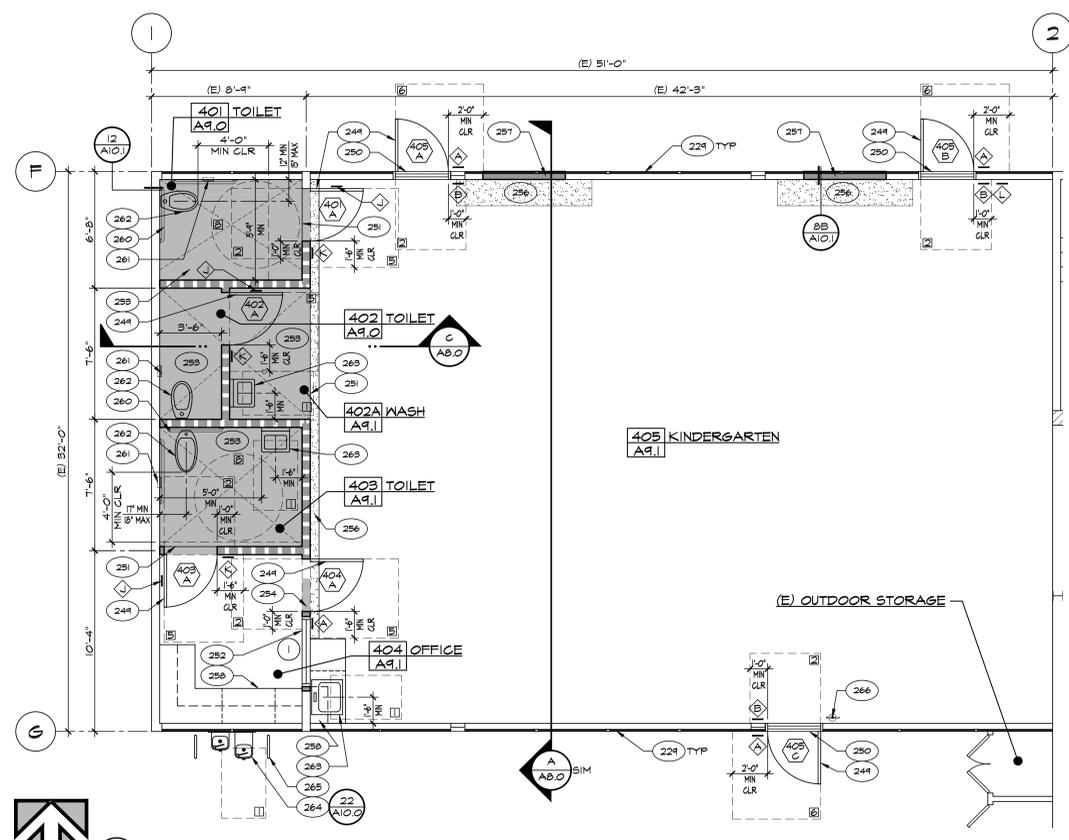
**A** PARTIAL DEMO FLOOR PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"



**C** PARTIAL DEMO FLOOR PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"



**B** PARTIAL FLOOR PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"



**D** PARTIAL FLOOR PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"

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PARTIAL DEMO FLOOR PLANS & PARTIAL FLOOR PLANS UNIT 'A3'

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JOB NO. 1318  
DRAWN: ED, FS  
CHECKED: BCW  
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**2.3**  
8 OF 61 SHEETS

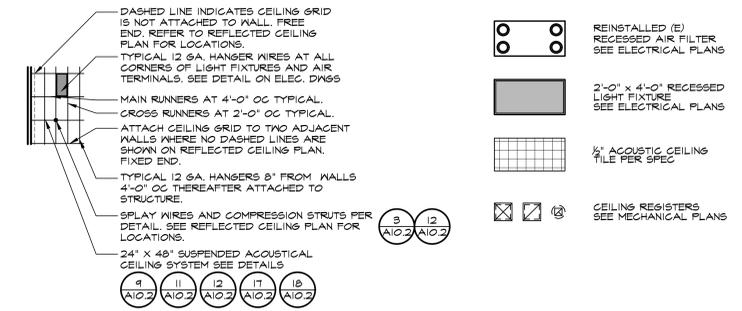
**SUSPENDED CEILING NOTES (ACOUSTICAL)**

1. CEILING SYSTEM GENERAL NOTES
- 1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM E580.
- 1.02 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635.
- 1.03 CEILING SYSTEMS, THE FOLLOWING CEILING SYSTEM(S) IS/ARE PART OF THE SCOPE OF THIS PROJECT:  
 MANUFACTURER: (ARMSTRONGS SUSPENDED CEILING SYSTEM OR APPROVED EQUAL)  
 PRODUCT NAME: PRELUDE XL 15/16"  
 EVALUATION REPORT TYPE AND NUMBER: ICC # ESR-1308  
 MAIN RUNNER PART, MODEL, OR CATALOG NUMBER: #T301  
 CROSS RUNNER PART, MODEL, CATALOG NUMBER: #XL T341  
 2 FOOT CROSS-T #XL T341
- 1.04 SEISMIC WALL CLIP:  
 MANUFACTURER'S MODEL: ARMSTRONGS #BERG2
- 1.05 CEILING PANELS SHALL NOT SUPPORT ANY LUMINAIRES, AIR TERMINALS OR DEVICES.
- 1.06 FOR ACOUSTICAL TILE PANELS OF ANY MATERIAL OTHER THAN MINERAL OR GLASS FIBER, A 1/2" CLEARANCE SHALL BE PROVIDED BETWEEN THE PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.
2. MATERIALS
- 2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVANIZED) CARBON STEEL CONFORMING TO ASTM A641. WIRE SHALL BE #12 GAUGE (0.106" DIAMETER) WITH SOFT TEMPER AND MINIMUM ULTIMATE TENSILE STRENGTH = TO KSI.
- 2.02 GALVANIZED SHEET STEEL (INCLUDING THAT USED FOR METAL STUD AND TRACK COMPRESSION STRUTS/POST) SHALL CONFORM TO ASTM A653, OR OTHER EQUIVALENT SHEET STEEL LISTED IN SECTION A3.1 OF THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, (AISI S100). MATERIAL #9 MIL (18 GAUGE) AND LIGHTER SHALL HAVE MINIMUM YIELD STRENGTH OF 33 KSI. MATERIAL #14 MIL (16 GAUGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
- 2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI G80.3/JUL 191 CARBON STEEL WITH 60D GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (FY) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (FU) OF 48 KSI.
3. ATTACHMENT OF HANGER AND BRACING WIRES
- 3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.
- 3.02 HANGER AND BRACING WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONDUIT AND EQUIPMENT.
- 3.03 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES.
- 3.04 SLACK SAFETY WIRES SHALL BE CONSIDERED HANGER WIRES FOR INSTALLATION AND TESTING REQUIREMENTS.
- 3.05 HANGER AND BRACING WIRE ANCHORAGE TO THE STRUCTURE SHALL BE INSTALLED SUCH THAT THE DIRECTION OF THE ANCHORAGE ALIGNS WITH THE DIRECTION OF THE WIRE. BRACING WIRE CEILING CLIPS SHALL BE BENT AS SHOWN IN THE DETAILS AND ROTATED AS REQUIRED TO ALIGN WITH THE DIRECTION OF THE WIRE. SCREWS IN WOOD SHALL BE INSTALLED TO ALIGN WITH THE DIRECTION OF THE WIRE.
4. FASTENERS AND WELDING
- 4.01 SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1519 AND ASME B19.9. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.
- 4.02 EXPANSION ANCHORS SHALL BE: HILTI KB3 (ICC ESR-1985).
- 4.03 POWER-ACTUATED FASTENERS SHALL BE: HILTI X-U (ICC ESR-2264).
- 4.04 IF NOT OTHERWISE SPECIFIED IN THE EVALUATION REPORT, POWER-ACTUATED FASTENERS INSTALLED IN STEEL SHALL BE INSTALLED SO THE ENTIRE POINTED END OF THE FASTENER IS DRIVEN THROUGH THE STEEL MEMBER.
- 4.05 POWER-ACTUATED FASTENERS IN CONCRETE OR MASONRY ARE NOT PERMITTED FOR BRACING WIRES.
- 4.06 CONCRETE REINFORCEMENT AND PRESTRESSING TENDONS SHALL BE LOCATED BY NON-DESTRUCTIVE MEANS PRIOR TO INSTALLING POST-INSTALLED ANCHORS.
- 4.07 WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES.
5. TESTING
- 5.01 ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
- 5.02 POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER-ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 POUNDS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1910A.5.
- 5.03 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1910A.5.
6. LUMINAIRES
- 6.01 ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE LUMINAIRE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINAIRE, PER ASTM E580 SECTION 5.3.1.
- 6.02 SURFACE-MOUNTED LUMINAIRES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAUGE. ROTATIONAL SPRING CATCHES ARE NOT PERMITTED. A #12 GAUGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. ADDITIONAL SUPPORTS SHALL BE PROVIDED WHEN A LUMINAIRE IS 8 FEET OR LONGER OR EXCEEDS 56 POUNDS. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.
- 6.03 LUMINAIRES WEIGHING LESS THAN OR EQUAL TO 10 POUNDS SUPPORTED DIRECTLY ON THE CEILING RUNNERS SHALL HAVE A MINIMUM OF ONE #12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.
- 6.04 LUMINAIRES WEIGHING GREATER THAN 10 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS SUPPORTED DIRECTLY ON THE CEILING RUNNERS SHALL HAVE A MINIMUM OF TWO #12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE.  
 EXCEPTION: ALL LUMINAIRES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE AT EACH CORNER.
- 6.05 ALL LUMINAIRES WEIGHING GREATER THAN 56 POUNDS SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR TAUT #12 GAUGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE FIXTURE.
7. SERVICES WITHIN THE CEILING
- 7.01 ALL FLEXIBLE SPRINKLER HOSE FITTING MOUNTING BRACKETS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.
- 7.02 CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 POUNDS SHALL HAVE ONE #12 GAUGE SLACK SAFETY WIRE ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
- 7.03 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS SHALL HAVE TWO #12 GAUGE SLACK SAFETY WIRES (AT DIAGONAL CORNERS) CONNECTED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
- 7.04 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS.
8. OTHER DEVICES WITHIN THE CEILING
- 8.01 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID. IN ADDITION, DEVICES WEIGHING MORE THAN 10 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 POUNDS SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.
9. REFER TO STRUCTURAL DRAWINGS FOR SEISMIC DESIGN INFORMATION. 2/3" USED FOR CALCULATING SEISMIC FORCES OF THE CEILING SYSTEM SHALL BE 1.

**REFLECTED CEILING PLAN NOTES:**

1. SEE ROOM FINISH SCHEDULE FOR CEILING FINISHES.
2. SEE MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION.
3. INSULATION PER SPEC BETWEEN (E) FRAMING MEMBERS AT ROOF DECK.

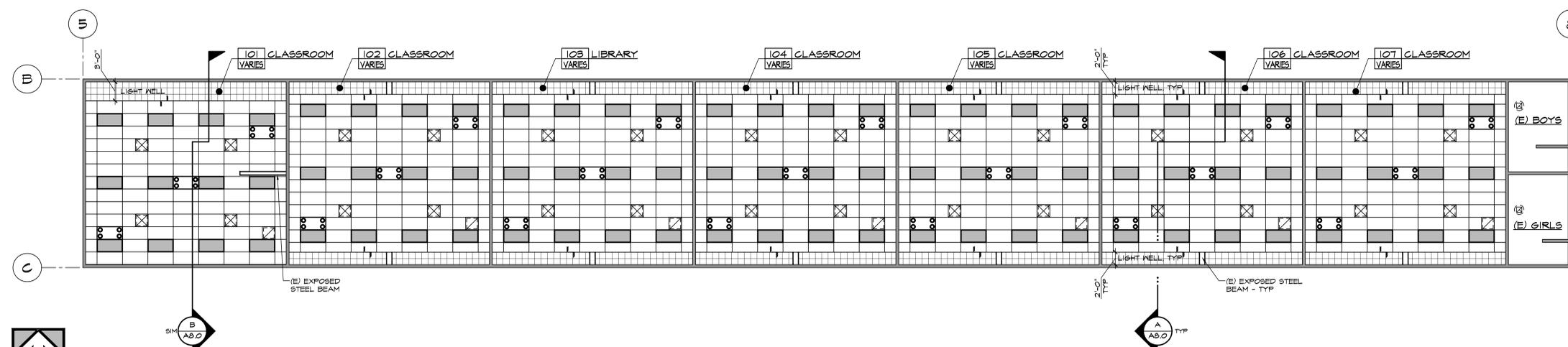
**REFLECTED CEILING LEGEND**



**OCCUPANTS / # OF EXITS REQ'D**

BUILDING	ROOM #	DESCRIPTION	FLOOR AREA SQ. FT. PER RM.	5 P./OCC LOAD PER CBC 2019, TABLE 1004.5		MINIMUM REQUIRED EXIT PER CBC 2019, 1006.2.1	
				OCC FACTOR	MAXIMUM OCC PER RM	OCC & 48 (1) EXIT REQ'D	NO. OF EXITS PROVIDED
101	THRU 107	CLASSROOM	460	.20 NET	48	1	2

NOTE: PER CBC SECTION 1013.1, EXCEPTION 1, EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS.



**REFLECTED CEILING PLAN UNIT 'A1'**

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 DIV. OF THE STATE ARCHITECT  
 APP: 03-122918 INC.  
 REVIEWED FOR: SS  FLS  ACS   
 DATE: 05/08/2024

PN: 63321-387 FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
 FAX: (661) 397-4378  
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STEPHEN J. CORBIN, N.CARB, AIA, LEED AP

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



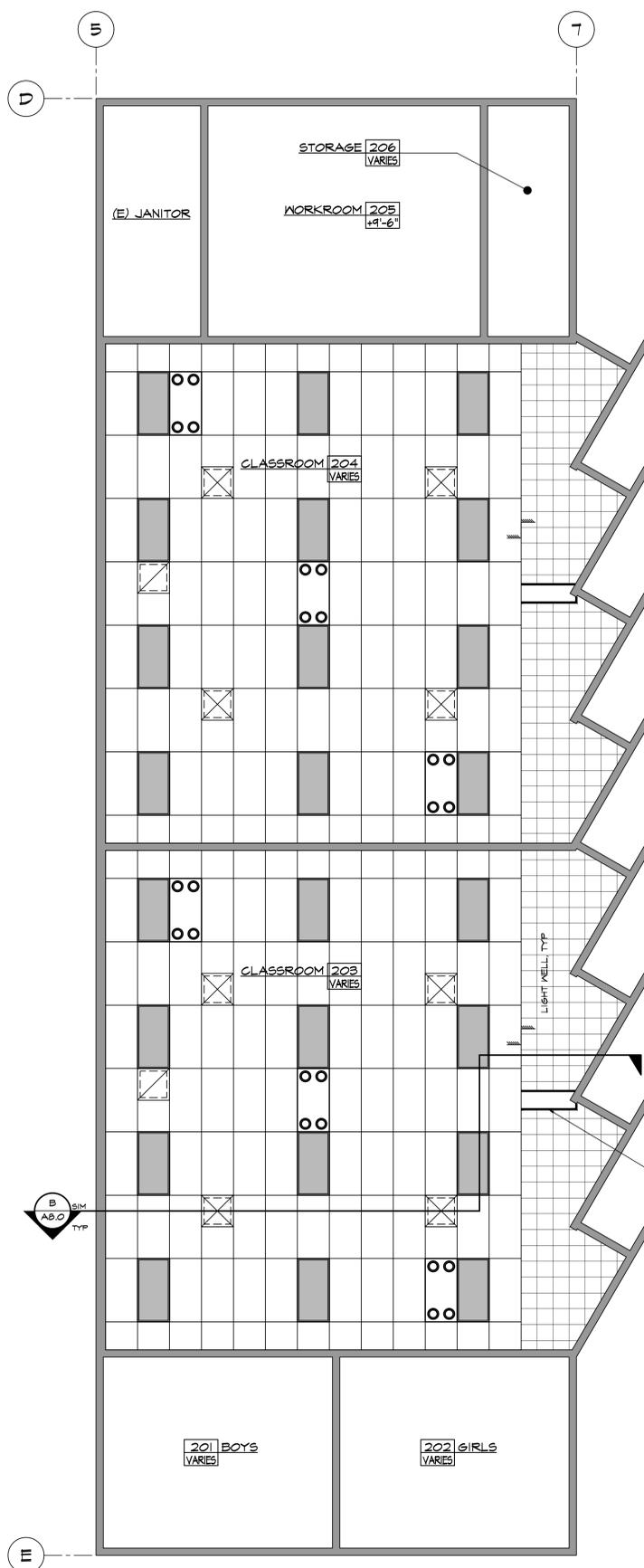
**REFLECTED CEILING PLAN UNIT 'A1'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318  
 DRAWN: ED, FS  
 CHECKED: BCW  
 DATE: 4/2/24

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

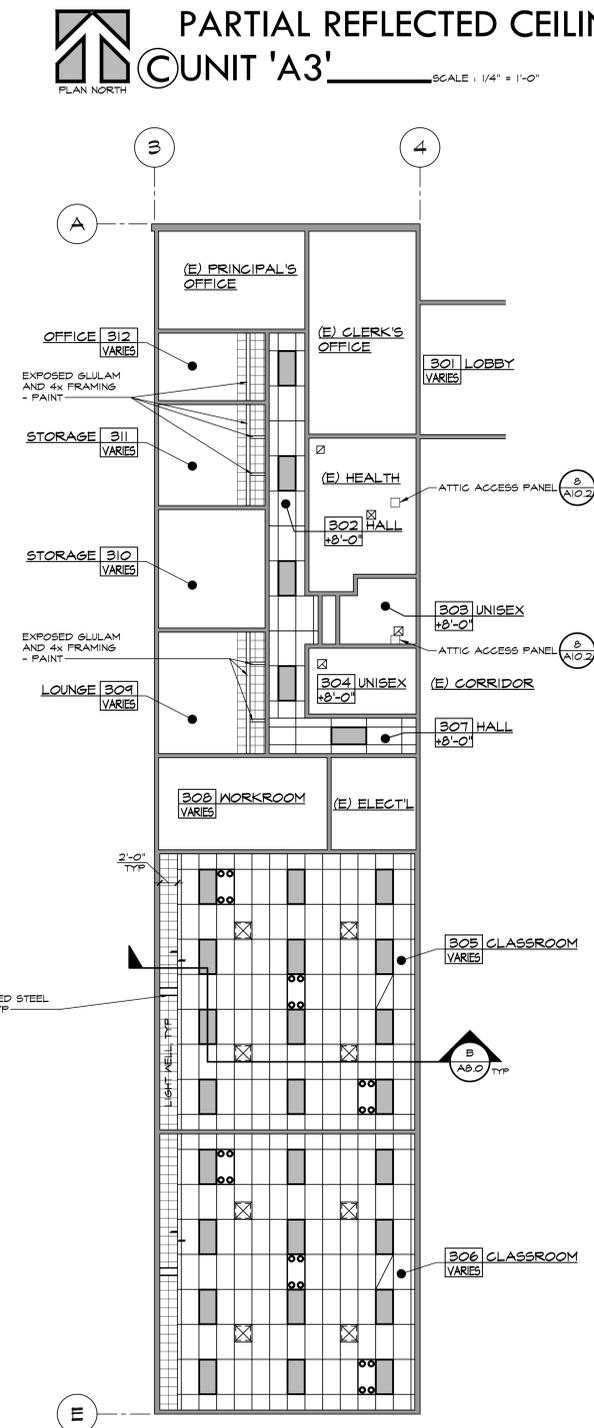
**4.0**  
 9 OF 61 SHEETS



**E** REFLECTED CEILING PLAN UNIT 'A2A' SCALE: 1/4" = 1'-0"



**D** REFLECTED CEILING PLAN UNIT 'A2B' SCALE: 1/8" = 1'-0"



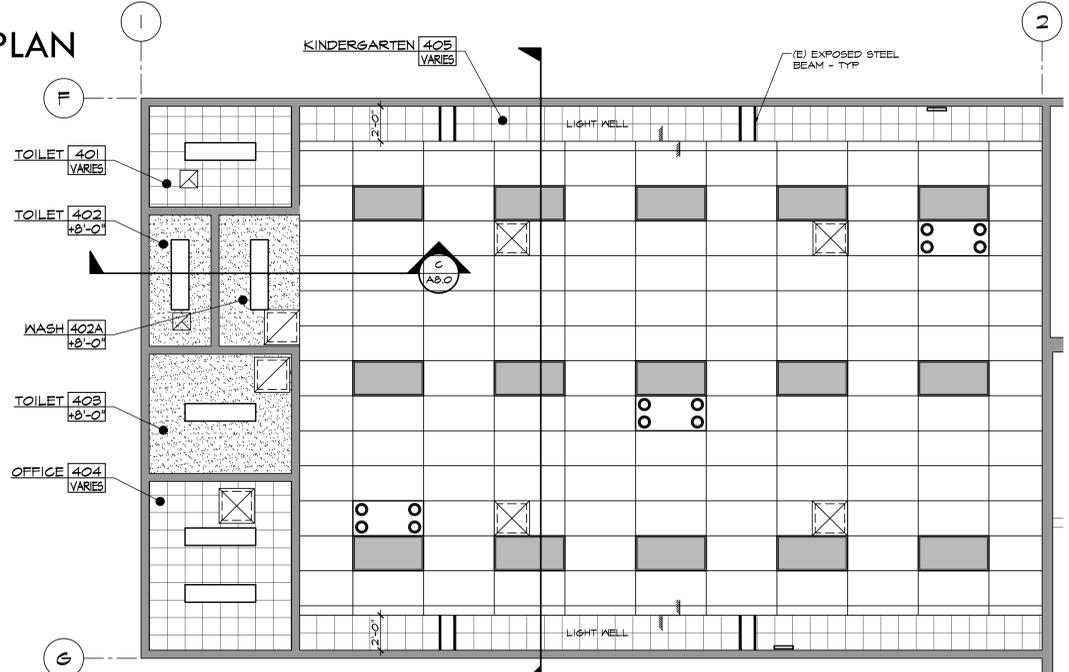
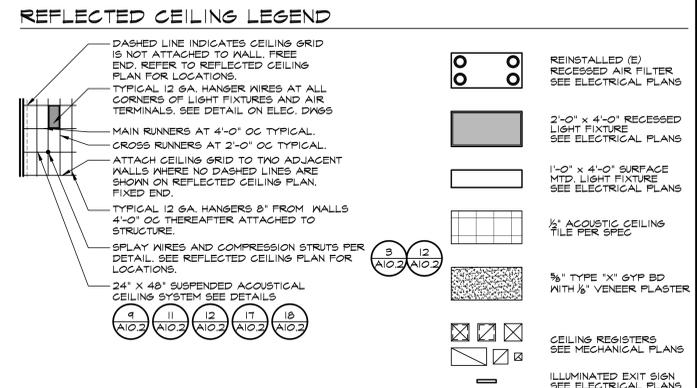
**C** PARTIAL REFLECTED CEILING PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"

**REFLECTED CEILING PLAN NOTES:**

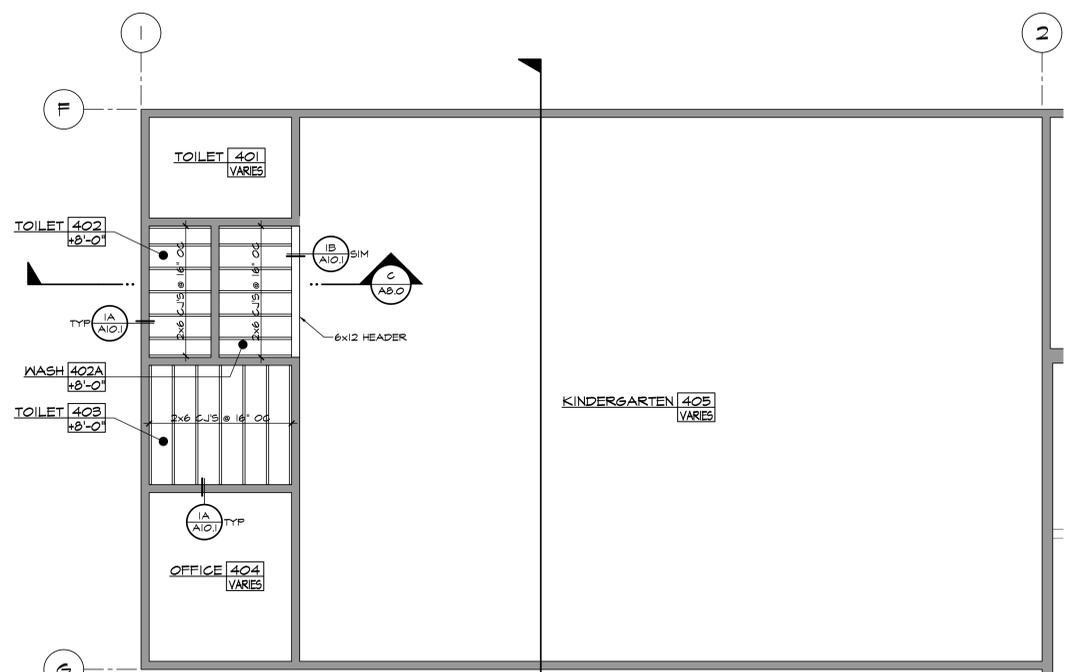
- SEE ROOM FINISH SCHEDULE FOR CEILING FINISHES.
- SEE MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION.
- INSULATION PER SPEC BETWEEN (E) FRAMING MEMBERS AT ROOF DECK.

OCCUPANTS / # OF EXITS REQ'D						
BUILDING	ROOM #	DESCRIPTION	FLOOR AREA SQ. FT. PER RM.	SF. OCC LOAD PER CBC 2019, TABLE 1004.5		MINIMUM REQUIRED EXIT PER CBC 2019 1006.2.1
				OCC FACTOR	MAXIMUM OCC PER RM.	OCC S. 44 (1) EXIT REQ'D
"A2"	203 THRU 204	CLASSROOM	960	20 NET	48	1 2
	205 THRU 206	CLASSROOM	960	20 NET	48	1 2
"A3"	405	KINDERGARTEN	1,852	20 NET	68	2 3

NOTE: PER CBC SECTION 10B.1, EXCEPTION 1, EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS.



**A** PARTIAL REFLECTED CEILING PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"



**B** PARTIAL CEILING JOIST PLAN UNIT 'A3' SCALE: 1/4" = 1'-0"

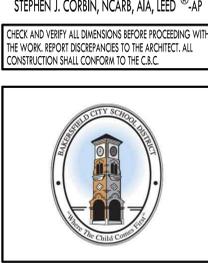
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**REFLECTED CEILING PLAN & JOIST PLAN UNITS 'A2A', 'A2B' & 'A3'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318  
DRAWN: ED, FS  
CHECKED: BCW  
DATE: 4/2/24

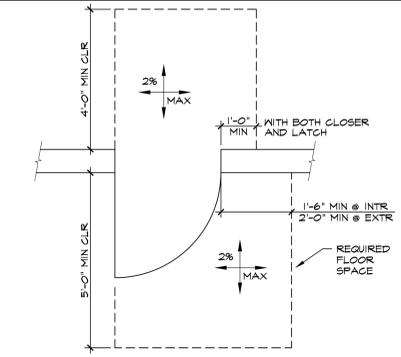
**4.1**  
10 OF 61 SHEETS

# DOOR SCHEDULE

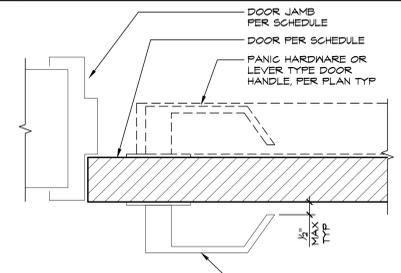
BLDG #	DOOR #	DOOR			LOUVER SIZE	FRAME		RATING	FANIC HDR	HNR SET #	DETAILS				REMARKS	SIGN TYPE	DOOR #	BLDG #	
		TYPE	SIZE (EACH LEAF)	MATL		TYPE	MATL				L/JAMB	HEAD	R/JAMB	THRESHOLD/RS					
UNIT 'A1'	101A	A	3'-0" X 6'-8"	ND	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	101A	UNIT 'A1'	
	101B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	101B		
	102A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	102A		
	102B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	102B		
	103A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	103A		
	103B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	103B		
	104A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	104A		
	104B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	104B		
	105A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	105A		
	105B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	105B		
	106A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	106A		
	106B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	106B		
	107A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	03	28/A10.1	22/A10.1	28/A10.1	3/A5.0	-	A/B	107A		
	107B	-	(E) 3'-6" X 6'-6"	-	-	-	-	-	-	-	-	-	-	-	-	D	107B		
	201A	-	(E) 3'-0" X 6'-8"	-	-	-	-	-	-	-	-	-	-	-	-	E/F	201A		UNIT 'A2A'
	202A	-	(E) 3'-0" X 6'-8"	-	-	-	-	-	-	-	-	-	-	-	G/H	202A			
	203A	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	203A		
203B	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	203B			
204A	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	204A	UNIT 'A2B'		
204B	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	204B			
301A	C	3'-0" X 7'-0"	ALUM	-	-	-	-	-	PH	05	-	-	15/A10.1	-	-	A/B		301A	
303A	-	(E) 3'-0" X 7'-0"	-	-	-	-	-	-	-	-	-	-	-	-	J/K	303A			
304A	-	(E) 3'-0" X 7'-0"	-	-	-	-	-	-	-	-	-	-	-	-	J/K	304A	UNIT 'A2B'		
305A	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	305A			
305B	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	305B			
306A	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	306A			
306B	A	3'-0" X 7'-0"	ND	-	(E)	(E)	20 MIN	-	07	26/A10.1	20/A10.1	26/A10.1	-	-	A/B	306B	UNIT 'A3'		
401A	A	3'-0" X 7'-0"	ND	-	A	HM	-	-	02	26/A10.1	20/A10.1	26/A10.1	4/A5.0	-	J/K	401A			
402A	A	3'-0" X 7'-0"	ND	-	A	HM	-	-	02	26/A10.1	20/A10.1	26/A10.1	-	-	J/K	402A			
403A	A	3'-0" X 7'-0"	ND	-	A	HM	-	-	06	26/A10.1	20/A10.1	26/A10.1	4/A5.0	-	J/K	403A			
404A	B	3'-0" X 7'-0"	ND	-	A	HM	-	-	04	26/A10.1	20/A10.1	26/A10.1	-	-	A	404A	UNIT 'A3'		
405A	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	PH	01	27/A10.1	21/A10.1	27/A10.1	3/A5.0	-	A/B		405A	
405B	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	PH	01	27/A10.1	21/A10.1	27/A10.1	3/A5.0	-	A/B		405B	
405C	A	3'-0" X 6'-8"	HM	-	A	HM	-	-	PH	01	27/A10.1	21/A10.1	27/A10.1	3/A5.0	-	A/B		405C	

## TYPICAL DOOR NOTES

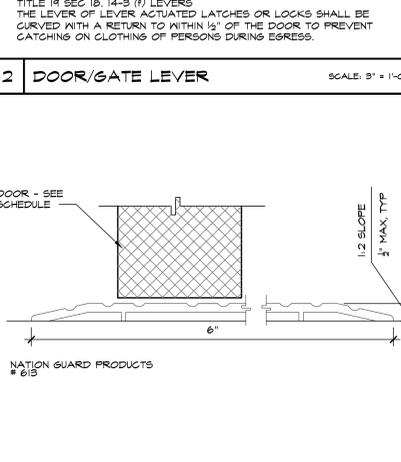
- FOR BUILDERS HARDWARE, REFER TO SPECIFICATION SECTION 08 11 00
- EXIT DOOR REQUIREMENTS: ALL EXIT DOORS IN SCHOOL BUILDINGS, INCLUDING BUT NOT LIMITED TO DOORS OF TOILETS, AND STORAGE ROOMS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2014 CBC TITLE 24 THE FOLLOWING ARE SOME OF THE REQUIREMENTS: EXIT DOORS SHALL OPEN FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" AND 44" (INCHES) ABOVE THE FLOOR. DEAD BOLTS ARE NOT PERMITTED UNLESS OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE.
- ALL EXTERIOR FACED DOOR GLAZING SHALL BE SINGLE GLAZED UNLESS TO MATCH WINDOW GLAZING
- ALL ALUM DOORS & DOOR FRAMES SHALL BE ANODIZED ALUMINUM PER SPEC
- ALL HOLLOW METAL DOOR & DOOR FRAMES SHALL BE PAINTED W/ SEMI-GLOSS ENAMEL PER SPEC
- ALL WOOD DOORS SHALL RECEIVE STAIN W/ SEMI-TRANSPARENT FINISH PER SPEC UNO
- ALL INTERIOR DOOR FRAMES SHALL BE 2" WIDE UNO
- ADJUST DOOR CLOSING DEVICES TO 5 LBS EXTERIOR & 5 LBS INTERIOR
- PAINT LOUVER(S), SIZE AND LOCATION AS INDICATED, W/ SEMI-GLOSS ENAMEL FINISH PER SPEC
- ACCESSIBLE TOILET ROOM SIGNAGE, SEE TYPES THIS SHEET
- ALL INTERIOR GLAZING SHALL BE 1/2" CLEAR WIRE GLAZING UNO (SQUARE PATTERN) @ FIRE RATED ASSEMBLIES. FOR NON-RATED ASSEMBLIES USE 1/2" CLEAR TEMPER GLAZING
- PROVIDE VISION PANEL, SIZE AS INDICATED, FOR NON-RATED ASSEMBLIES USE 1/2" CLEAR TEMPER GLAZING. FIRE RATED ASSEMBLIES SHALL BE FIRE RATED GLASS PER SPECIFICATIONS SEC 08 01 00
- DOOR LEVER REQUIREMENTS (2) (AS) (C)
- GROUT ALL HM DOOR JAMB BOTTOMS - TYP (7) (AIO)
- PROVIDE DOOR SIGNAGE PER SPEC AND SCHEDULE
- MIN FLOOR SPACE REQUIREMENTS AT DOORS (1) (AS) (C)
- EACH UNIT OF TEMPERED GLAZING SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED ON THE GLAZING AND BE VISIBLE WHEN THE UNIT IS GLAZED. TEMPERED SPANDREL GLAZING IS EXEMPTED FROM PERMANENT LABELING BUT SUCH GLAZING SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A REMOVABLE PAPER LABEL.



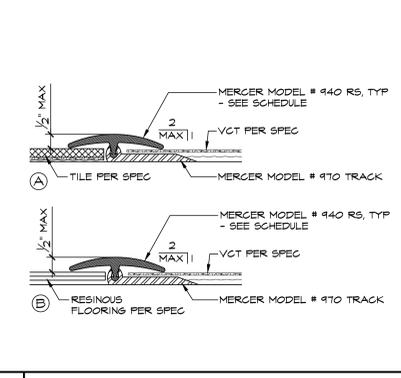
1 REQ'D FLOOR CLEARANCES SCALE: 1/2" = 1'-0"



2 DOOR/GATE LEVER SCALE: 3/4" = 1'-0"



3 THRESHOLD SCALE: 1" = 1'-0"



4 REDUCER STRIP SCALE: 3/4" = 1'-0"

## ROOM FINISH SCHEDULE

BLDG #	ROOM #	DESCRIPTION	FLOOR	BASE	WALLS				CEILING		REMARKS	ROOM #	BLDG #
					NORTH	EAST	SOUTH	WEST	MATL	HEIGHT			
UNIT 'A1'	101	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	101	UNIT 'A1'
	102	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	102	
	103	LIBRARY	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	103	
	104	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	104	
	105	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	105	
	106	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	106	
	107	CLASSROOM	2A/2B	A1/B	4C	-	3A/4A/4C	-	1B/2B	VARIES	-	107	
UNIT 'A2A'	201	BOYS	5A	3A	1A/6A/6B	1A/6A/6B	-	-	-	VARIES	-	201	UNIT 'A2A'
	202	GIRLS	5A	3A	1A/6A/6B	1A/6A/6B	-	-	-	VARIES	-	202	
	203	CLASSROOM	3A/3D	1A/B	-	3A/4A/4C	-	3A/4A/4C	1B/2B	VARIES	-	203	
	204	CLASSROOM	3A/3D	1A/B	-	3A/4A/4C	-	3A/4A/4C	1B/2B	VARIES	-	204	
	205	WORKROOM	2A/2B	1A/B	-	2C	-	-	-	9'-6"	-	205	
	206	STORAGE	1A	1A	-	2A/2C	-	2A/2C	-	VARIES	-	206	
	301	LOBBY	2A	1A	5A	-	-	-	-	VARIES	-	301	
	302	HALL	3A/3D	1A/3B	1A	6B	1A	-	1B	8'-0"	-	302	
	303	UNISEX	4A/4D	2A	-	1A/1C	1A/1C	-	-	8'-0"	-	303	
	304	UNISEX	4A/4D	2A	-	1A/1C	-	1A/1C	-	8'-0"	-	304	
UNIT 'A2B'	305	CLASSROOM	3A/3D	1A/B	-	3A/4A/4C	-	4C	1B/2B	VARIES	-	305	UNIT 'A2B'
	306	CLASSROOM	3A/3D	1A/B	-	3A/4A/4C	-	4C	1B/2B	VARIES	-	306	
	307	HALL	3A	1A	-	-	-	-	1B	8'-0"	-	307	
	308	WORKROOM	3A	1A	4A/4C	-	-	-	-	VARIES	-	308	
	309	LOUNGE	3A	1A	4A/4C	4A/4C	4A/4C	-	2A/2B	VARIES	-	309	
	310	STORAGE	3A	1A	-	4A/4C	-	-	-	VARIES	-	310	
	311	STORAGE	3A	1A	4A/4C	4A/4C	4A/4C	-	2A/2B	VARIES	-	311	
	312	OFFICE	3A	1A	4A/4C	4A/4C	4A/4C	-	2A/2B	VARIES	-	312	
	401	TOILET	5B	3B	6B	6B	6B	1C/6B	2B	VARIES	-	401	
	402	TOILET	5B	3B	6B	6B	6B	6B	3C	8'-0"	-	402	
UNIT 'A3'	402A	WASH	5B	1B/3B	1C	-	1C/6B	1C/6B	3C	8'-0"	-	402A	UNIT 'A3'
	403	TOILET	5B	3B	6B	6B	6B	6B	3C	8'-0"	-	403	
	404	OFFICE	3D	1B	1C	1C	1C	1C	2B	VARIES	-	404	
	405	KINDERGARTEN	3A/3D	1A/B	4A/4C	-	3A/4A	1C	1B/2B	VARIES	-	405	
	406	CONFERENCE ROOM	2A	1B	-	-	-	2A	-	VARIES	-	406	

### FINISH NOTES AND MATERIALS

#### FLOORS

- CONCRETE
- CARPET
- VINYL COMPOSITION TILE (12 X 12)
- SHEET VINYL
- UNGLAZED CERAMIC MOSAIC TILE

#### BASE

- 4" RUBBER TOPSET (30) (AIO) (2)
- COVERED SHEET VINYL
- 4" COVERED GLAZED CERAMIC TILE

#### WALLS

- 3/8" TYPE 'X' GYP BD W/ 1/2" VENEER PLASTER - SEE DETAIL (24) (AIO) (2)
- 3/4" 1-HR PLASTER
- CORKBOARD
- 1/2" PLYWOOD
- GLASS
- GLAZED CERAMIC TILE PER SPECS (25) (AIO) (2), (26) (AIO) (2), (24) (AIO) (2)

#### CEILING

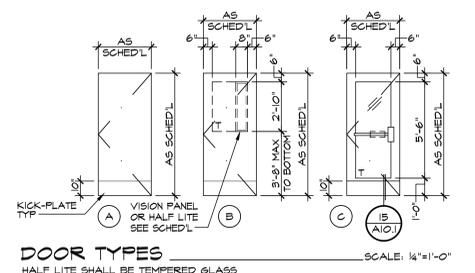
- SUSPENDED 2'-0" X 4'-0" T-BAR CEILING SYSTEM W/ LAY-IN ACOUSTIC PANELS
- 12" X 12" X 5/8" ACOUSTIC CEILING PANELS
- 3/8" TYPE 'X' GYP BD W/ 1/2" VENEER PLASTER

#### FINISHES

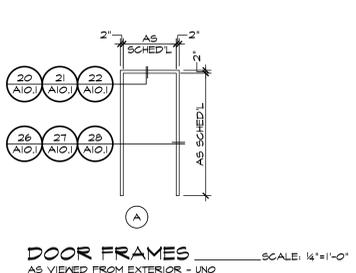
- EXISTING
- FACTORY FINISH
- PAINT PER SPEC
- SEALER MAX

#### FINISH SCHEDULE NOTES

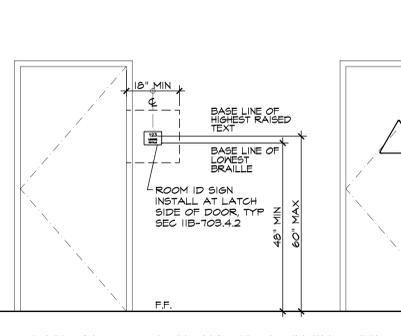
- CERAMIC TILE SHALL BE INSTALLED IN ACCORDANCE W/ TILE COUNCIL OF AMERICA INSTALLATION PROCEDURES FOR COMMERCIAL CONSTRUCTION (CURRENT EDITION)
- SEE INTERIOR ELEVATIONS FOR SOFFIT HEIGHTS
- SEE REFLECTED CEILING PLAN FOR VOLUME CEILING
- ALL GYP BOARD SHALL BE FIRE TAPED
- ALL WOOD TRIMS @ DOORS & WINDOWS SHALL BE PAINTED W/ SEMI-GLOSS ENAMEL
- ALL INTERIOR FINISHES SHALL CONFORM W/ CBC CHAPTER 8, CBC SECTION 1103.3, TITLE 14 CGR
- ALL CERAMIC TILE GROUT SHALL RECEIVE SEALANT
- PATCH BACK AND MATCH ALL (E) FINISHES DISTURBED BY ADDITION OF ANY CONSTRUCTION WORK. ANY NEW WALL FINISHES AT INFILLS SHALL BE FLUSH W/ EX ADJACENT WALLS. ALL VOIDS EXPOSING EXISTING FRAMING DUE TO THE REMOVAL OF FINISHES, WALLS, CEILING OR BLOCKING INSTALLATION SHALL BE PATCHED, FILLED AND FINISHED TO MATCH EXISTING ADJACENT AS INDICATED ON ROOM FIN 504.



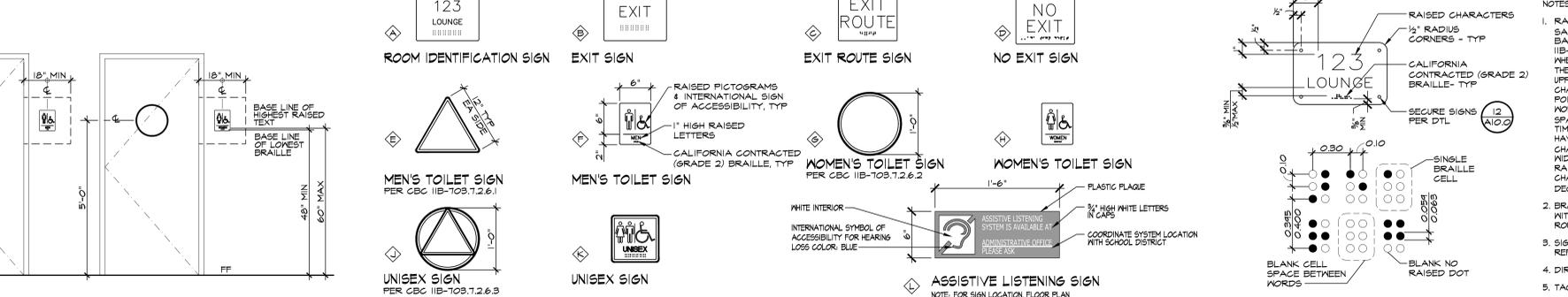
DOOR TYPES SCALE: 1/4" = 1'-0"



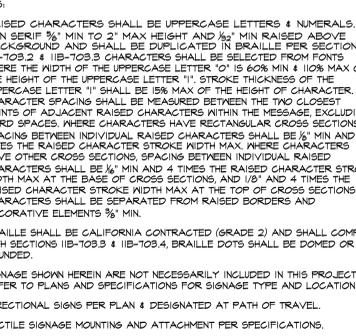
WINDOW TYPES SCALE: 1/4" = 1'-0"



5 DOOR SIGNAGE



TYPICAL DOOR SIGNAGE MOUNTING HEIGHTS



DOOR SCHEDULE, ROOM FINISH SCHEDULE & DETAILS

**LEGEND:**

- LINE OF WALL BELOW
- (E) FOAM ROOFING
- PATCH & MATCH FOAM ROOFING

IDENTIFICATION STAMP  
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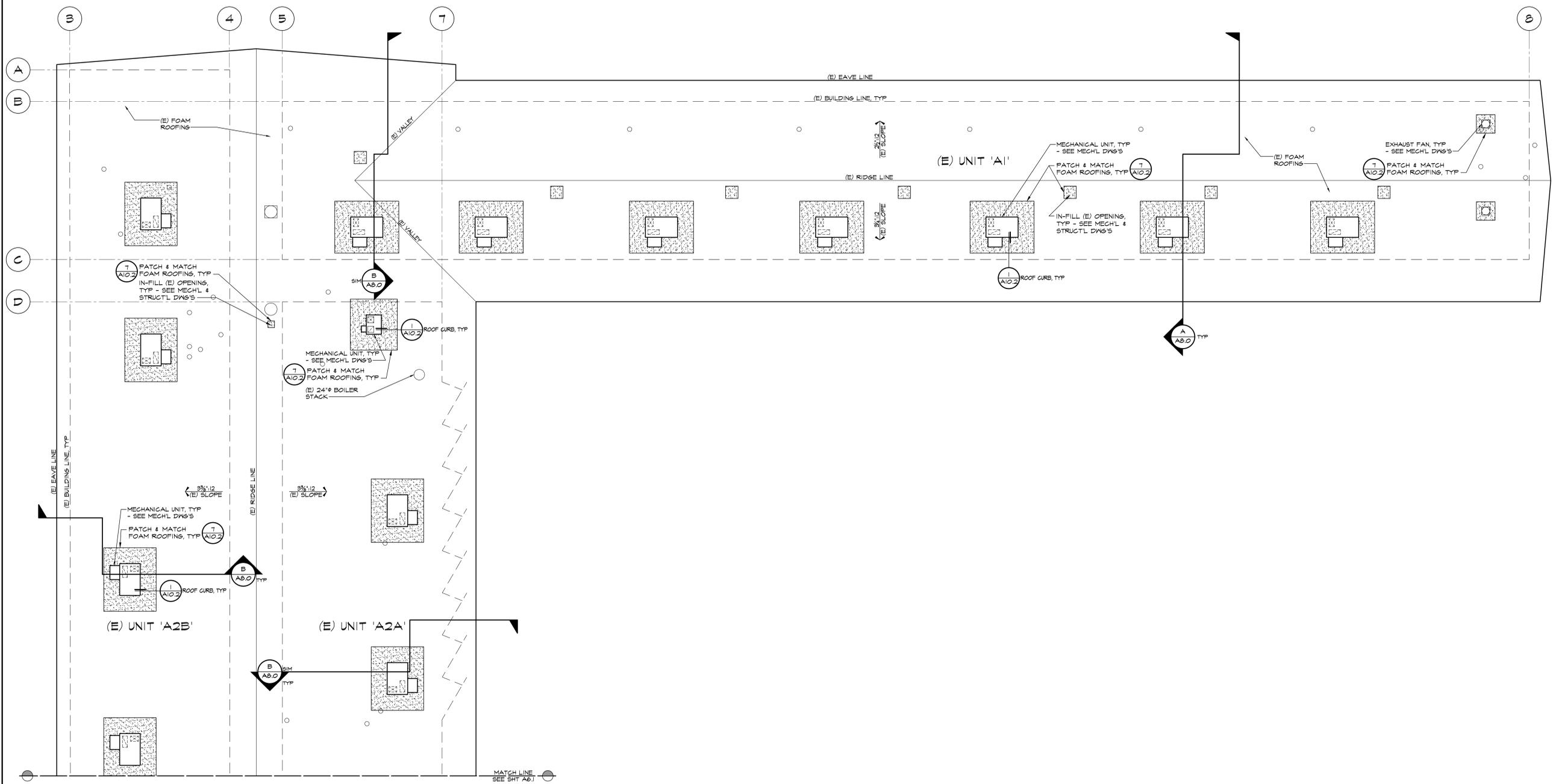


**PARTIAL ROOF PLAN UNIT 'A1', 'A2A' & 'A2B'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.	1318
DRAWN:	ED, FS
CHECKED:	BCW
DATE:	4/2/24

**6.0**  
 12 OF 61 SHEETS



**PARTIAL ROOF PLAN UNIT 'A1', 'A2A' & 'A2B'**

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

**LEGEND:**

- LINE OF WALL BELOW
- (E) FOAM ROOFING
- PATCH & MATCH FOAM ROOFING (T A10.2)

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 APP: 03-122918 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
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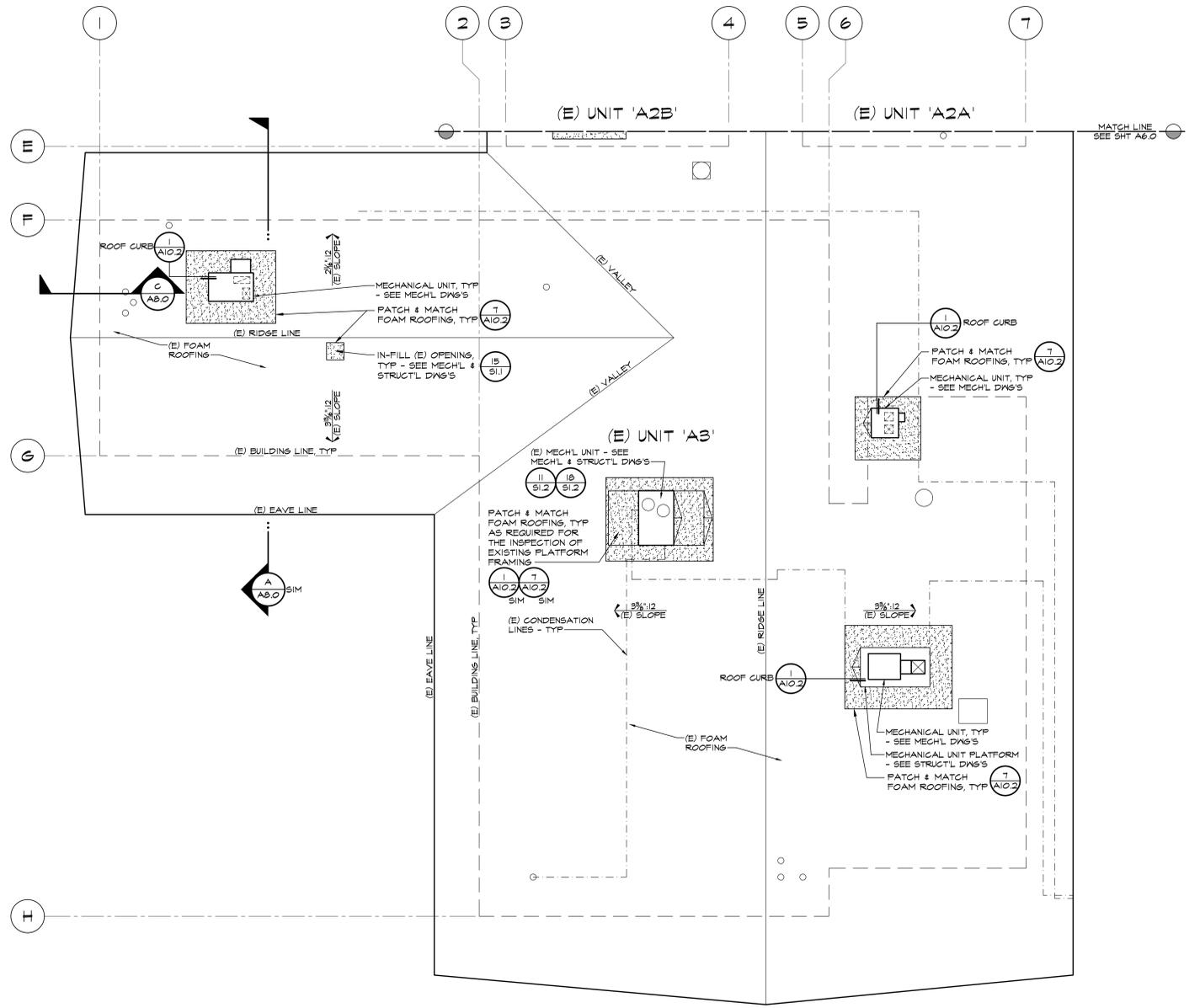
**PARTIAL ROOF PLAN UNIT 'A3'**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.	1318
DRAWN:	ED, FS
CHECKED:	BCW
DATE:	4/2/24



**6.1**  
 13 OF 61 SHEETS



**A PARTIAL ROOF PLAN UNIT 'A3'**

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

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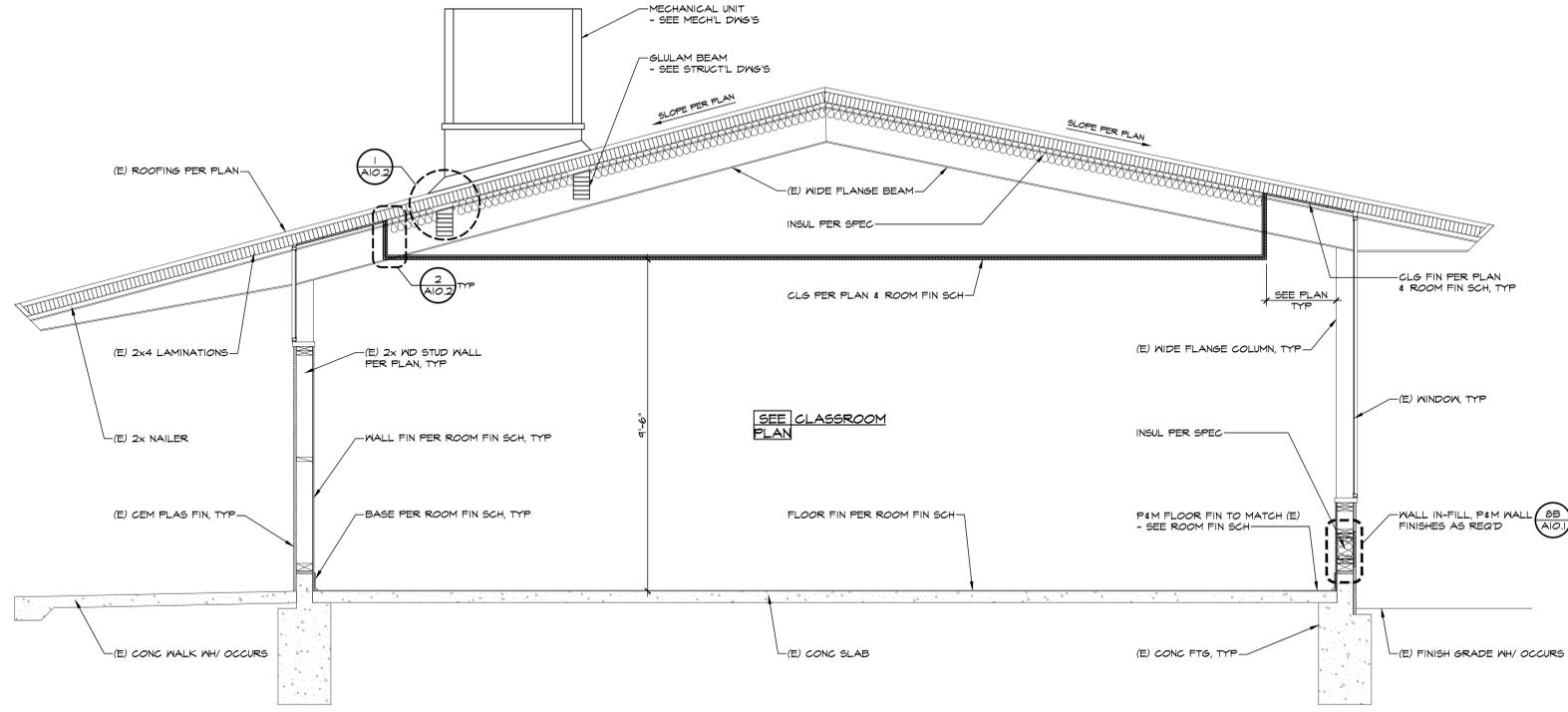
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.A.C.



