



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

**A. BASIC ELECTRICAL REQUIREMENTS**

- THE "AIA GENERAL CONDITIONS (A201) OF THE CONTRACT FOR CONSTRUCTION" LATEST EDITION AND THE APPENDED SUPPLEMENTARY GENERAL CONDITIONS ARE PART OF THIS CONTRACT.
- ALL WORK AND MATERIALS SHALL CONFORM WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL BUILDING CODE, STATE REGULATIONS, LOCAL STATE AND FEDERAL AUTHORITY HAVING JURISDICTION.
- SECURE PERMITS AND CERTIFICATES OF APPROVAL. PAY ALL FEES AND CHARGES. DELIVER THE CERTIFICATES TO THE ARCHITECT BEFORE FINAL BILLING.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES, REGULATIONS, BUILDING STANDARDS AND THE BEST PRACTICES OF THE TRADE FOR INSTALLATION OF ELECTRICAL WORK.
- COORDINATE THE INSTALLATION OF ALL WORK WITH THE WORK OF ALL OTHER TRADES. IN THE EVENT THAT ANY WORK IS INSTALLED WITHOUT PROPER PRIOR COORDINATION OR REGARD TO THE WORK OF OTHER TRADES, THIS CONTRACTOR SHALL REMOVE AND RELOCATE HIS WORK TO SUIT REQUIREMENTS OF OTHER TRADES AT NO ADDITIONAL COST TO THE OWNER.
- THIS CONTRACTOR SHALL FURNISH ALL SUPERVISION, LABOR, SERVICES, EQUIPMENT, MATERIAL, TOOLS, TRUCKING, HOISTING AND ERECTING APPARATUS, TRANSPORTATION AND SHALL PAY FOR ALL FEES, PERMITS, INSPECTIONS, CERTIFICATES AND RELATED ITEMS TO PROPERLY CARRY OUT THE CONTRACT WORK TO COMPLETION.
- ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
- ELECTRONIC AS-BUILT DRAWINGS ARE TO BE PROVIDED IN AUTOCAD FORMAT 2002 AT THE COMPLETION OF WORK, REFLECTING AS-BUILT CONDITIONS.
- PRIOR TO INSTALLATION OF ANY RECEPTACLES, SWITCHES, SECURITY DEVICES, TELEPHONE OUTLETS, LIGHTING FIXTURES, ETC. REFER TO ARCHITECTURAL DRAWINGS AND/OR OBTAIN EXACT LOCATIONS & MOUNTING HEIGHTS FROM THE ARCHITECT. PROVIDE TEMPORARY LIGHT AND POWER AS REQUIRED FOR ALL TRADES.
- GOVERNED BY THE AUTHORITIES HAVING JURISDICTION AND OSHA. OWNER SHALL PAY COSTS ASSOCIATED WITH THE ELECTRIC UTILITY CO. DEMAND AND ENERGY CHARGES. a. POWER - MINIMUM CAPACITY - 0.5 KVA PER 1000 SQUARE FEET. b. LIGHTING - MINIMUM CAPACITY - 1/3 WATT PER SQUARE FEET.
- ALL PENETRATIONS OF FIRE RATED WALLS, FLOORS OR CEILINGS SHALL BE SEALED WITH AN APPROVED MATERIAL TO PROVIDE AN EQUAL RATING AS WALL, FLOOR OR CEILING ASSEMBLY BEING PENETRATED. ALL OPENINGS ON WALLS OF ELECTRIC CLOSETS AND TELEPHONE/COMMUNICATION CLOSETS SHALL BE SEALED.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT FOR APPROVAL DETAILED SHOP DRAWINGS AND/OR CATALOG CUTS FOR ALL EQUIPMENT DESCRIBED HEREIN OR ON THE DRAWINGS. SHOP DRAWINGS SHALL BE CLEARLY MARKED TO DEMONSTRATE COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. ALSO PROVIDE PLAN AND ELEVATION SHOP DRAWINGS OF ALL ELECTRIC CLOSETS AND CONDUIT ROUTING PRIOR TO CONSTRUCTION, PROVIDE A LIST OF MANUFACTURERS FOR EACH PIECE OF EQUIPMENT PRIOR TO PURCHASE FOR APPROVAL.
- ALL EQUIPMENT SHALL BE UL LISTED AND IN COMPLIANCE WITH LOCAL CODE.
- CONTRACTOR SHALL SUBMIT TO THE BUILDING OWNER AND TENANT A DETAILED SCHEDULE FOR WORK WITH THE BID PROPOSAL. SCHEDULE SHALL IDENTIFY ALL SPECIFIC MILESTONES AND DATES FOR THE PROJECT.
- THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, SHALL CLEAN ALL SWITCHES, CABINETS, DEVICE PLATES, FIXTURES AND OTHER ITEMS FURNISHED UNDER THIS CONTRACT AND SHALL ENSURE THAT ALL PANELBOARD DIRECTORIES ARE IN PLACE AND COMPLETED OR REVISED AS REQUIRED BY THE WORK AND THAT ALL IDENTIFICATION AND MARKING OF EQUIPMENT, CABLES, JUNCTION BOXES AND OTHER ITEMS IS COMPLETED.
- THE CONTRACTOR SHALL FURNISH A GUARANTEE COVERING LABOR, MATERIALS AND EQUIPMENT FOR A PERIOD OF (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK. HE SHALL AGREE TO REPAIR AND MAKE GOOD, AT HIS OWN EXPENSE, ALL DEFECTS AND OMISSIONS WHICH MAY APPEAR DURING THE TIME OF SAID GUARANTEE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING DETAIL SWITCHBOARD SHOP DRAWINGS INDICATING SWITCHES (LOCATION, BUS TAPS, FEEDERS), ETC. IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUREAU OF ELECTRICAL CONTROLS. OBTAIN APPROVAL FROM BEC PRIOR TO COMMENCING WORK IN THE ELECTRICAL ROOM.
- PROVIDE EXPANSION JOINT WHERE REQUIRED FOR THE INSTALLATION.
- THE CENTER LINE OF ALL OVERCURRENT PROTECTION SHALL NOT EXCEED 6'-6" ABOVE FINISHED FLOOR.
- ALL OUTLETS ON THE EXTERIOR OF THE BUILDING & ROOFTOP SHALL BE GR TYPE AND BE PROVIDED WITH WEATHERPROOF ENCLOSURE.
- ALL ELECTRIC & CONTROL PANELS IN THE MECHANICAL, PUMP & BOILER ROOMS SHALL HAVE A MINIMUM CLEARANCE OF 3'-0" IN FRONT OF PANELS. COORDINATE WITH OTHER TRADES OFFSETS AS REQUIRED.
- PROVIDE 4" CONCRETE PAD ON ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.
- PROVIDE PANIC HARDWARE FOR ALL DOORS LEADING OUT OF ELECTRIC ROOM. COORDINATE WITH ARCHITECT.

**B. RACEWAYS**

- ALL WIRING SHALL BE IN CONDUIT AND CONCEALED. MINIMUM SIZE SHALL BE 3/4".
- ALL RACEWAYS CONDUIT, ETC. SHALL BE MECHANICALLY JOINED TOGETHER INTO A CONTINUOUS ELECTRICAL CIRCUIT. AT ALL BOXES, FITTINGS AND ENCLOSURES, LOCK NUTS AND BUSHINGS SHALL BE USED TO PROVIDE A MECHANICALLY SECURE CONNECTION.
- UNLESS OTHERWISE NOTED, CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT) EXCEPT WHERE SUBJECT TO PHYSICAL DAMAGE, WET LOCATION, UNDERGROUND AND HAZARDOUS AREAS, PROHIBITED BY CODES PROVIDE RIGID GALVANIZED STEEL (RGS). ALL CONDUIT FITTINGS SHALL BE COMPRESSION TYPE.
- FLEXIBLE STEEL CONDUIT SHALL BE USED FOR CONNECTIONS FROM OUTLET BOXES TO LIGHTING FIXTURES, MOTORS, TRANSFORMERS AND TO OTHER EQUIPMENT SUBJECT TO VIBRATION AS PERMITTED BY CODE.
- PROVIDE FLEXIBLE LIQUID CONDUIT TO ALL MECHANICAL EQUIPMENT LOCATED ON ROOF, BUILDING EXTERIOR, PUMP ROOM, WATER METER ROOM & BOILER ROOM.
- RACEWAYS SHALL BE AS MANUFACTURED BY NATIONAL ELECTRIC PRODUCTS, TRIANGLE & REPUBLIC STEEL OR APPROVED EQUAL.
- TYPE 'AC' [BX] STEEL ARMORED CABLES MAY BE USED FOR LIGHTING AND POWER BRANCH CIRCUITS IN HUNG CEILING AND IN DRY-WALL PARTITIONS, EXCEPT ALL HOMERUNS SHALL BE WIRED IN CONDUIT. TYPE 'AC' CABLE MAY NOT BE RUN IN ELECTRICAL CLOSET. 'MC' CABLE SHALL BE UTILIZED IN PLACES OF ASSEMBLY & APARTMENT FEEDERS. PROVIDE SEPARATE EQUIPMENT GROUND CONDUCTOR IN ALL 'MC' CABLES WHERE NOT SUBJECT TO CORROSIVE CONDITIONS.
- ALL CONDUIT INSTALLED IN THE GARAGE SHALL BE RIGID GALVANIZED STEEL WITH THREADED FITTINGS.
- ALL CONDUIT INSTALLED IN GAS METER ROOM SHALL BE RIGID GALVANIZED CONDUIT.

**C. WIRE AND CABLE**

- UNLESS OTHERWISE SPECIFIED OR SPECIFICALLY INDICATED ON THE DRAWINGS, ALL CONDUCTORS FOR LIGHTING AND POWER SHALL BE TINNED SINGLE CONDUCTOR ANNEALED COPPER BUILDING WIRES OF MINIMUM 98% CONDUCTIVITY WITH DISTINCTIVE COLOR MARKING, 600 VOLT INSULATION, COLOR CODED AS SPECIFIED HEREINAFTER. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID TYPE, THIN/TWLN, #8 AWG AND LARGER SHALL BE STRANDED, TYPE THHN/TWLN.
- WIRING FOR LIGHTING AND POWER WITHIN THE APARTMENT SHALL BE #12 AWG MINIMUM. CONTROL WIRING SHALL BE #18 AWG MINIMUM, UNLESS OTHERWISE INDICATED ON THE SCHEDULES. BRANCH CIRCUIT HOMERUN CONDUCTORS EXCEEDING 75 FEET SHALL BE INCREASED TO # 10 AWG, MINIMUM.
- PROVIDE A MINIMUM WIRE SIZE OF NO. 10 AWG FOR HOUSE LIGHTING & POWER. FEEDER RUNS OVER 75' SHALL BE NO. 8 AWG UNLESS NOTED ON SCHEDULES.
- COLOR CODES FOR WIRING SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS.
- FEEDER AND BRANCH CIRCUIT WIRE SIZES SHALL BE ADJUSTED AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP.
- ALL CONDUCTORS INSTALLED EXPOSED IN HUNG CEILING SHALL BE PLENUM RATED.
- PROVIDE A SAFETY GROUND CONDUCTOR IN EACH RACEWAY FOR FEEDERS AND BRANCH CIRCUITS
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH RECEPTACLE & EQUIPMENT CIRCUIT.

**D. ELECTRICAL BOXES AND FITTINGS**

- OUTLET BOXES: GALVANIZED, SHEET-STEEL WITH MOUNTING HOLES, CABLE AND CONDUIT SIZED KNOCKOUT OPENINGS IN BOTTOM AND SIDES, COVER AND GROUNDING SCREWS.
  - LIGHTING FIXTURE BOX: 4 INCH OCTAGON WITH 3/8 INCH SIGNAL STUD.
  - DEVICE BOXES: NOMINAL 4 INCH SQUARE MINIMUM 2-1/8 INCHES DEEP OR AS REQUIRED. MULTI-DEVICE BOXES SHALL BE OF THE MULTI-GANG TYPE.
- JUNCTION, PULL AND SPLICE BOXES: GALVANIZED CODE-GAUGE SHEET-STEEL, JUNCTION AND PULL BOXES, WITH SCREW-ON COVERS, WELDED SEAMS AND EQUIPPED WITH STAINLESS STEEL NUTS, BOLTS, SCREWS AND WASHERS. BOXES INSTALLED OUTDOORS TO BE FABRICATED OF ALUMINUM AND HAVE COVER GASKETS.
- ALL BOXES, FITTINGS, ETC. INSTALLED IN MECHANICAL, COMPACTOR, REFUSE, TRASH, WATER METER, PUMP, GAS, STEAM & ELEVATOR MACHINE ROOMS SHALL BE SUITABLE FOR WET LOCATION.
- MOUNTING HEIGHTS FOR DEVICES MEASURED FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE OUTLET SHALL BE IN ACCORDANCE WITH THE FOLLOWING UNLESS OTHERWISE NOTED. ALSO COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
  - WALL LIGHT SWITCHES: 4 FEET.
  - WALL RECEPTACLES: 1 FOOT 6 INCHES. (U.O.N.)
  - WALL RECEPTACLES IN MECH. EQUIPMENT ROOM, PUMP RM, WATER METER RM & BOILER RM: 4 FEET.
  - PUSH-BUTTON FOR POWER AND SIGNAL: 4 FEET.
  - INDIVIDUALLY MOUNTED MOTOR STARTERS: 4 FEET TO HANDLE.
  - WALL MOUNTED TELEPHONE & DATA OUTLETS: 1 FOOT 6 INCHES. (U.O.N.)
  - WALL TELEPHONE OUTLETS: 4 FEET. (U.O.N.)
  - CONTROLLED ACCESS CARD READERS: 3 FEET 6 INCHES. (U.O.N.)
  - APARTMENT INTERCOM STATION: 4 FEET. (U.O.N.)
  - ALL DEVICES WITHIN HANDICAP APARTMENT SHALL BE MOUNTED IN COMPLIANCE WITH ADA REQUIREMENTS; NOT TO EXCEED 4 FEET ABOVE FINISHED FLOOR.

**E. WIRING DEVICES**

- RECEPTACLES AND SWITCHES IN ALL FINISHED AREAS SHALL BE OF DECORA TYPE AND NEMA CONFIGURATION ON DRAWINGS AND SPECIFICATIONS. PROVIDE COVERPLATES FOR ALL WIRING DEVICES, UNLESS OTHERWISE NOTED. WIRING DEVICES SHALL BE IN ACCORDANCE AS MANUFACTURED BY HUBBELL, LEVITON, OR PASS & SEYMOUR.
- COVERPLATES SHALL BE 0.10 INCH THICK, SPECIFICATION GRADE, NON-COMBUSTIBLE THERMOPLASTIC, SMOOTH FINISH, WITH COLOR AS SELECTED BY ARCHITECT, UNLESS OTHERWISE NOTED.
- RECEPTACLES SHALL NOT BE INSTALLED BACK-TO-BACK, OFFSET RECEPTACLES BY MINIMUM OF 12 INCHES.
- PROVIDE LOCK-OUT DEVICE ON ALL CIRCUIT BREAKERS SERVING EMERGENCY LIGHTING, EXIT SIGNS, SECURITY SYSTEMS, EPO AND FIRE/SMOKE DAMPERS.
- PRIOR TO ROUGH-IN FOR OUTLET, CONTRACTOR SHALL VERIFY OUTLET TYPE FOR UNITS BEING SERVED SUCH AS WASHER, DRYER, REFRIGERATOR, OVEN, ETC.
- ALL DEVICES IN WET, DAMP OR EXTERIOR LOCATIONS SUCH AS GARAGES, ROOF AND ELEVATOR PIT SHALL BE INSTALLED IN WEATHERPROOF BOXES. ALL OUTLETS SHALL BE G.F.I. TYPE.
- ALL EXTERIOR OUTLETS SHALL BE RECESSED MOUNTED 20A, 125V GFCI TYPE WITH WEATHERPROOF COVERPLATE
- ALL OUTLETS WITHIN THE KITCHEN, PANTRY, LAUNDRY ROOM SHALL BE GROUND FAULT INTERRUPTING TYPE.
- ALL OUTLETS WITHIN COMMON SPACE AREAS AND CORRIDORS MUST BE TAMPER RESISTANT TYPE.
- KEY SWITCHES, WHERE INDICATED, SHALL BE SINGLE GANG COVERPLATE.

**F. CIRCUITS AND MOTOR DISCONNECTS**

- DISCONNECT SWITCHES SHALL BE HEAVY DUTY, 600V OR 240V AS REQUIRED, WITH GROUNDING LUG. PROVIDE FUSED TYPE AS INDICATED. FUSE CLIPS SHALL BE REJECTION TYPE.
- PROVIDE NEMA 1 ENCLOSURE, EXCEPT FOR DAMP & OUTDOOR LOCATIONS ENCLOSURES SHALL BE NEMA 3R.
- ALL SWITCHING IN BOILER ROOM, PUMP ROOM, WATER ROOM, FIRE PUMP ROOM, & TRASH ROOM SHALL BE NEMA 3R.
- DISCONNECT SWITCHES SHALL BE BY SQUARE D, GENERAL ELECTRIC OR CUTLER-HAMMER.
- PROVIDE A FUSED/UNFUSED DISCONNECT FOR EACH PIECE OF MECHANICAL EQUIPMENT.

