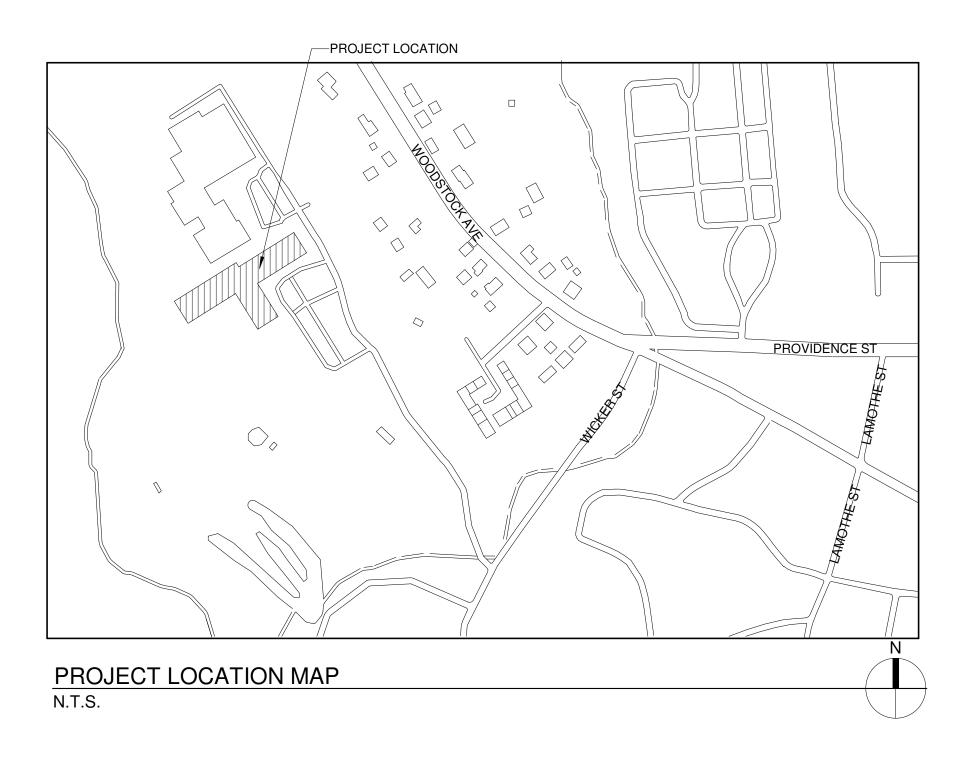
PUTNAM ELEMENTARY SCHOOL 33 WICKER ST, PUTNAM, CT 06260



LIST OF PROFESSIONALS

<u>MEP</u>

RUSSELL AND DAWSON INC. 1111 MAIN STREET, EAST HARTFORD CT 06108 PHONE: (860) 289-1100 FAX: (860) 289-3272 www.rdaep.com



RUSSELL AND DAWSON INC. ARCHITECTURE & ENGINEERING

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APPLICABLE CODES

2022 CONNECTICUT STATE BUILDING CODE

INTERNATIONAL CODE COUNCIL, INC. • 2021 INTERNATIONAL BUILDING CODE

2017 A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
2021 INTERNATIONAL EXISTING BUILDING CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE

NATIONAL FIRE PROTECTION ASSOCIATION, INC. • 2020 NFPA 70 NATIONAL ELECTRICAL CODE

ALL AS AMENDED AND ADOPTED BY THE OCTOBER 1, 2022 CONNECTICUT AMENDMENTS CONSTITUTE THE 2022 CONNECTICUT STATE BUILDING CODE.

2022 CONNECTICUT STATE FIRE SAFETY CODE

INTERNATIONAL CODE COUNCIL, INC. • 2021 INTERNATIONAL FIRE CODE

NATIONAL FIRE PROTECTION ASSOCIATION, INC. • 2021 NFPA 101 LIFE SAFETY CODE

ALL AS AMENDED AND ADOPTED BY THE OCTOBER 1, 2022 CONNECTICUT AMENDMENTS CONSTITUTE THE 2022 CONNECTICUT STATE FIRE SAFETY CODE.

2022 CONNECTICUT STATE FIRE PREVENTION CODE

NATIONAL FIRE PROTECTION ASSOCIATION, INC. • 2021 NFPA 1 FIRE CODE (INCLUDING ANNEXES A, C, AND F) AS AMENDED AND ADOPTED BY THE OCTOBER 1, 2022 CONNECTICUT AMENDMENTS CONSTITUTE THE 2022 CONNECTICUT STATE FIRE PREVENTION CODE.

1111 MAIN STREET, EAST HARTFORD CT 06108 (860) 289-1100 FILE NO. 24103.01 DATE: 07/10/2024 REV :

SCOPE OF WORK									
	OF WORK INCLUDES MINI SPLIT AIR CONDITION ELEMENTARY SCHOOL (90000 SQ.FT). SCOPE								
	LIST OF SHEETS								
SHEET NO.	SHEET NAME	PROJECT ISSUE DATE	CURRENT REVISION						
G-000	COVER SHEET	07/10/2024							
M-001	MECHANICAL NOTES, SPECIFICATION, SCHEDULES AND LEGENDS	07/10/2024							
M-002	MECHANICAL SCHEDULES	07/10/2024							
M-101	FIRST FLOOR OVERALL MECHANICAL PLAN	07/10/2024							
M-102	FIRST FLOOR MECHANICAL PLAN-PART B	07/10/2024							
M-103	FIRST FLOOR MECHANICAL PLAN-PART C	07/10/2024							
M-104	FIRST FLOOR MECHANICAL PLAN-PART D	07/10/2024							
M-105	SECOND FLOOR MECHANICAL PLAN-PART B	07/10/2024							
M-106	SECOND FLOOR MECHANICAL PLAN-PART C	07/10/2024							
M-300	MECHANICAL DETAILS	07/10/2024							
- - - - - - - - - -									
E-001	ELECTRICAL NOTES & SPECIFICATIONS	07/10/2024							
E-002	ELECTRICAL LEGENDS AND SYMBOL	07/10/2024							
E-003	ELECTRICAL POWER RISER DIAGRAM, DETAILS AND EQUIPMENT SCHEDULES	07/10/2024							
E-004	ELECTRICAL PANEL SCHEDULE	07/10/2024							
E-101	FIRST FLOOR OVERALL ELECTRICAL PLAN	07/10/2024							
E-102	FIRST FLOOR ELECTRICAL PLAN-PART B	07/10/2024							
E-103	FIRST FLOOR ELECTRICAL PLAN-PART C	07/10/2024							
E-104	FIRST FLOOR ELECTRICAL PLAN-PART D	07/10/2024							
E-105	SECOND FLOOR ELECTRICAL PLAN-PART B	07/10/2024							
E-106	SECOND FLOOR ELECTRICAL PLAN-PART C	07/10/2024							
E-107	BASEMENT BOILER ROOM ELECTRICAL PLAN	07/10/2024							

GENERAL MECHANICAL NOTES

GENERAL

- 1. WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.
- 2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR ORPERATION.
- 3. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATION BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.
- 4. WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- 5. DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO INCLUDE THE PROVISIONS AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.
- 6. PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND LAWS.
- 7. WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE
- 9. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.
- 10. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING GRILLES, REGISTERS AND DIFFUSERS.
- 11. PROVIDE VOLUME DAMPERS IN EACH BRANCH DUCTWORK SERVING REGISTERS, GRILLES AND DIFFUSERS WHETHER INDICATED OR NOT.
- 12. PROVIDE CABLE OPERATED DAMPERS IN BRANCH DUCTWORK SERVING REGISTERS, GRILLES, AND DIFFUSERS IN INACCESSIBLE CEILING LOCATIONS WHETHER INDICATED OR NOT.
- 13. LOCATE ALL BALANCING DAMPERS AT CLEAN DUCTWORK ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS.
- 14. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND A COMBINATION OF FIRE/SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL & FLOOR RATINGS AS DEFINED IN ARCHITECTURAL DRAWINGS.
- 15. DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.
- 16.THESE GENERAL NOTES ARE APPLICABLE TO ALL MECHANICAL DRAWINGS.
- 17.DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. SEE DETAILS, SCHEDULES AND SPECIFICATIONS
- 18.MECHANICAL CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEMS.

SHOP DRAWINGS

- 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR DUCTWORK LAYOUT, PIPING LAYOUT, SHEET METAL SHOP STANDARDS AND ALL EQUIPMENT FURNISHED.
- 2. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTOCAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION 2017 IF NOT SPECIFIED.

ABBREVIATIONS

FD FIN FL FL FL FV GC H/C HC-# HTG HVAC ID IN LAT LD LVG MAN MAT MAX MBH MER MIN NC NFA NIC NFA NIC NTS OA OAT OD O.E.T.D. OEO PD RA RAT RH RM SA SAT SP SQ FT T'STAT TD TEMP TG TRD TYP UC VD	FIRE DAMPER WITH ACCESS DOOR FINISH FLOOR FLOOR FLEXIBLE FEET FACE VELOCITY GENERAL CONTRACTOR HEATING COLL HEATING COLL HEATING COLL HEATING VENTILATING 6 AIR CONDITIONING INSIDE DIMENSION INCHES LEAVING AIR TEMPERATURE LINEAR DIFFUSER LEAVING MANUAL MIXED AIR TEMPERATURE MAXIMUM 1000 BTU'S MECHANICAL EQUIPMENT ROOM MINUMIM NOISE CRITERIA NET FREE AREA NOT IN THIS CONTRACT NOT TO SCALE OUTSIDE AIR OUTDOOR AIR TEMPERATURE OUTSIDE AIR OUTDOOR AIR TEMPERATURE OUTSIDE AIR OUTDOOR AIR TEMPERATURE OUTSIDE AIR OUTDOOR AIR TEMPERATURE OUTSIDE DIMENSION OPEN END DUCT PRESSURE DROP RETURN AIR RETURN AIR TEMPERATURE RELATIVE HUMIDITY ROOM REVOLUTIONS PER MINUTE SUPPLY AIR TEMPERATURE STATIC PRESSURE SQUARE FOOT (AREA) THERMOSTAT TEMPERATURE DIFFERENCE TEMPERATURE AIR TRANSFER GRILLE TRANSFER DUCT TYPICAL UNDERCUT DOOR
	-
VD	VOLUME DAMPER
W/ WB	WITH WET BULB
WB WMS	WETBOLB WIRE MESH SCREEN
WT	WEIGHT(LBS)
*ALL ABBR DOCUMEN	REVIATIONS MAY NOT BE USED IN THESE NTS.

3. PRIOR TO THE SUBMISSION AND REVIEW OF S FOR REVIEW SHEET METAL SHOP STANDARDS. A SUBMISSION OF THE SHOP STANDARDS SHALL B <u>AS BUILT DRAWINGS</u>

- 1. PROVIDE A COMPLETE SET OF AS-BUILT DF AS-BUILT DRAWINGS SHALL INDICATE ALL II DISCIPLINE. DRAWINGS SHALL BE OF SIMIL/ INCLUDE DETAILS AS NECESSARY TO CLEA SHALL BE BOUND IN A COMPLETE AND COM PAPERWORK WILL NOT BE ACCEPTABLE AN SHALL COMPLY WITH THE ENGINEERS COM DRAWINGS. DRAWINGS SHALL BE SUBMITT (AUTO-CAD VERSION AS REQUIRED BY THE NUMBER OF COPIES OF EACH AS REQUEST
- 2. PROVIDE "AS-BUILT DRAWINGS" INDICATING OF ALL REVISIONS OF THE ORIGINAL DESIG CONDITIONS:
 - INCLUDE ALL CHANGES AND AN ACCUF SHOP DRAWINGS, OF ALL DEVIATIONS,
 - MAINS AND BRANCHES OF PIPING SYS NUMBERED, CONCEALED UNIONS LOO LOCATED (I.E., TRAPS, STRAINERS, EX DIAGRAMS, COMPLETE WITH VALVE T
 - EQUIPMENT LOCATIONS (EXPOS

APPROVED SUBSTITUTIONS, CO MATERIALS INSTALLED.

· CONTRACT MODIFICATIONS, AC

- 3. SUBMIT FOR REVIEW BOUND SETS OF THE
- 4. SUBMIT A COMPLETE MAINTENANCE MANU
- 5. SUMBIT ALL WARANTY FOR EQUIPMENT.

	PERFORMANCE SPE	CIFICATION-MECHANICAL	AWSON ENGINEEF Hartford CT 061 MAIL: into@rda
SHEET METAL SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT ANY SHEET METAL SHOP DRAWINGS SUBMITTED PRIOR TO THE BE RETURNED NOT REVIEWED. DRAWINGS REFLECTING AS INSTALLED CONDITIONS. INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS ILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND EARLY REFLECT THE INSTALLED CONDITION. DRAWINGS DNSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR DMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF ITED IN BOTH HARD COPY AND ELECTRONIC VERSION HE OWNER) OR LATEST AUTOCAD VERSION IF NOT SPECIFIED.	PERFORMANCE SPECIFICATION SECTION 15800-HEATING, VENTILATING, AIR CONDITIONING PART 1 - GENERAL REQUIREMENTS 1.01 SCOPE OF WORK INSTALL ALL NEW WORK IN A NEAT WORKMANLIKE MANNER READILY ACCESSIBLE FOR OPERATION, MAINTANANCE AND REPAIR. WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT, TRANSPORTATION AND OTHER INCIDENTALS NECESSARY TO FURNISH, INSTALL AND TO CONSTRUCT ALL HVAC SYSTEMS INCLUDING: - COOLING UNITS - HEATING UNITS - PIPING	 "ARCHITECT", "ENGINEER", "OWNER'S REPRESENTATIVE"- THE PARTY OR PARTIES RESPONSIBLE FOR INTERPRETING, ACCEPTING AND OTHERWISE RULING ON THE PERFORMANCE UNDER THIS CONTRACT. "FURNISH"-PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT, ALL AS PART OF THE MECHANICAL WORK. "INSTALL"- UNLOAD AT THE DELIVERY POINT AT THE SITE AND PERFORM EVERY OPERATION NECESSARY TO ESTABLISH SECURE MOUNTING INSTALLATION AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT, ALL AS PART OF THE MECHANICAL WORK. "PROVIDE"-"FURNISH" AND "INSTALL". "NEW"-MANUFACTURED WITHIN THE PAST TWO YEARS AND NEVER BEFORE USED. "RELOCATE"-MOVE EXISTING EQUIPMENT AND ALL ACCESSORIES AS REQUIRED. "REMOVE"- DISMANTLE AND CART AWAY FROM SITE INCLUDING ALL RELATED ACCESSORIES. ALL ITEMS SHALL BE LEGALLY DISPOSED OF. ALL OTHER EQUIPMENT AND OPERATIONS IN ANY WAY AFFECTED BY THE REMOVAL IS TO 	S Rev. 1808 ED THEREIN, AS ED THEREIN, AS ED THEREIN, AS TO FING YOF RUSSELL NOT BE USED, ANY OTHER ANY OT
STED BY THE OWNER. NG IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD GN OF THE WORK. INDICATE THE FOLLOWING INSTALLED WRATE RECORD IN AUTOCAD DRAWING OR APPROPRIATE S, BETWEEN THE WORK SHOWN AND WORK INSTALLED. XSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND DCATED, AND WITH ITEMS REQUIRING MAINTENANCE XSTANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION TAG CHART. DSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND CTUAL EQUIPMENT AND MATERIALS INSTALLED. E REQUIRED DRAWINGS, MANUALS AND OPERATING UAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.	 CONTRACTOR OR BUILDING MANAGEMENT. 10. PREMIUM TIME FOR WORK TO BE PERFORMED AFTER-HOURS AS REQUIRED BY BUILDING MANAGEMENT AND/OR OWNER. 11. FILING,PERMITS,CONTROLLED INSPECTIONS. 12. FULL TESTING AND STARTUP OF ALL SYSTEMS. B. SECURE CERTIFICATES, PAY ALL FEES AND CHARGES FOR ALL WORK INSTALLED, CERTIFYING COMPLIENCE WITH ALL AUTHORITIES, DELIVER CERTIFICATES TO OWNER FOR SIGNING BEFORE FILING. ISSUE 4 COPIES OF MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS AND SHOP DRAWINGS FOR ALL ITEMS OF THE HVAC EQUIPMENT FOR APPROVAL. 1.02 CODES 	REMAIN IN FULL OPERATION. PROVIDE ALL NECESSARYCOMPONENTS TO MAINTAIN SUCH OPERATION. THE FOLLOWING CODES AND STANDARDS SHALL APPLY TO THIS WORK: ASTM A120, STEEL PIPE ASTM B88, COPPER TUBING ANSI H23, ISTANDARDS FOR COPPER TUBING ANSI H23, ISTANDARDS FOR COPPER TUBING ANSI H23, ISTANDARDS FOR COPPER TUBING NEMA NC1 MOTOR GENERATOR STANDARDS NEMA NC1 MOTOR GENERATOR STANDARDS NEMA NC1 STANDARDS FOR TOMPERATURE CONTROLS NEPA-90A AIR CONDITIONING AND VENTILATING SYSTEM NFPA-90A AIR CONDITIONING AND VENTILATING SYSTEM NFPA-91 LOWER AND EXHAUST SYSTEMS APPLICABLE BOCA MECHANICAL CODE 1.04 ELECTRICAL REQUIREMENTS THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MOTORS FOR EQUIPMENT SPECIFIED HEREIN IF NOT SUPPLIED AS PART OF EQUIPMENT. MOTORS UP TO 12 /P SHALL BE 115 VOLT, SINGLE PHASE. MOTORS 112 HP AND OVER SHALL BE 208 VOLT, 3 PHASE. MOTORS SHALL BE GENERAL ELECTRIC, WESTINGHOUSE, OR ALLIS CHALMERS. ALL MOTORS SHALL BE GENERAL ELECTRIC, WESTINGHOUSE, OR ALLIS CHALMERS. ALL MOTORS SHALL BE GENERAL ELECTRIC, WESTINGHOUSE, OR ALLIS CHALMERS. ALL MOTORS SHALL BE GENERAL ELECTRIC, WESTINGHOUSE, OR ALLIS CHALMERS. ALL MOTORS SHALL BE GONERACTOR CORDINATE WITH ELECT. DWG. STARTERS WITH ALL CIRCUIT BREAKERS AND FUSED DISCONNECT SWITCHES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR CORDINATE WITH ELECT. DWG. STARTERS WITH AUXILIARY CONTRACT. ALL AIR EQUIPMENT OF 2000 CFM AND LARGER SHALL BE SUPPLIED WITH SMOKE DETECTORS INSTALLED IN THE DUCTWORK AS REQUIRED FOR ALL 3 PHASE MOTORS SUPPLIED UNDER THIS CONTRACT. ALL AIR EQUIPMENT OF 2000 CFM AND LARGER SHALL BE SUPPLIED WITH SMOKE DETECTORS INSTALLED IN THE DUCTWORK AS REQUIRED BY NFPA 90A PAR. 4.3. WIRING OF THESE DETECTORS SHALL BE A PART OF THIS MECHANICAL CONTRACT. 1.05 COORDINATION WITH BUILDING MANAGEMENT A. THIS CONTRACTOR IS TO OBTAIN A COPY OF THE BUILDING RULES AND REGULATIONS PRION TO BUS USINSSION TO DETERMINE THE REQUIREMENTS AND THE EXTENT OF PRION TO BUS USINSSION TO DETERMINE THE REQUIREMENTS AND THE EXTENT OF	STAMP: STAMP: STAMP: REVISIONS NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DESCRIPTION NO: DATE NO: NO: DATE NO: NO: DATE NO: NO: NO: DATE NO: NO: NO: NO: NO: NO: NO: NO:
	 LAWS AND REGULATIONS. ANY WORK DONE BY CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE BY THIS CONTRACTOR AND AT NO EXPENSE TO THE OWNER. THIS CONTRACTOR SHALL OBTAIN ALL EQUIPMENT APPROVALS AS REQUIRED BY STATE AND LOCAL AUTHORITIES. PERMITS SHALL BE TURNED OVER AT JOB COMPLETION. B. SITE VERIFICATION: PRIOR TO SUBMISSION OF THE BID, THIS CONTRACTOR SHALL VISIT THE JOB SITE TO ASCERTAIN THE ACTUAL FIELD CONDITION AS THEY BELATE TO THE 	 AND REGULATIONS.ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE BUILDING RULES AND REGULATIONS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT/ENGINEER FOR REVIEW WITH BID SUBMISSION. C. COORDINATE WITH BUILDING OWNER FOR ANY SERVICE INTERRUPTION OF EXISTING SYSTEMS AND GIVE NOTICE AS REQUIRED BY BUILDING RULES AND REGULATIONS, OR CONTRACTOR TO PROVIDE A MINIMUM OF TWO(2) DAYS NOTICE PRIOR TO ANY WORK BEING PERFORMED, WHICHEVER IS THE MORE STRINGENT. CONTRACTOR IS TO PERFORMED, WHICHEVER IS THE MORE STRINGENT. CONTRACTOR IS TO PERFORM WORK ON PREMIUM TIME, IF SO DIRECTED BY BUILDING OWNER, SO AS NOT TO DISTURB EXISTING TENANTS ON OTHER FLOORS. 1.06 SHOP DRAWINGS A. SUBMIT SHOP DRAWING CERTIFIED BY ALL TRADES THAT COORDSINATES HAS BEEN COMPLETED. SUBMIT ALL CERTIFIED EQUIPMENT CUTS WITH CONSTRUCTION WIRING DIAGRAMS AND AUTOMATIC TEMPERATURE CONTROL REQUIREMENTS. SHOP DRAWINGS SUBMISSION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: 1. DUCTWORK-PROVIDE DUCT SHOP STANDARDS AND LEAKAGE TEST CERTIFICATION, AS REQUIRED, AND 1/4 SCALE DUCT LAYOUT. 2. PIPING LAYOUT AND APPURTENANCES-PROVIDE PIPING, VALVING, CHEMICAL TREATMENT, SHOP STANDARDS AND 1/4 SCALE PIPING LAYOUT WITH ALL VALVING. 3. INSULATION FOR PIPING . 4. EQUIPMENT CATALOG CUTS FOR ALL ITEMS TO BE UTILIZED. AUTOMATIC TEMPERATURE CONTROL DIAGRAMS, DEVICES AND SEQUENCE OF OPERATION. 5. AS-BUILT DRAWINGS AT PROJECT COMPLETION OF THE INSTALLED CONDITION OF WORK. B. THE QUANTITY OF SHOP DRAWINGS SHALL AS A MINIMUM BE FOUR (4) COPIES OF 8-112" X 11" SUBMISSIONS AND FIVE(5) PRINTS OF ALL DRAWINGS. SPECIFIC JOB REQUIREMENTS FROM OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR OR ARCHITECT. 	
	 D. GUARANTEE: 1. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK. FINAL ACCEPTANCE SHALL BE DEFINED AS THE TIME AT WHICH THE MECHANICAL WORK IS TAKEN OVER AND ACCEPTED BY THE OWNER, AND IS UNDER CARE, CUSTODY, AND CONTROL OF THE OWNER. ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE EQUIPMENT FOR THE PROPER STARTUP AND OPERATION OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNER'S PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE SYSTEM. 2. THE CONTRACTOR SHALL GUARNTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED DOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN THE GUARNTEE PERIOD. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARNTEE SHALL INCLUDE RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THIS CONTRACTOR. 3. THIS CONTRACTOR IS RESPONSIBLE FOR THE MAINTANANCE AND OPERATION OF ALL SYSTEMS UNIT THE FINAL ACCEPTENCEOF THE WORK. 4. ALL AIR CONDITIONING UNIT COMPRESSORS AND REFRIGERATION COMPONENTS SHALL HAVE 5-YEAR WARRANTY. E. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION AIA DOCUMENTS A201, LATEST EDITION, OR AS REQUIRED BY THE ARCHITECT'S DOCUMENTS, AND/OR THE STRUCTURAL ENGINEER'SDOCUMENTS, AS APPLICABLE, ARE PART OF THIS CONTRACT. 	 A. SUBMIT FOUR(4) LOOSE-LEAF BOUND OPERATING AND MAINTENANCE MANUALS WITH INDEX AND INDEX TABS TO INCLUDE THE FOLLOWING: 1. OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL SYSTEMS. 2. MANUFACTURERS= CATALOG CUTS ON ALL EQUIPMENT. 3. AUTOMATIC TEMPERATURE CONTROL SYSTEMS WITH SEQUENCE OF OPERATIONS, CATALOG CUTS OF ALL DEVICES AND POINT-TO-POINT WIRING DIAGRAMS. 4. CERTIFIED FINAL AIR AND WATER BALANCING REPORT. 5. PIPING AS-BUILT DRAWING WITH VALVE CHART AND KEY PLAN DRAWINGS INSERTED IN BINDER. 	ES, FILE NO: 24103.01 PROJECT: ES, SCALE: AS NOTED PUTN DATE: 07/10/2024 DRAWN BY: MF
	 F. DEFINITIONS: MECHANICAL CONTRACTOR, "THIS CONTRACTOR"-THE PARTY HAVE BEEN DULY AWARDED THE CONTRACT FOR AND ARE THEREBY MADE RESPONSIBLE FOR THE MECHANICAL WORK AS DESCRIBED HEREIN. "THIS CONTRACT", "THE CONTRACT"- THE AGREEMENT COVERING THE WORK TO BE PERFORMED BY THIS CONTRACTOR. "APPROVED", "EQUAL", "SATISFACTORY", "ACCEPTED", "ACCEPTABLE", "EQUIVALENT"-SUITABLE FOR USE ON THE PROJECT AS DETERMINED BY THE ENGINEER BASED ON DOCUMENTS PRESENTED FOR SUCH DETERMINATION. "THESE SPECIFICATIONS", "THIS SECTION, PART, DIVISIONS" (OF THE SPECIFICATION)-THE DOCUMENT SPECIFYING THE WORK TO BE PERFORMED BY "THIS CONTRACTOR". "THE MECHANICAL WORK", "THIS WORK"-ALL LABOR MATERIALS, EQUIPMENTS, APPARATUS, CONTROLS, ACCESSORIES, AND OTHER ITEMS REQUIRED FOR A PROPER AND COMPLETE INSTALLATIONBY MECHANICAL CONTRACTOR. 	 A. THIS CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR APPROVAL A PLAN INDICATING THE SIZE AND LOCATION OF ALL ACCESS DOORS REQUIRED FOR OPERATION AND MAINTENANCE OF ALL CONCEALED EQUIPMENT, DEVICES, VALVES, DAMPERS AND CONTROLS. CONTRACTOR SHALL ARRANGE FOR FURNISHING AND INSTALLATION OF ALL ACCESS DOORS IN FINISHED CONSTRUCTION AND INCLUDE COSTS IN THE BID. ACCESS DOORS SHALL BE OF ADEQUATE SIZE TO PROVIDE ACCESS TO CONCEALED ITEMS FOR OPERATION AND MAINTENANCE, WITH A MINIMUM SIZE OF 18" x 18". PART 2 - PRODUCT / APPLICATION 	SHEET TITLE: MECHANICAL NOTE: SPECIFICATION, SCHEDULES AND LE SCHEDULES AND LE

