





























## GENERAL NOTES

- THE FOLLOWING GENERAL NOTES ARE APPLICABLE AS STATED BELOW, EXCEPT WHERE SPECIFICALLY INDICATED AND NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATIONS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION REQUIREMENTS AND SCOPE OF WORK.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH THE REGULATIONS AND SPECIFICATIONS OF ANY EXISTING CONDITIONS SUCH AS EXISTING CONDITIONS OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHICH IN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATION, A CONSTRUCTION CHANGE DOCUMENT (CCD) OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. SECTION 4317(C), CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, C.C.R.)
- WORKMANSHIP AND ALL EQUIPMENT/MATERIALS SHALL CONFORM TO 2022 CALIFORNIA CODE REGULATIONS (CCR), TITLE 24 C.C.R., SPECIFICATIONS AND HANGERS FOR CONSTRUCTION AS FURNISHED BY THE CONTRACTOR. WORKMANSHIP AND MATERIALS NOT IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE SUBJECT TO REMOVAL AND/OR REPLACEMENT AT CONTRACTORS EXPENSE.
- BEFORE SUBMITTING THE BID PROPOSAL, VISIT THE JOB SITE AND FULLY ACQUAINT WITH THE EXISTING JOB CONDITIONS, VERIFY EXISTING AND NEW REQUIREMENT, INCLUDING NECESSARY PULL BOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, PANELS, DISCONNECT SWITCHES CABLES, TIME CLOCKS, ETC., WHETHER SHOWN ON DRAWINGS OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND OPERABLE, WITHOUT ADDITIONAL COST TO THE DISTRICT.
- AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER FOR APPROVAL, ELECTRONIC DOCUMENTS (PDF) OF ALL REQUIRED SHOP DRAWINGS, BROCHURES AND OTHER SATISFACTORY DESCRIPTIONS INDICATING MANUFACTURER, CATALOG NUMBER, DIMENSIONS AND APPROVED FOR SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED BY ARCHITECT/ENGINEER OF THE PROJECT.
- IRRELEVANT INFORMATION ON DRAWINGS AND DATA SHEETS SHALL BE COMPLETELY MARKED OUT LEAVING ONLY DATA THAT PERTAINS TO THE ITEMS SUBMITTED FOR APPROVAL. EQUIPMENT SHALL NOT BE DERIVED THE SITE UNTIL SHOP DRAWINGS AND APPROVALS OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO CONFORM TO THE PLANS AND SPECIFICATIONS NOR OF RESPONSIBILITY FOR SATISFACTORY PERFORMANCE OF EQUIPMENT.
- A STAMPED SET OF APPROVED DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
- ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL FIELD CONDITIONS MUST BE REPORTED TO THE ARCHITECT/ENGINEER OF THE PROJECT. ANY DEVIATIONS FROM THESE PLANS NECESSITATED BY FIELD CONDITIONS MUST BE APPROVED BY THE ARCHITECT/ENGINEER OF THE PROJECT AND DOCUMENTED ON THE FINAL "AS-BUILT" DRAWINGS.
- EQUIPMENT AND DEVICE LOCATIONS, ELEVATIONS, RISER DIAGRAMS, CONTROLS WIRING DIAGRAMS, SCHEMATICS AND DETAILS SHOWN ON PLANS ARE CONCEPTUAL AND ILLUSTRATE ONLY THE FUNCTIONAL RELATIONSHIPS BETWEEN COMPONENTS OF THE SYSTEM AND THE DESIGN INTENT OF THE PROJECT. CONTRACTOR SHALL INSTALL ALL DEVICES AS SHOWN.
- CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS REQUIRED TO MEET THE SPECIFIED SYSTEM OPERATIONAL, PER DESIGN INTENT OF THE CONTRACT TO MAKE THE SYSTEM FUNCTIONALLY OPERATIVE AND ACCEPTABLE TO DISTRICT.
- PROVIDE ADDITIONAL CONDUITS, BOXES AND ADAPTER PLATES AS REQUIRED FOR ALL SURFACE MOUNTED CONDUITS/EQUIPMENT/DEVICES.
- THE CONTRACTOR SHALL ADJUST/INSTALL INSTALL ALL EQUIPMENT, DEVICES AND CONTROLS TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FAILURE OF THE SYSTEM.
- ALLOW FOR RELOCATION OF DEVICES WITHIN THE SAME AREA WHERE OBSTRUCTION ARE ENCOUNTERED IN THE LOCATIONS SHOWN ON PLANS, SUBJECT TO REQUIRED WORK SPACES, CODE REQUIRED CLEARANCES, ACCESS TO MAINTENANCE ETC.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, WAREHOUSING AND ANY OTHER SERVICES REQUIRED TO COMPLETE THE WORK IN A TIMELY AND EFFICIENT MANNER.
- ALL WORK IS TO BE COMPLETED ON REGULAR HOURS AS DIRECTED BY THE DISTRICT.
- CONTRACTOR TO COMPLY WITH ALL APPLICABLE SAFETY LAWS (OSHA, CAL OSHA ETC), IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL APPLICABLE SAFETY LAWS ARE STRICTLY ENFORCED AND TO MAINTAIN A SAFE CONSTRUCTION PROJECT.
- ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES. ENTRANCE TO ROOMS AND OTHER GUARDED LOCATIONS THAT CONTAIN LIVE PARTS SHALL BE MARKED WITH A CONSPICUOUS WARNING SIGN FORBIDDING UNQUALIFIED PERSONS TO ENTER.
- ALL WORK THAT INVOLVES "SHUT-DOWN" OF EXISTING UTILITIES OR PORTIONS THEREOF, SHALL BE DONE AT SUCH TIMES THAT WILL CAUSE THE LEAST INCONVENIENCE TO THE DISTRICT'S CUSTOMERS. THE TIME AND LENGTH OF "SHUT-DOWN" SHALL BE APPROVED BY DISTRICT WITH WRITTEN NOTICE AT LEAST 7 DAYS IN ADVANCE OF THE REQUIRED SHUT-DOWN.
- CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE WITH ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4338, PART 1, TITLE 24, C.C.R.
- UPON COMPLETION OF THE INSTALLATION OF THE SYSTEM, COOPERATE IN CONDUCTING AN OPERATING TEST TO DEMONSTRATE THAT ALL EQUIPMENT IS OPERATING IN A SATISFACTORY MANNER, SUBMIT STATEMENT OF COMPLIANCE AND PROGRAMMED. A COPY OF THIS COMPLETED STATEMENT OF COMPLIANCE TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR AND DISTRICT PERSONNEL. PROVIDE TRAINING FOR M.O.S. STAFF.
- DSA I.O.R., ARCHITECT/ENGINEER AND SCHOOL DISTRICT SHALL BE NOTIFIED A MINIMUM OF 48 HR. PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
- INDIVIDUAL ITEMS OF WORK ARE DETAILED IN THE VARIOUS SECTIONS OF THIS SCOPE OF WORK. THE ATTACHED DRAWINGS AND THE NOTES AND LEGENDS ON THE DRAWING, THE CONTRACTOR IS RESPONSIBLE TO COMPLETE THE REQUIREMENTS FOUND IN ANY OF THE ABOVE.
- THE CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION ("AS-BUILT" DRAWINGS) UPON COMPLETION OF CONSTRUCTION, INCLUDING TESTING OF ALL EQUIPMENT, DEVICES, CONTROLS, AND ENSURING THE ENTIRE SYSTEM IS OPERATIONAL AND PROGRAMMED. A COPY OF THIS COMPLETED RECORD ("AS-BUILT" DRAWINGS) SHALL BE SUBMITTED TO THE IOR, ARCHITECT/ENGINEER, AND DISTRICT FOR FINAL ACCEPTANCE.
- NOTIFY THE SUPPLIER OF ANY MISSING OR BROKEN PARTS OR ANY MISSING OR BROKEN FIXTURES AT LEAST FOURTEEN (14) DAYS PRIOR TO JOB COMPLETION. EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THE CONTRACTOR AND THE COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- CONTRACTOR SHALL WARRANTY MATERIALS AND INSTALLATIONS FROM THE DATE OF CONTRACT COMPLETION. PER CONTRACT REQUIREMENTS.
- THE CONTRACTOR SHALL REPAIR AND/OR REPAINT ALL AREAS DAMAGED BY DEMOLITION OR CONSTRUCTION AND FINISH TO MATCH EXISTING ADJACENT SURFACES.
- PROVIDE ALL PATCHING, PAINTING AND FINISHES, INCLUDING BUT NOT LIMITED TO FLOORWALL ETC., FOR ALL DEVICES LOCATED IN EXISTING AREAS TO RESTORE TO ORIGINAL CONDITIONS AND MUST BE APPROVED AND COORDINATED WITH THE ARCHITECT/ENGINEER AND DISTRICT.
- ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM (CALCULATED AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA TO MAINTAIN INTEGRITY OF THE EXISTING RATING. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITH THE PROJECT SPECIFICATIONS).
- A "DSA CERTIFIED" 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, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, C.C.R.)
- A "DSA CERTIFIED" INSPECTOR WITH CLASS (2) CERTIFICATION IS REQUIRED FOR THIS PROJECT. SEE ARCHITECTURAL.
- AN INSPECTOR WHO IS SPECIALLY QUALIFIED IN MECHANICAL AND ELECTRICAL WORK WILL BE REQUIRED FOR THIS PROJECT.
- ALL DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

## DEMOLITION NOTES

- BEFORE COMMENCING DEMOLITION WORK, THE CONTRACTOR SHALL REVIEW THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND WORKING DRAWINGS AND FIELD VERIFY ALL EXISTING CONDITIONS AND ANY QUESTIONABLE WORK ASSOCIATED WITH DISCONNECTING AND/OR REMOVAL OF EXISTING FIRE ALARM DEVICES AND COMPONENTS SHOWN FOR DEMOLITION. COORDINATE DEMOLITION WORK WITH THE PROJECT SCHEDULE.
- CONTRACTOR SHALL NOTIFY THE DISTRICT, CONSTRUCTION MANAGER AND ARCHITECT/ENGINEER IMMEDIATELY UPON REMOVAL OF EXISTING CONDUIT AND/OR EQUIPMENT WILL INTERFERE WITH EQUIPMENT THAT IS TO REMAIN OR INTERFERE WITH THE NEW EQUIPMENT INSTALLATION. IN SUCH SITUATIONS CONTRACTOR SHALL EXTEND PATHWAYS AND WIRING TO MATCH EXISTING AND TYPE TO PROVIDE OPERABLE SYSTEM.
- THESE DRAWINGS INDICATE EXISTING CONDITIONS WHICH WERE TAKEN FROM RECORD DRAWINGS/FIELD VISUAL VERIFICATIONS. THE ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THESE CONDITIONS. THE CONTRACTOR SHALL VERIFY AND INVESTIGATE ALL EXISTING FIELD CONDITIONS AND EXERCISE CAUTION IN THE DEMOLITION PROCESS, AND PROMPTLY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES ENCOUNTERED.
- EXISTING DEVICES AND EQUIPMENT NOT INDICATED TO BE REMOVED OR ABANDONED ARE TO REMAIN IN USE. PER PROVISIONS OF CFC SECTION 104.7.1 ABOVE THE FINISHED FLOOR LEVEL. ANY CONNECTIONS ARE MARKED SHUT-DOWN TIME OF THE EXISTING ELECTRICAL EQUIPMENT SHALL BE AT A TIME CONVENIENT AND AGREABLE TO THE DISTRICT. EXISTING EQUIPMENT REMOVED FOR PROTECTION SHALL BE PLACED BACK TO ITS ORIGINAL LOCATION. EXISTING EQUIPMENT SHALL BE MARKED AND IDENTIFIED AS SUCH AS REQUIRED TO MAINTAIN INTEGRITY OF THE EXISTING RATED AND OPERABLE SYSTEM. NO ADDITIONAL CHARGES WILL BE ALLOWED FOR REPAIRING, REPLACING AND/OR RECONNECTING THE EXISTING SYSTEM DISTURBED DURING CONSTRUCTION.
- UNLESS OTHERWISE NOTED, DISCONNECT AND REMOVE ALL SYSTEM DEVICES WITH THE EXISTING EQUIPMENT BEING REMOVED. REMOVE ALL EXISTING ELECTRICAL DEVICES FROM FACE SYSTEM DEVICES AND WIRING BACK TO SOURCE. PROVIDE BLANK STAINLESS STEEL COVER PLATES FOR REMOVED DEVICES AT SOLID WALLS (CONCRETE).
- THE CONTRACTOR, ACCOMPANIED BY THE DISTRICT, SHALL TAKE INVENTORY OF THE EXISTING MATERIAL AND EQUIPMENT. ALL MATERIAL AND EQUIPMENT WHICH ARE SELECTED BY THE DISTRICT FOR SALVAGE SHALL REMAIN THE PROPERTY OF THE DISTRICT. THE CONTRACTOR SHALL DELIVER SUCH SALVAGED EQUIPMENT AND MATERIAL TO THE LOCATION DESIGNATED BY THE DISTRICT. THE EQUIPMENT AND DEVICES SHALL BE NEATLY PAILED, STORED AND PROTECTED FROM DAMAGE. ALL MATERIAL AND EQUIPMENT NOT SELECTED BY THE DISTRICT SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM PREMISES, AND DISPOSED OF.
- COORDINATE ALL DEMOLITION WITH THE NEW REQUIREMENTS TO ASSURE THAT NEW INSTALLED SYSTEM IS COMPLETE AND OPERABLE.
- CAREFULLY PROTECT ALL EXISTING WALLS, FLOOR, FLOORS, EQUIPMENT, UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED SURFACES LIMIT DAMAGE TO THE CONFINED SPACE AND RESTORE TO ORIGINAL CONDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND PAINTING ALL FLOORS, WALLS, CEILING, AND OTHER SURFACES AFFECTED BY DEMOLITION OR CONSTRUCTION ACTIVITIES. ALL PATCHED AND PAINTED AREAS SHALL MATCH EXISTING ADJACENT FINISHES SURFACE.
- PRIOR APPROVAL MUST BE OBTAINED FROM THE ARCHITECT/ENGINEER BEFORE NOTCHING, CORING AND/OR CUTTING OF EXISTING STRUCTURE IS DONE.
- PROVIDE BLANK STAINLESS STEEL COVER PLATES TO REMOVED DEVICES. COLOR WHITE OR AS SELECTED BY DISTRICT. TYPICAL U.O.N.
- ALL REMOVED EQUIPMENT SHALL BE DISPOSED OF BY CONTRACTOR UNLESS OTHERWISE SALVAGED AS DIRECTED BY DISTRICT.
- THE PROVISIONS OF CFC 2022, CHAPTER 8, 11 AND 33 & CBC 2022, CHAPTER 33 SHALL BE ENFORCED ON THIS PROJECT.
- FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION SHALL BE IN COMPLIANCE WITH CFC 2022, CHAPTER 9, 11 AND 33 & CBC 2022, CHAPTER 33. EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE (UNIMPAIRED) AT ALL TIMES DURING CONSTRUCTION UNLESS UNDER FIRE WATCH. PROVIDE FIRE WATCH UNTIL THE NEW SYSTEM IS IN OPERATION AND APPROVED BY I.O.R., DSA (IF 2-1) LOCAL FIRE AUTHORITY, AND DISTRICT. PROVIDE FIRE WATCH PER CFC 901.1 SYSTEM OUT OF SERVICE. REFER TO SPECIFICATION SECTION 283100B ATTACHMENT B FOR CSFM FIRE WATCH GUIDE LINE.

