TYPE	DESCRIPTION	LOCATION	MANUFACTURER	LA	MPS	INF	PUT	DIM BALLAS
IIFE			& CATALOG #	NO.	TYPE	VOLTS	WATTAGE	OR DRIVER
A1	SURFACE MOUNTED FIXTURE	THROUGHOUT	VELA-DIR-RD-SUR-WH-0P-35K -C80-UNY05000LDM-2FT	1	LED	1200	3 <b>9</b> W	-
A2	SURFACE MOUNTED FIXTURE	THROUGHOUT	VELA-DIR-RD-SUR-WH-0P-35K -C80-UNV04000LDM-2FT	1	LED	1200	3 <b>9</b> W	-
B1	LED RECESSED 2'x4' FIXTURE	THROUGHOUT	COLUMBIA LIGHTING VSY24	-	LED	1200	37W	Ø-10V
B2	LED RECESSED 2'x2' FIXTURE	THROUGHOUT	COLUMBIA LIGHTING VSY22	-	LED	12 <b>0</b> Y	25W	Ø-10Y
C1	LED RECESSED 2'x4' FIXTURE	THROUHGOUT	LUCEN LU24-A-835MO-GI	-	LED	12 <b>0</b> Y	32W	Ø-10Y
C2	LED RECESSED 2'x2' FIXTURE	THROUHGOUT	LUCEN LU22-A-835MO-GI	-	LED	1200	31W	Ø-10Y
D1	STEP LIGHT SERIES	THATER	9TL615Ø-8"Ø/C-LED-3ØK -9M0KE(9LC)	-	LED	12VDC	Ø.45W	-
D2	STEP LIGHT SERIES	THATER	9TL6125-8"Ø/C-LED-3ØK -9MØKE(9LC)	-	LED	12VDC	Ø.45W	-
E	FLUSH MOUNT LED FIXTURE	STAIRWAY	MAJESTIC LIGHTING CIØ43	1	LED	1204	23W	-
F	4" LED DOWNLIGHT	VESTIBULE	PRESCOLITE LTR-4RD	1	LED	12 <b>0</b> Y	12W	Ø-10Y
G	WALL LIGHTS	VESTIBULE	DICH-DIM W 2-Ø71	1	LED	12 <b>0</b> Y	12W	-
Н	LED LINEAR FIXTURE	THROUGHOUT	COLUMBIA LIGHTING MPS MULTIPURPOSE LINEAR	1	LED	1204	3 <b>0</b> W	
J	LED LENSED STRIPLIGHT	THROUGHOUT	COLUMBIA LCL8-35-VL-E-U-CSHC	1	LED	12 <b>0</b> Y	51W	
K	LED ROUND DOWNLIGHT	AUDITORIUM	PRESCOLITE LTR-4RD	1	LED	1204	35W	Ø-10Y
L	DECOR FIXTURE	STAIRWAY	FC LIGHTING FCU67168-UNV-35K-CR185-25L -BA	1	LED	1200	2 <b>Ø</b> W	Ø-10Y
vi	EXTERIOR DECOR FIXTURE	EXTERIOR WALLS	FC LIGHTING FCW671700-UNV-35K-CR105-25L -BA	1	LED	1200	21W	Ø-10Y
<b>)</b>	3" LED RECESSED DOWNLIGHT	ENTRANCE VESTIBULE	PRESCOLITE LTR-3RD	1	LED	1200	25W	Ø-10Y
2	4" LED SURFACE MOUNT FIXTURE	ELEVATOR	ELITE LED LIGHTING RL470	1	LED	1200	10W	-
₹1	4" LED ROUND ADJUSTABLE FIXTURE	THEATRE	PRESCOLITE LTR-4RA	1	LED	1200	43W	Ø-10V
₹2	4" LED ROUND ADJUSTABLE FIXTURE	THEATRE	PRESCOLITE LTR-4RD	1	LED	1200	43W	Ø-10Y
5	LED ELEVATOR SHAFT FIXTURE	ELEVATOR	LED VAPORTITE SERIES SEVER LOCATION	1	LED	12 <b>0</b> Y	27W	-
Т	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	1204		-
U1	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	1204		-
U2	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	1204		-
U3	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	12 <b>0</b> Y		-
V	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	1204		-
w	SITE LIGHTING EXTERIOR	EXTERIOR	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	-	-	1200		-
EM-A	LED LAMP FIXTURE	TBD	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	2	LED	1200	2W	-
EM-B	RECESSED LED LIGHT FIXTURE	TBD	REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFICATIONS	2	LED	1200	2W	-
<u>⊗</u>	EXIT SIGN	THROUGHOUT	REFER TO ARCHITECTURAL					<del> </del>

# LIGHTING FIXTURE NOTES:

- 1. ALL LIGHT FIXTURE MOUNTING HARDWARE SHALL MATCH AND BE COORDINATED WITH THE SELECTED CEILING SYSTEM AND CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING REQUIREMENTS AND SPECIFICATION OF FIXTURES.
- 2. PENDENT RODS, CABLES AND CHAINS SHALL BE PROVIDED FOR FIXTURES USED IN ROOMS WITHOUT CEILINGS.
- 3. ALL LIGHTING FIXTURE TRIMS AND FINISHES SHALL BE APPROVED BY THE ARCHITECT PRIOR TO
- 4. REFER TO ARCHITECTURAL/INTERIOR DESIGNER PLANS FOR LIGHTING FIXTURE TYPES AND SPECIFICATIONS. THE ABOVE LIGHT FIXTURE DESCRIPTIONS ARE FOR CONTRACTOR INFORMATION AND REFERENCE ONLY.
- 5. FIXTURES DESIGNATED AS "EM" EXCLUSIVE OF THEATER AREAS SHALL BE PROVIDED WITH AN INTEGRAL EMERGENCY BATTERY PACK ENABLING FIXTURE TO CONNECT TO AN EMERGENCY SOURCE WHEN LOSS OF NORMAL POWER OCCURS. ON/OFF CONTROL SHALL NOT CAUSE FIXTURE PACKS TO ENERGIZE. PROVIDE UNSWITCHED PHASE LEG TO BATTERY PACK UNIT. EXIT AND EMERGENCY LIGHT FIXTURE TYPES AND LOCATIONS ARE SUBJECT TO BUILDING APPROVAL.
- 6. LOWER CASE LETTERS NEXT TO A FIXTURE SHALL DENOTE SWITCH CONTROL AND THEREFORE BE CONNECTED TO THE SWITCH IN THE SAME ROOM WITH SAME LOWER CASE LETTER.
- T. CONTRACTOR TO COORDINATE WIRING REQUIREMENTS, MAXIMUM ALLOWABLE DISTANCE OF CONDUCTORS AND SIZES WITH MANUFACTURER/ARCHITECT. CONTRACTOR TO COORDINATE THE SIZES FOR ALL REMOTE TRANSFORMERS AND EXACT ACCESSIBLE LOCATIONS WITH ARCHITECT.
- 8. ALL SWITCH TYPES AND SPECIFICATIONS TO BE SUBMITTED FOR ARCHITECT AND ENGINEER FOR REVIEW APPROYAL.
- 9. ALL LIGHTING FIXTURES, EQUIPMENT, DEVICES, ETC. SHALL BE U.L. LISTED. ALL LIGHT FIXTURES, EQUIPMENT, WIRING METHODS, ETC. WITHIN A CEILING RETURN AIR PLENUM SHALL COMPLY WITH NEC. SECTION 300-22, AND ANY ADDITIONAL BUILDING REQUIREMENTS. VERIFY IF ANY ADDITIONAL BUILDING REQUIREMENTS WITH THE ARCHITECT PRIOR TO BID.

#### ELECTRICAL SYMBOLS

- WALL MOUNTED 125Y,, 2P-3W DUPLEX RECEPTACLE NEMA 5-20R MOUNTED 18" AFF UNLESS OTHERWISE NOTED).
- WALL MOUNTED 125Y., 2P-3W GROUND FAULT INTERRUPTER (GFI) DUPLEX RECEPTACLE OUTLET (44" AFF UNLESS OTHERWISE) COORDINATE LOCATIONS WITH ARCHITECT DRAWINGS.
- TWO WALL MOUNTED 125Y,, 2P-3W DUPLEX RECEPTACLE OUTLETS MOUNTED " AFF UNLESS OTHERWISE NOTED.
- RECESSED SINGLE-GANGED FLOOR MOUNTED DUPLEX OUTLET. PROVIDE 3/4" CONDUIT. COORDINATE FLANGE TYPE & COLOR WITH ARCHITECT. (DEVICES BY HUBBELL, LEVITON OR APPROVED EQUAL.
- WALL MOUNTED TELEPHONE / DATA (18" AFF UNLESS OTHERWISE NOTED) WITH I" E.C. AND DRAGLINE. PROVIDE 4" SQUARE JUNCTION BOX WITH ONE GANG EXTENSION RING. COORDINATE JACKS SUPPLIED BY CLIENTS TELECOM VENDOR
- WALL MOUNTED DATA OUTLET WITH I" E.C. AND DRAGLINE. PROVIDE 4" SQUARE JUNCTION BOX WITH ONE GANG EXTENSION RING. COORDINATE JACKS SUPPLIED BY CLIENTS TELECOM VENDOR.
- WALL MOUNTED TELEPHONE OUTLET WITH I" E.C. AND DRAGLINE, PROVIDE 4" SQUARE JUNCTION BOX WITH ONE GANG EXTENSION RING. COORDINATE JACKS SUPPLIED BY CLIENTS TELECOM VENDOR.
- LIGHT SWITCH CEILING MOUNTED VACANCY SENSOR
- LIGHT SWITCH THREE WAY CEILING MOUNTED VACANCY SENSOR
- LIGHT SWITCH DIMMER WALL MOUNTED,
- LIGHT SWITCH OCCUPANCY WALL MOUNTED,
- LIGHT SWITCH MASTER SWITCH WALL MOUNTED,
- CEILING MOUNTED OCCUPANCY SENSOR
- CEILING MOUNTED YACANCY SENSOR
- FIRE SMOKE DAMPER
- MOTORIZED DAMPER
- CEILING MOUNTED CAMERA
- WALL MOUNTED BELL
- WALL MOUNTED SENSOR
- TORK TIME CLOCK
- HOMERUN WITH PANEL DESIGNATION. NUMERAL WHERE USED INDICATES CIRCUIT NUMBER IT SHALL CONSIST OF 2#12-3/4"C, UNLESS NOTED.
- CONCEALED WIRING (IN WALL OR CEILING)
- CEILING MOUNTED JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- SLAB MOUNTED JUNCTION BOX

#### WIREWAY

- TOGGLE-TYPE DISCONNECT SWITCH WITH FLEXIBLE EQUIPMENT CONNECTION.
- JUNCTION BOX WITH 120V, 20A RECEPTACLE MOUNTED TO DECK
- ELECTRICAL SYMBOL FOR MISCELLANEOUS CONNECTION:
  - PS-PROJECTION SCREEN PJ-PROJECTION EQUIPMENT MS-MOTORIZED SHADE EC SECURITY EQUIPMENT FA-FIRE ALARM

# ELECTRICAL SYMBOL FOR MECHANICAL EQUIPMENT CONNECTION. AHU-AIR HANDLING UNIT FCU-FAN COIL UNIT

AC-AIR CONDITIONING UNIT YAY-YARIABLE AIR YOLUME BOX UH-UNIT HEATER EWC-ELECTRIC WATER COOLER EHC-ELECTRIC HEAT COIL MD-MOTORIZED DAMPER HWH-HOT WATER HEATER ECH-ELECTRIC CABINET HEATER CP-CONDENSATE PUMP

FYAY-FAN POWERED VAY BOX

- UNFUSED DISCONNECT SWITCH U.O.N.
- FUSED DISCONNECT SWITCH U.O.N.
- COMBINATION MOTOR STARTER/DISCONNECT SWITCH
- EXISTING SURFACE MOUNTED PANELBOARD
- EXISTING FLUSH MOUNTED PANELBOARD
- RELOCATED SURFACE MOUNTED PANELBOARD
  - RELOCATED FLUSH MOUNTED PANELBOARD

# SECURITY SYSTEM NOTES:

- SECURITY DEVICES AND WIRING SHALL BE BY SECURITY VENDOR. CONTRACTOR TO PROVIDE AND INSTALL JUNCTION BOXES AND
- EMPTY CONDUIT STUB-UPS WITH DRAGLINES INTO CEILING SPACE WITH BUSHED ENDS FOR CABLE PULLS. 3. REFER TO CLIENTS SECURITY VENDORS FOR ADDITIONAL DETAILS.

# ABBREVIATIONS

CP

DISC

DWG

# (NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

- LEAK DETECTOR AMP/AMPERE AIR CONDITIONING LDP LEAK DETECTION AMERICANS WITH LIGHTING DISABILITIES ACT MAXIMUM ABOVE FURNISHED MCB MAIN CIRCUIT FLOOR BREAKER MOTORIZED DAMPER AUTHORITIES HAVING JURISDICTION MECH MECHANICAL MECHANICAL AIR HANDLING UNIT ALUMINUM EQUIPMENT ROOM AUDIO VISUAL MAIN LUG ONLY MOTORIZED SHADE AMERICAN WIRE GAUGE MOUNTED T CONDUIT (N) NEUTRAL CIRCUIT BREAKER CIRCUIT NEW TO REPLACE CONDENSATE PUMP EXISTING COPPER NON-FUSED DISCONNECT NOT IN CONTRACT NIGHT LIGHT DRAWING EXISTING TO REMAIN NOT TO SCALE ELECTRICAL POLE CONTRACTOR PULL BOX EXHAUST FAN PHASE ELECTRIC HEAT COIL PROJECTION SCREEN ELECTRICA EMERGENCY REMOVE EXISTING
- ELECTRIC HOT **EQUIPMENT** WATER HEATER RELOCATED EXISTING TO BE EXISTING (NEW RELOCATED LOCATION) RECEPT RECEPTACLE FIRE ALARM FURNISHED BY RGSC RIGID GALYANIZED STEEL CONDUIT SMOKE DETECTOR

SPEC SPECIFICATION

SWITCH

TEL

TY

TF

SWBD SWITCHBOARD TELEPHONE

TRANSFER FAN

WEATHERPROOF

TELEVISION

OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR FAN COIL UNIT G, GND GROUND GROUND FAULT

INTERRUPTER

TYPICAL UNF UNFUSED ISOLATED GROUND UNLESS OTHERWISE INFORMATION TECHNOLOGY NOTED JUNCTION BOX YOLT/YOLTAGE KILOYOLTAMPERE VOLTAMPERE VAV YARIABLE AIR THOUSAND CIRCULAR MILS **YOLUME** 

# LINE REPRESENTATION

KCMIL

NEW WIRING ROUTED BELOW FLOOR (CORE DRILL AND STUB-UP)

### ----- EXISTING WIRING TO REMAIN

LIGHTING CONTROL

/////////////// EXISTING WIRING BE REMOVED

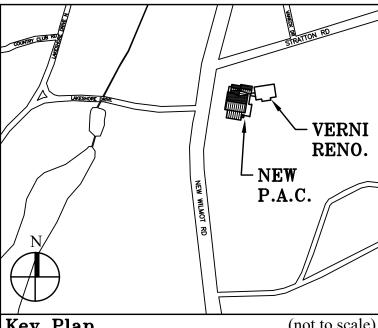
# GENERAL NOTES

CONTRACT

- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. SIZES AND LOCATION OF EQUIPMENT AND WIRING ARE SHOWN TO SCALE WHERE POSSIBLE, BUT MAY BE DISTORTED FOR CLARITY ON THE DRAWINGS. FINAL LOCATION OF OUTLETS AND EQUIPMENT SHALL BE AS APPROVED BY THE ARCHITECT. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY BENDS, OFFSET, PULL BOXES AND OBSTRUCTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL HIS WORK TO CONFORM TO THE
- STRUCTURE, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAN. REFER TO SPECIFICATIONS COVERING MECHANICAL, PLUMBING & FIRE PROTECTION

WORK FOR POSSIBLE ADDITIONAL WORK TO BE PERFORMED UNDER THE ELECTRICAL

- 3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE FULL SET OF BID DOCUMENTS TO BE AWARE OF THE TOTAL SCOPE PRIOR TO SUBMITTING
- 4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH MECHANICAL PLUMBING AND OTHER TRADES FOR EXACT LOCATION OF ALL CONTROL DEVICES. LOCATION AS SHOWN ON THE ELECTRICAL PLANS ARE APPROXIMATE. ALL FINAL CONNECTIONS TO MOTOR TERMINALS SHALL BE DONE WITH A MINIMUM IS OF LIQUID TIGHT FLEXIBLE CONDUIT USING THE APPROPRIATE FITTINGS. PROVIDE EXTERIOR GROUND WIRE WRAPPED AROUND FLEXIBLE CONDUIT WHERE REQUIRED BY CODE.
- 5. ALL NOTATIONS OF "SCALE: ARE INTENDED AS APPROXIMATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ASCERTAIN THE EXACT LOCATIONS OF ALL EQUIPMENT AND VERIFYING REQUIRED CLEARANCES.
- 6. THIS CONTRACTOR SHALL FURNISH & INSTALL ALL LABOR AND MATERIALS REQUIRED TO PRODUCE COMPLETE AND WORKING SYSTEMS. HE SHALL FURNISH AND INSTALL COMPLETE WIRING FOR LIGHTING, POWER, HYAC EQUIPMENT, ETC.
- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD MEASUREMENTS AND VERIFICATION OF FIELD CONDITIONS PRIOR TO PERFORMING HIS WORK, ANY CHANGES IN WORK NECESSITATED BY FAILURE OF THIS CONTRACTOR TO COMPLY WITH THIS CONDITION SHALL BE UNDERTAKEN BY THIS CONTRACTOR AT HIS OWN EXPENSE.
- 8. ALL AREAS ABOVE PANELBOARDS SHALL BE FREE FROM WORK OF OTHER TRADES.
- 9. ALL WORKING CLEARANCES FOR PANELBOARDS AND OTHER ELECTRICAL EQUIPMENT SHALL COMPLY WITH THE NEC ELECTRIC CODE & ASSOCIATED TABLES.
- 10. NUMERAL INDICATED ADJACENT TO LIGHT FIXTURES, RECEPTACLES, DEVICES AND EQUIPMENT INDICATES CIRCUIT NUMBER IN PANEL. PROVIDE WIRE AND CONDUIT TO INTERCONNECT THE AFOREMENTIONED, ASSOCIATED SWITCHES, AND CONTROL DEVICES WITH SAME CIRCUIT NUMBERS. ROUTE TO PANEL VIA CONDUIT HOMERUNS
- 11. ELECTRICAL CONTRACTOR SHALL PROVIDE NEW AND UPDATED TYPEWRITTEN PANEL DIRECTORIES FOR EXISTING PANELS TO REMAIN. IN COMPLIANCE WITH NEC ARTICLE 408.4. THE IDENTIFICATION SHALL INCLUDE AN APPROVED DEGREE OF DETAIL THAT ALLOWS EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS. CIRCUITS USED FOR THE SAME PURPOSE MUST BE IDENTIFIED BY THEIR LOCATION. UTILIZE ROOM NUMBERS, WORKSTATION NUMBERS, COLUMN GRID LINES, ETC. SUBMIT SCHEDULES TO ENGINEER FOR REVIEW PRIOR TO INSTALLATION
- 12. PROVIDE TIE BARS ON ALL SINGLE POLE CIRCUIT BREAKERS SERVING MULTI-WIRE BRANCH CIRCUITS IN COMPLIANCE WITH NEC ARTICLE 210.4 (B). EXISTING CIRCUIT BREAKERS REQUIRING TIE HANDLES SHALL BE REPLACED WITH NEW TRIP FREE HANDLE BREAKERS. NEW BREAKERS SHALL MATCH BASE BUILDING STANDARDS, SHALL BE FROM SAME MANUFACTURER OF EXISTING BREAKERS THAT ARE TO REMAIN IN PANEL, AND SHALL BE COMPATIBLE WITH PANELBOARD. CONTRACTOR SHALL COORDINATE REQUIREMENTS IN FIELD WITH EXISTING EQUIPMENT.
- 13. ARMORED CABLE SHALL NOT BE INSTALLED EXPOSED IN ELECTRIC CLOSETS, MECHANICAL ROOMS, TELEPHONE CLOSETS, ETC. EMT OR CONDUIT SHALL BE UTILIZED FROM ELECTRIC CLOSET TO FIRST RECEPTACLE OR LIGHT FIXTURES.
- 14. THE CONTRACTOR SHALL DO NECESSARY CUTTING, CHOPPING & PATCHING FOR WORK UNDER THIS CONTRACT. ALL CHOPPING, ETC. SHALL BE PERFORMED AFTER HOURS AND COORDINATED WITH BUILDING MANAGEMENT.
- 15. THE ARCHITECT SHALL VERIFY MOUNTING HEIGHTS OF ALL DEVICES.
- 16. FINISHES OF ALL RECEPTACLES, SWITCHES, TELEPHONE OUTLETS, ETC. TO BE SELECTED BY ARCHITECT.
- 17. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL RECEPTACLES, TELEPHONE OUTLETS, FLOOR BOXES, ETC. CONSTRUCTION DOCUMENTS SHALL NOT BE
- 18. ALL RECEPTACLES AND SWITCHES IN OFFICES CLASSROOMS, ETC. SHALL BE "DECORA/DESIGNER" STYLE.
- 19. COORDINATE LOCATION OF OUTLETS AND SWITCHES WITH THE FURNITURE AND EQUIPMENT LAYOUTS AND WITH FACILITIES REPRESENTATIVE.
- 20. VERTICALLY ALIGN ALL LIGHT SWITCHES, STROBE DEVICES, THERMOSTATS IN ALL
- 21. ALL DEVICES GANGED TOGETHER SHALL BE MOUNTED UNDER A SINGLE COVER
- 22. ALL PANTRY RECEPTACLES SHALL BE GFI TYPE
- 23. PROVIDE UNFUSED DISCONNECT SWITCHES FOR ALL MECHANICAL EQUIPMENT UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS OF HYAC SCHEDULES.
- 24. THE MINIMUM RATING OF DISCONNECT SWITCHES SHALL BE EQUAL TO OR GREATER THAN THE RATING OF THE PROTECTIVE DEVICE ON THE SUPPLY SIDE OF THE DISCONNECT SWITCH. MINIMUM DISCONNECT SWITCH SIZE IS 30 AMPERES.
- 25. WIRING IN ALL PLENUM HUNG CEILING INSTALLED WITHOUT CONDUIT OR EMT SHALL BE TEFLON JACKETED OR LISTED FOR INSTALLATION IN A PLENUM.
- 26. ALL CONTROL WIRING ASSOCIATED WITH MECHANICAL EQUIPMENT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
- 27. NO LOW YOLTAGE WIRING SHALL BE PERMITTED IN SAME RACEWAY AS POWER WIRING.
- 28. FURNISH AND INSTALL WIRING FOR EQUIPMENT FURNISHED BY OTHERS AS SHOWN ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND/OR ELECTRICAL DRAWINGS. COORDINATE WITH OTHER TRADES FOR DETAILS OF INSTALLATION AND WIRING
- 29. PROVIDE FIRE-STOPPING ON ALL NEW AND EXISTING PENETRATIONS THROUGH THE WALL AND FLOOR DUE TO DEMOLITION OR NEW CONSTRUCTION. THE FIRE RATING OF THE PENETRATION SEALING METHOD SHALL MATCH THE RATING OF THE WALL OR FLOOR, USE A UL LISTED SEALING METHOD WHICH IS ACCEPTABLE TO FACILITIES MANAGEMENT. FIRE-STOP ID REQUIRED ABOVE ACCESSIBLE CEILINGS, FLOORS AND ATTIC SPACE ON ALL PROTECTED OPENINGS PER 2020 NYSBC SECTION 103.1.
- 30. BRANCH CIRCUIT HOMERUN CONDUCTORS SHALL BE INCREASED ONE SIZE TO COMPENSATE FOR VOLTAGE DROP WHEN 120Y CIRCUITING EXCEEDS 200 FEET.
- 31. UPON COMPLETION OF ALL ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL ADJUST AND TEST ALL CIRCUITS, RECEPTACLES, SWITCHES, LIGHTS, MOTORS AND ANY OTHER ELECTRICAL ITEMS INSTALLED. ANY DEFECTIVE ITEMS SHALL BE IMMEDIATELY REPAIRED OR REPLACED WITH NEW AND THAT PORTION OF THE SYSTEM RETESTED. ALL SUCH REMEDIAL WORK SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE
- 32. COORDINATE WITH BUILDING MANAGER FOR ANY SERVICE INTERRUPTION OF EXISTING LIGHTING AND POWER PANELS AND GIVE NOTICE FIVE DAYS PRIOR TO ANY WORK.
- 33. FOR EXISTING VERNI BUILDING DEVICES (LIGHTING, RECEPTACLES, ETC.) SHALL REMAIN ACTIVE, IF DEVICES HAVE BEEN DISCONNECTED BY DEMOLITION, DEVICES SHALL BE RECONNECTED AND RE-ENERGIZED UTILIZING SPARE CIRCUIT BREAKERS. ALL DEVICES VISUAL SHALL BE REMOVED AND REPLACED WITH NEW DEVICES MATCHING PROJECT STANDARDS.
- 34. CONTRACTOR SHALL LABEL CONDUIT PASSING THROUGH RATED WALLS SIMILAR TO LABELTAC (LABELTAC.COM)



Key Plan (not to scale)

6/01/2021 ISSUED FOR BID 6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW 5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW 9/23/2020 RESUBMITTED FOR ZONING REVIEW

1. 1/10/2020 ISSUED FOR DD ESTIMATE Date Revision/Submission STRUCTURAL & SITE CIVIL ENGINEER DOMINICK R PILLA ASSOCIATES, P.C.

