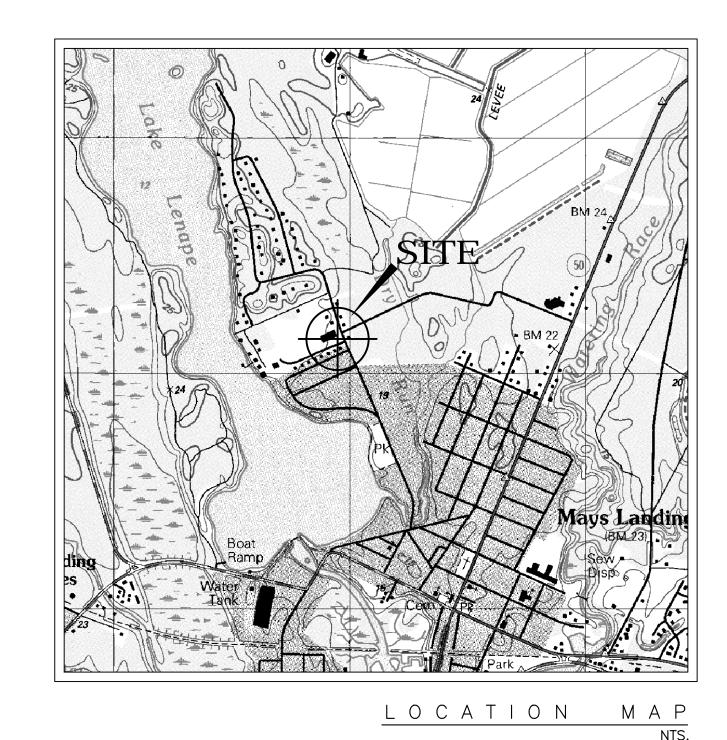




DENNIS LEVINSON COUNTY EXECUTIVE



JUNE 2019

LENAPE PARK EAST

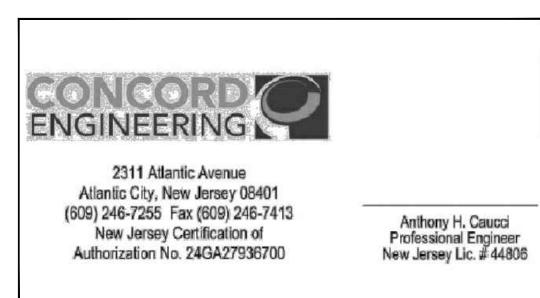
CATERING HALL DECK RENOVATIONS

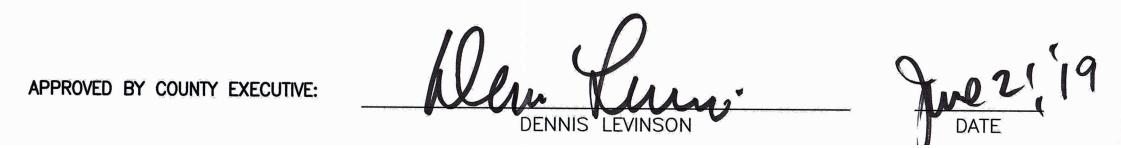
753 PARK ROAD BLOCK 588 - LOT 75.01 HAMILTON TOWNSHIP, NEW JERSEY

FOR THE ATLANTIC COUNTY GOVERNMENT

PREPARED BY:









CONTRACTOR TO VERIFY IN FIELD DIMENSIONS AND CONDITIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES.

EXISTING TO REMAIN AS IS UNLESS NOTED OTHERWISE.

FOR ELECTRICAL & MECHANICAL WORK REFER TO CONCORD ENGINEERING DRAWINGS.

GENERAL NOTES

- I. THE SPECIFICATIONS AND DRAWINGS FOR THIS WORK HAVE BEEN PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICE TO MEET THE MINIMUM REQUIREMENTS OF INTERNATIONAL BUILDING CODE, NEW JERSEY EDITION 2015, UCC STATE OF NEW JERSEY REHABILITATION SUBCODE, ICC/ANSI- A117.1 2009
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE REGULATIONS, BLDG. CODES, ORDINANCES AND GOOD CONSTRUCTION PRACTICES. IF THE CONTRACTOR FEELS A CONFLICT EXISTS BETWEEN WHAT IS CONSIDERED GOOD CONSTRUCTION PRACTICE AND THESE PLANS, HE SHALL STATE IN WRITING ALL OBJECTIONS PRIOR TO SITTING QUOTATIONS.
- 3. CONTRACTOR SHALL OBTAIN ALL REQUIRED BUILDING PERMITS, APPROVALS, UNDERWRITER'S CERTIFICATE, C.O. AND/OR COMPLETION FOR ALL THE WORK INDICATED, FROM AGENCIES HAVING JURISDICTION.
- 4. THE SPECIFICATIONS AND DRAWINGS INDICATE THE FINISHED STRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION METHODS, PROCEDURES, AND CONDITIONS (INCLUDING SAFETY), EXCEPT AS SPECIFICALLY INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS.
- 5. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND DIMENSIONS AND SHALL REVIEW THE DRAWINGS PRIOR TO BIDDING. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING NOTES:
- 6. THE CONTRACTOR SHALL VERIFY ALL MATERIALS, DIMENSIONS, AND CONDITIONS SHOWN ON THE DRAWINGS OR NOTED IN THE SPECIFICATIONS. ANY VARIANCES WITHIN THE DRAWINGS AND SPECIFICATIONS, OR WITH CONDITIONS ENCOUNTERED AT THE JOB SITE, SHALL BE REPORTED TO THE OWNER IN WRITING. ARCHITECT WILL PROVIDE THE NECESSARY CORRECTIONS OR ADDITIONS TO PLANS. IF THE CONTRACTOR DOES NOT NOTIFY THE OWNER AND ARCHITECT OF ANY SUCH CONDITION, IT WILL BE ASSUMED THAT THE CONTRACTOR HAS INCLUDED THE NECESSARY ITEMS IN HIS BID.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY DURING THE COURSE OF THE WORK, TO BRING TO THE ATTENTION OF THE OWNER AND ARCHITECT ANY DELETERIOUS CONDITIONS DISCOVERED WHERE NOT PREVIOUSLY IDENTIFIED. IF, IN THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES WITH THAT AS INDICATED ON THESE PLANS, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE OWNER. SHOULD HE FAIL TO FOLLOW THIS PROCEDURE AND CONTINUE WITH THE WORK, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING
- THEREOF.

 8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STABILITY AND INTEGRITY OF EXISTING STRUCTURES AND THE PROTECTION OF ADJACENT PROPERTY AND PUBLIC UNTIL COMPLETION OF THE WORK.
- 9. THE CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESS POOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH ITEMS ARE FOUND, THE OWNER SHALL BE NOTIFIED IMMEDIATELY.
- 10. CONTRACTOR SHALL SUBMIT ALL ALTERNATE MATERIALS, METHODS OR CONSTRUCTION DETAILS TO THE OWNER AND ARCHITECT FOR APPROVAL, PRIOR SUBMITTING QUOTATIONS.
- I I. CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR THE ACCURACY OF ALL MEASUREMENTS, ESTIMATES OF
- MATERIAL QUANTITIES AND SIZES, AND SITE CONDITIONS THAT WILL AFFECT WORK.
- ALL THE WORK.

 14. ALL MANUFACTURED MATERIALS, COMPONENTS, FASTENERS, ASSEMBLIES, ETC., SHALL BE HANDLED AND INSTALLE
- 14. ALL MANUFACTURED MATERIALS, COMPONENTS, FASTENERS, ASSEMBLIES, ETC., SHALL BE HANDLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND PROVISIONS OF APPLICABLE ICBO RESEARCH RECOMMENDATIONS.
- 15. THE OWNER AND CONTRACTOR SHALL INDEMNIFY, INSURE AND HOLD HARMLESS THE ARCHITECT, ENGINEER AND EACH OF HIS DIRECTORS, OFFICERS, EMPLOYEES, ATTORNEYS, AGENTS, SUBCONSULTANTS, HEIRS AND ASSIGNS, AGAINST, AND HOLD EACH OF THEM HARMLESS FROM, ANY LOSS, LIABILITIES, DAMAGES, CLAIMS, CAUSES OF ACTION, COSTS AND EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES AND DISBURSEMENTS SUFFERED OR INCURRED BY ANY OF THEM ARISING OUT OF, RESULTING FROM, ATTIBUTABLE TO, OR IN ANY MANNER CONNECTED WITH THE CONTRACTOR'S PERFORMANCE NONPERFORMANCE, NEGLIGENT PERFORMANCE, OR BREACH OF THE CONTRACT AWARDED.

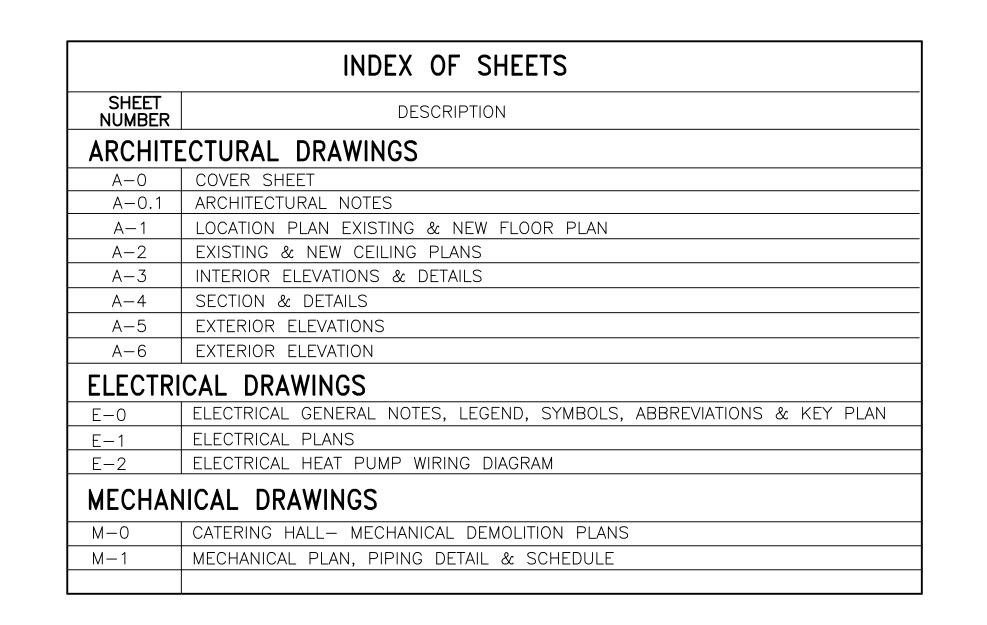
ANALYSIS OF BUILDING

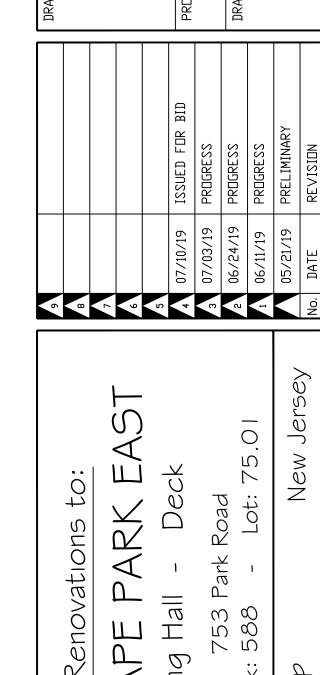
BUILDING TYPE: CODE REVIEW:

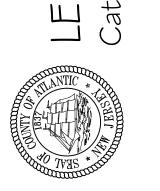
EVIEW: IBC NEW JERSEY EDITION 2015 ICC / ANSI A117.1- 2009

UCC NJ — STATE OF NEW JERSEY
REHABILITATION SUBCODE: RENOVATION

SYMBOLS LIST	<u>abbreviations</u>
PARTITION KEY DETAIL N DETAIL NUMBER SHEET NUMBER SHEET NUMBER SECTION SHEET NUMBER SHEET NUMBER SHEET NUMBER SHEET NUMBER SHEET NUMBER DOOR KEY DOOR KEY GLAZING KEY CEILING KEY ROOM KEY DIMENSION LINE NOOLUMN BUBBLE SHT. ELEVATION MARK HVAC DIFFUSER PARTITION DETAIL NUMBER SHEET NUMBER SHEET NUMBER MINDOW TYPE MINDOW TYPE TITLE SCALE	ARY ABOVE E EXISTING DENT, IDENTIFICATION RE RIDOATD DISTING IN NORMATION ACQUIST, A