					AIR	CO	NDITIC	DNING U	NIT
NOTES: 1. PRO	NOTES: 1. PROVIDE DISC. SWITCH AND STARTER BY ELECTRICAL CONTRACTOR. 2. MECHANICAL CONTRACTOR TO PROVIDE PROGRAMMABLE T'STAT AND ELEC. CONTRACTOR								
SYMBOL	MANUFACTURER	MODEL NO.	AREA SERVES	CFM	TONS	PH	VOLTS	HEATING TYPE	
IDU-1	MITSUBISHI ELECTRIC	MSZ-FS18NA	CLASSROOM (ELEMENTARY SCHOOL)	514	1.5	1	208	ELECTRIC	
IDU-2	MITSUBISHI ELECTRIC	MSZ-GL24NA	GYMNESIUM (ELEMENTARY SCHOOL)	738	2.5	1	208	ELECTRIC	

NOTE-1: MECHANCIAL CONTRACTOR SHALL PROVIDE AND INSTALL CONDENSATE PUMP FOR ALL INDOOR UNIT.

	CONDENSING UNIT SCHEDULE								
NOTE: PROVIDE	NOTE: PROVIDE DISC. SWITCH & STARTER BY ELECTRICAL CONTRACTOR. PROVIDE HEAVY DUTY WALL MOUNT BRACKET FOR ALL CONDENSING UNITS.								
SYMBOL	MANUFACTURER	MODEL NO.	TON	REF	PH	VOLTS	MCA	AREA SERVES	
CU-1	MITSUBISHI ELECTRIC	MUZ-FS18NAH	1.5	R410A	1	208	18	CLASSROOM (ELEMENTARY SCHOOL)	
CU-2	MITSUBISHI ELECTRIC	MUZ-GL24NA-U1	2.5	R410A	1	208	18	GYMNESIUM (ELEMENTARY SCHOOL)	

VIRE .					
HEATING CAR	PACITY (BTUH)	COOLING C	APACITY (BTUH)	ΟΤΥ	DEMADKO
/INIMUM	MAXIMUM	MINIMUM	MAXMIMUM	QTY	REMARKS
6,450	21,000	5,150	30,000	50	
7,500	36,900	8,200	31,400	4	
<u> </u>	QTY	REMA			

NEW UNIT

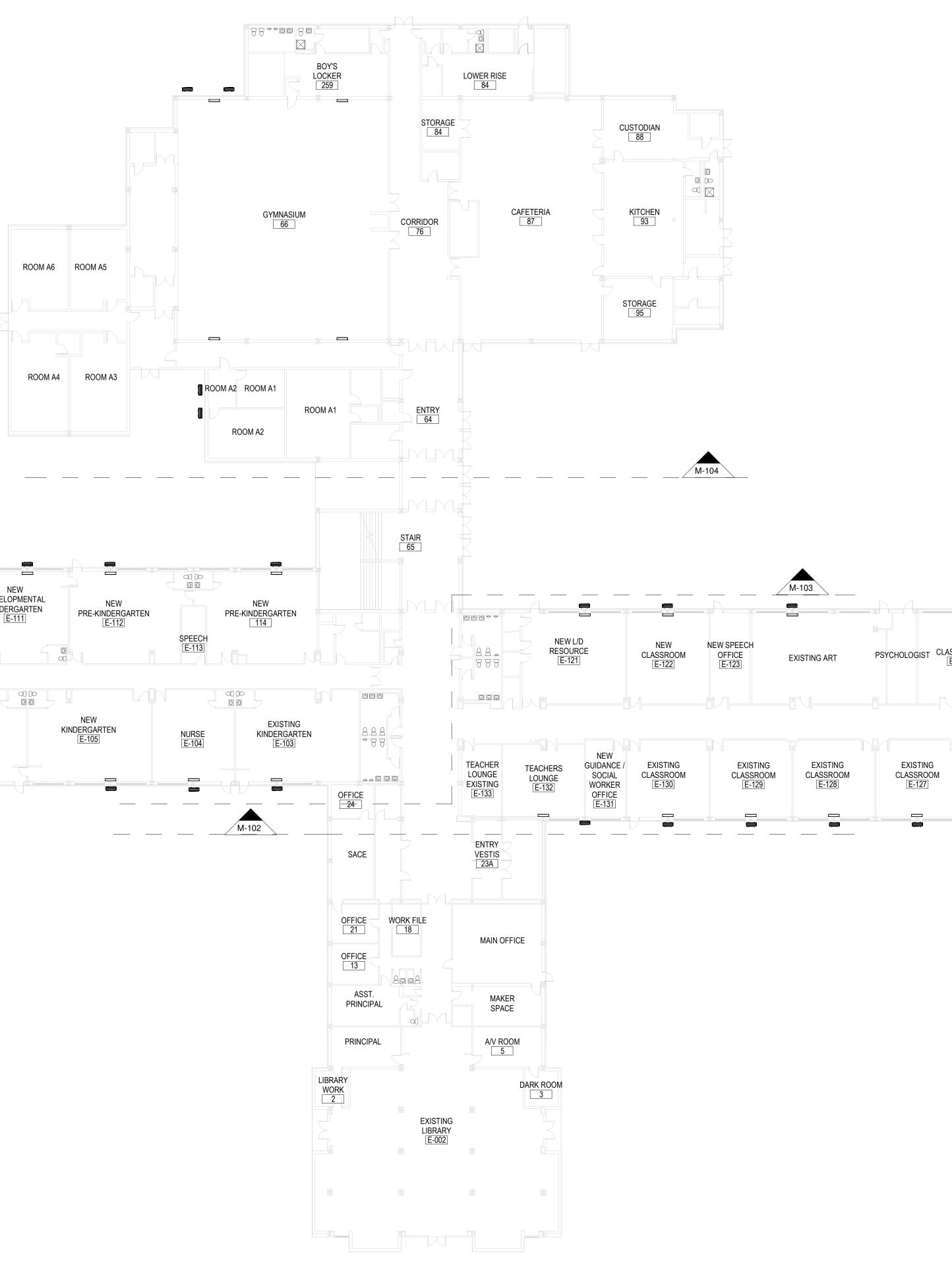
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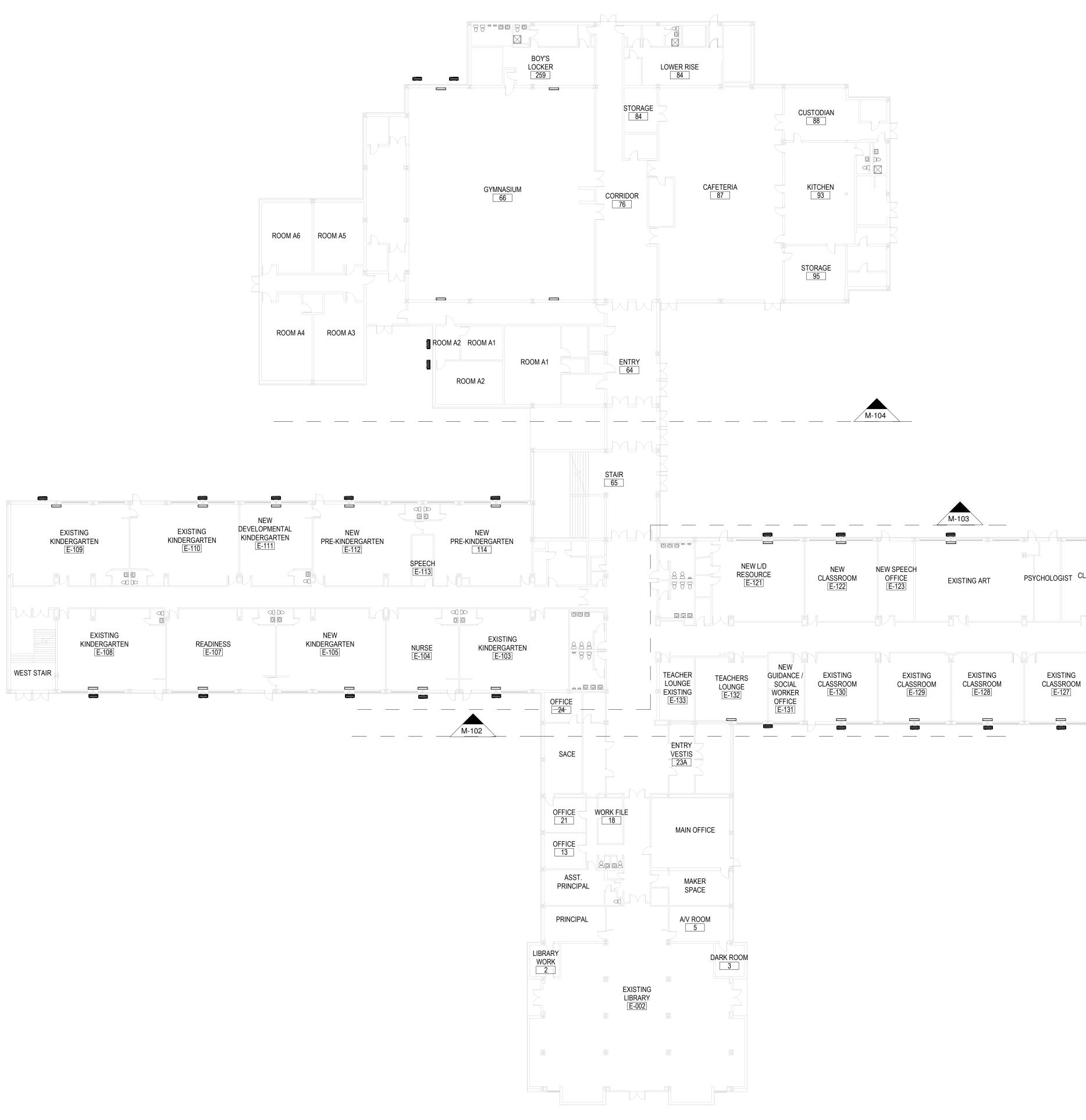
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RUSSELL AND DAWSON INC.		TEL: (860) 289-1100 FAX: (860) 289-3272 E-MAIL: info@rdaep.com		
AS Rev.: 18.08 ATED THEREIN, AS ESSIONAL	ATY OF RUSSELL AY NOT BE USED, DR ANY OTHER		DIAUTHORIZED UNAUTHORIZED FHE USER'S RISK ON INC. WILL	/ ARISING OUT OF on Inc.
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MECHANICAL DRAWING INDEX						
SHEET NUMBER SHEET NAME						
M-001	MECHANICAL NOTES, SPECIFICATION, SCHEDULES AND LEGENDS					
M-002	MECHANICAL SCHEDULES					
M-101	FIRST FLOOR OVERALL MECHANICAL PLAN					
M-102	FIRST FLOOR MECHANICAL PLAN-PART B					
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M-104	FIRST FLOOR MECHANICAL PLAN-PART D					
M-105	SECOND FLOOR MECHANICAL PLAN-PART B					
M-106	SECOND FLOOR MECHANICAL PLAN-PART C					
M-300	MECHANICAL DETAILS					