## LIST OF CALIFORNIA CODE REGULATIONS (C.C.R.)

APPLICABLE CODES AS OF JANUARY 1, 2023		
TITLE 24 C.C.R., PART 1	2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE	
TITLE 24 C.C.R., PART 2	2022 CALIFORNIA BUILDING CODE (CBC)	
2021 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS		
TITLE 24 C.C.R., PART 3	2022 CALIFORNIA ELECTRICAL CODE (CEC)	
2020 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)		
TITLE 24 C.C.R., PART 4	2022 CALIFORNIA MECHANICAL CODE (CMC)	
2021 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)		
TITLE 24 C.C.R., PART 5	2022 CALIFORNIA PLUMBING CODE (CPC)	
2021 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)		
TITLE 24 C.C.R., PART 6	2022 CALIFORNIA ENERGY CODE	
TITLE 24 C.C.R., PART 7	2022 CALIFORNIA FIRE CODE (FC)	
2021 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL		
TITLE 24 C.C.R., PART 10	2022 CALIFORNIA EXISTING BUILDING CODE	
2021 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS		
TITLE 24 C.C.R., PART 11	2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN CODE)	
TITLE 24 C.C.R., PART 12	2022 CALIFORNIA REFERENCED STANDARDS CODE	
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS		

## PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 70	NATIONAL ELECTRICAL CODE	2021 EDITION
NFPA 72 <td>NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)</td> <td>2021 EDITION</td>	NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)	2021 EDITION
NFPA 101 <td>LIFE SAFETY CODE - SAFETY TO LIFE FROM FIRE IN BUILDINGS AND STRUCTURES</td> <td>2021 EDITION</td>	LIFE SAFETY CODE - SAFETY TO LIFE FROM FIRE IN BUILDINGS AND STRUCTURES	2021 EDITION
UL 464	2019 EDITION	
UL 521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	2019 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (8FM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 30.  
SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

## ELECTRICAL NOTES

- NOTE: THIS DOCUMENT FORMS A PART OF THE SPECIFICATIONS AND SHALL BE CONSIDERED THE SAME AS IF ATTACHED THERETO.
- IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THE CONTRACT FURNISH LABOR AND TOOLS NECESSARY AND INSTALL APPARATUS, MATERIALS AND MATERIALS LISTED ON THE DRAWINGS. ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NECESSARILY SHOWN, SUCH AS COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS, AND HARDWARE.
  - BEFORE SUBMITTING THE BID PROPOSAL, VISIT THE JOB SITE AND FULLY ACQUAINT WITH THE EXISTING JOB CONDITIONS, VERIFY EXISTING AND NEW REQUIREMENT, INCLUDING NECESSARY PULL BOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, PANELS, DISCONNECT SWITCHES CABLES, TIME CLOCKS, ETC., WHETHER SHOWN ON DRAWINGS OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND OPERABLE, WITHOUT ADDITIONAL COST TO THE DISTRICT.
  - THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE LOCATION OF FIRE ALARM DEVICES AND EQUIPMENT AND THE CIRCUIT ARRANGEMENT OF THE REQUIRED WIRING AND HOW THEY ARE TO BE INSTALLED. THE ACTUAL ROUTES OF CONDUITS, THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PROPER COORDINATION WITH THE EXISTING FIELD CONDITIONS AND SPACE WILL PERMIT. SIMPLY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF THE DISTRICT FOR VISUAL AND STRUCTURAL REASONS THE DRAWINGS DO NOT SHOW NECESSARY OFFSETS, BENDS, ELBOWS AND OFFSETS TO BE MADE TO BE SCALED AND THE CONTRACTOR SHALL REFER TO THE GENERAL CONSTRUCTION DRAWINGS FOR DIMENSIONS, FIELD COORDINATE WITH EXISTING CONDITIONS.
  - UNLESS OTHERWISE SHOWN OR SPECIFIED ON THE PLANS, THE FOLLOWING REQUIREMENTS APPLY:
    - EMT (MECHANICAL METALLIC TUBING) WITH COMPENSATION FITTINGS SHALL BE USED ONLY FOR INTERIOR BRANCH CIRCUITS.
    - EMT (CALVANA) SHALL BE USED FOR EXTERIOR BRANCH CIRCUITS.
    - CONDUIT SIZES NOTED ON THE SINGLE-LINE DIAGRAM OR ON THE PLANS SHALL SUPERSEDE THE MINIMUM SIZES NOTED HERE IF THEY ARE LARGER.
    - ALL BUILDING INTERIOR CONDUIT SHALL BE A MINIMUM OF 3/4" IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE (CEC) MINIMUM CONDUIT SIZES NOTED ON THE PLANS, SUPPORTED BY PIPE SUPPORTS, OR SURFACE-MOUNTED ON THE ROOF/FLOOR USING DURABLOCK TYPE PIPE/CONDUIT SUPPORTS.
    - EXPOSED CONDUIT RUNS SHALL BE INSTALLED PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE BUILDING STRUCTURE.
    - BENDS MUST BE FREE FROM DENTS OR FLATTENING.
    - CONDUIT SHALL BE ADEQUATELY SUPPORTED AND SECURELY FASTENED THROUGHOUT ITS ENTIRE RUN.
    - CONDUIT SHALL BE INSTALLED AS A COMPLETE SYSTEM INCLUDING COUPLINGS, BENDS, AND TERMINATIONS) BEFORE ANY WIRE OR CONDUCTORS ARE PULLED IN.
    - CONDUIT RUNS SHALL BE ENTIRELY FREE FROM OTHER PIPING, VALVES, OR MECHANICAL EQUIPMENT. DO NOT INSTALL CONDUIT WITHIN 6 INCHES OF HOT WATER LINES OR HEATING FLUES.
    - AVOID POCKETS OR TRAPS WHERE MOISTURE MAY COLLECT. IF PIPS ARE UNAVOIDABLE, A PULL BOX MUST BE LOCATED AT THE LOW POINT TO PROVIDE A MEANS FOR DRAINAGE.
    - REMOVE ALL EXCESSIVE NIPPLES, AND COUPLINGS, PLEES PENETRATING FLOORS SHALL PROJECT 2 INCHES ABOVE THE FINISHED FLOOR.
    - RUNNING THREADS SHALL NOT BE USED FOR COUPLINGS, WHERE COUPLINGS TWO LENGTHS IS DIFFICULT, AN ERICKSON TYPE COUPLING (OR EQUIVALENT) SHALL BE USED TO ENSURE A RIGID, MECHANICALLY AND ELECTRICALLY EFFECTIVE JOINT.
    - USE DOUBLE LOCKNUTS TO SECURE CONDUIT AT A BOX OR CABINET UNLESS THE BOX OR CABINET HAS A THREADED HUB.
    - CONDUIT SHALL BE SECURELY FASTENED TO THE SURFACE OF THE WALL OR CEILING TO PREVENT ABRASION AT THE ENDS.
    - ALL FIRE CONDUIT SYSTEM AND WIRE ENCLOSURES SHALL BE SECURELY BUNDLED TOGETHER TO ENSURE A LOW-RESISTANCE PATH TO GROUND FOR EVERY CONDUCTING COMPONENT.
    - SEAL-TIGHT FLEXIBLE CONDUIT SHALL BE PROVIDED TO CONNECT MOTORS ON SLIDING BASES, CONTROLS, AND OTHER VIBRATING EQUIPMENT.
    - CONSTRUCTION PROTECT CONDUIT FROM DAMAGE AND PREVENT THE ENTRY OF WATER AND FOREIGN MATTER. INSTALL WATER/TIGHT STOPPERS OR CAPS IMMEDIATELY AFTER INSTALLATION, REMOVING THEM ONLY WHEN WIRES ARE TO BE PULLED.
    - BEFORE PULLING WIRE OR CABLES THROUGH CONDUIT, CLEAN THE INTERIOR OF CONDUIT. FOREIGN MATERIALS ARE REMOVED. IN EACH CONDUIT RUN THAT IS TO BE LEFT EMPTY, PROVIDE A ROPE BALL STRING WITH A TAG IDENTIFYING THE LOCATION OF THE OPPOSITE END.
  - PROVIDE AND INSTALL HANGERS, SUPPORTS AND FASTENERS AS REQUIRED:
    - INSTALLATION OF HANGERS AND SUPPORTS SHALL BE MADE TO THE WOOD FRAMED STRUCTURE.
    - FASTENERS FOR SUPPORTS AND HANGERS SHALL BE MADE WITH BEAM CLAMPS, LUGS, OR OTHER APPROVED DEVICES.
    - INSTALLATION SHALL BE SUCH AS TO SUPPORT CONDUIT WITHOUT SAGGINS AND SHALL BE CLEAR OF THE WORK OF OTHER TRADES. PROVISION FOR SUPPORTS SHALL BE MADE FOR EXPOSED CONDUIT RUNS SHALL BE AS FOLLOWS:
 

SIZE OF CONDUIT (INCHES)	NUMBER OF CONDUITS IN RUN	LOCATION	MAXIMUM SUPPORT SPACING (FEET)
3/4"	1 OR 2	ON A FLAT CEILING OR WALL	5
3/4"	1 OR 2	WHERE IT IS DIFFICULT TO PROVIDE SUPPORTS EXCEPT AT INTERVALS DIFFICULT BY BUILDING CONSTRUCTION	7
3/4"	3 OR MORE	ANY LOCATION	7
1 & 2"	1 OR 2	ON A FLAT CEILING OR WALL	6
1 & 2"	1 OR 2	WHERE IT IS DIFFICULT TO PROVIDE SUPPORTS EXCEPT AT INTERVALS DIFFICULT BY BUILDING CONSTRUCTION	10
1 & 2"	3 OR MORE	ANY LOCATION	10
  - SPACING OF SUPPORTS FOR EXPOSED VERTICAL CONDUIT RUNS SHALL BE AS FOLLOWS:
 

SIZE OF CONDUIT (INCHES)	MAXIMUM SUPPORT SPACING (FEET)
3/4"	7
1 AND 1 1/4"	8
1 1/2" AND 2"	10
  - ELECTRICAL ENCLOSURES SHALL BE WEATHERPROOF WHEN EXPOSED TO OUTDOORS OR WET AREAS.
  - EXACT LOCATION OF EQUIPMENT AND OUTLETS SHALL BE VERIFIED IN FIELD. COORDINATE INSTALLATION OF ELECTRICAL SYSTEM WITH EXISTING BUILDING STRUCTURE. PRIOR TO COMPLETION OF AFFECTED WORK, CONTRACTOR SHALL INSTRUCT THE DISTRICT ON THE USE AND MAINTENANCE OF THE INSTALLED SYSTEM.
  - BOXES MUST BE SIZED PER CODE BASED ON THE CONDUCTOR COUNT AND GAUGE. THE MINIMUM SIZE IS 4" SQUARE BY 2-1/8" DEEP UNLESS A LARGER SIZE IS SPECIALLY SHOWN. ALL OUTLET BOXES SHALL BE FLUSHED WITH THE FINISHED SURFACE OF COMBUSTIBLE WALLS AND CEILING. JOINT BOXES MUST BE LABELED WITH THEIR CORRESPONDING CIRCUIT NUMBERS. IN ALL CASES, CONDUIT SHALL BE INSTALLED TO CONDUITS AND OUTLET BOXES SURFACE MOUNTED.
  - OPENINGS IN BOXES, CONDUIT BODIES AND FITTINGS SHALL BE ADEQUATELY CLOSED.
  - SURFACE MOUNTED BOXES AND CABINETS MOUNTED IN WET AND DAMP LOCATIONS SHALL BE WEATHERPROOF AND SHALL HAVE AT LEAST 1/4 INCH AIR SPACE BETWEEN THE BOX AND MOUNTING SURFACE.
  - ENTRANCE TO ROOMS AND OTHER GUARDED LOCATIONS THAT CONTAIN LIVE PARTS SHALL BE MARKED WITH A CONSPICUOUS WARNING SIGN FORBIDDING UNQUALIFIED PERSONS TO ENTER.
  - CUT FLOORS, CEILING AND WALLS AS REQUIRED FOR INSTALLATION OF WORK. ALL PENETRATION THROUGH MASONRY/CONCRETE WALLS/CEILING SHALL BE KRAYED PRIOR TO START OF WORK TO AVOID EXISTING STRUCTURAL RE-BAR AND PROVIDED BY MEANS OF SLEEVES OR CORE DRILLING. EXACT LOCATION OF CORING SHALL BE DETERMINED BASED ON STRUCTURAL, CONDITION, EXISTING OBSTRUCTION AND FIELD CONDITION. CONTRACTOR SHALL COORDINATE WITH DISTRICT. CONDUITS SHALL NOT PENETRATE STRUCTURAL SLAB. ALL WORK SHALL BE PATCHED AND REPAIRED AS DIRECTED BY DISTRICT.
  - CUTTING, BORING, SAW CUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENT TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR ACCEPTED BY THE ARCHITECT AND STRUCTURAL ENGINEER WITH THE APPROVAL OF DSA.
  - ALL PENETRATION THRU EXISTING EXTERIOR WALL SHALL BE PROVIDED WITH UL LISTED SEAL, AND WATERPROOF.
  - USE "THIN" COPPER WIRE OR EQUAL FOR ALL BRANCH CIRCUIT WIRING WITH A SEPARATE GREEN GROUNDING CONDUCTOR. SIZE PER CEC 250-122.
  - EQUIPMENT SHALL BE LISTED BY A RECOGNIZED TESTING LABORATORY.
  - ALL LOW VOLTAGE WORK, DATA CABLE INSTALLATION, TERMINATING, AND EQUIPMENT SHALL BE IN CONFORMITY WITH THE REQUIREMENTS AND SUBJECT TO APPROVAL OF THE DISTRICT'S COMMUNICATION PERSONNEL AND SHALL COMPLY WITH DISTRICT'S COMMUNICATION SPECIFICATIONS (DIVISION 7 & 28) AND REQUIREMENTS.
  - IRRELEVANT INFORMATION ON DRAWINGS AND DATA SHEETS SHALL BE COMPLETELY MARKED OUT LEAVING ONLY DATA THAT PERTAINS TO THE ITEMS SUBMITTED FOR APPROVAL. EQUIPMENT SHALL NOT BE DELIVERED TO THE SITE UNTIL SHOP DRAWINGS HAVE BEEN APPROVED. APPROVAL OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO CONFORM TO THE PLANS AND SPECIFICATIONS NOR OF RESPONSIBILITY FOR SATISFACTORY PERFORMANCE OF EQUIPMENT.
  - NOTIFY THE SUPPLIER OF ANY MISSING OR BROKEN PARTS OR ANY MISSING OR BROKEN FIXTURES AT LEAST FOURTEEN (14) DAYS PRIOR TO JOB COMPLETION. EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THE CONTRACTOR AND THE COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
  - USE "THIN" COPPER WIRE OR EQUAL FOR ALL BRANCH CIRCUIT WIRING WITH A SEPARATE GREEN GROUNDING CONDUCTOR. SIZE PER CEC 250-122.
  - EQUIPMENT SHALL BE LISTED BY A RECOGNIZED TESTING LABORATORY.
  - DATA CABLE INSTALLATION, TERMINATING, AND EQUIPMENT SHALL BE IN CONFORMITY WITH THE REQUIREMENTS AND SUBJECT TO APPROVAL OF THE DISTRICT'S COMMUNICATION PERSONNEL AND SHALL COMPLY WITH DISTRICT'S COMMUNICATION SPECIFICATIONS (DIVISION 21) AND REQUIREMENTS.
  - THE NON-CURRENT CARRYING METALLIC PARTS OF ALL ELECTRICAL EQUIPMENT AND ENCLOSURES, INCLUDING CONDUITS, SUPPORTS, CABINETS, AND ASSEMBLIES, WHICH ARE INSTALLED OR CONNECTED UNDER THIS CONTRACT, SHALL BE PROPERLY GROUNDED BY CONNECTION TO THE GROUNDING SYSTEM, REGARDLESS OF WHETHER OR NOT THESE CONNECTIONS ARE SHOWN ON THE DRAWINGS.
    - THE GROUNDING SYSTEM SHALL HAVE PROVISIONS FOR BOTH SYSTEM AND EQUIPMENT GROUNDS AS DEFINED BY THE "CEC" THESE GROUNDED SYSTEMS ARE TO BE EFFECTIVELY INSULATED FROM EACH OTHER EXCEPT AT THE SERVICE CONNECTION.
    - WARRANTED CABLES, PAPER, AND OTHER INSULATION SHALL BE TESTED IN THE MANNER DIRECTED BY THE LOCAL REQUIREMENTS OF THE INSPECTION AUTHORITY HAVING JURISDICTION SHALL GOVERN IN ALL MATTERS OF INTERPRETATION.
    - IF WATER SERVICE IS USED FOR GROUNDING POINT, IT SHALL BE ASCERTAINED THAT THE WATER PIPING IS ELECTRICALLY CONTINUOUS AT JOINTS AND IS OF CONDUCTING MATERIAL. WATER PIPING WITH SWEATED JOINTS IN ELECTRICAL PATH SHALL HAVE SUCH JOINTS BONDED.
    - WHERE GROUNDING CABLES ENTER EQUIPMENT, THEY SHALL BE MECHANICALLY CONNECTED TO THE END OF THE RACEWAY. WHERE GROUND CABLE PASSES THROUGH FERRULOUS FLOORING OR FRAMING, CONNECTION SHALL BE MADE TO SUCH METAL.
  - THE CONTRACTOR SHALL KEEP ALL PARTS OF THE BUILDING AND SITE FREE FROM ANY ACCUMULATIONS OF RUBBISH OR WASTE MATERIALS CAUSED BY HIS WORKMEN, AND SHALL REMOVE SUCH ACCUMULATIONS FROM THE BUILDING, SITE AND PROPERTY. JOB SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
  - THOROUGHLY CLEAN ALL PARTS OF THE EQUIPMENT AND MATERIAL INSTALLED UNDER THIS DIVISION. SURFACES OF EXPOSED CONDUIT SHALL BE CLEANED OF CEMENT, PLASTER, DIRT, RUST, GREASE, AND OTHER FOREIGN MATTER, AND BE LEFT IN CONDITION SUITABLE TO THE CONTRACTOR AND ACCEPTED FOR PAINTING.
    - EQUIPMENT FURNISHED WITHOUT SHOP APPLIED FINISH SHALL BE FIELD PAINTED.
    - CONCEALED SURFACES OF METAL, RACKS, FRAMES, AND BOXES SHALL BE PAINTED BEFORE MOUNTING.
    - WHERE GROUNDING CABLES ENTER EQUIPMENT, THEY SHALL BE MECHANICALLY CONNECTED TO THE END OF THE RACEWAY. WHERE GROUND CABLE PASSES THROUGH FERRULOUS FLOORING OR FRAMING, CONNECTION SHALL BE MADE TO SUCH METAL.
  - INSULATION SHALL BE TESTED BEFORE AND AFTER INSTALLATION, AND BEFORE ENERGIZING.
    - RUBBER INSULATION SHALL BE TESTED FOR ACCEPTANCE BY APPLYING DIRECT CURRENT POTENTIAL NOT OVER 3 TIMES THE RATIO OF DIRECT CURRENT TO 60% OF EQUIVALENT "RMS" ALTERNATING CURRENT VOLTAGE FOR 5 MINUTES.
    - WARRANTED CABLES, PAPER, AND OTHER INSULATION SHALL BE TESTED IN THE MANNER DIRECTED BY AND UP TO THE LIMITS RECOMMENDED BY THE MANUFACTURER.
    - INSULATION RESISTANCE SHALL BE TESTED BY MEGGER OF NOT LESS THAN 800 VOLTS OUTPUT FOR CIRCUITS 400 VOLTS AND LESS, ANY CIRCUIT SHOWING AN INSULATION RESISTANCE OF LESS THAN 100 MΩ SHALL BE INVESTIGATED AND THE WEAK POINT CORRECTED, CORRECT OR REPLACE ANY CIRCUIT DEFECTIVE OR GROUNDED AND MAKE WIRE-BY-WIRE TEST.
  - THE ENTIRE SYSTEM SHALL BE PLACED IN PROPER OPERATING CONDITION.
    - OVERLOAD DEVICES SHALL BE ADJUSTED AND SET TO SUIT THE LOADS WHICH THEY CONTROL.
    - LOADS ON ALL PARTS OF SYSTEMS SHALL BE BALANCED, INsofar AS IS PRACTICAL.
    - ALL CHARGES SHALL BE MADE THAT ARE NECESSARY FOR ADJUSTING, TIGHTENING, AND BALANCING.
    - PHASE ROTATION AT ALL BUSSES, PANELS, SWITCHBOARD ETC., SHALL BE CHECKED TO SEE IF IT CONFORMS WITH RECOGNIZED STANDARDS.
    - GROUND TESTS SHALL BE MADE WITH THE 3 ELECTRODE "AC" TEST VOLTAGE DROP METHOD TO ESTABLISH INITIAL READINGS FOR RECORDS, AND TO ASCERTAIN THAT THEY MEET DESIGN AND CODE REQUIREMENTS.
    - CONTROL CIRCUITS SHALL BE CHECKED OUT FOR PROPER FUNCTIONING AND FAIL-SAFE QUALITIES.
  - DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOME RUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.
  - ANY POWER OUTAGES SHALL BE APPROVED BY THE USER OF THE DISTRICT. A 7 DAY WRITTEN NOTICE SHALL BE GIVEN FOR ANY OUTAGE REQUEST.
  - CHECK PANEL SCHEDULES IDENTIFICATION FOR VALIDITY. IDENTIFY ANY OF ALL CHANGES IN PANEL ON PANEL SCHEDULE CARD. WHILE PANEL COVER IS REMOVED TURN OFF ANY SPARE BREAKERS AND VERIFY BREAKERS ARE INDICATED ON PANEL SCHEDULE CARD.
  - USE "DYM0" LABEL ON FACE OF EACH CONTROL DEVICE AND JUNCTION BOXES INDICATING THE SOURCE PANEL AND CIRCUIT USED.
  - UPON COMPLETION OF THE WORK, COOPERATE IN CONDUCTING AN OPERATING TEST TO DEMONSTRATE THAT ALL EQUIPMENT IS OPERATING IN A SATISFACTORY MANNER.
  - CONTRACTOR SHALL CORRE DRILL, SAUT, PATCH TO MATCH ADJACENT SURFACES, AND PAINT ALL EXPOSED CONDUITS & BOXES TO MATCH EXTERIOR FINISHING MATERIAL.
  - USE UL LISTED FIRE RATED CAULK FOR PENETRATION @ RATED FLOORWALL/CEILING.

