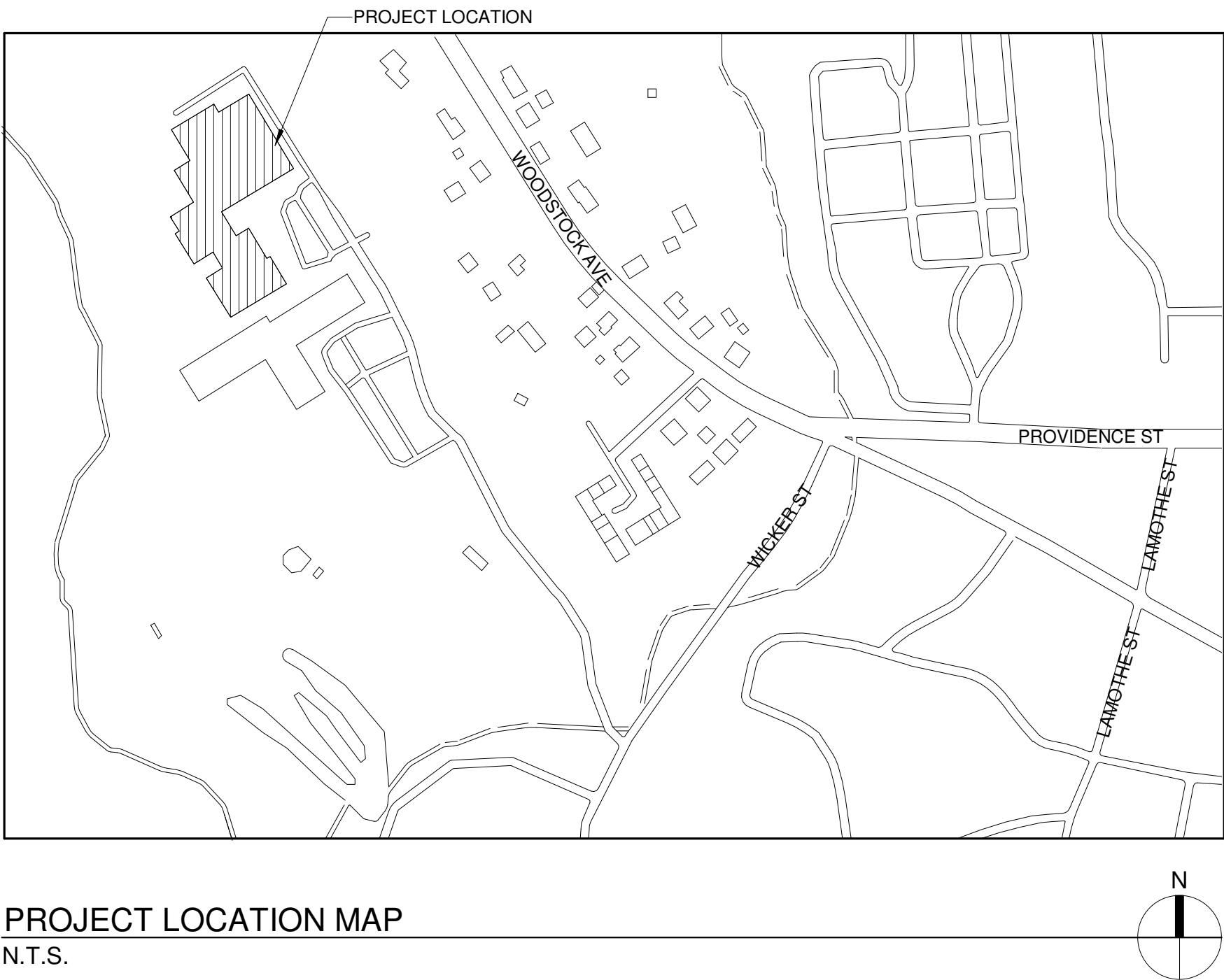


# PUTNAM MIDDLE SCHOOL

35 WICKER ST, PUTNAM, CT 06260

APPLICABLE CODES
<u>2022 CONNECTICUT STATE BUILDING CODE</u> 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.  <u>2022 CONNECTICUT STATE FIRE SAFETY CODE</u> 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.  <u>2022 CONNECTICUT STATE FIRE PREVENTION CODE</u> 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.

SCOPE OF WORK			
SCOPE OF WORK INCLUDES MINI SPLIT AIR CONDITIONER ADDITION IN CLASSROOM AND GYMNASIUM PUTNAM MIDDLE SCHOOL (70000 SQ.FT). SCOPE OF WORK INCLUDES HVAC AND ELECTRICAL WORK.			
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	SECOND FLOOR MECHANICAL PLAN-PART B	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	SECOND FLOOR ELECTRICAL PLAN - PART B	07/10/2024	



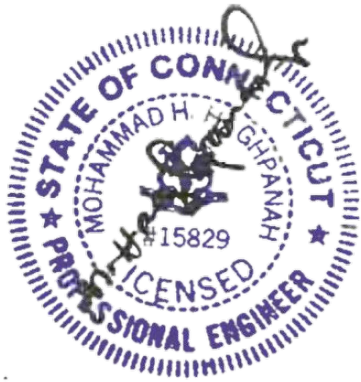
LIST OF PROFESSIONALS
<u>MEP</u>  RUSSELL AND DAWSON INC. 1111 MAIN STREET, EAST HARTFORD CT 06108 PHONE: (860) 289-1100 FAX: (860) 289-3272 www.rdaep.com



RUSSELL AND DAWSON INC.  
ARCHITECTURE & ENGINEERING

1111 Main Street, East Hartford CT 06108  
TEL: (860) 289-1100 FAX: (860) 289-3272 E-MAIL: info@rdaep.com

1111 MAIN STREET, EAST HARTFORD CT 06108 (860) 289-1100



FILE NO. 24103.02  
DATE: 07/10/2024  
REV :



GENERAL MECHANICAL NOTES	
<p><u>GENERAL</u></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>7. WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS NECESSARY TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.</li> <li>8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE</li> <li>9. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL, STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.</li> <li>10. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING GRILLES, REGISTERS AND DIFFUSERS.</li> <li>11. PROVIDE VOLUME DAMPERS IN EACH BRANCH DUCTWORK SERVING REGISTERS, GRILLES AND DIFFUSERS WHETHER INDICATED OR NOT.</li> <li>12. PROVIDE CABLE OPERATED DAMPERS IN BRANCH DUCTWORK SERVING REGISTERS, GRILLES, AND DIFFUSERS IN INACCESSIBLE CEILING LOCATIONS WHETHER INDICATED OR NOT.</li> <li>13. LOCATE ALL BALANCING DAMPERS AT CLEAN DUCTWORK ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS.</li> <li>14. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND A COMBINATION OF FIRE/SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL &amp; FLOOR RATINGS AS DEFINED IN ARCHITECTURAL DRAWINGS.</li> <li>15. DO NOT RUN ANY MECHANICAL OR CONTROL SERVICES THROUGH RATED STAIR ENCLOSURES UNLESS SYSTEMS ARE DESIGNED AND DESIGNATED TO SERVICE STAIRS.</li> <li>16. THESE GENERAL NOTES ARE APPLICABLE TO ALL MECHANICAL DRAWINGS.</li> <li>17. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. SEE DETAILS, SCHEDULES AND SPECIFICATIONS</li> <li>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.</li> </ol>	
<p><u>AS BUILT DRAWINGS</u></p> <ol style="list-style-type: none"> <li>1. PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) OR LATEST AUTOCAD VERSION IF NOT SPECIFIED. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.</li> <li>2. PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS: <ul style="list-style-type: none"> <li>• INCLUDE ALL CHANGES AND AN ACCURATE RECORD IN AUTOCAD DRAWING OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.</li> <li>• MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART.</li> <li>• EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.</li> <li>• APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.</li> <li>• CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.</li> </ul> </li> <li>3. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.</li> <li>4. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.</li> <li>5. SUBMIT ALL WARRANTY FOR EQUIPMENT.</li> </ol>	
<p><u>SHOP DRAWINGS</u></p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol>	


# ABBREVIATIONS

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

\*ALL ABBREVIATIONS MAY NOT BE USED IN THESE DOCUMENTS.