845-727-7793 MEP ENGINEER **ROOFING CONSULTANT** JMV CONSULTING WATSKY ASSOCIATES ENGINEERING, P.C. 20 MADISON AVENUE 37 W. 39 STREET, STE 703 VALHALLA, NY 10595

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IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

IONA PREPARATORY SCHOOL |255 Wilmot Road |New Rochelle, NY 10804

ELECTRICAL SYMBOLS AND GENERAL NOTES

04/03/2019 1618 E - 101

Drawing No.

Architects Landscape Architects, LLP 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677

Job No.

PETER GISOLFI ASSOCIATE:

#### 1.01 GENERAL REQUIREMENTS:

- A. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, NEW YORK STATE ELECTRIC CODE, BUILDING MANAGEMENT AND ALL AUTHORITIES HAVING JURISDICTION (AHJ). APPLICABLE NATIONAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS.
- B. IF A CONFLICT OCCURS IN THE SPECIFICATIONS AND/OR ON THE DRAWINGS THE MORE STRINGENT SITUATION SHALL APPLY.
- C. 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 ELECTRICAL WORK IS TAKEN OVER 4 ACCEPTED BY THE OWNER ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE EQUIPMENT FOR THE PROPER STARTUP, OPERATION AND TRAINING OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNERS PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE EQUIPMENT.
- D. ELECTRICAL CONTRACTOR SHALL VISIT AND EXAMINE CAREFULLY THE EXISTING AREAS AFFECTED BY THIS WORK TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND WITH DIFFICULTIES THAT WILL ATTEND THE EXECUTION OF THE WORK, CONTRACTOR SHALL PERFORM THIS, PRIOR TO SUBMITTING HIS PROPOSAL. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE & LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN UNDERTAKEN.
- E. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMEN' OF WORK, REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL DEVICES INCLUDING DIMENSIONS AND ELEVATIONS. WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS.
- F. ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, ANY EQUIPMENT, MATERIALS, ACCESSORIES, OR LABOR REQUIRED FOR PROPER AND COMPLETE INSTALLATION OF THE ELECTRICAL WORK SHALL BE FURNISHED AND INSTALLED AS PART OF THE ORIGINAL BID.
- G. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE LATEST COPY OF THE BUILDING RULES AND REGULATIONS TO DETERMINE THE EXTENT OF PREMIUM TIME WORK REQUIRED. BUILDING SYSTEM INTERRUPTIONS ARE TO BE PERFORMED OUTSIDE OF NORMAL BUSINESS HOURS. COORDINATE WITH FACILITIES MANAGEMENT FOR ANY SERVICE INTERRUPTION OF EXISTING SYSTEMS AND GIVE NOTICE AS REQUIRED BY BUILDING RULES AND REGULATIONS.
- H. ANY DAMAGE TO EXISTING PARTITIONS, FLOORS, CEILINGS OR ANY PART OF THE BUILDING OR EQUIPMENT HOUSED THEREIN CAUSED BY THE WORK OF THE CONTRACTOR SHALL BE REPAIRED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL NEW MATERIALS REQUIRED SHALL CONFORM WITH THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC. (UL) IN EVERY CASE WHERE SUCH A STANDARD EXISTS.
- J. DURING THE PROJECT DURATION, THE BUILDING MANAGEMENT AND ITS DESIGNATED REPRESENTATIVE SHALL BE ABLE TO INSPECT THE WORK IN PROGRESS. ANY WORK WHICH THE BUILDING MANAGEMENT DEEMS UNACCEPTABLE SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF CONTRACTOR/TENANT.
- K. ALL EQUIPMENT INSTALLED OR CONNECTED INTO THE BUILDING RISERS, SYSTEMS AND INFRASTRUCTURE SHALL BE APPROVED IN ADVANCE BY THE BUILDING PRIOR TO INSTALLATION.

# 1.02 SCOPE OF WORK:

- A. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR COMPLETE, SAFE INSTALLATION OF ALL ELECTRICAL WORK. THE SCOPE OF WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
- INSTALLATION AND COORDINATION OF NEW ELECTRICAL SERVICE. 2. EXTENDING THE NEW SERVICE TO PARENTS HALL AND RECONFIGURING THE EXISTING PARENTS HALL TO BE FED FROM THE NEW POWER SERVICE.
- 3. INSTALLATION OF LIGHTING FIXTURES AND LAMPS INCLUDING EXIT AND EMERGENCY LIGHTING.
- 4. INSTALLATION OF WALL SWITCHES, RECEPTACLES, VOICE/DATA,
- OUTLETS, ETC. 5. INSTALLATION OF NEW RACEWAY AND CONDUCTORS FOR LIGHTING
- AND POWER. 6. ADDITION OR MODIFICATION OF EXISTING ELECTRICAL DISTRIBUTION
- EQUIPMENT. 7. INSTALLATION OF MECHANICAL EQUIPMENT FEEDERS AND FINAL
- CONNECTIONS TO MECHANICAL EQUIPMENT. 8. GROUNDING OF ALL EQUIPMENT AS REQUIRED BY CODE AND AS
- SPECIFIED. 9. MODIFICATION OF NEW/EXISTING FIRE ALARM SYSTEMS.
- 10. TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION. 11. CUTTING, CHANNELING, CORING, AND CHASING REQUIRED TO
- ACCOMMODATE ELECTRIC INSTALLATION AND ROUGH PATCHING. 12. DEMOLITION & REMOVAL OF ELECTRIC EQUIPMENT AS REQUIRED
- INCLUDING ALL CONDUCTORS & CONDUIT BACK TO THEIR SOURCE. 13. MAINTENANCE & PROPER OPERATION OF EXISTING BUILDING SYSTEMS WITHIN THE CONTRACT AREA IN ACCORDANCE WITH THE REQUIREMENTS OF BUILDING MANAGEMENT.
- 14. PROVISION OF SECURITY SYSTEM INFRASTRUCTURE AS DETAILED. 15. PROVISION OF AUDIO/VISUAL SYSTEM INFRASTRUCTURE AS DETAILED. 16. RECEIPT AND INSTALLATION OF DEVICES, EQUIPMENT, SYSTEMS,
- SUPPLIED BY OTHERS AS DETAILED. 17. COORDINATION WITH OTHER TRADES.

# 1.03 SUBSTITUTIONS:

- A. NO SUBSTITUTE MATERIAL OR MANUFACTURER OF EQUIPMENT SHALL BE PERMITTED WITHOUT A FORMAL WRITTEN SUBMITTAL TO THE ENGINEER WHICH INCLUDES ALL DIMENSIONAL, PERFORMANCE AND MATERIAL SPECIFICATIONS. ANY CHANGES IN LAYOUT, MECHANICAL CHARACTERISTICS, STRUCTURAL REQUIREMENTS, OR DESIGN DUE TO THE USE OF A SUBSTITUTION SHALL BE SUBMITTED TO THE ENGINEER AS PART OF THIS PROPOSAL. THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR THE SUBSTITUTION AND ALL CHANGES RESULTING FROM SUBSTITUTION, ALL ITEMS SHALL BE SUBMITTED FOR REVIEW IN CONJUNCTION WITH THE SUBMITTAL OF THE ALTERNATE, ANY SUBSTITUTION MUST BE SUBMITTED WITH AN EXPLANATION WHY SUBSTITUTION IS BEING UTILIZED. IF THE SUBSTITUTED ITEM DEVIATES FROM THE SPECIFIED ITEM THOSE DEVIATIONS ARE TO BE IDENTIFIED ON A LINE BY LINE BASIS. IF THE SUBSTITUTION IS BEING UTILIZED FOR FINANCIAL REASONS, THE ASSOCIATED CREDIT MUST BE SIMULTANEOUSLY SUBMITTED.
- B. ALL SUBSTITUTED EQUIPMENT SHALL CONFORM TO SPACE REQUIREMENTS AND PERFORMANCE REQUIREMENTS SHOWN ON CONTRACT DOCUMENTS.
- C. CONTRACTOR SHALL SUBMIT BID BASED ON SPECIFIED ITEMS AND SHALL SUPPLY AS AN ALTERNATE PRICE ANY SUBSTITUTIONS.
- D. ALL EQUIPMENT SHALL BE APPROVED FOR USE IN THE STATE OF NEW

#### 1.04 SHOP DRAWINGS:

- A. SHOP DRAWINGS SUBMISSION SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
- DISTRIBUTION EQUIPMENT (PANELS, SWITCHES, ETC.). . Overcurrent protective devices (fuses and breakers).
- 3. LIGHTING FIXTURES.
- 4. WIRING DEVICES. 5. FIRE ALARM EQUIPMENT, WIRING SCHEMATIC AND SEQUENCE OF
- OPERATION. 6. COORDINATION DRAWINGS OF SWITCHBOARD ROOM ELECTRIC CLOSET LAYOUTS INCLUDING ELEVATIONS & MOUNTING DETAILS OF SWITCHBOARDS, PANELBOARDS, METERS, DISCONNECT SWITCHES, ETC.
- 1. FLOOR BOXES/ POKE THRU DEVICES.
- 8. GROUNDING EQUIPMENT/DEVICES.
- 9. CONDUIT, RACEWAYS, WIREWAYS
- 10. WIRING
- 11. LIGHTING CONTROL SYSTEMS TRANSFORMERS.

13. SWITCHGEAR

- B. PROVIDE A MINIMUM OF THREE (3) COPIES OF 8-1/2"x 11" SUBMISSIONS AND TWO (2) SETS OF ALL DRAWINGS.
- C. CHANGES MADE TO SHOP DRAWINGS BY THE CONSULTANT WILL NOT AFFECT THE CONTRACT PRICE.

#### 1.05 AS-BUILT DRAWINGS:

- A. CONTRACTOR SHALL MAINTAIN RECORD DRAWING PRINTS ON JOB SITE AND RECORD, AT TIME OF OCCURRENCE, DEVIATIONS FROM CONTRACT DOCUMENTS.
- B. AT THE COMPLETION OF WORK & BEFORE FINAL ACCEPTANCE, PROVIDE AS-BUILT DRAWINGS OF THE INSTALLATION, IN AUTO-CAD 2018 OR NEWER AN ELECTRONIC COPY (AUTOCAD FORMAT) OF ALL DRAWINGS WILL BE PROVIDED TO THE ELECTRICAL CONTRACTOR BY THE CONSULTANT AT NO COST. THE DRAWINGS WILL REFLECT THE BID AND/OR CONSTRUCTION SET OF DRAWINGS. SHOULD THE CONTRACTOR REQUIRE ADDITIONAL ELECTRONIC COPIES DURING CONSTRUCTION, A COST OF \$250.00 PER DRAWING WILL BE CHARGED BY THE CONSULTANT.
- C. INCORPORATE ALL CHANGES AND DEVIATIONS FROM BID DRAWINGS, UTILIZING NORMAL RECOGNIZED DRAFTING PROCEDURES THAT MATCH THE ORIGINAL DRAFTING METHODOLOGY.
- D. ALL MAIN BRANCH CONDUIT RUNS, JUNCTION BOX LOCATIONS, CONDUIT RUNS FOR ALL FLOOR OUTLETS, ETC., MUST BE REFLECTED ON THE DRAWINGS.
- E. CLEARLY INDICATE THE WORDS "AS-BUILT" IN THE TITLE BLOCK COLUMN OF THE DRAWINGS AS WELL AS THE ELECTRICAL CONTRACTOR'S CONTRACTOR'S NAME AND ADDRESS.
- F. SUBMIT A SINGLE (1) PRINT TO CONSULTANT FOR REVIEW. WHEN FOUND ACCEPTABLE BY THE CONSULTANT, SUBMIT THREE (3) SETS OF PRINTS TOGETHER WITH THE CAD DISK FOR PRESENTATION TO THE FACILITIES MANAGEMENT

#### 1.06 MATERIALS AND EQUIPMENT:

- A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, C.S.A. CERTIFIED AND MANUFACTURED TO THE STANDARDS SPECIFIED.
- B. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT C.S.A. CERTIFIED, OBTAIN SPECIAL APPROVAL FROM THE LOCAL ELECTRICAL SAFETY AUTHORITY.

# 1.07 CONTRACT DOCUMENTS:

- A. THE DRAWINGS FOR THE ELECTRICAL WORK ARE DIAGRAMMATIC PERFORMANCE DRAWINGS ONLY, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE SIZE AND LOCATION OF ELECTRICAL EQUIPMENT. THE DRAWINGS DO NOT INTEND TO SHOW ARCHITECTURAL, INTERIOR DESIGN, MECHANICAL, STRUCTURAL OR BUILDING DETAILS. BE RESPONSIBLE FOR A THOROUGH KNOWLEDGE OF SAME BEFORE PROCEEDING WITH THE WORK.
- B. DO NOT SCALE OR MEASURE DRAWINGS, BUT OBTAIN INFORMATION REGARDING ACCURATE DIMENSIONS FROM THE DIMENSIONS SHOWN ON THE DESIGN ARCHITECT'S DRAWINGS, OR BY SITE MEASUREMENTS.
- C. ANY DISCREPANCIES BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND EXISTING CONDITIONS, MUST BE REFERRED TO THE DESIGN ARCHITECT BEFORE ANY WORK AFFECTED IS BEGUN.
- D. COOPERATE AND COORDINATE WITH OTHER CONTRACTORS IN LAYING OUT OF WORK SO AS NOT TO CONFLICT WITH THE WORK OF OTHER CONTRACTORS. CARRY OUT WORK PROMPTLY AS PER CONSTRUCTION SCHEDULE AND COORDINATE WITH WORK OF OTHER CONTRACTORS.
- E. MAKE, AT NO ADDITIONAL COST, ANY CHANGES OR ADDITIONS TO MATERIALS AND EQUIPMENT NECESSARY TO ACCOMMODATE STRUCTURAL CONDITIONS (OFFSETS AROUND BEAMS, COLUMN, ETC.)

A. ANY MISCELLANEOUS ITEMS, HARDWARE, DEVICES, WIRING, ETC., NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR THE OPERATION OF THE SYSTEM, MUST BE PROVIDED AND INCLUDED AS PART OF THE BID.

### 1.09 LOCATIONS OF OUTLETS:

- A. REFER TO DESIGN ARCHITECT'S DRAWINGS FOR EXACT LOCATIONS OF ALL LIGHTING FIXTURES AND WIRING DEVICES.
- B. CHANGE LOCATION OF OUTLETS AT NO COST OR CREDIT, PROVIDING DISTANCE DOES NOT EXCEED (10'-0") AND INFORMATION IS GIVEN PRIOR TO INSTALLATION.
- C. ALL OUTLETS TO BE MARKED ON JOB SITE FOR APPROVAL BY DESIGN ARCHITECT PRIOR TO INSTALLATION.

A. ALL SURFACE MOUNTED ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE MOUNTED ON PLYWOOD BACKBOARDS. PROVIDE ALL PLYWOOD BACKBOARDS REQUIRED FOR THE WORK OF THIS DIVISION. PLYWOOD BACKBOARDS SHALL BE 3/4 " THICK, OF HIGHEST QUALITY FIRE RETARDANT FIR. PRIME & PAINT BACKBOARDS WITH FIRE RETARDANT PAINT COLOR AS SELECTED BY THE DESIGN CONSULTANT/ARCHITECT.

#### I.II ACCESS DOORS:

A. WHEREYER BUILDING EQUIPMENT REQUIRES ACCESSIBILITY, MAINTENANCE OR ADJUSTMENT, PROVIDE ACCESS DOORS APPROVED BY ARCHITECT AND FACILITIES MANAGMENT, ARRANGE FOR ITS INSTALLATION BY THE DIVISION IN WHOSE WORK IT OCCURS.

#### 1.12 DRY WALL CEILINGS:

- A. IN ALL DRYWALL CEILING AREAS, DIVISION IS IS TO REMOVE AND RELOCATE ALL EXISTING JUNCTION BOXES TO ACCESSIBLE CEILING
- B. PROVIDE ACCESS PANELS FOR ALL NEW AND EXISTING DEVICES AS
- 1.13 CORE DRILLING:
- A. BEFORE CORE DRILLING EXISTING FLOOR SLAB OR STRUCTURAL WALLS, X-RAY SLABS OR WALLS AND HAVE THE LOCATIONS APPROVED IN
- B. ANY EXISTING BUILDING SERVICE DAMAGED BY CORE DRILLING SHALL BE REPAIRED IMMEDIATELY AT NO COST TO LANDLORD OR TENANT.
- C. FLOOR DRILLING TO BE PERFORMED AT A TIME ACCEPTABLE TO FACILITY MANAGMENT AND ALLOWANCES FOR THIS WORK SHALL BE INCLUDED IN BID PRICE SUBMITTED.
- 1.14 ENGINEERS FINAL INSPECTION:
- A. FINAL INSPECTION IS IMPERATIVE. PRIOR TO CLOSING OF CEILINGS, THIS CONTRACTOR SHALL CONTACT JMY CONSULTING ENGINEERS, P.C.. (212-852-9855) AND THE FACILITY REPRESENTATIVE TO PERFORM A FINAL INSPECTION, WHEN CEILING TILES HAVE BEEN INSTALLED IT WILL BE NECESSARY FOR THE CONTRACTOR TO REMOVE PORTIONS FOR INSPECTION.
- 1.15 COMPLETION OF CONTRACT:
- A. ALL EQUIPMENT MUST BE CLEANED AND TESTED BEFORE FINAL ACCEPTANCE BY THE CONSULTANT.
- B. DEFECTS AND DEFICIENCIES WHICH ORIGINATE OR BECOME EVIDENT DURING THE WARRANTY PERIOD MUST BE REPAIRED OR REPLACED, AT NO COST.
- C. REPLACE, AT NO COST, ALL LAMPS BURNED-OUT LAMPS FOR A PERIOD OF NINETY (90) DAYS AFTER DATE OF ISSUANCE OF CERTIFICATE OF SUBSTANTIAL PERFORMANCE FOR THE CONTRACT FOR THE WORK.
- D. IF, DURING THE WARRANTY PERIOD, TRANSFORMERS, BALLASTS OR OTHER NOISE AND VIBRATION PRODUCING EQUIPMENT ARE CONSIDERED BY THE CONSULTANT TO EXCEED ACCEPTABLE STANDARDS, THEN THESE MUST BE REPLACED WITHOUT DELAY OR ADDITIONAL COST TO THE TENANT. ALL WORK RELATING TO THE REPLACEMENT OF DEFECTIVE ITEMS, MUST BE CARRIED OUT AFTER NORMAL WORKING HOURS AND AT A TIME WHICH IS ACCEPTABLE TO THE TENANT.

# 1.16 DEMOLITION (VERNI BUILDING):

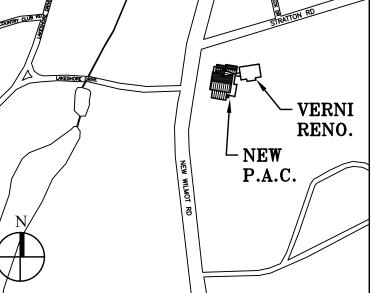
- A. VISIT THE SITE, EXAMINE THE EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE EXTENT OF THE NECESSARY REMOVAL, RELOCATION, RECONNECTING AND REPOUTING OF ELECTRICAL EQUIPMENT AND WIRING AS NECESSARY FOR THE COMPLETION OF THE PROJECT.
- B. REVIEW AND CONFIRM WITH THE ARCHITECT/DESIGNER'S DRAWINGS FOR THE COMPLETE EXTENT OF DEMOLITION AND ALTERATION.
- C. MAKE SAFE AND DISCONNECT ALL POWER AND SYSTEMS, AS AND WHEN, AND TO THE EXTENT REQUIRED TO FACILITATE WITH THE
- D. ENSURE THAT ALL ELECTRICAL, LIFE SAFETY SERVICES, AND SERVICES FOR EXISTING EQUIPMENT, IN AREAS OUTSIDE THE AREAS OF THIS WORK, THAT ARE REQUIRED TO REMAIN IN SERVICE, SHALL DO SO.
- E. RELOCATE ANY ELECTRICAL FEEDERS OR EQUIPMENT THAT ARE REQUIRED TO REMAIN IN SERVICE, THAT ARE SECURED TO EXISTING WALLS, FLOORS OR CEILINGS TO BE DEMOLISHED.
- F. REMOVE AND REPLACE ANY ELECTRICAL EQUIPMENT ON WALLS OR CEILINGS THAT WILL BE DEMOLISHED AND REBUILT.

- G. WHEN DELETING AND/OR MAKING SAFE EXISTING ELECTRICAL WORK, ENSURE THAT IT INCLUDES ALL CONDUITS AND WIRING BACK TO THE ASSOCIATED PANELBOARD OR CONTROL PANEL. WHERE FLOOR BOXES ARE BEING REMOVED, ENSURE UNDER-FLOOR CONDUIT IS REMOVED BACK TO SOURCE AND FILL ALL CORE HOLES/OPENINGS IN FLOORS & WALLS, WITH APPROPRIATE CONCRETE.
- H. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES, DEVICES, OUTLETS, ETC. WHICH ARE NOT TO BE REUSED. SUCH ITEMS SHALL BE CARTONED AND TURNED OVER TO THE LANDLORD AT A PLACE DESIGNATED BY THE LANDLORD. CUT BACK AND CAP UNUSED RACEWAY AND OUTLETS AND REMOVED UNUSED WIRING BACK TO PANELBOARD IN AN APPROVED MANNER.
- INCLUDE IN DEMOLITION WORK FOR REMOVAL OF ALL COMMUNICATION DEVICES, OUTLETS, CABLES, CONDUITS ETC., WHICH ARE NOT TO BE REUSED. ALL REDUNDANT CABLING AND CONDUIT SHALL BE REMOVED IN ITS ENTIRETY FROM SPACE BACK TO BUILDING RISER ROOMS. REMOVE ALL UNNECESSARY CABLES AND EQUIPMENT IN HUB ROOMS AND/OR TELEPHONE ROOMS WITH EXTREME CARE TO AYOID ANY ACCIDENTAL SHUTDOWN TO EXISTING SERVICES SERVING OTHER PARTS OF THE
- J. PROVIDE BLANK COVERPLATE WHERE OUTLETS ARE REMOVED FROM EXISTING WALLS TO REMAIN.
- K. ALL EXISTING ELECTRICAL EQUIPMENT WHICH IS NO LONGER REQUIRED SHALL BE REMOVED AND DISPOSED OF, OFF SITE.
- L. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BUILDING INCURRED BY WORK OF THIS DIVISION, OR REPAIR TO THE SATISFACTION OF THE CONSULTANT.
- M. CARRY OUT THE WORK WITH MINIMUM OF NOISE, DUST AND DISTURBANCE.
- 1.17 WORK IN NEW AND RENOVATED AREAS:
- A. WHEN DELETING AND/OR MAKING SAFE EXISTING ELECTRICAL WORK, ENSURE THAT IT INCLUDES REMOVAL OF ALL DISCONNECTED WIRING BACK TO THE ASSOCIATED PANELBOARD OR DISTRIBUTION EQUIPMENT.
- B. DISCONNECT AND REMOVE EXISTING LUMINAIRES, DEVICES, OUTLETS, ETC., WHICH ARE NOT TO BE REUSED. SUCH ITEMS SHALL BE CARTONED AND TURNED OVER TO THE FACILITY PERSONAL AT A PLACE DESIGNATED BY THE CLIENT, CUT BACK AND CAP UNUSED RACEWAY AND OUTLETS AND REMOVE UNUSED WIRING BACK TO PANELBOARD IN AN APPROVED MANNER. REMOVE ALL REDUNDANT COMMUNICATIONS CABLES BACK TO HUB ROOMS AND/OR TELEPHONE RISER ROOMS.
- C. ENSURE THAT ALL EXISTING EQUIPMENT WHICH ARE TO BE REUSED AND/OR RELOCATED IS THOROUGHLY INSPECTED AND REFURBISHED TO ENSURE CORRECT OPERATION WHEN PUT BACK INTO SERVICE AND MEETS THE LOCAL ELECTRICAL SAFETY AUTHORITY'S APPROVAL. OUTLET BOXES AND WIRING AND/OR CONDUITS WHICH ARE CORRODED OR DAMAGED ARE TO BE REPLACED.
- D. ALL EXISTING ELECTRICAL EQUIPMENT WHICH IS NO LONGER REQUIRED SHALL BE REMOVED AND DISPOSED OF, OFF SITE,
- E. WHERE EXISTING OUTLET BOXES ARE REMOVED FROM EXISTING UNDERFLOOR DUCTS, PLUG AND CAP EXISTING HOLES FLUSH WITH FLOOR USING APPROVED FITTINGS. REMOVE ALL REDUNDANT WIRE AND CABLE BACK TO SERVICE.
- F. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BASE BUILDING INCURRED BY WORK OF THIS DIVISION, OR REPAIR TO THE SATISFACTION OF THE CONSULTANT.
- G. CARRY OUT THE WORK WITH A MINIMUM OF NOISE, DUST AND

DISTURBANCE.

PROJECT.