**G. IDENTIFICATIONS**

- ALL WIRES SHALL BE IDENTIFIED BY PANEL AND CIRCUIT NUMBER AT ALL TERMINATION AND SPLICE POINTS BY THE USE OF BRADY 8-500 VINYL CLOTH TAPE OR EQUIVALENT METHOD.
- ALL JUNCTION BOXES SHALL BE IDENTIFIED WITH PANEL AND CIRCUIT NUMBERS OF ALL CIRCUITS OR NAME OF COMMUNICATIONS SYSTEM CABLING CONTAINED WITHIN. JUNCTION BOXES IN EXPOSED LOCATIONS SHALL BE CLEARLY MARKED WITH A BOLD, INDELEIBLE MARKING PEN. LETTERING SHALL BE NEATLY AND LEGIBLY PRINTED. JUNCTION BOXES ON EMERGENCY SERVICE SHALL BE PAINTED RED AND LABELED AS EMERGENCY.
- PANELBOARDS, DISCONNECT SWITCHES, STARTERS AND EQUIPMENT ENCLOSURES SHALL BE IDENTIFIED WITH ENGRAVED BLACK AND WHITE PLASTIC NAMEPLATES INDICATING EQUIPMENT SERVED, VOLTAGE & AMPERE RATINGS AND INCOMING FEEDER DESIGNATION. NAMEPLATES SHALL BE FASTENED WITH TWO COUNTER SUNK OVAL HEAD SCREWS.

**H. GROUNDING**

- METAL RACEWAYS, METAL ENCLOSURES OF ELECTRICAL DEVICES & OTHER EQUIPMENT SHALL BE COMPLETELY GROUNDED IN AN APPROVED MANNER. PROPER HARDWARE REQUIRED FOR A COMPLETE GROUNDING SYSTEM SHALL BE INSTALLED BY THE CONTRACTOR.
- PROVIDE A SEPARATE GROUNDING CONDUCTOR IN EACH CONDUIT OR FOR EACH CIRCUIT WHERE INDICATED ON DRAWINGS AND WHERE REQUIRED BY CODE.
- SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE SIZE IN ACCORDANCE WITH NEC SECTION 250-66.

**I. COMMUNICATION RACEWAY SYSTEMS**

- FOR EACH VOICE/DATA/CABLE TV OUTLET, PROVIDE A 4 INCH BY 4 INCH BY 1-1/8 INCH DEEP OUTLET BOX FOR LOW VOLTAGE CABLE TERMINATION. ALL WIRING OUTSIDE TENANT UNIT SHALL BE IN FLEX DUCT OR EMT CONDUIT.
- PROVIDE 1 INCH EMT RACEWAY FROM EACH LOW VOLTAGE OUTLETS IN FITNESS CENTER, OFFICES, LOBBY, LAUNDRY ROOM, AND AS NOTED ON THE DRAWINGS TO THE MAIN TELCO ROOM. LOW VOLTAGE WIRING SHALL BE INSTALLED WITHOUT CONDUIT FROM EACH DEVICES TO THE STRUCTURE WIRING WITHIN THE UNIT. PROVIDE CONDUIT AS REQUIRED BY THE LOCAL SERVICE PROVIDER TO TELEPHONE & CABLE SERVICE.
- EMPTY CONDUIT OR FLEXIBLE DUCT FROM EACH APARTMENT SHALL BE INSTALLED AS PER LOCAL SERVICE PROVIDER, WITH DRAG LINES
- PROVIDE NYLON PULLCORD IN ALL RACEWAYS & FLEX DUCT.
- ALL COMMUNICATION CONDUIT INSTALLATIONS MUST CONFORM TO LOCAL CODES AND BICSI STANDARDS, INCLUDING BUT NOT LIMITED TO, THE 60 INCH BEND RADIUS AND PULLBOX REQUIREMENTS.
- ALL CONDUITS MUST HAVE PROTECTIVE PLASTIC BUSHINGS INSTALLED ON THE ENDS TO PROTECT CABLES FROM DAMAGE.
- COORDINATE WITH VOICE/DATA/CABLE TV VENDOR FOR EXACT VOICE/DATA/ CABLE TV CABLING AND CONDUIT REQUIREMENTS.
- EACH HOME RUN FORM SHALL BE IDENTIFIED AND THE DISTRIBUTION PANEL & MAIN END EQUIPMENT.
- PROVIDE INDEPENDENT SUPPORT FOR ALL LOW VOLTAGE WIRING. DO NOT INSTALL WITH POWER CONDUITS.

**J. MISCELLANEOUS**

- PROVIDE A MINIMUM OF 12 INCH SEPARATION BETWEEN POWER AND COMMUNICATIONS WIRING. COORDINATE WITH SYSTEM VENDOR PRIOR TO INSTALLATION.
- FEEDER TAPS SHALL INCLUDE ALL CONDUCTORS PER PHASE.
- ACCEPT DELIVERY AND INSTALL ALL MISCELLANEOUS ELECTRICAL EQUIPMENT AND DEVICES TO INCLUDE BUT NOT LIMITED TO MONITORS, DVR, CAMERAS, MICROWAVES, REFRIGERATORS, OWNER PRE-PURCHASED EQUIPMENT, ETC.
- ALL PULL BOXES, JUNCTION BOXES, SPLICES BOXES MUST BE ACCESSIBLE.
- PROVIDE INDEPENDENT SUPPORT OF POWER & COMMUNICATION WIRING.

**K. MOTOR CONTROLLERS**

- CONTRACTOR SHALL COORDINATE WITH HVAC & CONTROL CONTRACTORS TO PROVIDE PROPER CONTROL AND PILOT DEVICES AND CONTROL WIRING IN MOTOR STARTERS OR VARIABLE FREQUENCY DRIVE.
- CONTRACTOR SHALL INSTALL & WIRE STARTERS, CONTROL EQUIPMENT, AND CONTROL DEVICES SHIPPED LOOSE WITH EQUIPMENT PROVIDED BY OTHER TRADES AND NOT INSTALLED NOR WIRED BY OTHER TRADES.
- REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

**L. LIGHTING FIXTURES**

- FOR LIGHTING FIXTURE SPECIFICATIONS REFER TO ARCHITECTURAL DRAWINGS.
- PROVIDE BRACKETS, MOUNTING DEVICES, ACCESSORIES, ETC. AS REQUIRED.
- PROVIDE INDIVIDUAL INTEGRAL SWITCHES FOR EACH TASK AND UNDER-COUNTER LIGHT FIXTURE UNLESS OTHERWISE INDICATED.
- BALLAST SHALL BE:
  - ELECTRONIC BALLAST.
  - HIGH POWER FACTOR.
  - ETL/UL CERTIFIED.
  - COMPLY WITH CBM REQUIREMENTS.
  - SOUND RATED 'A'.
  - CLASS F.
- FIXTURE TRIM TO MATCH CEILING SYSTEM UNLESS SPECIFIED ELSEWHERE.
- ALL LIGHTING FIXTURES SHALL BE MANUFACTURED, FURNISHED, AND INSTALLED IN COMPLIANCE WITH ALL APPLICABLE CODES AND GOVERNMENT AGENCIES HAVING JURISDICTION.
- ALL FIXTURES SHALL BE IN COMPLIANCE WITH THE CURRENT APPLICABLE UNDERWRITERS LABORATORIES STANDARDS AND SHALL BEAR THE UL LABEL.
- MATERIALS AND EQUIPMENT, AS WELL AS WORKMANSHIP SHALL CONFORM TO THE HIGHEST COMMERCIAL STANDARDS AND SHALL BE AS SPECIFIED. PARTS NOT SPECIFICALLY IDENTIFIED SHALL BE MADE OF MATERIALS MOST APPROPRIATE FOR THEIR INTENDED USE.
- LIGHTING FIXTURE HOUSINGS SHALL BE FABRICATED OF NO LESS THAN NO. 20 GAUGE COLD ROLLED STEEL, UNLESS OTHERWISE NOTED.
- LIGHT FIXTURE TRANSFORMERS OR BALLASTS SHALL BE SERVICEABLE OR REPLACED WITHOUT THE NEED FOR REMOVAL OF THE LIGHTING FIXTURE HOUSING.
- SUBMIT DETAILED SHOP DRAWINGS OF LIGHTING FIXTURES IN FULL COMPLIANCE WITH THE SPECIFICATIONS. DATA TO BE SUBMITTED SHALL INCLUDE BUT NOT LIMITED TO DIMENSIONED AND DETAILED INFORMATION ABOUT FIXTURE CONSTRUCTION, MOUNTING AND INSTALLATION.
- SHOP DRAWINGS OF PROPOSED SUBSTITUTIONS SHALL INCLUDE FULL OR HALF SIZE SCALED DRAWINGS SHOWING COMPLIANCE WITH CONTRACT DOCUMENTS, DEMONSTRATE CONSTRUCTION METHODS, MOUNTING AND INSTALLATION DETAILS, AND PHOTOMETRIC INFORMATION WHICH SHALL INCLUDE PHOTO-METRIC REPORTS PREPARED BY AN INDEPENDENT TESTING LABORATORY WITH CANDELA DISTRIBUTION DATA AT FIVE DEGREE INCREMENTS, ZONAL LUMENS, LUMINANCE TABLE, AND COEFFICIENTS OF UTILIZATION.
- SAMPLES OF LIGHTING FIXTURES WITH SPECIFIED LAMPS IN FULL COMPLIANCE WITH SPECIFICATIONS ARE TO BE SUBMITTED FOR REVIEW FOR ANY ITEM PROPOSED AS A SUBSTITUTION. PROTOTYPES OR PRELIMINARY INFORMATION ARE NOT ACCEPTABLE. MANUFACTURERS OF PROPOSED SUBSTITUTIONS MUST DEMONSTRATE EXPERIENCE IN FABRICATING PRODUCTS OF THE SAME TYPE AND QUALITY AS SPECIFIED PRODUCTS FOR A MINIMUM OF TEN YEARS. MANUFACTURER SHALL PROVIDE A LIST OF PROJECTS WHERE THE PROPOSED PRODUCT HAS BEEN USED.
- LACK OF PERTINENT INFORMATION ABOUT FULL COMPLIANCE WITH CONTRACT DOCUMENTS WILL BE GROUNDS FOR IMMEDIATE REJECTION OF SHOP DRAWING SUBMITTAL.
- THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR THE OMISSION OR ABSENCE OF ANY DETAIL, CONSTRUCTION FEATURE OF THE LIGHTING FIXTURES OR LIGHTING CONTROL SYSTEMS SPECIFIED HEREIN. THE FULL AND COMPLETE RESPONSIBILITY FOR ACCURATELY PURCHASING, FABRICATING AND INSTALLING THE LIGHTING FIXTURES AND LIGHTING CONTROL SYSTEMS DESCRIBED HEREIN TO THE FULFILLMENT OF THESE AND OTHER APPLICABLE SPECIFICATIONS INCLUDING COMPLIANCE WITH ALL REGULATORY BODIES SHALL REST SOLELY WITH THE CONTRACTOR.

**M. LIGHTING CONTROL**

- ALL EXTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED VIA TIME CLOCK UNLESS OTHERWISE NOTED. PROVIDE ALL ASSOCIATED CONTRACTOR PANEL OR CONTROL PANEL AS INDICATED ON THE PLANS
- LIGHTING SWITCHES ARE SHOWN FOR ARRANGEMENT ONLY. PROVIDE NUMBER OF SWITCHES REQUIRED PER AREA.
- THE ABOVE REQUIREMENTS SHALL NOT APPLY TO EMERGENCY, NIGHT LIGHTING AND EXIT SIGN CIRCUITS.
- ALL EMERGENCY LIGHTING BATTERIES SHALL BE CONNECTED TO THE GENERAL LIGHTING CIRCUIT WITHIN THE SAME AREA AHEAD OF THE LOCAL SWITCH CONTROL OR CONTRACTOR.
- OCCUPANCY SENSORS SHALL BE INSTALLED AT THE LOCATIONS AS NOTED ON THE FLOOR PLANS
- PROVIDE OCCUPANCY SENSOR IN ALL PUBLIC CORRIDORS, LAUNDRY ROOM, OFFICES AND AS NOTED ON THE PLANS.

**N. ELECTRICAL TESTING**

- TEST AND ADJUST ALL EQUIPMENT AND WIRING INSTALLED/CONNECTED UNDER THIS CONTRACT, INCLUDING ELECTRICAL EQUIPMENT FURNISHED BY OTHERS, TO DETERMINE PROPER POLARITY, PHASING, FREEDOM FROM GROUNDS AND SHORTS AND OPERATION OF EQUIPMENT. ALL MEASURING INSTRUMENTS MUST BE PROPERLY CALIBRATED.
- WHENEVER ANY AUTHORITIES HAVING JURISDICTION REQUIRE THAT ANY WORK BE TESTED OR APPROVED, CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR ACCESS & PERSONNEL FOR INSPECTION.
- CHECK ALL LIGHTING FIXTURE SENSORS AND RECEPTACLES FOR PROPER OPERATION.
- TEST ALL LOW VOLTAGE SYSTEMS & DEVICES SUCH AS CCTV, INTERCOM, SMOKE DETECTOR, DOOR ACCESS SYSTEM, FIRE ALARM, ETC TO VERIFY THAT THEY FUNCTION IN A COORDINATED FASHION WITH THE MANUFACTURERS RECOMMENDATIONS, SUBMIT A CERTIFIED REPORT DESCRIBING THE TESTING AND ALL RESULTS. TAKE ALL REQUIRED CORRECTIVE MEASURES, SUBMIT A COPY OF TEST RESULTS TO THE OWNER REPRESENTATIVE.
- CHECK ALL SYSTEM AND EQUIPMENT GROUNDS FOR PROPER VALUE OF RESISTANCE USING THE MEGGER GROUND TESTER IN ACCORDANCE WITH MANUFACTURERS STANDARD INSTRUCTIONS. TEST INSULATION RESISTANCE OF ALL NEW AND AFFECTED EXISTING FEEDERS PRIOR TO ENERGIZING.
- BALANCE, AS EQUALLY AS POSSIBLE, THE LOADS CONNECTED TO EACH PHASE OF ALL CIRCUITS CONNECTED TO PANELBOARDS.
- AT THE COMPLETION OF WORK, CHECK THE LOAD CURRENT IN EACH FEEDER AND MAKE SUCH ADJUSTMENTS AS ARE NECESSARY TO CORRECT LOAD IMBALANCE. MAXIMUM IMBALANCE SHALL NOT EXCEED 10 PERCENT.

**O. MISC. MECHANICAL**

- REFER TO HVAC/PLUMBING/FIRE PROTECTION PLANS FOR EXACT LOCATIONS AND QUANTITIES OF ALL DEVICES, INCLUDING BUT NOT LIMITED TO, THERMO-STATS, FIRE DAMPERS, SMOKE DAMPERS, DUCT DETECTORS, WATER FLOW AND VALVE TAMPER SWITCHES, ETC. COORDINATE WITH RESPECTIVE CONTRACTOR.
- COORDINATE WITH HVAC/PLUMBING/FIRE PROTECTION PLANS FOR EXACT LOCATION AND PIPING LENGTHS TO BE HEAT TRACED. PROVIDE POWER FEEDER AS SPECIFIED HEREIN OR AS REQUIRED UNDER OTHER DIVISION OF THIS WORK.

**P. CONTROL WIRING**

- REFER TO HVAC/PLUMBING/FIRE PROTECTION DRAWINGS AND SPECIFICATIONS FOR SYSTEM CONTROL REQUIREMENTS. PROVIDE ALL REQUIRED 120 VOLT POWER, 120 VOLT AND LOW VOLTAGE CONTROL WIRING AND RELATED DEVICES TO ACCOMMODATE SPECIFIED SEQUENCE OF OPERATIONS. COORDINATE WITH RESPECTIVE TRADE CONTRACTOR.
- CONTROL TRANSFORMERS WHERE REQUIRED SHALL BE INSTALLED IN VENTILATED ENCLOSURE.
- PROVIDE SHOP DRAWINGS AND CONTROL WIRING DIAGRAMS FOR ALL PUMPS, FANS, VARIABLE FREQUENCY DRIVE, ETC. WIRED VIA CONTROLLER OR TIME CLOCK FOR REVIEW PRIOR TO INSTALLATION.