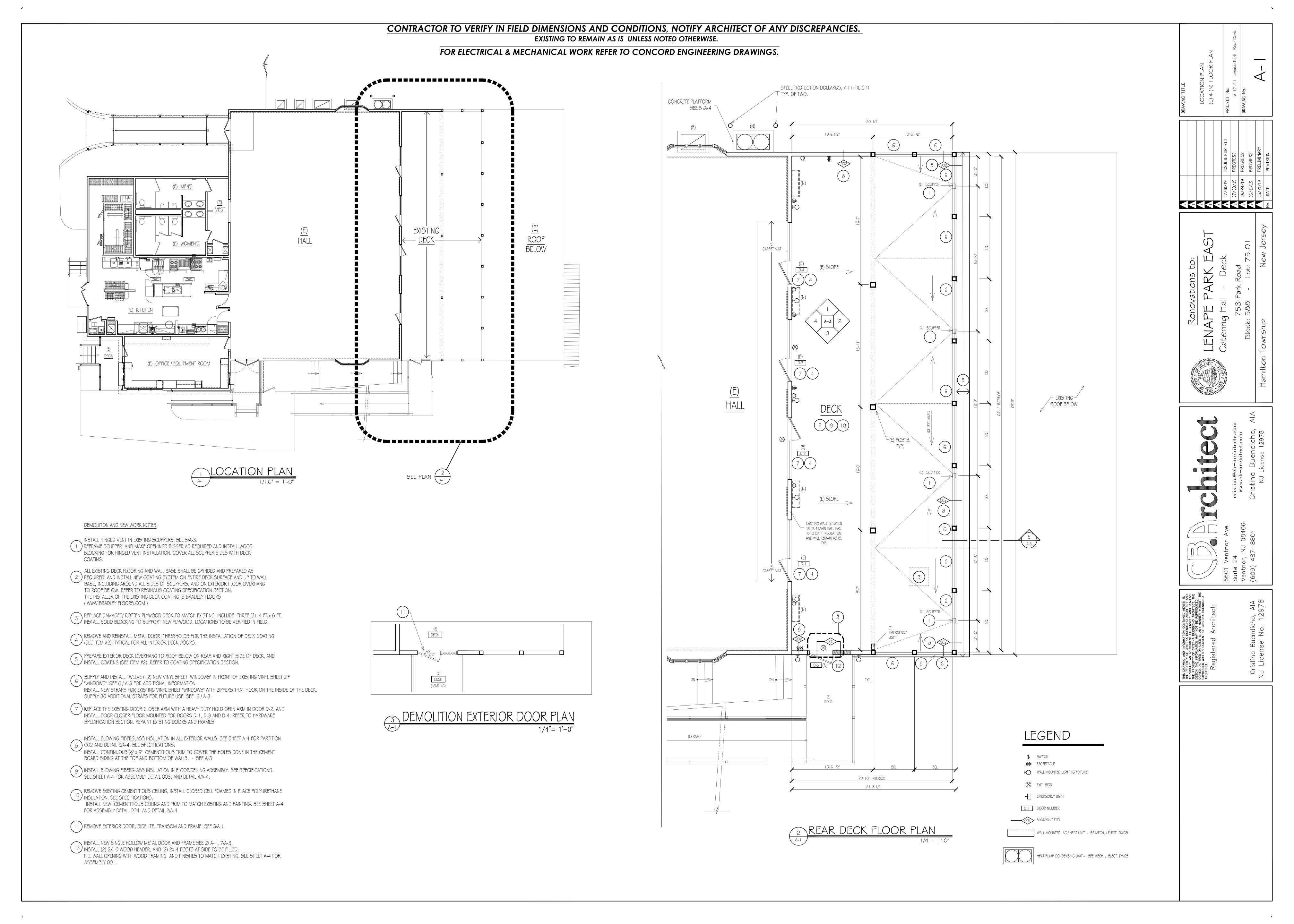








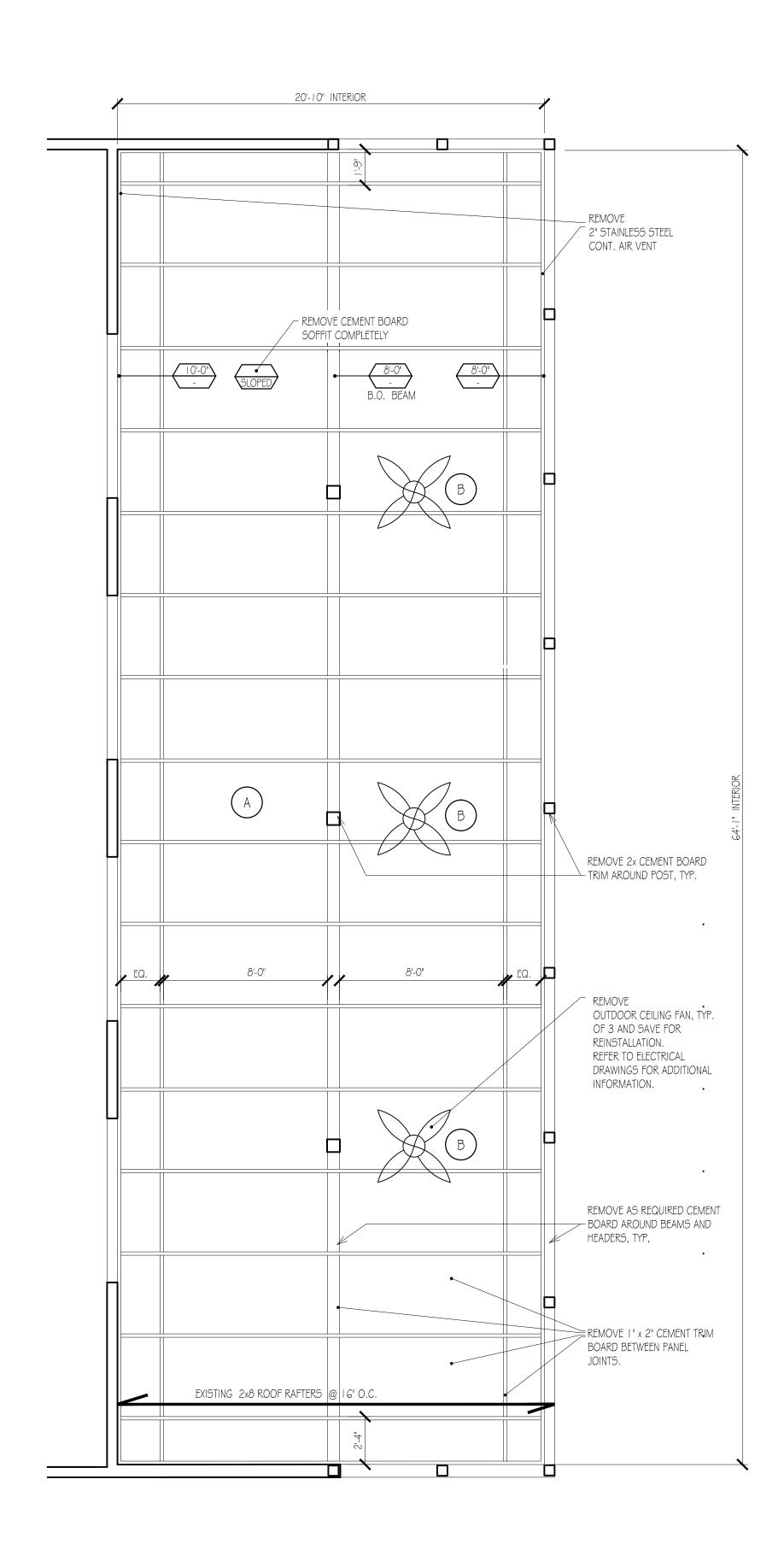




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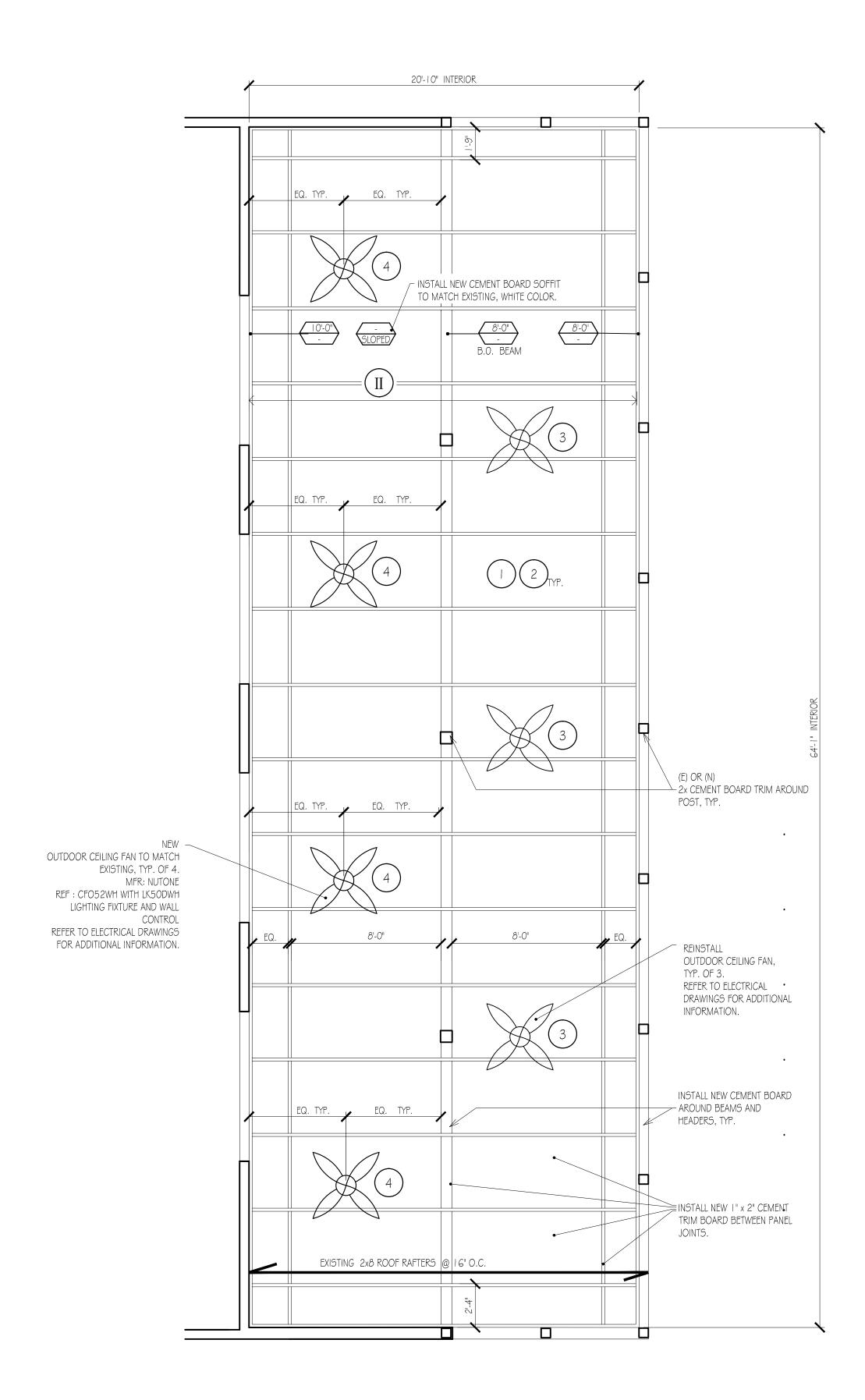




DEMOLITION NOTES :

- A REMOVE CEMENTITIOUS BOARD CEILING AND TRIM FOR INSTALLATION OF SPRAY POLYURETHANE INSULATION.
- B REMOVE CEILING FAN / LIGHTS AND SAVE TO BE REINSTALLED.

 CONTRACTOR TO SUBMIT CERTIFICATION LETTER AND PICTURES OF THE EXISTING CEILING FANS/LIGHTS RELATED TO THEIR WORKING CONDITIONS PRIOR TO THEIR REMOVAL AND REINSTALLATION.



REAR DECK NEW CEILING PLAN | 1/4 = 1'-0"

NEW WORK NOTES :

INSTALL SPRAY CELL POLYURETHANE INSULATION BETWEEN 2x8 ROOF RAFTERS IN ENTIRE CEILING SEE 002

INSTALL NEW CEMENTITIOUS BOARD AND TRIM TO MATCH EXISTING, SEE

REINSTALL EXISTING CEILING FAN / LIGHTS.

4) INSTALL NEW CEILING FAN / LIGHTS
LOCATION TO BE VERIFIED IN FIELD WITH ARCHITECT.

LEGEND

REMOVE AND INSTALL THE BASEMENT 2 HOUR DRYWALL CEILING
AS REQUIRED FOR THE BLOW-IN FIBERGLASS INSULATION,
SEE OO3 ON SHEET A-4, AND 4 / A-3

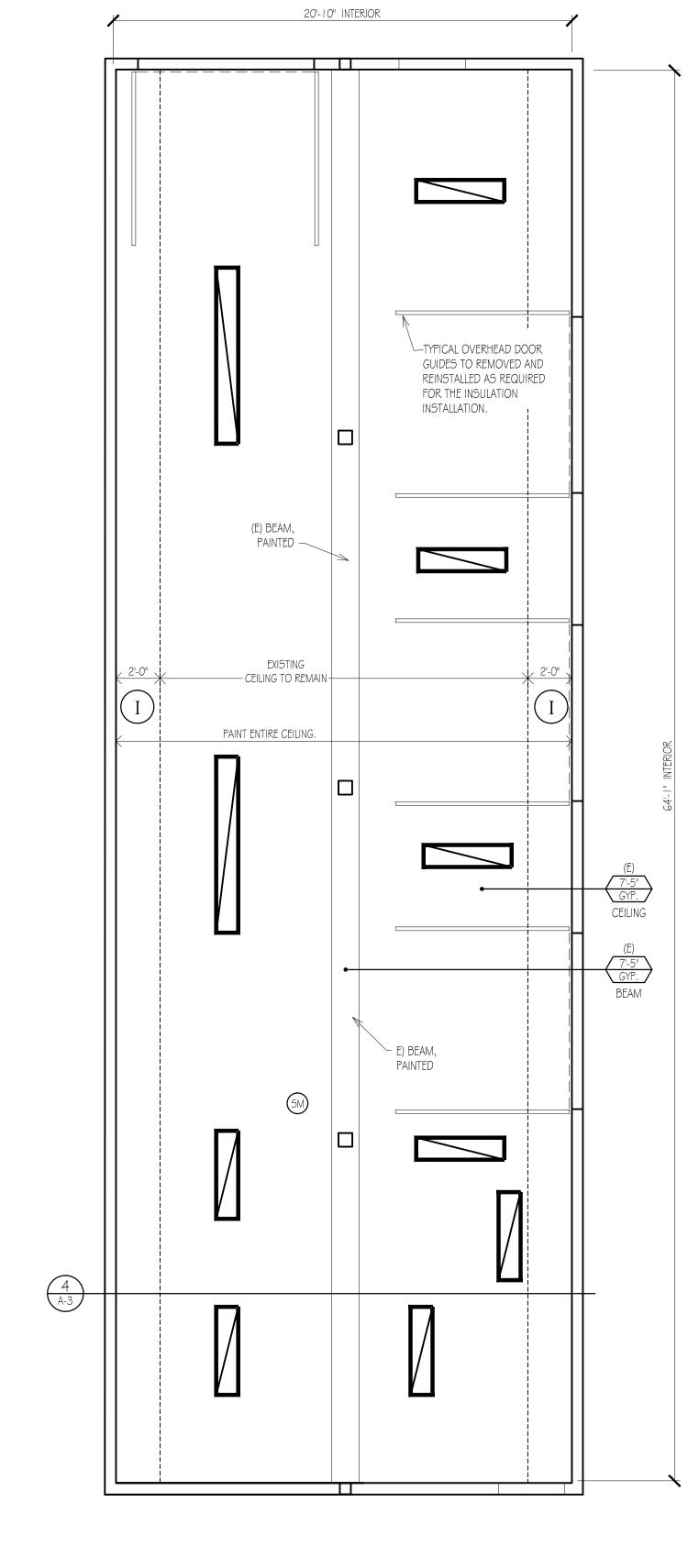
PAINT WHITE ENTIRE DRYWALL CEILING AND BEAMS.

EXISTING OVERHEAD DOOR GUIDES, AND LIGHTING FIXTURES TO BE REMOVED AND REINSTALLED AS REQUIRED FOR THE INSULATION INSTALLATION.

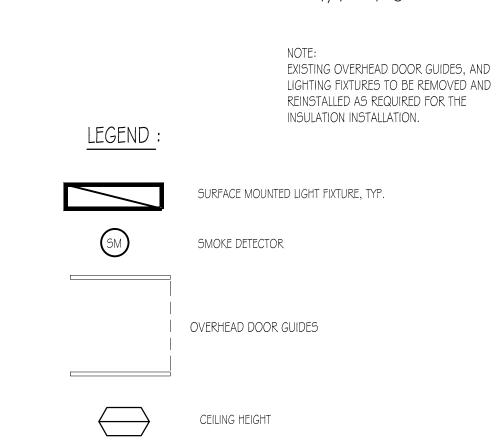
CEMENT BOARD PANELS AND TRIM TO BE WHITE ENTIRE DECK CEILING.

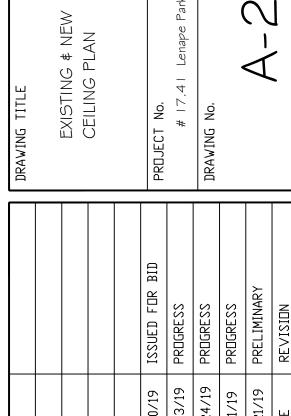
CEMENT BOARD PANELS FOR REAR DECK CEILING
AND TRIM ARE INTEGRAL COLOR WHITE PAINTED BY SIDING
MANUFACTURER.

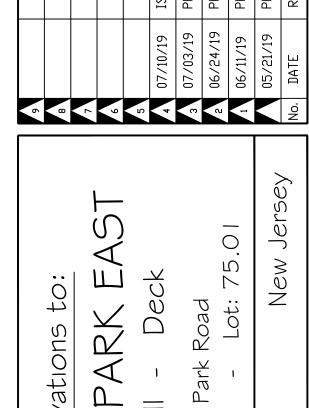
FIELD PAINTED ONLY AS REQUIRED FOR TOUCH UP.

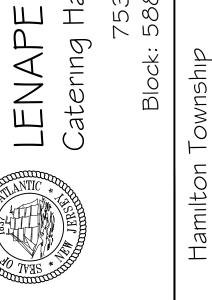












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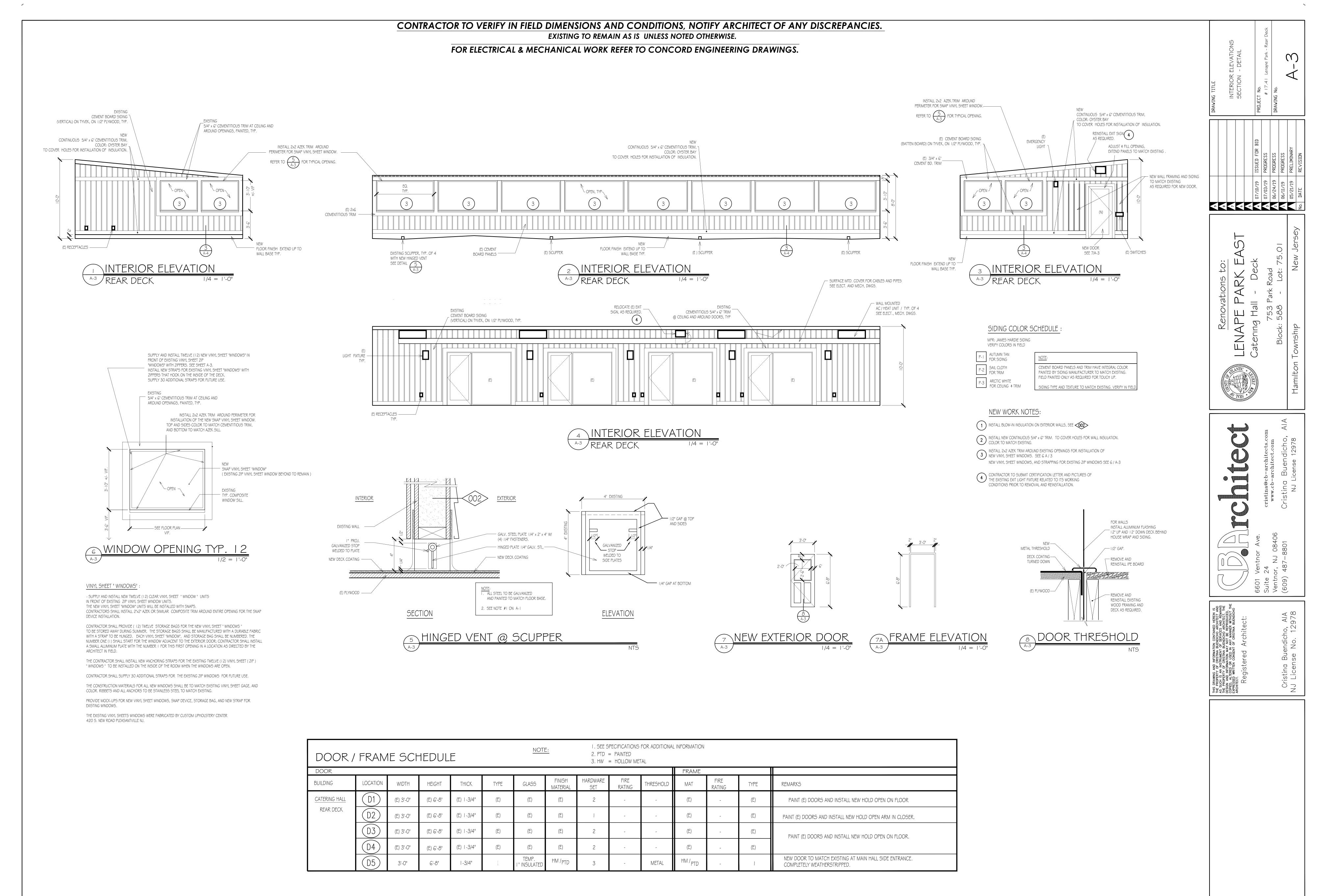
Language Cristina@cb-architects.com