**SECTIONS**

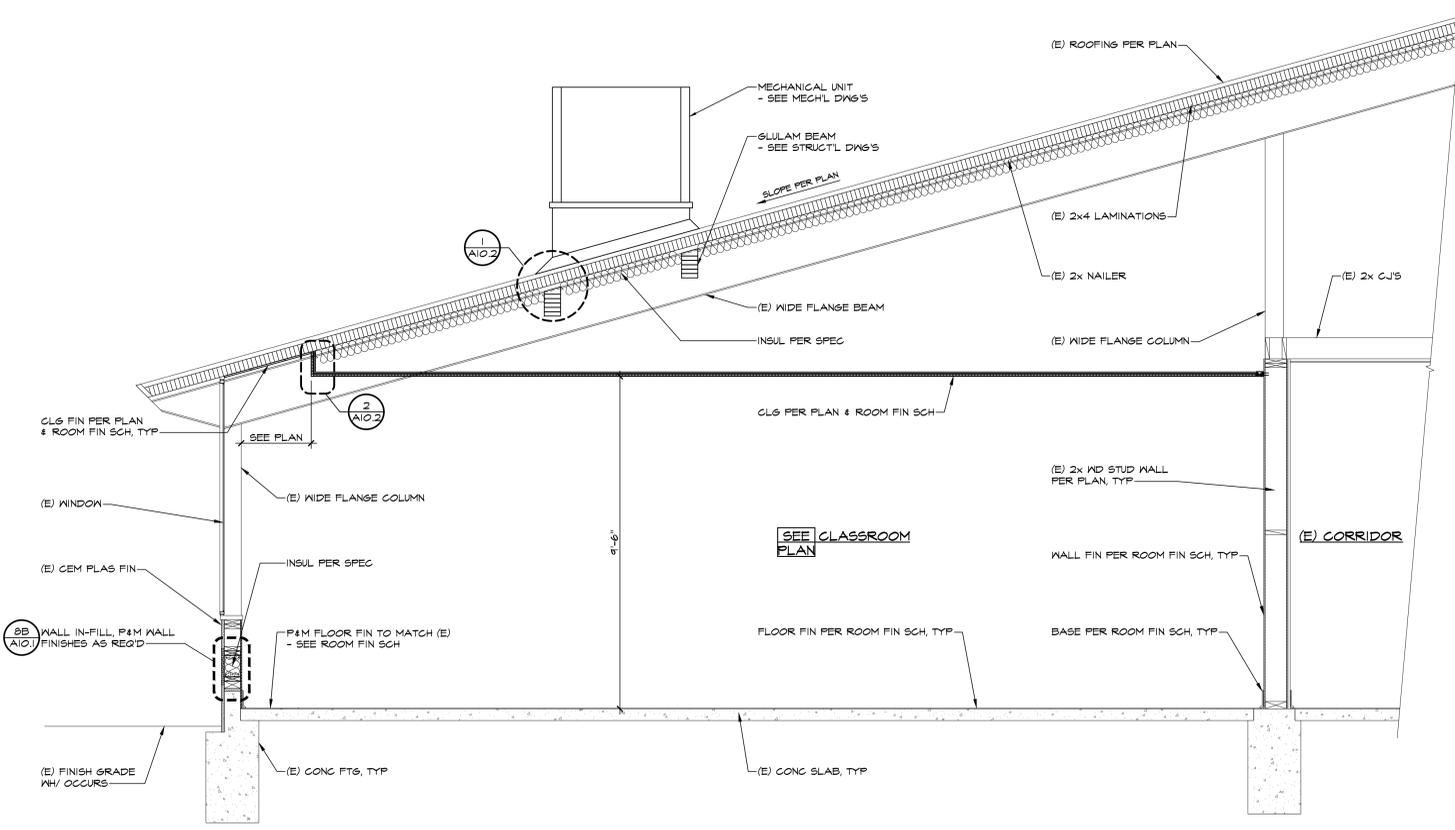
MARK	DATE	REVISIONS
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JOB NO.	1318
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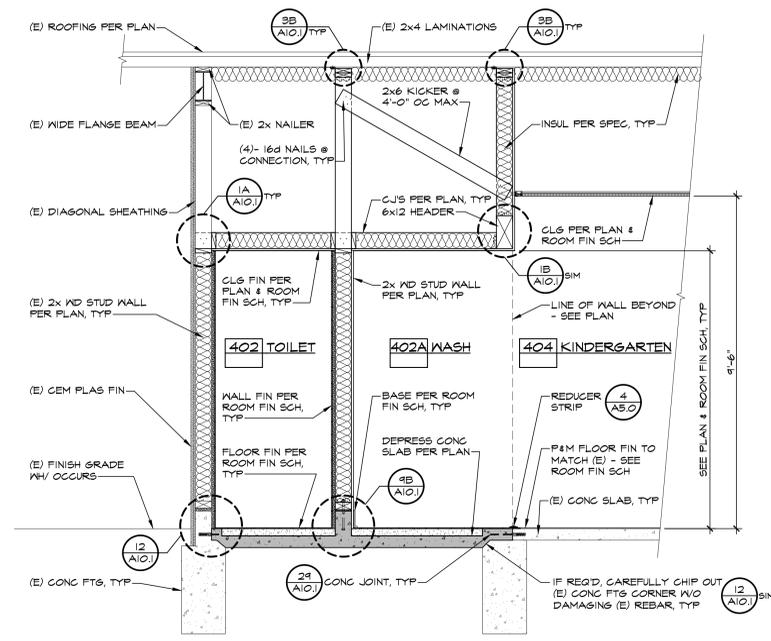
**A SECTION**

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



**B PARTIAL SECTION**

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



**C PARTIAL SECTION**

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

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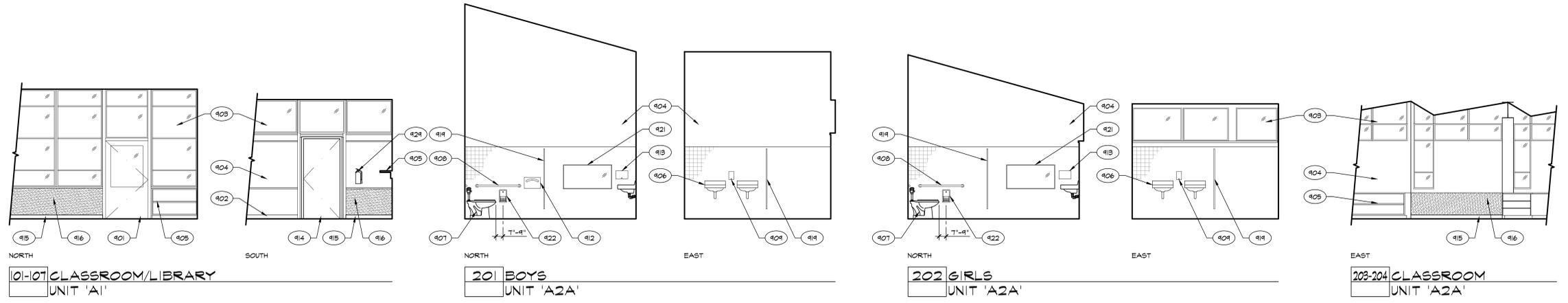
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**INTERIOR ELEVATIONS**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.	1318
DRAWN:	ED, FS
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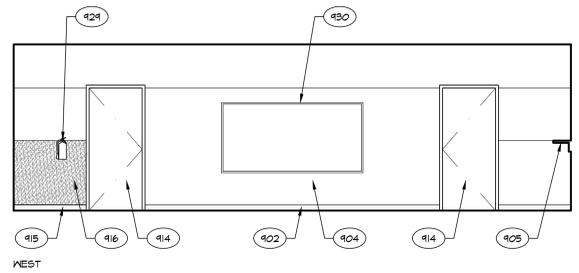


01-107 CLASSROOM/LIBRARY  
 UNIT 'A1'

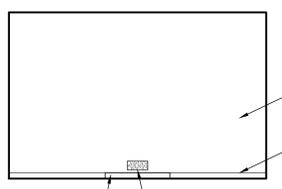
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 UNIT 'A2A'

202 GIRLS  
 UNIT 'A2A'

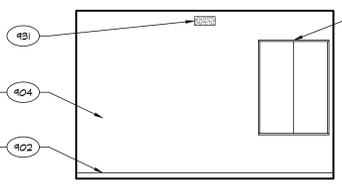
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 UNIT 'A2A'



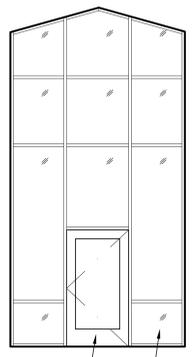
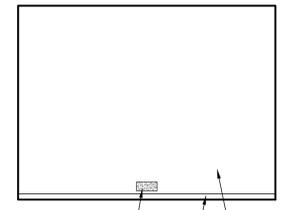
203-204 CLASSROOM  
 CONTINUED UNIT 'A2A'



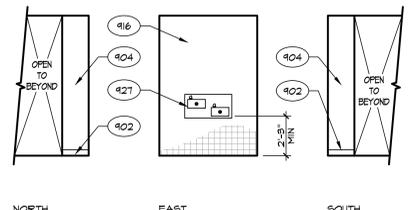
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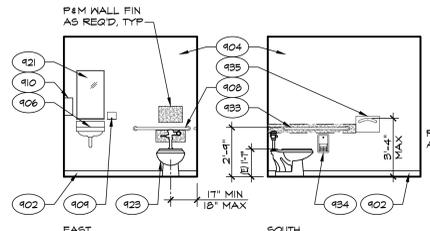
206 STORAGE  
 UNIT 'A2A'



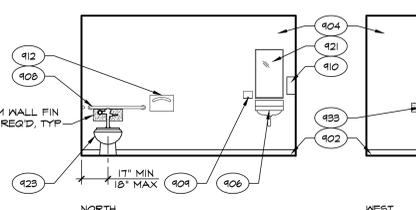
301 LOBBY  
 UNIT 'A2B'



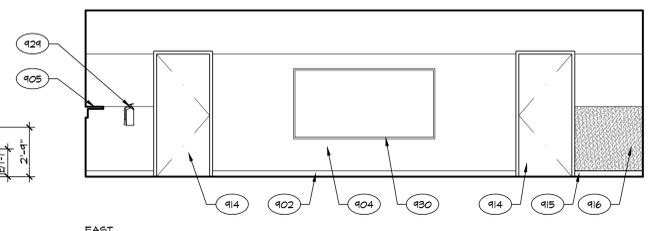
302 HALL  
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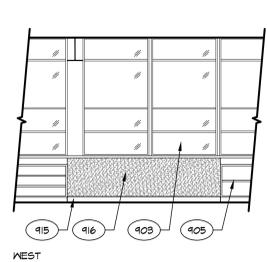
303 UNISEX  
 UNIT 'A2B'



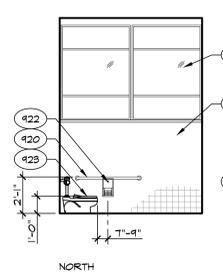
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 UNIT 'A2B'



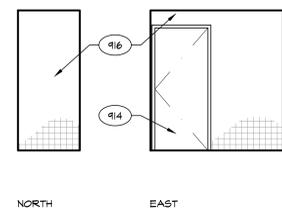
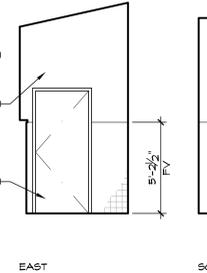
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 UNIT 'A2B'



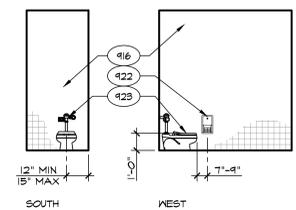
305-306 CLASSROOM  
 CONTINUED UNIT 'A2B'



401 TOILET  
 UNIT 'A3'



402 TOILET  
 UNIT 'A3'



**INTERIOR ELEVATIONS**

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

KEYNOTES	
901	(E) DOOR TO REMAIN
902	(E) BASE TO REMAIN
903	(E) WINDOW TO REMAIN
904	(E) WALL FINISH TO REMAIN - SEE SCHEDULE
905	(E) CABINET / SHELF TO REMAIN
906	(E) LAVATORY / SINK TO REMAIN
907	(E) TOILET / URINAL TO REMAIN
908	(E) GRAB BAR TO REMAIN
909	(E) SOAP DISPENSER TO REMAIN
910	(E) PAPER TOWEL DISPENSER TO REMAIN
911	(E) SOLID TOILET PARTITIONS TO REMAIN
912	(E) TOILET SEAT COVER DISPENSER TO REMAIN
913	RELOCATED (E) PAPER TOWEL DISPENSER (1 A100 A100)
914	DOOR - SEE SCHEDULE
915	BASE - SEE SCHEDULE
916	WALL FINISH - SEE SCHEDULE
917	WINDOW - SEE SCHEDULE
918	FLAM BASE CABS AND/OR UPPER CABS (22 A100)
919	SOLID PLASTIC PARTITIONS (9 A100)
920	GRAB BAR - 48" AT SIDE AND 36" AT BACK (1 A100 6 A100 10 A100)
921	(E) MIRROR TO REMAIN (1 A100 A100)
922	RECESSED TOILET PAPER DISPENSER (9 A100)
923	TOILET AND REQUIREMENTS - SEE PLUMBING PLANS (1 A100 6 A100)
924	MIRROR - SEE SPECS (1 A100 A100)
925	SOLID SURFACE COUNTERTOP AND SPLASH
926	LAVATORY/SINK AND REQUIREMENTS - SEE PLUMBING PLANS (1 5 8 A100 A100 A100)
927	DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS (23 A100)
928	NOT USED
929	FIRE EXTINGUISHER (1 A100)
930	(E) MARKER BOARD TO REMAIN
931	WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D (8 A101)
932	(E) STOREFRONT TO REMAIN
933	RELOCATED (E) GRAB BAR (1 A100 6 A100 10 A100)
934	(E) TOILET PAPER DISPENSER TO REMAIN
935	RELOCATED (E) TOILET SEAT COVER DISPENSER (1 A100 6 A100)
936	RELOCATED (E) TOILET / URINAL (1 A100 6 A100)

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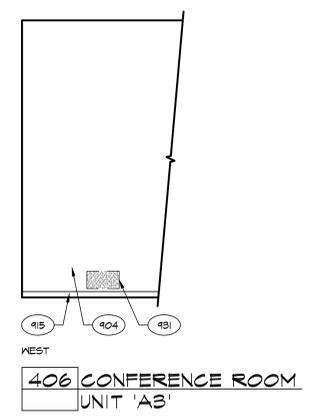
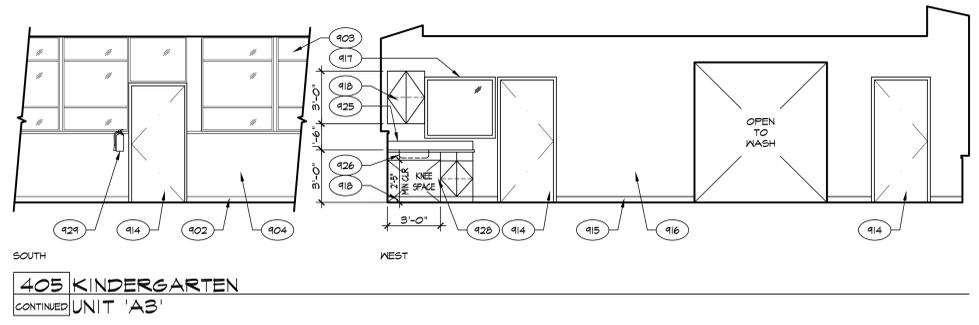
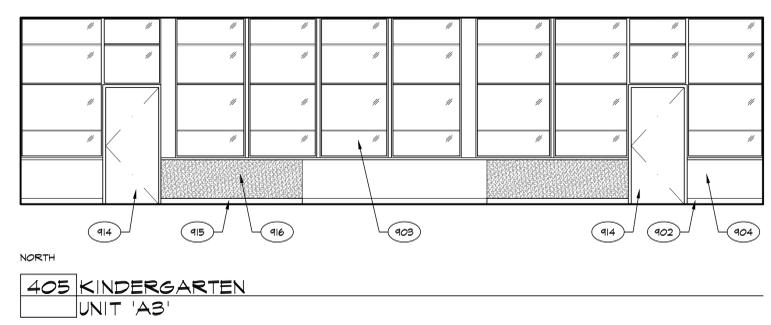
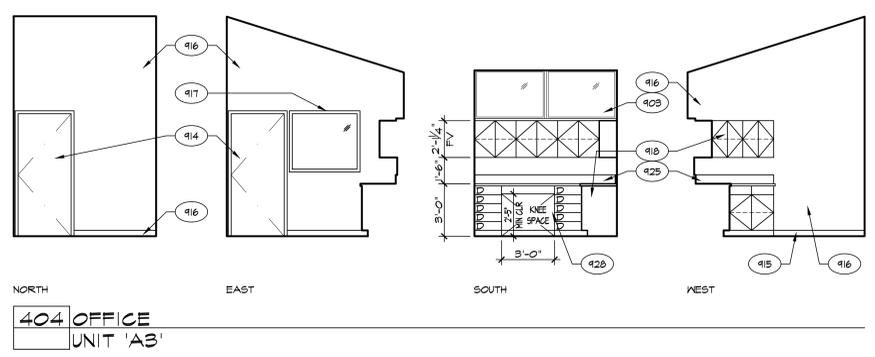
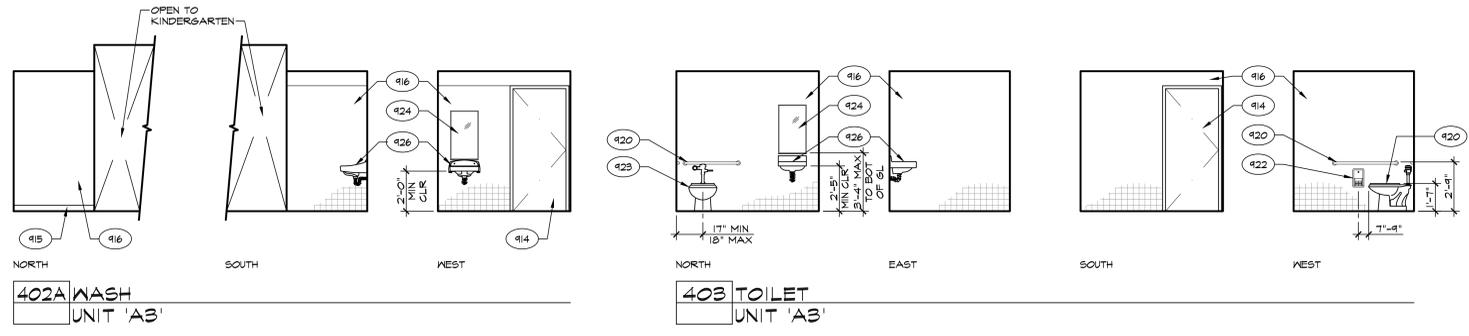
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**INTERIOR ELEVATIONS**

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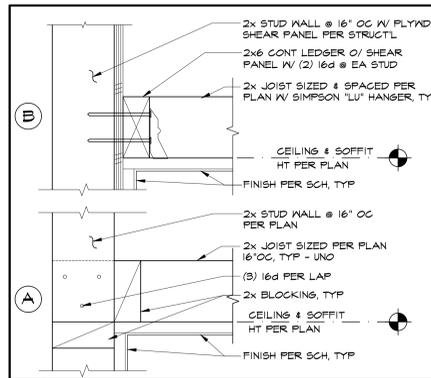
**KEYNOTES**

901	(E) DOOR TO REMAIN	
902	(E) BASE TO REMAIN	
903	(E) WINDOW TO REMAIN	
904	(E) WALL FINISH TO REMAIN - SEE SCHEDULE	
905	(E) CABINET / SHELF TO REMAIN	
906	(E) LAVATORY / SINK TO REMAIN	
907	(E) TOILET / URINAL TO REMAIN	
908	(E) GRAB BAR TO REMAIN	
909	(E) SOAP DISPENSER TO REMAIN	
910	(E) PAPER TOWEL DISPENSER TO REMAIN	
911	(E) SOLID TOILET PARTITIONS TO REMAIN	
912	(E) TOILET SEAT COVER DISPENSER TO REMAIN	
913	RELOCATED (E) PAPER TOWEL DISPENSER	1 6 6 A100 A100 A100
914	DOOR - SEE SCHEDULE	
915	BASE - SEE SCHEDULE	
916	WALL FINISH - SEE SCHEDULE	
917	WINDOW - SEE SCHEDULE	
918	FLAM BASE CABS AND/OR UPPER CABS	22 A100
919	SOLID PLASTIC PARTITIONS	A100
920	GRAB BAR - 48" AT SIDE AND 36" AT BACK	1 6 10 A100 A100 A100
921	(E) MIRROR TO REMAIN	9 A100
922	RECESSED TOILET PAPER DISPENSER	9 A100
923	TOILET AND REQUIREMENTS - SEE PLUMBING PLANS	1 6 6 A100 A100 A100
924	MIRROR - SEE SPECS	1 6 6 A100 A100 A100
925	SOLID SURFACE COUNTERTOP AND SPLASH	
926	LAVATORY/SINK AND REQUIREMENTS - SEE PLUMBING PLANS	1 5 8 A100 A100 A100
927	DRINKING FOUNTAIN REQUIREMENTS - SEE PLUMBING PLANS	23 A100
928	KNEE SPACE REQUIREMENTS	A100
929	FIRE EXTINGUISHER	A100
930	(E) MARKER BOARD TO REMAIN	
931	WALL IN-FILL, PATCH & MATCH WALL FINISHES AS REQ'D	8 A101
932	(E) STOREFRONT TO REMAIN	
933	RELOCATED (E) GRAB BAR	1 6 10 A100 A100 A100
934	(E) TOILET PAPER DISPENSER TO REMAIN	
935	RELOCATED (E) TOILET SEAT COVER DISPENSER	1 6 6 A100 A100 A100
936	RELOCATED (E) TOILET / URINAL	1 6 6 A100 A100 A100

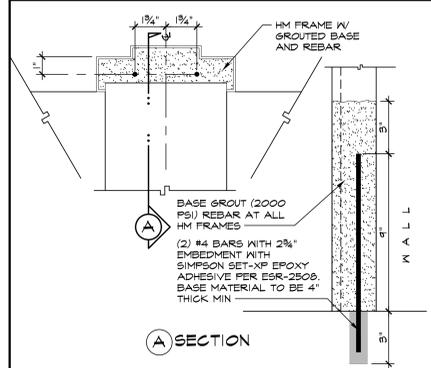
**INTERIOR ELEVATIONS**

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

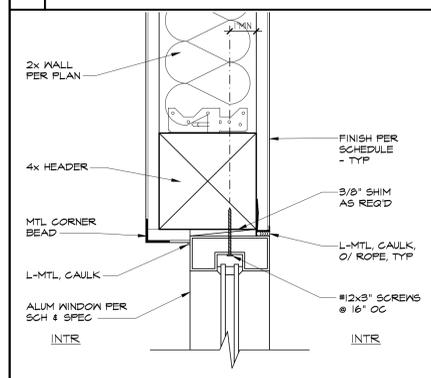




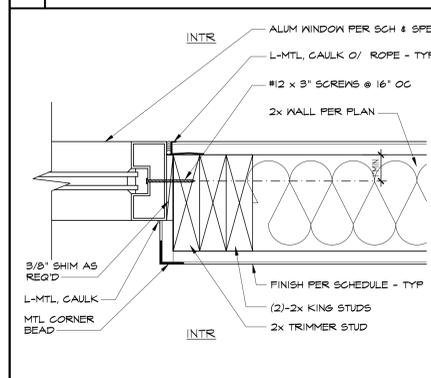
1 LEDGER TO STUD WALL SCALE: 3" = 1'-0"



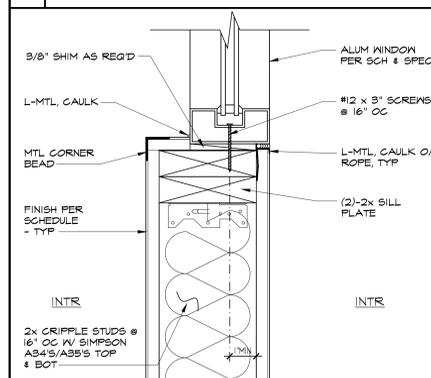
2 GROUTED HM JAMB SCALE: 3" = 1'-0"



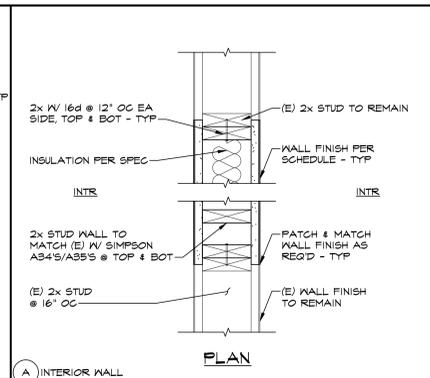
3 FIXED INT WINDOW HEAD SCALE: 3" = 1'-0"



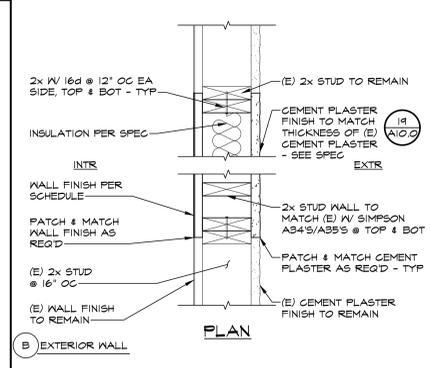
4 FIXED INT WINDOW JAMB SCALE: 3" = 1'-0"



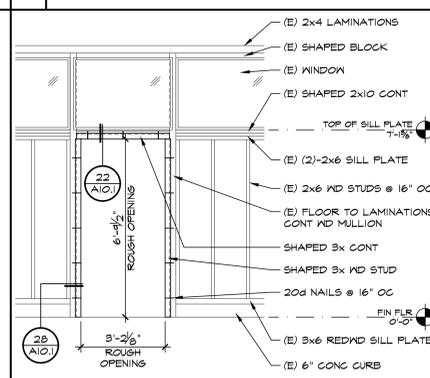
5 FIXED INT WINDOW SILL SCALE: 3" = 1'-0"



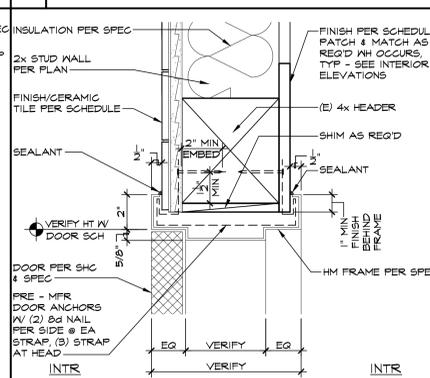
6 INTERIOR WALL SCALE: 3" = 1'-0"



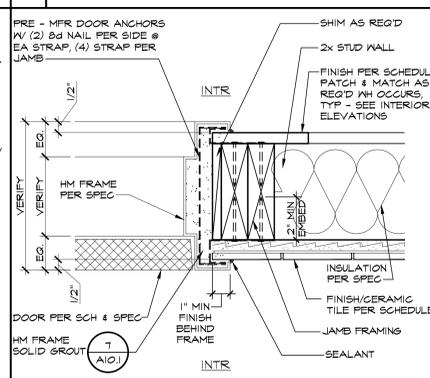
7 EXTERIOR WALL SCALE: 3" = 1'-0"



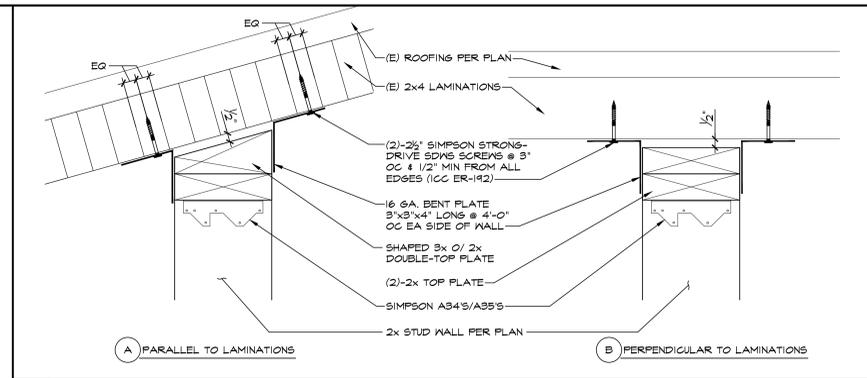
8 WALL OPENING IN-FILL SCALE: 3/4" = 1'-0"



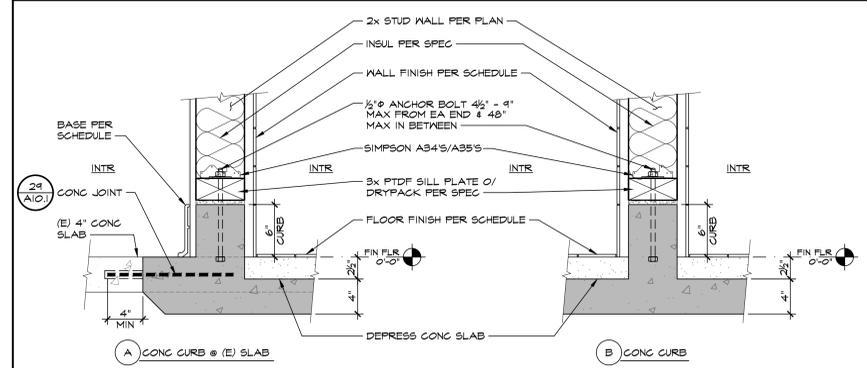
9 FRAMING ELEVATION SCALE: 3/4" = 1'-0"



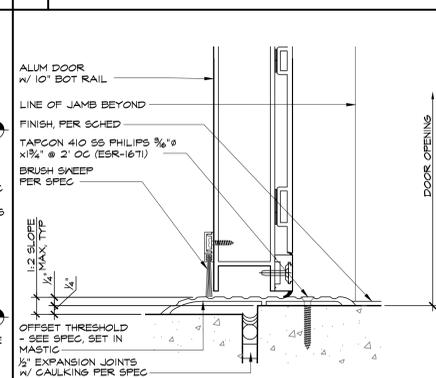
10 HM DOOR HEAD SCALE: 3" = 1'-0"



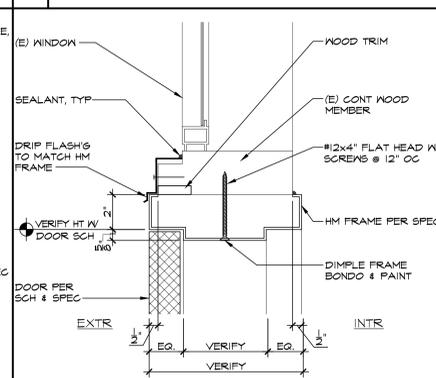
11 INT NON-BEARING STUD WALL SCALE: 3" = 1'-0"



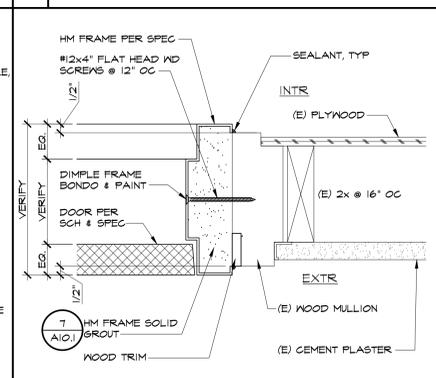
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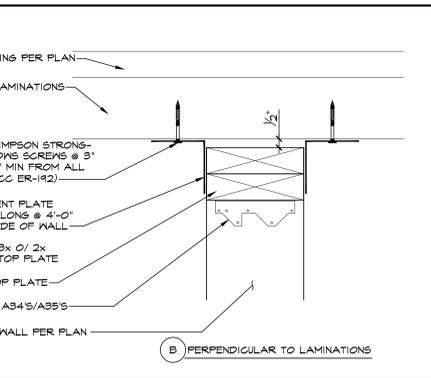
13 STOREFRONT THRESHOLD SCALE: 6" = 1'-0"



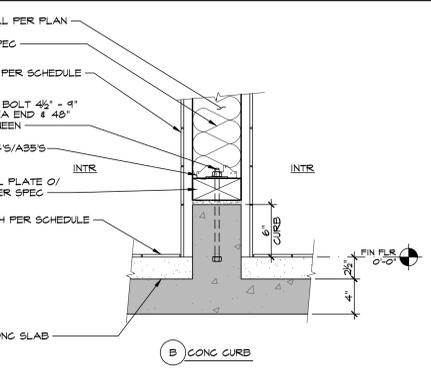
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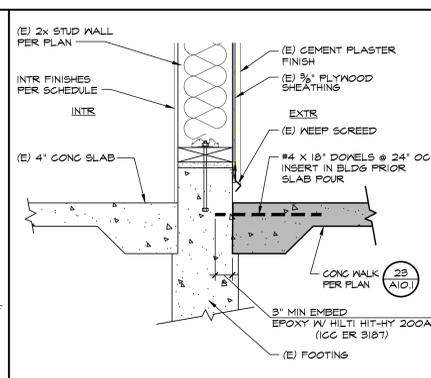
15 HM DOOR JAMB SCALE: 3" = 1'-0"



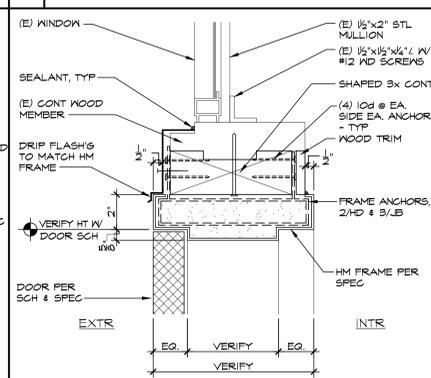
16 CONC WALK @ (E) CONC FTG SCALE: 1" = 1'-0"



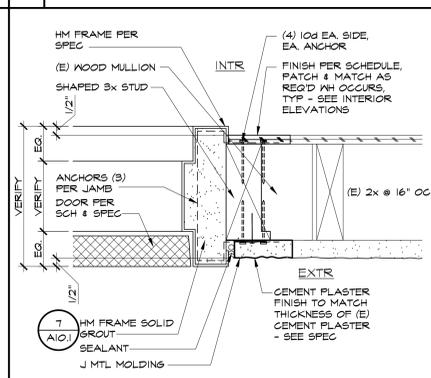
17 SAW CUT FOR CONDUIT @ (E) SLAB SCALE: 1/2" = 1'-0"



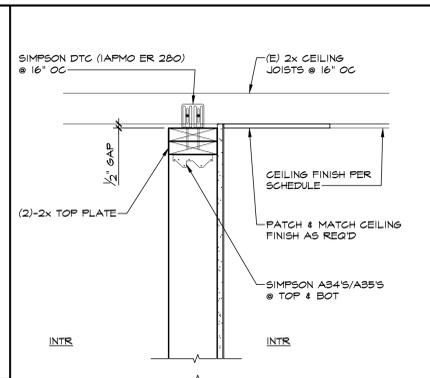
18 SAW-CUTTING SCALE: NTS



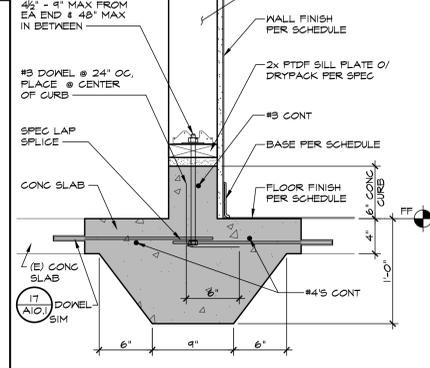
19 CONCRETE WALK SCALE: 1" = 1'-0"



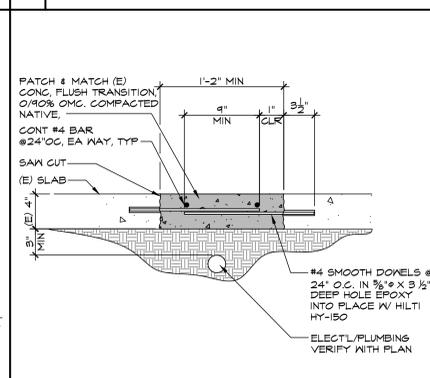
20 CONCRETE JOINT DETAILS SCALE: 1/2" = 1'-0"



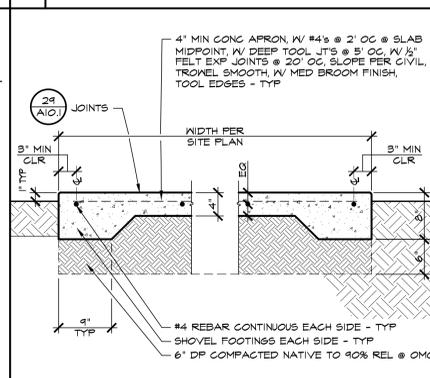
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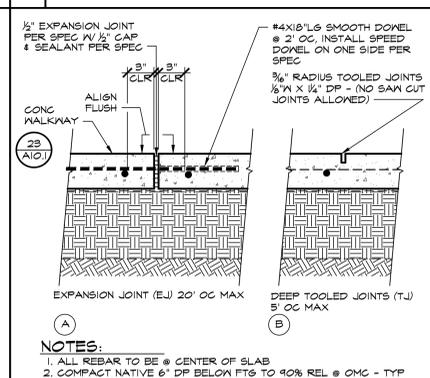
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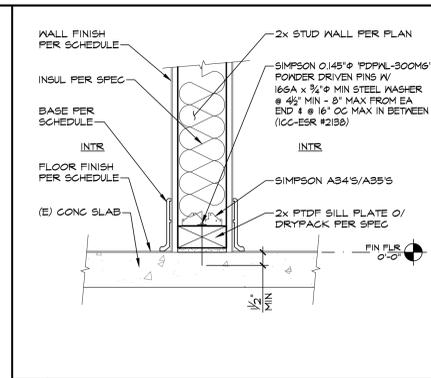
23 CONCRETE WALK SCALE: 1" = 1'-0"



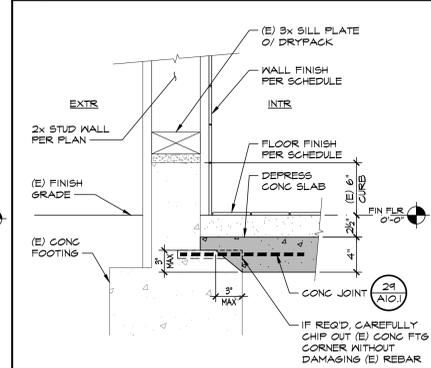
24 CONCRETE WALK @ (E) WALK SCALE: 1/2" = 1'-0"



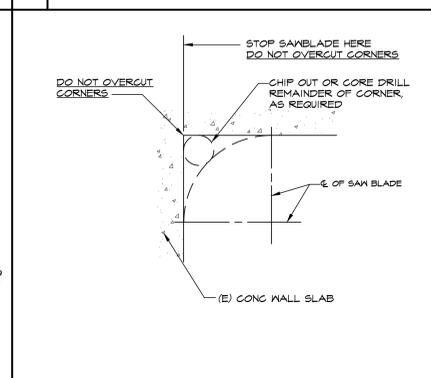
25 CONCRETE JOINT DETAILS SCALE: 1/2" = 1'-0"



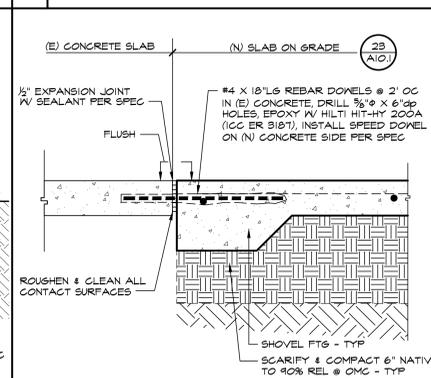
26 INT NON-BEARING STUD WALL SCALE: 1/2" = 1'-0"



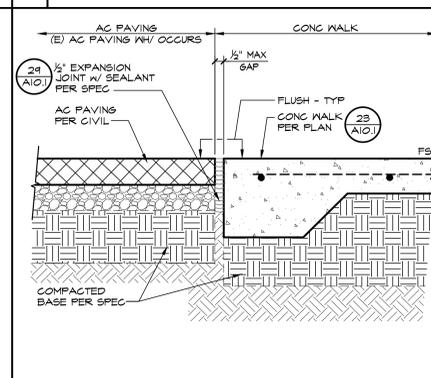
27 INT NON-BEARING STUD WALL SCALE: 1/2" = 1'-0"



28 DEPRESS SLAB @ (E) EXT WALL FTG SCALE: 1/2" = 1'-0"



29 CONCRETE WALK SCALE: 1" = 1'-0"



30 AC PAVING TO CONC WALK SCALE: 1/2" = 1'-0"

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 05/08/2024

PN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, N.CARB, AIA, LEED AP  
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.A.C.



DETAILS

MARK	DATE	REVISIONS

JOB NO.  
1318  
DRAWN:  
ED, FS  
CHECKED:  
BCW  
DATE:  
4/2/24

10.1  
18 OF 61 SHEETS



**STRUCTURAL ABBREVIATIONS**

AB	ANCHOR BOLT	JST	JOIST
ABV	ABOVE	JT	JOINT
ADDL	ADDITIONAL		
ALT	ALTERNATE	KSI	KIP PER SQUARE INCH
ANCH	ANCHOR		
&	AND	LBS	POUNDS
ARCH	ARCHITECT(URAL)	LLBB	LONG LEG BACK-BACK
@	AT	LLH	LONG LEG HORIZONTAL
		LLV	LONG LEG VERTICAL
BF	BRACE FRAME	LONG	LONGITUDINAL
BLDG	BUILDING	LT WT	LIGHT WEIGHT
BLK	BLOCK	LVL	LAMINATED VENEER (LUMBER)
BLKG	BLOCKING	LVL	LEVEL (FLOOR)
BEL	BELOW		
BM	BEAM	MAX	MAXIMUM
BN	BOUNDARY NAILING	MB	MACHINE BOLT
B or BOT	BOTTOM	MECH	MECHANICAL
BRG	BEARING	MEZZ	MEZZANINE
BTWN	BETWEEN	MFR	MANUFACTURER
BU	BUILT-UP	MIN	MINIMUM
BUB	BACK-UP BAR	MISC	MISCELLANEOUS
		MTL	METAL
CAMB(C)	CAMBER(ED)	MS	MIDDLE STRIP
CBC	CALIFORNIA BUILDING CODE		
CG	CENTER OF GRAVITY	(N)	NEW
CIP	CAST IN PLACE	NIC	NOT IN CONTRACT
CJ	CONSTRUCTION JOINT	NLT	NAIL LAMINATED TIMBER
	OR CONTROL JOINT	NO (#)	NUMBER
CJP	COMPLETE JOINT PENETRATION	NS	NEAR SIDE
CL(R)	CENTERLINE	NTS	NOT TO SCALE
CLG	CEILING	NORM WT	NORMAL WEIGHT
CLR	CLEAR		
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER (NOT NECESSARY)
COL	COLUMN	OD	OUTSIDE DIAMETER
CONC	CONCRETE	OF	OUTSIDE FACE
CONN	CONNECTION	OH	OPPOSITE HAND
CONT	CONTINUOUS	O-O	OUT TO OUT
CS	COLUMN STRIP	OPRG	OPENING
CRC	COLD ROLLED CHANNEL		
CTR	CENTER(ED)	PARA	PARALLEL
CTRSK	COUNTERSINK	P/C	PRECAST
C-C	CENTER TO CENTER	PERP	PERPENDICULAR
		PJP	PARTIAL JOINT PENETRATION
d	PENNEY(NAILS)	PL (IP)	PLATE
DBL	DOUBLE	PLY	PLYWOOD
DET	DETAIL	PLY	POUNDS PER SQUARE FOOT
DF	DOUGLAS FIR	PSI	POUNDS PER SQUARE INCH
DIA(IQ)	DIAMETER	PT	PRESSURE TREATED
DIAG	DIAGONAL	PIT	POSTTENSIONED(PRESTRESSED)
DIM	DIMENSION		
DN	DOWN	RAD (R)	RADIUS
DO	DITTO (REPEAT)	REF	REFERENCE
DP	DEEP	REQ'D	REQUIRED
DWG	DRAWING	REINF	REINFORCEMENT(ING)
DWL	DOWELS	RJ	ROOF JOIST
EA	EACH	SC	SLIP CRITICAL
EBF	ECCENTRIC BRACE FRAME	SEP	SEPARATION
EF	EACH FACE	SCHED	SCHEDULE
EJ	EXPANSION JOINT	SFRS	SEISMIC FORCE RESISTING SYSTEM
ELEC	ELECTRICAL	SIM	SIMILAR
ELEV	ELEVATION/ELEVATOR	SIMP	SIMPSON
EMBED	EMBEDMENT	SHT	SHEET
EN	EDGE NAILING	SHTG	SHEATHING
EQ	EQUAL	SLBB	SHORT LEB BACH-BACK
EQUIP	EQUIPMENT	SLV	SHORT LEB VERTICAL
ES	SIDE EACH	SMS	SHEET METAL SCREWS
EW	EACH WAY	SOG	SLAB ON GRADE
EXIST(E)	EXISTING	SPECS	SPECIFICATIONS
EXP	EXPANSION	SP	SPACE(S)
EXT	EXTERIOR	SO	SQUARE(S)
		SSC	SINGLE SHEAR CONNECTION
FIN	FINISH(ED)	STAGG	STAGGER(ED)
FLR	FLOOR	SS	STAINLESS STEEL
FDN	FOUNDATION	STD	STANDARD
FLG	FLANGE	STIFF	STIFFENER
FN	FIELD NAILING	STL	STEEL
FOB	FACE OF BLOCK OR BRICK	STRUC	STRUCTURAL
FOC	FACE OF CONCRETE	SYMM	SYMMETRICAL
FO PLY	FACE OF PLYWOOD		
FOS	FACE OF STUDS	T & B	TOP AND BOTTOM
FRM	FRAMING	T & G	TONGUE AND GROOVE
FS	FAR SIDE	TEMP	TEMPORARY
FT	FOOT	THK	THICKNESS
FTG	FOOTING	THRD	THREADED
		THRU	THROUGH
GA	GAGE	TP	TOP OF PARAPET
GALV	GALVANIZED	T PLY	TOP OF PLYWOOD
GB	GRADE BEAM	TRANS	TRANSVERSE
GL	GRID LINE	TOC	TOP OF CONCRETE
GLB	GLUE-LAMINATED BEAM	TOS	TOP OF STEEL
		TSS	TAPERED STEEL GIRDER
HCA	HEADED CONCRETE ANCHOR	TOW	TOP OF WALL
HD	HOLD DOWN	TYP	TYPICAL
HDR	HEADER		
HGR	HANGER	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL		
HSB	HIGH STRENGTH BOLT	VERT	VERTICAL
HS	HIGH STRENGTH		
HT	HEIGHT	W/	WITH
		WBS	WELDED BEAM SEAT
IBC	INTERNATIONAL BUILDING CODE	WD	WOOD
ID	INSIDE DIAMETER	WP	WORK POINT
IF	INSIDE FACE	WPJ	WEAKENED PLANE JOINT
IN	INCH	WS	WELDED STUDS
INFO	INFORMATION	WT	WEIGHT
INT	INTERIOR	WWF	WELDED WIRE FABRIC

**GLUED LAMINATED TIMBER**

- PROVIDE STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES IN CONFORMANCE WITH AITC A190.1 AND ASTM D3737 STANDARDS. MARK MEMBERS WITH THE ENGINEERED WOOD SYSTEM APA-EWS TRADEMARK OR AITC QUALITY INSPECTED MARK INDICATING CONFORMANCE WITH PROVISIONS OF THE REFERENCED STANDARDS.
- FABRICATE MEMBERS OF DOUGLAS FIR (COAST REGION) LUMBER CONFORMING TO PARAGRAPH 154 OF THE STANDARD GRADING RULES NO. 17 FOR WEST COAST LUMBER OF THE WEST COAST LUMBER INSPECTION BUREAU.
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- BEAMS TO BE COMBINATION 24F-V4 FOR SINGLE SPAN MEMBERS AND 24F-V8 FOR CONTINUOUS OR CANTILEVERED MEMBERS UNLESS OTHERWISE NOTED.
- ADHESIVES SHALL BE OF EXTERIOR TYPE.
- NOTCH OR BORE GLUED LAMINATED MEMBERS ONLY WHERE SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

**INSPECTION / TESTING**

- AN INDEPENDENT TESTING AGENCY AND SPECIAL INSPECTORS SHALL BE RETAINED BY THE OWNER TO PERFORM THE TESTS AND INSPECTIONS AS REQUIRED BY SECTION 1704 OF THE CALIFORNIA BUILDING CODE. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE SPECIAL INSPECTOR TO THE SITE OR FABRICATION SHOPS AND SHALL FURNISH SAMPLES OF MATERIALS FOR TESTING AS REQUESTED BY THE TESTING AGENCY AND THE GOVERNING CODE.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.
- PROVIDE CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR ITEMS NOTED IN "DSA-103: TEST AND INSPECTIONS FORM", AS REQUIRED PER THE CHAPTER 17A OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE AMENDMENTS, UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
- SPECIAL INSPECTIONS MAY NOT BE REQUIRED WHEN THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED BY THE BUILDING OFFICIAL OR GOVERNING AGENCY HAVING JURISDICTION OVER THE PROJECT TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
- INSPECTION AND TESTING REPORTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER WITHIN SEVEN DAYS OF WHEN THE INSPECTION WAS MADE OR WHEN THE TESTING WAS PERFORMED.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY INSPECTION OR TESTING WHICH DOES NOT COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- GLULAM INSPECTION NOT REQUIRED PER CBC 1705A.5.4 EXCEPTION.