**Q. PANELBOARDS**

- ALL HOUSE PANELBOARDS SHALL HAVE COPPER BUS BARS OF RATINGS AS INDICATED ON THE CONTRACT DRAWINGS. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE WITH THERMAL MAGNETIC TRIP. WHERE MAIN BREAKERS ARE REQUIRED THEY SHALL BE MOUNTED SEPARATELY FROM THE BRANCH CIRCUIT BREAKERS. PROVIDE COPPER NEUTRAL BUS AND GROUND BUS BONDED TO CABINET ENCLOSURE.
- DISTRIBUTION PANELBOARD(S) WHERE REQUIRED SHALL BE PROVIDED WITH EITHER SWITCH/FUSE OR CIRCUIT BREAKERS AS SCHEDULED ON THE DRAWINGS, AND SHALL HAVE A RATING OF 1000 AMPERE PER SQUARE INCH.
- LIGHTING AND POWER PANELBOARD CIRCUIT BREAKER RATINGS SHALL BE AS INDICATED ON PANELBOARD SCHEDULES. WHERE SHORT CIRCUIT RATINGS ARE NOT INDICATED, RATINGS SHALL BE AS REQUIRED BY SHORT CIRCUIT STUDY. PROVIDE WARNING LABELS ON PANEL COVERS.
- PANEL SHALL HAVE A MINIMUM OF 6 INCH GUTTER SPACE ON BOTH SIDES AND ON TOP AND BOTTOM.
- PANEL SHALL BE FINISHED IN ANSI #1 BAKED GRAY ENAMEL AND SHALL BE LOCKABLE AND KEYED ALIKE. ENGRAVED NAMEPLATES SHALL BE FURNISHED FOR EACH PANELBOARD.
- PANEL SHALL BE SUPPORTED FROM FLOOR, INDEPENDENTLY OF WALL CONSTRUCTION BUT LATERALLY SECURED TO WALL.
- FURNISH AND INSTALL TYPED WRITTEN DIRECTORIES FOR ALL PANELBOARDS.
- ALL PANEL BACK BOXES ARE TO BE 42 CIRCUIT BACK BOXES WITH BUS BARS TO ACCOMMODATE FUTURE CIRCUIT BREAKERS, UNLESS SHOWN OTHERWISE ON PLANS.
- APARTMENT LOAD CENTER SHALL BE SQUARE D 'QO' TYPE LOAD CENTER OR APPROVED EQUAL BY GE, EATON CORPORATION, OR SIEMENS, WITH COPPER BUS & QO PLUG ON CIRCUIT BREAKERS. AIC RATINGS ARE SHOWN ON SCHEDULE DRAWING E-300.
- CONTRACTOR MAY USE APPROVED UTILITY COMBINATION BOLTED SWITCH/METER FOR INDIVIDUAL METERING.
- ALL CIRCUIT BREAKERS SERVING MECHANICAL EQUIPMENT SHALL TYPE "HACK".
- PROVIDE 4" INCH CONCRETE PAD FOR ALL FLOOR MOUNTED ELECTRICAL PANEL SWITCHBOARD, ETC.
- APARTMENT PANELBOARD SHALL BE MOUNTED SO THAT THE TOP MOST CIRCUIT BREAKER DOES NOT EXCEED 48" A.F.F.
- FOR ADDITIONAL REQUIREMENTS REFER TO BOOK SPECIFICATION.
- TANDEN OR TWIN CIRCUIT BREAKERS ARE NOT ACCEPTABLE.

**R. COORDINATION**

- PRIOR TO THE INSTALLATION OF ANY RACEWAY, LIGHTING FIXTURE, DEVICE, ETC., COORDINATE REQUIREMENTS AND CLEARANCES WITH GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS.
- ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED MULTI-TRADE AND COORDINATION OF DRAWINGS.

**S. ELEVATORS**

- PROVIDE COMPLETE ELECTRICAL FIT-UP FOR EACH ELEVATOR IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - FEEDER COMPLETE WITH FUSED CONTROL DEVICE WITHIN ELEVATOR MACHINE ROOM.
  - SMOKE AND OR HEAT DETECTORS WITHIN MACHINE ROOM AND AT TOP OF SHAFT.
  - CONNECTION TO SPRINKLER WATER FLOW AND SOLENOID VALVES WITHIN SHAFT AND MACHINE ROOM.
  - WEATHERPROOF RECEPTACLE, LIGHT AND SWITCH IN PIT.
  - 120 VOLT POWER TO ELEVATOR CAB AS DIRECTED BY VENDOR
  - TWO WAY VOICE COMMUNICATION AND ONE-WAY PUBLIC ADDRESS WITHIN EACH CAB.
  - EMPTY CONDUIT FOR CONNECTION TO CAB TELEPHONE AS DIRECTED BY VENDOR
  - ALL OTHER WORK REQUIRED BY ELEVATOR VENDOR
- ALL ELECTRICAL WIRING LESS THAN 4' ABOVE THE PIT FLOOR SHALL BE SUITABLE FOR WET LOCATION (NEMA 4).
- FOR ADDITIONAL REQUIREMENTS REFER TO ELEVATOR CONSULTANT DRAWINGS.

**T. TRANSIENT VOLTAGE SURGE SUPPRESSION (T.V.S.S.)**

- FURNISH & INSTALL T.V.S.S. AT EACH MAIN ELECTRIC SERVICE AS SPECIFIED HEREIN AND AS INDICATED ON THE DRAWINGS.
- FURNISH & INSTALL SPDs WITH A DISCONNECT IN EACH APARTMENT LOAD CENTER AND IN EACH METER CENTER.
- NEMA 1 ENCLOSURE.

**U. POWER STUDIES**

- PROVIDE SHORT CIRCUIT CALCULATION AND COORDINATION STUDY TO BE REVIEWED BY THE ENGINEER, SUBMIT TO THE ELECTRICAL INSPECTOR AS REQUIRED.
- BASED ON THE SHORT CIRCUIT STUDY THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE TO ADJUST AND PROVIDE PANEL BOARDS REQUIRED FOR SHORT CIRCUIT RATING.

ELECTRICAL DRAWING LIST	
E-010	ELECTRICAL GENERAL NOTES & DRAWINGS LIST
E-011	ELECTRICAL SYMBOL LIST, ABBREVIATIONS & LIGHTING SCHEDULE
E-100	ELECTRICAL GROUND FLOOR PLAN
E-101	ELECTRICAL 2ND FLOOR PLAN
E-102	ELECTRICAL 3RD - 4HT FLOOR PLAN
E-103	ELECTRICAL ROOF PLAN
E-200	ELECTRICAL POWER RISER DIAGRAM
E-201	ELECTRICAL ACCESS CONTROL & CCTV & CATV/TELCO RISER DIAGRAMS
E-300	ELECTRICAL PANEL SCHEDULES
E-400	ELECTRICAL DETAILS
FA-500	FIRE ALARM SYMBOL LIST, NOTES & RISER DIAGRAM
EN-003	ELECTRICAL LIGHTING COMCHECK SHEET

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME :

ELECTRICAL GENERAL NOTES & DRAWING LIST

BLDG DEPT REF. # SCALE: AS NOTED

SIGNATURE & SEAL ALEKSEY MAHILIS ENGINEER N.J. LIC. No. GE56570 DATE: 12/10/2021

DRAWING #

**E-010**

PROJECT # : 2021.09.02

**LIGHTING FIXTURES NOTES:**

- ALL LAMP SUPPLIED W/ FIXTURE SHALL BE PREMIUM BRAND LAMPS, SYLVANIA OR G.E.
- ALL FIXTURES WITH "EM" DESIGNATION SHALL BE CONNECTED TO THE EMERGENCY GENERATOR.
- LIGHTING SCHEDULE FOR INFORMATION ONLY. REFER TO ARCHITECTURAL DRAWINGS AND FIXTURE SCHEDULE FOR EXACT TYPES, QUANTITIES, LOCATIONS AND CONTROLS. CONTRACTOR SHALL ADVISE OF ANY DISCREPANCIES BETWEEN THIS SCHEDULE AND ARCHITECTURAL LIGHTING FIXTURE SCHEDULE. ARCHITECTURAL FIXTURE SCHEDULE TAKES PRECEDENCE.

**APARTMENT FITOUT**

- WHERE APARTMENT LAYOUT IS NOT SHOWN PROVIDE COMPLETE ELECTRIC FIT-OUT OF ALL UNITS AS SHOWN IN TYPICAL UNIT LAYOUT DETAIL.
- ALL 120V, SINGLE PHASE, 15A & 20A BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
- COORDINATE EXACT ROUGH-IN LOCATION OF EACH DEVICE PRIOR TO INSTALLATION WITH OWNER AND/OR ARCHITECT.
- EACH AND ALL RECEPTACLES IN TENANTS' BATHROOMS, KITCHENS & TERRACE SHALL BE G.F.I. TYPE.
- ALL ELECTRICAL & LOW VOLTAGE DEVICES IN HANDICAP APARTMENTS SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS.
- FURNISH & INSTALL 120 VOLT HARDWIRED COMBINATION/SMOKE DETECTORS WITH INTEGRAL STROBE (75 CANDELA) IN HANDICAP APARTMENT AS PER ADA & THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) 4.28.
- APARTMENT HAVING MORE THAN ONE SMOKE OR CARBON MONOXIDE DETECTOR SHALL BE WIRED SO THAT ANY ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
- FURNISH AND INSTALL STRUCTURE WIRING CABINET INCLUDING TELEPHONE OUTLET & WIRING TO APARTMENT PANEL FOR ADDITIONAL REQUIREMENTS SEE TELCO RISER.
- COORDINATE POWER WIRING TO RANGE HOOD, MICROWAVE, REFRIGERATOR, RANGE, ETC. WITH CABINET INSTALLER.
- POWER OUTLET FOR HEAT PUMPS SHALL BE CONCEALED ON UNITS.
- OUTLETS AND SWITCHES:
  - ALL WALL OUTLETS AND SWITCHES MUST BE MOUNTED BETWEEN 15" AND 48". THE BOTTOM OF THE LOWEST PLUG CAN BE NO LOWER THAN 15" AND THE TOP OF THE UPPER MOST PLUG CAN BE NO HIGHER THAN 48".
  - ALL WALL OUTLETS AND SWITCHES OVER KITCHEN COUNTERS CAN BE NO HIGHER THAN 46" ABOVE THE FINISH FLOOR. THE TOP OF THE UPPERMOST PLUG CAN BE NO HIGHER THAN 46" ABOVE THE FINISHED FLOOR.
  - WALL OUTLETS AND SWITCHES ON WALLS OVER KITCHEN CABINETS MUST BE A MINIMUM OF 36" FROM THE WALL CORNER.
  - THIS APPLIES TO THE FOLLOWING CONTROLS: THERMOSTATS AND OTHER HEATING/AC CONTROLS, LIGHT SWITCHES, OUTLETS, INTERCOMS, CIRCUIT BREAKERS.
  - THE FOLLOWING CONTROLS DO NOT HAVE TO COMPLY: ELECTRICAL OUTLETS DEDICATED TO INDIVIDUAL APPLIANCES SUCH AS REFRIGERATORS OR WASHING MACHINES, EMERGENCY INTERRUPT SWITCHES.
- LIGHT FIXTURES:
  - ANY LIGHT FIXTURE MOUNTED BETWEEN 27" AND 80" ABOVE THE FINISH FLOOR CANNOT EXTEND MORE THAN 4" FROM THE WALL SURFACE.
  - ANY CEILING MOUNTED LIGHT FIXTURE CANNOT EXTEND BELOW 80" ABOVE THE FINISH FLOOR.
- NO CEILING MOUNTED OBJECT (FIXTURE, PIPING, ETC) CAN EXTEND BELOW 80" ABOVE THE FINISH FLOOR.
- ALL ABOVE COUNTER KITCHEN AND BATHROOM RECEPTACLES SHALL BE GFI TYPE.
- ALL RECEPTACLES AND SWITCHES IN THE RESIDENTIAL UNITS SHALL BE DECORA STYLE.
- ALL RECEPTACLES IN THE RESIDENTIAL UNITS SHALL BE TAMPER RESISTANT.
- PROVIDE A 120VOLT DUPLEX RECEPTACLES FOR FIOS CABINET. COORDINATE LOCATION WITH ARCHITECT.
- ELECTRICAL CONTRACTOR TO ACCEPT FIOS CABINET & INSTALL AS PER VERIZON REQUIREMENTS.

**ABBREVIATIONS**

AH	AIR HANDLING UNIT	EM	EMERGENCY
ACC	AIR COND. COMPRESSOR	FFH	FAN FORCED HEATER
CX	COMPACT. RM. EXHAUST FAN	GFI	GROUND FAULT INTERRUPTER
DX	DRYER EXHAUST FAN	KX	KITCHEN EXHAUST FAN
AFF	ABOVE FINISHED FLOOR	MUA	MAKE-UP AIR UNIT
UON	UNLESS OTHERWISE NOTED	TX	TOILET EXHAUST FAN
WG	WIREGUARD	WP	WEATHERPROOF
C	COUNTER	DW	DISH WASHER
R	COOKING RANGE	REF	REFRIGERATOR

LIGHT FIXTURE SCHEDULE (GROUND AND SECOND FLOOR)					
TYPE	LOCATION	MODEL # AND MANUFACTURER	LAMPING	NOTES	Efficacy (Lumens per Watt)
PA	BUILDING ENTRANCE	DAOSEOLO OUTDOOR LED	25.75" L X 2.8" W X 2.25" D	MOUNTED HEIGHT: 8'-0" A.F.F.	
PB	GARAGE PARKING LIGHTING	CLG MOUNTED IVGT5-SOL TYPE V	45W (REPLACES 150W MH)	MOUNTED HEIGHT: 10'-0"	
PC	EXTERIOR FLOOD LIGHT	Contractor Select HGX Double Light 7-9/16" Wide Adjustable LED Outdoor Flood Light	25 W	EXTERIOR FLOOD LIGHT WITH MOTION SENSORS	
G	STAIRWELL	TOPAZ F-LED/4/36W/40/D-68	36W 4000K	4' FIXTURE OCC. SENSOR TRIGGERS ON FROM OFF	4,700 INITIAL LUMENS
EG	LITHONIA CONTRACTOR SELECT	LED FLAT PANEL CPX 2X2 3200LM 40K M4 120-277 V	32W 4000K		3200 LUMENS
I	ELECTRICAL STORAGE, COMPACTOR ROOM.	LITHONIA 2X4' INTEGRATED LED TOFFER MODEL GTL 120V	36.3 W, 4000 K	WITH ELECTRONIC BALLAST QUALIFIES	
K1	LOBBY	MODEL SMD12 12" DIA BY HALO	LED - 15.3 W, 4000K	92 CRI	
L1	CELLAR LOBBY	MODEL SMD6R12930WH 6" DIA BY HALO	LED - 1242 LUMENS, 3000 K	90 CRI	

LIGHT FIXTURE SCHEDULE (RESIDENTIAL FLOORS)					
TYPE	LOCATION	MODEL # AND MANUFACTURER	LAMPING	NOTES	Efficacy (Lumens per Watt)
A	LIVING, DINING, BEDROOMS, KITCHENS	LUXRITE LR23593 SLIM FLUSH 6.33" X6.33"	15 W LED DIMMABLE, TEMP=4000K, CRI =80	CEILING MOUNTED	900 LUMENS SWITCH
B	BATHROOMS, CLOSETS, FOYERS	LUXRITE LR23593 SLIM FLUSH 6.33" X6.33"	15 W LED DIMMABLE, TEMP=4000K, CRI =80	CEILING MOUNTED	900 LUMENS SWITCH
C	APARTMENT BATHROOMS VANITY	INTEGRATED LED VANITY MIRRORS	N/A	LED MIRRORS TO BE SELECTED BY OWNER. GC TO COORDINATE ELECTRICAL WIRING WITH OWNER	SWITCH
D	KITCHEN PENDANT LIGHT	KCO MODERN PENDANT BY MODO LIGHTING	LED - E 26 BULBS- 60 Watt		SWITCH
E	APARTMENT ENTRANCES	WALL MOUNTED (5" W X 23.6" L) MODEL #RZZUO	WALL SCONE LED-18 Watt, 120 V, TEMP= 3000K	BRONZE COLOR	TIMER / SWITCH
F	KITCHEN STRIP LIGHT	LUXRITE, LR44101	LED: 24V, 4 W PER FT. 90 CRI, 3000K	LED STRIP LIGHTING UNDER CABINET	461 LUMENS PER FT SWITCH
G	STAIRWELL	TOPAZ F-LED/4/36W/40/D-68 100-277 V	36W 4000K	2' FIXTURE OCC. SENSOR TRIGGERS ON FROM OFF	4,700 INITIAL LUMENS OCC. SENSOR
H	EXTERIOR TERRACE	EXTERIOR WALL MOUNTED (8" L X 6" W X 5" H) BRAND: RGZZUP MANUFACTURER: ZATAN	WALL MOUNTED LED-24 Watt, 120 V, TEMP= 3000K	BRONZE COLOR WATER PROOFED	SWITCH
HA	ROOF & COURT YARD EXTERIOR	ASD-OLWS-21-MV-18D20CC-BK 18" LED	WALL SCONE LED- 20 Watt, 120-277 V	OCT SELECTABLE, DIMABLE, BLACK FINISH	
CA	EXTERIOR IN-GROUND	Round Waterproof LED Black Modern Outdoor Pathway Lights	LED: 6V, 15 Watts / SOLAR = 2W, TEMP=3000K	LED LIGHTING IN-GROUND WATER PROOFED	HARDWIRED
I	ELECTRICAL, JANITOR, TRASH ROOM.	LITHONIA 2X4' INTEGRATED LED TOFFER MODEL GTL 120V	36.3 W, 4000 K		
J	ELECTRICAL CLOSET	TOPAZ F-LED/4/36W/40/D-68 100-277 V	36W 4000K	2' FIXTURE OCC. SENSOR TRIGGERS ON FROM OFF	4,700 INITIAL LUMENS OCC. SENSOR
S	SHOWER TUP AREA CLG LIGHT	LUXRITE LR23593 (6.33" CHROME) 120V	15 W LED 14" FLUSH/CHROME/ 3000K SOFT WHITE	CEILING MOUNTED	900 LUMENS SWITCH
LC	CEILING FIXTURE @ PUBLIC CORRIDORS	LUXRITE SLIM FLUSH 6.33" X6.33"	15 W LED DIMMABLE, TEMP=4000K, CRI =80	CEILING MOUNTED	900 LUMENS OCC. SENSOR OR ALWAYS ON
X	EXIT	MORRIS 73012 1.2V	LED 1.64 W	CEILING MOUNTED	SWITCH
EM	EM	MORRIS 73118 2.4 V	LED 10.8 W	WALL MOUNTED	LED 76 LUMENS PER HEAD OCC. SENSOR
Z	UTILITY CLOSET	PROGRESS LIGHTING (6.37" X6.37") MODEL # P3706-30	100 WATT MEDIUM BASE BULB / WHITE FINISH	WALL MOUNTED	

**LIGHTING FIXTURES NOTES:**

- ALL LAMP SUPPLIED W/ FIXTURE SHALL BE PREMIUM BRAND LAMPS, SYLVANIA OR G.E.
- ALL FIXTURES WITH "EM" DESIGNATION SHALL BE CONNECTED TO THE EMERGENCY GENERATOR.
- LIGHTING SCHEDULE FOR INFORMATION ONLY. REFER TO ARCHITECTURAL DRAWINGS AND FIXTURE SCHEDULE FOR EXACT TYPES, QUANTITIES, LOCATIONS AND CONTROLS. CONTRACTOR SHALL ADVISE OF ANY DISCREPANCIES BETWEEN THIS SCHEDULE AND ARCHITECTURAL LIGHTING FIXTURE SCHEDULE. ARCHITECTURAL FIXTURE SCHEDULE TAKES PRECEDENCE.

