The Philadelphia Parking Authority 701 Market Street, Suite 5400 Philadelphia, PA 19106

Bid No. 24-17 Electrical Upgrades at Autopark at Fashion District and Autopark at Olde City Addendum Seven

То:	See Email Distribution List
From:	Shannon Stewart Manager of Contract Administration
Date:	August 20, 2024

No Pages: 2 plus Appendix A-B

This addendum is issued on August 20, 2024, prior to the bid due date to add, delete, modify, clarify and/or to respond to questions submitted by Prospective Bidders regarding the work included in the above referenced solicitation.

CHANGES TO THE BID DOCUMENT

- Revised Drawings Fashion District: ED-108, E-208, E-602, E-603, E-604 have been revised and are attached as Appendix A.
- 2. Revised Drawings Olde City: E-600, E-602, E-603, E-604 have been revised and are attached as Appendix B.

QUESTIONS

3. Question: Would it be possible to have an additional site visit at the Autopark at Fashion District. Specifically, we would like to see inside the rooftop generator housing and inside the main electrical room.

Response: A site visit will take place on Thursday, August 22, 2024 at 8:30 AM to offer potential bidders an opportunity to review the current rooftop generator and grant access to the Main Electrical Room at the Fashion District Garage only. Bidders must confirm attendance by emailing Shannon Stewart no later than Thursday, August 22, 2024 at 8:00 AM. Bidders must meet on the roof of the Fashion District Garage by the generator.

4. Question: Regarding both panel schedules, most panel schedules are missing the AIC rating and has a note that reads "(See Note 3)". Note 3 does not exist on this Addendum #4. Please advise, as this AIC Rating is important in pricing these panels.

Response: AIC rating has been added to most panels. Where AIC could not be determined, for bidding purposes, assume 14,000 AIC for 480Y/277V panels and 10,000 AIC for 208Y/120V panels.

5. Question: Regarding Fashion District panel schedules, there is an Extra Panel "HP-Courts Electric Room" listed on the Fashion District Panel Schedules not in Scope of Work. Panel HP in Courts Elec Room is Existing to Remain as per ED-108. Please advise that we can exclude this panel from our scope of work.

Response: This panel is listed for mid-term replacement and is part of this scope of work. Please see Appendix A for revised Sheets ED-108 and E-208.

6. Question: Regarding Old City panel schedules, there are missing panels from the Old City Panel Schedules for new panels that are in the Scope of Work: Hand Dryer Panel in Janitor Closet, Panel EDP in Elec Room and Panel HP2 in Vacant Restaurant. Please provide panel schedules for these panels.

Response: Panel schedules have been added, please see Appendix B for revised Sheets E-603 and E-604.

END OF ADDENDUM SEVEN

Bid No. 24-17 Addendum #7 - Appendix A Revised Fashion District Drawings

PHILADELPHIA PARKING AUTHORITY PARKING GARAGE ELECTRICAL UPGRADES



JURISDICTION **CITY OF PHILADELPHIA**

PROJECT DESCRIPTION

THIS PROJECT FOCUSES ON REPLACING EXISTING ELECTRICAL EQUIPMENT THAT IS AT OR NEARING END OF LIFE. THE PROJECT IS REPLACING THE EXISTING GENERATOR WITH A LARGER GENERATOR TO PROVIDE BACKUP CAPABILITIES FOR ALL FIRST FLOOR TENANT SPACES.

APPLICABLE CODES

APPLICABLE CODES:

PHILADELPHIA BUILDING CODE (2018 INTERNATIONAL BUILDING CODE) PHILADELPHIA ELECTRICAL CODE (2017 NATIONAL ELECTRICAL CODE)

PROJECT CONTACTS

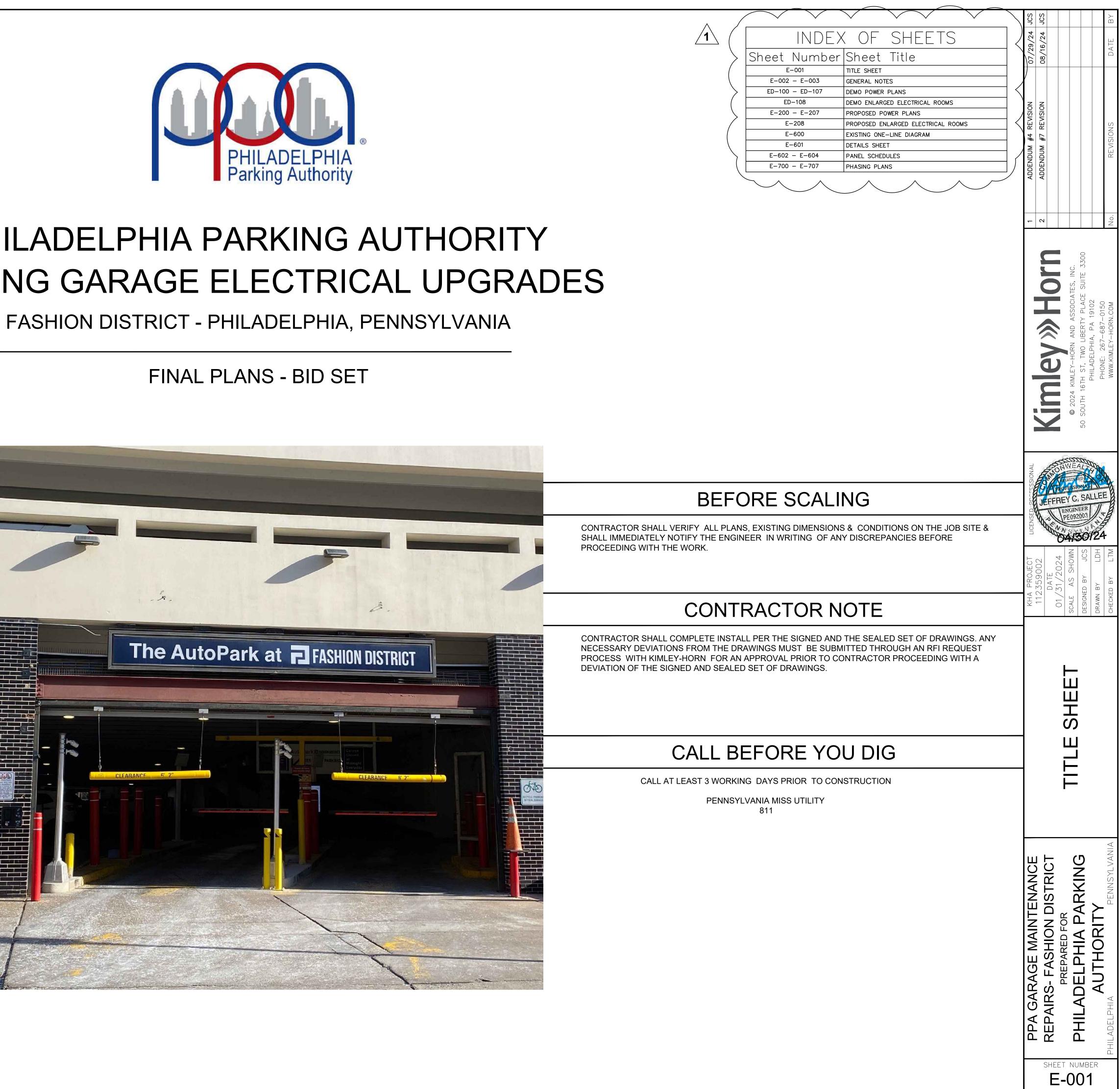
CLIENT NAME: PHILADELPHIA PARKING AUTHORITY

CLIENT PROJECT MANAGER: MELISSA HOCH

CLIENT PROJECT MANAGER CONTACT: 215-913-8578, MHOCH@PHILPARK.COM ENGINEER OF RECORD: JEFFREY C. SALLEE, P.E.

ENGINEER OF RECORD CONTACT: 757-213-8635, JEFFREY.SALLEE@KIMLEY-HORN.COM PA LICENSE NUMBER: 092003





1.01	RT 1 - GENERAL RELATED DOCUMENTS THE GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENERAL AND SPECIAL	
/	CONDITIONS AND GENERAL REQUIREMENTS SHALL APPLY TO ALL WORK UNDER THIS SECTION.	I.
-	REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS EQUIPMENT, FIXTURES, MATERIAL AND INSTALLATION SHALL CONFORM TO THE	
	REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT, THE SERVING UTILITY COMPANIES, THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LIFE SAFETY	
	CODE, OCCUPATIONAL SAFETY AND HEALTH ACT, AND APPLICABLE NATIONAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.	
В.	ALL EQUIPMENT SHALL BE EQUAL TO OR EXCEED THE MINIMUM REQUIREMENTS OF NEMA, IEEE, AND UL.	
C.	SHOULD ANY CHANGE IN DRAWINGS OR SPECIFICATIONS BE REQUIRED TO COMPLY WITH	
	GOVERNMENTAL REGULATIONS, THE CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER PRIOR TO EXECUTION OF THE WORK. THE WORK SHALL BE CARRIED OUT ACCORDING TO	J.
_	THE REQUIREMENTS OF SUCH CODE IN ACCORDANCE WITH THE INSTRUCTION OF THE ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.	
D.	THE PROVISIONS OF STANDARDS, CODES, LAWS, ORDINANCES, ETC., SHALL BE CONSIDERED MINIMUM REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THEIR PUBLISHED	
	REQUIREMENTS, THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH IS TO BE FOLLOWED AND HIS DECISION SHALL BE BINDING. SPECIFIC REQUIREMENTS OF THIS	
	SPECIFICATION OR THE DRAWINGS, WHICH EXCEED THE PUBLISHED REQUIREMENTS, SHALL TAKE PRECEDENCE OVER THEM.	K.
	FEES ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES SHALL BE	L.
<i>,</i>	OBTAINED AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL COOPERATE FULLY WITH LOCAL COMPANIES WITH RESPECT TO THEIR SERVICES. CONTRACTOR SHALL	L. 1.0
	INCLUDE IN HIS BID ANY COSTS TO BE INCURRED RELATIVE TO POWER SERVICE .	A.
	SCOPE OF WORK THIS DIVISION OF THE SPECIFICATIONS COVERS THE ELECTRICAL SYSTEMS OF THE	
	PROJECT. IT INCLUDES WORK PERFORMED BY THE ELECTRICAL TRADES AS WELL AS TRADES NOT NORMALLY CONSIDERED AS ELECTRICAL TRADES.	
В.	PROVIDE ALL INCIDENTALS, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, SUPERVISION, LABOR CONSUMABLE ITEMS, FEES, LICENSES, ETC.,	1.0 A.
	NECESSARY TO PROVIDE COMPLETE SYSTEMS. PERFORM START-UP AND CHECKOUT ON EACH ITEM AND SYSTEM TO PROVIDE FULLY OPERABLE SYSTEMS.	
C.	EXAMINE AND COMPARE THE ELECTRICAL DRAWINGS WITH THESE SPECIFICATIONS, AND REPORT ANY DISCREPANCIES BETWEEN THEM TO THE ARCHITECT/ENGINEER AND OBTAIN	
	FROM HIM WRITTEN INSTRUCTIONS FOR CHANGES NECESSARY IN THE WORK. AT TIME OF	1.1
D.	BID THE MOST STRINGENT REQUIREMENTS MUST BE INCLUDED IN THE BID. INSTALL AND COORDINATE THE ELECTRICAL WORK IN COOPERATION WITH OTHER TRADES	A.
	INSTALLING INTERRELATED WORK. BEFORE INSTALLATION, MAKE PROPER PROVISIONS TO AVOID INTERFERENCES IN A MANNER APPROVED BY THE ARCHITECT/ENGINEER. ALL	
	CHANGES REQUIRED IN THE WORK OF THE CONTRACTOR, CAUSED BY HIS NEGLECT TO DO SO, SHALL BE MADE BY HIM AT HIS OWN EXPENSE.	В.
E.	IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO PROVIDE A COMPLETE WORKABLE SYSTEM READY FOR THE OWNER'S OPERATION. ANY ITEM NOT SPECIFICALLY	C.
	SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT NORMALLY REQUIRED TO CONFORM WITH THE INTENT, ARE TO BE CONSIDERED A PART OF THE	1.1
F	CONTRACT. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED	Α.
	(TEMPORARY LIGHTING AND POWER PRODUCTS ARE EXCLUDED) AND FREE FROM	В.
~	DEFECTS. ALL MATERIALS USED SHALL BEAR THE UNDERWRITER'S LABORATORY, INC. LABEL PROVIDED A STANDARD HAS BEEN ESTABLISHED FOR THE MATERIAL IN QUESTION.	0
G.	EXCEPT FOR CONDUIT, CONDUIT FITTINGS, OUTLET BOXES, WIRE AND CABLE, ALL ITEMS OF EQUIPMENT OR MATERIAL SHALL BE THE PRODUCT OF ONE MANUFACTURER THROUGHOUT	C.
1.05	THE ENTIRE PROJECT. MULTIPLE MANUFACTURERS WILL NOT BE PERMITTED.	
A.	UTILIZE THE FOLLOWING ABBREVIATIONS AND DEFINITIONS FOR DISCERNMENT WITHIN THE DRAWINGS AND SPECIFICATIONS.	
	1. ABBREVIATIONS a) NEC NATIONAL ELECTRICAL CODE.	1.1 A.
	 b) OSHA OCCUPATIONAL SAFETY AND HEALTH ACT. c) ANSI AMERICAN NATIONAL STANDARDS INSTITUTE. 	74.
	d) NFPA NATIONAL FIRE PROTECTION ASSOCIATION.	
	e) ASA AMERICAN STANDARDS ASSOCIATION.f) IEEE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS.	
	 g) NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION. h) UL UNDERWRITERS' LABORATORIES, INC. 	
	i) IES ILLUMINATING ENGINEERING SOCIETY.j) ICEA INSULATED CABLE ENGINEERS ASSOCIATION.	В.
	k) ASTM AMERICAN SOCIETY OF TESTING MATERIALS.I) ETL ELECTRICAL TESTING LABORATORIES, INC.	C.
	m) CBM CERTIFIED BALLAST MANUFACTURERS. n) EIA ELECTRONIC INDUSTRIES ASSOCIATION.	
	 o) LED LIGHT EMITTING DIODE. p) OEM ORIGINAL EQUIPMENT MANUFACTURER. 	
	DEFINITIONS	
A.	"PROVIDE" MEANS TO SUPPLY, PURCHASE, TRANSPORT, PLACE, ERECT, CONNECT, TEST, AND TURN OVER TO OWNER, COMPLETE AND READY FOR REGULAR OPERATION, THE	
В.	PARTICULAR WORK REFERRED TO. "INSTALL" MEANS TO JOIN, UNITE, FASTEN, LINK, ATTACH, SET UP, OR OTHERWISE	
	CONNECT TOGETHER BEFORE TESTING AND TURNING OVER TO OWNER, COMPLETE AND READY FOR REGULAR OPERATION, THE PARTICULAR WORK REFERRED TO.	
C.	"FURNISH" MEANS TO SUPPLY ALL MATERIALS, LABOR, EQUIPMENT, TESTING APPARATUS, CONTROLS, TESTS, ACCESSORIES, AND ALL OTHER ITEMS CUSTOMARILY REQUIRED FOR	
D.	THE PROPER AND COMPLETE APPLICATION FOR THE PARTICULAR WORK REFERRED TO. "WIRING" MEANS THE INCLUSION OF ALL RACEWAYS, FITTINGS, CONDUCTORS,	
	CONNECTORS, TAPE, JUNCTION AND OUTLET BOXES, CONNECTIONS, SPLICES, AND ALL OTHER ITEMS NECESSARY AND REQUIRED IN CONNECTION WITH SUCH WORK.	
	"CONDUIT" MEANS THE INCLUSION OF ALL FITTINGS, HANGERS, SUPPORTS, SLEEVES, ETC. "AS DIRECTED" MEANS AS DIRECTED BY THE ARCHITECT/ENGINEER, OR HIS	
	REPRESENTATIVE.	D.
G.	"CONCEALED" MEANS EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED BEHIND WALL FURRING OR WITHIN DOUBLE PARTITIONS, OR INSTALLED ABOVE HUNG	1.1 A.
	CEILINGS. COORDINATION OF THE WORK	
A.	CERTAIN MATERIALS WILL BE PROVIDED BY OTHER TRADES. EXAMINE THE CONTRACT DOCUMENTS TO ASCERTAIN THESE REQUIREMENTS.	В.
В.	CAREFULLY CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND THE PHYSICAL CONFINES OF THE AREA TO INSURE THAT ALL MATERIAL CAN BE INSTALLED IN THE SPACES	C.
	ALLOTTED THERETO INCLUDING FINISHED SUSPENDED CEILINGS AND THE SPACES WITHIN THE EXISTING BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED.	Ο.
C.	TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED	
D.	UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION. WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH	1.1 A.
	OTHER TRADES TO INSURE THAT ALL TRADES HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL THE NECESSARY CONNECTIONS AND EQUIPMENT.	
	IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.	
E.	COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.	
F.	THE CONSTRUCTION SEQUENCE. THE DRAWINGS SHOW ONLY THE GENERAL RUN OF RACEWAYS AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF OUTLETS, CABINETS,	PA 2.0
	ETC., NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE	2.0 A.
	IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT	
	ADDITIONAL COST TO THE OWNER.	
G.	OBTAIN FROM THE ARCHITECT/ENGINEER IN THE FIELD THE LOCATION OF SUCH OUTLETS	В.
		В.
	OBTAIN FROM THE ARCHITECT/ENGINEER IN THE FIELD THE LOCATION OF SUCH OUTLETS OR EQUIPMENT NOT DEFINITELY LOCATED ON THE DRAWINGS.	B.

ARD. WHERE CIRCUITING IS NOT INDICATED, ELECTRICAL CONTRACTOR MUST PROVIDE EQUIRED CIRCUITING IN ACCORDANCE WITH THE LOADING INDICATED ON THE DRAWINGS OR AS DIRECTED.

- O FABRICATION. RIGHT-OF-WAY:
- ESTING.
- XAMINATION OF SITE
- ROGRESS OF WORK
- HALL BE BORNE BY THE CONTRACTOR.
- ELIVERY, STORAGE, AND HANDLING
- UBJECT TO MOISTURE DAMAGE IN DRY, HEATED SPACES. QUIPMENT ACCESSORIES
- UPPORT OF THE WORK.

- PERATIONS AND MAINTENANCE MANUALS HE CONTRACT DOCUMENTS. PROVIDE TWO (2) COPIES OF EACH MANUAL.
- INDERS.
- ERSONNEL.
- ROVIDE O&M MANUALS INCLUDING BUT NOT LIMITED TO THE FOLLOWING. ALPHABETICAL LIST OF ALL SYSTEM COMPONENTS, WITH THE NAME, ADDRESS, AND 4-HOUR PHONE NUMBER OF THE COMPANY RESPONSIBLE FOR SERVICING EACH ITEM URING THE FIRST YEAR OF OPERATION.

 - a) NORMAL STARTING, OPERATING, AND SHUT-DOWN.

 - d) DAY AND NIGHT SPECIAL PROCEDURES, IF ANY.
 - MAINTENANCE INSTRUCTION INCLUDING:
 - EQUIPMENT, AND DATE WHEN LUBRICATED.

 - a) INSTALLATION INSTRUCTIONS.
 - b) DRAWINGS AND SPECIFICATIONS.
 - d) COMPLETE WIRING DIAGRAMS

 - TEST AND INSPECTION CERTIFICATES.
- ECORD DOCUMENTS
- THER MEDIA WHICH FADE SHALL NOT BE USED.
- UARANTEE
- 2 PRODUCTS IATERIALS
- ENTIONED IN DIVISION 1.

DJUST LOCATION OF CONDUITS, PANELS, EQUIPMENT, PULL BOXES, FIXTURES, ETC, TO CCOMMODATE THE WORK TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND NCOUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH RACEWAY PRIOR

a) LINES THAT PITCH HAVE THE RIGHT-OF-WAY OVER THOSE THAT DO NOT PITCH. FOR EXAMPLE: STEAM, CONDENSATE, AND PLUMBING DRAINS NORMALLY HAVE RIGHT-OF-WAY. LINES WHOSE ELEVATIONS CANNOT BE CHANGED TO HAVE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED. b) MAKE OFFSETS. TRANSITIONS AND CHANGES IN DIRECTION IN RACEWAYS AS REQUIRED TO MAINTAIN PROPER HEADROOM IN PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS.

HEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL DETAIL RAWINGS TO SCALE SIMILAR TO THAT OF THE BIDDING DRAWINGS, PREPARED ON RACING MEDIUM OF THE SAME SIZE AS CONTRACT DRAWINGS. WITH THESE LAYOUTS, OORDINATE THE WORK WITH THE WORK OF OTHER TRADES. SUCH DETAILED WORK TO BE LEARLY IDENTIFIED ON THE DRAWINGS AS TO THE AREA TO WHICH IT APPLIES. SUBMIT OR REVIEW DRAWINGS CLEARLY SHOWING THE WORK AND ITS RELATION TO THE WORK F OTHER TRADES BEFORE COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD. OORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY AS TO THEIR REQUIREMENTS OR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY MATERIALS, LABOR AND

OORDINATE WITH CONTRACTORS FOR WORK UNDER OTHER DIVISIONS OF THIS PECIFICATION FOR ALL WORK NECESSARY TO ACCOMPLISH THIS CONTRACTOR'S WORK.

RIOR TO THE SUBMITTING OF BIDS, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB ND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED ISTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO OMPLY WITH THE INTENT OF THIS PARAGRAPH WILL IN NO WAY RELIEVE THE ONTRACTOR OF PERFORMING ALL NECESSARY WORK SHOWN ON THE DRAWINGS.

HE CONTRACTOR SHALL ORDER THE PROGRESS OF HIS WORK TO CONFORM TO THE ROGRESS OF THE WORK OF OTHER TRADES AND SHALL COMPLETE THE ENTIRE ISTALLATION AS SOON AS THE CONDITIONS OF THE BUILDING WILL PERMIT. ANY COST ESULTING FROM THE DEFECTIVE OR ILL-TIMED WORK PERFORMED UNDER THIS SECTION

HIP AND STORE ALL PRODUCTS AND MATERIALS IN A MANNER THAT WILL PROTECT THEM ROM DAMAGE, WEATHER AND ENTRY OF DEBRIS. IF ITEMS ARE DAMAGED, DO NOT ISTALL, BUT TAKE IMMEDIATE STEPS TO OBTAIN REPLACEMENT OR REPAIR. ANY SUCH EPAIRS SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ARCHITECT/ENGINEER. ELIVER MATERIALS IN MANUFACTURER'S UNOPENED CONTAINER FULLY IDENTIFIED WITH ANUFACTURER'S NAME, TRADE NAME, TYPE, CLASS, GRADE, SIZE AND COLOR.

TORE MATERIALS SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLY OR INSPECTION BY THE ARCHITECT/ENGINEER UNTIL INSTALLED. STORE ALL ITEMS

ROVIDE SUPPORTS, HANGERS AND AUXILIARY STRUCTURAL MEMBERS REQUIRED FOR

JRNISH AND SET ALL SLEEVES FOR PASSAGE OF RACEWAYS THROUGH STRUCTURAL, ASONRY AND CONCRETE WALLS OF FLOORS AND ELSEWHERE AS WILL BE REQUIRED FOR HE PROPER PROTECTION OF EACH RACEWAY PASSING THROUGH BUILDING SURFACES. ALL MOUNTED EQUIPMENT MAY BE DIRECTLY SECURED TO WALL BY MEANS OF STEEL OLTS. MAINTAIN AT LEAST 1" AIR SPACE BETWEEN EQUIPMENT AND SUPPORTING WALL. ROUPS OR ARRAYS OF EQUIPMENT MAY BE MOUNTED ON ADEQUATELY SIZED STEEL NGLES, CHANNELS, OR BARS. PREFABRICATED STEEL CHANNELS PROVIDING A HIGH EGREE OF MOUNTING FLEXIBILITY, SUCH AS THOSE MANUFACTURED BY KINDORF. LOB-STRUTT AND UNISTRUT, MAY BE USED FOR MOUNTING ARRAYS OF EQUIPMENT.

ENERAL: PROVIDE OPERATIONS & MAINTENANCE (O&M) MANUALS IN ACCORDANCE WITH

MANUALS SHALL BE 8-1/2 INCHES X 11 INCHES IN HARD COVER 3-RING LOOSE-LEAF

3. MANUALS SHALL BE COMPLETE AND IN OWNER'S HANDS PRIOR TO TURNING UILDING OVER TO OWNER AND AT LEAST 10 DAYS PRIOR TO INSTRUCTION TO OPERATING

ROVIDE MANUFACTURER'S LITERATURE AS REGULARLY PUBLISHED BY THE RESPECTIVE ANUFACTURERS FOR PROPER PREVENTATIVE AND COMPREHENSIVE MAINTENANCE.

2. OPERATING INSTRUCTIONS FOR COMPLETE SYSTEM INCLUDING:

b) EMERGENCY PROCEDURES FOR FIRE OR FAILURE OF MAJOR EQUIPMENT. c) SUMMER AND WINTER SPECIAL PROCEDURES, IF ANY.

a) PROPER LUBRICANTS AND LUBRICATING INSTRUCTIONS FOR EACH PIECE OF

b) NECESSARY CLEANING. REPLACEMENT OR ADJUSTMENT SCHEDULE. MANUFACTURER'S DATA FOR EACH PIECE OF EQUIPMENT INCLUDING:

c) PARTS LIST, INCLUDING RECOMMENDED ITEMS TO BE STOCKED.

e) MARKED OR CHANGED PRINTS LOCATING ALL CONCEALED PARTS AND ALL

VARIATIONS FROM THE ORIGINAL SYSTEM DESIGN.

EFER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ADDITIONAL 0&M REQUIREMENTS.

URING CONSTRUCTION, KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE ORK AS SHOWN ON DRAWINGS AND THAT WHICH IS ACTUALLY INSTALLED. KEEP THIS ECORD SET OF PRINTS AT THE JOB SITE FOR REVIEW BY THE ARCHITECT/ENGINEER. PON COMPLETION OF THE INSTALLATION AND ACCEPTANCE BY THE OWNER, TRANSFER L RECORD DRAWING INFORMATION TO ONE NEAT AND LEGIBLE SET OF PRINTS. THEN ELIVER THEM TO THE ARCHITECT/ENGINEER FOR TRANSMITTAL TO THE OWNER. ROVIDE IN EACH MAIN ELECTRICAL SWITCHBOARD ROOM A FRAMED COPY UNDER GLASS OF THE APPROPRIATE SINGLE LINE RISER DIAGRAM AS REVIEWED BY THE ELECTRICAL NGINEER. MEDIA SHALL BE A HIGH QUALITY PRESENTATION TYPE PAPER. BLUEPRINTS OR

UARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM ATE OF FINAL ACCEPTANCE BY THE OWNER, EXCEPT THAT WHERE GUARANTEES OR ARRANTIES FOR LONGER TERMS ARE SPECIFIED HEREIN, SUCH LONGER TERM TO APPLY. /ITHIN 24 HOURS AFTER NOTIFICATION, CORRECT ANY DEFICIENCIES THAT OCCUR DURING HE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE OWNER, ALL TO THE ATISFACTION OF THE OWNER AND ARCHITECT/ENGINEER. OBTAIN SIMILAR GUARANTEES ROM SUBCONTRACTORS, MANUFACTURERS, SUPPLIERS AND SUBTRADE SPECIALISTS.

PPLICABLE EQUIPMENT AND MATERIALS SHALL BE LISTED BY UNDERWRITERS' ABORATORIES AND MANUFACTURED IN ACCORDANCE WITH ASME, NEMA, ANSI OR IEEE TANDARDS, AND AS APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION AS

PRODUCTS AND MATERIALS ARE SPECIFIED OR INDICATED ON THE DRAWINGS FOR A PECIFIC ITEM OR SYSTEM, USE THOSE PRODUCTS OR MATERIALS. IF PRODUCTS AND ATERIALS ARE NOT LISTED IN EITHER OF THE ABOVE, USE FIRST CLASS PRODUCTS AND ATERIALS, SUBJECT TO REVIEW OF SHOP DRAWINGS WHERE SHOP DRAWINGS ARE EQUIRED OR AS REVIEWED IN WRITING WHERE SHOP DRAWINGS ARE NOT REQUIRED. LL EQUIPMENT CAPACITIES, ETC. ARE LISTED FOR JOB SITE OPERATING CONDITIONS. ALL EQUIPMENT SENSITIVE TO ALTITUDES OR AMBIENT TEMPERATURES TO BE DERATED AND METHOD OF DERATING SHOWN ON SHOP DRAWINGS. WHERE OPERATING CONDITIONS SHOWN DIFFER FROM THE LABORATORY TEST CONDITIONS, THE EQUIPMENT TO BE DERATED AND THE METHOD OF DERATING SHOWN ON SHOP DRAWINGS.

- 2.02 SUBSTITUTION OF MATERIALS OR EQUIPMENT A. ALL REQUESTS FOR SUBSTITUTION OF MATERIALS OR EQUIPMENT SHALL BE MADE IN WRITING BY THE CONTRACTOR. THE REQUEST MUST BE IN THE ENGINEERS OFFICE NOT LESS THAN 10 DAYS PRIOR TO THE BID DATE. SAMPLES OF PROPOSED SUBSTITUTE MATERIALS OR EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW WHENEVER THEY ARE REQUESTED. BIDS SHALL BE BASED ONLY UPON THE SPECIFIED MATERIALS AND EQUIPMENT, OR SUBSTITUTES THAT HAVE RECEIVED WRITTEN ACCEPTANCE FROM THE ENGINEER PRIOR TO THE BID.
- B. WHEREVER THE WORDS "FOR APPROVAL" OR "APPROVED" ARE USED IN REGARD TO MANUFACTURED SPECIALTIES, OR WHEREVER IT IS DESIRED TO SUBSTITUTE A DIFFERENT MAKE OR TYPE OF APPARATUS FOR THAT SPECIFIED, SUBMIT ALL INFORMATION PERTINENT TO THE ADEQUACY AND ADAPTABILITY OF THE PROPOSED APPARATUS, AND SECURE ARCHITECT/ENGINEER'S REVIEW BEFORE APPARATUS IS ORDERED.
- C. WHEREVER QUANTITIES OR A DEFINITE MAKE AND SIZE OF APPARATUS IS SPECIFIED, THE MAKE AND SIZE OF APPARATUS WHICH IS PROPOSED MUST CONFORM SUBSTANTIALLY (IN REGARD TO THE OPERATING RESULTS) TO THAT SPECIFIED OR IMPLIED. SAME SHALL APPLY TO IMPORTANT DIMENSIONS RELATING TO OPERATION OF APPARATUS IN COORDINATION WITH THE REST OF THE SYSTEM, OR TO PROPERLY FITTING IT INTO AVAILABLE SPACE CONDITIONS. ANY SUBSTITUTION OF EQUIPMENT OR APPARATUS SHALL
- INCLUDE ALL NECESSARY REVISIONS, AS REQUIRED TO COMPLETE THE INSTALLATION. D. ACCEPTANCE OF SUBSTITUTIONS, FOR EQUIPMENT SPECIFIED HEREIN, WILL NOT BE GIVEN MERELY UPON SUBMISSION OF MANUFACTURER'S NAMES AND WILL BE GIVEN ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY PERFORMANCE DATA COVERING THE COMPLETE RANGE OF OPERATING CONDITIONS IN TABULAR AND GRAPHICAL FORM. FURNISH COMPLETE AND SATISFACTORY INFORMATION RELATIVE TO EQUIPMENT DIMENSIONS, WEIGHT, ETC. ACCEPTANCE OF ALL EQUIPMENT SPECIFIED OR SHOWN ON THE DRAWINGS, OR SUBSTITUTIONS SUBMITTED FOR THAT SPECIFIED OR SHOWN ON THE DRAWINGS, WILL BE GRANTED IF SUCH EQUIPMENT, IN THE OPINION OF THE ARCHITECT/ENGINEER, CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS. ANY ADDITIONAL CONSTRUCTION AND DESIGN COSTS INCURRED AS A RESULT OF ANY ACCEPTED SUBSTITUTION SHALL BE BORNE BY THE CONTRACTOR. THE OPINION AND JUDGEMENT OF THE ARCHITECT/ENGINEER SHALL BE FINAL, CONCLUSIVE, AND BINDING. 2.03 SHOP DRAWINGS

С

- A. PREPARE AND SUBMIT DETAILED SHOP DRAWINGS FOR MATERIALS, SYSTEMS, AND EQUIPMENT AS LISTED HEREIN, INCLUDING LOCATIONS AND SIZES OF ALL OPENINGS IN FLOOR DECKS, WALLS, AND FLOORS.
- B. THE WORK DESCRIBED IN ANY SHOP DRAWING SUBMISSION SHALL BE CAREFULLY CHECKED FOR ALL CLEARANCES (INCLUDING THOSE REQUIRED FOR MAINTENANCE AND SERVICING), FIELD CONDITIONS, MAINTENANCE OF ARCHITECTURAL CONDITIONS, AND PROPER COORDINATION WITH ALL TRADES ON THE JOB. EACH SUBMITTED SHOP DRAWING SHALL INCLUDE A CERTIFICATION THAT ALL RELATED JOB CONDITIONS HAVE BEEN CHECKED AND THAT NO CONFLICT EXISTS.
- C. ALL DRAWINGS SHALL BE SUBMITTED SUFFICIENTLY IN ADVANCE OF FIELD REQUIREMENTS TO ALLOW AMPLE TIME FOR CHECKING AND RESUBMITTAL AS MAY BE REQUIRED. ALL SUBMITTALS SHALL BE COMPLETE AND CONTAIN ALL REQUIRED AND DETAILED INFORMATION.
- D. ACCEPTANCE OF ANY SUBMITTED DATA OR SHOP DRAWINGS FOR MATERIAL, EQUIPMENT APPARATUS, DEVICES, ARRANGEMENTS, AND LAYOUT SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY OF FURNISHING SAME OF PROPER DIMENSIONS AND WEIGHT, CAPACITIES, SIZES, QUANTITY, QUALITY AND INSTALLATION DETAILS, TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR
- INADEQUACIES OF ANY SORT ON SUBMITTED DATA OR SHOP DRAWINGS. E. EACH SHOP DRAWING SHALL CONTAIN THE FOLLOWING INFORMATION. PROVIDE GENERAL INFORMATION ON EACH COPY OF THE SUBMITTAL.
 - a) PROJECT TITLE.
 - b) REFERENCE TO THE APPLICABLE DRAWING AND SPECIFICATION ARTICLE. c) CONTRACTOR AND SUPPLIER IDENTIFICATION, ADDRESSES AND TELEPHONE NUMBERS.
 - d) SUBMITTAL DATE.

CERTIFICATION THAT THE CONTRACTOR HAS REVIEWED THE SUBMITTAL. REFER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION REQUIREMENTS.

- F. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED FOR EACH SPECIFIC MATERIAL, SYSTEM, OR EQUIPMENT AS IDENTIFIED HEREIN.
 - 1. AS A MINIMUM, MAKE SUBMITTALS ON THE FOLLOWING ITEMS:
 - a) PANELBOARD AND METER ENCLOSURE b) RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
 - c) LIGHTING FIXTURES, LIGHTING POLES, AND BOLLARDS
- PART 3 EXECUTION
- 3.01 INSTALLATION B. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLING, CONNECTING, AND ADJUSTING ALL EQUIPMENT. PROVIDE ONE COPY OF SUCH INSTRUCTIONS TO THE ARCHITECT/ENGINEER BEFORE INSTALLING ANY EQUIPMENT. PROVIDE A COPY OF SUCH INSTRUCTIONS AT THE EQUIPMENT DURING ANY WORK ON THE EQUIPMENT. PROVIDE ALL SPECIAL SUPPORTS, CONNECTIONS, WIRING, ACCESSORIES, ETC.
- C. USE MECHANICS SKILLED IN THEIR TRADE FOR ALL WORK.
- D. KEEP ALL ITEMS PROTECTED BEFORE AND AFTER INSTALLATION. CLEAN UP ALL DEBRIS. E. BEFORE COMMENCING WORK, EXAMINE ALL ADJOINING, UNDERLYING, ETC., WORK ON WHICH THIS WORK IS IN ANY WAY DEPENDENT FOR PERFECT WORKMANSHIP AND REPORT ANY CONDITION WHICH PREVENTS PERFORMANCE OF FIRST CLASS WORK. BECOME
- THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE CHANGED OR ALTERED. 3.02 PREMIUM TIME WORK
- A. THE FOLLOWING WORK SHALL BE PERFORMED AT NIGHT OR WEEKEND OTHER THAN HOLIDAY WEEKENDS AS DIRECTED AND COORDINATED WITH THE OWNER. 1. ALL TIE-IN, CUT-OVER AND MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEM
- AND OTHER EXISTING SYSTEM REQUIRING TIE-INS OR MODIFICATIONS SHALL BE ARRANGED AND SCHEDULED WITH THE OWNER TO BE DONE AT A TIME AS TO MAINTAIN CONTINUITY OF THE SERVICE AND NOT INTERFERE WITH NORMAL BUILDING OPERATIONS.
- 2. ALL ELECTRIC TIE-INS OR POWER DISRUPTIONS SHALL REQUIRE A MINIMUM OF 72-HOUR NOTICE.
- 3.03 CUTTING, PATCHING AND REPAIRING
- A. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE. WHERE CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT OR ANCHORAGE OF RACEWAY, OUTLETS OR OTHER EQUIPMENT, THE WORK SHALL BE CAREFULLY DONE. ANY DAMAGE TO THE BUILDING, PIPING, EQUIPMENT OR DEFACED FINISH PLASTER, WOODWORK, METALWORK, ETC. SHALL BE REPAIRED BY SKILLED MECHANICS OF THE TRADES INVOLVED AT NO ADDITIONAL COST TO THE OWNER.
- B. WHERE CONDUITS, MOUNTING CHANNELS, OUTLET, JUNCTION, OR PULL BOXES ARE MOUNTED ON A PAINTED SURFACE, OR A SURFACE TO BE PAINTED, THEY SHALL BE PAINTED TO MATCH THE SURFACE. WHENEVER SUPPORT CHANNELS ARE CUT, THE BARE METAL SHALL BE COLD GALVANIZED.
- 3.05 DEMOLITION AND CONTINUANCE OF EXISTING SERVICES
- A. ALL EXISTING ELECTRICAL SERVICES NOT SPECIFICALLY INDICATED TO BE REMOVED OR ALTERED SHALL REMAIN AS THEY PRESENTLY EXIST.
- B. SHOULD ANY EXISTING SERVICES INTERFERE WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL (AFTER OBTAINING WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER) ALTER OR REROUTE SUCH EXISTING EQUIPMENT TO FACILITATE NEW CONSTRUCTION.
- C. UNDER NO CIRCUMSTANCES SHALL EXISTING SERVICES BE TERMINATED OR ALTERED UNLESS DEEMED NECESSARY BY THE ARCHITECT/ENGINEER OR SPECIFIED HEREIN; ALSO, PRIOR TO ALTERING ANY EXISTING SITUATION, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING GIVING TWO (2) WEEKS ADVANCE NOTICE OF PLANNED ALTERATION.
- D. IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO GUARANTEE CONTINUITY OF PRESENT FACILITIES (WITH RESPECT TO DAMAGE OR ALTERATION DUE TO NEW CONSTRUCTION) AND ANY UNAUTHORIZED ALTERATION TO EXISTING EQUIPMENT SHALL BE