# PERFORMANCE SPECIFICATION MECHANICAL

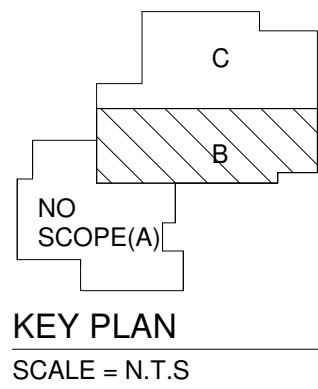
<p>PERFORMANCE SPECIFICATION</p> <p>SECTION 15800-HEATING, VENTILATING, AIR CONDITIONING</p> <p>PART 1 - GENERAL REQUIREMENTS</p> <p>1.01 SCOPE OF WORK</p> <p>INSTALL ALL NEW WORK IN A NEAT WORKMANLIKE MANNER READILY ACCESSIBLE FOR OPERATION, MAINTANANCE AND REPAIR.</p> <p>WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS, SERVICES, EQUIPMENT, TRANSPORTATION AND OTHER INCIDENTALS NECESSARY TO FURNISH, INSTALL AND TO CONSTRUCT ALL HVAC SYSTEMS INCLUDING:</p> <ul style="list-style-type: none"> <li>- COOLING UNITS</li> <li>- HEATING UNITS</li> <li>- PIPING</li> </ul>	<ul style="list-style-type: none"> <li>6. "ARCHITECT"; "ENGINEER"; "OWNER'S REPRESENTATIVE". THE PARTY OR PARTIES RESPONSIBLE FOR INTERPRETING, ACCEPTING AND OTHERWISE RULING ON THE PERFORMANCE UNDER THIS CONTRACT.</li> <li>7. "FURNISH"-PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT, ALL AS PART OF THE MECHANICAL WORK.</li> <li>8. "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.</li> <li>9. "PROVIDE"- "FURNISH" AND "INSTALL".</li> <li>10. "NEW"-MANUFACTURED WITHIN THE PAST TWO YEARS AND NEVER BEFORE USED.</li> <li>11. "RELOCATE"-MOVE EXISTING EQUIPMENT AND ALL ACCESSORIES AS REQUIRED.</li> <li>12. "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 REMAIN IN FULL OPERATION. PROVIDE ALL NECESSARY COMPONENTS TO MAINTAIN SUCH OPERATION.</li> </ul>
<p>1.02 SUBMITTALS</p> <p>A. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND CONTRACTOR'S SERVICES NECESSARY FOR COMPLETE, SAFE INSTALLATION OF ALL MECHANICAL WORK. THE SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:</p> <ul style="list-style-type: none"> <li>1. INSULATION OF PIPING, EQUIPMENT.</li> <li>2. TESTING AND BALANCING.</li> <li>3. CUTTING AND PATCHING.</li> <li>4. SHOP DRAWINGS.</li> <li>5. AS-BUILT DRAWINGS.</li> <li>6. OPERATING AND MAINTENANCE MANUALS.</li> <li>7. FULL COORDINATION WITH OTHER TRADES.</li> <li>8. WARRANTY AND GUARANTY.</li> <li>9. PHASING AS REQUIRED BY OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR OR BUILDING MANAGEMENT.</li> <li>10. PREMIUM TIME FOR WORK TO BE PERFORMED AFTER-HOURS AS REQUIRED BY BUILDING MANAGEMENT AND/OR OWNER.</li> <li>11. FILING, PERMITS, CONTROLLED INSPECTIONS.</li> <li>12. FULL TESTING AND STARTUP OF ALL SYSTEMS.</li> </ul> <p>B. SECURE CERTIFICATES, PAY ALL FEES AND CHARGES FOR ALL WORK INSTALLED, CERTIFYING COMPLIANCE WITH ALL AUTHORITIES, DELIVER CERTIFICATES TO OWNER FOR SIGNING BEFORE FILING.</p>	<p>THE FOLLOWING CODES AND STANDARDS SHALL APPLY TO THIS WORK:</p> <p>ASTM A120, STEEL PIPE</p> <p>ASTM B88, COPPER TUBING</p> <p>ANSI H23.1 STANDARDS FOR COPPER TUBING</p> <p>ANSI B31.1 CODE FOR PRESSURE PIPING</p> <p>NEMA NC1 MOTOR GENERATOR STANDARDS</p> <p>NEMA DC1 STANDARDS FOR TEMPERATURE CONTROLS</p> <p>NFPA-90A AIR CONDITIONING AND VENTILATING SYSTEM</p> <p>NFPA-91 BLOWER AND EXHAUST SYSTEMS</p> <p>APPLICABLE BOCA MECHANICAL CODE</p> <p>1.04 ELECTRICAL REQUIREMENTS</p> <p>THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MOTORS FOR EQUIPMENT SPECIFIED HEREIN IF NOT SUPPLIED AS PART OF EQUIPMENT. MOTORS UP TO 1/2 HP SHALL BE 115 VOLT, SINGLE PHASE. MOTORS 1/2 HP AND OVER SHALL BE 208 VOLT, 3 PHASE.</p> <p>MOTORS SHALL BE GENERAL ELECTRIC, WESTINGHOUSE, OR ALLIS CHALMERS. ALL MOTORS SHALL BE 40 DEGREE C RISE, BUILT IN ACCORDANCE WITH A.I.E.E. STANDARDS.</p> <p>ALL CIRCUIT BREAKERS AND FUSED DISCONNECT SWITCHES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR COORDINATE WITH ELECT. DWG. STARTERS WITH AUXILIARY CONTACTS SHALL BE FURNISHED FOR ALL 3 PHASE MOTORS SUPPLIED UNDER THIS CONTRACT.</p> <p>ALL AIR EQUIPMENT OF 2000 CFM AND LARGER SHALL BE SUPPLIED WITH SMOKE DETECTORS INSTALLED IN THE DUCTWORK AS REQUIRED BY NFPA 90A PART 4-3. WIRING OF THESE DETECTORS SHALL BE A PART OF THIS MECHANICAL CONTRACT.</p>
<p>ISSUE 4 COPIES OF MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS AND SHOP DRAWINGS FOR ALL ITEMS OF THE HVAC EQUIPMENT FOR APPROVAL.</p> <p>1.03 CODES</p> <p>A. CODES, PERMITS AND INSPECTIONS:</p> <ul style="list-style-type: none"> <li>1. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF CONNECTICUT BUILDING CODE, FARMINGTON BUILDING DEPARTMENT BUILDING MANAGEMENT, AND ALL AUTHORITIES HAVING JURISDICTION AND APPLICABLE NATIONAL STATE AND LOCAL CODES, LAWS AND REGULATIONS COVERING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS. CONTRACTOR IS TO INFORM ENGINEER OF ANY EXISTING WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE 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.</li> <li>2. THIS CONTRACTOR SHALL OBTAIN ALL EQUIPMENT APPROVALS AS REQUIRED BY STATE AND LOCAL AUTHORITIES. PERMITS SHALL BE TURNED OVER AT JOB COMPLETION.</li> </ul> <p>B. SITE VERIFICATION:</p> <ul style="list-style-type: none"> <li>1. PRIOR TO SUBMISSION OF THE BID, THIS CONTRACTOR SHALL VISIT THE JOB SITE TO ASCERTAIN THE ACTUAL FIELD CONDITION AS THEY RELATE TO THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED HEREIN, DISCREPANCIES, IF ANY, SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO SUBMISSION OF THE BID, AND IF NOT RESOLVED TO SATISFACTION, SHALL BE SUBMITTED AS A WRITTEN QUALIFICATION OF THE BID. SUBMISSION OF A BID SHALL EVIDENCE THAT SITE VERIFICATION HAS BEEN PERFORMED AS DESCRIBED ABOVE.</li> </ul> <p>C. CONTRACT DOCUMENTS:</p> <ul style="list-style-type: none"> <li>1. PRIOR TO SUBMISSION OF A FORMAL BID, THIS CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THE ENTIRE PROJECT INCLUDING GENERAL CONSTRUCTION, DEMOLITION, ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER AND SHALL INCLUDE ANY WORK REQUIRED IN THE BID WHICH IS INDICATED OR IMPLIED TO BE PERFORMED BY THIS TRADE IN OTHER SECTIONS OF THE WORK.</li> <li>2. DRAWINGS ARE DIAGRAMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND APPROXIMATE LOCATION OF EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND COORDINATE FINAL LOCATIONS OF DIFFUSERS, GRILLES, REGISTERS, THERMOSTATS, SENSORS, SWITCHES AND ANY WALL MOUNTED DEVICES. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT.</li> <li>3. IF A CONFLICT OCCURS IN THE SPECIFICATIONS AND/OR ON THE DRAWING, THE MORE STRINGENT SITUATION SHALL APPLY.</li> </ul> <p>D. GUARANTEE:</p> <ul style="list-style-type: none"> <li>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.</li> <li>2. THE CONTRACTOR SHALL GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED DOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN THE GUARANTEE PERIOD. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE 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.</li> <li>3. THIS CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF ALL SYSTEMS UNTIL THE FINAL ACCEPTANCE OF THE WORK.</li> <li>4. ALL AIR CONDITIONING UNIT COMPRESSORS AND REFRIGERATION COMPONENTS SHALL HAVE 5-YEAR WARRANTY.</li> </ul> <p>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'S DOCUMENTS, AS APPLICABLE, ARE PART OF THIS CONTRACT.</p> <p>F. DEFINITIONS:</p> <ul style="list-style-type: none"> <li>1. 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.</li> <li>2. "THIS CONTRACT", "THE CONTRACT"- THE AGREEMENT COVERING THE WORK TO BE PERFORMED BY THIS CONTRACTOR.</li> <li>3. "APPROVED", "EQUAL", "SATISFACTORY", "ACCEPTED", "ACCEPTABLE", "EQUIVALENT"-SUITABLE FOR USE ON THE PROJECT AS DETERMINED BY THE ENGINEER BASED ON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.</li> <li>4. "THESE SPECIFICATIONS", "THIS SECTION, PART, DIVISIONS" (OF THE SPECIFICATION)-THE DOCUMENT SPECIFYING THE WORK TO BE PERFORMED BY "THIS CONTRACTOR".</li> <li>5. "THE MECHANICAL WORK", "THIS WORK"-ALL LABOR MATERIALS, EQUIPMENTS, APPARATUS, CONTROL SYSTEMS, ACCESSORIES, AND OTHER ITEMS REQUIRED FOR A PROPER AND COMPLETE INSTALLATION BY MECHANICAL CONTRACTOR.</li> </ul>	<p>1.05 COORDINATION WITH BUILDING MANAGEMENT</p> <p>A. THIS CONTRACTOR IS TO OBTAIN A COPY OF THE BUILDING RULES AND REGULATIONS PRIOR TO BID SUBMISSION TO DETERMINE THE REQUIREMENTS AND THE EXTENT OF PREMIUM THE WORK REQUIRED BY THE BUILDING.</p> <p>B. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO THE BUILDING OWNER'S RULES 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.</p> <p>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 PERFORM WORK ON PREMIUM TIME, IF SO DIRECTED BY BUILDING OWNER, SO AS NOT TO DISTURB EXISTING TENANTS ON OTHER FLOORS.</p> <p>1.06 SHOP DRAWINGS</p> <p>A. SUBMIT SHOP DRAWING CERTIFIED BY ALL TRADES THAT COORDINATES 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:</p> <ul style="list-style-type: none"> <li>1. DUCTWORK-PROVIDE DUCT SHOP STANDARDS AND LEAKAGE TEST CERTIFICATION, AS REQUIRED AND 1/4 SCALE DUCT LAYOUT.</li> <li>2. PIPING LAYOUT AND APPURTENANCES-PROVIDE PIPING, VALVING, CHEMICAL TREATMENT, SHOP STANDARDS AND 1/4 SCALE PIPING LAYOUT WITH ALL VALVING.</li> <li>3. INSULATION FOR PIPING.</li> <li>4. EQUIPMENT CATALOG CUTS FOR ALL ITEMS TO BE UTILIZED.</li> <li>5. AUTOMATIC TEMPERATURE CONTROL DIAGRAMS, DEVICES AND SEQUENCE OF OPERATION.</li> </ul> <p>B. THE QUANTITY OF SHOP DRAWINGS SHALL AS A MINIMUM BE FOUR (4) COPIES OF 8-1/2" X 11" SUBMISSIONS AND FIVE(5) PRINTS OF ALL DRAWINGS. SPECIFIC JOB REQUIREMENTS MAY BE MORE STRINGENT AND CONTRACTOR IS RESPONSIBLE TO OBTAIN REQUIREMENTS FROM OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR OR ARCHITECT.</p> <p>1.07 MAINTENANCE MANUALS</p> <p>A. SUBMIT FOUR(4) LOOSE-LEAF BOUND OPERATING AND MAINTENANCE MANUALS WITH INDEX AND INDEX TABS TO INCLUDE THE FOLLOWING:</p> <ul style="list-style-type: none"> <li>1. OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL SYSTEMS.</li> <li>2. MANUFACTURERS- CATALOG CUTS ON ALL EQUIPMENT.</li> <li>3. AUTOMATIC TEMPERATURE CONTROL SYSTEMS WITH SEQUENCE OF OPERATIONS, CATALOG CUTS OF ALL DEVICES AND POINT-TO-POINT WIRING DIAGRAMS.</li> <li>4. CERTIFIED FINAL AIR AND WATER BALANCING REPORT.</li> <li>5. PIPING AS-BUILT DRAWING WITH VALVE CHART AND KEY PLAN DRAWINGS INSERTED IN BINDER.</li> <li>6. ALL ITEMS SUBMITTED FOR REVIEW IN SHOP DRAWING SECTION.</li> </ul> <p>1.08 ACCESS DOORS IN GENERAL CONSTRUCTION</p> <p>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".</p> <p>PART 2 - PRODUCT / APPLICATION</p>