- H. PROVIDE TOOLS AND CLEAN UP EQUIPMENT. OBTAIN THE FACILITIES PERMISSION FOR THE USE OF ELECTRICAL, ELEVATOR, PLUMBING OR DRAINAGE OUTLETS.
- PROVIDE DAILY CLEAN UP AND PROPER DISPOSAL OF DEBRIS GENERATED BY DAILY OPERATIONS, ON COMPLETION OF THE WORK, ALL TOOLS, SURPLUS MATERIALS AND WASTE MATERIALS SHALL BE REMOVED AND THE PREMISES LEFT IN A CLEAN AND PERFECT CONDITION.
- J. REMOVE AND REROUTE EXISTING CONDUITS WHICH ARE TO REMAIN IN FINISHED? AREAS WHICH ARE TO BE EXPOSED.
- K. CONDUITS WHICH ARE TO BE CUT BACK ARE TO TERMINATE IN A JUNCTION BOX.
- L. CLEAN LUMINAIRE REFLECTORS AND LENSES, LAMPS AND OTHER SURFACES THAT HAVE BEEN EXPOSED TO CONSTRUCTION DUST AND DIRT. CLEAN THE INSIDES AND OUTSIDES OF PANELBOARDS, SPLITTERS AND OTHER ELECTRICAL EQUIPMENT, AND COMPLETELY REMOVE ALL DEBRIS AND TOOLS FROM THE



Key Plan (not to scale)

6/01/2021 ISSUED FOR BID 6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW 5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW 3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW 2. 8/28/2020 ISSUED FOR PRELIMINARY DOB REVI 1. 1/10/2020 ISSUED FOR DD ESTIMATE Date Revision/Submission

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**Project Title** 

IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

Drawing Title

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

> **ELECTRICAL** SPECIFICATIONS I

Job No. Drawing No. Date NTS 1618 04/03/2019 E - 102

Peter Gisolfi Associates Architects Landscape Architects, LLP 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677

PETER GISOLFI ASSOCIATES

# PART 2 PRODUCT/APPLICATION

- 2.01 WIRING DEVICES:
- A. WIRING DEVICES SHALL BE SPECIFICATION GRADE, DECORATIVE STYLE, UNLESS OTHERWISE NOTED.
- B. DEVICES GANGED TOGETHER IN MULTI-GANG BOX SHALL BE MOUNTED UNDER A SINGLE COVERPLATE.
- C. LINE VOLTAGE SWITCHES SHALL BE 120/277 VOLTS, RATED AT 20 AMPERES, QUIET OPERATION ROCKER TYPE, DECORA STYLE.
- D. RECEPTACLES
- 1. PROVIDE SPECIFICATION GRADE 20A. 120 VOLT, "U" GROUND RECEPTACLES, WITH MATCHING COVERPLATES. RECEPTACLES SHALL BE OF THE "DECORATOR STYLE".
- 2. REFER TO NOTES AND DETAILS FOR SPECIALITY RECEPTACLE COLORS FOR RECEPTACLES DEDICATED FOR PERSONAL COMPUTERS
- 3. RECEPTACLES TO HAVE CIRCUIT NUMBER IDENTIFIED ON THE WALL PLATE AND FURTHER IDENTIFIED WITH THE EXACT LOCATION LISTED IN THE PANEL DIRECTORY.

### E. DIMMERS

- PROVIDE DIMMERS WITH LINEAR SLIDE CONTROL, SIZED TO SUIT LOADS CONTROLLED FOR LED, Ø-1ØY, INCANDESCENT, LOW YOLTAGE MAGNETIC AND LOW YOLTAGE ELECTRONIC LIGHTING AS INDICATED.
- 2. ALL DIMMERS SHALL INCORPORATE ON AIR GAP SWITCH WHICH SHALL BE ACCESSIBLE WITHOUT REMOVING THE FACEPLATE: MEET THE U.L. 20 U.L. 1472 LIMITED SHORT CIRCUIT TEST REQUIREMENTS FOR SNAP SWITCHES: AND MEET ANSI/IEEE STANDARD C62.41-1980, TESTED TO WITHSTAND VOLTAGE SURGES OF UP TO 6,000Y AND CURRENT SURGES OF UP TO 200A WITHOUT DAMAGE. MANUFACTURER SHALL PROVIDE FILE CARD UPON REQUEST SHOWING THEIR COMPLIANCE WITH THE ABOYE STANDARDS.
- 3. DIMMERS SHALL BE RATED AT VOLTAGE COMPATIBLE WITH FIXTURE, WATTAGE SIZE AS REQUIRED.
- 4. WHERE DIMMER SWITCHES ARE LOCATED NEXT TO SINGLE POLE OR VARIABLE SPEED TYPE SWITCHES, THE SINGLE POLE/VARIABLE SPEED SWITCHES SHALL MATCH THE DIMMING SWITCH STYLE.
- 5. DIMMERS, WHERE GANGED TOGETHER, SHALL BE PROPERLY DERATED BASED ON MANUFACTURERS RECOMMENDATIONS. FINS OF DIMMERS SHALL NOT BE REMOVED IN MULTIGANG INSTALLATIONS. PROVIDE OVER-SIZED JUNCTION BOX FOR MOUNTING OF WALL DIMMER.
- 6. DIMMERS SHOWN SIDE BY SIDE SHALL BE GANGED UNDER ONE SEAMLESS, MULTI-GANG FACEPLATES.
- 1. DIMMERS SHALL BE OF LEVITON SERIES OR OF APPROVED EQUIVALENT.

#### 2.02 RACEWAYS:

- A. ALL WIRES SHALL BE RUN IN CONDUIT. SEE WIRE AND CABLE SECTION 2.03A FOR ALTERNATE PRICING.
- B. FOR ALL SIZES OF CONDUIT LARGER THAN 1-1/2", USE STANDARD ELBOW.
- C. CONDUIT SHALL BE SECURELY FASTENED IN PLACE AND HANGERS, SUPPORTS OR FASTENINGS SHALL BE PROVIDED AT EACH ELBOW AND AT EACH END OF EACH STRAIGHT RUN TERMINATED AT A BOX OR CABINET.
- D. PROVIDE EXPANSION FITTINGS IN EACH CONDUIT RUN WHEREVER IT CROSSES AN EXPANSION JOINT AND WHEREVER THE CONDUIT LENGTH EXCEEDS 200 FEET.
- E. UNLESS OTHERWISE INDICATED OR SPECIFIED, ALL WIRING SHALL BE INSTALLED CONCEALED.
- F. FEEDERS AND BRANCH CIRCUITRY ABOVE HUNG CEILING AND IN PARTITIONS SHALL BE RUN IN ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE NOTED. FINAL CONNECTIONS TO MOTORS, LIGHT FIXTURES, TRANSFORMERS, AND EQUIPMENT SUBJECT TO VIBRATION WILL BE DONE WITH FLEXIBLE METALLIC CONDUIT (GREENFIELD). LENGTH SHALL NOT EXCEED
- G. ALL CONDUIT IN MECHANICAL ROOMS, ELECTRICAL CLOSETS
  AND WHERE CONCEALED IN CONCRETE OR INSTALLED
  OUTDOORS SHALL BE RIGID THREADED REGARDLESS OF SIZE.
- H. ALL CONDUITS INSTALLED IN CONCRETE OR OUTDOORS SHALL BE PROVIDED WITH WEATHERPROOF CONNECTORS.
- I. ELECTRIC METALLIC TUBING SHALL BE INDUSTRY STANDARD THIN WALL CONDUIT, HOT DIPPED GALVANIZED STEEL (3/4" MIN, 4" MAX).
- J. THE FLEXIBLE METALLIC CONDUIT SHALL BE OF THE GROUNDING TYPE. IT SHALL CONSIST OF GALVANIZED STEEL TAPE FORMED INTO AN INDUSTRY STANDARD INTERLOCKING COIL (3/4" MIN).
- K. RIGID METAL CONDUIT SHALL BE INDUSTRY STANDARD STEEL CONDUIT (3/4" MIN, 4" MAX.)
- L. THREADED FITTINGS SHALL BE USED WITH RIGID CONDUIT. DOUBLE SET SCREW OR COMPRESSION FITTINGS SHALL BE USED WITH EMT.
- M. ALL METAL CONDUIT TERMINATING IN A METAL ENCLOSURE SHALL HAVE AN INSULATED BUSHING. PROVIDE "GROUNDING" TYPE BUSHING WHERE REQUIRED.
- N. INSTALL CONDUITS TO CONSERVE HEADROOM, PARALLEL AND PERPENDICULAR TO BUILDING LINES. DO NOT CLIP CONDUITS TO CEILING HANGER.
- O. INSTALL TWO (2) (1") SPARE CONDUITS UP TO CEILING SPACE FOR EACH RECESSED PANELBOARD. TERMINATE THESE CONDUITS IN A 6" X 6" X 4" COVERED JUNCTION BOX IN CEILING SPACE.
- P. WALL COMMUNICATIONS CONDUIT SHALL BE REAMED AND INSTALLED COMPLETE WITH INSULATED BUSHINGS AT EACH END.

#### 2.03 WIRE AND CABLE:

- A. METAL CLAD (TYPE MC) FOR CONCEALED BRANCH CIRCUITRY IN CONCEALED SPACE ONLY MAYBE USED WHEN APPROVED BY BUILDING MANAGEMENT. EMT SHALL BE USED WHEN EXPOSED AND IN BUILDING CLOSETS. METAL CLAD (TYPE MC) SHALL NOT BE INSTALLED INTO PANELBOARDS.
- B. ALL HOME RUNS TO BE IN CONDUIT.
- C. ALL CONDUCTORS SHALL BE SOFT 98% MINIMUM CONDUCTIVITY PROPERLY REFINED COPPER, TYPE THHN/THUN INSULATED RATED AT 600Y, UNLESS OTHERWISE NOTED.
- D. THE MINIMUM WIRE SIZE FOR BRANCH CIRCUITS SHALL BE NO. 12 AWG EXCEPT 120 YOLT CIRCUITS OVER 100' IN LENGTH SHALL BE NO. 10 AWG.
- E. ALL WIRES NO. 10 AWG AND SMALLER SHALL BE SOLID, CONDUCTORS NO. 8 AWG AND LARGER SHALL BE STRANDED.
- F. ALL FEEDER CONDUCTORS SHALL FOR MAXIMUM 2% VOLTAGE DROP PER ASHRAE 90.1-2010 8.4.1.1. BRANCH CIRCUITS SHALL ALSO BE SIZES FOR 2% VOLTAGE DROP
- G. COLOR CODING SHALL BE SIMILAR TO:
  120/280V: PHASE 'A': BLACK, PHASE 'B': RED, PHASE 'C': BLUE,
  NEUTRAL: WHITE, GROUND: GREEN. MATCH BUILDING STANDARD.
  REFER TO SPECIFICATION SECTION 3.02.B FOR PANELBOARD
  LABELING REQUIREMENTS.
- 277/480V: PHASE 'A': BROWN, PHASE 'B': YELLOW, PHASE 'C': ORANGE, NEUTRAL: GRAY OR WHITE WITH A COLORED STRIPE (NOT GREEN), GROUND: GREEN. MATCHING BUILDING STANDARD. REFER TO SPECIFICATION SECTION 3.02.B FOR PANELBOARD LABELING REQUIREMENTS.
- H. TAG ALL FEEDERS IN ALL PULL BOXES, GUTTER SPACES, AND WIREWAYS THROUGH WHICH THEY PASS.
- I. TERMINATE STRANDED CONDUCTORS NO. 6 AUG AND LARGER AT SWITCHBOARDS, TRANSFORMERS, UPS SYSTEMS WITH COMPRESSION TYPE CONNECTORS. TERMINATE WITH MECHANICAL LUGS AT PANELBOARDS.
- J. JOIN OR TAP STRANDED CONDUCTORS (NO. 6 AWG AND LARGER) WITH PRESSURE INDENT TYPE CONNECTORS BURNDY, NEPCO, OR O.Z./GEDNEY WITH COMPOSITION INSULATING
- K. SPLICES IN BRANCH WIRING (NO. 8 AWG AND SMALLER) SHALL BE TWISTED AND MADE MECHANICALLY TIGHT: THEN SECURED WITH PIGTAIL CONNECTORS, CRIMP TYPE CONNECTORS SHALL NOT BE USED. UTILIZE UL LISTED, "SILICON FILLED" PIGTAIL CONNECTORS WHERE LOCATED IN WET ENVIRONMENTS OR OUTDOORS.
- L. SUPPORT CONDUCTORS IN VERTICAL RACEWAYS IN ACCORDANCE WITH THE NEC BASED ON CONDUCTOR SIZE AND VERTICAL DISTANCE.
- M. WALL MOUNTED DEVICES SHALL BE FED VERTICALLY.
  HORIZONTAL RUNS THROUGH PARTITIONS SHALL NOT BE
  PERMITTED, EXCEPT IN LOW HEIGHT PARTITIONS OR WHERE
  NOTED ON DRAWINGS.

### 2.04 PULLBOXES, JUNCTION BOXES AND OUTLET BOXES:

- A. PULLBOXES, JUNCTION BOXES AND OUTLET BOXES SHALL BE MANUFACTURED FROM GALVANIZED INDUSTRY STANDARD GAUGE SHEET STEEL.
- B. PROVIDE PULL BOXES AND JUNCTION BOXES IN LONG STRAIGHT RUNS OF RACEWAY TO ASSURE THAT CABLES ARE NOT DAMAGED WHEN THEY ARE PULLED, TO FULFILL REQUIREMENTS AS TO THE NUMBER OF BENDS PERMITTED IN RACEWAY BETWEEN CABLE ACCESS POINTS, THE ACCESSIBILITY OF CABLE JOINTS AND SPLICES, AND THE APPLICATION OF CABLE SUPPORTS.
- C. PULLBOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.
- D. SWITCH RECEPTACLE AND WALL OUTLET BOXES SHALL BE A NOMINAL 4" SQUARE, 1-1/2" OR 2-1/8" DEEP AS REQUIRED BY CODE WITH A RAISED COVER, UNLESS OTHERWISE INDICATED ON THE DRAWING.
- E. PROVIDE BLANK COVERPLATES FOR BOXES WITHOUT WIRING DEVICES.
- F. DO NOT INSTALL OUTLET BOXES BACK TO BACK IN PARTITIONS. STAGGER TO PREVENT SOUND TRANSFER.
- G. TWO OR MORE OUTLET BOXES THAT OCCUR AT THE SAME LOCATION SHALL BE GANGED TOGETHER IN THE SAME COVERPLATE UNLESS OTHERWISE NOTED.
- H. LIGHTING FIXTURE BOXES SHALL BE 4" OCTAGON TYPE, DEPTH AS REQUIRED WITH 3/8" FIXTURE STUD. FOR SUSPENDED CEILING WORK, PROVIDE A 4" OCTAGON BOX WITH REMOVABLE BACKPLATE WHERE REQUIRED.
- I. PULL/JUNCTION BOX BARRIERS SHALL BE PROVIDED WHERE REQUIRED BY CODE.
- J. INSTALL JUNCTION AND PULLBOXES IN INCONSPICUOUS LOCATIONS.
- K. A MINIMUM OF ONE PULLBOX SHALL BE INSTALLED FOR EVERY 100 FT OF CONDUITS. (NOTE: EACH 90 DEGREE BEND SHALL EQUATE TO 30' LENGTH OF CONDUIT).
- L. NO MORE THAN TWO (2) 90 DEGREE BENDS SHALL BE INSTALLED BETWEEN AND TWO ADJACENT PULLBOXES.
- M. ALL EQUIPMENT, DEVICE BOXES, JUNCTION BOXES, PULLBOXES AND OUTLET BOXES SHALL BE INSTALLED SO AS TO ALLOW ACCESS TO THE BOX.
- N. OUTLET BOXES SHALL BE PROVIDED FOR ALL LOW VOLTAGE DEVICES (I.E. TELEPHONE/DATA, SECURITY, FIRE ALARM, ETC.). COORDINATE BOX SIZE AND DEPTH WITH RESPECTIVE VENDOR.

### 2.05 SUPPORTS AND FASTENINGS:

- A. PROVIDE ALL STEEL SUPPORTING MEMBERS, HANGERS, BRACKETS OR OTHER SPECIAL DETAILS REQUIRED AND NECESSARY AS PER CODE.
- B. EXCEPT FOR BRANCH CIRCUITRY INSTALL ALL CONDUIT IN HUNG CEILING SPACE ON ACCEPTABLE HANGERS AND INSERTS. CONDUIT OR MC CABLE FOR BRANCH CIRCUITRY SHALL BE SUPPORTED BY CLAMPS OR PIPE STRAPS SECURED TO THE CEILING SUPPORT SYSTEM (BLACK IRON), FROM STRUCTURAL MEMBERS OR FROM THE DECK. SUPPORT FROM CEILING TEES, CROSS TEES OR SUPPORT WIRES IS PROHIBITED.
- C. SPACING OF SUPPORTS SHALL BE PER THE NEC.
- D. INSERTS ARE TO BE OF A LEAD SHIELD TYPE.
- E. HANGERS MUST NOT BE WELDED TO STRUCTURAL STEEL MEMBERS AND BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED
- F. SLEEVES ARE TO BE OF A TYPE SUITABLE FOR THE APPLICATION AND BE SEALED AND MADE WATERTIGHT. SLEEVES THROUGH CONCRETE SHALL BE SCHEDULE 40 STEEL PIPE, SIZED FOR FREE PASSAGE OF CONDUIT AND INSTALLED FLUSH WITH UNDERSIZE OF CONCRETE SLAB AND EXTEND 4" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

#### 2.06 DISCONNECT SWITCHES:

- A. INDOOR DISCONNECT SWITCHES SHALL BE "QUICK-MAKE, QUICK-BREAK," HEAVY DUTY TYPE IN NEMA I ENCLOSURES. PROVIDE ALL FUSES WHERE NOTED.
- B. OUTDOOR DISCONNECT SWITCHES SHALL BE SIMILAR TO INDOOR, EXCEPT LISTED FOR OUTDOOR APPLICATIONS (NEMA 3R OR 4, AS REQUIRED)

#### 201 FUSES:

- A. FUSES SHALL BE CURRENT LIMITING TYPE WITH AN INTERRUPTING CAPACITY OF 200,000 RMS.
- B. THEY SHALL HAVE AVERAGE MELTING TIME-CURRENT CHARACTERISTICS TO MEET THE UL REQUIREMENTS FOR "CLASS K" 0-600 AMP FUSES AND "CLASS L" OVER 600 AMP FUSES.

# 2.08 CIRCUIT BREAKERS:

- A. FOR PANELBOARD APPLICATIONS, CIRCUIT BREAKERS SHALL BE BOLTED TO THE PANELBOARD BUS BARS. WHERE CIRCUIT BREAKERS ARE INSTALLED IN EXISTING PANELBOARD BREAKERS SHALL BE OF THE SAME MANUFACTURER AND INTERRUPTING RATING. BREAKERS SHALL BE COMPATIBLE WITH EXISTING PANELBOARD.
- B. CIRCUIT BREAKERS SHALL BE "THERMAL MAGNETIC" TYPE, QUICK-MAKE, QUICK- BREAK, TRIP-FREE WITH NON-WELDING, CONTACTS COMPENSATED FOR AMBIENT TEMPERATURES AND SHALL HAVE A MINIMUM SHORT CIRCUIT RATING OF 10,000 AMPERES SYMMETRICAL FOR 120/280V PANELS.
- C. MULTIWIRE BRANCH CIRCUITS SUPPLYING POWER TO MORE THAN ONE DEVICE OR EQUIPMENT SHALL BE PROVIDED WITH A MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. CONTRACTOR SHALL COORDINATE WITH LOCAL AHJ THE MEANS REQUIRED TO MEET NEC SECTIONS 210.4(B). CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING RECEPTACLES THAT CAN NOT BE RETROFITTED WITH TIE BARS AS REQUIRED TO COMPLY WITH REQUIREMENT.
- D. TANDEM BREAKERS MAY NOT BE UTILIZED.
- E. PROVIDE BREAKER LOCKS FOR ALL NEW AND EXISTING BREAKERS SERVING EXIT LIGHTS, EMERGENCY LIGHTING AND EMERGENCY BATTERY PACKS.

# 2.09 PANELBOARDS:

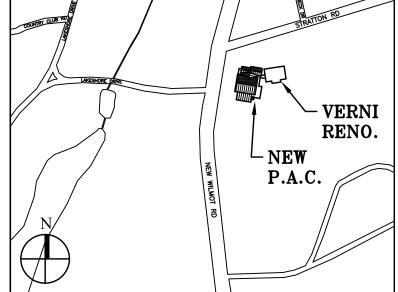
- A. PANELBOARD BOXES SHALL BE MADE OF SHEET STEEL
  "BENT-UP" OR RIVETED OR BOLTED TOGETHER WITH
  EXTERIOR ANGLE IRON FRAME. BOX SHALL BE OF SUFFICIENT
  SIZE TO ALLOW A GUTTER AT LEAST 6" IN WIDTH ENTIRELY
  SURROUNDING EACH SECTION OF BOARD. PANELBOARDS
  SHALL BE SURFACE OR FLUSH TYPE AS NOTED ON THE
  DRAWINGS. PANEL BOX AND COVER SHALL BE GIVEN TWO
  COATS OF GRAY ENAMEL PAINT.
- B. PROVIDE CODE GAUGE STEEL DOORS FOR ALL PANELBOARD BOXES. FRONT COVER SHALL BE A "DOOR WITHIN A DOOR" TYPE. THE OUTER DOOR (TRIM) SHALL ALLOW ACCESS TO ENTIRE PANELBOARD BOX INCLUDING GUTTER SPACES. OUTER DOOR (TRIM) SHALL BE ATTACHED DIRECTLY TO BOX BY A FULL LENGTH PIANO HINGE. THE INNER DOOR SHALL ALLOW ACCESS TO CIRCUIT BREAKERS ONLY. PROVIDE LOCK AND SET OF KEYS FOR INNER DOOR PER PANELBOARD.
- C. PANEL BUS BARS SHALL BE COPPER PROPORTIONED FOR A CURRENT DENSITY OF 1000 AMPERES PER SQUARE INCH OF CROSS-SECTIONAL AREA. PROVIDE A COPPER EQUIPMENT GROUND BAR IN EACH PANEL, AND A COPPER ISOLATED GROUND BAR IN NOTED PANELS.
- D. PANELS SHALL BE PROVIDED WITH NEUTRAL BARS SIZED AT 200% OF THE PHASE BUS BARS.
- E. ALL MAIN BREAKERS SHALL BE SEPARATELY MOUNTED ON TOP OR BOTTOM OF PANEL TO SUIT CABLE ENTRY
- F. ALL FLOOR MOUNTED DISTRIBUTION EQUIPMENT, INCLUDING PANELBOARDS AND/OR DISTRIBUTION PANELBOARDS SHALL BE INSTALLED ON A 4" HIGH CONCRETE BASE TO EXTEND 2" ON ALL SIDES WITH CHAMFERED CORNERS. ALL CONCRETE WORK TO BE INCLUDED IN THIS DIVISION.
- G. A TYPEWRITTEN LIST OF CIRCUITS SHOWING CLEARLY THE LOADS SUPPLIED BY EACH CIRCUIT SHALL BE INSTALLED ON THE INSIDE OF EACH PANEL BOARD DOOR. THIS LIST SHALL BE MOUNTED IN A STEEL FRAME UNDER A PLASTIC WINDOW. EACH PANEL SHALL BE EXTERNALLY TAGGED WITH PERMANENT LAMACOID PLATE INDICATING PANEL DESIGNATION AND YOLTAGE. PANEL DIRECTORY SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLING IN PANELBOARD. LOAD DESCRIPTION SHALL INCLUDE COLUMN GRID LINES, ROOM NUMBERS, OR OTHER INFORMATION TO CLEARLY DISTINGUISH LOAD LOCATION.
- H. PHASE LEGS OF ALL PANELS SHALL BE BALANCED AT SUPPLY POINT TO WITHIN 10% AFTER ALL CIRCUITS ARE WIRED AND LOADS CONNECTED.

#### 210 TRANSFORMERS.

- A. THREE PHASE TRANSFORMERS SHALL BE 480 VOLT DELTA PRIMARY AND 208/120 VOLT WYE SECONDARY IN A NEMA 1 VENTILATED ENCLOSURE, UNLESS OTHERWISE NOTED. TRANSFORMERS SHALL HAVE A MINIMUM OF TWO 2-1/2% FULL CAPACITY PRIMARY TAPS ABOVE AND FOUR 2-1/2% FULL CAPACITY PRIMARY TAPS BELOW NORMAL PRIMARY VOLTAGE. ADJUST SECONDARY VOLTAGE TO BE 208/120 WHEN INSTALLED.
- B. TRANSFORMER 13/4KY DELTA TO 120/208Y. 3-PHASE SHALL BE PROVIDED BY UTILITY COMPANY. COORDINATE FINAL LOCATION.
- C. TRANSFORMERS SHALL BE PROVIDED WITH COPPER WINDINGS.
- D. TRANSFORMERS NOTED AS FLOOR MOUNTED SHALL BE INSTALLED WITH 4" TO 6" CONCRETE PAD OR VIBRATION ISOLATION.

#### 2.11 LIGHTING FIXTURES:

- A. ALL LIGHTING FIXTURE MOUNTING HARDWARE SHALL MATCH AND BE COORDINATED WITH THE NEW CEILING SYSTEM TYPE. ALL FIXTURES SHALL BE EQUIPPED WITH "EARTHQUAKE" CLIPS. ALL LIGHTING FIXTURES SHALL BE INSTALLED WITH SEISMIC BRACING AS INDICATED ON ARCHITECTURAL CEILING DETAILS.
- B. ALL FIXTURES SHALL BE FREE OF LIGHT LEAKS BELOW CEILING.
- C. SHALL CONFORM TO ANSI AND UL SPECIFICATION WITH LABELS OF APPROVAL BY UL AND CERTIFICATION BY C.B.M. BALLASTS SHALL COMPLY WITH THE STATE ENERGY CODE. DRIVER FOR LED SHALL BE SUPPLIED AS UNIVERSAL VOLTAGE, SUITABLE TO BE CONNECTED TO 120 VOLT OR 277 VOLT LIGHTING.
- D. WHERE DIMMING OF LED FIXTURES IS REQUIRED, THE DRIVER INSTALLED MUST BE COMPATIBLE WITH THE DIMMING SPECIFIED.
- E. REFER TO ARCHITECTURAL DRAWINGS FOR ALL LIGHT FIXTURE SPECIFICATIONS.
- F. ALL FIXTURES SHALL BE COMPLETE WITH NEW LAMPS, BALLASTS, ACCESSORIES AND MOUNTING APPURTENANCES.
- G. ALL LIGHT FIXTURES SHALL BE U.L. APPROVED.
- H. CONTRACTOR SHALL AIM AND ADJUST ALL LIGHT FIXTURES IN PRESENCE OF LIGHTING CONSULTANT.
- I. WHERE DIMMING OF LED/FLUORESCENT FIXTURES IS REQUIRED IN DAYLIGHT ZONES, THE ELECTRONIC DRIVER BALLAST INSTALLED SHALL BE COMPATIBLE WITH THE DAY-LIGHTING SENSOR, AS NOTED BY THE LIGHTING DESIGNER/ARCHITECT SCHEDULE. CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING FIXTURE SPECIFICATION AND ENSURING SENSOR INSTALLED IS COORDINATED WITH FIXTURE TYPE.
- J. WHERE DIMMING OF LOW VOLTAGE FIXTURES IS REQUIRED, THE STEP DOWN VOLTAGE TRANSFORMER SHALL BE ELECTRONIC (OR MAGNETIC) AS NOTED BY THE LIGHTING DESIGNER/ARCHITECT SCHEDULE. CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING FIXTURE SPECIFICATION AND ENSURING DIMMER SWITCH INSTALLED IS COORDINATED WITH FIXTURE TYPE.
- K. ALL LIGHTING FIXTURES SHALL BE INSTALLED WITH SEISMIC BRACING AS INDICATED ON ARCHITECTURAL CEILING DETAILS.