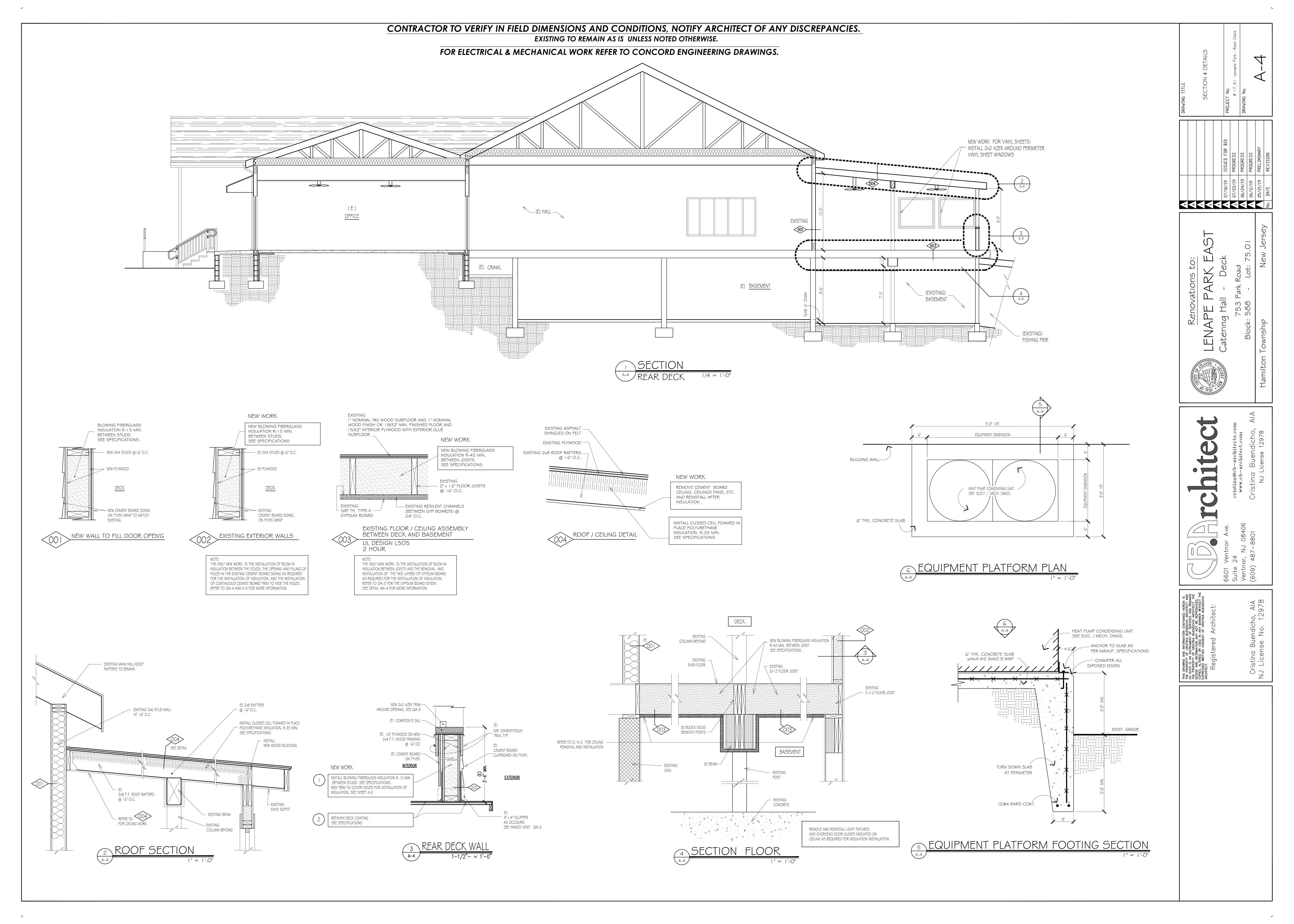
www.cb-architect.com

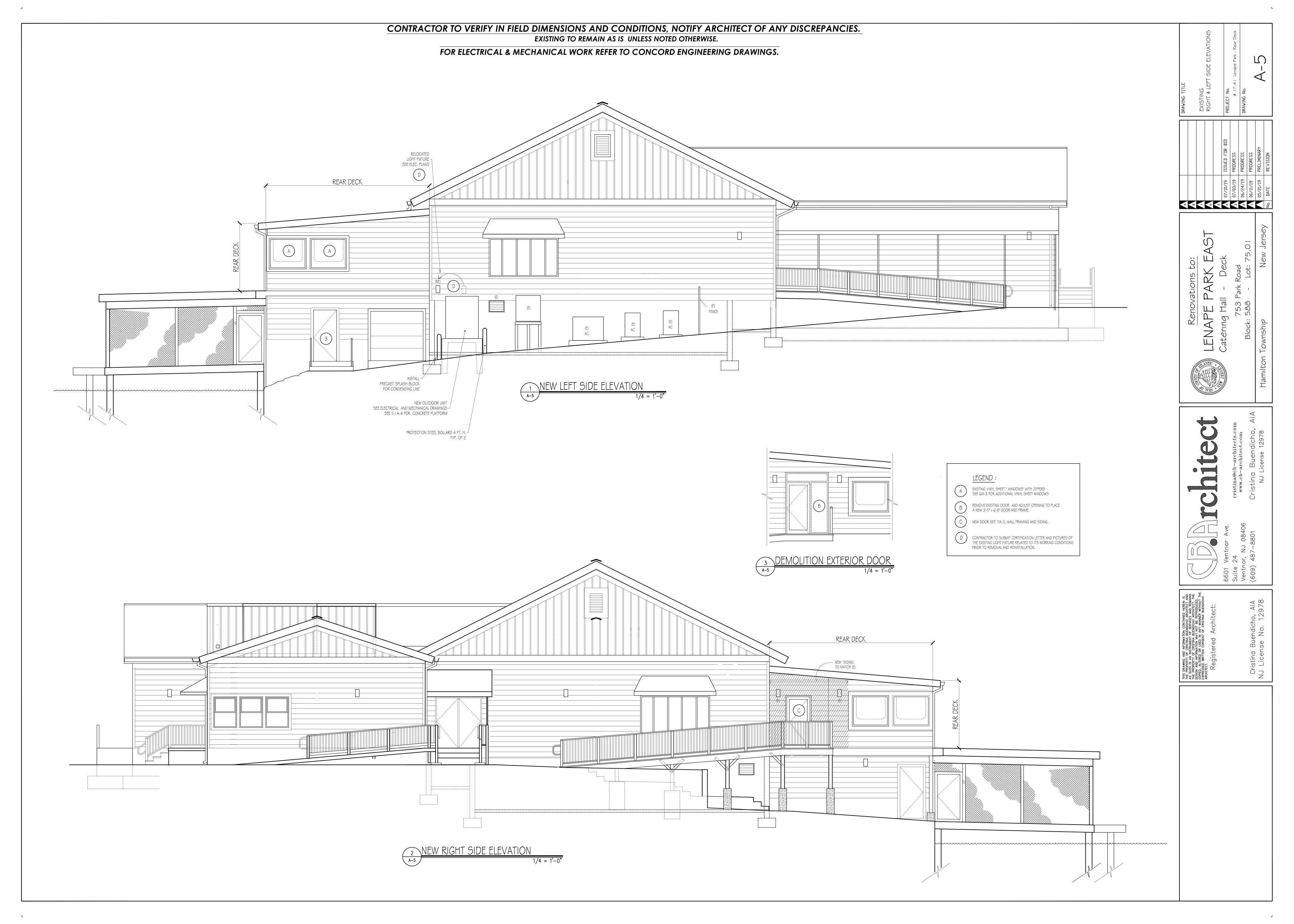
www.cb-architect.com

Cristina Buendicho, AIA









CONTRACTOR TO VERIFY IN FIELD DIMENSIONS AND CONDITIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES. EXISTING TO REMAIN AS IS UNLESS NOTED OTHERWISE. FOR ELECTRICAL & MECHANICAL WORK REFER TO CONCORD ENGINEERING DRAWINGS. REAR DECK

NEW REAR ELEVATION

A EXISTING VINYL SHEET " WINDOWS" WITH ZIPPERS SEE 6/A-3 FOR ADDITIONAL VINYL SHEET WINDOWS





EXISTING TO REMAIN AS IS UNLESS NOTED OTHERWISE.

BASIC MECHANICAL REQUIREMENTS

AUTHORITIES.

RECOMMENDATIONS.

- 1. GENERAL NOTES, SYMBOL LISTS AND DETAILS ARE APPLICABLE TO ALL MECHANICAL DRAWINGS LABELED "M".
- 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS AND LABOR TO PROVIDE COMPLETE AND WORKING MECHANICAL SYSTEMS WHETHER SPECIFIED OR IMPLIED.
- 3. THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO THE LOCAL CODE, STATE LAWS, IMC 2015, IBC, AGA, NFPA, NSPC, ASME, IFGC AND ALL OTHER GOVERNING
- 4. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS, LICENSES AND APPROVALS AS REQUIRED.
- 5. DO NOT SCALE THE DRAWINGS FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, DIMENSIONS, ETC. AT THE JOB SITE.
- 6. CONTRACTOR SHALL GUARANTEE THE COMPLETE INSTALLATION AGAINST DEFECTS IN THE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE BINDING REGARDLESS OF THE MANUFACTURER'S GUARANTEE AND THE CONTRACTOR SHALL REPAIR AND OR REPLACE ALL DEFECTIVE MATERIAL AND PARTS REGARDLESS OF CAUSE.
- 7. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO PREVENT INTERFERENCE BETWEEN BEAMS, STRUCTURES, PIPING, LIGHTING FIXTURES, FIRE PROTECTION SPRINKLER HEADS, DEVICES, ETC.
- 8. ALL MECHANICAL EQUIPMENT SHALL BE LOCATED AT A MINIMUM ELEVATION ABOVE THE LOCAL FEMA BASE FLOOD ELEVATION FOR THE PROJECT. CONTRACTOR SHALL PROVIDE NEW CONCRETE STRUCTURES AS NECESSARY TO RAISE MECHANICAL EQUIPMENT ABOVE THE LOCAL FEMA BASE FLOOD ELEVATION FOR THE PROJECT.
- 9. ALL MATERIALS USED IN CONSTRUCTION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS, A SMOKE DEVELOPMENT RATING OF 50 OR LESS, AND A FUEL CONTRIBUTED RATING OF 25 OR LESS. ALL MATERIALS SHALL BE "SELF-EXTINGUISHING".
- 10. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN
- 11. CONTRACTOR SHALL PROVIDE THREE (3) COMPLETE SETS OF BOUND OPERATING AND MAINTENANCE INSTRUCTIONS. CONTRACTOR SHALL INSTRUCT THE OWNER OR HIS AGENT WITH REGARD TO THE PROPER USE OF THE SYSTEM UNTIL SUCH INSTRUCTION IS COMPLETE TO THE OWNER'S SATISFACTION. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE A VALVE SCHEDULE IF VALVES ARE INSTALLED AS PART OF THE NEW
- 12. MECHANICAL CONTRACTOR SHALL LABEL ALL NEW MECHANICAL EQUIPMENT, PIPING AND VALVES (INDOORS AND OUTDOORS) IN A PERMANENT MANNER. MECHANICAL PIPING SHALL BE LABELED IN ACCORDANCE WITH ASME A13.1 FOR LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION. DIRECTION OF FLOW SHALL BE IDENTIFIED WITH DIRECTIONAL ARROW TAPE. VALVES SHALL BE IDENTIFIED WITH BRASS VALVE TAGS. ATTACHED WITH SOLID BRASS CHAINS AND "S HOOKS. VALVE TAGS SHALL BE COORDINATED WITH VALVE SCHEDULE PROVIDED IN OPERATION AND MAINTENANCE MANUAL. MECHANICAL EQUIPMENT SHALL BE LABELED WITH ENGRAVED PLASTIC TAGS WITH MOUNTING HOLES AND STAINLESS STEEL SCREWS. ALL LABELING SHALL HAVE HIGH CONTRAST BETWEEN LETTER AND BACKGROUND COLORS AND SHALL BE LOCATED FOR EASY VISIBILITY.
- 13. ALL MECHANICAL EQUIPMENT AND APPLIANCES INSTALLED SHALL BEAR THE LABEL OF AN APPROVED AGENCY.
- 14. THE ENTIRE MECHANICAL INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE 2015 INTERNATIONAL MECHANICAL CODE AND ANY SUPPLEMENTS ADOPTED BY THE STATE OF NEW JERSEY.

15. SITE VISIT PRIOR TO BID SUBMISSION:

- . PRIOR TO BID SUBMISSION, THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS. BIDS AS SUBMITTED WILL BE INTERPRETED TO INCLUDE ALL COSTS AND CHARGES MADE NECESSARY BY EXISTING CONDITIONS.
- B. MECHANICAL CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL SERVICES IN THE FIELD AFFECTED BY THIS WORK BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY THE ARCHITECTT IMMEDIATELY IN THE EVENT OF EXISTING UTILITIES VARY APPRECIABLY FROM THOSE SHOWN ON DRAWINGS.
- 16. PROVIDE VIBRATION ISOLATION MOUNTINGS FOR ALL MOTOR OPERATED EQUIPMENT AND AS RECOMMENDED BY THE MANUFACTURER.
- 17. MECHANICAL CONTRACTOR SHALL COORDINATE MECHANICAL EQUIPMENT'S ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER WIRING TO ALL MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL FURNISH LOOSE MOTOR STARTERS AND DISCONNECT SWITCHES FOR INSTALLATION AND WIRING BY THE ELECTRICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL AND INTERLOCK WIRING AND ALL THERMOSTATS AND ACCESSORIES.
- 18. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. COORDINATE AS NECESSARY WITH ALL TRADES ON PROJECT.
- 19. SUBMIT TO THE ARCHITECT FOR APPROVAL, DUPLICATE SPECIFICATION SHEETS OF ALL EQUIPMENT SUPPLIED OR INSTALLED, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. OUTDOOR HEAT PUMP AND ASSOCIATED INDOOR DUCTLESS UNITS. B. DETAILED REFRIGERANT PIPING DIAGRAMS PREPARED BY MANUFACTURER INCLUDING SIZING, LENGTHS AND ALL RELATED ACCESSORIES. INCLUDING MODE
 - C. PIPING, FITTINGS, JOINING MATERIALS, REFRIGERANT DEVICES AND **APPURTENANCES**
 - VALVES AND SPECIALTIES. PIPING LAYOUTS, (3/8" SCALE).
 - PIPING INSULATION AND COVERS AUTOMATIC TEMPERATURE CONTROLS.
 - . ACCESS PANELS.
- 20. A COMPLETE SET OF "AS-BUILT" DRAWINGS, TWO (2) SETS PAPER COPY REPRODUCIBLE AND TWO (2) SETS ELECTRONIC FILES PRODUCED IN ELECTRONIC PDF FORMAT ON CD'S SHALL BE FURNISHED, (1/8" = 1'-0" SCALE MIN.), TO THE OWNER AND ARCHITECT UPON PROJECT COMPLETION.
- 21. ALL INFORMATION INCLUDING, BUT NOT LIMITED TO, SHOP DRAWING SUBMITTALS, "AS-BUILT" DRAWINGS, TEST RESULTS AND OPERATION AND MAINTENANCE MANUALS, SHALL BE SUBMITTED ELECTRONICALLY PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL "AS-BUILT" DRAWINGS SHALL BE BOTH TWO (2) SETS PAPER COPY AND TWO
- (2) SETS ELECTRONIC COPY IN .PDF FORMAT ON CD'S. ALL CUT SHEETS, SUBMITTALS, MANUALS, AND ASSOCIATED INFORMATION SHALL BE PROVIDED IN PAPER AND ELECTRONIC .PDF FORMAT.
- ALL CHANGES RESULTING FROM REQUESTS FOR INFORMATION (RFI'S) OR OWNER APPROVED CHANGE ORDERS (CO'S) OR REQUESTS AGAINST ALLOWANCE (RAA'S) SHALL BE REFERENCED ON "AS-BUILT" DRAWINGS

PHASING NOTES:

- 1. THE LAKE LENAPE CATERING HALL SHALL BE ALLOWED TO REMAIN CONTINUOUSLY OCCUPIED THROUGHOUT THE CONSTRUCTION SCHEDULE OF THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UNENCUMBERED OPERATION OF, AND ACCESS TO AND FROM THE CATERING HALL THROUGHOUT THE PROJECT. ALL CORRIDORS, HALLWAYS, EXITS, MEANS OF EGRESS, ETC., SHALL BE KEPT CLEAR AT ALL TIMES. CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES OR STRUCTURES NECESSARY TO MAINTAIN UNENCUMBERED OPERATION OF THE BUILDING BY STAFF AND THE PUBLIC DURING CONSTRUCTION.
- 2. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION FOR ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL, FIRE ALARM, COMMUNICATIONS, DATA EQUIPMENT AND A/V SYSTEMS SERVING THE BUILDINGS WHICH MAY BE AFFECTED BY THE WORK OF THE PROJECT. SERVICES MAY NOT BE INTERRUPTED TO THE BUILDINGS WITHOUT PRIOR APPROVAL FROM THE COUNTY, NO LESS THAN TWO (2) WEEKS IN ADVANCE OF THE INTERRUPTION. CONTRACTOR SHALL COORDINATE WITH THE COUNTY. AS THE LOCATION OF ANY TEMPORARY PROTECTION FACILITIES REQUIRED PRIOR TO INSTALLATION.
- 5. CONTRACTOR SHALL PROVIDE ANY TEMPORARY UTILITIES NECESSARY TO MAINTAIN CONTINUOUS OPERATION OF THE CATERING HALL'S MECHANICAL. PLUMBING, ELECTRICAL AND FIRE ALARM SYSTEMS DURING THE PROJECT. ANY TEMPORARY SHUTDOWN REQUIRED SHALL BE COORDINATED WITH OWNER NO LESS THAN TWO (2) WEEKS IN ADVANCE OF THE SHUTDOWN(S).