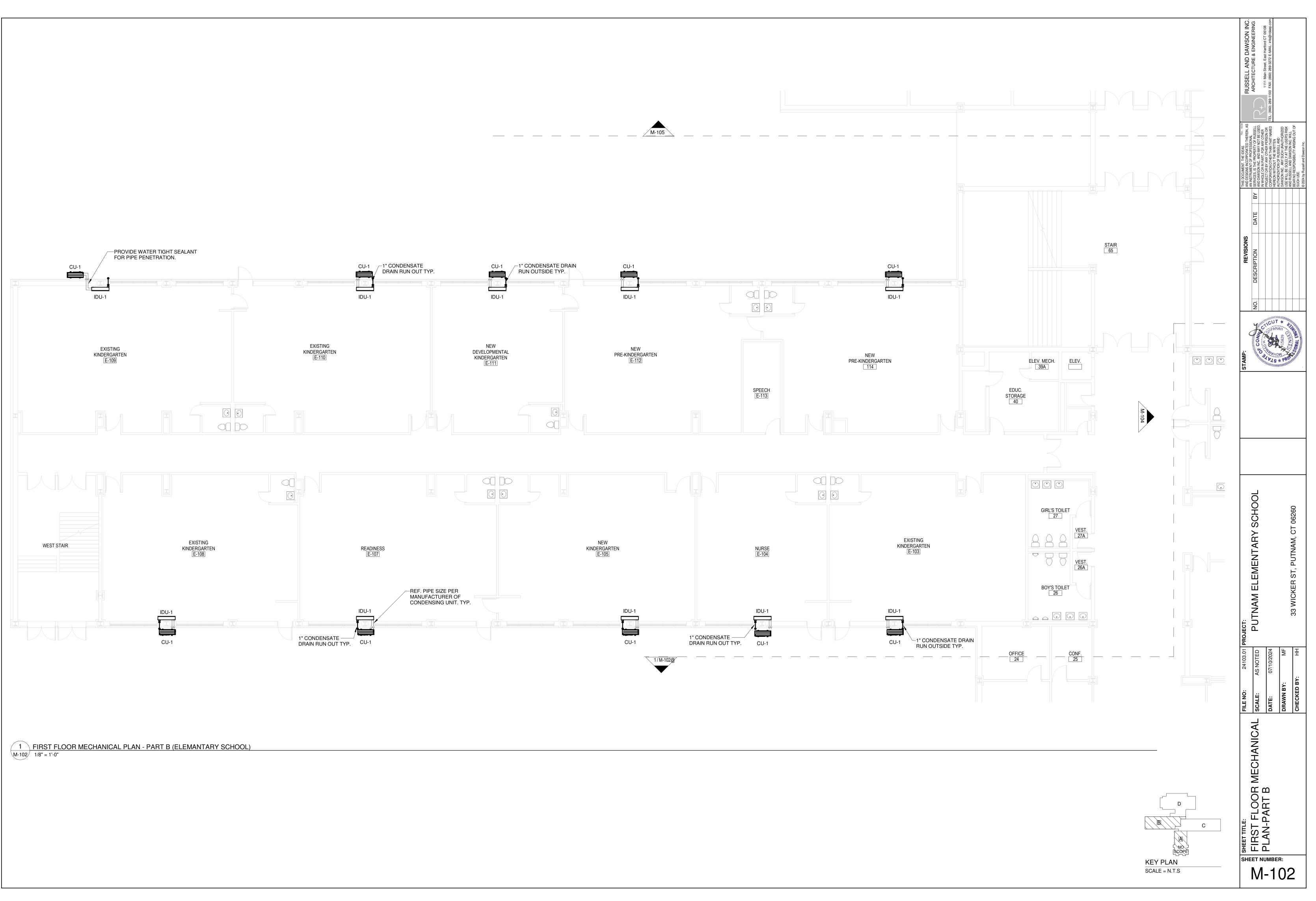




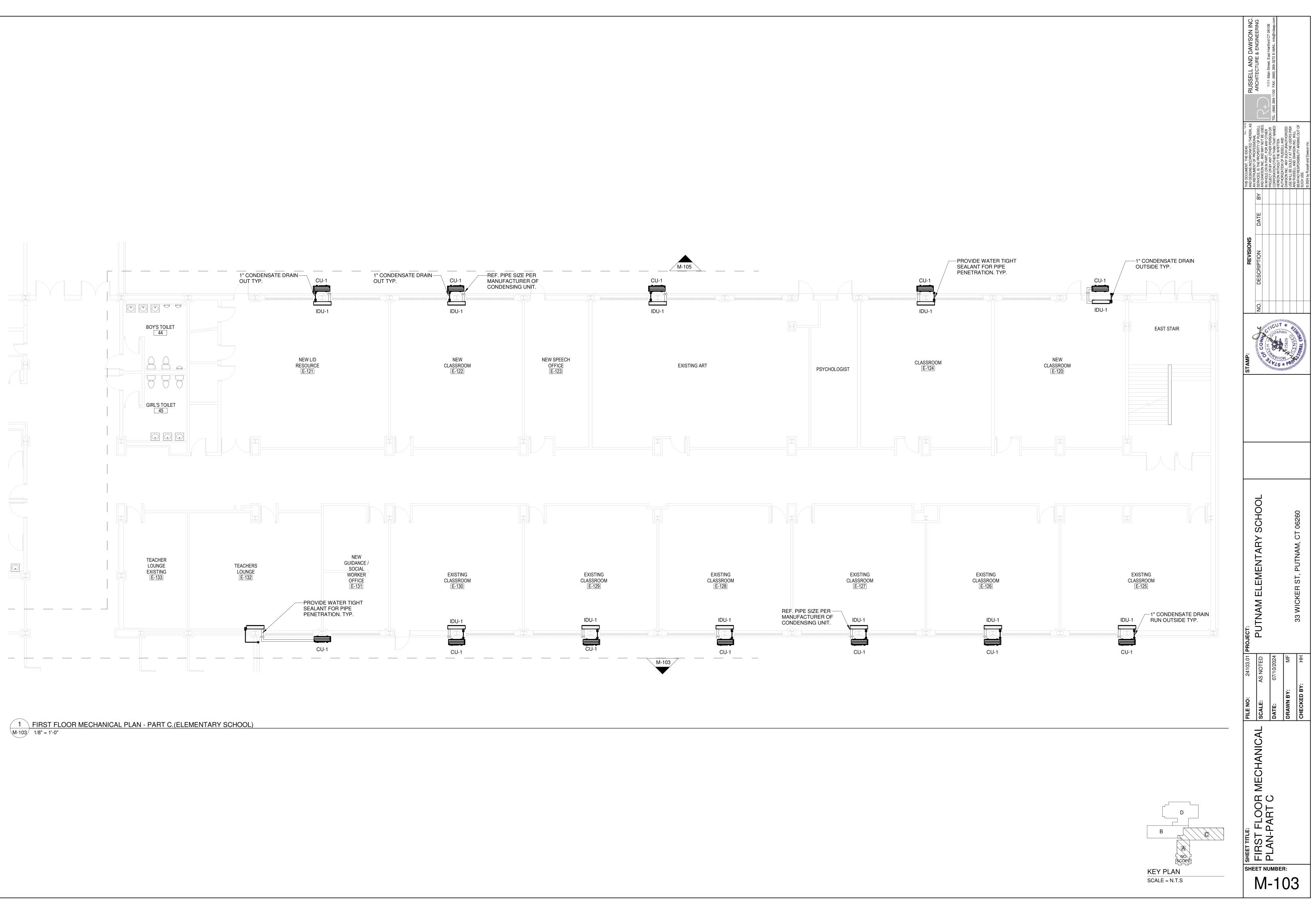
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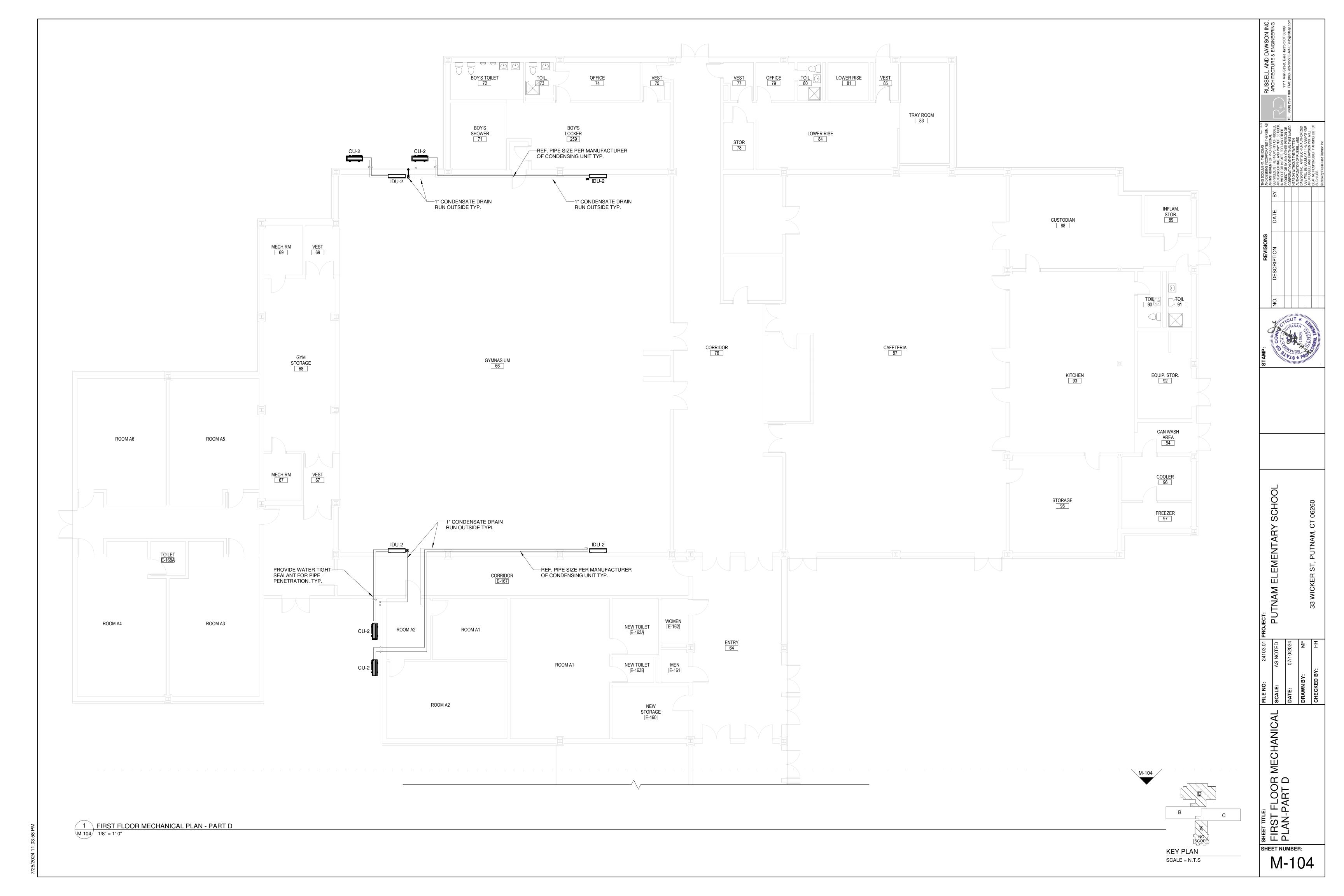
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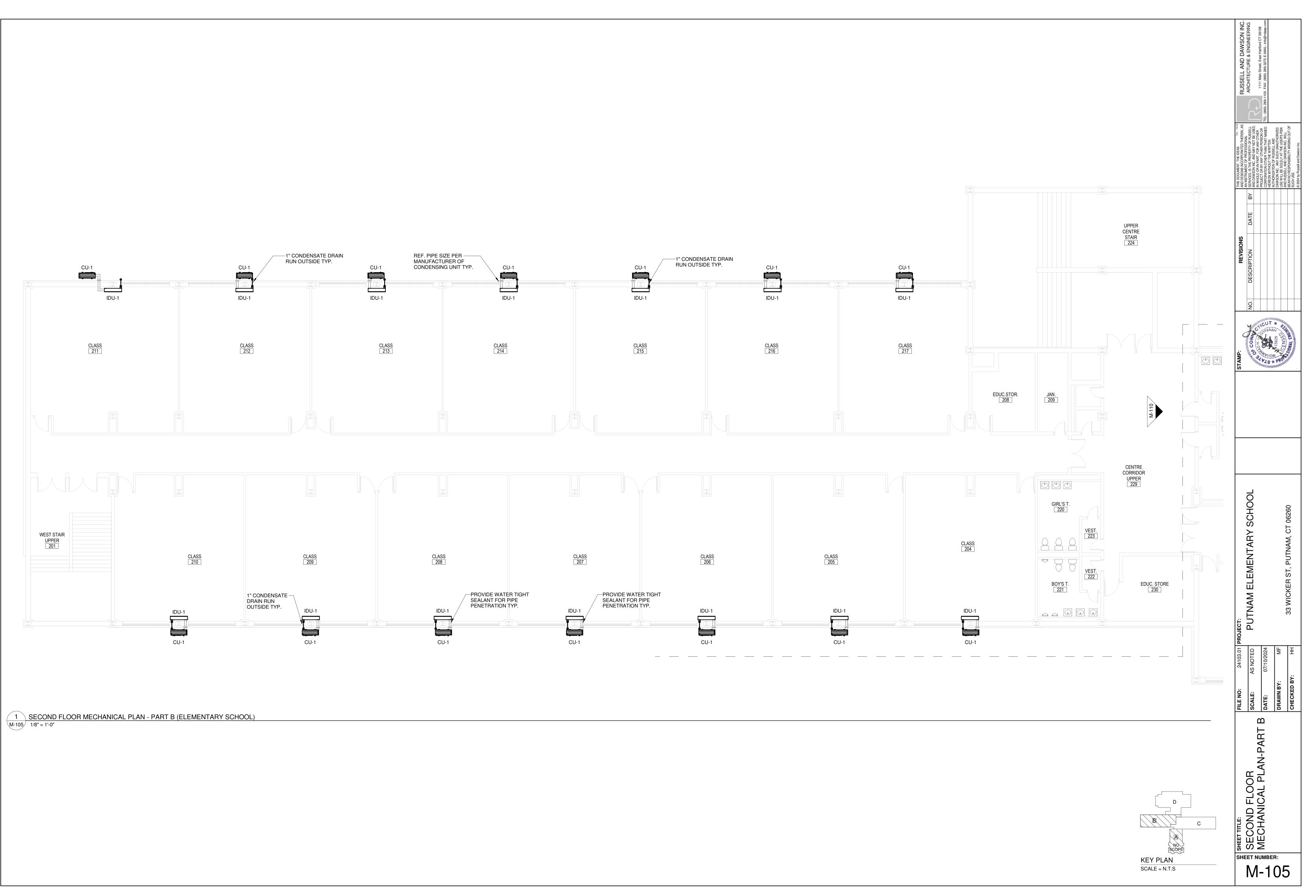
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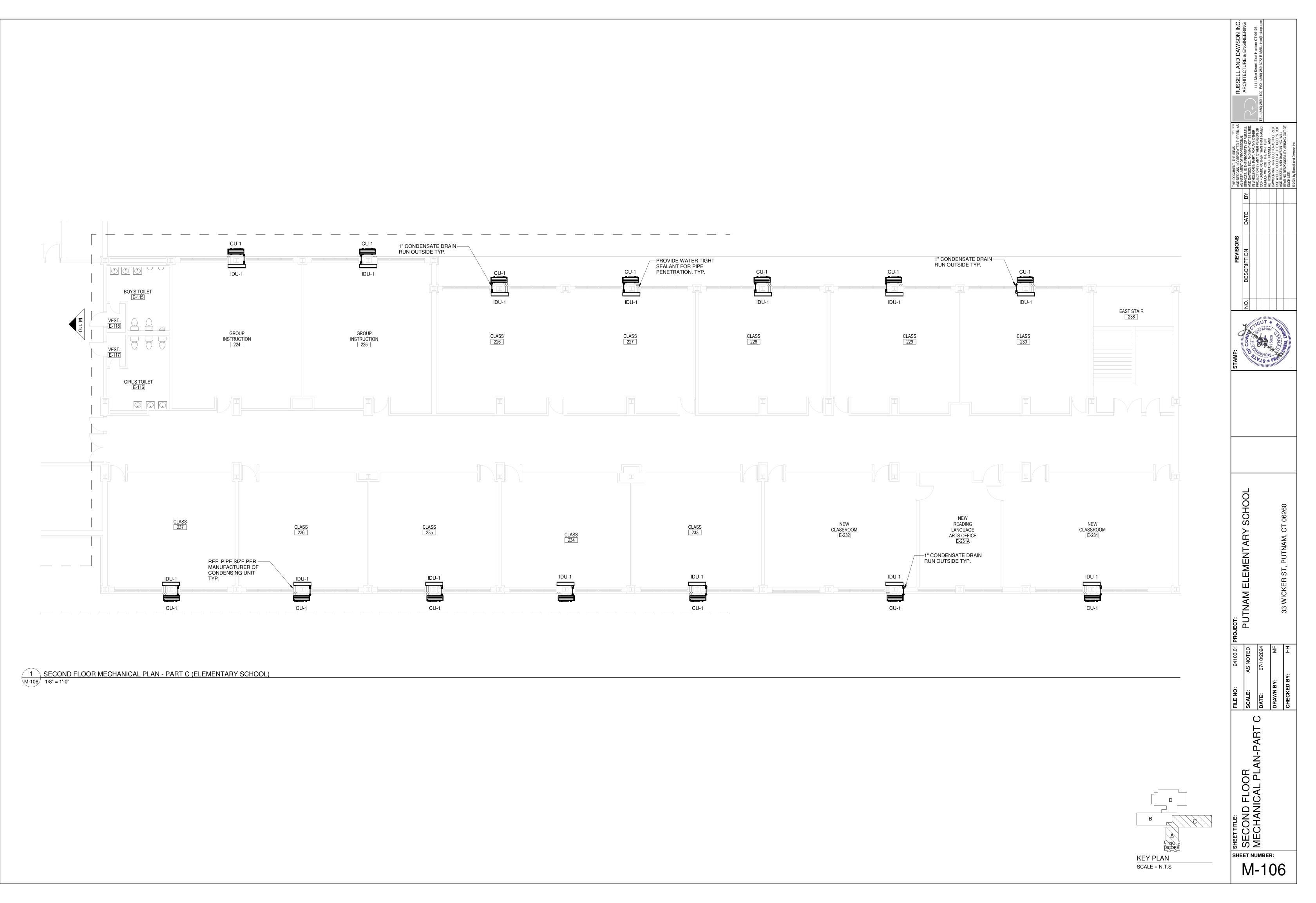
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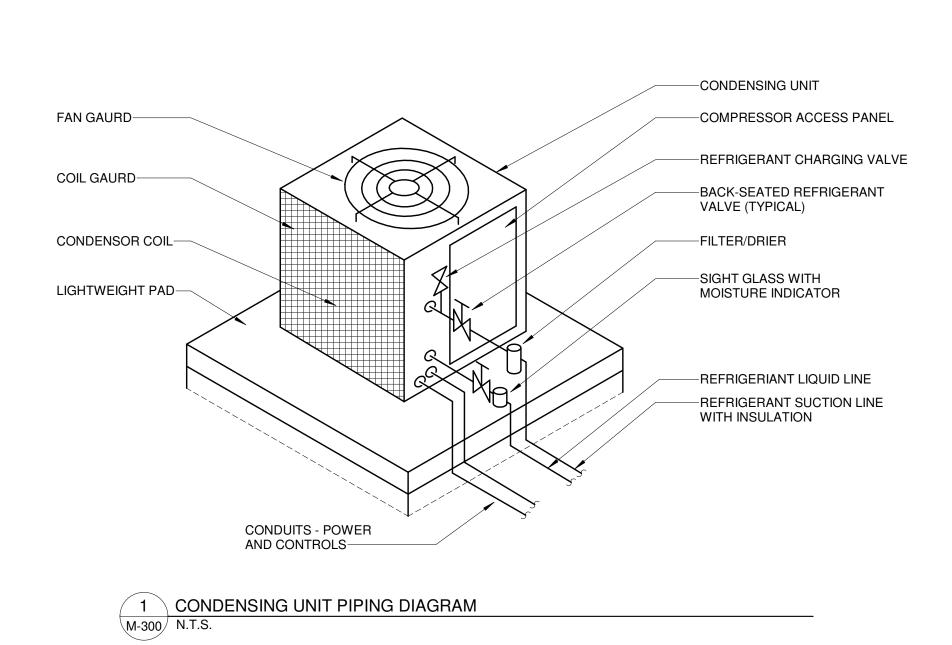


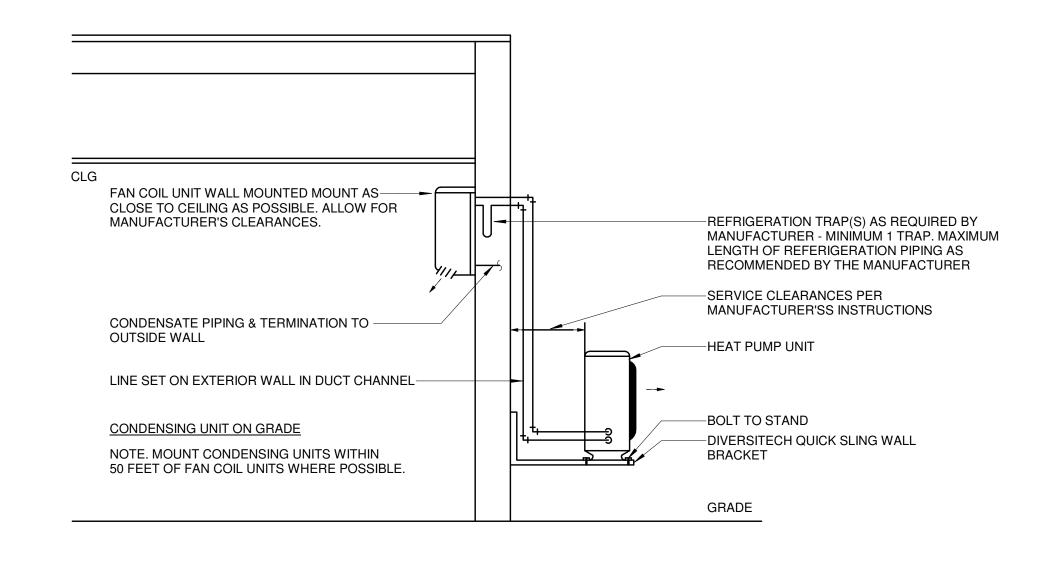




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PERFORMANCE SPECIFICATION

SECTION 16000 - ELECTRICAL

PART-1 GENERAL REQUIREMENTS

1.01 SCOPE OF THE WORK

WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT, TRANSPORTATION AND OTHER INCIDENTALS NECESSARY TO FURNISH AND INSTALL ALL ELECTRICAL WORK

SPECIFIC INCLUSIONS ARE:

- ON SITE VERIFICATION OF EXISTING CONDITIONS
- EMERGENCY LIGHTING FOR LIFE SAFETY STANDARD
- BRANCH CIRCUIT WIRING FOR LIGHTING, RECEPTACLES, JUNCTION BOXES AND MOTORS. HANGERS, ANCHORS, SLEEVES, CHASES, SUPPORTS FOR FIXTURES, AND OTHER ELECTRICAL MATERIALS AND EQUIPMENT IN ASSOCIATION THEREWITH.
- LIGHTING FIXTURES AND LAMPS.
- OTHER ITEMS AND SERVICES REQUIRED OR AS SHOWN ON DRAWINGS TO COMPLETE THE INTENT OF THE PROJECT.