			B B S
3.06	CORRECTED BY THE CONTRACTOR TO THE ARCHITECT/ENGINEER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE. CLEANING UP	7/29/24	08/16/24 DATE
	CONTRACTOR SHALL TAKE CARE TO AVOID ACCUMULATION OF DEBRIS, BOXES, CRATES, ETC., RESULTING FROM THE INSTALLATION OF HIS WORK. CONTRACTOR SHALL REMOVE FROM THE PREMISES EACH DAY ALL DEBRIS, BOXES, ETC., AND KEEP THE PREMISES	07	0
З.	CLEAN. CONTRACTOR SHALL CLEAN UP ALL FIXTURES AND EQUIPMENT AT THE COMPLETION OF THE PROJECT.	z	z
C.	ALL SWITCHBOARDS, PANELBOARDS, WIREWAYS, TRENCH DUCTS, CABINETS AND ENCLOSURES SHALL BE THOROUGHLY VACUUMED CLEAN PRIOR TO ENERGIZING EQUIPMENT AND AT THE COMPLETION OF THE PROJECT. EQUIPMENT SHALL BE OPENED	#4 REVISION	#7 REVISION
	FOR OBSERVATION BY THE ARCHITECT/ENGINEER AS REQUIRED. WATERPROOFING		
Α.	AVOID, IF POSSIBLE, THE PENETRATION OF ANY WATERPROOF MEMBRANES SUCH AS ROOFS, MACHINE ROOM FLOORS, BASEMENT WALLS, AND THE LIKE. IF SUCH PENETRATION IS NECESSARY, PERFORM IT PRIOR TO THE WATERPROOFING AND FURNISH ALL SLEEVES OR PITCH-POCKETS REQUIRED. ADVISE THE ARCHITECT/ENGINEER AND OBTAIN WRITTEN PERMISSION BEFORE PENETRATING ANY WATERPROOF MEMBRANE, EVEN WHERE SUCH PENETRATION IS SHOWN ON THE DRAWINGS.	ADDENDUM	ADDENDUM
З.	IF CONTRACTOR PENETRATES ANY WALLS OR SURFACES AFTER THEY HAVE BEEN WATERPROOFED, HE SHALL RESTORE THE WATERPROOF INTEGRITY OF THAT SURFACE AS DIRECTED BY THE ARCHITECT/ENGINEER AT HIS OWN EXPENSE.	-	N 0 Z
	SUPPORTS SUPPORT WORK IN ACCORDANCE WITH THE BEST INDUSTRY PRACTICE AND THE		
З.	FOLLOWING. INCLUDE SUPPORTING FRAMES OR RACKS EXTENDING FROM BUILDING STRUCTURE FOR WORK INDICATED AS BEING SUPPORTED FROM WALLS WHERE THE WALLS ARE INCAPABLE OF SUPPORTING THE WEIGHT. IN PARTICULAR, PROVIDE SUCH FRAMES OR RACKS IN		INC. TE 3300
C.	ELECTRIC CLOSETS. INCLUDE SUPPORTING FRAMES OR RACKS FOR EQUIPMENT, INTENDED FOR VERTICAL SURFACE MOUNTING, WHICH IS REQUIRED IN A FREE STANDING POSITION.		
D.	SUPPORTING FRAMES OR RACKS SHALL BE OF STANDARD ANGLE, STANDARD CHANNEL OR SPECIALTY SUPPORT SYSTEM STEEL MEMBERS. THEY SHALL BE RIGIDLY BOLTED OR WELDED TOGETHER AND ADEQUATELY BRACED TO FORM A SUBSTANTIAL STRUCTURE. RACKS SHALL BE OF AMPLE SIZE TO ASSURE A WORKMANLIKE ARRANGEMENT OF ALL	•	ND ASSOC RERTY PLAC PA 19102 687-0150 HORN.COM
Ξ.	EQUIPMENT MOUNTED ON THEM. NOTHING, (INCLUDING OUTLET, PULL AND JUNCTION BOXES AND FITTINGS) SHALL DEPEND		DRN A DRN A No Lie Mo Lie LPHIA, 267-
	ON ELECTRIC CONDUITS, RACEWAYS, OR CABLES FOR SUPPORT, EXCEPT THAT THREADED HUB TYPE FITTINGS HAVING A GROSS VOLUME NOT IN EXCESS OF 100 CUBIC INCHES MAY BE SUPPORTED FROM HEAVY WALL CONDUIT, WHERE THE CONDUIT IS SECURELY SUPPORTED FROM THE STRUCTURE WITHIN FIVE INCHES OF THE FITTING ON TWO		KIMLEY-HOR 6TH ST, TWC PHILADELP PHONE: 2 WWW.KIML
=.	OPPOSITE SIDES. NOTHING SHALL REST ON, OR DEPEND FOR SUPPORT ON, SUSPENDED CEILINGS MEDIA (TILES, LATH, PLASTER, AS WELL AS SPLINES, RUNNERS, BARS AND THE LIKE IN THE PLANE	Ι.	© 2024 SOUTH 1
G.	OF THE CEILING). PROVIDE REQUIRED SUPPORTS AND HANGERS FOR CONDUIT, EQUIPMENT, ETC., SO THAT LOADING WILL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE.		
	FASTENINGS FASTEN ELECTRIC WORK TO BUILDING STRUCTURE IN ACCORDANCE WITH THE BEST		
З.	INDUSTRY PRACTICE AND THE FOLLOWING. FLOOR OR PAD MOUNTED EQUIPMENT SHALL NOT BE HELD IN PLACE SOLELY BY ITS OWN DEAD WEIGHT. INCLUDE ANCHOR FASTENING IN ALL CASES.	ONAL	SONWEAL TH
C.	FOR ITEMS WHICH ARE SHOWN AS BEING CEILING MOUNTED AT LOCATIONS WHERE FASTENING TO THE BUILDING CONSTRUCTION ELEMENT ABOVE IS NOT POSSIBLE, PROVIDE SUITABLE AUXILIARY CHANNEL OR ANGLE IRON BRIDGING, TYING TO THE BUILDING	SSI C	JEFFREY C. SALLEE
	STRUCTURAL ELEMENTS. D TESTING EQUIPMENT AND MATERIALS	NSED of	EFFICE OFFECTIVE
	THE CONTRACTOR SHALL PROVIDE ALL TESTING INSTRUMENTS, EQUIPMENT AND ALL MATERIALS, CONNECTIONS, LABOR, ETC., REQUIRED TO PERFORM TESTS. TEST ALL CIRCUITS, FIXTURES, EQUIPMENT, AND SYSTEMS FOR PROPER OPERATION AND	LICE	04/30/24
C	FREEDOM FROM GROUNDS, SHORTS AND OPEN CIRCUITS BEFORE ACCEPTANCE IS REQUESTED. MEASURE VOLTAGE AT PANELBOARDS AND OUTLETS AFTER THE BUILDING IS FULLY	CT	2024 2024 JCS LDH LTM
0.	OCCUPIED. MAKE FINAL TRANSFORMER TAP ADJUSTMENTS BASED ON THESE MEASUREMENTS. PERFORM ALL TESTS REQUIRED BY LOCAL AUTHORITIES, SUCH AS TESTS	PROJECT	
	OF LIFE SAFETY SYSTEMS, IN ADDITION TO TESTS SPECIFIED HEREIN.PERFORM TESTS REQUIRED BY OTHER SPECIFICATION SECTIONS.	КНА КНА	
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4	AMPERES			1.
٩C	ALTERNATING CURRENT	М	METER OR MOTOR	••
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM	
AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	MCC	MOTOR CONTROL CENTER	
	ABOVE FINISHED GRADE	MCC		
AIC		-	MOTOR CIRCUIT PROTECTOR	
AL A T		MH	METAL HALIDE OR MANHOLE	
AT		MIN	MINIMUM	
AWG	AMERICAN WIRE GAUGE	mm	MILLIMETER	2.
AUX	AUXILLIARY	MTD	MOUNTED	
		MTG	MOUNTING	
BACS	BUILDING AUTOMATION CONTROL SYSTEM	MTR	MOTOR	
BCU	BUILDING CONTROL UNIT	MV	MEDIUM VOLTAGE	
3IL	BASIC IMPULSE LEVEL			
ЗОТ	BOTTOM OF TRAY	Ν	NEUTRAL OR NORTH	
		NA	NON-AUTOMATIC	
C	CONTACTOR/CONDUIT/COIL	NC	NORMALLY CLOSED	
СВ	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE	
CD	CANDELA	N.I.C.	NOT IN CONTRACT	
CKT	CIRCUIT	NF	NON-FUSED	
	CENTERLINE	NO	NORMALLY OPEN	
CP				
		NTS	NOT TO SCALE	3.
CPT	CONTROL POWER TRANSFORMER	~~		з.
CR	CARD READER			
СТ	CURRENT TRANSFORMER	OCB	OIL CIRCUIT BREAKER	
		OL	OVERLOAD RELAY	
)	DEEP	O/W	OIL/WATER	
C	DIRECT CURRENT			
DCS	DISTRIBUTED CONTROL SYSTEM	Р	POLE	
DDC	DIRECT DIGITAL CONTROL	PA	PUBLIC ADDRESS	4.
DISC	DISCONNECT	PB	PUSH BUTTON OR PULL BOX	-т.
DPST	DOUBLE POLE SINGLE THROW	PC	PHOTOCELL	
DPU	DATA PROCESSING UNIT	PCM	PROGRAMMABLE CONTROL MODULE	
DWG	DRAWING	PNL	PANEL	
500	DIAWING	PP	POWER PANEL	
EC	EMPTY CONDUIT	PVC	POLY VINYL CHLORIDE	
		PVC	POLY VINTL GILORIDE	
EF	EXHAUST FAN	D 11		
EMCS	EMERGENCY MANAGEMENT CONTROL	RH	RADIANT HEATER	
	SYSTEM	RMS	ROOT MEAN SQUARE	
EMT	ELECTRICAL METALLIC TUBING	RTU	ROOF TOP UNIT	
ΞP	EXPLOSION PROOF	RU	RACK UNIT	
EPO	EMERGENCY POWER OFF	RVAT	REDUCED VOLTAGE AUTO TRANSFORMER	
ΞТМ	ELAPSED TIME METER	RVNR	REDUCED VOLTAGE, NON-REVERSING	
				5.
=	FIXED-FIT	S	SLIP FIT	
ACP	FIRE ALARM CONTROL PANEL	SB	SPICE BOX	
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SCADA	SUPERVISORY CONTROL AND DATA	
-M	FREQUENCY MONITOR		AQUISITION	
-VNR	FULL VOLTAGE, NON-REVERSING	SEL	SELECTOR SWITCH	6.
VINIX	TOLE VOLTAGE, NON-REVERSING	SPDT	SINGLE POLE DOUBLE THROW	0.
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SOL		7
			SOLENOID	7.
GFP	GROUND FAULT PROTECTION	SS	SELECTOR SWITCH	
GND		STR	STARTER	
GRS	GALVANIZED RIGID CONDUIT	STRS	STARTERS	
_		SW	SWITCH	
4	PHASE OR HOT CONDUCTOR			
ΗH	HANDHOLE	тс	TIME CLOCK	8.
ΗP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOARD	5.
HACR	HEATING, AIR CONDITIONING &	TVSS	TRANSIENT VOLTAGE SURGE	
	REFRIGERATION TYPE CIRCUIT BREAKER		SUPPRESSION	
HID	HIGH INTENSITY DISCHARGE			
HPS	HIGH PRESSURE SODIUM	UCP	UNIVERSAL CONTROL PANEL	
HVAC	HEATING VENTILATION & AIR	UE	UNDERGROUND ELECTRICAL	
	CONDITIONING	UON	UNLESS OTHERWISE NOTED	
&C	INSTRUMENTATION AND CONTROLS	V	VOLTS	9.
	INSTRUMENTATION AND CONTROLS ISOLATION GROUND	V VA		
G				
NS	INSULATION	VFD		
PS	IRON PIPE SIZE	VRLA	VALVE REGULATED LEAD ACID	
J	JUNCTION BOX	W	WIRE OR WATT	
		WP	WEATHER PROOF	
<	KILO			
KCMIL	THOUSAND CIRCULAR MILS	XFMR	TRANSFORMER	
ΚVA	KILOVOLT AMPERE			
(VAR	KILOVOLT AMPERE REACTIVE	2SNR	TWO SPEED, NON REVERSING	10
		•	,	10
	KILOWATI			
(W	KILOWATT			

ONTRACTOR SHALL BE FULLY INFORMED OF ALL EXISTING ONDITIONS THAT AFFECT THE WORK AND COST OF THE TENDED WORK. CONTRACTOR SHALL VISIT THE SITE RIOR TO BID AND EXAMINE THE DRAWINGS AS THEY LATE TO SITE CONDITIONS. BIDDERS WHO DO NOT VISIT IE SITE MAY BE UNILATERALLY NOT PERMITTED TO JBMIT A BID IF THE OWNER SO DECIDES

TRICAL GENERAL NOTES

ECTRICAL CONTRACTOR SHALL FULLY UNDERSTAND SIGN PRIOR TO BID. ANY ALLEGED MISUNDERSTANDING THE SCOPE, DESIGN OR WORK TO BE PERFORMED WILL MOVE CONSIDERATION FOR SELECTION. SELECTED ECTRICAL CONTRACTOR SHALL BE IN FULL AGREEMENT) THE ITEMS AND CONDITIONS INDICATED IN THE PLANS ND SPECIFICATIONS. ANY DISCREPANCIES OR OMISSIONS OUND IN THE CONTRACT DOCUMENTS OR DOUBT AS TO IE INTENT SHALL BE IMMEDIATELY BROUGHT TO THE TENTION OF THE ENGINEER OR PROJECT MANAGER. HERE CLARIFICATION CAN NOT BE PROVIDED PRIOR TO D, CONTRACTOR SHALL ASSUME THE MORE EXPENSIVE

ETHOD FOR BID. (ISTING LOCATIONS AND CONDITIONS OF ELECTRICAL **QUIPMENT SHOWN ON DRAWINGS HAVE BEEN OBTAINED** OM IMAGES AND RECORD DRAWINGS TO INDICATE A OSE REPRESENTATION AS TO EXISTING SITE

ONDITIONS. CONTRACTOR SHALL VISIT THE SITE PRIOR TO DS AND VERIFY THE ITEMS SHOWN AS WELL AS EXISTING ONDITIONS NOT DISPLAYED ON THE DRAWINGS.

ONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A ILLY COMPLETE AND FUNCTIONAL SYSTEM AS INTENDED THE PLANS. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ANSPORTATION, EQUIPMENT, ACCESSORIES AND RMITS SHALL BE FURNISHED BY THE CONTRACTOR ONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF ORDINATION WITH ALL OTHER TRADES IN ORDER TO OMPLETE THE WORK INTENDED. ALL COORDINATION ITEMS SULTING IN ADDITIONAL EXPENSE SHALL NOT BE

PENSED TO THE OWNER. DRAWINGS AND PECIFICATIONS DO NOT INDICATE EVERY ITEM OF ATERIAL, EQUIPMENT OR LABOR REQUIRED TO PRODUCE COMPLETE AND PROPERLY OPERATING INSTALLATION. ONTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS, CENSES AND INSPECTIONS AS REQUIRED BY LOCAL AND TIONAL REGULATIONS. CONTRACTOR SHALL ASSUME SPONSIBILITY FOR EXPENSES CREATED IN CONNECTION

ITH THE WORK ONTRACTOR SHALL NOT CONCEAL ANY WORK UNTIL PROVED BY ELECTRICAL INSPECTOR OR ENGINEER IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT L WORK IS PERFORMED IN ACCORDANCE WITH PPLICABLE STANDARDS AND REGULATIONS INCLUDING CORDANCE WITH THE LATEST ADOPTED NATIONAL ECTRICAL CODE (NEC) AND ALL ADDITIONAL QUIREMENTS BY LOCAL AHJ.

L WORKMANSHIP SHALL BE NEAT AND ORGANIZED IN CORDANCE WITH APPLICABLE STANDARDS AND SHALL BE JBJECT TO APPROVAL OF THE OWNER OR OWNER'S JTHORIZED REPRESENTATIVE. RACEWAY, FIXTURES AND RING DEVICES SHALL BE PROPERLY ALIGNED, LEVELED ID SUPPORTED. RACEWAY SHALL BE GROUPED AND STALLED IN RUNS WHICH ARE PARALLEL AND

RPENDICULAR WITH BUILDING LINES. CATIONS ON ELECTRICAL PLANS ARE APPROXIMATE. VAL LOCATION OF EQUIPMENT AND DEVICES TO BE FIELD ORDINATED WITH OWNER AND/OR OWNER'S PRESENTATIVE. CONTRACTOR SHALL COORDINATE ALL

MPORARY INTERRUPTIONS TO POWER WITH ALL FECTED PARTIES PRIOR TO INTERRUPTION. ALL

TERRUPTIONS SHALL BE KEPT TO A MINIMUM DURATION. ONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL MPORARY POWER REQUESTED BY AFFECTED PARTIES IROUGHOUT THE DURATION OF THE INTERRUPTION. L ELECTRICAL MATERIALS SHALL BE NEW UNLESS PECIFICALLY OTHERWISE STATED. DEFECTIVE EQUIPMENT ID/OR EQUIPMENT DAMAGED DURING INSTALLATION

AND/OR TESTING SHALL BE REPLACED OR REPAIRED TO MEET APPROVAL FROM ENGINEER OR INSPECTOR AT THE EXPENSE OF THE CONTRACTOR. PROPOSED EQUIPMENT SHALL BE NEMA RATED AND APPROVED.

- 11. CONTRACTOR SHALL SUBMIT MANUFACTURER'S STANDARD PRODUCT INFORMATION, PERFORMANCE SPECIFICATIONS, ELECTRICAL RATINGS, PHYSICAL DIMENSIONS AND ALL OTHER NECESSARY INFORMATION FOR ENGINEER TO ENSURE COMPLIANCE WITH SPECIFICATIONS. SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED BY ENGINEER PRIOR TO ORDERING AND INSTALLING ANY EQUIPMENT. CONTRACTOR SHALL HIGHLIGHT ITEMS TO BE **REVIEWED. EQUIPMENT ORDERED WITHOUT A REVIEWED** SUBMITTAL IS DONE AT THE CONTRACTOR'S OWN RISK.
- 12. SUBMITTALS SUBMITTED AS VALUE ENGINEERING SUBMITTALS SHALL BE LABELED AS SUCH AND OFFER A DEDUCTION OR CREDIT BACK TO THE OWNER.
- 13. ANY DEVIATIONS, SUBSTITUTIONS OR ALTERATIONS WITHOUT APPROVAL BY ENGINEER SHALL BE ASSUMED AS THE RESPONSIBILITY OF THE CONTRACTOR
- 14. ALL LISTED CABLE SIZES ARE SIZED PER NEC **REQUIREMENTS. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MEETING CONDUIT FILL** REQUIREMENTS IF A LARGER SIZED CABLE IS USED. CONTRACTOR SHALL NOT USE CABLE SMALLER THAN SPECIFIED ON PLANS.
- 15. LOW VOLTAGE WIRING IS NOT SHOWN IN PLANS, UNLESS SPECIFICALLY CALLED OUT. CONTRACTOR SHALL REFER TO MANUFACTURER DETAIL SHEETS FOR ADDITIONAL LOW VOLTAGE WIRING AND CONDUITS.
- 16. CONTRACTOR SHALL COLOR CODE NEW CABLE PER INDUSTRY STANDARD
- 17. ALL CIRCUITS SHALL BE PROVIDED WITH AN INSULATED GREEN COPPER EQUIPMENT GROUND CONDUCTOR SIZED PER NEC. EQUIPMENT GROUNDS SHALL BE BONDED TO ALL EQUIPMENT AND DEVICES. USE OF METALLIC CONDUIT SHALL NOT TAKE THE PLACE OF AN EQUIPMENT GROUND CONDUCTOR.
- 18. ALL WIRING SHALL ADHERE TO NEC CONDUIT FILL REQUIREMENTS. ANY DEVIATION FROM CONDUIT SIZE SPECIFIED ON PLANS IS ASSUMED TO BE THE CONTRACTOR'S RESPONSIBILITY.
- 19. HOMERUNS REPRESENT CONDUIT AND CABLE TO SPECIFIED PANEL. CONTRACTOR SHALL FIELD ROUTE CONDUIT AS NECESSARY. CONFIRM ROUTING WITH OWNER AND ENGINEER
- 20. CONTRACTOR SHALL INSPECT AREA OF WORK AND PERFORM GROUND PENETRATING RADAR SCAN OR X-RAY ALL PROPOSED PENETRATIONS PRIOR TO WORK TO DETERMINE EXACT LOCATIONS OF STRUCTURAL REINFORCEMENT OR EMBEDDED SYSTEMS. COORDINATE FLOOR AND WALL PENETRATIONS WITH STRUCTURAL ENGINEER. ALL PENETRATIONS SHALL BE SEALED BY APPROVED MEANS TO PREVENT ENERGY LOSS AND MOISTURE AND RODENT INTRUSION.
- 21. ALL CONDUIT AND CABLING SHALL BE PROPERLY SUPPORTED AS REQUIRED BY CODE.
- 22. ALL CABLE SHALL BE LABELED ON BOTH ENDS AND DISTRIBUTION EQUIPMENT SHALL BE PERMANENTLY LABELED PER AHJ RECOMMENDATIONS. TYPEWRITTEN PANEL SCHEDULE SHALL BE PROVIDED WITH EQUIPMENT.
- 23. CONTRACTOR SHALL MAINTAIN CLEARANCES OF WORKING SPACES AS REQUIRED BY ARTICLE 110 OF THE NEC. GENERAL CONTRACTOR SHALL ASSUME RESPONSIBILITY OF COORDINATION FOR CLEARANCES AND BE RESPONSIBLE FOR ANY RELOCATION DUE TO AN IMPEDANCE OF CLEARANCES.
- 24. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THE SCOPE OF WORK AND DEMONSTRATE ITS PROPER OPERATION TO THE OWNER. CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE SYSTEM UPON COMPLETION.
- 25. PRIOR TO FINAL ACCEPTANCE, ALL DEFICIENCIES IDENTIFIED SHALL BE CORRECTED AT THE CONTRACTOR'S

EXPENSE

26. ALL CERTIFICATES OF APPROVAL SHALL BE IN DUPLICATE, DELIVERED TO THE ENGINEER AND BECOME THE PROPERTY OF THE OWNER.

27. CONTRACTOR SHALL MAINTAIN A COPY OF ALL DRAWINGS AND APPROVED SHOP DRAWINGS ON SITE AND RECORD ALL **REVISIONS AND DEVIATIONS FROM THE ORIGINAL**

CONSTRUCTION DRAWINGS. A COPY SHALL BE SUBMITTED TO THE ENGINEER UPON THE COMPLETION OF WORK. 28. CONTRACTOR SHALL PROVIDE TWO PRINTED COPIES AND ONE ELECTRONIC COPY OF MANUALS, SERVICE AGENCIES AND WARRANTIES TO THE OWNER UPON COMPLETION OF CONSTRUCTION.

29. THE ENTIRE ELECTRICAL SYSTEM WITHIN THIS SCOPE SHALL BE IN PROPER WORKING ORDER UPON COMPLETION OF CONSTRUCTION. ANY WORK, MATERIALS OR SYSTEMS SHOWING DEFECTS OR MALFUNCTION SHALL BE

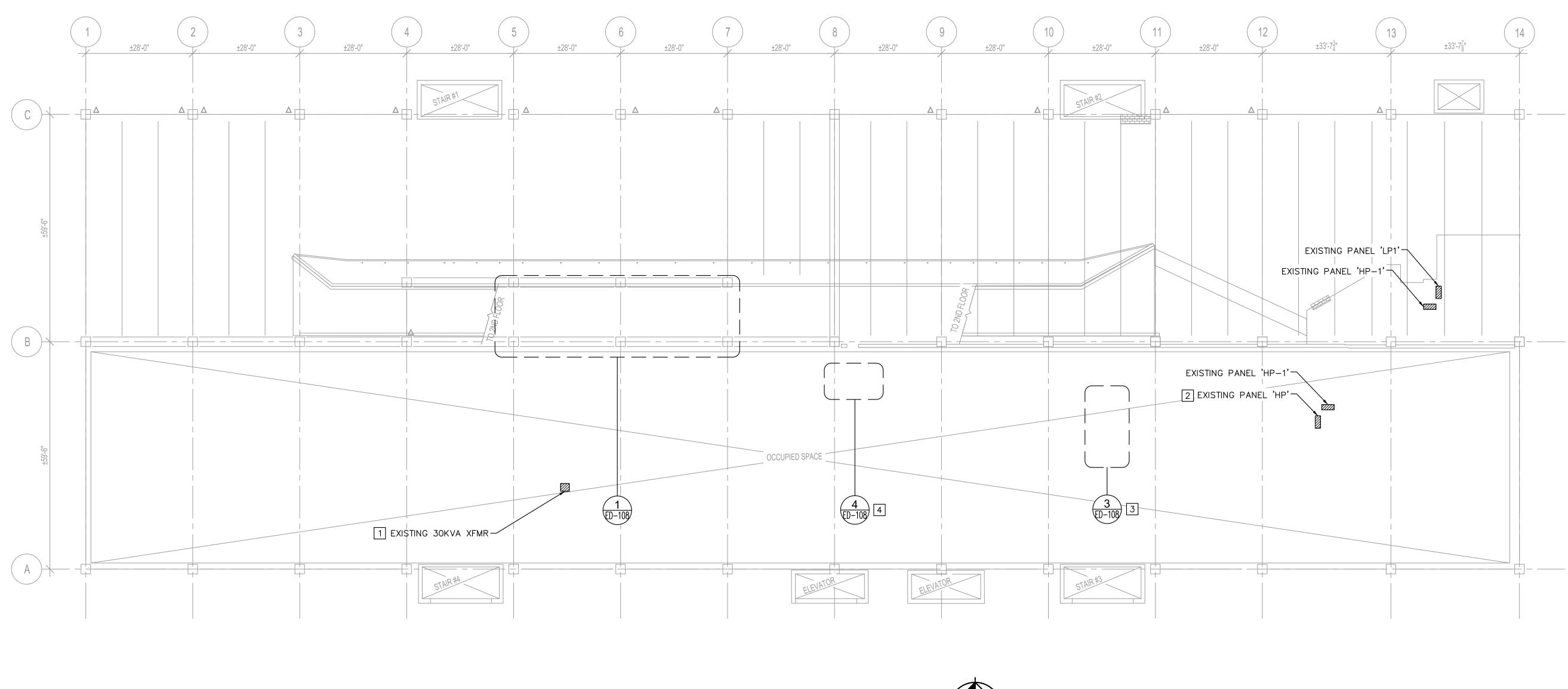
CORRECTED WITHOUT CHARGE WITHIN THE FIRST YEAR.

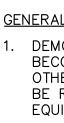
07/29/24 JCS	08/16/24 JCS							DATE BY
ADDENDUM #4 REVISION	ADDENDUM #7 REVISION							REVISIONS
-	2							No.
				© 2024 KIMLEY-HORN AND ASSOCIATES, INC.	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	PHILADELPHIA, PA 19102	PHONF: 267-687-0150	WWW. KIMLEY-HORN. COM
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	112359002	~	01/31/2024	SCALE AS SHOWN	DESIGNED BY JCS			снескер ву LTM
	112359002	~	01/31		DESIGNED BY			CHECKED BY LTM
		~	01/31	GENERAL NOTES scale	DESIGNED BY			PENNSYLVANIA

<u>LEGEND</u>

XFMR TRANSFORMER

EQUIPMENT TO BE DEMOLISHED





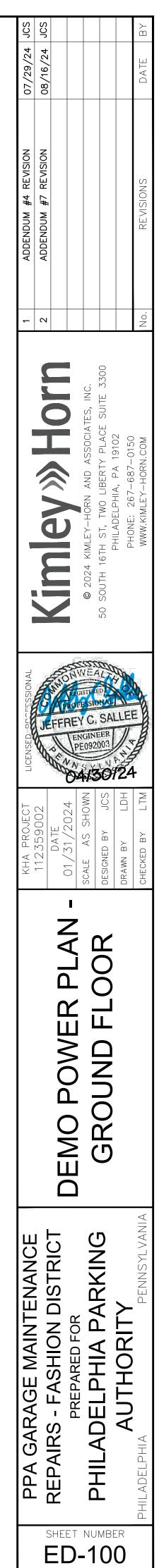


GENERAL NOTES:

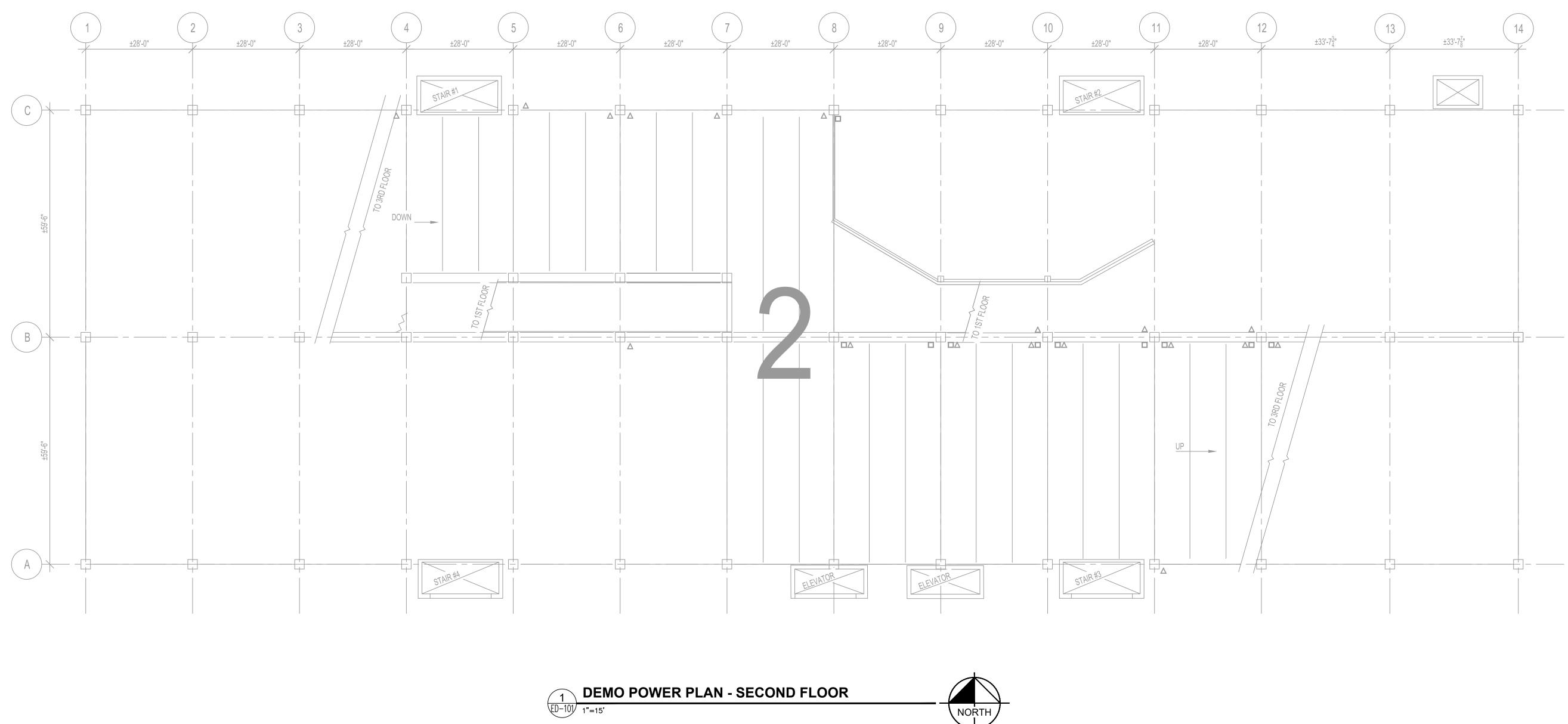
1. DEMOLISHED EQUIPMENT AND MATERIALS WILL BECOME PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED BY PPA. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING DEMOLISHED EQUIPMENT AND MATERIALS FROM THE SITE.

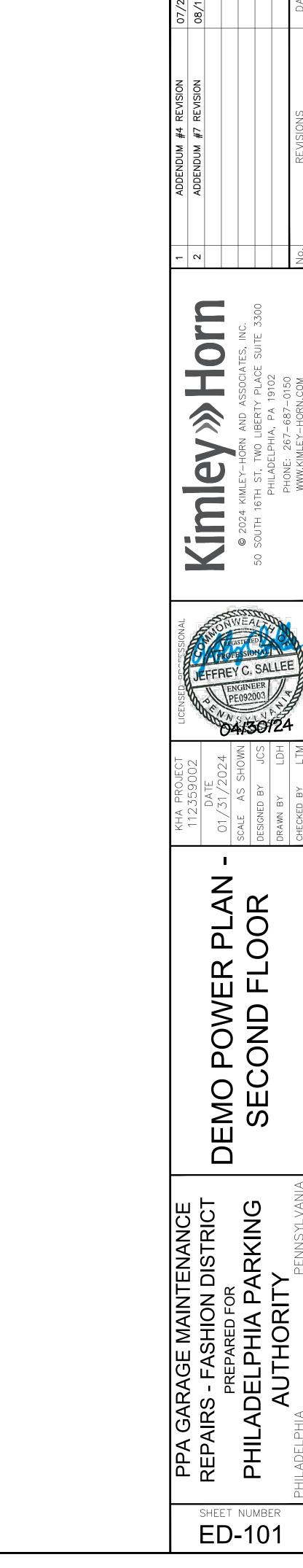
<u>SHEET NOTES:</u>

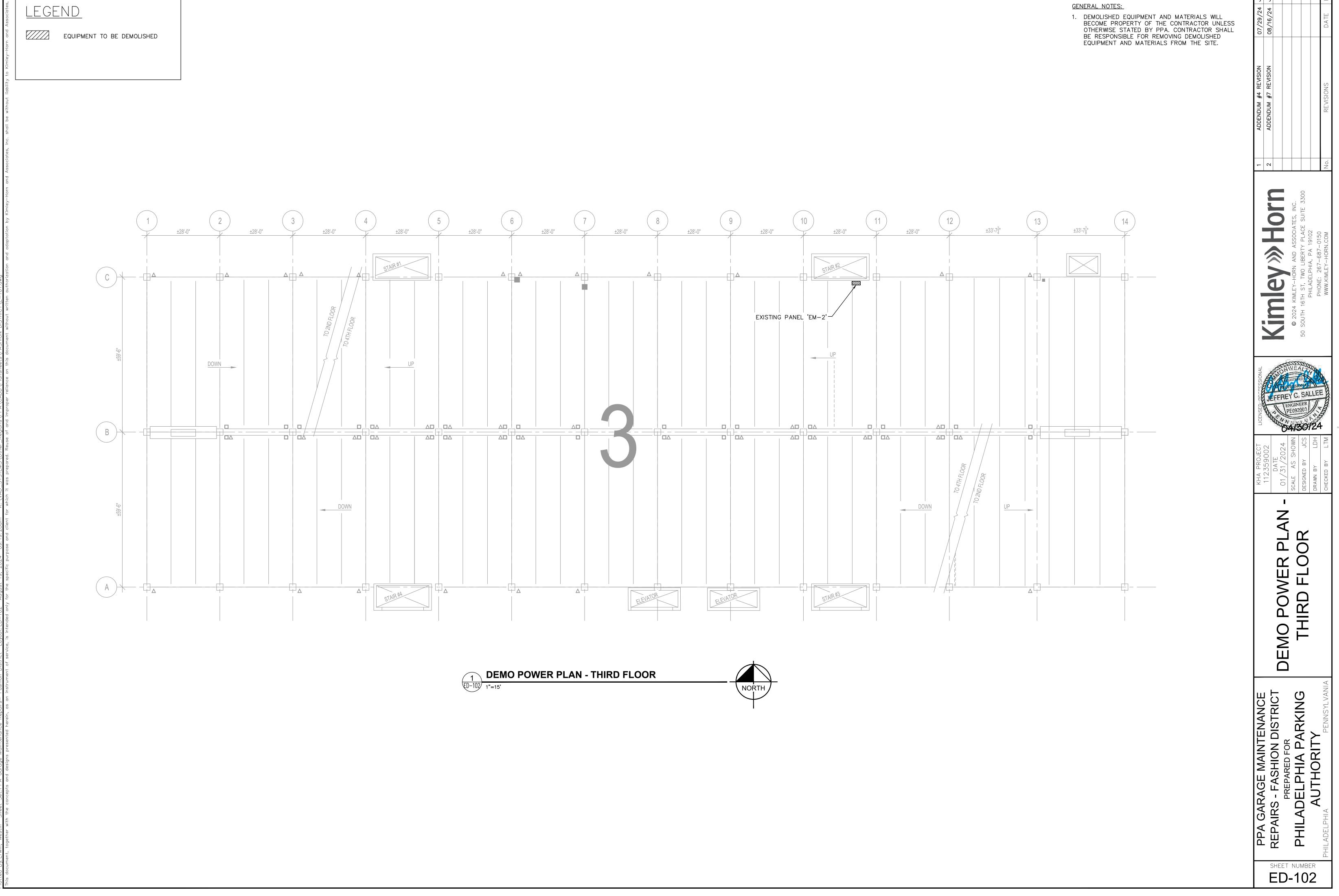
- EXISTING TRANSFORMER LOCATED IN VACANT 1 OFFICE SPACE. LOCATION IS APPROXIMATE. VERIFY LOCATION AT PRE-BID WALK-THROUGH.
- LOCATION OF EXISTING PANEL 'HP' IS 2 APPROXIMATE VERIFY LOCATION AT PRE-BID WALK-THROUGH.
- LOCATION OF OFFICE ELECTRICAL ROOM IS APPROXIMATE. VERIFY LOCATION AT PRE-BID WALK-THROUGH.
- 4 LOCATION OF HALLWAY ELECTRICAL ROOM IS APPROXIMATE. VERIFY LOCATION AT PRE-BID WALK-THROUGH.