ALTERATIONS TO EXISTING SYSTEMS AND DEMOLITION

- 1. IT IS THE INTENT THAT ALL EXISTING PIPING, DUCTWORK, FIXTURES AND OTHER EQUIPMENT AND MATERIALS THAT INTERFERE WITH THE ALTERED EXISTING BUILDING ARRANGEMENTS AND NEW SYSTEMS BE REMOVED, RELOCATED, REROUTED OR ABANDONED. THE DRAWINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT ARE TO BE REMOVED, RELOCATED, REROUTED OR ABANDONED BY EACH TRADE. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. HOWEVER, THEIR REMOVAL, RELOCATIONS, REROUTING OR ABANDONMENT SHALL ALSO BE INCLUDED IN THIS CONTRACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- 2. EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
- 3. DRAWINGS ARE DIAGRAMMATIC AND DUE TO SCALE, ALL EXISTING ITEMS TO BE DEMOLISHED CAN NOT BE SHOWN. CONTRACTOR SHALL DURING PRE-BID SITE VISIT DETERMINE EXTENT OF DEMOLITION AND INCLUDE COST OF THIS WORK IN BID. SHOULD . CONTRACTOR REQUIRE REMOVAL, RELOCATION OR REROUTING OF ANOTHER TRADE'S WORK THAT IS NOT INDICATED ON DRAWINGS, THE CONTRACTOR REQUIRING SUCH WORK SHALL BE RESPONSIBLE FOR THAT WORK, AND PAY ALL REQUIRED COSTS. ALL UNKNOWN BELOW SLAB PIPING ENCOUNTERED DURING INSTALLATION OF NEW WORK SHALL BE REMOVED AND CAPPED OFF AT ACTIVE MAIN OR BRANCH. ALLOWANCE SHALL BE MADE FOR THESE ITEMS IN BID PRICE.
- 4. EXISTING EQUIPMENT AND MATERIALS THAT ARE TO REMAIN, BUT BECOME EXPOSED DUE TO NEW WORK, SHALL BE RELOCATED AND RECONNECTED AS DIRECTED BY ARCHITECT.
- 5. ALL WORK INVOLVING ALTERATIONS TO EXISTING SYSTEMS, EQUIPMENT AND MATERIALS SHALL BE REVIEWED WITH ARCHITECT AND OWNER BEFORE BEGINNING WORK.
- 6. REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE STORAGE LOCATION DESIGNATED BY OWNER.
- 7. THE CONTRACTOR MUST SURVEY AND VERIFY LOCATIONS AND PHYSICAL SIZES OF ALL EXISTING ITEMS AND DETERMINE WHETHER RELOCATION OR REROUTING WILL BE REQUIRED. IF RELOCATION OR REROUTING IS REQUIRED, INCLUDING THAT OF ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WORK AS PART OF HIS CONTRACT AND IT SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- 8. CONTRACTOR SHALL PATCH AND REPAIR CEILING AND WALL OPENINGS RESULTING FROM THE DEMOLITION OF EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING, DEVICES, ETC. COORDINATE THIS WORK WITH OWNER'S REPRESENTATIVES PRIOR TO DEMOLITION.

CONTINUITY OF EXISTING SYSTEMS AND SERVICES

- 1. ALL WORK SHALL BE PERFORMED AT SUCH TIME AND IN SUCH MANNER AS WILL LEAST INTERFERE WITH MAINTENANCE AND OPERATION OF FACILITIE'S ACTIVITIES. PROVISIONS SHALL BE MADE TO PERMIT STAFF AND PUBLIC USE OF ALL THE BUILDING AND OF EXISTING SYSTEMS AT ALL TIMES. PROVIDE TEMPORARY FACILITIES TO SECURE THESE CONDITIONS. REMOVE TEMPORARY FACILITIES WHEN PERMANENT WORK HAS BEEN PLACED INTO SERVICE.
- FULLY COORDINATE WITH ARCHITECT, ENGINEER, OWNER AND ALL OTHER TRADES, ALL WORK INVOLVING SHUT-DOWN AND INTERRUPTION OF EXISTING SYSTEMS AND SERVICE.
- 3. SHUT-DOWN OF EXISTING SERVICES WHERE REQUIRED TO INSTALL NEW SYSTEMS OR ALTER EXISTING, SHALL BE PERFORMED DURING HOURS THAT THE AREAS AFFECTED ARE NOT BEING USED BY STAFF OR THE PUBLIC. ALL COSTS FOR PERFORMING THIS WORK SHALL BE BORNE BY THE CONTRACTOR AND WITHOUT "EXTRA" COST TO THE OWNER.
- 4. EXISTING SYSTEMS AND SERVICES THAT ARE TEMPORARILY DISCONNECTED, BUT ARE TO REMAIN IN USE, SHALL BE PERMANENTLY RECONNECTED AND RETURNED TO PROPER
- 5. FULLY COORDINATE WITH ARCHITECT, ENGINEER, OWNER AND OTHER TRADES TO INSURE COMPLETE CONTINUITY OF ALL SYSTEMS AND SERVICES.
- 6. EXCEPT FOR SPECIFIC AREAS OF WORK AS NOTED ON THIS DRAWING, ALL EXISTING LIFE SAFETY SYSTEMS SHALL REMAIN INTACT AND ARE UNAFFECTED BY NEW WORK.

CONTINUITY OF EXISTING SYSTEMS

- BUILDINGS SHALL REMAIN FULL OCCUPIED THROUGHOUT CONSTRUCTION. ALL MECHANICAL, PLUMBING, POWER, DATA, FIRE ALARM, SECURITY AND A/V SYSTEMS SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION AND REMAIN FULLY OPERATIONAL DURING ALL PERIODS OF BUILDINGS'
- COORDINATE WORK INVOLVING ANY INTERRUPTION OF EXISTING POWER, DATA, VOICE, FIRE ALARM, SECURITY AND A/V SYSTEMS WITH OWNER.
- ALL SERVICE AND SYSTEM INTERRUPTIONS SHALL OCCUR ONLY DURING PERIODS WHEN THE BUILDING IS NOT OCCUPIED AS DETERMINED AND APPROVED BY THE OWNER. PROVIDE TEMPORARY FACILITIES TO MEET THESE
- 4. ALL COSTS REQUIRED TO PERFORM THIS WORK SHALL BE BORNE BY THE CONTRACTOR AND INCLUDED IN THE BID PRICE.
- EXISTING SYSTEMS AND SERVICES THAT ARE TEMPORARILY DISCONNECTED. BUT ARE TO REMAIN IN USE, SHALL BE PERMANENTLY RECONNECTED AND RETURNED TO THEIR PROPER OPERATION.

SPECIFICATION NOTE: IF A DISCREPANCY OCCURS BETWEEN THE DRAWING SPECIFICATIONS AND THE DIVISION 1 AND/OR DIVISIONS 15 AND 16 TECHNICAL SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND ARCHITECT OF ANY SUCH DISCREPANCIES.

PRE-CONSTRUCTION NOTE: PRIOR TO PERFORMING ANY WORK, CONTRACTOR SHALL TAKE PICTURES AND/OR VIDEOS OF ALL AREAS AFFECTED BY CONTRACTOR'S WORK TO DOCUMENT ALL PRE-EXISTING CONDITIONS. CONTRACTOR SHALL MAKE ALL PICTURES AND VIDEOS AVAILABLE TO OWNER AND ARCHITECT UPON REQUEST. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY OPERATION AND CONDITION OF ANY EQUIPMENT, DEVICE, PIPING, WIRING, ETC., WHICH IS TO BE ALTERED, MODIFIED, RELOCATED OR TEMPORARILY REMOVED AND LATER REINSTALLED. NOTIFY OWNER IF ANY ITEM IS NOT OPERATIONAL OR IN POOR CONDITION PRIOR TO PERFORMING ANY WORK

REFRIGERANT PIPING

AS REQUIRED.

ENCLOSURES.

CONCRETE SPLASH PADS.

FOOT AWAY FROM UNIT.

- 1. REFRIGERANT PIPING SHALL BE TYPE "L" OR TYPE "ACR" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS, JOINED USING 45% SILVER BRAZING SOLDER AND SILVER BRAZING FLUX.
- 2. PROVIDE LIQUID LINE REFRIGERANT SIGHT GLASS/MOISTURE INDICATOR.
- 3. PROVIDE LIQUID AND SUCTION LINE FILTER/DRYERS AS REQUIRED.
- 4. INSULATE REFRIGERANT SUCTION LINE WITH 1/2" THICK ARMAFLEX INSULATION.
- 5. REFRIGERANT ACCESS PORTS SHALL BE PROTECTED IN ACCORDANCE WITH IMC 2015 SECTION 1101.10. CONDENSATE PIPING
- 1. PIPING SHALL BE RIGIDLY SUPPORTED AT INTERVALS OF NOT MORE THAN 10 FEET.
- 2. PROVIDE DIELECTRIC UNIONS IN PIPING WHERE DISSIMILAR METALS ARE JOINED TOGETHER. 3. THE SIZE OF ALL PIPING SHALL BE AS SHOWN ON THE DRAWINGS, OR WHERE NOT SHOWN,
- 4. ALL COPPER PIPING SHALL BE JOINED USING 95-5 TIN/ANTIMONY SOLDER.
- 5. ALL CONDENSATE DRAIN LINES SHALL BE PIPED, AT MINIMUM, TO FULL SIZE OF THE UNIT'S DRAIN OUTLETS AND PROVIDED WITH A "P" TRAP SIZED AT MINIMUM TO EXCEED FAN STATIC PRESSURE. DISCHARGE CONDENSATE DRAINS LINES OUTDOORS VIA I" AIR GAP ONTO NEW
- 6. CONDENSATE DRAINAGE: DWV COPPER TUBING, PITCHED DOWN A MINIMUM OF 1/8" PER
- 7. INSULATION SHALL CARRY THROUGH ALL WALL AND FLOOR PENETRATIONS AND PIPE
- 8. PROVIDE GALVANIZED METAL SHIELDS FORMED TO FIT THE INSULATION BETWEEN HANGERS AND FINISHED INSULATIONS.
- 9. INSULATE CONDENSATE PIPING WITH 1/2" THICK ARMAFLEX TYPE AP INSULATION.
- 10. PROVIDE WEATHERPROOF ENCLOSURES FOR ALL OUTDOOR CONDENSATE LINES. 11. ALL VISUALLY EXPOSED INDOOR AND OUTDOOR PIPING SHALL BE CONCEALED IN PIPE
- PIPE INSULATION
- 1. PRIOR TO INSULATING. PIPING SHALL BE TESTED AT TWICE THE OPERATING PRESSURE RATING OF THE PIPING SYSTEM WITH NO LOSS OF PRESSURE FOR 3 HOURS.
- 2. INSULATION SHALL CARRY THROUGH ALL WALL PENETRATIONS & PIPE HANGERS.
- 3. PROVIDE GALVANIZED METAL SHIELDS FORMED TO FIT THE INSULATION BETWEEN HANGERS AND FINISHED INSULATION.
- 4. INSULATION SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 5. INSULATION AND FITTING COVERS MUST BE FIRE RATED FOR FLAME SPREAD OF 25 OR LESS

(SUCTION AND LIQUID), AND ALL CONDENSATE PIPING WITH 19" THICK ARMAFLEX FLEXIBLE

- AND SMOKE DEVELOPED OF 50 OR LESS. 6. PIPING INSULATION: EXCEPT AS NOTED OTHERWISE, INSULATE ALL REFRIGERANT LINES
- TYPE AP, CLOSED-CELL, ELASTOMERIC PIPE INSULATION. 7. EXTERIOR EXPOSED AREAS: FOR REFRIGERANT PIPING, INSTALL CONTINUOUS ALUMINUM JACKETS AND SEAL ALL JOINTS AND SEAMS WITH WATERPROOF SEALANT. PROVIDE ZESTON 2000 SERIES PVC FITTING COVERS OR EQUIVALENT WITH FIBERGLASS INSULATION INSERTS ON ALL FITTINGS AND VALVES. INSTALL METAL JACKET WITH 2-INCH OVERLAP AT LONGITUDINAL AND BUTT JOINTS. OVERLAP LONGITUDINAL JOINTS TO SHED WATER. SEAL BUTT JOINT WITH WEATHERPROOF SEALANT RECOMMENDED BY INSULATION MANUFACTURER. SECURE JACKET WITH STAINLESS-STEEL DRAW BANDS 12 INCHES ON CENTER AND AT BUTT
- 8. PROVIDE A CONTINUOUS VAPOR BARRIER JACKET FOR ALL LOW TEMPERATURE RANGE SYSTEMS, (-100°F TO 60°F), ALL PIPES OPERATING BELOW AMBIENT TEMPERATURES REQUIRE ALL JOINTS TO BE SEALED WITH FACTORY-APPLIED, SELF-SEAL LAP AND BUTT STRIPS.

CONTRACTOR MAY SUBSTITUTE SPECIFIED MANUFACTURER'S EQUIPMENT, DEVICES, SYSTEMS, MATERIALS, ETC., IF THE SUBSTITUTED ITEM IS AMERICAN MANUFACTURED, NOT A DEVIATION FROM THE SPECIFIED ITEM'S SIZE, FEATURES, QUALITY, OR AVAILABILITY, ETC., AS SET FORTH IN THE CONTRACT DRAWINGS, TECHNICAL SPECIFICATIONS, ETC. IT IS UNDERSTOOD THAT SUBSTITUTED ITEMS WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, SUBJECT TO THE OVERALL TERMS OF THE CONTRACT TO BE AWARDED BY THE OWNER, AND THAT NO ADDITIONAL COSTS ASSOCIATED WITH CHANGES TO ANY TRADES WORK, INCLUDING ADDITIONAL DESIGN SERVICES OR DELIVERY CHARGES, WILL BE ALLOWED. SHOULD EQUIVALENT ITEMS OF OTHER MANUFACTURERS BE SUBMITTED BY THE CONTRACTOR, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND BEAR AT NO EXTRA COST TO OWNER, ALL CHANGES TO THE DESIGNED GENERAL CONSTRUCTION, MECHANICAL AND ELECTRICAL SYSTEMS, THAT ARE REQUIRED BY THE USE OF THE SUBSTITUTED ITEMS, INCLUDING COST OF ARCHITECT'S AND ENGINEER'S REDESIGN EFFORTS. ALL SUBSTITUTIONS SHALL BE IN FULL COMPLIANCE WITH NEW JERSEY LOCAL PUBLIC CONTRACTS LAW AND REGULATIONS.

MAINTENANCE SERVICES:

ADDITIONAL INFORMATION.

- A. PRIOR TO THE OWNER APPROVED DATE OF SUBSTANTIAL COMPLETION, PROTECTION, SERVICE AND MAINTENANCE OF ALL NEW ELECTRICAL COMPONENTS AND SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR
- B. CONTRACTOR SHALL INCLUDE IN THEIR BASE BID AMOUNT A FULL TWELVE (12 MONTHS OF MAINTENANCE SERVICES (WHICH INCLUDES FULL LABOR AND MATERIALS) ON ALL NEW MECHANICAL SYSTEMS, WITH A THREE (3) MONTH INTERVAL AS MAXIMUM TIME-PERIOD BETWEEN CALLS, AS FOLLOWS:
- 1. PROVIDE 24-HOUR EMERGENCY SERVICE ON BREAKDOWNS AND
- MALFUNCTIONS OF NEW MECHANICAL SYSTEMS. 2. INCLUDE ALL MAINTENANCE ITEMS AS OUTLINED IN MANUFACTURER'S OPERATING AND MAINTENANCE DATA.
- 3. SUBMIT COPY OF SERVICE CALL WORK ORDER OR REPORT AND INCLUDE DESCRIPTION OF WORK PERFORMED. C. REFER TO SPECIFICATION SECTION 15010 TECHNICAL SPECIFICATIONS FOR

16' MIDE (LELING LANE) PRIVATE R.O.W. LOT 71 LOT 75.01 LOT 64 LOT 83 LOT 82 LOT 81

LAKE LENAPE PARK PROJECT KEY PLAN

N.T.S.