SHEET NUMBER: <b>M-001</b>		SHEET TITLE: <b>MECHANICAL NOTES, SPECIFICATION, SCHEDULES AND LEGENDS</b>		PROJECT: <b>PUTNAM MIDDLE SCHOOL</b>		STAMP: 		REVISIONS		BY		DATE			
FILE NO: 24103.02		SCALE: AS NOTED		DATE: 07/10/2024		DRAWN BY: MF		CHECKED BY: HH		NO.		DESCRIPTION			
<p>THIS DOCUMENT, THE SEALS AND THE SIGNATURE OF THE ENGINEER, ARE THE PROPERTY OF RUSSELL AND DAWSON INC. AND ARE NOT TO BE REPRODUCED, COPIED, LOANED, RENTED, SOLD, TRANSFERRED, OR OTHERWISE USED IN ANY MANNER WITHOUT THE WRITTEN AUTHORIZATION OF RUSSELL AND DAWSON INC. ANY USER WILL BE SALES AT THE USER'S RISK AND RUSSELL AND DAWSON INC. SHALL BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO THE USER'S RISK.</p>												DATE		BY	
												DATE		BY	
<p><b>RUSSELL AND DAWSON INC.</b> <b>ARCHITECTURE &amp; ENGINEERING</b> 111 Main Street, East Hartford, CT 06108 TEL: (860) 289-1100 FAX: (860) 289-3272 E-MAIL: <a href="mailto:info@rdi-inc.com">info@rdi-inc.com</a></p>															



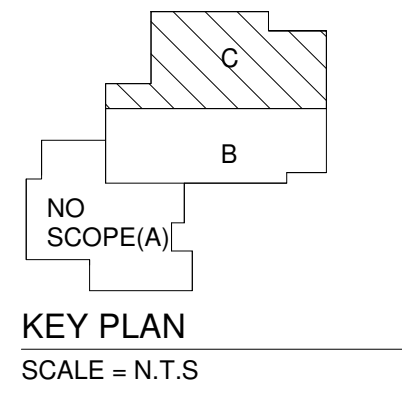
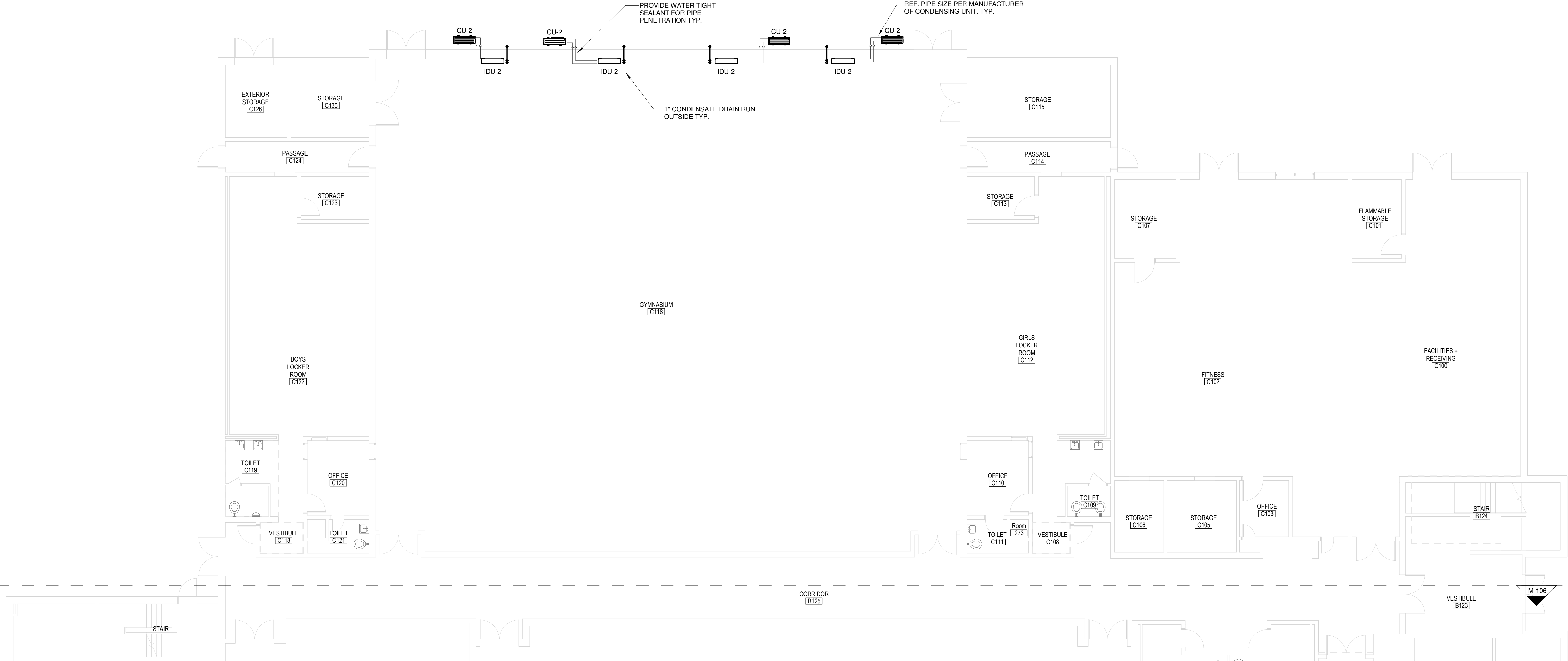


[illegible]

[illegible]

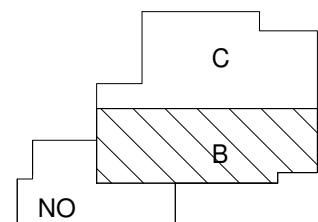
7/25/2024 11:00:27 PM

1 FIRST FLOOR MECHANICAL PLAN - PART C  
M-103 1/8" = 1'-0"



SHEET TITLE: FIRST FLOOR MECHANICAL PLAN - PART C	SHEET NUMBER: M-103	FILE NO: 24103.02	SCALE: AS NOTED	PROJECT: PUTNAM MIDDLE SCHOOL	STAMP: 	REVISIONS	BY	DATE	NO.	DESCRIPTION	THESE DOCUMENTS, THE IDEAS, AND THE INFORMATION CONTAINED HEREIN, ARE THE PROPERTY OF RUSSELL AND DAWSON INC. AND ARE NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF RUSSELL AND DAWSON INC. THE INFORMATION CONTAINED HEREIN IS FOR THE EXCLUSIVE USE OF THE CLIENT AND IS NOT TO BE USED FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE. RUSSELL AND DAWSON INC. SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DOCUMENT.	 RUSSELL AND DAWSON INC. ARCHITECTURE & ENGINEERING 1111 Main Street, East Hartford, CT 06108 TEL: (860) 289-1107 FAX: (860) 289-2727 E-MAIL: info@russellanddawson.com
			CHECKED BY: HH	DATE: 07/10/2024								





KEY PLAN  
SCALE = N.T.S

THIS DOCUMENT, THE IDEAS  
AND DESIGNS INCORPORATED THEREIN, AS  
AN INSTRUMENT OF PROFESSIONAL  
SERVICES, IS THE PROPERTY OF RUSSELL  
AND DAWSON INC. AND MAY NOT BE USED,  
IN WHOLE OR IN PART, FOR ANY OTHER  
PROJECT OR BY ANY OTHER PERSON OR  
CORPORATION OTHER THAN THAT NAMED  
HEREON WITHOUT THE WRITTEN  
AUTHORIZATION OF RUSSELL AND  
DAWSON INC. ANY SUCH UNAUTHORIZED  
USE WILL BE SOLELY AT THE USER'S RISK  
AND RUSSELL AND DAWSON INC. WILL  
BEAR NO RESPONSIBILITY ARISING OUT OF  
SUCH USE.