## MCP COMPONENT ANCHORAGE NOTES

- MCP COMPONENT ANCHORAGE NOTE**
- ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS.
- THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASIC-16 CHAPTERS 13, 18 AND 30.
- ALL PERMANENTLY ATTACHED AND COMPONENTS.
  - TEMPORARY, MOVABLE OR MOBILE EQUIPMENT 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 FLUOS FOR 10220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE OR CONDUIT CONNECTION TO THE EQUIPMENT.
  - TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
- THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REQUIREMENTS NOTED ABOVE. THE 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. ALL 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 FLEXIBLE CONNECTION TO THE STRUCTURE, SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE.
- 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 SECTIONS 13.5.5, 13.5.7, 13.5.8 AND 2022 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 SYSTEMS ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., HCAI 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):**
- OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.  
 OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI (OSHPD) PRE-APPROVAL (OPM #) . AS INCLUDED IN THESE DRAWINGS WITH PROJECT-SPECIFIC NOTES AND DETAILS.
- DO NOT MIX SEISMIC BRACING DETAILS FROM DIFFERENT OPM'S UNLESS SPECIFICALLY SHOWN ON DRAWINGS AND APPROVED BY DSA.

## FIRE ALARM NOTES

- ALL WIRING SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILING, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS DEDICATED ON OTHER DOCUMENTS. EXPOSED CIRCUITS NOT IDENTIFIED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS, COMPONENTS SHALL BE PER TABLE 3B OF ELECTRICAL CODE. PROVIDE PVC SCHEDULE 40B FOR CONDUITS UNDERGROUND. EMT CONDUIT FOR INTERIOR EXPOSED AREAS, AND GALVANIZED RIBBED IRON EXPOSED EXTERIOR AREAS. UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATER/TIGHT FITTINGS AND WIRE APPROVED FOR WET LOCATIONS.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" UNON CONTRACTOR TO ADJUST SIZE FOR FIELD CONDITIONS (I.E. NO. OF BENDS, ETC) BUT SHALL NOT BE SMALLER THAN 3/4" MAXIMUM CONDUIT SIZE SHALL BE 2".
- FIRE ALARM JUNCTION BOX COVER SHALL BE PAINTED RED AND LABELED "FIRE ALARM". ALL FIRE ALARM CONDUITS SHALL HAVE A RED STRIPE EVERY 10".
- ALL FIRE ALARM WIRING SHALL BE FIRE POWER LIMITED PLENUM AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE UNDERGROUND MAY BE THIN OR THINWALL. CONDUIT FILL SHALL BE PER TABLE 3B OF ELECTRICAL CODE.
- ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECT DIRECTLY TO EACH FIRE ALARM DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 4 FT OF LEAD WIRE FROM BOX TO THE DEVICE. ALL BOX TO BE SIZED PER CEC. WIRING SHALL NOT BE LOOPED THROUGH DEVICES. WIRE MUST BE CUT FOR IN AND OUT AT DEVICE JUNCTION BOX.
- POINT AND COMMON ANNUNCIATION AND T-PAPPING PROHIBITED. (EXCEPT WITH ADDRESSABLE CLASS B DEVICES)
- ALL WIRING, INITIATING DEVICE AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION FIRE ALARM PANEL TO SUPERVISE THE ANNUNCIATOR PANEL. ALL CIRCUITS AND INITIATING DEVICES.
- ALL PENETRATIONS OF FIRE-RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVE TYPE OF MATERIALS SHALL BE IDENTIFIED WITH THE SPECIFICATION WITHIN A FIRE ALARM SECTION. INSTALLATION AND APPLICATION, PER MANUFACTURER'S INSTRUCTIONS. REFER TO FIRE ALARM DETAIL DRAWING THROUGH-PENETRATION FIRE STOPPING FOR ALL FIRE RATED WALLS.
- CONDUIT AND JUNCTION BOXES ARE NOT TO BE USED FOR UNRELATED WIRING.
- ALL TERMINATION ON MAIN PULL BOXES AND TERMINAL CABINETS SHALL BE ON BOX MOUNTED TERMINAL BLOCKS.
- THE FIRE ALARM CONTROL PANEL IS NOT TO BE USED AS A TERMINAL CABINET. PROVIDE SEPARATE TERMINAL CABINET.
- FIRE ALARM LOCKED PANEL SHALL BE ACCESSIBLE ONLY TO FIRE DEPT. PERSONNEL. AUTHORIZED MAINTENANCE PERSONNEL AND SHALL BE MARKED "FIRE ALARM CONTROL PANEL".
- PROVIDE SIGNAGE "FIRE ALARM CONTROL PANEL INSIDE" ON DOORS OF THE ROOM WHERE FACPCFPS IS LOCATED TO INDICATE LOCATION OF FACPCFPS. PROVIDE SIGNAGE AT THE INSPECTORS TEST VALVE, RISER, AND SUPERVISORY DEVICE INDICATING THAT THE FIRE SPRINKLER SYSTEM IS BEING MONITORED. THE LOCATION OF THE INSPECTORS TEST IS TO BE LABELED ON THE INTERIOR OF THE FAC DOOR.
- BATTERIES ARE TO BE LABELED WITH THE MONTH AND YEAR OF INSTALLATION.
- FIRE ALARM PANEL, REMOTE ANNUNCIATOR, AND COMPONENTS SHALL BE SECURE TO MOUNTING SURFACE PER MANUFACTURES SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
- ALL ELECTRICAL CONTROLS AND SWITCHES SHALL BE INSTALLED NO MORE THAN 48" ABOVE FINISH FLOOR FROM THE TOP OF THE OUTLET BOX AND NO LESS THAN 1"5" ABOVE FINISH FLOOR FROM THE BOTTOM OF THE OUTLET BOX. PER CBC 11B-308.
- FIRE ALARM EQUIPMENTS AND POWER SUPPLIES SHALL BE CONNECTED TO A DEDICATED 120 V CIRCUIT / CIRCUIT BREAKER SHALL BE AUTHORIZED BY TYPE/STALEFACING. RATING: PROVIDE LOCK ON DEVICE TO CIRCUIT BREAKER HANDLE, WITH RED MARKING, ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL. PROVIDE AS FIRE ALARM CIRCUIT, AND LOCATION OF CIRCUIT BREAKER INDENTIFIED AT FIRE ALARM CONTROL UNIT IN COMPLIANCE WITH NFPA 72, 10.6.5.2.
- ALL EQUIPMENT, I.E. AUTOMATIC DETECTION DEVICES, MANUAL PULL STATIONS, ADJUVANTIAL DEVICES, DUCT DETECTORS, ETC. SHALL BE INSTALLED AND LOCATED IN ACCORDANCE WITH TITLE 24, PROVISIONS OF THE TITLE 24, PARTS 2.4 & 9 STANDARDS. ALL EXTERIOR DEVICES SHALL BE LISTED FOR OUTDOOR USE AND MOUNTED IN APPROVED WEATHERPROOF BOXES AND IN ACCORDANCE WITH TITLE 19, CHAPTER 1.5, ARTICLE 1, SECTION 200.
- ALARM SIGNALS SHALL BE DISTINCTIVE FROM ANY OTHER SIGNAL AND SHALL NOT BE USED FOR ANY OTHER PURPOSE. (NFPA 72, 2022 E

DATE:		07-Oct-25		PANEL VOLTAGE:		120/208V		CIRCUIT CODE:		1=(CONTINUOUS)										
LOCATION:		BLDG B - MECHANICAL BLDG B		PHASE & WIRE:		3PH, 4W		2=(NON-CONTINUOUS)		3=(RECEPTACLES)										
PANEL:		Replace with new 1BL		COPPER BUS:		255A														
AIC RATING:		EXISTING		MAINS CB:		MCO														
NO.	CKT	TRIP	POLE	DESCRIPTION	MISC	REC	LITE	VA	A	B	C	VA	LITE	REC	MISC	DESCRIPTION	POLE	TRIP	CODE	NO.
1	1	20	1	(E) LTS (RM 111)				1000	2000			1000	4			(E) LTS (RM 101)	1	20	1	2
3	1	20	1	(E) LTS (RM 111)			4	1000				1000	4			(E) LTS (RM 101)	1	20	1	4
5	1	20	1	(E) LTS (RM 111)			4	1000				1000	4			(E) LTS (RM 101)	1	20	1	8
7	1	20	1	(E) LTS (RM 104 105)			6	1500	3000			1500	6			(E) LTS (RM 112)	1	20	1	8
9	1	20	1	(E) LTS (RM 104 105)			6	1500	3000			1500	6			(E) LTS (RM 112)	1	20	1	10
11	1	20	1	(E) LTS (RM 105)			6	1500				3000	1500	6		(E) LTS (RM 113)	1	20	1	12
13	1	20	1	(E) LTS (TEACHER WORK RM)			4	800	2300			1500	6			(E) LTS (RM 113)	1	20	1	14
15	1	20	1	(E) LTS (RM 110)			6	1500				2700	1200	6		(E) LTS (SCIENCE PREP RM)	1	20	1	16
17	1	20	1	(E) LTS (RM 106 110)			6	1500				2300	800	4		(E) LTS (SCIENCE PREP RM)	1	20	1	18
19	1	20	1	(E) LTS (RM 101)			6	1500	2200			700	7			(E) LTS (BANK RM)	1	20	1	20
21	3	20	1	(E) RECEPTACLE			4	720				720				SPARE				22
23	3	20	1	(E) RECEPTACLE			4	720				720				SPARE				24
25	3	20	1	(E) RECEPTACLE			3	540	1400			850	1			(E) EF (REST RM)	1	20	1	26
27	1	20	1	(E) TCB-B-1, TCB-B-2, TCB-B-3			3	150				650	500	1		(E) EF (REST RM)	1	20	1	28
29	1	20	1	(E) XFMR				500				1000	500	1		(E) EF (REST RM)	1	20	1	30
31	1	20	1	(E) CONTROL CIRCUIT				500	500							SPARE				32
33	1	20	1	(E) CONTROL CIRCUIT				500	500			500				SPARE				34
35	2	20	1	(E) BOILER (B-B-1)			1	1320				1320				SPARE				36
37	2	15	1	(E) BOILER CIRCULATION PUMP			1	717.6	717.6							SPARE				38
39	2	3	4P					717.6								SPARE				40
41	20	1		SPARE												SPARE				42
43	20	1		SPARE				0								SPARE				44
45	20	1		SPARE				0								SPARE				46
47	20	1		SPARE				0								SPARE				48
49	20	1		SPARE				0								SPARE				50
51	20	1		SPARE				0								SPARE				52
53	20	1		SPARE				0								SPARE				54
55	20	1		SPARE				0								SPARE				56
57	20	1		SPARE				0								SPARE				58
59	20	1		SPARE				0								SPARE				60
61	20	1		SPARE				0								SPARE				62
63	20	1		SPARE				0								SPARE				64
65	20	1		SPARE				0								SPARE				66
67	20	1		SPARE				0								SPARE				68
69	20	1		SPARE				0								SPARE				70
71	20	1		SPARE				0								SPARE				72
TOTAL												12208	10298	10340	CONNECTED KVA	32.8				
NOTE: REPLACE EXISTING ELECTRICAL PANEL WITH NEW ELECTRICAL PANEL (SURFACE WALL MOUNTED). RECONNECT EXISTING FEEDER AND BRANCH CIRCUIT WIRING TO NEW PANEL. EXTEND WIRING AS REQUIRED TO RECONNECT ALL EXISTING CIRCUITS. ALL BRANCH BREAKERS SHALL BE MATCHED WITH EXISTING AIC RATING. ALL UNUSED BRANCH BREAKERS SHALL BE LABELED AS "SPARE". ALL EXISTING LOADS SHALL BE IDENTIFIED AND UPDATE PANEL DIRECTORY CARDS.												CONN KVA (CODE 1)	28.1							
FEED FROM (E) DISTRIBUTION BOARD "2B0"												CONN KVA (CODE 2)	2.8							
												CONN KVA (CODE 3)	2.0							
												FEEDER DEMAND KVA	39.9							
												FEEDER DEMAND AMPS	110.6							