AUTOMATIC TEMPERATURE CONTROLS (ATC)

1. SCOPE OF WORK

- A. AUTOMATIC CONTROLS FOR NEW VARIABLE CAPACITY, HEAT PUMP/AIR CONDITIONING SYSTEMS WITH VARIABLE REFRIGERANT FLOW (VRF). THE SYSTEM SHALL PROVIDE SIMULTANEOUS COOLING AND HEATING VIA A SPLIT SYSTEM HEAT PUMP. THE SYSTEM SHALL INCLUDE INDOOR WALL-MOUNTED, DUCTLESS HEATING/COOLING TERMINAL UNITS. OUTDOOR HEAT PUMP SHALL BE PROVIDED WITH MANUFACTURER'S LOW-AMBIENT KIT WHICH ALLOWS PROPER HEATING AND COOLING OPERATIONS FOR OUTSIDE AIR TEMPERATURES DOWN TO 0°F.
- B. HEAT PUMP SYSTEM SHALL BE PROVIDED STANDALONE DDC CONTROLS FURNISHED AND INSTALLED AT FACTORY BY SYSTEM MANUFACTURER. CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL CONTROLLERS, SENSORS, ACTUATORS, MOTORS, WIRING, ETC., REQUIRED FOR A COMPLETE INSTALLATION.
- C. THE SYSTEM SHALL BE COMPLETE IN ALL RESPECTS AND CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICE AS REQUIRED. THE SYSTEM SHALL BE DESIGNED AND INSTALLED BY AN APPROVED CONTRACTOR HAVING AT MINIMUM TEN (10) YEARS EXPERIENCE IN THE DESIGN AND INSTALLATION OF HVAC AUTOMATIC CONTROLS AND RELATED WORK, AND WHO SHALL ALSO PROVIDE START-UP, OPERATING INSTRUCTION AND NECESSARY MAINTENANCE AND REPAIRS TO THE SYSTEM THROUGH THE GUARANTEE PERIOD.
- D. THE ATC SYSTEM SHALL CONSIST OF ALL THERMOSTATS, TEMPERATURE SENSORS, TRANSMITTERS, DIGITAL CONTROLLERS, CONTROL EQUIPMENT, ETC., AS NECESSARY TO FULFILL THE INTENT OF THIS SPECIFICATION AND PROVIDE FOR A COMPLETE AND
- E. COORDINATE THE INSTALLATION OF THE CONTROL SYSTEMS WITH ALL OTHER TRADES AS
- F. OUTDOOR HEAT PUMP (OU-1) WITH DUCTLESS INDOOR FAN COIL UNITS (IU-1'S): THE WALL-MOUNTED DUCTLESS UNITS' ELECTRONIC TEMPERATURE SENSOR/CONTROLLER SHALL ALLOW THE OCCUPANTS TO MANUALLY ADJUST THE ROOM'S TEMPERATURE SETPOINT. TWO (2) INDOOR UNITS SHALL SHARE ONE (1) THERMOSTAT/CONTROLLER. PROVIDE EACH WALL-MOUNTED THERMOSTAT/CONTROLLER WITH LEXON LOCKING COVER.

ELECTRICAL

- A. ALL ELECTRICAL WORK REQUIRED FOR THE OPERATION OF THE CONTROL SYSTEMS SHALL BE PROVIDED UNDER THIS SECTION OF THE SPECIFICATION BY THE CONTROL SYSTEMS CONTRACTOR, EXCEPT AS SPECIFICALLY NOTED, AND SHALL BE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL AUTHORITIES HAVING JURISDICTION.
- B. ALL ELECTRICAL CONTROL AND SWITCHES SHALL BE SUITABLE FOR 120 VOLTS, 60 HERTZ. UPON COMPLETION OF THE WORK, AN ELECTRICAL CERTIFICATE FROM THE
- LOCAL JURISDICTION INSPECTION AGENCY SHALL BE PROVIDED. C. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN THIN-WALL EMT.
- D. THE FOLLOWING WORK WILL BE PROVIDED BY THE ELECTRICAL CONTRACTOR:
- 1. POWER WIRING TO ALL MOTORS WIRING TO THE PRIMARY AUTOMATIC TEMPERATURE
- 3. FIRE ALARM WIRING FROM SMOKE DETECTORS (IF REQUIRED) 4. FAN SHUT-DOWN WIRING FROM THE FIRE ALARM SYSTEM (IF REQUIRED)
- SERVICE AND GUARANTEE
- A. THE ATC CONTRACTOR SHALL GUARANTEE THE CONTROL SYSTEM IS FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF FIVE (5) YEARS FROM DATE OF FINAL ACCEPTANCE BY OWNER. ANY ITEMS PROVEN TO BE DEFECTIVE WITHIN HE GUARANTEE PERIOD SHALL BE REPAIRED OR REPLACED FREE OF CHARGE.
- B. AFTER COMPLETION OF THE INSTALLATION, ALL EQUIPMENT PROVIDED UNDER THIS SPECIFICATION SHALL BE ADJUSTED AND CALIBRATED FOR PROPER OPERATION.
- C. THE ATC CONTRACTOR SHALL, UPON COMPLETION OF THE INSTALLATION AND PRIOR TO FINAL ACCEPTANCE, MAKE AVAILABLE TO THE OWNER AN ANNUAL SERVICE AGREEMENT

OUTDOOR UNIT CONTROLS

- A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS:
- a. COMPRESSOR CAPACITY CONTROL b. COMPRESSOR - MODULE CAPACITY CONTROL
- OUTDOOR FAN MOTOR. d. ELECTRONIC EXPANSION VALVE - MAIN (MAIN EEV).
- ELECTRONIC EXPANSION VALVE EVI (EVI EEV). SOLENOID VALVE — EVI, SOLENOID VALVE — EVI BYPASS. SOLENOID VALVE - HOT GAS BYPASS. SOLENOID VALVE - HOT GAS BYPASS 2
- SOLENOID VALVE MAIN EEV. SOLENOID VALVE - MAIN COOLING. SOLENOID VALVE - ACCUMULATOR OIL RETURN (ARV).
- I. COMPRESSOR COIL HEATER (CCH). STARTUP MODES
- A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS:
- SAFETY START COLD START.
- SAFETY START QUICK START. d. SAFETY START - NORMAL START.
- NORMAL OPERATION MODES A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS:
- a. COOLING OPERATION.
- b. HEATING OPERATION. : MAIN COOLING OPERATION

d. MAIN HEATING OPERATION. SPECIAL OPERATION MODES

A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS: a. DEFROST OPERATION.

b. ROTATION DEFROST OPERATION (WHERE APPLICABLE). c. OIL RETURN OPERATION.

- PROTECTIVE CONTROL
- A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS:
- a. HIGH AND LOW PRESSURE PROTECTION. b. COMPRESSION RATIO PROTECTION.
- DISCHARGE TEMPERATURE PROTECTION. d. DSH (DISCHARGE SUPER HEAT) PROTECTION.
- e. IPM (INTELLIGENT POWER MODULE) TEMPERATURE PROTECTION. f. MAXIMUM CURRENT LIMIT (TOTAL) . MAXIMUM CURRENT LIMIT (EACH COMPRESSOR)

. FREEZING PREVENTION.

INDOOR UNIT CONTROL A. PROVIDE SYSTEM WITH THE FOLLOWING INTEGRAL CONTROLS:

FAN CONTROL IN THERMO-OFF CONDITION.

. OPERATION MODES. b. AUTO MODE. . AUTO CHANGE OVER. THERMO ON/OFF.

TEMPERATURE COMPENSATION.

J. FAN SPEED CONTROL ELECTRONIC EXPANSION VALVE (EEV). DRAIN PUMP CONTROL COLD AIR PREVENTION.

- FIELD ADJUSTABLE SETTINGS
- A. PROVIDE SYSTEM WITH THE FOLLOWING FIELD ADJUSTABLE CONTROL SETTINGS: a. EMERGENCY OPERATION FOR COMPRESSOR MALFUNCTION.
- . COOLING AND HEATING CAPACITY CORRECTIONS. CURRENT RESTRICTION RATE. d. OIL COLLECTION INTERVAL
- TEMPERATURE TO TRIGGER DEFROST OPERATION. FAN SPEED CORRECTION FOR OUTDOOR UNIT.
- SILENT MODE FOR NIGHT-TIME HIGH-HEAD CONDITION SETTING. LONG-PIPING CONDITION SETTING.
- ROTATION DEFROST (WHERE APPLICABLE). EXPAND OPERATIONAL TEMPERATURE RANGE FOR COOLING. m. CHANNEL ADDRESS.

n. SNOW ACCUMULATION PREVENTION CONTROL.

ENERGY CONTROL OPERATION (ECO).

WIRING TO BE CONCEALED WITHIN WALLS.

p. MAXIMUM CAPACITY RESTRICTION SEQUENCE OF OPERATIONS

SPEED OPERATION.

A. PROVIDE UNITS WITH MANUFACTURER'S STANDARD CONTROLS SEQUENCE OF OPERATIONS. WALL-MOUNTED CONTROLLER

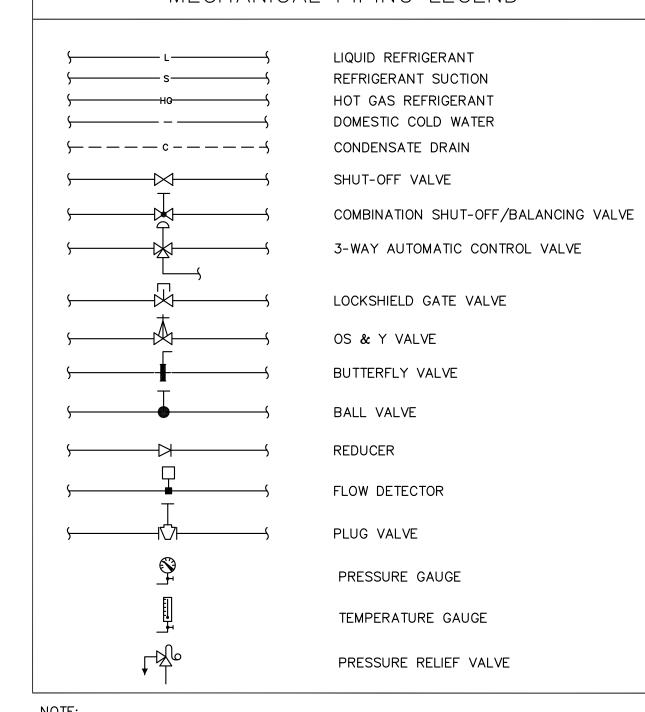
A. PROVIDE PREMIUM WIRED CONTROLLER SAMSUNG MODEL #MWR-WE13N WITH THE

FOLLOWING OPTIONAL FEATURES: DISCHARGE AIR TEMPERATURE SETTING (FOR SUPPORTED MODELS), ERROR DISPLAY, FILTER REPLACEMENT ALARM DISPLAY AND RESET, INDOOR UNIT ON/OFF, OPERATION MODE, SET TEMPERATURE, DIRECTIONAL AIRFLOW, AND FAN SPEED SETTING, CONTROL UP TO 16 DIFFERENT INDOOR UNITS, UPPER/LOWER TEMPERATURE SETTING, ENERGY SAVING OPERATION MODE, WEEKLY OPERATING SCHEDULE, DIFFERENT BUTTON PERMISSION LEVELS, BACKLIGHT, DAYLIGHT SAVINGS CLOCK ADVANCE OPTION, REAL-TIME CLOCK FUNCTION; CURRENT TIME/DAY DISPLAY FUNCTION, BUILT-IN ROOM SENSOR, SERVICE MODE SUPPORT (INDOOR UNIT CYCLE DATA MONITORING, OPTION CODE MONITORING AND SETTINGS, AND DIP SWITCH STATE MONITORING). ADJUSTABLE HEATING TEMPERATURE COMPENSATION VALUES. AND

TIME SYNCHRONIZATION WITH DMS 2.5 CENTRAL CONTROL GATEWAYS. MOUNT

CONTROLLER 48" ABOVE FINISH FLOOR. PROVIDE LEXON LOCKING COVER FOR EACH WALL-MOUNTED THERMOSTAT/CONTROLLER. ALL THERMOSTAT'S/CONTROLLER'S CONTROL

MECHANICAL PIPING LEGEND



PIPING TO BE DEMOLISHED ARE SHOWN IN A DASHED LINETYPE 2. ALL SYMBOLS ARE NOT NECESSARILY USED ON THE CONTRACT DRAWINGS.

ABBREVIATIONS

CD CEILING DIFFUSER CFM CUBIC FEET PER MINUTE CLG CEILING DEMOLISH AND REMOVE DEMO (D) DEMOLISH AND REMOVE DN DOWN EG EXHAUST GRILLE EXIST. EXISTING

EXISTING TO REMAIN

ABOVE

FLEXIBLE CONNECTION LINEAR DIFFUSER MIN. MINIMUM

ABV

(N) NEW NK NECK

OBD OPPOSED BLADE DAMPER R/A RETURN AIR (RE) EXISTING SHOWN RELOCATED & REPLACED WITH NEW

(R) RELOCATE EXISTING & REPLACE WITH NEW RETURN GRILLE RG S/A SUPPLY AIR SUPPLY GRILLE SG

VAV

VFD

S.P. STATIC PRESSURE TRANSFER DUCT T'STAT THERMOSTAT OR TEMPERATURE SENSOR TYP TYPICAL

ON THE CONTRACT DRAWINGS.

WIRE MESH SCREEN ALL SYMBOLS OR ABBREVIATIONS ARE NOT NECESSARILY USED

VARIABLE FREQUENCY DRIVE

VARIABLE AIR VOLUME

MECH SYMBOLS

LOCKING LEXON COVER

#\ REVISION NUMBER THERMOSTAT WITH

CEILING DIFFUSER RETURN REGISTER OR EXHAUST GRILLE

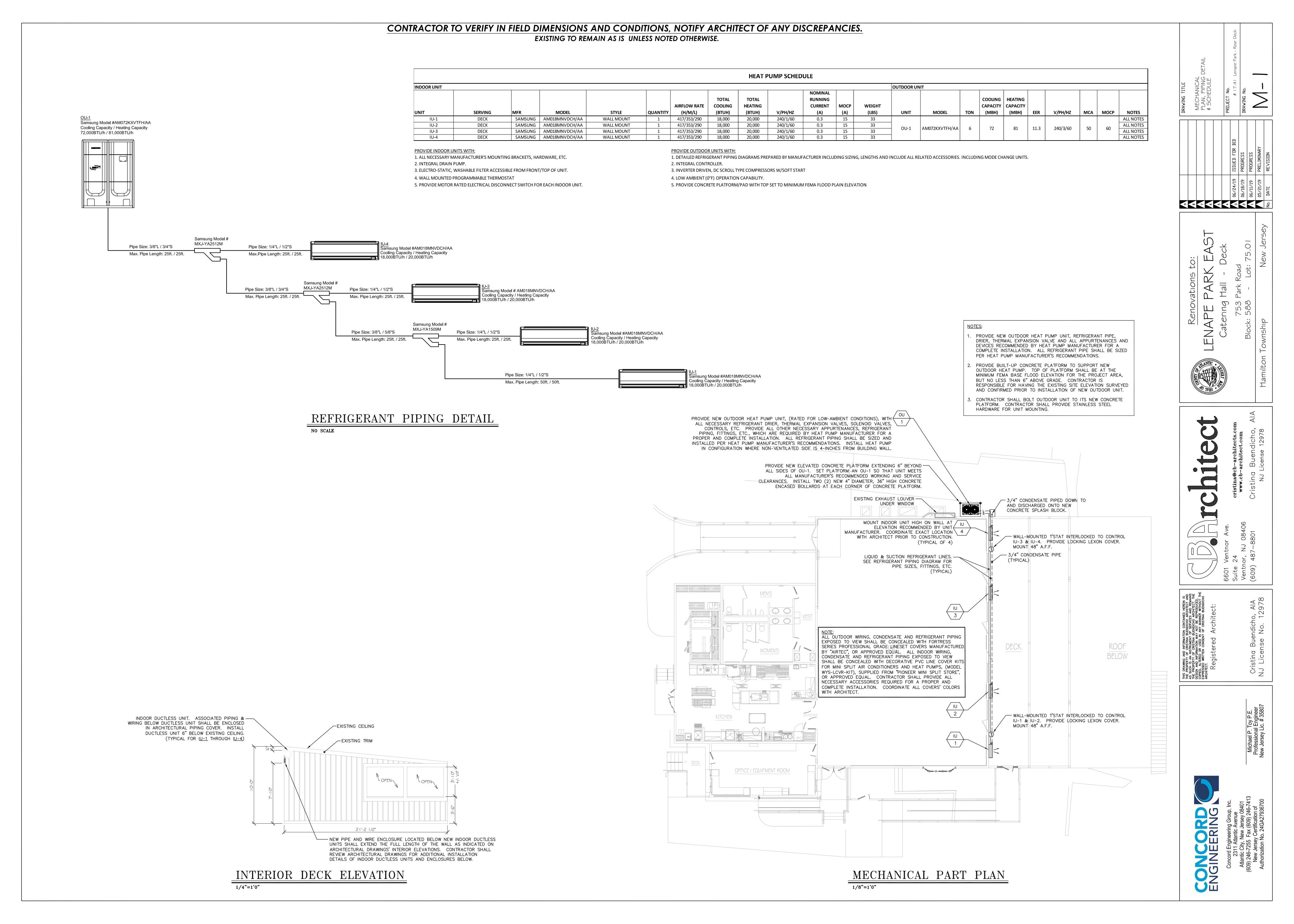
CONNECTION POINT

DISCONNECT POINT

D DUCT SMOKE DETECTOR

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ELECTRICAL LEGEND

HOME RUN ARROW INDICATES PANEL AND CIRCUIT NUMBER

20A, 125V COMMERCIAL GRADE DUPLEX RECEPTACLE

- 20A, 125V COMMERCIAL GRADE QUADRAPLEX RECEPTACLE
- SPECIAL PURPOSE COMMERCIAL GRADE RECEPTACLE
- JUNCTION BOX SIZED PER NEC REQUIREMENTS
- DISCONNECT SWITCH AND POINT OF CONNECTION-SIZED AS REQUIRED. FUSED DISCONNECT SWITCH, 20 AMP SWITCH WITH 15 AMP FUSES.
- RECESSED MOUNTED PANELBOARD
- SURFACE MOUNTED PANELBOARD
- DATA OUTLET
- DECORATIVE SCONCE
- EMERGENCY LIGHTING BATTERY PACK WITH TWO (2) LIGHTS HEADS
- EXIT LIGHTING WITH INTEGRAL EMERGENCY BATTERY PACK
- 20A, 120V, SINGLE POLE LIGHTING SWITCH

EXISTING TO REMAIN

- GROUND FAULT INTERRUPTER
- MAIN LUG ONLY
- EXISTING TO BE REMOVED AND RETURNED TO OWNER
- EXISTING TO BE RELOCATED.
- RLOCATE EXISTING IN LOCATION SHOWN.
- WEATHERPROOF
- DEVICE LISTED AS IN-USE, GFIC, WEATHERPROOF DEVICE
- NEW

1. THE SYMBOLS FOR WORK TO BE DEMOLISHED AND REMOVED ARE THE SAME AS THOSE ABOVE EXCEPT THEY ARE DRAWN WITH A DASHED LINE TYPE. 2. ALL SYMBOLS OR ABBREVIATIONS ARE NOT NECESSARILY USED ON THE CONTRACT DRAWINGS.