**SYMBOL LIST**

	DUPLEX RECEPTACLE 20A-2P-125V/SPECIFICATION GRADE SURGE TYPE OUTLET.
	DUPLEX RECEPTACLE 20A-2P-125V/SPECIFICATION GRADE
	DUPLEX RECEPTACLE 20A-2P-125V/SPECIFICATION GRADE GROUND FAULT TYPE RECEPTACLES
	ABOVE COUNTER DUPLEX RECEPTACLE 20A-2P-125V/SPECIFICATION GRADE GROUND FAULT TYPE RECEPTACLES
	COMBINATION DUPLEX RECEPTACLE WITH USB OUTLET 20A-2P-125V/SPECIFICATION
	DOUBLE DUPLEX RECEPTACLE, 125V, 20A GROUNDING
	SIMPLEX RECEPTACLE 20A-2P-240V/SPECIFICATION GRADE
	RECESSED FLOOR BOXED MOUNTED DOUBLE DUPLEX RECEPTACLE & TELEPHONE/DATA OUTLET
	TELEPHONE/DATA OUTLET WITH TWO (2) RJ-45, RUN 3/4" EMPTY CONDUIT
	TELEVISION OUTLET (FOR ACS INSTALLATION ONLY PROVIDE COAXIAL CABLE FOR CABLE/SATELLITE AND VIDEO FEED, RUN 1" EMPTY).
	OCCUPANCY SENSOR (CEILING MOUNTED): SENSOR SWITCH CM-11 (LOW VOLTAGE) AND POWER PACK OR WATSTOPPER WT SERIES (LOW VOLTAGE) AND POWER PACK FOR CORRIDOR AREAS
	VACANCY SENSOR WITH DUAL TECHNOLOGY (WALL MOUNTED): SENSOR SWITCH WSD-PDT (LINE VOLTAGE) OR WATSTOPPER DW-100 (LINE VOLTAGE) (WATSTOPPER - OPERATION MUST BE SET WITH DIP SWITCHES) PROVIDED IN SMALL OFFICE OR BATHROOM OF APPLICABLE SPACE
	VACANCY SENSOR WITH DUAL TECHNOLOGY (CEILING MOUNTED): SENSOR SWITCH CM-PDT-10 (LOW VOLTAGE) AND POWER PACK OR WATSTOPPER DT-300 (LOW VOLTAGE) AND POWER PACK PROVIDE LOW VOLTAGE WALL STATIONS/SWITCHES AS INDICATED ON THE DRAWINGS, PROVIDED IN LARGE AREAS
	DAYLIGHT CONTROL SENSOR (CEILING MOUNTED): SENSOR SWITCH CM-PC (LOW VOLTAGE) AND POWER PACK OR WATSTOPPER DS-301 (LOW VOLTAGE) AND POWER PACK PROVIDED NEAR WINDOWS OF APPLICABLE SPACES
	SINGLE POLE LIGHT SWITCH
	LOW VOLTAGE WALL STATION: SENSOR SWITCH SPDM (LOW VOLTAGE), INTERFACE WITH CM-9, CM-11, CM-PC AND CM-PDT-10 WITH POWER PACK PP-20
	OVERRIDE SWITCH
	THREE WAY LIGHT SWITCH "q" DENOTES CONTROLLED LIGHTING FIXTURE
	HARDWIRED 120V COMBINATION SMOKE /CARBON MONOXIDE ALARM MODEL SHALL BE P40DACS-CO-W WITH LITHIUM BATTERY BACKUP. THE LITHIUM BATTERIES SHALL BE SEALED IN THE UNIT TO PREVENT REMOVAL AND/OR TAMPERING. THE UNIT SHALL INCORPORATE A PHOTOELECTRIC SENSOR. DEVICE MUST BE INSTALLED WITHIN 15 FEET OF BEDROOM DOOR AND 10 FEET AWAY FROM COOKING APPLIANCES.
	LOCKABLE FUSE DISCONNECT SWITCH
	PHOTO CELL
	JUNCTION BOX
	FACTORY WIRED CONTROL PANEL
	SURFACE MOUNTED LIGHTING/POWER PANEL
	MOTOR - NO. DENOTES HORSEPOWER
	RECESSED APARTMENT PANELBOARD
	TIME CLOCK
	FUSED, UNFUSED DISCONNECT SWITCH
	STRUCTURE WIRING CABINET
	UTILITY METER
	THERMAL OVERLOAD SWITCH
	FIOS CABINET PROVIDED BY VERIZON. INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
	FIRE SMOKE DAMPER
	CLOSED CIRCUIT TELEVISION CAMERA
	EXIT SIGN
	THERMOSTAT
	AREA OF REFUGE MAIN CALL STATION
	AREA OF REFUGE FLOOR CALL STATION
	WIFI CEILING OUTLET
	CEILING MOUNTED DUPLEX OUTLET
	DUAL MONITOR DETECTOR CARBON MONOXIDE AND NITROGEN DIOXIDE



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
ELECTRICAL SYMBOL LIST,  
ABBREVIATIONS & LIGHTING  
SCHEDULE

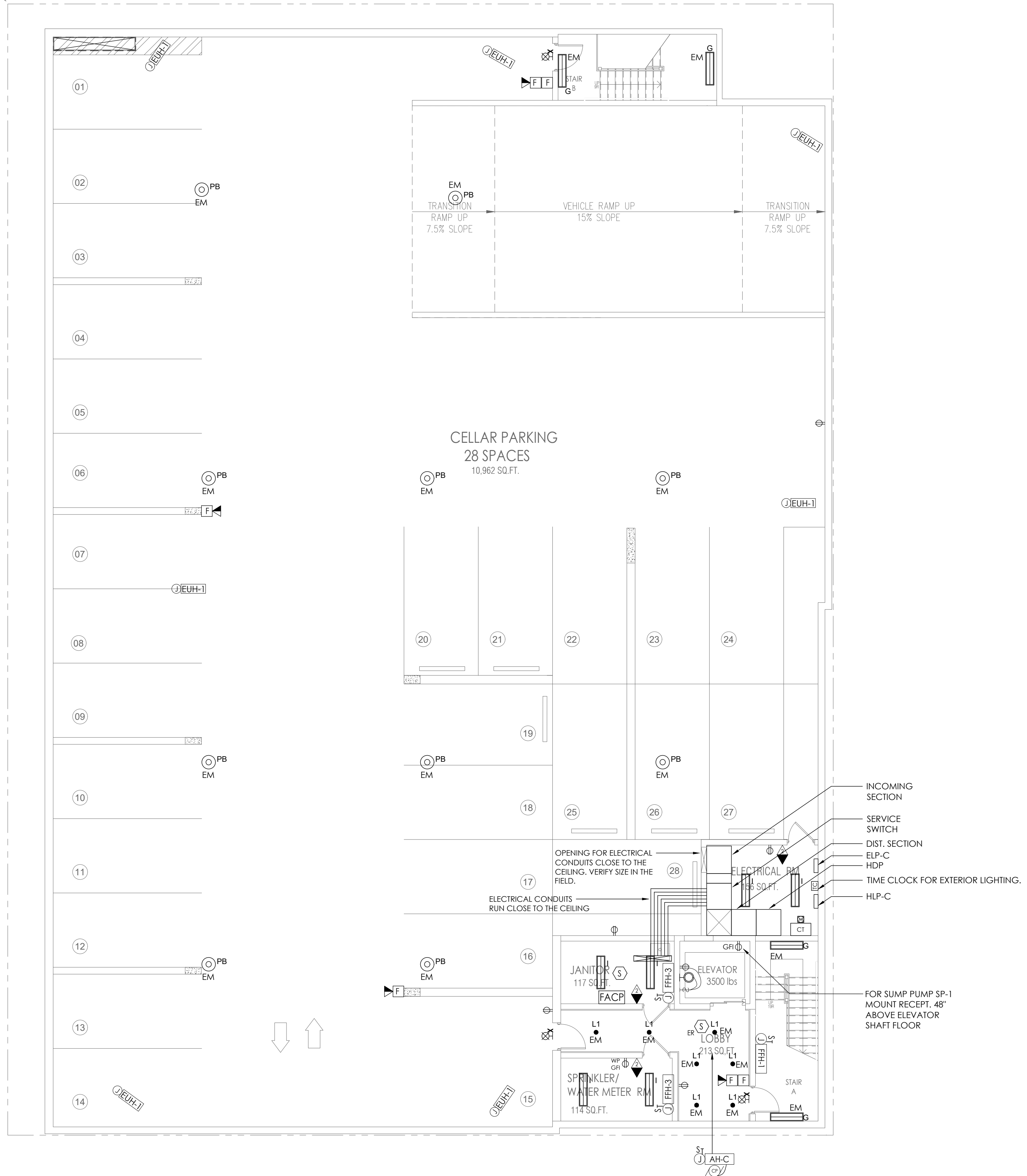
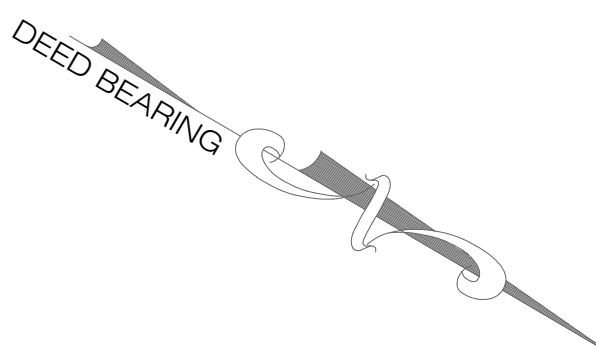
BLDG DEPT REF.# SCALE:  
AS NOTED

SIGNATURE & SEAL  
ALEXEY WAHUIS  
ENGINEER  
N.J. LIC. No. GE56570 DATE:  
12/10/2021

DRAWING #

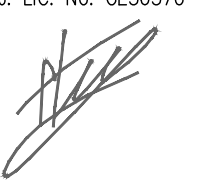
**E-011**

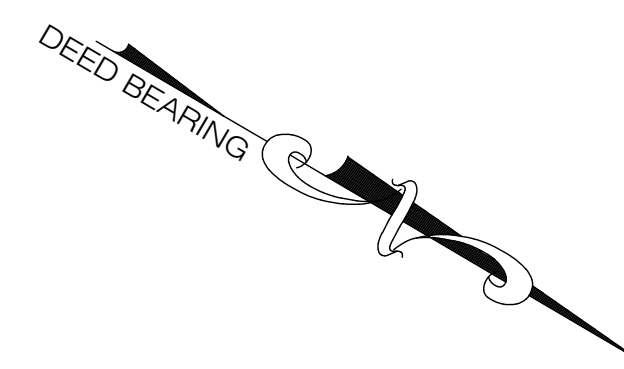
PROJECT # : 2021.09.02



- NOTES:
- REFER TO DRAWING E-300 FOR CIRCUITING REQUIREMENTS.
  - EMERGENCY LIGHTING WILL REMAIN ON ALL THE TIME IN CORRIDORS AND PARKING GARAGE. EMERGENCY LIGHTING DESIGNATED WITH "EM" SHALL BE CONNECTED TO THE EMERGENCY GENERATOR.
  - OCCUPANCY SENSORS IN CORRIDORS, ELEV. LOBBY AND PARKING GARAGE SHALL CONTROL NORMAL LIGHTING FIXTURES ONLY.
  - ELECTRICAL CONTRACTOR TO PROVIDE SEPARATE NEUTRALS FOR ALL ARC FAULT (AFCL) AND GROUND FAULT (GFCI) BRANCH CIRCUITS. SHARED NEUTRALS ARE NOT PERMITTED.
  - EXIT LIGHTS TO BE CIRCUITED TO NEAREST STAIR LIGHTING FIXTURE CIRCUIT.
  - COORDINATE EXACT ROUGH-IN LOCATION OF EACH DEVICE PRIOR TO INSTALLATION WITH ARCHITECT.
  - COORDINATE ALL CONDUIT ROUTING IN FIELD WITH CONSTRUCTION MANAGER.
  - COORDINATE EXACT LOCATION CONTROL PANELS, STARTERS & VFD WITH MECHANICAL CONTRACTOR. PRIOR TO INSTALLATION, MAINTAIN A MINIMUM WORKING CLEARANCE OF 3 FEET IN FRONT OF ALL EQUIPMENT.
  - ALL WET-PIPE PLUMBING PIPING ON AREAS SUBJECT TO FREEZING MUST BE HEAT TRACED. FURNISH AND INSTALL ALL REQUIRED HEAT TRACING AND ASSOCIATED CONTROLS, ETC FOR A COMPLETE OPERATIONAL SYSTEM. PROVIDE ALL REQUIRED LENGTHS AS REQUIRED BY PLUMBING CONTRACT DOCUMENTS. SEE DETAIL 'L' ON DRAWING E-400.
  - RECESSED LIGHTING IN FIRE RATED CEILINGS SHALL BE PROVIDED WITH A FIRE-RATED ENCLOSURE.
  - VERIFY THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH EQUIPMENT MANUFACTURER.
  - PROVIDE AND INSTALL CONTROL WIRING FOR ALL THERMOSTATS AS REQUIRED. COORDINATE WITH MECHANICAL DRAWINGS.
  - INCREASE BRANCH CIRCUITRY WIRE SIZE FOR EVERY 100 FEET DISTANCE EQUIPMENT TO BE WIRED IS FROM THE ELECTRICAL PANEL TO ACCOUNT FOR VOLTAGE DROP.
  - PROVIDE 2 #8 AND 1 #8G IN 3/4" CONDUIT FOR EXTERIOR WALL LIGHTING.
  - 2 CIRCUITS ARE PROVIDED FOR EXTERIOR BUILDING LIGHTING AND 2 CIRCUITS ARE PROVIDED FOR THE SITE LIGHTING FROM PANEL "HLP". FOR SITE LIGHTING LAYOUT REFER TO LANDSCAPE DRAWINGS.
  - FOR LIGHTING CIRCUIT RUNS GREATER THAN 100 FEET, INCREASE WIRE SIZE FROM #12 AWG TO #10 AWG (INCREASE IN WIRE SIZE SHALL SUPERCEDE #12 AWG WIRING SHOWN FOR BRANCH CIRCUITS ON PANEL SCHEDULE), WHERE NEUTRALS ARE SHARED, A MINIMUM #10 NEUTRAL SHALL BE PROVIDED FOR #12 AWG PHASE WIRES (MINIMUM #8 NEUTRAL FOR #10 AWG PHASE WIRES) ALONG WITH MULTI-POLE 20 AMP CIRCUIT BREAKER (NUMBER OF BREAKER POLES SHALL MATCH NUMBER OF SHARED CIRCUITS/PHASES).
  - FOR RECEPTACLE CIRCUIT RUNS GREATER THAN 100 FEET, INCREASE WIRE SIZE FROM #12 AWG TO #10 AWG (INCREASE IN WIRE SIZE SHALL SUPERCEDE #12 AWG WIRING SHOWN FOR BRANCH CIRCUITS ON PANEL SCHEDULE), WHERE NEUTRALS ARE SHARED, A MINIMUM #10 NEUTRAL SHALL BE PROVIDED FOR #12 AWG PHASE WIRES (MINIMUM #8 NEUTRAL FOR #10 AWG PHASE WIRES) ALONG WITH MULTI-POLE 20 AMP CIRCUIT BREAKER (NUMBER OF BREAKER POLES SHALL MATCH NUMBER OF SHARED CIRCUITS/PHASES).
  - HVAC CONTROL WIRING SHALL BE IN 3/4" CONDUIT WHERE SPECIFICALLY REQUIRED BY CODE. COORDINATE WORK WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR.
  - ALL EXPOSED WIRING CEILINGS OR INTERIOR WALL MUST BE IN EMT.
  - FINAL FLEXIBLE CONDUIT CONNECTION WHIPS TO EQUIPMENT/FIXTURES SHALL NOT EXCEED 6'-0" IN LENGTH.
  - ALL CORE DRILLING FOR POKE-THRU DEVICES ARE TO BE COORDINATED AND APPROVED BY STRUCTURAL ENGINEER AND LANDLORD.
  - WHERE ANY CONDUIT CROSSES THE BUILDING'S STRUCTURAL EXPANSION JOINT, PROVIDE APPROPRIATE CONDUIT EXPANSION JOINT FITTING.
  - NO FOREIGN SYSTEMS (I.E PIPING, DUCT WORK, ETC.) ARE ALLOWED TO BE INSTALLED OVER ELECTRICAL PANELS.
  - POWER FOR FIRE SMOKE DAMPER (FSD) COORDINATE EXACT LOCATION AND SPECIFICATION WITH MECHANICAL DRAWINGS AND HVAC CONTRACTOR. PROVIDE SMOKE DETECTOR WITHIN 5' FOR ACTIVATION. REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
  - CONDUIT RUNS AND RISER SHOWN FOR INTENT ONLY. COORDINATE RUNS AND RISERS WITH STRUCTURAL ENGINEER. CONDUITS ARE TO BE SUPPORTED AND RUN AS CLOSE TO THE BOTTOM OF THE STRUCTURAL MEMBERS AS POSSIBLE.
  - WATER FLOW AND TAMPER SWITCHES FOR SPRINKLER SYSTEM, COORDINATE EXACT QUANTITIES AND LOCATION WITH SPRINKLER CONTRACTOR AND CONNECT TO THE FIRE ALARM SYSTEM AS REQUIRED BY CODE.
  - PROVIDE EMERGENCY OVERRIDE RELAY FOR ALL SWITCHED EMERGENCY LIGHTING FIXTURES (TYPICAL).
  - REFER TO MECHANICAL DRAWINGS FOR GARAGE CARBON MONOXIDE AND NO2 DETECTION SYSTEM LAYOUT AND DETAIL.
  - ALL INSTALLATIONS MUST MEET NEC CODE AND LOCAL JURISDICTIONS.
  - AH-1-1 & AH-TL ARE FED FROM OUT DOOR UNITS.
  - NO BACK-TO-BACK OUTLETS PERMITTED.
  - PROVIDE EMERGENCY OVERRIDE RELAY FOR ALL SWITCHED EMERGENCY LIGHTING FIXTURES (TYPICAL).
  - PROVIDE 3/4" THICK FIRE RETARDANT PLYWOOD BACKBOARD 8'-0" HIGH FOR TELCO. INSTALLED UNDER CARPENTERS SCOPE.
  - TELCOM EQUIPMENT, RACKS AND CABLE TRAYS SHALL BE GROUNDED AS PER MANUFACTURER REQUIREMENT.