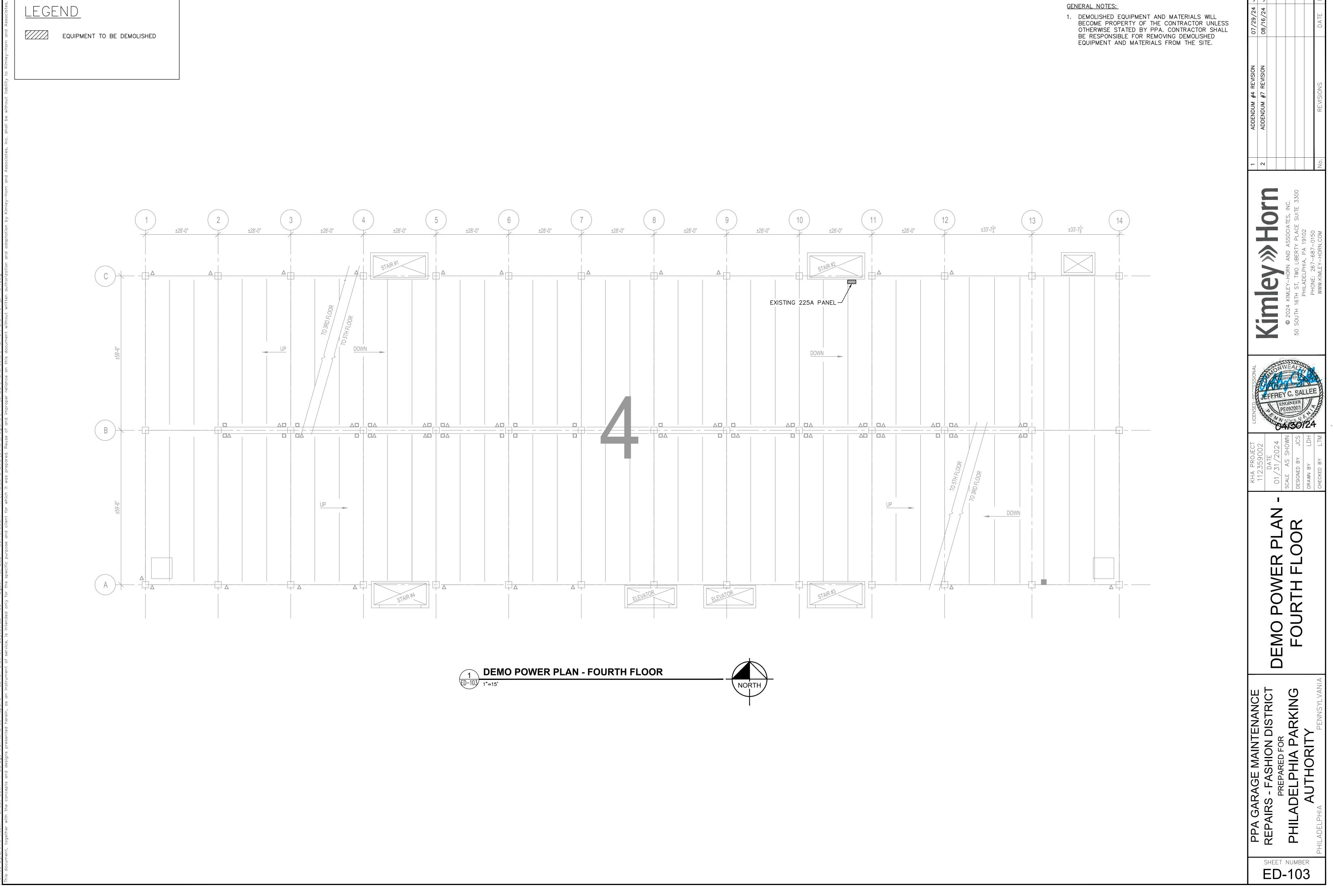


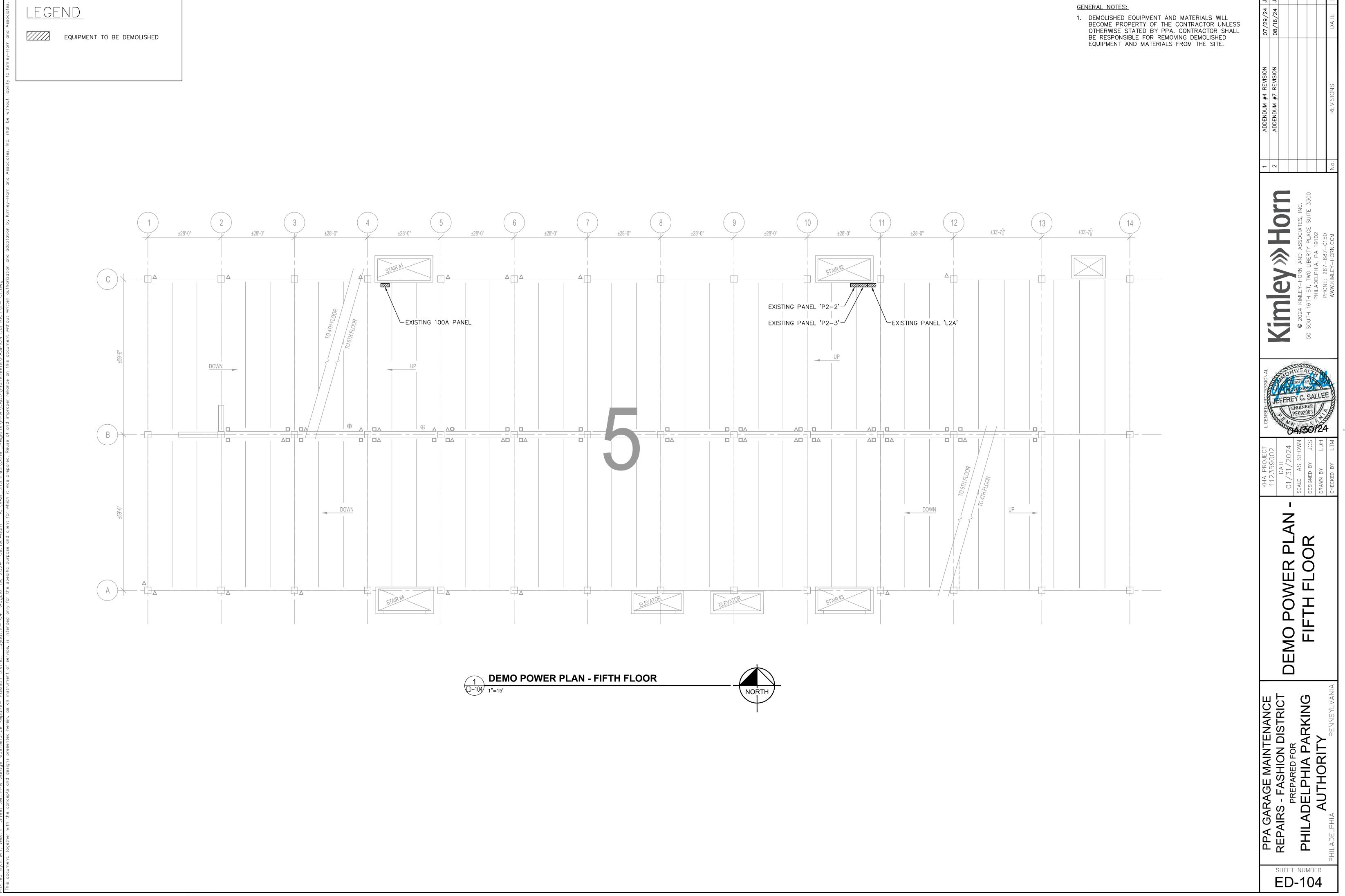




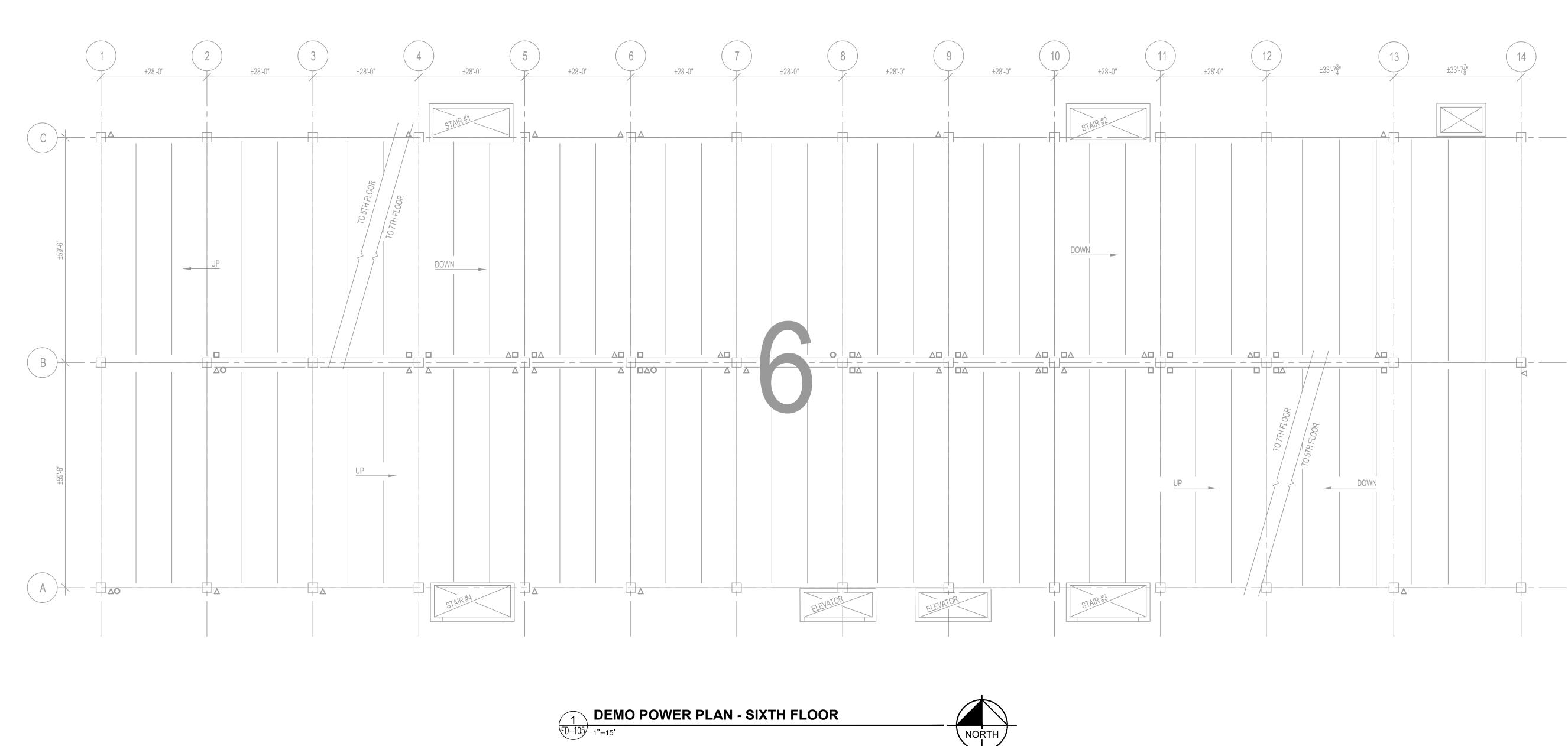


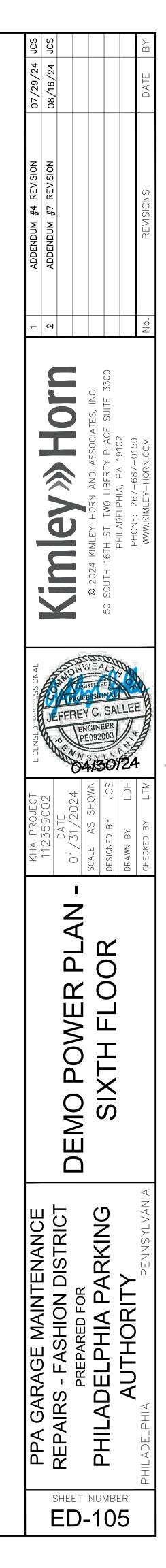




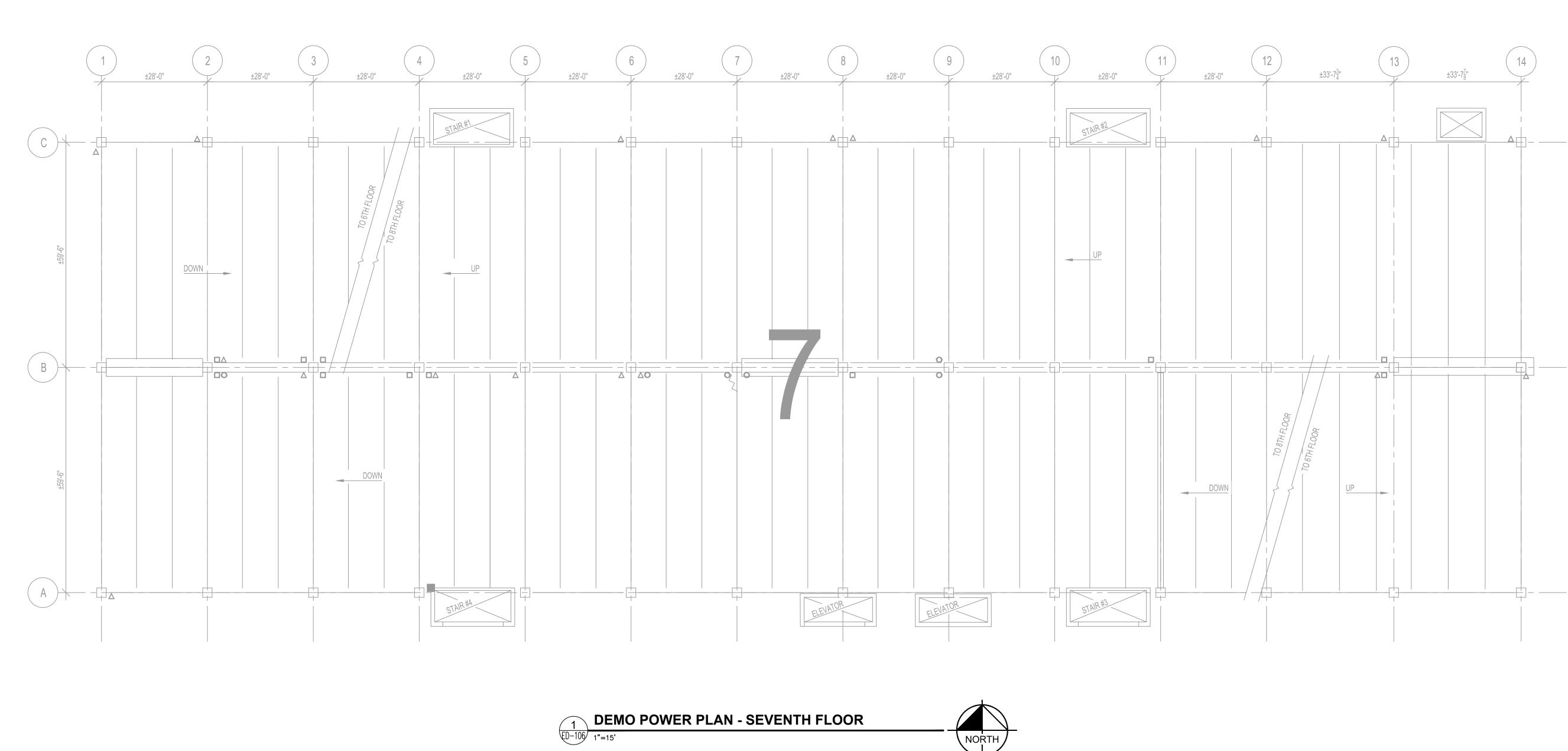


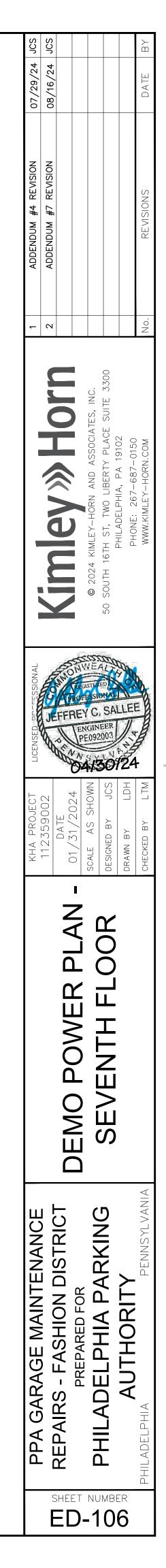






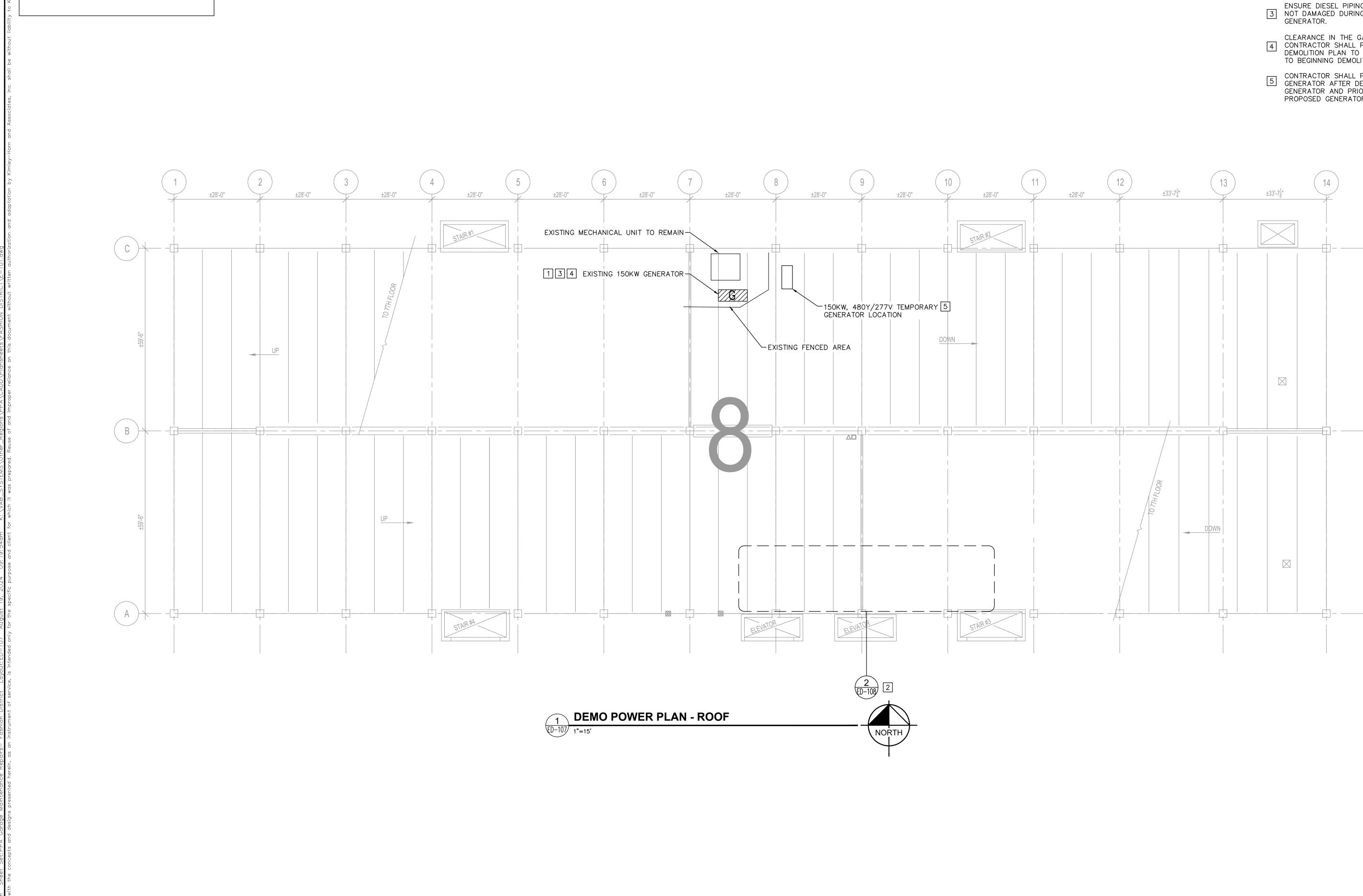


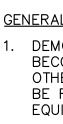




<u>LEGEND</u>

EQUIPMENT TO BE DEMOLISHED





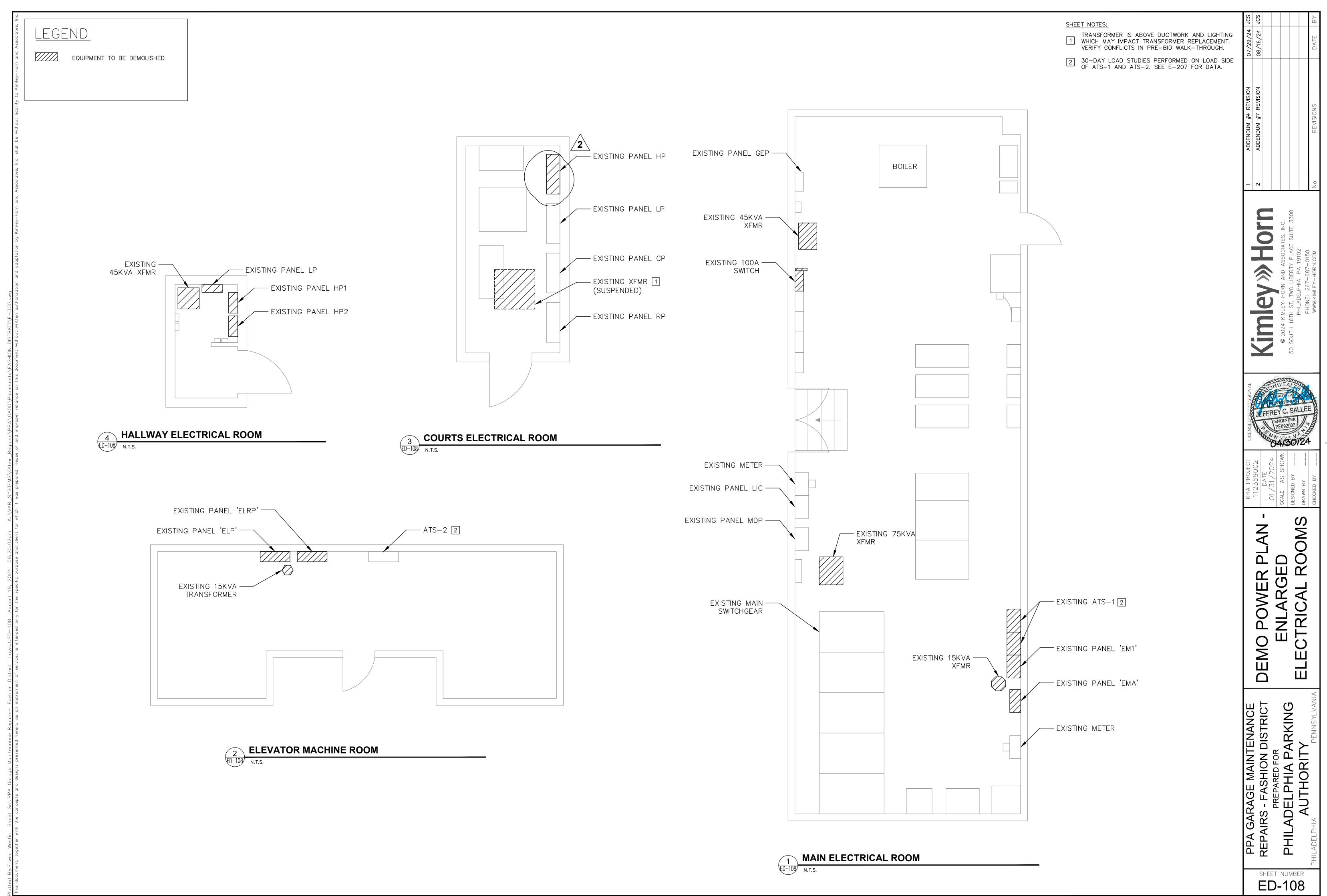
GENERAL NOTES:

1. DEMOLISHED EQUIPMENT AND MATERIALS WILL BECOME PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED BY PPA. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING DEMOLISHED EQUIPMENT AND MATERIALS FROM THE SITE.

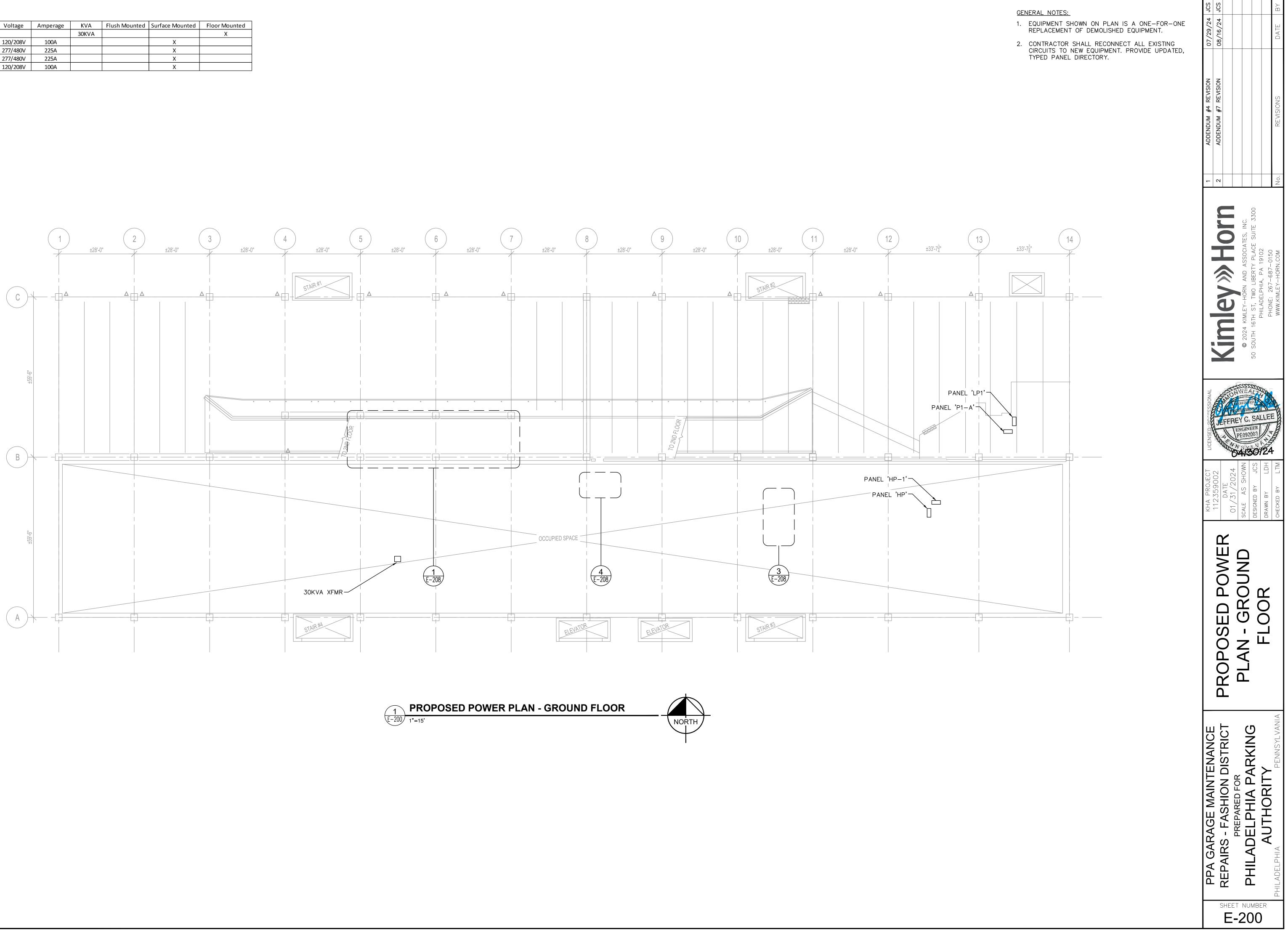
<u>SHEET NOTES:</u>

- A 30-DAY LOAD STUDY WAS PERFORMED AT 1 EACH ATS FROM AUGUST 31, 2023 TO OCTOBER 2, 2023 TO DETERMINE UTILIZATION OF EXISTING GENERATOR. SEE SHEET E-207 FOR MORE DETAILS.
- 2 APPROXIMATE LOCATION OF PENTHOUSE ELEVATOR MACHINE ROOM.
- ENSURE DIESEL PIPING VALVES ARE CLOSED AND NOT DAMAGED DURING REMOVAL OF EXISTING GENERATOR.
- CLEARANCE IN THE GARAGE IS ONLY 6'-2". (4) CONTRACTOR SHALL PROVIDE A GENERATOR DEMOLITION PLAN TO PPA FOR APPROVAL PRIOR TO BEGINNING DEMOLITION.
- 5 CONTRACTOR SHALL PROVIDE TEMPORARY GENERATOR AFTER DEMOLISHING EXISTING GENERATOR AND PRIOR TO INSTALLATION OF PROPOSED GENERATOR.



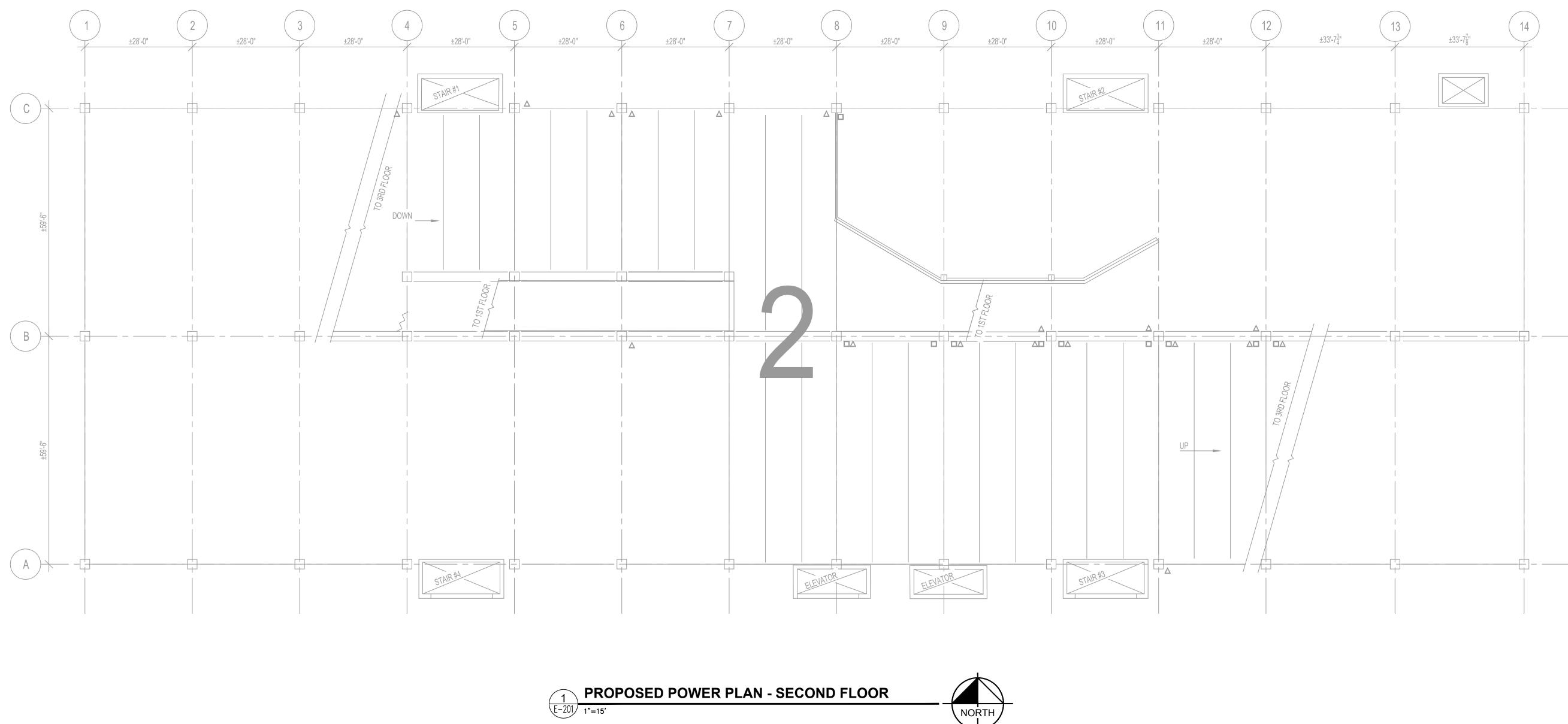


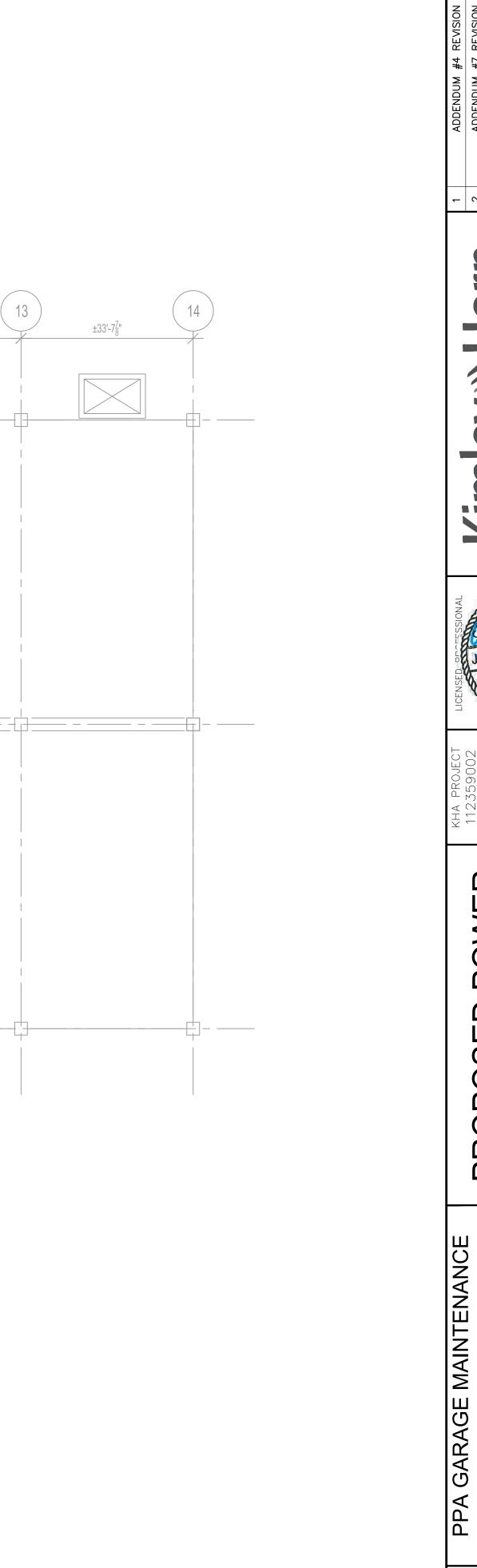
Equipment	Voltage	Amperage	KVA	Flush Mounted	Surface Mounted	Floor Mounted
Transformer			30KVA			Х
Panel P1-A	120/208V	100A			X	
Panel HP	277/480V	225A			X	
Panel HP-1	277/480V	225A			X	
Panel LP-1	120/208V	100A			X	

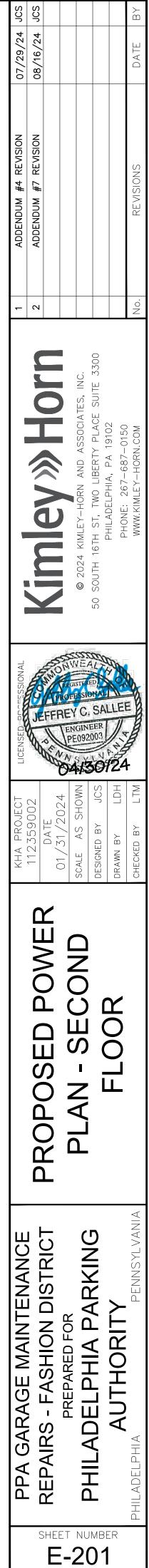


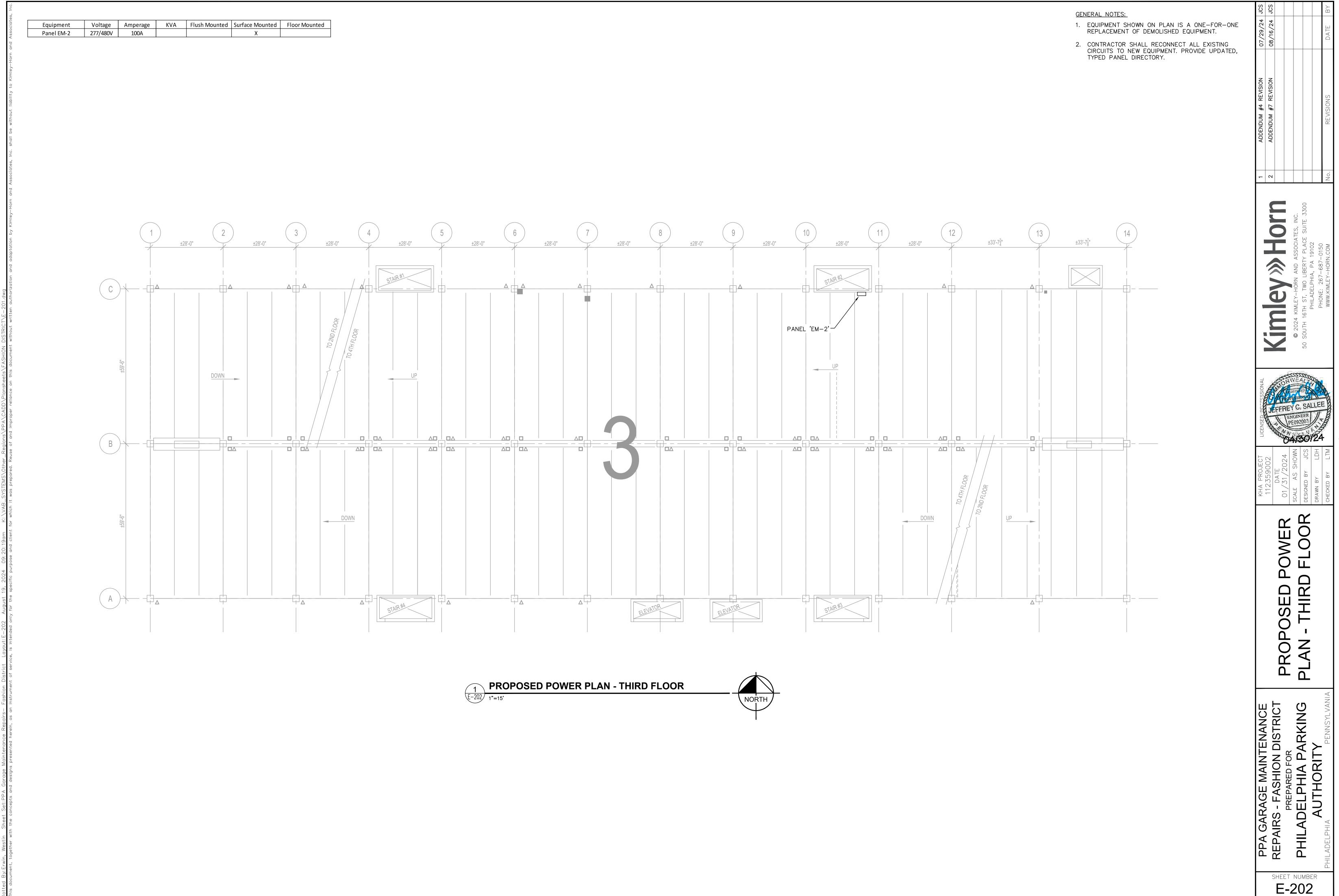


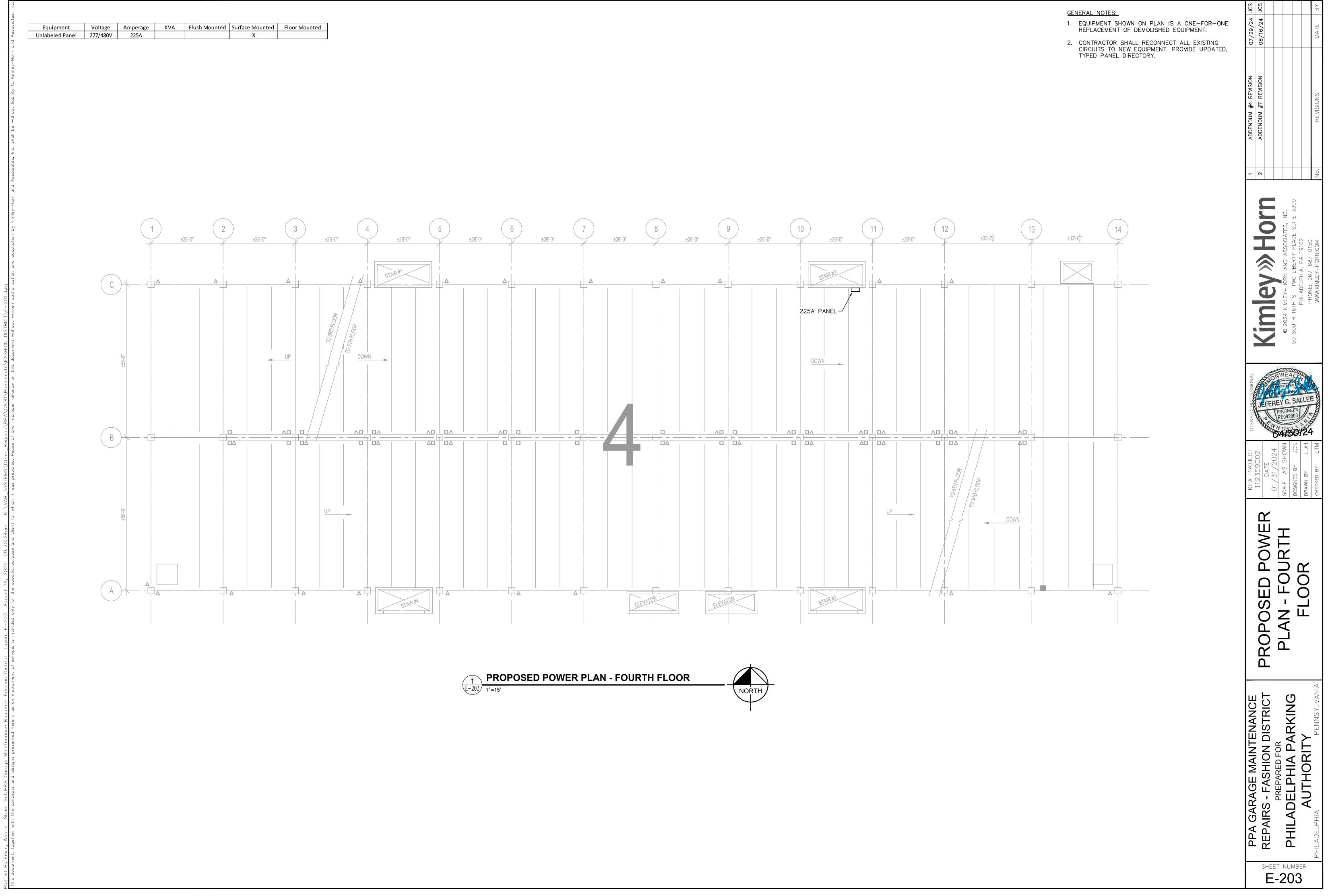




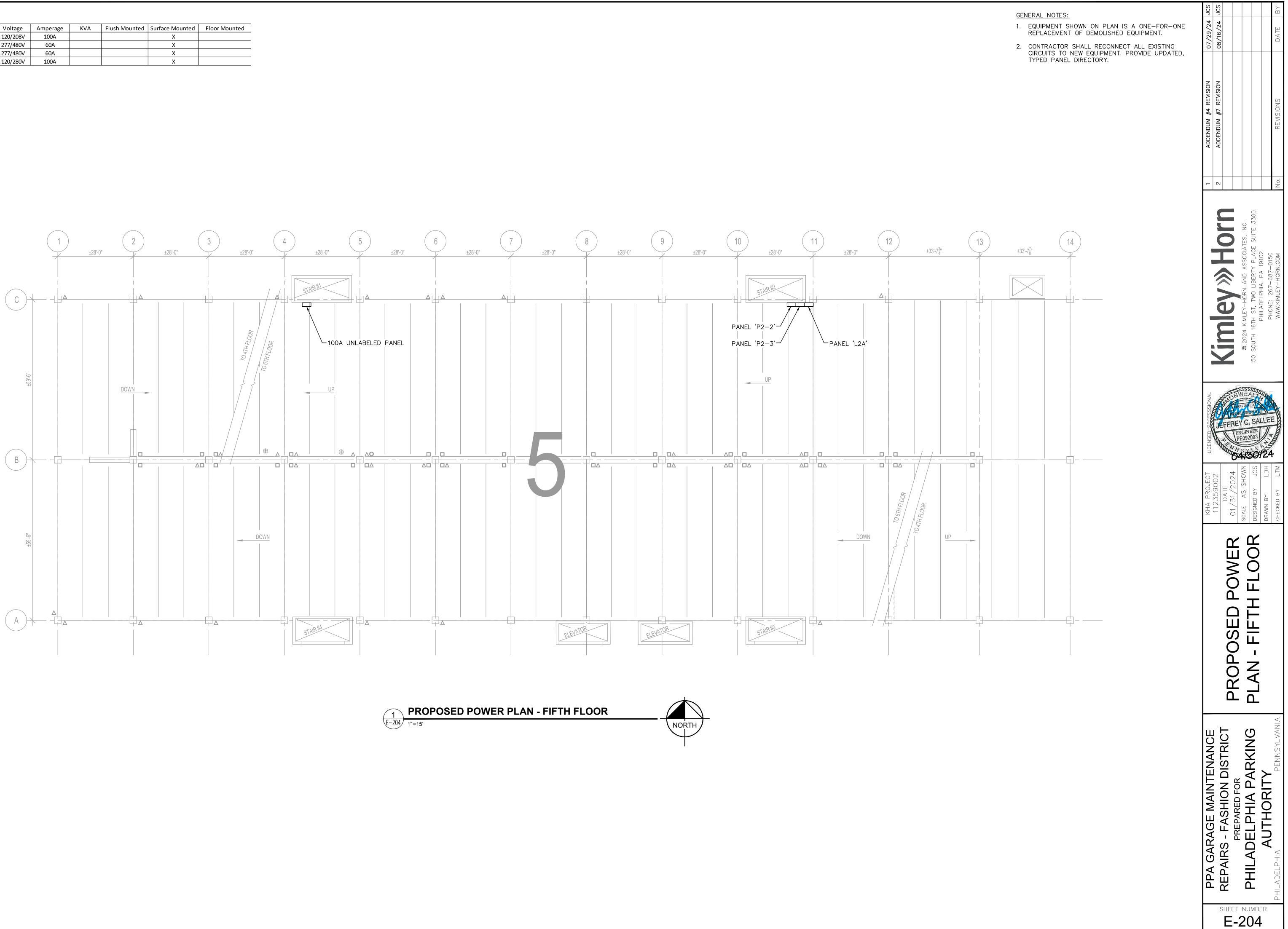




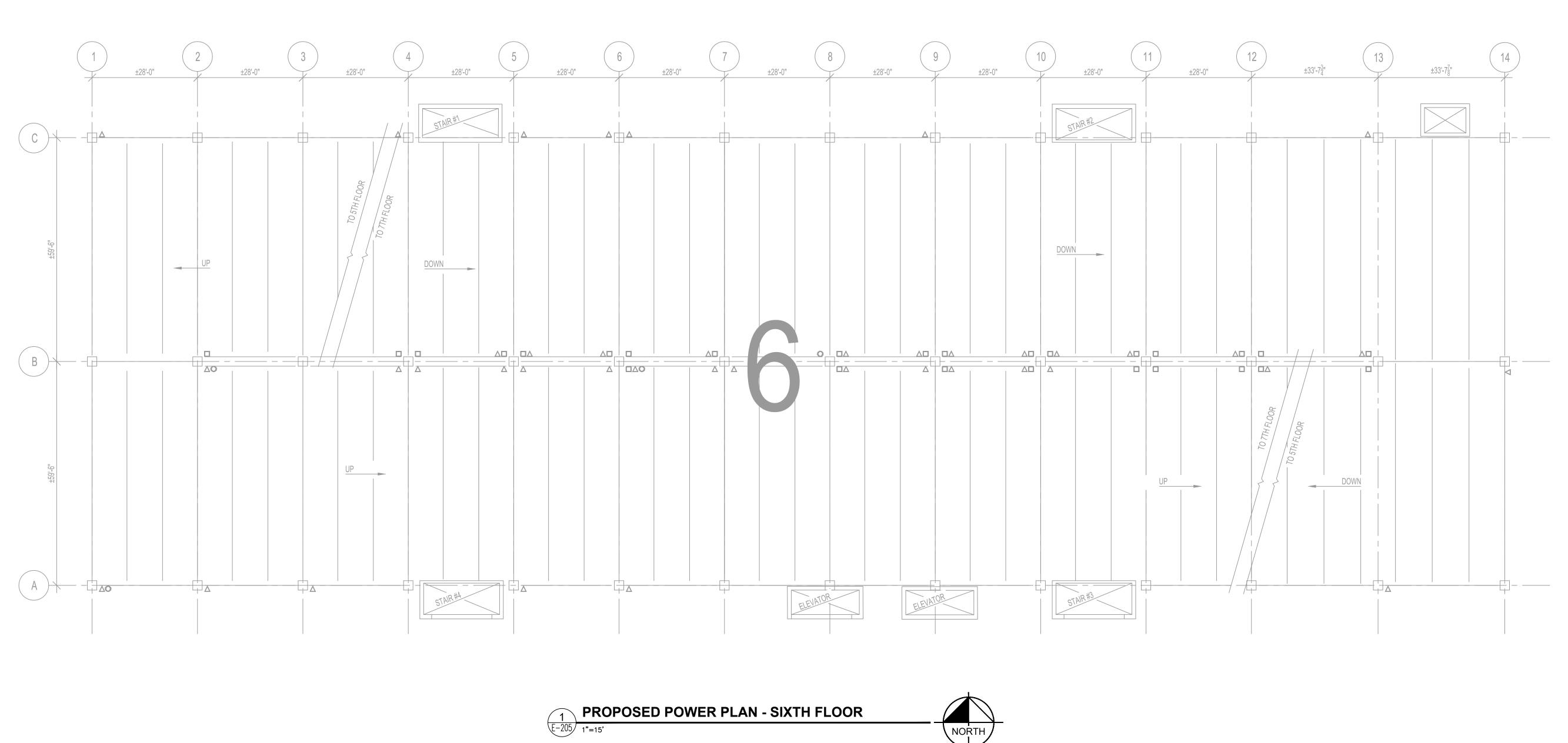


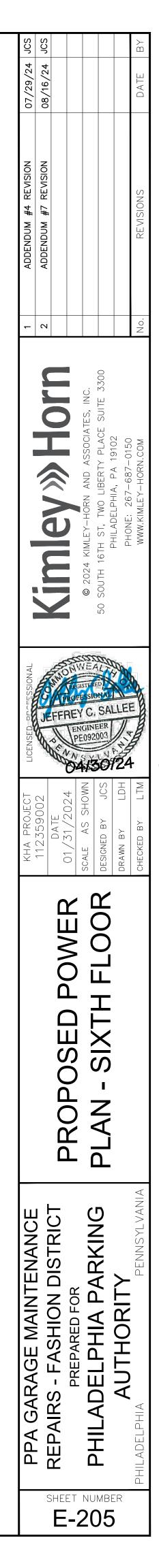


Equipment	Voltage	Amperage	KVA	Flush Mounted	Surface Mounted	Floor Mounted
Panel L2A	120/208V	100A			X	
Panel P2-2	277/480V	60A			X	
Panel P2-3	277/480V	60A			X	
Unlabeled Panel	120/280V	100A			X	