1.02 SUBMITTALS

SUBMIT PRODUCT DATA FOR APPROVAL INCLUDING:

- MATERIALS LIST AND MANUFACTURER'S SPECIFICATIONS.
- MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

WHEN SO REQUESTED BY THE ENGINEER, PROMPTLY PROVIDE SAMPLES OF ITEMS SCHEDULED TO BE EXPOSED IN THE FINAL STRUCTURE.

MANUAL: UPON COMPLETION OF THIS PORTION OF THE WORK, AND AS A CONDITION OF ITS ACCEPTANCE, DELIVER TO THE ENGINEER FOUR COPIES OF AN OPERATION AND MAINTENANCE MANUAL. INCLUDE WITHIN EACH MANUAL:

COPY OF THE APPROVED RECORD DOCUMENTS FOR THIS PORTION OF THE WORK.

COPIES OF ALL EQUIPMENT, LIGHT FIXTURES, DEVICES BEING INSTALLED, WIRING AND CONDUITS COPIES OF ALL WARRANTIES AND GUARANTIES.

1.03 COORDINATION

CONFER WITH ALL OTHER SUBCONTRACTORS AS TO THE LOCATION OF THEIR WORK BEFORE BEGINNING ELECTRICAL WORK AND INSTALL WORK IN SUCH A MANNER AS TO AVOID INTERFERENCE WITH THE OTHER ELECTRICALS. OBTAIN FROM THESE SUBCONTRACTORS THE NECESSARY INFORMATION RELATIVE TO ELECTRICAL WORK REQUIRED FOR EQUIPMENT INSTALLED BY THEM.

1.04 RECORD DRAWINGS

AT THE COMPLETION OF THE CONTRACT THE ELECTRICAL SUBCONTRACTOR SHALL SUBMIT FOR APPROVAL AN ACCURATE CHECK SET OF "AS-BUILT" DRAWINGS.

1.05 GUARANTEE

THE ELECTRICAL SUBCONTRACTOR SHALL GIVE THE OWNER A WRITTEN GUARANTEE TO MAKE GOOD ANY AND ALL FAULTS AND DEFECTS IN THE WORK DUE TO DEFECTIVE OR IMPROPER MATERIALS OF WORKMANSHIP THAT MAY APPEAR WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE BUILDING AND SHALL MAKE ALL CHANGES WITHIN THE GUARANTEE PERIOD WHICH ARE REQUIRED TO PUT THE SYSTEM IN PROPER CONDITION AND OPERATION WITHOUT COST TO THE OWNER.

PART-2 PRODUCTS

2.01 GENERAL AREA LIGHTING:

2.01 PANELBOARDS

PANELBOARDS SHALL BE BY SQUARE D, GENERAL ELECTRIC, EATON, SIEMENS OR EQUAL

LIGHTING AND SMALL POWER PANELBOARDS SHALL BE GE #AQ SERIES OR EQUAL.

<u>2.02</u>

ALL CONDUIT AND FITTINGS TO BE METALLIC OR GALVANIZED STEEL. BOXED, STEPS, SUPPORTS AND GROUND FAULT CIRCUIT INTERRUPTER (GF) RECEPTACLES SHALL BE NEMA G-20R, CLASS "A", 5 MA SENSITIVITY AND SHALL BE PASS & SEYMOUR HUBBELL #GFr5820 OR EQUAL.

2.03 LAMPS

LED LAMP

LED LAMPS SHALL BE BY PHILIPS, OSRAM, CREE OR EQUAL. ALL LUMINARIES SHALL BE TESTED PER LM-79, LM-80. THE LED LAMPS SHALL HAVE AT LEAST 50000 BURNING HOURS (L70).

LED BOARDS SHALL BE CREE, NICHIA OR SAMSUNG.

2.04 BALLASTS

BALLASTS SHALL BE ETL/CBM APPROVED, LEAKPROOF, RATED FOR ENVIRONMENT TEMPERATURE AND LOW NOISE LEVEL.

FLUORESCENT BALLASTS SHALL BE CLASS P, HIGH-POWER FACTOR, WITH "A" NOISE RATING; FOR 120V OR 277V OPERATION, UNLESS OTHERWISE NOTED. BALLASTS SHALL BE EQUAL TO UNIVERSAL #412-L-SLH-TC-P FOR ONE-LAMP USAGE, AND UNIVERSAL #445-L- SLH-TC-P FOR TWO-LAMP USAGE AND OF THE ENERGY SAVINGS TYPE.

2.05 WIRING DEVICES:

STRAIGHT-BLADE RECEPTACLES DUPLEX CONVENIENCE RECEPTACLES: 125 V, 20 A; COMPLY WITH NEMA WD 1, NEMA WD 6 CONFIGURATION 5-20R, UL 498, AND FS W-C-596. DUPLEX CONVENIENCE RECEPTACLES SHALL BE BY COOPER #CR5352, LEVITON #5362, HUBBELL #5362 AND PASS & SEYMOUR #5362.

GF RECEPTACLES: 125 V, 20 A, STRAIGHT BLADE, SELF-TESTING FEED-THROUGH TYPE. COMPLY WITH NEMA WD 1, NEMA WD 6 CONFIGURATION 5-20R, UL 498, UL 943 CLASS A, AND FS W-C-596. INCLUDE INDICATOR LIGHT THAT SHOWS WHEN THE GFCI HAS MALFUNCTIONED AND NO LONGER PROVIDES PROPER GFCI PROTECTION.

GF CONVENIENCE RECEPTACLES SHALL BE BY COOPER #SGF20, LEVITON #GFTR2, HUBBELL #GFRST20 AND PASS & SEYMOUR #2097.

TAMPER-RESISTANT, DUPLEX GF CONVENIENCE RECEPTACLES SHALL BE COOPER -#TRSGF20, HUBBELL #GFTRST20 AND PASS & SEYMOUR #2097TR.

TAMPER-RESISTANT CONVENIENCE RECEPTACLES: 125 V, 20 A; COMPLY WITH NEMA WD 1, NEMA WD 6 CONFIGURATION 5-20R, UL 498, AND FS W-C-596. TAMPER-RESISTANT CONVENIENCE RECEPTACLES SHALL BE BY LEVITON #TBR20, HUBBELL #BR20TR AND PASS & SEYMOUR #TR20.

TWIST-LOCK, SINGLE CONVENIENCE RECEPTACLES: 125 V, 20 A; COMPLY WITH NEMA WD 1, NEMA WD 6 CONFIGURATION L5-20R, AND UL 498, TWIST-LOCK, SINGLE CONVENIENCE RECEPTACLES SHALL BE BY COOPER #CWL520R, HUBBELL #L520R, LEVITON #2310, PASS & SEYMOUR #L520-R.

SWITCHES:

FOUAL

KEY-OPERATED SWITCHES: 120/277 V, 20 A, SINGLE POLE, WITH FACTORY-SUPPLIED KEY IN LIEU OF SWITCH HANDLE. KEY-OPERATED SWITCHES SHALL BE BY COOPER #AH1221L, HUBBELL #HBL1221L, LEVITON -#1221-2L, PASS & SEYMOUR #PS20AC1-L. WALL PLATES: SINGLE AND COMBINATION TYPES SHALL MATCH CORRESPONDING WIRING DEVICES. PLATE-

SECURING SCREWS: METAL WITH HEAD COLOR TO MATCH PLATE FINISH. MATERIAL FOR FINISHED SPACES: SMOOTH, HIGH-IMPACT THERMOPLASTIC. MATERIAL FOR UNFINISHED SPACES: SMOOTH, HIGH-IMPACT THERMOPLASTIC. MATERIAL FOR DAMP LOCATIONS: THERMOPLASTIC WITH SPRING-LOADED LIFT COVER, AND LISTED AND LABELED FOR USE IN WET AND DAMP LOCATIONS.

PART-3 EXECUTION

3.01 COORDINATION

SUCH DEVIATIONS WITHOUT ADDITIONAL COST TO THE OWNER.

3.02 INSTALLATION OF RACEWAYS AND FITTINGS

WHERE CONDUIT IS INSTALLED CONCEALED IN WALLS OR ABOVE THE CEILING, OR EXPOSED IN WORK AREAS, PROVIDE ELECTRICAL METALLIC TUBING WITH COMPRESSION TYPE FITTINGS.

PROVIDE GALVANIZED RIGID STEEL CONDUITS FOR ALL CIRCUITINGS IN WET LOCATION AREA.

ACCORDANCE WITH THE PROVISIONS FOR THE ORIGINAL WORK.

BRAZED ONTO THE CONDUITS AND COVERING THE TOP OF ROOF JACKS.

3.03 INSTALLATION OF LIGHTING FIXTURES

SCHEDULE SHOWN ON THE DRAWINGS.

WIRE FIXTURES WITH FIXTURE WIRING OF AT LEAST 50 DEGREES CELSIUS RATING. WHERE FIXTURES ARE MOUNTED IN CONTINUOUS ROWS, PROVIDE CONDUCTORS IN WIRING CHANNELS OR THE SAME SIZE AS THE CIRCUIT WIRES SUPPLYING THE ROW OF FIXTURES.

USE ONLY BONDERIZED, GALVANIZED, OR SHERARDIZED STEEL FOR FIXTURE INSTALLATION FOR PROTECTION AGAINST RUST AND CORROSION, AND INSTALL FLUORESCENT FIXTURES STRAIGHT AND TRUE WITH REFERENCE TO WALLS.

INSTALL ALL LIGHTING FIXTURES, INCLUDING THOSE MOUNTED IN CONTINUOUS ROWS, SO THAT THE WEIGHT OF THE FIXTURE IS SUPPORTED, EITHER DIRECTLY OR INDIRECTLY, BY A SOUND AND SAFE STRUCTURAL MEMBER OF THE BUILDING, USING ADEQUATE NUMBER AND TYPE OF FASTENINGS TO ASSURE SAFE INSTALLATION.

3.04 INSTALLATION OF CONDUCTORS

MINIMUM BRANCH CIRCUIT CONDUCTOR SIZE: NO. 12 AWG. FOR ALL 20-A-1P, 120-VOLT CIRCUITS IN EXCESS OF 50 FT. FROM POWER SOURCE TO LAST DEVICE, PROVIDE NO. 10 AWG ENTIRE LENGTH OF CIRCUIT. FOR ALL 20-A-1P, 120-VOLT CIRCUITS IN EXCESS OF 80 FT. FROM POWER SOURCE TO LAST DEVICE, PROVIDE NO. 8 AWG ENTIRE LENGTH OF CIRCUIT. FOR ALL 20A-1P, 120-VOLT CIRCUITS IN EXCESS OF 120 FT. FROM POWER SOURCE TO LAST DEVICE. PROVIDE NO. 6 AWG ENTIRE LENGTH OF CIRCUIT.

CONDUIT IS SHOWN ON THE DRAWINGS.

USE IDENTIFIED (WHITE) NEUTRALS AND COLOR-CODED PHASE WIRES FOR ALL BRANCH CIRCUIT WIRING. MAKE SPLICES ELECTRICALLY AND MECHANICALLY SECURE WITH PRESSURE-TYPE CONNECTORS, OR BY SOLDERING. FOR WIRES SIZE 6 AWG AND LARGER, PROVIDE BURNDY VINYL-PLASTIC ELECTRICAL TAPE WHERE INSULATION IS REQUIRED.

- INSULATE SPLICES WITH A MINIMUM OF TWO HALF-LAPPED LAYERS OF SCOTCH BRAND NO. 33 VINYL-PLASTIC ELECTRICAL TAPE WHERE INSULATION IS REQUIRED.

3.05 FINAL TESTING AND INSPECTION

PROVIDE PERSONNEL AND EQUIPMENT, MAKE REQUIRED TESTS, AND SECURE REQUIRED APPROVALS FROM THE ARCHITECT AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.

WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, WITHIN THREE DAYS AFTER RECEIPT OF NOTICE OF SUCH NON-COMPLIANCE REMOVE THE NON-COMPLYING ITEMS FROM THE JOB SITE AND REPLACE THEM WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS, ALL AT NO ADDITIONAL COST TO THE OWNER.

3.06 PROJECT COMPLETION

THOROUGHLY INDOCTRINATE THE OWNER'S OPERATION AND MAINTENANCE PERSONNEL IN THE CONTENTS OF THE OPERATIONS AND MAINTENANCE MANUAL.

3.07 RECORD DRAWINGS

THIS CONTRACTOR SHALL MAINTAIN AND SUBMIT RECORD DRAWINGS, ON WHICH SHALL AT ALL TIMES, CLEARLY AND COMPLETELY SHOW THE ACTUAL INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.

TIMES.

UPON RECEIPT OF APPROVAL OF THE "AS-BUILT" DRAWINGS. PHOTO REPRODUCTIONS OF THE ORIGINAL TRACINGS ON MYLAR TRANSPARENCIES SHALL BE REVISED TO INCORPORATE ALL THE CHANGES ON THE "AS-BUILT" DRAWINGS. THESE REPRODUCIBLE TRANSPARENCIES SHALL BE CERTIFIED AS CORRECT AND DELIVERED TO THE ENGINEER ALONG WITH (2)

SETS OF BLACK LINE PRINTS AS "RECORD DRAWINGS" ALL COSTS RELATIVE TO THESE RECORD DRAWINGS SHALL BE PAID BY THIS CONTRACTOR.

3.08 RUBBISH REMOVAL

AT THE COMPLETION OF EACH DAYS WORK, THIS CONTRACTOR SHALL REMOVE FROM THE PREMISES, ALL RUBBISH OR WASTE MATERIAL BELONGING TO HIM.

SWITCHES SHALL COMPLY WITH NEMA WD 1, UL 20, AND FS W-S-896, SWITCHES, 120/277 V, 20 A; SINGLE POLE: LEVITON # 1221-S OR EQUAL. THREE WAY: LEVITON #1223-S OR EQUAL. FOUR WAY: LEVITON # 1224-S OR

THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, BUT ARE REQUIRED TO BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER ELECTRICALS WILL PERMIT. WHERE DEVIATIONS ARE REQUIRED TO CONFORM WITH ACTUAL CONSTRUCTION AND THE WORK OF OTHER ELECTRICALS, MAKE

CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNUEMATIC, ELECTRIC SOLENOID, OR MOTOR-DRIVEN EQUIPMENT): FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.

PROVIDE NECESSARY SLEEVES AND CHASES WHERE CONDUITS PASS THROUGH FLOORS AND WALLS, AND PROVIDE OTHER NECESSARY OPENINGS AND SPACES, ARRANGING FOR IN PROPER TIME TO PREVENT UNNECESSARY CUTTING IN CONNECTION WITH THE WORK. PERFORM CUTTING AND PATCHING IN

WHERE CONDUIT IS EXPOSED, RUN PARALLEL TO OR AT RIGHT ANGLE WITH LINES OF THE BUILDING; WHERE CONDUITS PIERCE THE ROOF, PROVIDE 24 GAUGE GALVANIZED IRON ROOF JACKS AND FLASHING COLLAR

INSTALL LIGHTING FIXTURES COMPLETE AND READY FOR SERVICE IN ACCORDANCE WITH THE LIGHTING

PROVIDE CODE-SIZED CONDUIT FOR NUMBER AND SIZE WIRES SHOWN OR REQUIRED, UNLESS A LARGER SIZE

UPON COMPLETION OF THE WORK OF THIS SECTION, THOROUGHLY CLEAN ALL EXPOSED PORTIONS OF THE ELECTRICAL INSTALLATION. REMOVING ALL TRACES OF SOIL, LABELS, GREASE, OIL, AND OTHER FOREIGN MATERIAL, AND USING ONLY THE TYPE CLEANER RECOMMENDED BY THE MANUFACTURER OF THE ITEM BEING CLEANED.

WHEREVER THE WORK WAS INSTALLED OTHER THAN AS SHOWN ON THE CONTRACT DRAWINGS, SAID CHANGES SHALL BE INDICATED ON THE "AS-BUILT" PRINTS. ANY ADDENDA SKETCHES AND SUPPLEMENTARY DRAWINGS ISSUED DURING THE COURSE OF CONSTRUCTION SHALL ALSO BE INCORPORATED ON THE "AS-BUILT" PRINTS.

THE "AS-BUILT" DRAWINGS SHALL BE KEPT UP TO DATE AND BE AVAILABLE TO THE ENGINEER FOR INSPECTION AT ALL

GENERAL ELECTRICAL NOTES

- THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LATEST EDITION (NEC) AND THE LATEST EDITIONS OF ALL LOCAL CODES, RULES AND ORDINANCES HAVING JURISDICTION.
- AS A MINIMUM, ALL EQUIPMENT SHALL MEET APPLICABLE STANDARDS, FOR THE TYPE OF EQUIPMENT AND INTENDED USE, OF THE FOLLOWING: A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
- B. ILLUMINATING ENGINEERS SOCIETY (IES) C. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) D. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATES.(NEMA) E. NOTE: THESE STANDARDS ARE SUBORDINATE TO CODES AND STANDARDS SET BY U.L.
- ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR INTENDED USE, WITH UNDERWRITER'S LABORATORIES INC. (U.L.), WHERE STANDARDS HAVE BEEN ESTABLISHED BY U.L.
- CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND COUNTS AS SHOWN OR NOTED ON THE DRAWINGS, PRIOR TO SUBMITTING
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE PLANS.
- ELECTRICAL CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS NOTED OTHERWISE.
- IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE DONE BY A LICENSED CONTRACTOR AND IN A FIRST-CLASS WORKMANLIKE MANNER. SAID CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED INSURANCE FOR PROTECTION AGAINST 9 PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 10. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE, UNLESS INDICATED OR SPECIFIED OTHERWISE.
- 11. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE FOR ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- 12. CONTRACTOR SHALL PROVIDE A TYPE WRITTEN DIRECTORY OF EACH PANELBOARD. HAND WRITTEN DIRECTORY IS NOT ACCEPTABLE, EXCEPT SPARE AND SPACES SHALL BE HANDWRITTEN IN PENCIL.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH A COMPLETE SET OF AS-BUILT DRAWINGS, 13 SHOWING ALL CHANGES AND DEVIATIONS TO THE ARCHITECT/ENGINEER PRIOR TO COMPLETION OF THE PROJECT.
- 14. COORDINATE TEMPORARY ELECTRICAL POWER REQUIREMENT WITH OWNER.
- 15. G.C. TO COORDINATE WITH ALL OTHER DISCIPLINES AND PREPARE CEILING COORDINATION DRAWINGS TO ACCOMMODATE CEILING HEIGHTS, SPRINKLERS, LIGHTING, DUCTWORK & PLUMBING AND SUBMIT FOR APPROVAL TO THE ARCHITECT PRIOR TO ORDERING MATERIALS.