1 ELECTRICAL FLOOR PLAN - CELLAR FLOOR  
1/8" = 1'-0"

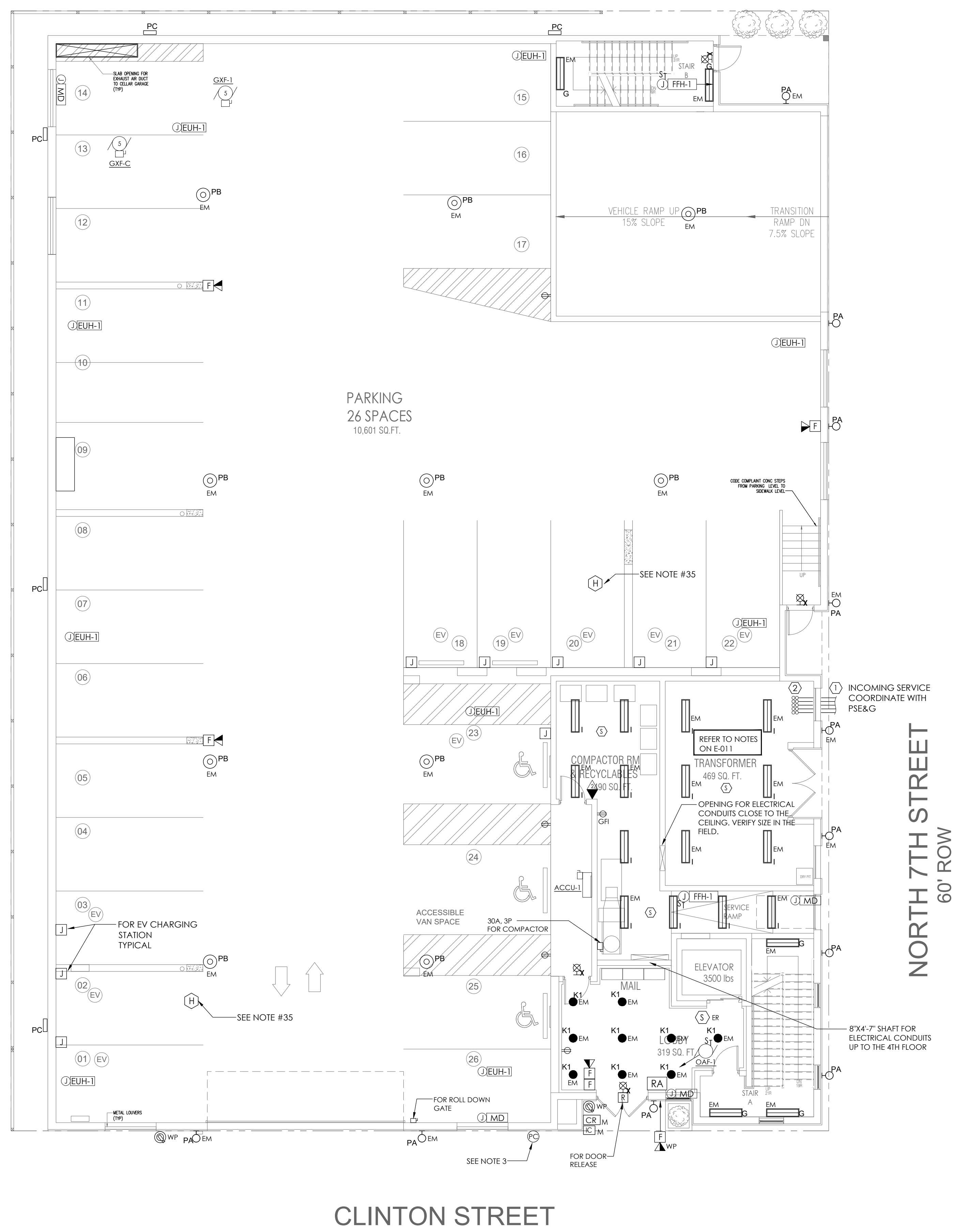
PROJECT ADDRESS: 108-114 NORTH 7TH STREET PATERSON, NJ BLOCK: 414 LOTS: 1 & 21	
DRAWING NAME: ELECTRICAL CELLAR PLAN	
BLDG DEPT REF. #	SCALE: AS NOTED
SIGNATURE & SEAL ALEXEY WAHUIS ENGINEER N.J. LIC. No. GE56570	DATE: 12/10/2021
	DRAWING # <b>E-100</b>
PROJECT #: 2021.09.02	



ARCHITECT:  
 AK ARCHITECTURE  
 151 WEST PASSAIC STREET  
 ROCHELLE PARK NJ  
 07662  
 TEL: 201-906-6359  
 AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
 MAE Engineering, PLLC  
 81 Serrell Ave  
 Staten Island, NY 10312  
 917.855.5050 - 646.643.8104



- NOTES:
- REFER TO DRAWING E-300 FOR CIRCUITING REQUIREMENTS.
  - EMERGENCY LIGHTING WILL REMAIN ON ALL THE TIME IN CORRIDORS AND PARKING GARAGE. EMERGENCY LIGHTING DESIGNATED WITH "EM" SHALL BE CONNECTED TO THE EMERGENCY GENERATOR.
  - OCCUPANCY SENSORS IN CORRIDORS, ELEV. LOBBY AND PARKING GARAGE SHALL CONTROL NORMAL LIGHTING FIXTURES ONLY.
  - EXTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED BY PHOTOCELL TO TURN LIGHTS ON/OFF.
  - ELECTRICAL CONTRACTOR TO PROVIDE SEPARATE NEUTRALS FOR ALL ARC FAULT (AFCI), AND GROUND FAULT (GFCI) BRANCH CIRCUITS. SHARED NEUTRALS ARE NOT PERMITTED.
  - EXIT LIGHTS TO BE CIRCUITED TO NEAREST STAIR LIGHTING FIXTURE CIRCUIT.
  - COORDINATE EXACT ROUGH-IN LOCATION OF EACH DEVICE PRIOR TO INSTALLATION WITH ARCHITECT.
  - COORDINATE ALL CONDUIT ROUTING IN FIELD WITH CONSTRUCTION MANAGER.
  - COORDINATE EXACT LOCATION CONTROL PANELS, STARTERS & VFD WITH MECHANICAL CONTRACTOR. PRIOR TO INSTALLATION, MAINTAIN A MINIMUM WORKING CLEARANCE OF 3 FEET IN FRONT OF ALL EQUIPMENT.
  - ALL WET-PIPE PLUMBING PIPING ON AREAS SUBJECT TO FREEZING MUST BE HEAT TRACED. FURNISH AND INSTALL ALL REQUIRED HEAT TRACING AND ASSOCIATED CONTROLS, ETC FOR A COMPLETE OPERATIONAL SYSTEM. PROVIDE ALL REQUIRED LENGTHS AS REQUIRED BY PLUMBING CONTRACT DOCUMENTS. SEE DETAIL 'L' ON DRAWING E-400.
  - RECESSED LIGHTING IN FIRE RATED CEILINGS SHALL BE PROVIDED WITH A FIRE-RATED ENCLOSURE.
  - VERIFY THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH EQUIPMENT MANUFACTURER.
  - PROVIDE AND INSTALL CONTROL WIRING FOR ALL THERMOSTATS AS REQUIRED. COORDINATE WITH MECHANICAL DRAWINGS.
  - INCREASE BRANCH CIRCUITRY WIRE SIZE FOR EVERY 100 FEET DISTANCE EQUIPMENT TO BE WIRED IS FROM THE ELECTRICAL PANEL TO ACCOUNT FOR VOLTAGE DROP.
  - PROVIDE 2 #8 AND 1#8G IN 3/4" CONDUIT FOR EXTERIOR WALL LIGHTING.
  - 2 CIRCUITS ARE PROVIDED FOR EXTERIOR BUILDING LIGHTING AND 2 CIRCUITS ARE PROVIDED FOR THE SITE LIGHTING FROM PANEL "HLP". FOR SITE LIGHTING LAYOUT REFER TO LANDSCAPE DRAWINGS.
  - FOR LIGHTING CIRCUIT RUNS GREATER THAN 100 FEET, INCREASE WIRE SIZE FROM #12 AWG TO #10 AWG (INCREASE IN WIRE SIZE SHALL SUPERCEDE #12 AWG WIRING SHOWN FOR BRANCH CIRCUITS ON PANEL SCHEDULE), WHERE NEUTRALS ARE SHARED, A MINIMUM #10 NEUTRAL SHALL BE PROVIDED FOR #12 AWG PHASE WIRES (MINIMUM #8 NEUTRAL FOR #10 AWG PHASE WIRES) ALONG WITH MULTI-POLE 20 AMP CIRCUIT BREAKER (NUMBER OF BREAKER POLES SHALL MATCH NUMBER OF SHARED CIRCUITS/PHASES).
  - FOR RECEPTACLE CIRCUIT RUNS GREATER THAN 100 FEET, INCREASE WIRE SIZE FROM #12 AWG TO #10 AWG (INCREASE IN WIRE SIZE SHALL SUPERCEDE #12 AWG WIRING SHOWN FOR BRANCH CIRCUITS ON PANEL SCHEDULE), WHERE NEUTRALS ARE SHARED, A MINIMUM #10 NEUTRAL SHALL BE PROVIDED FOR #12 AWG PHASE WIRES (MINIMUM #8 NEUTRAL FOR #10 AWG PHASE WIRES) ALONG WITH MULTI-POLE 20 AMP CIRCUIT BREAKER (NUMBER OF BREAKER POLES SHALL MATCH NUMBER OF SHARED CIRCUITS/PHASES).
  - HVAC CONTROL WIRING SHALL BE IN 3/4" CONDUIT WHERE SPECIFICALLY REQUIRED BY CODE. COORDINATE WORK WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR.
  - ALL EXPOSED WIRING CEILINGS OR INTERIOR WALL MUST BE IN EMT.
  - FINAL FLEXIBLE CONDUIT CONNECTION WHIPS TO EQUIPMENT/FIXTURES SHALL NOT EXCEED 6'-0" IN LENGTH.
  - ALL CORE DRILLING FOR POKE-THRU DEVICES ARE TO BE COORDINATED AND APPROVED BY STRUCTURAL ENGINEER AND LANDLORD.
  - WHERE ANY CONDUIT CROSSES THE BUILDING'S STRUCTURAL EXPANSION JOINT, PROVIDE APPROPRIATE CONDUIT EXPANSION JOINT FITTING.
  - NO FOREIGN SYSTEMS (I.E PIPING, DUCT WORK, ETC.) ARE ALLOWED TO BE INSTALLED OVER ELECTRICAL PANELS.
  - POWER FOR FIRE SMOKE DAMPER (FSD) COORDINATE EXACT LOCATION AND SPECIFICATION WITH MECHANICAL DRAWINGS AND HVAC CONTRACTOR. PROVIDE SMOKE DETECTOR WITHIN 5' FOR ACTIVATION. REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
  - CONDUIT RUNS AND RISER SHOWN FOR INTENT ONLY. COORDINATE RUNS AND RISERS WITH STRUCTURAL ENGINEER. CONDUITS ARE TO BE SUPPORTED AND RUN AS CLOSE TO THE BOTTOM OF THE STRUCTURAL MEMBERS AS POSSIBLE.
  - WATER FLOW AND TAMPER SWITCHES FOR SPRINKLER SYSTEM, COORDINATE EXACT QUANTITIES AND LOCATION WITH SPRINKLER CONTRACTOR AND CONNECT TO THE FIRE ALARM SYSTEM AS REQUIRED BY CODE.
  - PROVIDE EMERGENCY OVERRIDE RELAY FOR ALL SWITCHED EMERGENCY LIGHTING FIXTURES (TYPICAL).
  - REFER TO MECHANICAL DRAWINGS FOR GARAGE CARBON MONOXIDE AND NO2 DETECTION SYSTEM LAYOUT AND DETAIL.
  - ALL INSTALLATIONS MUST MEET NEC CODE AND LOCAL JURISDICTIONS.
  - AH-1-1 & AH-TEL ARE FED FROM OUT DOOR UNITS.
  - NO BACK-TO-BACK OUTLETS PERMITTED.
  - PROVIDE EMERGENCY OVERRIDE RELAY FOR ALL SWITCHED EMERGENCY LIGHTING FIXTURES (TYPICAL).
  - PROVIDE 3/4" THICK FIRE RETARDANT PLYWOOD BACKBOARD 8'-0" HIGH FOR TELCO, INSTALLED UNDER CARPENTER'S SCOPE.
  - TELCOM EQUIPMENT, RACKS AND CABLE TRAYS SHALL BE GROUNDED AS PER MANUFACTURER REQUIREMENT.
  - POWER SUPPLY TO THE ELECTRIC CHARGING STATION SHALL BE SHUT-OFF BY TRIPPING THE C.B. WHEN THE HEAT DETECTOR NEAR THE CHARGING STATION IS ACTIVATED.

- ELECTRICAL KEY NOTES:
- COORDINATE EXACT LOCATION OF INCOMING SERVICE WITH CIVIL PLANS.
  - CONDUITS FOR INCOMING SERVICE PSE&G. COORDINATE EXACT LOCATION AND NUMBER OF CONDUITS WITH PSE&G.