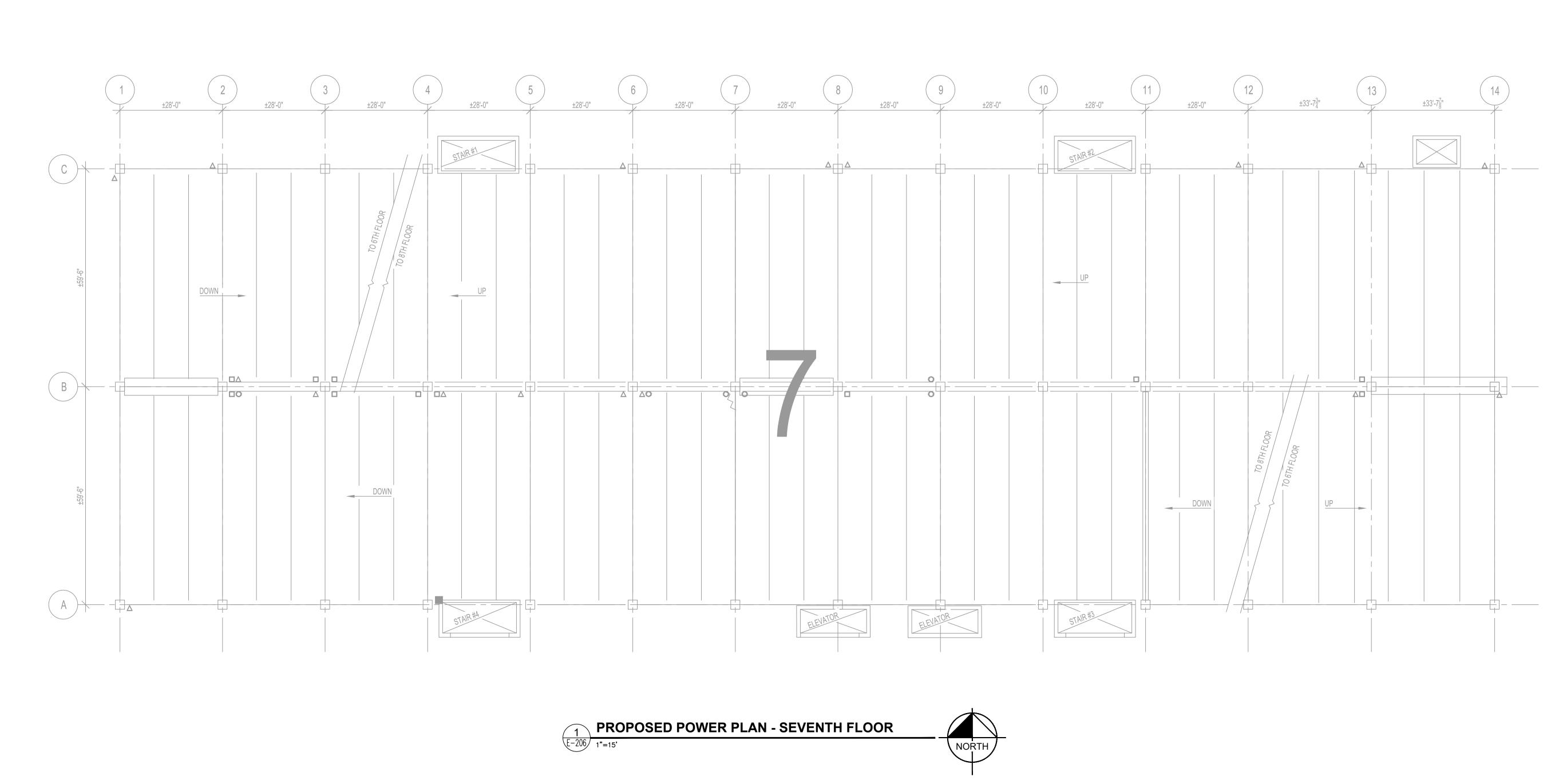


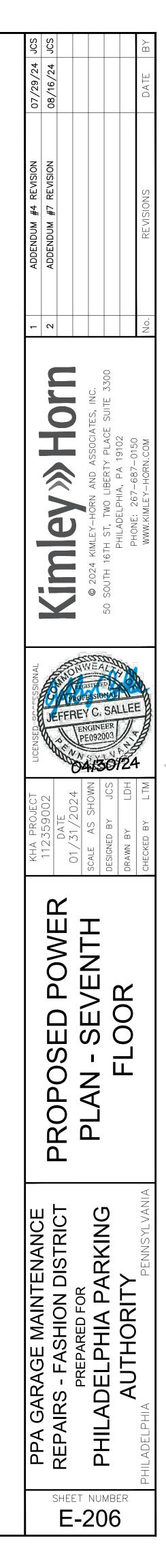












ATS-1 Load Study Results Recorder Set Date: 8/31/23 Recorder End Date: 10/2/23 Voltage: 480Y/277V ATS Amperage: 100A Peak Demand: 6.516A Peak Time: 9/14/23, 9:53am

ATS-2 Load Study Results

Recorder Set Date: 8/31/23

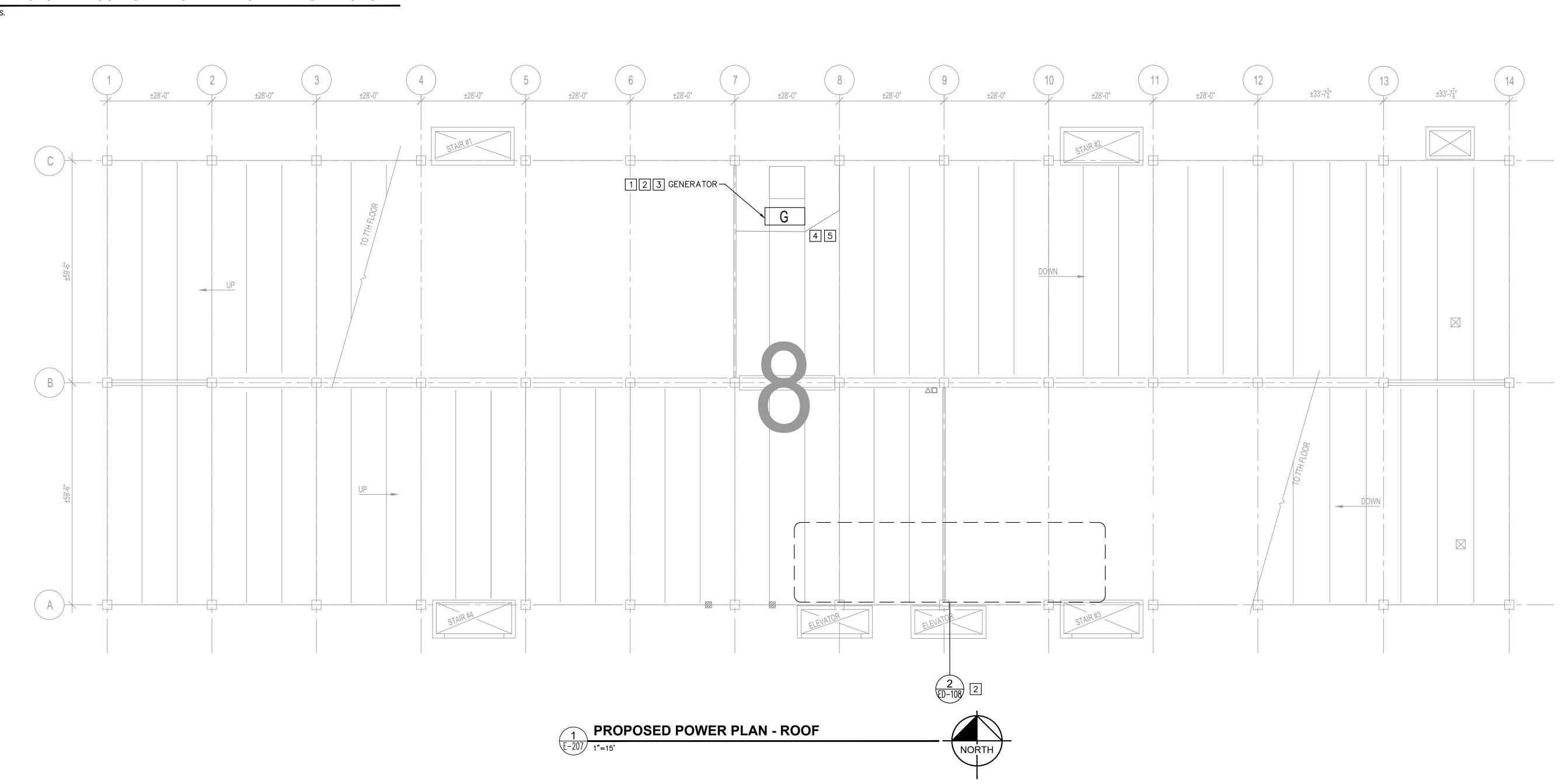
Voltage: 480Y/277V ATS Amperage: 200A Peak Demand: 56.540A

Recorder End Date: 10/2/23

Peak Time: 9/06/23, 8:34am

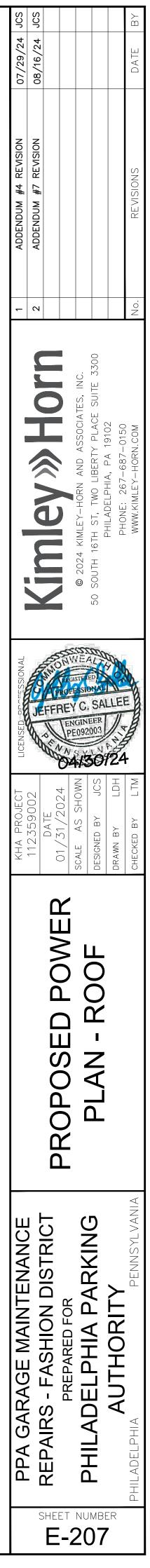
		Pro	oposed Ge	nerator Siz	ing		
Sizing b	ased on Ex	isting Gen	erator Loa	d plus PPA	request to	have all 1	st Level
		tenant	space on g	generator b	backup.		
Existing U	tilization =	63A				52.4	kVA
Level 1 te	nant space	utilizatior	n = 24,000 S	F * 21 VA/	SF =	504	kVA
					Total	556.4	kVA
Inrush loa	ds (motors	s) anticipat	ed to be m	inimal			
Generato	r Selection	: 480Y/277	V, 600kW,	750kVA, D	iesel Fuel		
Basis of D	esign:	Caterpilla	r D600 GC (or approve	d equal		

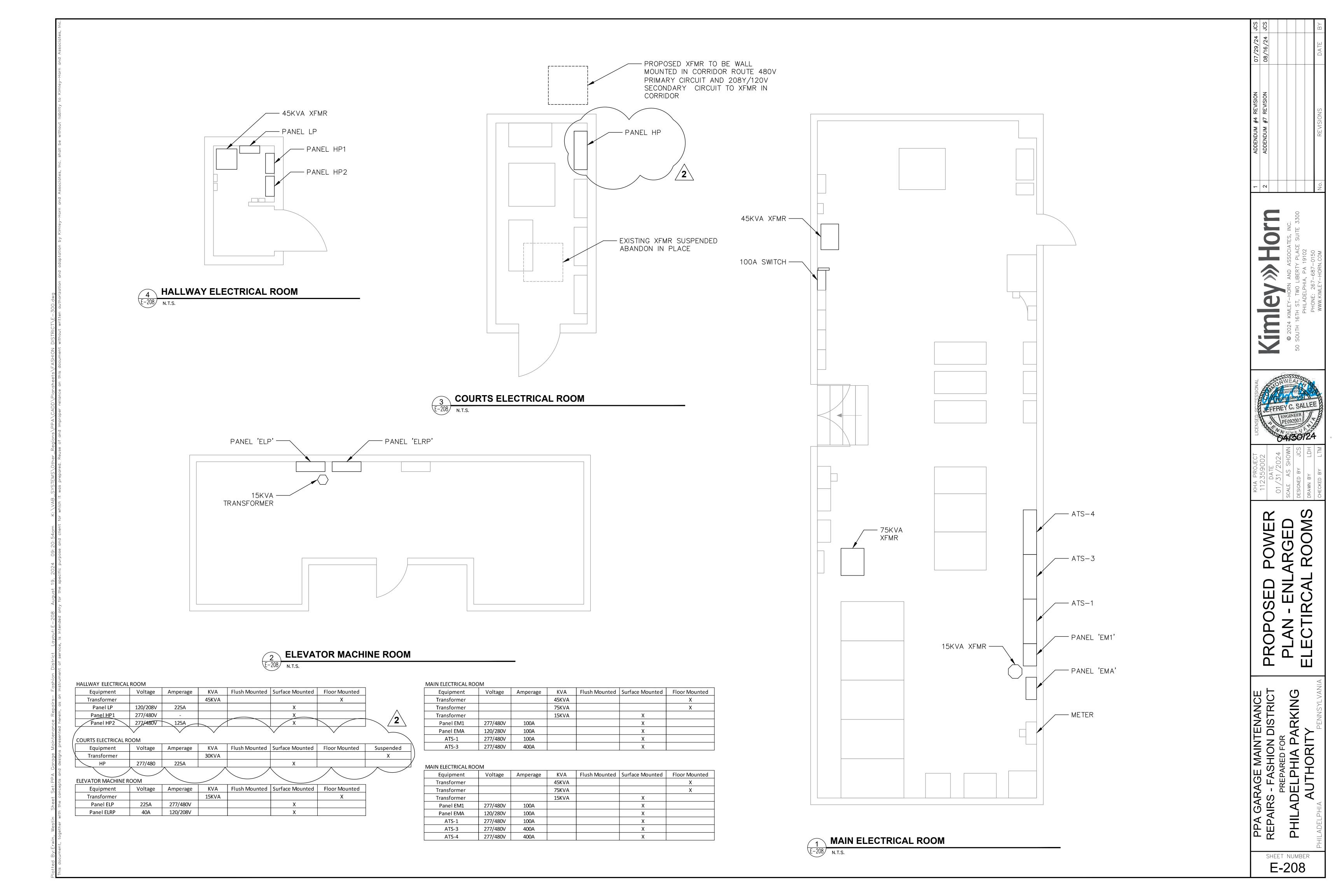
LOAD STUDY RESULTS AND GENERATOR CALCULATIONS 2 LOA E-207 N.T.S.



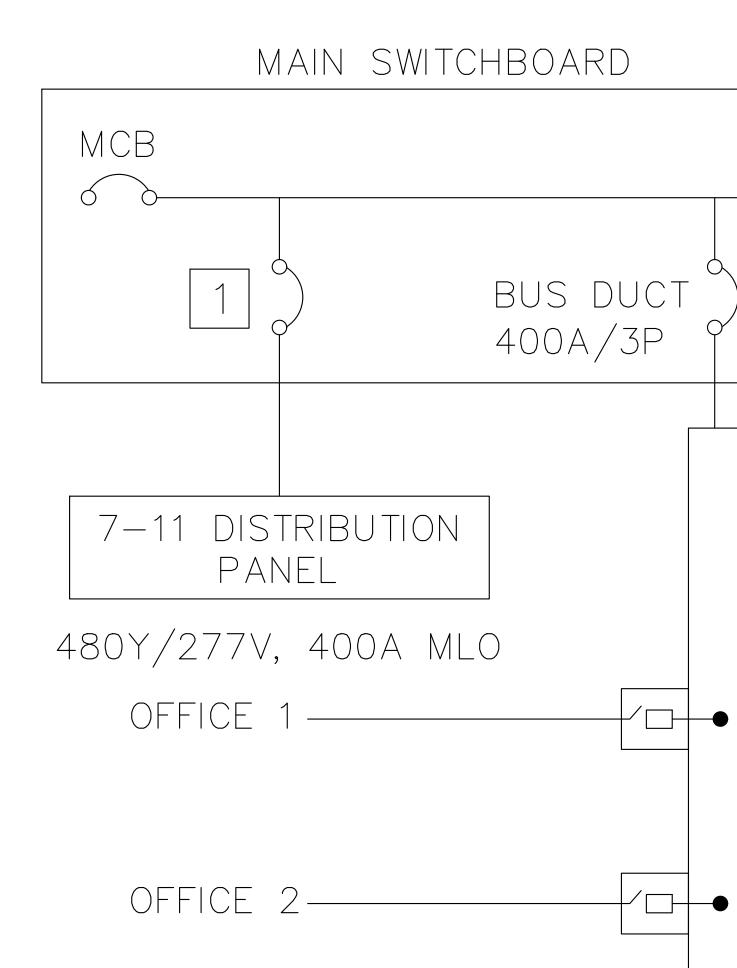
<u>SHEET NOTES:</u>

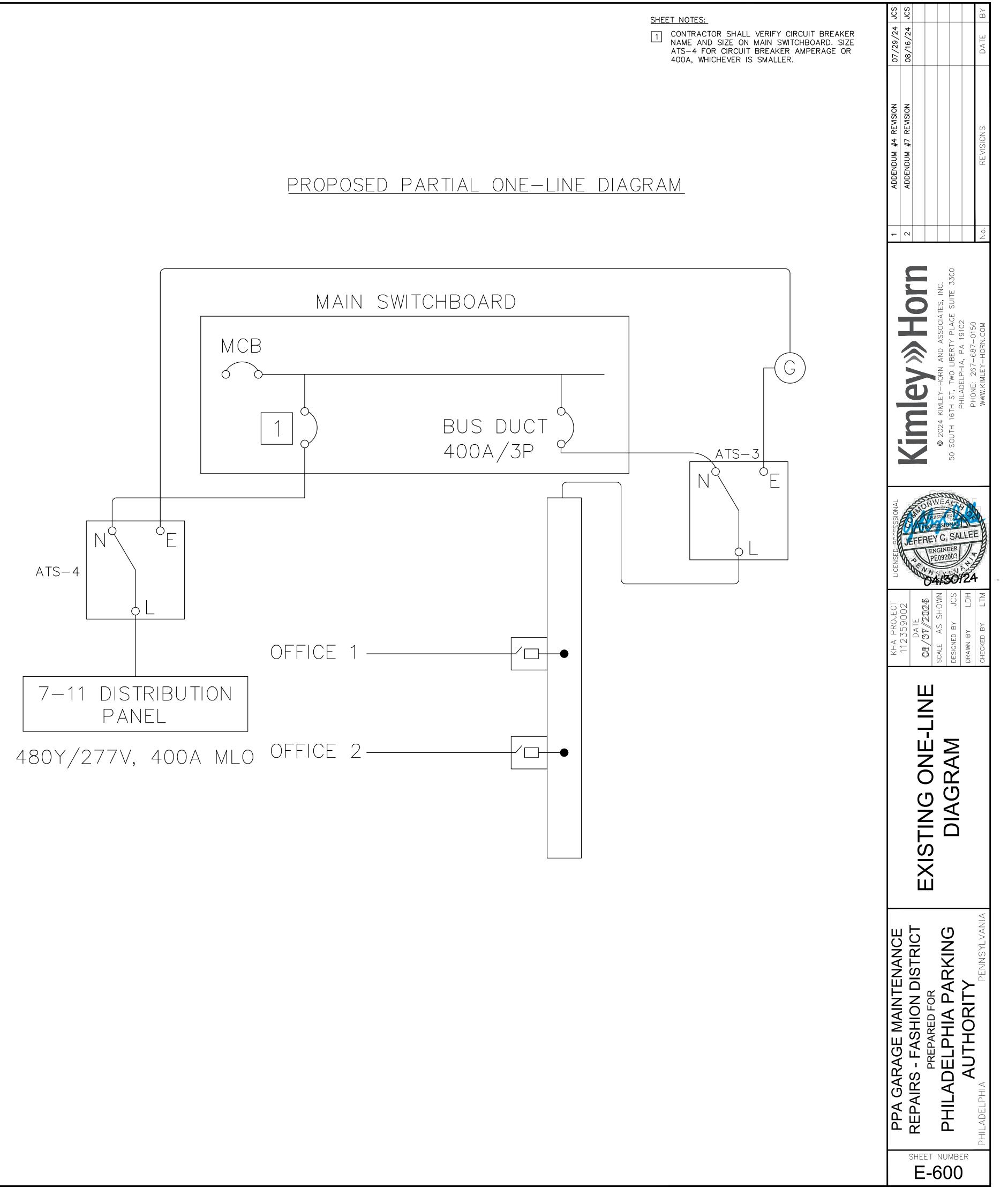
- BASIS OF DESIGN FOR GENERATOR IS CATERPILLAR 1 600KW, 480Y/277V WITH WEATHERPROOF ENCLOSURE OR APPROVED EQUAL.
- CLEARANCE IN THE GARAGE IS ONLY 6'-2". 2 CONTRACTOR SHALL PROVIDE A GENERATOR INSTALLATION PLAN TO PPA FOR APPROVAL PRIOR TO BEGINNING INSTALLATION.
- CONTRACTOR SHALL PROVIDE A TEMPORARY 3 150KW, 480Y/277VGENERATOR AFTER DEMOLISHING EXISTING GENERATOR AND PRIOR TO INSTALLATION OF PROPOSED GENERATOR.
- 4 CONTRACTOR SHALL ENLARGE FENCED AREA IF REQUIRED TO MAINTAIN AT LEAST 3' CLEARANCE AROUND GENERATOR.
- 5 CONTRACTOR TO PROVIDE CONCRETE PAD FOR GENERATOR. SEE DETAIL (TYPICAL RAISED CURB ON SLOPE) ON SHEET E-601.

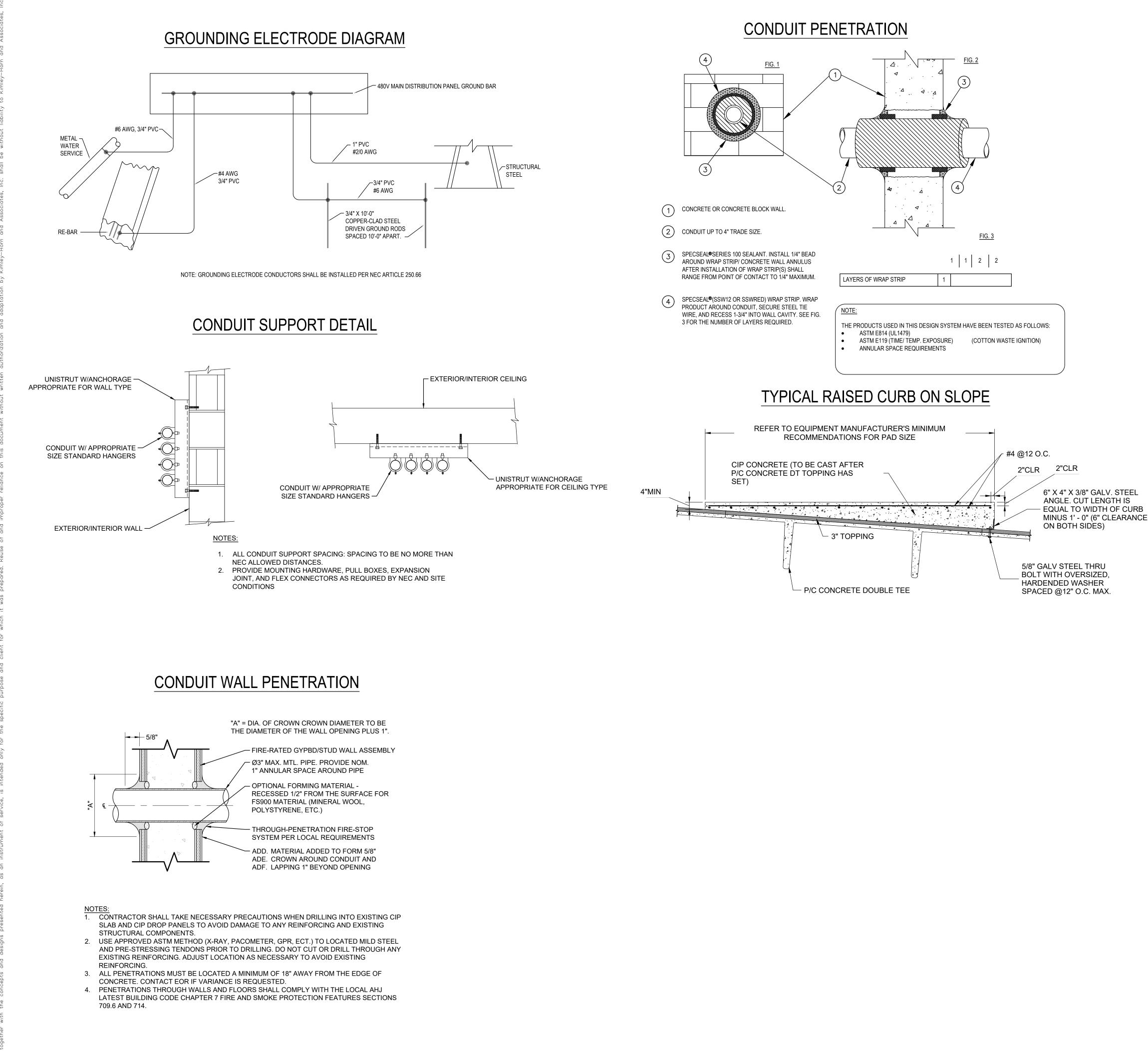


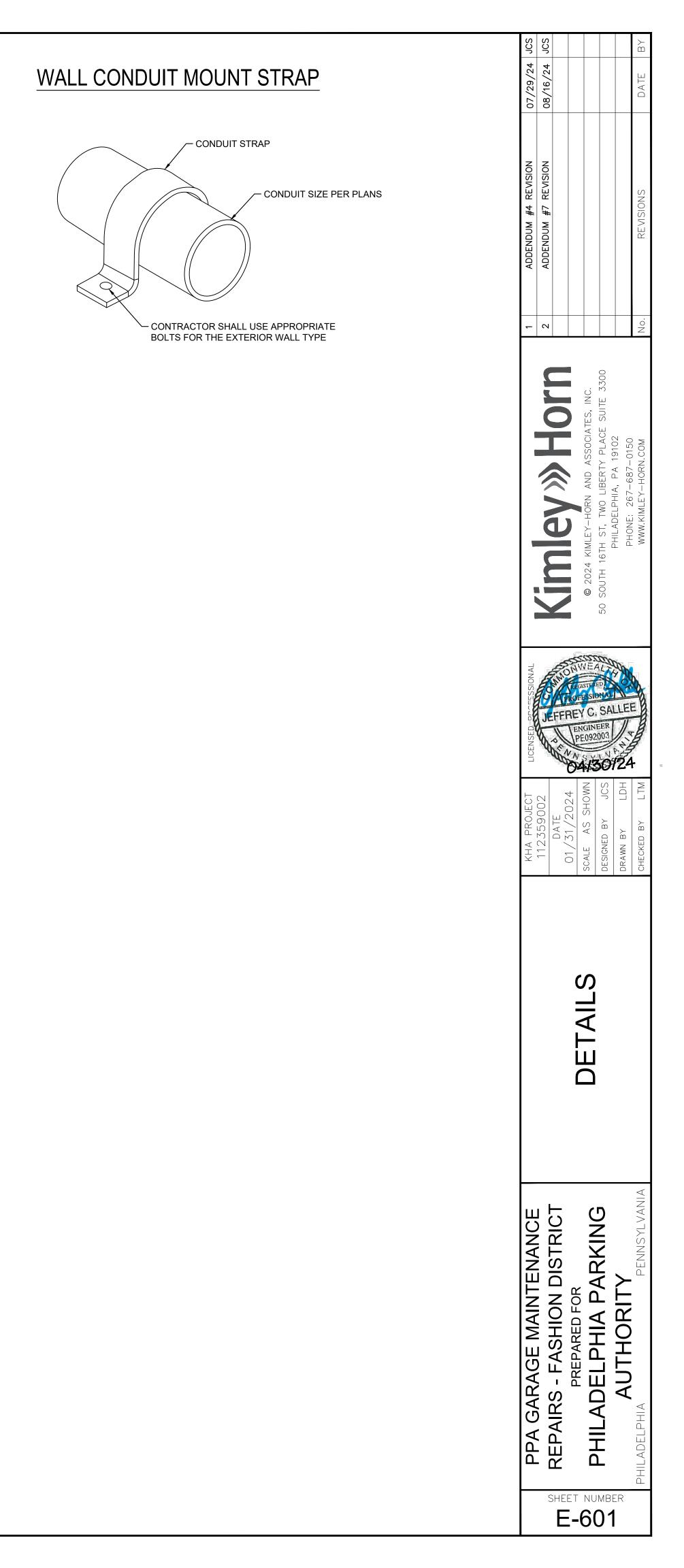












<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

				100) Amp Fram	ie, Groun	d Bar, Loc	king Cover	, Panel C			1			
Description of Load Served		eaker	Wire		A/Phase		CKT No.	CKT No.		A/Phase		Wire		aker	Description of Load Serve
·	Amp	Pole		A	В	С			A	В	С		Amp	Pole	•
 EXISTING	20	1	EXIST	EX			1	2	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		3	4		EX 🛛		EXIST	20	1	EXISTING
EXISTING	30	2	EXIST			EX	5	6			EX	EXIST	20	2	EXISTING
EXISTING	30	2	EXIST	EX			7	8	EX			EXIST	20	2	EXISTING
EXISTING	20	1	EXIST		EX		9	10		EX		EXIST	20	1	EXISTING
EXIT GATE	20	1	EXIST			EX	11	12			EX	EXIST	20	1	EXISTING
		0	EXIST	EX			13	14	EX			EXIST	20	1	EXISTING
HOWD DRY	20	2	EXIST		EX		15	16		EX		EXIST	20	1	EXISTING
		0	EXIST			EX	17	18			EX	EXIST	20	1	JOCKEY PUMP
AC OFFICE	20	2	EXIST	EX			19	20	EX			EXIST	20	1	EXISTING
0110		•	EXIST		EX		21	22		EX		EXIST	20	1	EXISTING
CU3	30	2	EXIST			EX	23	24			EX				
		-		EX			25	26	EX			EXIST	20	2	AC
EXISTING	20	2	EXIST		EX		27	28		EX					
SPARE	20	1	EXIST		1	EX	29	30			EX	EXIST	20	2	AC2

Description of Load ServedAmpPoleWireABCCK I No.ABCAmpPoleDescription of Load ServedFIRE PUMP203EXISTEX112EX1EXIST201MENS ROOM HEATLEFT TURN SIGN 1ST EXIT201EXISTEX112EX1EXIST201HEAT COMPHEATER JANITOR CLOSET201EXISTEX1T8EX1EX201HEAT SPC OFFICEHEAT LADIES ROOM201EXISTEX1FX910EXEXEX201HEAT SPC OFFICEHEAT LADIES ROOM201EXISTEX1112EXEXEXIST201SPARELIGHTS IN OFFICE201EXISTEX1112EXEXEXIST201SPARESPC OFFICE LITES COMP.RM201EXISTEX11516EXEXIST201SPARESPARE201EXISTEX11516EXEXIST201SPARESPARE201EXISTEX11516EXEXIST201SPARESPARE201EXISTEX11516EXEXIST201SPARESPARE201EXISTEX1192		Bre	eaker) Amp Fram A/Phase	e, Grour			r, Panel	A/Phase			Bre	aker	
FIRE PUMP203EXISTEXEX34EXEXEXIST201HEAT COMPLEFT TURN SIGN 1ST EXIT201EXISTEX56EXEXIST201OFFICE HEATLEFT TURN SIGN 1ST EXIT201EXISTEX78EXEXIST201HEAT SFC OFFICEHEATER JANITOR CLOSET201EXISTEX910EXEXEXIST201HEAT SFC OFFICEHEAT LADIES ROOM201EXISTEX1112EXEXEXIST201SPARELIGHTS IN OFFICE201EXISTEX1112EXEXIST201SPARESFC OFFICE LITES COMP. RM201EXISTEX1114EXEXEXIST201SPARESPARE201EXISTEXEX1516EXEXEXIST201SPARESPARE201EXISTEX1718EXEXEXIST201SPARESPARE201EXISTEX1920IEXIST203SPARESPARE11IIIIIIIIIIIIIIIIIIIIIIIII	Description of Load Served			- Wire	A		С	CKT NO.	CKT NO.	Α	В	С	Wire	Amp	Pole	Description of Load Served
LEFT TURN SIGN 1ST EXIT201EXISTEXEX566EXEXEXIST201OFFICE HEATLEFT TURN SIGN 1ST EXIT201EXISTEX78EX1EXIST201HEAT SFC OFFICEHEATER JANITOR CLOSET201EXISTEX910EXEXEXIST201HEAT SFC OFFICEHEAT LADIES ROOM201EXISTEX112EXEXEXIST201SPARELIGHTS IN OFFICE201EXISTEXEX1112EXEXEXIST201SPARESFC OFFICE LITES COMP. RM201EXISTEX1314EXEXEXIST201SPARESPARE201EXISTEXEX1516EXEXEXIST201SPARESPARE201EXISTEX19201EXIST201SPARESPARE201EXISTEX1718EXEXEXIST201SPARESPARE201EXISTEX19201EXIST203SPARESPARE101EX1922IIEXIST203SPARE		· · · ·			EX			1	2	EX			EXIST	20	1	MENS ROOM HEAT
LEFT TURN SIGN 1ST EXIT201EXISTEX-78EX-EXIST201HEAT SFC OFFICEHEATER JANITOR CLOSET201EXIST-EX910EXEXEXIST201SPAREHEAT LADIES ROOM201EXISTCEX1112-EXEXIST201SPARELIGHTS IN OFFICE201EXISTEX-1314EX-EXIST201SPARESFC OFFICE LITES COMP. RM201EXISTEX-1516EXEXEX201SPARESPARE201EXISTEXEX1718-EXEXEX201SPARESPARE201EXISTEX-1920SPACE-12122	FIRE PUMP	20	3	EXIST		EX		3	4		EX		EXIST	20	1	HEAT COMP
HEATER JANITOR CLOSET201EXISTEX910EXEXEXIST201SPAREHEAT LADIES ROOM201EXISTCEX1112CEXEXIST201SPARELIGHTS IN OFFICE201EXISTEX11314EXCEXIST201SPARESFC OFFICE LITES COMP. RM201EXISTEXC1516EXEXEXIST201SPARESPARE201EXISTEXC1718CEXEXIST201SPARESPARE201EXISTEXC1920CCEXIST201SPARESPACE11C1920CCEXIST203SPARE							EX	5	6			EX	EXIST	20	1	OFFICE HEAT
HEAT LADIES ROOM201EXIST	LEFT TURN SIGN 1ST EXIT	20	1	EXIST	EX			7	8	EX			EXIST	20	1	HEAT SFC OFFICE
LIGHTS IN OFFICE201EXISTEX1314EXEXEXIST201SPARESFC OFFICE LITES COMP. RM201EXISTEX1516EXEXEXIST201SPARESPARE201EXISTCEX1718EXEXEXIST201SPARESPARE201EXISTEX19201EXIST201SPARESPACE11EXISTEX121221EXIST203SPARE	HEATER JANITOR CLOSET	20	1	EXIST		EX		9	10		EX		EXIST	20	1	SPARE
SFC OFFICE LITES COMP. RM 20 1 EXIST EX 15 16 EX EXIST 20 1 SPARE SPARE 20 1 EXIST EX 17 18 EX EX EX EX EX 5PARE SPARE 20 1 EXIST EX 17 18 EX EX EX 20 1 SPARE SPARE 20 1 EXIST EX 19 20 1 EXIST 20 1 SPARE SPACE 1 1 EX 1 22 Image: Exist for the exist for	HEAT LADIES ROOM	20	1	EXIST			EX	11	12			EX	EXIST	20	1	SPARE
SPARE 20 1 EXIST EX 17 18 EX EXIST 20 1 SPARE SPARE 20 1 EXIST EX 19 20 6	LIGHTS IN OFFICE	20	1	EXIST	EX			13	14	EX			EXIST	20	1	SPARE
SPARE 20 1 EXIST EX 19 20 Image: Constraint of the state o	SFC OFFICE LITES COMP. RM	20	1	EXIST		EX		15	16		EX		EXIST	20	1	SPARE
SPACE 1 21 22 EXIST 20 3 SPARE	SPARE	20	1	EXIST			EX	17	18			EX	EXIST	20	1	SPARE
	SPARE	20	1	EXIST	EX			19	20							
	SPACE		1					21	22				EXIST	20	3	SPARE
SPACE 1 1 23 24 1 1	SPACE		1					23	24							

						Pa	nel Sched	ule				
		Exist	ing Panel HP	Location	: Existing				7V Pha	ase: 3 V	Vire: 4	Hert
		Exiot	MLO		C: N/A Bra			ENCL. (NE		MTG: S		
					Amp Fram							
	Br	eaker			A/Phase			_		A/Phase		
Description of Load Served	Amp	Pole	Wire	A	B	С	CKT No.	CKT No.	A	B	С	
SPACE		1					1	2	EX	-		
			EXIST		EX		3	4		EX		E
AC		3	EXIST			EX	5	6			EX	1
			EXIST	EX			7	8				
			EXIST		EX		9	10				
AC		3	EXIST			EX	11	12				
			EXIST	EX			13	14				
			EXIST		EX		15	16				
AC + HEAT	30	3	EXIST			EX	17	18				
			EXIST	EX			19	20				
			EXIST		EX		21	22				
AC + HEAT	30	3	EXIST			EX	23	24				
			EXIST	EX			25	26				
			EXIST		EX		27	28				
NC		3	EXIST			EX	29	30				
			EXIST	EX			31	32				
			EXIST		EX		33	34		EX		6
TRANSFORMER		3	EXIST			EX	35	36			EX	E
			EXIST	EX			25	26	EX			E
SPACE		1	EXIST				27	28		EX		E
SPACE		1	EXIST				29	30			EX	I
SPACE		1	EXIST				31	32				- F

BANEL HP - GROUND FLOOR N.T.S.

						Pa	nel Sched	ule							
		Existin	g Panel HP-1	Location	: Existing	SERVER	Room V	olts: 480Y/2	277V F	Phase: 3	Wire: 4	Hertz: 60			
			MLO	Main Al	C: N/A Br	anch AIC:	14,000	ENCL. (NE	EMA): 1	MTG: S	urface				
				225	Amp Fran	ne , Grour	ld Bar, Loo	king Cover	, Panel C	Card.					
Description of Load Convol	Br	reaker	10/600	A/Phase					A/Phase			10/500	Breaker		Description of Load Conved
Description of Load Served	Amp	Pole	- Wire	А	В	С		CKT No.	А	В	С	Wire	Amp	Pole	Description of Load Serve
			EXIST	EX			1	2	EX			EXIST	-	1	SPACE
A/C COND. UNIT LEVEL 2	30	3	EXIST		EX		3	4		EX		EXIST	-	1	SPACE
			EXIST			EX	5	6			EX	EXIST	-	1	SPACE
			EXIST	EX			7	8				EXIST			
A/C COND. UNIT LEVEL 2	30	3	EXIST		EX		9	10				EXIST	60	3	SPARE
			EXIST			EX	11	12				EXIST			
			EXIST				13	14				EXIST			
SPARE	30	3	EXIST				15	16				EXIST	60	3	SPARE
			EXIST				17	18				EXIST			
SPARE	20	1	EXIST				19	20				EXIST	20	1	SPARE
HEATER	20	1	EXIST		EX		21	22		EX		EXIST	20	1	HEATER
HEATER	20	1	EXIST			EX	23	24				EXIST	20	1	SPARE
SPARE	20	1	EXIST				25	26				EXIST	20	1	SPARE
SPARE	20	1	EXIST				27	28				EXIST	30		
SPARE	20	1	EXIST				29	30				EXIST		2	SPARE

4 E-602 PANEL HP-1 - GROUND FLOOR N.T.S.

		_					nel Sched		· -						
		E	xisting Panel												
			100A M		AIC: N/A				· /		Surface				
			-	100) Amp Fran	ne , Grour	nd Bar, Loo	cking Cove	r, Panel (1			1
Description of Load Served	Br	eaker	Wire		APhase			CKT No.		APhase		Wire	Bre	aker	Description of Load Served
	Amp	Pole	VVIIC	A	В	С			A	В	С		Amp	Pole	· ·
				EX			1	2	EX			EX	20	1	CUTHBERT ST WALLPACK EAST
EM-3	50	3	EXIST		EX		3	4		EX		EX	20	1	CUTHBERT ST WALLPACK WEST
						EX	5	6					20	1	SPARE
SPARE	20	1					7	8					20	1	SPARE
SPARE	20	1					9	10					20	1	SPARE
SPARE	20	1					11	12					20	1	SPARE
SPARE	20	1					13	14					20	1	SPARE
SPARE	20	1					15	16					20	1	SPARE
SPARE	20	1					17	18					20	1	SPARE
SPACE							19	20					20	1	SPARE
SPARE	20	1					21	22					20	1	SPARE
SPARE	20	1					23	24					20	1	SPARE
SPARE	20	1					25	26					20	1	SPARE
SPARE	20	1					27	28					20	1	SPARE
SPACE	20	1					29	30							SPARE
SPACE							31	32							SPACE
SPACE							33	34							SPACE
SPACE							35	36							SPACE
SPACE							37	38							SPACE



							anel Sched								
			Existing Pane	el 225A Lo	cation: Fou	urth Floor	Volts: 48	80Y/277V	Phase:	3 Wire:	4 Hertz	z: 60			
			225A ML	.O Main A	AIC: N/A B	ranch AlC	C: Unknowr	n ENCL.	(NEMA):	1 MT(G: Surface	;			
				225	Amp Fram	ie , Grour	nd Bar, Loc	king Cove	r, Panel C	Card.					
Description of Load Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole		Α	В	С		CKT NO.	А	В	С	vile	Amp	Pole	Description of Load Served
				EX			1	2						1	SPACE
PNL P2 III	60	3	EX		EX		3	4						1	SPACE
						EX	5	6						1	SPACE
				EX			7	8							
PNL P2 II	60	3	EX		EX		9	10					60	3	SPARE
						EX	11	12							
LIGHTS ON ROOF 4-5	20	1		EX			13	14				EX	20	1	LIGHTS ON ROOF 1-2-3
SPARE	20	1					15	16						1	SPARE
8TH FLOOR ELEVATOR LOBBY	20	1	EX			EX	17	18			EX	EX	20	1	PENT HOUSE LIGHTS
SPARE	20	1					19	20						1	SPARE
SPARE	20	1					21	22						1	SPARE
SPACE							23	24							SPACE
SPACE							25	26							SPACE



Hertz: 60			
Wire	Brea	aker	Description of Load Served
VVIIC	Amp	Pole	
			SPACE
EXIST	20	2	HOT WATER HEATER
EXIST	20		
			SPACE
	20	3	NC
	20	3	NC
	20	3	NC
	20	3	NC
EXIST	20	1	32
EXIST	20	1	34
EXIST	20	1	36
EXIST	20	1	38
EXIST	20	1	40
EXIST	20	1	SPACE

07/29/24 JCS	08/16/24 JCS							DATE BY
								DA
ADDENDUM #4 REVISION	ADDENDUM #7 REVISION							REVISIONS
	2							No.
				© 2024 KIMLEY-HORN AND ASSOCIATES, INC.	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	PHILADELPHIA, PA 19102	PHONE: 267-687-0150	WWW.KIMLEY-HORN.COM
ESSIONAL		S.M.		NE NE E SI Y C	AL ED S		E	
LICENSED D	35	FF	REEPVNO	SAL NM	166R 2003	P.F.F.	HO	TM
			01/31/2024	SCALE AS SHOWN	DESIGNED BY JCS		DRAWN BY LDH	снескер ву LTM
PROJECT L					DESIGNED BY		BҮ	ВY

SHEET NUMBER

E-602

2

<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

						Pa	anel Scheo	dule							
		Ex	isting 100A Ur	nlabeled Pa	anel Locat	tion: 5th	Floor Vol	lts:208Y/12	0 Phas	e:3 Wi	re:4 He	ertz: 60			
			MLO	Main Al	C: N/A Bra	anch AIC	: 10,000	ENCL. (NE	MA): 1	MTG: SI	urface				
				100) Amp Fram	ne , Groui	nd Bar, Lo	cking Cove	r, Panel (Card.					
Description of Load Served	Bre	eaker	Wire		A/Phase			. CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	VVIIC	А	B	C			А	В	С	VVIIE	Amp	Pole	Description of Load Served
EXISTING	20	1	EXIST	EX			1	2	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		3	4		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	5	6			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			7	8	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		9	10		EX		EXIST	20	1	EXISTING
SPACE							11	12							SPACE
SPACE							13	14							SPACE
SPACE							15	16							SPACE
SPACE							17	18							SPACE



100A UNLABELED PANEL - FLOOR 5 N.T.S.