METER CENTERS 2-6 POSITION FIXED

PART 1 GENERAL

- **1.01 SECTION INCLUDES** A. MULTI-METERING SHALL BE FURNISHED AND WALL MOUNTED AT LOCATIONS AS SHOWN ON THE DRAWINGS
- B. METERING SHALL BE UL LISTED. C. METERING SHALL BE LABELED FOR SERVICE EQUIPMENT ONLY.
- 1.02 REFERENCES
- A. NEMA AB 1 CIRCUIT BREAKERS B. NEMA PB 1 - PANELBOARDS

PART 2 PRODUCTS

- 2.01 MANUFACTURERS A. METER UNIT(S) SHALL BE MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL
- 2.02 ENCLOSURES A. NEMA TYPE 3R AS SHOWN ON THE DRAWINGS.
- B. ENCLOSURES SHALL BE CONSTRUCTED OF FORMED AND WELDED, CODE GAUGE STEEL, NEMA 3R WITH A GRAY BAKED ENAMEL FINISH ELECTRODEPOSITED OVER CLEANED GALVANIZED STEEL
- C. NO DEVICE DISASSEMBLY IS TO BE REQUIRED BEFORE MOUNTING. D. ALL COMPARTMENTS CONTAINING UNMETERED CIRCUITS SHALL BE PROVIDED W/SEALING MEANS.

2.03 INTERIOR CONSTRUCTION

- A. ALL COMPONENTS SHALL BE FACTORY ASSEMBLED AND ALL CURRENT CARRYING PARTS SHALL BE PLATED BUS BARS.
- B. ALL BUSSING MUST BE COMPLETE FROM THE MAIN LUGS TO THE METER SOCKET AND TO THE CIRCUIT BREAKER USING BELLEVILLE WASHERS AT ALL JOINTS. 2.04 METER SOCKETS
- A. METER SOCKETS SHALL BE 4-JAW [NON-CIRCUIT CLOSING] [AUTOMATIC CIRCUIT CLOSING] [MANUAL CIRCUIT CLOSING] TYPE WITH 5TH JAW PROVISIONS WHEN USED ON 208Y/120 VAC SYSTEMS
- B. SOCKETS SHALL BE RATED 200 AMPERE CONTINUOUS DUTY. C. METER SOCKET JAWS MUST BE SPRING REINFORCED AND FRONT REMOVABLE.
- 2.05 BRANCH CIRCUIT BREAKERS A. BRANCH CIRCUIT BREAKERS FOR 125 AMPERE DEVICES SHALL BE SQUARE D, TWO-
- POLE, PLUG-ON TYPE Q0 (FOR 15 THROUGH 125 AMPERE BREAKERS). B. BRANCH CIRCUIT BREAKERS FOR 150 OR 200 AMPERE DEVICES SHALL BE SQUARE D
- TYPE Q2 BREAKERS. C. INTERRUPTING RATINGS SHALL BE SELECTED TO PROVIDE THE REQUIRED CURRENT AND SHORT CIRCUIT CURRENT RATING.

GENERAL LIGHTING NOTES

- ANY PORTION OF WALL SCONCE OR OTHER OBJECT THAT PROTRUDES INTO THE CIRCULATION PATH ABOVE 27" OR BELOW 80" IS LIMITED TO A 4" MAXIMUM PROJECTION.
- ALL SWITCHES LOCATED AT 48" AFF, UNO.
- ALL DUPLEX RECEPTACLES SHALL BE 20AMP-120VOLT INSTALLED 18" FROM FINISHED FLOOR TO CENTER OF RECEPTACLE.
- ALL LIGHTING FIXTURE SHALL INCLUDE LAMPS AND MOUNTING COMPONENTS.
- COORDINATE WITH OWNER FOR PENDANT MOUNTING HEIGHT OF ALL PENDANT/SUSPENDED MOUNTED LIGHT FIXTURE.
- FLUORESCENT LAMPS SHALL BE EQUAL TO GENERAL ELECTRIC T8 ECOLUX HIGH LUMEN WITH COLOR TEMPERATURE K RATING OF 3500. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION
- OF LIGHT FIXTURES.
- COORDINATE TYPE OF CEILING FOR EACH FIXTURE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND PROVIDE FIXTURE TRIM AS REQUIRED. ALL COMPACT FLUORESCENT DOWNLIGHTS SHALL USE LAMPS WITH 3500K TEMPERATURE,
- MINIMUM 10,000 HOUR LIFE ELECTRONIC BALLAST, UNLESS OTHERWISE NOTED. 10. PROVIDE APPROVED FIRE RATED ENCLOSURES FOR ALL LIGHT FIXTURES LOCATED IN FIRE RATED CEILINGS.
- 11. FIXTURES IN AREAS WITHOUT CEILINGS, OR IN MECHANICAL AND ELECTRICAL ROOMS SHALL BE MOUNTED WITH 1 1/2"x1 1/2" "KINDORF CHANNEL SUPPORT SUSPENDED FROM ROOF STRUCTURE WITH THREAD RODS. FIXTURES SHALL BE MOUNTED 10'-0" A.F.F.
- 12. ALL ACRYLIC LENSED FIXTURES SHALL HAVE A LENS THICKNESS OF .125 INCHES MINIMUM.
- 13. HALF SHADED FIXTURES DENOTE EMERGENCY FIXTURES EITHER WITH 1100 LUMEN EMERGENCY BATTERY PACK OR ON LIFE SAFETY CIRCUIT.
- 14. LIGHTING FIXTURE SCHEDULE IS PREDICTED ON PERFORMANCE AND IS DESIGNED TO MEET CERTAIN AESTHETIC CRITERIA. ALL ALTERNATIVE SELECTIONS MUST BE SUBMITTED FOR PRIOR APPROVAL TEN (10) DAYS PRIOR TO BID DATE.
- 15. ALL BALLASTS SHALL HAVE MINIMUM POWER FACTOR OF 0.90. ALL BALLASTS FOR METAL HALIDE AND HIGH PRESSURE SODIUM FIXTURES SHALL BE CONSTANT WATTAGE TYPE WITH +/-5%%% LAMP WATTS FOR +/-10%%% NOMINAL LINE VOLTAGE
- 16. PROVIDE LAMPS WITH FIXTURES, VERIFY LAMP TYPE WITH MANUFACTURER. FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) OR MULTIWIRE BALASTED LUMINAIRES SHALL CONTAIN AN INTEGRATED INTERNAL DISCONNECT AND TO BE COMPLIED WITH NEC 410.73(G).
- 17. ALL OPENINGS FOR LIGHT FIXTURES IN CEILINGS SHALL BE PROTECTED IN A MANNER (PER ALL GOVERNING CODES) THAT WILL PROVIDE THE SAME RATING AS THE CEILING. (THIS APPLIES TO ALL FIRE RATED CEILINGS).
- 18. FOR EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS MAKE CONNECTIONS AHEAD OF ALL SWITCHES AND CONTROLS.
- 19. PROVIDE A FUSE HOLDER AND FUSE (BUSSMAN HEB AND FNQ OR EQUAL), IN THE PRIMARY SIDE OF EACH UNGROUNDED CONDUCTOR FOR ALL BALLASTS AT THE HAND HOLE OF EACH EXTERIOR POLE MOUNTED LIGHTING FIXTURE OR J-BOX FOR WALL OR GROUND MOUNTED FIXTURE.
- 20. PROVIDE WIND LOAD RATED LIGHT POLES WITH 145 MPH MINIMUM WIND SPEED (ASCE 7). EXPOSURE C WITH IMPORTANCE FACTOR OF 1.0, AND PROVIDE PHOTOMETRICS WITH ALL FIXTURE SUBMITTALS. CONTRACTOR TO VERIFY VOLTAGES OF ALL LIGHT FIXTURES PRIOR TO BIDDING. COORDINATE WITH SITE ENGINEER.
- 21. PHOTOMETRICS ARE BASED ON MANUFACTURER'S INFORMATION AND CATALOG NUMBERS ALTERNATIVE MANUFACTURERS MUST PROVIDE THE IESNA FORMAT ELECTRONIC FILES OF THE INDEPENDENT TEST LAB REPORTS FOR THE PROPOSED FIXTURES ON CD OR FLOPPY DISKETTE 10 WORKING DAYS PRIOR TO BID. (SPECIFIER) WILL CONFIRM THAT THE PHOTOMETRIC CRITERIA HAS BEEN MET, AND IF ALTERNATE IS APPROVED WILL ISSUE AN ADDENDUM. MANUFACTURERS NOT LISTED ON THE PLANS OR IN AN ADDENDUM WILL NOT BE ACCEPTED.
- TO CONFIRM THAT THE SPECIFIED PHOTOMETRIC CRITERIA HAS BEEN MET, A COMPUTER DISK CONTAINING AN IES FILE FOR THE PROPOSED ALTERNATE MUST BE SUBMITTED TO (SPECIFIER) FOR EVALUATION NO LESS THAN 10 DAYS PRIOR TO BID. ANY ACCEPTABLE ALTERNATE MUST BE APPROVED IN WRITING PRIOR TO BID DATE.
- 23. CONTRACTOR MUST BID PROJECT USING SPECIFIED LIGHTING FIXTURES AS BASE BID (NO EXCEPTIONS). IF ALTERNATE FIXTURES ARE PROPOSED, THEY MUST BE BID AS AN ALTERNATE BID WHICH MUST INCLUDE: A) TOTAL DOLLAR CREDIT TO OWNER IF ALTERNATE IS ACCEPTED. B) LINE ITEM CREDIT FOR EACH ALTERNATE FIXTURE PROPOSED. C) CATALOG SUBMITTAL DATA FOR EACH ALTERNATE FIXTURE PROPOSED.
- 24 IF THERE IS A DISCREPANCY BETWEEN A FIXTURE DESCRIPTION AND GENERAL NOTES, AND THE CATALOG NUMBER LISTED, THE FIXTURE DESCRIPTION AND GENERAL NOTES SHALL GOVERN.
- 25. COORDINATE FIXTURE TYPES WITH ARCHITECTURAL DRAWINGS.

ELECTRICAL DRAWING INDEX							
SHEET NUMBER	SHEET NAME						
E-001	ELECTRICAL NOTES & SPECIFICATIONS						
E-002	ELECTRICAL LEGENDS AND SYMBOL						
E-003	ELECTRICAL POWER RISER DIAGRAM, DETAILS AND EQUIPMENT SCHEDULES						
E-004	ELECTRICAL PANEL SCHEDULE						
E-101	FIRST FLOOR OVERALL ELECTRICAL PLAN						
E-102	FIRST FLOOR ELECTRICAL PLAN-PART B						
E-103	FIRST FLOOR ELECTRICAL PLAN-PART C						
E-104	FIRST FLOOR ELECTRICAL PLAN-PART D						
E-105	SECOND FLOOR ELECTRICAL PLAN-PART B						
E-106	SECOND FLOOR ELECTRICAL PLAN-PART C						
E-107	BASEMENT BOILER ROOM ELECTRICAL PLAN						

DRAWN BY: YP CHECKED BY: MA 33 WICKER ST, PUTNAM, CT 06260				ELECTRICAL NOTES & Iscale: As NOTED PUTNAM ELEMENTARY SCHOOL I CONTRICTION DESCRIPTION DATE BY	FILE NO: 24103.01 PROJECT: REVISIONS STAMP: STAMP: REVISIONS	REVISIONS REVISIONS NO. DESCRIPTION DATE BY ANI INSTRUMENT OF PROFESSIONAL AND DESGIGNS INCORPORTED THE ANI INSTRUMENT OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL NO. DESCRIPTION DATE BY SERVICES, IS THE PROPERTY OF RIL ISB80 MO. DESCRIPTION DATE BY SUCH UNAUTHOR ISB80 DAWSON INC. ANY SUCH UNAUTHOR DAWSON INC. ANY SUCH UNAUTHOR SUCH UNAUTHOR ISB80 DAWSON INC. ANN SOURCE AND DAWSON INC. ANY SUCH UNAUTHOR SUCH UNAUTHOR SUCH UNAUTHOR ISB80 DAWSON INC. ANN SUCH UNAUTHOR SUCH UNAUTHOR SUCH UNAUTHOR ISB80 DAWSON INC. ANN SUCH U		AS 0. 0. 1BY:
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SYMBOL	DESCRIPTION				
0	MOTOR, SEE SCHEDULE				
	MOTORIZED SCREEN / DOOR				
Τ	LOW VOLTAGE TRANSFORMER				
J	JUNCTION BOX				
J _w	WALL MOUNTED JUNCTION BOX				
(J)c	CEILING MOUNTED JUNCTION BOX				
0 -	SIMPLEX RECEPTACLE				
÷	DUPLEX RECEPTACLE				
,	SWITCHED DUPLEX RECEPTACLE				
DUPLEX GFI RECEPTACLE					
Image: Constraint of the second se					
	DUPLEX RECEPTACLE USB				
—	QUAD RECEPTACLE				
USB	QUAD RECEPTACLE USB				
<u> </u>	SPECIAL NEMA RATED RECEPTACLE				
	SPECIAL HARDWIRED CONNECTION				
\bigcirc	SIMPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX				
$\bigcirc =$	DUPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX				
\bigcirc	HALF SWITCHED DUPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX				
\	QUAD RECEPTACLE IN FLUSH MOUNTED FLOOR BOX				
\bigcirc	SPECIAL NEMA RATED RECEPTACLE IN FLUSH MOUNTED FLOOR BOX				
	SPECIAL HARDWIRED CONNECTION IN FLUSH MOUNTED FLOOR BOX				
	FLUSH MOUNTED PANELBOARD \ LOAD CENTER				
	SURFACE MOUNTED PANELBOARD \ LOAD CENTER				
	FLUSH MOUNTED SPECIAL PURPOSE METAL ENCLOSURE				
	SURFACE MOUNTED SPECIAL PURPOSE METAL ENCLOSURE				
$\overline{}$	BRANCH CIRCUIT WIRING IN CONDUIT				
/~~\	SWITCHED BRANCH CIRCUIT IN CONDUIT				
	BRANCH CIRCUIT HOMERUN INDICATOR IN CONDUIT				
,	CONTROL WIRE				
Ð	THERMOSTAT				
FB	FLOOR BOX				

	LIGHT FIXTURE LEGEND		LOW VOLTAGE DEVICE LEGEND
SYMBOL	DESCRIPTION		FIRE ALARM
0	RECESSED MOUNTED LIGHT FIXTURE	SYMBOL	DESCRIPTION
	RECESSED MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY	EACP	FIRE ALARM CONTROL PANEL
0	SURFACE MOUNTED LIGHT FIXTURE	ANN	FIRE ALARM ANNUNCIATOR PANEL
	SURFACE MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY	EOL	FIRE ALARM END OF LINE RESISTOR
	RECESSED MOUNTED 2' x 2' FTL. FIXTURE	Ľ.	FIRE ALARM PULL STATION, WALL MOUNTED AT 48"AFF., 'S' INDICATES STOPPER COVER DEVICE WHERE SHOWN
	CEILING MOUNTED EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS	S	ADDRESSABLE PHOTO ELECTRIC SMOKE DETECTOR
\mathbf{x}	WALL MOUNTED EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS	S	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR WITH HOUSING
Ŷ	SIDE WALL EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS	Ē	REMOTE INDICATOR AND TEST STATION FOR DUCT MOUNTED DETECTORS
Ţ	EMERGENCY DUAL HEAD FIXTURE WITH BATTERY BACK-UP POWER SUPPLY	H	FIRE ALARM HEAT DETECTOR
)	EMERGENCY DUAL HEAD FIXTURE WITH BATTERY BACK-UP POWER SUPPLY AND REMOTE CAPABILITIES	Ш Ш	ELEVATOR RECALL SYSTEM FIRE ALARM SMOKE DETECTOR
EB	BATTERY BACK-UP POWER SUPPLY FOR REMOTE HEADS	Ш	ELEVATOR RECALL SYSTEM FIRE ALARM HEAT DETECTOR
	EMERGENCY REMOTE DUAL HEAD FIXTURE	PS	FIRE ALARM MODULE FOR FIRE PROTECTION PRESSURE SWITCH
4	EMERGENCY REMOTE HEAD FIXTURE	ß	FIRE ALARM MODULE FOR FIRE PROTECTION FLOW SWITCH
\bigcirc	RECESSED MOUNTED DOWN LIGHT FIXTURE	IS	FIRE ALARM MODULE FOR FIRE PROTECTION TAMPER SWITCH
	RECESSED MOUNTED DOWN LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY	OM	FIRE ALARM CONTROL MODULE
\bigcirc	SURFACE MOUNTED DOWN LIGHT FIXTURE	WW	FIRE ALARM MONITOR MODULE
	SURFACE MOUNTED DOWN LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY		FIRE ALARM HORN/STROBE DEVICE, WALL MOUNTED AT 6'8"AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	WALL MOUNTED LINEAR LIGHT FIXTURE WALL MOUNTED LINEAR LIGHT FIXTURE WITH BATTERY BACK-UP POWER		FIRE ALARM HORN/STROBE (LOW FREQUENCIES) DEVICE, WALL MOUNTED AT 6'8"AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	SUPPLY INTERIOR WALL MOUNTED SCONCE LIGHT FIXTURE	F	FIRE ALARM STROBE DEVICE, WALL MOUNTED AT 6'8"AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	INTERIOR WALL MOUNTED SCONCE LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY	<u>چ</u> 177cd	FIRE ALARM STROBE DEVICE, WALL MOUNTED AT 6'8"AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH 177 CANDELA STROBE
H	EXTERIOR WALL MOUNTED LIGHT FIXTURE	8	CARBON MONOXIDE DETECTOR
\vdash	EXTERIOR WALL MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY		520 HZ, LOW FREQUENCY TYPE COMBINATION OF PHOTOELECTRIC ADDRESSABLE SMOKE DETECTOR WITH SOUNDER BASE AND CARBON
↔	SINGLE POLE LIGHT SWITCH		MONOXIDE DETECTOR.
ຕ	THREE-WAY TOGGLE SWITCH	AID	ADDRESSABLE INTERFACE DEVICE
₽↔	SINGLE POLE DIMMER SWITCH	Σ	MAGNETIC HOLD OPEN DEVICE
$\mathbf{x}^{\!$	KEYED SWITCH		
₽	PILOT SWITCH		
H D↔	CONTROL SWITCH FOR MOTORISED SHADES		
⊢∽	TIMER SWITCH		
S Щ↔	EMERGENCY SWITCH		

	MISCELLANEOUS DEVICE LEGEND				
SYMBOL	DESCRIPTION				
0 0	CIRCUIT BREAKER, RATING AS SHOWN				
<u> </u>	ELECTRICAL GROUND, SIZE AS SHOWN				
E	SLEEVES THROUGH RATED WALLS \ FLOORS, FIRESTOP AS REQUIRED				
#	EQUIPMENT TAG, SEE INDIVIDUAL NOTE BOX				
#	WIRE TAG, SEE INDIVIDUAL NOTE BOX				
	ONE LINE, MAIN CIRCUIT BREAKER PANEL				
	ONE LINE, MAIN LUG ONLY PANEL				
<u> </u>	MOTORIZED DAMPER				
·	FIRE AND SMOKE DAMPER				

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	COMMUNICATION DEVICE LEGEND
SYMBOL	DESCRIPTION
Ē	EMERGENCY CALL-FOR-AID WALL MOUNTED LIGHT AND BUZZER UNI
E	EMERGENCY CALL-FOR-AID SWITCH WITH PULL CORD
Ģ	WALL MOUNTED SYSTEM CLOCK
(O)	FLUSH TO CEILING MOUNTED SYSTEM SPEAKER
< N N N N N N N N N N N N N	SURFACE, CEILING MOUNTED SYSTEM SPEAKER
(S)	WALL MOUNTED SYSTEM SPEAKER
S>	WALL MOUNTED HORN TYPE\LOUD SYSTEM SPEAKER
S 7	COMBINATION WALL MOUNTED SYSTEM SPEAKER AND CLOCK
2	MICROPHONE OUTLET
\triangleright	DATA OUTLET & RACEWAY, TWO GANG BACKBOX WITH 1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
Þ	COMBINATION DATA \ TELEPHONE OUTLET & RACEWAY, TWO GANG BACKBOX WITH (2)1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
►	TELEPHONE OUTLET & RACEWAY, TWO GANG BACKBOX WITH 1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
≥,	WALL TELEPHONE OUTLET & RACEWAY, TWO GANG BACKBOX MOUN AT 48"AFF WITH 1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING PROVIDE WITH NYLON PULL STRING
	DATA OUTLET IN FLUSH MOUNTED FLOOR BOX, CABLING BY OTHERS
	COMBINATION DATA \ TELEPHONE OUTLET IN FLUSH MOUNTED FLOOR BOX, CABLING BY OTHERS
	TELEPHONE OUTLET IN FLUSH MOUNTED FLOOR BOX, CABLING BY C
\square	CATV OUTLET & RACEWAY, TWO GANG BACKBOX WITH 1" CONDUIT S INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
₽	HOUSE PHONE
Ē	TELEPHONE STROBE
Q	INTERCOM
CR	CARD READER
	WIRELESS DATA ACCESS POINT
₽-	TV CABLE OUTLET
Œ	DOOR RELEASE STATION
A	DURESS ALARM BUTTON
	DOORBELL PUSH BUTTON
	DOOR ANNUNCIATOR AUDIBLE/ VISUAL SIGNALING DEVICE WITH HOP STROBE, ASSOCIATED TRANSFORMER LOCATED ABOVE ACCESSIBLE CEILING AND DOORBELL DISABLE SWITCH. EDWARDS CFA- SERIES 7