1 ELECTRICAL FLOOR PLAN - 1ST FLOOR  
 1/8" = 1'-0"

PROJECT ADDRESS:  
 108-114 NORTH 7TH STREET  
 PATERSON, NJ  
 BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
 ELECTRICAL 1ST FLOOR PLAN

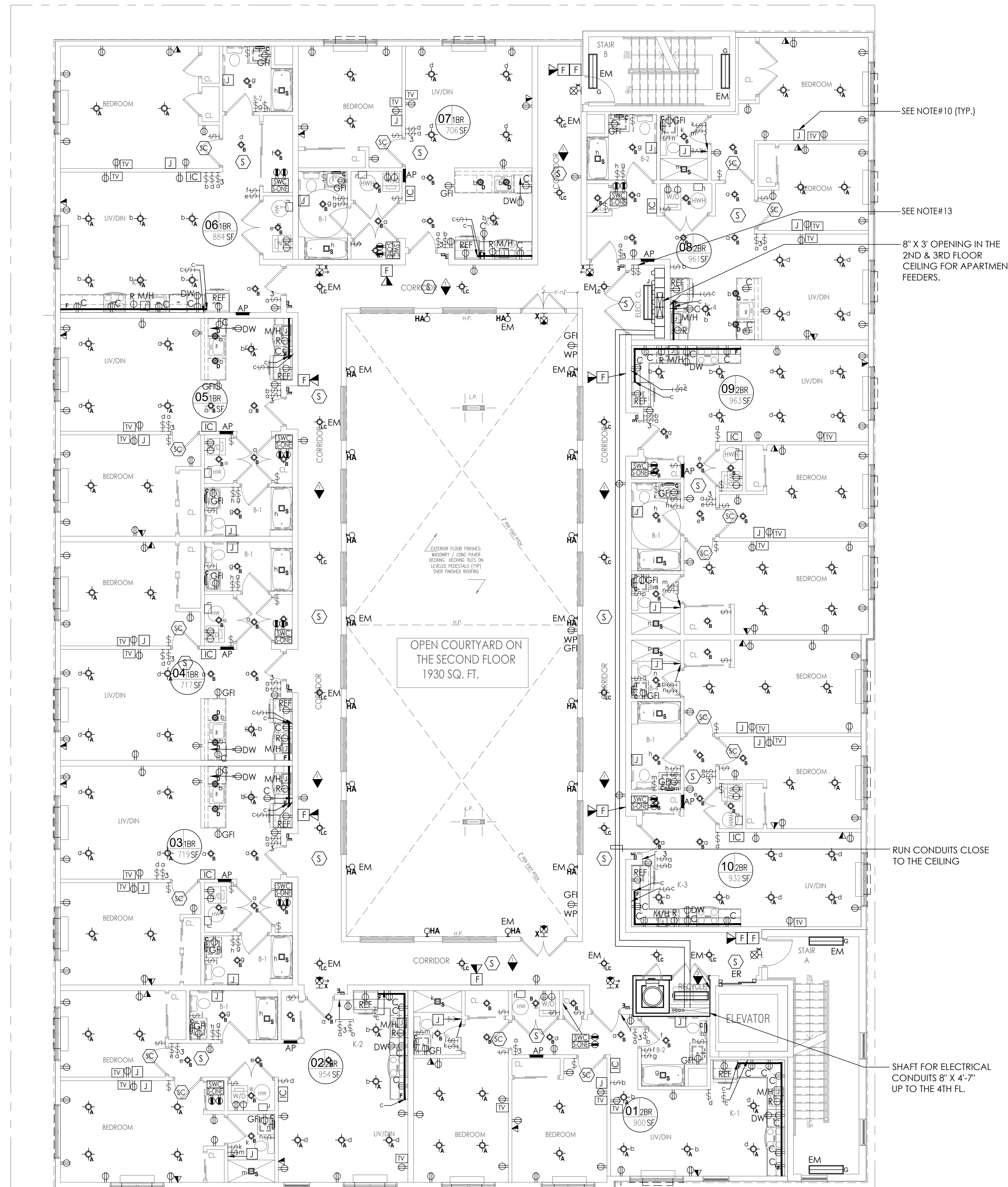
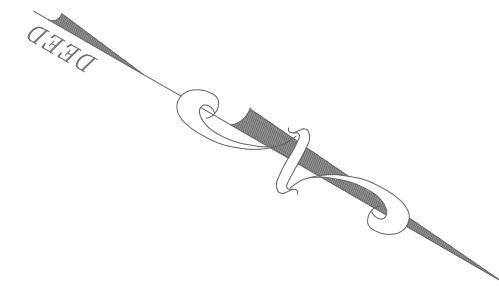
BLDG DEPT REF. # SCALE:  
 AS NOTED

SIGNATURE & SEAL  
 ALEKSEY WAKHUIS  
 ENGINEER  
 N.J. LIC. No. GE56570

DATE:  
 12/10/2021

DRAWING #  
**E-101**

PROJECT #: 2021.09.02



NOTES:

1. FOR GENERAL NOTES REFER TO DRAWING E-010.
2. ALL LIGHTING, RECEPTACLES AND MECHANICAL EQUIPMENT SHALL BE CIRCUITED TO PANEL HLP1&2 U.O.N.
3. REFER TO DRAWING E-300 FOR CIRCUITING REQUIREMENTS.
4. EMERGENCY LIGHTING WILL REMAIN ON ALL THE TIME. LIGHTING FIXTURES WITH 'EM' DESIGNATION SHALL BE PROVIDED WITH EMERGENCY PACK.
5. OCCUPANCY SENSORS IN CORRIDORS, ELEV. LOBBIES SHALL CONTROL NORMAL LIGHTING FIXTURES ONLY.
6. ALL RECEPTACLES IN KITCHENS AND BATHROOMS SHALL BE GROUND FAULT CIRCUIT INTERRUPTING TYPE (G.F.I.).
7. ALL DEVICES IN APARTMENTS SHALL BE CIRCUITED TO LOCAL APARTMENT PANEL 'AP'.
8. APARTMENT PANEL, AND NID BOX SHALL BE RECESSED MOUNTED.
9. WHERE NO APARTMENT LAYOUT IS NOTED, PROVIDE COMPLETE POWER, LIGHTING AND COMMUNICATION LAYOUT, REFER TO TYPICAL APARTMENT FLOOR PLAN.
10. SLEEPING UNITS AND BATHROOMS ARE PROVIDED WITH A PRE-WIRED JUNCTION BOX FOR THE CAPABILITY TO SUPPORT VISIBLE FIRE ALARM NOTIFICATION DEVICES FOR FUTURE ADA ADAPTABILITY WITH IBC 907 SECTION AND CHAPTER OF ICC A117.
11. INTERLOCK TOILET EXHAUST FAN 'TX-1' WITH LIGHT SWITCH.
12. PROVIDE SWITCHES FOR RANGE HOOD FAN AND LIGHT IN THE KITCHEN & SHALL BE MOUNTED ABOVE THE COUNTER SHOULD BE ACCESSIBLE FOR ADAPTABLE UNITS ONLY, OTHERWISE PROVIDE MICROWAVE.
13. ALL RECEPTACLES IN COMMON CORRIDOR SHALL BE CONTROLLED VIA SWITCH LOCATED IN ELECTRICAL CLOSET.
14. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND NUMBERS OF FIRE SMOKE DAMPERS.
15. PROVIDE 120V CIRCUIT FROM EACH APARTMENT PANEL FOR DRYER BOOSTER FANS LOCATED INSIDE APARTMENT LAUNDRY CLOSET.
16. DRAWINGS ARE DIAGRAMMATIC ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL RECEPTACLES IN APARTMENTS AS PER NEC CODE.
17. EXIT LIGHTS TO BE CIRCUITED TO NEAREST STAIR LIGHTING FIXTURE CIRCUIT.
18. NO BACK TO BACK OUTLETS ARE PERMITTED.
19. VERIFY THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH EQUIPMENT MANUFACTURER.
20. PROVIDE AND INSTALL CONTROL WIRING FOR ALL THERMOSTATS AS REQUIRED, COORDINATE WITH MECHANICAL DRAWINGS.
21. ALL BRANCH CIRCUITRY TO BE COPPER UNLESS OTHERWISE NOTED.

1 ELECTRICAL FLOOR PLAN - 2ND - 4TH TYPICAL FLOOR  
1/8" = 1'-0"



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
ELECTRICAL 2ND-4TH TYPICAL FLOOR PLAN

BLDG DEPT REF.# SCALE:  
AS NOTED

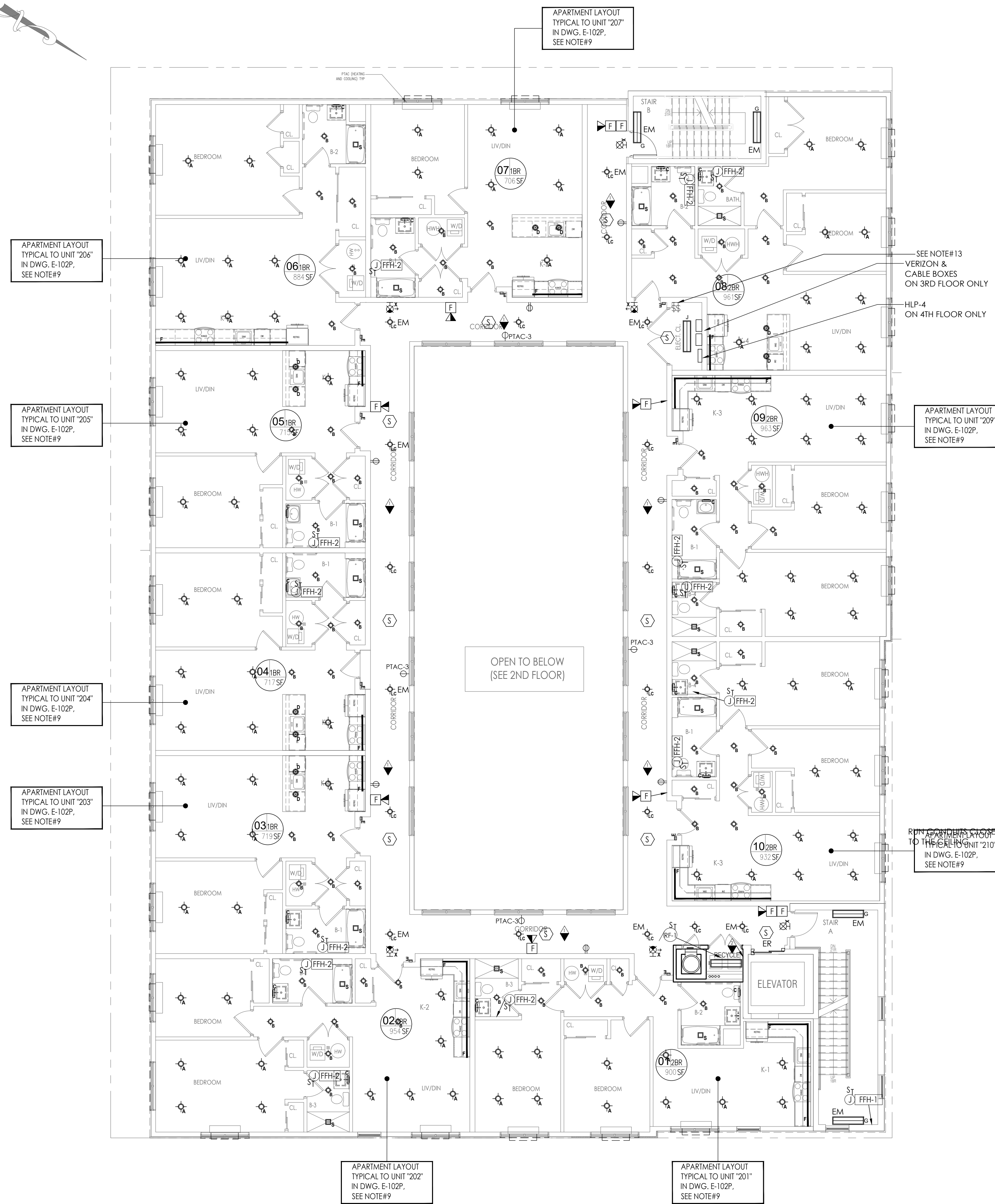
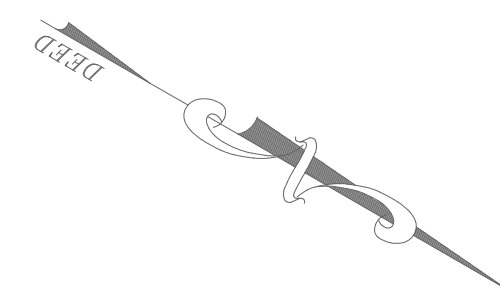
SIGNATURE & SEAL  
ALEXEY WAPILIS  
ENGINEER  
N.J. LIC. No. GE56570

DATE:  
12/10/2021

DRAWING #

E-102

PROJECT #: 2021.09.02



NOTES:

1. FOR GENERAL NOTES REFER TO DRAWING E-010.
2. ALL LIGHTING, RECEPTACLES AND MECHANICAL EQUIPMENT SHALL BE CIRCUITED TO PANEL HLP1&2 U.O.N.
3. REFER TO DRAWING E-300 FOR CIRCUITING REQUIREMENTS.
4. EMERGENCY LIGHTING WILL REMAIN ON ALL THE TIME. LIGHTING FIXTURES WITH 'EM' DESIGNATION SHALL BE PROVIDED WITH EMERGENCY PACK.
5. OCCUPANCY SENSORS IN CORRIDORS, ELEV. LOBBIES SHALL CONTROL NORMAL LIGHTING FIXTURES ONLY.
6. ALL RECEPTACLES IN KITCHENS AND BATHROOMS SHALL BE GROUND FAULT CIRCUIT INTERRUPTING TYPE (G-F.I).
7. ALL DEVICES IN APARTMENTS SHALL BE CIRCUITED TO LOCAL APARTMENT PANEL 'AP'.
8. APARTMENT PANEL AND NID BOX SHALL BE RECESSED MOUNTED.
9. WHERE NO APARTMENT LAYOUT IS NOTED, PROVIDE COMPLETE POWER, LIGHTING AND COMMUNICATION LAYOUT, REFER TO TYPICAL APARTMENT FLOOR PLAN.
10. SLEEPING UNITS AND BATHROOMS ARE PROVIDED WITH A PRE-WIRED JUNCTION BOX FOR THE CAPABILITY TO SUPPORT VISIBLE FIRE ALARM NOTIFICATION DEVICES FOR FUTURE ADA ADAPTABILITY WITH IBC 907 SECTION AND CHAPTER OF ICC A117.
11. INTERLOCK TOILET EXHAUST FAN 'TX-1' WITH LIGHT SWITCH.
12. PROVIDE SWITCHES FOR RANGE HOOD FAN AND LIGHT IN THE KITCHEN & SHALL BE MOUNTED ABOVE THE COUNTER SHOULD BE ACCESSIBLE FOR ADAPTABLE UNITS ONLY, OTHERWISE PROVIDE MICROWAVE.
13. ALL RECEPTACLES IN COMMON CORRIDOR SHALL BE CONTROLLED VIA SWITCH LOCATED IN ELECTRICAL CLOSET.
14. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND NUMBERS OF FIRE SMOKE DAMPERS.
15. PROVIDE 120V CIRCUIT FROM EACH APARTMENT PANEL FOR DRYER BOOSTER FANS LOCATED INSIDE APARTMENT LAUNDRY CLOSET.
16. DRAWINGS ARE DIAGRAMMATIC ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL RECEPTACLES IN APARTMENTS AS PER NEC CODE.
17. EXIT LIGHTS TO BE CIRCUITED TO NEAREST STAIR LIGHTING FIXTURE CIRCUIT.
18. NO BACK TO BACK OUTLETS ARE PERMITTED.
19. VERIFY THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH EQUIPMENT MANUFACTURER.
20. PROVIDE AND INSTALL CONTROL WIRING FOR ALL THERMOSTATS AS REQUIRED. COORDINATE WITH MECHANICAL DRAWINGS.
21. ALL BRANCH CIRCUITRY TO BE COPPER UNLESS OTHERWISE NOTED.

1 ELECTRICAL FLOOR PLAN - 2ND - 4TH TYPICAL FLOOR  
1/8" = 1'-0"



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
ELECTRICAL 2ND-4TH TYPICAL  
FLOOR PLAN

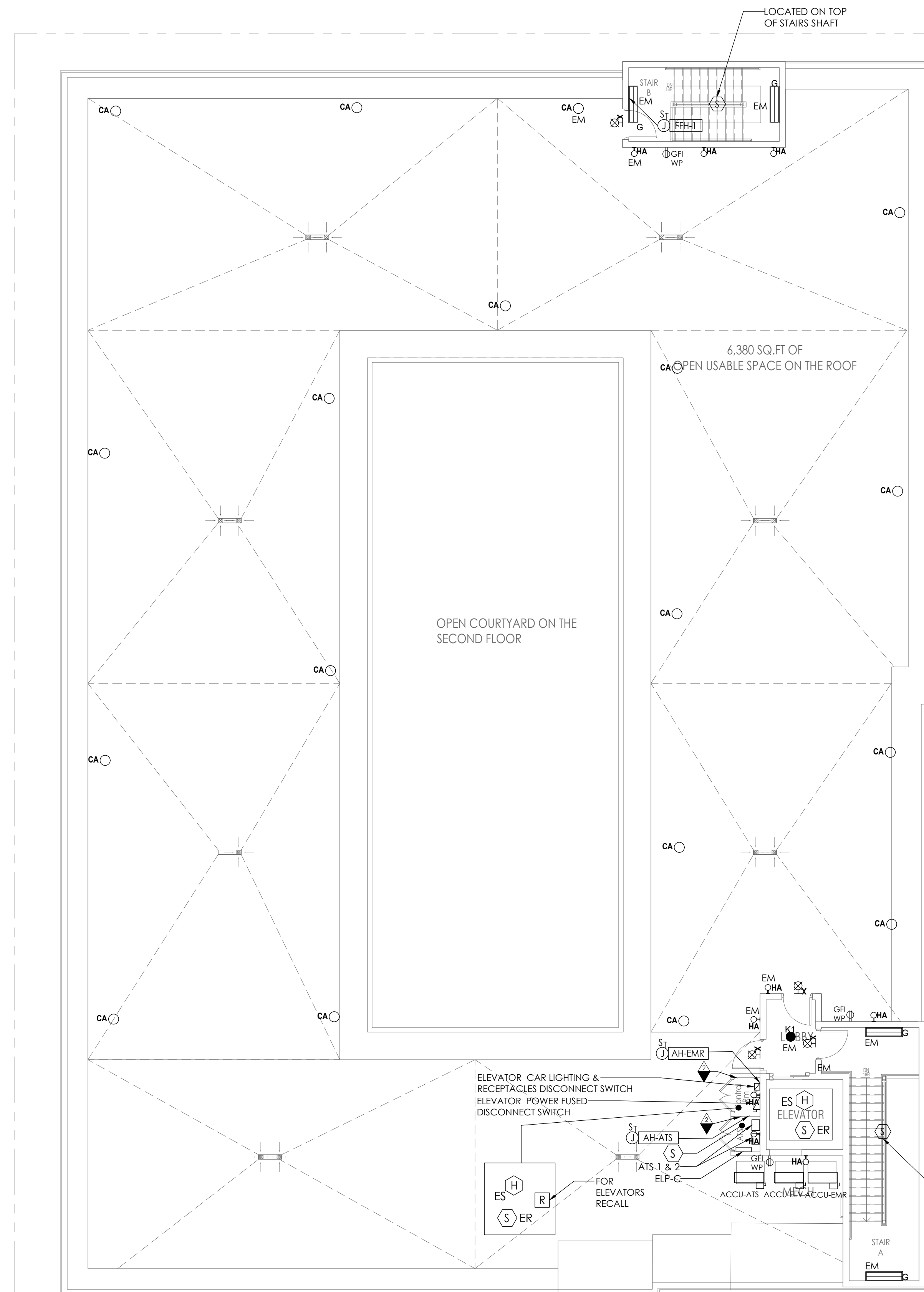
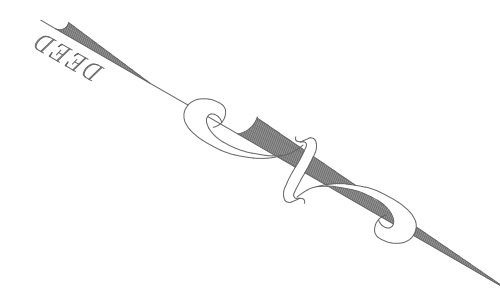
BLDG DEPT REF.# SCALE:  
AS NOTED