ELECTRICAL GENERAL NOTES

- 1. ALL ELECTRICAL WORK TO BE INSTALLED IN ACCORDANCE WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED BY THE UNIFORM CONSTRUCTION CODE -STATE OF NEW JERSEY AND ANY OTHER PARTY HAVING JURISDICTION.
- 2. ALL ELECTRICAL MATERIALS AND EQUIPMENT FOR THE PROJECT SHALL BE NEW AND APPROVED BY UNDERWRITERS LABORATORY (U.L.) OR ANY OTHER NATIONALLY RECOGNIZED TESTING AGENCY UNLESS NOTED OTHERWISE ON DRAWINGS.
- 3. ALL NECESSARY PERMITS, INSPECTIONS, AND LICENSES SHALL BE PROCURED AND ALL FEES PAID BY THE CONTRACTOR. SUBMIT TO THE OWNER DUPLICATE CERTIFICATES OF INSPECTION FROM THE APPROVED INSPECTION AGENCY.
- 4. UPON COMPLETION OF THE WORK. THE ENTIRE WIRING SYSTEM SHALL BE FREE FROM GROUNDS, SHORT CIRCUITS, OPENS, OVERLOADS AND IMPROPER VOLTAGES.
- 5. PRIOR TO FINAL ACCEPTANCE OF THE WORK, A WRITTEN STATEMENT SHALL BE SUBMITTED TO THE OWNER GUARANTEEING ALL EQUIPMENT AND SYSTEMS AGAINST DEFECTIVE MATERIAL AND WORKMANSHIP FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE. UPON NOTICE ALL DEFECTIVE EQUIPMENT, MATERIALS AND SYSTEMS SHALL BE PROMPTLY REPAIRED AT NO EXPENSE TO THE OWNER.
- 6. THIS SET OF DRAWINGS IS DIAGRAMMATIC IN NATURE AND INDICATES THE GENERAL ARRANGEMENT OF THE VARIOUS SYSTEMS AND APPROXIMATE LOCATIONS OF THE EQUIPMENT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THERE IS ADEQUATE SPACE AT THE LOCATIONS INDICATED FOR ALL EQUIPMENT PRIOR TO INSTALLATION OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. BECAUSE OF DIAGRAMMATIC LAYOUT AND SMALL SCALE OF DRAWINGS, NOT ALL CONDUIT, FIXTURES, DEVICES AND RELATED SPECIALTIES ARE INDICATED. PROVIDE ALL SUCH DEVICES AND SPECIALTIES REQUIRED IN SUCH CASES TO INSURE A COMPLETE AND PROPERLY OPERATING INSTALLATION IN ACCORDANCE WITH CODES AND WITHOUT EXTRA COST TO THE OWNER.
- ELECTRICAL CONTRACTOR SHALL SECURE SHOP DRAWINGS FROM OTHER CONTRACTORS AND VERIFY EXACT ELECTRICAL CHARACTERISTICS OF EQUIPMENT TO BE WIRED PRIOR TO ROUGH-IN. IF DISCREPANCIES ARE NOTED BETWEEN THE ELECTRICAL CONTRACT DRAWINGS AND OTHER CONTRACTOR SHOP DRAWINGS. ELECTRICAL CONTRACTOR IS TO NOTIFY ENGINEER AT ONCE. FAILURE TO PERFORM THIS DUTY WILL NOT RELIEVE THE ELECTRICAL CONTRACTOR OF THE RESPONSIBILITY TO CORRECT WIRING DEFICIENCIES AT NO EXPENSE TO THE OWNER.
- 8. ALL DEVICES OR EQUIPMENT SHOWN IN SYMBOL FORM SHALL BE WIRED TO ITS RESPECTIVE PANEL.
- 9. FEEDER AND BRANCH CIRCUIT WIRING SHALL BE COPPER, 600 VOLT CONDUCTOR INSULATION TYPE THHN. THE MINIMUM SIZE 600 VOLT CONDUCTOR SHALL BE #12 AWG FOR POWER AND LIGHTING BRANCH CIRCUIT WIRING. THE MINIMUM SIZE CONDUIT SHALL BE 3/4". ALL CIRCUIT WIRING SIZES LARGER THAN #10 AWG SHALI BE STRANDED AND SMALLER CONDUCTORS SHALL BE SOLID. BRANCH CIRCUITS 100 TO 200 FEET IN LENGTH UTILIZING #12 AWG WIRE SHALL BE INCREASED TO #10 AWG TO THE CENTER OF THE CIRCUIT LOAD AND #12 WIRE TO THE REMAINING DEVICES BEYOND THE LOAD CENTER.
- 10. ALL INTERIOR WIRING SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING OR METAL CLAD CABLE AND CONCEALED IN WALLS OR IN HUNG CEILING SPACE. WHERE WIRING CANNOT BE CONCEALED IN FINISHED AREAS, IT SHALL BE RUN EXPOSED IN A NEAT MANNER VIA SURFACE RACEWAY. MINIMUM CONDUIT SIZE SHALL BE 3/4"
- 11. ALL EXTERIOR WIRING SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT WITH WATERTIGHT FITTINGS, AND SHALL BE RUN IN A NEAT MANNER. MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS OTHERWISE NOTED.
- 12. ALL WIRING, CONNECTIONS AND DEVICES SHALL BE PROVIDED TO COMPLY WITH THE GROUNDING REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND THE DRAWINGS UNLESS NOTED OTHERWISE. ALL EXPOSED NON-CURRENT CARRYING ELECTRICAL EQUIPMENT METALLIC PARTS, RACEWAY SYSTEMS AND WIRING SYSTEM GROUNDING CONDUCTORS SYSTEM SHALL BE GROUNDED.
- 13. PROVIDE A SEPARATE, GREEN-COLORED, INSULATED EQUIPMENT GROUNDING CONDUCTOR WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY. THIS CONDUCTOR SHALL BE SEPARATE FROM THE ELECTRICAL SYSTEM NEUTRAL CONDUCTOR. TERMINATE EACH END OF THIS GROUNDING CONDUCTOR ON A U.L. LISTED LUG, BUS OR BUSHING. THE GROUNDING CONDUCTOR SIZE SHALL BE IN ACCORDANCE WITH 2014 NEC, TABLE 250.122.
- 14. THE ELECTRICAL CONTRACTOR SHALL LABEL WITH PERMANENT MARKER ALL JUNCTION BOXES AND RECEPTACLE OUTLET BOXES WITH CIRCUIT NUMBER AND PANEL
- 15. ALL CUTTING AND PATCHING REQUIRED FOR THE ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

- 16. PANEL BOARD DIRECTORIES SHALL BE TYPED, AND UPDATED INDICATING NEW CIRCUITING AND DEVICE DESCRIPTION AS SHOWN ON DRAWINGS.
- 17. ALL COMPONENTS OF SYSTEMS REQUIRING TO BE MODIFIED OR EXTENDED SHALL BE INSPECTED AND RETURNED TO A FIRST-CLASS OPERATING CONDITION. COMPONENTS SHALL BE CLEANED AND REPAINTED IF NECESSARY.
- 18. ALL HOLES OR VOIDS CREATED TO ROUTE CONDUIT OR METAL CLAD CABLE THROUGH FIRE-RATED FLOORS, CEILINGS, AND WALLS SHALL BE PROTECTED WITH A 3-HOUR RATED, APPROVED FIRESTOP SYSTEM EQUAL TO 3M FIRE BARRIER CAULK, PUTTY, STRIP AND SHEET FORM, CAPABLE OF EXPANDING UP TO 8 TO 10 TIMES WHEN EXPOSED TO A TEMPERATURE OF 250 DEGREES FAHRENHEIT AND ABOVE. FIRESTOP SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ASME E814 (U.L. 1479) AND 2014 NEC ARTICLE 300.21.
- 19. A COMPLETE SET OF "AS-BUILT" DRAWINGS, TWO (2) SETS IN HARD COPY REPRODUCIBLE AND TWO (2) SETS OF ELECTRONIC FILES PRODUCED IN PDF FORMAT ON CD'S SHALL BE FURNISHED TO THE OWNER UPON PROJECT COMPLETION. ALL CHANGES RESULTING FROM REQUESTS FOR INFORMATION (RFI'S) OR OWNER APPROVED CHANGE ORDERS (CO'S) OR REQUESTS AGAINST ALLOWANCE (RAA'S) SHALL BE REFERENCED ON "AS-BUILT" DRAWINGS.
- 20. THE ELECTRICAL WORK RELATING TO THE PROJECT IS SHOWN. OTHER ELECTRICAL AND SYSTEMS COMPONENTS HAVE BEEN LEFT OFF THE DRAWING FOR CLARITY.
- 21. ALL EQUIPMENT, DEVICES AND CIRCUITS SHALL BE LABELED ACCORDING TO OWNER REQUIREMENTS.
- 22. THE ELECTRICAL CONTRACTOR SHALL NOT UTILIZE A "COMMON NEUTRAL" ON MULTIPLE BRANCH CIRCUITS. EACH SUCH CIRCUIT SHALL BE RUN WITH ITS OWN DEDICATED NEUTRAL WIRE.
- 23. ALL SYSTEM CABLE SHALL BE PLENUM RATED OR RUN IN CONDUIT. SYSTEM CABLE EXPOSED TO PHYSICAL DAMAGE SHALL BE RUN IN CONDUIT. SYSTEM CABLE LOCATED ABOVE ACCESSIBLE CEILINGS SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE. CABLES SHALL NOT BE LAID ON CEILING TILES.
- 24. ALL WIRING AND EQUIPMENT INSTALLED IN DUCTS, PLENUMS AND OTHER AIR HANDLING SPACES TO CONFORM TO 2014 NEC, ARTICLE 300.22.
- 25. THE ELECTRICAL CONTRACTOR SHALL ASSURE THAT ANY ELECTRICAL DEVICE OR PRODUCT WHICH IS TO BE RELOCATED, IS IN PROPER WORKING CONDITION IN ACCORDANCE WITH INSTRUCTIONS INCLUDED IN ITS LISTING OR LABELING. ANY DEVICE OR PRODUCT FOUND TO BE DEFECTIVE OR DAMAGED SHALL BE REPLACED WITH NEW.
- 26. SITE VISIT PRIOR TO BID SUBMISSION:
 - A. PRIOR TO BID SUBMISSION. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS. BIDS AS SUBMITTED WILL BE INTERPRETED TO INCLUDE ALL COSTS AND CHARGES MADE NECESSARY BY EXISTING CONDITIONS.
- B. ELECTRICAL CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL SERVICES IN THE FIELD AFFECTED BY THIS WORK BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY IN THE EVENT OF EXISTING UTILITIES VARY APPRECIABLY FROM THOSE SHOWN ON DRAWINGS.
- 27. WHERE CONDUIT RUNS CROSS STRUCTURAL EXPANSION JOINTS, LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED TO TRANSITION CONDUIT SYSTEM FROM ONE STRUCTURAL SECTION TO THE OTHER.
- 28. WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH THE SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION DEVICE RATING. THE MARKING SHALL BE READILY VISIBLE AND CONFORM TO ARTICLE 110.22 OF THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE.
- 29. CONTRACTOR TO PROVIDE RECEPTACLES TO MATCH PLUGS FURNISHED WITH EQUIPMENT.
- 30. ELECTRICAL CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL ELECTRICAL DEVICES WITH MILLWORK CONTRACTOR AND ARCHITECT PRIOR TO ROUGH-IN.
- 31. LIGHTING AND POWER BRANCH CIRCUIT PANEL BOARDS FOR 120/240 VOLTS SERVICE SHALL BE BOLT-ON CIRCUIT BREAKER TYPE EQUIPPED WITH QUICK-MAKE, QUICK-BREAK, TRIP INDICATING, MOLDED CASE, THERMAL-MAGNETIC CIRCUIT BREAKERS.
- 32. PANEL BOARDS SHALL BE DEAD-FRONT, SAFETY-TYPE AND SHALL CONTAIN MAIN LUG RATINGS, BRANCH CIRCUIT BREAKERS, SPACES AND COPPER BUSSES AS INDICATED

ELECTRICAL DEMOLITION NOTES

- IT IS THE INTENT THAT ALL EXISTING CONDUIT, CONDUCTORS, FIXTURES AND OTHER EQUIPMENT AND MATERIALS THAT INTERFERE WITH THE ALTERED EXISTING BUILDING ARRANGEMENTS AND NEW SYSTEMS ONBETHRENDORAEMINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT ARE TO BE REMOVED, RELOCATED, REROUTED OR ABANDONED. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. HOWEVER, THEIR REMOVAL, RELOCATIONS, REROUTING OR ABANDONMENT SHALL ALSO BE INCLUDED IN THIS CONTRACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO THE PANEL.
- ALL EXISTING ELECTRICAL DEVICES TO BE DEMOLISHED MAY NOT BE SHOWN. CONTRACTOR SHALL DURING PRE-BID SITE VISIT DETERMINE EXTENT OF DEMOLITION AND INCLUDE COST OF THIS WORK IN BID. SHOULD A CONTRACTOR REQUIRE REMOVAL, RELOCATION OR REROUTING OF ANOTHER TRADE'S WORK THAT IS NOT INDICATED ON DRAWINGS, THE CONTRACTOR REQUIRING SUCH WORK SHALL BE RESPONSIBLE FOR THAT WORK, AND PAY ALL REQUIRED COSTS. ALL UNKNOWN BELOW SLAB CONDUIT ENCOUNTERED DURING INSTALLATION OF NEW WORK SHALL BE CAPPED OFF AT ACTIVE MAIN OR BRANCH. ALLOWANCE SHALL BE MADE FOR THESE ITEMS IN BID PRICE.
- EXISTING EQUIPMENT AND MATERIALS THAT ARE TO REMAIN, BUT BECOME EXPOSED DUE TO NEW WORK, SHALL BE RELOCATED AND RECONNECTED AS DIRECTED BY OWNER.
- ALL WORK INVOLVING ALTERATIONS TO EXISTING SYSTEMS. EQUIPMENT AND MATERIALS SHALL BE REVIEWED WITH ARCHITECT AND OWNER BEFORE BEGINNING WORK.
- REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE STORAGE LOCATION DESIGNATED BY
- THE CONTRACTOR MUST SURVEY AND VERIFY LOCATIONS AND PHYSICAL SIZES OF ALL EXISTING ITEMS AND DETERMINE WHETHER RELOCATION OR REROUTING WILL BE REQUIRED. IF RELOCATION OR REROUTING IS REQUIRED, INCLUDING THAT OF ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WORK AS PART OF HIS CONTRACT AND IT SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN PARTICULAR TRADE INVOLVED, THAT IS, PLUMBING WORK SHALL BE PERFORMED BY PLUMBERS. ELECTRICAL WORK SHALL BE PERFORMED BY ELECTRICIANS, MECHANICAL WORKED PERFORMED BY STEAM FITTERS AND SHEET METAL MECHANICS.
- 9. ALL WORK SHALL BE INSPECTED, TESTED AND APPROVED BY THE PROPER AUTHORITIES HAVING JURISDICTION. CERTIFIED COPIES OF THESE APPROVALS SHALL BE DELIVERED TO THE OWNER BEFORE FINAL PAYMENT.
- 10. ALL CUTTING AND PATCHING REQUIRED FOR THE ELECTRICAL DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 11. ALL COMPONENTS OF EXISTING SYSTEMS REQUIRED TO BE MODIFIED, EXTENDED OR REUSED SHALL BE INSPECTED AND RETURNED TO A FIRST-CLASS OPERATING CONDITION. COMPONENTS SHALL BE CLEANED AND REPAINTED IF NECESSARY.
- 12. ALL DEMOLISHED MATERIALS SHALL BE CAREFULLY REMOVED FROM THE PREMISES BY THE MOST DIRECT PATH. ANY DAMAGE INCURRED BY THE REMOVAL PROCESS SHALL BE REPAIRED TO MATCH THE SURROUNDING WORK AND LEFT IN SATISFACTORY CONDITION. ALL AREAS SHALL BE CLEANED OF ALL DIRT AND DEBRIS RESULTING FROM DEMOLITION.
- 13. ALL HOLES OR VOIDS CREATED TO ROUTE CONDUIT OR METAL CLAD CABLE THROUGH FIRE RATED FLOORS AND WALLS SHALL BE SEALED WITH AN INTUMESCENT MATERIAL CAPABLE OF EXPANDING UP TO 8 TO 10 TIMES WHEN EXPOSED TO A TEMPERATURE OF 250 DEGREES FAHRENHEIT AND ABOVE. ACCEPTABLE SEALING MATERIAL SUCH AS 3M FIRE BARRIER CAULK, PUTTY, STRIP AND SHEET FORM SHALL HAVE I.C.B.O. AND BOCA APPROVED RATING OF 3 HOURS PER ASTM E-814 (U.L. 1479).