						Pa	anel Sched	ule							
			Existing Par	nel P2-2	Location: 8	5th Floor	Volts:480	Y/277V	Phase: 3	Wire: 4	Hertz:	60			
			MLO	Main Al	C: N/A Bra	anch AIC:	10,000	ENCL. (NE	EMA): 1	MTG: S	Surface				
				60	Amp Fram	e , Groun	d Bar, Loc	king Cover	, Panel C	ard.					-
Description of Load Served	Br	reaker	Wire		A/Phase		CKTND	CKT No.		A/Phase	1	Wire	Bre	aker	Description of Load Served
Description of Load Served	Amp	Pole	vviie	А	B	C		GRT NO.	А	В	С	VVIIC	Amp	Pole	Description of Load Served
5th FLOOR LIGHTING - WEST	20	1	EXIST	EX			1	2	EX			EXIST	20	1	6TH FLOOR LIGHTING - WEST
6TH OUT	20	1	EXIST		EX		3	4					20	1	SPARE
SPARE	20	1					5	6					20	1	SPARE
SPARE	20	1					7	8					20	1	SPARE
SPARE	20	1					9	10					20	1	SPARE
7TH FLOOR WEST	20	1	EXIST			EX	11	12					20	1	SPARE
SPARE	20	1					13	14					20	1	SPARE
SPARE	20	1					15	16					20	1	SPARE
SPARE	20	1					17	18					20	1	SPARE
SPACE	20	1					19	20					20	1	SPACE
SPACE	20	1					21	22					20	1	SPACE

2 E-603 PANEL P2-2 - FLOOR 5 N.T.S.

						Pa	inel Schedi	ule							
			Existing Par	nel P2-3 l	Location: 5	oth Floor	Volts:480	Y/277V	Phase: 3	Wire: 4	Hertz:	60			
			MLO	Main Al	C: N/A Bra	anch AIC:	10,000 E	ENCL. (NE	EMA): 1	MTG: S	urface				
				60	Amp Fram	e , Groun	d Bar, Locł	king Cover	, Panel C	ard.					
Department of Load Sonrod	Br	reaker	Wire		A/Phase		CKT No.			A/Phase		Wire	Brea	aker	Deparintion of Load Served
Description of Load Served	Amp	Pole		А	В	С		CRINO.	А	В	C		Amp	Pole	Description of Load Served
5TH AND 6TH FLOOR LIGHTING - EAST	20	1	EXIST	EX			1	2	EX			EXIST	20	1	6TH FLOOR LIGHTING - EAST
SPARE	20	1					3	4					20	1	SPARE
7TH FLOOR LIGHTING - EAST	20	1	EXIST			EX	5	6					20	1	SPARE
SPARE	20	1					7	8					20	1	SPARE
SPARE	20	1					9	10					20	1	SPARE
7TH FLOOR LIGHTING - WEST	20	1	EXIST			EX	11	12					20	1	SPARE
SPARE	20	1					13	14					20	1	SPARE
SPARE	20	1					15	16					20	1	SPARE
SPARE	20	1					17	18					20	1	SPARE
SPACE							19	20							SPACE
SPACE							21	22							SPACE

PANEL P2-3 - FLOOR 5 3 E-603 N.T.S.

						Pa	nel Sched	ule							
			Existing Pa	nel L2A L	ocation: 5	oth Floor	Volts:208	Y/120V F	Phase: 3	Wire: 4	Hertz: (60			
			MLO	Main Al	C: N/A Bra	anch AIC:	10,000	ENCL. (NE	EMA): 1	MTG: S	urface				
				100	Amp Fran	ne , Grour	nd Bar, Loo	king Cove	r, Panel C	Card.					
Description of Lood Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Departmention of Load Service
Description of Load Served	Amp	Pole	vire	А	B	С		CRINO.	А	В	С	vvire	Amp	Pole	Description of Load Served
S	20	1		EX			1	2					20	1	SPARE
SPARE	20	1					3	4					20	1	SPARE
В	20	1				EX	5	6			EX		20	1	SOUTH EAST
Н	20	1		EX			7	8					20	1	SPARE
SPARE	20	1					9	10					20	1	SPARE
SPARE	20	1					11	12					20	1	SPARE
SPARE	20	1					13	14					20	1	SPARE
TEMP W/ LOOP	20	1			EX		15	16					20	1	SPARE
SPACE	20	1											20	1	SPACE

4 E-60.3 **PANEL L2A - FLOOR 5** N.T.S.

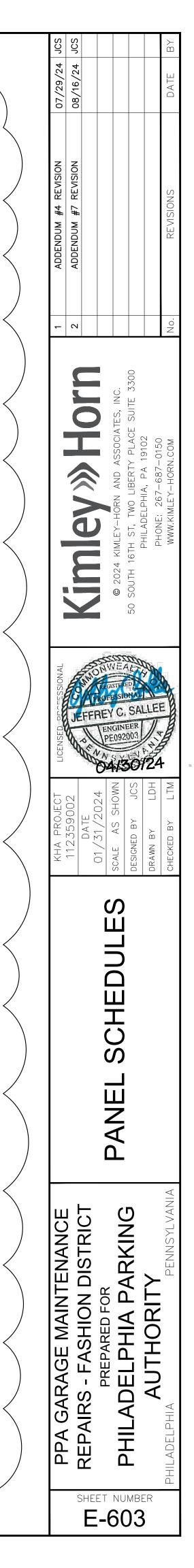
							Panel Sch								
				Location:								ertz: 60			
			150/	AMCB M					· ·	,	rG: Surfac	e			
			Т	, 	125 Amp Fi	rame , Gr	ound Bar, I	ocking Co	over, Pane			[Γ		
Description of Load Served		eaker	Wire		A/Phase					APhase		Wire	Brea		Description of Load Served
•	Amp	Pole		A	В	С			A	В	С		Amp	Pole	·
EXISTING	20	1	EX	EX			1	2	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		3	4		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	5	6			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			7	8	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		9	10		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	11	12			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			13	14	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		15	16		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	17	18			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			19	20	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		21	22		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	23	24			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			25	26	EX			EX	20	1	EXISTING
	00	0	EV.		EX		27	28		EX		EX	20	1	EXISTING
EXISTING	20	2	EX			EX	29	30			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			31	32	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		33	34		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	35	36			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			37	38	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		39	40		EX		EX	20	1	EXISTING
EXISTING	15	1	EX			EX	41	42			EX	EX	20	1	EXISTING

5	PANEL	LP -	HAL	LV
E-603	N.T.S.			

			5				Panel Sch			0.14					
				Location:								lertz: 60			
			N	/ILO Main				,	,		Surface				
			-		125 Amp Fr	rame , Gro	ound Bar,	Locking Co	over, Pan						
Description of Load Served		eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea		Description of Load Served
	Amp	Pole	VVIC	A	В	С			Α	B	С	VVIIC	Amp	Pole	-
SPACE		1					1	2						1	SPACE
					EX		3	4		EX					
HEAT PUMP 12	20	3	EX			EX	5	6			EX	EX	20	3	HEAT PUMP 13
				EX			7	8	EX						
					EX		9	10		EX					
HEAT PUMP 14	20	3	EX			EX	11	12			EX	EX	20	3	HEAT PUMP 15
				EX			13	14	EX						
					EX		15	16		EX					
HEAT PUMP 16	20	3	EX			EX	17	18			EX	EX	20	3	HEAT PUMP 17
		Ū.		EX		/(19	20	EX						
					EX		21	22	2/	EX					
HEAT PUMP 18	20	3	EX			EX	23	24			EX	EX	20	3	HEAT PUMP 19
	20	Ū		EX			25	24	EX				20	Ŭ	
					EX		27	28	LA	EX					
HEAT PUMP 20	20	3	EX			EX	29	30			EX	EX	20	3	HEAT PUMP 21
	20	5		EX			31	30	EX				20		HEAT FOIVIF ZT
					EX		33	32	EA	EX				<u> </u>	
	100	3	EX				33				EX	EX	60	3	PANEL LP
PANEL HP2	100	3				EX		36			EX		00	3	PANELLP
		4		EX			37	38	EX						
SPARE	20	1	EX				39	40				EX	20	1	SPARE
SPARE	20	1	EX				41	42				EX	20		SPARE
SPARE	20	1	EX				43	44				EX	20	1	SPARE

WAY ELECTRIC ROOM

6 E-603 PANEL HP1 - HALLWAY ELECTRIC ROOM



2

<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

							Panel Sch	nedule							
			Panel HP2	Location	: Hallway E	lectric Ro	om Volts	s: 480Y/27 ⁻	7V Pha	se: 3 W	ire: 4 H	lertz: 60			
			1504	AMCB N	/lain AIC: N/	A Branch	AIC: 10,0	00 ENC	L. (NEMA	.): 1 MT	G: Surfac	e			
					125 Amp Fi	rame , Gro	ound Bar, I	Locking Co	over, Pan	el Card.					
Description of Load Served	Br	reaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	vvie	A	В	C		CRTNU.	А	В	С	VVIIE	Amp	Pole	Description of Load Served
EAST LIGHTING	20	1	EX	EX			1	2	EX			EX	20	1	NORTH LIGHTING
NORTH LIGHTING	20	1	EX		EX		3	4		EX		EX	20	1	SOUTH LIGHTING
LIGHTING IN BACK STPRAGE	20	1	EX			EX	5	6			EX	EX	20	1	COORIDOR LIGHTING
SPARE	20			EX			7	8	EX			EX	20	1	WALL HEATER VEST
SPARE	20				EX		9	10		EX		EX	20	1	BASEBOARD HEATER CSR OFFICE
BASEBOARD HEATER SSD OFFICE	20	1	EX			EX	11	12			EX	EX	20	1	BASEBOARD HEATER SSD OFFICE
BASEBOARD HEATER SSD OFFICE	20	1	EX	EX			13	14	EX			EX	20	1	BASEBOARD HEATER SSD OFFICE
BASEBOARD HEATER SSD OFFICE	20	1	EX		EX		15	16		EX					
WATER HEATER	20	2	EX			EX	17	18			EX	EX	30	3	WATER HEATER
WATER HEATER	20	2		EX			19	20	EX						
SPARE	20	1					21	22						1	SPACE
SPARE	20	1					23	24						1	SPACE
SPACE		1					25	26						1	SPACE
SPACE		1					27	28						1	SPACE
SPACE		1					29	30						1	SPACE



HP2 - HALLWAY ELECTRIC ROOM

						Pa	nel Sched	ule				·			
		Exist	ing Panel EL	P Location	: Elevator I	Machine F	Room Vo	lts:480Y/27	77V Ph	ase: 3 \	Nire: 4	Hertz: 60			
			225A N	1CB Mair					,		Surface				
				225	i Amp Fram	ne , Groun	d Bar, Loc	king Cove	r, Panel C	Card.					
Departmention of Load Sonved	Bi	reaker	Wire			CKT No. CKT No.		A/Phase			Wire	Breaker		Description of Load Conrod	
Description of Load Served	Amp	Pole		A	В	C		CKT NO.	А	В	C	vvire	Amp	Pole	 Description of Load Served
			EX	EX			1	2	EX			EX 70			
ELEVATOR 4	70	3			EX		3	4		EX			3	ELEVATOR 2	
						EX	5	6			EX				
							7	8							
ELEVATOR 3	70	3	EX				9	10				EX	60	3	#1
							11	12				1			
SPACE							13	14							
SINGLE PHASE TRANSFER	30	1	EX				15	16				EX	60	3	#2
SPACE							17	18				1			

2 E-604 **PAN** N.T.S.

PANEL ELP - ELEVATOR MACHINE ROOM

		Existing Pane	ELP Locat	ion: Elevato	or Machine	Room \	/olts:240/1	l20 Pha	ise:1 W	ire: 4 Her	z: 60			
		40A	MCB Mair	n AIC: N/A	Branch Al	C: 18,000	ENCL. ((NEMA): 1	I MTG:	Surface				
			40) Amp Fran	ne , Groun	d Bar, Loc	king Cover	r, Panel C	ard.					
Description of Load Served	Breaker		Wire A/F		nase			A/Phase		Wire	Breaker		Departmention of Load Conved	
Description of Load Served	Amp	Pole	VIIE	А	В	B CRINO.	GRT NU.	A	В		Amp	Pole	Description of Load Served	
DAMPERS	20	1	EX	EX		1	2	EX		EX	20	2	CU 4	
PECO ANTENNA	20	1	EX		EX	3	4		EX		20	2	504	
GROUP POWER	20	1	EX	EX		5	6	EX		EX	20	2	AHU2	
CAB LIGHTS 4	20	1	EX		EX	7	8		EX	=^				
CAB LIGHTS 3	20	1	EX	EX		9	10	EX		EX	20	1	AHU1	
CAB LIGHTS	20	1	EX		EX	11	12		EX					
CU RECP	20	1	EX	EX		13	14	EX						
CU 5	20	2	EX		EX	15	16		EX	EX	40	3	MAIN	
005	20	2	EX	EX		17	18	EX						

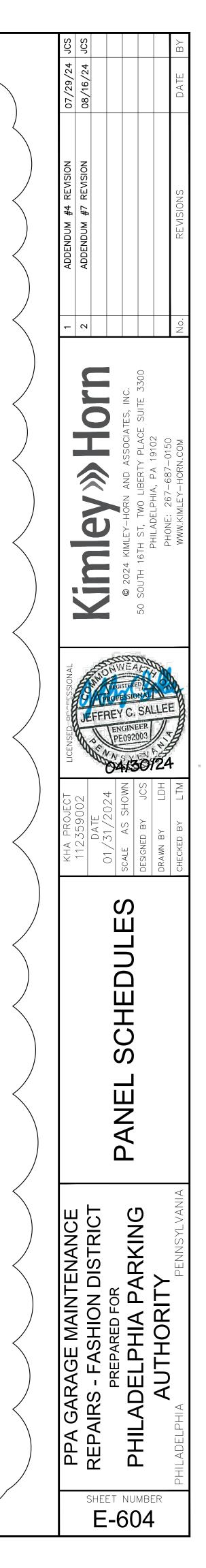


						Pa	anel Sched	ule							
		Exis	ting Panel EN	/11 Locatior	n: Main Me	chanical F	Room Voli	ts:480Y/27	7V Pha	ise: 3 V	Vire: 4 I	Hertz: 60			
			MLO	Main AIC	: N/A Bra	nch AIC: I	Jnknown	ENCL. (N	EMA): 1	MTG: \$	Surface				
				100	Amp Fran	ne , Grour	nd Bar, Loo	king Cove	r, Panel C	Card.					
Description of Load Served	Br	reaker	Wire		A /Phase				A/Phase			Wire	Bre	aker	Description of Load Sonrod
Description of Load Served	Amp	Pole	VVIIe	A	B	C		CRINU.	А	В	C	VVIIe	Amp	Pole	Description of Load Served
SIGNS PARK EXIT 3 THRU	20	1		EX			1	2					20	1	
LUL 2 FILBERT LIGHTS	20	1			EX		3	4					20	1	
EXISTING	20	1				EX	5	6					20	1	
PRWT BAA LIGHTS	20	1		EX			7	8	EX				20	1	FRONT LOBBY
EXISTING	20	1			EX		9	10		EX					
HALL LIGHTS	20	1				EX	11	12			EX	EX	50	3	FILBERT EM LIGHTS
SPACE	20	1					13	14	EX						
SPACE	20	1					15	16					20	1	R
SPARE	20	1					17	18					20	1	SPARE
SPARE	20	1					19	20					20	1	SPARE
SPARE	20	1					21	22					20	1	SPACE
SPACE	20	1					23	24					20	1	SPACE

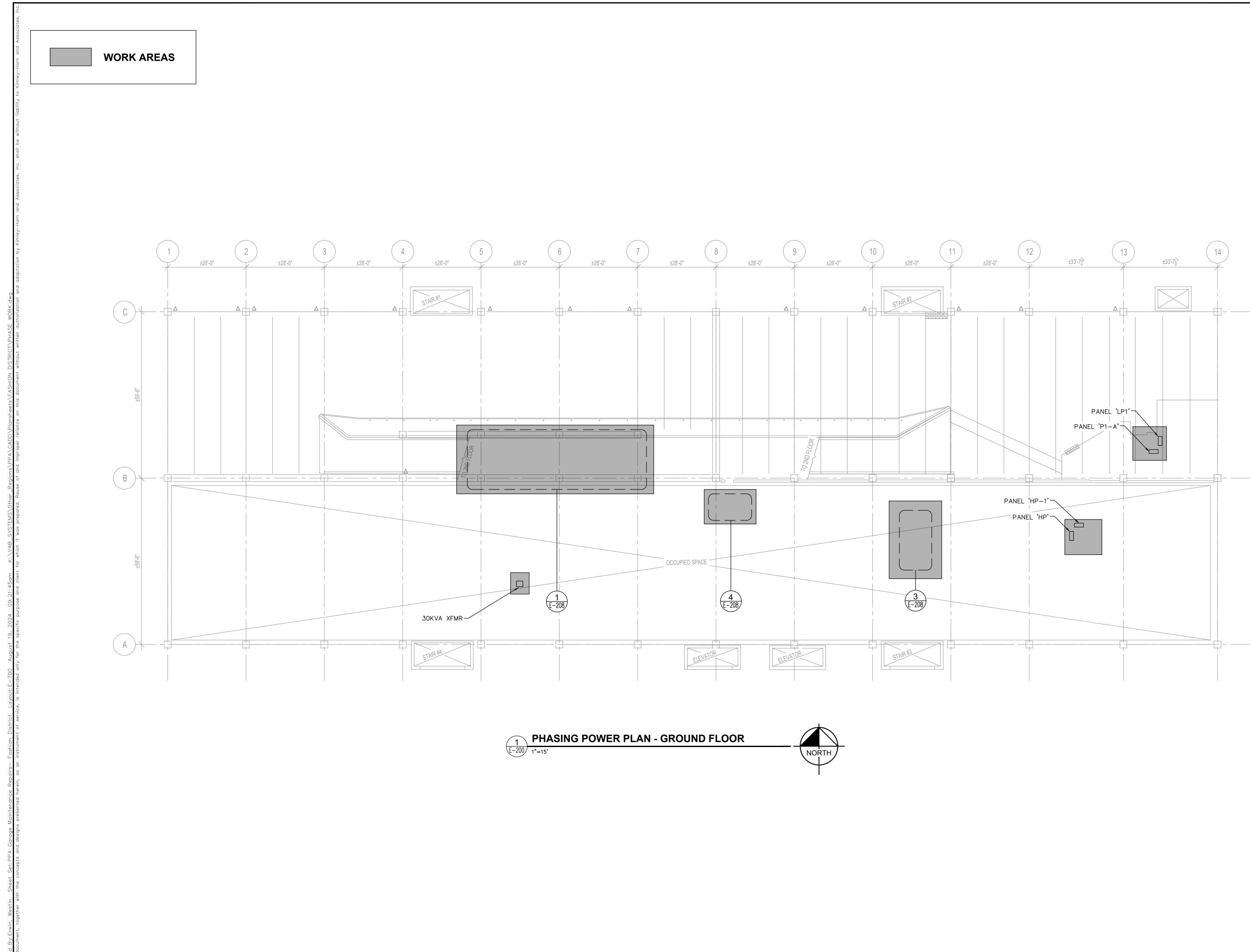
4 E-604 PANEL EM1 - MAIN ELECTRICAL ROOM

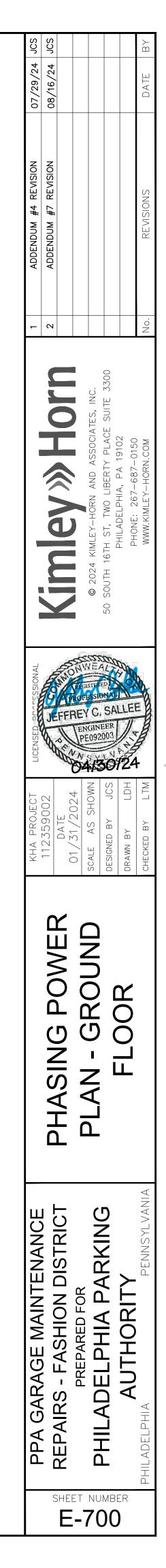
						Pa	anel Sched	lule							
		Exi	sting Panel E	EMA Locati	on: Main Me	echanica	IRoom V	olts:120/24	0 Phas	se: 1 W	ire:4 H	lertz: 60			
			40A M(CB Main	AIC: N/A E	Branch Al	C: 10,000	ENCL. (NEMA): ´	I MTG:	Surface				
				40	Amp Fram	e , Groun	d Bar, Loc	king Cover	, Panel C	ard.					
Departmention of Load Served	Br	Breaker			A/Phase				A/Phase			Wire	Breaker		
Description of Load Served	Amp	Pole	Wire	A	В	C	CKT No.	CKT NO.	А	В	C		Amp	Pole	 Description of Load Served
	40			EX			1	2							SPACE
MAIN		3	EX		EX		3	4							SPACE
						EX	5	6							SPACE
SPARE	20	1					7	8	EX						TELEPHONE RECEP - MECH ROO
GENERATOR CHARGER	20	1			EX		9	10							SPARE
SPARE	20	1					11	12							SPARE
F/A BOOSTERS	20	1		EX			13	14							SPARE
SPARE	20	1					15	16							SPACE
SPARE	20	1					17	18							SPACE

5 E-604 PANEL EMA - MAIN ELECTRICAL ROOM

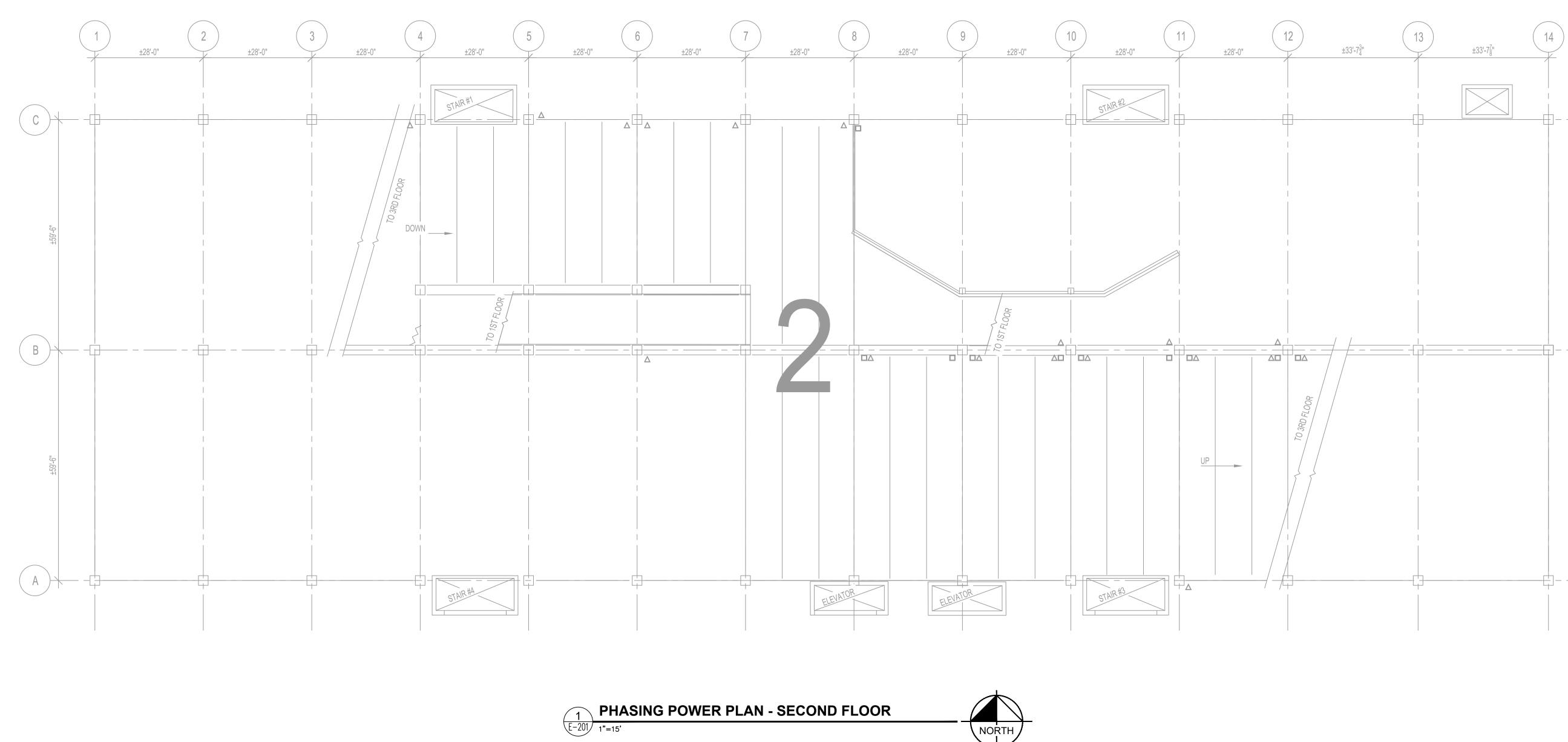


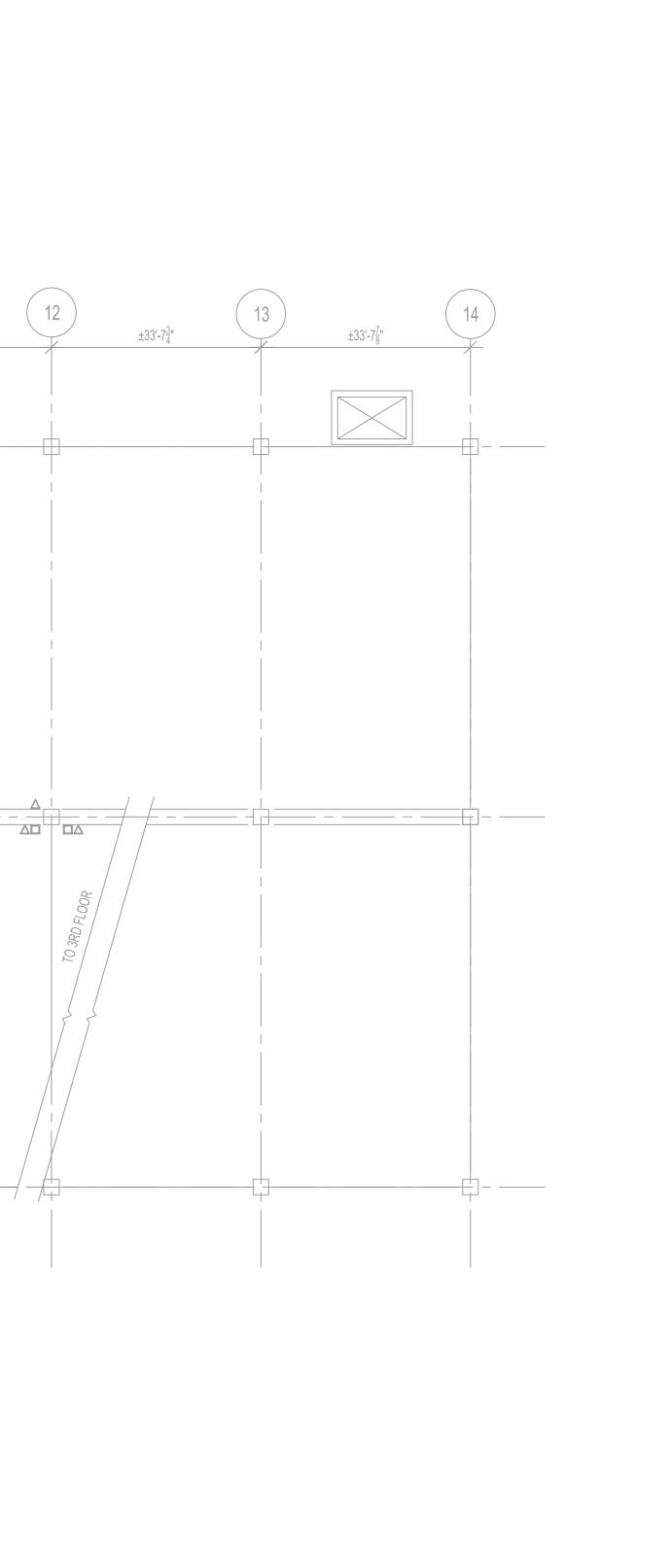
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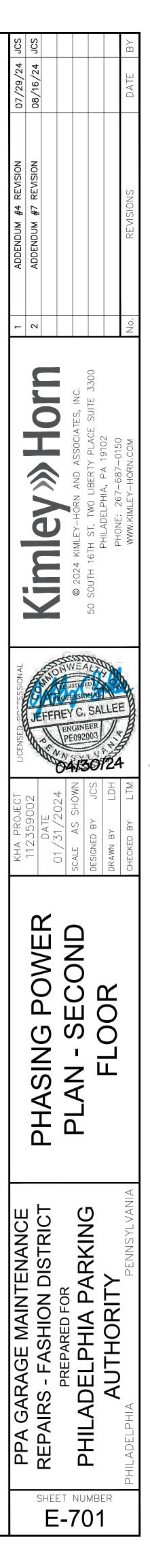