		ELECTRICAL ABB	REVIA	ATIONS
	TAG	DEFINITION	TAG	DEFINITION
	A/AMP	AMPERAGE	MCB	MAIN CIRCUIT BREAKER
ER UNIT	AC	ALTERNATING CURRENT	MCC	MOTOR CONTROL CENTER
	AFF	ABOVE FINISHED FLOOR	MCCB	MOLDED CASE CIRCUIT BREAKER
	AFG	ABOVE FINISHED GRADE	MH	METAL HALIDE
	AFCI	ARC FAULT CIRCUIT INTERRUPTER	MIN	MINIMUM
	AIC	AMPS INTERRUPTING CURRENT	MLO	MAIN LUGS ONLY
	AL	ALUMINUM	NA	NOT APPLICABLE
	ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRIC CODE
	AWG	AMERICAN WIRE GAUGE	NIC	NOT IN CONTRACT
	С	CONDUIT	NL	NEW LOCATION OF EXISTING RELOCATED
	CATV	CABLE TELEVISION	NR	NEW TO REPLACE EXISTING
	C/B	CIRCUIT BREAKER	NTS	NOT TO SCALE
	СМ	CEILING MOUNT	Р	POLE
	СТ	CURRENT TRANSFORMER	PE	PRIMARY ELECTRICAL SERVICE
	CU	COPPER	PH	PHASE
	DN	DOWN	PNL	PANEL
	DWG	DRAWING	PVC	POLYVINYL CHLORIDE CONDUIT
	EXTG	EXISTING	RE	REMOVE EXISTING
IDUIT	E	EXISTING TO REMAIN	RGS	RIGID GALVANIZED STEEL CONDUIT
N PULL	ELEC	ELECTRICAL	RL	RELOCATE EXISTING
GANG	ELEV	ELEVATOR	RM	ROOM
JANG	EMT	ELECTRICAL METALLIC TUBING	RR	REMOVE AND REPLACE ON NEW SURFACE
	FA	FIRE ALARM	SE	SECONDARY ELECTRICAL SERVICE
1" ITH	FACP	FIRE ALARM CONTROL PANEL	SPEC	SPECIFICATION
	G/GND	GROUND	SWBD	SWITCHBOARD
MOUNTED	GFI	GROUND FAULT INTERRUPTER	ΤV	TELEVISION
EILING,	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
	HP	HORSE POWER	T/TX	TRANSFORMER
THERS	HPS	HIGH PRESSURE SODIUM	TYP	TYPICAL
)	HZ	HERTZ	V	VOLTS
, I	IG	ISOLATED GROUND	VA	VOLT AMPERE
	KCMIL	THOUSAND CIRCULAR MILS	w	WIRE
G BY OTHERS	KVA	KILOVOLT AMPERE	WG	WIRE GUARD
IDUIT STUBBED	KW	KILOWATT	WP	WEATHER PROOF
RING	MAX	MAXIMUM		



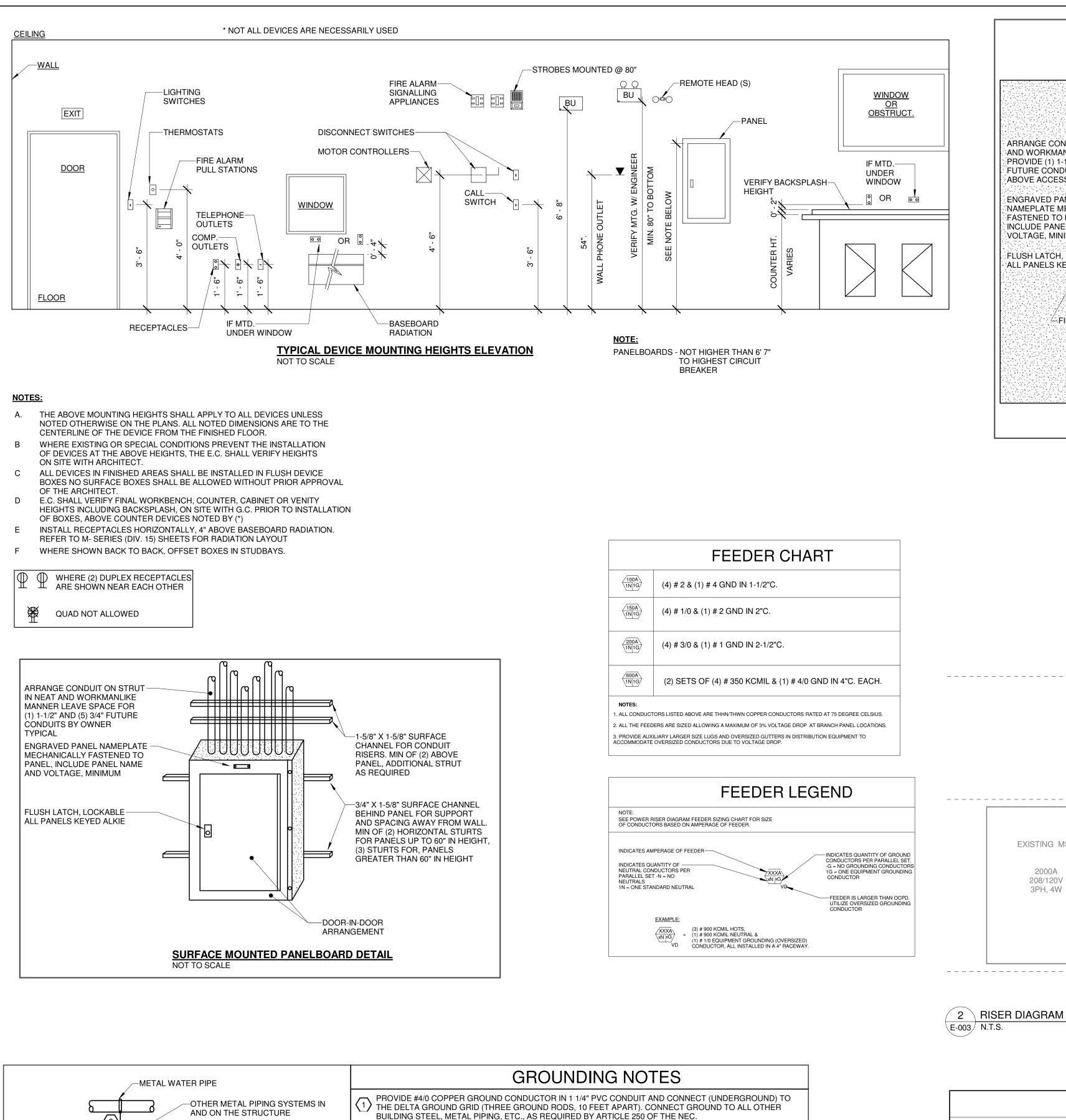
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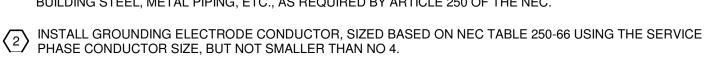
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INSTALL A "MAIN GROUND ELECTRODE GROUND BAR" FOR SINGLE POINT GROUNDING. LOCATE AT AN 2 ACCESSIBLE POINT NEAR THE SERVICE ENTRANCE EQUIPMENT. MAKE CONNECTIONS TO THE GROUND ELECTRODE CONDUCTOR USING IRREVERSIBLE CONNECTORS OR EXOTHERMIC WELDS. MAKE OTHER CONNECTIONS TO THE GROUND BAR USING TWO-HOLE COMPRESSION SPADE LUGS THAT MEET IEEE 837 REQUIREMENTS. LABEL EACH CONNECTION TO THE GROUND BAR.

5 INSTALL IRREVERSIBLE COMPRESSION CONNECTOR WITH TAMPERPROOF HARDWARE OR INSTALL EXOTHERMIC WELD.

 $\langle 6 \rangle$ BOND STEEL COLUMN TO CONCRETE ENCASED ELECTRODE.

PROVIDE CONCRETE ENCASED GROUNDING ELECTRODE(S) IN THE NEW CONCRETE FOUNDATION(S) USING: a. AT LEAST 1/2" DIAMETER STEEL BAR (NO. 4 REBAR OR LARGER). b. AT LEAST 20 FT. IN LENGTH OR MULTIPLE PIECES TIED TOGETHER TO MAKE ELECTRICALLY

CONTINUOUS. c. PLACED NEAR THE BOTTOM OF THE ADDITION FOOTING WITH A MINIMUM 3" OF CONCRETE COVER. d. NOT ENCAPSULATED IN NONCONDUCTIVE COATINGS.

MAIN GROUNDING

ELECTRODE GROUND BAR

 $\langle 1 \rangle$

 $\langle 5 \rangle$

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 $\langle 3 \rangle$

GROUNDING DETAIL

NOT TO SCALE

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 $\langle 2 \rangle$

MAIN IT ROOM

BACKBOARD

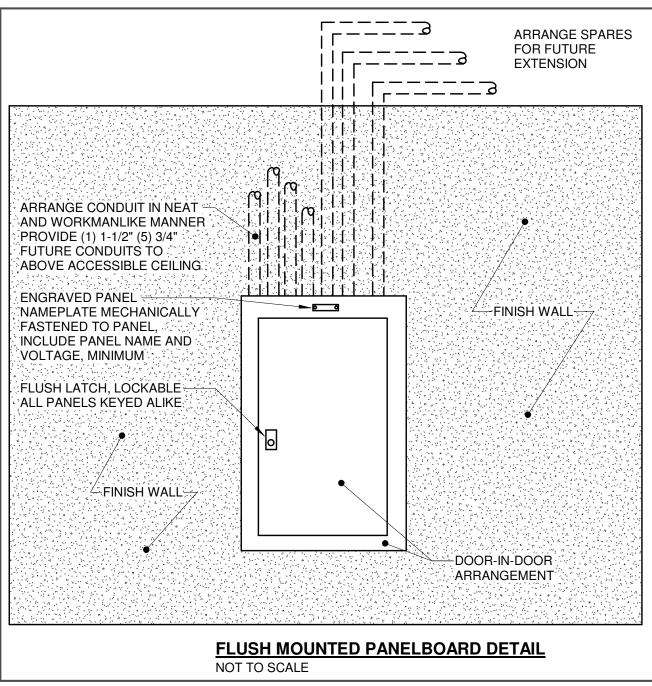
IT ROOM

BACKBOARD

 $\langle 4 \rangle$

-#3/0 (600V INSULATION)

- TO MSB



_____ MDP-1 EXISTING MSB 208/120V 208/120V 3 PH, 4W 3PH, 4W 600A MCB 30 POLE

CU-2

MITSUBISHI ELECTRIC

		ŀ	AIR CONI) U
NOTES: 1. REF	FER TO SHEET E-003 FOR CO	NNECTION DETAILS			
SYMBOL	MANUFACTURER	MODEL NO.	LOAD(VA)	VOLT/PHASE	LO

MUZ-GL24NA-U1

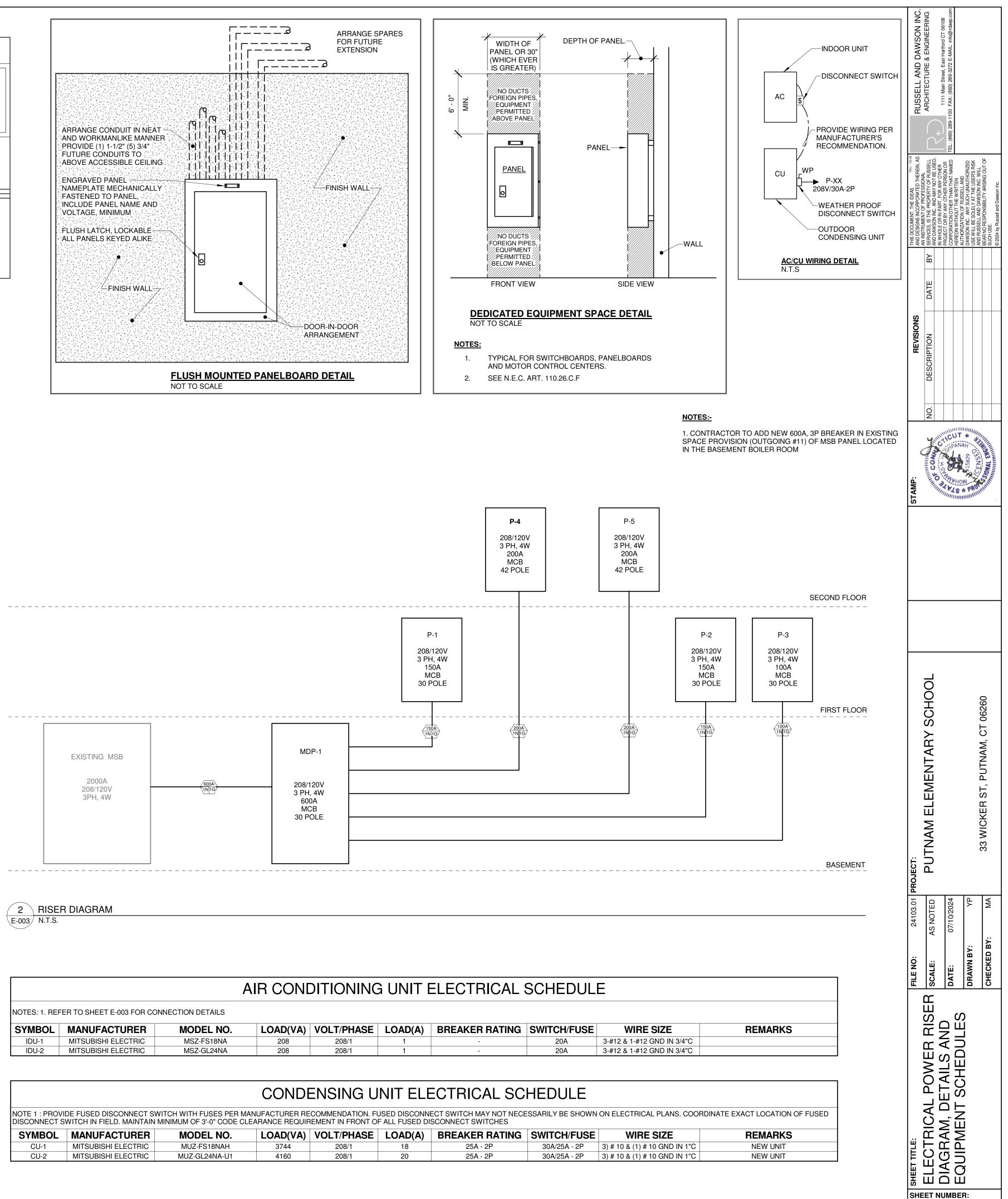
SYMBOL	MANUFACTURER	MODEL NO.	LOAD(VA)	VOLT/PHASE	LOAD(A)	E
IDU-1	MITSUBISHI ELECTRIC	MSZ-FS18NA	208	208/1	1	
IDU-2	MITSUBISHI ELECTRIC	MSZ-GL24NA	208	208/1	1	

			COND	ENSING U	INIT ELE	Ξ(
		WITCH WITH FUSES PER MAN I MINIMUM OF 3'-0" CODE CLE				
SYMBOL	MANUFACTURER	MODEL NO.	LOAD(VA)	VOLT/PHASE	LOAD(A)	F
CU-1	MITSUBISHI ELECTRIC	MUZ-FS18NAH	3744	208/1	18	

4160

208/1

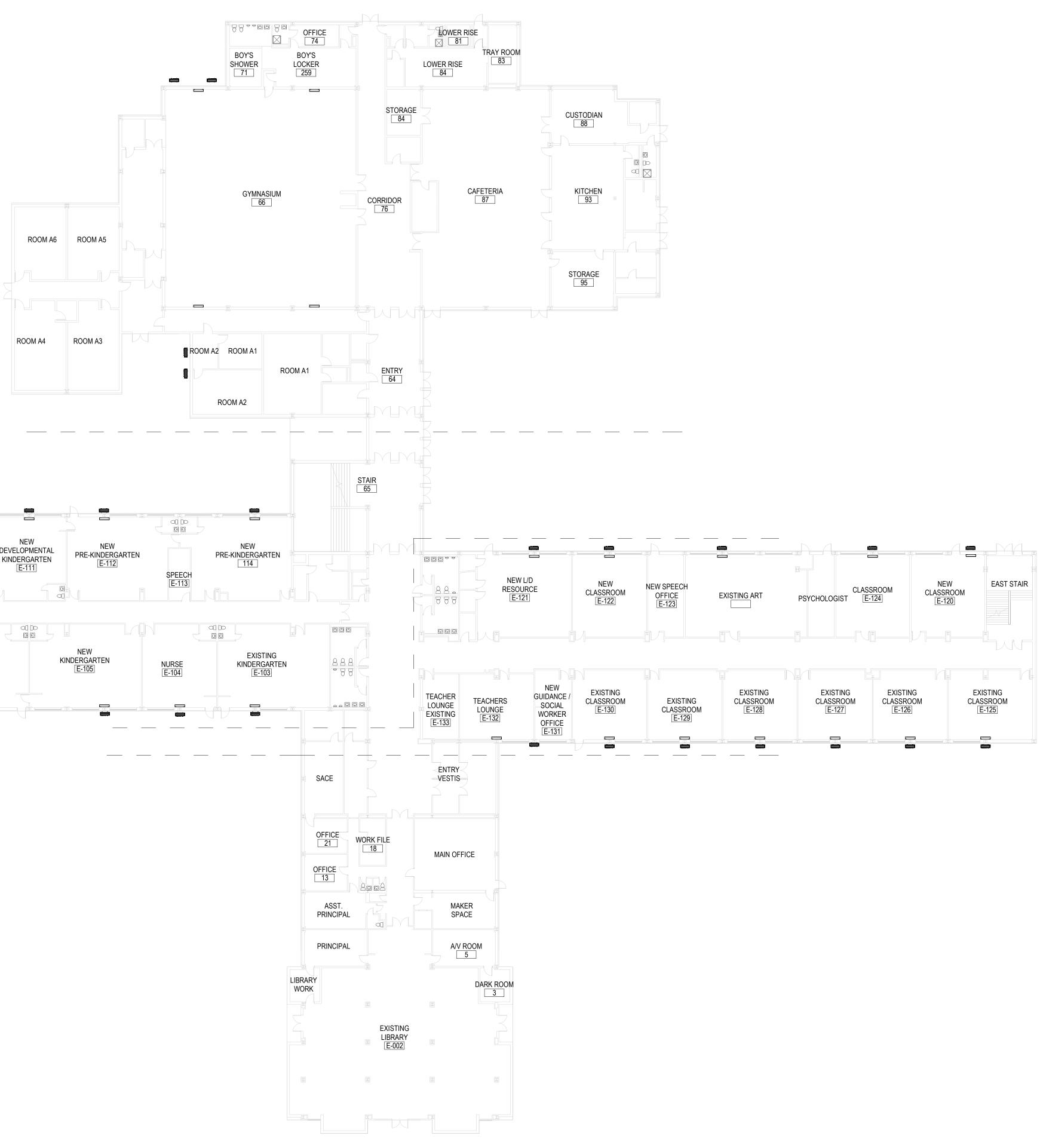
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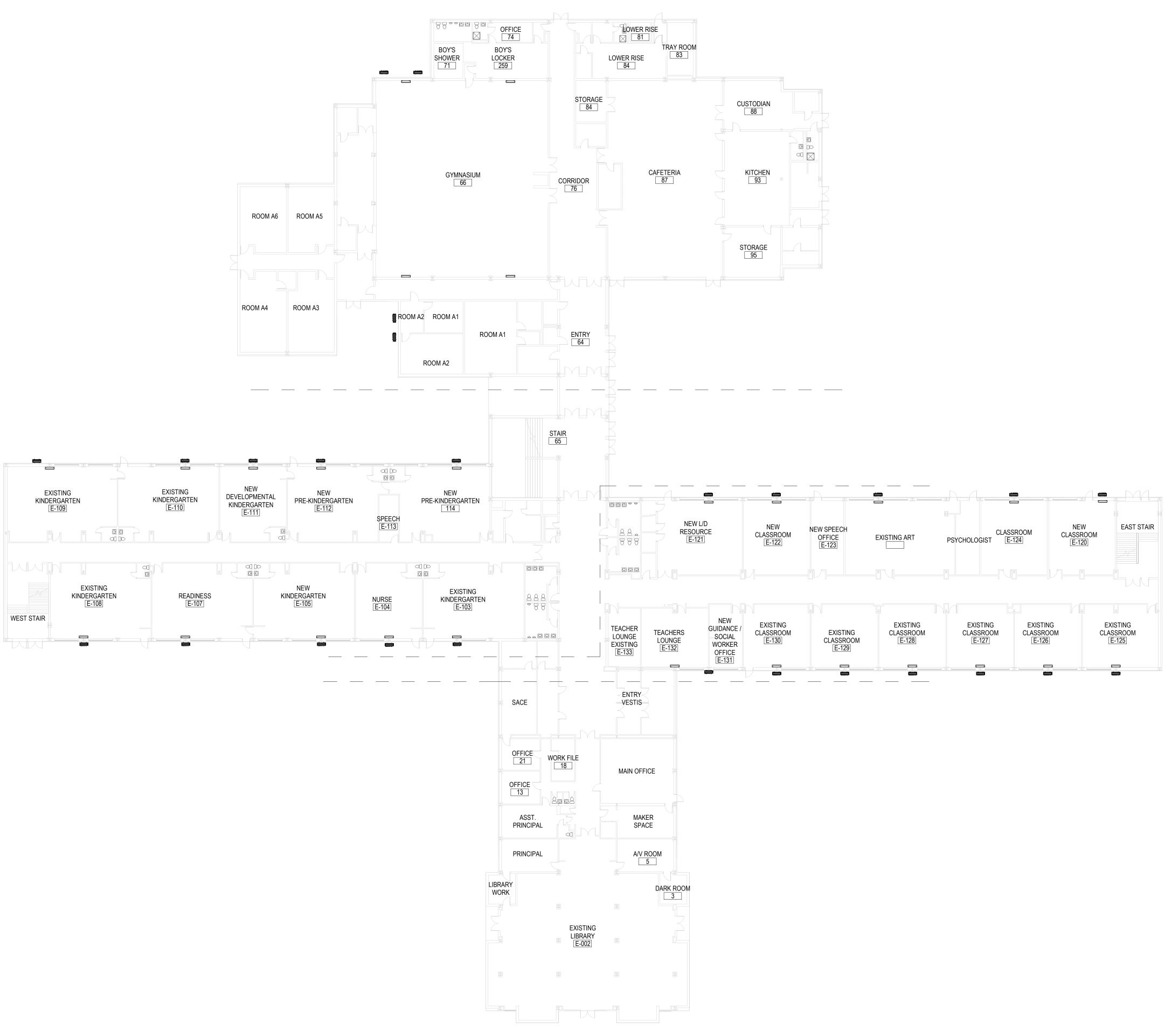