DATE:		07-Oct-25		PANEL VOLTAGE:		120/208V		CIRCUIT CODE:		1=(CONTINUOUS)										
LOCATION:		BLDG B - MECHANICAL BLDG B		PHASE & WIRE:		3PH, 4W		2=(NON-CONTINUOUS)		3=(RECEPTACLES)										
PANEL:		Replace with new 2BL		COPPER BUS:		255A														
AIC RATING:		EXISTING		MAINS CB:		MCO														
NO.	CKT	TRIP	POLE	DESCRIPTION	MISC	REC	LITE	VA	A	B	C	VA	LITE	REC	MISC	DESCRIPTION	POLE	TRIP	CODE	NO.
1	3	20	1	(E) RECEPTACLE			2	300	900			540	3			(E) RECEPTACLE	1	20	3	2
3	3	20	1	(E) RECEPTACLE			3	540				540	3			(E) RECEPTACLE	1	20	3	4
5	3	20	1	(E) RECEPTACLE			1	180				540	3			(E) RECEPTACLE	1	20	3	6
7	2	**20	1	* FLUME HOOD CR [112]			1	460	920			720	540	3		* FLUME HOOD CR [113]	1	**20	2	8
9	2	**20	2	* FLUME HOOD CR [112]			1	832	1664			832	1			* FLUME HOOD CR [113]	2	**20	2	10
11	2	-	-					832				1664	832				-	-	-	12
13	3	20	1	(E) RECEPTACLE			3	540	720			180	1			(E) RECEPTACLE	1	20	3	14
15	3	20	1	(E) RECEPTACLE			3	540				540	3			(E) RECEPTACLE	1	20	3	16
17	3	20	1	(E) RECEPTACLE			3	540				1090	540	3		(E) RECEPTACLE	1	20	3	18
19	3	20	1	(E) RECEPTACLE			3	540	1260			720	4			(E) RECEPTACLE	1	20	3	20
21	3	20	1	(E) RECEPTACLE			3	540	1260			720	4			(E) RECEPTACLE	1	20	3	22
23	3	20	1	(E) RECEPTACLE			2	300				540	180	1		(E) RECEPTACLE	1	20	3	24
25	1	20	1	UTILITY CONTROLLER [112]			1	900	1220			720	4			(E) RECEPTACLE	1	20	1	26
27	1	20	1	UTILITY CONTROLLER [113]			1	900				500				EXISTING LOAD	1	20	1	28
29	20	1		SPARE								720	720	4		(E) RECEPTACLE	1	20	3	30
31	3	20	1	RECEPT NORTH WALL CR [112]			4	720	1440			720	4			RECEPT NORTH WALL CR [113]	1	20	3	32
33	3	20	1	RECEPT EAST WALL CR [112]			4	720				540	3			RECEPT EAST WALL CR [113]	1	20	3	34
35	3	20	1	RECEPT SOUTH WALL CR [112]			6	1080				1800	720	4		RECEPT SOUTH WALL CR [113]	1	20	3	36
37	3	20	1	RECEPT WEST WALL CR [112]			6	1080	2160			1090	6			RECEPT WEST WALL CR [113]	1	20	3	38
39	3	**20	1	RECEPT LAB ISLAND CR [112]			3	540	1080			540	3			RECEPT LAB ISLAND CR [113]	1	**20	3	40
41	3	**20	1	RECEPT LAB ISLAND CR [112]			5	900				1800	900	5		RECEPT LAB ISLAND CR [113]	1	**20	3	42
43	3	**20	1	RECEPT LAB ISLAND CR [112]			5	900	1800			900	5			RECEPT LAB ISLAND CR [113]	1	**20	3	44
45	3	**20	1	RECEPT LAB ISLAND CR [112]			5	900				1800	900	5		RECEPT LAB ISLAND CR [113]	1	**20	3	46
47	3	**20	1	RECEPT LAB ISLAND CR [112]			5	900				1800	900	5		RECEPT LAB ISLAND CR [113]	1	**20	3	48
49	3	20	1	VACUUM PUMPING CR [112]			2	300	720			300	2			VACUUM PUMPING CR [113]	1	20	3	50
51	3	20	1	DI WATER CR [112]			1	180	360			180	1			DI WATER CR [113]	1	20	3	52
53	3	20	1	SECURITY (ACCESS CONTROL)			1	200				200				SPARE				54
55	3	20	1	PLYWOOD BACKBOARD			2	360	360							SPARE				56
57	3	20	1	PLYWOOD BACKBOARD			2	360	360							SPARE				58
59	1	30	3	IDF RACK CR [107]			1	1666				1666				AV RACK CR [107]	3	30	1	60
61	1	-	-					1666	3332			1666					-	-	-	62
63	1	-	-					1666	3332			1666					-	-	-	64
65	1	30	3	IDF RACK CR [107]			1	1666				3332	1666			AV RACK CR [107]	3	30	1	66
67	1	-	-					1666	3332			1666					-	-	-	68
69	1	-	-					1666	3332			1666					-	-	-	70
71	20	1		SPARE																

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 1 of 7)  
 Date Prepared: 2/7/2025

**A. GENERAL INFORMATION**  
 This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)(2) / 180.2(b)(4) for alterations.

01 Project Location (City)	Pomona	04 Total Conditioned Floor Area (ft <sup>2</sup> )	2,420
02 Climate Zone	IE	05 Total Unconditioned Floor Area (ft <sup>2</sup> )	0
03 Occupancy Types Within Project (select all that apply):			
<input checked="" type="checkbox"/> Classroom			

**B. PROJECT SCOPE**  
 This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)(2) / 180.2(b)(4) for alterations.

Scope of Work	Conditioned Spaces	Unconditioned Spaces
01 My Project Consists of (check all that apply):	02 Calculation Method	03 Area (ft <sup>2</sup> )
<input checked="" type="checkbox"/> New Lighting System	Calculation Method	2420
<input type="checkbox"/> New Lighting System - Parking Garage	Area Category Method	0
04 Total Area of Work (ft <sup>2</sup> )	05 Calculation Method	06 Area (ft <sup>2</sup> )
2420	Calculation Method	0

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 1 of 7)  
 Date Prepared: 2/7/2025

**C. COMPLIANCE RESULTS**  
 If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b)(1) / 170.2(e)	Allowed Lighting Power per 140.6(a) / 170.2(a) (Watts)					Adjusted Lighting Power per 140.6(a) / 170.2(a) (Watts)			Compliance Results
	01	02	03	04	05	06	07	08	
Complete Building Category 140.6(c)(1)	Area Category 140.6(c)(2)	Area Additional 140.6(c)(3)	Tailored 140.6(c)(4)	Total Allowed (Watts) (+)	Adjustments (-)	Total Design (Watts)	PAF Lighting Control Credits 140.6(a)(1) / 170.2(a)(18) (-)	Total Adjusted (Watts) (+)	05 must be >= 08 140.6 / 170.2(e)
(See Table I)	(See Table I)	(See Table J)	(See Table K)	= 1,452	≥ 1,179	0 = 1,179	0 = 1,179	0 = 1,179	COMPLIES
Controls Compliance (See Table H 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.

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 3 of 7)  
 Date Prepared: 2/7/2025

**F. INDOOR LIGHTING FIXTURE SCHEDULE**  
 This table includes all planned permanent and portable lighting other than dwelling unit/hotel/motel room lighting, multifamily dwelling unit and hotel/motel room lighting is documented in Table F. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

01 Name or Item Tag	02 Complete Luminaire Description	03 Modular (Track) Fixture	04 Small Aperture & Color Change	05 How is Wattage determined?	06 Total Number of Luminaires	07 Excluded per 140.6(d) / 170.2(e)(2)	08 Design Watts	09 Field Inspector Pass	10 Field Inspector Fail
A-AE	Type A/AE	No	NA	39.3	Mfr. Spec	No	1,179	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Designated Watts: CONDITIONED SPACES							1,179		

**G. MODULAR LIGHTING SYSTEMS**  
 This section does not apply to this project.

**H. INDOOR LIGHTING CONTROLS (Not including PAF)**  
 This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls	01	02	03
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)(4)	Field Inspector	
Required >= 4,000W subject to multilevel	Whole Building Auto Time Switch	Pass	Fail
		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 4 of 7)  
 Date Prepared: 2/7/2025

**H. INDOOR LIGHTING CONTROLS (Not including PAF)**  
 Area Level Controls

04 Area Description	05 Complete Building or Area Category Primary Function Area	06 Manual Area Controls 130.1(a) / 160.5(b)(4)	07 Multi-Level Controls 130.1(b) / 160.5(b)(4)	08 Shut Off Controls 130.1(c) / 160.5(b)(4)	09 Primary/Sky or Daylighting 130.1(d) / 160.5(b)(4)	10 Secondary Daylighting 130.1(e) / 160.5(b)(4)	11 Interlocked Systems 140.6(a)(1) / 170.2(a)(2)	12 Field Inspector Pass	13 Field Inspector Fail		
Classroom	Classroom, Lecture, or Training Vocational	0.6	2,420	1,452	No	No	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
TOTALS									2,420	1,452	See Tables I, or P for Detail

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**  
 Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used.

01 Area Description	02 Complete Building or Area Category Primary Function Area	03 Allowed Density (W/ft <sup>2</sup> )	04 Area (ft <sup>2</sup> )	05 Allowed Wattage (Watts)	06 Additional Allowance / Adjustment Area Category	07 PAF			
Classroom	Classroom, Lecture, or Training Vocational	0.6	2,420	1,452	No	No			
TOTALS							2,420	1,452	See Tables I, or P for Detail

**J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM**  
 This section does not apply to this project.

**K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**  
 This section does not apply to this project.

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 5 of 7)  
 Date Prepared: 2/7/2025

**L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY**  
 This section does not apply to this project.

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING**  
 This section does not apply to this project.

**N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE/SPECIAL EFFECTS**  
 This section does not apply to this project.

**O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE**  
 This section does not apply to this project.

**P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))**  
 This section does not apply to this project.

**Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS**  
 This section does not apply to this project.

**R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS**  
 This section does not apply to this project.

**S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)**  
 This section does not apply to this project.

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 6 of 7)  
 Date Prepared: 2/7/2025

**T. DWELLING UNIT LIGHTING**  
 This section does not apply to this project.

**U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**  
 Sections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

Form/Title

**V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**  
 Sections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/160246/testcp/providers.html>

Form/Title	Systems/Spaces To Be Field Verified
NCA-171-02-A. Must be submitted for occupancy sensors and automatic time switch controls.	Whole Building Time Switch;
NCA-171-04-A. Must be submitted for demand responsive lighting controls.	Whole Building Demand Response;

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

**Indoor Lighting**

CERTIFICATE OF COMPLIANCE NREC-174-E  
 Project Name: Garey HS Report Page: (Page 7 of 7)  
 Date Prepared: 2/7/2025

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

Documentation Author Name: Rungrub Sumthasorn  
 Documentation Author Signature: [Signature]  
 Signature Date: 2025-02-04  
 Company: MDC Engineers Inc  
 Address: 5101 E La Palma Blvd  
 City/County: Anaheim Hills, CA 92807  
 Phone: 213-746-2844

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**  
 I certify the following under penalty of perjury, under the laws of the State of California:

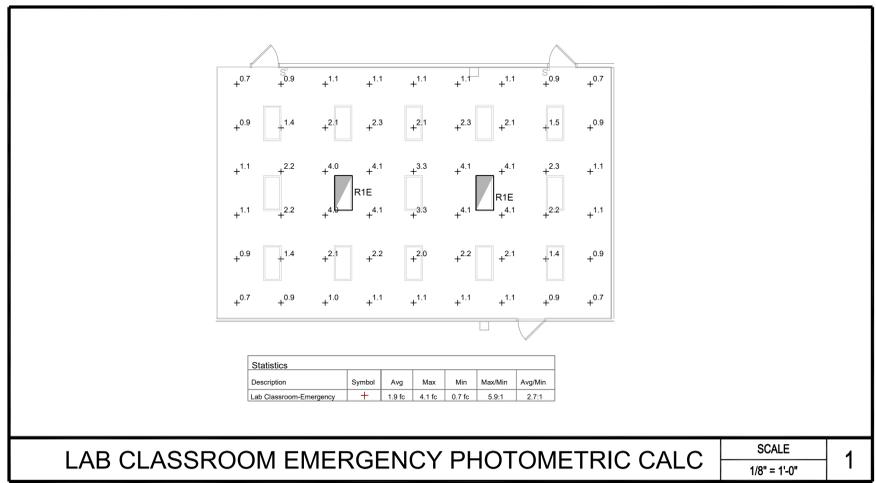
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices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

Responsible Designer Name: Rungrub Sumthasorn  
 Responsible Designer Signature: [Signature]  
 Date Signed: 2025-02-07  
 Company: MDC Engineers  
 Address: 5101 E La Palma Ave  
 City/County: Anaheim Hills, CA 92807  
 Phone: 213-746-2844

Generated Date/Time: Documentation Software: EnergyPro  
 Report Version: 2022.0.000 Compliance ID: EnergyPro-9702-0225-0043  
 Schema Version: rev 20220101 Report Generated: 2025-02-07 09:38:48

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	LAMP	WATT	VOLTAGE
R1	LITHONIA LIGHTING	CPX-2X4-AL08-80CRI-SWW7-SWL-MVOLT- NLTAIR2-APDT	RECESSED LED 2x4 FIXTURE, WITH INTEGRAL OCCUPANCY SENSORS AND WIRELESS CONTROLS (SET TO 5000 LUMEN)	RECESSED T-BAR *	LED 4000K	34.4W	M VOLT
R1E	LITHONIA LIGHTING	CPX-2X4-AL08-80CRI-SWW7-SWL-MVOLT- E10W- NLTAIR2-APDT	RECESSED LED 2x4 FIXTURE WITH INTEGRAL OCCUPANCY SENSORS AND WIRELESS CONTROLS & TITLE 20 COMPLIANT EMERGENCY BATTERY (SET TO 5000 LUMEN)	RECESSED T-BAR *	LED 4000K	34.4W	MVOLT
R2	LITHONIA LIGHTING	CPX-2X4-AL08-80CRI-SWW7-SWL-MVOLT- NLTAIR2-APDT	RECESSED LED 2x4 FIXTURE, WITH INTEGRAL OCCUPANCY SENSORS AND WIRELESS CONTROLS (SET TO 5000 LUMEN)	RECESSED T-BAR *	LED 4000K	45.2W	M VOLT
E1	LITHONIA LIGHTING	LQM-S-W-3-R-MVOLT-EL-N-SD	EXIT SIGN	CEILING ABOVE DOOR	LED	1	MVOLT



REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25
ADDENDUM 1		01/06/26

**Ynl Architects**  
 architecture | interior

multi-discipline collaborative

**MDC** engineers, INC  
 Consulting Engineers

5101 E La Palma Ave., Suite 205  
 Anaheim Hills, CA 92807-2806  
 Tel: (714) 746-2844  
 Fax: (714) 746-8463



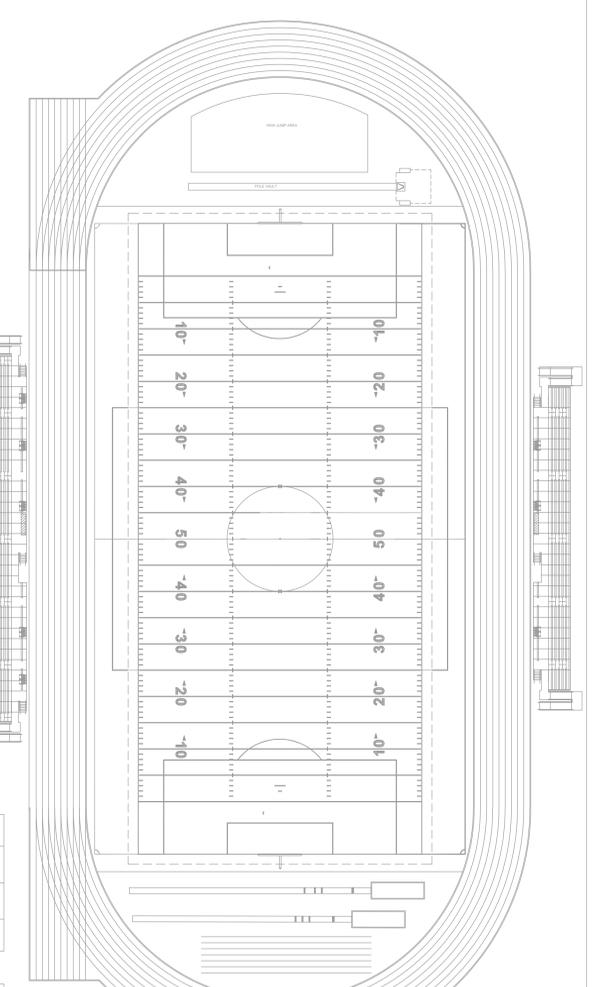
SCIENCE LAB RENOVATION AT GAREY HIGH SCHOOL  
 321 W. LEXINGTON AVE.  
 POMONA, CA 91766

POMONA UNIFIED SCHOOL DISTRICT  
 800 S. GAREY AVENUE  
 POMONA, CALIFORNIA 91766

ELECTRICAL LIGHTING FIXTURE SCHEDULE & TITLE 24 CALCS



VICINITY MAP SCALE N.T.S. 2



GENERAL NOTES

1. FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION SHALL BE IN COMPLIANCE WITH CFC 2022, CHAPTER 9, 11 AND 33 & CBC 2022, CHAPTER 33.
  - EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE, UNIMPAIRED, AT ALL TIMES DURING CONSTRUCTION, UNLESS UNDER FIRE WATCH.
  - PROVIDE FIRE WATCH UNTIL THE NEW SYSTEM IS IN OPERATION AND APPROVED BY I.O.R., DSA (IF F-3) LOCAL FIRE AUTHORITY AND DISTRICT.
  - PROVIDE FIRE WATCH PER CFC 901.7 SYSTEM OUT OF SERVICE. REFER TO SPECIFICATION SECTION 281008 ATTACHMENT B FOR CSFM FIRE WATCH GUIDE LINE.
2. AUTOMATIC SHUTOFF IS NOT REQUIRED WHEN
  - A. AIR-MOVING SYSTEMS SUPPLYING AIR LESS THAN 2000 CFM TO ENCLOSED SPACES WITHIN BUILDING. (CMC 608.1)
  - B. ALL OCCUPIED ROOMS SERVED BY THE AIR-HANDLING EQUIPMENT HAVE DIRECT EXIT TO THE EXTERIOR AND THE TRAVEL DISTANCE DOES NOT EXCEED 100 FEET. (CMC 608.1 EXCEPTION 2)
3. ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT/DEVICES SHOWN ARE FROM AVAILABLE RECORD DRAWINGS (A#03-113046, 2011). ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY AND CONTRACTOR SHALL FIELD VERIFY AND PROVIDE ANY REMEDIATION TO PROVIDE FULLY OPERABLE FIRE ALARM SYSTEM.
4. REPROGRAM AND TEST FIRE ALARM DEVICES AT EXISTING FACI PRIOR COMPLETION OF WORK.
5. PROVIDE EXTENSION BOX AND EXTEND CONDUIT AS REQUIRED. AT ALL FURRED WALLS, REFER TO ARCHITECTURAL.
6. EXISTING CONDUIT MAYBE RE-USED FOR NEW WORK, PROVIDED THEY MEET MINIMUM CONDUIT SIZE REQUIREMENTS AND WIRE FILL CAPACITY (40%). OTHERWISE PROVIDE NEW CONDUITS. CONTRACTOR AT HIS OPTION MAY REUSE EXISTING CONDUITS WITHIN THE BUILDING SITE AND PROVIDE NEW CONDUITS TO EXTEND TO NEAR DEVICE LOCATIONS AS NECESSARY.
7. ALL LOW VOLTAGE INSTALLATIONS SHALL COMPLY WITH FUSE IT DISTRICT STANDARDS AND DIVISION 27 SPECIFICATIONS. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE DISTRICT IT DEPARTMENT PRIOR TO COMMENCEMENT.

REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25
ADDENDUM 1		01/06/26

REFERENCE NOTES

1. REPLACE EXISTING ELECTRICAL PANEL WITH NEW ELECTRICAL PANEL (SEE PANEL SCHEDULE). RECONNECT EXISTING FEEDER AND BRANCH CIRCUIT WIRING TO NEW PANEL. EXTEND WIRING AS REQUIRED TO RECONNECT ALL EXISTING CIRCUITS. ALL BRANCH BREAKERS SHALL BE MATCHED WITH EXISTING AIC RATING. ALL UNUSED BRANCH BREAKERS SHALL BE LABELED AS "SPARE". ALL EXISTING LOADS SHALL BE IDENTIFIED AND UPDATE PANEL DIRECTORY CARDS.
11. EXTERIOR PATHWAY & TRANSITION: REUSE EXISTING (2) 2" UNDERGROUND CONDUITS BETWEEN THE ADMIN BUILDING AND BUILDING B. THE CONTRACTOR SHALL FURNISH AND INSTALL ABOVE-GROUND CONDUIT RISERS TO PROVIDE CONTINUOUS PATHWAY. AT THE TRANSITION POINT BELOW GRADE, PROVIDE PVC-TO-RIGID ADAPTERS FOR TRANSITION FROM UNDERGROUND PVC TO GALVANIZED RIGID CONDUIT (GRCONIT) RISERS. RUN THE GROUND RISERS VERTICALLY AND DIRECTLY INTO THE BOTTOM OF A NEW NEMA 3R RATED, WEATHER-PROOF SURFACE-MOUNTED COMMUNICATION PULL BOX (MINIMUM SIZE 24" W X 24" H X 10"). PROVIDE RIGID EXPANSION/DEFLECTION FITTING WITHIN EACH VERTICAL GROUND RISER TO ACCOMMODATE SEISMIC MOVEMENT. THE PULL BOX SHALL HAVE A GASKETED COVER SECURED WITH TAMPER-RESISTANT HARDWARE AND PERMANENT ENGRAVED LABELING IDENTIFYING "COMMUNICATION". COORDINATE FINAL MOUNTING LOCATION WITH NEW AND EXISTING PATHWAY TRANSITIONS. (TYPICAL)
12. INTERIOR ROUTING: INACCESSIBLE CEILINGS: PROVIDE (2) 2" CONDUIT PATHWAY AT ALL INACCESSIBLE CEILING SPACES. ACCESSIBLE CEILINGS: PROVIDE J-HOOKS SPACED AT A MAXIMUM OF 4'-0" O.C. ABOVE ACCESSIBLE CEILING GRID. PROVIDE (2) 4" CONDUIT SLEEVES AT ALL INTERIOR WALL PENETRATIONS (TYP. U O N.). FIBER SLACK: TERMINATE FIBER AT EXISTING MDF AND NEW IDF. PROVIDE 50'-00" EXCESS FIBER LOOP/COPPER CABLES (PA AND COMM) SECURED ABOVE THE ACCESSIBLE CEILING AT THE IDF LOCATION.
13. BACKBONE CABLING SPECIFICATIONS: INSTALL THE FOLLOWING WITHIN THE PATHWAY (ALL CABLES SHALL BE INDOOR/OUTDOOR PLENUM RATED):
  - (1) 16-STRAND SINGLE-MODE (OS2) FIBER OPTIC CABLE.
  - (2) 25-PAIR CAT5E UTP (OSP RATED).
  - (1) 18B PA CABLE (BEST PERM ACC. 18B OR EQUAL).
 INTEGRITY: CABLE RUNS SHALL BE CONTINUOUS FROM POINT-TO-POINT. NO SPLICES ALLOWED IN THE ENTIRE RUN.
14. COPPER CABLE TERMINATION: TERMINATION HARDWARE: PROVIDE (2) NEW SIMON 68M1-50 BLOCKS WITH 898 STANDOUTS AND MOUNTING BRACKETS SECURED TO THE NEW PLYWOOD BACKBOARD. CROSS-CONNECT: TERMINATE ALL NEW COPPER BACKBONE AND PA CABLES ON THESE BLOCKS.
15. PROVIDE AUDIO OVER IP (AOIP) GATEWAY (BOGEN #NQG-GA00P) (WITH ACCESSORIES) ON THE PLYWOOD BACKBOARD NEAR NEW IDF. PROVIDE CATCH FROM NEW IDF TO AUDIO OVER IP (AOIP) GATEWAY.

**Ynl Architects**  
architecture | interior

**MDC** engineers, INC  
Consulting Engineers 5101 E La Palma Ave., Suite 205  
Anaheim Hills, CA 92821-2506  
Tel: (714) 746-8484  
Fax: (714) 746-8483



SCIENCE LAB RENOVATION AT GAREY HIGH SCHOOL  
321 W. LEXINGTON AVE.  
POMONA, CA 91766

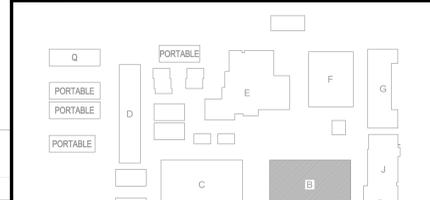
POMONA UNIFIED SCHOOL DISTRICT  
800 S. GAREY AVENUE  
POMONA, CALIFORNIA 91766

ELECTRICAL SITE PLAN

BUILDING SITE PLAN SYMBOLS LIST

- [Symbol] EXISTING BUILDING AS PART OF THIS DSA APPLICATION
- [Symbol] EXISTING BUILDING NOT PART OF THIS DSA APPLICATION

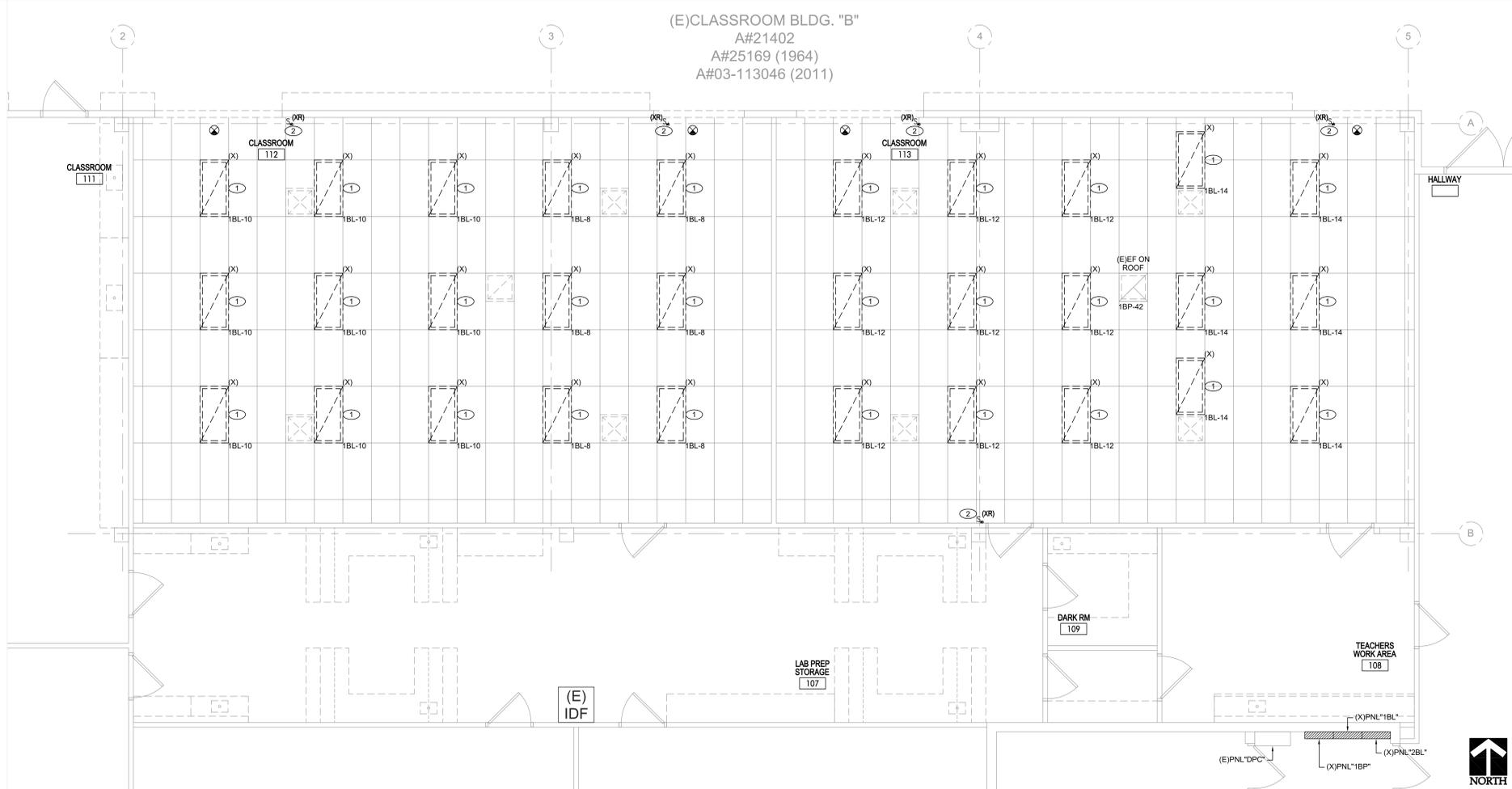
KEY PLAN



ELECTRICAL SITE PLAN SCALE 1" = 40'-0" 1

DATE	01/06/2026
CSA #	A# 03-125098
FILE NO.	19-H20
SHEET	E1.0





- REFERENCE NOTES**
- REMOVE (E) LIGHT FIXTURES AND RETURN TO DISTRICT. SALVAGE (E) LIGHT CIRCUIT FOR CONNECTION TO NEW LIGHT FIXTURE. EXTEND CONDUIT AND WIRING AS REQUIRED.
  - REMOVE AND SALVAGE (E) WIRELESS DIMMING SWITCHES, AND REINSTALL AT NEW LOCATION AS SHOWN. REPROGRAM SWITCHES TO NEW LIGHT FIXTURES.
  - PROVIDE UNSWITCHED(HOT) CIRCUIT TO EXIT SIGN/EMERGENCY BATTERY IN LIGHT FIXTURE.

REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25
ADDENDUM 1		01/06/26

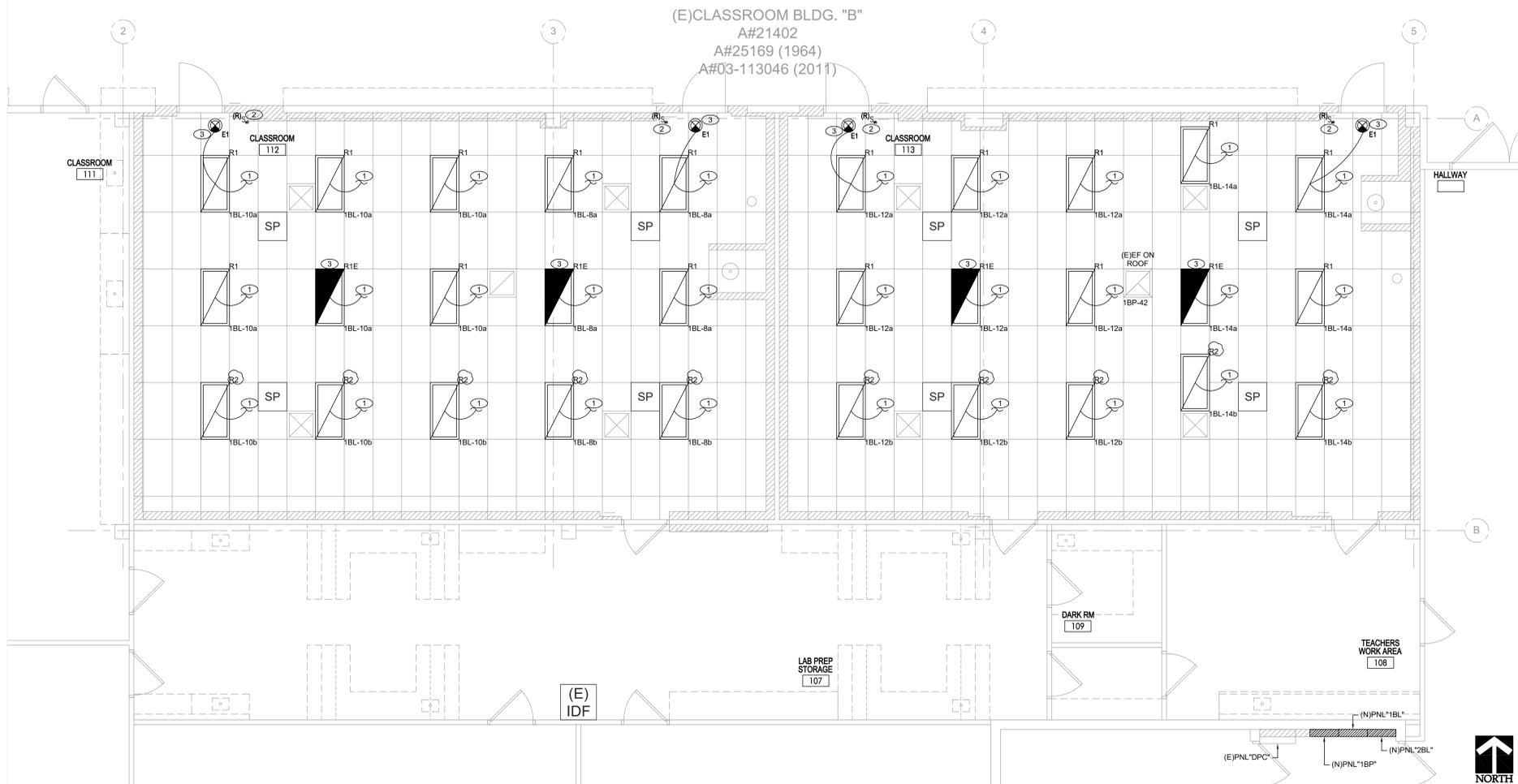
**Ynl Architects**  
architecture | interior

**MDC** engineers, INC  
Consulting Engineers  
5101 E La Palma Ave., Suite 205  
Anaheim Hills, CA 92820-2506  
Tel: (714) 746-2644  
Fax: (714) 746-6663