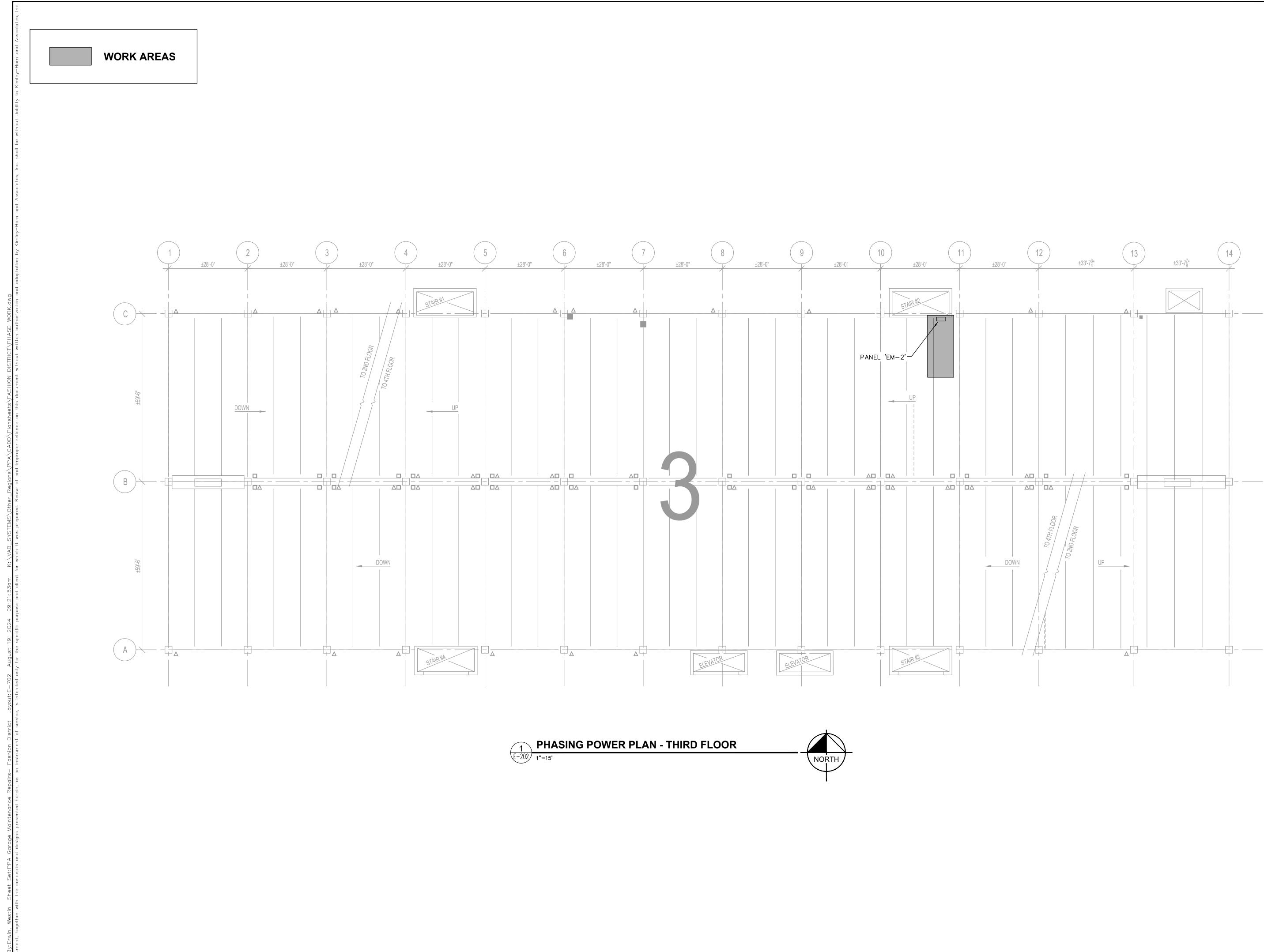


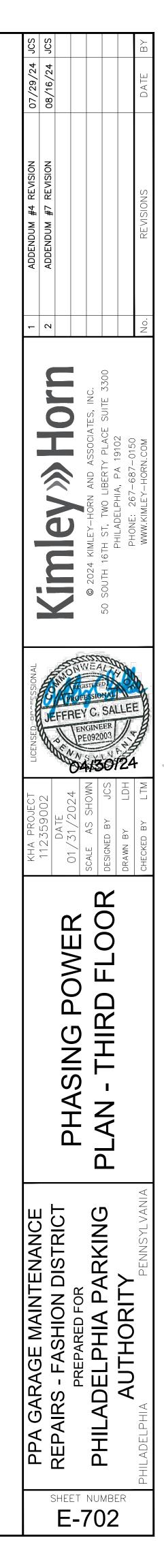


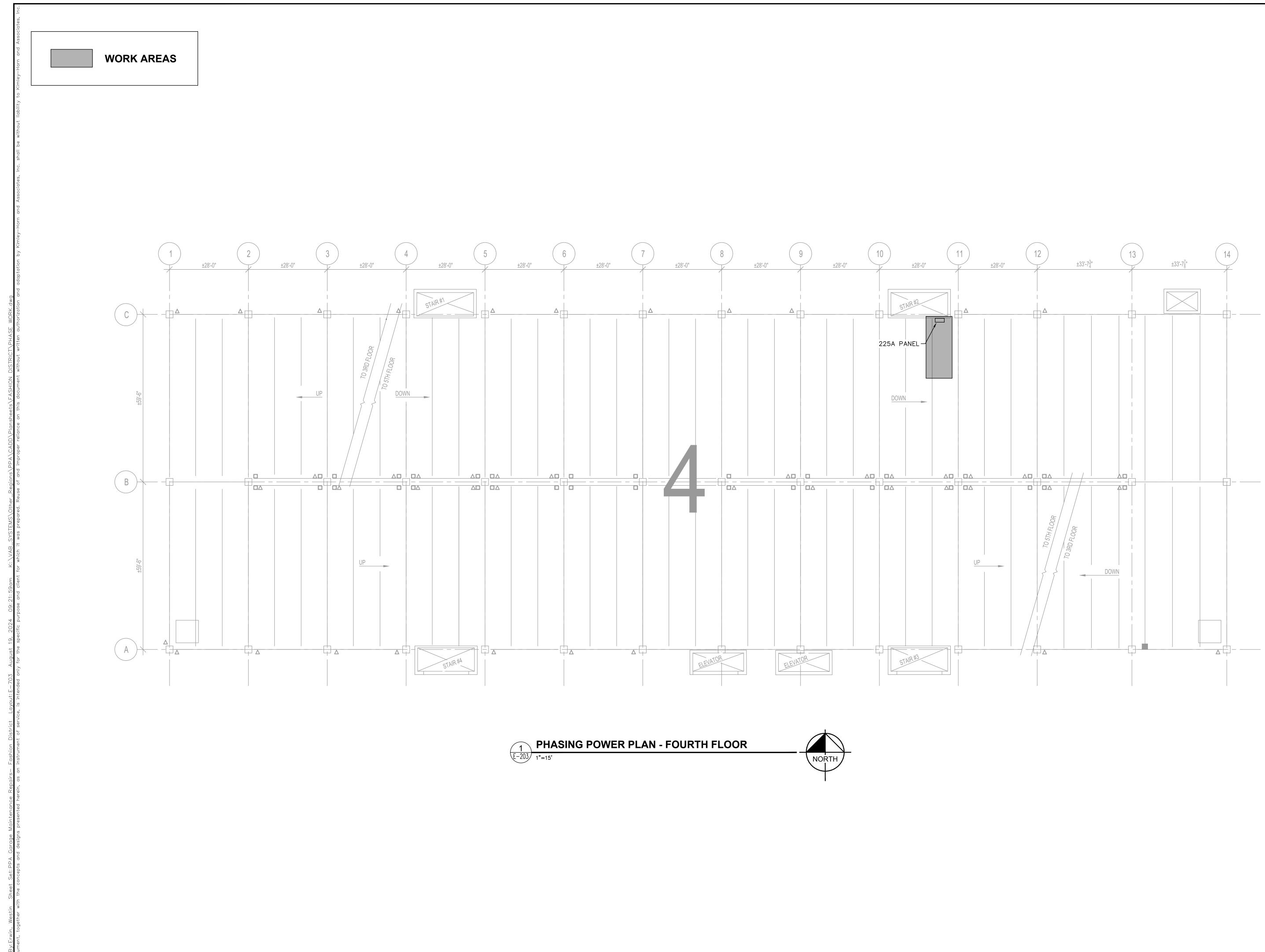


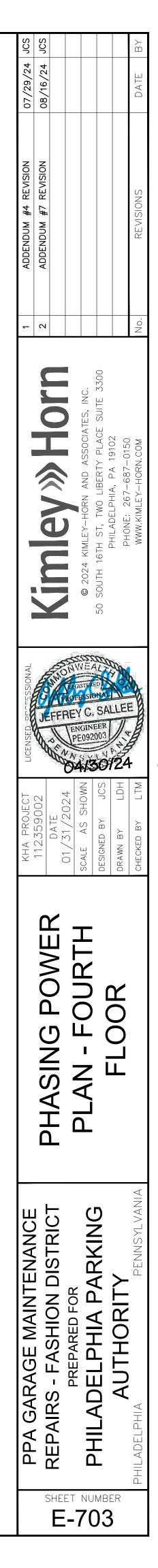


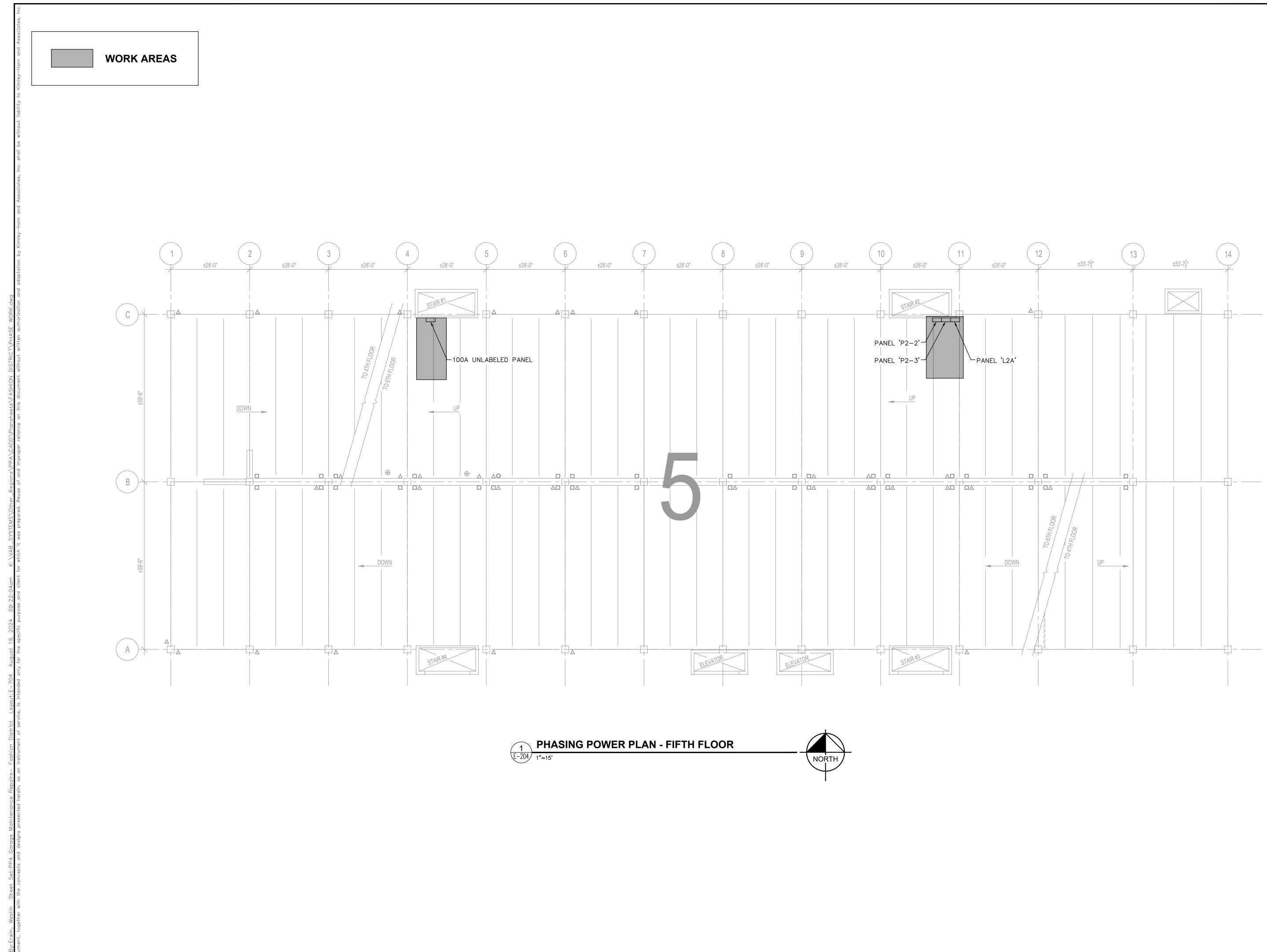


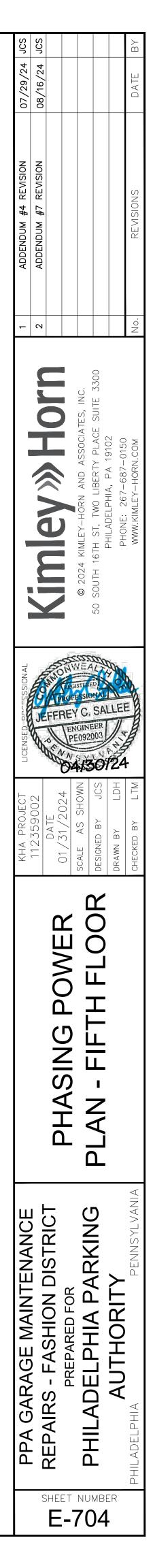




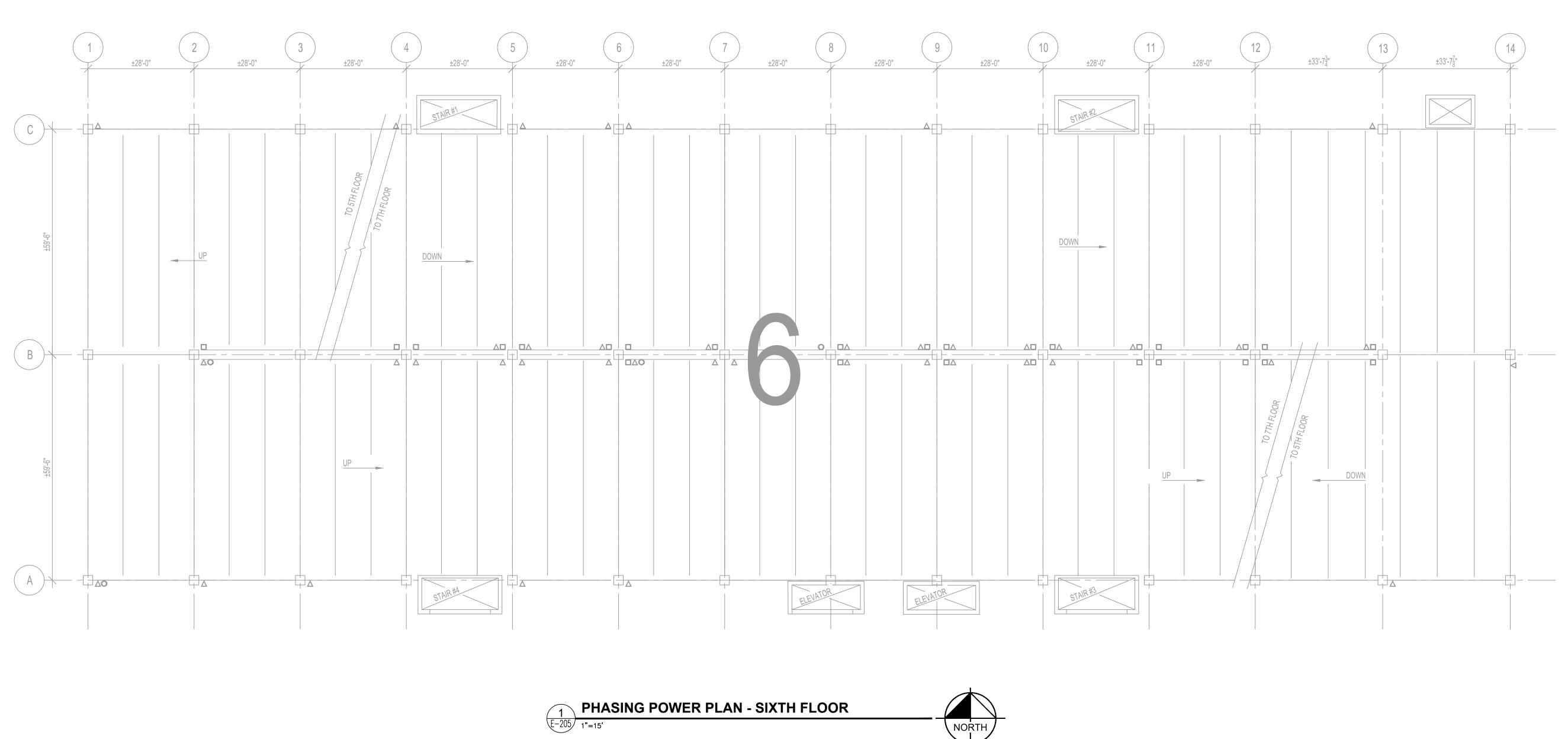


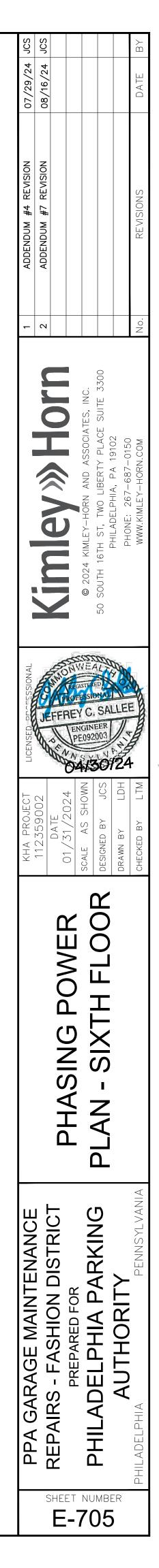




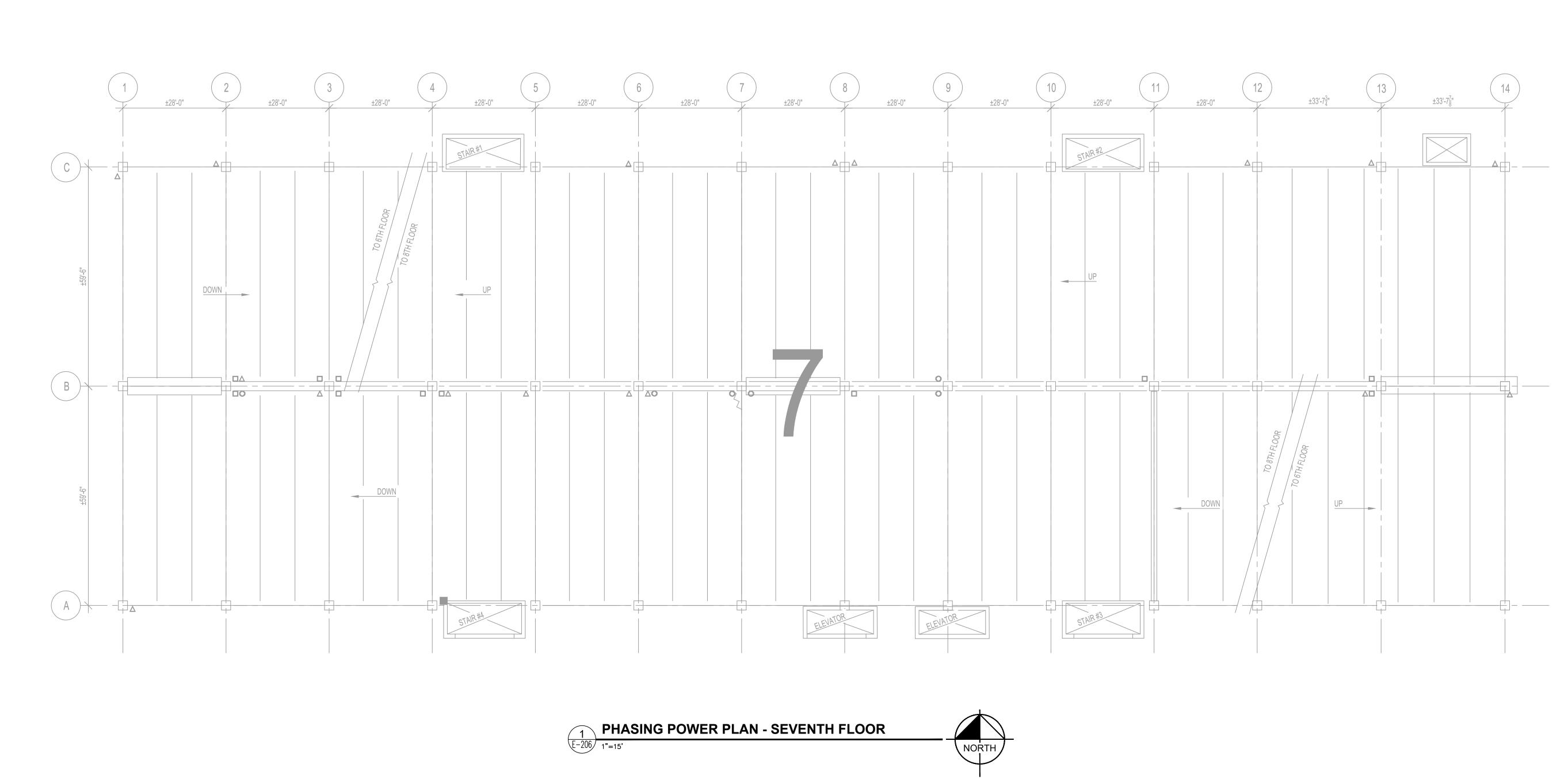


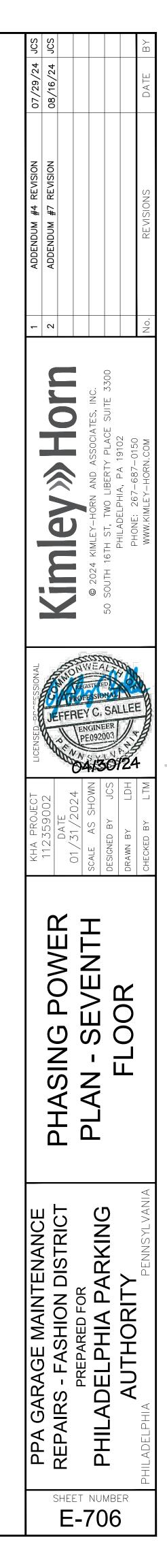


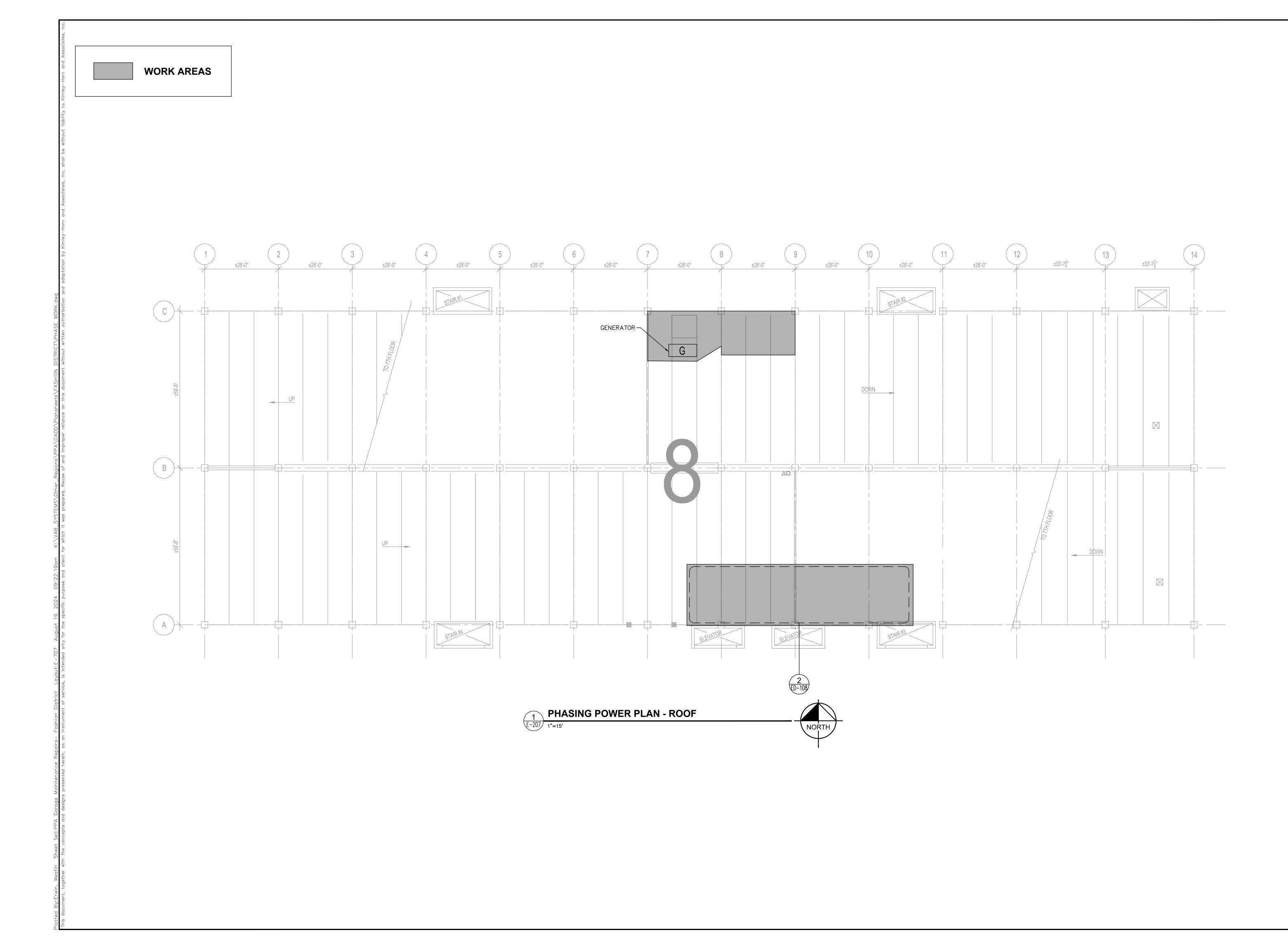


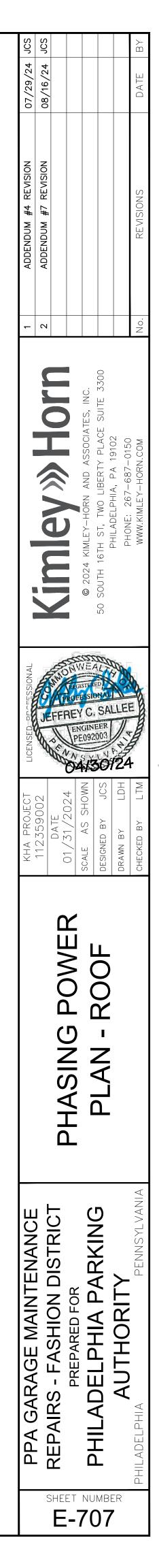












Bid No. 24-17 Addendum #7 - Appendix B Revised Olde City Drawings

PHILADELPHIA PARKING AUTHORITY PARKING GARAGE ELECTRICAL UPGRADES

ZONING INFORMATION

JURISDICTION **CITY OF PHILADELPHIA**

PROJECT DESCRIPTION

THIS PROJECT FOCUSES ON REPLACING EXISTING ELECTRICAL EQUIPMENT THAT IS AT OR NEARING END OF LIFE. THE PROJECT IS REPLACING THE EXISTING LIGHTING IN THE GARAGE AND COMMON SPACES.

at

APPLICABLE CODES

APPLICABLE CODES:

PHILADELPHIA BUILDING CODE (2018 INTERNATIONAL BUILDING CODE) PHILADELPHIA ELECTRICAL CODE (2017 NATIONAL ELECTRICAL CODE)

PROJECT CONTACTS

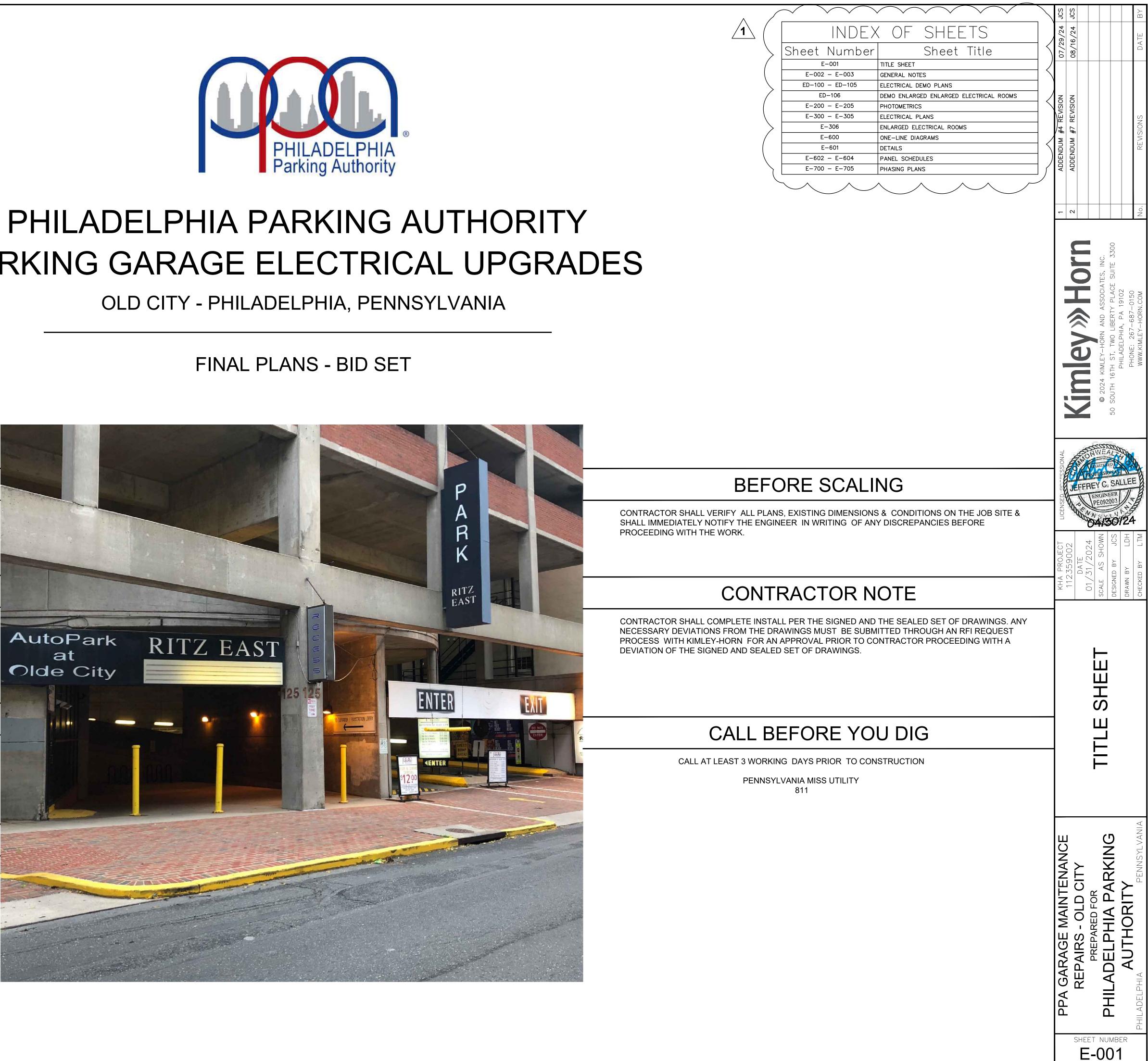
CLIENT NAME: PHILADELPHIA PARKING AUTHORITY

CLIENT PROJECT MANAGER: MELISSA HOCH

CLIENT PROJECT MANAGER CONTACT: 215-913-8578, MHOCH@PHILPARK.COM ENGINEER OF RECORD: JEFFREY C. SALLEE, P.E.

ENGINEER OF RECORD CONTACT: 757-213-8635, JEFFREY.SALLEE@KIMLEY-HORN.COM PA LICENSE NUMBER: 092003





on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.				
Associa		RT 1 - GENERAL RELATED DOCUMENTS		CARI REQ
and A	Α.	THE GENERAL PROVISIONS OF THE CONTRACT INCLUDING GENERAL AND SPECIAL CONDITIONS AND GENERAL REQUIREMENTS SHALL APPLY TO ALL WORK UNDER THIS		DR A
–Horn		SECTION. REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS	E	
Kimley	A.	EQUIPMENT, FIXTURES, MATERIAL AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT, THE SERVING UTILITY COMPANIES,		O F 1.
ty to I		THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LIFE SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ACT, AND APPLICABLE NATIONAL, STATE AND		
liabili	В.	LOCAL CODES, ORDINANCES AND REGULATIONS. ALL EQUIPMENT SHALL BE EQUAL TO OR EXCEED THE MINIMUM REQUIREMENTS OF NEMA,		
vithout	C.	IEEE, AND UL. SHOULD ANY CHANGE IN DRAWINGS OR SPECIFICATIONS BE REQUIRED TO COMPLY WITH		
≥ Pe		GOVERNMENTAL REGULATIONS, THE CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER PRIOR TO EXECUTION OF THE WORK. THE WORK SHALL BE CARRIED OUT ACCORDING TO		VHE
. shall	-	THE REQUIREMENTS OF SUCH CODE IN ACCORDANCE WITH THE INSTRUCTION OF THE ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.	Т	RAV
ss, Inc	D.	THE PROVISIONS OF STANDARDS, CODES, LAWS, ORDINANCES, ETC., SHALL BE CONSIDERED MINIMUM REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THEIR PUBLISHED	C	COO
ociate		REQUIREMENTS, THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH IS TO BE FOLLOWED AND HIS DECISION SHALL BE BINDING. SPECIFIC REQUIREMENTS OF THIS	C	OR DF C
d Ass		SPECIFICATION OR THE DRAWINGS, WHICH EXCEED THE PUBLISHED REQUIREMENTS, SHALL TAKE PRECEDENCE OVER THEM.		OR
orn an		FEES ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES SHALL BE	L. C	EST COO
ley-Ho		OBTAINED AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL COOPERATE FULLY WITH LOCAL COMPANIES WITH RESPECT TO THEIR SERVICES. CONTRACTOR SHALL	1.08 E	
y Kiml		INCLUDE IN HIS BID ANY COSTS TO BE INCURRED RELATIVE TO POWER SERVICE . SCOPE OF WORK		ND
tion b	Α.	THIS DIVISION OF THE SPECIFICATIONS COVERS THE ELECTRICAL SYSTEMS OF THE PROJECT. IT INCLUDES WORK PERFORMED BY THE ELECTRICAL TRADES AS WELL AS	C	NST COM
dapta.	B.	TRADES NOT NORMALLY CONSIDERED AS ELECTRICAL TRADES. PROVIDE ALL INCIDENTALS, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING,	C 1.09 F	ON PRO
and a		SUPPORTS, TOOLS, SUPERVISION, LABOR CONSUMABLE ITEMS, FEES, LICENSES, ETC., NECESSARY TO PROVIDE COMPLETE SYSTEMS. PERFORM START-UP AND CHECKOUT ON		HE RO
ation	C.	EACH ITEM AND SYSTEM TO PROVIDE FULLY OPERABLE SYSTEMS. EXAMINE AND COMPARE THE ELECTRICAL DRAWINGS WITH THESE SPECIFICATIONS, AND		NST
uthoriz		REPORT ANY DISCREPANCIES BETWEEN THEM TO THE ARCHITECT/ENGINEER AND OBTAIN FROM HIM WRITTEN INSTRUCTIONS FOR CHANGES NECESSARY IN THE WORK. AT TIME OF	1.10 C	
ten al	D.	BID THE MOST STRINGENT REQUIREMENTS MUST BE INCLUDED IN THE BID. INSTALL AND COORDINATE THE ELECTRICAL WORK IN COOPERATION WITH OTHER TRADES		SHIP ROI
t writt		INSTALLING INTERRELATED WORK. BEFORE INSTALLATION, MAKE PROPER PROVISIONS TO AVOID INTERFERENCES IN A MANNER APPROVED BY THE ARCHITECT/ENGINEER. ALL		NST REP/
withou		CHANGES REQUIRED IN THE WORK OF THE CONTRACTOR, CAUSED BY HIS NEGLECT TO DO SO, SHALL BE MADE BY HIM AT HIS OWN EXPENSE.		DELI 1/AN
nent v	E.	IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO PROVIDE A COMPLETE WORKABLE SYSTEM READY FOR THE OWNER'S OPERATION. ANY ITEM NOT SPECIFICALLY		TOI
docun		SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT NORMALLY REQUIRED TO CONFORM WITH THE INTENT, ARE TO BE CONSIDERED A PART OF THE		SUB.
n this	F.	CONTRACT. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED	A. P	
		(TEMPORARY LIGHTING AND POWER PRODUCTS ARE EXCLUDED) AND FREE FROM DEFECTS. ALL MATERIALS USED SHALL BEAR THE UNDERWRITER'S LABORATORY, INC.	B. F	
reliar	G.	LABEL PROVIDED A STANDARD HAS BEEN ESTABLISHED FOR THE MATERIAL IN QUESTION. EXCEPT FOR CONDUIT, CONDUIT FITTINGS, OUTLET BOXES, WIRE AND CABLE, ALL ITEMS OF	Т	HE VAL
oroper	0.	EQUIPMENT OR MATERIAL SHALL BE THE PRODUCT OF ONE MANUFACTURER THROUGHOUT THE ENTIRE PROJECT. MULTIPLE MANUFACTURERS WILL NOT BE PERMITTED.	В	
and improper reliance		UTILIZE THE FOLLOWING ABBREVIATIONS AND DEFINITIONS FOR DISCERNMENT WITHIN THE	A	NG DEG
of	,	DRAWINGS AND SPECIFICATIONS. 1. ABBREVIATIONS		SLOI
Reuse		 a) NEC NATIONAL ELECTRICAL CODE. b) OSHA OCCUPATIONAL SAFETY AND HEALTH ACT. 	A. G	SEN HE
prepared.		 c) ANSI AMERICAN NATIONAL STANDARDS INSTITUTE. d) NFPA NATIONAL FIRE PROTECTION ASSOCIATION. 		1. 2.
		 e) ASA AMERICAN STANDARDS ASSOCIATION. f) IEEE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS. 		2. BIND 3.
it wa		 g) NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION. h) UL UNDERWRITERS' LABORATORIES, INC. 	В	UIL PER
which		 i) IES ILLUMINATING ENGINEERING SOCIETY. j) ICEA INSULATED CABLE ENGINEERS ASSOCIATION. 	B. P	PRO NAN
t for		 k) ASTM AMERICAN SOCIETY OF TESTING MATERIALS. i) ETL ELECTRICAL TESTING LABORATORIES, INC. 	C. P	2RO 2RO
d clien		m) CBM CERTIFIED BALLAST MANUFACTURERS. n) EIA ELECTRONIC INDUSTRIES ASSOCIATION.	2	'. 4-H 0UR
se and		 o) LED LIGHT EMITTING DIODE. p) OEM ORIGINAL EQUIPMENT MANUFACTURER. 	L	2.
purpo		DEFINITIONS "PROVIDE" MEANS TO SUPPLY, PURCHASE, TRANSPORT, PLACE, ERECT, CONNECT, TEST,		
ecific	Λ.	AND TURN OVER TO OWNER, COMPLETE AND READY FOR REGULAR OPERATION, THE PARTICULAR WORK REFERRED TO.		3.
he sp	В.	"INSTALL" MEANS TO JOIN, UNITE, FASTEN, LINK, ATTACH, SET UP, OR OTHERWISE CONNECT TOGETHER BEFORE TESTING AND TURNING OVER TO OWNER, COMPLETE AND		υ.
/ for t	C.	READY FOR REGULAR OPERATION, THE PARTICULAR WORK REFERRED TO.		Л
d only	υ.	"FURNISH" MEANS TO SUPPLY ALL MATERIALS, LABOR, EQUIPMENT, TESTING APPARATUS, CONTROLS, TESTS, ACCESSORIES, AND ALL OTHER ITEMS CUSTOMARILY REQUIRED FOR THE PROPER AND COMPLETE APPLICATION FOR THE PARTICULAR WORK REFERRED TO.		4.
ntende	D.	"WIRING" MEANS THE INCLUSION OF ALL RACEWAYS, FITTINGS, CONDUCTORS, CONNECTORS, TAPE, JUNCTION AND OUTLET BOXES, CONNECTIONS, SPLICES, AND ALL		
is ir	⊏	OTHER ITEMS NECESSARY AND REQUIRED IN CONNECTION WITH SUCH WORK.		
service, is intended only for the specific purpose and client for which it was		"CONDUIT" MEANS THE INCLUSION OF ALL FITTINGS, HANGERS, SUPPORTS, SLEEVES, ETC. "AS DIRECTED" MEANS AS DIRECTED BY THE ARCHITECT/ENGINEER, OR HIS REPRESENTATIVE	~ ~	
	G.	REPRESENTATIVE. "CONCEALED" MEANS EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED BEHIND WALL EURPING OR WITHIN DOUBLE PARTITIONS, OR INSTALLED ABOVE HUNG	D. R 1.13 R	REC
rumen	4 07	BEHIND WALL FURRING OR WITHIN DOUBLE PARTITIONS, OR INSTALLED ABOVE HUNG CEILINGS.	V	VOR
ein, as an instrument of		COORDINATION OF THE WORK CERTAIN MATERIALS WILL BE PROVIDED BY OTHER TRADES. EXAMINE THE CONTRACT	B. U	REC
as a	В.	DOCUMENTS TO ASCERTAIN THESE REQUIREMENTS. CAREFULLY CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND THE PHYSICAL	D	ALL I DELI
herein		CONFINES OF THE AREA TO INSURE THAT ALL MATERIAL CAN BE INSTALLED IN THE SPACES ALLOTTED THERETO INCLUDING FINISHED SUSPENDED CEILINGS AND THE SPACES WITHIN THE EXISTING RUIL DING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED		DF T
inted	C.	THE EXISTING BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED. TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED	C	ENGI DTHI
This document, together with the concepts and designs presented her	D.	UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION. WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH	1.14 G A. G	SUA
ssigns		OTHER TRADES TO INSURE THAT ALL TRADES HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL THE NECESSARY CONNECTIONS AND EQUIPMENT.	V)ATE VAR
∛p puc	-	IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.	Т	VITH THE
epts (E.	COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.	F	ATI ROI
conc	F.	THE DRAWINGS SHOW ONLY THE GENERAL RUN OF RACEWAYS AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF OUTLETS, CABINETS,	PART 2.01 N	ЛΑТ
h the		ETC., NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE	L	APPL ABC
er wit		SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.	S	STAN NEN
togeth	G.	OBTAIN FROM THE ARCHITECT/ENGINEER IN THE FIELD THE LOCATION OF SUCH OUTLETS OR EQUIPMENT NOT DEFINITELY LOCATED ON THE DRAWINGS.	B. IF	F PR
rent,	H.	CIRCUIT "TAGS" IN THE FORM OF ARROWS ARE USED WHERE SHOWN TO INDICATE THE HOME RUNS OF RACEWAYS TO ELECTRICAL DISTRIBUTION POINTS. THESE TAGS SHOW	Ν	/ATI /ATI
docun		THE CIRCUITS IN EACH HOME RUN AND THE PANEL DESIGNATION. SHOW THE ACTUAL CIRCUITS NUMBERS ON THE FINISHED RECORD DRAWINGS AND ON PANEL DIRECTORY	R	
This			•	

RD. WHERE CIRCUITING IS NOT INDICATED, ELECTRICAL CONTRACTOR MUST PROVIDE QUIRED CIRCUITING IN ACCORDANCE WITH THE LOADING INDICATED ON THE DRAWINGS AS DIRECTED.

- FABRICATION. RIGHT-OF-WAY:
- - STING
- AMINATION OF SITE
- OGRESS OF WORK
- ALL BE BORNE BY THE CONTRACTOR. LIVERY, STORAGE, AND HANDLING

- BJECT TO MOISTURE DAMAGE IN DRY, HEATED SPACES. UIPMENT ACCESSORIES
- PPORT OF THE WORK.

- ERATIONS AND MAINTENANCE MANUALS E CONTRACT DOCUMENTS. PROVIDE TWO (2) COPIES OF EACH MANUAL.
- DERS.
- RSONNEL
- NUFACTURERS FOR PROPER PREVENTATIVE AND COMPREHENSIVE MAINTENANCE. OVIDE O&M MANUALS INCLUDING BUT NOT LIMITED TO THE FOLLOWING. ALPHABETICAL LIST OF ALL SYSTEM COMPONENTS, WITH THE NAME, ADDRESS, AND HOUR PHONE NUMBER OF THE COMPANY RESPONSIBLE FOR SERVICING EACH ITEM RING THE FIRST YEAR OF OPERATION.
- OPERATING INSTRUCTIONS FOR COMPLETE SYSTEM INCLUDING: a) NORMAL STARTING, OPERATING, AND SHUT-DOWN.

 - d) DAY AND NIGHT SPECIAL PROCEDURES, IF ANY.
 - MAINTENANCE INSTRUCTION INCLUDING: EQUIPMENT, AND DATE WHEN LUBRICATED.

 - a) INSTALLATION INSTRUCTIONS.
 - b) DRAWINGS AND SPECIFICATIONS.

 - d) COMPLETE WIRING DIAGRAMS

 - TEST AND INSPECTION CERTIFICATES.
- CORD DOCUMENTS
- HER MEDIA WHICH FADE SHALL NOT BE USED. ARANTEE
- PRODUCTS
- TERIALS
- NTIONED IN DIVISION 1.

JUST LOCATION OF CONDUITS, PANELS, EQUIPMENT, PULL BOXES, FIXTURES, ETC, TO COMMODATE THE WORK TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND COUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH RACEWAY PRIOR

a) LINES THAT PITCH HAVE THE RIGHT-OF-WAY OVER THOSE THAT DO NOT PITCH. FOR EXAMPLE: STEAM, CONDENSATE, AND PLUMBING DRAINS NORMALLY HAVE RIGHT-OF-WAY. LINES WHOSE ELEVATIONS CANNOT BE CHANGED TO HAVE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED. b) MAKE OFFSETS. TRANSITIONS AND CHANGES IN DIRECTION IN RACEWAYS AS REQUIRED TO MAINTAIN PROPER HEADROOM IN PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS.

IEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL DETAIL AWINGS TO SCALE SIMILAR TO THAT OF THE BIDDING DRAWINGS, PREPARED ON ACING MEDIUM OF THE SAME SIZE AS CONTRACT DRAWINGS. WITH THESE LAYOUTS, ORDINATE THE WORK WITH THE WORK OF OTHER TRADES. SUCH DETAILED WORK TO BE EARLY IDENTIFIED ON THE DRAWINGS AS TO THE AREA TO WHICH IT APPLIES. SUBMIT R REVIEW DRAWINGS CLEARLY SHOWING THE WORK AND ITS RELATION TO THE WORK OTHER TRADES BEFORE COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD. ORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY AS TO THEIR REQUIREMENTS R SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY MATERIALS, LABOR AND

ORDINATE WITH CONTRACTORS FOR WORK UNDER OTHER DIVISIONS OF THIS ECIFICATION FOR ALL WORK NECESSARY TO ACCOMPLISH THIS CONTRACTOR'S WORK.

OR TO THE SUBMITTING OF BIDS, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB D SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED TALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO MPLY WITH THE INTENT OF THIS PARAGRAPH WILL IN NO WAY RELIEVE THE NTRACTOR OF PERFORMING ALL NECESSARY WORK SHOWN ON THE DRAWINGS.

E CONTRACTOR SHALL ORDER THE PROGRESS OF HIS WORK TO CONFORM TO THE OGRESS OF THE WORK OF OTHER TRADES AND SHALL COMPLETE THE ENTIRE TALLATION AS SOON AS THE CONDITIONS OF THE BUILDING WILL PERMIT. ANY COST SULTING FROM THE DEFECTIVE OR ILL-TIMED WORK PERFORMED UNDER THIS SECTION

P AND STORE ALL PRODUCTS AND MATERIALS IN A MANNER THAT WILL PROTECT THEM OM DAMAGE, WEATHER AND ENTRY OF DEBRIS. IF ITEMS ARE DAMAGED, DO NOT TALL, BUT TAKE IMMEDIATE STEPS TO OBTAIN REPLACEMENT OR REPAIR. ANY SUCH PAIRS SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ARCHITECT/ENGINEER. LIVER MATERIALS IN MANUFACTURER'S UNOPENED CONTAINER FULLY IDENTIFIED WITH NUFACTURER'S NAME, TRADE NAME, TYPE, CLASS, GRADE, SIZE AND COLOR.

DRE MATERIALS SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLY R INSPECTION BY THE ARCHITECT/ENGINEER UNTIL INSTALLED. STORE ALL ITEMS

OVIDE SUPPORTS, HANGERS AND AUXILIARY STRUCTURAL MEMBERS REQUIRED FOR

RNISH AND SET ALL SLEEVES FOR PASSAGE OF RACEWAYS THROUGH STRUCTURAL, SONRY AND CONCRETE WALLS OF FLOORS AND ELSEWHERE AS WILL BE REQUIRED FOR E PROPER PROTECTION OF EACH RACEWAY PASSING THROUGH BUILDING SURFACES. LL MOUNTED EQUIPMENT MAY BE DIRECTLY SECURED TO WALL BY MEANS OF STEEL LTS. MAINTAIN AT LEAST 1" AIR SPACE BETWEEN EQUIPMENT AND SUPPORTING WALL. OUPS OR ARRAYS OF EQUIPMENT MAY BE MOUNTED ON ADEQUATELY SIZED STEEL GLES, CHANNELS, OR BARS. PREFABRICATED STEEL CHANNELS PROVIDING A HIGH GREE OF MOUNTING FLEXIBILITY, SUCH AS THOSE MANUFACTURED BY KINDORF, OB-STRUTT AND UNISTRUT, MAY BE USED FOR MOUNTING ARRAYS OF EQUIPMENT.

NERAL: PROVIDE OPERATIONS & MAINTENANCE (O&M) MANUALS IN ACCORDANCE WITH

MANUALS SHALL BE 8-1/2 INCHES X 11 INCHES IN HARD COVER 3-RING LOOSE-LEAF

MANUALS SHALL BE COMPLETE AND IN OWNER'S HANDS PRIOR TO TURNING LDING OVER TO OWNER AND AT LEAST 10 DAYS PRIOR TO INSTRUCTION TO OPERATING

OVIDE MANUFACTURER'S LITERATURE AS REGULARLY PUBLISHED BY THE RESPECTIVE

b) EMERGENCY PROCEDURES FOR FIRE OR FAILURE OF MAJOR EQUIPMENT. c) SUMMER AND WINTER SPECIAL PROCEDURES, IF ANY.

a) PROPER LUBRICANTS AND LUBRICATING INSTRUCTIONS FOR EACH PIECE OF

b) NECESSARY CLEANING, REPLACEMENT OR ADJUSTMENT SCHEDULE. MANUFACTURER'S DATA FOR EACH PIECE OF EQUIPMENT INCLUDING:

c) PARTS LIST, INCLUDING RECOMMENDED ITEMS TO BE STOCKED.

e) MARKED OR CHANGED PRINTS LOCATING ALL CONCEALED PARTS AND ALL

VARIATIONS FROM THE ORIGINAL SYSTEM DESIGN.

FER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ADDITIONAL 0&M REQUIREMENTS.

RING CONSTRUCTION, KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE ORK AS SHOWN ON DRAWINGS AND THAT WHICH IS ACTUALLY INSTALLED. KEEP THIS CORD SET OF PRINTS AT THE JOB SITE FOR REVIEW BY THE ARCHITECT/ENGINEER. ON COMPLETION OF THE INSTALLATION AND ACCEPTANCE BY THE OWNER, TRANSFER RECORD DRAWING INFORMATION TO ONE NEAT AND LEGIBLE SET OF PRINTS. THEN LIVER THEM TO THE ARCHITECT/ENGINEER FOR TRANSMITTAL TO THE OWNER. OVIDE IN EACH MAIN ELECTRICAL SWITCHBOARD ROOM A FRAMED COPY UNDER GLASS THE APPROPRIATE SINGLE LINE RISER DIAGRAM AS REVIEWED BY THE ELECTRICAL GINEER. MEDIA SHALL BE A HIGH QUALITY PRESENTATION TYPE PAPER. BLUEPRINTS OR

ARANTEE ALL MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM TE OF FINAL ACCEPTANCE BY THE OWNER, EXCEPT THAT WHERE GUARANTEES OR RRANTIES FOR LONGER TERMS ARE SPECIFIED HEREIN, SUCH LONGER TERM TO APPLY. THIN 24 HOURS AFTER NOTIFICATION, CORRECT ANY DEFICIENCIES THAT OCCUR DURING E GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE OWNER, ALL TO THE TISFACTION OF THE OWNER AND ARCHITECT/ENGINEER. OBTAIN SIMILAR GUARANTEES OM SUBCONTRACTORS, MANUFACTURERS, SUPPLIERS AND SUBTRADE SPECIALISTS.

PLICABLE EQUIPMENT AND MATERIALS SHALL BE LISTED BY UNDERWRITERS' BORATORIES AND MANUFACTURED IN ACCORDANCE WITH ASME, NEMA, ANSI OR IEEE ANDARDS, AND AS APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION AS

PRODUCTS AND MATERIALS ARE SPECIFIED OR INDICATED ON THE DRAWINGS FOR A ECIFIC ITEM OR SYSTEM, USE THOSE PRODUCTS OR MATERIALS. IF PRODUCTS AND TERIALS ARE NOT LISTED IN EITHER OF THE ABOVE, USE FIRST CLASS PRODUCTS AND TERIALS, SUBJECT TO REVIEW OF SHOP DRAWINGS WHERE SHOP DRAWINGS ARE QUIRED OR AS REVIEWED IN WRITING WHERE SHOP DRAWINGS ARE NOT REQUIRED. - EQUIPMENT CAPACITIES, ETC. ARE LISTED FOR JOB SITE OPERATING CONDITIONS. ALL EQUIPMENT SENSITIVE TO ALTITUDES OR AMBIENT TEMPERATURES TO BE DERATED AND METHOD OF DERATING SHOWN ON SHOP DRAWINGS. WHERE OPERATING CONDITIONS SHOWN DIFFER FROM THE LABORATORY TEST CONDITIONS, THE EQUIPMENT TO BE DERATED AND THE METHOD OF DERATING SHOWN ON SHOP DRAWINGS.