**GENERAL, CONTINUED**

- D. WIND DESIGN LOADS:
- ULTIMATE DESIGN WIND SPEED = 101 MPH  
 RISK CATEGORY = III  
 WIND EXPOSURE = B  
 INTERNAL PRESSURE COEFFICIENT = 0.18 FOR ENCLOSED STRUCTURE
- COMPONENTS & CLADDING WIND PRESSURE = PER ASCE 7-16, CHAPTER 30

WIND PRESSURE (PSF)		
PRESSURE ZONES	EFFECTIVE WIND AREA (FT <sup>2</sup> )	
	10	50
ZONE 1	-24	-21
ZONE 2	-32	-27
ZONE 3	-44	-34
ZONE 4 (NEG)	-16	-16
ZONE 4 (POS)	-16	-16
ZONE 5 (NEG)	-19	-16
ZONE 5 (POS)	-16	-16

**LUMBER**

- UNLESS NOTED OTHERWISE, LUMBER SHALL BE DOUGLAS FIR-LARCH, GRADE MARKED, WITH A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF INSTALLATION.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, LUMBER GRADES SHALL BE AS FOLLOWS:
  - HORIZONTAL FRAMING MEMBERS
 

BEAMS	SELECT STRUCTURAL.
JOISTS AND RAFTERS	No 1
ALL OTHER HORIZONTAL MEMBERS	No 1
  - PLYWOOD SHEATHING SHALL BE DOUGLAS FIR AND SHALL COMPLY WITH THE LATEST EDITION OF U.S. PRODUCT STANDARD PS 1. GRADES SHALL BE MARKED STRUCTURAL 1 BY APA AND BONDED WITH EXTERIOR GLUE UNLESS NOTED OTHERWISE. REFER TO PLANS AND DETAILS FOR THICKNESS. ALL PLYWOOD SHEATHING SHALL BE BLOCKED AT UNSUPPORTED EDGES
  - NAILS SHALL BE COMMON WIRE NAILS AND SHALL CONFORM TO ASTM F1667. UNLESS NOTED OTHERWISE ON THE PLANS, NAILING SHALL COMPLY AS A MINIMUM WITH NAILING AND FASTENING SCHEDULES PRESCRIBED BY THE GOVERNING BUILDING CODE.
  - CONNECTOR REFERENCES, UNLESS NOTED OTHERWISE ARE FROM THE LATEST EDITION OF "SIMPSON STRONG-TIE" CATALOG. APPROVED EQUALS SHALL HAVE MATCHING ICC-ES RATINGS AND USED WITH PRIOR APPROVAL OF THE ARCHITECT OR STRUCTURE ENGINEER.
    - WHERE MORE THAN ONE TYPE OF FASTENER IN THE REFERENCE SERIES IS SCHEDULED FOR A JOIST OR RAFTER, THE CONTRACTOR SHALL SUPPLY THE FASTENER WITH THE GREATEST CAPACITY.
    - WHERE THERE ARE A NUMBER OF NAILING ALTERNATIVES LISTED IN THE MANUFACTURER'S CATALOG FOR A PARTICULAR CONNECTOR, THE NAILING ALTERNATIVE PROVIDING THE HIGHEST LOAD CAPACITY SHALL BE USED UNLESS NOTED OTHERWISE.
    - ALL NAIL HOLES IN THE CONNECTOR SHALL BE FILLED WITH PROPER NAILS UNLESS NOTED OTHERWISE ELSEWHERE. (INCLUDING TRIANGULAR HOLES IN "H" HANGERS.
  - USE NAILS AT ALL "MST" STRAP HOLES, UNLESS NOTED OTHERWISE.
- SILL PLATES AND OTHER WOOD MEMBERS BEARING DIRECTLY ON THE CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH EARTH OR WOOD MEMBERS IN DIRECT CONTACT WITH CONCRETE OR MASONRY FOUNDATIONS SHALL BE PRESERVATIVE-TREATED LUMBER.
- FASTENERS AND HARDWARE IN CONTACT WITH PRESERVATIVE-TREATED OR FIRE-RETARDANT-TREATED LUMBER SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL AND SHALL COMPLY WITH SECTION 2304.9.5 OF THE CALIFORNIA BUILDING CODE.
- FASTENERS AND HARDWARE EXPOSED TO WEATHER SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL AND SHALL COMPLY WITH ASTM 153.
- SCREWS AND LAG SCREWS SHALL COMPLY WITH ANSIA/ASME B18.6.1. PREDRILLED SCREW HOLES SHALL BE 2/3 THE SCREW NOMINAL DIAMETER. MINIMUM SCREW YIELD STRENGTH SHALL BE AS FOLLOWS:
 

SCREW NOMINAL DIAMETER	YIELD STRENGTH (F <sub>y</sub> )
1/2"	70,000 PSI
5/8"	60,000 PSI
3/4" AND GREATER	45,000 PSI
- BOLTS:
  - ALL BOLTS SHALL CONFORM TO ASTM A307, GRADE A.
  - ALL ANCHOR RODS (ANCHOR BOLTS) SHALL CONFORM TO ASTM F1554, GRADE 36.
  - BOLT HOLES SHALL NOT BE MORE THAN 1/8" LARGER THAN THE BOLT DIAMETER.
  - ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE STANDARD CUT STEEL WASHERS MEETING THE REQUIREMENTS OF ANSIA/ASME B18.22.1 UNDER BOLT HEADS AND NUTS. PROVIDE BEVELED WASHERS MEETING REQUIREMENTS OF ASME/ANSI B18.32.1 WHERE SHOWN ON PLANS.
  - RE-TIGHTEN ALL NUTS PRIOR TO CLOSING IN.
- LAG SCREWS SHALL BE TURNED, NOT DRIVEN, INTO PRE DRILLED HOLES OF 2/3 THE SHANK DIAMETER.
- PROVIDE FULL BEARING AT END OF ALL BLOCKING, U.N.O.

**DEMOLITION**

- CONTRACTOR IS FULLY RESPONSIBLE FOR PROVIDING THE MEANS AND METHODS OF DEMOLITION, MAINTAINING THE STRUCTURAL INTEGRITY AND STABILITY OF THE EXISTING STRUCTURE DURING AND AFTER DEMOLITION.
- ALL DEMOLITION SHALL BE CARRIED ON IN SUCH A WAY AS NOT TO DAMAGE EXISTING ELEMENTS WHICH ARE TO BE IN THE FINISHED BUILDING.
- ALL ELEMENTS OF THE STRUCTURE WHICH ARE TO REMAIN AND WHICH ARE DAMAGED DURING DEMOLITION WORK SHALL BE REPLACED AT NO ADDED COST AND TO THE COMPLETE SATISFACTION OF THE OWNER. EXISTING ELEMENTS SHALL BE PROTECTED TO THE FULLEST EXTENT POSSIBLE TO MINIMIZE SUCH DAMAGE.
- CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING REBAR, ELECTRICAL CONDUITS, AND OTHER SYSTEMS EMBEDDED IN CONCRETE SLABS AND WALLS BY X-RAY OR RADIOGRAPHIC TESTING PRIOR TO DEMOLITION. DO NOT CUT OR DAMAGE EXISTING REBAR WITHOUT APPROVAL FROM THE SEOR.

**GENERAL**

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
- INFORMATION SHOWN ON THE DRAWINGS RELATED TO EXISTING CONDITIONS REPRESENTS THE PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS. DRAWINGS SHALL NOT BE SCALED.
- DETAILS IN SHEETS TITLED 'TYPICAL DETAILS', TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK, EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE. THESE DETAILS ARE NOT SPECIFICALLY REFERENCED WHERE THEY OCCUR.
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NOTES AND DETAILS ON DRAWINGS AND THESE GENERAL NOTES AND TYPICAL DETAILS ARE IN CONFLICT WITH THE PROJECT SPECIFICATIONS THE MOST STRINGENT SHALL APPLY. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED AS SHOWN FOR SIMILAR WORK.
- ALL WORK SHALL CONFORM TO THE STANDARDS OF THE FOLLOWING: CALIFORNIA BUILDING CODE, 2019 EDITION AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING BUT NOT LIMITED TO CALOSHA, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH, AND THOSE CODES AND STANDARDS LISTED IN THE CONTRACT DOCUMENTS.
- SPECIFICATIONS, CODES, AND STANDARDS NOTED IN THE CONTRACT DOCUMENTS SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS OTHERWISE NOTED. MATERIAL SPECIFICATIONS SHALL COMPLY WITH ASTM REFERENCED STANDARDS LATEST EDITION.
- MANUFACTURED MATERIALS SHALL BE APPROVED BY THE CHECKING AGENCY PRIOR TO THEIR USE. ALL REQUIREMENTS OF THOSE APPROVALS SHALL BE FOLLOWED.
- SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
  - SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS.
  - EXTERIOR WALL SYSTEM.
  - STAIR FRAMING AND DETAILS.
  - DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
- SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
  - PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL, ROOF AND FLOOR OPENINGS, ETC., NOT SHOWN OR NOTED.
  - ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
  - ANCHORAGE AND BRACING FOR ELECTRICAL, MECHANICAL OR PLUMBING EQUIPMENT TO THE STRUCTURE.
  - ANCHOR BOLTS FOR EQUIPMENT MOUNTS.
  - SIZE, WEIGHT, AND LOCATION OF MACHINE AND EQUIPMENT BASES.
- OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER OF RECORD WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS.
- CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE EXTENT OF THE SCOPE OF WORK. VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.
- THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE CONSTRUCTION DOCUMENTS WITH THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- UNLESS NOTED OTHERWISE, COLUMNS, WALLS, BEAMS, FOOTINGS, ETC. ARE CENTERED AT GRIDLINES. WHERE BEAM TO BEAM SPACING IS NOT SHOWN, BEAM SHALL BE EQUALLY SPACED BETWEEN GRIDLINES.
- ANY DEVIATION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW/APPROVAL BEFORE PROCEEDING WITH THE WORK. SUBSTITUTIONS OF PRODUCTS OR MATERIALS SPECIFIED ON THE CONSTRUCTION DOCUMENTS ARE NOT ALLOWED WITHOUT OWNER'S REPRESENTATIVE'S APPROVAL.
- THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE AND PROCEDURE OF CONSTRUCTION AS REQUIRED. SITE VISITS PERFORMED BY THE OWNER'S REPRESENTATIVE DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORES, BRACES AND GUYS REQUIRED TO SUPPORT ALL LOADS TO WHICH THE BUILDING STRUCTURE AND COMPONENTS, SOILS, OTHER STRUCTURES AND UTILITIES MAY BE SUBJECTED DURING CONSTRUCTION. SHORING SYSTEMS SHALL BE DESIGNED AND STAMPED BY A CIVIL OR STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA. VISITS TO THE SITE BY THE OWNER'S REPRESENTATIVE WILL NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT SPECIFIED ON THIS SET OF DRAWINGS. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH OR WHERE OVERLOAD IS ANTICIPATED.
- STRUCTURAL OBSERVATIONS PERFORMED BY THE STRUCTURAL ENGINEER DURING CONSTRUCTION ARE NOT THE REQUIRED CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR. OBSERVATIONS ALSO DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
- CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS AND SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE OWNER'S REPRESENTATIVE.
- ARCHITECTS / ENGINEERS REVIEW OF THE SHOP DRAWINGS SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEVIATE FROM CONTRACT DOCUMENTS.
- SHOP DRAWINGS WILL NOT BE PROCESSED DUE TO INCOMPLETENESS, LACK OF COORDINATION WITH RELEVANT PORTION OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS IF REQUIRED AND WHERE DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE.
- ALLOW SEVEN WORKING DAYS FOR PROCESSING SHOP DRAWINGS OTHER THAN STRUCTURAL STEEL & DESIGN-BUILD ITEMS AFTER RECEIPT BY THE STRUCTURAL ENGINEER. ALLOW FOURTEEN WORKING DAYS FOR PROCESSING STRUCTURAL STEEL & DESIGN-BUILD ITEMS SHOP DRAWINGS. SHOP DRAWINGS AND SUBMITTALS WILL BE REVIEWED A MAXIMUM OF TWO TIMES.
- DESIGN LOADS:
  - DEAD LOADS: CONSIST OF BUILDING SELF-WEIGHT PLUS SUPERIMPOSED DEAD LOADS. REFER TO COMPLETE SET OF DRAWINGS FOR DETERMINING DEAD LOADS.
  - LIVE LOADS:
 

AREA	DESIGN LIVE LOAD	REMARK
ROOF	20 PSF	REDUCIBLE
  - SEISMIC DESIGN LOADS:
 

SEISMIC IMPORTANCE FACTOR I <sub>s</sub>	= 1.0
RISK CATEGORY	= III
a <sub>s</sub>	= 2.5
R <sub>s</sub>	= 6
Q <sub>s</sub>	= 2
SITE CLASS	= D (DEFAULT)
S <sub>s</sub>	= 0.746
SEISMIC DESIGN CATEGORY	= D
z/h	= 1



PTN: 63321- FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
 FAX: (661) 397-4378  
 WWW.SCARCHITECT.COM



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 CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**GENERAL NOTES**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. J21324  
 DRAWN: JAMA  
 CHECKED: JAMA  
 DATE: 11/08/23

S

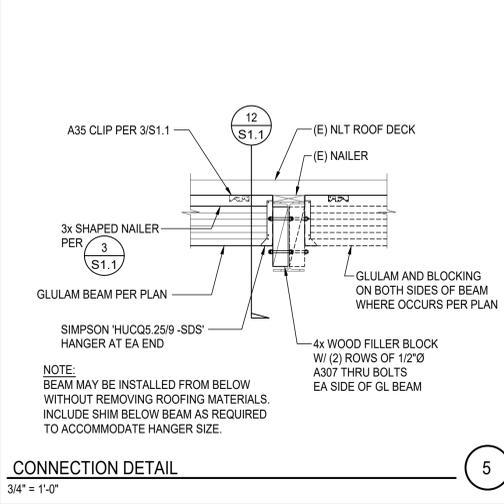
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OF SHEETS

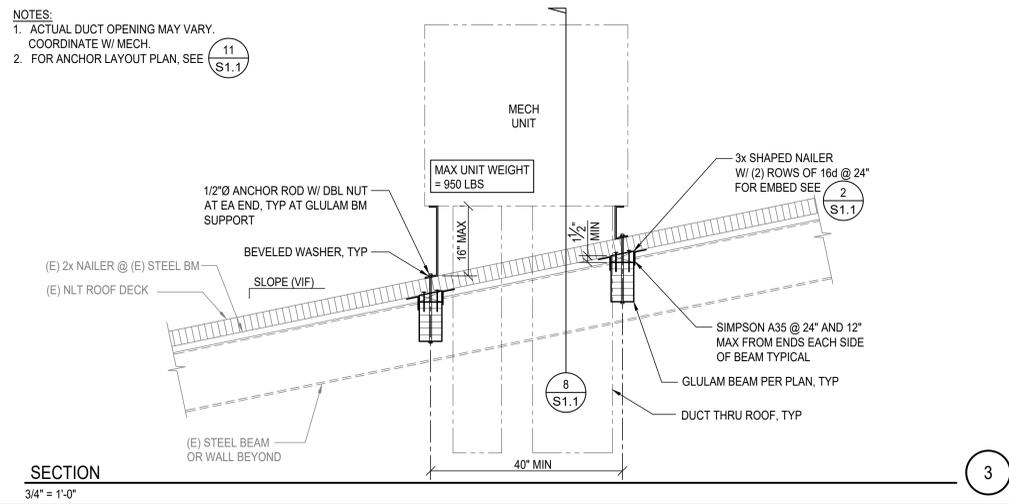


**MARTIN & ASSOCIATES**  
 Structural Engineers  
 950 S. Grand Avenue  
 Los Angeles, Calif. 90015  
 Phone (213) 483-6490  
 Fax (213) 483-3084  
 J21324

DATE SIGNED: 11/08/2023



**CONNECTION DETAIL** 5  
3/4" = 1'-0"



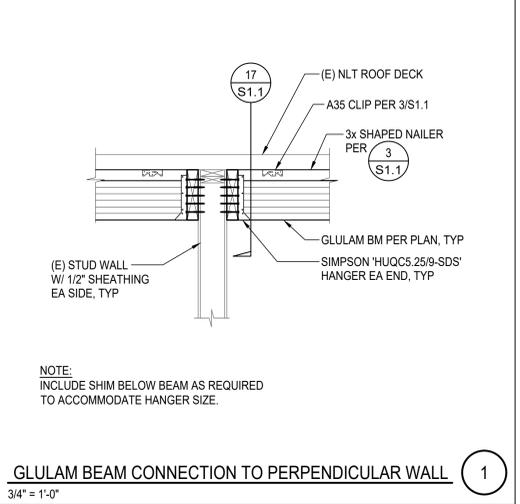
**SECTION** 3  
3/4" = 1'-0"

**MINIMUM NAIL DIAMETER & PENETRATION**

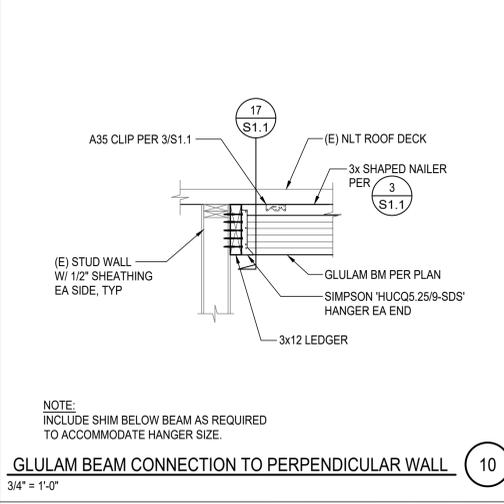
SIZE OF NAIL	NAIL DIAMETER (INCHES)	PENETRATION REQ'D (INCHES)
10d	0.148	1 5/8" (***)
16d	0.162	1 3/4"

NOTE: \*\*\* 1 1/2" PENETRATION AT PLYWOOD DIAPHRAGM

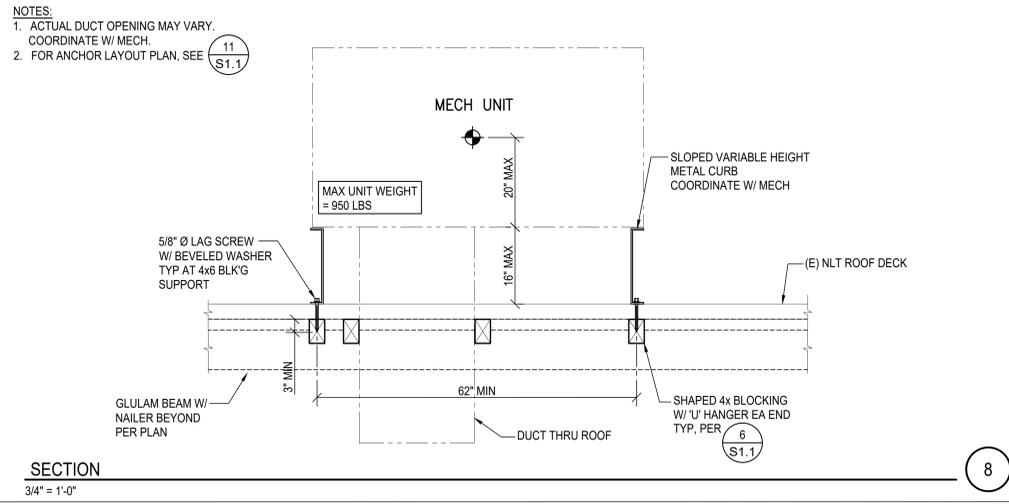
**TYP MINIMUM NAIL DIAMETER AND PENETRATION** 2  
3/4" = 1'-0"



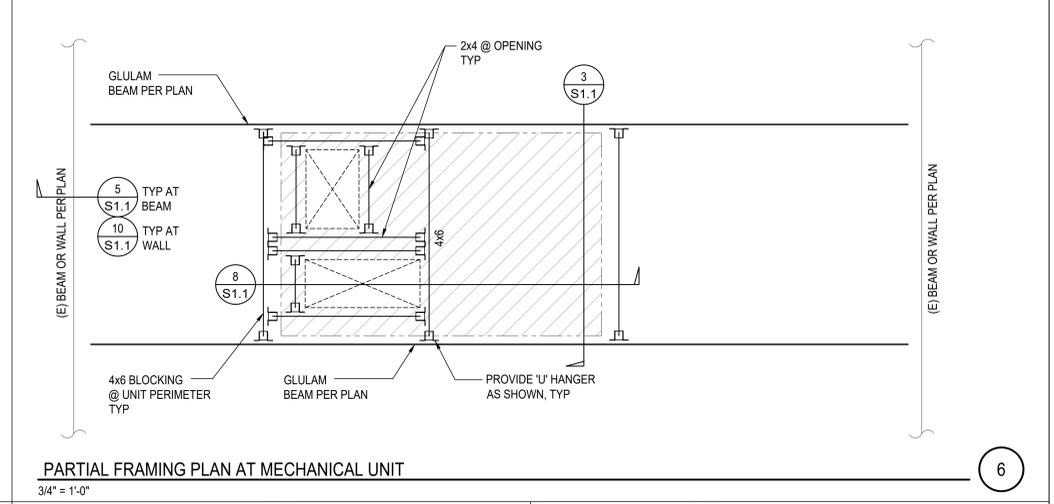
**GLULAM BEAM CONNECTION TO PERPENDICULAR WALL** 1  
3/4" = 1'-0"



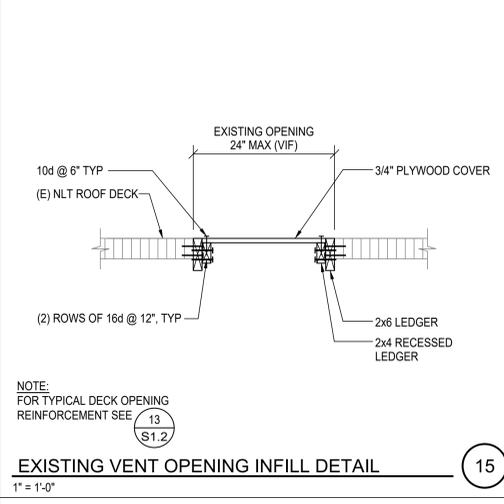
**GLULAM BEAM CONNECTION TO PERPENDICULAR WALL** 10  
3/4" = 1'-0"



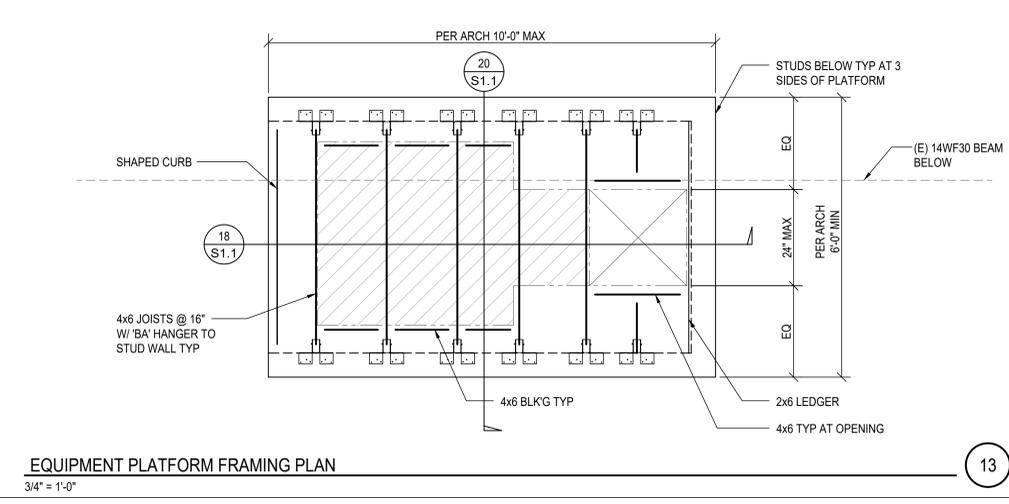
**SECTION** 8  
3/4" = 1'-0"



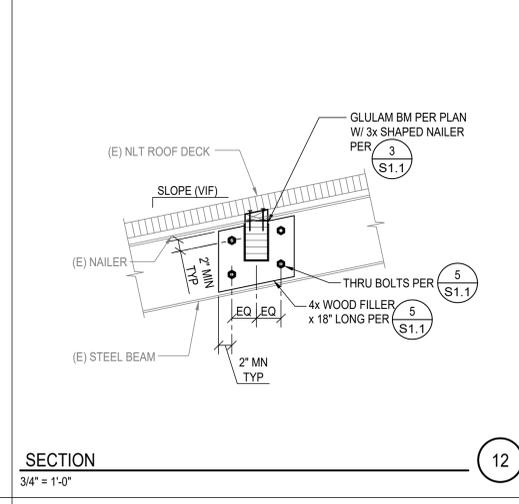
**PARTIAL FRAMING PLAN AT MECHANICAL UNIT** 6  
3/4" = 1'-0"



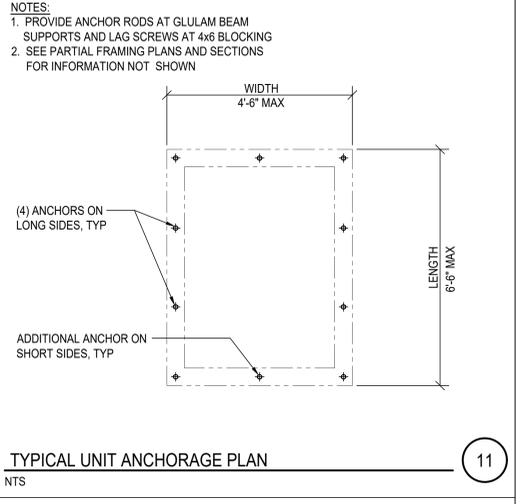
**EXISTING VENT OPENING INFILL DETAIL** 15  
1" = 1'-0"



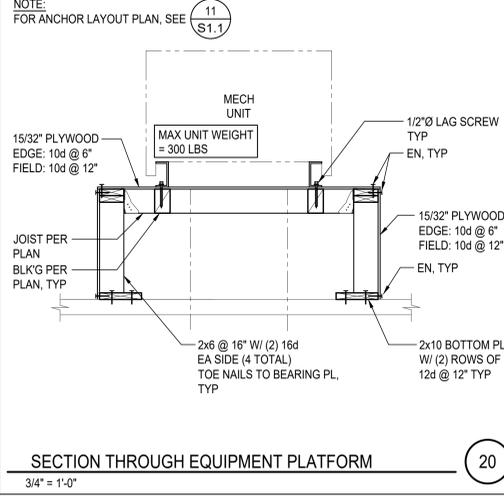
**EQUIPMENT PLATFORM FRAMING PLAN** 13  
3/4" = 1'-0"



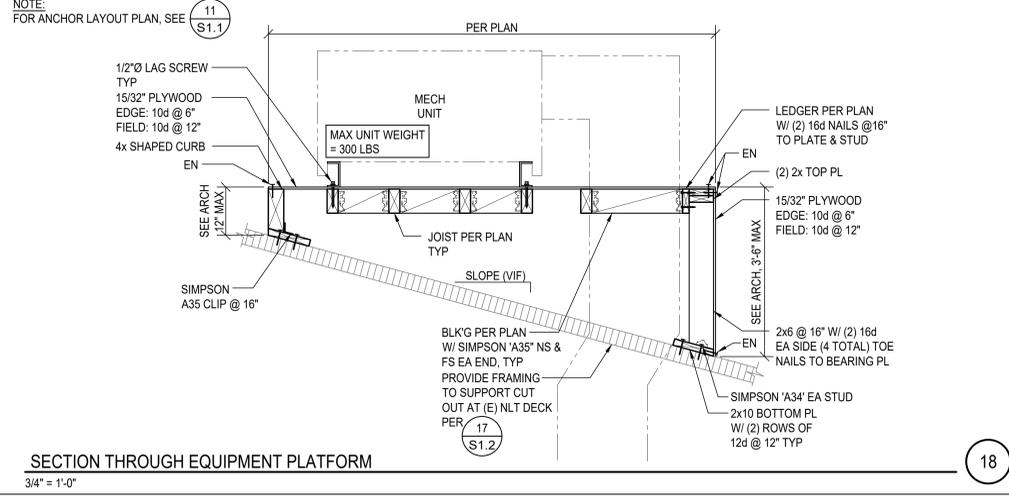
**SECTION** 12  
3/4" = 1'-0"



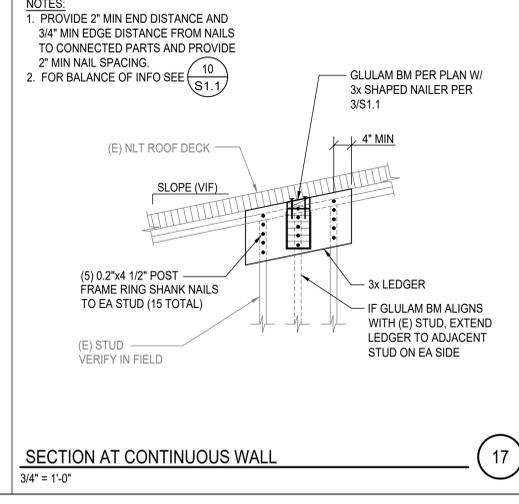
**TYPICAL UNIT ANCHORAGE PLAN** 11  
NTS



**SECTION THROUGH EQUIPMENT PLATFORM** 20  
3/4" = 1'-0"



**SECTION THROUGH EQUIPMENT PLATFORM** 18  
3/4" = 1'-0"



**SECTION AT CONTINUOUS WALL** 17  
3/4" = 1'-0"

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 05/08/2024

PTN: 63321- FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



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**TYPICAL DETAILS**

MARK	DATE	REVISIONS
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△		
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JOB NO. J21324  
DRAWN: JAMA  
CHECKED: JAMA  
DATE: 11/08/23

**S**  
1.1  
OF SHEETS

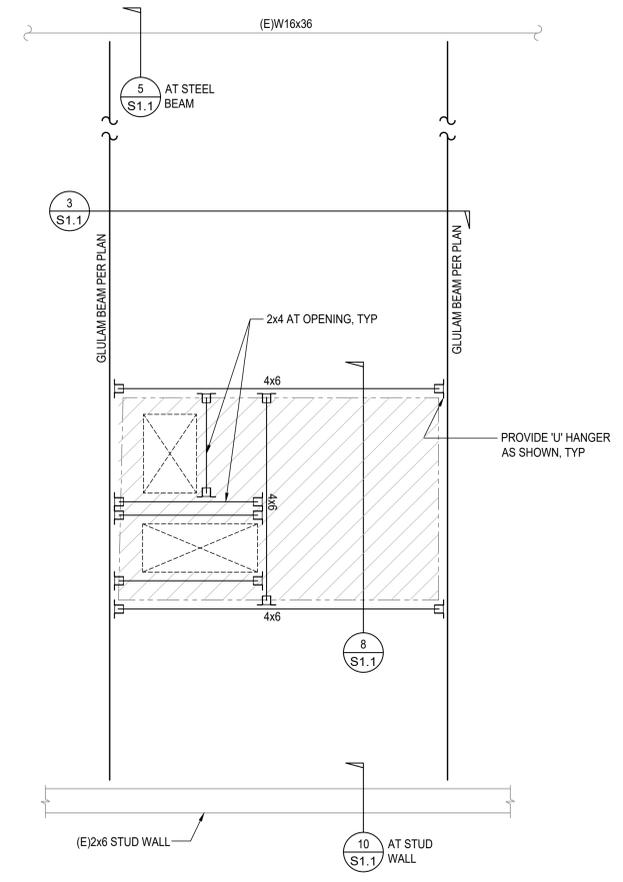
**MARTIN & ASSOCIATES**  
JOHN A. MARTIN & ASSOCIATES  
Structural Engineers  
990 S. Grand Avenue  
Los Angeles, Calif. 90015  
Phone (213) 483-6490  
Fax (213) 483-3084  
J21324

DATE SIGNED: 11/08/2023

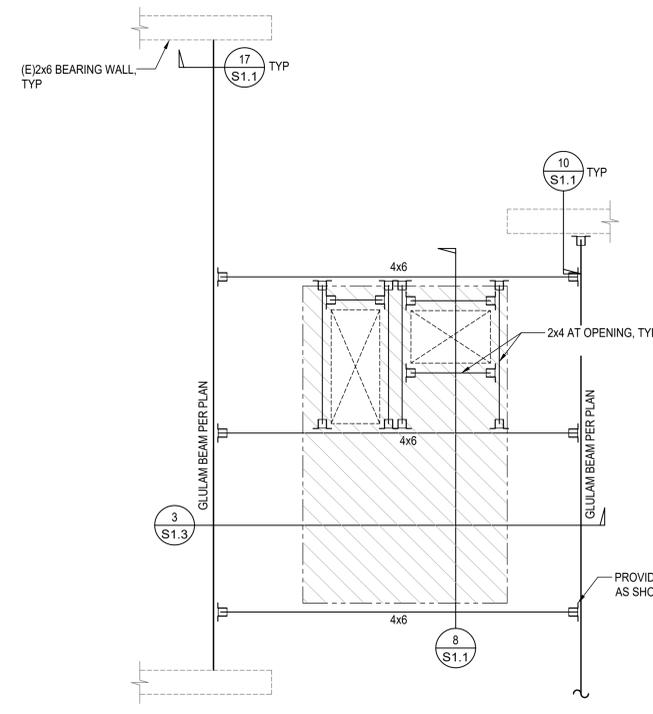


**TYPICAL DETAILS**

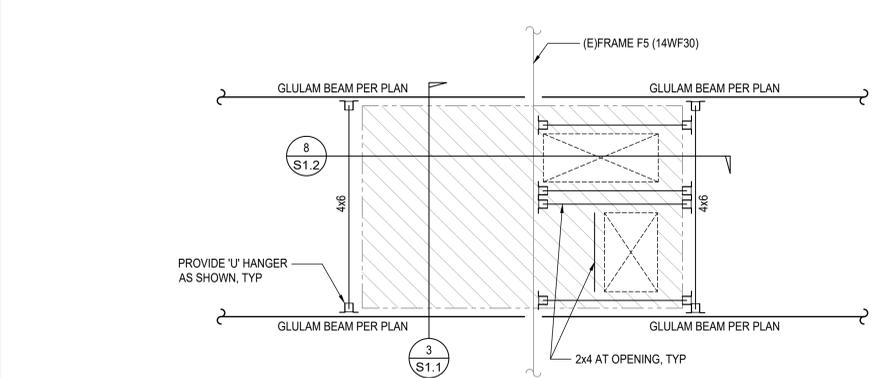
MARK	DATE	REVISIONS
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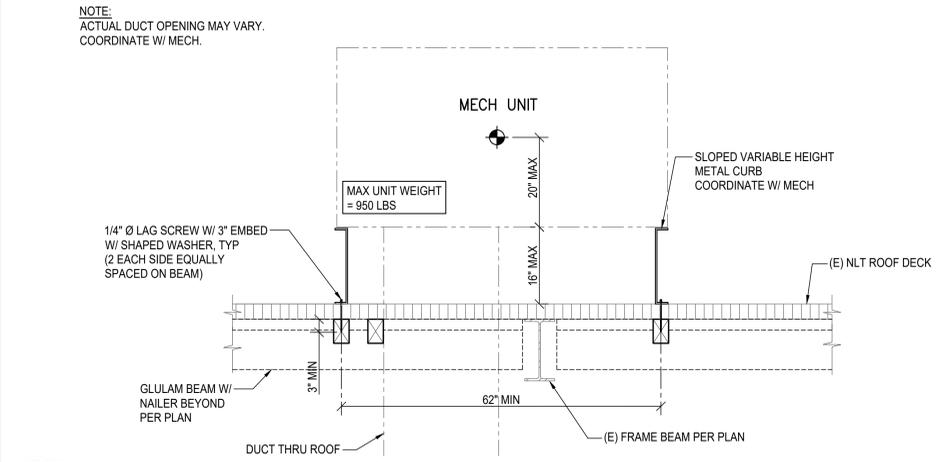
**PARTIAL FRAMING PLAN AT MECHANICAL UNIT**  
 3/4" = 1'-0"



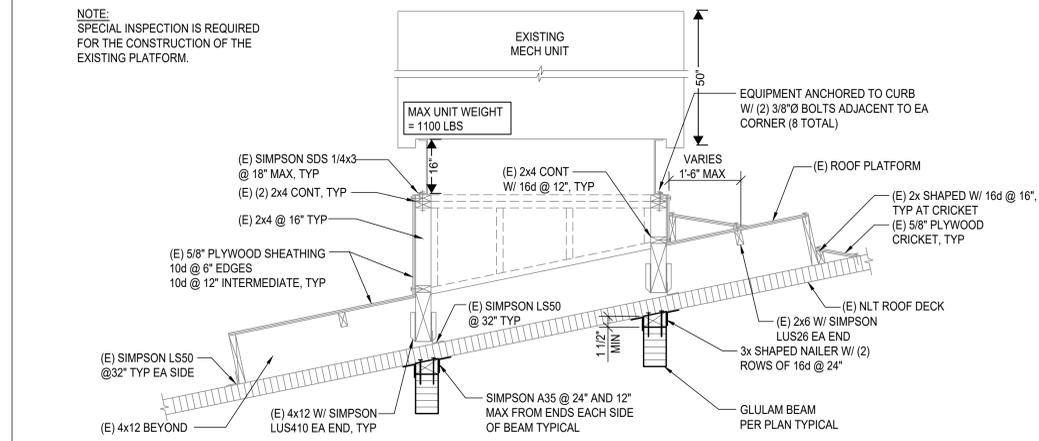
**PARTIAL FRAMING PLAN AT MECHANICAL UNIT**  
 3/4" = 1'-0"



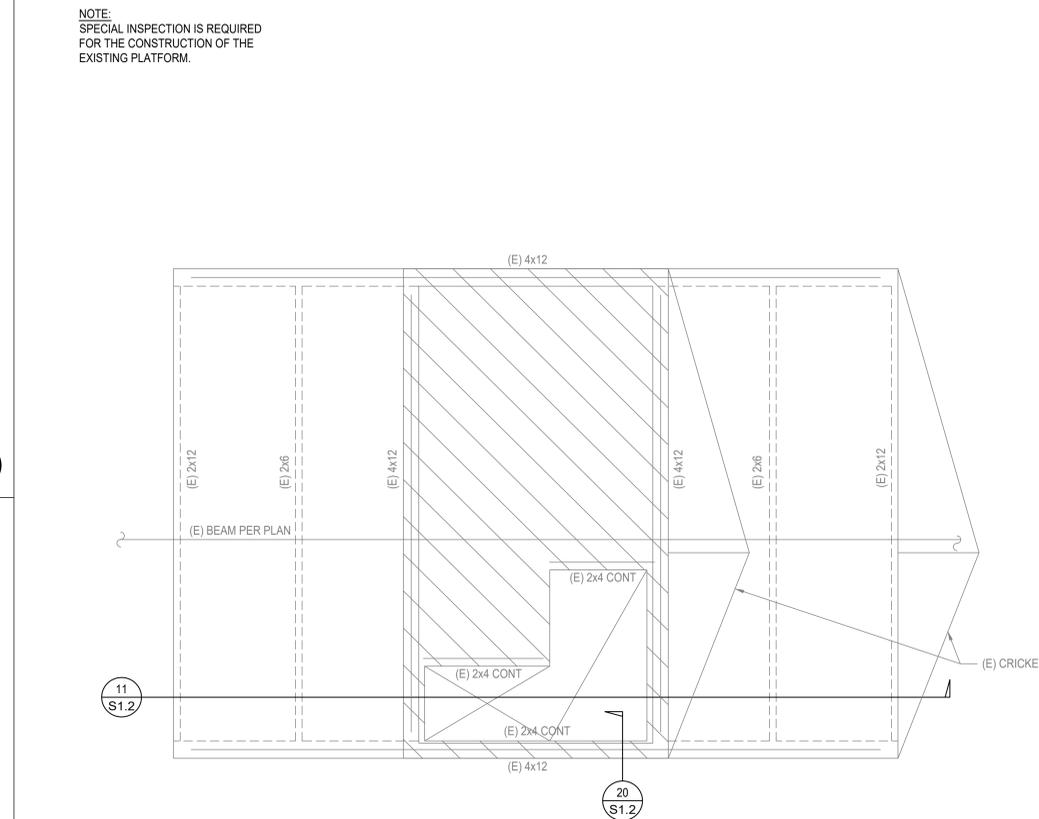
**SECTION**  
 3/4" = 1'-0"



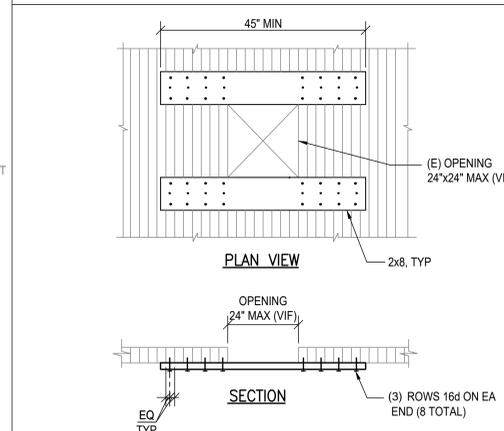
**SECTION**  
 3/4" = 1'-0"



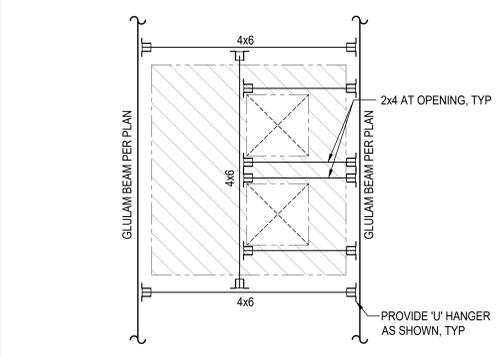
**SECTION AT EXISTING MECHANICAL PLATFORM**  
 3/4" = 1'-0"



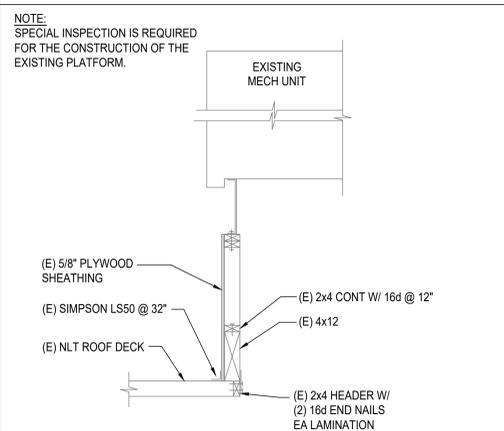
**CERTIFICATION OF NON-CONFORMING EXISTING MECHANICAL PLATFORM FRAMING PLAN**  
 3/4" = 1'-0"



**TYPICAL DECK OPENING REINFORCEMENT**  
 3/4" = 1'-0"

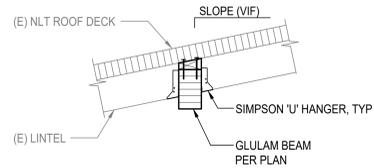


**PARTIAL FRAMING PLAN AT MECHANICAL UNIT**  
 3/4" = 1'-0"

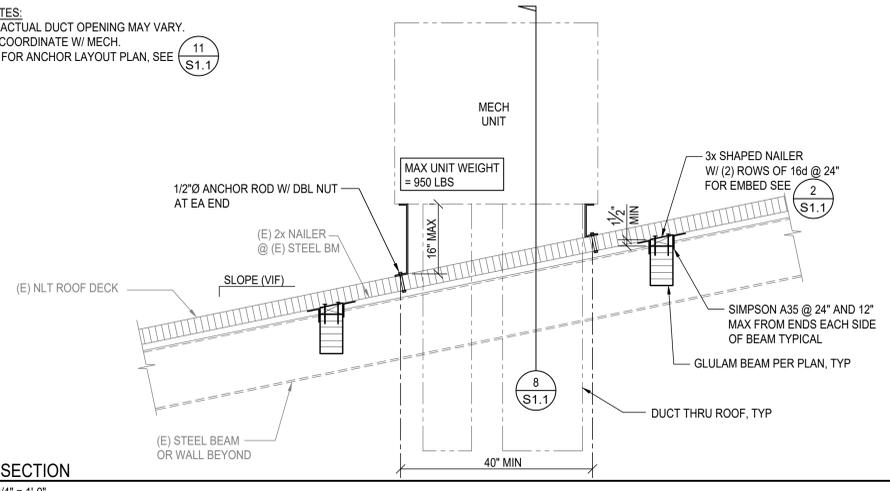


**SECTION AT EXISTING CURB**  
 3/4" = 1'-0"





NOTES:  
 1. ACTUAL DUCT OPENING MAY VARY. COORDINATE W/ MECH.  
 2. FOR ANCHOR LAYOUT PLAN, SEE 11 S1.1

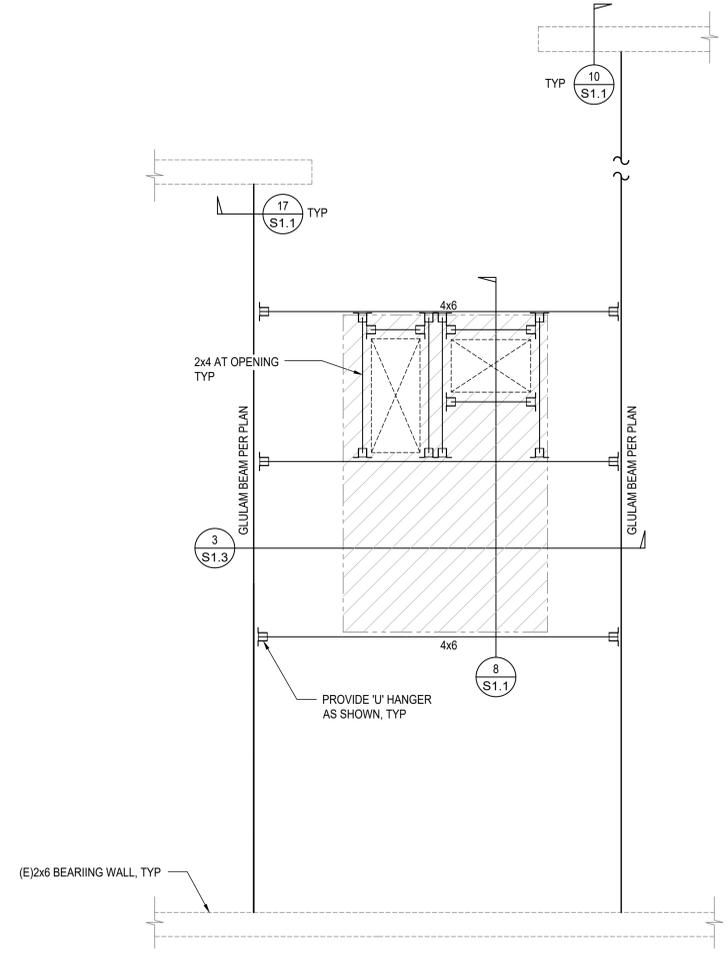


EXISTING BEAM CONNECTION DETAIL  
 3/4" = 1'-0"

5

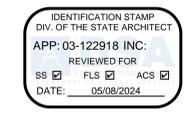
SECTION  
 3/4" = 1'-0"

3



PARTIAL FRAMING PLAN AT MECHANICAL UNIT  
 3/4" = 1'-0"

6



PTN: 63321- FILE: 15-6

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1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
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TYPICAL  
 DETAILS

MARK	DATE	REVISIONS
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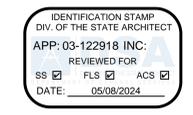
**MARTIN & ASSOCIATES**  
 JOHN A. MARTIN & ASSOCIATES  
 Structural Engineers  
 990 S. Grand Avenue  
 Los Angeles, Calif. 90015  
 Phone (213) 483-6490  
 Fax (213) 483-3084  
 J21324

JOB NO.  
 J21324  
 DRAWN:  
 JAMA  
 CHECKED:  
 JAMA  
 DATE:  
 11/08/23

**S**  
 1.3  
 OF SHEETS

**FRAMING NOTES**

- REFER TO GENERAL NOTES AND TYPICAL DETAILS ON SHEETS S0.1 AND S1.1.
- REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- REFER TO AND CHECK WITH MECHANICAL DRAWINGS FOR DUCT OPENINGS, EQUIPMENT SIZE AND LOCATION, ETC. LOCATE SUPPORTING MEMBERS ACCORDINGLY.
-  HATCHED AREA INDICATES MECHANICAL UNIT. COORDINATE LOCATION WITH MECHANICAL DRAWINGS.



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**PARTIAL ROOF FRAMING PLAN**

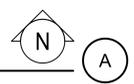
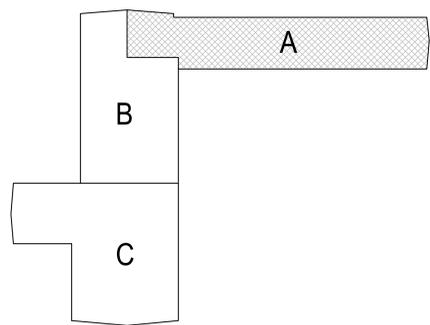
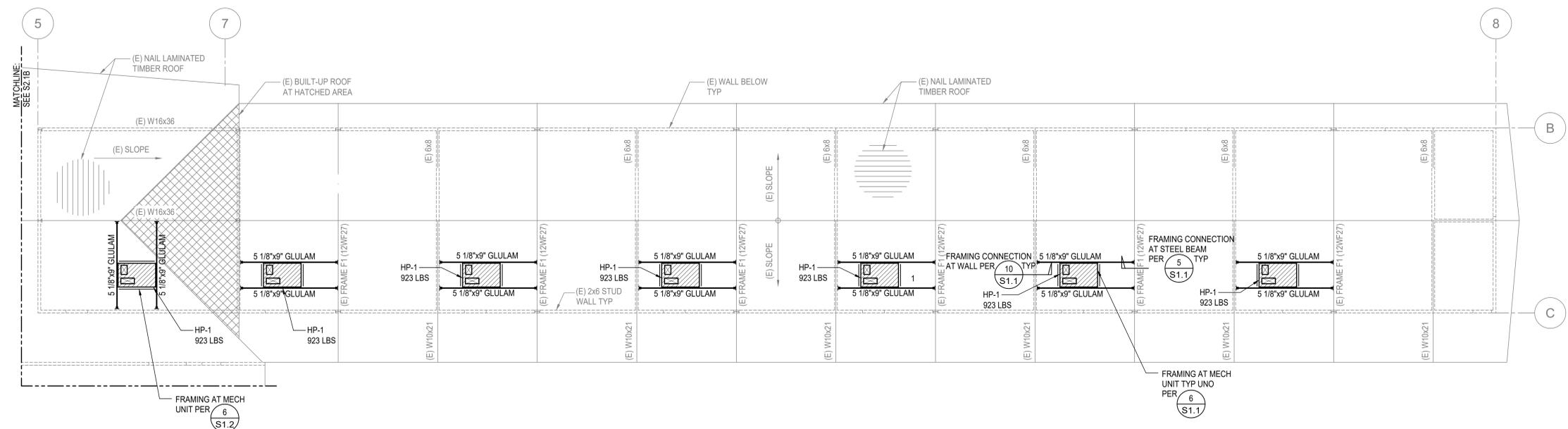
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CHECKED: JAMA	
DATE: 11/08/23	

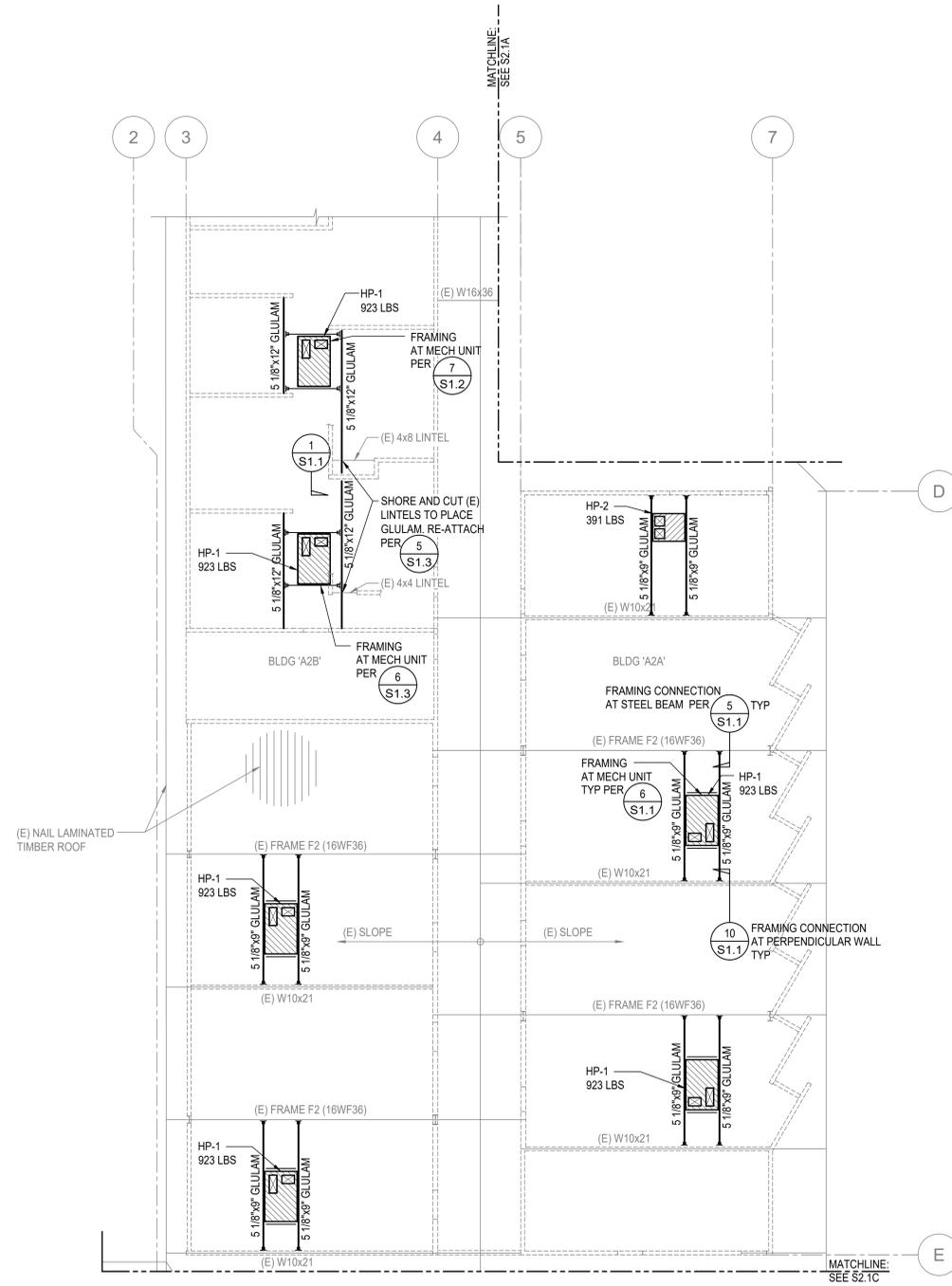
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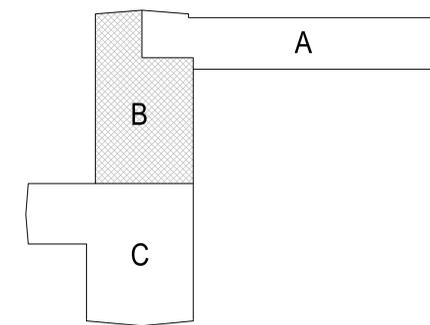
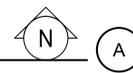
**MARTIN & ASSOCIATES**  
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**ROOF PLAN UNIT 'A1'**  
1/8" = 1'-0"



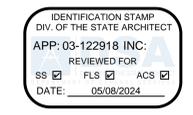
ROOF PLAN BUILDING 'A2A' AND 'A2B'  
1/8" = 1'-0"



KEY PLAN

**FRAMING NOTES**

- REFER TO GENERAL NOTES AND TYPICAL DETAILS ON SHEETS S0.1 AND S1.1.
- REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- REFER TO AND CHECK WITH MECHANICAL DRAWINGS FOR DUCT OPENINGS, EQUIPMENT SIZE AND LOCATION, ETC. LOCATE SUPPORTING MEMBERS ACCORDINGLY.
- HATCHED AREA INDICATES MECHANICAL UNIT. COORDINATE LOCATION WITH MECHANICAL DRAWINGS.