PHASING NOTES:

- 1. THE LAKE LENAPE CATERING HALL SHALL BE ALLOWED TO REMAIN CONTINUOUSLY OCCUPIED THROUGHOUT THE CONSTRUCTION SCHEDULE OF THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UNENCUMBERED OPERATION OF, AND ACCESS TO AND FROM THE CATERING HALL THROUGHOUT THE PROJECT. ALL CORRIDORS, HALLWAYS, EXITS, MEANS OF EGRESS, ETC., SHALL BE KEPT CLEAR AT ALL TIMES. CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES OR STRUCTURES NECESSARY TO MAINTAIN UNENCUMBERED OPERATION OF THE BUILDING BY STAFF AND THE PUBLIC
- 2. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION FOR ALL EXISTING MECHANICAL, PLUMBING, ELECTRICAL, FIRE ALARM, COMMUNICATIONS, DATA EQUIPMENT AND A/V SYSTEMS SERVING THE BUILDINGS WHICH MAY BE AFFECTED BY THE WORK OF THE PROJECT. SERVICES MAY NOT BE INTERRUPTED TO THE BUILDINGS WITHOUT PRIOR APPROVAL FROM THE COUNTY, NO LESS THAN TWO (2) WEEKS IN ADVANCE OF THE INTERRUPTION. CONTRACTOR SHALL COORDINATE WITH THE COUNTY, ÀS TO THE LOCATION OF ANY TEMPORARY PROTECTION FACILITIES REQUIRED PRIOR TO INSTALLATION.
- S. CONTRACTOR SHALL PROVIDE ANY TEMPORARY UTILITIES NECESSARY TO MAINTAIN CONTINUOUS OPERATION OF THE CATERING HALL'S MECHANICAL, PLUMBING, ELECTRICAL AND FIRE ALARM SYSTEMS DURING THE PROJECT. ANY TEMPORARY SHUTDOWN REQUIRED SHALL BE COORDINATED WITH OWNER NO LESS THAN TWO (2) WEEKS IN ADVANCE OF THE SHUTDOWN(S).

CONTINUITY OF EXISTING SYSTEMS

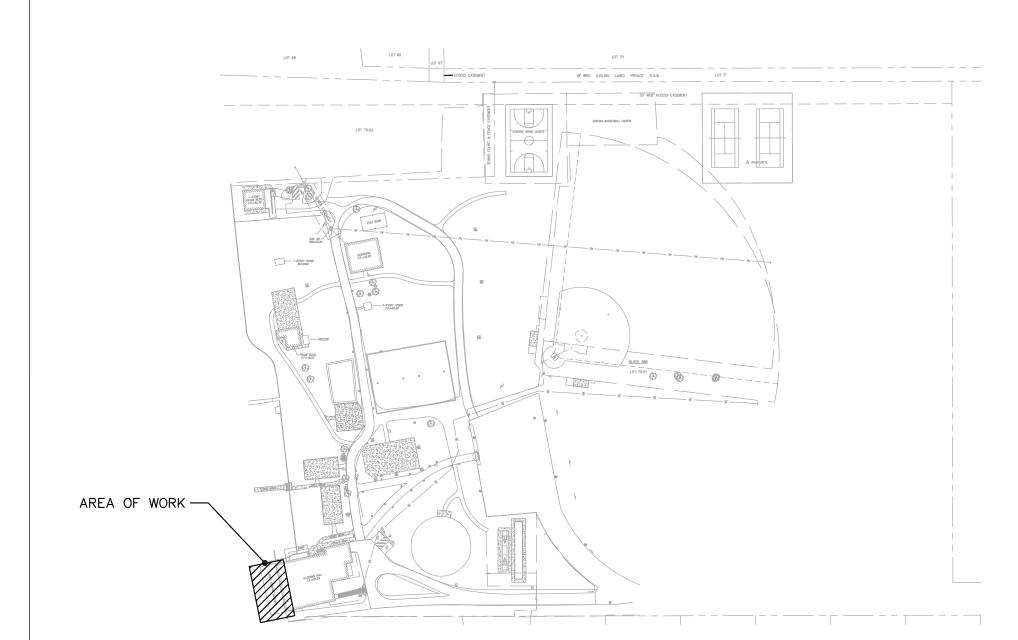
- BUILDINGS SHALL REMAIN FULL OCCUPIED THROUGHOUT CONSTRUCTION. ALL MECHANICAL, PLUMBING, POWER, DATA, FIRE ALARM, SECURITY AND A/V SYSTEMS SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION AND REMAIN FULLY OPERATIONAL DURING ALL PERIODS OF BUILDINGS'
- COORDINATE WORK INVOLVING ANY INTERRUPTION OF EXISTING POWER, DATA, VOICE, FIRE ALARM, SECURITY AND A/V SYSTEMS WITH OWNER.
- ALL SERVICE AND SYSTEM INTERRUPTIONS SHALL OCCUR ONLY DURING PERIODS WHEN THE BUILDING IS NOT OCCUPIED AS DETERMINED AND APPROVED BY THE OWNER. PROVIDE TEMPORARY FACILITIES TO MEET THESE
- 4. ALL COSTS REQUIRED TO PERFORM THIS WORK SHALL BE BORNE BY THE CONTRACTOR AND INCLUDED IN THE BID PRICE.
- EXISTING SYSTEMS AND SERVICES THAT ARE TEMPORARILY DISCONNECTED, BUT ARE TO REMAIN IN USE, SHALL BE PERMANENTLY RECONNECTED AND RETURNED TO THEIR PROPER OPERATION.

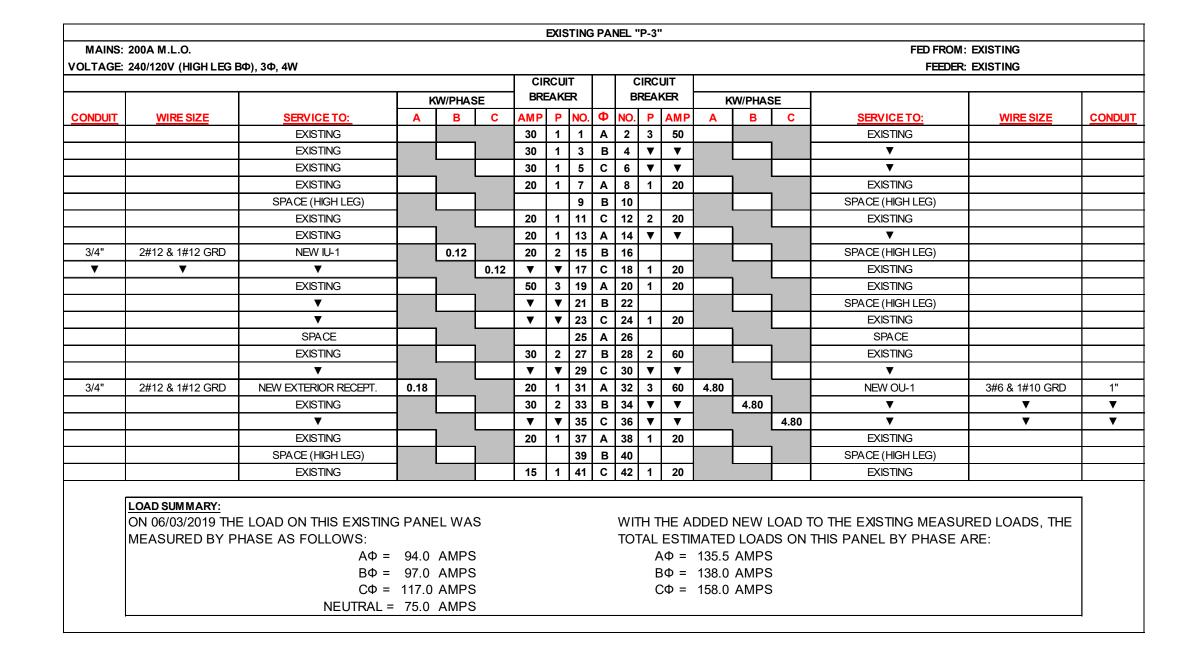
IF A DISCREPANCY OCCURS BETWEEN THE DRAWING SPECIFICATIONS AND THE DIVISION 1 AND/OR DIVISIONS 15 AND 16 TECHNICAL SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND ARCHITECT OF ANY SUCH

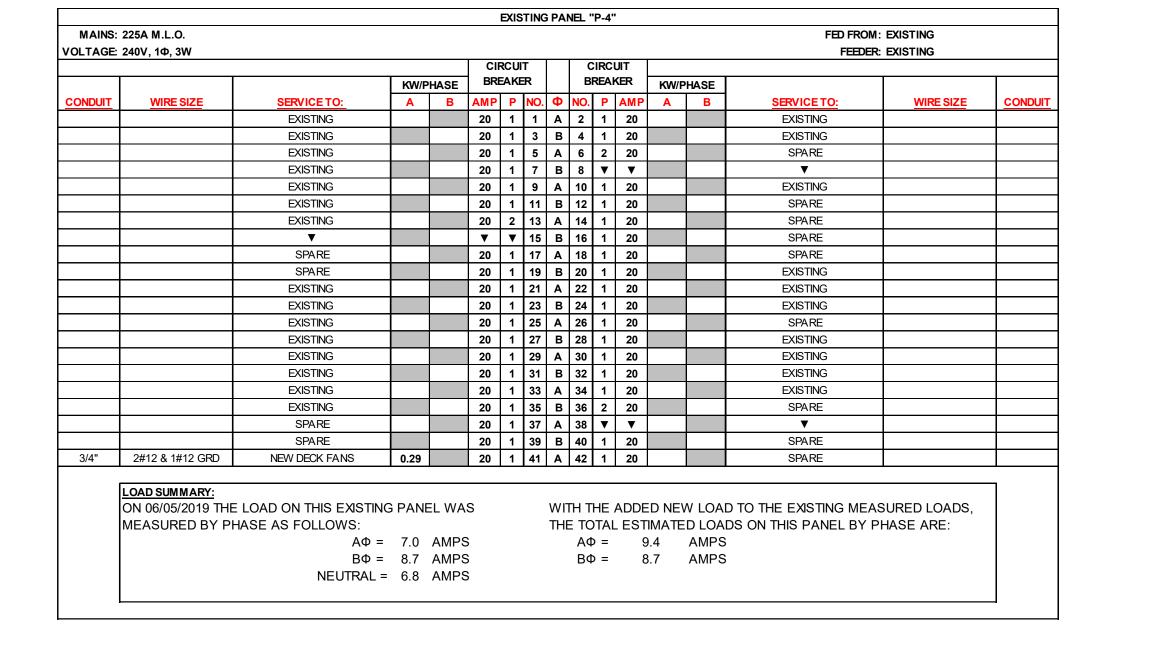
DISCREPANCIES.

CONTRACTOR MAY SUBSTITUTE SPECIFIED MANUFACTURER'S EQUIPMENT, DEVICES, SYSTEMS, MATERIALS, ETC., IF THE SUBSTITUTED ITEM IS AMERICAN MANUFACTURED, NOT A DEVIATION FROM THE SPECIFIED ITEM'S SIZE, FEATURES, QUALITY, OR AVAILABILITY, ETC., AS SET FORTH IN THE CONTRACT DRAWINGS, TECHNICAL SPECIFICATIONS, ETC. IT IS UNDERSTOOD THAT SUBSTITUTED ITEMS WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, SUBJECT TO THE OVERALL TERMS OF THE CONTRACT TO BE AWARDED BY THE OWNER, AND THAT NO ADDITIONAL COSTS ASSOCIATED WITH CHANGES TO ANY TRADES WORK, INCLUDING ADDITIONAL DESIGN SERVICES OR DELIVERY CHARGES, WILL BE ALLOWED. SHOULD EQUIVALENT ITEMS OF OTHER MANUFACTURERS BE SUBMITTED BY THE CONTRACTOR, I SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND BEAR AT NO EXTRA COST TO OWNER, ALL CHANGES TO THE DESIGNED GENERAL CONSTRUCTION, MECHANICAL AND ELECTRICAL SYSTEMS, THAT ARE REQUIRED BY THE USE OF THE SUBSTITUTED ITEMS, INCLUDING COST OF ARCHITECT'S AND ENGINEER'S REDESIGN EFFORTS. ALL SUBSTITUTIONS SHALL BE IN FULL COMPLIANCE WITH NEW JERSEY LOCAL PUBLIC CONTRACTS LAW AND REGULATIONS.

PRE-CONSTRUCTION NOTE:
PRIOR TO PERFORMING ANY WORK, CONTRACTOR SHALL TAKE PICTURES AND/OR VIDEOS OF ALL AREAS AFFECTED BY CONTRACTOR'S WORK TO DOCÚMENT ALL PRE-EXISTING CONDITIONS. CONTRACTOR SHALL MAKE ALL PICTURES AND VIDEOS AVAILABLE TO OWNER AND ARCHITECT UPON REQUEST. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY OPERATION AND CONDITION OF ANY EQUIPMENT, DEVICE, PIPING, WIRING, ETC., WHICH IS TO BE ALTERED, MODIFIED, RELOCATED OR TEMPORARILY REMOVED AND LATER REINSTALLED. NOTIFY OWNER IF ANY ITEM IS NOT OPERATIONAL OR IN POOR CONDITION PRIOR TO PERFORMING ANY WORK.







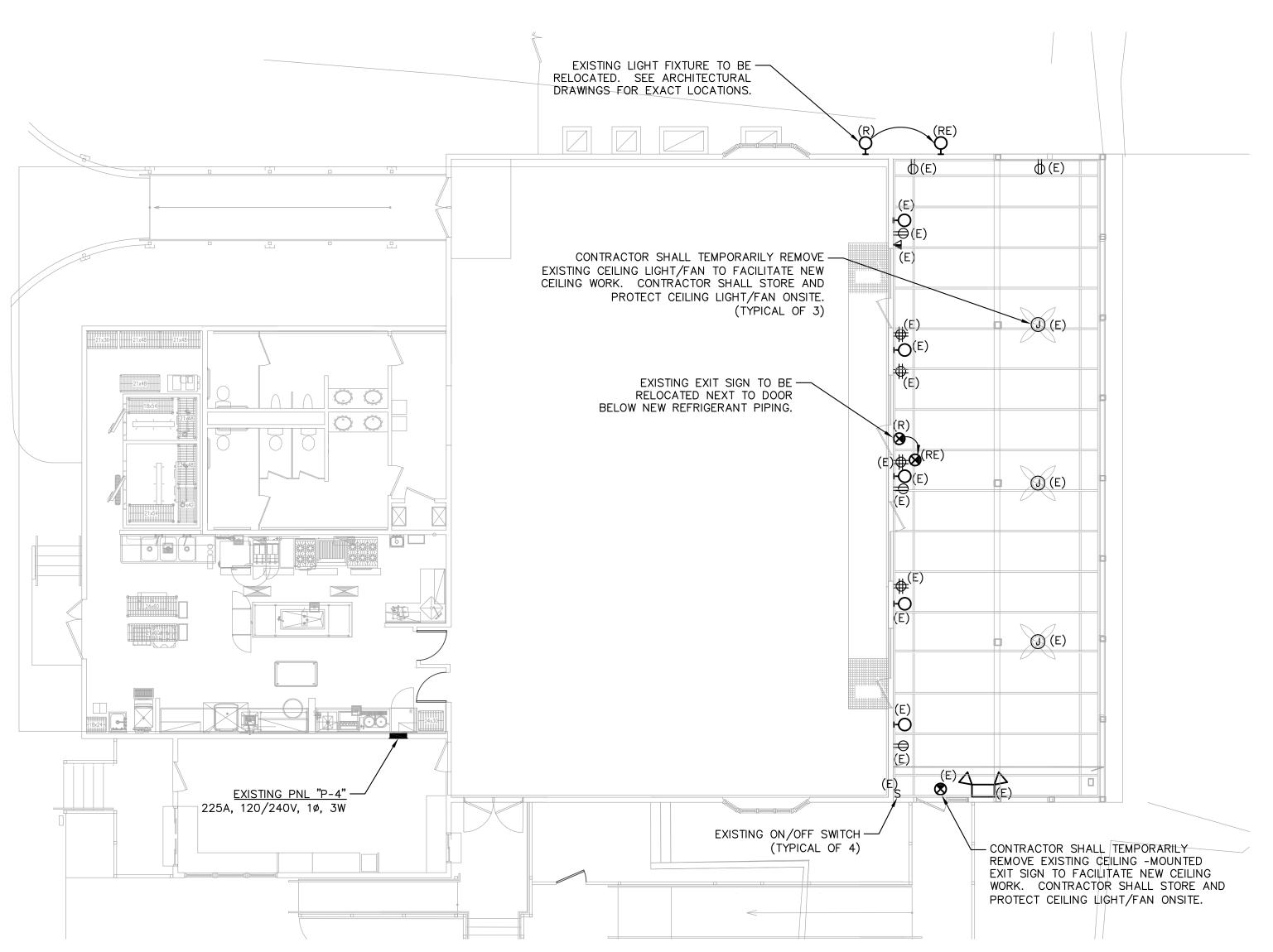
LAKE LENAPE PARK PROJECT KEY PLAN

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CONTRACTOR TO VERIFY IN FIELD DIMENSIONS AND CONDITIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES.