Key Plan (not to scale)

7. 6/01/2021 ISSUED FOR BID
6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW
5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW
4. 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW
3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW
2. 8/28/2020 ISSUED FOR PRELIMINARY DOB REVIEW
1. 1/10/2020 ISSUED FOR DD ESTIMATE

No. Date Revision/Submission

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Stamp

IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

Job No.

1618

Drawing Title

ELECTRICAL SPECIFICATIONS II

Date

04/03/2019

Drawing No.

E-103

Peter Gisolfi Associates Architects Landscape Architects, LLP 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677

PETER GISOLFI ASSOCIATE

#### PART 2 CONTINUED:

- 2.12 FIRE ALARM SYSTEM: (VERNI BUILDING)
- A. INSTALL NEW FIRE ALARM DEVICES AS AN EXTENSION OF THE EXISTING SYSTEM IN THE BUILDING.
- B. THE FIRE ALARM SYSTEM MODIFICATION SHALL UTILIZE EQUIPMENT AND DEVICES TO MATCH THE EXISTING BUILDING FIRE ALARM SYSTEM AND/OR BE COMPATIBLE THEREWITH.
- C. MEET REQUIREMENTS OF NFPA 12, ALL APPLICABLE CODES AND LOCAL LAWS, AND BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. ALL FINAL CONNECTIONS TO BE MADE BY THIS CONTRACTOR WITH THE APPROVAL AND SUPERVISION OF THE FACILITIES MANAGMENT AND FIRE ALARM SYSTEM VENDOR.
- D. ALL COST ASSOCIATED WITH CONNECTION & REPROGRAMMING OF THE EXISTING FIRE ALARM SYSTEM TO BE PAID BY THIS CONTRACTOR
- E. BUILDING FIRE ALARM SYSTEM INTEGRITY SHALL BE MAINTAINED AT ALL TIMES (BEFORE, DURING & AFTER DEMOLITION AND/OR CONSTRUCTION. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN OPERATION OF ALL EXISTING FIRE ALARM DEVICES AT
- F. WHERE THE BUILDING LIFE SAFETY SYSTEM IS TAKEN OUT OF SERVICE, THE FIRE DEPARTMENT AND AHJ SHALL BE NOTIFIED. EVACUATION OF THE BUILDING OR A FIRE WATCH MAY BE REQUIRED PER 2020 NYSFC 901.7.
- G. ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL EXISTING WIRING ON TENANT FLOOR IS COMPLIANT WITH LATEST FIRE ALARM STANDARDS AND BUILDING REQUIREMENTS. IF WIRING DOES NOT MEET LATEST STANDARDS OR BUILDING REQUIREMENTS, ALL WIRING SHALL BE REPLACED AS PART OF THIS PROJECT.
- H. ELECTRICAL CONTRACTOR SHALL OBTAIN THE SERVICES OF THE BASE BUILDING FIRE ALARM VENDOR OPEN SYSTEMS METRO (914) 329-4219 TO DEVELOP AND DESIGN A CODE COMPLIANT, FULLY FUNCTIONAL FIRE ALARM SYSTEM. THE DESIGN DOCUMENTS INDICATE GENERAL INTENT OF AUDIO, VISUAL, AND ACTIVATION DEVICES. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL DEVICES REQUIRED BY LOCAL FIRE ALARM INSPECTORS INCLUDING, BUT NOT LIMITED TO SMOKE DETECTORS, PULL STATIONS, WARDEN STATIONS, INTERFACE RELAYS, ETC. CONTRACTOR AND VENDOR SHALL ALSO INCLUDE ALL COMPONENTS TO UPGRADE THE EXISTING BASE BUILDING SYSTEM EXPANSION INCLUDING, BUT NOT LIMITED TO RELAY CARDS, STROBE CONTROL PANELS, AMPLIFIERS, ETC.
- SUBMISSION OF BID ACKNOWLEDGES THAT ELECTRICAL CONTRACTOR HAS CONTACTED THE BASE BUILDING VENDOR & HAS INCLUDED ALL COMPONENTS FOR A CODE COMPLIANT SYSTEM. ADDITIONAL CLAIMS FOR CHANGES IN VENDOR SCOPE OR ADDITIONAL DEVICES/COMPONENTS, UNLESS INITIATED BY TENANT WILL NOT BE ACCEPTED.
- J. ALL NEW PULL-STATIONS, SPEAKERS AND SMOKE DETECTORS ETC. TO MATCH EXISTING BUILDING DEVICES
- K. ALL SMOKE DAMPERS SHALL BE CONNECTED TO THE NEAREST AVAILABLE 120Y LIFE SAFETY EMERGENCY CIRCUIT. TIE DEVICE INTO FIRE ALARM SYSTEM, PROVIDE ALL REQUIRED END SWITCHES AND ACCESSORIES FOR APPROPRIATE MONITORING AND CONTROL. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- L. ALL AUDIO VISUAL WALL MOUNTED FIRE ALARM DEVICES SHALL BE WHITE WITH WHITE FACE PLATE AND RED LETTERING UNLESS OTHERWISE DIRECTED BY ARCHITECT.
- M. SYSTEM CONNECTIONS FOR INITIATING AND SIGNALING LINE CIRCUITS SHALL MATCH BUILDING STANDARDS AND SHALL BE COMPLIANT WITH THE REQUIREMENTS OF THE FIRE MARSHALL OR AUTHORITY HAVING JURISDICTION.
- N. CIRCUIT SUPERVISION: CIRCUIT FAULTS SHALL BE INDICATED BY A TROUBLE SIGNAL AT THE FACP. PROVIDE A DISTINCTIVE INDICATING AUDIBLE TONE AND ALPHANUMERIC ANNUNCIATION.
- O. VISUAL DEVICE TO BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM, CONTRACTOR TO PROVIDE ALL ASSOCIATED DRIVERS. POWER SUPPLIES, CONDUIT, WIRE AND ACCESSORIES FOR A COMPLETE AND OPERATIONAL SYSTEM.
- P. STROBE SHALL BE SUITABLE FOR OPERATION WITH EXISTING FIRE ALARM SYSTEM. THE V/O SHALL CONSIST OF A XENON FLASH TUBE AND ASSOCIATED LENS/REFLECTOR SYSTEM. THE V/O ENCLOSURE SHALL MOUNT DIRECTLY TO STANDARD SINGLE GANG, DOUBLE GANG OR 4 " SQUARE ELECTRICAL BOX, WITHOUT THE USE OF SPECIAL ADAPTERS OR TRIM RINGS. Y/O APPLIANCES SHALL BE PROVIDED WITH DIFFERENT MINIMUM ADJUSTABLE FLASH INTENSITIES OF ISCD, 30CD, 75CD AND 110CD. PROVIDE A LABEL INSIDE THE STROBE LENS TO INDICATE THE LISTED CANDELA RATING OF THE SPECIFIC VISIBLE/ONLY APPLIANCE. WHEN MULTIPLE STROBES AND THEIR REFLECTIONS CAN BE SEEN FROM ONE LOCATION, PROVIDE STROBE FLASH SYNCHRONIZATION. QUANTITY, SPACING AND CANDELA DESIGN REQUIREMENTS OF VISUAL SIGNALS TO COMPLY TO NFPA REQUIREMENTS.
- A. PROVIDE SUPPLEMENTARY GROUND BONDING WHERE METALLIC CONDUITS TERMINATE AT METAL CLAD EQUIPMENT (OR AT THE METAL PULL BOX OF EQUIPMENT) FOR WHICH A GROUND BUS IS SPECIFIED WITH A BUSHING OF THE GROUNDING TYPE

CONNECTED INDIVIDUALLY TO GROUND BUS.

- B. GROUND ALL EQUIPMENT IN ACCORDANCE WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. PROVIDE SEPARATE GREEN INSULATED GROUND CONDUCTOR IN EVERY CONDUIT TO ALL DEVICES, LIGHTING FIXTURES AND FEEDERS (PANELBOARDS, DISCONNECT SWITCHES, ETC.)
- C. ALL GROUND WIRES SHALL BE SUITABLY PROTECTED FROM MECHANICAL INJURY.
- D. SPECIALTY GROUNDING AS DETAILED ON THE DESIGN DRAWINGS OR REQUESTED AS ELECTRICAL CONTRACTOR SCOPE BY OTHER CONSULTANTS DOCUMENTS.

### 2.14 SELF-POWERED EXIT SIGNS:

- A. FURNISH AND INSTALL SELF-POWERED EXIT SIGNS COMPLETE WITH INTEGRAL BATTERY/CHARGER CAPABLE OF OPERATING THE SIGN FOR 90 MINUTES IN THE EVENT OF A POWER FAILURE.
- B. UNIT SHALL HAVE SEALED NICKEL CADMIUM BATTERY, LED ILLUMINATORS, TEST BUTTON AND INDICATING LIGHT.
- C. BATTERY/CHARGER PACK SHALL BE MOUNTED ABOVE THE SIGN. CEILING MOUNTED SIGNS SHALL BE ARRANGED SO THAT THE PACK IS RECESSED ABOVE THE CEILING. WALL MOUNTED SIGNS SHALL HAVE CONCEALED BATTERY PACKS.
- D. EDGE LIT PANEL SHALL HAVE LEGEND "EXIT" IN RED LETTERING, 6" HIGH,
- E. EXIT SIGNS SHALL MATCH BUILDING STANDARD OR BE MANUFACTURED BY ATLITE. LIGHT ALARMS OR APPROVED EQUAL.
- F. SINGLE FACE AND DOUBLE FACE EXIT SIGNS SHALL BE PROVIDED WITH MYLAR BACKING.
- G. ALLOW FOR SIX (6) ADDITIONAL EXIT SIGNS (MATERIAL AND LABOR) PER FLOOR TO BE INSTALLED AS PER BUILDING INSPECTORS REQUIREMENTS UPON FINAL INSPECTION. INCLUDE FOR 30 FEET OF RACEWAY, WIRING AND FINAL CONNECTION TO EMERGENCY LIGHTING CIRCUIT.

#### 2.15 CUTTING AND PATCHING::

- A. ALL CUTTING AND PATCHING REQUIRED TO THE EXISTING BUILDING STRUCTURE FOR THE WORK SHALL BE INCLUDED UNDER THIS CONTRACT AND BE ACCEPTABLE TO THE LANDLORD, OBTAIN WRITTEN APPROVAL FROM LANDLORD BEFORE ANY CUTTING IS CARRIED OUT.
- B. WHERE CONDUITS PASS THROUGH FIRE RATED WALLS OR FLOORS, PROVIDE FIRE STOPPING MATERIAL LISTED WITH, AND BEAR LABEL OF CSA AND ULC, AND MAINTAIN SAME FIRE RATING OF BUILDING COMPONENT PENETRATION.
- 2.16 MOTORS AND APPARATUS FURNISHED BY OTHERS:
- A. INSTALL ALL WIRING IN CONDUITS. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH 18" TO 24" OF FLEXIBLE CONDUIT FROM END OF CONDUIT TO MOTOR TERMINAL BOX.
- B. PROVIDE CONNECTIONS TO ALL "EXISTING TO BE RELOCATED" AS WELL AS NEW MOTORS, CONTROLLERS, DISCONNECTS, ACTUATING AND CONTROL DEVICES. CONDUCTORS TO MOTORS TO BE THE SAME AS TO CONTROLLERS EXCEPT AS NOTED.
- C. MOTORS, CONTROLLERS, ACTUATING AND CONTROL DEVICES WILL BE SUPPLIED UNDER SECTIONS OF WORK EXCEPT AS
- D. ACCEPT DELIVERY OF CONTROLLERS OR RELOCATE EXISTING CONTROLLERS, ERECT ON WALLS OR ABOVE CEILING AS INDICATED AND WIRE UNDER THIS SECTION EXCEPT AS NOTED.
- E. WIRE ALL MOTOR AND ACTUATING DEVICES SUPPLIED AND INSTALLED UNDER OTHER SECTIONS OF WORK EXCEPT AS
- FURNISH DISCONNECT SWITCHES UNDER THIS SECTIONS OF WORK EXCEPT AS NOTED.
- G. LEAVE MOTOR, CONTROL AND ACTUATING EQUIPMENT READY FOR OPERATION.
- ASCERTAIN EXACT LOCATIONS OF CONTROLLERS & CONTROL SERVICES PRIOR TO INSTALLATION AND PULLING WIRING.
- COORDINATE WITH ALL OTHER TRADES AND PROVIDE ALL WIRING, CONDUIT, JUNCTION BOXES, DISCONNECTS, CONNECTIONS AND TERMINATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER WIRING AND NECESSARY ELECTRICAL ADJUSTMENTS AS REQUIRED BY THE EQUIPMENT SPECIFICATION.
- UNLESS OTHERWISE NOTED, ALL STARTERS AND CONTROL WIRING TO BE PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO RECEIVE, INSTALL STARTERS AND PROVIDE ALL LINE-SIDE AND LOAD-SIDE POWER WIRING AND REQUIRED ISOLATING DISCONNECT SWITCHES.
- K. CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH DIVISION IS PRIOR TO INSTALLATION
- 2.17 ACCEPTABLE MANUFACTURERS:
- RECEPTACLES: HUBBELL, LEVITON B. LIGHT SWITCHES: HUBBELL, LEVITON
- C. DIMMER SWITCHES: LUTRON, LEVITON D. RACEWAYS: NATIONAL WIRE PRODUCTS, TRIANGLE OR
- REPUBLIC E. WIRE/CABLE: ROME PHELPS DODGE, GENERAL CABLE,
- SIMPLEX F. METAL CLAD CABLE: AFC
- G. FITTINGS, COUPLINGS, BUSHINGS, CONNECTORS: OZ GEDNEY, BURNDY, NEPCO, THOMAS AND BETTS
- H. DISCONNECT SWITCHES: GE, SQUARE "D" OR SIEMENS
- FUSES: BUSSMAN, GOULD SHAWMUTT J. CIRCUIT BREAKERS: GE, SQUARE "D" OR SIEMENS
- PANELBOARDS: GE, SQUARE D, OR SIEMENS MATCH BUILDING
- K. STANDARD. LAMPS: GE, SYLVANIA, PHILLIPS
- M. FLOOR BOXES POKE-THRU'S: HUBBELL, WIREMOLD N. OCCUPANCY SENSORS: REFER TO SCHEDULE
- O. TIME CLOCKS: TORK OR APPROVED EQUAL
- P. WIREWAYS: HUBBELL, WIREMOLD

# PART 3 EXECUTION

# 3.01 GENERAL:

- A. PERFORM THE WORK AT SUCH TIME AND IN SUCH MANNER AS TO MINIMIZE INTERFERENCE WITH BUILDING'S NORMAL OPERATION. NOTIFY BUILDING MANAGEMENT REPRESENTATIVES IN ADVANCE EACH TIME A SERVICE OUTAGE OR INTERRUPTION WILL BE REQUIRED FOR THE PERFORMANCE OF SOME PHASE OF THE WORK, SCHEDULE SUCH SERVICE OUTAGE OR INTERRUPTION ONLY AFTER HAVING RECEIVED APPROVAL OF DATE, HOUR, AND TIME INTERVAL REQUIRED THEREOF. SCHEDULE OF WORK AS DIRECTED SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE.
- B. OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRE STOPPED USING APPROVED METHODS. SEALANT SHALL BE RATED FOR 3 HOURS. TELECOMMUNICATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING FIRE STOPPING IN 'IT' CONDUITS/SLEEVES/PENETRATIONS AFTER 'IT' WIRES ARE PULLED.
- C. MAINTAIN GROUND CONTINUITY THROUGHOUT ALL SYSTEMS.
- D. MAINTAIN CONTINUITY AND PROTECT ALL EXISTING CIRCUITS TO REMAIN SERVING EQUIPMENT WITHIN BUILDING AREAS AFFECTED BY THE ALTERATION WORK. CONTRACTOR SHALL BE RESPONSIBLE TO TRACE ALL EXISTING CIRCUITS TO REMAIN ORIGINATING FROM PANELBOARDS, AND SUBMIT FINDINGS TO ENGINEER FOR CLARIFICATION PRIOR TO THE START OF ANY PANELBOARD WORK, WHENEVER IT IS REQUIRED THAT AN EXISTING CIRCUIT BE MODIFIED, REVISED, DISCONNECTED OR REMOVED IT SHALL BE UNDERSTOOD THAT THE CIRCUIT SHALL BE RECONNECTED AND SERVICE RE-ESTABLISHED IN THE REMAINING PORTION OF THE CIRCUIT AFFECTED BY THE ALTERNATION.
- E. PRIOR TO ANY CHASING, CHOPPING, OR CORE DRILLING BEING PERFORMED, THE CONTRACTOR SHALL FIELD INVESTIGATE CONDITIONS AND COORDINATE WITH ALL APPROPRIATE TRADES TO ENSURE THAT WORK WILL BE IN HARMONY WITH OTHER WORK AND NOT AFFECTED ANY EXISTING BUILDING SYSTEMS. X-RAY SLABS IF REQUIRED. WORK MUST BE APPROVED BY BUILDING <u>THIS MANAGEMENT PRIOR</u> <u>TO PROCEEDING, ALL</u> CORING/CHASING WILL BE DONE ON OVERTIME.
- F. FOR TEMPORARY POWER, FURNISH AND INSTALL WIRING FOR ADEQUATE LIGHT AND SMALL TOOLS POWER FOR THE PROJECT. THIS SHALL INCLUDE STRINGERS, LAMPS, OUTLETS, BREAKERS, AND FUSING, AS IT IS NECESSARY. ALL TEMPORARY WIRING SHALL BE REMOVED FROM SPACE AT COMPLETION OF PROJECT.
- G. FURNISH AND INSTALL A MINIMUM I" EMPTY CONDUIT FOR ALL WALL MOUNTED LOW YOLTAGE EQUIPMENT JUNCTION BOXES. CONDUIT SHALL BE STUBBED 6" ABOVE HUNG CEILING AND TURNED TOWARDS TERMINATION CLOSET ABOVE ACCESSIBLE CEILING AREA.
- H. COORDINATE WITH THE BUILDING OWNER FOR ANY SERVICE INTERRUPTION OF EXISTING SYSTEMS AND GIVE NOTICE AS REQUIRED BY BUILDING RULES AND REGULATIONS OR A MINIMUM OF FIVE (5) DAYS PRIOR TO ANY WORK, WHICHEVER IS MORE STRINGENT. CONTRACTOR IS TO PERFORM WORK ON PREMIUM TIME SO AS TO NOT DISTURB EXISTING TENANTS ON OTHER FLOORS.
- K. WHEN USING TEMPORARY LIGHTING, THE CONTRACTOR SHALL CLEARLY LABEL PANELS AND BREAKERS USED FOR LIGHTING. LOCATION OF PANELS TO BE SHOWN ON FLOOR PLAN POSTED AT ENTRANCE TO WORK AREA. PROPER TEMPORARY LIGHTING AND POWER MUST BE INSTALLED AND MAINTAINED IN ALL WORK AREAS. CONNECTIONS TO EXISTING STAIRWELL AND EXIT LIGHT SYSTEMS ARE NOT PERMITTED.
- L. THE CONTRACTOR SHALL CUT BACK TO THE FLOOR, WALL OR CEILING, REMOVE WIRING AND PLUG BOTH ENDS OF CONCEALED CONDUITS MADE OBSOLETE BY THIS ALTERNATION. EXPOSED CONDUITS, WIREWAYS, OUTLET BOXES, PULL BOXES, HANGERS, ETC. MADE OBSOLETE BY THE ALTERNATION WORK SHALL BE REMOVED, UNLESS OTHERWISE NOTED.
- M. IT IS POSSIBLE THAT THERE WILL BE CERTAIN REMOVALS AND RELOCATIONS OF THE EXISTING ELECTRICAL INSTALLATION NECESSARY FOR THE SATISFACTORY PERFORMANCE OF THE WORK, THESE CHANGES CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS, BUT MUST BE CONSIDERED BY THE CONTRACTOR WHILE REVIEWING THE EXISTING CONDITIONS AT THE SITE AND PREPARING THE PROPOSAL.

#### 3.02 IDENTIFICATION OF EQUIPMENT:

- A. ALL PANELBOARDS, CONTROL PANELS, AND CABINETS SPECIFIED HEREIN SHALL BE CLEARLY IDENTIFIED WITH THE EQUIPMENT DESIGNATION AND VOLTAGE RATING. IDENTIFICATION SHALL BE BY WHITE ON BLACK PLASTIC NAMEPLATE WITH 1/2" MINIMUM LETTERING ATTACHED BY SCREWS.
- B. ALL PANELBOARDS, SPECIFIED HEREIN SHALL BE PROVIDED WITH A MEANS OF IDENTIFICATION OF THE MULTIWIRE BRANCH CIRCUIT COLOR CODE IDENTIFICATION SYSTEM INSTALLED PER THE REQUIREMENTS OF NEC ARTICLE 210.5, REFER TO SPECIFICATION SECTION 2.03.G FOR COLOR CODING DESIGNATIONS.
- C. JUNCTION BOXES, SPLICE BOXES, ETC., SHALL BE IDENTIFIED WITH PANEL AND CIRCUIT NUMBERS, FOR CIRCUITS CONTAINED THEREIN. FACEPLATE OF SWITCHES FOR EQUIPMENT SUCH AS SHALL BE IDENTIFIED WITH THE NAME OF THE DEVICE CONTROLLED. IDENTIFICATION SHALL BE BY INDELIBLE MARKER IN CONCEALED LOCATIONS AND ADHESIVE ('P' TOUCH TYPE) LABELS IN EXPOSED LOCATIONS. EMERGENCY DEVICES SHALL BE IDENTIFIED IN RED.
- D. CLEARLY LABEL ALL EXPOSED CONDUIT, PULLBOXES, JUNCTION BOXES, ETC TO INDICATE THE NATURE OF THE SERVICE.
- E. EMPTY CONDUITS SHALL BE IDENTIFIED WITH TAGS AT BOTH ENDS INDICATING THE LOCATION OF TERMINATION OF THE OPPOSITE END.
- F. FIRE ALARM SYSTEM JUNCTION BOXES SHALL BE PAINTED FIRE DEPARTMENT RED. APPROVED IDENTIFICATION CARDS SHALL BE FURNISHED ADJACENT TO ALL CONTROL PANELS AND MANUAL STATIONS.
- G. ALL RECEPTACLES SHALL HAVE CIRCUIT NUMBERS AND ASSOCIATED PANEL DESIGNATION CLEARLY IDENTIFIED ON THE RECEPTACLES (OR DISCONNECT, JUNCTION BOX, ETC...) FACEPLATE. IDENTIFICATION SHALL BE PERMANENT, INDELIBLE AND TYPEWRITTEN.
- H. PROVIDE SCREW-FASTENED TYPEWRITTEN ENGRAVED LAMICOID NAMEPLATE WITH MINIMUM r" HIGH WHITE LETTERING ON BLACK BACKGROUND, CLEARLY INDICATING THE FUNCTION, DESIGNATION OR EQUIPMENT CONTROLLED FOR EACH OF THE FOLLOWING:
  - ALL PANEL AND SWITCH BOARDS
- MOTOR STARTERS & MISCELLANEOUS CONTROL SWITCHES
- 3. DISCONNECT SWITCHES 4. ENCLOSED CIRCUIT BREAKERS
- 5. CONTACTORS AND RELAYS 6. CONTROL SWITCHES
- PROVIDE NAMEPLATES FOR ALL NEW AND EXISTING EQUIPMENT AS DESCRIBED ABOVE AND/OR DETAILED ON THE ENGINEERING DRAWINGS.
- H. PROVIDE TYPEWRITTEN DIRECTORIES FOR NEW AND EXISTING PANELS. CONFIRM EXISTING IDENTIFICATION AND CORRECT WHERE NECESSARY

### 3.03 EXISTING EQUIPMENT REFURBISHMENT:

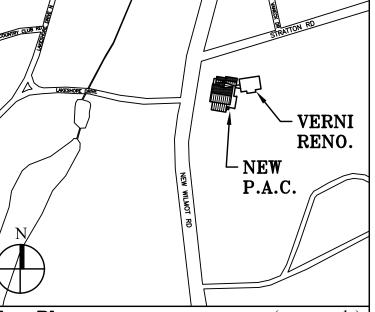
- A. WHERE PANELBOARDS, SWITCHES, CIRCUIT BEAKERS, DISCONNECT SWITCHES ETC. ARE EXISTING TO BE REUSED THE CONTRACTOR SHALL CLEAN AND REFURBISH THE EQUIPMENT. THIS SHALL INCLUDE TIGHTENING ALL CONNECTIONS, REPLACING DEFECTIVE MECHANISMS, EXERCISING MECHANISMS AND PROVIDING ANY MISCELLANEOUS COMPONENTS SO THE EQUIPMENT IS IN FIRST CLASS WORKING
- B. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO FIELD SURVEY ALL EXISTING BASE BUILDING RECEPTACLE, LIGHTING AND EQUIPMENT CIRCUITS WHICH ARE EXISTING TO REMAIN. PROVIDE AS BUILT SURVEY PRIOR TO THE START OF ANY WORK AND SUBMIT TO ENGINEER FOR RECORD. CIRCUITS SHALL REMAIN IN EXISTING PANELS OR WHEN PANELBOARDS ARE REPLACED, RETERMINATED IN NEW PANELBOARD.