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BAKERSFIELD, CA 93309  
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**PARTIAL ROOF FRAMING PLAN**

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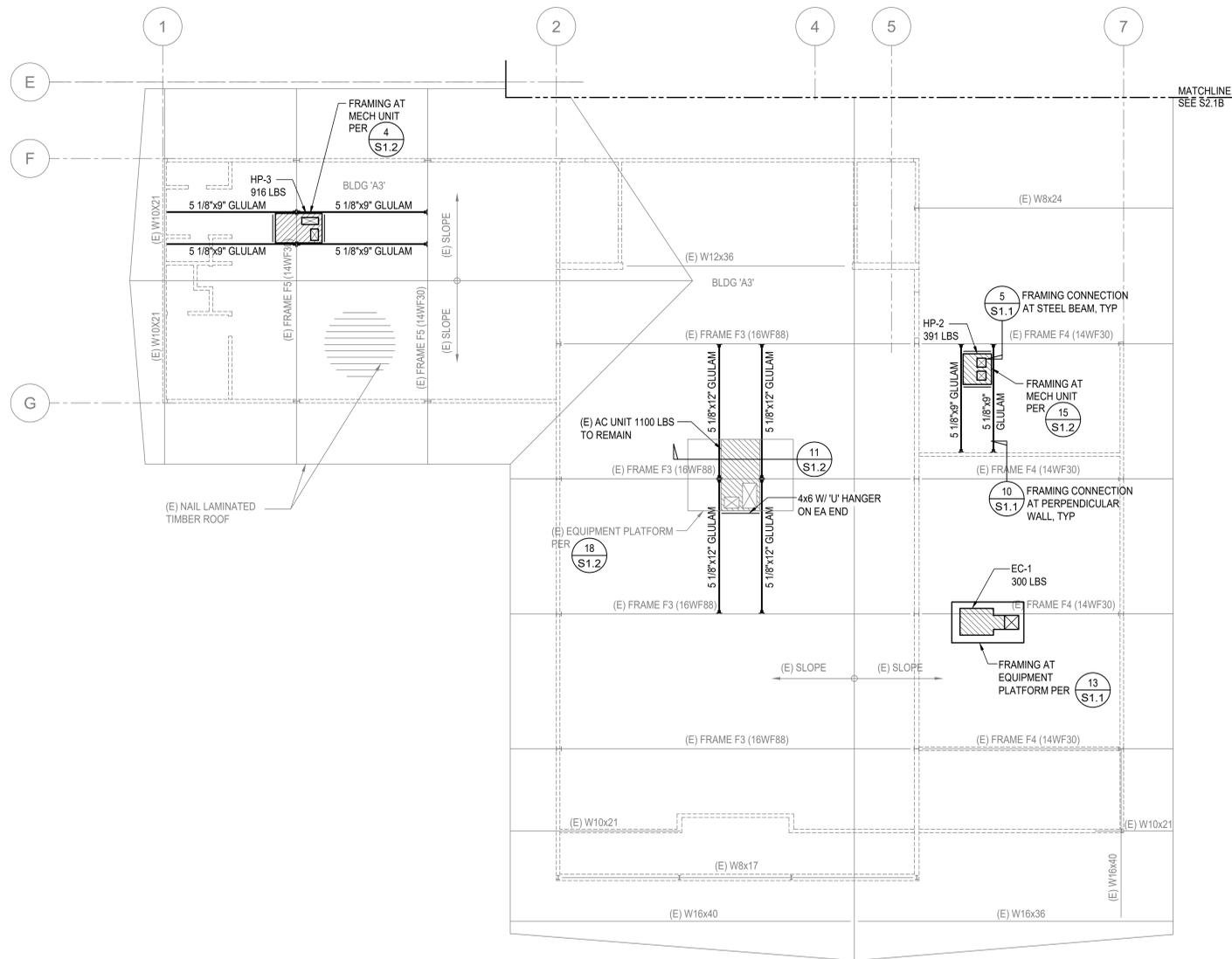
DATE:  
11/08/23



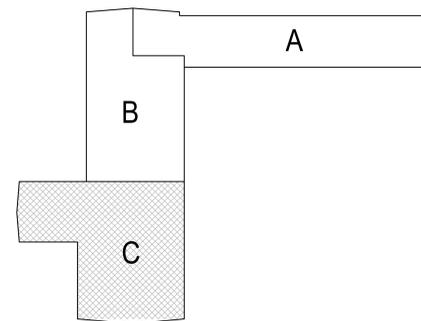
**MARTIN & ASSOCIATES**  
John A. Martin & Associates  
Structural Engineers  
990 S. Grand Avenue  
Los Angeles, Calif. 90015  
Phone (213) 483-6490  
Fax (213) 483-3084  
J21324



**2.1B**  
OF SHEETS



ROOF PLAN BUILDING 'A3'  
1/8" = 1'-0"



KEY PLAN

FRAMING NOTES

- REFER TO GENERAL NOTES AND TYPICAL DETAILS ON SHEETS S0.1 AND S1.1.
- REFER TO AND CHECK WITH ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- REFER TO AND CHECK WITH MECHANICAL DRAWINGS FOR DUCT OPENINGS, EQUIPMENT SIZE AND LOCATION, ETC. LOCATE SUPPORTING MEMBERS ACCORDINGLY.
- HATCHED AREA INDICATES MECHANICAL UNIT. COORDINATE LOCATION WITH MECHANICAL DRAWINGS.



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PARTIAL ROOF FRAMING PLAN

MARK	DATE	REVISIONS
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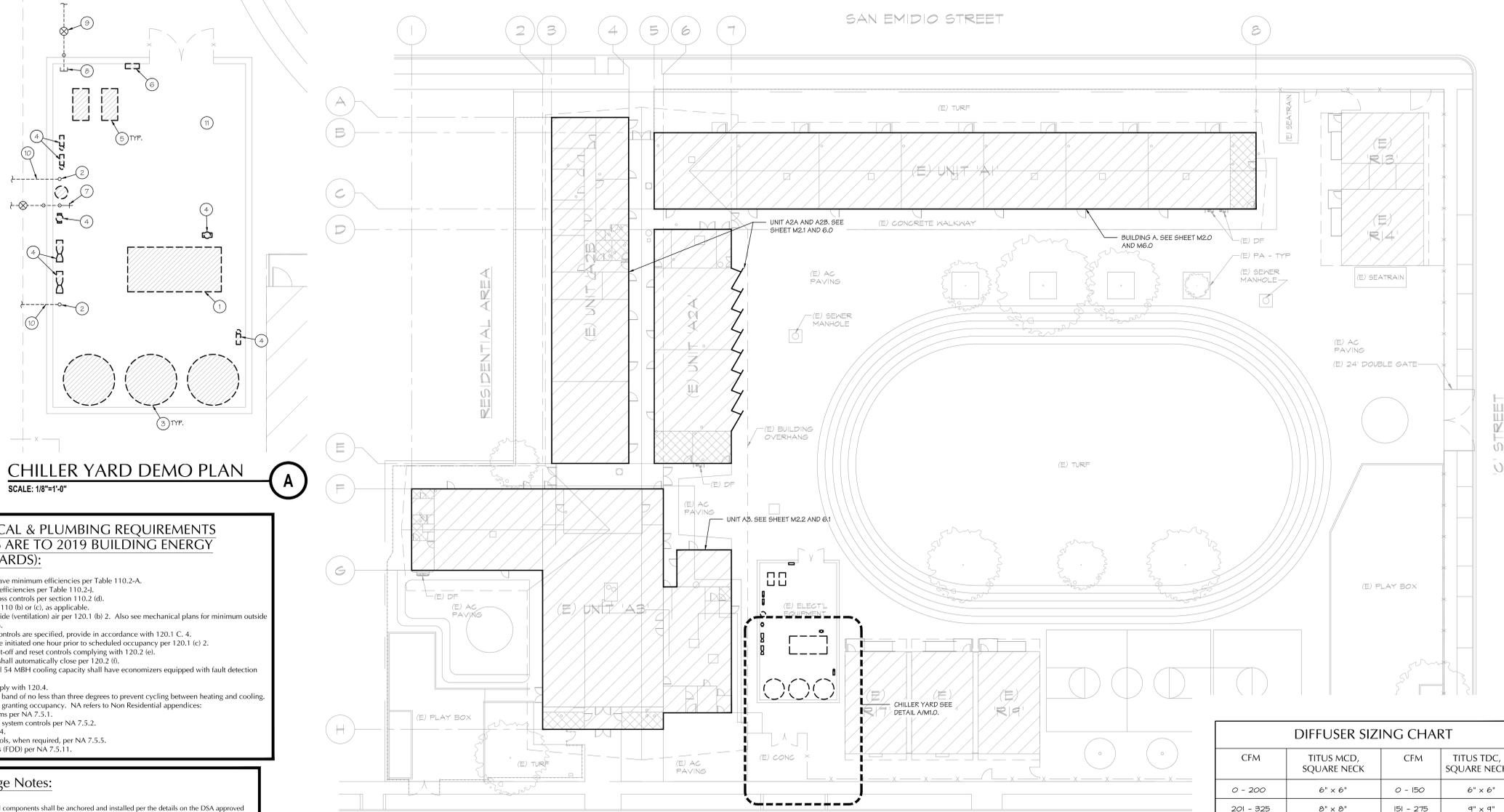
JOB NO.: J21324  
DRAWN: JAMA  
CHECKED: JAMA  
DATE: 11/08/23

**S**  
**2.1C**  
OF SHEETS



JOHN A. MARTIN & ASSOCIATES  
Structural Engineers  
990 S. Grand Avenue  
Los Angeles, Calif. 90015  
Phone (213) 483-6490  
Fax (213) 483-3084  
J21324

- Central Plant Demo Keynotes:**
1. Remove existing chillers, all chilled water piping, hangers, supports, etc.
  2. Cap chilled / hot water piping at 6" above grade.
  3. Remove existing thermal storage tanks, all piping supports, etc.
  4. Remove all existing pumps, expansion tanks, pot/feser, supports, accessories, etc.
  5. Remove existing boiler, all hot water piping, supports, etc.
  6. Remove existing EMS panel, all related conduits, wiring, controls, etc.
  7. Demo back domestic CW pipe back to hose bibb inside yard and cap.
  8. Demo back gas to 6" inside mechanical yard and cap.
  9. Close existing gas S.O.V.
  10. Existing below grade piping to be abandoned in place.
  11. Note: Entire central plant yard shall be made free of all mechanical, plumbing, electrical, and control items related to items being removed. Confirm exact details based on field conditions.



**CHILLER YARD DEMO PLAN**  
SCALE: 1/8"=1'-0"

**TITLE 24 MECHANICAL & PLUMBING REQUIREMENTS (CODE REFERENCES ARE TO 2019 BUILDING ENERGY EFFICIENCY STANDARDS):**

1. All air cooled HVAC units shall have minimum efficiencies per Table 110.2-A.
2. All furnaces shall have minimum efficiencies per Table 110.2-4.
3. All furnaces shall have stand-by loss controls per section 110.2 (d).
4. All thermostats shall comply with 110 (b) or (c), as applicable.
5. All HVAC systems shall have outside (ventilation) air per 120.1 (b) 2. Also see mechanical plans for minimum outside air settings. Refer to table on plan.
6. When CO2 ventilation demand controls are specified, provide in accordance with 120.1 C, 4.
7. Minimum ventilation rates shall be initiated one hour prior to scheduled occupancy per 120.1 (c) 2.
8. Each HVAC system shall have shut-off and reset controls complying with 120.2 (e).
9. All outside and exhaust dampers shall automatically close per 120.2 (f).
10. All systems greater than a nominal 54 MBH cooling capacity shall have economizers equipped with fault detection and diagnostics per 120.2 (i).
11. All ductwork insulation shall comply with 120.4.
12. Set up all thermostats with a dead band of no less than three degrees to prevent cycling between heating and cooling.
13. Acceptance tests required prior to granting occupancy. NA refers to Non Residential appendices:
  - Outdoor air ventilation systems per NA 7.5.1.
  - Constant volume single zone system controls per NA 7.5.2.
  - Air economizers per NA 7.5.4.
  - Demand control (CO2) controls, when required, per NA 7.5.5.
  - Fault Detection & Diagnostics (FDD) per NA 7.5.11.

**Equipment Anchorage Notes:**

All Mechanical, Plumbing, and Electrical components shall be anchored and installed per the details on the DSA approved construction documents. The following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2019 CBC, Sections 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapters 13, 26 and 30.

1. All permanent equipment and components.
2. Temporary, movable or mobile equipment that is permanently attached (E.G. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical connections except plugs for 110/220 volt receptacles having a flexible cable.
3. Temporary, movable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component are 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:

- A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.
- B. Components weighing less than 30 pounds, or in the case of distributed systems, less than 5 pounds per foot, which are suspended from a roof or floor or hung from a wall.

The anchorage of all Mechanical, Electrical and Plumbing components shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and acceptance by DSA. The project inspector will verify that all components and equipment have been anchored in accordance with 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 13.3 as defined in ASCE 7-16 Section 13.6.5, 13.6.6, 13.6.7, 13.6.8, and 2019 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution system are as noted below. When bracing and attachments are based on a pre-approved installation guide (e.g., OSHPD OPM for 2013 CBC or later), copies of the bracing structure installation guide or manual shall be available on the jobsite prior to the start of and during the hanging and bracing of the distribution systems. The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

MP  MD  PP  E

Option 1: Detailed on the approved drawings with project specific notes and details

MP  MD  PP  E  # \_\_\_\_\_

Option 2: Shall comply with the applicable OSHPD Pre-Approval (OPM#)

- Codes:**
- California Code of Regulations (C.C.R.)
  - Part 1 - 2022 California Standards Administrative Code, Title 24, C.C.R.
  - Part 2 - 2019 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3.
  - Part 3 - 2019 California Electrical Code, Title 24, C.C.R.
  - Part 4 - 2019 California Mechanical Code (C.M.C.), Title 24, C.C.R.
  - Part 5 - 2019 California Plumbing Code (C.P.C.), Title 24, C.C.R.
  - Part 6 - 2019 California Energy Code, Title 24, C.C.R.
  - Part 9 - 2019 California Fire Code, Title 24, C.C.R.
  - Part 11 - 2019 California Green Code, Title 24, C.C.R.
- Standards and Guides:**
- ADAAG - American with Disabilities Act, Accessibility Guidelines.
  - Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2019 Edition.

**EQUIPMENT SCHEDULE**

- HP-1**  
Carrier 50VTCQ06 Rooftop Heat Pump, 1,800 CFM @ 0.60 E.S.P., 0.66 BHP direct drive supply fan drive vane-axial fan with electrically commutated motor, 1,200 CFM low speed (staged air volume), 61,300 BTUH total / 46,320 sensible gross cooling / 54,860 heating capacity / 16.2 SEER / 11.7 EER / 8.3 HSPF at ARI conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. (4) 16" x 16" x 2" MERV 13 return air filters, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans. Include information on both settings in air balance report. Provide separate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with seismic hold down clips, internal high and low compressor protection.
- Electrical: 26 MCA / 30 MOCP @ 460v-3ph. (HP Unit) Operating Weight: 816 Lbs.  
1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust) Curb: 107 lbs.
- HP-2**  
Carrier 50VTC24 Rooftop Heat Pump, 700 CFM @ 0.40 E.S.P., 0.38 BHP direct drive supply fan motor, 22,620 BTUH total / 16,730 sensible net cooling / 22,380 heating capacity / 14.5 SEER / 8.2 HSPF at ARI conditions. Single stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. 2" Deep MERV 13 return air filters in factory filter rack. 3.8 kW electric strip heater, factory mounted and wired, single point power connection for heat pump and strip heater. Motorized two-position outside air damper. Sloped roof curb with seismic hold down clips internal high and low compressor protection.
- Electrical: 43.9 MCA / 45 MOCP @ 208v-1ph. (HP Unit) Operating Weight: 326 Lbs.  
1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust) Curb: 107 lbs.
- HP-3**  
Carrier 50VTC07 Rooftop Heat Pump, 2,100 CFM @ 0.60 E.S.P., 0.83 direct drive supply fan drive vane-axial fan with electrically commutated motor, 1,400 CFM low speed (staged air volume), 73,450 BTUH total / 55,300 sensible gross cooling / 63,550 heating capacity / 11.2 EER / 15.0 IER / 3.6 COP at ARI conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. (4) 16" x 16" x 2" MERV 13 return air filters, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans. Include information on both settings in air balance report. Provide separate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with seismic hold down clips, internal high and low compressor protection.
- Electrical: 23 MCA / 25 MOCP @ 460v-3ph. (HP Unit) Operating Weight: 809 Lbs.  
3.5 MCA / 6.3 MOCP @ 460v-3ph. (Power Exhaust) Curb: 107 lbs.
- EC-1**  
Master Cool ASA7112 Evaporative Cooler. Side discharge, 12" Celdek Media, 4400 CFM @ 0.30" E.S.P., adjustable belt drive fan, float valve, overflow drain. Field supplied pump purge with timer (set to drain every eight hours).
- Electrical: 1 HP @ 115v-1ph. Operating Weight: 300 Lbs.
- EF-1**  
Greenheck CUE-09S-VG Centrifugal Uplift Roof Mounted Exhaust Fan, 250 CFM @ 0.50" E.S.P., 1319 RPM, .06 BHP, 6.7 sones, 1/6 HP direct drive ECM motor. Provide with sloped roof curb, backdraft damper, dial on motor for balancing, bird screen, and NEMA-1 toggle switch. Interlock fan operation with Pelican EMS system. See detail FM1.10.
- Electrical: 1/6 HP @ 115v-1ph. Operating Weight: 36 Lbs.
- EF-2**  
Greenheck SPA-50-90-VG Ceiling Mounted Exhaust Fan, 90 CFM @ 0.20" E.S.P., 887 RPM, 6 watts ECM motor, 0.7 sones. Provide with backdraft damper, full size discharge to roof cap, and NEMA-1 toggle switch. Interlock fan operation with light circuit. Dial on fan speed control with delay set to fifteen minutes.
- Electrical: 6 Watts @ 115v-1ph. Operating Weight: 12 Lbs.

**MECHANICAL SITE PLAN**  
SCALE: 1"=20'-0"

**GRILLE SCHEDULE**

- CD-1**  
Titus Model TDC Louvered Face Diffuser with T-Bar mount frame and O.B.D. See diffuser sizing chart for neck sizes.
- CD-2**  
Titus Model TDC Louvered Face Diffuser with flat surface mount frame and O.B.D. See diffuser sizing chart for neck size.
- HS-1**  
Titus Model 300RL double deflection wall mounted supply grille O.B.D.
- CR-1**  
Titus Model 50F egrate T-Bar mount return grille.
- CR-2**  
Titus Model 50F egrate surface mount return grille.
- WR-1**  
Titus Model 350ZRL with zero degrees deflection, wall mounted return grille.
- CE-1**  
Titus Model 35RL, 35 degree deflection, surface mounting frame. O.B.D.
- Note: Paint all visible surfaces behind diffusers and grilles flat black.

**General Project Note:**

1. Coordination of work: Layout of materials, equipment and systems is generally diagrammatic unless specifically dimensioned. Some work may be shown offset for clarity. The actual location of all materials, piping, ductwork, fixtures, equipment, supports, etc. shall be carefully planned, prior to installation of any work to avoid all interferences with each other, or with structural, electrical, architectural or other elements. Verify the proper voltage and phase of all equipment with the electrical plans. All conflicts shall be called to the attention of the architect and the engineer prior to the installation of any work or the ordering of any equipment.
2. Cutting, boring, saw cutting or drilling through the new or existing structural elements to be done only when so detailed in the drawings or accepted by the Architect and Structural engineer with the approval of DSA representative.

The California Energy Code Section 10-103 requires Acceptance Testing on all newly installed lighting controls, mechanical systems, envelopes, and process equipment after installation and before project completion. An Acceptance Test is a functional performance test to help ensure that newly installed equipment is operating and in compliance with the Energy Code.

Lighting controls acceptance tests must be performed by a certified lighting controls Acceptance Test Technician (ATT).

Mechanical system acceptance tests must be performed by a certified mechanical ATT for projects submitted on or after October 1, 2021.

Envelope and process equipment acceptance tests shall be performed by the installing contractor, engineer/architect of record or the owner's agent.

A listing of certified ATT can be found at: <https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-program/acceptance>

The Acceptance Testing procedures must be repeated, and deficiencies must be corrected by the builder or installing contractor until the construction/installation of the specified systems conform and pass the required acceptance criteria.

Project inspectors will collect the forms to confirm that the required Acceptance Tests have been completed.

**DIFFUSER SIZING CHART**

CFM	TITUS MCD, SQUARE NECK	CFM	TITUS TDC, SQUARE NECK
0 - 200	6" x 6"	0 - 150	6" x 6"
201 - 325	8" x 8"	151 - 275	9" x 9"
326 - 450	10" x 10"	276 - 475	12" x 12"
451 - 600	12" x 12"	476 - 700	15" x 15"
601 - 700	14" x 14"	701 - 950	18" x 18"
701 - 850	16" x 16"	951 - 1250	21" x 21"
851 - 950	18" x 18"	1251 - 1700	24" x 24"
951 - 1150	20" x 20"	1701 - 2500	30" x 30"

**Air Conditioning Legend**

SYMBOL	ABBREV	ITEM	SYMBOL	ABBREV	ITEM
AC	AC	Air Conditioning	H.W.R.	H.W.R.	Heating Water Return
A.F.F.	A.F.F.	Access Floor	NT	NT	Normal Temperature
B.A.S.	B.A.S.	Below Finished Floor	LOC	LOC	Location
B.H.	B.H.	Building Automation System	M.O.	M.O.	Motor Operated
B.V.	B.V.	Butterfly Valve	(N)	(N)	Normally Closed
C.D.	C.D.	Condensate Drain	N.C.	N.C.	Normally Closed
C.E.	C.E.	Coil Exhaust	N.O.	N.O.	Normally Open
C.H.W.	C.H.W.	Chilled Water Return	N.D.S.A.	N.D.S.A.	Outside Air
C.H.W.S.	C.H.W.S.	Chilled Water Supply	O.B.D.	O.B.D.	Outside Blade Damper
CONV.	CONV.	Convective	P.D.C.	P.D.C.	Point of Connection
CONN.	CONN.	Connection	P.F.	P.F.	Pressure Plug
CONT.	CONT.	Control	PROV.	PROV.	Provide
C.R.	C.R.	Ceiling Return Register	P.R.V.	P.R.V.	Pressure Reducing Valve
C.V.	C.V.	Check Valve	S.M.	S.M.	Smoke / Fire Damper w/ access panel
C.W.	C.W.	Domestic Cold Water	S.F.D.	S.F.D.	Sheet Metal
D.A.	D.A.	Damper	S.O.V.	S.O.V.	Shut Off Valve
D.C.M.	D.C.M.	Door Closure Mechanism	S.P.F.T.	S.P.F.T.	Single Pipe Single Throw
D.N.	D.N.	Down	STAT	STAT	Terminal or Room Sensor
D.P.D.T.	D.P.D.T.	Double Pipe Double Throw	SURF.	SURF.	Surface
D.T.F.	D.T.F.	Duct Through Roof	(TYP)	(TYP)	Typical
E.F.	E.F.	Exhaust Fan	UG.	UG.	Underground
E.M.S.	E.M.S.	Emergency Management System	UNO.	UNO.	Unions Noted Otherwise
E.O.	E.O.	Exhaust	V.D.	V.D.	Volume Damper
F.D.	F.D.	Fire Damper w/ acc. panel	V.R.	V.R.	Wall Return Operator
F.F.C.	F.F.C.	Flue Through Roof	W.R.	W.R.	Wall Register
F.P.	F.P.	Furnace	W.S.	W.S.	Wall Supply Register
G.A.	G.A.	Gauge	W.D.	W.D.	Wall Damper w/ Remote Operator
G.H.	G.H.	Gutter	W.D.	W.D.	Wall Damper w/ Remote Operator
G.H.V.	G.H.V.	Galvanized	W.D.	W.D.	Wall Damper w/ Remote Operator
G.P.M.	G.P.M.	Gallons per Minute	W.D.	W.D.	Wall Damper w/ Remote Operator
G.R.	G.R.	Grade	W.D.	W.D.	Wall Damper w/ Remote Operator
G.V.	G.V.	Gate Valve	W.D.	W.D.	Wall Damper w/ Remote Operator

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APP: 03-122918 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 05/08/2024

PTN: 63321- FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL**  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



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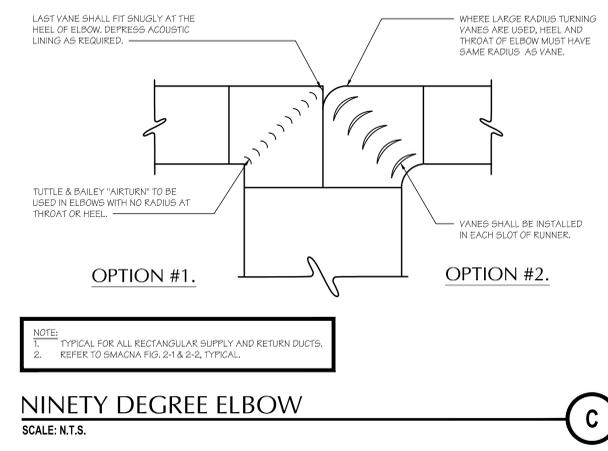
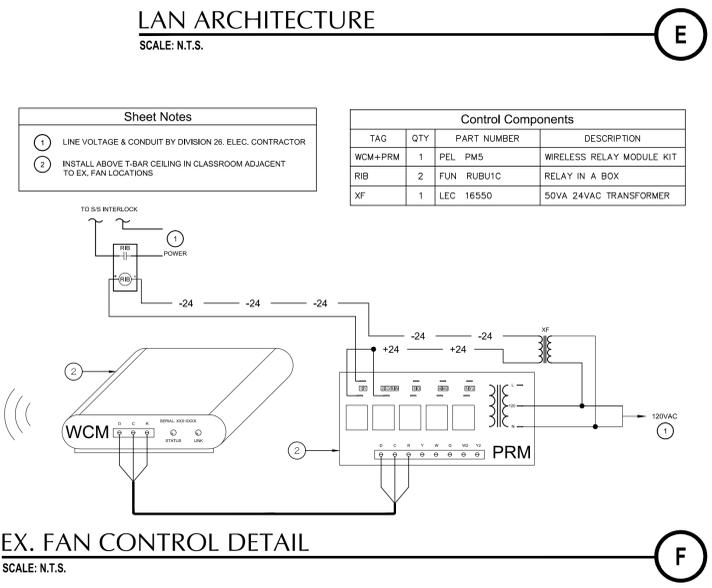
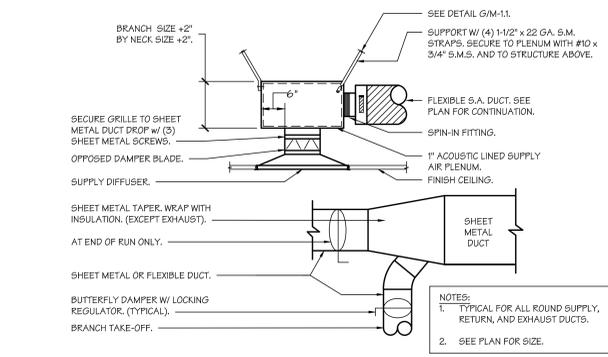
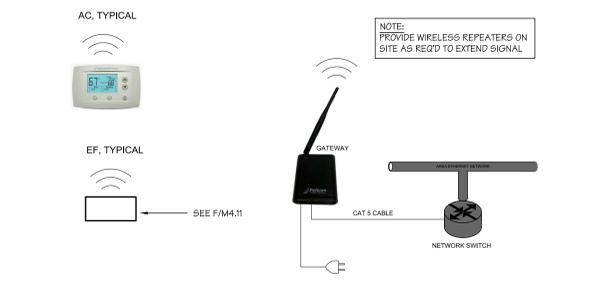
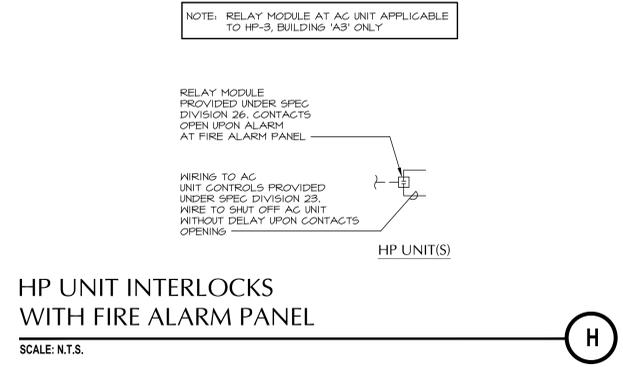
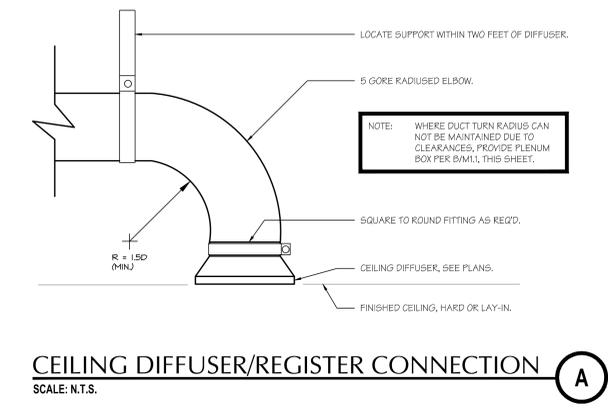
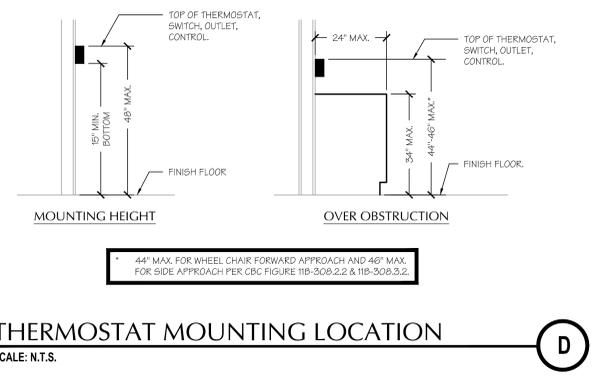
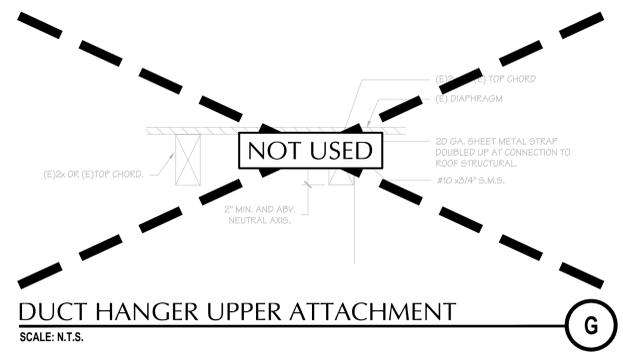
**MECHANICAL SITE PLAN, SCHEDULES, AND NOTES**

MARK	DATE	REVISIONS
1		
2		
3		

JOB NO. 1318  
DRAWN BY: B.S.  
CHECKED BY: M.B.  
DATE: 2/28/22

**M**  
1.0

**bme BASKIN MECHANICAL ENGINEERS**  
175 Fulton Street  
Preston, CA 93721  
Tel: (559) 237-0376  
Job: 21147  
Plt: 4/1/24



**WILLIAM PENN ELEMENTARY SCHOOL**  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
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**MECHANICAL DETAILS**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. <b>1316</b>	<b>M</b>
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DATE: 7/26/21	



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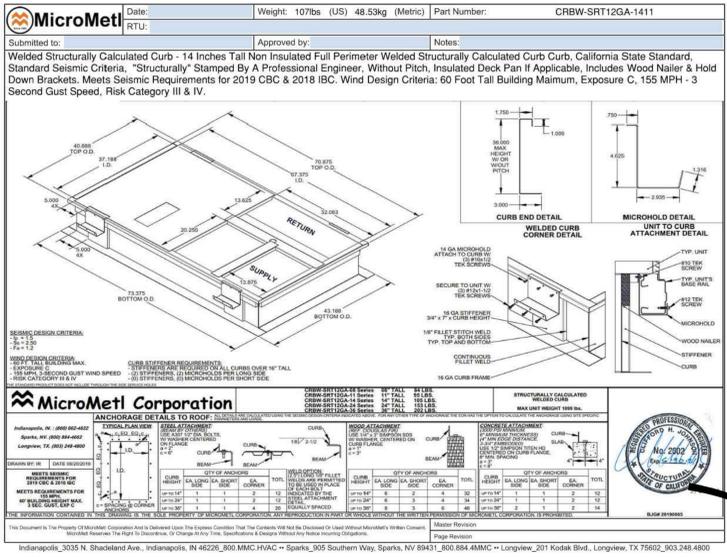
MECHANICAL DETAILS

MARK	DATE	REVISIONS
1		
2		
3		

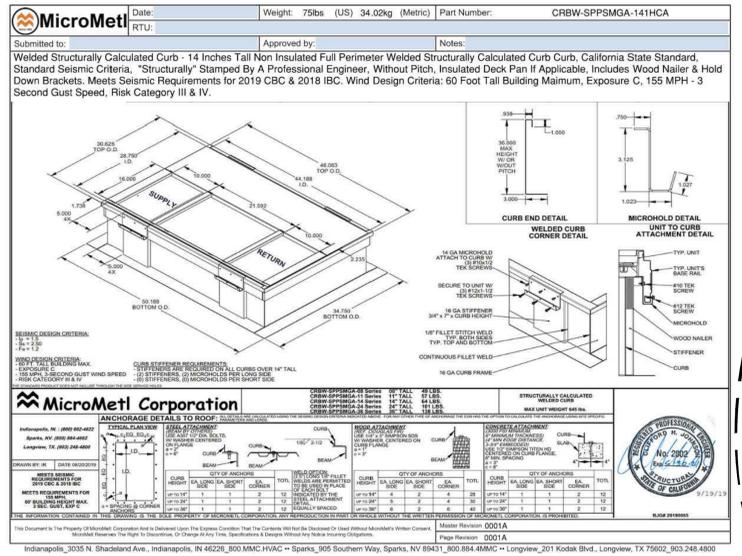
JOB NO.  
 1316  
 DRAWN:  
 B.S.  
 CHECKED:  
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 7/26/21



**bme** BASKIN MECHANICAL ENGINEERS  
 175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 Ptc: 4/1/24

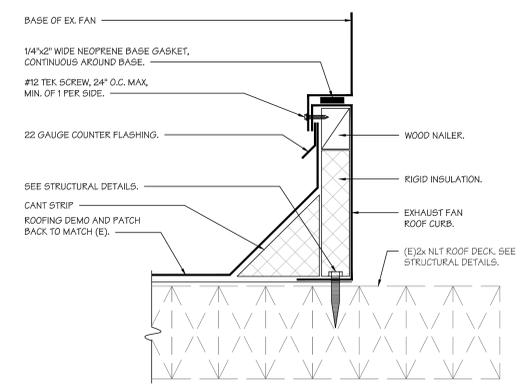


(HP-1,HP-3) UNIT CURB 816 lb. MAX UNIT WT.

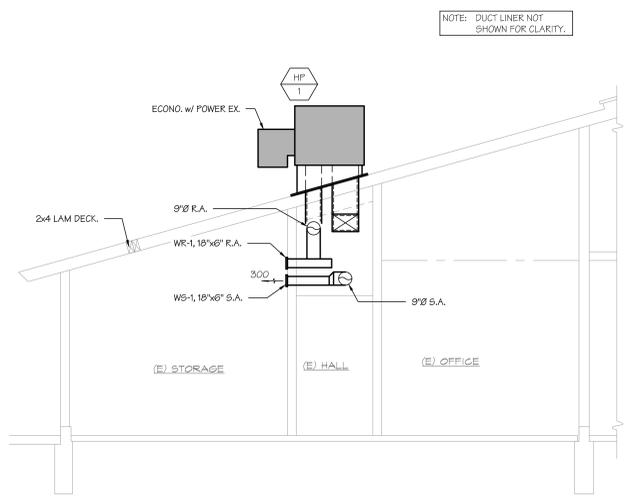


(HP-2) UNIT CURB 326 lb. MAX UNIT WT.

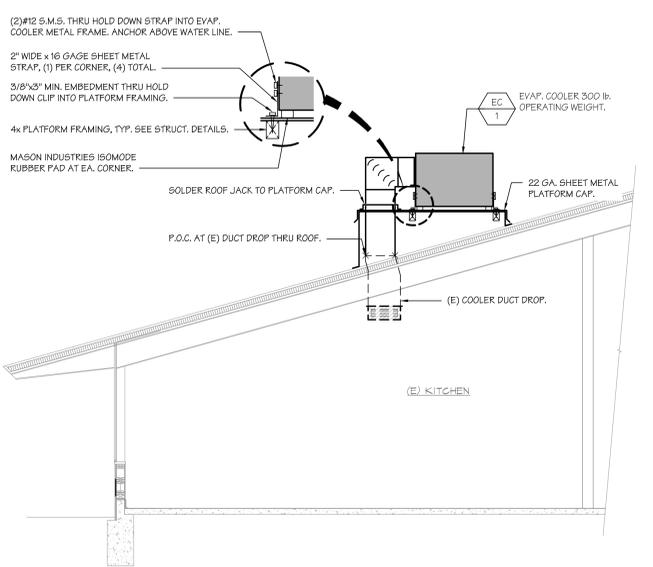
UNIT ANCHORAGE  
 SCALE: N.T.S.



EXHAUST FAN ANCHORAGE  
 SCALE: N.T.S.

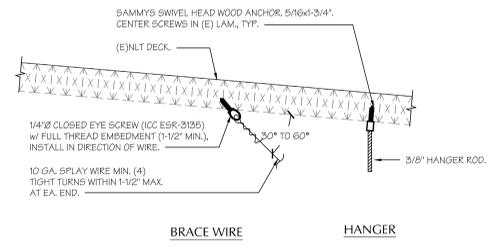


SECTION AT ADMINISTRATION  
 SCALE: 1/4"=1'-0"



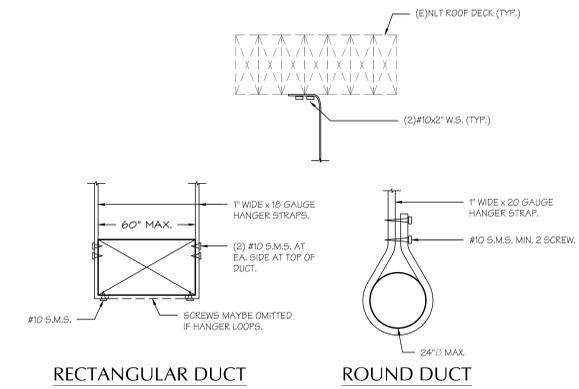
SECTION AT KITCHEN  
 SCALE: 1/4"=1'-0"

B



### HANGING & BRACING UPPER CONNECTIONS D

SCALE: N.T.S.



**ROUND DUCT HANGERS**

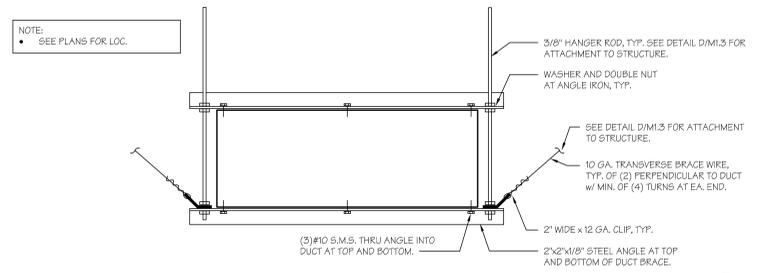
CONSTRUCTION	DIA.	GA.	WEIGHT lb./ft.			MAX SPACING 1"x18 GA. STRAP
			DUCT	1" INS.	TOTAL	
SPIRAL	20"	26	4.74	3.92	8.66	12 ft.
SPIRAL	18"	26	4.26	3.53	7.79	12 ft.
SPIRAL	16"	26	3.79	3.13	6.92	12 ft.
SPIRAL	14"	26	2.29	2.75	5.04	12 ft.
SPIRAL	12"	26	1.96	2.36	4.32	12 ft.
SPIRAL	10"	26	1.64	1.96	3.60	12 ft.
SPIRAL	9"	26	1.47	1.76	3.23	12 ft.
SNAP LOCK	8"	26	1.30	1.57	2.87	12 ft.
SNAP LOCK	6"	26	0.98	1.18	2.16	12 ft.

**RECTANGULAR DUCT HANGERS**

SIZE	GA.	WEIGHT lb./ft.			MAX SPACING (2) 18 GA. STRAP
		DUCT	1" INS.	TOTAL	
18"x6"	26	3.62	2.72	6.34	10 ft.
18"x8"	26	3.92	2.94	6.86	10 ft.
18"x12"	26	4.53	3.35	7.93	10 ft.
18"x14"	26	4.98	3.73	8.72	10 ft.
26"x11"	26	6.17	4.63	10.80	10 ft.

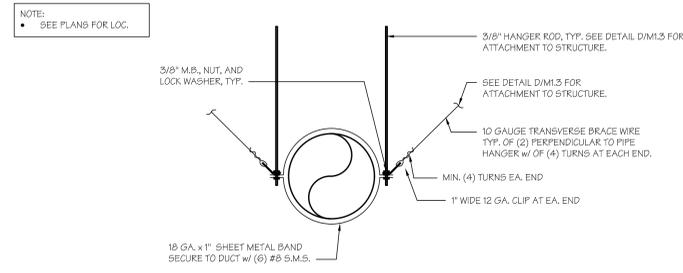
### DUCT HANGERS A

SCALE: N.T.S.



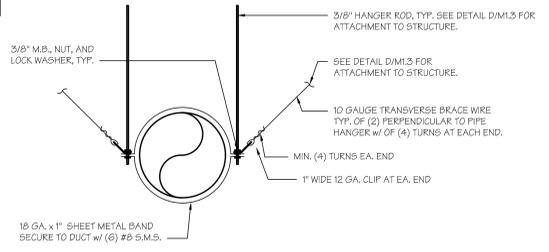
### RECTANGULAR DUCT BRACING B

SCALE: N.T.S.



### ROUND DUCT BRACING C

SCALE: N.T.S.



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1601 NEW STINE ROAD, SUITE 280  
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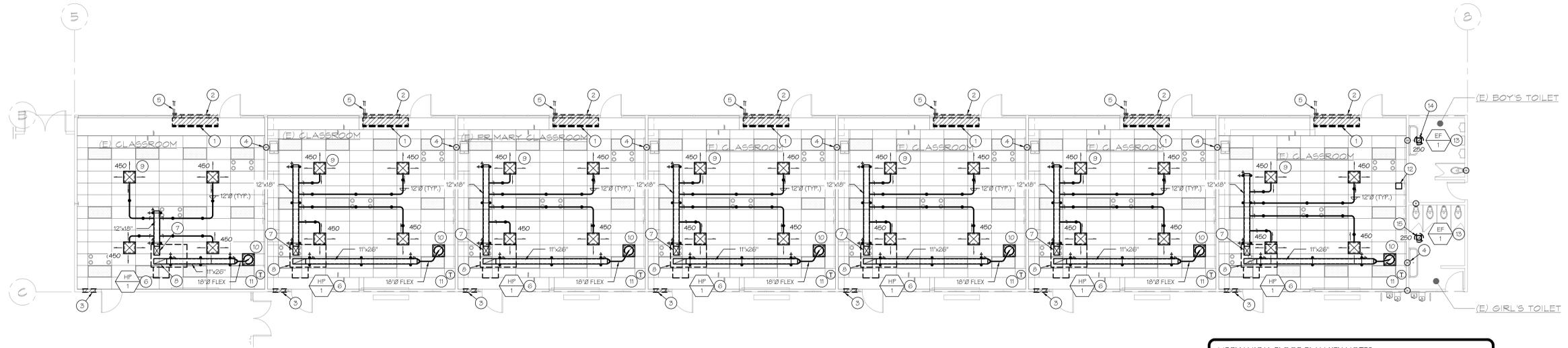
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### MECHANICAL DETAILS

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. <b>1316</b>	<b>M</b>
DRAWN: B.S.	
CHECKED: M.B.	
DATE: 7/26/21	





**MECHANICAL FLOOR PLAN - UNIT 'A1'**

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

- MECHANICAL FLOOR PLAN KEY NOTES.**
1. REMOVE EXISTING FLOOR MOUNTED UNIT VENTILATOR, ALL RELATED MECHANICAL PIPING, CONDENSATE PIPING, CONTROLS, SUPPORTS, ANCHORAGE, ETC. DEMO PIPING TO 6" BELOW FLOOR AND CAP. DEMO CONDENSATE DRAIN TO BELOW EXTERIOR SLAB AND CAP. PATCH EXISTING SURFACES TO MATCH EXISTING.
  2. REMOVE EXISTING OUTSIDE AIR LOUVERS. INFILL / PATCH WALL TO MATCH EXISTING.
  3. REMOVE EXISTING BAROMETRIC RELIEF VENT, LOUVER, RELIEF GRILLE, ETC. INFILL CONSTRUCTION TO MATCH EXISTING.
  4. EXISTING WASTE VENT, TYPICAL. CONFIRM EXACT LOCATION IN FIELD.
  5. ABANDON IN PLACE BELOW GRADE SITE HYDRONIC PIPING.
  6. ROOF MOUNTED HEAT PUMP UNIT. SEE MECHANICAL ROOF PLAN.
  7. 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER. SEE DETAIL C.M1.1.
  8. 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER. SEE DETAIL C.M1.1.
  9. CD-1, TYPICAL. SEE DETAIL A.M1.1.
  10. CR-1 TYPICAL.
  11. T-STAT LOCATION TYPICAL. CLASSROOMS USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE DETAIL D.M1.1.
  12. LOCATE PELICAN RELAY MODULE IN ATTIC FOR THE CONTROL OF EXHAUST FANS. SEE DETAIL F.M1.1.
  13. ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL ROOF PLAN.
  14. CE-1, 10" X 10", 8" X 8" EXHAUST RISER WITH 1" LINER, 10" X 10" NET.