SCIENCE LAB [B112] & [B113] BUILDING "B" - ELECTRICAL DEMOLITION LIGHTING PLAN

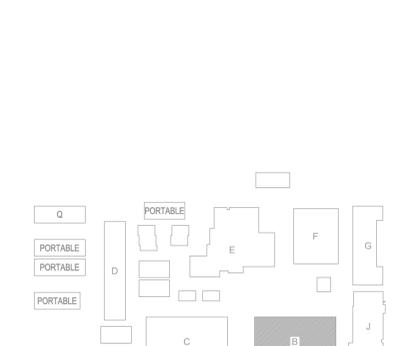
SCALE  
1/4" = 1'-0"  
1



SCIENCE LAB [B112] & [B113] BUILDING "B" - ELECTRICAL LIGHTING PLAN

SCALE  
1/4" = 1'-0"  
2

**KEY PLAN**



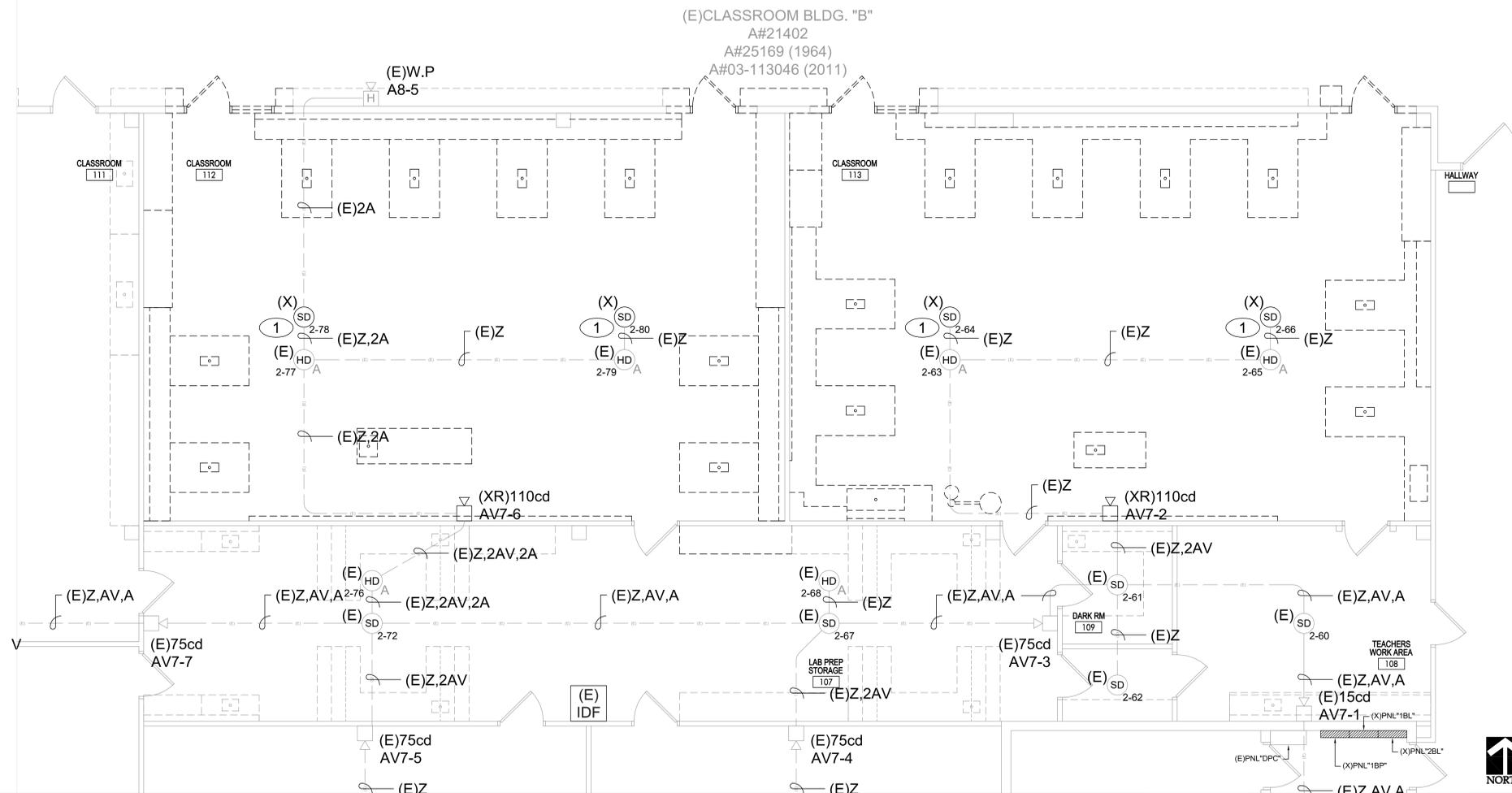
**SCIENCE LAB RENOVATION AT GAREY HIGH SCHOOL**  
321 W. LEXINGTON AVE.  
POMONA, CA 91766

**POMONA UNIFIED SCHOOL DISTRICT**  
800 S. GAREY AVENUE  
POMONA, CALIFORNIA 91766

**ELECTRICAL LIGHTING PLAN**

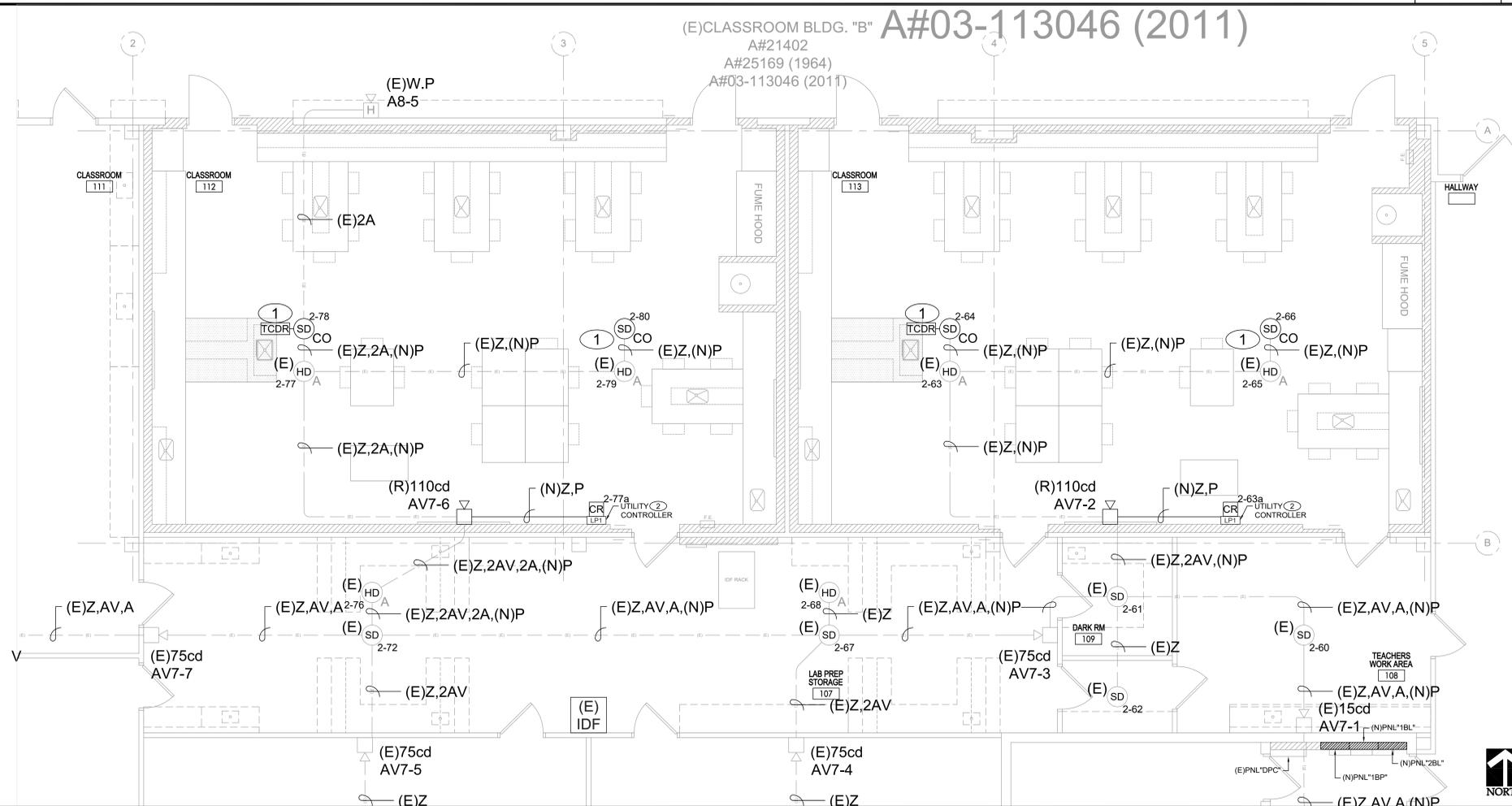
DATE: 01/06/2026  
DRAWN: A# 03-125098  
FILE NO. 19-H20

SHEET: **E2.1**



SCIENCE LAB [B112] & [B13] BUILDING "B" - FIRE ALARM DEMOLITION FLOOR PLAN

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



SCIENCE LAB [B112] & [B13] BUILDING "B" - FIRE ALARM FLOOR PLAN

SCALE 1/4" = 1'-0" 2

GENERAL NOTES

- FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION SHALL BE IN COMPLIANCE WITH CFC 2022, CHAPTER 9, 11 AND 33 & CBC 2022, CHAPTER 33.
- EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE, UNIMPAIRED, AT ALL TIMES DURING CONSTRUCTION, UNLESS UNDER FIRE WATCH.
- PROVIDE FIRE WATCH UNTIL THE NEW SYSTEM IS IN OPERATION AND APPROVED BY I.O.R., DSA (R F-2), LOCAL FIRE AUTHORITY, AND DISTRICT.
- PROVIDE FIRE WATCH PER CFC 901.7 SYSTEM OUT OF SERVICE. REFER TO SPECIFICATION SECTION 281008 ATTACHMENT B FOR CFSM FIRE WATCH GUIDE LINE.
- AIR-MOVING SYSTEMS SUPPLYING AIR LESS THAN 2000 CFM TO ENCLOSED SPACES WITHIN BUILDING, (CBC 608.1).
- ALL OCCUPIED ROOMS SERVED BY THE AIR-HANDLING EQUIPMENT HAVE DIRECT EXIT TO THE EXTERIOR AND THE TRAVEL DISTANCE DOES NOT EXCEED 100 FEET. (CBC 608.1 EXCEPTIONS).
- ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT/DEVICES SHOWN ARE FROM AVAILABLE RECORD DRAWINGS (A#03-113046, 2011). ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY AND CONTRACTOR SHALL FIELD VERIFY AND PROVIDE ANY REVISIONS TO PROVIDE FULLY OPERABLE FIRE ALARM SYSTEM.
- RE-PROGRAM AND TEST FIRE ALARM DEVICES AT EXISTING FACP PRIOR COMPLETION OF WORK.
- PROVIDE EXTENSION BOX AND EXTEND CONDUIT AS REQUIRED. AT ALL FURRED WALLS, REFER TO ARCHITECTURAL.
- EXISTING CONDUIT MAYBE RE-USED FOR NEW WORK PROVIDED THEY MEET MINIMUM CONDUIT SIZE REQUIREMENTS AND WIRE FILL CAPACITY (40%), OTHERWISE PROVIDE NEW CONDUITS. CONTRACTOR AT HIS OPTION MAY REUSE EXISTING CONDUITS WITHIN THE BUILDINGSITE AND PROVIDE NEW CONDUITS TO EXTEND TO NEW DEVICE LOCATIONS AS NECESSARY.

REFERENCE NOTES

- REPLACE EXISTING SMOKE DETECTOR WITH NEW MULTI-SENSOR SMOKE AND CO DETECTOR (SIGA-OSCD) INCLUDING AUDIBLE (SOUNDER) BASE (SIGA-AB4GT) AND TEMPORAL PATTERN GENERATOR (SIGA-TCCR) EACH ROOM LOCATION. PROVIDE NEW S/LC LOOP AND EXTEND CONDUIT AS REQUIRED TO ACCOMMODATE NEW DEVICES (SEE WIRING DETAIL ON SHEET E8.2) AND RE-PROGRAM AT EXISTING FACP (A#03-113046).
- PROVIDE CONTROL RELAY MODULE (SIGA-CR) FOR UTILITY CONTROLLER. FIELD VERIFY LOCATION. DISABLE ALL UTILITIES AND FIRE ALARM SIGNAL. THE UTILITIES CAN BE ACTIVATED ONCE THE FIRE ALARM SIGNAL IS CLEARED AND MANUALLY OPERATING KEY AT UTILITY CONTROLLER. REFER TO SPECIFICATION 11.03.33.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-125098 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 10/31/2025

REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25

**Ynl Architects**  
architecture | interior

multi-discipline collaboration  
**MDC** engineers, INC.  
Consulting Engineers  
5101 E La Palma Ave., Suite 205  
Anaheim Hills, CA 92807-2006  
Tel: (714) 746-9944  
Fax: (714) 746-6463

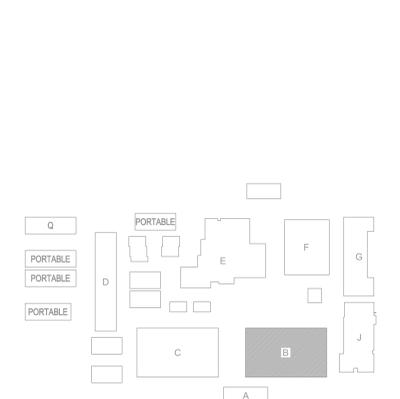
REGISTERED ARCHITECT  
NO. 051804  
REX 531-27  
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER  
No. E 19329  
REX 531-27  
ELECTRICAL  
STATE OF CALIFORNIA

SCIENCE LAB RENOVATION  
AT  
GAREY HIGH SCHOOL  
321 W. LEXINGTON AVE.  
POMONA, CA 91766

POMONA UNIFIED  
SCHOOL DISTRICT  
800 S. GAREY AVENUE  
POMONA, CALIFORNIA 91766

KEY PLAN



DATE: 10/07/2025  
CSA #: A# 03-125098  
FILE NO. 19-H20  
SHEET: E3.1

**GENERAL NOTES**

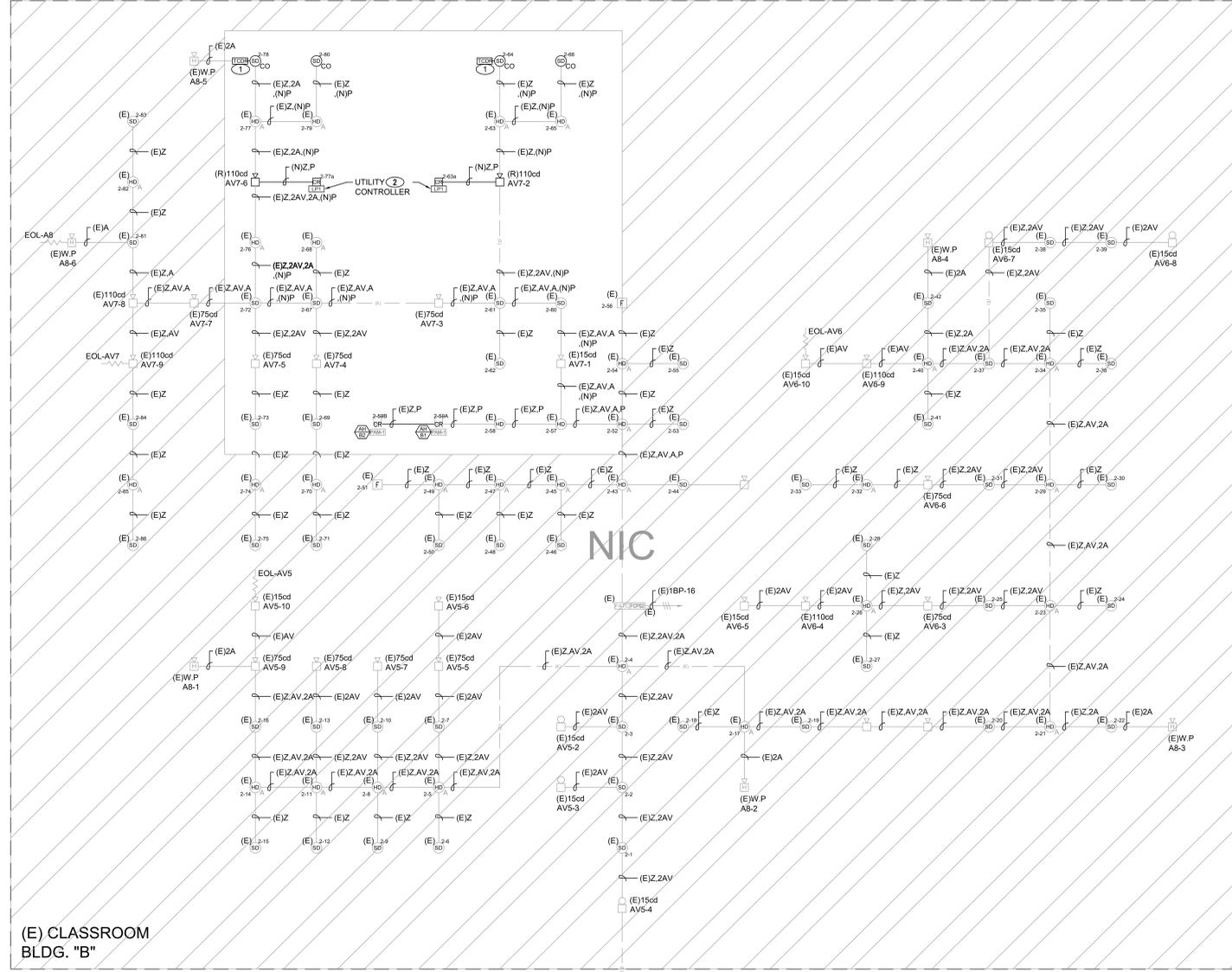
- FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION SHALL BE IN COMPLIANCE WITH CFC 2022, CHAPTER 9, 11 AND 33 & CBC 2022, CHAPTER 33.
  - EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE, UNIMPAIRED, AT ALL TIMES DURING CONSTRUCTION, UNLESS UNDER FIRE WATCH.
  - PROVIDE FIRE WATCH UNTIL THE NEW SYSTEM IS IN OPERATION AND APPROVED BY I.O.R., DSA (R.F. 3). LOCAL FIRE AUTHORITY AND DISTRICT.
  - PROVIDE FIRE WATCH PER CFC 901.7 SYSTEM OUT OF SERVICE. REFER TO SPECIFICATION SECTION 281308 ATTACHMENT B FOR CSFM FIRE WATCH GUIDE LINE.
- AUTOMATIC SHUTOFF IS NOT REQUIRED WHEN
  - AIR-MOVING SYSTEMS SUPPLYING AIR LESS THAN 2000 CFM TO ENCLOSED SPACES WITHIN BUILDING. (CMC 908.1)
- ALL OCCUPIED ROOMS SERVED BY THE AIR-HANDLING EQUIPMENT HAVE DIRECT EXIT TO THE EXTERIOR AND THE TRAVEL DISTANCE DOES NOT EXCEED 10 FEET. (CMC 908.1 EXCEPTION 2)
- ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT/DEVICES SHOWN ARE FROM AVAILABLE RECORD DRAWINGS (A#03-113046, 2011). ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY AND CONTRACTOR SHALL FIELD VERIFY AND PROVIDE ANY REMEDIATION TO PROVIDE FULLY OPERABLE FIRE ALARM SYSTEM.
- REPROGRAM AND TEST FIRE ALARM DEVICES AT EXISTING FAC PRIOR COMPLETION OF WORK.
- PROVIDE EXTENSION BOX AND EXTEND CONDUIT AS REQUIRED, AT ALL FURRED WALLS. REFER TO ARCHITECTURAL.
- EXISTING CONDUIT MAYBE RE-USED FOR NEW WORK, PROVIDED THEY MEET MINIMUM CONDUIT SIZE REQUIREMENTS AND WIRE FILL CAPACITY (40%), OTHERWISE PROVIDE NEW CONDUITS. CONTRACTOR AT HIS OPTION MAY REUSE EXISTING CONDUITS WITHIN THE BUILDINGSITE AND PROVIDE NEW CONDUITS TO EXTEND TO NEW DEVICE LOCATIONS AS NECESSARY.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-125098 INC.  
REVIEWED FOR  
DATE: 10/31/2025