© 2004 by Russell and Dawson Inc.

[illegible]

--	--

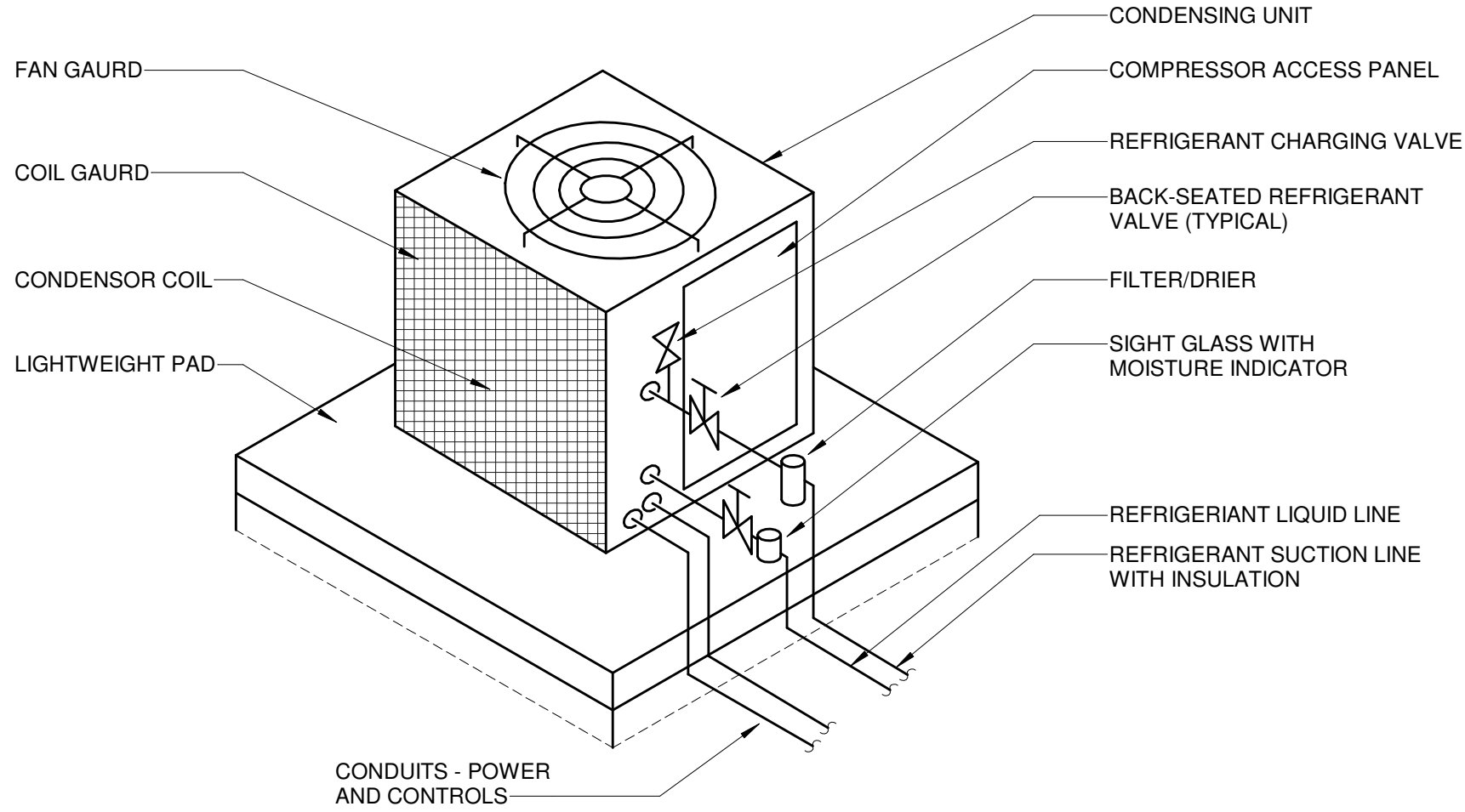
PUTNAM MIDDLE SCHOOL

35 WICKER ST., PUTNAM, CT 06260

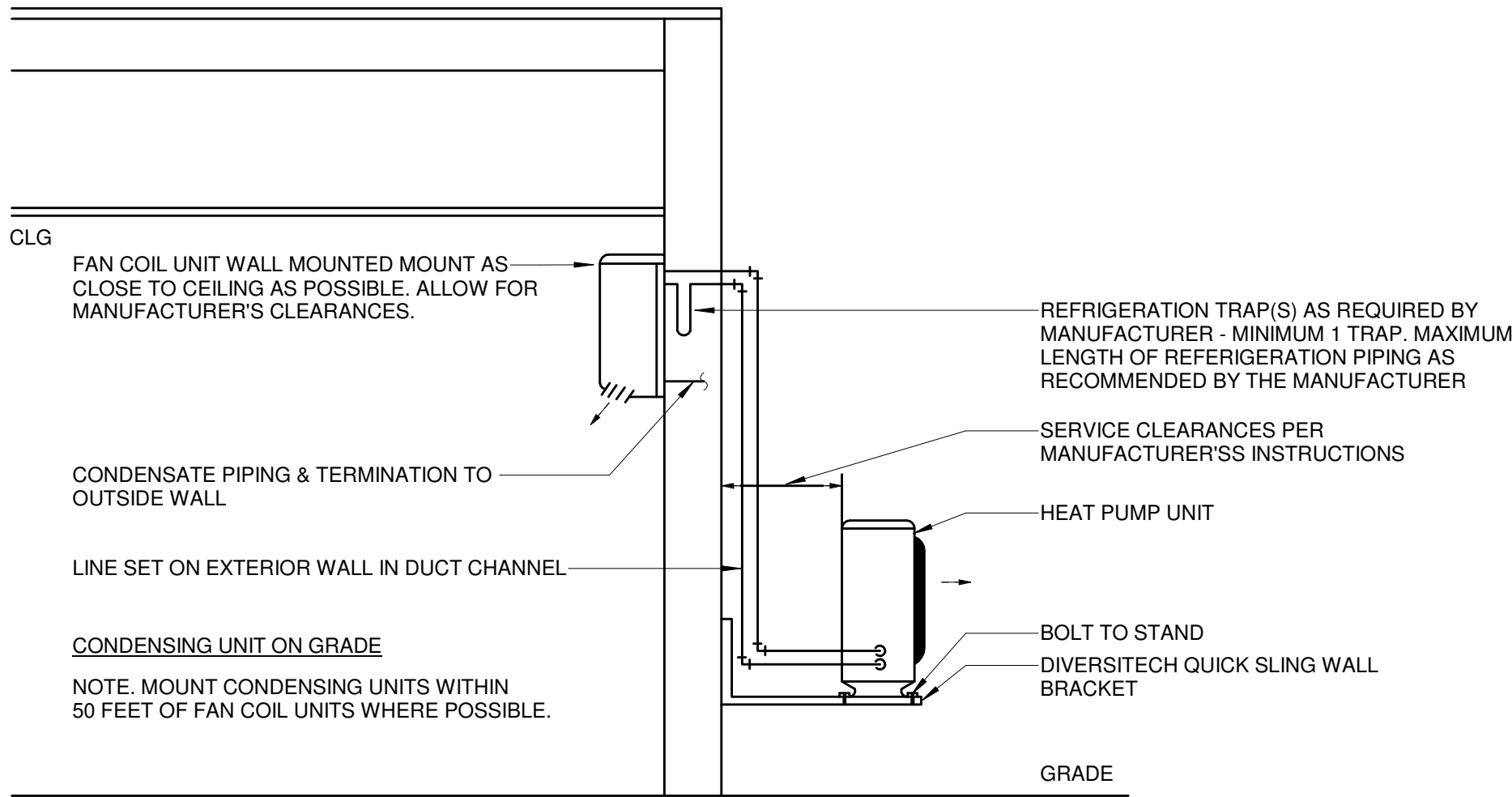
FILE NO:	24103.02	PROJECT
SCALE:	AS NOTED	
DATE:	07/10/2024	
DRAWN BY:	MF	
CHECKED BY:	HH	

SHEET TITLE:  
SECOND FLOOR  
MECHANICAL  
PLAN-PART B

# M-104



1 CONDENSING UNIT PIPING DIAGRAM  
M-300 N.T.S.



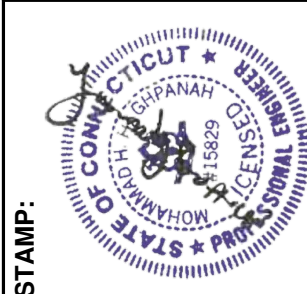
2 TYPICAL WALL MOUNTED SPLIT SYSTEM HEAT PUMP DETAIL  
M-300 N.T.S.