**SEISMIC RESTRAINT LEGEND**

	SINGLE ROUND DUCT HANGER STRAP LOC. (NO BRACE)
	RECTANGULAR OR ROUND DUCT BRACE LOCATION
	RECTANGULAR DUCT HANGER LOCATION (NO BRACE)

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 DATE: 05/08/2024

PTN: 63321- FILE: 15-6

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**MECHANICAL FLOOR PLAN - UNIT 'A1'**

MARK	DATE	REVISIONS
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△		
△		

JOB NO. <b>1318</b>	<b>M</b> <b>2.0</b>
DRAWN: B.S.	
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175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 Pjt: 4/1/24



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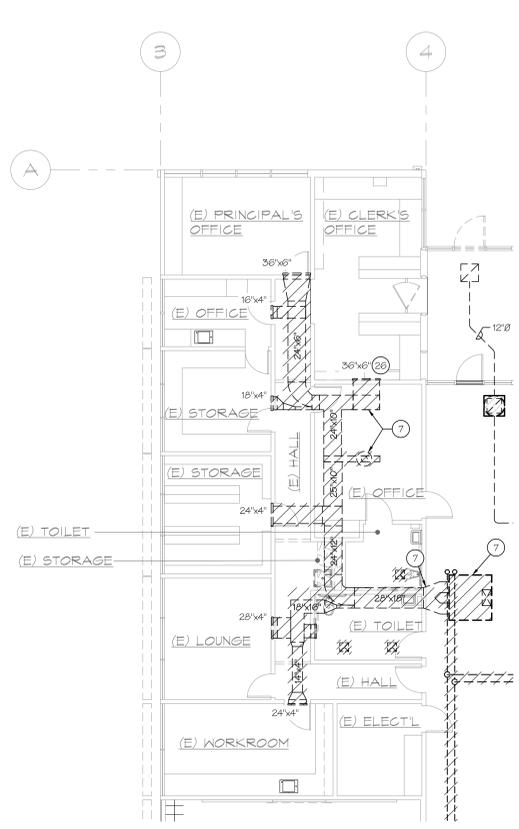
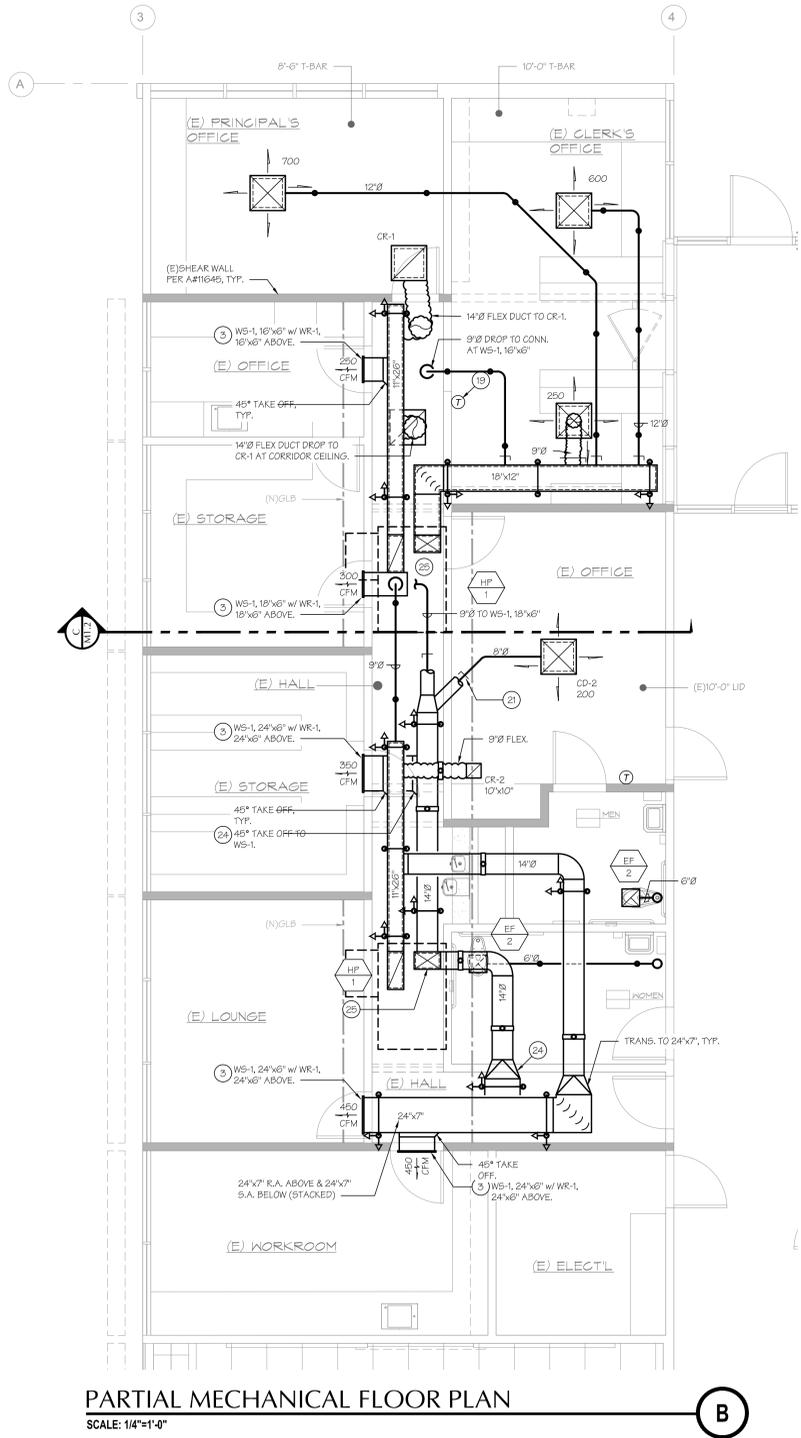
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MECHANICAL PLAN - UNIT 'A2A' & 'A2B'

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.	1318
DRAWN:	B.S.
CHECKED:	M.B.
DATE:	2/28/22

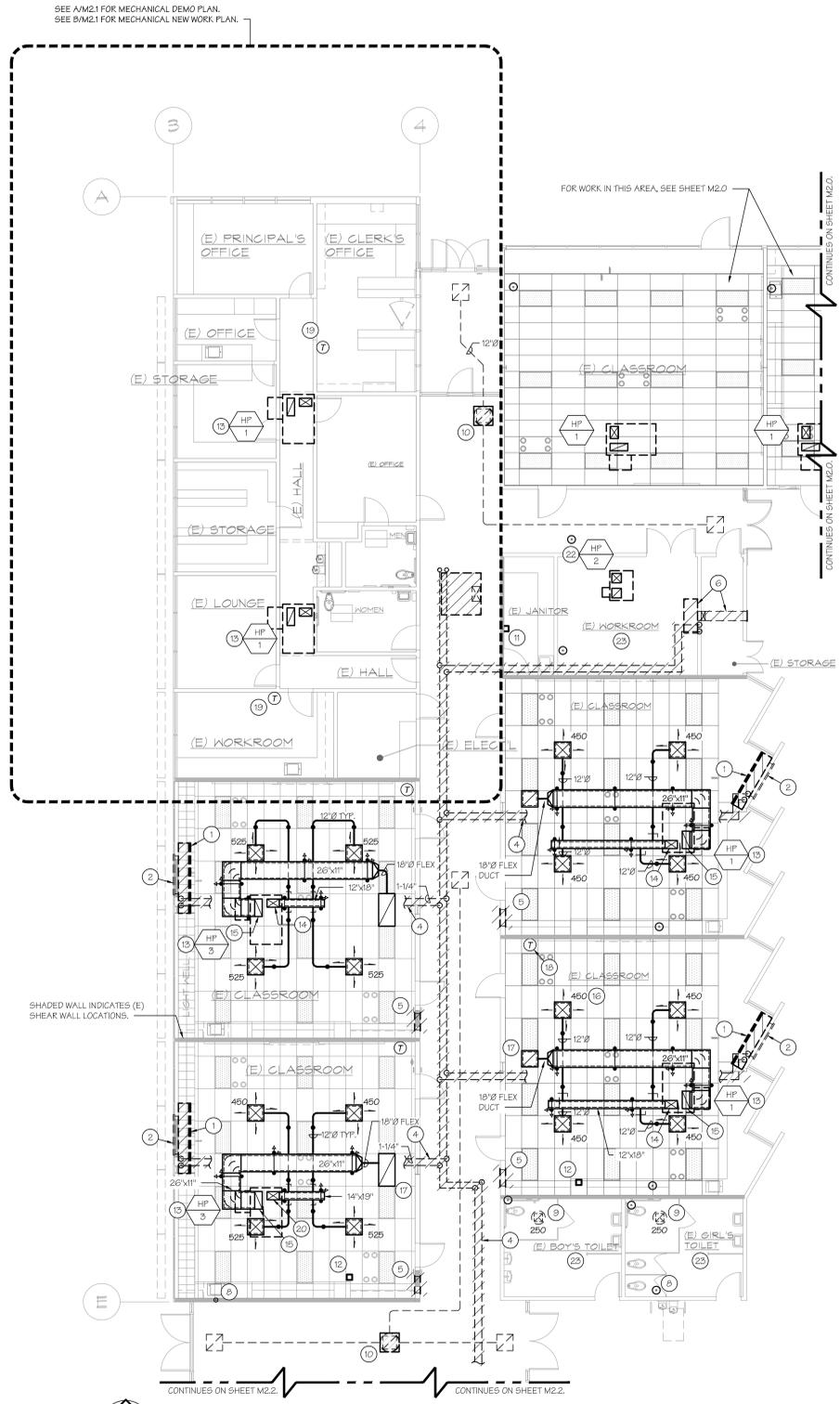


PARTIAL MECHANICAL DEMOLITION FLOOR PLAN  
 SCALE: 1/8"=1'-0"

- MECHANICAL FLOOR PLAN KEY NOTES.**
- REMOVE EXISTING FLOOR MOUNTED UNIT VENTILATOR, ALL RELATED MECHANICAL PIPING, CONDENSATE PIPING, CONTROLS, SUPPORTS, PIPE CHASE, ANCHORAGE, ETC. DEMO ALL PIPING BACK TO EXTERIOR OF BUILDING. PATCH EXISTING SURFACES TO MATCH EXISTING.
  - REMOVE EXISTING OUTSIDE AIR LOUVERS. INFILL / PATCH WALL TO MATCH EXISTING.
  - NEW S.A. GRILLE LOCATED ABOVE DOOR OPENING, TYP. MODIFY (E) OPENING OR CREATE (N) AS REQ'D. TO INSTALL GRILLE.
  - REMOVE ALL CHILLED / HOT WATER SUPPLY AND RETURN PIPING INTERIOR OF BUILDING. CONFIRM EXACT ROUTING AND EXTENTS IN FIELD.
  - REMOVE EXISTING BAROMETRIC RELIEF VENT, LOUVER, RELIEF GRILLE, ETC. INFILL CONSTRUCTION TO MATCH EXISTING.
  - REMOVE EXISTING FAN COIL, OUTSIDE AIR DUCT, EXTERIOR WALL LOUVER, CONTROLS, PIPING, ETC. PATCH ALL SURFACE TO MATCH EXISTING.
  - REMOVE EXISTING ATTIC MOUNTED AIR HANDLER, ALL ADJOINING DUCTWORK, PIPING, CONTROLS, GRILLES, ETC. PATCH ALL CONSTRUCTION INCLUDING OUTSIDE AIR DUCT ROOF OPENING. CONFIRM EXACT CONFIGURATION AND EXTENTS IN FIELD. PATCH ALL UN-USED OPENINGS IN WALLS TO MATCH (E).
  - EXISTING WASTE VENT, TYPICAL. CONFIRM EXACT LOCATION IN FIELD.
  - TIE IN (E) ROOFTOP EX. FAN TO PELICAN POWERED RELAY MODULE.
  - EXISTING EXHAUST FAN, DUCTWORK, AND GRILLES TO BE ABANDONED IN PLACE.
  - LOCATE PELICAN WIRELESS GATEWAY IN THIS ROOM. PROVIDE WITH ROUTER CONNECTION AND 15V PLUG CONNECTIONS. SEE DETAIL EM1.1.
  - LOCATE PELICAN RELAY MODULE NEAR FAN IN ATTIC SPACE. SEE DETAIL FM1.1.
  - ROOF MOUNTED HEAT PUMP UNIT. SEE MECHANICAL ROOF PLAN.
  - 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER. SEE DETAIL CM1.1.
  - 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 15" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER. SEE DETAIL CM1.1.
  - CD-1, TYPICAL. SEE DETAIL AM1.1.
  - CR-1 TYPICAL.
  - T-STAT LOCATION TYPICAL. CLASSROOMS USE PELICAN TS200 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE DETAIL DM1.1.
  - THIS AREA USES A PELICAN TS200 THERMOSTAT (NO CO2 SENSOR).
  - 14"X18" SUPPLY AIR DUCT DROP WITH 1" LINER, 16"X21" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER.
  - BRANCH DUCT VOLUME DAMPER. SEE DETAIL BM1.1.
  - REMOVE EXISTING ROOFTOP AC UNIT SERVING WORKROOM. PROVIDE NEW HP-2 AND BALANCE SUPPLY AIR TO 700 CFM AND OUTSIDE AIR TO 75 CFM.
  - NO MECHANICAL WORK IN THIS ROOM.
  - EXTEND TRANS. S.A. DUCT TO (N) WS-1, LOCATED BELOW WR-1 AT ENTRY DOOR, TYP.
  - 18"X12" UNED S.A. DROP.
  - (E)GRILLE SIZE PER RECORDED DOCUMENTS, TYP.

**SEISMIC RESTRAINT LEGEND**

	SINGLE ROUND DUCT HANGER STRAP LOC. (NO BRACE)
	RECTANGULAR OR ROUND DUCT BRACE LOCATION
	RECTANGULAR DUCT HANGER LOCATION (NO BRACE)



MECHANICAL FLOOR PLAN - UNIT 'A2A' & 'A2B'  
 SCALE: 1/8"=1'-0"

**bme BASKIN MECHANICAL ENGINEERS**  
 175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 PIt: 4/1/24



WILLIAM PENN ELEMENTARY SCHOOL  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
 FAX: (661) 397-4378  
 WWW.SCARCHITECT.COM



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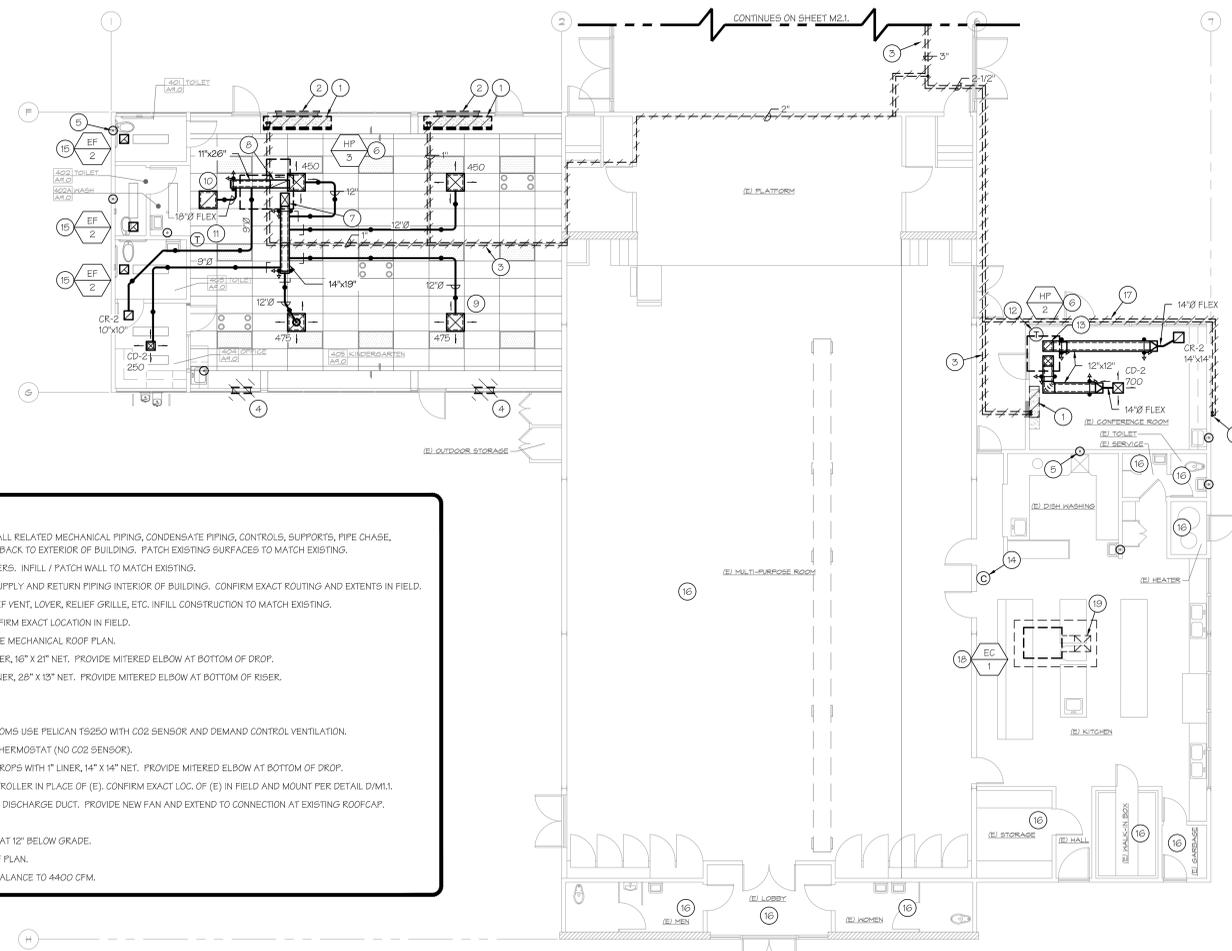
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

MECHANICAL FLOOR PLAN - UNIT 'A3'

MARK	DATE	REVISIONS
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△		
△		

JOB NO.  
1318  
 DRAWN:  
B.S.  
 CHECKED:  
M.B.  
 DATE:  
2/28/22

M  
2.2



**SEISMIC RESTRAINT LEGEND**

	SINGLE ROUND DUCT HANGER STRAP LOC. (NO BRACE)
	RECTANGULAR OR ROUND DUCT BRACE LOCATION
	RECTANGULAR DUCT HANGER LOCATION (NO BRACE)

- MECHANICAL KEY NOTES:**
- REMOVE EXISTING UNIT VENTILATOR, ALL RELATED MECHANICAL PIPING, CONDENSATE PIPING, CONTROLS, SUPPORTS, PIPE CHASE, ANCHORAGE, ETC. DEMO ALL PIPING BACK TO EXTERIOR OF BUILDING. PATCH EXISTING SURFACES TO MATCH EXISTING.
  - REMOVE EXISTING OUTSIDE AIR LOUVERS. INFILL / PATCH WALL TO MATCH EXISTING.
  - REMOVE ALL CHILLED / HOT WATER SUPPLY AND RETURN PIPING INTERIOR OF BUILDING. CONFIRM EXACT ROUTING AND EXTENTS IN FIELD.
  - REMOVE EXISTING BAROMETRIC RELIEF VENT, LOVER, RELIEF GRILLE, ETC. INFILL CONSTRUCTION TO MATCH EXISTING.
  - EXISTING WASTE VENT, TYPICAL. CONFIRM EXACT LOCATION IN FIELD.
  - ROOF MOUNTED HEAT PUMP UNIT. SEE MECHANICAL ROOF PLAN.
  - 14" X 19" SUPPLY AIR DROP WITH 1" LINER, 16" X 21" NET. PROVIDE MITERED ELBOW AT BOTTOM OF DROP.
  - 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET. PROVIDE MITERED ELBOW AT BOTTOM OF RISER.
  - CD-1 TYPICAL.
  - CR-1 TYPICAL.
  - T-STAT LOCATION TYPICAL. CLASSROOMS USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION.
  - THIS AREA USES A PELICAN TS200 THERMOSTAT (NO CO2 SENSOR).
  - 12" X 12" SUPPLY AND RETURN DUCT DROPS WITH 1" LINER, 14" X 14" NET. PROVIDE MITERED ELBOW AT BOTTOM OF DROP.
  - INSTALL (N) EVAPORATIVE WALL CONTROLLER IN PLACE OF (E). CONFIRM EXACT LOC. OF (E) IN FIELD AND MOUNT PER DETAIL D.M.1.
  - REMOVE EXISTING EXHAUST FAN AND DISCHARGE DUCT. PROVIDE NEW FAN AND EXTEND TO CONNECTION AT EXISTING ROOFCAP.
  - NO MECHANICAL WORK IN THIS ROOM.
  - DEMO ALL EXPOSED PIPING AND CAP AT 12" BELOW GRADE.
  - (N) EVAP COOLER ON ROOF. SEE ROOF PLAN.
  - RE-USE (E) COOLER DUCT DROP. RE-BALANCE TO 4400 CFM.

MECHANICAL FLOOR PLAN - UNIT 'A3'  
 SCALE: 1/8"=1'-0"

**bme** BASKIN MECHANICAL ENGINEERS  
 175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 PIt: 4/1/24



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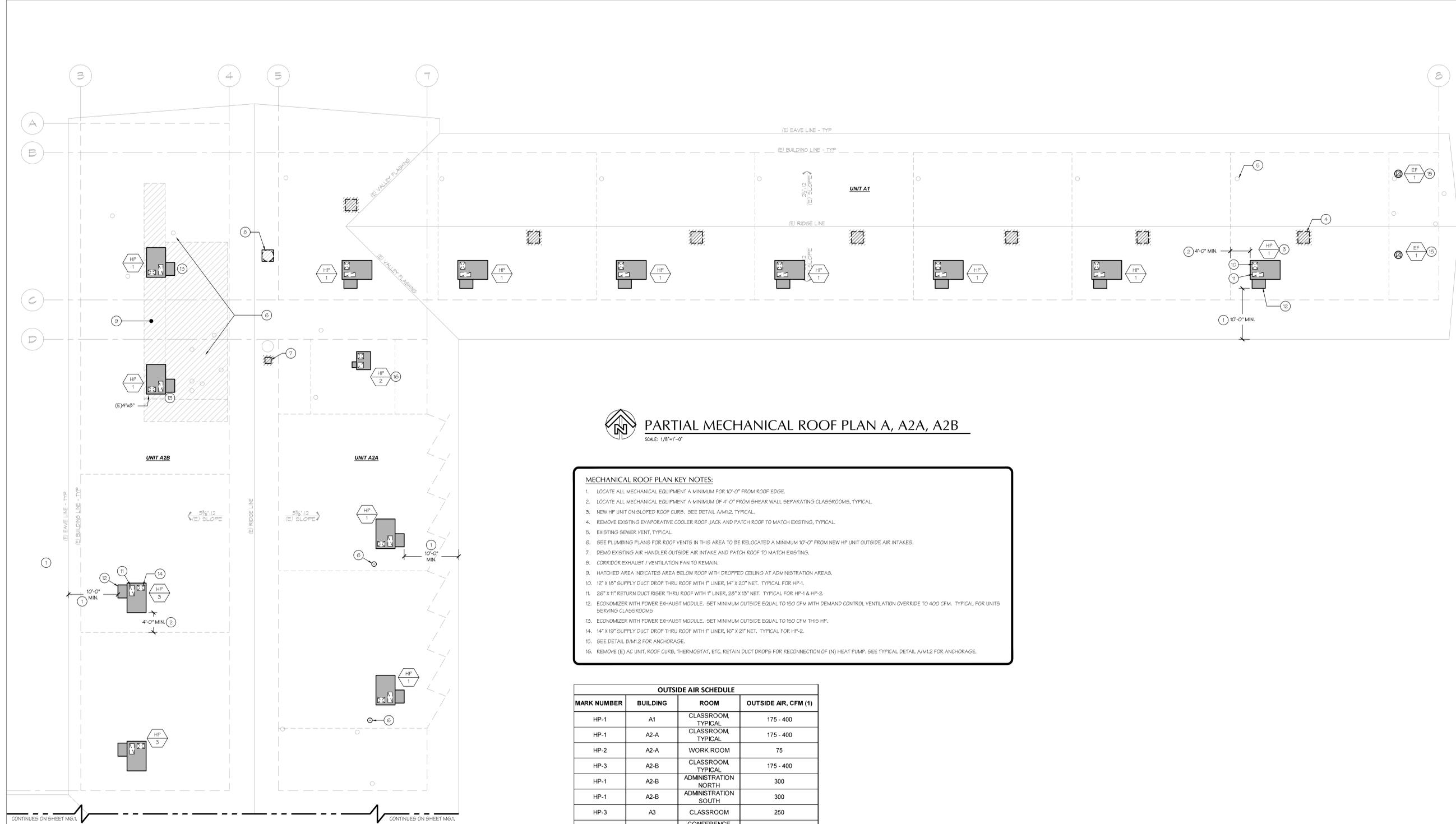


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**PARTIAL MECHANICAL ROOF PLAN UNIT A1,A2A, A2B**

MARK	DATE	REVISIONS
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△		

JOB NO.	1318
DRAWN:	B.S.
CHECKED:	M.B.
DATE:	2/28/22



**PARTIAL MECHANICAL ROOF PLAN A, A2A, A2B**  
 SCALE: 1/8"=1'-0"

- MECHANICAL ROOF PLAN KEY NOTES:**
1. LOCATE ALL MECHANICAL EQUIPMENT A MINIMUM OF 10'-0" FROM ROOF EDGE.
  2. LOCATE ALL MECHANICAL EQUIPMENT A MINIMUM OF 4'-0" FROM SHEAR WALL SEPARATING CLASSROOMS, TYPICAL.
  3. NEW HP UNIT ON SLOPED ROOF CURB. SEE DETAIL A/M.2, TYPICAL.
  4. REMOVE EXISTING EVAPORATIVE COOLER ROOF JACK AND PATCH ROOF TO MATCH EXISTING, TYPICAL.
  5. EXISTING SEWER VENT, TYPICAL.
  6. SEE PLUMBING PLANS FOR ROOF VENTS IN THIS AREA TO BE RELOCATED A MINIMUM 10'-0" FROM NEW HP UNIT OUTSIDE AIR INTAKES.
  7. DEMO EXISTING AIR HANDLER OUTSIDE AIR INTAKE AND PATCH ROOF TO MATCH EXISTING.
  8. CORRIDOR EXHAUST / VENTILATION FAN TO REMAIN.
  9. HATCHED AREA INDICATES AREA BELOW ROOF WITH DROPPED CEILING AT ADMINISTRATION AREAS.
  10. 12" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 14" X 20" NET. TYPICAL FOR HP-1.
  11. 26" X 11" RETURN DUCT RISER THRU ROOF WITH 1" LINER, 28" X 15" NET. TYPICAL FOR HP-1 & HP-2.
  12. ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM WITH DEMAND CONTROL VENTILATION OVERRIDE TO 400 CFM. TYPICAL FOR UNITS SERVING CLASSROOMS.
  13. ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM THIS HP.
  14. 14" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 16" X 21" NET. TYPICAL FOR HP-2.
  15. SEE DETAIL B/M.2 FOR ANCHORAGE.
  16. REMOVE (E) AC UNIT, ROOF CURB, THERMOSTAT, ETC. RETAIN DUCT DROPS FOR RECONNECTION OF (N) HEAT PUMP. SEE TYPICAL DETAIL A/M.2 FOR ANCHORAGE.

**OUTSIDE AIR SCHEDULE**

MARK NUMBER	BUILDING	ROOM	OUTSIDE AIR, CFM (1)
HP-1	A1	CLASSROOM, TYPICAL	175 - 400
HP-1	A2-A	CLASSROOM, TYPICAL	175 - 400
HP-2	A2-A	WORK ROOM	75
HP-3	A2-B	CLASSROOM, TYPICAL	175 - 400
HP-1	A2-B	ADMINISTRATION NORTH	300
HP-1	A2-B	ADMINISTRATION SOUTH	300
HP-3	A3	CLASSROOM	250
HP-2	A3	CONFERENCE ROOM	150

(1) DEMAND CONTROL SETTINGS WHERE TWO AIRFLOWS ARE LISTED



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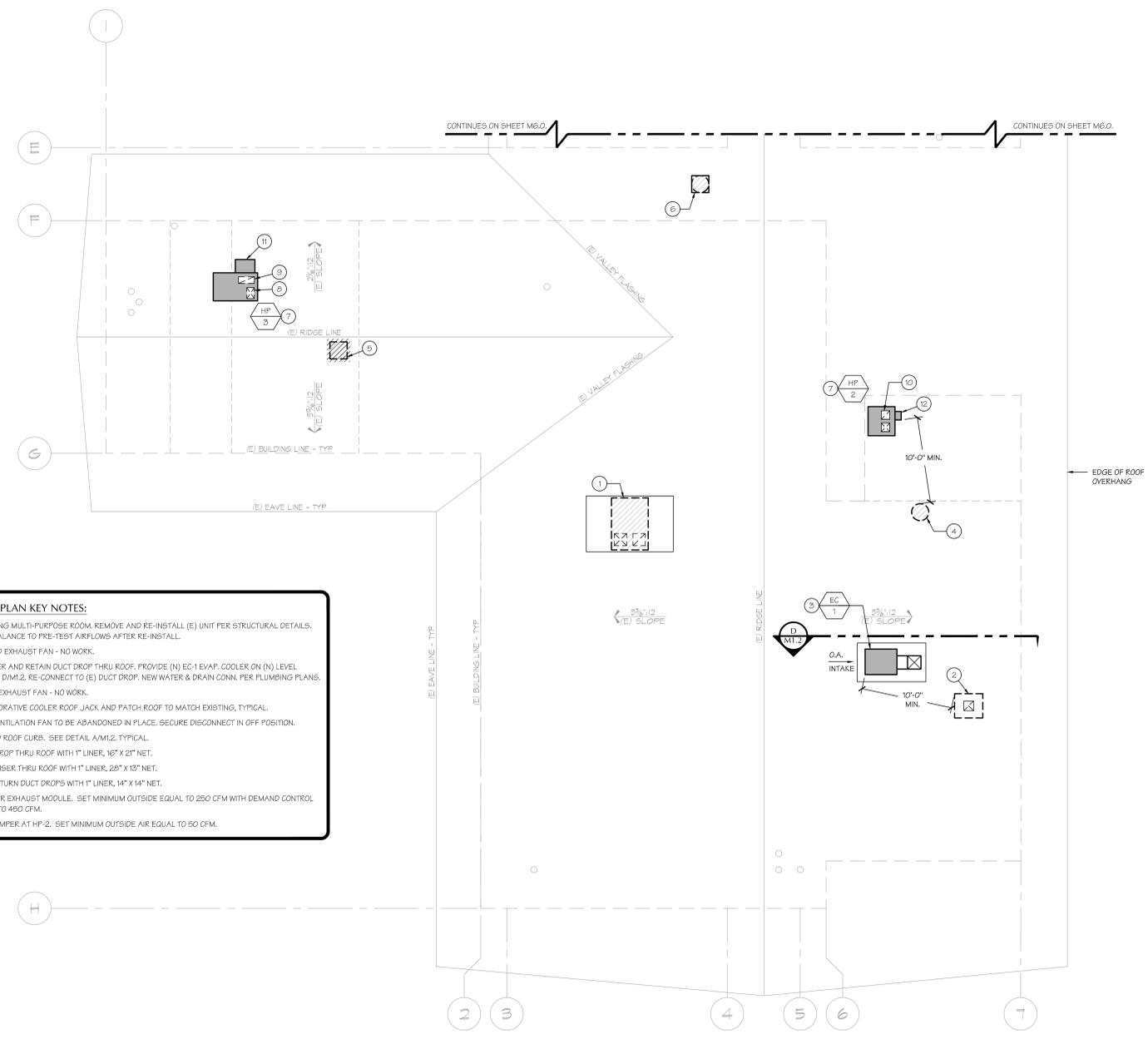
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**PARTIAL MECHANICAL ROOF PLAN, UNIT A3**

MARK	DATE	REVISIONS
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JOB NO. <b>1318</b>	<b>M</b>
DRAWN: B.S.	
CHECKED: M.B.	
DATE: 2/28/22	

- MECHANICAL ROOF PLAN KEY NOTES:**
- EXISTING AC UNIT SERVING MULTI-PURPOSE ROOM. REMOVE AND RE-INSTALL (E) UNIT PER STRUCTURAL DETAILS. PRE-TEST UNIT AND REBALANCE TO PRE-TEST AIRFLOWS AFTER RE-INSTALL.
  - EXISTING COOKING HOOD EXHAUST FAN - NO WORK.
  - REMOVE (E) EVAP COOLER AND RETURN DUCT DROP THRU ROOF. PROVIDE (N) EC-1 EVAP. COOLER ON (N) LEVEL PLATFORM PER SECTION DMI.2. RE-CONNECT TO (E) DUCT DROP. NEW WATER & DRAIN CONN. PER PLUMBING PLANS.
  - EXISTING DISHWASHER EXHAUST FAN - NO WORK.
  - REMOVE EXISTING EVAPORATIVE COOLER ROOF JACK AND PATCH ROOF TO MATCH EXISTING, TYPICAL.
  - CORRIDOR EXHAUST / VENTILATION FAN TO BE ABANDONED IN PLACE. SECURE DISCONNECT IN OFF POSITION.
  - NEW HP UNIT ON SLOPED ROOF CURB. SEE DETAIL A.M1.2, TYPICAL.
  - 14" X 19" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 16" X 21" NET.
  - 26" X 11" RETURN RISER THRU ROOF WITH 1" LINER, 26" X 19" NET.
  - 12" X 12" SUPPLY AND RETURN DUCT DROPS WITH 1" LINER, 14" X 14" NET.
  - ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 250 CFM WITH DEMAND CONTROL VENTILATION OVERRIDE TO 450 CFM.
  - MOTORIZED OUTSIDE DAMPER AT HP-2. SET MINIMUM OUTSIDE AIR EQUAL TO 50 CFM.



**PARTIAL MECHANICAL ROOF PLAN, UNIT A3**  
 SCALE: 1/8"=1'-0"



STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)(2) for alterations.  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 1 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

A. GENERAL INFORMATION			
01 Project Location (city)	Bakersfield	04 Total Conditioned Floor Area	6720
02 Climate Zone	13	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:			
<input type="checkbox"/> Office (B)	<input type="checkbox"/> Retail (M)	<input type="checkbox"/> Non-refrigerated Warehouse (S)	1
<input type="checkbox"/> Hotel/ Motel Guest Rooms (R-1)	<input type="checkbox"/> School (E)	<input type="checkbox"/> Healthcare Facility (I)	
<input type="checkbox"/> High-Rise Residential (R-2/R-3)	<input type="checkbox"/> Relocatable Class Bldg (E)	<input checked="" type="checkbox"/> Other (write in)	See Table J

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

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 checked="" type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> System Piping	<input checked="" type="checkbox"/> Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input 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

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
Registration Date/Time: Report Version: 2019.1.003  
Registration Provider: EnergoSoft Schema Version: rev 20200601  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 4 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)**  
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 110.2.1	Equipment Type per Tables 110.2.1	Smallest Size Available <sup>1</sup> §140.4(a)	Heating Output <sup>2,3</sup> (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Cooling Output <sup>2,3</sup> (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-1 / A1-1	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	63.34	65.49
HP-1 / A-2	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-3	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-4	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-5	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-6	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-7	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.67	46.32	63.34	64.59

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

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
Registration Date/Time: Report Version: 2019.1.003  
Registration Provider: EnergoSoft Schema Version: rev 20200601  
Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 7 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**H. FAN SYSTEMS & AIR ECONOMIZERS**

System Name:	HP-1 / A-7	Economizer <sup>1</sup>	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4.8 Device	Design Airflow through Device (CFM)
SF	Supply	1	1800	BHP	0.66		
Total System Design Supply Airflow (CFM):			1800	Total System Design (BHP):		0.66	Maximum System Fan Power (BHP):

<sup>1</sup> FOOTNOTES: Computer room economizers must meet requirements of §140.3(a), and will be documented on the NRCC-PRC-E document.  
<sup>2</sup> The unit used for HP must be consistent for all fans within a system.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
Registration Date/Time: Report Version: 2019.1.003  
Registration Provider: EnergoSoft Schema Version: rev 20200601  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 2 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

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

01	02	03	04	05	06	07	08	09
System Summary §110.2.1	Pumps §140.4(b)	Fans/Economizers §140.4(c), §140.4(d)	System Controls §110.2.2, §120.2, §140.4(f)	Ventilation §120.1	Terminal Box Controls §140.4(g)	Distribution §120.3, §140.4(h)	Cooling Towers §110.2(e)(2)	Compliance Results
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	COMPLIES
Mandatory Measures Compliance (See Table Q for Details)								COMPLIES

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

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

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
Registration Date/Time: Report Version: 2019.1.003  
Registration Provider: EnergoSoft Schema Version: rev 20200601  
Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 5 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**H. FAN SYSTEMS & AIR ECONOMIZERS**

System Name:	HP-1 / A-1	Economizer <sup>1</sup>	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4.8 Device	Design Airflow through Device (CFM)
SF	Supply	1	1800	BHP	0.66		
Total System Design Supply Airflow (CFM):			1800	Total System Design (BHP):		0.66	Maximum System Fan Power (BHP):

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
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**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 8 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**I. SYSTEM CONTROLS**

System Name	System Zoning	Conditioned Floor Area Being Served (ft <sup>2</sup> )	Thermostats §110.2(b) & (c) <sup>1</sup> , §120.2(a)(b), §141.0(b)(2)	Shut-Off Controls §120.2(c)	Isolation Zone Controls §120.2(d)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
HP-1 / A1-1	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A-2	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A-3	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A-5	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A-6	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A-7	Single zone	<= 25,000 ft <sup>2</sup>	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided

<sup>1</sup> FOOTNOTES: Glassy 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.  
<sup>2</sup> Notes: Controls with a \* 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)

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Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 3 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)**  
This table is used to demonstrate compliance for mechanical equipment 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 Available <sup>1</sup> §140.4(a)	Heating Output <sup>2,3</sup> (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Cooling Output <sup>2,3</sup> (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-1 / A1-1	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	63.34	65.49
HP-1 / A-2	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-3	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-4	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-5	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-6	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.66	46.32	60.49	62.98
HP-1 / A-7	Unitary Heat Pumps	Air-cooled, plg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.67	46.32	63.34	64.59

<sup>1</sup> 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 exempt.  
<sup>2</sup> It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.  
<sup>3</sup> If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.

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Registration Provider: EnergoSoft Schema Version: rev 20200601  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 6 of 21)  
Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**H. FAN SYSTEMS & AIR ECONOMIZERS**

System Name:	HP-1 / A-4	Economizer <sup>1</sup>	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4.8 Device	Design Airflow through Device (CFM)
SF	Supply	1	1800	BHP	0.66		
Total System Design Supply Airflow (CFM):			1800	Total System Design (BHP):		0.66	Maximum System Fan Power (BHP):

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STATE OF CALIFORNIA  
**Mechanical Systems**  
NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 9 of 21)  
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**J. VENTILATION AND INDOOR AIR QUALITY**

System Name	System Design OA CFM	Transfer Air CFM	System Design Transfer Air CFM	Air Filtration per §120.1(c) and §141.0(b)(2) <sup>2</sup>			
HP-1 / A1-1	10	11	12	13			
01	02	03	04	05			
Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.	<input checked="" type="checkbox"/>	Check this box if the project included Nonresidential or Hotel/Motel spaces.	<input type="checkbox"/>	Check this box if the project included new or altered high-rise residential dwelling units.			
02	03	04	05	06			
Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)(2).	<input type="checkbox"/>						
<b>Nonresidential and Hotel/ Motel Ventilation Systems</b>							
System Name	HP-1 / A1-1	System Design OA CFM	365	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)(2) <sup>2</sup>	Provided per §120.1(c) (NHR and Hotel/Motel)
08	09	10	11	12	13	14	15
Space Name or Item Tag	Occupancy Type <sup>4</sup>	Conditioned Floor Area (ft <sup>2</sup> )	# of Shower heads/ toilets	# of people <sup>5</sup>	Required Min OA CFM	Required Min CFM	Provided per Design CFM
Classroom A1	Lecture/ postsecondary classroom	960			364.8	0	0
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complex <sup>3</sup>
04	05	06	07	08	09	10	11
System Name	HP-1 / A-2	System Design OA CFM	365	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)(2) <sup>2</sup>	Provided per §120.1(c) (NHR and Hotel/Motel)
08	09	10	11	12	13	14	15

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
Registration Date/Time: Report Version: 2019.1.003  
Registration Provider: EnergoSoft Schema Version: rev 20200601  
Report Generated: 2022-12-11 12:38:11

WILLIAM PENN ELEMENTARY SCHOOL  
MODERNIZATION  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



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CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

BUILDING 'A1'  
TITLE-24

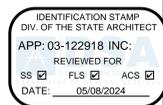
MARK	DATE	REVISIONS
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▲		

JOB NO. 1318  
DRAWN: B.S.  
CHECKED: M.B.  
DATE: 2/28/22



**bme** BASKIN MECHANICAL ENGINEERS  
175 Fulton Street  
Fresno, CA 93721  
Tel: (559) 237-0376  
Job: 21147  
Plt: 4/1/24





PTN: 63321- FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMILIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA 93309 PH: (661) 397-4377 FAX: (661) 397-4378 WWW.SCARCHITECT.COM



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BUILDING 'A1' TITLE-24

Table with columns: MARK, DATE, REVISIONS. Includes revision symbols 1, 2, 3.

JOB NO. 1318 DRAWN: B.S. CHECKED: M.B. DATE: 2/28/22



BASKIN MECHANICAL ENGINEERS 175 Fulton Street Fresno, CA 93721 Tel: (559) 237-0376 Job: 21147 Pfc: 4/1/24



STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table J: VENTILATION AND INDOOR AIR QUALITY. Columns: Space Name, Occupancy Type, Mechanical Ventilation, DCV or Sensor Controls, etc.

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STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table L: DISTRIBUTION (DUCTWORK AND PIPING). Questions about ductwork testing and sealing.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table D: DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE. Lists systems and field inspector status.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table J: VENTILATION AND INDOOR AIR QUALITY. Columns: Space Name, Occupancy Type, Mechanical Ventilation, DCV or Sensor Controls, etc.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table L: DISTRIBUTION (DUCTWORK AND PIPING). Questions about ductwork testing and sealing.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

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Table M: COOLING TOWERS. Questions about cooling tower testing.

Table N: DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION. Lists forms and field inspector status.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table J: VENTILATION AND INDOOR AIR QUALITY. Columns: Space Name, Occupancy Type, Mechanical Ventilation, DCV or Sensor Controls, etc.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table L: DISTRIBUTION (DUCTWORK AND PIPING). Questions about ductwork testing and sealing.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bld A1 Report Page: 12/11/2022

Table L: DISTRIBUTION (DUCTWORK AND PIPING). Questions about ductwork testing and sealing.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Registration Date/Time: Report Version: 2019.1.003 Registration Provider: Energysoft Report Generated: 2022-12-11 12:38:11

STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRC/MCH-1  
 CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRC/MCH-1  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 19 of 21)  
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**O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
 Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks.  
 These documents must be provided to the building inspector during construction and can be found online at: [https://www.energy.ca.gov/htr/24/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRCA/](https://www.energy.ca.gov/htr/24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/)

Form/Title	Systems/Spaces To Be Field Verified	Field Inspector	
		Pass	Fail
NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06	<input type="checkbox"/>	<input type="checkbox"/>
NRCA-MCH-16-A Supply Air Temperature Reset Controls	Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06	<input type="checkbox"/>	<input type="checkbox"/>
NRCA-MCH-18-A Energy Management Control Systems	Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06; Carrier 50GCGM06	<input type="checkbox"/>	<input type="checkbox"/>

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

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
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 Registration Provider: Energysoft  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRC/MCH-1  
 CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRC/MCH-1  
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**Q. MANDATORY MEASURES DOCUMENTATION LOCATION**  
 This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01	02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes M-Sheets

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRC/MCH-1  
 CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRC/MCH-1  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 21 of 21)  
 Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

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

Documentation Author Name: Mark Baskin	Documentation Author Signature: Mark Baskin, P.E. 2022.12.11 12:39:36-08'00"
Company: Baskin Mechanical Engineers	Signature Date: 2022-12-11
Address: 175 Fulton St.	ES&P/RES Certification Identification (if applicable): M26578
City/State/Zip: Fresno CA 93721	Phone: (559) 237-0376

**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: Mark Baskin, P.E.	Responsible Designer Signature: Mark Baskin, P.E. 2022.12.11 12:39:52-08'00"
Company: Baskin Mechanical Engineers	Date Signed: 2022-12-11
Address: 175 Fulton	License: M26578
City/State/Zip: Fresno CA 93721	Phone: (559) 237-0376

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance  
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601  
 Registration Provider: Energysoft  
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WILLIAM PENN ELEMENTARY SCHOOL  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
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 BAKERSFIELD, CA 93309  
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CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



BUILDING 'A1'  
 TITLE-24

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.  
 1318  
 DRAWN:  
 B.S.  
 CHECKED:  
 M.B.  
 DATE:  
 2/28/22

M  
 7.2

**bme** BASKIN MECHANICAL ENGINEERS  
 175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 Plt: 4/1/24



STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
 This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0b(2) for alterations.  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 1 of 18)  
 Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**A. GENERAL INFORMATION**

01 Project Location (city)	Bakersfield	04 Total Conditioned Floor Area	5216
02 Climate Zone	13	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	1
<input checked="" type="checkbox"/> Office (O)	<input type="checkbox"/> Retail (M)	<input type="checkbox"/> Non-refrigerated Warehouse (S)	
<input type="checkbox"/> Hotel/Motel Guest Rooms (R-1)	<input type="checkbox"/> School (E)	<input type="checkbox"/> Healthcare Facility (I)	
<input type="checkbox"/> High-Rise Residential (R-2/R-3)	<input type="checkbox"/> Relocatable Class Bldg (E)	<input checked="" type="checkbox"/> Other (write in:)	See Table J

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

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 checked="" type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> System Piping	<input checked="" type="checkbox"/> Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input 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

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
 Schema Version: rev 20200601

STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 4 of 18)  
 Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)**  
 This table is used to demonstrate compliance for mechanical equipment 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 §141.0b(2) for alterations.

01	02	03	04	05	06	07	08	09
Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))		Heating Mode		Cooling Mode				
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
HP-1 / A2B-1	<=65,000		HSPF	7.7	8.3	SEER	13.0	16.2
HP-1 / A2B-2	<=65,000		HSPF	7.7	8.3	SEER	13.0	16.2
HP-2 / A2B-3	>=65,000 and <135,000		COP	3.3	3.6	IEER	11.2	15
HP-2 / A2B-4	>=65,000 and <135,000		COP	3.3	3.6	IEER	11.2	15
HP-1 / A2A-1	<=65,000		HSPF	7.7	8.3	SEER	13.0	16.2
HP-1 / A2A-2	<=65,000		HSPF	7.7	8.3	SEER	13.0	16.2

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

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
 Schema Version: rev 20200601

STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 7 of 18)  
 Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**I. SYSTEM CONTROLS**  
 This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2, and prescriptive controls in §140.4(f) and (n) or requirements in §141.0b(2) for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats §110.2(b) & (c) §120.2(a)(8) §141.0b(2)(c)	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-1 / A2B-1	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A2B-2	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-2 / A2B-3	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-2 / A2B-4	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A2A-1	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided
HP-1 / A2A-2	Single zone	<= 25,000 ft²	Setback	Auto Timer Switch	4 Hour Timer	EMCS	Included	Provided

**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.  
 \*Notes: Controls with a \* 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)

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 2 of 18)  
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**C. COMPLIANCE RESULTS**  
 Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, or the table indicated as not compliant for guidance.

01	02	03	04	05	06	07	08	09
System Summary §110.1, §110.2, §140.4	Pumps §140.4(f)	Fan/Economizers §140.4(c), §140.4(d)	System Controls §110.2, §120.2, §140.4(i)	Ventilation §120.1	Terminal Box Controls §140.4(d)	Distribution §120.3, §140.4(i)	Cooling Towers §110.2(a)(2)	Compliance Results
Yes	AND	AND	AND	AND	AND	AND	AND	COMPLIES

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

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

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
**CERTIFICATE OF COMPLIANCE** NRCC-MCH-E  
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**H. FAN SYSTEMS & AIR ECONOMIZERS**  
 This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(n) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	HP-1 / A2B-1	Economizer <sup>1</sup>	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Device
SF	Supply	1	1800	BHP	0.66		
Total System Design Supply Airflow (CFM):		1800		Total System Design (BHP):		0.66	
				Maximum System Fan Power (BHP):			

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
 Schema Version: rev 20200601

STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
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 Project Address: 2400 Truxton Ave Date Prepared: 12/11/2022

**J. VENTILATION AND INDOOR AIR QUALITY**  
 This table is used 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 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	02	03	04	05	06	07	
System Name	HP-1 / A2B-1	System Design OA CFM	91	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0b(2) <sup>1</sup>	
08	09	10	11	12	13	14	
Space Name of Item Tag	Occupancy Type <sup>4</sup>	Conditioned Floor Area (ft²)	# of Shower heads/toilets	# of people <sup>5</sup>	Required Min OA CFM	Required Min CFM	Provided per Design CFM
Principal & Waiting	Office space	608		91.2	0	0	0
17 Total System Required Min OA CFM		91		18		Ventilation for this System Complies? <sup>7</sup> Yes	

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
 Schema Version: rev 20200601

STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
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**F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)**  
 This table is used to demonstrate compliance for mechanical equipment 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 §141.0b(2) for alterations.

01	02	03	04	05	06	07	08	09	10	11
Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)		Equipment Sizing per Mechanical Schedule (48tu/h) §140.4 (a&b)		Heating Output <sup>1,2</sup>		Cooling Output <sup>1,2</sup>		Load Calculations <sup>1,4</sup>		
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available <sup>3</sup> §140.4(a)	Per Design (48tu/h)	Rated (48tu/h)	Supp. Heating Output (48tu/h)	Sensible Per Design (48tu/h)	Rated (48tu/h)	Total Heating Load (48tu/h)	Total Sensible Cooling Load (48tu/h)
HP-1 / A2B-1	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	70.44	54.86	36.18	52.82	46.32	56.49	49.96
HP-1 / A2B-2	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	70.44	54.86	36.18	53.86	46.32	46.23	62.39
HP-2 / A2B-3	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	75.87	63.55	36.18	66.59	55.3	46.08	79.95
HP-2 / A2B-4	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	75.87	63.55	36.18	66.59	55.3	46.08	79.95
HP-1 / A2A-1	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.77	46.32	40.87	58.78
HP-1 / A2A-2	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	70.44	54.86	36.18	55.77	46.32	40.87	58.78

**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(g). Healthcare facilities are exempt.  
<sup>1</sup> It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.  
<sup>2</sup> If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.  
<sup>3</sup> Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(i).

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
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STATE OF CALIFORNIA  
**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
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 Project Name: William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 8 of 18)  
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**H. FAN SYSTEMS & AIR ECONOMIZERS**  
 This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(n) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	HP-2 / A2B-1	Economizer <sup>1</sup>	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Device
SF	Supply	1	2100	BHP	0.83		
Total System Design Supply Airflow (CFM):		2100		Total System Design (BHP):		0.83	
				Maximum System Fan Power (BHP):			

**FOOTNOTES:** Computer room economizers must meet requirements of §140.9(i), and will be documented on the NRCC-PRC-E document.  
<sup>2</sup> The unit used for HP must be consistent for all fans within a system.

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
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**Mechanical Systems**  
 NRCC-MCH-E CALIFORNIA ENERGY COMMISSION  
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**J. VENTILATION AND INDOOR AIR QUALITY**  
 This table is used 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 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	02	03	04	05	06	07	
System Name	HP-2 / A2B-3	System Design OA CFM	365	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0b(2) <sup>1</sup>	
08	09	10	11	12	13	14	
Space Name of Item Tag	Occupancy Type <sup>4</sup>	Conditioned Floor Area (ft²)	# of Shower heads/toilets	# of people <sup>5</sup>	Required Min OA CFM	Required Min CFM	Provided per Design CFM
Classroom A2B1	Lecture/ postsecondary classroom	960		364.8	0	0	0
17 Total System Required Min OA CFM		365		18		Ventilation for this System Complies? <sup>7</sup> Yes	

Registration Number: Registration Date/Time: Registration Provider: Energysoft  
 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2022-12-11 14:54:28  
 Schema Version: rev 20200601

WILLIAM PENN ELEMENTARY SCHOOL  
 MODERNIZATION  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
 BAKERSFIELD, CA 93309  
 PH: (661) 397-4377  
 FAX: (661) 397-4378  
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CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.

BUILDING 'A2A' & 'A2B' TITLE-24

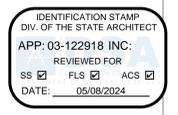
MARK	DATE	REVISIONS

JOB NO. 1318  
 DRAWN: B.S.  
 CHECKED: M.B.  
 DATE: 2/28/22



175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 Plt: 4/1/24





STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 10 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

J. VENTILATION AND INDOOR AIR QUALITY Table with columns for Space Name, Mechanical Ventilation Required, and DCV or Sensor Controls. Includes rows for Classroom A2B2 and System Name HP-1/AZA-1.

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STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 13 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

L. DISTRIBUTION (DUCTWORK AND PIPING) Table with columns for duct system type, duct leakage testing, and combined surface area. Includes rows for HP-2/A2B-3 and HP-1/AZA-2.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 14 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector. Includes rows for NRCA-MCH-02-A, NRCA-MCH-05-A, NRCA-MCH-06-A, NRCA-MCH-11-A, and NRCA-MCH-12-A.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 11 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

J. VENTILATION AND INDOOR AIR QUALITY Table with columns for Space Name, Mechanical Ventilation Required, and DCV or Sensor Controls. Includes rows for Classroom A2A2 and System Name HP-1/AZA-2.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 13 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

L. DISTRIBUTION (DUCTWORK AND PIPING) Table with columns for duct system type, duct leakage testing, and combined surface area. Includes rows for HP-1/AZA-1 and HP-1/AZA-2.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 17 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector. Includes rows for NRCA-MCH-16-A and NRCA-MCH-18-A.

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 15 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

L. DISTRIBUTION (DUCTWORK AND PIPING) Table with columns for duct system type, duct leakage testing, and combined surface area. Includes rows for HP-1/AZB-1 and HP-1/AZB-2.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 15 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

M. COOLING TOWERS Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION Table with columns for Form/Title, Systems/Spaces To Be Field Verified, and Field Inspector.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE William Penn Elementary HVAC Upgrades Bid A1 Report Page: (Page 18 of 18) Project Address: 2400 Truett Ave Date Prepared: 12/11/2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT Table with columns for Documentation Author Name, Signature, Date, and Address. Includes Mark Baskin, P.E.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



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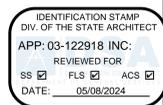
BUILDING '2A' & '2B' TITLE-24

MARK DATE REVISIONS table with columns for mark, date, and revision.

JOB NO. 1318 DRAWN: B.S. CHECKED: M.B. DATE: 2/28/22

bnc BASKIN MECHANICAL ENGINEERS 175 Fulton Street Fresno, CA 93721 Tel: (559) 237-0376 Job: 21147 Plt: 4/1/24





PTN: 63321- FILE: 15-6

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BUILDING 'A3' TITLE-24

Table with columns: MARK, DATE, REVISIONS. Includes revision symbols 1, 2, 3.

JOB NO. 1318 DRAWN: B.S. CHECKED: M.B. DATE: 2/28/22



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MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 2 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9, O10, O11. Includes equipment sizing and load calculations.

FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §120.4(a). Healthcare facilities are exempt.

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP)) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 2 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

J. VENTILATION AND INDOOR AIR QUALITY Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ventilation requirements and air filtration details.

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

Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ventilation requirements and air filtration details.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 8 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

M. COOLING TOWERS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes cooling tower specifications.

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

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 2 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

C. COMPLIANCE RESULTS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes compliance status for various systems.

D. EXCEPTIONAL CONDITIONS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9.

E. ADDITIONAL REMARKS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 2 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes fan system specifications.