# 3.04 LIFE SAFETY TESTING:

A. AFTER COMPLETION OF THE PROJECT, PERFORM A TEST OF THE EMERGENCY EGRESS LIGHTING SYSTEM. TEST SHALL BE PERFORMED AFTER DARK (AT LEAST I HOUR AFTER SUNSET): SIMULATE POWER FAILURE ON ALL LIGHTING CIRCUITS. TAKE LIGHT LEVEL READINGS ALONG PATHS OF EGRESS AT FLOOR LEVEL UTILIZING A FOOT CANDLE METER: RECORD READINGS ON A REDUCED SCALE (1/16"=1'-0") FLOOR PLAN. READINGS SHALL BE TAKEN AT THE MIDPOINT BETWEEN EMERGENCY FIXTURES. SUBMIT SEALED AND SIGNED COPY OF THE FLOOR PLAN READINGS TO THE ENGINEER.

# 3.05 PROTECTION:

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR WORK & EQUIPMENT UNTIL FINALLY INSPECTED, TESTED AND ACCEPTED, MATERIALS AND EQUIPMENT SHALL BE CAREFULLY STORED WHICH ARE NOT IMMEDIATELY INSTALLED AFTER DELIVERY TO SITE. CLOSE EXPOSED PARTS OF THE WORK WITH TEMPORARY COVERS OR PLUGS DURING CONSTRUCTION TO PREVENT ENTRY OF MOISTURE OR OBSTRUCTING MATERIALS.
- B. PROTECT THE WORK AND MATERIAL OF OTHERS FROM DAMAGE INSTALLED AS PART OF THIS CONTRACT. RESTORE ANY WORK DAMAGED AND BE RESPONSIBLE FOR ALL CURRENT WORK AND ASSOCIATED COSTS.



Key Plan	(not to scale

6/01/2021 ISSUED FOR BID 6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW 5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW 3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW 2. 8/28/2020 ISSUED FOR PRELIMINARY DOB REVI 1. 1/10/2020 ISSUED FOR DD ESTIMATE Date Revision/Submission STRUCTURAL & SITE CIVIL ENGINEER DOMINICK R PILLA ASSOCIATES, P.C. 143 MAIN STREET NYACK, NY 10960

**ROOFING CONSULTANT** MEP ENGINEER JMV CONSULTING WATSKY ASSOCIATES ENGINEERING, P.C 20 MADISON AVENUE 37 W. 39 STREET, STE 703 VALHALLA, NY 10595 914-948-3450 NEW YORK, NY 10018 212-852-9855

845-727-7793

IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

Drawing Title

ELECTRICAL SPECIFICATIONS III

Date

04/03/2019

Drawing No.

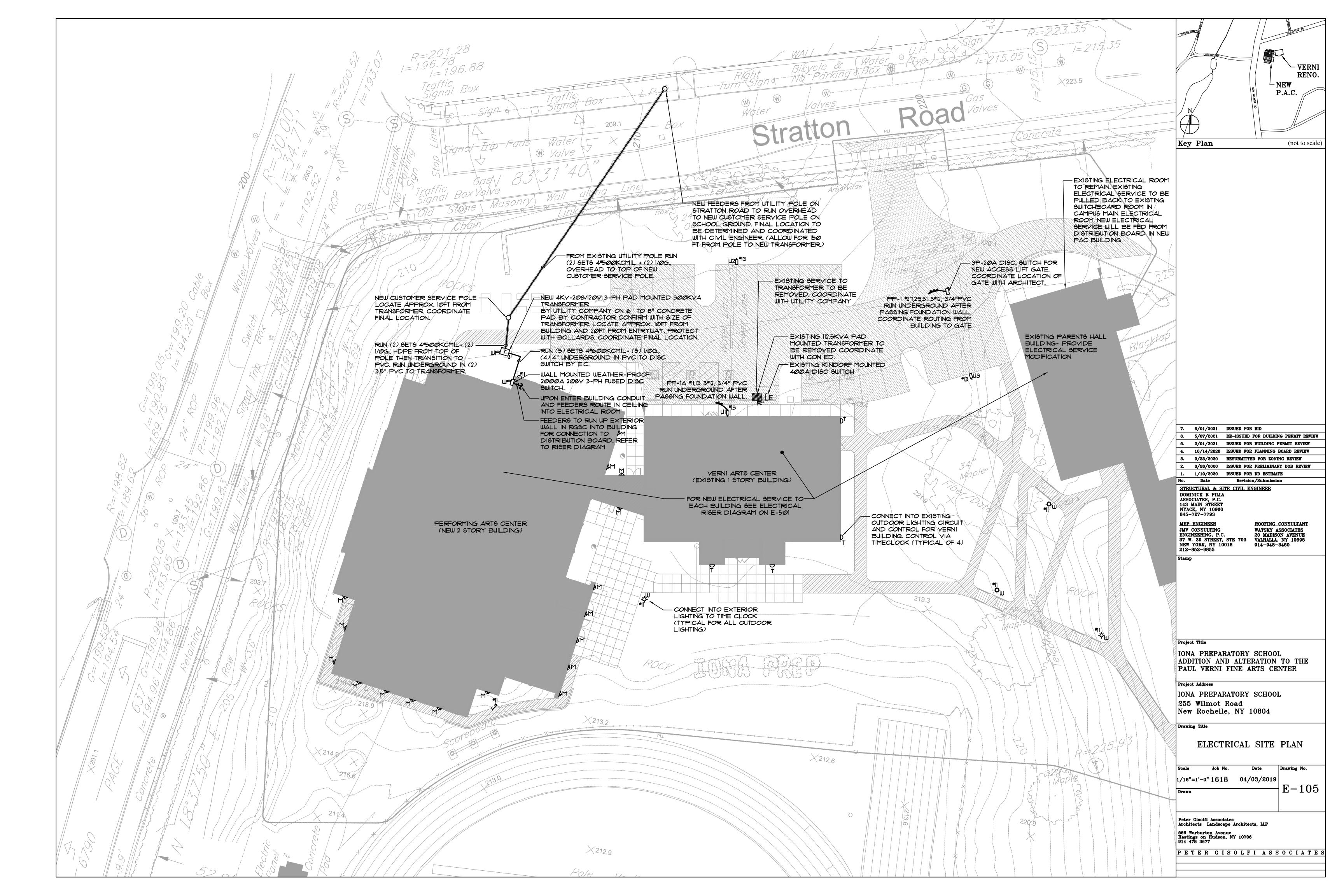
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Job No.

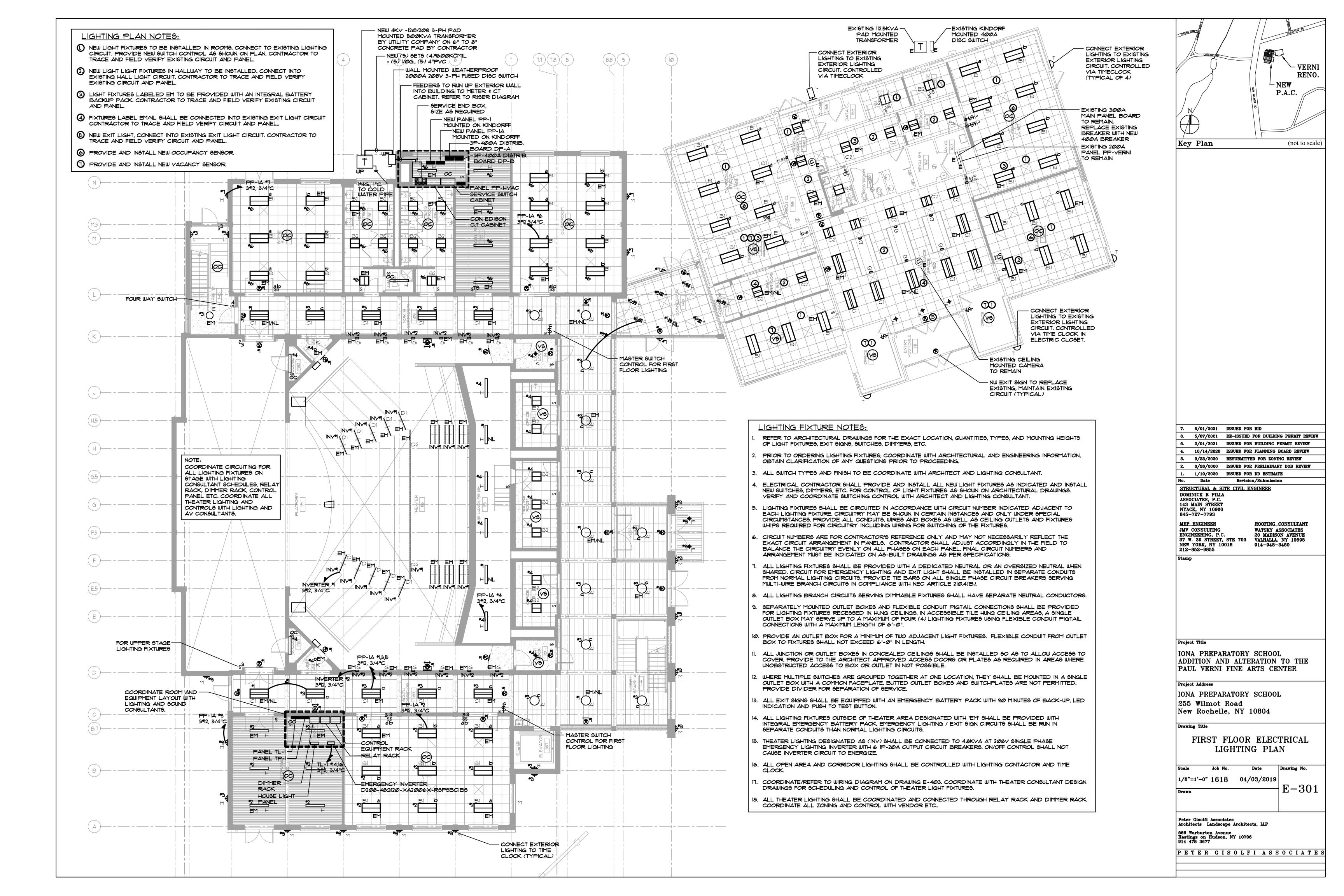
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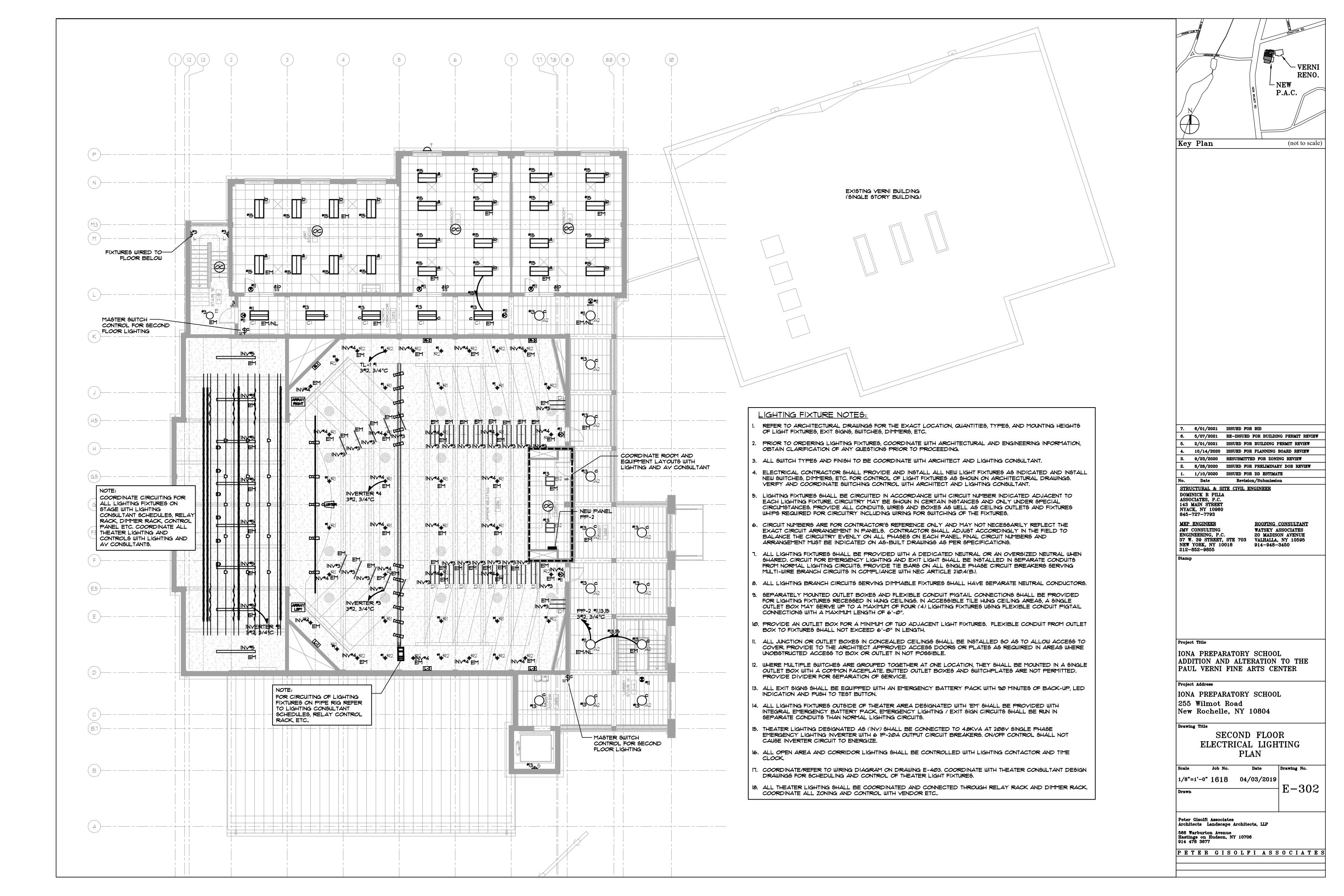
Peter Gisolfi Associates Architects Landscape Architects, LLP 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677