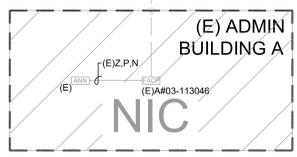
REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25

**REFERENCE NOTES**

- REPLACE EXISTING SMOKE DETECTOR WITH NEW MULTI-SENSOR SMOKE AND CO DETECTOR (SIGA-OSCD) INCLUDING AUDIBLE (SOUNDER) BASE (SIGA-AB4GT) AND TEMPORAL PATTERN GENERATOR (SIGA-TDOR) EACH ROOM/CALCULATION. PROVIDE NEW S.C. LOOP AND EXTEND CONDUIT AS REQUIRED TO ACCOMMODATE NEW DEVICES (SEE WIRING DETAIL ON SHEET EA-1) AND REPROGRAM AT EXISTING FAC (A#03-113046).
- PROVIDE CONTROL RELAY MODULE (SIGA-CR) FOR UTILITY CONTROLLER. FIELD VERIFY LOCATION, DISABLE ALL UTILITIES AND FIRE ALARM SIGNAL. THE UTILITIES CAN BE ACTIVATED ONCE THE FIRE ALARM SIGNAL IS CLEARED AND MANUALLY OPERATING KEY AT UTILITY CONTROLLER. REFER TO SPECIFICATION 11.53.33.



(E) CLASSROOM BLDG. "B"



(E) ADMIN BUILDING A

SYMBOL	CON	MODEL	MANUFACTURER	DESCRIPTION	CSFM #	INSTALLATION/MOUNTING
(E)	EST3	EST	EST	Fire Alarm Control Panel	7165-1657-0186	Wallbox provided
(E)	3-CPU3	EST	EST	Central Processing Unit Module	7165-1657-0186	Mount on 2-Left most LRM spaces
(E)	3-RS485B	EST	EST	Network Communication Card	7165-1657-0186	Back of 3-CPU3
(E)	3-RS232	EST	EST	Communication Card	7165-1657-0186	Back of 3-CPU3
(E)	3-PPS/M	EST	EST	Primary Power Supply 120V	7165-1657-0186	Mount on 1 LRM space
(E)	3-BPS/M**	EST	EST	Booster Power Supply 120V	7165-1657-0186	Mount on 1 LRM space
(E)	3-LCD	EST	EST	Liquid Crystal Display Module	7165-1657-0186	Mount on 4 LRM space
(E)	3-12SR	EST	EST	12 switches with 12 Red LED Display/Control Module	7165-1657-0186	Mount on 1 LRM space
(E)	3-SSDC1 *	EST	EST	Single Signature Driver Controller Module	7165-1657-0186	Mount on 1 LRM space
(E)	3-SDDC1 *	EST	EST	Dual Signature Driver Controller Module	7165-1657-0186	Mount on 1 LRM space
(E)	3-MODCOM	EST	EST	Modem Communicator	7165-1657-0186	Mount on 1 LRM space
(E)	MN-COM1S	EST	EST	MNEC Serial Communications/LAN interface	7165-1657-0186	Mount on MN-BRK1T
(E)	MN-BRK1T2	EST	EST	Mounting Bracket	7165-1657-0186	Take 1 chassis space in wallbox
(E)	SIGA-CC1S**	EST	EST	Synchronization Output Module	7300-1657-0121	Inside Cabinet
(E)	3-CAB21B(R)	EST	EST	Red Cabinet with 3 chassis	7165-1657-0186	Wall Mounted
(E)	3-CAB21D(R)	EST	EST	Red Door Cabinet with 3 chassis	7165-1657-0186	Wall Mounted
(E)	3-CHAS7	EST	EST	Chassis with 7 Local Rail Modules	7165-1657-0186	Take 1 chassis space in wallbox
(E)	3-FP	EST	EST	Blank Filler Plate	7165-1657-0186	Mount on 1 LRM space
(E)	12V60A	EST	EST	12V 60Ah Seal Lead Acid Battery	N/A	Mount in Battery Cabinet
(E)	BPS6A	EST	EST	Remote Booster Power Supply with SIGA-CT1	7300-1657-0229	Wall mounted
(E)	SIGA-CC1S	EST	EST	Synchronization Output Module	7300-1657-0121	Inside BPS6A
(E)	12V7A	EST	EST	12V 7Ah Seal Lead Acid Battery	N/A	Mount in Cabinet
(E)	3-LCDANN	EST	EST	Remote LCD Command Module Annunciator	7120-1657-0193	Mount to RLCMB/S
(E)	RLCM/B-S	EST	EST	Remote Command Module Surface Mount	7120-1657-0193	Wall mounted
(E)	SIGA-278	EST	EST	Double Action (One Stage) Fire Alarm Station	7150-1657-0129	Single gang box
(E)	SIGA-PD	EST	EST	Intelligent Photoelectric Detector	7272-1657-0331	Mount to SIGA-SB
(N)	SIGA-OSCD	EST	EST	Multisensor Smoke and CO Detector	7272-1657-0334	Mount to SIGA-AB4GT
(N)	SIGA-AB4GT	EST	EST	Audible (Sounder) Base for CO and Fire Detectors	7300-1657-0307	Single gang box
(N)	SIGA-TDOR	EST	EST	Temporal Pattern Generator	7300-1657-0308	Single gang box
(E)	SIGA-HRD	EST	EST	Intelligent Fixed Temp./Rate-of-Rise Heat Detector	7270-1657-0333	Mount to SIGA-SB
(E)	SIGA-SB	EST	EST	Detector Mounting Base - Standard	7300-1657-0120	Single gang box
(E)	284B-PL	EST	EST	Heat Detector, Fixed Temperature with SIGA-CT1	7270-1657-0109	Mount to 280A-PL (included)
(E)	G1R-VM	EST	EST	Genesis Wall Strobe, Red Finish (selectable 15,30,75, or 110 cd)	7125-1657-0218	Wall Mounted
(E)	G1-HDVM	EST	EST	Genesis Wall Horn Strobe, Red Finish (selectable 15,30,75, or 110 cd)	7125-1657-0202	Wall Mounted
(E)	757-1A-T	EST	EST	Temporal Horn, Red	7135-1657-0188	Mount to 757A-WP
(E)	757A-WB	EST	EST	Weatherproof Box, Red, Surface	7300-1657-0191	Wall Mounted
(E)	SIGA-CT1	EST	EST	Single Input Module	7300-1657-0121	Single gang box with SIGA-MP1 mounting plate
(E)	SIGA-CT2	EST	EST	Dual Input Module	7300-1657-0121	Single gang box with SIGA-MP1 mounting plate
(E)	SIGA-CR	EST	EST	Control Relay Module	7300-1657-0121	Single gang box with SIGA-MP1 mounting plate
(E)	RIBU1C	Functional Devices, Inc.	EST	Relay 10 Amp SPDT with 10-30 Vac/Dc/120 Vac Coil	7300-1555-0100	Single gang box
(E)	439D-10-AWR	EST	EST	10" 24V Fire Alarm Bell, Red	7136-1657-0150	Wall Mounted with weatherproof backbox 449
(E)	SIGA-CC1	EST	EST	Single Input Signal Module	7300-1657-0121	Single gang box with SIGA-MP1 mounting plate

Provide additional signature driver controller single/dual to accommodate # of addressable devices as indicated on the drawings. maximum of 125 detectors & 125 modules per loop.

FCPS#	BLDG	CON	CIRCUIT	NUMBER OF DEVICES							INDIVIDUAL CURRENT							TOTAL CURRENT	WIRE SIZE	VOLTAGE DROP %	MAX. DISTANCE (FT)
				15cd	15cd	30cd	75cd	110cd	W.P.	15cd	15cd	30cd	75cd	110cd	W.P.						
FCPS-2	B	(E)	AV5	350	3	3	0	4	0	0	0.059	0.068	0.068	0.068	0.197	0.040	1.095	12	6.83	1166	
			AV7	250	0	1	0	4	4	0	0.000	0.068	0.000	0.624	0.788	0.000	1.480	12	7.18	751	
			AB	1200	0	0	0	0	0	6	0.000	0.000	0.000	0.000	0.000	0.240	0.240	12	5.59	4630	

**VOLTAGE DROP PERCENTAGE FORMULA**

$$V_{drop} = 20 \times I \times R$$

**MAX. DISTANCE FROM THE CONTROL UNIT TO THE LAST APPLICATION FORMULA**

$$L_{max} = \frac{V_{max} - V_{min}}{2 \times I \times R}$$

V<sub>max</sub> = 20 x VOLTS  
I = TOTAL CURRENT DRAW IN AMPERES OF THE CONNECTED APPLIANCES  
R = MAX. DISTANCE FROM THE CONTROL UNIT TO THE LAST APPLICATION (IN FEET)  
FROM TABLE OF CHAPTER 9 IN NFPA 70, 2022 EDITION.  
STRANDED, UNCOATED COPPER CONDUCTORS AT 75°C  
THE RESISTANCE PER FOOT (R) FOR 12 AWG IS 0.00198 Ohm/ft  
THE RESISTANCE PER FOOT (R) FOR 14 AWG IS 0.00314 Ohm/ft  
VOLTAGE DROP PERCENTAGE =  $\frac{2 \times I \times L_{max} \times R \times 100}{V_{max} - V_{min}}$

**Fire Alarm Battery Calculations: FCPS-2 (BUILDING "B", Existing A#03-113046)**

DEVICE	MODEL#	CON	QUANTITY	SUPERVISORY CURRENT		ALARM CURRENT	
				EACH UNIT	SUBTOTAL	EACH UNIT	SUBTOTAL
Remote Booster Power Supply	BPS6	(E)	1	0.070	0.070	0.195	0.195
15 cd Wall Strobe	G1R-VM	(E)	5	0.000	0.000	0.059	0.295
15 cd Wall Horn-Strobe	G1-HDVM	(E)	6	0.000	0.000	0.068	0.408
30 cd Wall Horn-Strobe	G1-HDVM	(E)	0	0.000	0.000	0.088	0.000
75 cd Wall Horn-Strobe	G1-HDVM	(E)	12	0.000	0.000	0.156	1.872
110 cd Wall Horn-Strobe	G1-HDVM	(E)	6	0.000	0.000	0.197	1.182
Weatherproof Exterior Horn	757-1A-T	(E)	6	0.000	0.000	0.040	0.240
Audible (Sounder) Base for CO and Fire Detectors	SIGA-AB4GT	(N)	4	0.001	0.004	0.001	0.124
Relay 10 Amp SPDT with 10-30 Vac/Dc/120 Vac Coil	RIBU1C	(E)	2	0.018	0.036	0.018	0.036
10" 24V Fire Alarm Bell, Red	439D-10-AWR	(E)	0	0.000	0.000	0.085	0.000
				SUB TOTAL	0.110		4.352

\* CURRENT DRAW INCLUDED WITH DEVICE ADDRESSES USED  
STANDBY TIME = 24 HRS X SUPERVISORY CURRENT = 2.640 A  
ALARM TIME = 5 MINUTES (0.0833HRS) = 0.363 A  
ADDITIONAL SPARE CAPACITY @ 25% OF TOTAL CURRENT = 0.751 A  
TOTAL BATTERY REQUIRED(D/AH) = 3.753 A  
BATTERIES SUPPLIED 7 AH

Symbol	Circuit Type	Cable Desc.	Paige # Conduit	Jacket Color	Jacket Stripe	Notes
Z	Signature Analog Addressable Loop	#16 TWP	162MFRN	Red	Yellow	Loop Controller (3-SSDC) to signature devices
AV	Notification Appliance Circuit (NAC) 24vac	#12/14 TWP	122MFRN/23MRN	Red	Orange	Output circuits on 3-EDC84 and modules (CC1, CC1S, CC2)
P	24V DC Power Distribution	#16 TWP	162MFRN	Red	Grey	4 wire detector/Relay/Annoc./Door Holder
N	RS-485 Communications Network	#16 TWP	4731A	Black	n/a	5000' max between any three panels

Note: All Fire Alarm cables installed in conduits outdoor and under ground shall be West Penn "Aqua Seal" (AQC) rated or equal. Transition from AQC rated cables to Non-AQC rated cables within building interiors shall be terminated at Fire Alarm Terminal Cabinets (FATC). Where no existing FATC is shown on drawings, provide new FATC 12"x8"x4" NEMA 1 screw cover box with terminal strips for termination. Locate FATC within building at the point of entry to building or as directed by district. No wiring splices are permitted, all cables shall be terminated at device terminal or at FATC. Provide conduit duct sealant water block Foam-Based duct sealing system at all conduit openings (both ends) at each underground pull boxes (existing/new)

**Fire Alarm Battery Calculations: FACP (BUILDING "A", Existing A#03-113046)**

DEVICE	MODEL#	CON	QUANTITY	SUPERVISORY CURRENT		ALARM CURRENT	
				EACH UNIT	SUBTOTAL	EACH UNIT	SUBTOTAL
Fire Alarm Control Panel	EST3	(E)	1	0.145000	0.0000	0.145000	0.0000
Central Processing Unit Module	3-CPU3	(E)	1	0.145000	0.145000	0.145000	0.145000
Network Communication Card	3-RS485B	(E)	1	0.089000	0.089000	0.089000	0.089000
Communication Card	3-RS232	(E)	1	0.089000	0.089000	0.089000	0.089000
Booster Power Supply 120V	3-BPS/M**	(E)	1	0.050000	0.050000	0.050000	0.050000
Liquid Crystal Display Module	3-LCD	(E)	1	0.053000	0.053000	0.053000	0.053000
12 switches with 12 Red LED Display/Control Module	3-12SR	(E)	1	0.002000	0.002000	0.002000	0.002000
Single Signature Driver Controller Module	3-SSDC1 *	(E)	1	0.144000	0.144000	0.294000	0.294000
Dual Signature Driver Controller Module	3-SDDC1 *	(E)	3	0.284000	0.792000	0.336000	1.008000
Modem Communicator	3-MODCOM	(E)	1	0.060000	0.060000	0.095000	0.095000
MNEC Serial Communications/LAN interface	MN-COM1S	(E)	1	0.000000	0.000000	0.000000	0.000000
Single Input Signal Module	SIGA-CC1**	(E)	0	0.000223	0.000000	0.001000	0.000000
Synchronization Output Module	SIGA-CC1S**	(E)	12	0.000223	0.002676	0.001200	0.012000
Remote LCD Command Module Annunciator	3-LCDANN	(E)	1	0.170000	0.170000	0.192000	0.192000
Double Action (One Stage) Fire Alarm Station	SIGA-278	(E)	1	0.000250	0.000750	0.000400	0.012400
Intelligent Photoelectric Detector	SIGA-PD	(E)	323	0.000045	0.014535	0.000045	0.014535
Multisensor Smoke and CO Detector	SIGA-OSCD	(N)	94	0.000032	0.003008	0.000045	0.004230
Intelligent Fixed Temp./Rate-of-Rise Heat Detector	SIGA-HRD	(E)	27	0.000045	0.001215	0.000045	0.001215
Multisensor Heat and CO Detector	SIGA-HCD	(N)	3	0.000051	0.000153	0.000068	0.000204
Heat Detector, Fixed Temperature with SIGA-CT1	284B-PL	(E)	257	0.000250	0.064250	0.000400	0.102800
Single Input Module	SIGA-CT1	(E)	8	0.000250	0.002000	0.000400	0.003200
Dual Input Module	SIGA-CT2	(E)	2	0.000396	0.000792	0.000680	0.001360
Control Relay Module	SIGA-CR	(E)	14	0.000100	0.001400	0.000100	0.001400
				SUB TOTAL	1.729779		2.117544