SHEET TITLE:  
MECHANICAL  
DETAILS

SHEET NUMBER:  
M-300

FILE NO: 24103.02  
SCALE: AS NOTED  
DATE: 07/10/2024  
DRAWN BY: MF  
CHECKED BY: HH

PROJECT:  
PUTNAM MIDDLE SCHOOL  
35 WICKER ST., PUTNAM, CT 06260



REVISIONS			
NO.	DESCRIPTION	DATE	BY



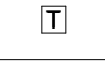
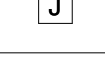
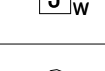
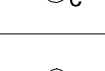

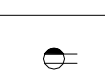

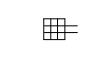

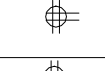



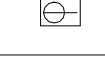

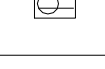

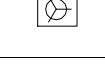

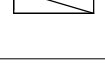

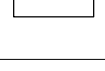
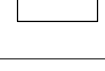




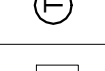
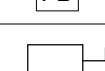


THIS DOCUMENT, THE IDEAS, CONCEPTS, DESIGN, SPECIFICATIONS, CALCULATIONS, AND INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF RUSSELL AND DAWSON INC. AND MAY NOT BE USED, REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF RUSSELL AND DAWSON INC. THE USER AGREES TO HOLD RUSSELL AND DAWSON INC. HARMLESS FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING OUT OF OR RESULTING FROM THE USE OF THIS DOCUMENT.

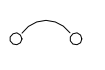
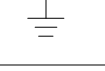
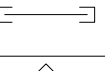


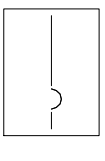
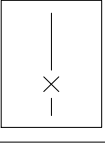


RUSSELL AND DAWSON INC.  
ARCHITECTURE & ENGINEERING  
1111 Main Street, East Hartford, CT 06108  
TEL: (860) 289-1107 FAX: (860) 289-3272 E-MAIL: [info@rda-inc.com](mailto:info@rda-inc.com)

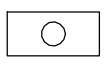

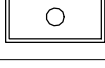



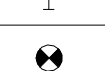



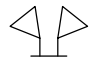
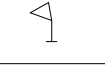



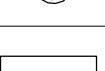
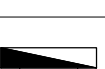


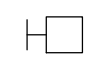

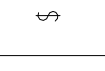

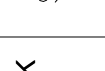
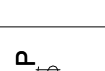

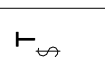









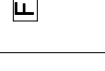
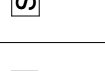
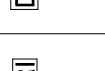

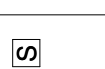

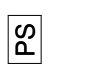
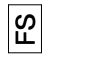
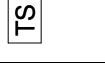

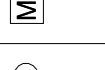





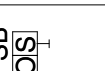



7/25/2024 11:00:29 PM

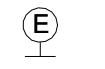
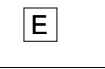
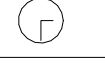
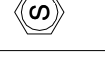
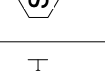
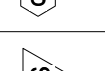

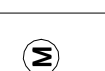



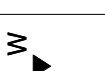
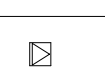




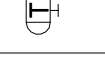
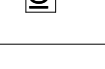
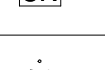
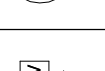


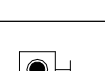
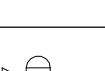




ELECTRICAL FIXTURE LEGEND	
SYMBOL	DESCRIPTION
	MOTOR, SEE SCHEDULE
	MOTORIZED SCREEN / DOOR
	LOW VOLTAGE TRANSFORMER
	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	CEILING MOUNTED JUNCTION BOX
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	SWITCHED DUPLEX RECEPTACLE
	DUPLEX GFI RECEPTACLE
	QUAD GFI RECEPTACLE
	DUPLEX RECEPTACLE USB
	QUAD RECEPTACLE
	QUAD RECEPTACLE USB
	SPECIAL NEMA RATED RECEPTACLE
	SPECIAL HARDWIRED CONNECTION
	SIMPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX
	DUPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX
	HALF SWITCHED DUPLEX RECEPTACLE IN FLUSH MOUNTED FLOOR BOX
	QUAD RECEPTACLE IN FLUSH MOUNTED FLOOR BOX
	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
	BRANCH CIRCUIT WIRING IN CONDUIT
	SWITCHED BRANCH CIRCUIT IN CONDUIT
	BRANCH CIRCUIT HOMERUN INDICATOR IN CONDUIT
	CONTROL WIRE
	THERMOSTAT
	FLOOR BOX
	DISCONNECT SWITCH

MISCELLANEOUS DEVICE LEGEND	
SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, RATING AS SHOWN
	ELECTRICAL GROUND, SIZE AS SHOWN
	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
	MOTORIZED DAMPER
	FIRE AND SMOKE DAMPER

LIGHT FIXTURE LEGEND	
SYMBOL	DESCRIPTION
	RECESSED MOUNTED LIGHT FIXTURE
	RECESSED MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	SURFACE MOUNTED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	RECESSED MOUNTED 2' x 2' FTL. FIXTURE
	CEILING MOUNTED EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS
	WALL MOUNTED EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS
	SIDE WALL EXIT SIGN WITH BATTERY BACK-UP POWER SUPPLY, SEE PLANS FOR FACE AND DIRECTION OF TRAVEL CONFIGURATIONS
	EMERGENCY DUAL HEAD FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	EMERGENCY DUAL HEAD FIXTURE WITH BATTERY BACK-UP POWER SUPPLY AND REMOTE CAPABILITIES
	BATTERY BACK-UP POWER SUPPLY FOR REMOTE HEADS
	EMERGENCY REMOTE DUAL HEAD FIXTURE
	EMERGENCY REMOTE HEAD FIXTURE
	RECESSED MOUNTED DOWN LIGHT FIXTURE
	RECESSED MOUNTED DOWN LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	SURFACE MOUNTED DOWN LIGHT FIXTURE
	SURFACE MOUNTED DOWN LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	WALL MOUNTED LINEAR LIGHT FIXTURE
	WALL MOUNTED LINEAR LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	INTERIOR WALL MOUNTED SCONCE LIGHT FIXTURE
	INTERIOR WALL MOUNTED SCONCE LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	EXTERIOR WALL MOUNTED LIGHT FIXTURE
	EXTERIOR WALL MOUNTED LIGHT FIXTURE WITH BATTERY BACK-UP POWER SUPPLY
	SINGLE POLE LIGHT SWITCH
	THREE-WAY TOGGLE SWITCH
	SINGLE POLE DIMMER SWITCH
	KEYED SWITCH
	PILOT SWITCH
	CONTROL SWITCH FOR MOTORISED SHADES
	TIMER SWITCH
	EMERGENCY SWITCH

LOW VOLTAGE DEVICE LEGEND	
FIRE ALARM	
SYMBOL	DESCRIPTION
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM END OF LINE RESISTOR
	FIRE ALARM PULL STATION, WALL MOUNTED AT 48" AFF., 'S' INDICATES STOPPER COVER DEVICE WHERE SHOWN
	ADDRESSABLE PHOTO ELECTRIC SMOKE DETECTOR
	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR WITH HOUSING
	REMOTE INDICATOR AND TEST STATION FOR DUCT MOUNTED DETECTORS
	FIRE ALARM HEAT DETECTOR
	ELEVATOR RECALL SYSTEM FIRE ALARM SMOKE DETECTOR
	ELEVATOR RECALL SYSTEM FIRE ALARM HEAT DETECTOR
	FIRE ALARM MODULE FOR FIRE PROTECTION PRESSURE SWITCH
	FIRE ALARM MODULE FOR FIRE PROTECTION FLOW SWITCH
	FIRE ALARM MODULE FOR FIRE PROTECTION TAMPER SWITCH
	FIRE ALARM CONTROL MODULE
	FIRE ALARM MONITOR MODULE
	FIRE ALARM HORN/SSTROBE DEVICE, WALL MOUNTED AT 6'8" AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	FIRE ALARM HORN/SSTROBE (LOW FREQUENCIES) DEVICE, WALL MOUNTED AT 6'8" AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	FIRE ALARM STROBE DEVICE, WALL MOUNTED AT 6'8" AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH ADA 15/75 CANDELA STROBE
	FIRE ALARM STROBE DEVICE, WALL MOUNTED AT 6'8" AFF. OR 6" BELOW CEILING, WHICHEVER IS LOWER. WITH 177 CANDELA STROBE
	CARBON MONOXIDE DETECTOR
	520 HZ, LOW FREQUENCY TYPE COMBINATION OF PHOTOELECTRIC ADDRESSABLE SMOKE DETECTOR WITH SOUNDER BASE AND CARBON MONOXIDE DETECTOR.
	ADDRESSABLE INTERFACE DEVICE
	MAGNETIC HOLD OPEN DEVICE

COMMUNICATION DEVICE LEGEND	
SYMBOL	DESCRIPTION
	EMERGENCY CALL-FOR-AID WALL MOUNTED LIGHT AND BUZZER UNIT
	EMERGENCY CALL-FOR-AID SWITCH WITH PULL CORD
	WALL MOUNTED SYSTEM CLOCK
	FLUSH TO CEILING MOUNTED SYSTEM SPEAKER
	SURFACE, CEILING MOUNTED SYSTEM SPEAKER
	WALL MOUNTED SYSTEM SPEAKER
	WALL MOUNTED HORN TYPE/CLOUD SYSTEM SPEAKER
	COMBINATION WALL MOUNTED SYSTEM SPEAKER AND CLOCK
	MICROPHONE OUTLET
	DATA OUTLET & RACEWAY, TWO GANG BACKBOX WITH 1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
	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 MOUNTED 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 OTHERS
	CATV OUTLET & RACEWAY, TWO GANG BACKBOX WITH 1" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING, PROVIDE WITH NYLON PULL STRING
	HOUSE PHONE
	TELEPHONE STROBE
	INTERCOM
	CARD READER
	WIRELESS DATA ACCESS POINT
	TV CABLE OUTLET
	DOOR RELEASE STATION
	DURESS ALARM BUTTON
	DOORBELL PUSH BUTTON
	DOOR ANNUNCIATOR AUDIBLE/ VISUAL SIGNALING DEVICE WITH HORN/ STROBE, ASSOCIATED TRANSFORMER LOCATED ABOVE ACCESSIBLE CEILING AND DOORBELL. DISABLE SWITCH. EDWARDS CFA- SERIES 7005-G5.