I. SYSTEM CONTROLS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes control system specifications.

FOOTNOTES: Computer room economizers must meet requirements of §140.3(a) and will be documented on the NRCC-PRC-E document.

Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes fan system specifications.

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.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 7 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

L. DISTRIBUTION (DUCTWORK AND PIPING) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ductwork and piping specifications.

The answers to the questions below apply to the following duct systems: HP-3 / A3-1 Duct leakage testing triggered for these systems? No

Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ductwork and piping specifications.

The answers to the questions below apply to the following duct systems: HP-2 / Workroom A3 Duct leakage testing triggered for these systems? No

Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ductwork and piping specifications.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 1 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

A. GENERAL INFORMATION Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes general project information.

B. PROJECT SCOPE Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes project scope details.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 4 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes HVAC system summary.

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP)) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9.

This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes fan system specifications.

Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes fan system specifications.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE (Page 7 of 11) Project Name: William Penn Elementary HVAC Upgrades Bid A3 Report Page: 12/12/2022

J. VENTILATION AND INDOOR AIR QUALITY Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ventilation and air quality specifications.

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

Air filtration requirements apply to the following three system types per §120.1(a)(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.

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

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

§120.2(a) 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 250sq ft or smaller, multipurpose rooms less than 1,000 sq ft, classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stock aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless exempted by §130.1(c).

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK AND PIPING) Table with columns: O1, O2, O3, O4, O5, O6, O7, O8, O9. Includes ductwork and piping specifications.

Registration Number, Date/Time, Provider: Energysoft. CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Report Version: 2019.1.003. Schema Version: rev 20200601.



PTN: 63321- FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA 93309 PH: (661) 397-4377 FAX: (661) 397-4378 WWW.SCARCHITECT.COM



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BUILDING 'A3' TITLE-24

Table with 3 columns: MARK, DATE, REVISIONS. Contains three rows of revision data.

JOB NO. 1318 DRAWN: B.S. CHECKED: M.B. DATE: 2/28/22

M 7.6

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE. Project Name: William Penn Elementary HVAC Upgrades Bld A2. Report Page: 10 of 12. Date Prepared: 12/12/2022.

Table O: DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE. Lists various HVAC systems and their compliance status (Verified, Pass, Fail).

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

Table Q. MANDATORY MEASURES DOCUMENTATION LOCATION. Shows compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Registration Date/Time: Report Version: 2019.1.003. Registration Provider: Energysoft. Report Generated: 2022-12-12 13:12:03.

MECHANICAL SYSTEMS CERTIFICATE OF COMPLIANCE. Project Name: William Penn Elementary HVAC Upgrades Bld A2. Report Page: 11 of 12. Date Prepared: 12/12/2022.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT. I certify that this Certificate of Compliance documentation is accurate and complete. Mark Baskin, P.E.

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)...

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance. Registration Date/Time: Report Version: 2019.1.003. Registration Provider: Energysoft. Report Generated: 2022-12-12 13:12:03.



175 Fulton Street Fresno, CA 93721 Tel: (559) 237-0376 Job: 21147 Ptc: 4/1/24



PLUMBING LEGEND					
SYMBOL	ABBR.	ITEM	SYMBOL	ABBR.	ITEM
—	ACC.	ACCESSIBLE	—	GRD.	GRADE
—	A.D.	ACCESS DOOR/WALL BOX	—	G.M.	GREASE WASTE
—	A.F.F.	ABOVE FINISHED FLOOR	—	H.B.	HOSE BIBB
—	C.D.	CONDENSATE DRAIN	—	H.V.(A-C)	AIR CONDITIONING EQPT.
—	C.I.	CAST IRON	—	L.	LAVATORY
—	CLG.	GELING	—	LOC.	LOCATION
—	C.O.	CLEANOUT	—	(N)	NEW
—	COMB.	COMBUSTION	—	N.I.C.	NOT IN CONTRACT
—	CONN.	CONNECTION	—	P.O.C.	POINT OF CONNECTION
—	CONT.	CONTINUATION	—	PROV.	PROVIDE
—	COTG	CLEANOUT TO GRADE	—	P.R.V.	PRESSURE REDUCING VALVE
—	(D)G.M.	(DOMESTIC) COLD WATER	—	R.D.	ROOF DRAIN
—	D.H.	DEMO HATCH	—	R.W.L.	RAINWATER LEADER
—	(D)H.W.	(DOMESTIC) HOT WATER	—	S.	SINK
—	(D)H.W.R.	(DOMESTIC) HOT WATER RETURN	—	S.H.M.	SOIL AND WASTE
—	DN.	DOWN	—	SH.	SIMILAR
—	DRN.	DRAIN	—	S.O.V.	SHUT OFF VALVE
—	(E).	EXISTING	—	SS	STAINLESS STEEL
—	(E)G.M.	EXISTING COLD WATER	—	S.S.	SERVICE SINK
—	(E)H.W.	EXISTING HOT WATER	—	SURF.	SURFACE
—	(E)H.W.R.	EXISTING HOT WATER RETURN	—	T.B.P.	TEMPERATURE AND PRESSURE RELIEF
—	(E)C.D.	EXISTING CONDENSATE DRAIN	—	T.P.	TRAP PRIMER
—	E.D.F.	ELECTRIC DRINKING FOUNTAIN	—	(TYP)	TYPICAL
—	E.M.H.	ELECTRIC WATER HEATER	—	UR.	URINAL
—	F.C.O.	FLOOR CLEANOUT	—	V.O.	VENT OFFSET
—	F.D.	FLOOR DRAIN	—	V.T.R.	VENT THRU ROOF
—	FLR.	FLOOR	—	(E) M.	EXISTING MASTE
—	F.S.	FLOOR SINK	—	W.	WASTE
—	G.	GAS	—	W.C.	WATER CLOSET
—	(E) G.	EXISTING GAS	—	W.H.	WATER HEATER
—	G.D.	GARBAGE DISPOSAL	—	W.C.O.	WALL CLEANOUT

### Equipment Anchorage Notes:

All Mechanical, Plumbing, and Electrical components shall be anchored and installed per the details on the DSA approved construction documents. The following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2019 CBC, Sections 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapters 13, 26 and 30.

- All permanent equipment and components.
- Temporary, movable or mobile equipment that is permanently attached (E.G. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical connections except plugs for 110/220 volt receptacles having a flexible cable.
- Temporary, movable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component are 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 hung from a wall.

The anchorage of all Mechanical, Electrical and Plumbing components shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and acceptance by DSA. The project inspector will verify that all components and equipment have been anchored in accordance with 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 13.3 as defined in ASCE 7-16 Section 13.6.5, 13.6.6, 13.6.7, 13.6.8, and 2019 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution system are as noted below. When bracing and attachments are based on a pre-approved installation guide (e.g., OSHPD OPM for 2013 CBC or later), copies of the bracing system installation guide or manual shall be available on the jobsite prior to the start of and during the hanging and bracing of the distribution systems. The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

- MP  MD  Option 1: Detailed on the approved drawings with project specific notes and details  
 PP  E
- MP  MD  Option 2: Shall comply with the applicable OSHPD Pre-Approval (OPM#)  
 PP  E

### Codes:

- California Code of Regulations (C.C.R.)
- Part 1 - 2019 California Standards Administrative Code, Title 24, C.C.R.
- Part 2 - 2019 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-2.
- Part 3 - 2019 California Electrical Code, Title 24, C.C.R.
- Part 4 - 2019 California Mechanical Code (C.M.C.), Title 24, C.C.R.
- Part 5 - 2019 California Plumbing Code (C.P.C.), Title 24, C.C.R.
- Part 6 - 2019 California Energy Code, Title 24, C.C.R.
- Part 9 - 2019 California Fire Code, Title 24, C.C.R.
- Part 11 - 2019 California Green Building Standards Code, Title-24, C.C.R.

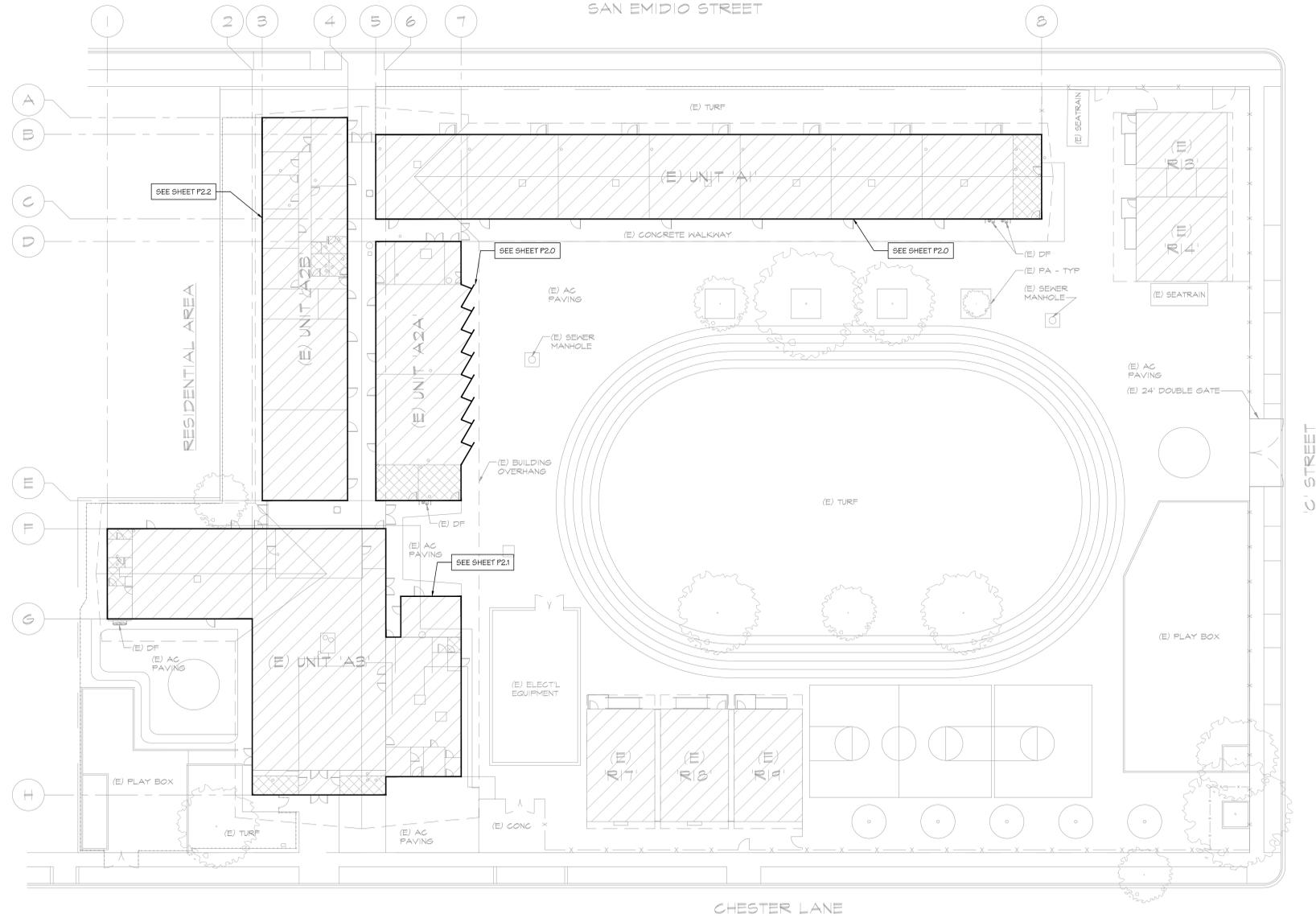
### Standards and Guides:

- ADAAG - American with Disabilities Act, Accessibility Guidelines.
- Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2019 Edition.

### Plumbing Fixture Schedule:

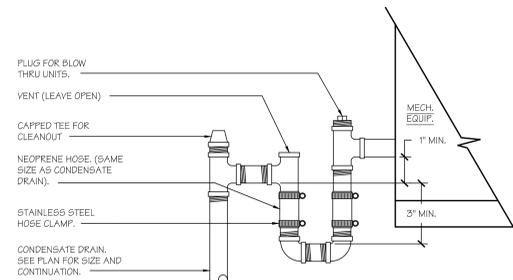
- WC-1**  
 Floor mounted accessible 16.5" high flush-valve elongated water closet, "American Standard" # 3461.001, 1.28 gallons / flush, "Zurn" # ZER6000AV-HET-CCP battery powered 1.28 CPF sensor flush-valve, heavy duty plastic elongated open-front seat, bolt caps, 3" S.&W., 2" V.O., 1-1/4" C.W. (reduce to 1" @ flush-valve)
- WC-2**  
 Floor mounted 14" high flush-valve elongated elementary height water closet, "American Standard" # 2599.001 1.28 gallons / flush, "Zurn" # ZER6000AV-HET-CCP battery powered 1.28 CPF sensor flush-valve, heavy duty plastic elongated open-front seat, bolt caps, 3" S.&W., 2" V.O., 1-1/4" C.W. (reduce to 1" @ flush-valve)
- WC-3**  
 Floor mounted 10" high kindergarten flush-valve water closet, "American Standard" #2282.010 Baby Devoro, "Zurn" # ZER6000AV-HET-CCP battery powered 1.28 CPF sensor flush-valve, "O'Connell" # 126CC open-front white seat, bolt caps, 1-1/4" C.W., (reduce to 1" @ flush-valve), 3" S.&W., 2" V.O.
- L**  
 Wall hung vitreous china accessible lavatory, "Kohler" # K-2007 (21" x 18") Kingston, offset grid drain, "Zurn" # ZER6000AV-HET-CCP battery powered 1.28 CPF sensor flush-valve, "O'Connell" # 126CC open-front white seat, bolt caps, 1-1/4" C.W., 2" W., 2" W.C.O., 1-1/2" V., provide "Zurn" #Z1251 Concealed arm system wall support. (See AP1.0)
- S**  
 Counter mounted stainless steel accessible classroom sink (23"x17"x5-1/2") with U-channel type mounting system, "Elkay" #DKKAD251755 with center mounted "Zurn" #Z825B1-XL-15F gooseneck faucet and "Haws" # 5054F bubbler, strainer / grid drain, (2) threaded angled wall stops with braided stainless steel supplies, supplies from each stop (one to bubbler and faucet), 17 ga. C.P. trap/tee, 1/2" C.W., 2" W., 2" W.C.O., 1-1/2" V.O.
- DF**  
 "Haws" #1119-14-1920 dual high/low drinking fountain with bottle filler, 14 GA. type 304 SS construction with "Haws" #6700 backing plate and #6800 support carrier. Refer to the architectural drawings for mounting elevations. 1/2" C.W., 2" W., 2" W.C.O., 2" V.O.
- HB**  
 Riser mt'd. hose bibb, "Acom" # 8136 with integral vacuum breaker, loose key handle, 3/4" C.W.

### RESIDENTIAL AREA



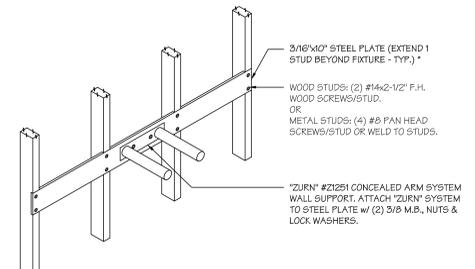
### PLUMBING SITE PLAN

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



### CONDENSATE DRAIN CONNECTION

SCALE: N.T.S.



### LAV. MOUNTING

SCALE: N.T.S.

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PTN: 63321- FILE: 15-6

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 FOR  
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### PLUMBING SITE PLAN, NOTES, SCHEDULE

MARK	DATE	REVISIONS
▲		
▲		
▲		

JOB NO.  
 1318  
 DRAWN:  
 B.S.  
 CHECKED:  
 M.B.  
 DATE:  
 2/28/22

**P**  
 1.0

**bme** BASKIN MECHANICAL ENGINEERS  
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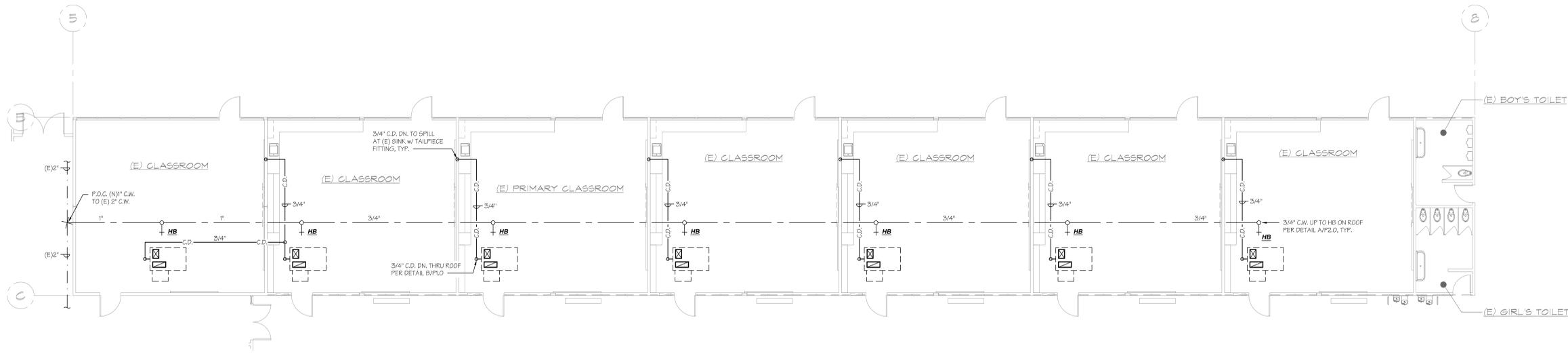
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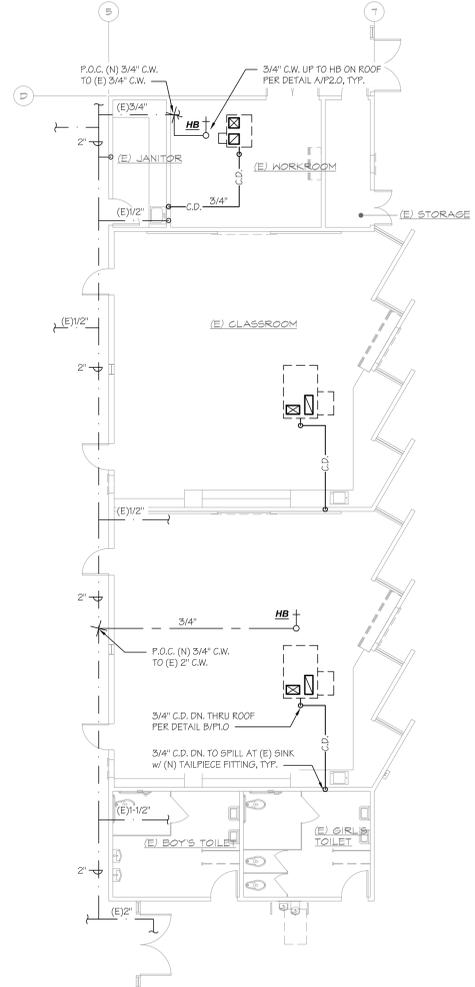
PLUMBING PLAN - UNIT 'A1' & 'A2A'

MARK	DATE	REVISIONS
△		
△		
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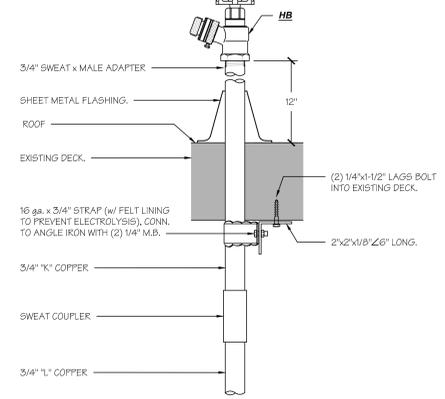
JOB NO. 1318	<b>P</b> 2.0
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**PLUMBING PLAN - UNIT 'A1'**  
 SCALE: 1/8"=1'-0"



**PLUMBING PLAN - UNIT 'A2A'**  
 SCALE: 1/8"=1'-0"



**HOSE BIBB ON ROOF**  
 SCALE: N.T.S.



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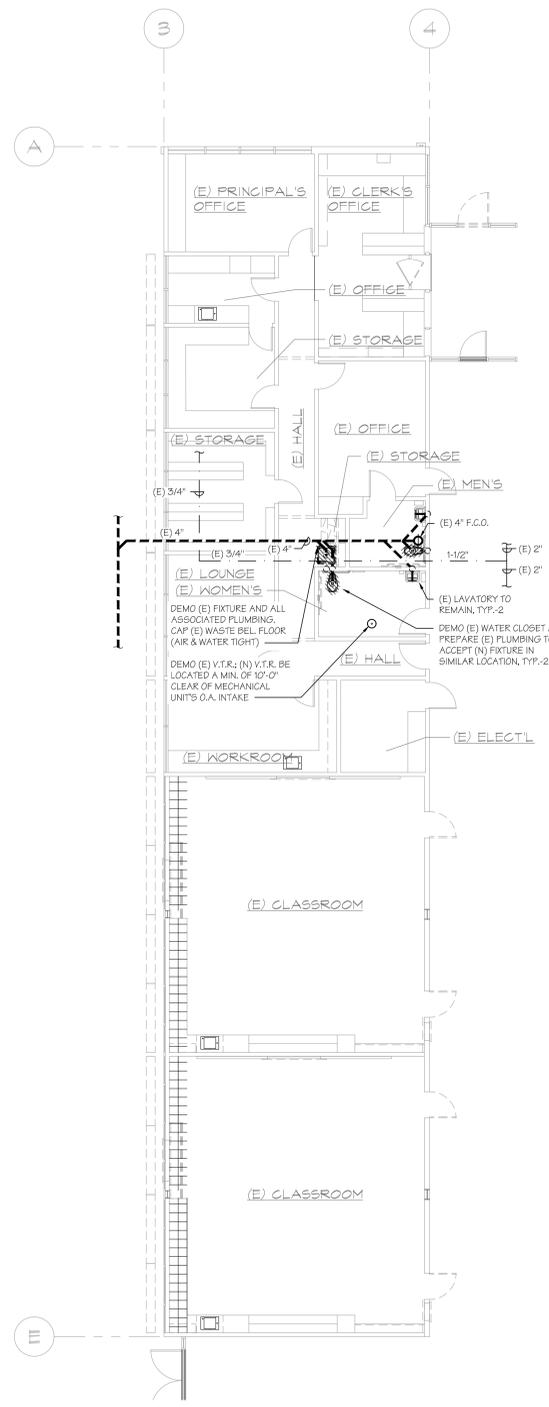
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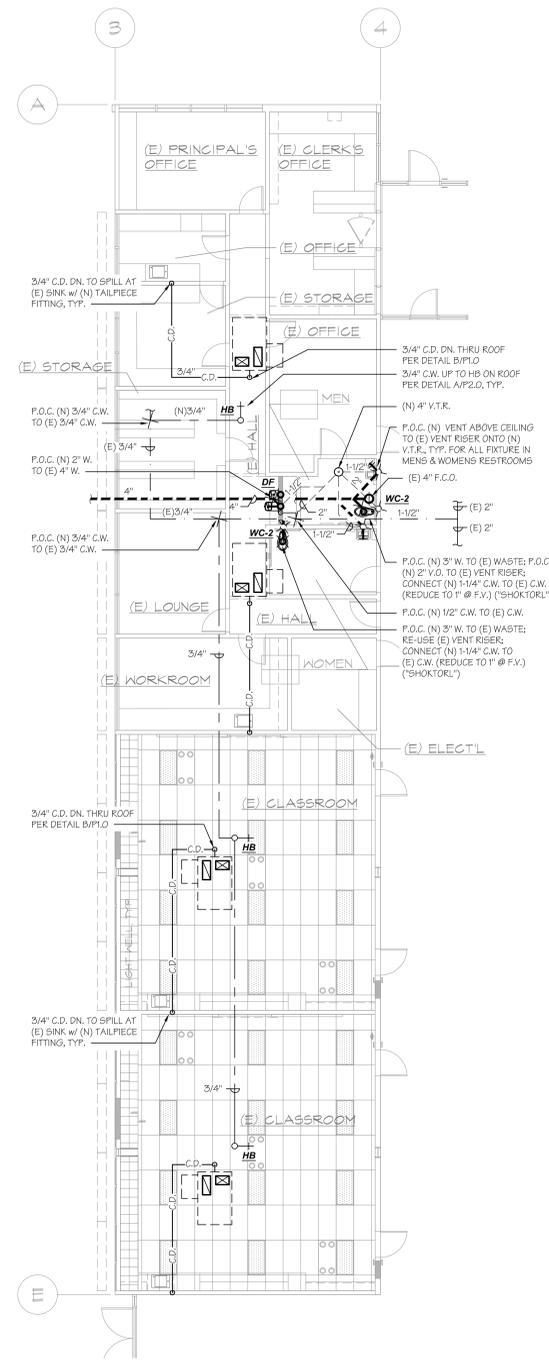
PLUMBING  
 PLAN & DEMO  
 PLAN - UNIT  
 'A2B'

MARK	DATE	REVISIONS
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△		
△		

JOB NO. 1318	<b>P</b> 2.1
DRAWN: B.S.	
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**PLUMBING DEMO PLAN - UNIT 'A2B'**  
 SCALE: 1/8"=1'-0"



**PLUMBING PLAN - UNIT 'A2B'**  
 SCALE: 1/8"=1'-0"



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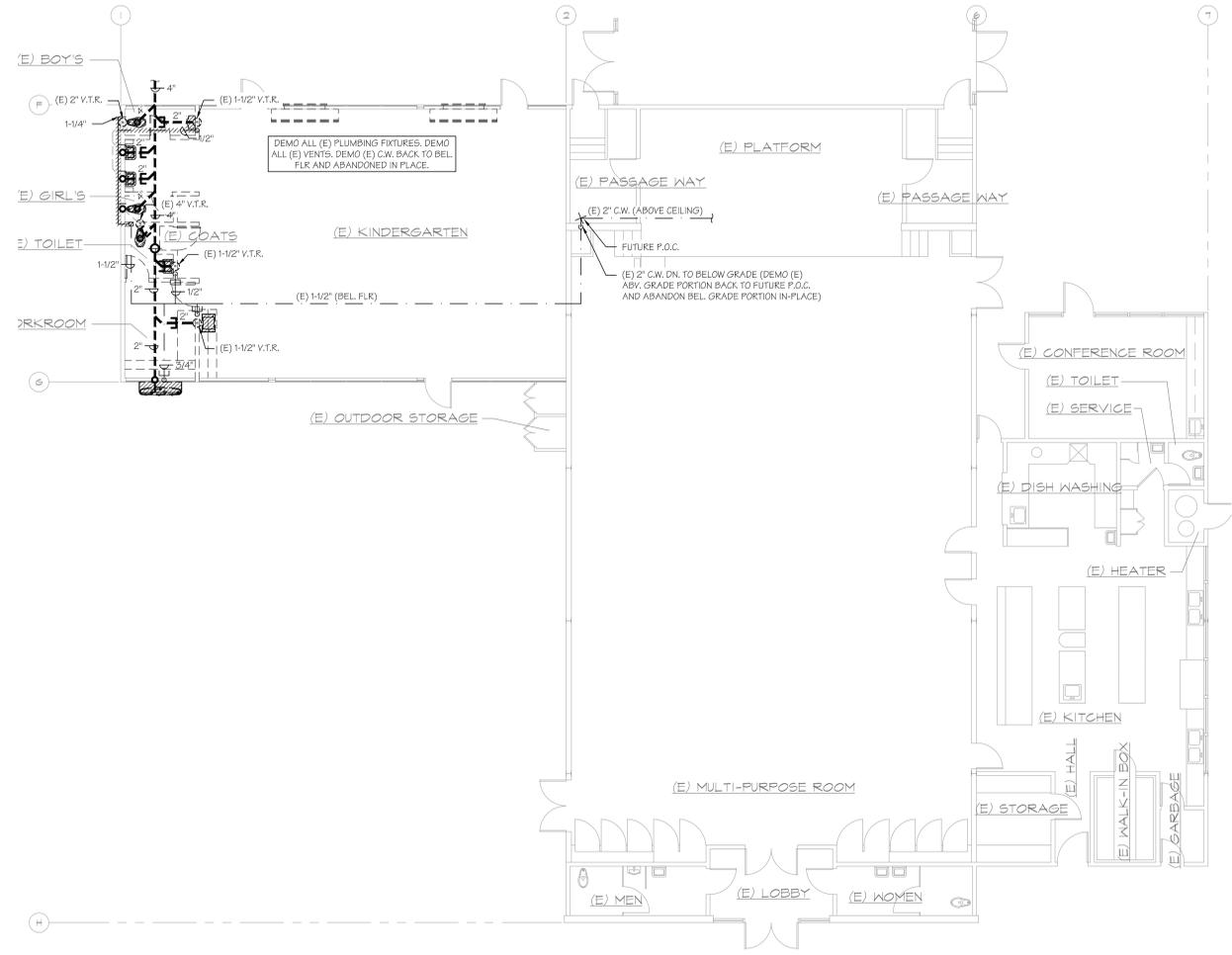
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PLUMBING  
 PLAN & DEMO  
 PLAN - UNIT 'A3'

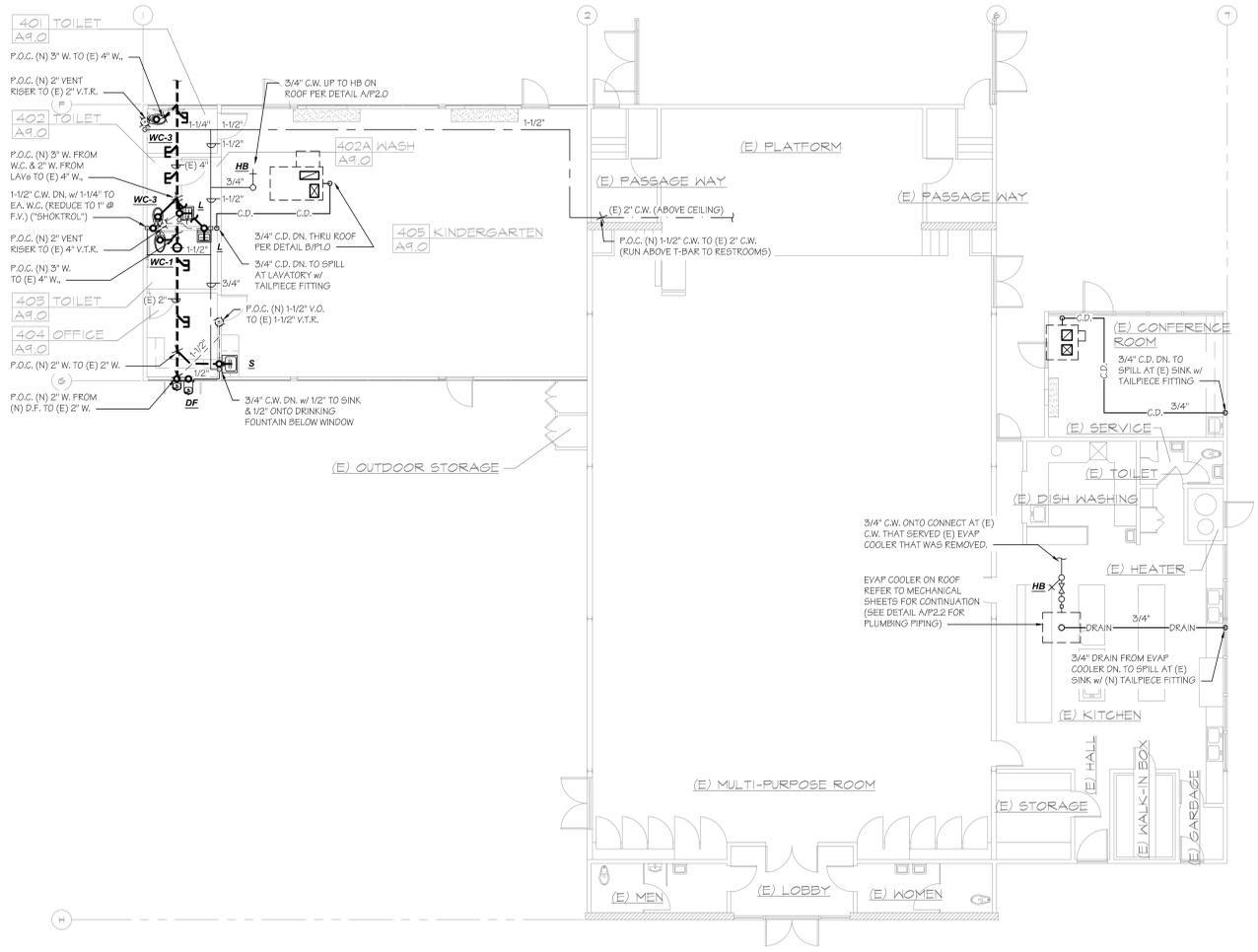
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PLUMBING DEMO PLAN - UNIT 'A3'  
 SCALE: 1/8"=1'-0"

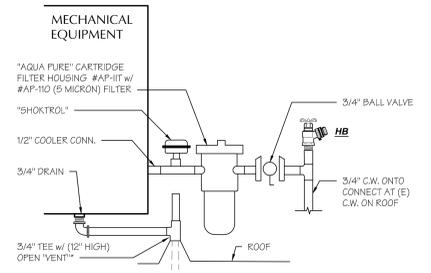


PLUMBING PLAN - UNIT 'A3'  
 SCALE: 1/8"=1'-0"

C.W. Calc's (Velocity):

3 W.C.	@ 5	Fixt. Units = 15
2 LAV's	@ 1	Fixt. Units = 2
1 Sink	@ 1.5	Fixt. Units = 1.5
1 DF	@ 0.5	Fixt. Units = 0.5
		TOTAL Fixt. Units = 19

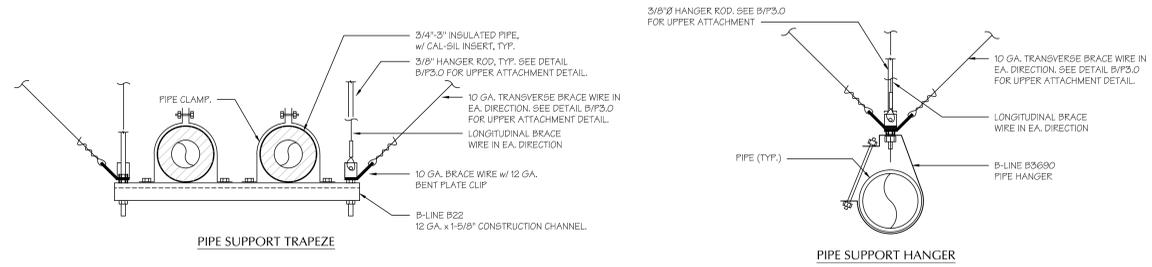
35 GPM = 1-1/2" C.W. @  
 6.1 F.P.S. Velocity & 4.8 P.S.I. friction loss/100'



MAKE-UP WATER & DRAIN AT COOLER  
 SCALE: N.T.S.



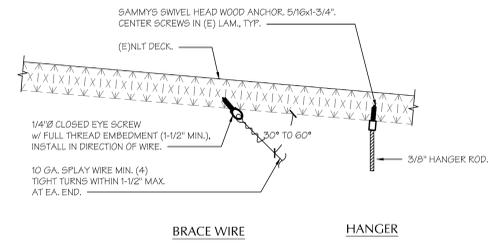
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### PIPE SUPPORT HANGER AND BRACING

SCALE: N.T.S.

A



### HANGING & BRACING UPPER CONNECTIONS

SCALE: N.T.S.

B

PIPE SERVICE	SIZE	MAX HANGER SPACING (1)	MAX BRACE SPACING (2)
WATER	< 1"	6 ft.	N/A
WATER	1" - 1 1/2"	6 ft.	12 ft.
WATER	> 2"	10 ft.	20 ft.
GAS	< 1"	6 ft.	N/A
GAS	> 1"	10 ft.	20 ft.
VENT	ANY	10 ft.	20 ft.

1) IN ADDITION TO SPACING NOTED, PROVIDE SUPPORT AT EACH FITTING OR JOINT.  
 2.) A MIN. OF (2) BRACES, (1) AT EACH END OF PIPE RUN EXCEEDING 10 FT. IN LENGTH.

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### BRACING DETAILS

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO. 1318	P
DRAWN: B.S.	
CHECKED: M.B.	
DATE: 2/28/22	

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 175 Fulton Street  
 Fresno, CA 93721  
 Tel: (559) 237-0376  
 Job: 21147  
 PIt: 4/1/24



**GENERAL ELECTRICAL NOTES**

- PROVIDE MINIMUM 36" WORK CLEARANCE IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 120/208V 3Ø 4W (PER CEC-110.26).
- PROVIDE MINIMUM 42" WORK CLEARANCE IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 480/277V 3Ø 4W (PER CEC-110.26).
- PROVIDE MINIMUM 30" WIDE WORK SPACE FOR PANELS, SERVICE OR EQUIPMENT 15" FROM BUS BAR TO OBSTRUCTION (PER CEC-110.26).
- SPECIFY THAT ONLY LISTED OR LABELED EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH INSTRUCTIONS INCLUDED IN THE LISTING AND LABELING (PER CEC-110.3(B)).
- SWITCHES SHALL BE MOUNTED A MAXIMUM OF 48" TO THE TOP OF BOX. RECEPTACLES SHALL BE MOUNTED A MINIMUM OF 15" TO THE BOTTOM OF BOX PER CBC 2019 SECTION 11B-308.
- HVAC CIRCUIT BREAKERS SHALL BE RATED HACR.
- ALL SERVICE EQUIPMENT TO BE SUITABLE FOR AVAILABLE SHORT CIRCUIT CURRENT PER CEC ART 110.9.
- PERMANENTLY DELINEATE ON THE FLOOR WORKING CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT WITH THE WORDING "NO STORAGE IN THIS AREA"
- PRIOR TO ORDERING THE SWITCHGEAR, THE ELECTRICAL CONTRACTOR SHALL COORDINATE A.I.C. RATINGS OF SWITCHBOARDS AND PANEL BOARDS WITH UTILITY COMPANY REQUIREMENTS. EVIDENCE OF SUCH COORDINATION SHALL BE AVAILABLE ON SITE FOR REVIEW BY CITY BUILDING INSPECTOR.
- SWITCHBOARDS AND PANEL BOARDS THAT ARE LIKELY TO BE ENERGIZED WHILE BEING MAINTAINED OR SERVICED BY QUALIFIED PERSONNEL SHALL BE LABELED WARNING OF POSSIBLE ARC FLASH HAZARDS AND IDENTIFIED WITH THE APPROPRIATE ARC FLASH PROTECTION RATING PERSONAL PROTECTIVE EQUIPMENT (PPE) SIGNAGE (PER CEC ART. 110.16).
- CONTRACTOR IS TO PROVIDE ENGRAVED NAMEPLATES ON EACH SERVICE PANEL, TRANSFORMER, DISCONNECT SWITCH MOTOR STARTER, ETC. (PER CEC-110.3).
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A LABEL PER CEC ARTICLE 408.4(A). PROVIDE TYPED PANEL BOARD DIRECTORIES. PANEL BOARDS SHALL ALSO BE MARKED COMPLIANT WITH CEC 408.4(B) FOR ORIGINATED SOURCE OF POWER.
- NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN 6 FEET OF THE FLOOR OR TO THE STRUCTURAL CEILING ABOVE THE SPACE OF ELECTRICAL EQUIPMENT (PER CEC ART. 110.26).
- EACH MULTIWIRED BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES, SUCH AS HANDLE-TIES AND MULTI-POLE BREAKERS (PER CEC- 210.4(B)).
- THE DISCONNECTING MEANS FOR EACH SERVICE, FEEDER OR BRANCH CIRCUIT ORIGINATING ON A SWITCHBOARD OR PANELBOARD SHALL BE LEGIBLY AND DURABLY MARKED TO INDICATE ITS PURPOSE UNLESS SUCH PURPOSE IS CLEARLY EVIDENT (CFC-605.3.1).
- ALL WORK SHALL MEET THE LATEST ADOPTED ADDITIONS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24 AND ALL OTHER APPLICABLE REGULATIONS, WHICH INCLUDE:
 

CALIFORNIA BUILDING CODE	2019
CALIFORNIA ELECTRICAL CODE	2019
NON RESIDENTIAL CEC ENERGY STANDARDS	2019
- PROVIDE THE MAIN SERVICE EQUIPMENT ROOM EGRESS DOOR, WITH THE REQUIRED DIRECTION OF THE DOOR SWING AND THE REQUIRED DOOR HARDWARE. ART.110.26(C)(3).

**MEP Component Anchorage Note:**

All mechanical, plumbing, and electrical components shall be anchored and installed per the details on the DSA approved construction documents. Where no detail is indicated, the following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2019 CBC Sections. 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapter 13.26 and 30.

- All permanent equipment and components.
- Temporary or movable equipment that is permanently attached (e.g. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical connections except plugs for 110/220 volt receptacles having flexible cable.
- Temporary, movable equipment or mobile equipment which is heavier than 400 lbs 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 traverse 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 hung from a wall.

The anchorage for all mechanical, electrical and plumbing components shall be subject to 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.

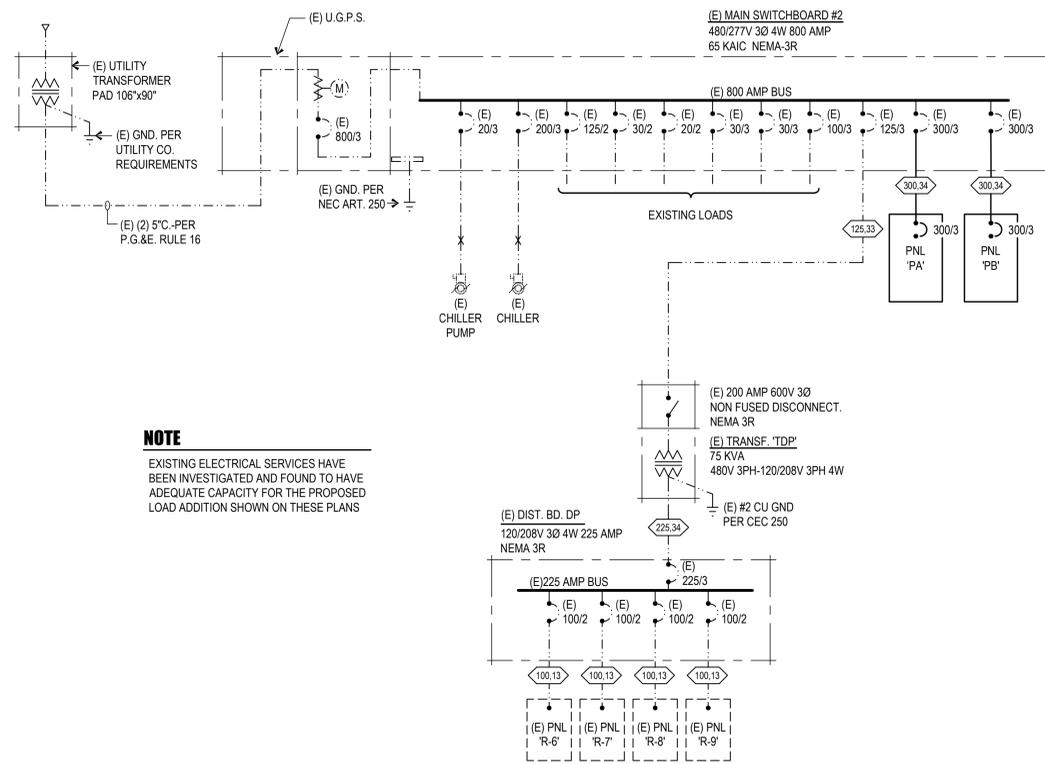
**Piping, Ductwork, and Electrical Distribution System Bracing Note:**

Piping, ductwork, and electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7-16 Section 13.3 as defined in ASCE 7-16 Sections 13.6.5, 13.6.6, 13.6.7, 13.6.8 and 2019 CBC Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution system are as noted below. When bracing and attachments are based on a pre-approved installation guide (e.g. OSHPD OPM for 2013 CBC or later), Copies of the bracing system installation guide or manual shall be available on the jobsite prior to the start of and during the hanging and bracing of the distribution systems. The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

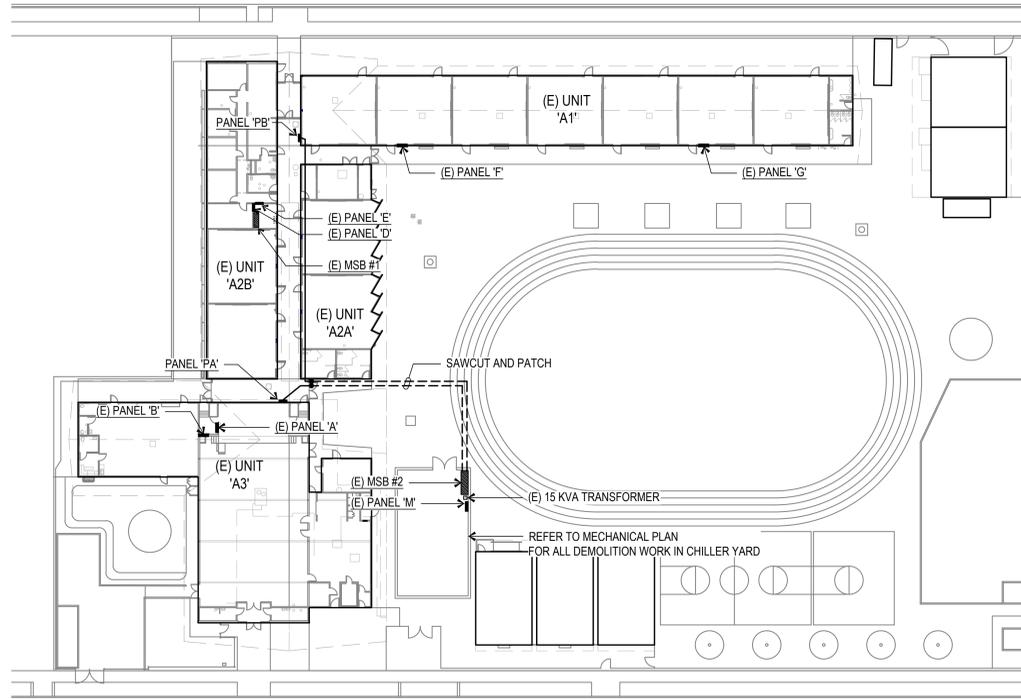
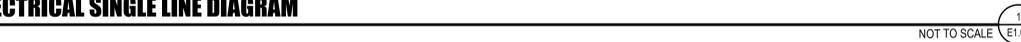
Mechanical piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems(E).

- MP□ MD□ PP□ E□ Option 1: Detailed on the approved drawings with project specific notes and details.
- MP□ MD□ PP□ E□ Option 2: Shall comply with the applicable OSHPD Pre-Approval (OPM) #OPM-0052-13

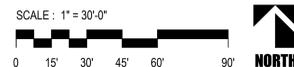


**NOTE**  
EXISTING ELECTRICAL SERVICES HAVE BEEN INVESTIGATED AND FOUND TO HAVE ADEQUATE CAPACITY FOR THE PROPOSED LOAD ADDITION SHOWN ON THESE PLANS

**ELECTRICAL SINGLE LINE DIAGRAM**



**ELECTRICAL SITE PLAN**



**ELECTRICAL SYMBOL SCHEDULE**

SYMBOL	NAME	DESCRIPTION
(Symbol)	FIXTURE TYPE "D" AND WATTAGE "90"	REFER TO FIXTURE SCHEDULE AND SPECIFICATIONS
(Symbol)	LED LIGHT FIXTURE	REFER TO FIXTURE SCHEDULE AND SPECIFICATIONS
(Symbol)	RECESSED LIGHT FIXTURE	REFER TO FIXTURE SCHEDULE AND SPECIFICATIONS
(Symbol)	LIGHT FIXTURE WITH EMERGENCY BATTERY BACKUP	REFER TO FIXTURE SCHEDULE AND SPECIFICATIONS
(Symbol)	ILLUMINATED EXIT SIGN	REFER TO FIXTURE SCHEDULE AND SPECIFICATIONS
(Symbol)	OCCUPANCY MOTION SENSOR	ABL-LIGHT
(Symbol)	WALL SWITCH WITH INTEGRAL OCCUPANCY SENSOR @ +48" TO TOP OF BOX, U.O.N.	ABL-SENSOR SWITCH
(Symbol)	OCCUPANCY SENSOR, CEILING MOUNTED - NETWORK	ABL-LIGHT
(Symbol)	OCCUPANCY SENSOR SWITCHPACK	ABL-LIGHT
(Symbol)	WALL SWITCH @+45" AFF MAX. TO TOP OF BOX.	AC QUIET TYPE, 20A, 277V
(Symbol)	WALL SWITCH, 3-WAY @+45" AFF MAX. TO TOP OF BOX.	AC QUIET TYPE, 20A, 277V
(Symbol)	*SOLATUBE* CONTROL SWITCH @+45" AFF MAX. TO TOP OF BOX	PROVIDED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
(Symbol)	WALL MOTION DIMMER SWITCH	ABL-LIGHT
(Symbol)	WALL MOTION DIMMER SWITCH ON / OFF + RAISE / LOWER	ABL-LIGHT
(Symbol)	WALL MOTION DIMMER SWITCH ON / OFF + RAISE / LOWER WITH INTEGRAL OCCUPANCY SENSOR	ABL-LIGHT
(Symbol)	WALL MOTION DIMMER SWITCH 2 ZONE ON / OFF + RAISE / LOWER	ABL-LIGHT
(Symbol)	WALL MOTION DIMMER SWITCH 4 ZONE ON / OFF + RAISE / LOWER	ABL-LIGHT
(Symbol)	DUPLEX CONVENIENCE OUTLET MOUNTED @ +15" MIN. TO BOTTOM OF BOX, U.O.N.	20A, NEMA GROUNDED
(Symbol)	WEATHERPROOF CONVENIENCE OUTLET MOUNTED @ +15" MIN. TO BOTTOM OF BOX, U.O.N.	20A, NEMA GROUNDED
(Symbol)	QUADRUPLX CONVENIENCE OUTLET MOUNTED @ +15" MIN. TO BOTTOM OF BOX, U.O.N.	20A, NEMA GROUNDED
(Symbol)	ELECTRICAL SWITCHBOARD	REFER TO POWER SINGLE LINE DIAGRAM
(Symbol)	ELECTRICAL PANEL	REFER TO PANEL SCHEDULE
(Symbol)	TERMINAL CABINET	
(Symbol)	EXHAUST FAN	REFER TO MECHANICAL PLANS & SPECIFICATIONS.
(Symbol)	120V RELAY WITH 277V COIL	SIZED TO HANDLE EXHAUST FAN LOAD
(Symbol)	MOTOR WITH FUSIBLE DISCONNECT SWITCH, W.P. AS REQ'D	REFER TO MECHANICAL PLANS & SPECIFICATIONS.
(Symbol)	JUNCTION BOX	
(Symbol)	COMMUNICATIONS / DATA OUTLET @ +15" AFF MIN. BOTTOM OF BOX, +48" MAX TOP OF BOX U.O.N.	4 1/2"x6" x 2 1/8" BOX W/ 1/2" Z GANG EXTENSION RING, (1) 1/2" STUBS TO ACCESSIBLE ATTIC SPACE, (1) DATA CABLE, (1) VOICE CABLE WITH JACKS MINIMUM
(Symbol)	INTERCOM OUTLET @+15" AFF MIN. BOTTOM OF BOX, +48" MAX TOP OF BOX U.O.N.	
(Symbol)	TELEPHONE OUTLET @+15" AFF MIN. BOTTOM OF BOX, +48" MAX TOP OF BOX U.O.N.	
(Symbol)	PA SPEAKER, FLUSH CEILING MOUNTED U.O.N.	REFER TO SCHOOL DISTRICT SPECIFICATIONS.
(Symbol)	EXTERIOR PA SPEAKER WALL MTD @+9'-0" UON (WEATHERPROOF)	REFER TO SCHOOL DISTRICT SPECIFICATIONS.
(Symbol)	CLOCK / PA SPEAKER COMBINATION @+7'-6" UON	REFER TO SCHOOL DISTRICT SPECIFICATIONS.
(Symbol)	TELEVISION / VIDEO OUTLET	REFER TO SCHOOL DISTRICT SPECIFICATIONS.
(Symbol)	PROGRAM BELL	
(Symbol)	SECURITY MICROPHONE MTD ABOVE DOOR U.O.N.	PROVIDED BY SCHOOL DISTRICT, INSTALLED BY E.C.
(Symbol)	SECURITY DOOR CONTACT	SEE SPECS
(Symbol)	SURFACE RACEWAY W/ OUTLETS & DATA JACKS	WIRED/OLD 5400 SERIES SYSTEM. INSTALL DUPLEX / QUADRUPLX RECEPTACLES AND DATA JACK AS INDICATED ON PLANS.
(Symbol)	POWER PACK 0-10V DIMMING	ABL-LIGHT
(Symbol)	POWER PACK INCANDESCENT DIMMING	ABL-LIGHT
(Symbol)	PLUG LOAD CONTROLLER	ABL-LIGHT
(Symbol)	PHOTO SENSOR - 3 ZONE (LOWER CASE LETTER INDICATES CONTROL GROUP)	ABL-LIGHT
(Symbol)	LOW VOLTAGE SENSOR WIRING, PLENUM RATED	REFER TO DEVICE LITERATURE FOR NUMBER OF CONDUCTORS.
(Symbol)	WIRING BELOW GRADE	3/4" CONDUIT MINIMUM.
(Symbol)	WIRING IN WALL OR CEILING	3/4" CONDUIT MINIMUM.
(Symbol)	FLEXIBLE CONDUIT	3/4" CONDUIT MINIMUM.
(Symbol)	CONDUIT STUB AND CAP	
(Symbol)	HASH MARKS DENOTES QUANTITY OF CONDUCTORS	
(Symbol)	HOME RUN (TO PANEL "A", CIRCUIT "15")	3/4" CONDUIT MINIMUM.
(Symbol)	EXISTING CONDUIT TO REMAIN	
(Symbol)	EXISTING ITEM TO REMAIN	
(Symbol)	U.O.N.	UNLESS OTHERWISE NOTED
(Symbol)	(GFI)	GROUND FAULT CIRCUIT INTERRUPTER

**FEEDER SCHEDULE**

AMPS	CONDUIT AND CONDUCTORS (THHN/THWN CU)					NYLON PULL LINE (NPL)	GROUNDING (THHN/THWN) COPPER PER CONDUIT
	PVC, EMT OR GRS	10 3W (13)	3Ø 3W (33)	3Ø 4W (34)	3Ø 5W (35)		
30	3/4"	3 #10	3 #10	4 #10	NA	1	#10
40	3/4"	3 #8	3 #8	4 #8		1	#10
50	1"	3 #6	3 #6	4 #6		1	#10
60	1"	3 #6	3 #6	4 #6		1	#10
70	1 1/4"	3 #4	3 #4	4 #4		1	#6
80	1 1/4"	3 #4	3 #4	4 #4		1	#6
90	1 1/4"	3 #2	3 #2	4 #2		1	#6
100	1 1/2"	3 #1	3 #1	4 #1	5 #1	1	#6
125	1 1/2"	3 #1	3 #1	4 #1	5 #1	1	#6
150	2"	3 #1/0	3 #1/0	4 #1/0	5 #1/0	1	#6
175	2"	3 #2/0	3 #2/0	4 #2/0	5 #2/0	1	#4
200	2"	3 #3/0	3 #3/0	4 #3/0	5 #3/0	1	#4
225	2 1/2"	3 #4/0	3 #4/0	4 #4/0	5 #4/0	1	#2
250	3"	3 #250 Kcmil	3 #250 Kcmil	4 #250 Kcmil	5 #250 Kcmil	1	#2
300	3 1/2"	3 #350 Kcmil	3 #350 Kcmil	4 #350 Kcmil	5 #350 Kcmil	1	#2
400	4"	3 #500 Kcmil	3 #500 Kcmil	4 #500 Kcmil	5 #500 Kcmil	1	#10
500	(2) 3"	3 #250 Kcmil (EA)	3 #250 Kcmil (EA)	4 #250 Kcmil (EA)	5 #250 Kcmil (EA)	1	#20
600	(2) 3 1/2"	3 #350 Kcmil (EA)	3 #350 Kcmil (EA)	4 #350 Kcmil (EA)	5 #350 Kcmil (EA)	1	#20
700	(2) 4"	3 #500 Kcmil (EA)	3 #500 Kcmil (EA)	4 #500 Kcmil (EA)	5 #500 Kcmil (EA)	1	#20
800	(2) 4"	3 #600 Kcmil (EA)	3 #600 Kcmil (EA)	4 #600 Kcmil (EA)	5 #600 Kcmil (EA)	1	#20
1000	(3) 1 1/2"	3 #400 Kcmil (EA)	3 #400 Kcmil (EA)	4 #400 Kcmil (EA)	5 #400 Kcmil (EA)	1	#30
1200	(4) 1 1/2"	3 #500 Kcmil (EA)	3 #500 Kcmil (EA)	4 #500 Kcmil (EA)	5 #500 Kcmil (EA)	1	#30
1600	(4) 1 1/2"	3 #600 Kcmil (EA)	3 #600 Kcmil (EA)	4 #600 Kcmil (EA)	5 #600 Kcmil (EA)	1	#40
2000	(5) 1 1/2"	3 #800 Kcmil (EA)	3 #800 Kcmil (EA)	4 #800 Kcmil (EA)	5 #800 Kcmil (EA)	1	#40

FEEDER AMPS: 2000.33  
CONDUCTOR TYPE (3Ø 5W)  
NOTE: 3Ø 3W FEEDERS ARE 3Ø, 3Ø, 3Ø AND TWO NEUTRAL CONDUCTORS FOR NON-LINEAR LOAD APPLICATIONS.