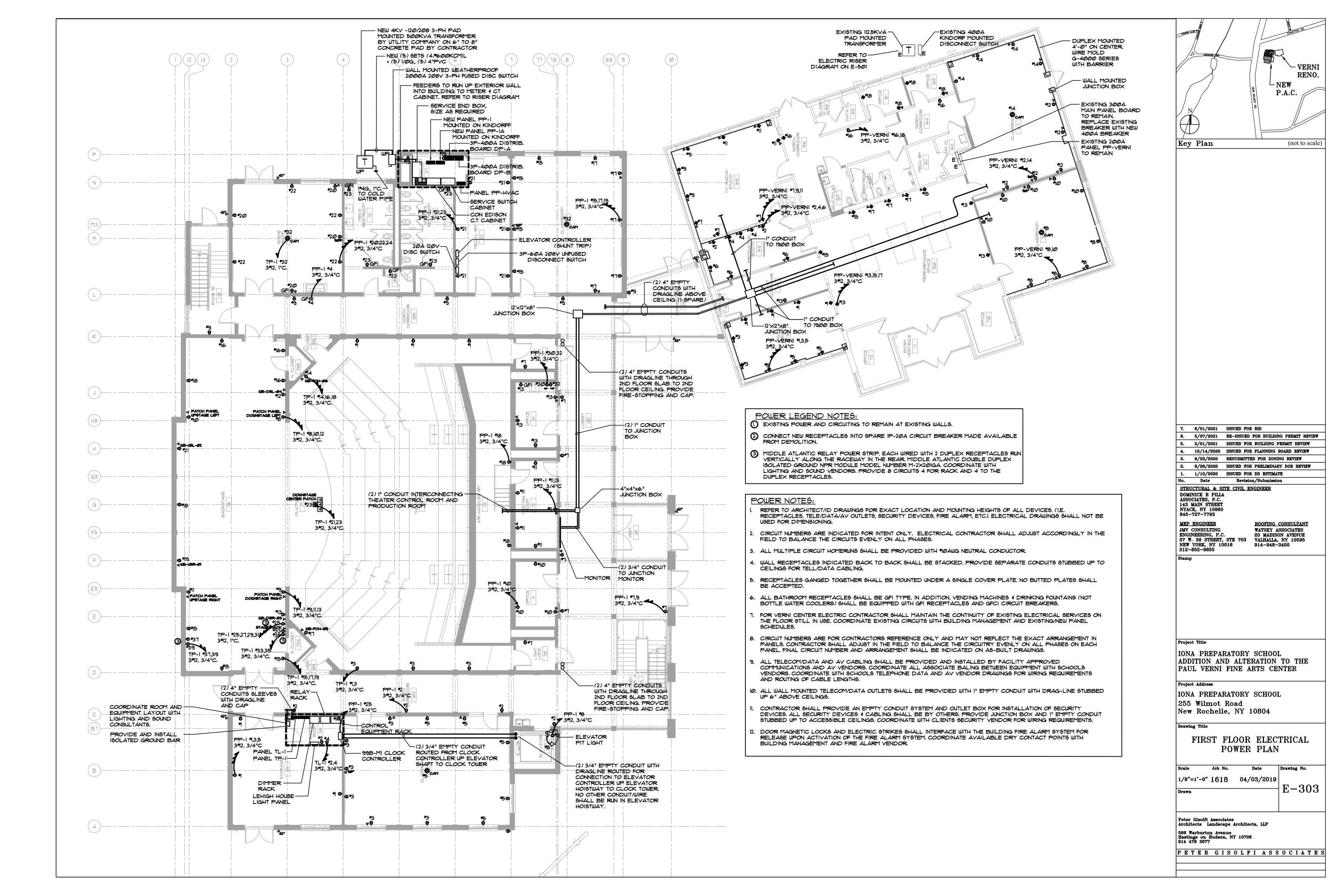
PETER GISOLFI ASSOCIATES

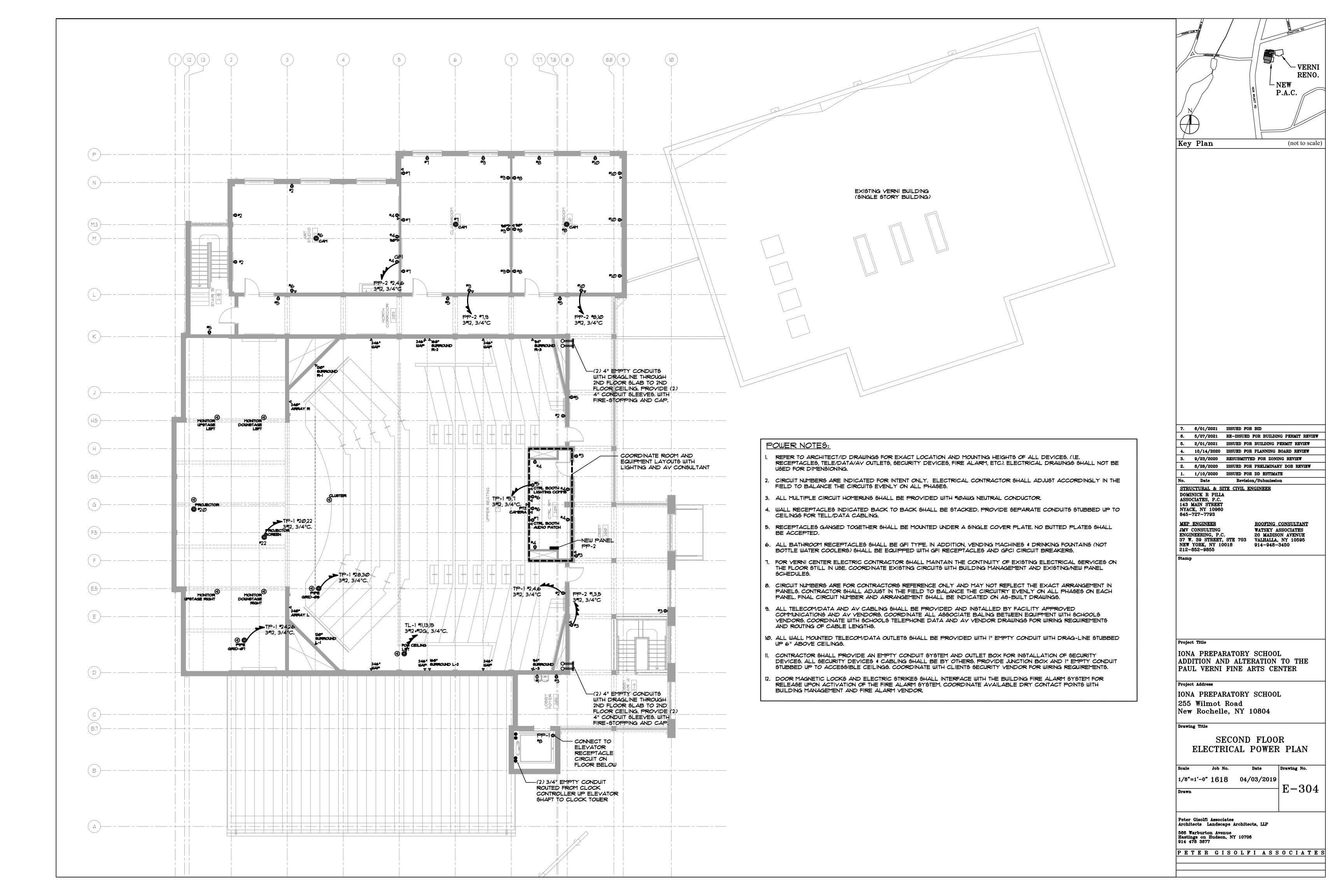


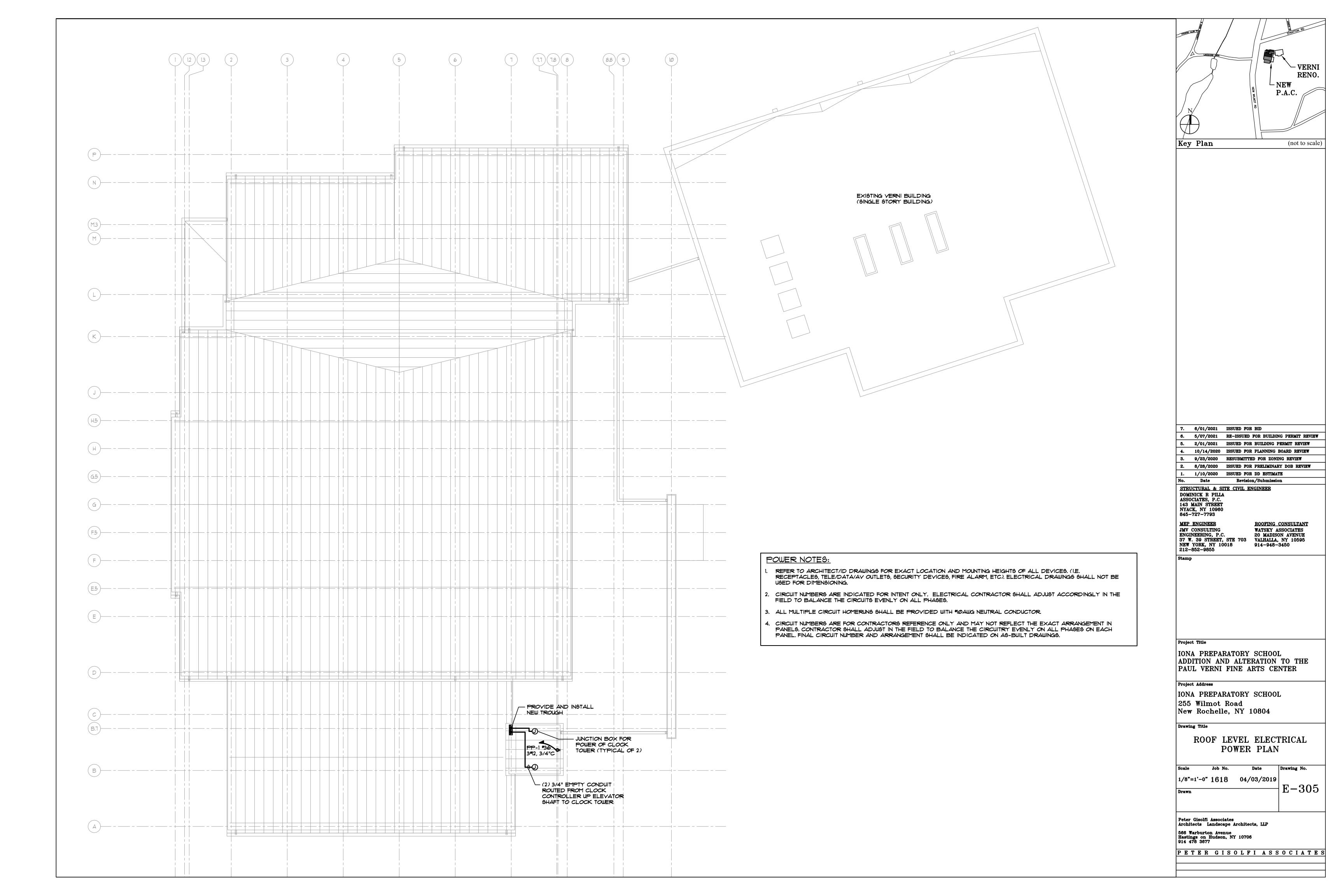


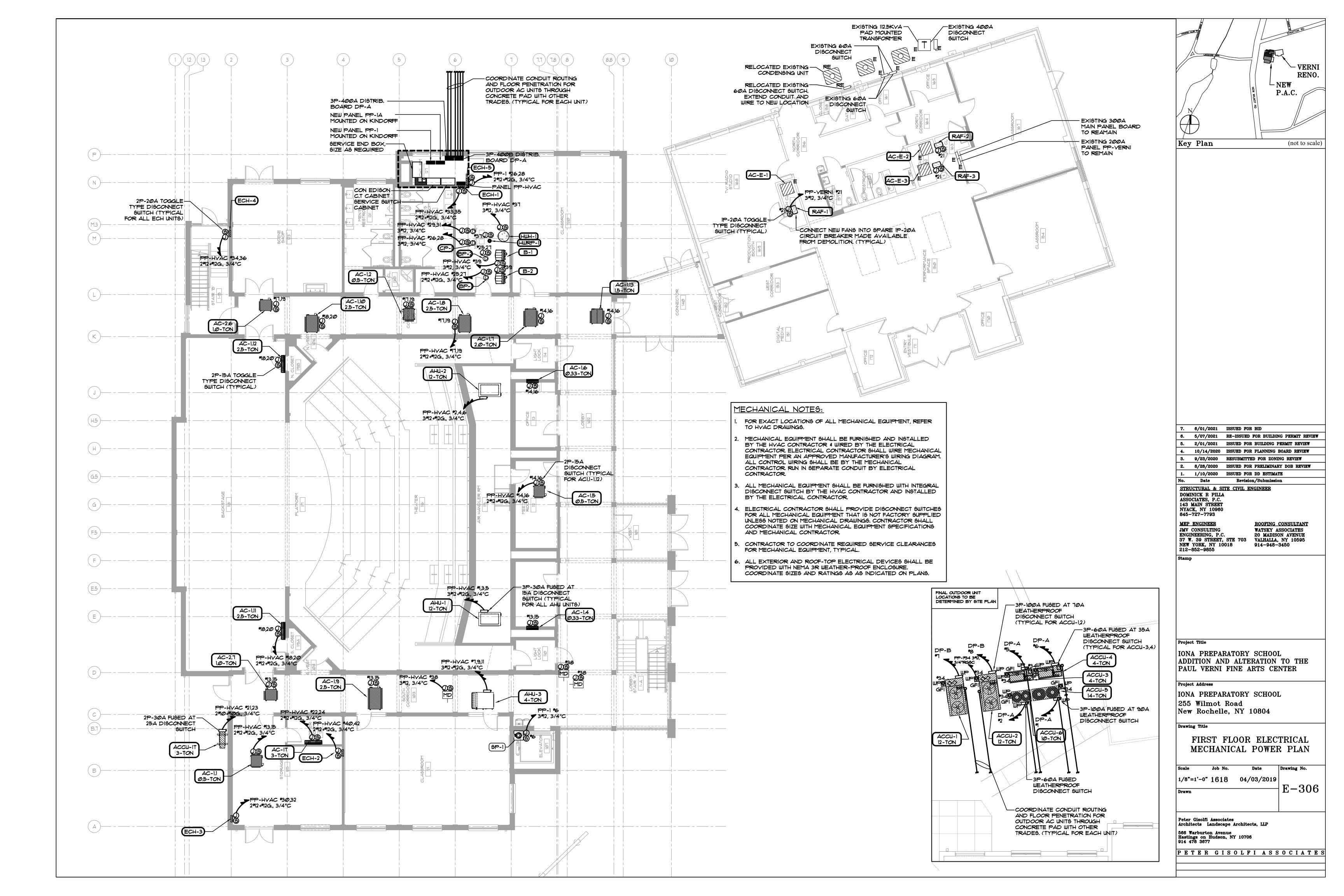


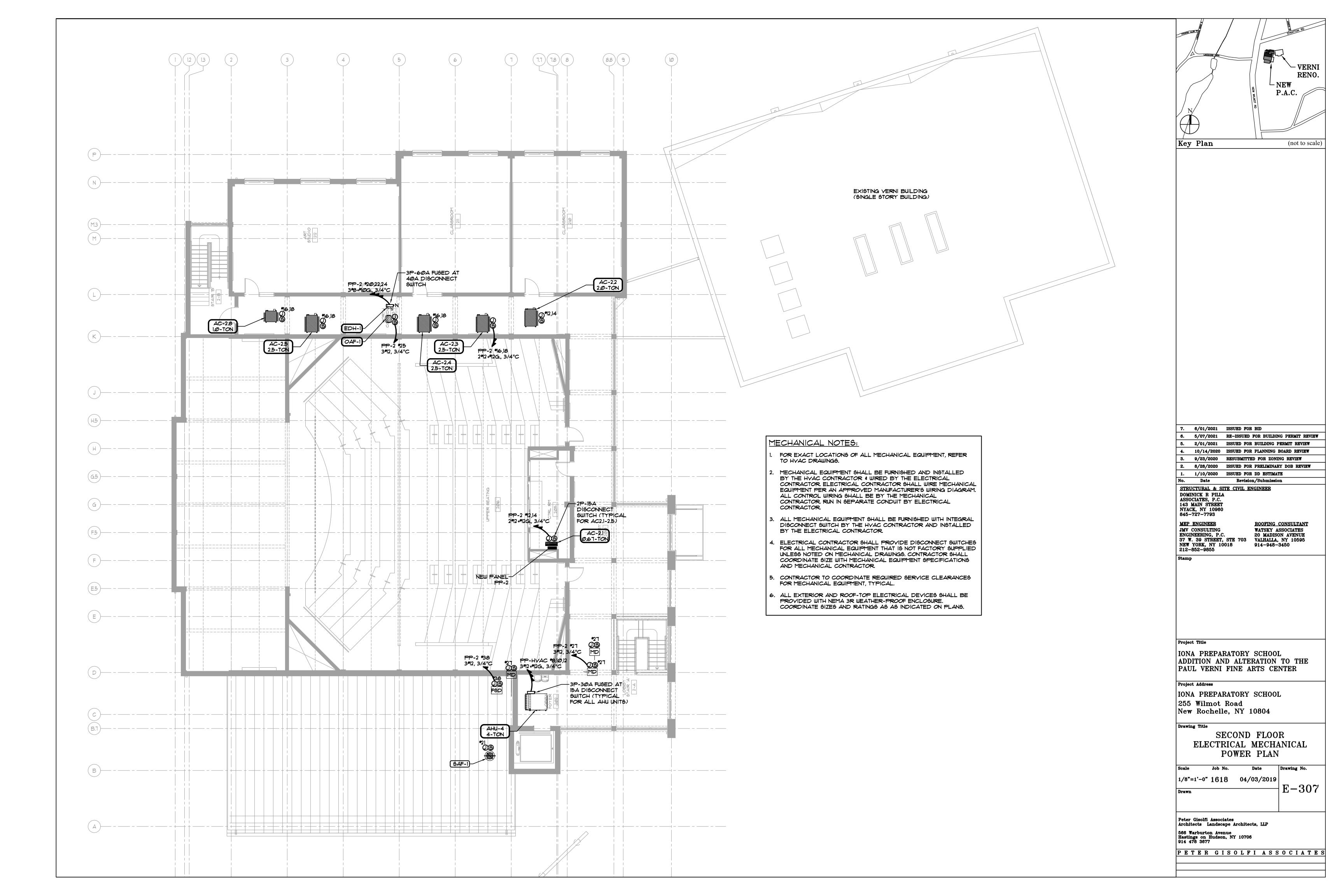


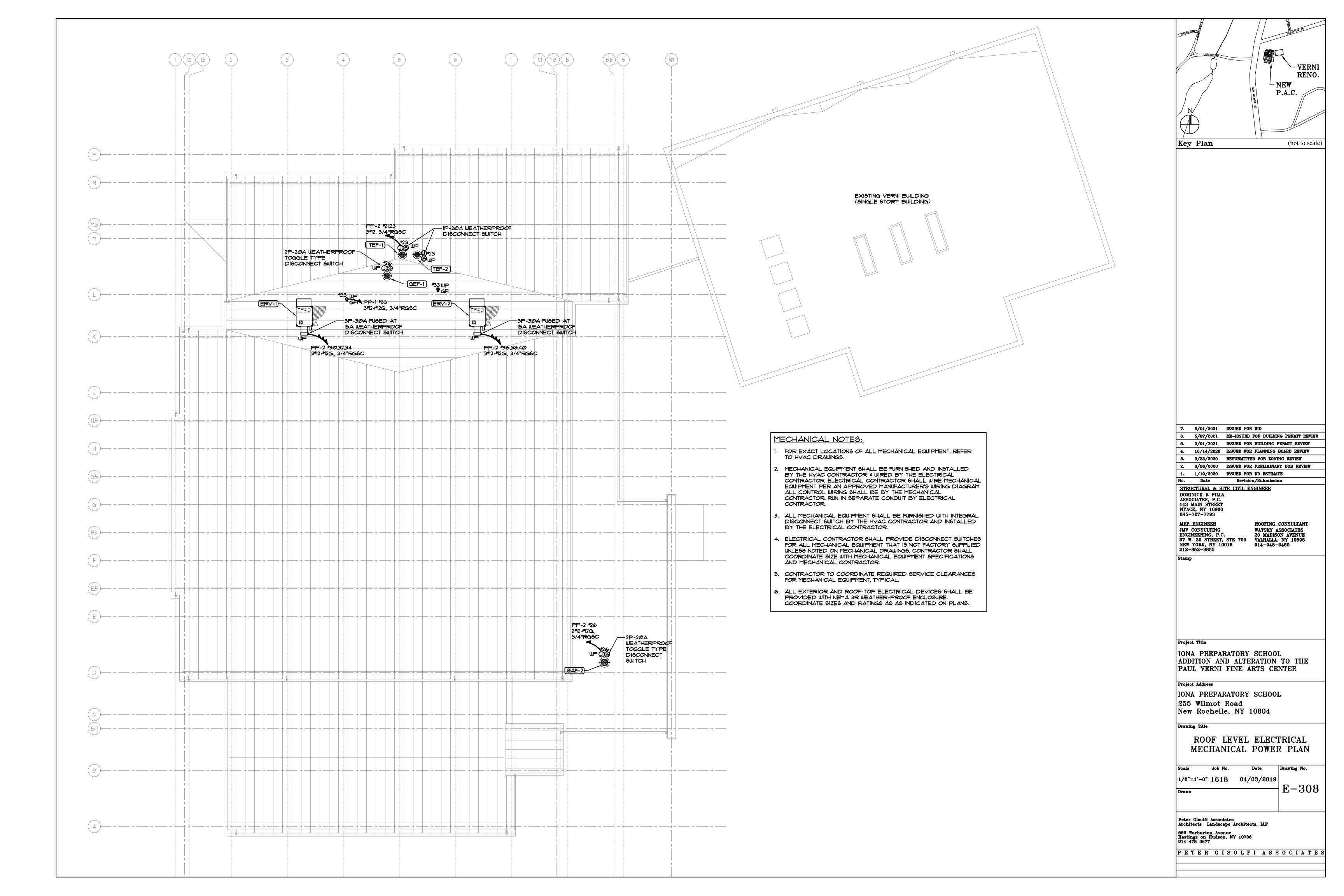


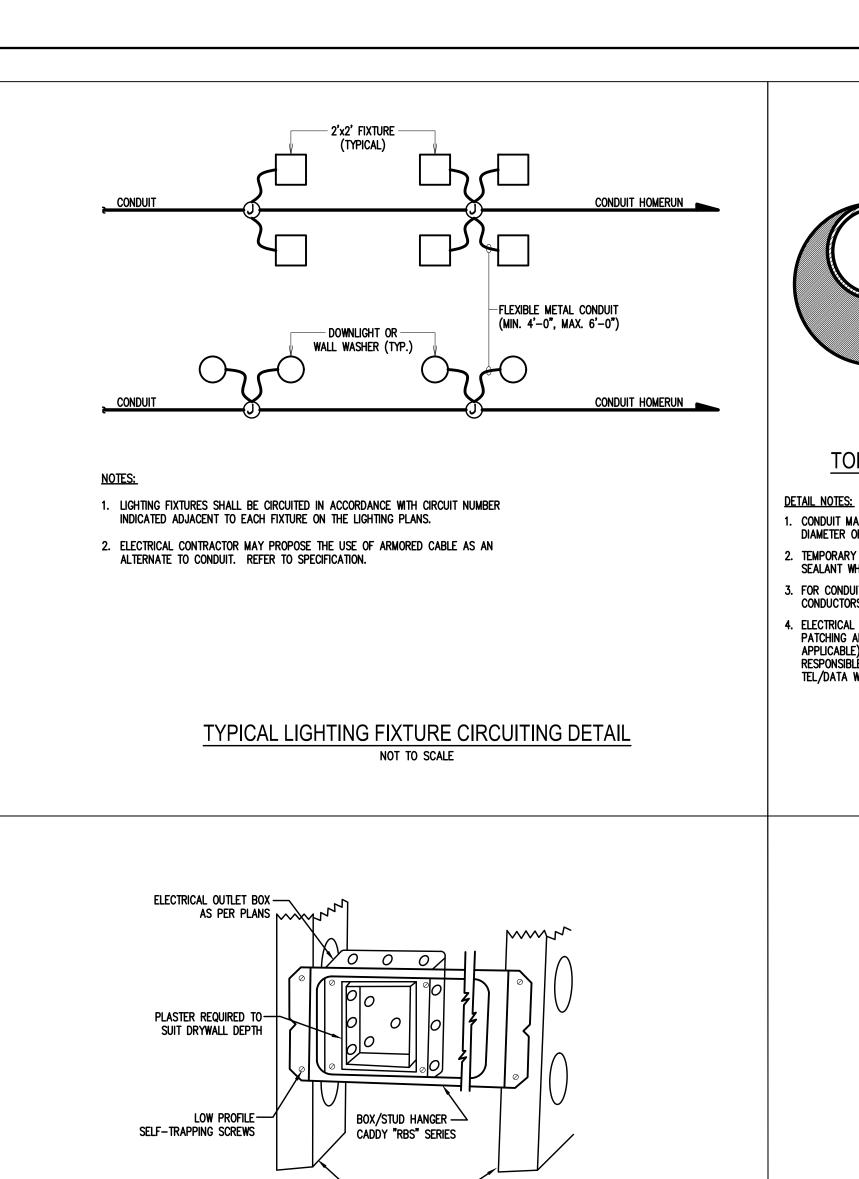


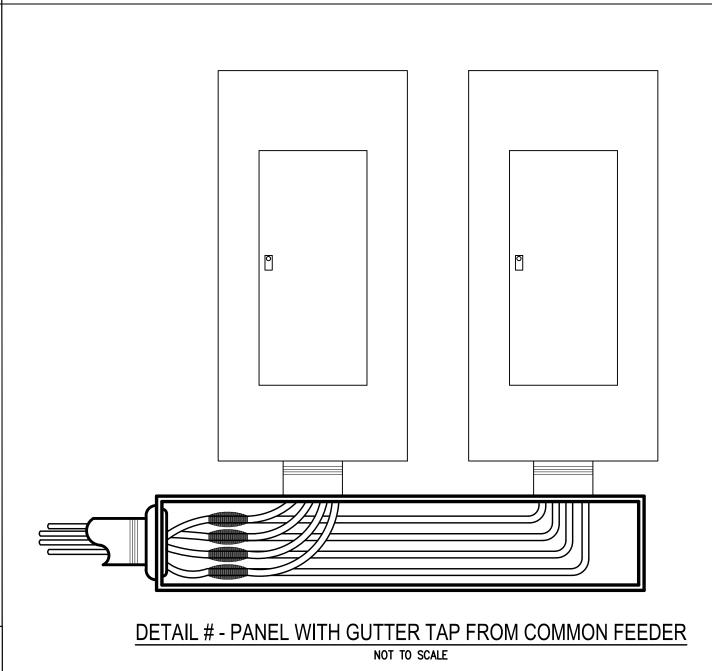












CONDUIT THROUGH A CONCRETE/BLOCK WALL OR SLAB

NOT TO SCALE

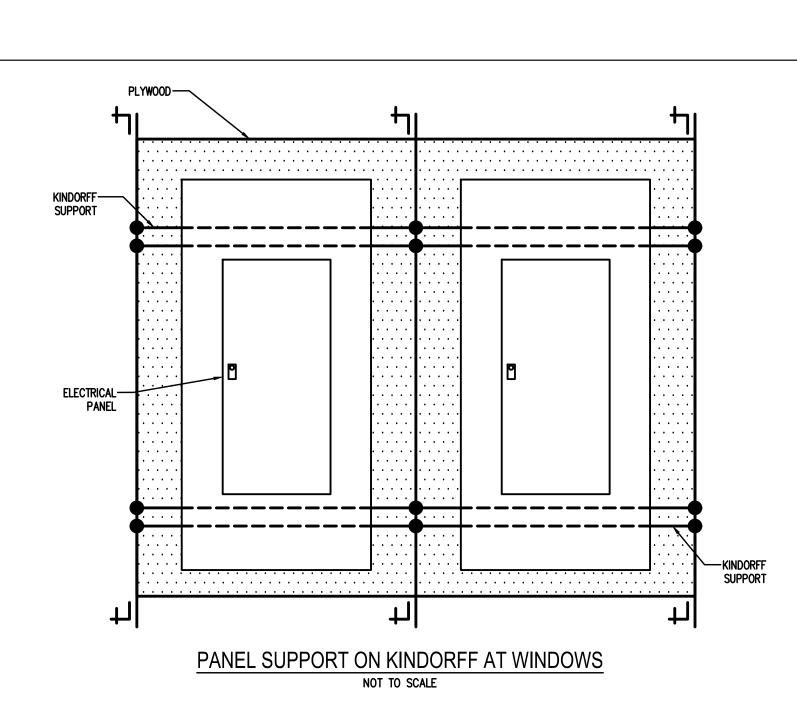
DIAMETER OF HOLE OPENING IS 14 INCHES.

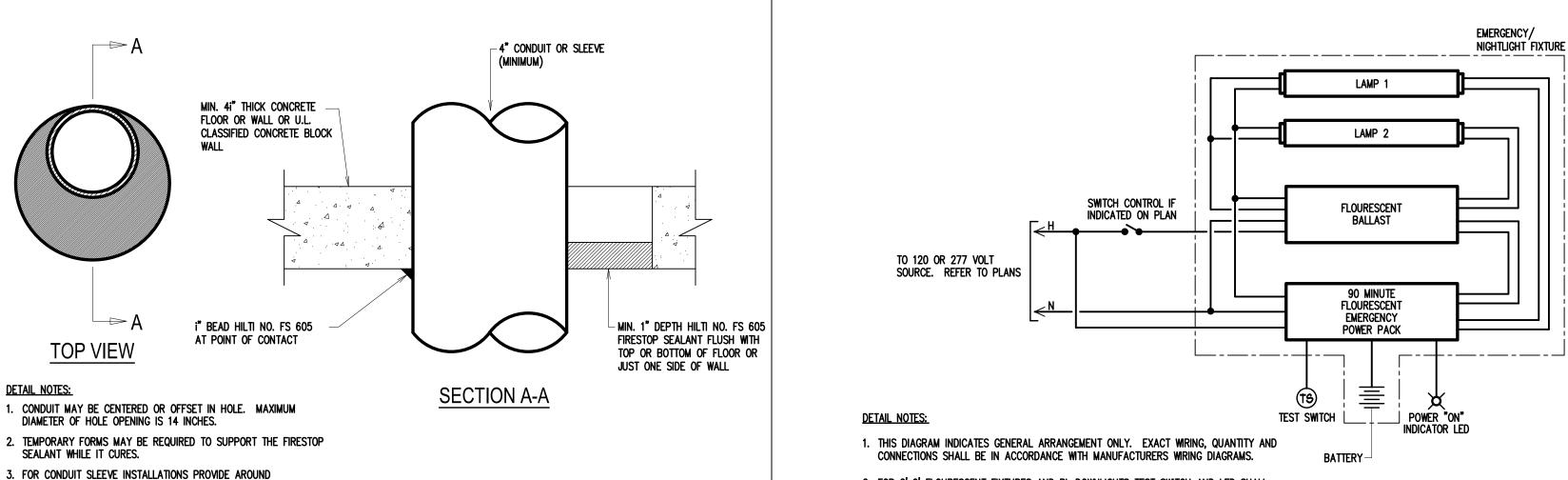
4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL

PATCHING AND EXTERNAL FIRESTOPPING AROUND SLEEVE (WHERE APPLICABLE) AND CONDUIT. TELECOM CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING WITHIN SLEEVES USED FOR

SEALANT WHILE IT CURES.

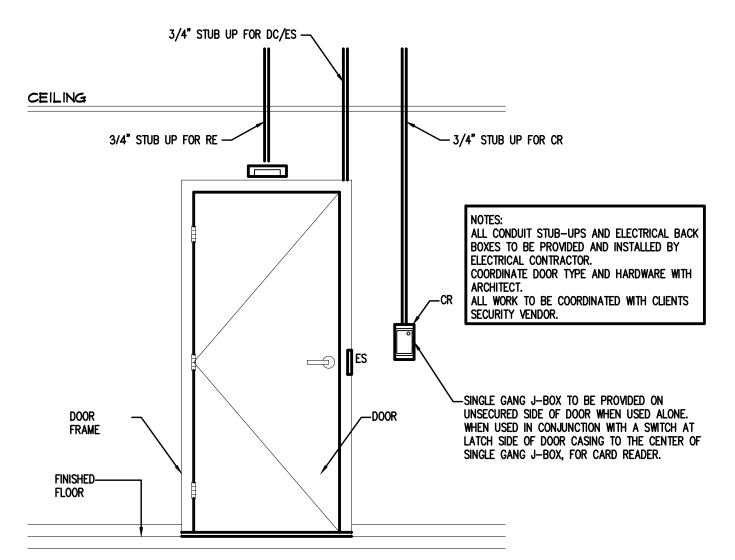
CONDUCTORS WITHIN SLEEVE.



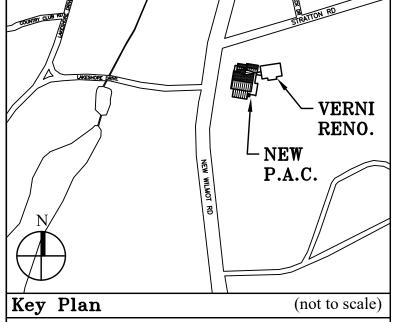


2. FOR 2'x2' FLOURESCENT FIXTURES AND PL DOWNLIGHTS TEST SWITCH AND LED SHALL BE MOUNTED ON ACCESSIBLE PORTION OF THE FIXTURE HOUSING. IF THIS IS NOT POSSIBLE THEY SHALL BE MOUNTED ON AN ADJACENT CEILING TILE UTILIZING A WHITE

# DETAIL # - TYPICAL WIRING DIAGRAM FOR FLUORESCENT LIGHT FIXTURE WITH EMERGENCY POWER PACK NOT TO SCALE



TYPICAL SINGLE DOOR WITH CARD READER, ELECTRIC STRIKE, DOOR CONTACT AND REX MOTION DETECTOR STUB-UP DETAIL



IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

6/01/2021 ISSUED FOR BID

6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW

10/14/2020 ISSUED FOR PLANNING BOARD REVIEW

ROOFING CONSULTANT

WATSKY ASSOCIATES 20 MADISON AVENUE VALHALLA, NY 10595

5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW

3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW

1. 1/10/2020 ISSUED FOR DD ESTIMATE

STRUCTURAL & SITE CIVIL ENGINEER

Date

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MEP ENGINEER

JMV CONSULTING

ENGINEERING, P.C

NEW YORK, NY 10018 212-852-9855

37 W. 39 STREET, STE 703

ELECTRICAL DETAILS

cale	Job No.	Date	Drawing No.
NTS	1618	04/03/2019	
rawn			E-401

PETER GISOLFI ASSOCIATES

ELECTRICAL CONTRACTOR. Variable speed controller(for Air Balancing) furnished by MECHANICAL CÓNTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR (WHERE REQUIRED AS INDICATED). HUNG CEILING — 2#12 AWG & 1#12G IN s"C, UNLESS OTHERWISE NOTED. - FLEXIBLE METALLIC CONDUIT (18' MAXIMUM). - WALL SWITCH WITH PILOT LIGHT SUPPLIED & INSTALLED BY ELECTRICAL CONTRACTOR. CERTAIN INSTALLATIONS WILL REQUIRE A THERMOSTAT OR A MOTION SENSOR, IN LIEU OF A SWITCH. COORDINATE WITH TO 120 VOLT AC SOURCE -REFER TO PLANS FOR MECHANICAL CONTRACTOR. CIRCUIT NUMBERS.

1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ASSOCIATED WIRING

UNFUSED DISCONNECT SWITCH —

120V, 20A, 1P, UNLESS OTHERWISE NOTED.