SIGNATURE & SEAL  
ALEXEY MAHLIS  
ENGINEER  
N.J. LIC. No. GE56570

DATE:  
12/10/2021

DRAWING #  
**E-102**

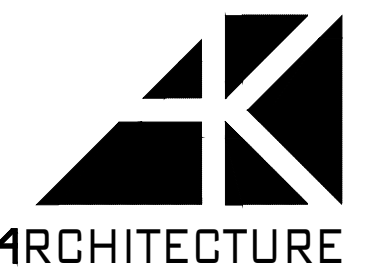
PROJECT #: 2021.09.02



NOTES:

1. FOR GENERAL NOTES REFER TO DRAWING E-010.
2. ALL MECHANICAL UNITS SERVING COMMON AREAS, LIGHTING AND RECEPTACLES SHALL BE CIRCUITED TO PANEL HLP-4 LOCATED ON THE 4TH FLOOR.
3. ALL EQUIPMENT ON ROOF SHALL BE SUITABLE FOR WET LOCATION.
4. FOR EXACT LOCATION OF EQUIPMENT ON ROOF REFER TO MECHANICAL DRAWINGS.
5. REFER TO DRAWING E-300 FOR CIRCUITING REQUIREMENTS.
6. COORDINATE EXACT LOCATION CONTROL PANELS WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3 FEET IN FRONT OF ALL EQUIPMENT.
7. AC-ECR, & AC-EMR INDOOR UNITS SHALL BE POWERED FROM RESPECTIVE OUTDOOR UNIT. REFER TO MECHANICAL DRAWINGS.

1 ELECTRICAL FLOOR PLAN - ROOF  
1/8" = 1'-0"



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
ELECTRICAL ROOF PLAN

BLDG DEPT REF. # SCALE:  
AS NOTED

SIGNATURE & SEAL DATE:  
ALEXEY WAPILIS ENGINEER 12/10/2021  
N.J. LIC. No. GE56570

DRAWING #  
E-103

PROJECT #: 2021.09.02



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHITECTURE.COM

OWNER / APPLICANT:

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

NOTES:

- ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY (PSE&J) AND ALL LOCAL AND STATE GOVERNING CODES.
- PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSOR BY SIEMENS MODEL # TP53C030302 WITH INTEGRAL DISCONNECT SWITCH.
- PROVIDE DUAL ELEMENT TIME-DELAY FUSES FOR ELEVATOR.
- FURNISH AND INSTALL 4" CONCRETE PAD FOR SERVICE AND FLOOR MOUNTED SWITCHBOARDS.
- METER CENTERS SHALL BE APPROVED BY PSE&J.
- POWER SUPPLY TO ELEVATOR SHALL BE SHUT-OFF BY TRIPPING THE C.B. WHEN THE HEAT DETECTOR AT THE TOP OF THE ELEVATOR SHAFT IS ACTIVATED.
- WALL MOUNTED METER CENTER SHALL BE INSTALLED AT LEAST 6" ABOVE FINISHED FLOOR.
- SWITCHBOARD AND ALL PANELS SHALL BE FULLY RATED.
- CONTRACTOR MUST PROVIDE SWITCHBOARD SEALING PER THE UTILITY COMPANY REQUIREMENTS.
- POWER DISTRIBUTION EQUIPMENT SUPPLIER SHALL PROVIDE EQUIPMENT APPROPRIATELY RATED AND BRACED TO ACCOMMODATE THE AVAILABLE FAULT CURRENT AT THE UTILITY COMPANY TRANSFORMER SECONDARIES. THIS SUPPLIER SHALL ACCORDINGLY PROVIDE ANY RELATED CALCULATIONS SO THAT THEIR EQUIPMENT IS PROPERLY COORDINATED FOR THE AVAILABLE FAULT CURRENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THIS SUPPLIER WITH COPIES OF THE ELECTRICAL DOCUMENTS AS REQUIRED SO THAT PROPERLY RATED/BRACED EQUIPMENT IS PROVIDED UNDER BASE BID. EC SHALL SUBMIT TO TOWN FULL SHORT CIRCUIT AND COORDINATION STUDY ALONG WITH ARC FLASH ANALYSIS WITH ELECTRICAL GEAR SHOP DRAWINGS.
- ARC REDUCTION MAINTENANCE SWITCH FOR ALL BREAKERS 1200A OR ABOVE PER NEC 2014 - 240.87.
- PROVIDE CONTROL WIRING FROM EACH ROOFTOP CONDENSER TO RESPECTIVE A.H.U. AND FROM EACH A.H.U. TO THERMOSTAT CONTROLLER.
- PROVIDE SLEEVES AS REQUIRED TO ACCOMMODATE ALL PANEL RISERS, ROOFTOP ACCU FEEDERS, CONTROL WIRING, ETC.
- COORDINATE ALL ROOF PENETRATIONS AND PITCH POCKETS WITH ROOFING CONTRACTOR.
- THE ELECTRICAL ENERGY LEASE SHALL BE RECORDED A MINIMUM OF EVERY 15 MINUTES AND REPORTED AT LEAST HOURLY, DAILY, MONTHLY AND ANNUALLY. THE DATA FOR EACH TENANT SHALL BE AVAILABLE TO THAT TENANT. THE SYSTEM SHALL BE CAPABLE OF MAINTAINING ALL DATA COLLECTED FOR A MINIMUM OF 36 MONTHS.

- ELECTRICAL CONTRACTOR SHALL COORDINATE ELEVATOR FEEDER AND OVERCURRENT PROTECTION SEE WITH ELEVATOR VENDOR/MANUFACTURER. PROVIDE ELEVATOR POWER MODULE, POWER MODULE SHALL HAVE SHUNT TRIP, FIRE SAFETY INTERFACE, RELAY, MECHANICALLY INTERLOCKED AUXILIARY CONTACTS AND FIRE ALARM VOLTAGE MONITORING RELAY TO MONITOR SHUNT TRIP VOLTAGE.
- ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE LISTED, LABELED, AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY.
- TWO OR MORE CONDUCTORS THAT LAND ON A SINGLE LUG SHALL BE LISTED FOR THAT USE.
- DESIGN TEMPERATURE OF THE CONDUCTORS AND THEIR TERMINATIONS SHALL BE 75°C.
- PARALLEL FEEDER CONDUCTORS SHALL BE CUT TO EXACTLY THE SAME LENGTHS AND SHALL BE FROM THE SAME FACTORY ROLL. ALL CONNECTIONS FOR SAME SHALL BE FORGED TO IDENTICAL VALUES.
- CONDUCTORS BELOW GRADE OR SUBJECT TO MOISTURE SHALL BE "XHHW-2".
- PROVIDE FACTORY SERIES COORDINATION FOR ALL CIRCUIT BREAKERS (INCLUDING ALL BRANCH BREAKERS) RELATIVE TO "UPSTREAM" BREAKERS SO THAT ONLY THE BREAKER CLOSEST TO THE CIRCUIT TO THE LOAD TRIPS UPON AN OVERLOAD OR FAULT CONDITION.
- WORKING CLEARANCES SHALL BE PROVIDED FOR ELECTRICAL EQUIPMENT (SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, STARTERS, DISCONNECTS, ETC. AS APPLICABLE) IN STRICT COMPLIANCE WITH N.E.C. CHAPTER 1, PART 8, SECTION 110-26(A). LOCATION SHOWN ON FLOOR PLANS ARE SCHEMATIC AND DIAGRAMMATIC IN NATURE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH THE ABOVE N.E.C. REFERENCE. THIS REQUIREMENT APPLIES TO EQUIPMENT ON FLOOR PLANS AS WELL AS TO EQUIPMENT ON SHOWN ON RISER.
- LOCATE ANY RELATED PULL-BOXES SO THAT THEY WILL BE FULLY ACCESSIBLE AFTER ALL CONSTRUCTION WORK IS COMPLETE. AS WITH ALL WORK, COORDINATE IN ADVANCE WITH ALL OTHER TRADES.
- ELECTRICAL CONTRACTOR SHALL PERFORM ARC-FLASH ANALYSIS AND PROVIDE ARC-FLASH LABELING ON ALL ELECTRIC PANELS (EXCLUDING DWELLING UNIT PANELS). LABELS SHALL PROVIDE THE HAZARD, THE BOUNDARY DISTANCE, REQUIRED PPE, ETC.
- BASE OF THE DESIGN IS SIEMENS.

ROOF

4TH FLOOR

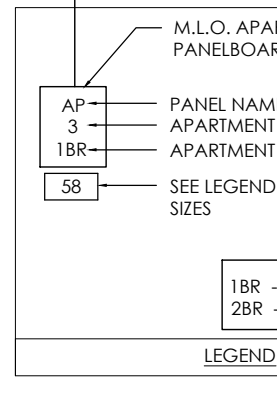
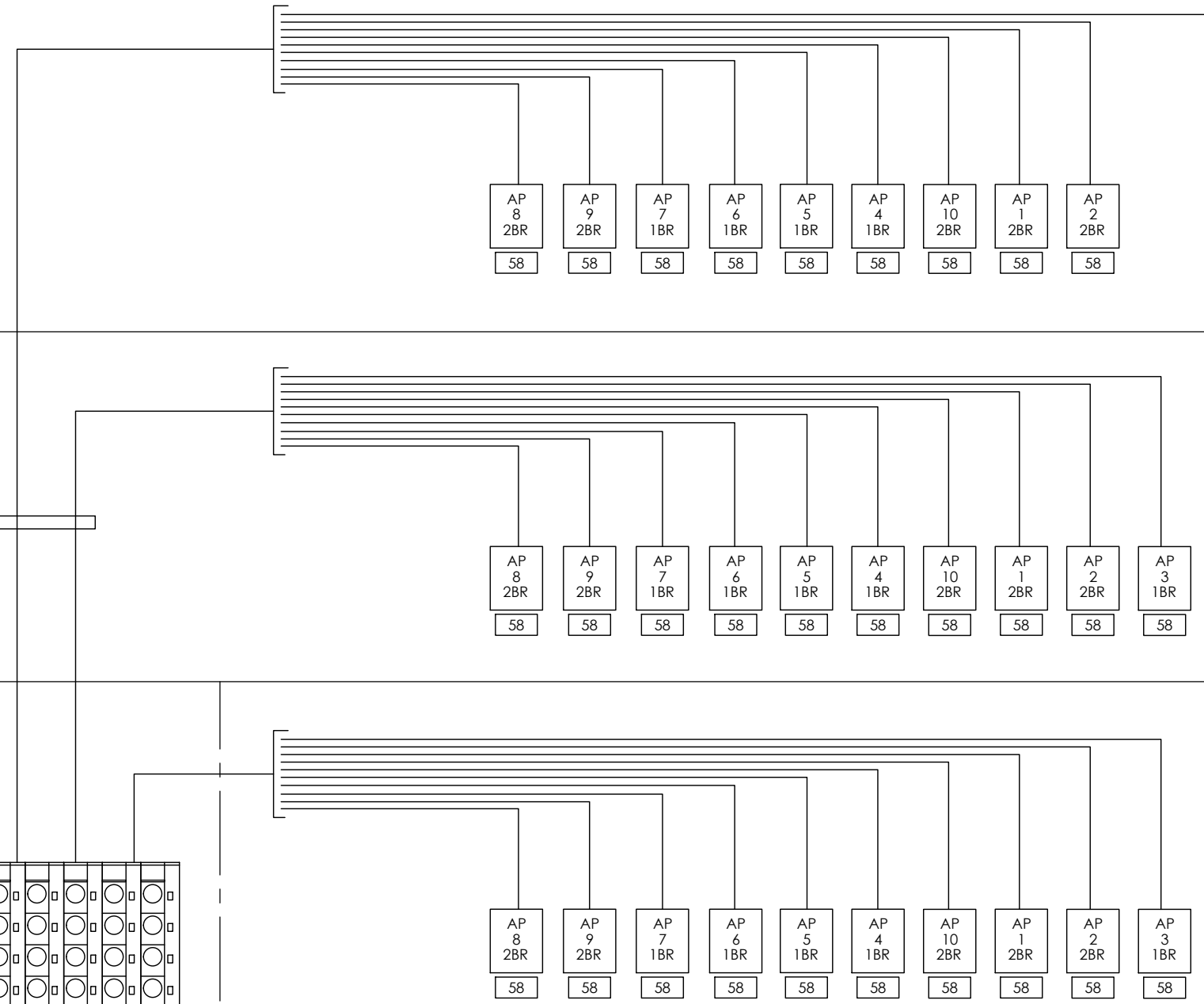
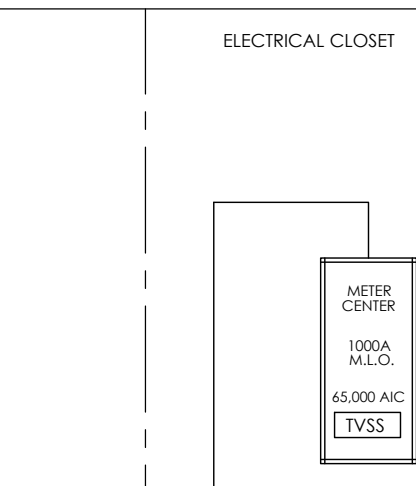
3TH FLOOR

2ND FLOOR

FIRST FLOOR

CELLAR

ROUTE MC CABLE RISERS ON UNISUIT RACKS 5" ON CENTER SUSPENDED FROM SLAB WITH THREADED ROD BELOW IN CEILING. TYPICAL



- EMERGENCY WIRING NOTES:
- ALL BOXES AND ENCLOSURES INCLUDING TRANSFER SWITCHES, GENERATOR, AND POWER PANELS FOR EMERGENCY CIRCUITS SHALL BE PERMANENTLY MARKED.
  - ALL EMERGENCY FEEDERS SHALL RUN IN A 2 HOUR RATED ENCLOSURE WHEN RUNNING IN NON-SPRINKLERED AREA.
  - NORMAL AND EMERGENCY FEEDERS RUNNING IN A COMMON 2 HOUR RATED SHAFT SHALL BE SEPARATED BY 1 HOUR RATED SHEILD. EMERGENCY CIRCUIT WIRING SHALL NOT ENTER THE SAME RACEWAY, BOX, OR CABINET AS THE NORMAL WIRING. WIRING FOR EMERGENCY CIRCUITS MUST BE COMPLETELY INDEPENDENT OF ALL OTHER WIRING AND EQUIPMENT.