ELECTRICAL ABBREVIATIONS			
TAG	DEFINITION	TAG	DEFINITION
A/AMP	AMPERAGE	MCB	MAIN CIRCUIT BREAKER
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
C	CONDUIT	NL	NEW LOCATION OF EXISTING RELOCATED
CATV	CABLE TELEVISION	NR	NEW TO REPLACE EXISTING
C/B	CIRCUIT BREAKER	NTS	NOT TO SCALE
CM	CEILING MOUNT	P	POLE
CT	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
E	EXISTING TO REMAIN	RGS	RIGID GALVANIZED STEEL CONDUIT
ELEC	ELECTRICAL	RL	RELOCATE EXISTING
ELEV	ELEVATOR	RM	ROOM
EMT	ELECTRICAL METALLIC TUBING	RR	REMOVE AND REPLACE ON NEW SURFACE
FA	FIRE ALARM	SE	SECONDARY ELECTRICAL SERVICE
FACP	FIRE ALARM CONTROL PANEL	SPEC	SPECIFICATION
G/GND	GROUND	SWBD	SWITCHBOARD
GFI	GROUND FAULT INTERRUPTER	TV	TELEVISION
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
HP	HORSE POWER	T/TX	TRANSFORMER
HPS	HIGH PRESSURE SODIUM	TYP	TYPICAL
HZ	HERTZ	V	VOLTS
IG	ISOLATED GROUND	VA	VOLT AMPERE
KCMIL	THOUSAND CIRCULAR MILS	W	WIRE
KVA	KILOVOLT AMPERE	WG	WIRE GUARD
KW	KILOWATT	WP	WEATHER PROOF
MAX	MAXIMUM		

THIS DOCUMENT, THE IDEAS, AND THE INFORMATION CONTAINED HEREIN, ARE THE PROPERTY OF RUSSELL AND DAWSON INC. AND ARE NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF RUSSELL AND DAWSON INC. THE USER AGREES TO HOLD RUSSELL AND DAWSON INC. HARMLESS FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST OR INCURRED BY RUSSELL AND DAWSON INC. OR ITS EMPLOYEES, AGENTS, OR SUBCONTRACTORS, IN CONNECTION WITH THE USE OF THIS DOCUMENT. THE USER RELEASES RUSSELL AND DAWSON INC. FROM AND AGAINST ALL SUCH CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST OR INCURRED BY RUSSELL AND DAWSON INC. OR ITS EMPLOYEES, AGENTS, OR SUBCONTRACTORS, IN CONNECTION WITH THE USE OF THIS DOCUMENT.

1111 Main Street, East Haddam, CT 06108

TEL: (860) 289-1100 FAX: (860) 289-5272 E-MAIL: rdd@rddinc.com

REVISIONS

NO.	DESCRIPTION	DATE	BY

STAMP:

SEAL OF THE STATE OF CONNECTICUT

OFFICE OF THE REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER

NO. 11111

EXPIRATION DATE 12/31/2024

PROJECT:

241103.02

AS NOTED

07/10/2024

YP

MA

SHEET TITLE:

ELECTRICAL LEGENDS AND SYMBOL

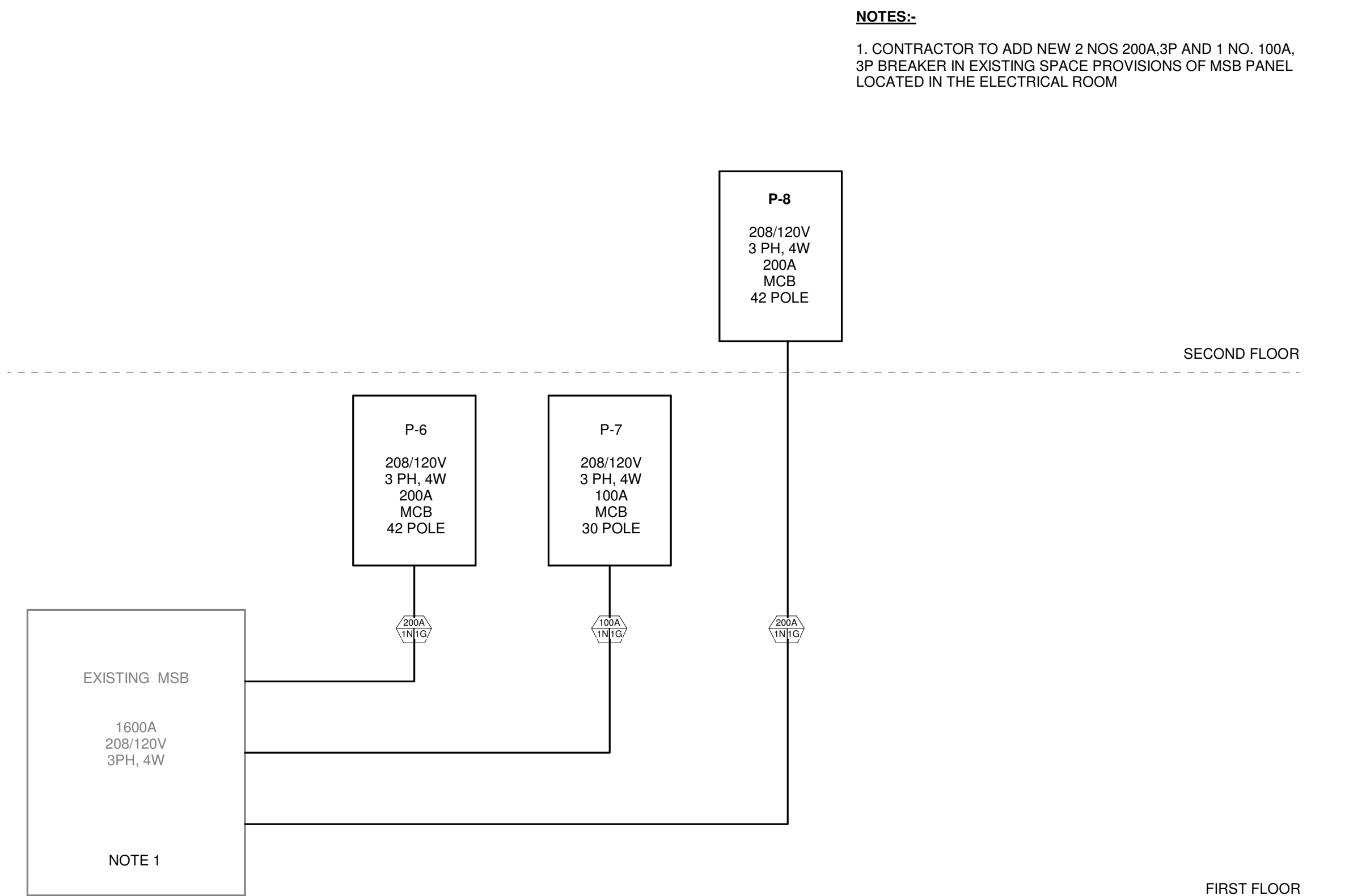
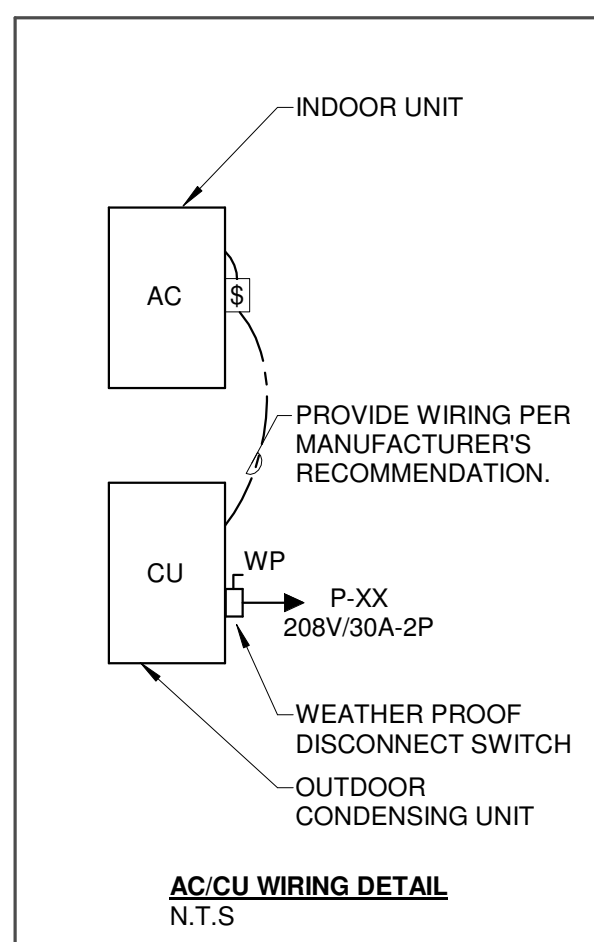
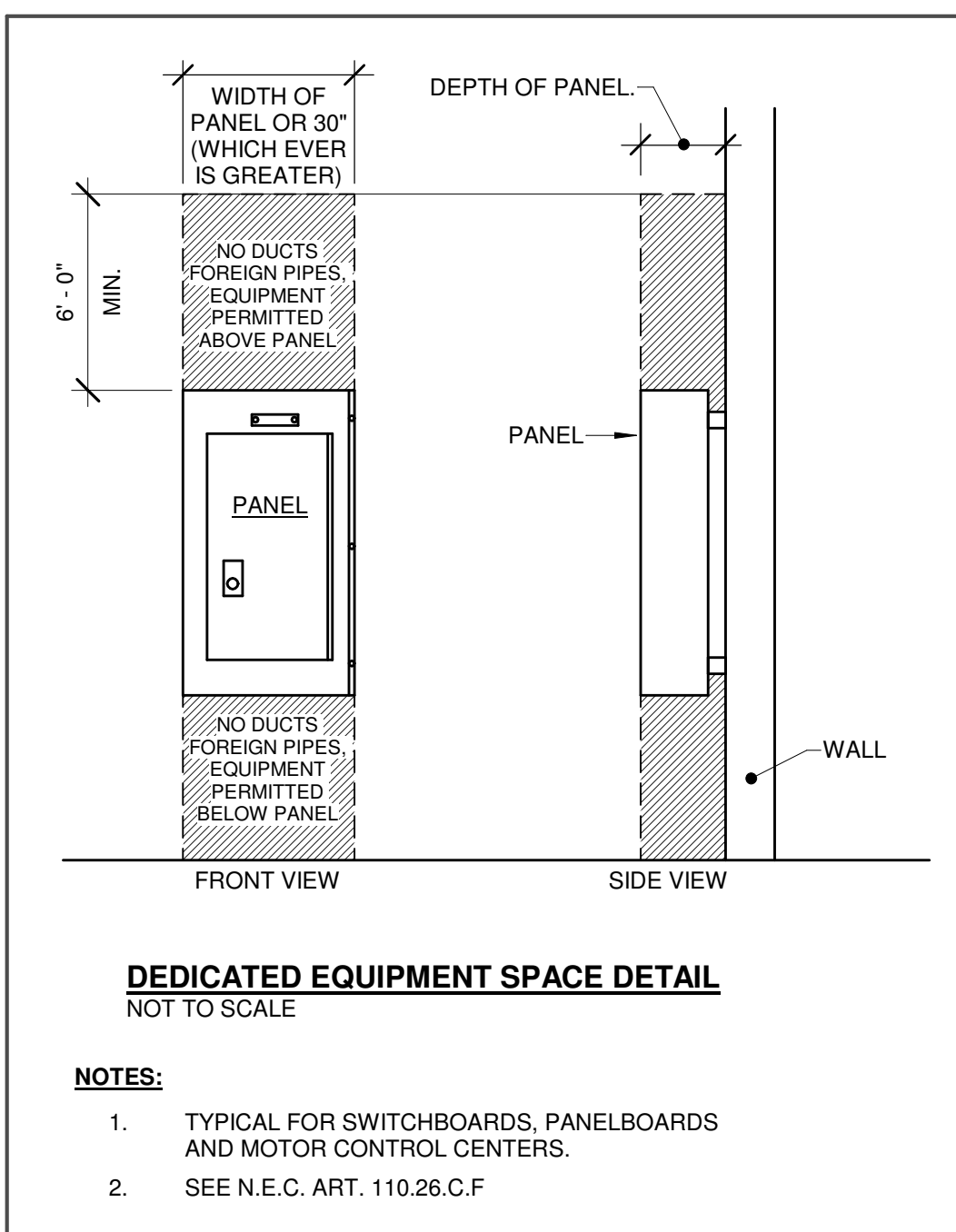
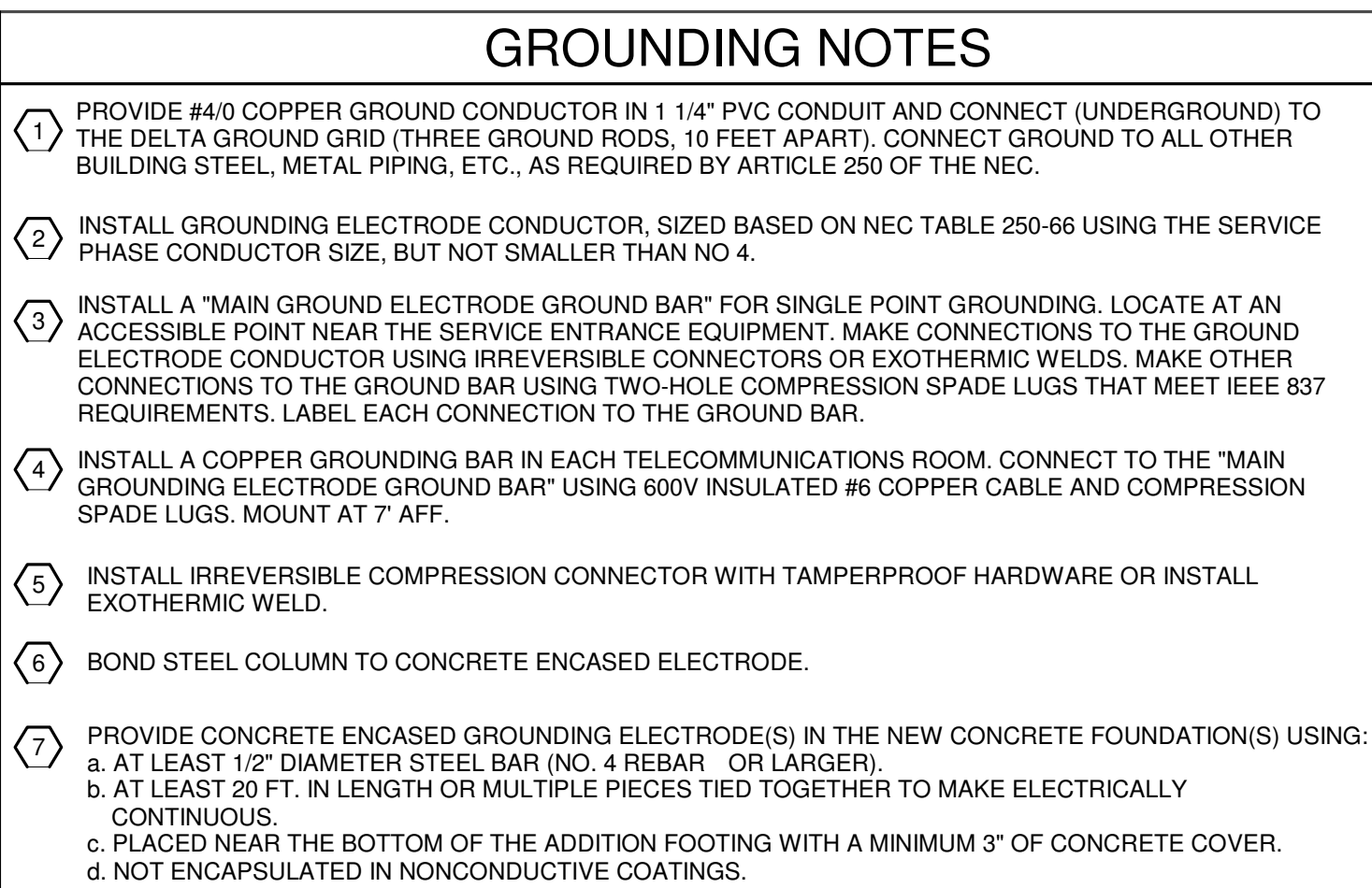
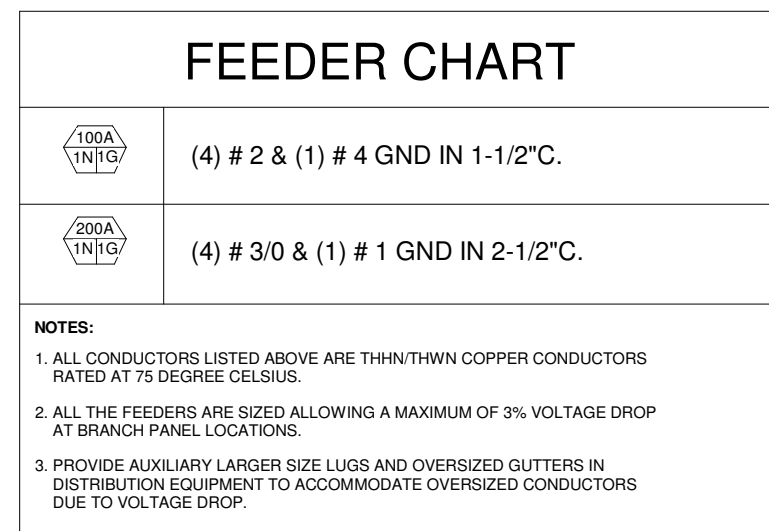
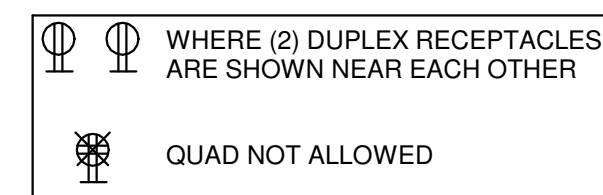
SHEET NUMBER:

E-002

PUTNAM MIDDLE SCHOOL

35 WICKER ST., PUTNAM, CT 06260





CONDENSING UNIT ELECTRICAL SCHEDULE									
NOTES: 1. PROVIDE FUSED DISCONNECT SWITCH WITH FUSES PER MANUFACTURER RECOMMENDATION. FUSED DISCONNECT SWITCH MAY NOT NECESSARILY BE SHOWN ON ELECTRICAL PLANS. COORDINATE EXACT LOCATION OF FUSED DISCONNECT SWITCH IN FIELD. MAINTAIN MINIMUM OF 3'-0" CODE CLEARANCE REQUIREMENT IN FRONT OF ALL FUSED DISCONNECT SWITCHES.									
MARK	MANUFACTURER	MODEL NO.	LOAD(VA)	VOLT/PHASE	LOAD(A)	BREAKER RATING	SWITCH/FUSE	WIRE SIZE	COMMENTS
CU-1	mitsubishi electric	MUZ-FS18NAH	3744	208/1	18	25A-2P	30A/25A-2P	(3) # 10 & (1) # 10 GND IN 1"	
CU-2	mitsubishi electric	MUZ-GL24NA-U1	4160	208/1	20	25A-2P	30A/25A-2P	(3) # 10 & (1) # 10 GND IN 1"	

[illegible]



## Branch Panel: P-8

**Location:** STAIR B143  
**Supply From:**  
**Mounting:** SURFACE  
**Enclosure:** TYPE 1

**Volts:** 120/208 Wye  
**Phases:** 3  
**Wires:** 4

**A.I.C. Rating:**  
**Mains Type:** MCB  
**Bus Rating:** 200 A  
**MCB Rating:** 200 A

**Feed Thru Lugs:**

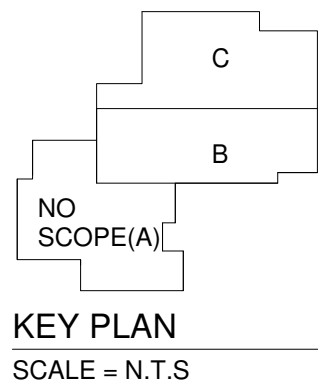
**Notes:**

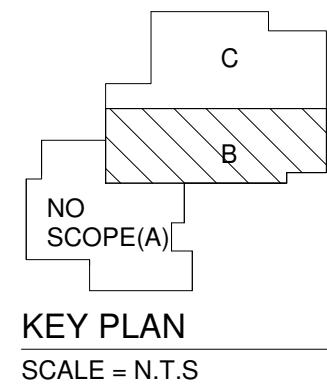
CKT	Circuit Description	Note	Trip	Pole	A	B	C	Pole	Trip	Note	Circuit Description	CKT
1	CU-1/CLASSROOM(B218)	25 A	2		0 1872			2	25 A		CU-1/CLASSROOM(B119)	2
3	Spare	20 A	1			0 1872		1	20 A		Spare	4
5							0 0	1	20 A			6
7	CU-1/CLASSROOM(B207)	25 A	2		1872 1872			2	25 A		CU-1/CLASSROOM(B208)	8
9						1872 1872						10
11							1872 1872	2	25 A		CU-1/CLASSROOM(B223)	12
13	CU-1/CLASSROOM(B222)	25 A	2		1872 1872			2	25 A		CU-1/CLASSROOM(B223)	14
15						1872 1872						16
17	CU-1/CLASSROOM(B208)	25 A	2				1872 1872	2	25 A		CU-1/CLASSROOM(B220)	18
19	Spare	20 A	1		0 1872			2	25 A		CU-1/CLASSROOM(B224)	20
21						1872 1872						22
23	CU-1/CLASSROOM(B221)	25 A	2				1872 1872	2	25 A		CU-1/CLASSROOM(B226)	24
25	Spare	20 A	1		0 1872			2	25 A			26
27	CU-1/CLASSROOM(B225)	25 A	2			1872 0		1	20 A		Spare	28
29							1872 0	1	20 A		Spare	30
31	Spare	20 A	1		0 0			1	20 A		Spare	32
33	Spare	20 A	1			0 0		1	20 A		Spare	34
35	Spare	20 A	1				0 0	1	20 A		Spare	36
37	Spare	20 A	1		0 0			1	20 A		Spare	38
39	Spare	20 A	1			0 0		1	20 A		Spare	40
41	Spare	20 A	1				0 0	1	20 A		Spare	42
<b>Total Load:</b>					13104 VA	14976 VA	13104 VA					
<b>Total Amps:</b>					109 A	125 A	109 A					
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Power		41184 VA		100.00%		41184 VA						
								<b>Total Conn. Load:</b> 41184 VA				
								<b>Total Est. Demand:</b> 41184 VA				
								<b>Total Conn.:</b> 114 A				
								<b>Total Est. Demand:</b> 114 A				

**Notes:**

[illegible]



[illegible]



**SHEET TITLE:**  
**FIRST FLOOR  
ELECTRICAL  
PLAN-PART B**

---

**SHEET NUMBER:**  
**E-102**

FILE NO:	24103.02
SCALE:	AS NOTED
DATE:	07/10/2024
DRAWN BY:	YP
CHECKED BY:	MA

PUTNAM MIDDLE SCHOOL  
35 WICKER ST., PUTNAM, CT 06260

[illegible]

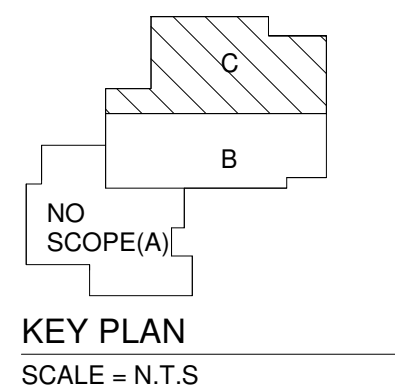
THIS DOCUMENT, THE IDEAS  
HEREIN, AND DESIGNS INCORPORATED THEREIN, AS  
WELL AS ANY INSTRUMENT OF PROFESSIONAL  
SERVICES, IS THE PROPERTY OF RUSSELL  
AND DAWSON INC. AND MAY NOT BE USED,  
IN WHOLE OR IN PART, FOR ANY OTHER  
PROJECT OR BY ANY OTHER PERSON OR  
CORPORATION OTHER THAN THAT NAMED  
THEREON WITHOUT THE WRITTEN  
AUTHORIZATION OF RUSSELL AND  
DAWSON INC. ANY SUCH UNAUTHORIZED  
USE WILL BE SOLELY AT THE USER'S RISK  
AND RUSSELL AND DAWSON INC. WILL  
BEAR NO RESPONSIBILITY ARISING OUT OF  
SUCH USE.

**RUSSELL AND DAWSON INC.**  
**ARCHITECTURE & ENGINEERING**

1111 Main Street, East Hartford CT 06108  
TEL: (860) 269-1100 FAX: (860) 269-3272 E-MAIL: [info@rdamp.com](mailto:info@rdamp.com)



FIRST FLOOR ELECTRICAL PLAN - PART C (MIDDLE SCHOOL)  
1/8" = 1'-0"



**SHEET TITLE:**  
**FIRST FLOOR  
ELECTRICAL  
PLAN-PART C**

SHEET NUMBER:

E-103

FILE NO:	24103.02	PROJECT:
----------	----------	----------

--	--

SCALE: AS NOTED

DATE:	07/10/2024
-------	------------

DATE: 03/03/00

---

---

PUTNAM MIDDLE SCHOOL

35 WICKER ST, PUTNAM, CT 06260

**STAMP:**

[illegible]

THIS DOCUMENT, THE IDEAS  
AND THE CONCEPTS THEREIN, AS  
AN INSTRUMENT OF PROFESSIONAL  
SERVICES, IS THE PROPERTY OF RUSSELL  
AND DAWSON INC. AND MAY NOT BE USED,  
IN WHOLE OR IN PART, FOR ANY OTHER  
PROJECT OR BY ANY OTHER PERSON OR  
CORPORATION OTHER THAN THAT NAMED  
HEREON. THE PROPERTY OF RUSSELL AND  
DAWSON INC. ANY SUCH UNAUTHORIZED  
USE WILL BE SOLELY AT THE USER'S RISK  
AND RUSSELL AND DAWSON INC. WILL  
BEAR NO RESPONSIBILITY ARISING OUT OF  
SUCH USE.

DISCLOSURE AND DATA MONITORING



1111 Main Street, East Hartford CT 06108  
TEL: (860) 289.1100 FAX: (860) 289.3272 E-MAIL: info@rdraen.com

## NOTES

1. CONTRACTOR TO SUPPLY AND INSTALL NEW PANELS P-6, P-7, P-8 AS INDICATED IN THE ELECTRICAL PLANS AND CONNECT THE PANELS TO EXISTING MSB IN THE FIRST FLOOR ELECTRICAL 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.

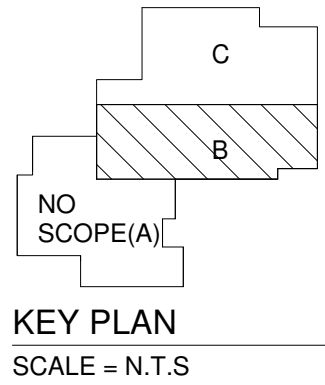
3. CO-ORDINATE WITH MANUFACTURER FOR THE ACTUAL POWER CONNECTION REQUIREMENTS FOR THE MINI-SPLIT UNITS AND PROVIDE NECESSARY DISCONNECT SWITCHES AND CONTROL WIRING.

**NOTES**

1. CONTRACTOR TO SUPPLY AND INSTALL NEW PANELS P-6, P-7, P-8 AS INDICATED IN THE ELECTRICAL PLANS AND CONNECT THE PANELS TO EXISTING MSB IN THE FIRST FLOOR ELECTRICAL 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 MANUFACTURER FOR THE ACTUAL POWER CONNECTION REQUIREMENTS FOR THE MINI-SPLIT UNITS AND PROVIDE NECESSARY DISCONNECT SWITCHES AND CONTROL WIRING.



REVISIONS	
NO.	DESCRIPTION