BOX TO STUD HANGER DETAIL

NOT TO SCALE

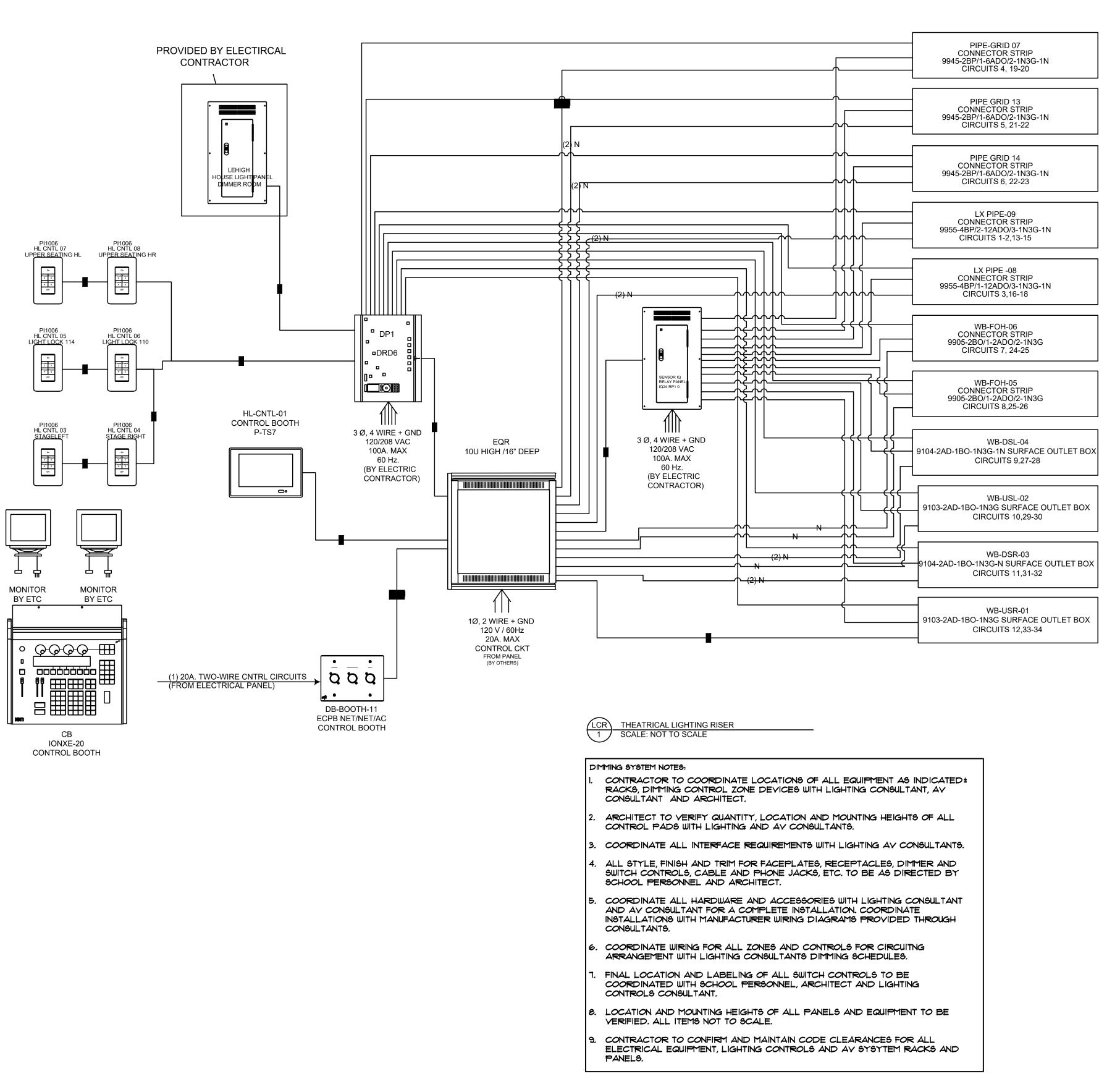
-EXHAUST FAN. FURNISHED AND

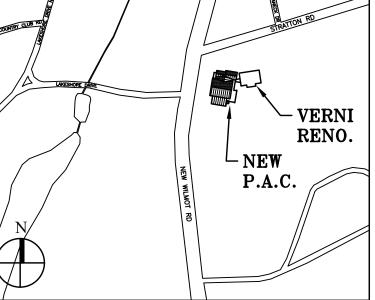
INSTALLED BY MECHANICAL CONTRACTOR. WIRED BY

NOTES:

TYPICAL WIRING DIAGRAM FOR CEILING EXHAUST FAN NOT TO SCALE

ng Location / Description	Panel/Device	Mounting	Mounting Ht.	aroup	Cable Type	Cable (Signal) and Description	Quantity	Originates DSR @ Rack Conduit	Terminates  Control Room Patch v6	Conduit Size
				A	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/UNE	8	Conduit Distribution Pull Box	Control Room Patch x6 Control Room Comm A/B	3/4" EMT
				^	Deiden 9431	Offigie 11 220a. Stranded w/b shield Milo/Line	Ü	DSR @ Rack Conduit	Octob Bross Batch	JI4 LIMI
Control Booth Ceiling	Hoffman ASE		TBD	В	Belden 2412	4 Pair UTP 23 Gauge CAT6	8	Distribution Pull Box	Control Room Patch	2" EMT
	12x12x6	Control Room Ceiling						DSD @ Back		
Main Distribution (Ceiling	Blank Cover							DSR @ Rack Conduit Distribution Pull	Control Room Patch	
Mounted?)A/V Access Box	ACCESS HATCH			В	Belden 2412F	4 Pair STP 23 Gauge CAT6	8	Box		
				С	Belden 2412F	4 Pair STP 23 Gauge CAT6	2	DSR @ Rack Conduit	Classroom Wall TBD	1"
								Distribution Pull Box		~
1					l			Control Booth		
				Α	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/LINE	6	Main Distro Control Booth	Control Room Patch	1/2"
Control Booth	Hoffman ASE6x6x4	Flush in Wall		В	Belden 2412	4 Pair UTP 23 Gauge CAT6	6	Main Distro Control Booth	Control Room Patch  Control Room Patch	1"
			TBD	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	6	Main Distro	Control Room Fatch	1"
Control Booth A/V Patch	Custom Panel									
20 Amp Circuit #1	Quad Box with Dual Duplex Quad Box with Dual		TBD			THHN #12 (?)		Equipment Room Power Panel Equipment Room	Control Room Audio Position	TBD
20 Amp Circuit #2	Duplex		TBD			THHN #12 (?)		Power Panel	Control Room Audio Position	
FOH PTZ Camera	Raco 260	Flush Mount in Wall	TBD	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	2	Control Booth	Control Room Patch	3/4"
- Torriz Camera	Custom Panel	Outside Booth	100	J	DOIGGIT E TIET	Truit on 20 outige of the	-	Main Distro	CONTROL TO SET THE SET OF THE SET	
								Control Booth		
				Α	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/LINE	4	Main Distro Control Booth	Control Room LX Positon	1/2"
Control Booth				В	Belden 2412	4 Pair UTP 23 Gauge CAT6	1	Main Distro Control Booth	Control Room LX Position	3/4"
	Raco 232	Flush in Wall	TBD	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	Main Distro	Control Room LX Positon	
Control Booth Lighting Comms	Custom Panel									
		Flush Mount			I					
House Left Spot Light Comm	Raco 670RAC	in Wall Rear Corner	18" AFF	Α	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/LINE	3	Control Booth Main Distro	Spot Comm Patch House Left	1/2"
House Right Spot	Raco 670RAC	Flush Mount in Wall Rear	18" AFF	Α	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/LINE	3	Control Booth Main Distro	Spot Comm Patch House Right	1/2"
Light Comm		Corner						Main Distro		
Stage Rack	Middle Acc				 					
	Middle Atlantic Relay Power Strip	Rear Of Rack	TBD							
Main Power Feed								Equipment Room		
20 Amp Circuit #3	Single Duplex		TBD			THHN #12 (?)		Power Panel Equipment Room	Stage Rack	TBD
20 Amp Circuit #3	Single Duplex		TBD	С	<u> </u>	THHN #12 (?)		Power Panel Equipment Room	Stage Rack	
20 Amp Circuit #4  20 Amp Circuit #4	Single Duplex Single Duplex		TBD			THHN #12 (?)		Power Panel Equipment Room	Stage Rack Stage Rack	TBD
20 Amp Circuit #5	Single Duplex Single Duplex		TBD	С		THHN #12 (?)		Power Panel Equipment Room	Stage Rack	
20 Amp Circuit #5	Single Duplex		TBD			THHN #12 (?)		Power Panel Equipment Room	Stage Rack	TBD
20 Amp Circuit #6	Single Duplex		TBD TBD	С		THHN #12 (?) THHN #12 (?)		Power Panel Equipment Room Power Panel	Stage Rack	TBD
20 Amp Circuit #6	Single Duplex		TBD	С		THHN #12 (?)		Equipment Room Power Panel	Stage Rack	100
		1		Α	Belden 9451	Single Pr 22Ga. Stranded w/B shield MIC/LINE	4	DSR @ Rack	DSR Patch Position	1/2"
Downstage Right		Surface		В	Belden 2412	4 Pair UTP 23 Gauge CAT6	1	DSR @ Rack	DSR Patch Position	3/4"
	Hoffman ASE4x4x4	Mount	18" AFF	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	DSR @ Rack	DSR Patch Position	
Down Stage Right 20 Amp Circuit #7	Custom Panel Quad Box with Dual							Equipment Room	DSR Patch Position	
·	Outlets		18" AFF	Α	Belden 9451	THHN #12 (?) Single Pr 22Ga. Stranded w/B shield MIC/LINE	4	Power Panel DSR @ Rack	DSL Patch Position	TBD 1/2"
Downstage Left		Surface		В	Belden 2412	4 Pair UTP 23 Gauge CAT6	1	DSR @ Rack	DSL Patch Position  DSL Patch Position	3/4"
Down Stage Loft	Hoffman ASE4x4x4	Mount	18" AFF	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	DSR @ Rack		
Down Stage Left 20 Amp Circuit #8	Custom Panel Quad Box with Dual Duplex		18" AFF			THHN #12 (?)		Equipment Room Power Panel	DSL Patch Position	TBD
Upstage Right	Бирієх		10 AFF	A B	Belden 9451 Belden 2412	Single Pr 22Ga. Stranded w/B shield MIC/LINE 4 Pair UTP 23 Gauge CAT6	4 1	DSR @ Rack DSR @ Rack	USR Patch Position USR Patch Position	1/2"
Opstage Right	Hoffman ASE4x4x4	Surface Mount	18" AFF	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	DSR @ Rack	USR Patch Position	3/4
Upstage Right	Custom Panel		10 741	J	Doi doi i E i i E	Trail on 20 oaago o no				
20 Amp Circuit #9	Quad Box with Dual Duplex		18" AFF			THHN #12 (?)		Equipment Room Power Panel	USR Patch Position	TBD
Upstage Left				A B	Belden 9451 Belden 2412	Single Pr 22Ga. Stranded w/B shield MIC/LINE 4 Pair UTP 23 Gauge CAT6	4 1	DSR @ Rack DSR @ Rack	USR Patch Position USR Patch Position	1/2" 3/4"
	Hoffman ASE4x4x4	Surface Mount	18" AFF	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	DSR @ Rack	USR Patch Position	
Upstage Left	Custom Panel									
20 Amp Circuit #10	Quad Box with Dual Duplex		18" AFF			THHN #12 (?)		Equipment Room Power Panel	USL Patch Position	TBD
Downstage Center				A B	Belden 9451 Belden 2412	Single Pr 22Ga. Stranded w/B shield MIC/LINE 4 Pair UTP 23 Gauge CAT6	4 1	DSR @ Rack DSR @ Rack	DSR Patch Position DSR Patch Position	1/2" 3/4"
	Proco Stage Box	Flush Mount in Stage	Recessed Finished Floor	В	Belden 2412F	4 Pair STP 23 Gauge CAT6	1	DSR @ Rack	DSR Patch Position	
Downstage Center	Custom Panel		Decreed					Environment Danne		
20 Amp Circuit #11	Duplex Built into Panel		Recessed Finished Floor	٨	Belden 2413F	THHN #12 (?) 4 Pair STP 23 Gauge CAT6	2	Power Panel	DSR Patch Position	TBD 3/4"
Projector		Surface	Ceiling Mount	Α	24 I3F	all OTE 23 Gauge GATO	2	DSR @ Rack	Upstage Center Ceiling	JI4
	Raco 691	Mount	Upstage Center							
Upstage Center 20 Amp Circuit #12	Quad Box with Dual	Surface	Ceiling Mount		<u> </u>			Equipment Room	Upstage Center Ceiling	, married
	Duplex	Mount	Upstage Center			THHN #12 (?)		Power Panel	January	TBD
Projection Screen	Raco 232									
Downstage Center (Electrical										
Connection Downstage Right			Flex Conduit to		<u> </u>					
20 Amp Circuit #12	Hardwired to flex conduit		Screen Connection			THHN #12 (?)		Equipment Room Power Panel	Downstage Right Ceiling	Flexible Condui
A										
Array Left		Flush Mount in	240" AFF	554				1, 12,1111		
	Raco 260	In Proscenium Wall	240" AFF (20'0")	E	Belden 6000UE	2 Cond 12 AWG Speaker Wire	8	DSR @ Rack	Proscenium Plug Box	1"
Proscenium Left Wall	Custom Panel									
Array Right										
	Raco 260	Flush Mount in Proscenium	240" AFF (20'0")	Е	Belden 6000UE	2 Cond 12 AWG Speaker Wire	8	DSR @ Rack	Proscenium Plug Box	1"
		Wall	(200)							
Proscenium Right Wall	Custom Panel									
Cluster		Flush Mount								
	Raco 260	in Proscenium	216" AFF (18'0")	E	Belden 6000UE	2 Cond 12 AWG Speaker Wire	4	DSR @ Rack	Proscenium Plug Box	3/4"
Propagation Co.	0	Wall			<u> </u>					
Proscenium Center Wall	Custom Panel						4 (2 Cables Pass			
Surround Left	Raco 601 Grommet Panel		120" AFF (10')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	Through to Rear Surround 1)	DSR @ Rack	Surround Front	3/4"
FRONT REAR 1 REAR 2	Raco 601 Grommet Panel	Flush Mount in Side Wall	168 " AFF (14')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	2	DSR @ Rack	Surround Rear 1	1/2"
REAR 2 Theater Left Wall (x3)	Raco 601 Grommet Panel	Side Wall	192" AFF (16')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	1	Surround Rear 1	Surround Rear 2	1/2"
20.6 11.411 (10)	Raco 601		(10)			·	4 (2 Cables Pass			11 4
Surround Right FRONT	Grommet Panel		120" AFF (10')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	Through to Rear Surround 1)	DSR @ Rack	Surround Front	3/4"
REAR 1 REAR 2	Raco 601 Grommet Panel	Flush Mount in Side Wall	168 " AFF (14')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	2	DSR @ Rack	Surround Rear 1	1/2"
Theater Left Wall (x3)	Raco 601 Grommet Panel		192" AFF (16')	В	Belden 6100UE	2 Cond 14 AWG Speaker Wire	1	Surround Rear 1	Surround Rear 2	1/2"
Classroom										
		Flush Mount	72" AFF (6')	В	В	Belden 2412F	2	1	Control Booth Main Distro	1"
	Raco 232	THE WAR THE TAX A STATE OF	acc m1	U	ט	Deidell 24 IZF	∠	1	CONTROL POORH MIGHT DISTLO	1
Classroom Wall TBD	Raco 232	in Wall (TBD)	72 7(1 (0)							





Key Plan (not to scale)

7. 6/01/2021 ISSUED FOR BID

6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW

5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW

4. 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW

3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW

1. 1/10/2020 ISSUED FOR DD ESTIMATE

No. Date Revision/Submis

STRUCTURAL & SITE CIVIL ENGINEER

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Stamp

Project Title

IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

Project Address

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

Drawing 1

THEATER WIRING DETAILS

 Scale
 Job No.
 Date

 NTS
 1618
 04/03/2019

 Drawn

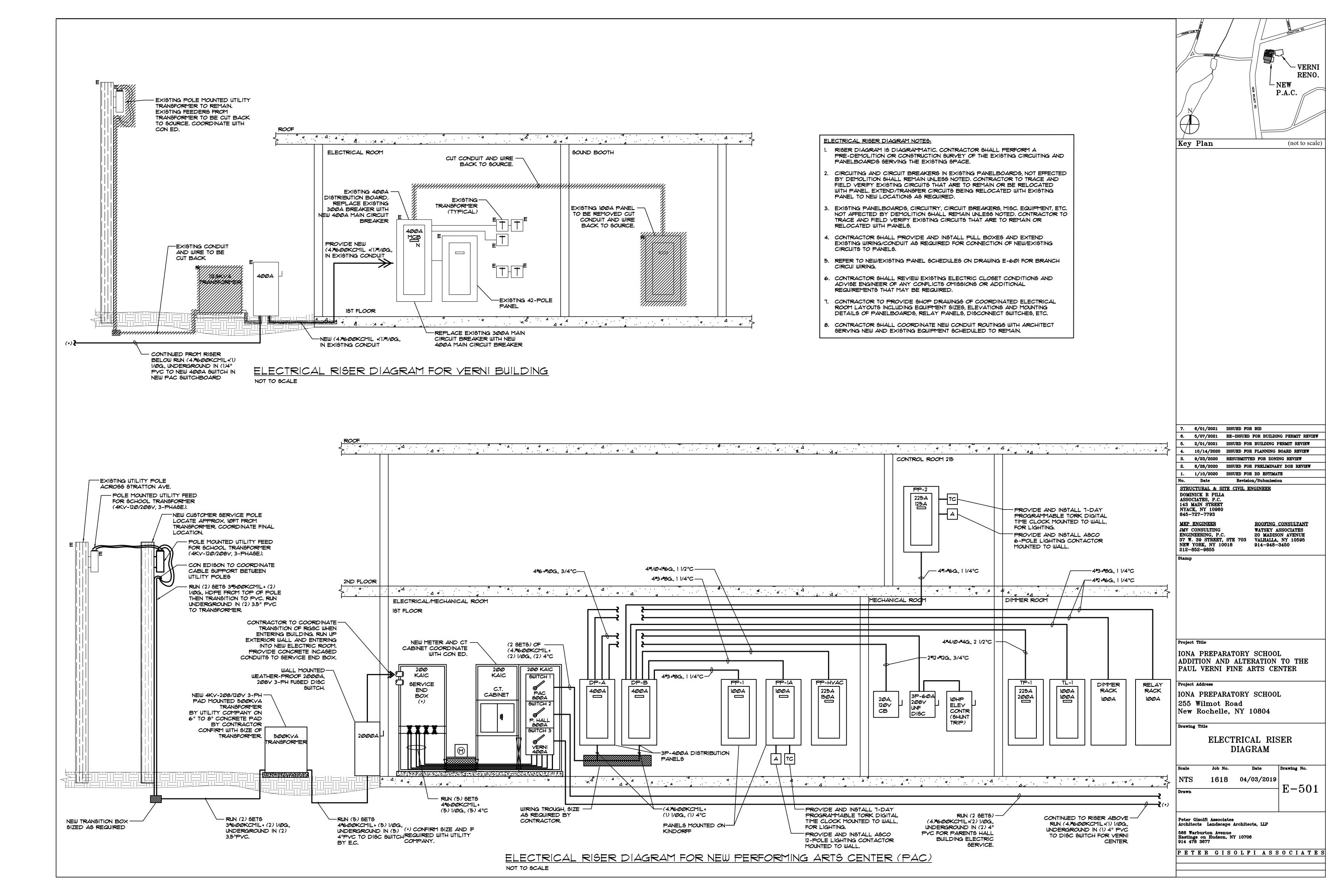
Peter Gisolfi Associates Architects Landscape Architects, LLP

Drawing No.

E-402

566 Warburton Avenue
Hastings on Hudson, NY 10706
914 478 3677

PETER GISOLFI ASSOCIATES



		DISTRIBUTION I	BOAI	RD SCHEDULE	PAC	C (NE	EW)	
DISTRIBUTION BOARD DESIGNATION	CKT NO.	SERVING	POLES	FEEDER SIZE	COND	FRAME	CB TRIP	REMARKS
DP-A	1	ACCU-5	3	3*3 + *8G., RGSC	1 1/4"	100	90	PVC FOR UNDERGROUND LOCATION
400A BUS	2	ACCU-6	3	3 <b>%</b> + <b>110</b> G., RGSC	1"	100	60	PVC FOR UNDERGROUND LOCATION
400A MCB	3	DIMMER CONTROL PANEL	3	42 + 6G.,	1 1/4"	100	100	-
12 <i>0/20</i> 8V., 3PH	4	ELEVATOR DISCONNECT	3	4*6 + *10G	3/4"	60	40	-
4W + G;	5	ACCU-3	3	3*8 + *10G., RGSC	3/4"	60	35	PVC FOR UNDERGROUND LOCATION
200 KAIC	6	ACCU-4	3	3*8 + *10G., RGSC	3/4"	60	35	PVC FOR UNDERGROUND LOCATION
[	٦	ELEVATOR CAB LIGTING	2	2 <b>4</b> 2 + <b>4</b> 2G.,	3/4"	30	3Ø	-
	8	RELAY PANEL	3	42 + 16G.,	1 1/4"C	100	100	-
	9	SPARE	3	•	•	•	-	-
	10	SPARE	3	-	-	-	-	-

		ISTRIBUTION E	30AI	RD SCHEDULE	PAC	C (NE	ΞW	
DISTRIBUTION BOARD DESIGNATION	CKT NO.	SERVING	POLES	FEEDER SIZE	COND	FRAME	CB TRIP	REMARKS
DP-B	1	<del>P</del> P-1	3	4*3 + *8G	1 1/4"	100	100	-
400A BUS	2	PP-IA	3	443 + 18G	1 1/4"	100	100	-
400A MCB	3	PP-2	3	44 + 46G	1 1/4"	200	125	-
12 <i>0/20</i> 8V., 3PH	4	TL-1	3	443 + 48G.,	1 1/4"	100	60	-
4W + G:	5	TP-I	3	4*4/0 + 4G	2.5"	200	200	-
200 KAIC	6	PP-HVAC	3	441/0 + 46G	1 1/2"	200	150	-
	7	ACCU-1	3	3*6 + *10G., RGSC	1"	100	70	PVC FOR UNDERGROUND LOCATION
	8	ACCU-2	3	3*6 + *10G., RGSC	1"	100	70	PVC FOR UNDERGROUND LOCATION
	9	SPARE	3	-	-	-	-	-
	10	SPARE	3	•	-	-	-	-

				F	P-V	ER	NI	(E)	KIS	TIN	G)								
	Volt 1	120/208	Main	3reaker			F	has	е	3		Ground	Bus	Х		Cover:			
	Bus 2	200A	Lu	gs Only X		٧	Vire	Ser	vice	4		IG	Bus		Mo	ounting	Surface		
	AIC 1		Feed Th	ru Lugs		2	00%	Neι	utral		1				•		,		
	Circuit Cignying Description	aceptacles More	ther Motors	Equipment &	Hite		A E	3 (	С	/ <b>*</b>	eaker Rati	Lighting Rece	aptacles.	gest Moto	ner Motors	phiances	dinnert Circuit Description		
0	DIGITAL MEDIA OUTLET	1440			20A	1	_	_	2	20A		720					PROD. RM RECEPT.		
	DIGITAL MEDIA OUTLET	720			20A	3	_	_	4	20A		1080					PROD. RM RECEPT.		
	DIGITAL MEDIA OUTLET	1080			20A	5	_	_	6	20A		1080					PROD. RM RECEPT.		
	TV STUDIO OUTLET	1080			20A	7	_	_	8	20A		900					RM. 154 RECEPT		
	TV STUDIO OUTLET	1080			20A	9	_	_	10	20A		900					RM. 154 RECEPT		
ō	TV STUDIO OUTLET	1080			20A	11	_	_	12	20A		900					RM. 167 RECEPT		
0	PERF. 150 RECEPT.	1260			20A	13	_		14	20A		900					RM. 167 RECEPT		
ō	PERF. 150 RECEPT.	1080			20A	15	_	_	16	20A		720					CORRIDOR RECEPT.		
	PERF. 150 RECEPT.	1080			20A	17	_		18	20A		1440					OFFICE RECEPT.		
_	EXISTING				20A	19	_	_	20	20A							EXISTING		
	EXISTING				20A	21	_	_	22	20A							EXISTING		
	EXISTING				20A	23	_	_	24	20A							EXISTING		
	EXISTING				20A	25	_		26	20A							EXISTING		
	EXISTING				20A	27	_	_	28	20A							EXISTING		
	EXISTING				20A	29	_	_	30	20A							EXISTING		
					2P	31	_	_	32	20A							EXISTING		
	EXISTING -				30A	33	_		34	20A							EXISTING		
	EXISTING				20A	35	_	_	36	20A							EXISTING		
	SPARE				20A	37	_	_	38	20A							SPARE		
	SPARE				20A	39			40	2P									
	SPARE				20A	41			42	20A							EXISTING		
							Load	ds in											
	Total	0 9900			) . N-4-		olt-Ar	nper	es		C	8640	0	_	0	_	Total		
	I i mlatim m	Load Summa		Demand Load	Note	s:									Load Su		IZ) (A		
	Lighting Receptacle (First 10KW)	0.0 KVA	-									Design	ummary		KVA KVA				
	Receptacle (Remainder)		_										d Load:		KVA				
	Largest Motor	8.5 H			-										о соас. Сарасity		KVA		
	Other Motors	0.0 1			Tie ba	ar ev	mhal	٠.							ummary				
	Appliances	0.0 1			_	,			210 2	(R))				Phas		<u> </u>	KVA		
	Equipment	0.0 1			1 0	r NEC Section 210.4(B)).  Provide tie bar between single pole breaker					ers.								
	Sub-feed		(VA 1.0		<del>                                     </del>	4					with tie		,	Phase C: 6.7 KVA					
	Feed thru		(VA 1.0			7 '-' ,	91	, poi	,		, ar					5.7			
	Total Load (KVA)	18.5 I		13.0 KVA	_	Prov	vide 1	ie ba	ar be	tween	sinale	pole break	ers:	All Cir	cuit Bre	akers A	Are 20A, 1P		
	Total Load (Amps)	51.5 /		36.1 AMP	+-	4					with tie		,		Noted		<i>'</i>		
	Design Load (Amps)			160.0 AMP	_	1	J.,												
	Spare (Amps)			123.9 AMP	_	4								D.F: Na	ational E	lectric (	Code Demand factor		

PANEL SCHEDULE NOTES:

OPROVIDE NEW IP-20A CIRCUIT BREAKER

- . CONTRACTOR TO PROVIDE HACR TYPE CIRCUIT BREAKER FOR NEW SUPPLEMENTAL AC UNITS.
- 2. NEW CIRCUIT BREAKERS TO BE PROVIDED IN EXISTING PANELS SHALL MATCH EXISTING MANUFACTURER & TYPE. (VERNI BUILDING)
- 3. PHASE LEGS OF ALL PANELS SHALL BE BALANCED AT SUPPLY POINT TO WITHIN 10% AND +/-5% OF EACH PHASE.
- 4. ALL UN-USED CIRCUIT BREAKERS IN PANELS SHALL BE PLACED IN THE "OFF" POSITION AND MARKED AS SPARE.
- 5. ALL PANELS IDENTIFIED ON DRAWINGS ARE NEW UNLESS OTHERWISE NOTED.
- 6. CONTRACTOR TO COORDINATE NEW CIRCUITS WITH EXISTING TO REMAIN IN EACH PANELS. COORDINATE CIRCUIT DESIGNATIONS AND ARRANGEMENT IN PANELS.
- 1. CONTRACTOR TO PROVIDE NEW TYPE WRITTEN PANEL DIRECTORIES IN EACH PANEL AFFECTED BY NEW CIRCUITING WHEN WORK IS COMPLETED.