**GENERAL COORDINATION NOTES**

- Prior to commencing construction the Contractor shall carefully examine the site and existing conditions, compare the Drawings with the existing electrical installations and thoroughly familiarize themselves with all existing conditions within the scope of this work. The Contractor shall inform the Electrical Engineer in writing when this process is complete and if any discrepancies are noticed.
- Mechanical Coordination: Prior to commencing construction, the Contractor shall arrange a conference with the Mechanical/Plumbing Contractors and equipment suppliers to verify type, sizes, locations, requirements, controls and diagrams of all equipment furnished by them. In writing, he shall inform the Electrical Engineer that all phases of coordination of this equipment have been covered. If any unusual conditions or problems are noticed, they are to be enumerated at this time.

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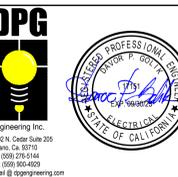
**WILLIAM PENN ELEMENTARY SCHOOL  
MODERNIZATION**  
2201 SAN EMIDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, NCBAB, AIA, LEED AP  
CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



**ELECT. SITE PLAN,  
SYMBOL LEGEND,  
SINGLE LINE,  
DETAILS AND  
NOTES**

MARK	DATE	REVISIONS
(Symbol)		
(Symbol)		
(Symbol)		

JOB NO. 1318  
DRAWN: R.L.M.  
CHECKED: D.P.G.  
DATE: 10/6/22  
1.00 OF SHEETS

**REFERENCE NOTES**

- REMOVE THREE EXISTING SWITCHES AND CONDUCTORS. LOWER EXISTING BOX DOWN TO +45". CUT AND PATCH AS REQUIRED. PROVIDE 2 ZONE DIMMING WALL CONTROLLER.
- CONNECT TO EXISTING LIGHTING CIRCUIT.
- REMOVE THREE EXISTING SWITCHES AND CONDUCTORS. LOWER EXISTING BOX DOWN TO +45". CUT AND PATCH AS REQUIRED. PROVIDE DIMMING WALL CONTROLLER.
- TYPICAL. EXISTING ELECTRONIC FILTER IN NEW LOCATION. RECONNECT TO EXISTING CIRCUIT.

**LIGHTING DEMO NOTE**

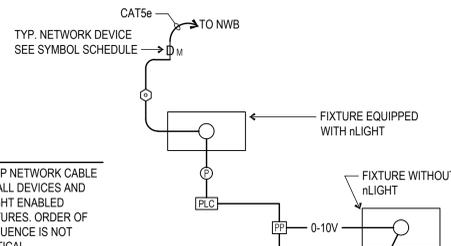
REMOVE ALL EXISTING LIGHT FIXTURES, OCCUPANCY SENSORS, SWITCH PACKS AND DIMMING CONTROL MODULES (IF APPLICABLE) REMOVE ANY CONDUIT AND CONDUCTORS NOT TO BE RE-USED.

**CEILING NOTES**

- REMOVE AND RE-INSTALL CEILING MOUNT WIRELESS ACCESS POINTS INTO NEW CEILING.
- REMOVE AND RE-INSTALL CEILING MOUNT PA AND AV SPEAKERS INTO NEW CEILING.

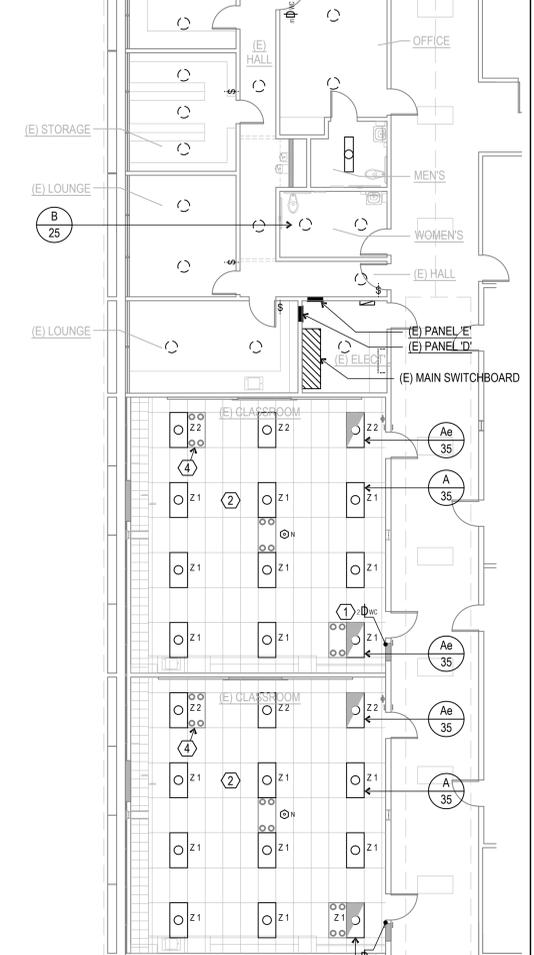
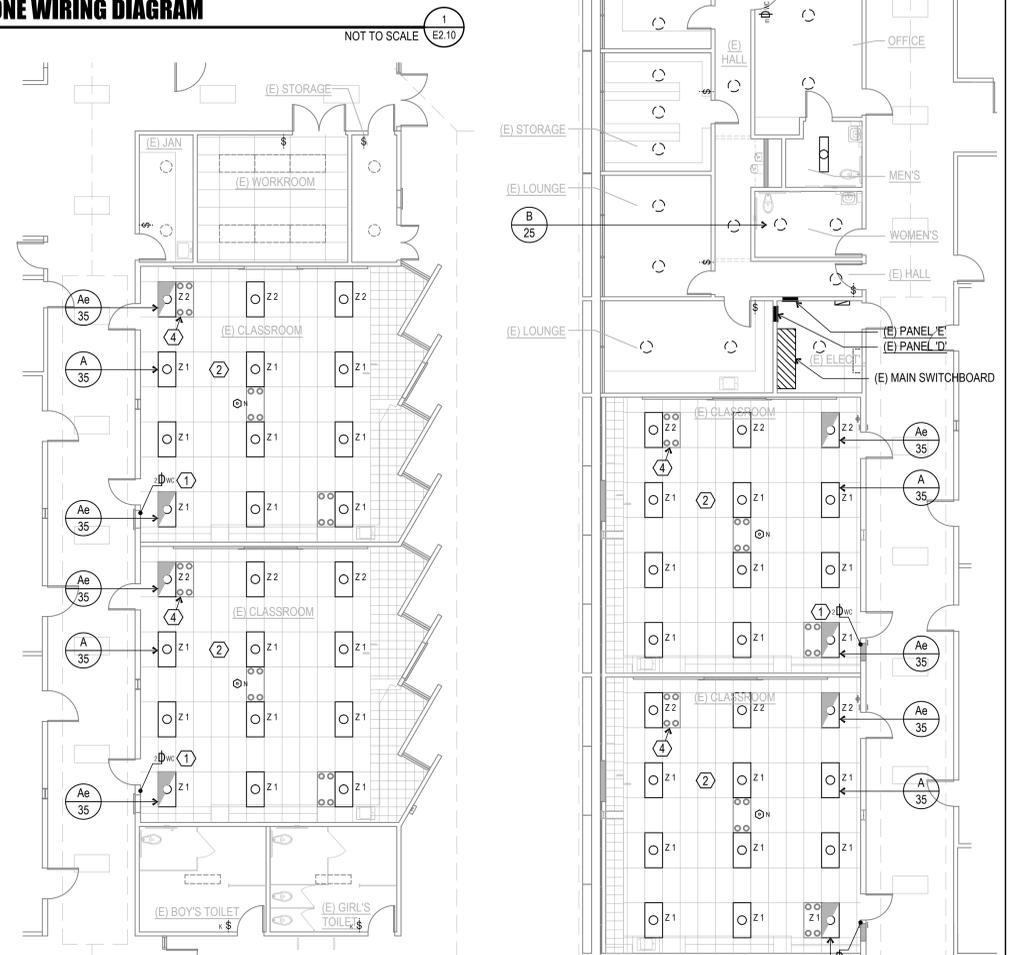
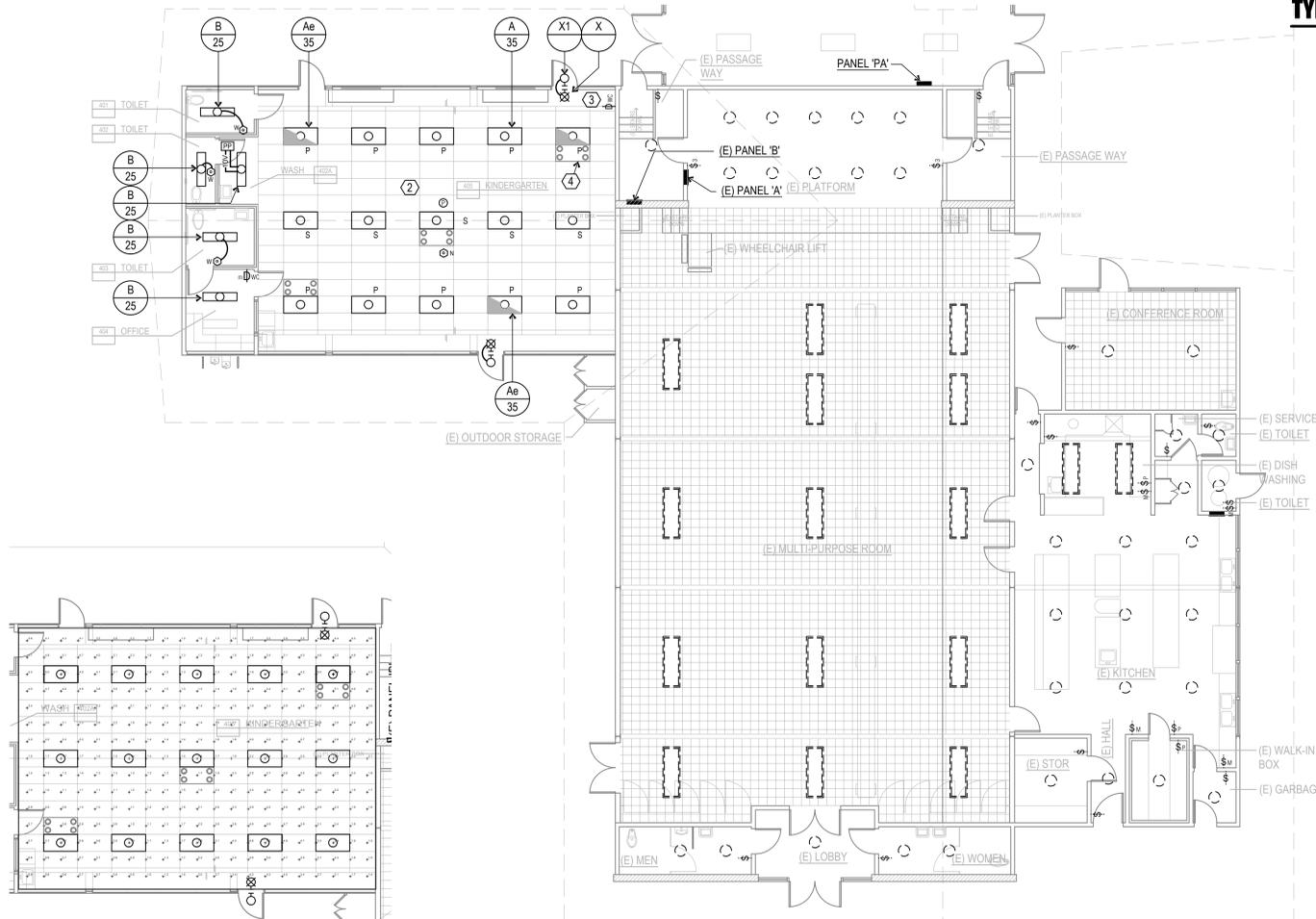
**NOTE:**

- LOOP NETWORK CABLE TO ALL DEVICES AND nLIGHT ENABLED FIXTURES. ORDER OF SEQUENCE IS NOT CRITICAL

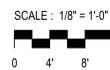


**TYPICAL ZONE WIRING DIAGRAM**

NOT TO SCALE



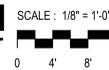
**EMERGENCY LIGHTING POINT BY POINT UNIT 'A3'**



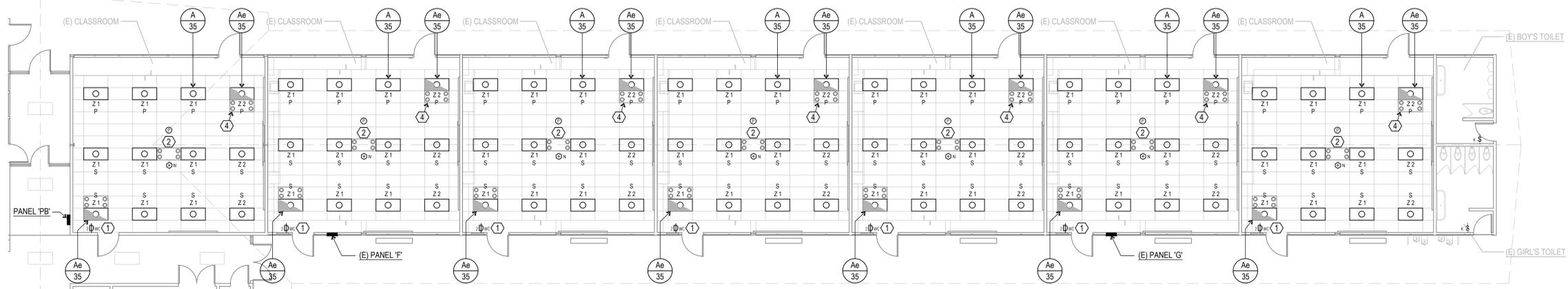
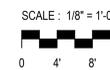
**LIGHTING FLOOR PLAN UNIT 'A3'**



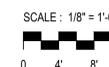
**LIGHTING FLOOR PLAN UNIT 'A2A'**



**LIGHTING FLOOR PLAN UNIT 'A2B'**



**LIGHTING FLOOR PLAN UNIT 'A1'**



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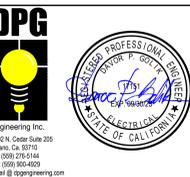


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**UNITS A1,A2A,A2B & A3 LIGHTING FLOOR PLANS, DETAILS AND NOTES**

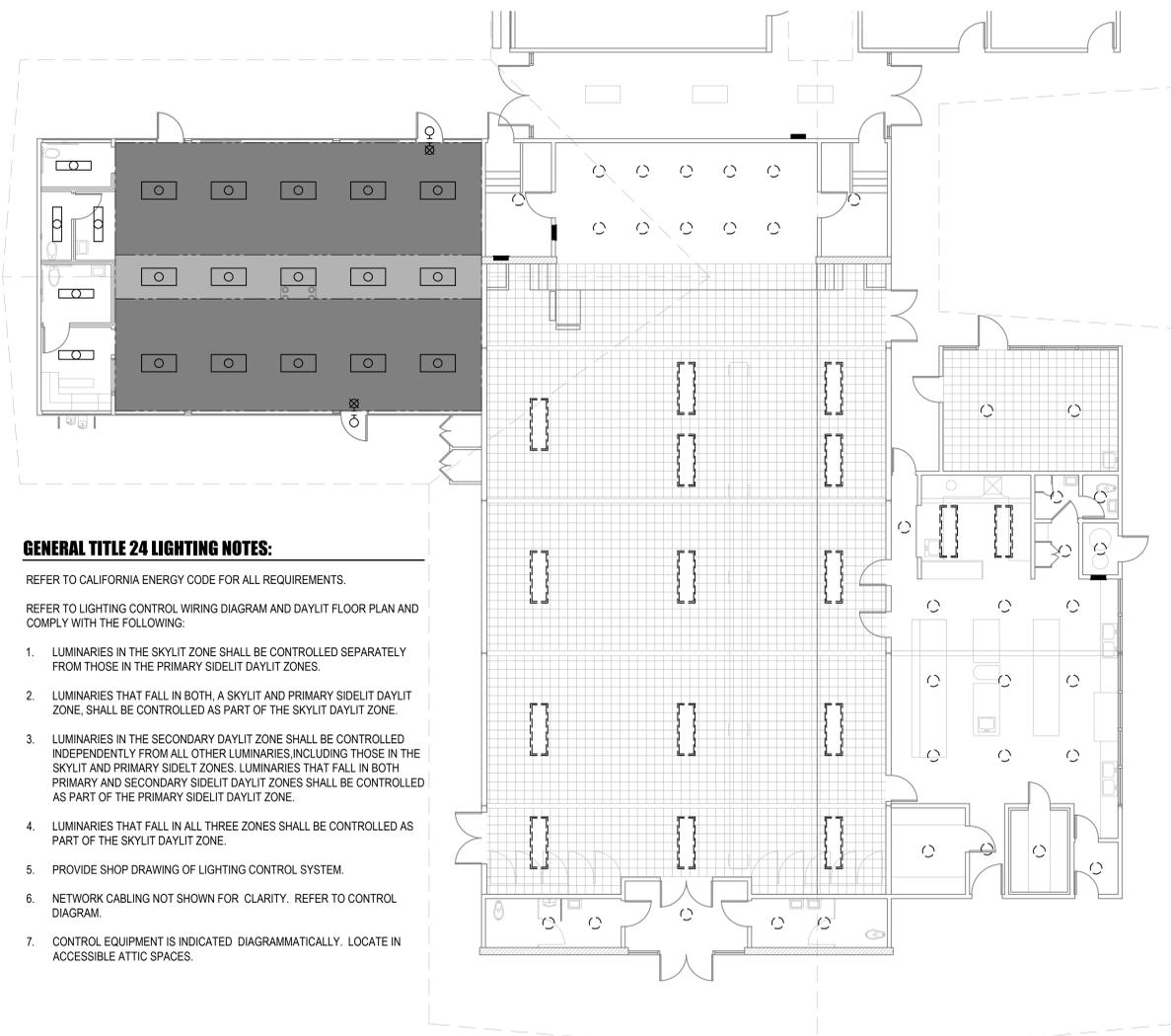
MARK	DATE	REVISIONS

JOB NO.  
**1318**  
DRAWN BY:  
R.L.M.  
CHECKED BY:  
D.P.G.  
DATE:  
10/6/22



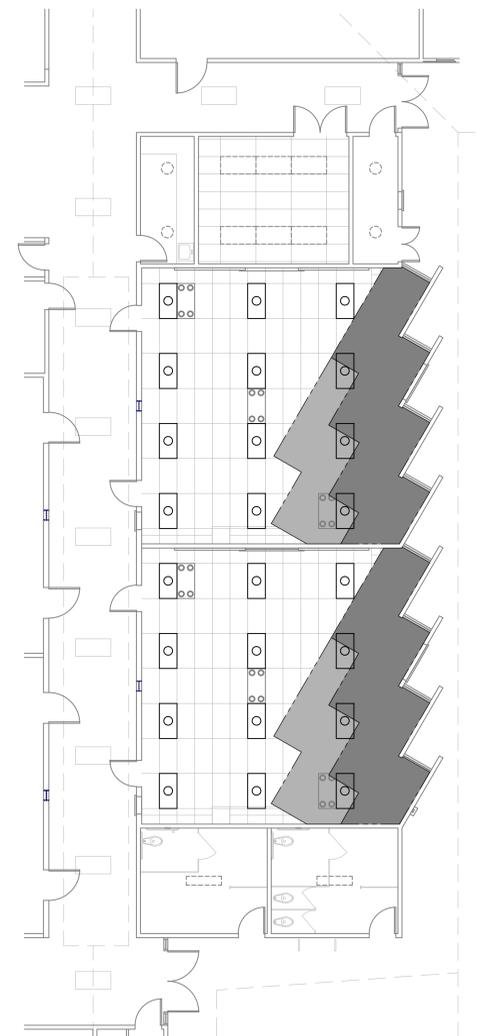
**2.10**  
OF SHEETS

DAYLIT ZONE AREA REFERENCE	LIGHTING ZONE
PRIMARY SIDELIT ZONE "P"	Z1 ZONE ONE
SECONDARY SIDELIT ZONE "S"	Z2 ZONE TWO



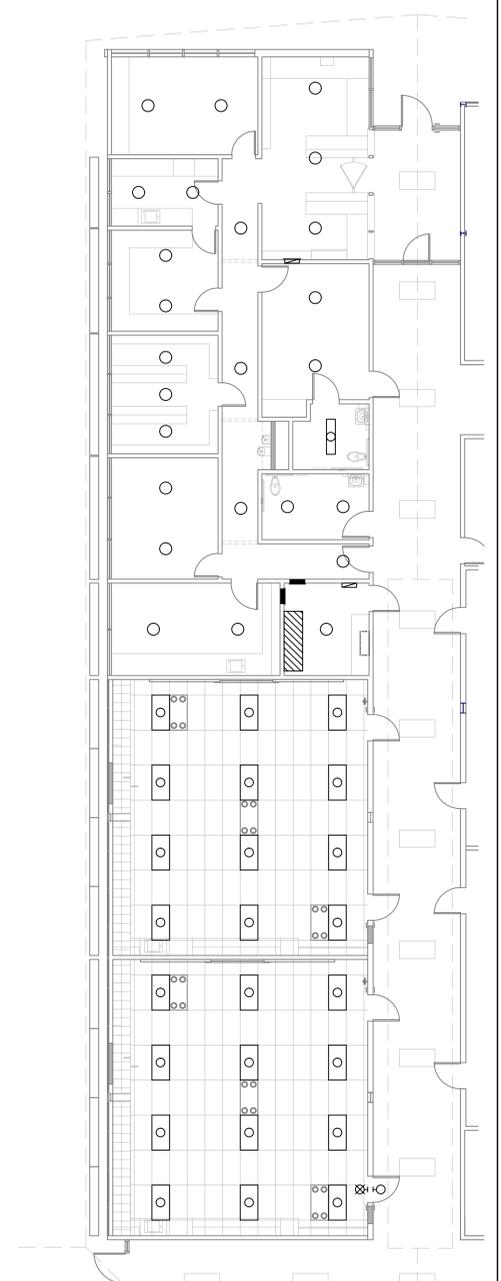
**DAYLIT FLOOR PLAN**  
UNIT 'A3'

SCALE: 1/16" = 1'-0"



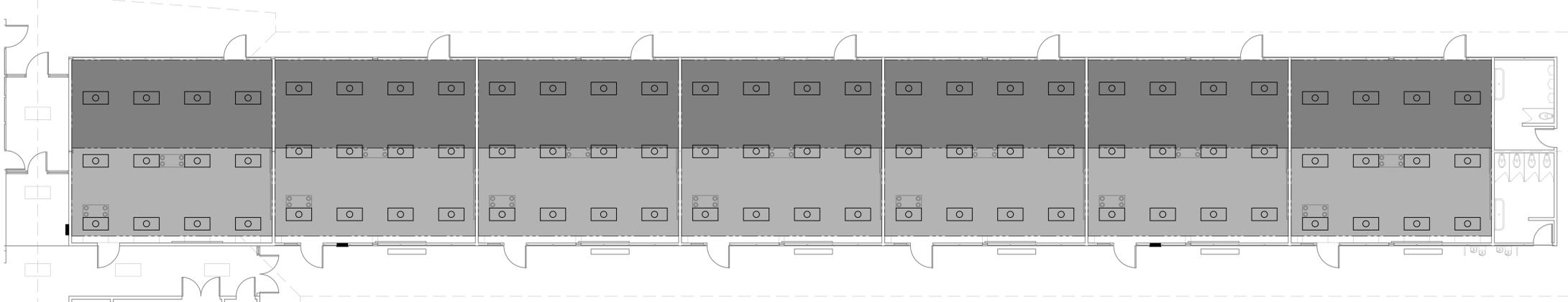
**DAYLIT FLOOR PLAN**  
UNIT 'A2A'

SCALE: 1/16" = 1'-0"



**DAYLIT FLOOR PLAN**  
UNIT 'A2B'

SCALE: 1/16" = 1'-0"



**DAYLIT FLOOR PLAN**  
UNIT 'A1'

SCALE: 1/16" = 1'-0"



**GENERAL TITLE 24 LIGHTING NOTES:**

REFER TO CALIFORNIA ENERGY CODE FOR ALL REQUIREMENTS.

REFER TO LIGHTING CONTROL WIRING DIAGRAM AND DAYLIT FLOOR PLAN AND COMPLY WITH THE FOLLOWING:

- LUMINARIES IN THE SKYLIT ZONE SHALL BE CONTROLLED SEPARATELY FROM THOSE IN THE PRIMARY SIDELIT DAYLIT ZONES.
- LUMINARIES THAT FALL IN BOTH, A SKYLIT AND PRIMARY SIDELIT DAYLIT ZONE, SHALL BE CONTROLLED AS PART OF THE SKYLIT DAYLIT ZONE.
- LUMINARIES IN THE SECONDARY DAYLIT ZONE SHALL BE CONTROLLED INDEPENDENTLY FROM ALL OTHER LUMINARIES, INCLUDING THOSE IN THE SKYLIT AND PRIMARY SIDELIT ZONES. LUMINARIES THAT FALL IN BOTH PRIMARY AND SECONDARY SIDELIT DAYLIT ZONES SHALL BE CONTROLLED AS PART OF THE PRIMARY SIDELIT DAYLIT ZONE.
- LUMINARIES THAT FALL IN ALL THREE ZONES SHALL BE CONTROLLED AS PART OF THE SKYLIT DAYLIT ZONE.
- PROVIDE SHOP DRAWING OF LIGHTING CONTROL SYSTEM.
- NETWORK CABLING NOT SHOWN FOR CLARITY. REFER TO CONTROL DIAGRAM.
- CONTROL EQUIPMENT IS INDICATED DIAGRAMMATICALLY. LOCATE IN ACCESSIBLE ATTIC SPACES.

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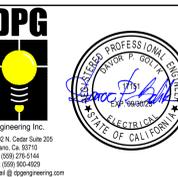


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BAKERSFIELD, CA 93309  
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FAX: (661) 397-4378  
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CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



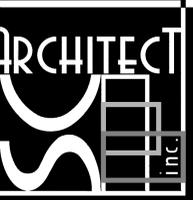
**UNITS A1,A2A,A2B  
& A3  
DAYLIT LIGHTING  
FLOOR PLANS &  
NOTES**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.  
1318  
DRAWN:  
R.L.M.  
CHECKED:  
D.P.G.  
DATE:  
10/6/22

**2.20**  
OF SHEETS

**WILLIAM PENN ELEMENTARY SCHOOL  
 MODERNIZATION**  
 2201 SAN EMIDIO STREET  
 FOR  
 BAKERSFIELD CITY SCHOOL DISTRICT  
 BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
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**UNIT A3  
 POWER PLAN &  
 DEMOLITION PLAN**

MARK	DATE	REVISIONS
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JOB NO.  
**1318**  
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 10/6/22

**3.10**  
 OF SHEETS

**DEMOLITION REFERENCE NOTES**

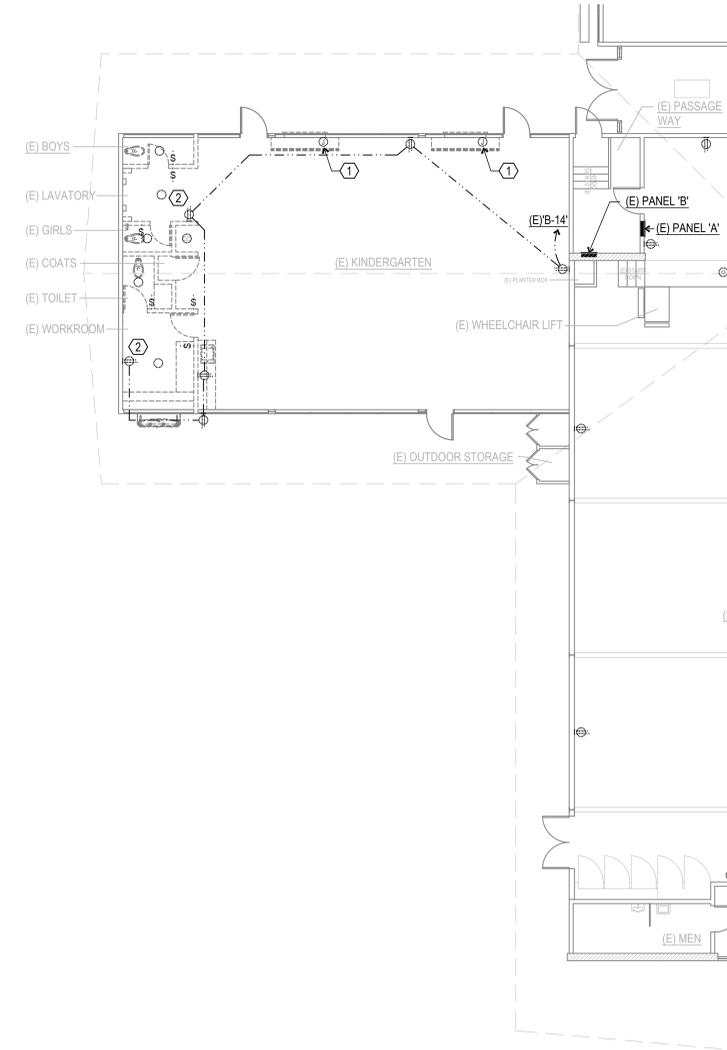
- DISCONNECT POWER TO UNIT VENTILATOR. PROVIDE BLANK COVER AND LABEL CIRCUIT BREAKER AS SPARE.
- DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES. REFER TO DEMO NOTES

**POWER REFERENCE NOTES**

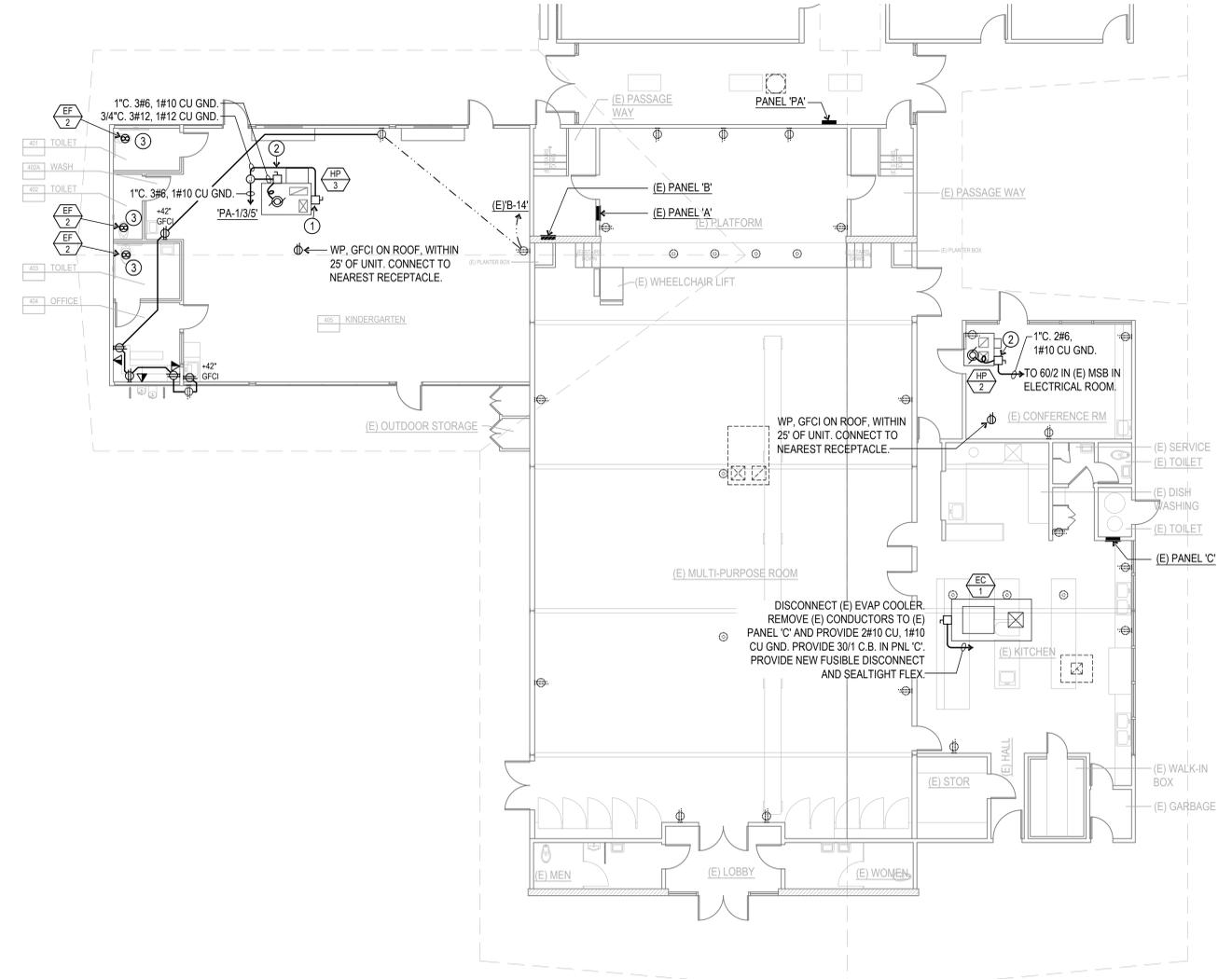
- POWERED EXHAUST FUSED DISCONNECT.
- HP FUSED DISCONNECT.
- CONNECT FAN TO LIGHTING IN RESTROOM.

**DEMOLITION NOTES:**

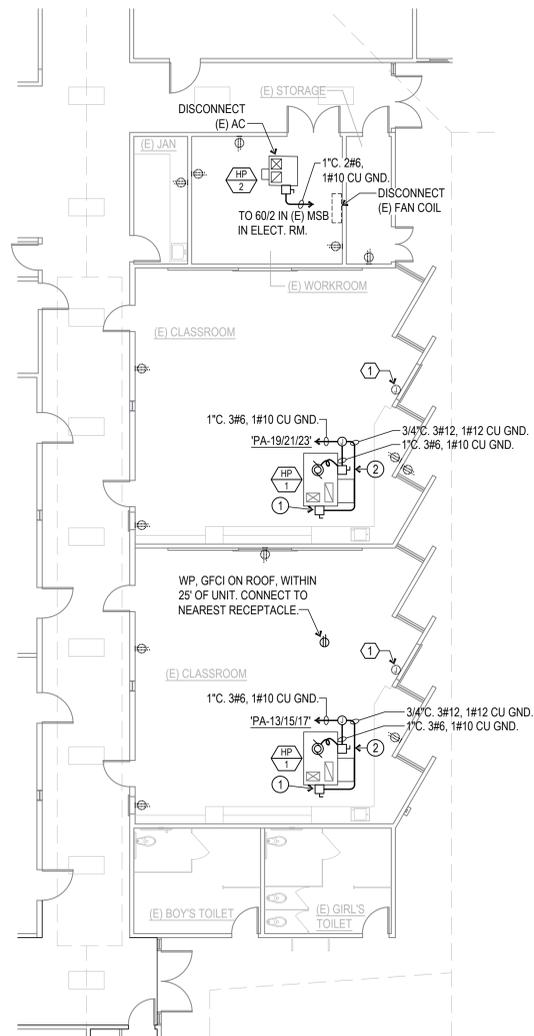
- REMOVE AND/OR REROUTE AND RECONNECT ANY EXISTING CIRCUITS INTERRUPTED BY DEMOLITION WORK. ALL EXISTING EQUIPMENT THAT IS REMOVED SHALL BE RETURNED TO OWNER.
- REMOVE AND/OR REROUTE AND RECONNECT ANY EXISTING ELECTRICAL WORK WHICH INTERFERES WITH NEW CONSTRUCTION AS REQUIRED.
- ALL CONDUITS SHALL BE CONCEALED. WHERE SPECIFICALLY PERMITTED ON JOB, CONDUIT MAY BE RUN EXPOSED AND SHALL BE INSTALLED IN A MANNER TO THE SATISFACTION OF THE ARCHITECT.
- EXISTING ELECTRICAL OUTLET BOXES AND RACEWAYS, WHERE LOCATED TO BE OF VALUE FOR NEW CONSTRUCTION AND WHERE JUDGED TO BE IN GOOD CONDITION BY THE ARCHITECT, MAY BE REFURBISHED AND REUSED.
- INSTALL NEW CONDUCTORS WHENEVER EXISTING OUTLET BOXES ON RACEWAYS ARE USED. DO NOT USE EXISTING CONDUCTORS. MINIMUM WIRE SIZE SHALL BE #12 AWG COPPER UNLESS OTHERWISE NOTED.
- REMOVE CONDUCTORS FROM ANY ABANDONED RACEWAY, BACK TO NEAREST TERMINATION POINT.
- COORDINATE REMOVAL OF EXISTING LIGHT FIXTURES, OUTLETS, PHONES, ETC., WITH ARCHITECTURAL PLAN.
- REMOVE EXISTING OUTLET DEVICES AND PLATES REMAINING AND PROVIDE ALL NEW IN EXISTING BOXES AS REQUIRED.
- COORDINATE WITH OWNER ALL DISRUPTION OF SCHOOL CLOCK, PROGRAM, FIRE ALARM, INTERCOM SYSTEMS AND POWER SERVICE.
- ALL DEVICES, ETC. IN WALLS TO BE DEMOLISHED SHALL BE DISCONNECTED AND REMOVED, WHETHER INDICATED OR NOT. FIELD VERIFY ALL CONDITIONS PRIOR TO BID.
- CONTRACTOR SHALL PATCH TO MATCH ALL EXISTING SURFACES TO REMAIN WHICH MAY BE DAMAGED DURING ELECTRICAL DEMOLITION.
- FLUSH OUT ALL EXISTING DEVICES TO NEW WALL FINISH. REMOVE AND REINSTALL ALL (E) SURFACE RACEWAYS. REFER TO ARCHITECTURAL DRAWINGS, FIELD VERIFY ALL CONDITIONS
- REFER TO MECHANICAL PLANS AND DISCONNECT ALL MECHANICAL AND PLUMBING EQUIPMENT TO BE REMOVED. LABEL CIRCUIT BREAKER AS SPARE.



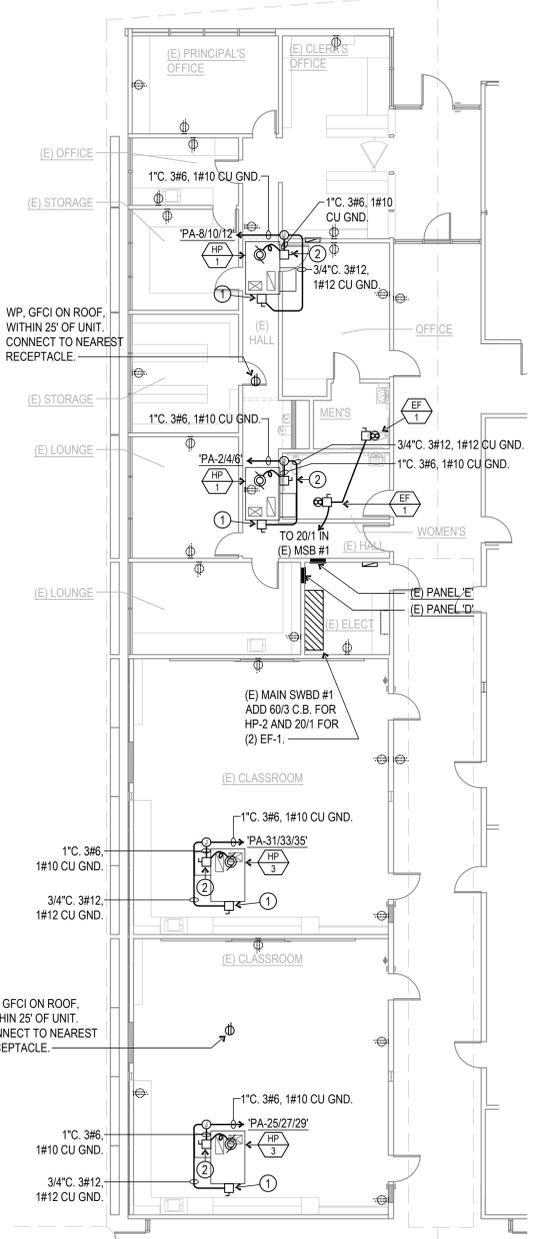
**PARTIAL DEMO POWER PLAN**  
 UNIT 'A3'  
 SCALE: 1/8" = 1'-0"  
 0 4' 8' 12' 16' 24' NORTH



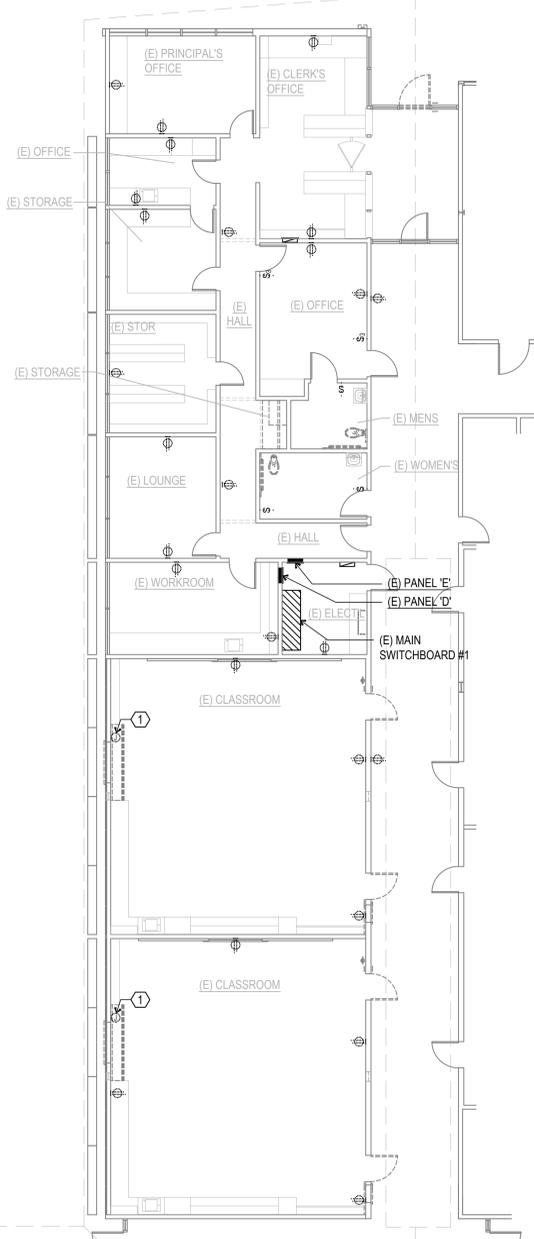
**POWER FLOOR PLAN**  
 UNIT 'A3'  
 SCALE: 1/8" = 1'-0"  
 0 4' 8' 12' 16' 24' NORTH



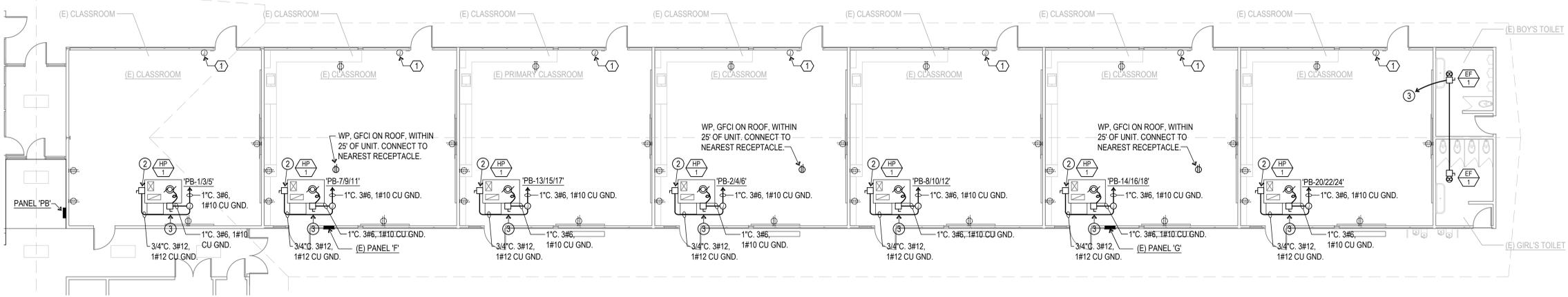
**POWER FLOOR PLAN**  
UNIT 'A2A'  
SCALE: 1/8" = 1'-0"  
0 4 8 12 16 NORTH



**POWER FLOOR PLAN**  
UNIT 'A2B'  
SCALE: 1/8" = 1'-0"  
0 4 8 12 16 NORTH



**DEMO POWER PLAN**  
UNIT 'A2B'  
SCALE: 1/8" = 1'-0"  
0 4 8 12 16 NORTH



**POWER FLOOR PLAN**  
UNIT 'A1'  
SCALE: 1/8" = 1'-0"  
0 4 8 12 16 24 NORTH

**DEMOLITION NOTES:**

1. REMOVE AND/OR REROUTE AND RECONNECT ANY EXISTING CIRCUITS INTERRUPTED BY DEMOLITION WORK. ALL EXISTING EQUIPMENT THAT IS REMOVED SHALL BE RETURNED TO OWNER.
2. REMOVE AND/OR REROUTE AND RECONNECT ANY EXISTING ELECTRICAL WORK WHICH INTERFERES WITH NEW CONSTRUCTION AS REQUIRED.
3. ALL CONDUITS SHALL BE CONCEALED. WHERE SPECIFICALLY PERMITTED ON JOB, CONDUIT MAY BE RUN EXPOSED AND SHALL BE INSTALLED IN A MANNER TO THE SATISFACTION OF THE ARCHITECT.
4. EXISTING ELECTRICAL OUTLET BOXES AND RACEWAYS, WHERE LOCATED TO BE OF VALUE FOR NEW CONSTRUCTION AND WHERE JUDGED TO BE IN GOOD CONDITION BY THE ARCHITECT, MAY BE REFURBISHED AND REUSED.
5. INSTALL NEW CONDUCTORS WHENEVER EXISTING OUTLET BOXES ON RACEWAYS ARE USED. DO NOT USE EXISTING CONDUCTORS. MINIMUM WIRE SIZE SHALL BE #12 AWG COPPER UNLESS OTHERWISE NOTED.
6. REMOVE CONDUCTORS FROM ANY ABANDONED RACEWAY, BACK TO NEAREST TERMINATION POINT.
7. COORDINATE REMOVAL OF EXISTING LIGHT FIXTURES, OUTLETS, PHONES, ETC., WITH ARCHITECTURAL PLAN.
8. REMOVE EXISTING OUTLET DEVICES AND PLATES REMAINING AND PROVIDE ALL NEW IN EXISTING BOXES AS REQUIRED.
9. COORDINATE WITH OWNER ALL DISRUPTION OF SCHOOL CLOCK, PROGRAM, FIRE ALARM, INTERCOM SYSTEMS AND POWER SERVICE.
10. ALL DEVICES, ETC. IN WALLS TO BE DEMOLISHED SHALL BE DISCONNECTED AND REMOVED, WHETHER INDICATED OR NOT. FIELD VERIFY ALL CONDITIONS PRIOR TO BID.
11. CONTRACTOR SHALL PATCH TO MATCH ALL EXISTING SURFACES TO REMAIN WHICH MAY BE DAMAGED DURING ELECTRICAL DEMOLITION.
12. FLUSH OUT ALL EXISTING DEVICES TO NEW WALL FINISH. REMOVE AND REINSTALL ALL (E) SURFACE RACEWAYS. REFER TO ARCHITECTURAL DRAWINGS, FIELD VERIFY ALL CONDITIONS.

**DEMOLITION REFERENCE NOTES**

- ① DISCONNECT POWER TO UNIT VENTILATOR. PROVIDE BLANK COVER AND LABEL CIRCUIT BREAKER AS SPARE.
- ② DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICES. REFER TO DEMO NOTES.