LEGEND OF FEEDER SIZES - ALUMINUM CONDUCTORS

FEEDER DESIGNATION	CONDUCTOR TYPE (PHASE)	LENGTH	CONDUCTOR TYPE (PHASE)	LENGTH	AMPERE RATING
10	3/4" E. WEG.	1.14'	4/0 E. WEG.	3.00'	100
11	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
12	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
13	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
14	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
15	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
16	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
17	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
18	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
19	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
20	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
21	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
22	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
23	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
24	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
25	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
26	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
27	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
28	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
29	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
30	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
31	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
32	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
33	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
34	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
35	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
36	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
37	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
38	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
39	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
40	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
41	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
42	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
43	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
44	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
45	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
46	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
47	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
48	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
49	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
50	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
51	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
52	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
53	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
54	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
55	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
56	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
57	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
58	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
59	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
60	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
61	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
62	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
63	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
64	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
65	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
66	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
67	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
68	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
69	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
70	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
71	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
72	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
73	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
74	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
75	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
76	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
77	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
78	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
79	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
80	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
81	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
82	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
83	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
84	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
85	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
86	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
87	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
88	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
89	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
90	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
91	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
92	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
93	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
94	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
95	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
96	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
97	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
98	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
99	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
100	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100

LEGEND OF FEEDER SIZES - COPPER CONDUCTORS

FEEDER DESIGNATION	CONDUCTOR TYPE (PHASE)	LENGTH	CONDUCTOR TYPE (PHASE)	LENGTH	AMPERE RATING
10	3/4" E. WEG.	1.14'	4/0 E. WEG.	3.00'	100
11	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
12	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
13	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
14	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
15	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
16	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
17	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
18	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
19	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
20	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
21	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
22	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
23	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
24	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
25	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
26	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
27	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
28	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
29	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
30	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
31	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
32	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
33	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
34	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
35	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
36	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
37	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
38	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
39	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
40	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
41	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
42	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
43	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
44	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
45	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
46	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
47	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
48	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
49	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
50	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
51	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
52	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
53	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
54	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
55	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
56	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
57	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
58	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
59	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
60	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
61	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
62	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
63	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
64	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
65	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
66	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
67	3/4" E. WEG.	2'	4/0 E. WEG.	2'	100
68	3/4" E. WEG.	2'	4		



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

PANEL NAME: AP1		LOCATION: APARTMENT UNIT		208					
1 BEDROOM APARTMENT 125 AMP M.L.O., 120/208VOLTS, 1 PH, 3 WIRE 60 HERTZ, A.C., SOLID NEUTRAL & GND		MOUNTING: RECESSED A.I.C. RATING: 10,000							
EQUIP LOAD KVA	LOAD SERVED	BKR RTG IN AMPS	CKT No.	A	B	CKT No.	BKR RTG IN AMPS	LOAD SERVED	EQUIP LOAD KVA
0.40	LIGHTING	20	1	1.2		2	20	LIVING ROOM RECEPTACLES	0.80
1.00	REFRIGERATOR RECEPTACLE	20	3		1.4	4	20	S-ONE, SWC	0.40
1.00	MICROWAVE/RANGE HOOD	20	5	1.4		6	20	BATHROOM RECEPTACLE	0.40
1.00	DISHWASHER	20	7		2.5	8	20	WASHER	1.50
1.50	SMALL APPLIANCES	20	9	4.0		10	30/2P	DRYER	2.50
1.50	SMALL APPLIANCES	20	11		4.0	12	30/2P	3#10 & 1#10G - MC CABLE	2.50
4.00	ELECTRIC RANGE	20	13	4.0		14	20	BEDROOM RECEPTACLES	0.60
4.00	3#8 & 1#8G - MC CABLE	40/2P	15		7.0	16	40/2P	HOT WATER HEATER	3.00
0.20	S/CO ALARM	20	17	3.2		18	40/2P	2#8 & 1#8G - MC CABLE	3.00
	TF-1	20	19		0.7	20	15/2P	PTAC-1	0.66
0.82	PTAC-2	15/2P	21	1.5		22	15/2P	2#12 & 1#12G - MC CABLE	0.66
0.82	2#12 & 1#12G - MC CABLE	20	23		0.6	24	20	SPARE	0.66
	SPARE	20	25	0.0			20	SPARE	
	SPARE	20	27				20	SPARE	
TOTAL PER PHASE: 15.9 16.4									
UNITS		KVA	AMPS		*PROMDE GFI RECEPT. FOR DISHWASHER				
TOTAL CONNECTED LOAD		23.62	113.50						
TOTAL DEMAND LOAD		20.07	96.48						

PANEL NAME: AP2		LOCATION: APARTMENT UNIT		208					
2 BEDROOM APARTMENT 125 AMP M.L.O., 120/208 VOLTS, 1 PH, 3 WIRE 60 HERTZ, A.C., SOLID NEUTRAL & GND		MOUNTING: RECESSED A.I.C. RATING: 10,000							
EQUIP LOAD KVA	LOAD SERVED	BKR RTG IN AMPS	CKT No.	A	B	CKT No.	BKR RTG IN AMPS	LOAD SERVED	EQUIP LOAD KVA
0.40	LIGHTING	20	1	1.0		2	20	LIVING ROOM RECEPTACLES	0.60
1.00	REFRIGERATOR RECEPTACLE	20	3		1.4	4	20	S-ONE, SWC	0.40
1.00	MICROWAVE/RANGE HOOD	20	5	1.4		6	20	BATHROOM RECEPTACLE	0.40
1.00	DISHWASHER	20	7		2.5	8	20	WASHER	1.50
1.50	SMALL APPLIANCES	20	9	4.0		10	30/2P	DRYER	2.50
1.50	SMALL APPLIANCES	20	11		4.0	12	30/2P	3#10 & 1#10G - MC CABLE	2.50
4.00	ELECTRIC RANGE	20	13	4.8		14	20	BEDROOM 1 RECEPTACLES	0.80
4.00	3#8 & 1#8G - MC CABLE	40/2P	15		7.0	16	40/2P	HOT WATER HEATER	3.00
0.20	S/CO ALARM	20	17	3.2		18	40/2P	2#8 & 1#8G - MC CABLE	3.00
	TF-1	20	19		0.7	20	15/2P	PTAC-1	0.66
0.60	BEDROOM 2 RECEPTACLES	20	21	1.3		22	15/2P	2#12 & 1#12G - MC CABLE	0.66
0.82	PTAC-2	15/2P	23		1.6	24	15/2P	PTAC-2	0.82
0.82	2#12 & 1#12G - MC CABLE	20	25	1.6		26	20	2#12 & 1#12G - MC CABLE	0.82
	SPARE	20	27			28	20	SPARE	
	SPARE	20	29	0.0			20	SPARE	
	SPARE	20	31				20	SPARE	
TOTAL PER PHASE: 17.3 17.2									
UNITS		KVA	AMPS		*PROMDE GFI RECEPT. FOR DISHWASHER				
TOTAL CONNECTED LOAD		34.51	165.90						
TOTAL DEMAND LOAD		22.22	106.85						

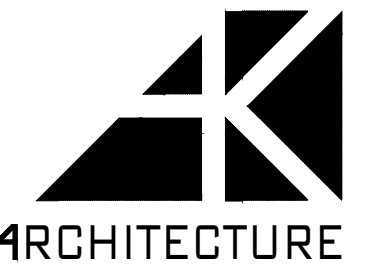
NOTES:

ALL 120V, SINGLE PHASE, 15A & 20A BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT PER ARTICLE 210.12 NEC 2017 EDITION.

PANEL NAME: HDP		LOCATION: CELLAR								
1000 AMP M.L.O., 120/208VOLTS, 3 PH, 4 WIRE 60 HERTZ, A.C., SOLID NEUTRAL & GND		MOUNTING: SURFACE A.I.C. RATING: 65,000								
EQUIP LOAD KVA	LOAD SERVES	BKR RTG IN AMPS	CKT No.	A	B	C	CKT No.	BKR RTG IN AMPS	LOAD SERVES	EQUIP LOAD KVA
	TVSS	60/3P	1	1.00			2	30/3P	COMPACTOR	1.00
			3		1.00		4			1.00
			5			1.00	6			1.00
	HLP	200/3P	7	0.00			8	200/3P	HLP-4	
			9		0.00		10			
			11			0.00	12			
	ATS#1(ELP-C & ELP-R)	70/3P	13	7.33			14	100/3P	ATS#2(ELEV. 20HP)	7.33
			15		7.33		16			7.33
			17			7.33	18			7.33
	GLP	200/3P	19	0.00			20	30/3P	SPARE	
			21		0.00		22			
			23			0.00	24			
	SPARE	60/3P	25	0.00			26			
			27		0.00		28			
			29			0.00	30			
TOTAL PER PHASE: 8.3 8.3 8.3										
UNITS		KVA	AMPS							
TOTAL CONNECTED LOAD		24.99	69.40							
TOTAL DEMAND LOAD		22.49	62.40							

PANEL NAME: HLP		LOCATION: ELECTRICAL ROOM								
225 AMP M.L.O., 120/208VOLTS, 3 PH, 4 WIRE 60 HERTZ, A.C., SOLID NEUTRAL & GND		MOUNTING: SURFACE A.I.C. RATING: 65,000								
EQUIP LOAD KVA	LOAD SERVES	BKR RTG IN AMPS	CKT No.	A	B	C	CKT No.	BKR RTG IN AMPS	LOAD SERVES	EQUIP LOAD KVA
	LIGHTING CELLAR	20	1	0.60			2	20	LIGHTING UTILITY ROOMS	0.60
	LIGHTING 1ST FLR	20	3		0.80		4	20	EXTERIOR LIGHTING	0.80
	LIGHTING 2ND FL	20	5			0.80	6	20	EXTERIOR LIGHTING	0.80
	LIGHTING 3RD FL	20	7	0.60			8	20	ELEVATOR SUMP PUMP - SP1	0.60
	STAIR A LIGHT, GROUND TO 3RD FL	20	9		0.80		10	20	STAIR B LIGHT, GROUND TO 3RD FL	0.80
	MOTORIZED DAMPERS	20	11			2.00	12	20	UTILITY ROOM RECEPTACLES	2.00
	FSD'S	20	13	2.00			14	20	UTILITY ROOM RECEPTACLES	2.00
2.00	CELLAR FL. FFH-1 - STAIR A	25/2P	15		4.00		16	20	UTILITY ROOM RECEPTACLES	2.00
2.00	2#10 & 1#10G - 3/4"C		17			4.00	18	20	UTILITY ROOM RECEPTACLES	2.00
2.00	GROUND FL. FFH-1 - STAIR B	25/2P	19	4.00			20	20	TELECOM RECEPTACLES	2.00
2.00	2#10 & 1#10G - 3/4"C		21		4.00		22	20	TELECOM RECEPTACLES	2.00
2.00	2ND FL. FFH-1 - STAIR A	25/2P	23			2.00	24	20	LOBBY RECEPTACLES	2.00
2.00	2#10 & 1#10G - 3/4"C		25	3.25			26	30/2P	GROUND FL. EUH-1	1.25
2.00	3RD FL. FFH-1 - STAIR A	25/2P	27		3.25		28	30/2P	2#10 & 1#10G - 3/4"C	1.25
2.00	2#10 & 1#10G - 3/4"C		29			3.25	30			1.25
0.75	CELLAR FFH-3	20	31	2.00			32	30/2P	GROUND FL. EUH-1	1.25
0.75	CELLAR FFH-3	20	33		2.00		34	30/2P	2#10 & 1#10G - 3/4"C	1.25
0.75	CELLAR FFH-3	20	35			2.00	36			1.25
0.50	FA PANEL	30/2P	37	1.37			38	20/2P	3RD FL. CORRIDOR PTAC-3	0.87
0.50	2#8 & 1#8G - 3/4"C		39		1.37		40	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	2ND FL. CORRIDOR PTAC-3	20/2P	41			1.75	42	20/2P	3RD FL. CORRIDOR PTAC-3	0.87
0.87	2#12 & 1#12G - 3/4"C		43	1.75			44	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	2ND FL. CORRIDOR PTAC-3	20/2P	45		1.75		46	20/2P	3RD FL. CORRIDOR PTAC-3	0.87
0.87	2#12 & 1#12G - 3/4"C		47			1.75	48	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	2ND FL. CORRIDOR PTAC-3	20/2P	49	1.75			50	20/2P	3RD FL. CORRIDOR PTAC-3	0.87
0.87	2#12 & 1#12G - 3/4"C		51		1.75		52	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	2ND FL. CORRIDOR PTAC-3	20/2P	53			1.75	54	20/2P	3RD FL. CORRIDOR PTAC-3	0.87
0.87	2#12 & 1#12G - 3/4"C		55	1.75			56	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	2ND FL. CORRIDOR PTAC-3	20/2P	57		1.47		58	20	2ND FL. RECEPTACLES	0.60
0.87	2#12 & 1#12G - 3/4"C		59			1.47	60	20	3RD FL. RECEPTACLES	0.60
	SPARE	20	61	0.00			62	20	SPARE	
	SPARE	20	63		0.00		64	20	SPARE	
	SPARE	20	65			0.00	66	20	SPARE	
	SPARE	20	67	0.00			68	20	SPARE	
	SPARE	20	69		0.00		70	20	SPARE	
	SPARE	20	71			0.00	72	20	SPARE	
	SPARE	20	73	0.00			74	20	SPARE	
	SPARE	20	75		0.00		76	20	SPARE	
			77			0.00	78			
			79	0.00			80			
			81			0.00	82			
			83				84			
TOTAL PER PHASE: 19.1 21.2 20.8										
UNITS		KVA	AMPS							
TOTAL CONNECTED LOAD		61.02	169.40							
TOTAL DEMAND LOAD		45.77	127.00							

PANEL NAME: HLP-4		LOCATION: 4TH FLR ELECT. CL.								
225 AMP M.L.O., 120/208VOLTS, 3 PH, 4 WIRE 60 HERTZ, A.C., SOLID NEUTRAL & GND		MOUNTING: SURFACE A.I.C. RATING: 65,000								
EQUIP LOAD KVA	LOAD SERVES	BKR RTG IN AMPS	CKT No.	A	B	C	CKT No.	BKR RTG IN AMPS	LOAD SERVES	EQUIP LOAD KVA
	LIGHTING 4TH FL	20	1	0.00			2	20	EXTERIOR LIGHTING	
	STAIR A LIGHT, GROUND 4TH FL.	20	3		0.00		4	20	STAIR B LIGHT, GROUND 4TH FL.	
	LIGHTING ROOF	20	5			0.60	6	20	4TH FL. RECEPTACLES	0.60
	MOTORIZED DAMPERS	20	7	0.60			8	20	ROOF RECEPTACLES	0.60
2.00	4TH FL. FFH-1 - STAIR A	25/2P	9		2.87		10	20/2P	4TH FL. CORRIDOR PTAC-3	0.87
2.00	2#10 & 1#10G - 3/4"C		11			2.87	12	20/2P	2#12 & 1#12G - 3/4"C	0.87
2.00	ROOF FFH-1 - STAIR B	25/2P	13	2.87			14	20/2P	4TH FL. CORRIDOR PTAC-3	0.87
2.00	2#10 & 1#10G - 3/4"C		15		2.87		16	20/2P	2#12 & 1#12G - 3/4"C	0.87
0.87	4TH FL. CORRIDOR PTAC-3	20/2P	17			0.87	18	20	SPARE	
0.87	2#12 & 1#12G - 3/4"C		19	0.87			20	20	SPARE	
0.87	4TH FL. CORRIDOR PT									



ARCHITECT:  
AK ARCHITECTURE  
151 WEST PASSAIC STREET  
ROCHELLE PARK NJ  
07662  
TEL: 201-906-6359  
AK@AKARCHUSA.COM

OWNER / APPLICANT :

MEP ENGINEER:  
MAE Engineering, PLLC  
81 Serrell Ave  
Staten Island, NY 10312  
917.855.5050 - 646.643.8104

EQUIP LOAD KVA		LOAD SERVES	BKR RTG IN AMPS	CKT No.	A	B	C	CKT No.	BKR RTG IN AMPS	LOAD SERVES	EQUIP LOAD KVA
1.00	GROUND FL EM LIGHTING GARAGE		20	1	1.80			2	20	2ND FLOOR EM LIGHTING	0.80
	SPARE		20	3		0.50		4	20	3RD FLOOR EM LIGHTING	0.50
1.00	GROUND FL EM LTG. LOBBY AND UTILITY RMS.		20	5			1.50	6	20	RECEPTACLE SUMP PUMP ELEVATOR PIT	0.50
0.50	GROUND FL. EXTERIOR EM LIGHTING		20	7	1.00			8	30/2P	FA PANEL	0.50
0.20	FSDs GROUND FLOOR		20	9		0.70		10	20	2#8 & 1#8 G - 3/4"C	0.50
0.20	FSDs 2ND FLOOR		20	11			0.20	12	20	SPARE	
0.20	FSDs 3RD FLOOR		20	13	0.20			14	20	SPARE	
	SPARE		20	15		0.00		16	20	SPARE	
	SPARE		20	17			0.00	18	20	SPARE	
TOTAL PER PHASE: 3.0 1.2 1.7											
			UNITS	KVA	AMPS						
			TOTAL CONNECTED LOAD	5.90	16.40						

EQUIP LOAD KVA		LOAD SERVES	BKR RTG IN AMPS	CKT No.	A	B	C	CKT No.	BKR RTG IN AMPS	LOAD SERVES	EQUIP LOAD KVA
0.20	FSDs 4TH FLOOR		20	1	1.00			2	20	GENERATOR BATTERY CHARGER	0.80
0.50	4TH FLR EM LIGHTING		20	3		0.90		4	20	GENERATOR LGHTS & RECEPTACLES	0.40
0.50	ROOF EM LIGHTING		20	5			2.50	6	20	GENERATOR JACKET HEATER	2.00
1.58	ACCU-EMR		30/2P	7	3.58			8	40/2P	2#8 & 1#10G - 3/4"C	2.00
1.58	2#10 & 1#10G - 3/4"C		30/2P	9		1.98		10	20	EMR RECEPTACLE (ROOF)	0.40
	SPARE		20	11			0.20	12	20	ELEV LGT & RECEPTACLE	0.20
	SPARE		20	13	1.50			14	20	SPARE	1.50
	SPARE		20	15		1.50		16	20	SPARE	1.50
	SPARE		20	17			0.00	18	20	SPARE	
TOTAL PER PHASE: 6.1 4.4 2.7											
PROVIDE FEED THRU LUGS FOR PANEL ELP-C											
			UNITS	KVA	AMPS						
			TOTAL CONNECTED LOAD	13.16	36.50						

PROJECT ADDRESS:  
108-114 NORTH 7TH STREET  
PATERSON, NJ  
BLOCK: 414 LOTS: 1 & 21

DRAWING NAME:  
ELECTRICAL  
PANEL SCHEDULES  
SHEET 2

BLDG DEPT REF.# SCALE:  
AS NOTED

SIGNATURE & SEAL  
ALEXEY MARULIS  
ENGINEER  
N.J. LIC. No. GE56570

DATE:  
12/10/2021

DRAWING #

**E-301**

PROJECT #: 2021.09.02