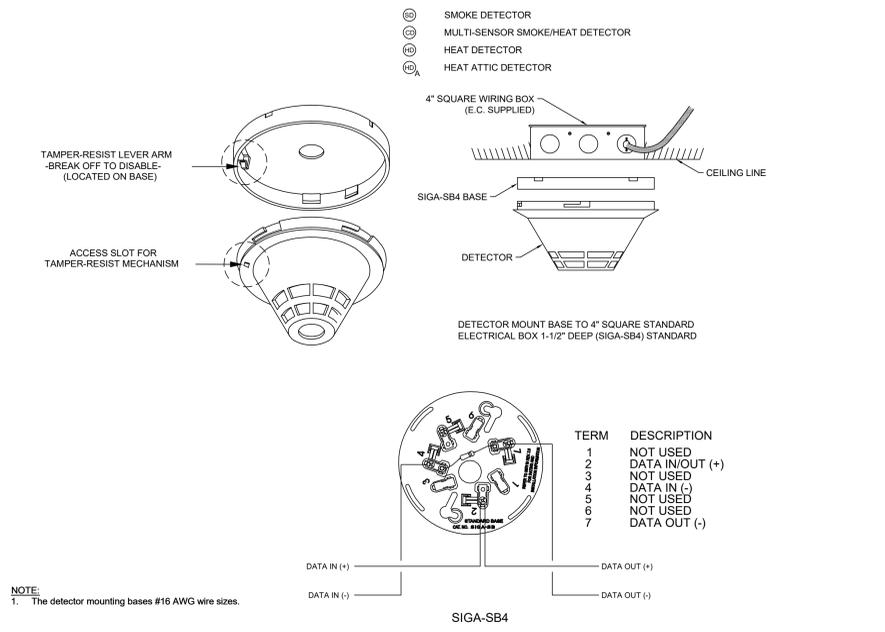
\* CURRENT DRAW INCLUDED WITH DEVICE ADDRESSES USED  
STANDBY TIME = 24 HRS X SUPERVISORY CURRENT = 41.515 A  
ALARM TIME = 5 MINUTES (0.0833HRS) = 0.176 A  
ADDITIONAL SPARE CAPACITY @ 25% OF TOTAL CURRENT = 10.423 A  
TOTAL BATTERY REQUIRED(D/AH) = 52.114 A  
BATTERIES SUPPLIED 60 AH

Sequence of Operation System Response	MANUAL PULL STATION	AREA SMOKE DETECTOR	AREA HEAT DETECTOR	CO DETECTOR	SHORT CIRCUIT	BATTERY FAILURE	GROUND FAULT	120VAC POWER FAILURE
ANNUNCIATE AT FACP / ANN (ALARM)	YES	YES	YES	YES	NO	NO	NO	NO
ANNUNCIATE AT FACP / ANN (TROUBLE)	YES	YES	YES	YES	YES	YES	YES	YES
ACTIVATE RELAY FOR MONITORING (ALARM OR TROUBLE)	YES	YES	YES	YES	YES	YES	YES	YES
ACTIVATE VISUAL ALARM THROUGHOUT BUILDING	YES	YES	YES	YES	NO	NO	NO	NO
ACTIVATE AUDIBLE ALARM (3-pulse, temporal pattern) THROUGHOUT BUILDING	YES	YES	YES	NO	NO	NO	NO	NO
ACTIVATE AUDIBLE ALARM AT DETECTOR SOUNDER BASE (4-pulse, temporal pattern) THROUGHOUT BUILDING	NO	NO	NO	YES	NO	NO	NO	NO
SILENCE ALL PA SYSTEM	YES	YES	YES	YES	NO	NO	NO	NO
SOUND SPRINKLER BELL	NO	NO	NO	NO	NO	NO	NO	NO
SHUT DOWN ALL AIR HANDLING (HVAC) THROUGHOUT BUILDING	NO	YES	YES	YES	NO	NO	NO	NO
DISABLE UTILITY CONTROLLER	NO	YES	YES	YES	NO	NO	NO	NO
OFF-SITE REPORTING	YES	YES	YES	YES	YES	YES	YES	YES

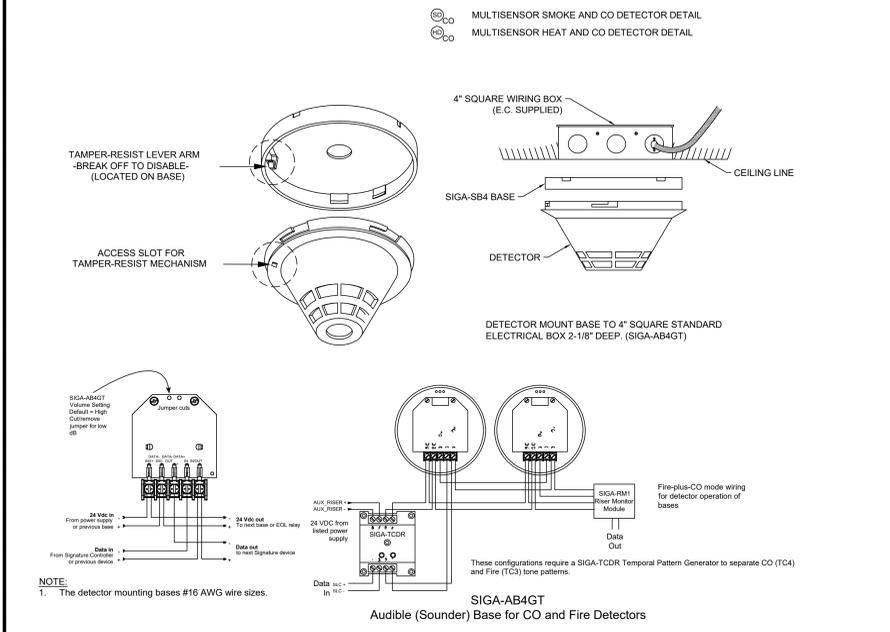
THE FIRE ALARM SIGNALS WILL OPERATE ACCORDING TO NFPA 72 REQUIREMENTS. IF THE FIRE ALARM SYSTEM IS ACTIVATED AND VOICE EVACUATION MESSAGE IS SIMULTANEOUSLY ACTIVATED, THE FIRE ALARM SIGNAL WILL BE EXTINGUISHED, AND VOICE EVACUATION MESSAGE WILL BE ACTIVATED. THE FIRE ALARM SIGNALS WILL BE REINSTATED ONCE THE VOICE EVACUATION MESSAGE ARE COMPLETED.

Table C1. Maximum Number of Conductors in Electrical Metallic Tubing (EMT)  
(Based on Table 1, Chapter 9)

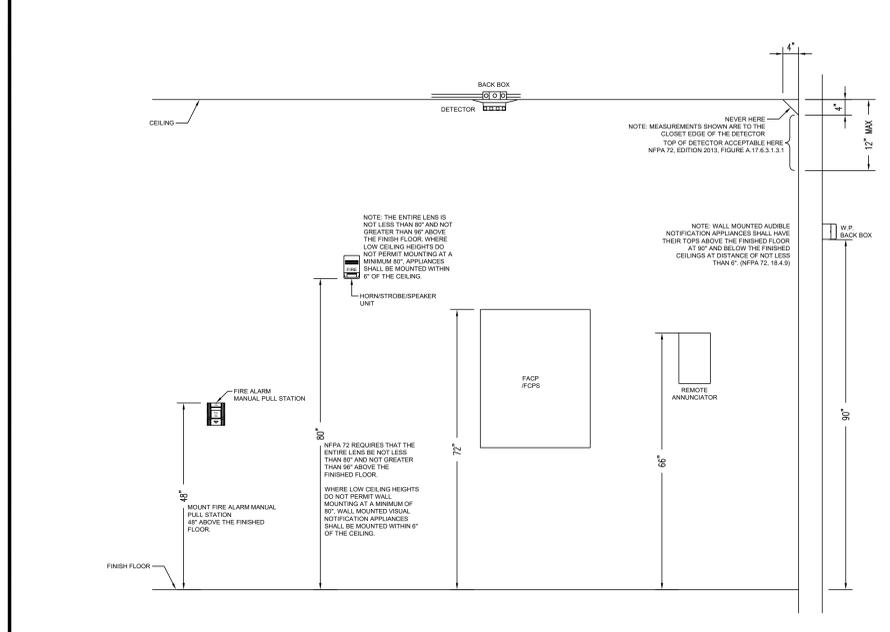
Conductor Size AWG	3/	
--------------------	----	--



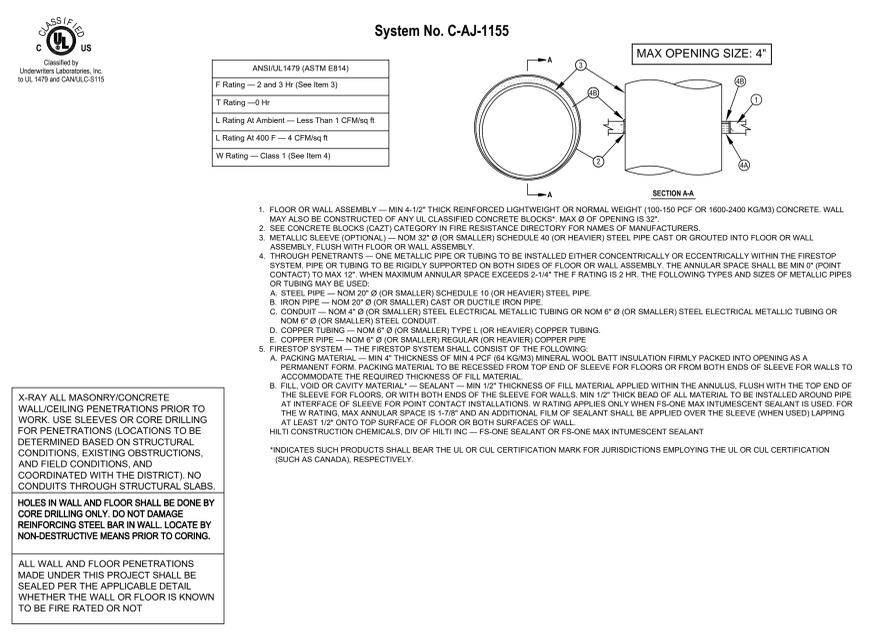
SMOKE/HEAT DETECTOR DETAIL		SCALE	1
		N.T.S.	



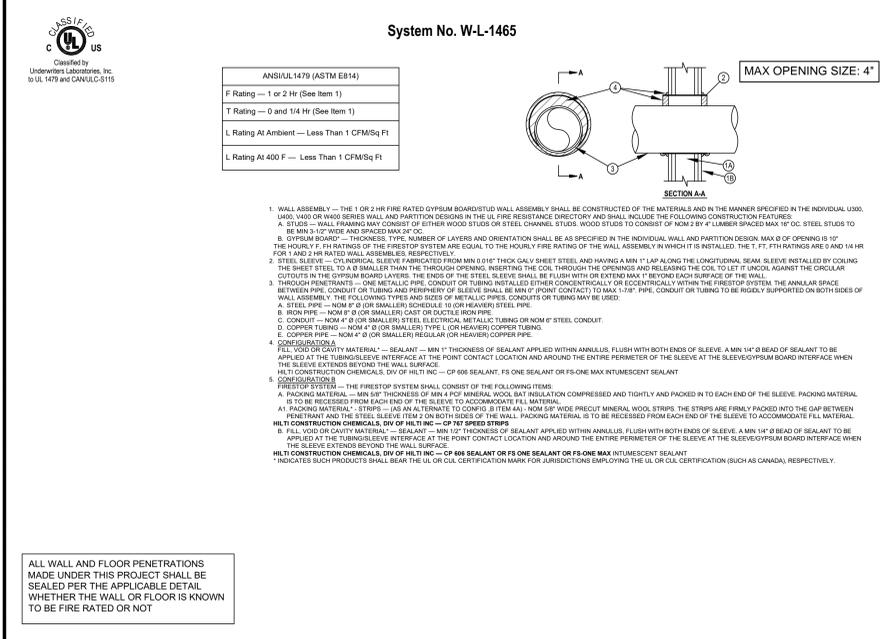
MULTISENSOR SMOKE AND CO DETECTOR DETAIL		SCALE	2
		N.T.S.	



DEVICE ELEVATIONS		SCALE	3
		N.T.S.	



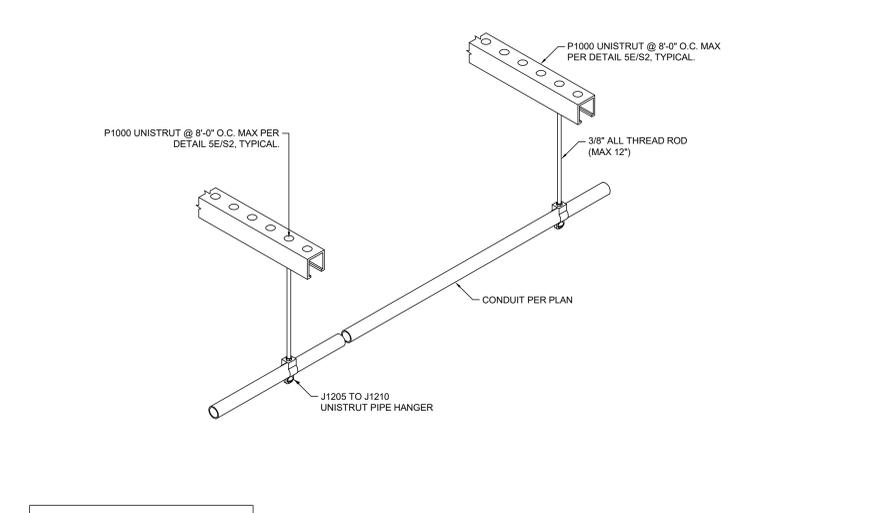
CONCRETE/MASONRY WALL/FLOOR PENETRATION DETAIL		SCALE	4
		N.T.S.	



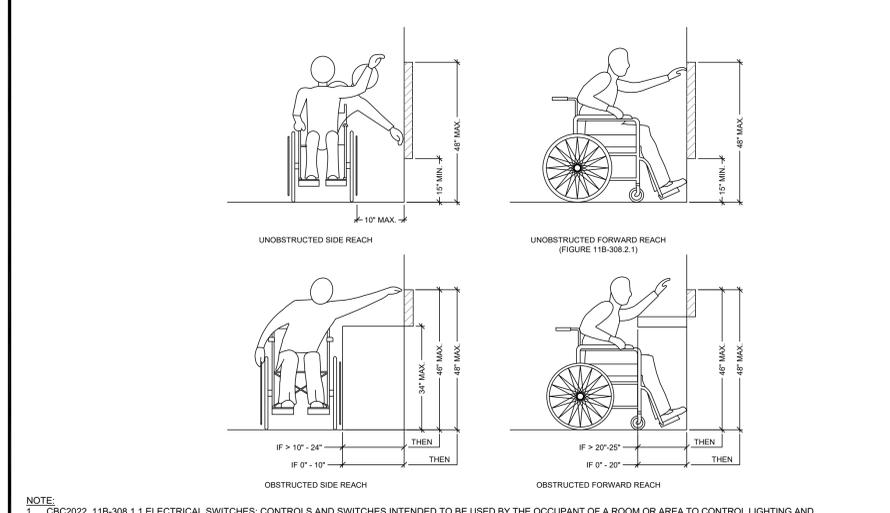
GYPSUM WALL PENETRATION DETAIL		SCALE	5
		N.T.S.	



MOUNTING HEIGHT OVER OBSTRUCTION		SCALE	9
		N.T.S.	



CEILING SINGLE CONDUIT HANGER DETAIL		SCALE	7
		N.T.S.	



ELECTRICAL DETAILS		SCALE	9
		N.T.S.	

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 03-125098 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 10/31/2025

REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25

**Ynl Architects**  
architecture | interior

multi-discipline collaborative  
**MDC** engineers, INC.  
Consulting Engineers  
5101 E La Palma Ave., Suite 205  
Anaheim Hills, CA 92820-2806  
Tel: (714) 746-8644  
Fax: (714) 746-8663

SCIENCE LAB RENOVATION AT GAREY HIGH SCHOOL  
321 W. LEXINGTON AVE.  
POMONA, CA 91766

POMONA UNIFIED SCHOOL DISTRICT  
800 S. GAREY AVENUE  
POMONA, CALIFORNIA 91766

ELECTRICAL DETAILS

DATE: 10/07/2025  
DRAWN: A# 03-125098  
FILE NO. 19-H20

SHEET: E4.1

NOTE:  
1. THIS SYSTEM IS DESIGNED FOR SINGLE CONDUITS 3/4" AND 1" C.  
2. PROVIDE 12" SEPARATION FROM EXISTING ANCHOR(S), IF ANY.

NOTE:  
1. CBC2022, 11B-308.1.1 ELECTRICAL SWITCHES: CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH SECTION 11B-308 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.  
2. CBC2022, 11B-308.1.2 ELECTRICAL RECEPTACLE OUTLETS: ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL COMPLY WITH SECTION 11B-308 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.  
3. CBC2022, 11B-309.4 OPERATION: OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAXIMUM.  
4. OPERABLE PARTS CANNOT BE LOCATED WHERE A PERSON USING A WHEELCHAIR WOULD BE FORCED TO REACH OVER AN OBSTRUCTION.  
5. FIRE ALARM INITIATING DEVICE MUST BE LOCATED ON PATH OF TRAVEL.  
6. PROVIDE FRONT AND PARALLEL APPROACH AT NEWLY INSTALLED FIRE ALARM INITIATING DEVICE.