							PP	-1	(NE	ΞW	<b>')</b>							
Volt	120/208		Main B	reaker	100A			F	has	е	3		Grou	nd Bus	Х	-	Cover:	
Bus	100A		Lug	s Only[			٧	Vire	Ser	vice	4			IG Bus		Mo	ounting	Surface
	10K		Feed Thr	u Lugs			2	00%	Ne	utral								
Circuit Description	Receptacles	Other A.	Appliance Totors	Equipment	Sake, Far	iid	4	A E	3 (	С	B	Baker Ratin	d Lighting	aceptacles	igest Moto	rer Motors	apliances (	diphort Circuit
ROOM 125 RECEPT.		'20				20A	1	_	_	2	20A		720					HALL RECEPTACLES
ROOM 121 RECEPT.	10	080				20A	3	_	_	4	20A					600		HALL WATER FOUNT.
ROOM 121 RECEPT.		900				20A	5	_	_	6	20A						1403	SUMP PUMP
HALL RECEPTACLES	12	260				20A	7	_	_	8	20A		360					ELEVATOR RECEPT.
HALL RECEPTACLES		'20				20A	9	_	_	10	20A		540					OFFICE 111 RECEPT.
RM. 112 RECEPT.	9	900				20A	11	_	_	12	20A							SPARE
OFICE 113 RECEPT.		'20				20A	13	_	_	14	20A							SPARE
ROOM 120 RECEPT.		'20				20A	15	_	_	16	20A							SPARE
ROOM 120 RECEPT.		900				20A	17	_		18	20A		360					ROOM 115 RECEPT.
MECH ROOM 127		360				20A	19	_		20	20A		720					ROOM 122 RECEPT.
MECH ROOM 122	10	080				20A	21	_	_	22	20A		720					ROOM 122 RECEPT.
BATHROOM RECEPT.		900				20A	23	_	_	24	20A							Spare
CLOCK CONTROLLER					240		25			26	2P				1500			'
OLO OK O OK WOLLLIK					170		27			28	20A				1500			ECH-5
ACCESS LIFT GATE					170	3P	29			30	20A				1000	1200		MICROWAVE
					170	ZUA	31			32	20A					500		REFRIGERATOR
ROOF RECEPT.		360				20A	33	_	_	34	20A		1080					OUTDOOR RECEPT
Spare						20A	35	_		36	20A		180					CLOCK RECEPTACLE
Spare						20A	37	_	_	38	20A							Spare
Spare						20A	39	_	_	40	20A							Spare
Spare						20A	41	_	_	42	20A							Spare
,							-		ds in									
Total	0 10	320	0 0	_	750			lt-Ar	nper	es		0	4680	0		2300		Total
	Load Su		D.F.	Demand		Notes	S:									Load Su		
Lighting		0.0 KVA	_	0.0 1												ummary		KVA
Receptacle (First 10KW)		0.0 KVA		10.0 I											Design			KVA
Receptacle (Remainder)		5.3 KVA		1.9												d Load:		KVA
Largest Motor		0.0 KVA		0.0 1												Capacity		KVA
Other Motors		3.0 KVA		3.0 1		Tie ba					4/D::					ummary		
Appliances		2.3 KVA		1.5 H		(Per N					. ,,				Phas			KVA
Equipment		2.2 KVA		2.2 1								single p		akers;	Phas			KVA
Sub-feed		KVA		0.0 1		_	(2) \$	single	e pol	e bre	eakers	with tie	par.		Phas	e C:	6.9	KVA
Feed thru		KVA	_	0.0		-	l		e . 1	1.	4	-11-			AII 6:-		-1	1 00A 4D
Total Load (KVA) Total Load (Amps)		2.8 KVA 3.2 AMF		18.5 I		_						single p		akers;		Noted (		Are 20A, 1P
` ' '		J.Z AIVIF	-			<u> </u>	(3) 8	sirigle	e boi	e pre	akers	with tie	Dar.		omess	иосеа (	ouierw	noe.
Design Load (Amps)	83.3 AMP 31.9 AMP						l								D.F: Na	ational E	lectric	Code Demand factor
Spare (Amps)				31.97	AWIP										<u> </u>			

							F	P.	2 (	(NE	ΞW	)									
Volt	120/20	8		Main B	reaker	125A			Р	has	е	3		Grour	nd Bus	Х		Cover			
Bus	225A			Lug	s Only			٧	/ire	Ser	vice	4	1		G Bus		Mo	ounting	Surface		
	10K		F€	ed Thr	u Lugs		1	20	00%	Net	utral		İ					_			
Circuit Description	Receptacle	Argest Mo.	Other Mol.	Appliance ors	Equipmen	Reaker Rad	18	A	E	3 (	c	Br	eaker Rati	Lighting Re	ceptacle	rgest Moto	ner Motors	Poliances	Circ Descript		
HALL WATER FOUNT.					400		20A	1	_	_	2	20A		540					ART ROOM RECEP		
HALLWAY RECEPT.		900					20A	3	~	_	4	20A		540					ART ROOM RECEF		
HALLWAY RECEPT.		900					20A	5	^	_	6	20A		360					ART ROOM RECEP		
ROOM 211 RECEPT.		720					20A	7	_	_	8	20A		720					ROOM 210 RECEP		
ROOM 211 RECEPT.		900					20A	9	_	_	10	20A		900					ROOM 210 RECEP		
EM/NL & EXIT LTG.	155						20A	11	~	_	12	2P				312			400400		
HALLWAY LIGHTING	760						20A	13	$\overline{}$	_	14	15A				312			AC-2.1,2.2		
CLASS ROOM LTG.	960						20A	15	$\overline{}$	$\overline{}$	16	2P				842			10000105		
Spare							20A	17	$\overline{}$		18	15A				842			AC-2.3,2.4,2.5, 2.8		
Spare							20A	19	$\overline{}$		20					3666					
SAF-1				864			20A	21	_		22	3P				3666			EDH-1		
TEF-1,TEF-2				1056			20A	23	$\overline{}$		24	40A				3666			1		
OAF-1				528			20A	25	$\overline{}$		26	20A				1392			GEF-1, SAF-2		
MOTORIZED DAMPER				200			20A	27	$\overline{}$		28	20A				30			FSD		
Spare							20A	29	$\overline{}$		30					1296					
Spare							20A	31	$\overline{}$		32	3P				1296			ERV-1		
Spare							20A	33	$\overline{}$		34	15A				1296			1		
Spare							20A	35	$\overline{}$		36					1296					
Spare							20A	37	$\overline{}$		38	3P				1296			ERV-2		
Spare							20A	39	$\overline{}$		40	15A				1296					
Spare							20A	41	_	_	42	20A				1200			Spare		
Ораго							20/(		Load	ls in		207							Ориго		
Total	1875	3420	С	2648	400	0		Vo	lt-An	nper	es		0	3060	С	22504	0	C	Total		
	Loa	d Summ	nary	D.F.	Deman	d Load	Notes	:								Panel	Load Su	mmary			
Lighting			KVA	1.00		KVA										Load S	ummary		KVA		
Receptacle (First 10KW)		6.5	KVA	1.00	6.5	KVA										Design	Load:	36.0	KVA		
Receptacle (Remainder)		0.0	KVA	0.35	0.0	KVA	A									Deman	d Load:	33.8	3 KVA		
Largest Motor	0.0 KVA 1.00 0.0 KVA																Capacity		2 KVA		
Other Motors		25.2 KVA 1.00 25.2 KVA							nbol							Load Summary per Phase					
Appliances			KVA	0.65		KVA	(Per NEC Section 210.4(B)). Phase A: 11.6 KVA														
Equipment			KVA	1.00		KVA								pole brea	kers;						
Sub-feed			KVA	1.00		KVA	^	(2) s	ingle	e pol	e bre	akers	with tie	bar.		Phas	e C:	9.9	KVA		
Feed thru			KVA	1.00		KVA	Щ,														
Total Load (KVA)		33.9			33.8									pole brea	akers;				Are 20A, 1P		
Total Load (Amps)		94.2	AMP			AMP	-	(3) s	ıngle	e pol	e bre	akers	with tie	bar.		Unless	Noted	Otherv	vise.		
Design Load (Amps)					100.0											D.F: N	ational E	lectric	Code Demand factor		
Spare (Amps)			AMP										1								

							•	TL.	-1 (	(NE	EW	)							
Volt	120/20	8		Main B	reaker	100A			F	has	e	3		Groui	nd Bus	Х		Cover:	
Bus	100A			Lug	s Only		1	٧	Vire	Ser	vice	4			G Bus		Mo	ounting	Surface
	10K		Fe	ed Thr	ı Lugs		Ī	20	00%	Ne	utral							_	-
	Pecephacke	Proest No.	Other Moto	Appliance is	Equipmen	Reake, Pali	20A	F	\ E	3 (		⁄8 <sup>t</sup> 20Α	aker Ratif	ighing R	septacles	igest Moto	ner Motors	Apliances E	gjilgrieti Circ Descripti
THEATER LIGHTING	774					900		1	( (		4			180					
CONTROL EQ. RACK						800		3		-	-	20A		180				000	DIMMER RM. RECER
CONTROL EQ. RACK						800	20A	5	(		6	20A						800	SPOT LIGHT POS.
CONTROL EQ. RACK						800	20A	7	(	_	8	20A						800	SPOT LIGHT POS.
CONTROL EQ. RACK						800	20A	9	(	_	10	20A						800	PRODUCTION LTG
EQUIDE UNIO : IEE						1440	3P	11	(	_	12	20A						800	PRODUCTION LTG
FOH CEILING LIFT						1440	20A	13	(		14	2P						2005	EMERGENCY
						1440		15	(	_	16	30A						2005	INVERTER
Spare							20A	17	(	_	18	20A							Spare
Spare							20A	19	(	_	20	20A							Spare
Spare							20A	21	(	_	22	20A							Spare
Spare	· · · · · · · · · · · · · · · · · · ·						20A	23	(	_	24	20A							Spare
Spare							20A	25	(	_	26	20A							Spare
Spare							20A	27	(	_	28	20A							Spare
Spare	· · · · · · · · · · · · · · · · · · ·						20A	29	(	_	30	20A							Spare
Spare							20A	31	)	_	32	20A							Spare
Spare							20A	33	(	_	34	20A							Spare
Spare							20A	35	(	_	36	20A							Spare
Spare							20A	37	(	_	38	20A							Spare
Spare							20A	39	(	_	40	20A							Spare
Spare							20A	41	(		42	20A							Spare
									Load	ds in									
Total	774	0	0	0	0	7520		Vo	lt-An	nper	es		0	360	0	0	0	7210	Total
	Load	d Sumn	nary	D.F.	Deman	d Load	Notes	:								Panel	Load Su	mmary	
ghting		0.8	KVA	1.00	0.8	KVA										Load S	ummary	15.9	KVA
eceptacle (First 10KW)			KVA	1.00		KVA										Design	Load:	28.8	
	ceptacle (Remainder) 0.0 KVA 0.35 0.0 KV															Deman			KVA
gest Motor 0.0 KVA 1.00 0.0 KV																	Capacity		
Other Motors			KVA	1.00		KVA	Tie ba	,									ummary	<u> </u>	
ppliances			KVA	0.65		KVA	(Per N	1				. ,,				Phas	e A:		KVA
quipment		14.7	KVA	1.00	14.7									oole brea	kers;	Phas			KVA
ub-feed			KVA	1.00		KVA	^	(2) s	single	e pol	e bre	eakers	with tie	bar.		Phas	e C:	3.8	KVA
eed thru			KVA	1.00		KVA	ļ.,	ı								<u> </u>			
otal Load (KVA)			KVA			KVA								oole brea	kers;				re 20A, 1P
otal Load (Amps)		44.1	AMP			AMP		(3) s	single	e pol	e bre	eakers	with tie	bar.		Unless	Noted	Otherw	ise.
esign Load (Amps)						AMP	^									D.F: Na	ational E	lectric (	Code Demand factor
pare (Amps)					35.9	AMP	ı									l			

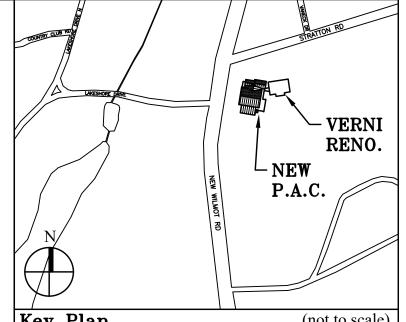
* COORDINATE CONTROLS AND PROGRAMMING OF THEATER LIG	HTING WITH
LIGHTING AND AY CONSULTANTS	

							P	P-	1A	(N	Ē۷	V)								
Volt	120/208	В		Main B	reaker	100A			F	has	е	3		Grou	ınd Bus	X		Cover		
Bus	100A			Lug	s Only			V	Vire	Ser	vice	4			IG Bus	;	_ N	<b>l</b> ounting	Surfa	ce
AIC	10K		Fe	ed Thr	u Lugs			20	00%	Ne	ıtral								,	
Circuit Description	Receptacles	toest Mo	Other Moto	Appliance Ors	Equipme	Reaker Rad	iid	A	۱ ۵	3 (	c	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	eaker Ratin	Jighting	eceptacie	s Mot	or Motor	Appliances	Equipment	Circ Descripti
EM/NL/EXIT LIGHTING	385						20A	1	(	_	2	20A	1000						GENE	ERAL LIGHTING
HALLWAY LIGHTING	880						20A	3	(	_	4	20A	600						GENE	ERAL LIGHTIN
PASSAGWAY LTG.	200						20A	5	(	_	6	20A	960						GENE	ERAL LIGHTIN
OUTDOOR LTG.	320						20A	7	(	_	8	20A								Spare
OUTDOOR LTG.	520						20A	9	(	_	10	20A								Spare
SITE LIGHTING	500						20A	11	_	_	12	20A								Spare
SITE LIGHTING	405						20A	13	_	_	14	20A								Spare
Spare							20A	15	_	_	16	20A								Spare
Spare							20A	17	(	_	18	20A								Spare
Spare							20A	19	_	_	20	20A								Spare
Spare							20A	21	(	_	22	20A								Spare
Spare							20A	23	_	_	24	20A								Spare
Spare							20A	25	_	_	26	20A								Spare
Spare							20A	27	_	_	28	20A								Spare
Spare							20A	29	_	_	30	20A								Spare
Spare							20A	31	_	_	32	20A								Spare
Spare							20A	33	(	_	34	20A								Spare
Spare							20A	35	_	_	36	20A								Spare
Spare							20A	37	(	_	38	20A								Spare
Spare							20A	39	_	_	40	20A								Spare
Spare							20A	41	_	_	42	20A								Spare
· ·										ds in		•								
Total	3210	0	0	0	_	0	_		lt-Ar	nper	es		2560	C	) (	_			이	Total
	Load	l Sumn		D.F.		nd Load	Notes	s:								-	I Load S			
Lighting			KVA	1.00		KVA											Summar		8 KVA	
Receptacle (First 10KW)			KVA	1.00		KVA											n Load:		0 KVA	
Receptacle (Remainder)			KVA	0.35		KVA											nd Load		8 KVA	
Largest Motor			KVA	1.00		KVA											Capacit		2 KVA	
Other Motors			KVA	1.00		KVA	Tie ba										Summar •			
Appliances		0.0 KVA 0. 0.0 KVA 1.				KVA	(Per N													
Equipment		0.0		1.00		KVA							single p		eakers;		se B:		0 KVA	
Sub-feed			KVA	1.00		KVA		(2) s	singi	e poi	e bre	eakers	with tie	bar.		Pna	se C:	1.	7 KVA	
Feed thru			KVA	1.00		KVA	<u> </u>	In.	a a e			4	-11	-11	1	A11. C:			A 00 -	40
Total Load (KVA)	5.8 KVA 5.8 KVA 16.0 AMP 16.0 AMP					_						single p		eakers;		rcuit Br s Noted		Are 20A	, 1P	
Total Load (Amps)	83.3 AMP					_	(3) S	ərigle	e bol	e pre	akers	with tie	uar.		onies	s Noted	omen	wise.		
Design Load (Amps)	83.3 AMP 67.3 AMP						_	I								D.F: N	lational	Electric	Code De	emand factor
Spare (Amps)					67.3	AWP	<u> </u>													

							PP	-H\	VΑ	C (	NE	W)							
		8		Main B	reaker	150A			Р	has	e	3		Grou	nd Bus	Х	4	Cover	
Bus <b>225A</b>		Lugs Only					V	Vire :	Ser	vice	4	IG Bus				] Mo	ounting	Surface	
	10K		Fe	ed Thru	ı Lugs			20	00%	Neι	utral								
Circuit Description	Receptacle	argest Mo.	Other Moto	Appliance Ors	Equipmen	Bare, Pall		A	l E	3 (	С	BY	aker Ratif	Lighting	eceptacies	igest Moto	the Motors	Phiances	Circ Descripti
				1320			I	1	$\widehat{}$	<u> </u>	2					1320			
AHU-1				1320				3	$\overline{}$	_	4					1320			AHU-2
	Bus   225A																		
				480				7	_	_	8					480			
AHU-3				480				9	_	_	10					480			AHU-4
				480			100	11	~	~	12	134				480			
AC 1 1 1 4 1 0 2 7				605			2P	13	_	_	14	2P				578			AC 15 16 17 115
AU-1.1,1.4,1.9, 2.7				605			15A	15	_	~	16	15A				578			1 AG-1.5, 1.6, 1.7, 1.13
1010100				520			2P	17	$\overline{}$	_	18	2P				385			1011011111
AC-1.2,1.8, 2.6				520			15A	19	$\overline{}$	_	20	15A				385			AC-1.10,1.11,1.12
				2184			2P	21	_	_	22	2P				104			
ACCU-IT									$\overline{}$	_		15A				-			AC-IT
				1123			2P	25		_	26	2P				915			
AC-1.1,1.4,1.9, 2.7  AC-1.1,1.4,1.9, 2.7  AC-1.2,1.8, 2.6  AC-1.2,1.8, 2.6  ACCU-IT  ACCU-IT  BP-1,BP-2  CP-2  BC-1  BC-		CP-1																	
		Feed Thru Lugs																	
CP-2										_		20A				_			ECH-3
				1500			2P	33	$\overline{}$	$\overline{}$	34	2P				1500			
ECH-1										_		20A				_			ECH-4
HWH-1, HWRP-1				600			20A	37	_	_	38	20A				300			MOTORIZED DAMPE
B-1,B-2				200			20A	39	$\overline{}$	_	40	2P				1500			5011.0
Spare							20A	41	_	_	42	20A				1500			ECH-2
T-4-1				40004									•			10004			T - 4 - 1
ı otai		-							it-Arr	iper	es		U		ų u		_		ı otai
Lighting	Loa						Notes	·											: Κ\/Δ
Receptacle (First 10KW)																			
Receptacle (Remainder)																			
Largest Motor																			
Other Motors							Tie ba	rsvr	nhole	ς.									
Appliances											210.4	4(B)).						<u> </u>	
Equipment							_						sinale r	ole bre	akers:				
Sub-feed															,				
Feed thru								. , -	J			_							
Total Load (KVA)		38.6	KVA		38.6	KVA	_	Prov	ide ti	ie ba	ar be	tween	single r	ole bre	akers;	All Cir	cuit Bre	akers	Are 20A, 1P
Total Load (Amps)							_								,	1			*
Design Load (Amps)					120.0	AMP			-	-						D. F		9	On the Danier 15 1
Spare (Amps)						AMP										D.F: N	ational E	lectric	Code Demand factor

							•	TP.	-1	(NE	EW	)							
Volt 120/208				Main B	Phase 3						Ground Bus			Х	X Cover:				
Bus <b>225A</b>				Main Breaker 200A Lugs Only			Wire Service					4			G Bus		4	Mounting Surface	
AIC 10K Fe			Fe	eed Thru Lugs			200% Neutral											J	
Circuit Description	Peceptacles	Oest Moto	Ser Moto	Appliance is	Equipmen	Sake, Rall	ii	4	\ <i>E</i>	3 (	2	Br	aker Ratin	g ighting Ref	ceptacles	igest Moto	ine i Motors	apliances &	guiprient Circui Description
THEATER RECEPT		540					20A	1	(	_	2	20A		360					THEATER RECEPT.
THEATER RECEPT		540					20A	3	(	_	4	20A		720					CTRL. RM RECEPT.
CTRL. LTG. COMMS						1200	20A	5	(	_	6	20A		360					CTRL. RM RECEPT.
CTRL. AUDIO PATCH						1200	20A	7	)	_	8	20A						1200	DOWNSTAGE LEFT
DOWNSTAGE RIGHT						1200	20A	9	_	_	10	20A						1200	UPSTAGE LEFT
UPSTAGE RIGHT						1200	20A	11	_	_	12	20A						1200	WB-DSL-04
WB-DSR-03						1200	20A	13	_	_	14	20A						1200	WB-FOH-06
CONV. RECEPT.		540					20A	15	(	_	16	20A		540					CONV. RECEPT
WB-FOH-05						1200	20A	17	(	_	18	20A		360					CONV. RECEPT
WB-USR-01						1200	20A	19	(	_	20	20A						1200	PROJECTOR
WB-USL-02						1200	20A	21	(	_	22	20A						1200	PROJECTOR SCREEN
DOWNSTAGECENTER						1200	20A	23	)	_	24	20A						1200	PIPE GRID-07
STAGE RACK						1200	20A	25	(	_	26	20A						1200	PIPE GRID-07
STAGE RACK						1200	20A	27	(	_	28	20A						1200	PIPE GRID-08
STAGE RACK						1200	20A	29	(	_	30	20A						1200	PIPE GRID-08
STAGE RACK						1200	20A	31	(	_	32	20A		360					CLASSRM. CAMERAS
STAGE RACK						1200	20A	33	)	_	34	20A							Spare
STAGE RACK						1200	20A	35	(	_	36	20A							Spare
STAGE RACK						1200	20A	37	(	_	38	20A							Spare
STAGE RACK						1200	20A	39	)	_	40	20A							Spare
Spare							20A	41	(		42	20A							Spare
Total	О	1620	0	0	О	20400		Vo		ds in nper	es		0	2700	0	0	0	12000	Total
	Load Summar			D.F.	Deman	d Load	s:							Panel Load Summary					
Lighting	0.0 KVA			1.00	0.0	KVA										Load Summary 36.7 KVA			
Receptacle (First 10KW)		4.3 K	(VA	1.00	4.3	KVA										Design	Load:	57.6	KVA
Receptacle (Remainder)		0.0 K	(VA	0.35	0.0	KVA										Demar	d Load:	36.7	KVA
Largest Motor		0.0 K	(VA	1.00	0.0	KVA										Spare	Capacity	20.9	KVA
Other Motors		0.0 K		1.00	0.0		Tie ba	arsyı	nbol	s:							ummary	<u> </u>	
Appliances	0.0 KVA		0.65			(Per N	(Per NEC Section 210.4(B)).									Phase A: 13.3 KVA			
Equipment	32.4 KVA		1.00	32.4 KVA		_	Provide tie bar between single pole breakers; Phase B:										11.9 KVA		
Sub-feed			(VA	1.00	0.0		_	(2) s	single	e pol	e bre	eakers	with tie	bar.		Phas	se C:	11.5	KVA
Feed thru			(VA	1.00	0.0														
Total Load (KVA)		36.7 K			36.7		_							ole brea	kers;				Are 20A, 1P
Total Load (Amps)		102.0 A	MP		102.0			(3) s	ingle	e pol	e bre	eakers	with tie	bar.		Unless	Noted	otherw	ise.
Design Load (Amps) Spare (Amps)					160.0 58.0		^	l								D.F: N	ational E	lectric (	Code Demand factor

LIGHTING AND AY CONSULTANTS



Key Plan (not to scale)

7. 6/01/2021 ISSUED FOR BID 6. 5/07/2021 RE-ISSUED FOR BUILDING PERMIT REVIEW 5. 2/01/2021 ISSUED FOR BUILDING PERMIT REVIEW 4. 10/14/2020 ISSUED FOR PLANNING BOARD REVIEW 3. 9/23/2020 RESUBMITTED FOR ZONING REVIEW 1. 1/10/2020 ISSUED FOR DD ESTIMATE No. Date Revision/Submission STRUCTURAL & SITE CIVIL ENGINEER DOMINICK R PILLA ASSOCIATES, P.C. 143 MAIN STREET NYACK, NY 10960 845-727-7793 MEP ENGINEER JMV CONSULTING WATSKY ASSOCIATES
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37 W. 39 STREET, STE 703 VALHALLA, NY 10595
NEW YORK, NY 10018 914-948-3450 NEW YORK, NY 10018 212-852-9855

Project Title

IONA PREPARATORY SCHOOL ADDITION AND ALTERATION TO THE PAUL VERNI FINE ARTS CENTER

ROOFING CONSULTANT

Project Address

IONA PREPARATORY SCHOOL 255 Wilmot Road New Rochelle, NY 10804

ELECTRICAL PANEL SCHEDULE

Drawing No. Job No. 1618 04/03/2019 E - 601

Peter Gisolfi Associates Architects Landscape Architects, LLP 566 Warburton Avenue Hastings on Hudson, NY 10706 914 478 3677

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