E-003

⁽⁴⁾ INSTALL A COPPER GROUNDING BAR IN EACH TELECOMMUNICATIONS ROOM. CONNECT TO THE "MAIN GROUNDING ELECTRODE GROUND BAR" USING 600V INSULATED #6 COPPER CABLE AND COMPRESSION SPADE LUGS. MOUNT AT 7' AFF.

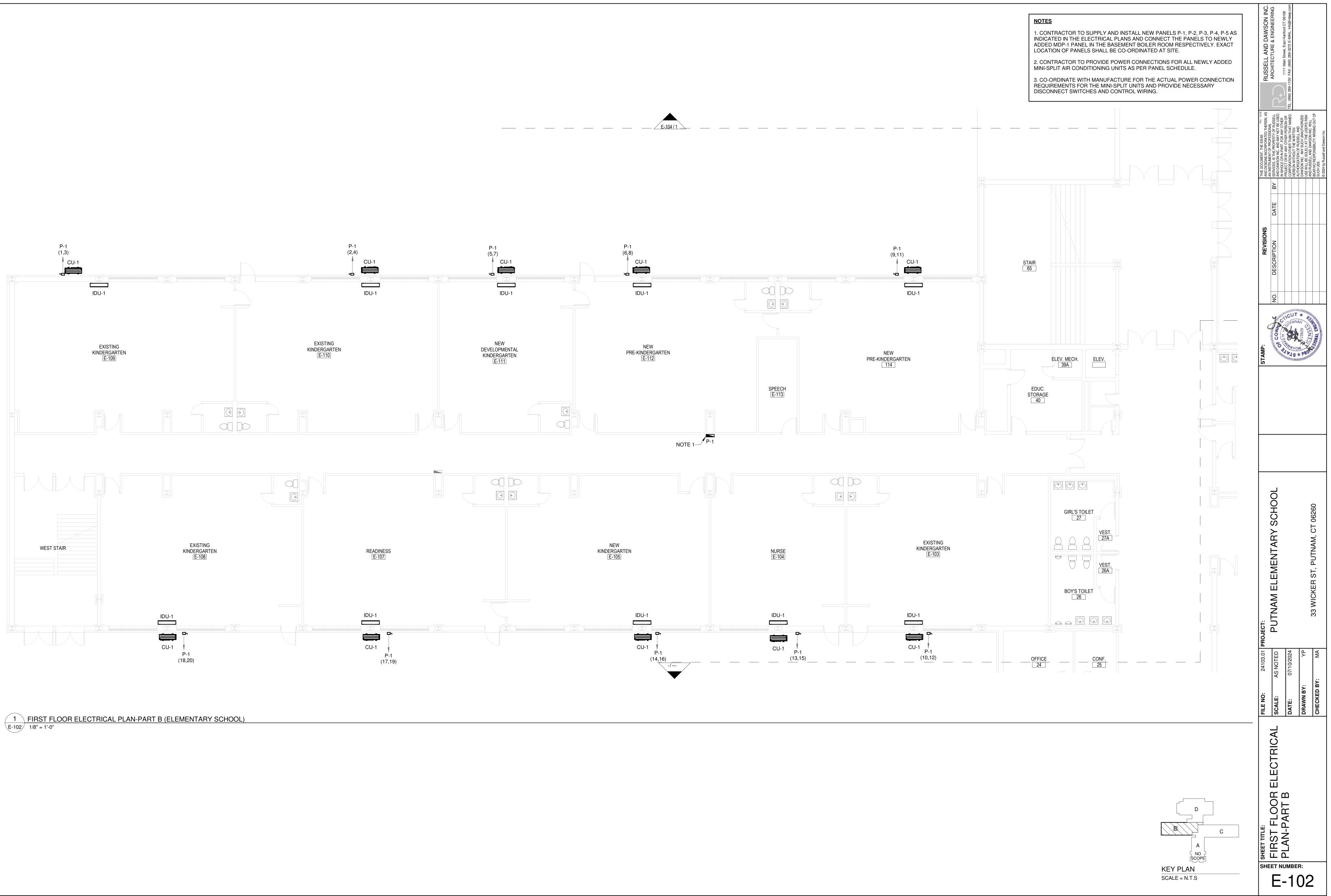
Location: MAIN OFFIC Supply From: Mounting: SURFACE Enclosure: TYPE 1	E Branch Panel: MDP-1 Volts: 120/208 Wye Phases: 3 Wires: 4	A.I.C. Rating: Mains Type: MCB Bus Rating: 600 A MCB Rating: 600 A Feed Thru Lugs:	Location: Supply From: MDP-1 Mounting: SURFACE Enclosure: TYPE 1	Branch Panel: P-1 Volts: 120/208 Wye Phases: 3 Wires: 4	A.I.C. Rating: Mains Type: MCB Bus Rating: 150 A MCB Rating: 150 A Feed Thru Lugs:	Location: EXISTING CLASS Supply From: MDP-1 Mounting: SURFACE Enclosure: TYPE 1	Branch Panel: P-2 SROOM E-130 Volts: 120/208 Wye Phases: 3 Wires: 4	A.I.C. Rating: Mains Type: MCB Bus Rating: 150 A MCB Rating: 150 A Feed Thru Lugs:	SSELL AND DAWSON INC. CHITECTURE & ENGINEERING 111 Main Street, East Hartford CT 06108 4X: (860) 289-3272 E-MAIL: info@rdaep.com
CKT Circuit Description 1	150 A 3 14976 14976 6 6 6 6 7 <th7< th="" th7<=""> <th7< th=""> <th7< th=""></th7<></th7<></th7<>	150 A P-2 2 150 A P-2 2 200 A P-4 1 200 A P-4 1 20 A Spare 1 20 A Spare 1 20 A Spare 1 20 A Spare 2 20 A Spare 2	5 5 CU-1 (NEW KINDERGARTEN - E111) 0 9 CU-1 (NEW PRE-KINDERGARTEN - E111) 2 11 CU-1 (NEW PRE-KINDERGARTEN 4 13 CU-1 (DEVELOPMENTAL 5 CU-1 (NEW KINDERGARTEN - E107) 19 2 17 CU-1 (NEW KINDERGARTEN - E107) 2 21 Spare		25 A CU-1 (EXT. KINDERGARTEN - E110) 25 A CU-1 (NEW KINDERGARTEN - E112) 25 A CU-1 (EXT. KINDERGARTEN - E-103)) 25 A CU-1 (EXT. KINDERGARTEN - E-103)) 25 A CU-1 (NEW KINDERGARTEN - E-105) 25 A CU-1 (EXT. KINDERGARTEN) 25 A CU-1 (EXT. KINDERGARTEN) 20 A Spare 20 A Spare	KT CKT Circuit Description 2 1 CU-1 (NEW L/D RESOURCE - E-121) 6 5 CU-1 (EXT. ART - E-123) 7 CU-1 (EXT. ART - E-123) 10 9 CU-1 (NEW CLASSROOM - E-124A) 14 13 CU-1 (EXT. CLASSROOM - E-126) 18 17 CU-1 (EXT. CLASSROOM - E-127) 20 19 CU-1 (EXT. CLASSROOM - E-127) 22 21 CU-1 (EXT. CLASSROOM - E-130) 26 25 Spare 30 29 Spare 30 29 Spare	Note Trip Pole A B C Pole 25 A 2 1872 1		DATE BY CKL 0 92 75 0 92 75 0 91 71 0 82 92 0 82 92 0 81 91 0 81 91 0 81 91 0 82 92 1 10 81 1 10 81 1 10 81 1 10 81 1 10 81 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 10 10 10
Notes: Location: CORRIDOR Supply From: MDP-1 Mounting: SURFACE Enclosure: TYPE 1 Notes: OKT	Phases: 3 Wires: 4	Total Conn.: 566 A Total Est. Demand: 566 A Al.C. Rating:	Location: WEST CORRIE Supply From: MDP-1 Mounting: SURFACE Enclosure: TYPE 1	Phases: 3 Wires: 4	A.I.C. Rating: Mains Type: MCB Bus Rating: 200 A MCB Rating: 200 A Feed Thru Lugs:	Location: Supply From: MDP-1 Mounting: SURFACE Enclosure: TYPE 1	Panel: P-5 Volts: 120/208 Wye Phases: 3 Wires: 4	Al.C. Rating: Mains Type: MCB Bus Rating: 200 A MCB Rating: 200 A Feed Thru Lugs:	
CKTCircuit Description1CU-2 (GYMNASIUM 66)5CU-2 (GYMNASIUM 66)7CU-2 (GYMNASIUM 66)9Spare11Spare13Spare15Spare17Space21Space23Space25Space27Space29Space	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ACU-2 (GYMNASIUM 66)2ACU-2 (GYMNASIUM 66)6ASpare1ASpare1ASpare1ASpare1ASpare1ASpare1ASpare2Space2Space2Space2Space2Space2Space2Space2Space2Space2Space2Space2Space2Space3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Note Trip Pole A B C Pole $25 A$ 2 1872	25 A CU-1 (CLASS - 203) 25 A CU-1 (CLASS - 205) 25 A CU-1 (CLASS - 206) 25 A CU-1 (CLASS - 206) 25 A CU-1 (CLASS - 219) 25 A CU-1 (CLASS - 219) 25 A CU-1 (CLASS - 214A) 25 A CU-1 (CLASS - 214A) 25 A CU-1 (CLASS - 216) 25 A CU-1 (CLASS - 214) 25 A CU-1 (CLASS - 214) 20 A Spare	KT CKT Circuit Description 2 1 CU-1 (GROUP INSTRUCTION - 231B) 6 5 CU-1 (CLASS - 232) 8 7 CU-1 (CLASS - 234) 10 9 CU-1 (CLASS - 234) 14 13 CU-1 (CLASS - 236) 16 15 CU-1 (CLASS - 236) 18 17 CU-1 (CLASS 239) 20 19 CU-1 (CLASS 239) 22 21 CU-1 (CLASS 241) 23 CU-1 (CLASS 241) 24 23 CU-1 (NEW CLASSROOM - E-232) 30 29 Spare 32 31 Spare 34 33 Spare 36 35 Spare 38 37 Spare 34 39 Spare 34 39 Spare 34 39 Spare 34 39 Spare	<table-container>NoteTripPoleABCPole25 A218721872187218721872187218721872187225 A2187218721872187218721872187218721872187226 A21872187218721872187218721872187218721872187230 A25 A218721872187218721872187218721872187230 A25 A218721872187218721872187218721872187230 A25 A2187218721872187218721872187218721872187230 A25 A218721872187218721872187218721872187218721872187230 A25 A218721</table-container>	1 20 A Spare	2 3 4 6 8 10 12 14 16 18 20 22 24 26 28 30 30 32 34 36 38 40
Notes:		Total Est. Demand: 16640 VA Total Conn.: 46 A Total Est. Demand: 46 A	Load Classification Power Notes:	Total Load: 18720 VA 18720 VA 14976 VA Total Amps: 161 A 161 A 125 A Connected Load Demand Factor Estimated Der 52416 VA 100.00% 52416 VA	nand Panel Totals	Load Classification Power Notes:	Total Load: 18720 VA 18720 VA 14976 VA Total Amps: 161 A 161 A 125 A Connected Load Demand Factor Estimated D 52416 VA 100.00% 52416 V	emand Panel Totals	AAM ELEMENTARY SCHOOL WICKER ST, PUTNAM, CT 06260
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									SHEET TITLE: BHEET NUMBER: BHEET NUMBER: E-004



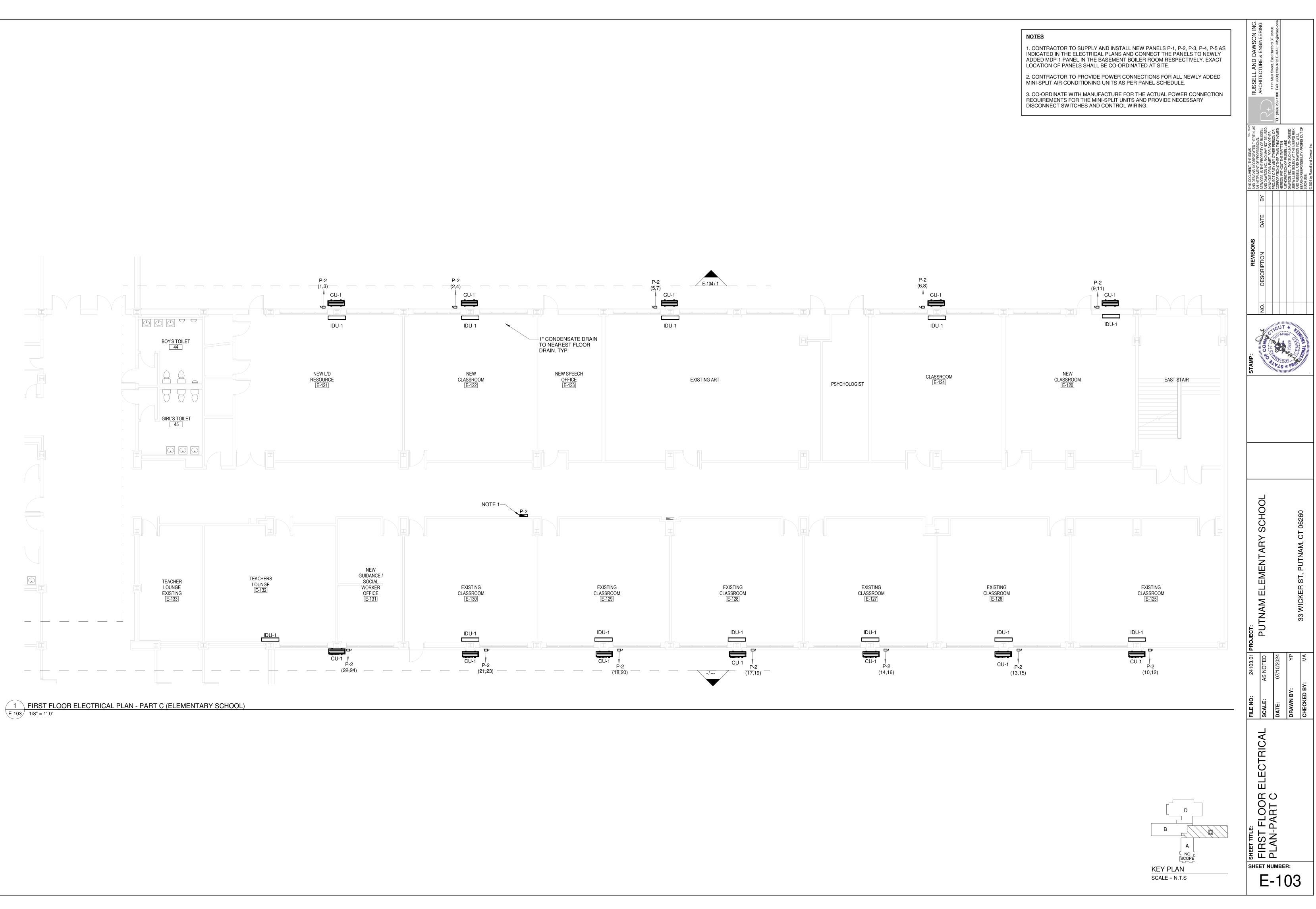


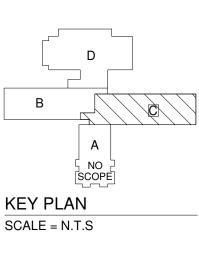
1 FIRST FLOOR OVERALL ELECTRICAL PLAN E-101 3/64" = 1'-0"

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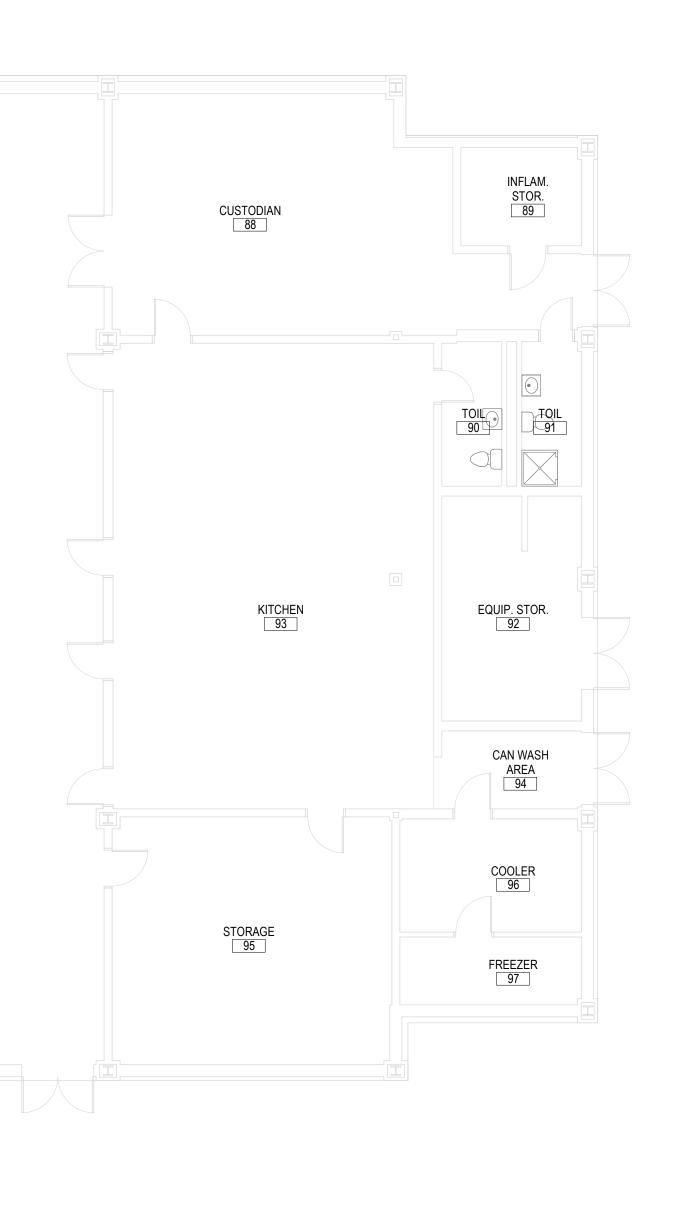


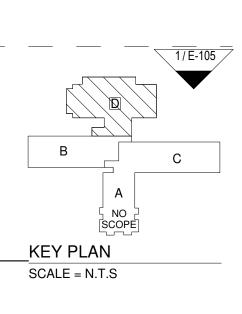
<u>NOTES</u>

1. CONTRACTOR TO SUPPLY AND INSTALL NEW PANELS P-1, P-2, P-3, P-4, P-5 AS INDICATED IN THE ELECTRICAL PLANS AND CONNECT THE PANELS TO NEWLY ADDED MDP-1 PANEL IN THE BASEMENT BOILER ROOM RESPECTIVELY. EXACT LOCATION OF PANELS SHALL BE CO-ORDINATED AT SITE.