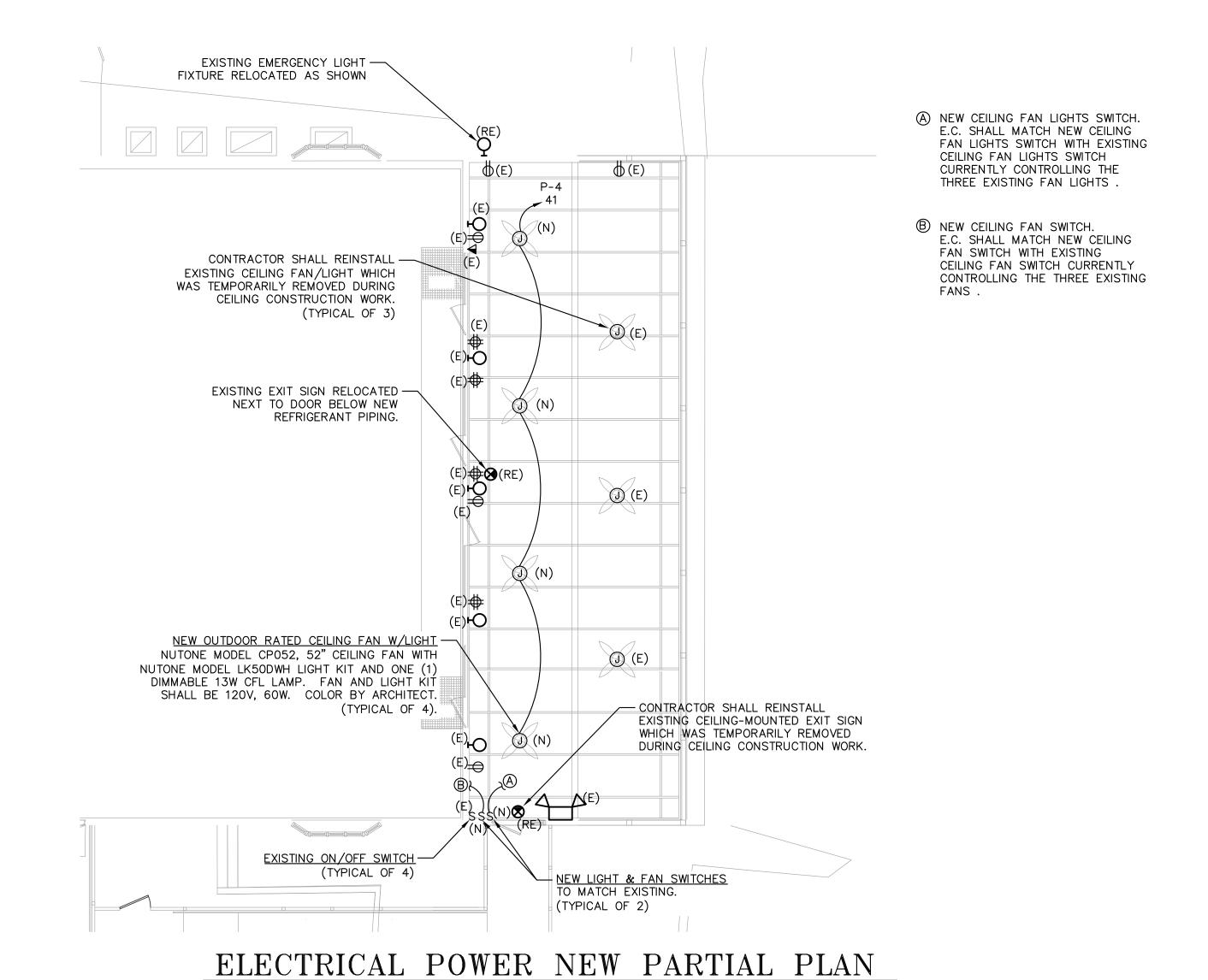
EXISTING TO REMAIN AS IS UNLESS NOTED OTHERWISE.

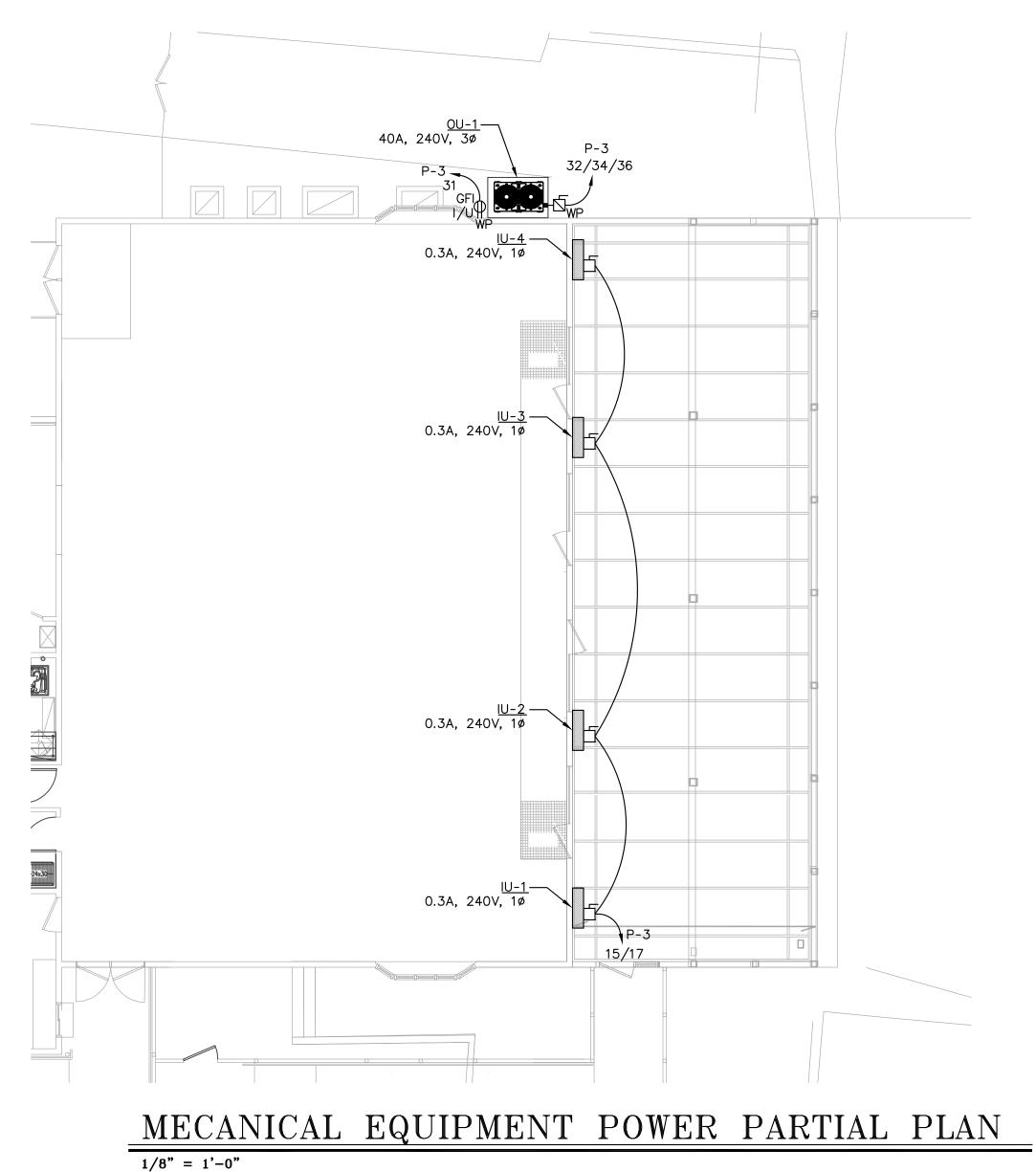


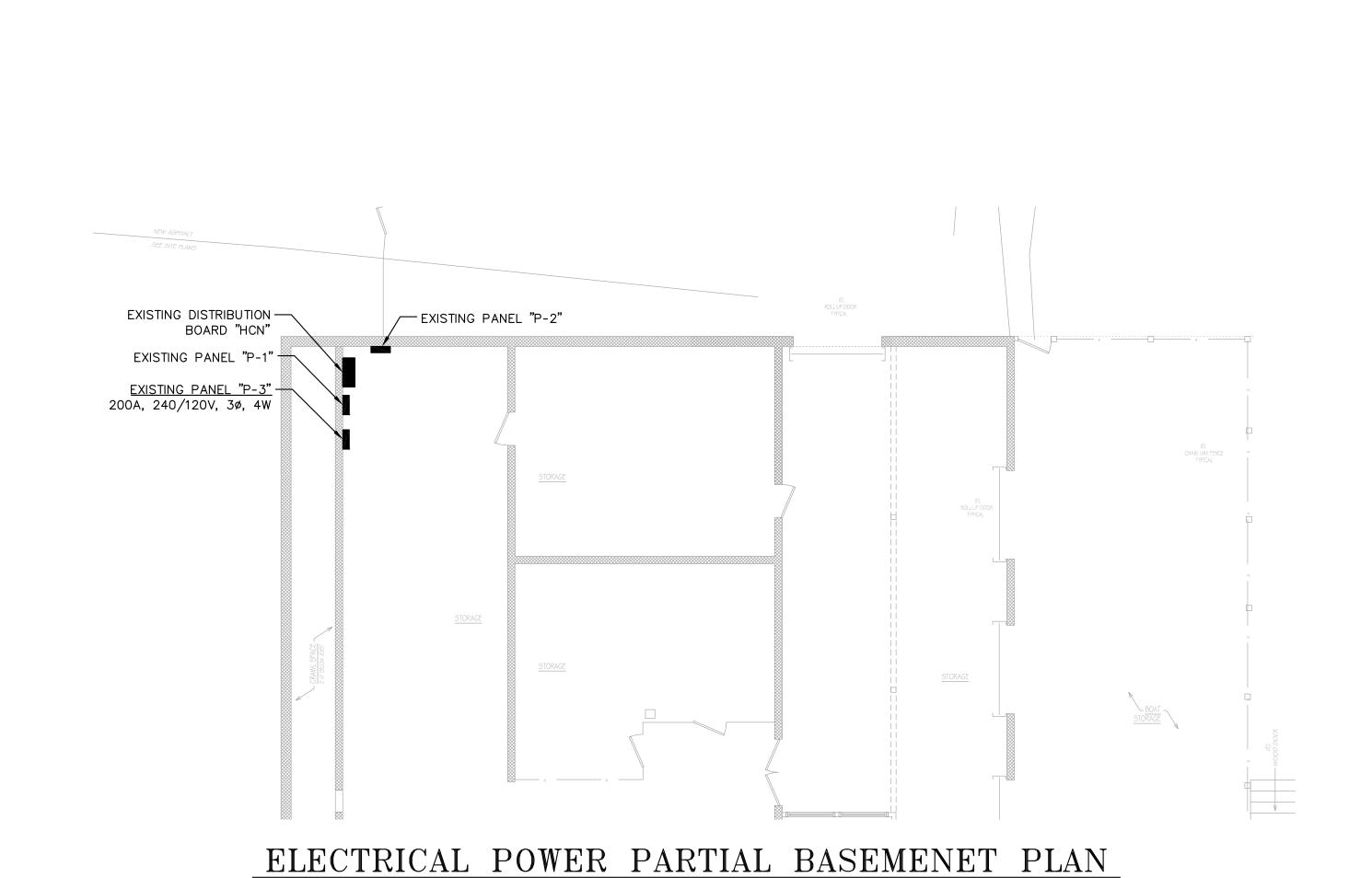
ELECTRICAL DEMOLITION PARTIAL PLAN

1/8" = 1'-0"

1/8" = 1'-0"

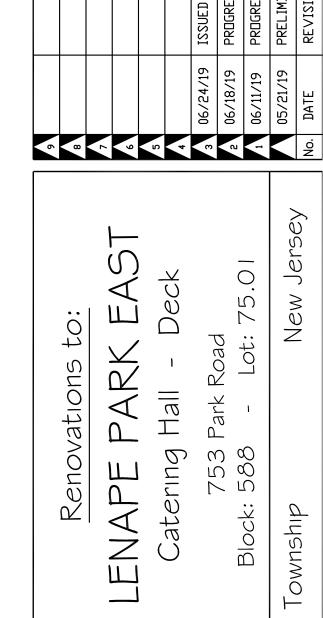


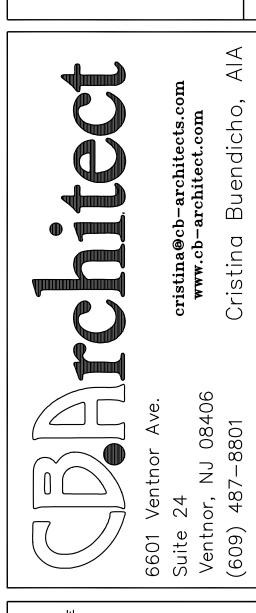




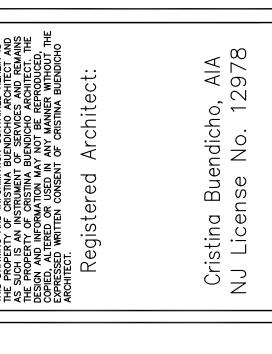
1/8" = 1'-0"

NOTE:
ALL INDOOR EXPOSED WIRING TO VIEW FOR THE NEW SPLITS SHALL BE CONCEALED WITH DECORATIVE PVC LINE COVER KITS FOR MINI SPLIT AIR CONDITIONERS AND HEAT PUMPS, (MODEL WYS-LCVR-KIT), SUPPLIED FROM "PIONEER MINI SPLIT STORE". ALL OUTDOOR WIRING, CONDENSATE AND REFRIGERANT PIPING EXPOSED TO VIEW SHALL BE CONCEALED WITH FORTRESS SERIES PROFESSIONAL GRADE LINESET COVERS MANUFACTURED BY "AIRTEC", OR APPROVED EQUAL. CONTRACTOR SHALL PROVIDE ALL NECESSARY COVER ACCESSORIES REQUIRED FOR A PROPER AND COMPLETE INSTALLATION. COORDINATE ALL ITEMS' COLORS WITH ARCHITECT. ALL INDOOR LINE AND LOW-VOLTAGE WIRING, NOT CONCEALED BY SPECIFIED PIPE COVERS, SHALL BE INSTALLED CONCEALED WITHIN BUILDING CONSTRUCTION. ALL WIRING IN BASEMENT MAY BE INSTALLED IN EXPOSED CONDUIT.

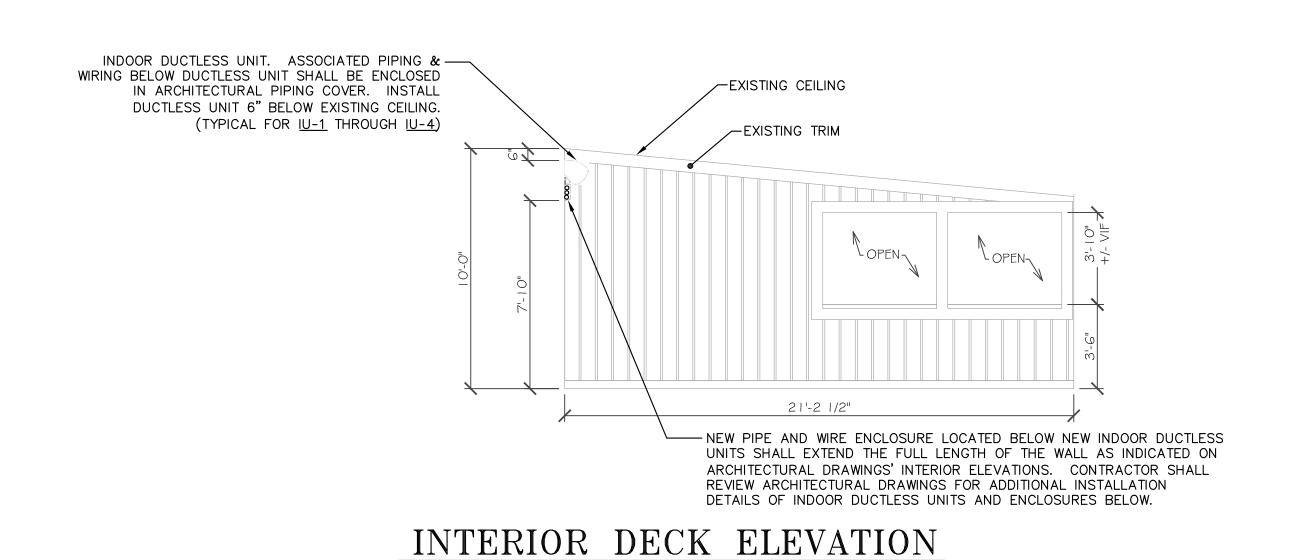




TVIS TO TVIS







1/4"=1'0"