**POWER REFERENCE NOTES**

- ① POWERED EXHAUST FUSED DISCONNECT.
- ② HP FUSED DISCONNECT.
- ③ CONNECT TO EXISTING UNIT VENTILATOR CIRCUIT.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

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**UNITS A1, A2A & A2B POWER & DEMO PLANS AND NOTES**

MARK	DATE	REVISIONS

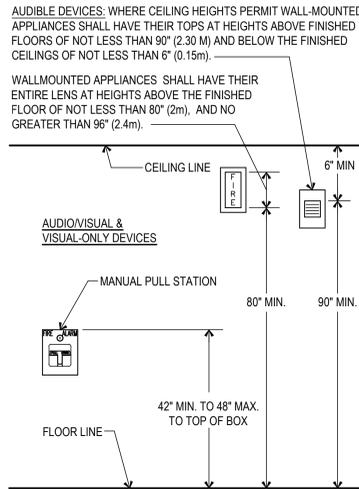
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OF SHEETS

**FIRE DETECTION SYSTEM NOTES:**

- ALL WIRING IS SHOWN DIAGRAMMATICALLY. CONTRACTOR MAY VARY SEQUENCE OR CIRCUITRY; HOWEVER, ALL CIRCUITS SHALL BE CONTINUOUS AND SUPERVISED FROM DEVICE TO DEVICE OR FATC TO DEVICE OR FACP TO FATC OR FATC TO FATC. NO PARALLEL BRANCHING SHALL BE ALLOWED. ANY CONNECTION OF ANY BREAK IN ANY CONDUCTOR SHALL BE BY TERMINAL CONNECTION AT A DEVICE OR AT A FATC ONLY.
- ALL CONNECTIONS SHALL BE PROPERLY LABELED BY CONDUCTOR AND SHALL HAVE STAKE ON LUG CONNECTORS. PANDUIT TAG (TIE WRAP) SEPARATE.
- FIRE ALARM TERMINAL CABINETS SHALL HAVE SUFFICIENT SPACE, TERMINAL BOARDS AND SCREW TERMINAL CONNECTORS TO ALLOW CONNECTION OF ALL CONDUCTORS SHOWN. CONTRACTOR SHALL BE REQUIRED TO SUBMIT WITH HIS OTHER SHOP DRAWINGS, DETAILED DRAWINGS OF HIS PROPOSED CONNECTIONS AT EACH FIRE ALARM TERMINAL CABINET PRIOR TO COMMENCING ANY WORK.
- FIRE ALARM PANEL, REMOTES AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS WITHOUT SPECIAL MOUNTING DETAILS. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS AT +48" ABOVE FINISHED FLOOR.
- ALL FIRE ALARM WIRING SHALL BE FPLOR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE #12 & #14 AWG, STRANDED (19 STRANDS OR LESS) COPPER THHN OR THWN OR #16/2 SLC LOOP UNLESS OTHERWISE NOTED. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
- ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7. UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
- INSTALLATION OF F.A. EQUIPMENT SHALL BE BY AN AUTHORIZED ENGINEERED SYSTEM DISTRIBUTOR FOR THE EQUIPMENT SPECIFIED BY THE MANUFACTURER FOR SALES, SERVICE, INSTALLATION AND MAINTENANCE. PROVIDE CERTIFICATIONS WITH EQUIPMENT SUBMITTALS. SUBMITTALS BY FIRMS NOT FULFILLING THIS REQUIREMENT WILL BE AUTOMATICALLY REJECTED. INSTALLER SHALL BE NICET LEVEL 3 CERTIFIED. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT / ENGINEER OF THE PROJECT.
- A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION
- WRITTEN CERTIFICATION USING NFPA 72 INSPECTION AND TESTING FORM BY THE FIRE ALARM EQUIPMENT DISTRIBUTOR (OR VENDOR OR MANUFACTURER) SHALL BE SUBMITTED TO DSA (WITH COPIES TO THE ELECTRICAL ENGINEER AND THE ARCHITECT OF RECORD) AND THE INSTALLATION INCLUDES TESTING AND OPERATION THAT CONFORMS IN ALL RESPECTS TO THE REQUIREMENTS AS SET FORTH IN C.B.C. SECTION 907.8. THE CONTRACTOR SHALL COMPLETE A FIRE ALARM SYSTEM RECORD AND COMPLETION FORM AND SUBMIT TO DSA.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY AND INSPECTOR OF RECORD. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND OR TESTING.
- THE CERTIFIED INSTALLER WILL BE REQUIRED TO PROVIDE ALL FACTORY WARRANTIES AT THE CLOSE UP OF THE PROJECT.
- SMOKE DETECTORS SHALL BE MOUNTED MINIMUM 36" FROM SUPPLY AND RETURN AIR VENTS PER MANUFACTURERS RECOMMENDATIONS AND NFPA72, 17.7.4.1,(2016 EDITION WITH SFM AMENDMENTS).
- THE CONTRACTOR SHALL ARRANGE A MEETING WITH F.A. INSTALLER PRIOR TO ROUGH-IN TO COORDINATE THE INSTALLATION.
- AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY CBC 907.6.5. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UJFX OR UJUS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.
- ALARM INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15 DBA ABOVE THE AVERAGE AMBIENT NOISE LEVELS OR 5DBA ABOVE MAXIMUM SOUND LEVEL HAVING A DURATION OF 60 SECONDS WHICH EVER IS GREATER. MEASURED 5' ABOVE THE FLOOR. AMBIENT NOISE LEVELS MEANS THE LEVEL WHICH CAN NORMALLY BE EXPECTED WHEN THE FACILITY, BUILDING, ROOM OR AREA IS FUNCTIONING UNDER NORMAL OPERATING OR WORKING CONDITIONS PER CBC 907.5.2.1.1. THE FIRE ALARM EVACUATION SIGNAL SHALL SOUND A SYNCHRONIZED THREE PULSE TEMPORAL PATTERN AS DESCRIBED IN NFPA 72 (CBC 907.5.2.1.3 AND NFPA 18.4.2.1).
- THE CARBON MONOXIDE SIGNAL SHALL SOUND A FOUR PULSE TEMPORAL PATTERN PER NFPA 720 5.8.6.5.1
- MICROPHONE ACCESSIBILITY SHALL COMPLY WITH CBC 11B-305 AND 11B-308
- THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNINGS SHALL HAVE A FLASH RATE NOT EXCEEDING TWO FLASHES PER SECOND ( 2 HZ ) NOR BE LESS THAN ONE FLASH EVERY SECOND ( 1 HZ ). STROBE SIGNALING DEVICES FOR THE HEARING IMPAIRED SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED. VISUAL NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED.
- THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED, AND MAINTAINED IN ACCORDANCE WITH STATE FIRE MARSHAL'S REGULATIONS AS ADOPTED AND AMENDED IN THE 2019 EDITION, CBC CHAPTER 35 (CBC SEC. 907.7, 907.8) & NFPA 72, 2016 EDITION.
- PROVIDE ACCESS PANEL FOR ALL ATTIC HEAT DETECTORS LOCATED IN NON-ACCESSIBLE CRAWL OR ATTIC SPACES. SEE ALSO ARCHITECTURAL REFLECTED CEILING PLANS
- ALL BATTERIES SHALL BE STAMPED WITH DATE PUT INTO SERVICE.
- MANUAL PULL STATIONS SHALL NOT REQUIRE TIGHT GRIPPING, OR TWISTING OF THE WRIST TO OPERATE.
- SYSTEM DESIGN SHALL BE IN ACCORDANCE WITH 2019 CBC, 2019 CFC, 2016 NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE AND NFPA 720, STANDARD FOR THE INSTALLATION OF CARBON MONOXIDE DETECTION AND WARNING EQUIPMENT (2015)
- THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
- A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL" CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
- ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
- PROVIDE FIRE WATCH TO COMPLY WITH DSA IRF-2 IF DURING CONSTRUCTION THE FIRE ALARM SYSTEM IS NOT OPERATIONAL AND STUDENTS ARE PRESENT IN CAMPUS.

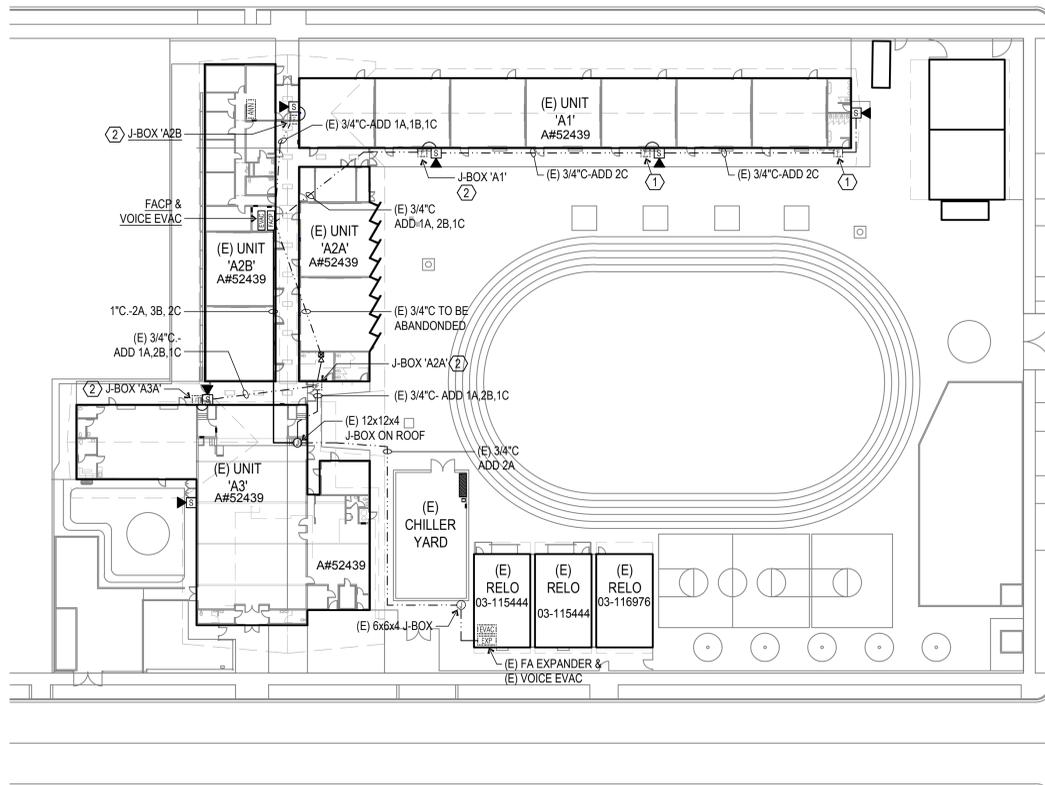


**F.A. DEVICE ELEVATION**

NOT TO SCALE 1 E4.00

**FIRE ALARM DEVICE SEQUENCE OF OPERATION MATRIX**

SYSTEM INPUT	AREA SMOKE OR HEAT DETECTORS	CARBON MONOXIDE DETECTOR	SPRINKLER RISER FLOW SWITCH	SPRINKLER RISER TAMPER SWITCH	POWER FAILURE GROUND FAULT	TROUBLE	ELECTRICAL SUPERVISION	MANUAL PULL STATION
ANNUNCIATE AT ADMINISTRATION OFFICE	•			•	•		•	•
ANNUNCIATE AT ADMINISTRATION OFFICE (CARBON MONOXIDE DETECTION)		•						
ACTIVATE AUDIOVISUAL THRU-OUT CAMPUS	•		•					•
CENTRAL STATION MONITORING	•		•	•				•
CLOSE FIRE SMOKE DAMPER	•							
SHUT DOWN HVAC UNIT	•				•			
ACTIVATE VOICE EVACUATION PANEL	•							
ACTIVATE AUDIO ALARM CLASSROOM ONLY		•						



**FIRE ALARM SITE PLAN**

SCALE: 1" = 30'-0"  
 0 15' 30' 45' 60' 90' NORTH

**FIRE ALARM SYMBOL SCHEDULE**

SYMBOL	NAME	DESCRIPTION	CSFM #
(E) _____	EXISTING ITEM		
U.O.N. _____	UNLESS OTHERWISE NOTED		
-----	WIRING UNDERGROUND OR IN WALL	3/4" MIN U.O.N.	
-----	EXISTING CONDUIT TO REMAIN		
[FACP]	FIRE ALARM CONTROL PANEL WITH MEDIA GATEWAY CARD & DIALER	HOCHIKI # FIRENET L@TTITUDE	7165-0410-0506
[ANN]	(E) FIRE ALARM ANNUNCIATOR	HOCHIKI #FN-LCD-S	7120-0410-0165
[EVAC]	FIRE ALARM VOICE EVACUATION AMPLIFIER	HOCHIKI #EVAX-100	6911-0410-0176
[A]	ATTIC HEAT DETECTOR WITH BASE	HOCHIKI #ATJ-EA BASE #Y8N-NS4-4	7270-0410-0203 7270-0410-0203
[P]	PHOTOELECTRIC SMOKE DETECTOR WITH BASE	HOCHIKI #HAL-V BASE #HSB-NS4-6	7272-0410-0204 7272-0410-0204
[EM]	ADDRESSABLE SUPERVISED OUTPUT MODULE	HOCHIKI #DCP-SOM-A#A1	7300-0410-0150
[S]	MULTI CRITERIA (CO) DETECTOR WITH BASE	HOCHIKI #ACD-V SOUNDER BASE #ASBL	7275-0410-0503 7300-0410-0210
[x] kW C/MC/d	F.A. SPEAKER / STROBE (CEILING MTD.)	HOCHIKI #HSSPKL/PW (SEE PLANS FOR SETTINGS)	7320-0410-0194
[x] kW W/MC/d	F.A. SPEAKER / STROBE (WALL MTD.)	HOCHIKI #HSSPK24WR (SEE PLANS FOR SETTINGS)	7320-0410-0195
[x] C/d	F.A. VISUAL (CEILING MTD.)	HOCHIKI #HCS24PCW (SEE PLANS FOR SETTINGS)	7125-0410-0188
[x] W/d	F.A. VISUAL (WALL MTD.)	HOCHIKI #HES3-24WR (SEE PLANS FOR SETTINGS)	7320-0410-0188
[x] kW	FIRE ALARM EXTERIOR SPEAKER, (WALL MTD.)	GENTEX #HSSPKR (SEE PLANS FOR SETTINGS)	7320-0569-0141
[R]	END-OF-LINE RESISTOR	PER MANUFACTURER SPECIFICATION	

**REFERENCE NOTES**

- REMOVE EXISTING F.A. DEVICE, BLANK OFF AND RE-USE AS J-BOX AS NEEDED.
- REMOVE EXISTING F.A. DEVICE, INSTALL 12"x12" TC IN THIS LOCATION.

**FIRE ALARM ACCEPTANCE TEST**

- TESTING OF ALL DEVICES AND APPLIANCES, INCLUDING THE BATTERY(IES), SHALL BE PERFORMED. ALL MANUFACTURER OPERATING RANGES SHALL BE MET.
- INSPECTION TESTING AND MAINTENANCE OF SYSTEMS, THEIR INITIATING DEVICES AND NOTIFICATION APPLIANCES SHALL COMPLY WITH CHAPTER 14 OF NFPA 72 AND DOCUMENTATION WITH NFPA 72, CHAPTER 7.
- TESTING OF THE SUPERVISING STATION SIGNALS, AS WELL AS RELAY TO THE APPROPRIATE RESPONDING AGENCY, SHALL BE INCLUDED IN THE ACCEPTANCE TESTING. THE PROJECT INSPECTOR SHALL WITNESS THE ACCEPTANCE INSPECTION AND SHALL SIGN AS THE AHJ REPRESENTATIVE ON THE "SYSTEM RECORD OF COMPLETION" AT SECTION 12.3 (NFPA 72, FIGURE 7.8.2(g)), AND THE "SYSTEM RECORD OF INSPECTION AND TESTING" AT SECTION 10.1 (NFPA 72, FIGURE 7.8.2 (g)).
- ALL SUPPLEMENTARY RECORDS SHALL BE ATTACHED AS APPLICABLE. THE PROJECT INSPECTOR SHALL VERIFY THAT THE FIRE ALARM SYSTEM IS IN SERVICE PRIOR TO COMPLETION OF THE "SYSTEM RECORD OF COMPLETION" FORM.
- ALL ORIGINAL DOCUMENTATION SHALL BE RETAINED IN THE REQUIRED DOCUMENTATION CABINET. (NFPA 72, 7.7.2).

**FIRE ALARM RECORD DOCUMENTS CABINET NFPA 72, 7.7.2**

- EVERY NEW FIRE ALARM SYSTEM SHALL PROVIDE A DOCUMENTATION CABINET, INSTALLED AT THE SYSTEM CONTROL PANEL OR APPROVED LOCATION.
- THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED, "SYSTEM RECORD DOCUMENTS".
- ALL RECORD AND TESTING DOCUMENTATION SHALL BE STORED IN THE CABINET.
- CONTENTS SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY.
- WHERE CABINET IS INSTALLED IN A LOCATION OTHER THAN THE SYSTEM CONTROL UNITS, ITS LOCATION SHALL BE IDENTIFIED AT THE SYSTEM CONTROL UNIT.

**SYSTEM DOCUMENTS AS APPLICABLE:**

- RECORD DRAWINGS / AS-BUILTS.
- EQUIPMENT CUT SHEETS & CA SFM LISTINGS.
- ALTERNATIVE MEANS AND METHODS.
- PERFORMANCE BASED DESIGN DOCUMENTATION ( NFPA 72, 7.3.7 ).
- SYSTEM RECORD OF COMPLETION & ANY SUPPLEMENTAL INSPECTION AND TESTING DOCUMENTATION ( NFPA 72, 7.8.2 ).
- EMERGENCY RESPONSE PLAN ( NFPA 72, 7.3.8 ).
- EVALUATION DOCUMENTATION ( NFPA 72, 7.3.9 ).
- RISK ANALYSIS DOCUMENTATION ( NFPA 72, 7.3.6 ).
- SOFTWARE & FIRMWARE CONTROL DOCUMENTATION ( NFPA 72, 23.2.2 ).



PTN: 63321-387 FILE: 15-6

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DPG Engineering Inc.  
 6702 N. Cedar Suite 205  
 Fresno, Ca. 93710  
 Ph: (559) 219-5144  
 Fax: (559) 900-4029  
 Email: dpg@dpgeengineering.com

**F.A. SITE PLAN, SYMBOL LEGEND, SCHEDULES, DETAILS & NOTES**

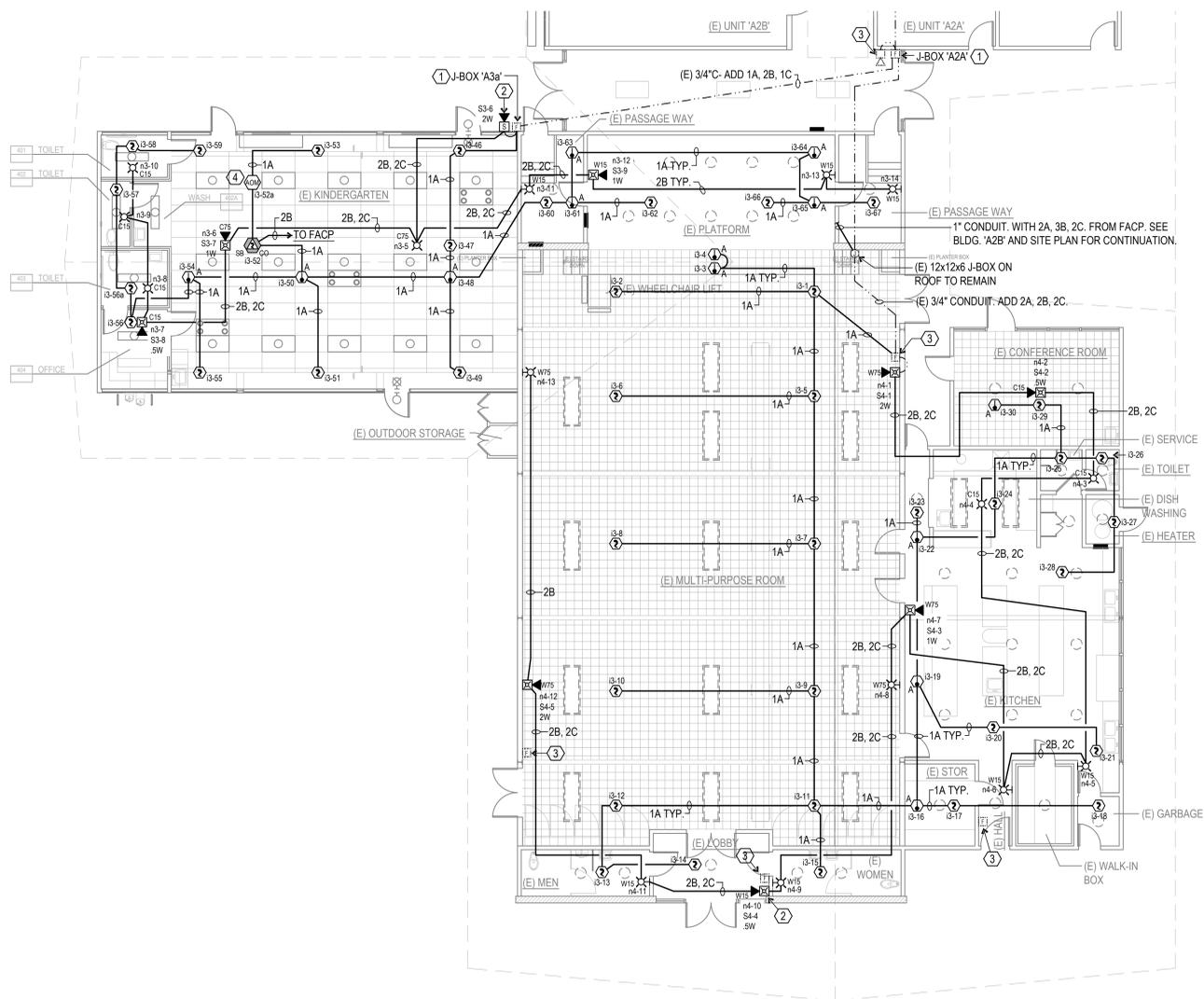
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JOB NO. 1318  
 DRAWN: R.L.M.  
 CHECKED: D.P.G.  
 DATE: 10/6/22

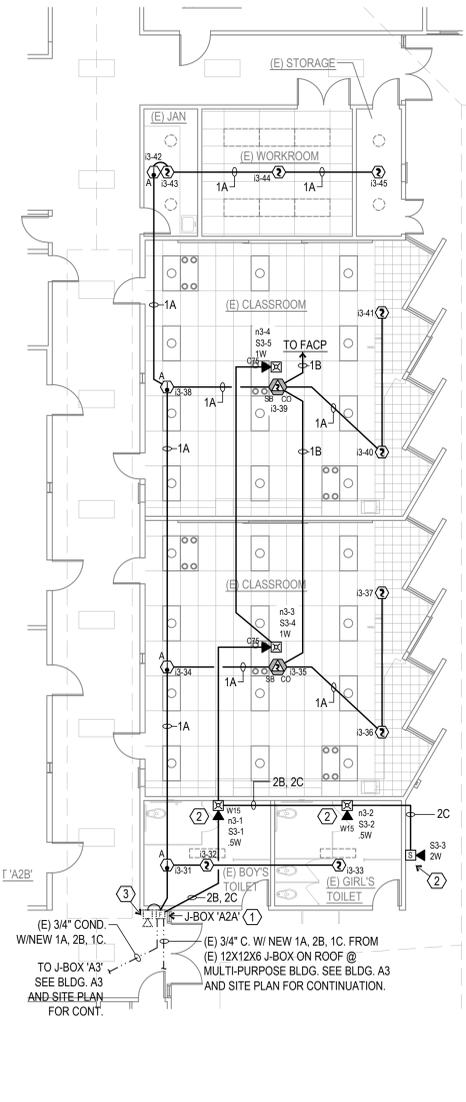
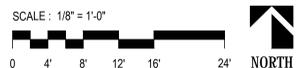
**4.00**  
 OF SHEETS

**REFERENCE NOTES**

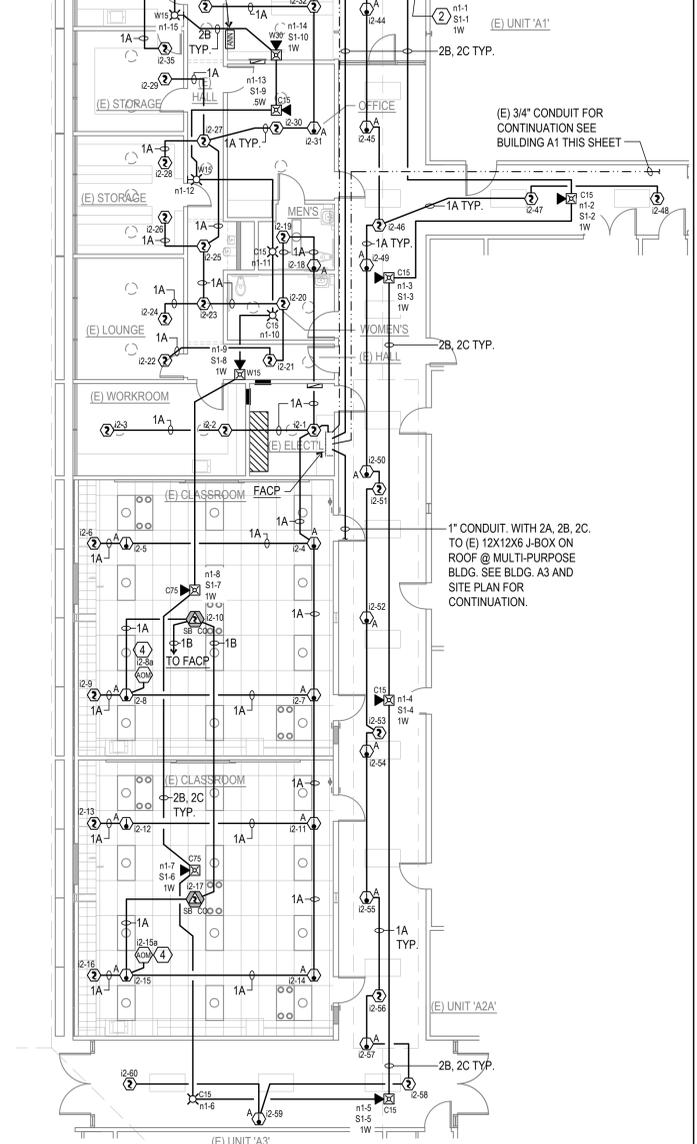
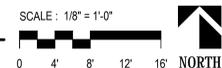
- ① REMOVE EXISTING F.A. DEVICE AND INSTALL 12"X12" TC IN THIS LOCATION.
- ② EXISTING DEVICE LOCATION. REPLACE WITH NEW DEVICE AS SHOWN.
- ③ EXISTING DEVICE TO BE ABANDONED. BLANK OFF AS REQUIRED.
- ④ RELAY AT AC UNIT 'HP-3', FOR AUTOMATIC SHUT OFF PER CMC 608.



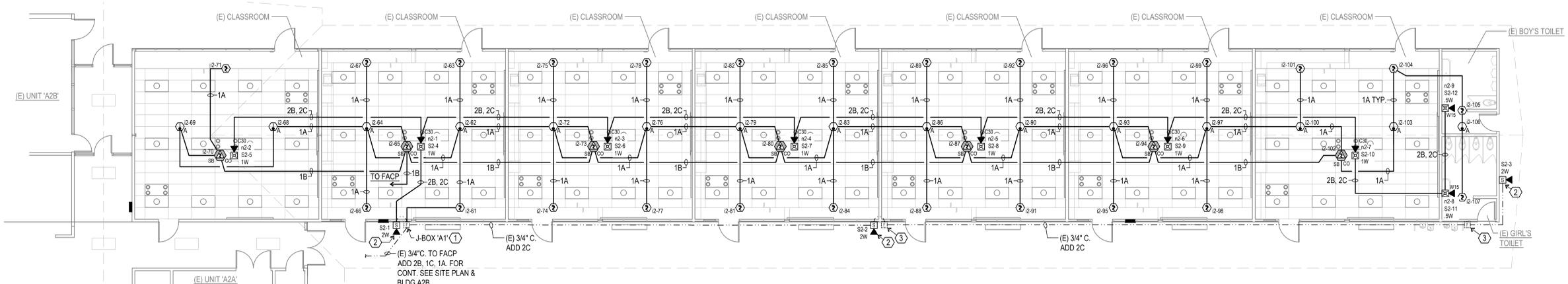
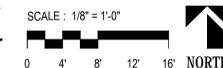
**FIRE ALARM FLOOR PLAN**  
UNIT 'A3'



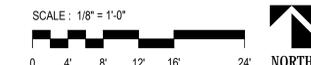
**FIRE ALARM FLOOR PLAN**  
UNIT 'A2A'



**FIRE ALARM FLOOR PLAN**  
UNIT 'A2B'



**FIRE ALARM FLOOR PLAN**  
UNIT 'A1'



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DIV. OF THE STATE ARCHITECT  
APP: 03-122918 INC.  
REVIEWED FOR  
SS FLS ACS  
DATE: 05/08/2024

PTN: 63321-387 FILE: 15-6

**WILLIAM PENN ELEMENTARY SCHOOL  
MODERNIZATION**  
2201 SAN EMDIO STREET  
FOR  
BAKERSFIELD CITY SCHOOL DISTRICT  
BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280  
BAKERSFIELD, CA 93309  
PH: (661) 397-4377  
FAX: (661) 397-4378  
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**UNITS A1,A2A,A2B & A3  
FIRE ALARM FLOOR PLANS**

MARK	DATE	REVISIONS

JOB NO.  
**1318**  
DRAWN BY:  
R.L.M.  
CHECKED BY:  
D.P.G.  
DATE:  
10/6/22



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**VOLTAGE DROP CALCULATION**

**NAC Circuit 'n1'**

VD = Voltage Drop [V]  
 I = Current [A] (1.376A)  
 K = 11 (Copper Constant)  
 L = Distance to Load [ft] (383)  
 CM = Circular Mils (#12 AWG = 6530)  
 V = Voltage [V] (24VDC)  
 $VD = K \cdot I \cdot 2L = 11 \cdot 1.376 \cdot 2 \cdot 383 = 1.776 \text{ V}$   
 $VD\% = \frac{VD}{V} = \frac{1.776}{20.4} = 8.7\%$

**VOLTAGE DROP CALCULATION**

**NAC Circuit 'n2'**

VD = Voltage Drop [V]  
 I = Current [A] (0.76A)  
 K = 11 (Copper Constant)  
 L = Distance to Load [ft] (332)  
 CM = Circular Mils (#12 AWG = 6530)  
 V = Voltage [V] (24VDC)  
 $VD = K \cdot I \cdot 2L = 11 \cdot 0.76 \cdot 2 \cdot 332 = 0.850 \text{ V}$   
 $VD\% = \frac{VD}{V} = \frac{0.850}{20.4} = 4.2\%$

**VOLTAGE DROP CALCULATION**

**NAC Circuit 'n3'**

VD = Voltage Drop [V]  
 I = Current [A] (1.448A)  
 K = 11 (Copper Constant)  
 L = Distance to Load [ft] (415)  
 CM = Circular Mils (#12 AWG = 6530)  
 V = Voltage [V] (24VDC)  
 $VD = K \cdot I \cdot 2L = 11 \cdot 1.448 \cdot 2 \cdot 415 = 2.025 \text{ V}$   
 $VD\% = \frac{VD}{V} = \frac{2.025}{20.4} = 9.9\%$

**VOLTAGE DROP CALCULATION**

**NAC Circuit 'n4'**

VD = Voltage Drop [V]  
 I = Current [A] (1.504A)  
 K = 11 (Copper Constant)  
 L = Distance to Load [ft] (421)  
 CM = Circular Mils (#12 AWG = 6530)  
 V = Voltage [V] (24VDC)  
 $VD = K \cdot I \cdot 2L = 11 \cdot 1.504 \cdot 2 \cdot 421 = 2.133 \text{ V}$   
 $VD\% = \frac{VD}{V} = \frac{2.133}{20.4} = 10.5\%$

**FACP BATTERY CALCULATION**

**Fire Alarm Control Panel**

**POWER REQUIREMENTS**

	CURRENT [A]	
	SUPERVISORY	ALARM
PANEL OVERHEAD	1.095	1.345
1 EXPANDER PNL	0.065	
THREE FULL SLO LOOPS	0.171	0.210
NAC CIRCUITS SUMMARY		5.088
<b>TOTALS</b>	<b>1.331</b>	<b>6.643</b>

**BATTERY CAPACITY**

SUPERVISORY POWER	= 24 Hr * 1.331A =	31.944 Ahr
ALARM POWER	= 0.25 Hr * 6.643A =	1.661 Ahr
<b>TOTAL POWER REQUIREMENT</b>		<b>33.605 Ahr</b>
WITH 20% SAFETY FACTOR =		<b>40.326 Ahr</b>
<b>MINIMUM BATTERY CAPACITY =</b>		<b>55 Ahr</b>
USE NOTIFIER BATTERIES (2) BAT-12550-BP		

Note:

- PRIOR TO START OF CONSTRUCTION, PERFORM BATTERY TEST AND PROVIDE REPORT TO EOR. INCLUDE IN REPORT, EXISTING SUPERVISORY AND ALARM CURRENT.
- PROVIDE BATTERY BOX AS REQUIRED

**BATTERY CALCULATION**

**Voice Evac. Amplifier Cabinet 'EVAX-100'**

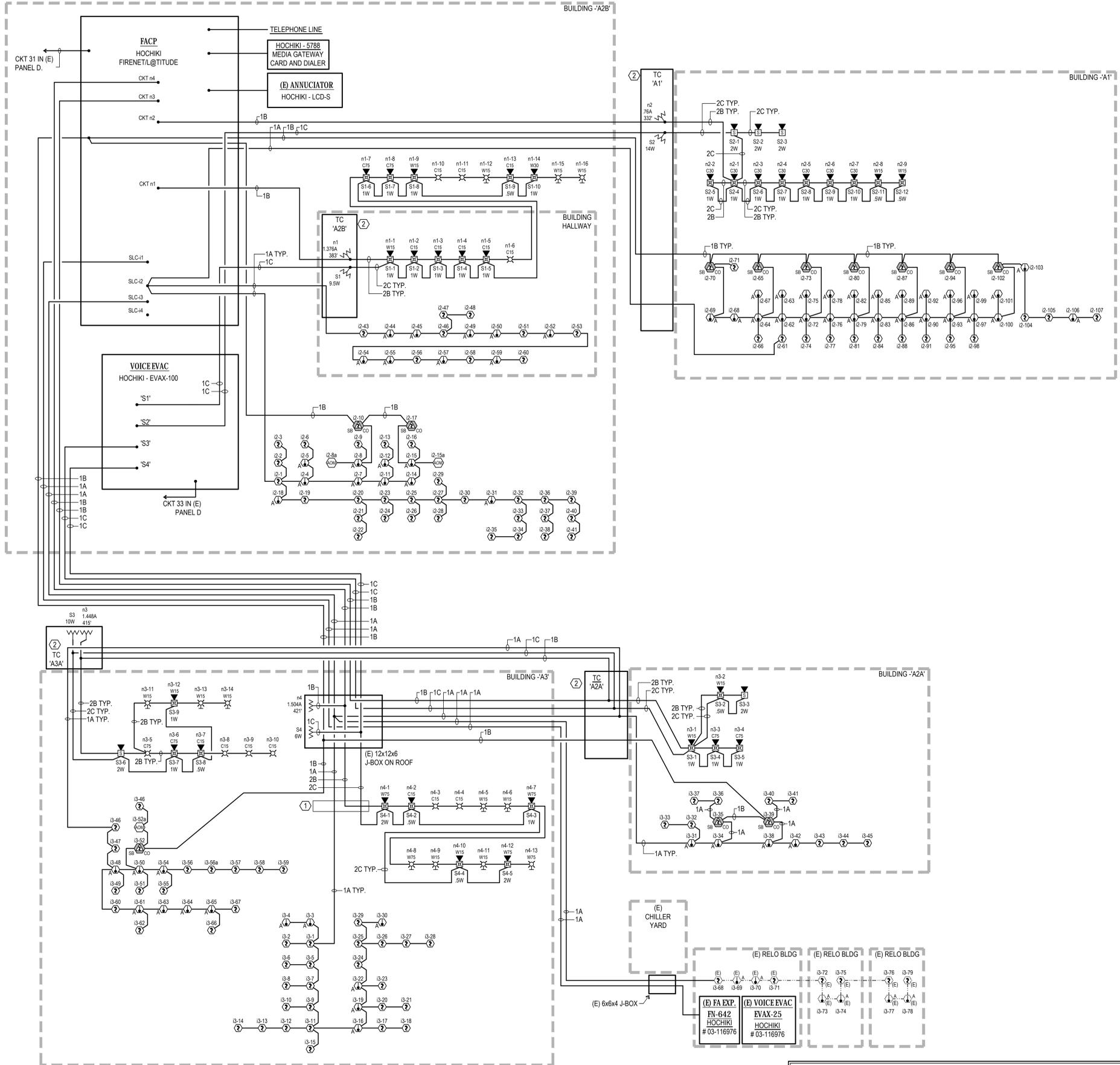
**POWER REQUIREMENTS**

	CURRENT [A]	
	STANDBY	ALARM
PANEL OVERHEAD	0.180	2.500
SPEAKER LOAD	-	2.528
<b>TOTALS</b>	<b>0.180</b>	<b>5.028</b>

**BATTERY CAPACITY**

SUPERVISORY POWER	= 24 Hr * 0.18A =	4.320 Ahr
SPEAKER LOAD	= 0.25 Hr * 5.028A =	1.257 Ahr
<b>TOTAL POWER REQUIREMENT</b>		<b>5.577 Ahr</b>
WITH 20% SAFETY FACTOR =		<b>6.692 Ahr</b>
<b>MINIMUM BATTERY CAPACITY =</b>		<b>7 Ahr</b>
USE NOTIFIER BATTERIES (2) BAT-1270-BP		

NOTE: PROVIDE BATTERY BOX AS REQUIRED



**FIRE ALARM SINGLE LINE DIAGRAM**

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

FA CABLE SCHEDULE			
A'	ADDRESSABLE FA COMMUNICATION CABLE	WEST PENN #0990 (INDOOR)	WEST PENN #AQ225 (OUTDOOR)
B'	2#12 CU.	WEST PENN #998 (INDOOR)	WEST PENN #AQ227 (OUTDOOR)
C'	SPEAKER CABLE 14/2	WEST PENN #972 (INDOOR)	WEST PENN #AQ295 (OUTDOOR)

NOTE: ALL FIRE ALARM CABLE INSTALLED IN 3/4" EMT RED MIN.

**REFERENCE NOTES**

- EXISTING PULL STATION, LOCATION, TO BE RE-USED AS J-BOX.
- 12"x12" TC, TO REPLACE EXISTING DEVICE AT PULL STATION LOCATION.

IDENTIFICATION STAMP  
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 PH: (661) 397-4377  
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**FIRE ALARM  
 SINGLE LINE  
 DIAGRAM, NOTES  
 AND SCHEDULES**

MARK	DATE	REVISIONS

JOB NO.  
**1318**  
 DRAWN BY:  
 R.L.M.  
 CHECKED BY:  
 D.P.G.  
 DATE:  
 10/6/22



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 OF SHEETS

**PANEL 'PA'**  
 VOLTAGE: 277/480 VOLT 3 PHASE 4 W  
 BUS RATING: 400A CU  
 FEEDER: REFER TO SINGLE LINE DIAGRAM  
 MAIN: 300/3  
 BREAKER STYLE: BOLT ON  
 MTG STYLE: SURFACE NEMA 3R

CT #	VA LOAD PER PHASE			LOAD DESCRIPTION	LOAD TYPE			CB	VA LOAD PER PHASE			CT #
	A	B	C		LT	RC	HT		MO	MS	A	
1	9557			HP-3				1			50	2
3	9557							1				4
5	9557							3				6
7				SPARE				1				8
9								1				10
11								3				12
13	9945			HP-1				1			50	14
15	9945							1				16
17	9945							3				18
19	9945			HP-1				1			50	20
21	9945							1				22
23	9945							3				24
25	9557			HP-3				1			50	26
27	9557							1				28
29	9557							3				30
31	9557			HP-3				1			50	32
33	9557							1				34
35	9557							3				36
37				SPACE								38
39				SPACE								40
41				SPACE								42
48681	48561	48561	SUB TOTAL								19890	19890

LOAD SUMMARY BY TYPE	CONNECTED	DEMAND FACTOR	DEMAND	TOTAL VA	80% VA	80% VA
LIGHTING	0	125%	0			
RECEPTACLES	0	100%	0			
HEATING	0	100%	0			
HVAC AND MOTORS	205353	100%	205353			
MISCELLANEOUS	0	100%	0			
				247	247	247

**PANEL 'PB'**  
 VOLTAGE: 277/480 VOLT 3 PHASE 4 W  
 BUS RATING: 400A CU  
 FEEDER: REFER TO SINGLE LINE DIAGRAM  
 MAIN: 300/3  
 BREAKER STYLE: BOLT ON  
 MTG STYLE: FLUSH

CT #	VA LOAD PER PHASE			LOAD DESCRIPTION	LOAD TYPE			CB	VA LOAD PER PHASE			CT #
	A	B	C		LT	RC	HT		MO	MS	A	
1	9945			HP-1				1			50	2
3	9945							1				4
5	9945							3				6
7	9945			HP-1				1			50	8
9	9945							1				10
11	9945							3				12
13	9945			HP-1				1			50	14
15	9945							1				16
17	9945							3				18
19				SPACE								20
21				SPACE								22
23				SPACE								24
25				SPACE								26
27				SPACE								28
29				SPACE								30
31				SPACE								32
33				SPACE								34
35				SPACE								36
37				SPACE								38
39				SPACE								40
41				SPACE								42
29835	29835	29835	SUB TOTAL								32780	32780

LOAD SUMMARY BY TYPE	CONNECTED	DEMAND FACTOR	DEMAND	TOTAL VA	80% VA	80% VA
LIGHTING	0	125%	0			
RECEPTACLES	0	100%	0			
HEATING	0	100%	0			
HVAC AND MOTORS	208845	100%	208845			
MISCELLANEOUS	0	100%	0			
				251	251	251

**Fixture Schedule**

Name	Type Description	Lamp Type	Watts per fixture	Manufacturer	Model Number	Mounting	Notes
A	2 X 4 LED	LED	35	ABL - LITHONIA	2BLT4 48LHE ADPT EZ1 LP840 N100	T-BAR	
Ae	2 X 4 LED	LED	35	ABL - LITHONIA	2BLT4 48LHE ADPT EZ1 E10W/CP LP840 N100	T-BAR	EMERGENCY BATTERY BACK UP
B	1 X 4 STRIP	LED	25	ABL - LITHONIA	CLX L48 4000 LM HEF RDL SPD HVOLT EZ1 40K 60 CRITXCLX N100	SURFACE	
X	EXIT	LED	1	ABL - LITHONIA	LHOM LED R HORO	WALL	
X1	REMOTE HEAD	LED	1	ABL - LITHONIA	ELA SD QWP L0309	WALL	

**EX PANEL 'D'**  
 VOLTAGE: 120/208 VOLT 3 PHASE 4 W  
 BUS RATING: 225A CU  
 FEEDER: REFER TO SINGLE LINE DIAGRAM  
 MAIN: 225/3  
 BREAKER STYLE: BOLT ON  
 MTG STYLE: FLUSH

CT #	VA LOAD PER PHASE			LOAD DESCRIPTION	LOAD TYPE			CB	VA LOAD PER PHASE			CT #
	A	B	C		LT	RC	HT		MO	MS	A	
1				EX LOAD				20	a	15		2
3				EX LOAD				20	b	15		4
5				EX LOAD				20	c	15		6
7				EX LOAD				20	a	15		8
9				EX LOAD				20	b	15		10
11				EX LOAD				20	c	15		12
13				EX LOAD				20	a	15		14
15				EX LOAD				20	b	15		16
17				EX LOAD				20	c	15		18
19				EX LOAD				20	a	15		20
21				EX LOAD				20	b	15		22
23				EX LOAD				20	c	15		24
25				EX LOAD				15	a	15		26
27				EX LOAD					b	15		28
29				EX LOAD				3	c	15		30
31				FACP*				20	a	15		32
33				VOICE EVAC*				20	b	15		34
35				SPACE					c	15		36
37				SPACE					a	15		38
39				SPACE					b	15		40
41				SPACE					c	15		42
0	0	0	SUB TOTAL								0	0

LOAD SUMMARY BY TYPE	CONNECTED	DEMAND FACTOR	DEMAND	TOTAL VA	80% VA	80% VA
LIGHTING	0	125%	0			
RECEPTACLES	0	100%	0			
HEATING	0	100%	0			
HVAC AND MOTORS	0	100%	0			
MISCELLANEOUS	0	100%	0			
				251	251	251

**VOLTAGE DROP CALCULATIONS**

VD (3 PHASE) = (1.73 * K * I * D) / CM	1.73	K	I	D	Wire Size	CM	VD	%@480	%@208
PANEL PA	1.73	12	240	100	498240	350 Kcmil	350000	1.4	0.3
PANEL PB	1.73	12	240	80	398592	350 Kcmil	350000	1.1	0.2
	1.73	12			0			#DIV/0!	#DIV/0!
	1.73	12			0			#DIV/0!	#DIV/0!
	1.73	12			0			#DIV/0!	#DIV/0!
	1.73	12			0			#DIV/0!	#DIV/0!
	1.73	12			0			#DIV/0!	#DIV/0!

VD (1 PHASE) = (2 * K * I * D) / CM	2	K	I	D	CM	VD	%@480	%@208	%@120	%@277	%@230
RECEPTACLE CIRCUIT 1A-18	2	12			0	12	6530	0.0	0.0	0.0	0.0

K = 12 COPPER loaded +50%  
 K = AL loaded +50%  
 D = DISTANCE  
 CM = CIRCULAR MILS  
 I = CURRENT

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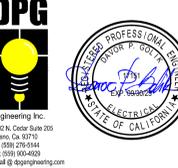


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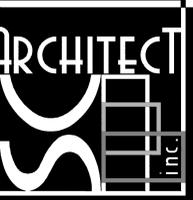
**PANEL SCHEDULES, FIXTURE SCHEDULE, AND VOLTAGE DROP CALCS.**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.  
 1318  
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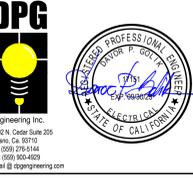
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**NRCC REPORT**

MARK	DATE	REVISIONS
△		
△		
△		

JOB NO.  
**1318**  
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 R.L.M.  
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**6.00**  
 OF SHEETS

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

CERTIFICATE OF COMPLIANCE  
 This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)(2) for alterations.

Project Name: WILLIAM PENN SCHOOL MODERNIZATION Report Page: Page 1 of 4  
 Project Address: BAKERSFIELD Date Prepared: 11-1-22

**A. GENERAL INFORMATION**

01 Project Location (city) BAKERSFIELD 02 Occupancy Types Within Project:  
 Office  Retail  Warehouse  Hotel/ Motel  School  Support Areas  
 Parking Garage  High-Rise Residential  Relocatable  Healthcare Facilities  Other (Write In):

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

01	02	03	04	05	06
Electrical Service Designation/Description	Scope of Work <sup>1</sup>	Rating (kVA)	Utility Provided Metering System Exception to §130.5(a) <sup>2</sup>	System subject to CA Elec Code Article 517 Exception to §130.5(a)&(b)	Demand Response Controls Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRCC-NRCC, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.
EXISTING	Add/Alt to feeders and branch circuits only		<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup>FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.  
<sup>2</sup>Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

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

01	02	03	04	05
Service Electrical Metering §130.5(a)	AND	Separation for Monitoring §130.5(b)	AND	Voltage Drop §130.5(c)
(See Table F)		(See Table G)		(See Table H)
AND		AND		AND
		Yes		(See Table I)
<b>COMPLIES</b>				

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

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

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Project Name: WILLIAM PENN SCHOOL MODERNIZATION Report Page: Page 3 of 4  
 Project Address: BAKERSFIELD Date Prepared: 11-1-22

**J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E, Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at [https://www2.energy.ca.gov/title24/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRCC/](https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCC/)

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

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

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

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

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Project Name: WILLIAM PENN SCHOOL MODERNIZATION Report Page: Page 2 of 4  
 Project Address: BAKERSFIELD Date Prepared: 11-1-22

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

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

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

**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**  
 This Section Does Not Apply

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

01	02	03	04	05
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations <sup>1</sup>	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector Pass Fail
EXISTING	<input checked="" type="checkbox"/> Voltage drop < 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E5.00	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

<sup>1</sup>NOTES: If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.  
<sup>2</sup>FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

**I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES**  
 This Section Does Not Apply

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

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

CERTIFICATE OF COMPLIANCE  
 This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)(2) for alterations.

Project Name: WILLIAM PENN SCHOOL MODERNIZATION Report Page: Page 4 of 4  
 Project Address: BAKERSFIELD Date Prepared: 11-1-22

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

Documentation Author Name: DAVOR P. GOLIK P.E. Documentation Author Signature: *Davor P. Golik*  
 Company: DPG ENGINEERING Signature Date: 11-1-22  
 Address: 6702 N CEDAR CEA/HERS Certification Identification (if applicable):  
 City/State/Zip: FRESNO CA 93710 Phone: 559 276 5144

**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: DAVOR P. GOLIK P.E. Responsible Designer Signature: *Davor P. Golik*  
 Company: Date Signed: 11-1-22  
 Address: License: E17151  
 City/State/Zip: Phone:

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



PN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA 93309 PH: (661) 397-4377 FAX: (661) 397-4378 WWW.SCARCHITECT.COM



CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DISCREPANCIES TO THE ARCHITECT. ALL CONSTRUCTION SHALL CONFORM TO THE C.B.C.



TITLE 24 REPORT BUILDING 'A1'

Table with 3 columns: MARK, DATE, REVISIONS

JOB NO. 1318 DRAWN: R.L.M. CHECKED: D.P.G. DATE: 10/6/22 7.00 OF SHEETS

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 3 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 3 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 5 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 5 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 6 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 6 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 2 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 2 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 4 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 4 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 1 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 1 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 1 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 1 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 2 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 2 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 3 of 7) Project Name: BUILDING A1 PENN Report Page: (Page 3 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/27/2022



PN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



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TITLE 24 REPORT BUILDING 'A2A'

Table with 3 columns: MARK, DATE, REVISIONS

JOB NO. 1318 DRAWN: R.L.M. CHECKED: D.P.G. DATE: 10/6/22 7.01 OF SHEETS

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 3 of 7). Includes tables for General Information, Project Scope, and Building Level Controls.

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 6 of 7). Includes tables for Declaration of Required Certificates of Acceptance and Declaration of Required Certificates of Installation.

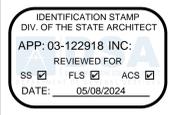
STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 2 of 7). Includes tables for Compliance Results, Exceptional Conditions, and Indoor Lighting Fixture Schedule.

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 5 of 7). Includes tables for Rated Power Reduction Compliance for Alterations, 80% Lighting Power for All Alterations - Controls Exceptions, Daylight Design Power Adjustment Factor (PAF), and Declaration of Required Certificates of Installation.

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 1 of 7). Includes tables for General Information, Project Scope, and Building Level Controls.

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 4 of 7). Includes tables for Lighting Power Allowance, Additional Allowance, Tailored Method General Lighting Power Allowance, Additional Lighting Allowance, Additional Lighting Allowance, Additional Lighting Allowance, and Power Adjustment - Lighting Control Credit.

STATE OF CALIFORNIA Indoor Lighting CERTIFICATE OF COMPLIANCE. Project Name: BUILDING A2A PENN. Project Address: 2210 SAN EMIDIO. Report Page: (Page 7 of 7). Includes Documentation Author's Declaration Statement and Responsible Person's Declaration Statement.



PTN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2201 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA 93309 PH: (661) 397-4377 FAX: (661) 397-4378 WWW.SCARCHITECT.COM



STEPHEN J. CORBIN, NCBARB, AIA, LEED AP



TITLE 24 REPORT BUILDING 'A2B'

Table with 3 columns: MARK, DATE, REVISIONS

JOB NO. 1318 DRAWN: R.L.M. CHECKED: D.P.G. DATE: 10/6/22 7.02 OF SHEETS

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

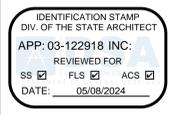
STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE BUILDING A2B PENN 2210 SAN EMIDIO



PTN: 63321-387 FILE: 15-6

WILLIAM PENN ELEMENTARY SCHOOL MODERNIZATION 2210 SAN EMIDIO STREET FOR BAKERSFIELD CITY SCHOOL DISTRICT BAKERSFIELD, KERN COUNTY, CALIFORNIA



1601 NEW STINE ROAD, SUITE 280 BAKERSFIELD, CA 93309 PH: (661) 397-4377 FAX: (661) 397-4378 WWW.SCARCHITECT.COM



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TITLE 24 REPORT BUILDING 'A3'

Table with 3 columns: MARK, DATE, REVISIONS. Contains revision symbols and dates.

JOB NO. 1318 DRAWN: R.L.M. CHECKED: D.P.G. DATE: 10/6/22 7.03 OF SHEETS

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 3 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 3 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 6 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 6 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 2 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 2 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 5 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 5 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 1 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 1 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 4 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 4 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022

STATE OF CALIFORNIA Indoor Lighting NRCCLTI-E CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCCLTI-E (Page 7 of 7) Project Name: BUILDING A3 PENN Report Page: (Page 7 of 7) Project Address: 2210 SAN EMIDIO Date Prepared: 11/2/2022