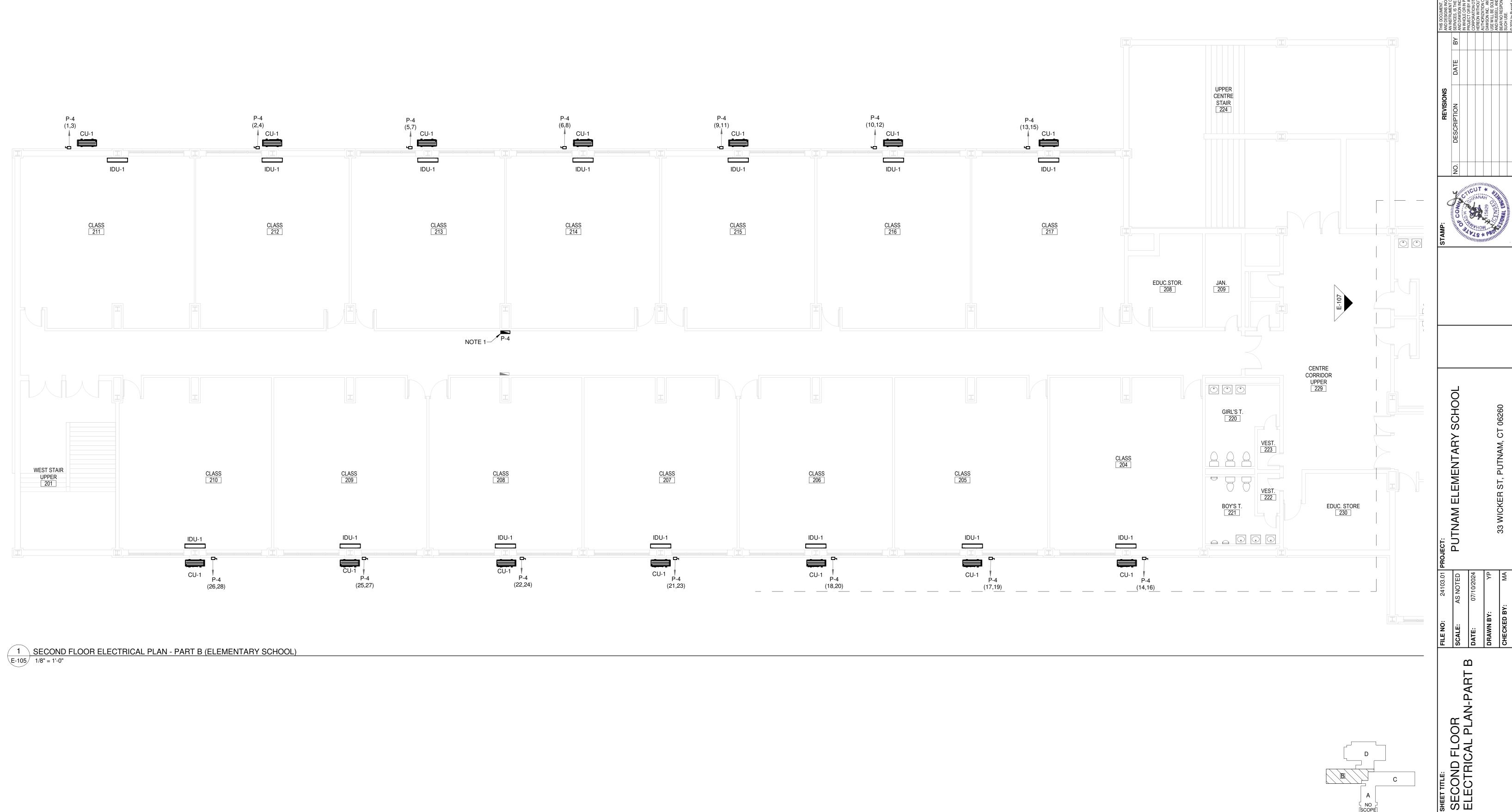
2. CONTRACTOR TO PROVIDE POWER CONNECTIONS FOR ALL NEWLY ADDED MINI-SPLIT AIR CONDITIONING UNITS AS PER PANEL SCHEDULE.

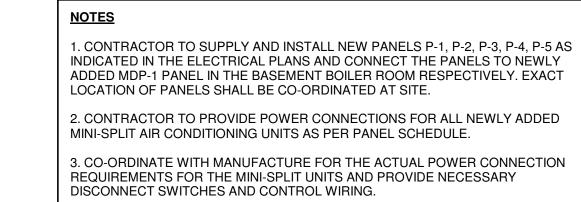
3. CO-ORDINATE WITH MANUFACTURE FOR THE ACTUAL POWER CONNECTION REQUIREMENTS FOR THE MINI-SPLIT UNITS AND PROVIDE NECESSARY DISCONNECT SWITCHES AND CONTROL WIRING.





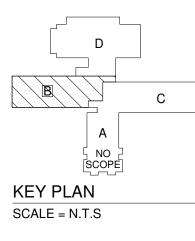
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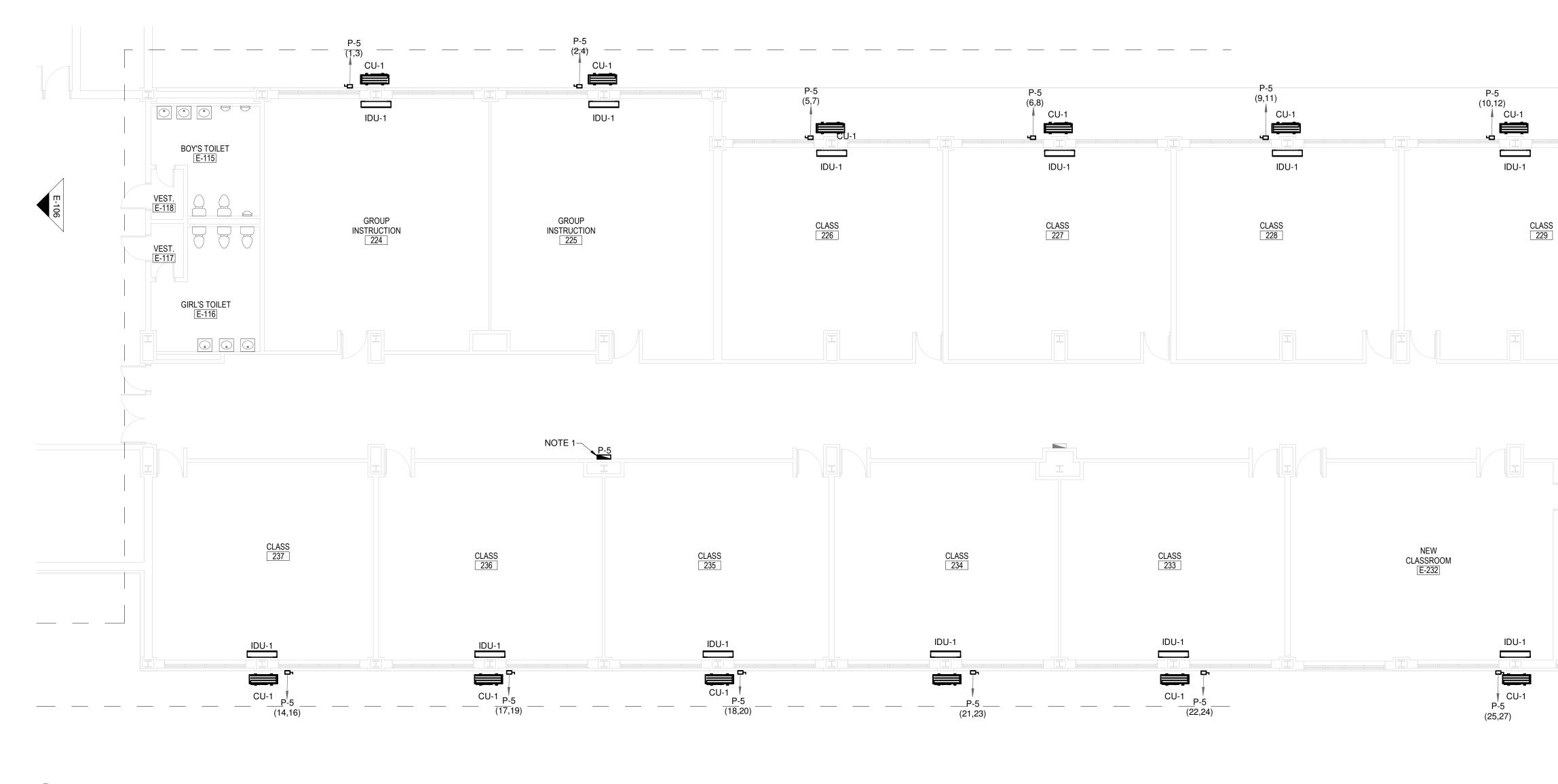
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SHEET NUMBER:

E-105



1 SECOND FLOOR ELECTRICAL PLAN - PART C (ELEMENTARY SCHOOL) E-106 1/8" = 1'-0"

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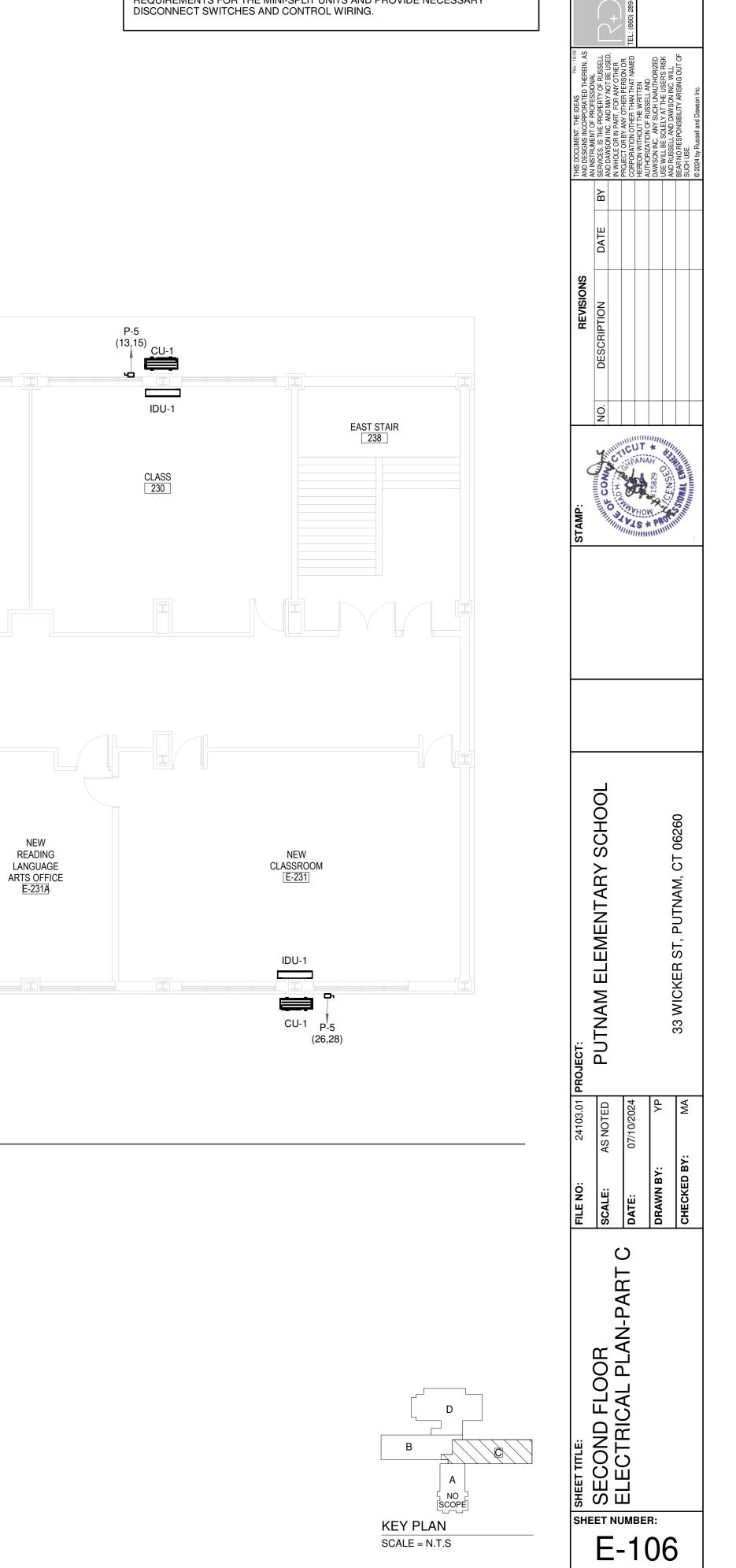


1. CONTRACTOR TO SUPPLY AND INSTALL NEW PANELS P-1, P-2, P-3, P-4, P-5 AS INDICATED IN THE ELECTRICAL PLANS AND CONNECT THE PANELS TO NEWLY ADDED MDP-1 PANEL IN THE BASEMENT BOILER ROOM RESPECTIVELY. EXACT LOCATION OF PANELS SHALL BE CO-ORDINATED AT SITE.

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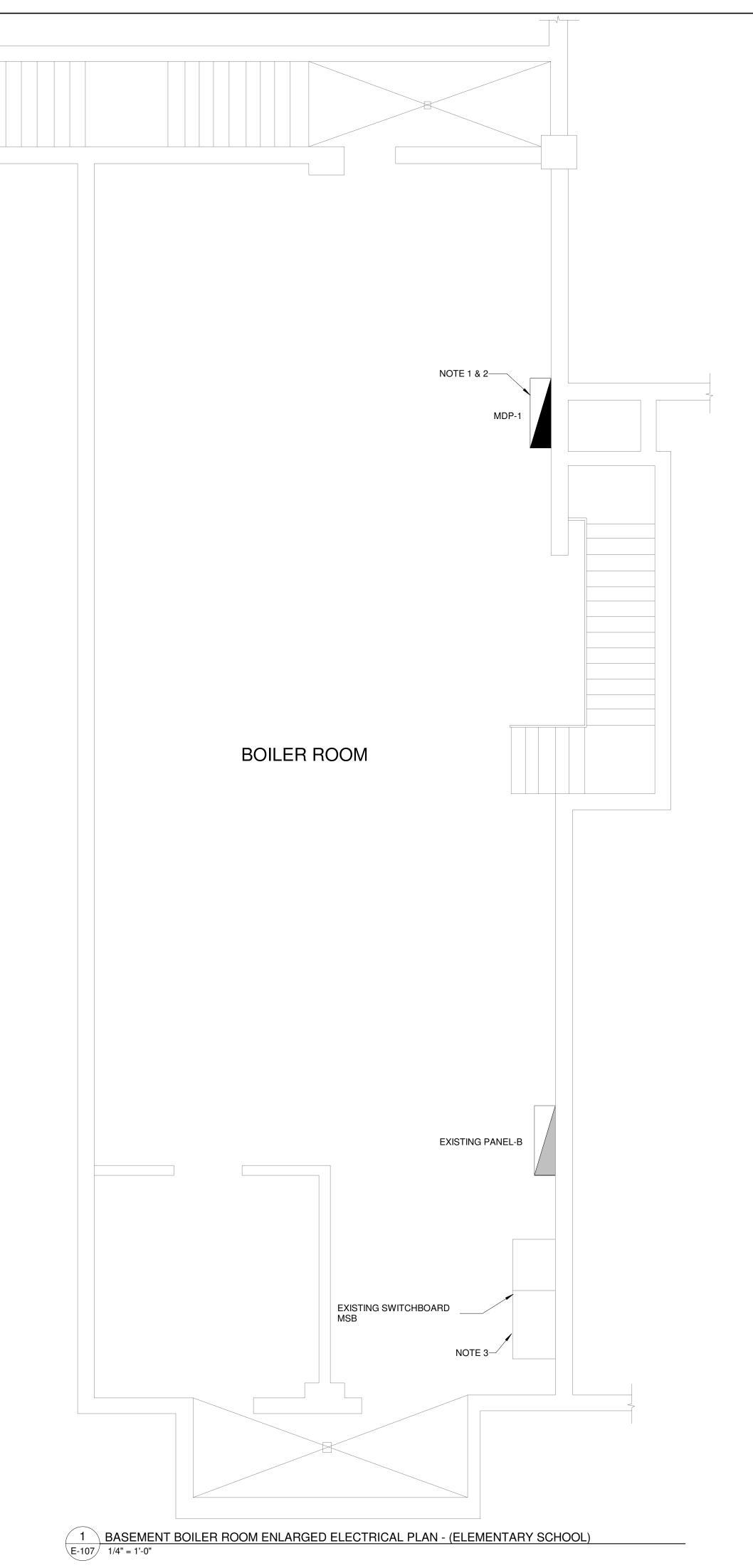
2. CONTRACTOR TO PROVIDE POWER CONNECTIONS FOR ALL NEWLY ADDED MINI-SPLIT AIR CONDITIONING UNITS AS PER PANEL SCHEDULE.

3. CO-ORDINATE WITH MANUFACTURER FOR THE ACTUAL POWER CONNECTION REQUIREMENTS FOR THE MINI-SPLIT UNITS AND PROVIDE NECESSARY DISCONNECT SWITCHES AND CONTROL WIRING.



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<u>NOTES</u>

1. PROVIDE NEW PANEL - MDP-1 (600A, 208/120V, 3PH, 4W) IN THE BASEMENT BOILER ROOM AS INDICATED IN THE LAYOUT.

2. THE LOCATION OF MDP-1 PANEL IS INDICATIVE. CONTRACTOR TO CO-ORDINATE AT SITE AND LOCATE THE PANEL ACCORDINGLY.

3. CONTRACTOR TO ADD NEW 600A, 3P BREAKER IN EXISTING SPACE PROVISION (OUTGOING #11) OF MSB PANEL AND CONNECT NEW PANEL MDP-1 TO THE NEWLY ADDED BREAKER.

	RUSSELL AND DAWSON INC.	ARCHITECTURE & ENGINEERING	1111 Main Street. East Hartford CT 06108	EL: (860) 289-1100 FAX: (860) 289-3272 E-MAIL: info@rdaep.com					
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