- 2.02 SUBSTITUTION OF MATERIALS OR EQUIPMENT A. ALL REQUESTS FOR SUBSTITUTION OF MATERIALS OR EQUIPMENT SHALL BE MADE IN WRITING BY THE CONTRACTOR. THE REQUEST MUST BE IN THE ENGINEERS OFFICE NOT LESS THAN 10 DAYS PRIOR TO THE BID DATE. SAMPLES OF PROPOSED SUBSTITUTE MATERIALS OR EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW WHENEVER THEY ARE REQUESTED. BIDS SHALL BE BASED ONLY UPON THE SPECIFIED MATERIALS AND EQUIPMENT, OR SUBSTITUTES THAT HAVE RECEIVED WRITTEN ACCEPTANCE FROM THE ENGINEER PRIOR TO THE BID.
- B. WHEREVER THE WORDS "FOR APPROVAL" OR "APPROVED" ARE USED IN REGARD TO MANUFACTURED SPECIALTIES, OR WHEREVER IT IS DESIRED TO SUBSTITUTE A DIFFERENT MAKE OR TYPE OF APPARATUS FOR THAT SPECIFIED, SUBMIT ALL INFORMATION PERTINENT TO THE ADEQUACY AND ADAPTABILITY OF THE PROPOSED APPARATUS, AND SECURE ARCHITECT/ENGINEER'S REVIEW BEFORE APPARATUS IS ORDERED.
- C. WHEREVER QUANTITIES OR A DEFINITE MAKE AND SIZE OF APPARATUS IS SPECIFIED, THE MAKE AND SIZE OF APPARATUS WHICH IS PROPOSED MUST CONFORM SUBSTANTIALLY (IN REGARD TO THE OPERATING RESULTS) TO THAT SPECIFIED OR IMPLIED. SAME SHALL APPLY TO IMPORTANT DIMENSIONS RELATING TO OPERATION OF APPARATUS IN COORDINATION WITH THE REST OF THE SYSTEM, OR TO PROPERLY FITTING IT INTO AVAILABLE SPACE CONDITIONS. ANY SUBSTITUTION OF EQUIPMENT OR APPARATUS SHALL
- INCLUDE ALL NECESSARY REVISIONS, AS REQUIRED TO COMPLETE THE INSTALLATION. D. ACCEPTANCE OF SUBSTITUTIONS, FOR EQUIPMENT SPECIFIED HEREIN, WILL NOT BE GIVEN MERELY UPON SUBMISSION OF MANUFACTURER'S NAMES AND WILL BE GIVEN ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY PERFORMANCE DATA COVERING THE COMPLETE RANGE OF OPERATING CONDITIONS IN TABULAR AND GRAPHICAL FORM. FURNISH COMPLETE AND SATISFACTORY INFORMATION RELATIVE TO EQUIPMENT DIMENSIONS, WEIGHT, ETC. ACCEPTANCE OF ALL EQUIPMENT SPECIFIED OR SHOWN ON THE DRAWINGS, OR SUBSTITUTIONS SUBMITTED FOR THAT SPECIFIED OR SHOWN ON THE DRAWINGS, WILL BE GRANTED IF SUCH EQUIPMENT, IN THE OPINION OF THE ARCHITECT/ENGINEER, CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS. ANY ADDITIONAL CONSTRUCTION AND DESIGN COSTS INCURRED AS A RESULT OF ANY ACCEPTED SUBSTITUTION SHALL BE BORNE BY THE CONTRACTOR. THE OPINION AND JUDGEMENT OF THE ARCHITECT/ENGINEER SHALL BE FINAL, CONCLUSIVE, AND BINDING. 2.03 SHOP DRAWINGS

С

- A. PREPARE AND SUBMIT DETAILED SHOP DRAWINGS FOR MATERIALS, SYSTEMS, AND EQUIPMENT AS LISTED HEREIN, INCLUDING LOCATIONS AND SIZES OF ALL OPENINGS IN FLOOR DECKS, WALLS, AND FLOORS.
- B. THE WORK DESCRIBED IN ANY SHOP DRAWING SUBMISSION SHALL BE CAREFULLY CHECKED FOR ALL CLEARANCES (INCLUDING THOSE REQUIRED FOR MAINTENANCE AND SERVICING), FIELD CONDITIONS, MAINTENANCE OF ARCHITECTURAL CONDITIONS, AND PROPER COORDINATION WITH ALL TRADES ON THE JOB. EACH SUBMITTED SHOP DRAWING SHALL INCLUDE A CERTIFICATION THAT ALL RELATED JOB CONDITIONS HAVE BEEN CHECKED AND THAT NO CONFLICT EXISTS.
- C. ALL DRAWINGS SHALL BE SUBMITTED SUFFICIENTLY IN ADVANCE OF FIELD REQUIREMENTS TO ALLOW AMPLE TIME FOR CHECKING AND RESUBMITTAL AS MAY BE REQUIRED. ALL SUBMITTALS SHALL BE COMPLETE AND CONTAIN ALL REQUIRED AND DETAILED INFORMATION.
- D. ACCEPTANCE OF ANY SUBMITTED DATA OR SHOP DRAWINGS FOR MATERIAL, EQUIPMENT APPARATUS, DEVICES, ARRANGEMENTS, AND LAYOUT SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY OF FURNISHING SAME OF PROPER DIMENSIONS AND WEIGHT, CAPACITIES, SIZES, QUANTITY, QUALITY AND INSTALLATION DETAILS, TO EFFICIENTLY PERFORM THE REQUIREMENTS AND INTENT OF THE CONTRACT. SUCH ACCEPTANCE SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR
- INADEQUACIES OF ANY SORT ON SUBMITTED DATA OR SHOP DRAWINGS. E. EACH SHOP DRAWING SHALL CONTAIN THE FOLLOWING INFORMATION.
 - PROVIDE GENERAL INFORMATION ON EACH COPY OF THE SUBMITTAL. a) PROJECT TITLE.
 - b) REFERENCE TO THE APPLICABLE DRAWING AND SPECIFICATION ARTICLE. c) CONTRACTOR AND SUPPLIER IDENTIFICATION, ADDRESSES AND TELEPHONE NUMBERS.
 - d) SUBMITTAL DATE.

CERTIFICATION THAT THE CONTRACTOR HAS REVIEWED THE SUBMITTAL. REFER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION REQUIREMENTS.

- F. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED FOR EACH SPECIFIC MATERIAL. SYSTEM. OR EQUIPMENT AS IDENTIFIED HEREIN.
 - 1. AS A MINIMUM, MAKE SUBMITTALS ON THE FOLLOWING ITEMS:
 - a) PANELBOARD AND METER ENCLOSURE b) RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
 - c) LIGHTING FIXTURES, LIGHTING POLES, AND BOLLARDS
- PART 3 EXECUTION
- 3.01 INSTALLATION B. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLING, CONNECTING, AND ADJUSTING ALL EQUIPMENT. PROVIDE ONE COPY OF SUCH INSTRUCTIONS TO THE ARCHITECT/ENGINEER BEFORE INSTALLING ANY EQUIPMENT. PROVIDE A COPY OF SUCH INSTRUCTIONS AT THE EQUIPMENT DURING ANY WORK ON THE EQUIPMENT. PROVIDE ALL
- SPECIAL SUPPORTS, CONNECTIONS, WIRING, ACCESSORIES, ETC.
- C. USE MECHANICS SKILLED IN THEIR TRADE FOR ALL WORK. D. KEEP ALL ITEMS PROTECTED BEFORE AND AFTER INSTALLATION. CLEAN UP ALL DEBRIS. E. BEFORE COMMENCING WORK, EXAMINE ALL ADJOINING, UNDERLYING, ETC., WORK ON WHICH THIS WORK IS IN ANY WAY DEPENDENT FOR PERFECT WORKMANSHIP AND REPORT
- ANY CONDITION WHICH PREVENTS PERFORMANCE OF FIRST CLASS WORK. BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE CHANGED OR ALTERED. 3.02 PREMIUM TIME WORK
- A. THE FOLLOWING WORK SHALL BE PERFORMED AT NIGHT OR WEEKEND OTHER THAN HOLIDAY WEEKENDS AS DIRECTED AND COORDINATED WITH THE OWNER.
- 1. ALL TIE-IN, CUT-OVER AND MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEM AND OTHER EXISTING SYSTEM REQUIRING TIE-INS OR MODIFICATIONS SHALL BE ARRANGED AND SCHEDULED WITH THE OWNER TO BE DONE AT A TIME AS TO MAINTAIN CONTINUITY OF THE SERVICE AND NOT INTERFERE WITH NORMAL BUILDING OPERATIONS.
- 2. ALL ELECTRIC TIE-INS OR POWER DISRUPTIONS SHALL REQUIRE A MINIMUM OF 72-HOUR NOTICE.
- 3.03 CUTTING, PATCHING AND REPAIRING
- A. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE. WHERE CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT OR ANCHORAGE OF RACEWAY, OUTLETS OR OTHER EQUIPMENT, THE WORK SHALL BE CAREFULLY DONE. ANY DAMAGE TO THE BUILDING, PIPING, EQUIPMENT OR DEFACED FINISH PLASTER, WOODWORK, METALWORK, ETC. SHALL BE REPAIRED BY SKILLED MECHANICS OF THE TRADES INVOLVED AT NO ADDITIONAL COST TO THE OWNER.
- B. WHERE CONDUITS, MOUNTING CHANNELS, OUTLET, JUNCTION, OR PULL BOXES ARE MOUNTED ON A PAINTED SURFACE, OR A SURFACE TO BE PAINTED, THEY SHALL BE PAINTED TO MATCH THE SURFACE. WHENEVER SUPPORT CHANNELS ARE CUT, THE BARE METAL SHALL BE COLD GALVANIZED.
- 3.05 DEMOLITION AND CONTINUANCE OF EXISTING SERVICES
- A. ALL EXISTING ELECTRICAL SERVICES NOT SPECIFICALLY INDICATED TO BE REMOVED OR ALTERED SHALL REMAIN AS THEY PRESENTLY EXIST.
- B. SHOULD ANY EXISTING SERVICES INTERFERE WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL (AFTER OBTAINING WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER) ALTER OR REROUTE SUCH EXISTING EQUIPMENT TO FACILITATE NEW CONSTRUCTION.
- C. UNDER NO CIRCUMSTANCES SHALL EXISTING SERVICES BE TERMINATED OR ALTERED UNLESS DEEMED NECESSARY BY THE ARCHITECT/ENGINEER OR SPECIFIED HEREIN: ALSO. PRIOR TO ALTERING ANY EXISTING SITUATION, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING GIVING TWO (2) WEEKS ADVANCE NOTICE OF PLANNED ALTERATION.
- D. IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO GUARANTEE CONTINUITY OF PRESENT FACILITIES (WITH RESPECT TO DAMAGE OR ALTERATION DUE TO NEW CONSTRUCTION) AND ANY UNAUTHORIZED ALTERATION TO EXISTING EQUIPMENT SHALL BE

(CORRECTED BY THE CONTRACTOR TO THE ARCHITECT/ENGINEER'S SATISFACTION AT THE	9/24 JCS	/24 E
3.06 A. (CONTRACTOR'S EXPENSE. CLEANING UP CONTRACTOR SHALL TAKE CARE TO AVOID ACCUMULATION OF DEBRIS, BOXES, CRATES, ETC., RESULTING FROM THE INSTALLATION OF HIS WORK. CONTRACTOR SHALL REMOVE FROM THE PREMISES EACH DAY ALL DEBRIS, BOXES, ETC., AND KEEP THE PREMISES	07/29	08/16, DAT
(CLEAN. CONTRACTOR SHALL CLEAN UP ALL FIXTURES AND EQUIPMENT AT THE COMPLETION OF		
-	THE PROJECT. ALL SWITCHBOARDS, PANELBOARDS, WIREWAYS, TRENCH DUCTS, CABINETS AND	REVISION	LS LS
l I	ENCLOSURES SHALL BE THOROUGHLY VACUUMED CLEAN PRIOR TO ENERGIZING EQUIPMENT AND AT THE COMPLETION OF THE PROJECT. EQUIPMENT SHALL BE OPENED FOR OBSERVATION BY THE ARCHITECT/ENGINEER AS REQUIRED.	#4	
A. I I I	WATERPROOFING AVOID, IF POSSIBLE, THE PENETRATION OF ANY WATERPROOF MEMBRANES SUCH AS ROOFS, MACHINE ROOM FLOORS, BASEMENT WALLS, AND THE LIKE. IF SUCH PENETRATION S NECESSARY, PERFORM IT PRIOR TO THE WATERPROOFING AND FURNISH ALL SLEEVES OR PITCH-POCKETS REQUIRED. ADVISE THE ARCHITECT/ENGINEER AND OBTAIN WRITTEN	ADDENDUM	ADDENDUM
 3. !	PERMISSION BEFORE PENETRATING ANY WATERPROOF MEMBRANE, EVEN WHERE SUCH PENETRATION IS SHOWN ON THE DRAWINGS. F CONTRACTOR PENETRATES ANY WALLS OR SURFACES AFTER THEY HAVE BEEN WATERPROOFED, HE SHALL RESTORE THE WATERPROOF INTEGRITY OF THAT SURFACE AS DIRECTED BY THE ARCHITECT/ENGINEER AT HIS OWN EXPENSE. SUPPORTS	-	×
A. (SUPPORTS SUPPORT WORK IN ACCORDANCE WITH THE BEST INDUSTRY PRACTICE AND THE FOLLOWING.		
3. I	NCLUDE SUPPORTING FRAMES OR RACKS EXTENDING FROM BUILDING STRUCTURE FOR WORK INDICATED AS BEING SUPPORTED FROM WALLS WHERE THE WALLS ARE INCAPABLE OF SUPPORTING THE WEIGHT. IN PARTICULAR, PROVIDE SUCH FRAMES OR RACKS IN		INC.
C. I	ELECTRIC CLOSETS. NCLUDE SUPPORTING FRAMES OR RACKS FOR EQUIPMENT, INTENDED FOR VERTICAL		Ates, E sui
D. :	SURFACE MOUNTING, WHICH IS REQUIRED IN A FREE STANDING POSITION. SUPPORTING FRAMES OR RACKS SHALL BE OF STANDARD ANGLE, STANDARD CHANNEL OR SPECIALTY SUPPORT SYSTEM STEEL MEMBERS. THEY SHALL BE RIGIDLY BOLTED OR WELDED TOGETHER AND ADEQUATELY BRACED TO FORM A SUBSTANTIAL STRUCTURE.	1	D ASSOCIA ID ASSOCIA ERTY PLAC PA 19102 87-0150 ORN.COM
F	RACKS SHALL BE OF AMPLE SIZE TO ASSURE A WORKMANLIKE ARRANGEMENT OF ALL EQUIPMENT MOUNTED ON THEM.		AN A
E. I (I	NOTHING, (INCLUDING OUTLET, PULL AND JUNCTION BOXES AND FITTINGS) SHALL DEPEND ON ELECTRIC CONDUITS, RACEWAYS, OR CABLES FOR SUPPORT, EXCEPT THAT THREADED HUB TYPE FITTINGS HAVING A GROSS VOLUME NOT IN EXCESS OF 100 CUBIC INCHES MAY 3E SUPPORTED FROM HEAVY WALL CONDUIT, WHERE THE CONDUIT IS SECURELY		MLEY-HORN H ST, TWO I PHILADELPHI PHONE: 267 WWW.KIMLEY
(=. I	SUPPORTED FROM THE STRUCTURE WITHIN FIVE INCHES OF THE FITTING ON TWO OPPOSITE SIDES. NOTHING SHALL REST ON, OR DEPEND FOR SUPPORT ON, SUSPENDED CEILINGS MEDIA		© 2024 KIM SOUTH 16TH PI
(G. I	TILES, LATH, PLASTER, AS WELL AS SPLINES, RUNNERS, BARS AND THE LIKE IN THE PLANE OF THE CEILING). PROVIDE REQUIRED SUPPORTS AND HANGERS FOR CONDUIT, EQUIPMENT, ETC., SO THAT		© 200
3.09	LOADING WILL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE. FASTENINGS		
I	FASTEN ELECTRIC WORK TO BUILDING STRUCTURE IN ACCORDANCE WITH THE BEST NDUSTRY PRACTICE AND THE FOLLOWING. EL OOR OR BAD MOUNTED FOLURMENT SHALL NOT BE HELD IN PLACE SOLELY BY ITS OWN	\vdash	Section
Ι	FLOOR OR PAD MOUNTED EQUIPMENT SHALL NOT BE HELD IN PLACE SOLELY BY ITS OWN DEAD WEIGHT. INCLUDE ANCHOR FASTENING IN ALL CASES. FOR ITEMS WHICH ARE SHOWN AS BEING CEILING MOUNTED AT LOCATIONS WHERE	SIONAL	NINO NWEAL THE
I	FASTENING TO THE BUILDING CONSTRUCTION ELEMENT ABOVE IS NOT POSSIBLE, PROVIDE SUITABLE AUXILIARY CHANNEL OR ANGLE IRON BRIDGING, TYING TO THE BUILDING	S L L L	JEFFREY C. SALLEE
: 3.10	STRUCTURAL ELEMENTS. TESTING EQUIPMENT AND MATERIALS	ISED 0	Engineer PE092003
I	THE CONTRACTOR SHALL PROVIDE ALL TESTING INSTRUMENTS, EQUIPMENT AND ALL MATERIALS, CONNECTIONS, LABOR, ETC., REQUIRED TO PERFORM TESTS. TEST ALL CIRCUITS, FIXTURES, EQUIPMENT, AND SYSTEMS FOR PROPER OPERATION AND	LICEN	04/30/24
l I	FREEDOM FROM GROUNDS, SHORTS AND OPEN CIRCUITS BEFORE ACCEPTANCE IS REQUESTED.	F	02 024 JCS LDH LTM
(MEASURE VOLTAGE AT PANELBOARDS AND OUTLETS AFTER THE BUILDING IS FULLY OCCUPIED. MAKE FINAL TRANSFORMER TAP ADJUSTMENTS BASED ON THESE MEASUREMENTS. PERFORM ALL TESTS REQUIRED BY LOCAL AUTHORITIES, SUCH AS TESTS	PROJECT	× 200
(OF LIFE SAFETY SYSTEMS, IN ADDITION TO TESTS SPECIFIED HEREIN.PERFORM TESTS REQUIRED BY OTHER SPECIFICATION SECTIONS.	KHA P	
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•				-
A		LTG	LIGHTING	1.
AC	ALTERNATING CURRENT			
AFF	ABOVE FINISHED FLOOR	М	METER OR MOTOR	
AFG	ABOVE FINISHED GRADE	MAX	MAXIMUM	
AIC	AMPERES INTERUPTING CAPACITY	MCC	MOTOR CONTROL CENTER	
AL		MCP	MOTOR CIRCUIT PROTECTOR	
AT		MH	METAL HALIDE OR MANHOLE	
AWG		MIN		2.
AUX	AUXILLIARY	mm	MILLIMETER	
BACS	BUILDING AUTOMATION CONTROL SYSTEM	MTD	MOUNTED	
BCU	BUILDING CONTROL UNIT	MTG MTR	MOUNTING MOTOR	
BL	BASIC IMPULSE LEVEL	MV	MOTOR MEDIUM VOLTAGE	
BOT	BOTTOM OF TRAY		MEDIOM VOLTAGE	
		Ν	NEUTRAL OR NORTH	
С	CONTACTOR/CONDUIT/COIL	NA	NON-AUTOMATIC	
СВ	CIRCUIT BREAKER	NC	NORMALLY CLOSED	
CD	CANDELA	NEC	NATIONAL ELECTRICAL CODE	
CKT	CIRCUIT	N.I.C.	NOT IN CONTRACT	
CL	CENTERLINE	NF	NON-FUSED	
CP	CONTROL PANEL	NO	NORMALLY OPEN	
CPT	CONTROL POWER TRANSFORMER	NTS	NOT TO SCALE	3.
CR	CARD READER			
CT	CURRENT TRANSFORMER	OC	ON CENTER	
		OCB	OIL CIRCUIT BREAKER	
D	DEEP	OL	OVERLOAD RELAY	
DC	DIRECT CURRENT	O/W	OIL/WATER	
DCS	DISTRIBUTED CONTROL SYSTEM			
DDC	DIRECT DIGITAL CONTROL	Р	POLE	4.
DISC	DISCONNECT	PA	PUBLIC ADDRESS	••
DPST	DOUBLE POLE SINGLE THROW	PB	PUSH BUTTON OR PULL BOX	
DPU	DATA PROCESSING UNIT	PC	PHOTOCELL	
DWG	DRAWING	PCM	PROGRAMMABLE CONTROL MODULE	
		PNL	PANEL	
EC	EMPTY CONDUIT	PP	POWER PANEL	
EF	EXHAUST FAN	PVC	POLY VINYL CHLORIDE	
EMCS	EMERGENCY MANAGEMENT CONTROL			
	SYSTEM	RH	RADIANT HEATER	
EMT	ELECTRICAL METALLIC TUBING	RMS	ROOT MEAN SQUARE	
EP	EXPLOSION PROOF	RTU	ROOF TOP UNIT	
EPO	EMERGENCY POWER OFF	RU	RACK UNIT	
ЕТМ	ELAPSED TIME METER	RVAT	REDUCED VOLTAGE AUTO TRANSFORMER	
ETR	EXISTING TO REMAIN	RVNR	REDUCED VOLTAGE, NON-REVERSING	5.
F	FIXED-FIT	S	SLIP FIT	
FACP	FIRE ALARM CONTROL PANEL	SB	SPICE BOX	
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SCADA	SUPERVISORY CONTROL AND DATA	
FM	FREQUENCY MONITOR		AQUISITION	6.
FVNR	FULL VOLTAGE, NON-REVERSING	SEL	SELECTOR SWITCH	
		SPDT	SINGLE POLE DOUBLE THROW	7.
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SOL	SOLENOID	
GFP	GROUND FAULT PROTECTION	SS	SELECTOR SWITCH	
GND	GROUND	STR	STARTER	
GRS	GALVANIZED RIGID CONDUIT	STRS	STARTERS	
		SW	SWITCH	
Н	PHASE OR HOT CONDUCTOR			8.
НН	HANDHOLE	TC	TIME CLOCK	0.
HP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOARD	
HACR	HEATING, AIR CONDITIONING &	TVSS	TRANSIENT VOLTAGE SURGE	
	REFRIGERATION TYPE CIRCUIT BREAKER		SUPPRESSION	
HID	HIGH INTENSITY DISCHARGE			
HPS	HIGH PRESSURE SODIUM	UCP	UNIVERSAL CONTROL PANEL	
HVAC	HEATING VENTILATION & AIR	UE	UNDERGROUND ELECTRICAL	
	CONDITIONING	UON	UNLESS OTHERWISE NOTED	
				9.
I&C	INSTRUMENTATION AND CONTROLS	V	VOLTS	
IG	ISOLATION GROUND	VA	VOLT AMPERES	
INS	INSULATION	VFD	VARIABLE FREQUENCY DRIVE	
IPS	IRON PIPE SIZE	VRLA	VALVE REGULATED LEAD ACID	
J	JUNCTION BOX	W	WIRE OR WATT	
		WP	WEATHER PROOF	
K	KILO			
KCMIL	THOUSAND CIRCULAR MILS	XFMR	TRANSFORMER	
KVA	KILOVOLT AMPERE			10.
KVAR	KILOVOLT AMPERE REACTIVE	2SNR	TWO SPEED, NON REVERSING	.0.
KW	KILOWATT			
	LIGHTING PANEL			

RICAL GENERAL NOTES

ITRACTOR SHALL BE FULLY INFORMED OF ALL EXISTING IDITIONS THAT AFFECT THE WORK AND COST OF THE ENDED WORK. CONTRACTOR SHALL VISIT THE SITE OR TO BID AND EXAMINE THE DRAWINGS AS THEY ATE TO SITE CONDITIONS. BIDDERS WHO DO NOT VISIT SITE MAY BE UNILATERALLY NOT PERMITTED TO 3MIT A BID IF THE OWNER SO DECIDES

CTRICAL CONTRACTOR SHALL FULLY UNDERSTAND GIGN PRIOR TO BID. ANY ALLEGED MISUNDERSTANDING THE SCOPE, DESIGN OR WORK TO BE PERFORMED WILL MOVE CONSIDERATION FOR SELECTION. SELECTED CTRICAL CONTRACTOR SHALL BE IN FULL AGREEMENT THE ITEMS AND CONDITIONS INDICATED IN THE PLANS) SPECIFICATIONS. ANY DISCREPANCIES OR OMISSIONS IND IN THE CONTRACT DOCUMENTS OR DOUBT AS TO INTENT SHALL BE IMMEDIATELY BROUGHT TO THE ENTION OF THE ENGINEER OR PROJECT MANAGER. ERE CLARIFICATION CAN NOT BE PROVIDED PRIOR TO CONTRACTOR SHALL ASSUME THE MORE EXPENSIVE

HOD FOR BID. STING LOCATIONS AND CONDITIONS OF ELECTRICAL JIPMENT SHOWN ON DRAWINGS HAVE BEEN OBTAINED M IMAGES AND RECORD DRAWINGS TO INDICATE A SE REPRESENTATION AS TO EXISTING SITE

NDITIONS. CONTRACTOR SHALL VISIT THE SITE PRIOR TO S AND VERIFY THE ITEMS SHOWN AS WELL AS EXISTING NDITIONS NOT DISPLAYED ON THE DRAWINGS.

NTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A LY COMPLETE AND FUNCTIONAL SYSTEM AS INTENDED HE PLANS. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, NSPORTATION, EQUIPMENT, ACCESSORIES AND MITS SHALL BE FURNISHED BY THE CONTRACTOR. ITRACTOR SHALL ASSUME THE RESPONSIBILITY OF DRDINATION WITH ALL OTHER TRADES IN ORDER TO IPLETE THE WORK INTENDED. ALL COORDINATION ITEMS SULTING IN ADDITIONAL EXPENSE SHALL NOT BE

ENSED TO THE OWNER. DRAWINGS AND CIFICATIONS DO NOT INDICATE EVERY ITEM OF ERIAL, EQUIPMENT OR LABOR REQUIRED TO PRODUCE OMPLETE AND PROPERLY OPERATING INSTALLATION. NTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS, ENSES AND INSPECTIONS AS REQUIRED BY LOCAL AND IONAL REGULATIONS. CONTRACTOR SHALL ASSUME PONSIBILITY FOR EXPENSES CREATED IN CONNECTION

H THE WORK. NTRACTOR SHALL NOT CONCEAL ANY WORK UNTIL PROVED BY ELECTRICAL INSPECTOR OR ENGINEER THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WORK IS PERFORMED IN ACCORDANCE WITH LICABLE STANDARDS AND REGULATIONS INCLUDING CORDANCE WITH THE LATEST ADOPTED NATIONAL CTRICAL CODE (NEC) AND ALL ADDITIONAL QUIREMENTS BY LOCAL AHJ.

WORKMANSHIP SHALL BE NEAT AND ORGANIZED IN CORDANCE WITH APPLICABLE STANDARDS AND SHALL BE BJECT TO APPROVAL OF THE OWNER OR OWNER'S HORIZED REPRESENTATIVE. RACEWAY, FIXTURES AND ING DEVICES SHALL BE PROPERLY ALIGNED, LEVELED) SUPPORTED. RACEWAY SHALL BE GROUPED AND TALLED IN RUNS WHICH ARE PARALLEL AND

PENDICULAR WITH BUILDING LINES. CATIONS ON ELECTRICAL PLANS ARE APPROXIMATE. AL LOCATION OF EQUIPMENT AND DEVICES TO BE FIELD ORDINATED WITH OWNER AND/OR OWNER'S RESENTATIVE. CONTRACTOR SHALL COORDINATE ALL

IPORARY INTERRUPTIONS TO POWER WITH ALL ECTED PARTIES PRIOR TO INTERRUPTION. ALL

ERRUPTIONS SHALL BE KEPT TO A MINIMUM DURATION. NTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL IPORARY POWER REQUESTED BY AFFECTED PARTIES ROUGHOUT THE DURATION OF THE INTERRUPTION. ELECTRICAL MATERIALS SHALL BE NEW UNLESS ECIFICALLY OTHERWISE STATED. DEFECTIVE EQUIPMENT)/OR EQUIPMENT DAMAGED DURING INSTALLATION

AND/OR TESTING SHALL BE REPLACED OR REPAIRED TO MEET APPROVAL FROM ENGINEER OR INSPECTOR AT THE EXPENSE OF THE CONTRACTOR. PROPOSED EQUIPMENT SHALL BE NEMA RATED AND APPROVED.

- 11. CONTRACTOR SHALL SUBMIT MANUFACTURER'S STANDARD PRODUCT INFORMATION, PERFORMANCE SPECIFICATIONS, ELECTRICAL RATINGS, PHYSICAL DIMENSIONS AND ALL OTHER NECESSARY INFORMATION FOR ENGINEER TO ENSURE COMPLIANCE WITH SPECIFICATIONS. SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED BY ENGINEER PRIOR TO ORDERING AND INSTALLING ANY EQUIPMENT. CONTRACTOR SHALL HIGHLIGHT ITEMS TO BE **REVIEWED. EQUIPMENT ORDERED WITHOUT A REVIEWED** SUBMITTAL IS DONE AT THE CONTRACTOR'S OWN RISK.
- 12. SUBMITTALS SUBMITTED AS VALUE ENGINEERING SUBMITTALS SHALL BE LABELED AS SUCH AND OFFER A DEDUCTION OR CREDIT BACK TO THE OWNER.
- 13. ANY DEVIATIONS, SUBSTITUTIONS OR ALTERATIONS WITHOUT APPROVAL BY ENGINEER SHALL BE ASSUMED AS THE RESPONSIBILITY OF THE CONTRACTOR
- 14. ALL LISTED CABLE SIZES ARE SIZED PER NEC **REQUIREMENTS. CONTRACTOR SHALL ASSUME** RESPONSIBILITY FOR MEETING CONDUIT FILL REQUIREMENTS IF A LARGER SIZED CABLE IS USED. CONTRACTOR SHALL NOT USE CABLE SMALLER THAN SPECIFIED ON PLANS.
- 15. LOW VOLTAGE WIRING IS NOT SHOWN IN PLANS, UNLESS SPECIFICALLY CALLED OUT. CONTRACTOR SHALL REFER TO MANUFACTURER DETAIL SHEETS FOR ADDITIONAL LOW VOLTAGE WIRING AND CONDUITS.
- 16. CONTRACTOR SHALL COLOR CODE NEW CABLE PER INDUSTRY STANDARD
- 17. ALL CIRCUITS SHALL BE PROVIDED WITH AN INSULATED GREEN COPPER EQUIPMENT GROUND CONDUCTOR SIZED PER NEC. EQUIPMENT GROUNDS SHALL BE BONDED TO ALL EQUIPMENT AND DEVICES. USE OF METALLIC CONDUIT SHALL NOT TAKE THE PLACE OF AN EQUIPMENT GROUND CONDUCTOR.
- 18. ALL WIRING SHALL ADHERE TO NEC CONDUIT FILL REQUIREMENTS. ANY DEVIATION FROM CONDUIT SIZE SPECIFIED ON PLANS IS ASSUMED TO BE THE CONTRACTOR'S RESPONSIBILITY.
- 19. HOMERUNS REPRESENT CONDUIT AND CABLE TO SPECIFIED PANEL. CONTRACTOR SHALL FIELD ROUTE CONDUIT AS NECESSARY. CONFIRM ROUTING WITH OWNER AND ENGINEER
- 20. CONTRACTOR SHALL INSPECT AREA OF WORK AND PERFORM GROUND PENETRATING RADAR SCAN OR X-RAY ALL PROPOSED PENETRATIONS PRIOR TO WORK TO DETERMINE EXACT LOCATIONS OF STRUCTURAL REINFORCEMENT OR EMBEDDED SYSTEMS. COORDINATE FLOOR AND WALL PENETRATIONS WITH STRUCTURAL ENGINEER. ALL PENETRATIONS SHALL BE SEALED BY APPROVED MEANS TO PREVENT ENERGY LOSS AND MOISTURE AND RODENT INTRUSION.
- 21. ALL CONDUIT AND CABLING SHALL BE PROPERLY SUPPORTED AS REQUIRED BY CODE.
- 22. ALL CABLE SHALL BE LABELED ON BOTH ENDS AND DISTRIBUTION EQUIPMENT SHALL BE PERMANENTLY LABELED PER AHJ RECOMMENDATIONS. TYPEWRITTEN PANEL SCHEDULE SHALL BE PROVIDED WITH EQUIPMENT.
- 23. CONTRACTOR SHALL MAINTAIN CLEARANCES OF WORKING SPACES AS REQUIRED BY ARTICLE 110 OF THE NEC. GENERAL CONTRACTOR SHALL ASSUME RESPONSIBILITY OF COORDINATION FOR CLEARANCES AND BE RESPONSIBLE FOR ANY RELOCATION DUE TO AN IMPEDANCE OF CLEARANCES.
- 24. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THE SCOPE OF WORK AND DEMONSTRATE ITS PROPER OPERATION TO THE OWNER. CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE SYSTEM UPON COMPLETION.
- 25. PRIOR TO FINAL ACCEPTANCE, ALL DEFICIENCIES IDENTIFIED SHALL BE CORRECTED AT THE CONTRACTOR'S

EXPENSE

26. ALL CERTIFICATES OF APPROVAL SHALL BE IN DUPLICATE, DELIVERED TO THE ENGINEER AND BECOME THE PROPERTY OF THE OWNER.

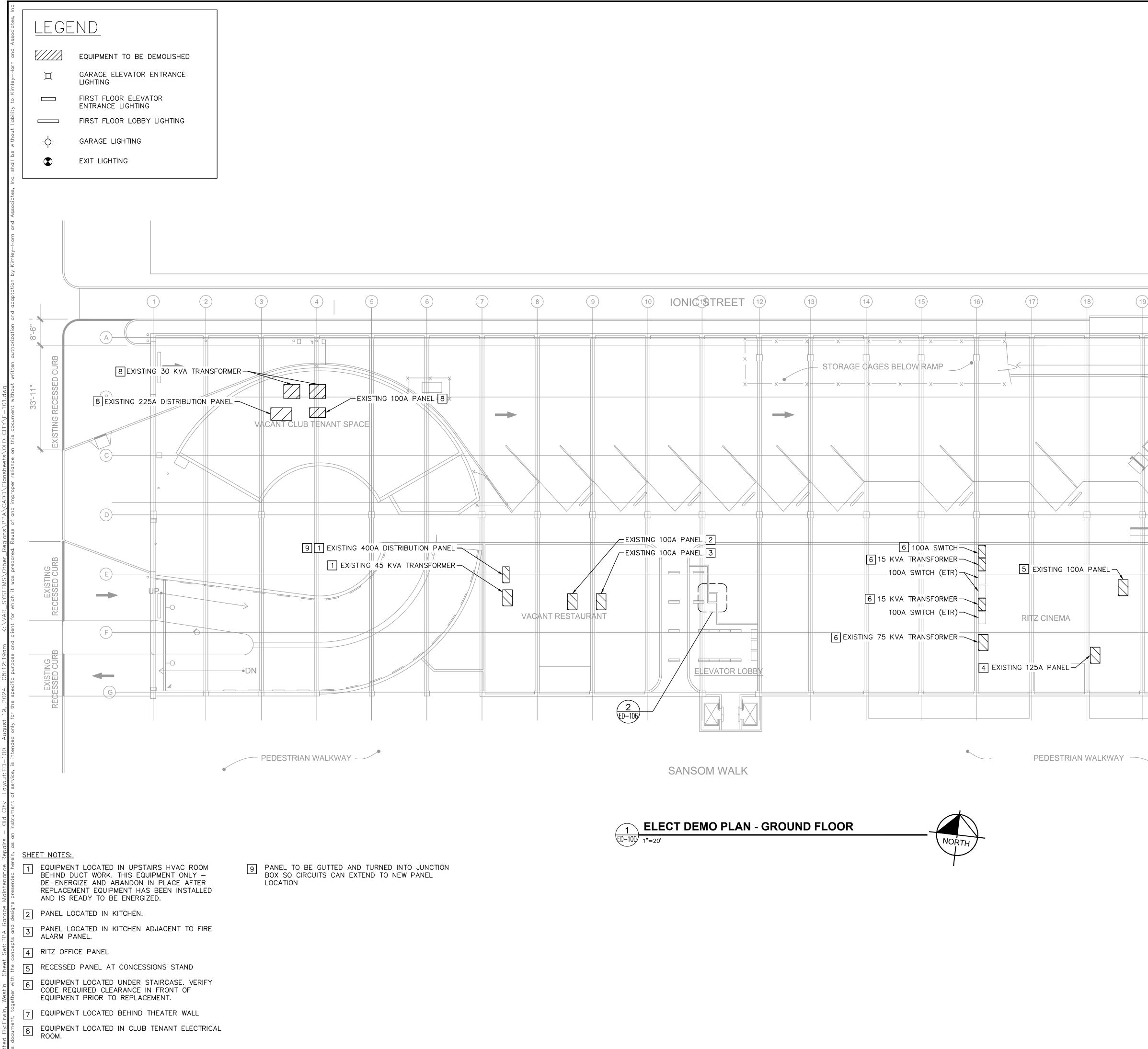
27. CONTRACTOR SHALL MAINTAIN A COPY OF ALL DRAWINGS AND APPROVED SHOP DRAWINGS ON SITE AND RECORD ALL **REVISIONS AND DEVIATIONS FROM THE ORIGINAL**

CONSTRUCTION DRAWINGS. A COPY SHALL BE SUBMITTED TO THE ENGINEER UPON THE COMPLETION OF WORK. 28. CONTRACTOR SHALL PROVIDE TWO PRINTED COPIES AND ONE ELECTRONIC COPY OF MANUALS, SERVICE AGENCIES AND WARRANTIES TO THE OWNER UPON COMPLETION OF CONSTRUCTION.

29. THE ENTIRE ELECTRICAL SYSTEM WITHIN THIS SCOPE SHALL BE IN PROPER WORKING ORDER UPON COMPLETION OF CONSTRUCTION. ANY WORK, MATERIALS OR SYSTEMS SHOWING DEFECTS OR MALFUNCTION SHALL BE

CORRECTED WITHOUT CHARGE WITHIN THE FIRST YEAR.

KHA PROJECT LICENSED And FROJECT 112359002 DATE DATE 01/31/2024 SCALE AS SHOWN SCALE AS SHOWN SCALE AS SHOWN SCALE AS SHOWN SCALE AS SHOWN DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNED BY UCS DESIGNET BY PLACE DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS DESIGNED BY UCS DESIGNET BY UCS DESIGNET BY UCS	C. C. C. C. C. C. C. C. C. C. C. C. C. C
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	ROJECT 59002 ATE /2024 AS SHOWN AS SHOWN AS SHOWN AS SHOWN AS LDH BY JCS
.	PPA GARAGE MAINTENANCE REPAIRS - OLD CITY PREPARED FOR PHILADELPHIA PARKING AUTHORITY PHILADELPHIA



/24 /16 GENERAL NOTES: 08, 1. LOCATION OF EQUIPMENT IN CLUB, RESTAURANT, AND CINEMA SPACES ARE APPROXIMATE. VERIFY EQUIPMENT LOCATIONS ON PRE-BID SITE WALKTHROUGH. 2. ALL EQUIPMENT TO BE REPLACED ONE-FOR-ONE UNLESS OTHERWISE NOTED. 芇 문 3. ALL LIGHTS SHOWN ON THIS SHEET SHALL BE # 7 DEMOLISHED ≥ ≥ ADDENDU - | ~ | 0 (19) (20) (21)(22)(23) \approx RAMP UP TO FIRST LEVEL 8 x_ \odot 0 SPACE OCCUPIED BY OTHERS 04/30/24 RAMP × L_____ 112 91 10 -EXISTING 300A DISTRIBUTION PANEL 7 PLAN OOR \square - EXISTING 30A SWITCH 7 Ч - EXISTING 15 KVA TRANSFORMER 7 ELECT DEMO FLO \square

└─EXISTING 225A "B HOUSE" PANEL

SHEET NUMBER ED-100

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A GARAGE MAINTENANCE REPAIRS - OLD CITY PREPARED FOR IILADELPHIA PARKING AUTHORITY

<u>LEGEND</u> EQUIPMENT TO BE DEMOLISHED GARAGE ELEVATOR ENTRANCE Д LIGHTING FIRST FLOOR ELEVATOR

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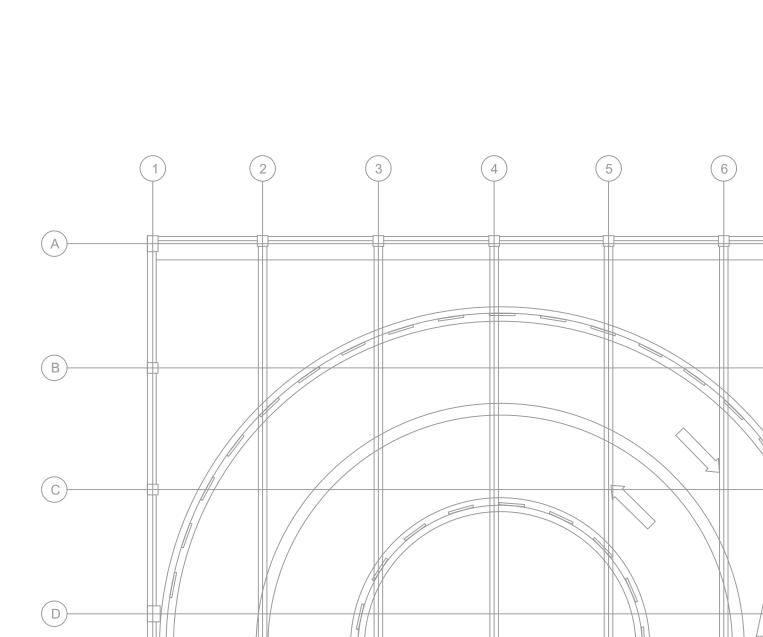
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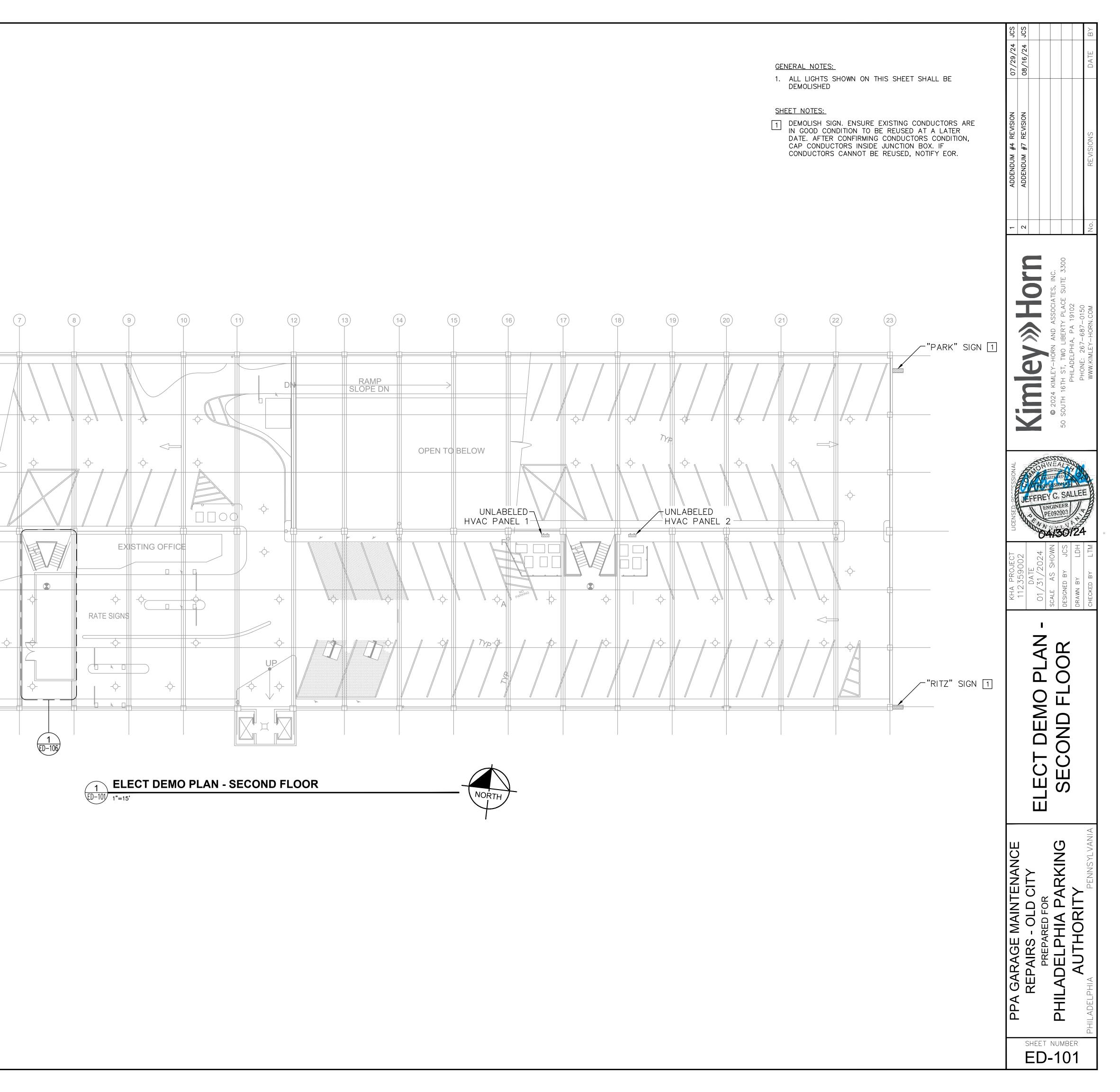
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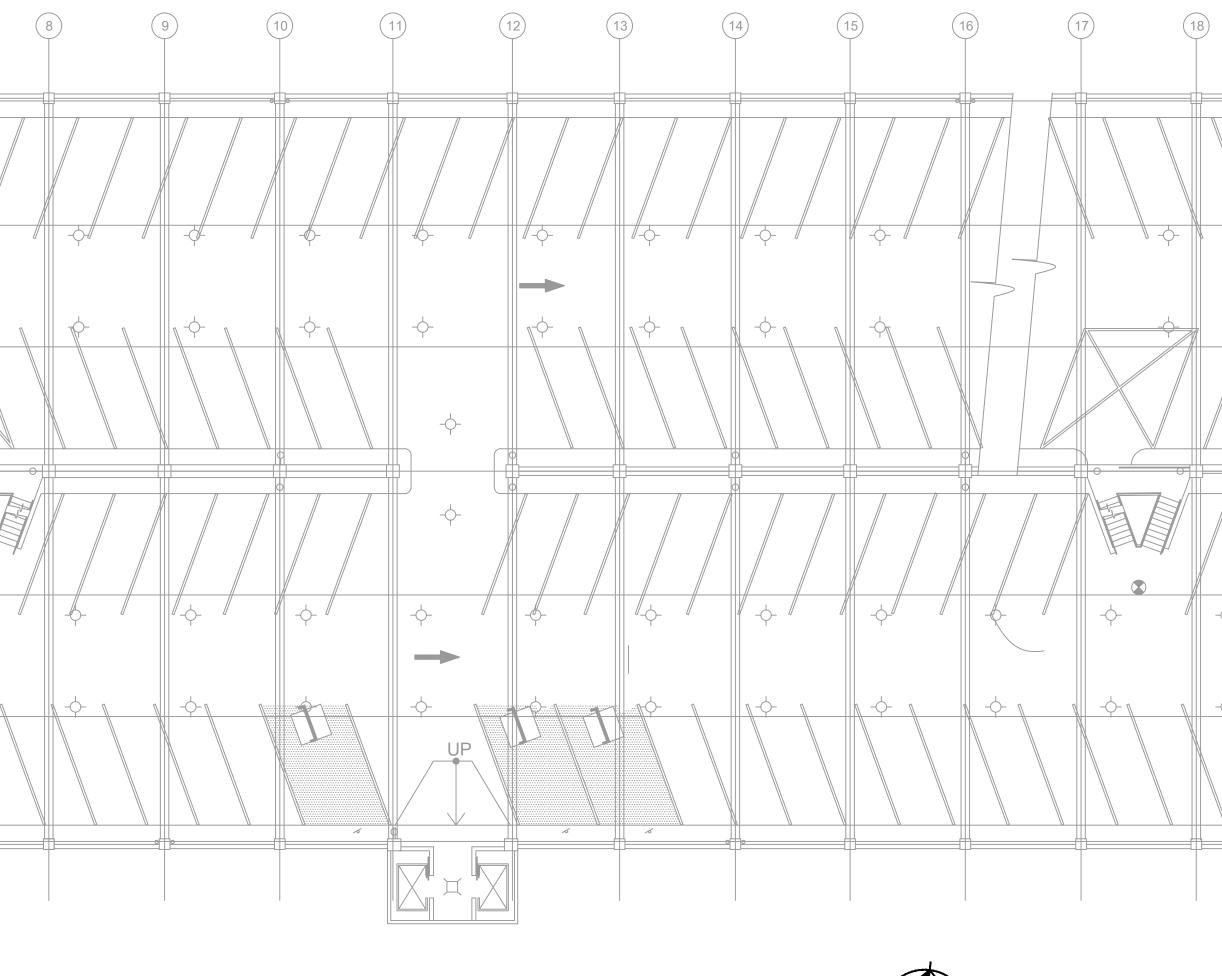
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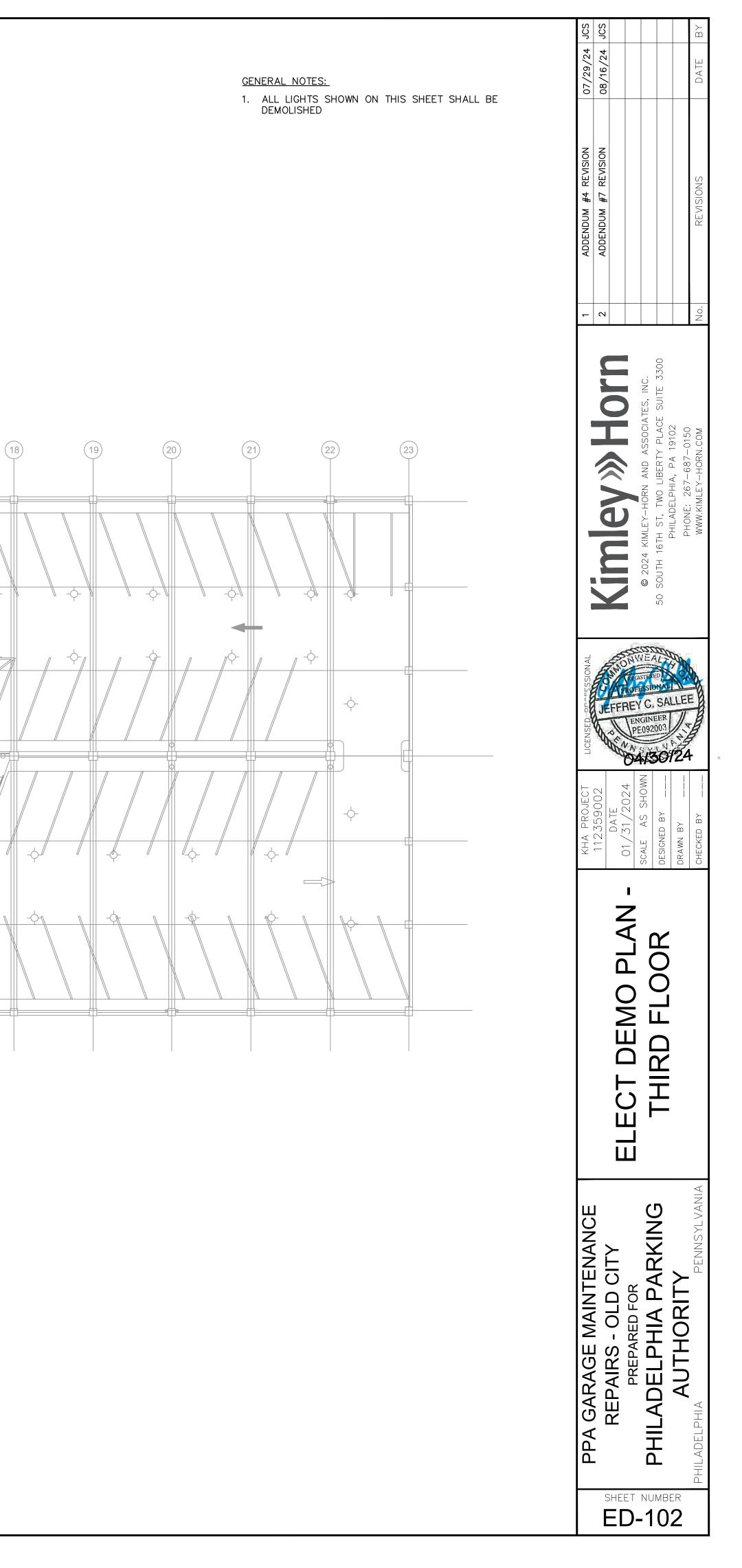
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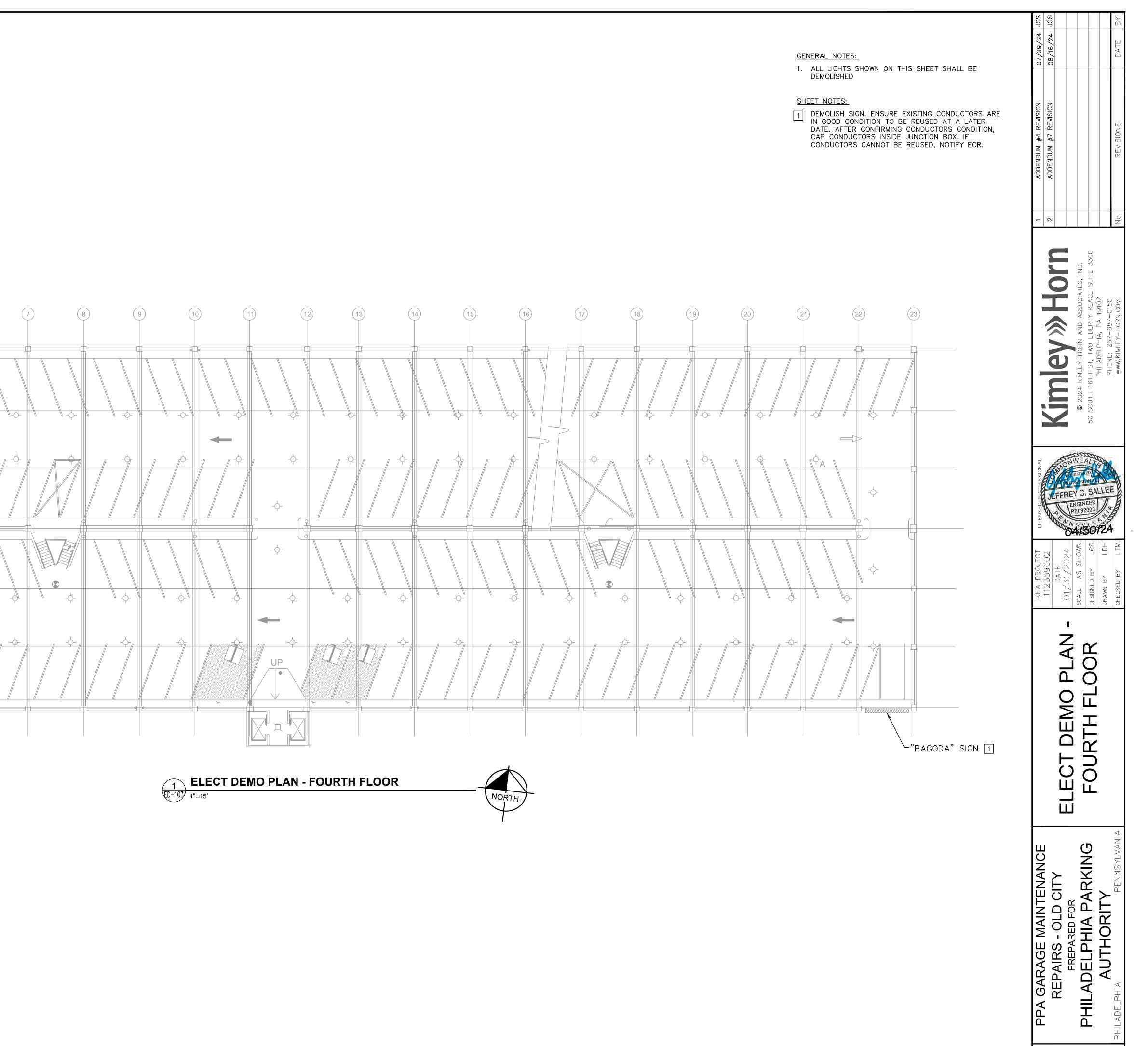
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EQUIPMENT TO BE DEMOLISHED

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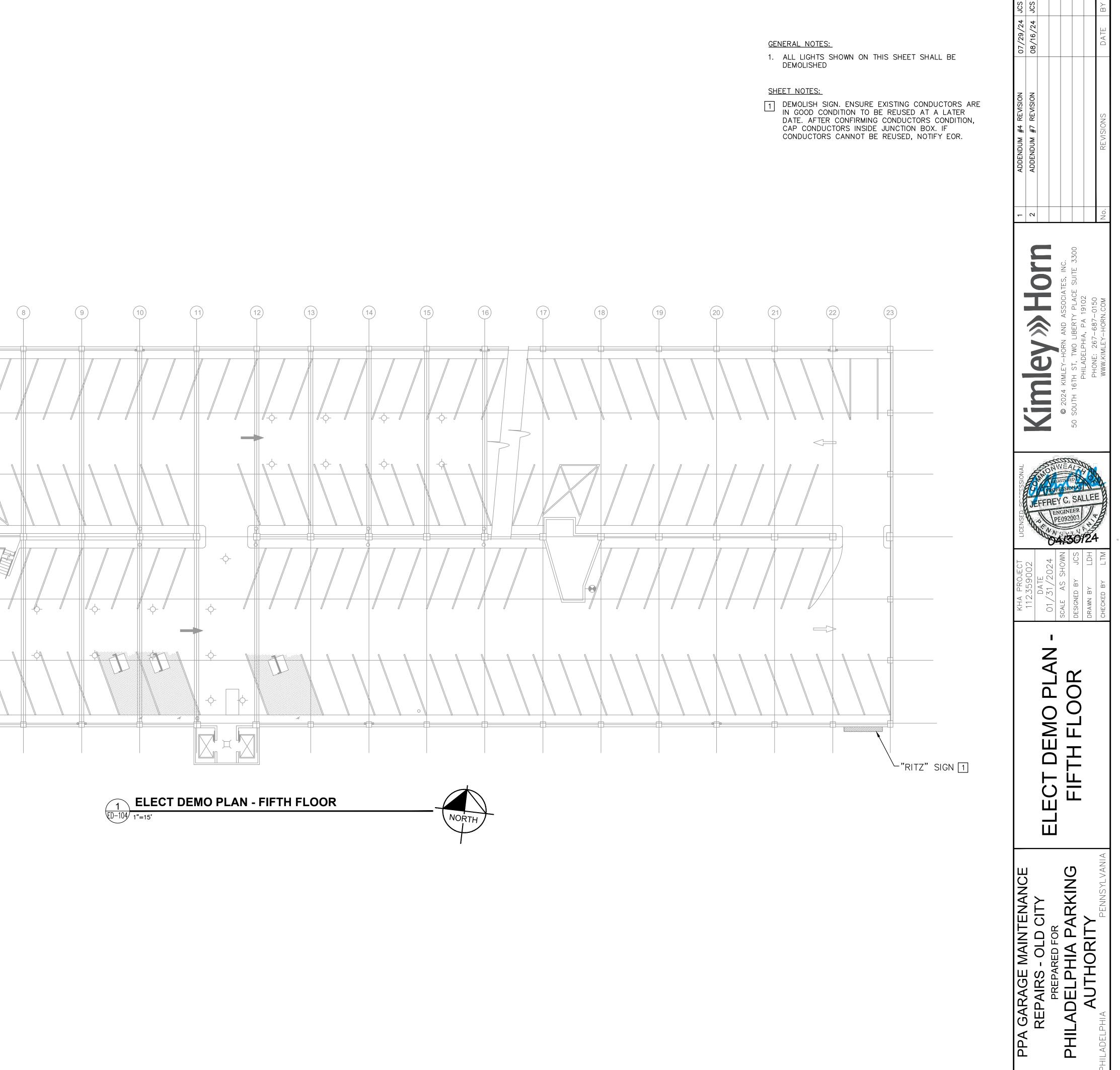
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LEGEND EQUIPMENT TO BE DEMOLISHED

GARAGE ELEVATOR ENTRANCE LIGHTING Д FIRST FLOOR ELEVATOR ENTRANCE LIGHTING FIRST FLOOR LOBBY LIGHTING GARAGE LIGHTING -**(**-

(A)-----

В—

D----

E-

(F)-

G-

 $\left(1\right)$

(2)

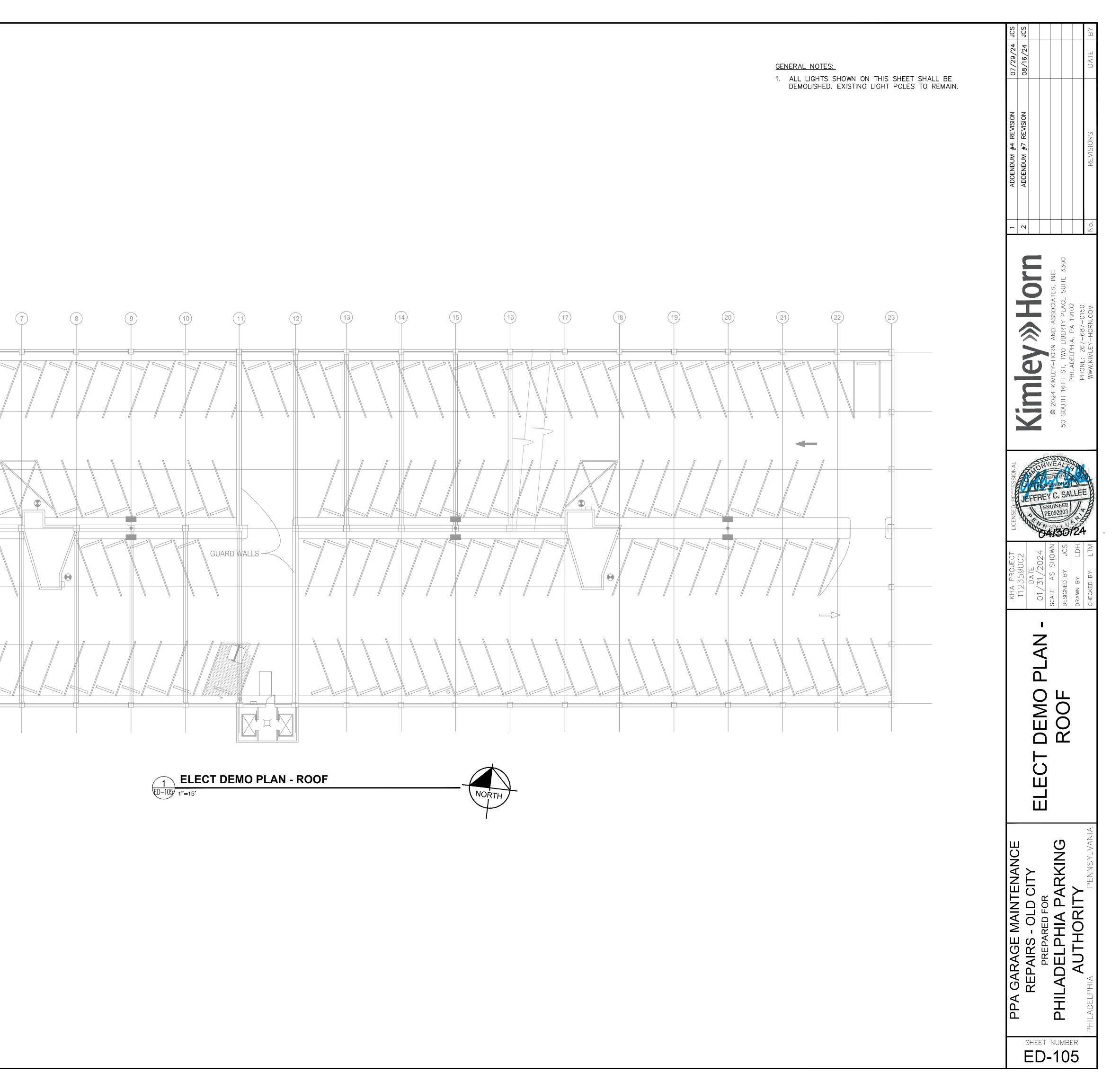
(3)

(4)

(5)

(6)

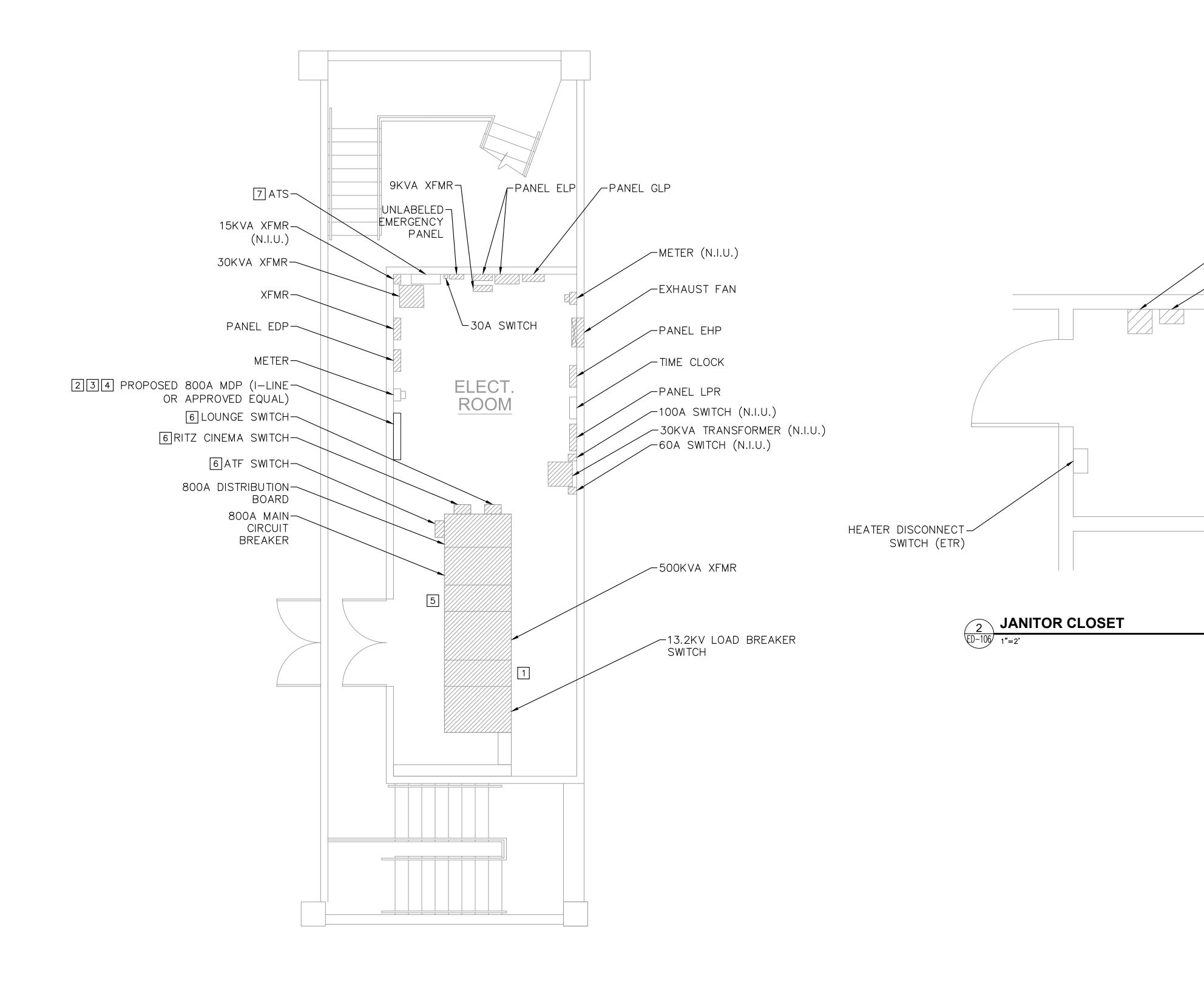
EXIT LIGHTING



<u>LEGEND</u>

EQUIPMENT TO BE DEMOLISHED

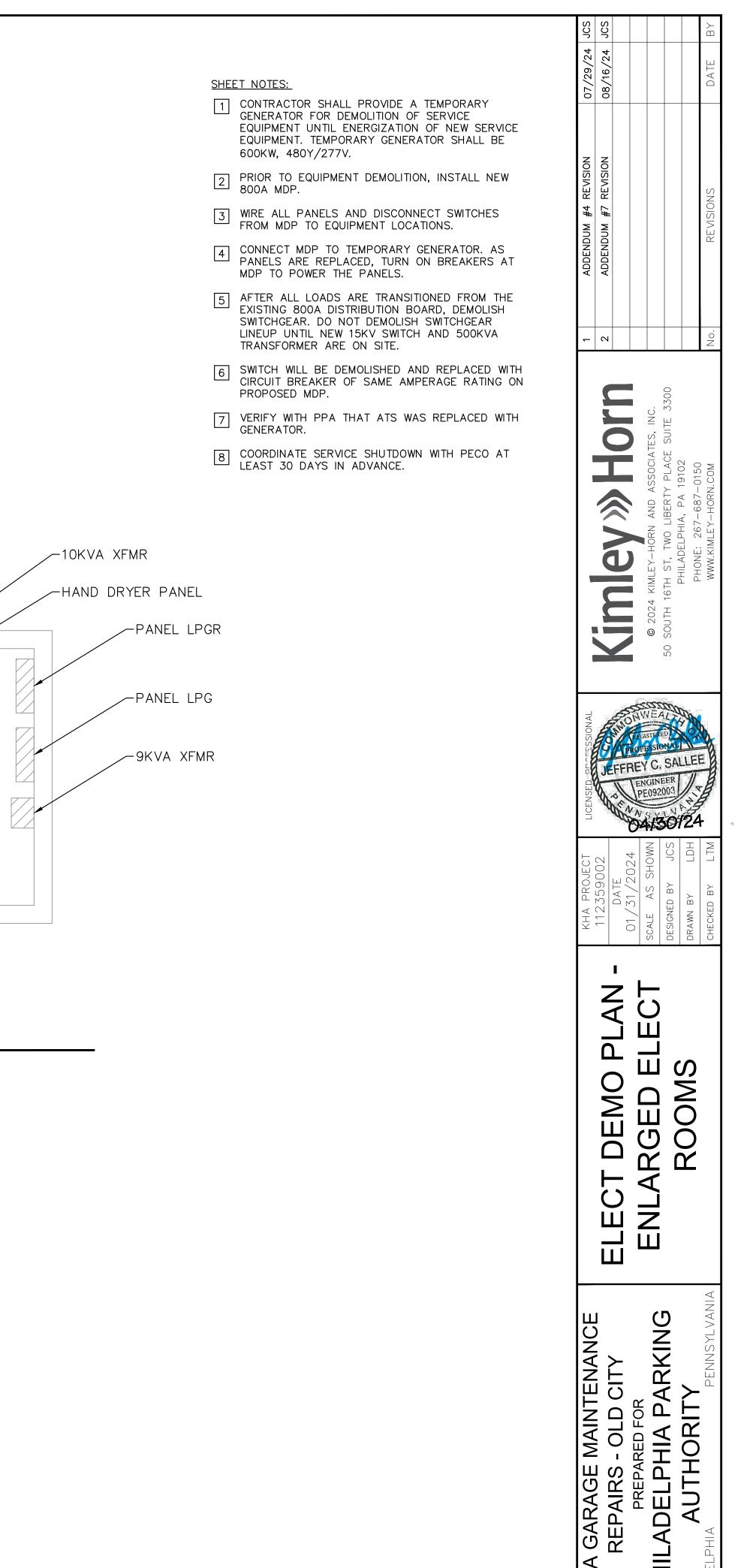
N.I.U. NOT IN USE



in, Westin Sheet Set:PPA Garage Maintenance Repairs - Old City Layout:ED-106 August 19, 2024 08:12:52am K: \VAB_SYSTEMS\Other_Regions\PPA\CADD\PIc

ENLARGED ELECTRICAL ROOM

<u>GENERAL NOTES:</u>
1. EQUIPMENT TO BE DEMOLISHED SHALL BE TURNED OVER TO PPA. IF PPA DOES NOT WANT EQUIPMENT, THE EQUIPMENT SHALL BECOME CONTRACTOR'S PROPERTY AND RESPONSIBILITY TO REMOVE FROM THE SITE.

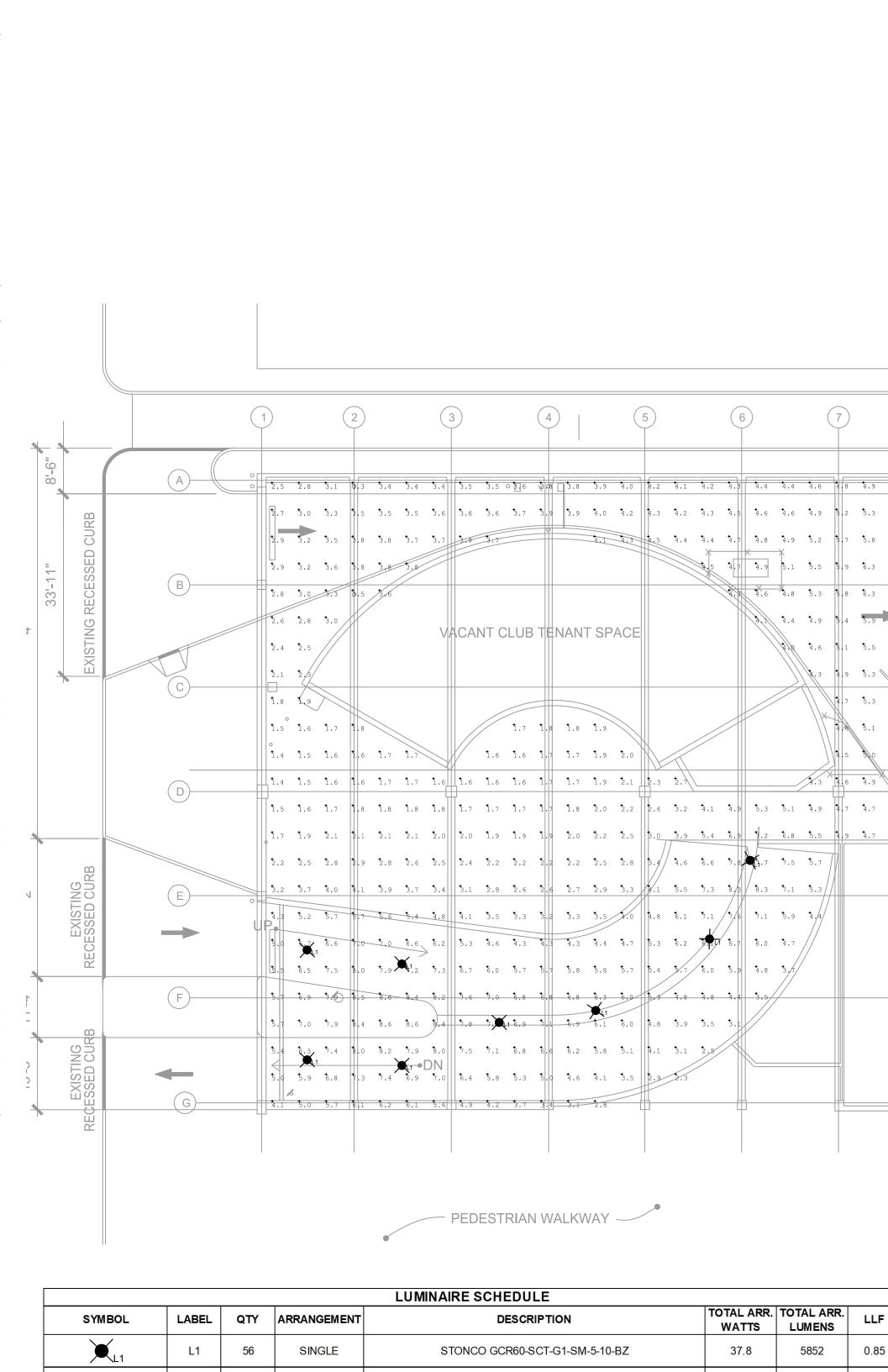


sheet number

Ω

Δ

PHIL/



Label		Туре		Average Maximum Minimum Max/Min		
L4	L4	14	SINGLE	ALCON 12100-66-RTL-D-D24-CRx-50K-010-WH-8	24.0	2900
L3	L3	4	SINGLE	COOPER WN-428T5-277V-CRA	28.0	2600
<u> </u>						

Label	Туре	Average	Maximum	Minimum	Max/Min
Ground Level	Illuminance (FC)	5.7	11.3	1.4	8.07
Ground Level Parking	Illuminance (FC)	5.9	10.8	1.9	5.68
Pedestrian Ramp_UP	Illuminance (FC)	8.66	11.3	4.1	2.76
Pedestrian Walking Area	Illuminance (FC)	5.89	7.3	4.4	1.66
Ramp Entrance	Illuminance (FC)	6.51	8.6	3.4	2.53

GENERAL NOTES: 1. ALL 'LI' AND 'L2' FIXTURES ARE PPA FURNISHED, CONTRACTOR INSTALLED.	1ADDENDUM #4 REVISION07/29/24JCS2ADDENDUM #7 REVISION08/16/24JCS108/16/24JCSJCS111 </th
	KHA PROJECT LICENSED Encressional 112359002 DATE 01/31/2024 DATE 01/31/2024 Excensional scale As SHOWN Excensional besicined By UCS DS provided By UCS
VACANT RESTAURANT	PHOTOMETRICS - GROUND FLOOR
BR LLF 0.85 0.85 0.85	MAINTENANCE - OLD CITY RED FOR HA PARKING ORITY PENNSYLVANIA

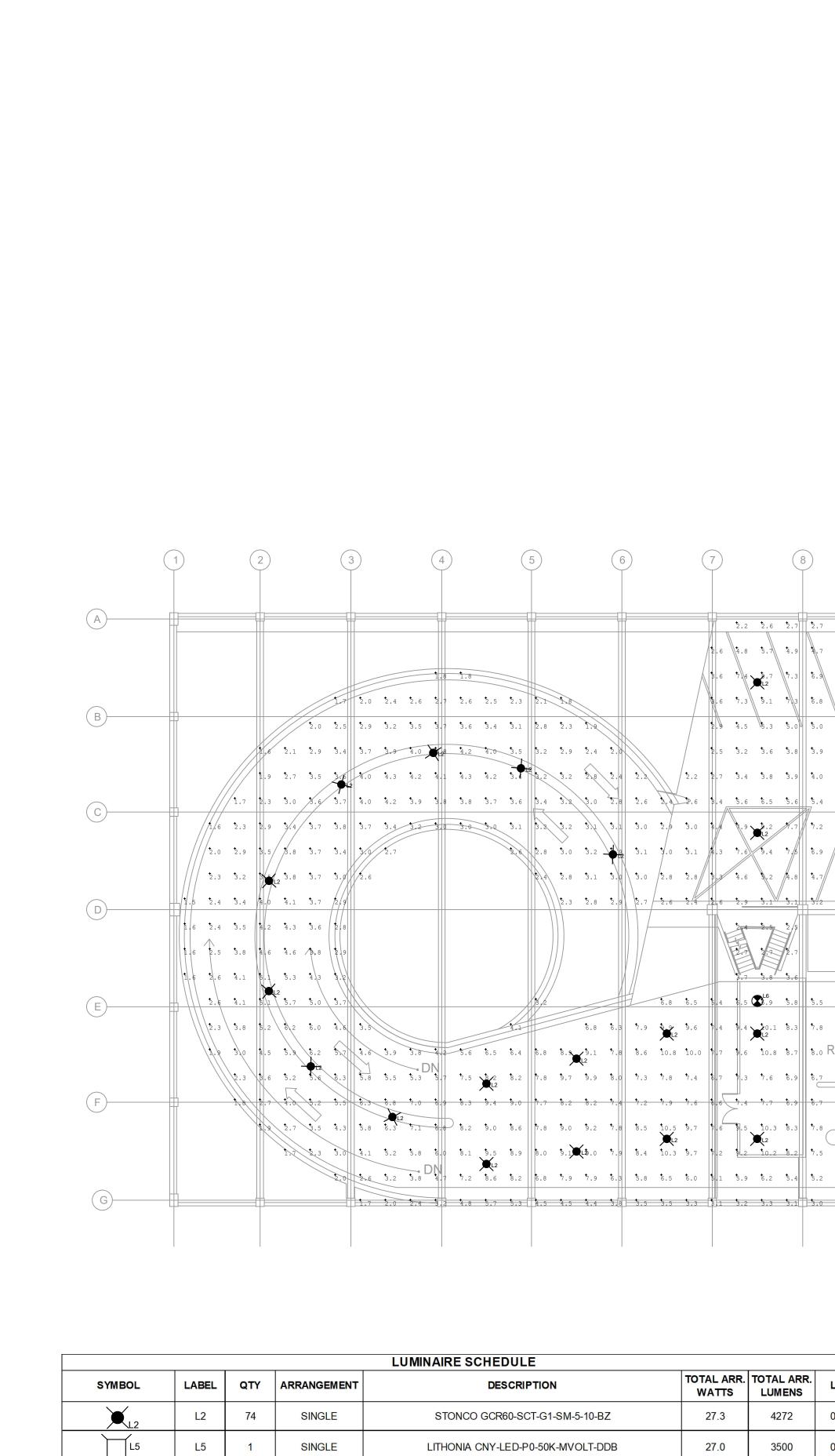
0.85 -----

SHEET NUMBER E-200

PREPA PHILADELPI AUTH

GARAGE REPAIRS

∢ D Δ



Label	Туре	Average	Maximum	Minimum	Max/Min
Level 2	Illuminance (FC)	5.73	10.8	1.4	7.71
Parking	Illuminance (FC)	6.03	10.8	1.4	7.71
Pedestrian Stairs_1	Illuminance (FC)	2.96	3.8	2.4	1.58
Pedestrian Stairs_2	Illuminance (FC)	6.66	10.1	4.4	2.3
Ramp_Down	Illuminance (FC)	6.83	9.2	3	3.07
Spiral_Ramp	Illuminance (FC)	3.5	7.1	1.5	4.73

2

SINGLE

L6

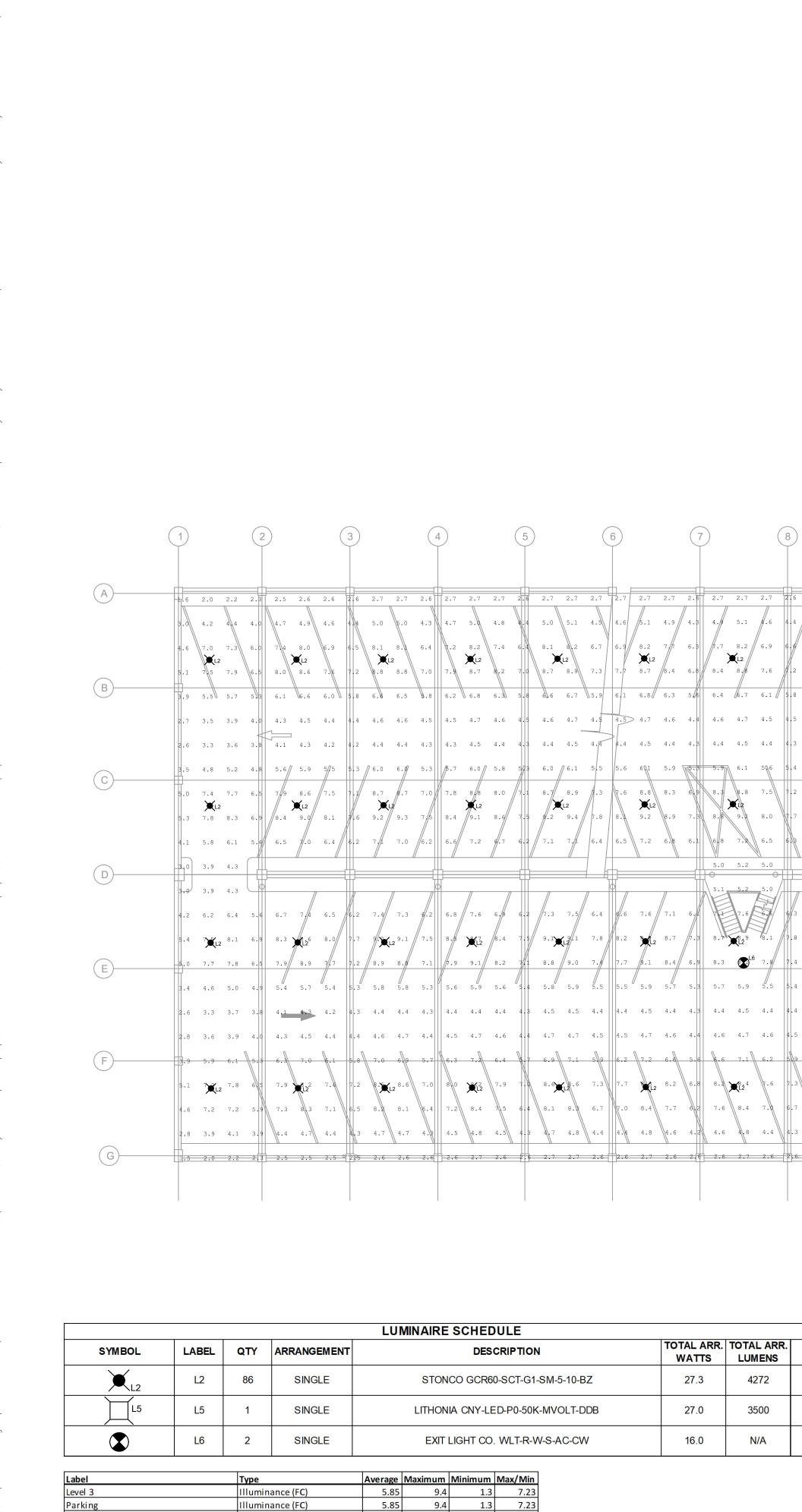
<u>General Notes</u> . 1. All 'u' and 'u' favures are ppa furnishe contractor installed.	LIE 3300 LIE BY DATE NOIN #1 REVISION 07/29/24 JCS ADDENDUM #7 REVISION 08/16/24 JCS A
8 9 10 11 12 13 14 15 16 10 17 18 19 20 21 22 23 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	© 2024 KIMLEY-HORN AND ASSOCIATES, 50 SOUTH 16TH ST, TWO LIBERTY PLACE SUI PHILADELPHIA, PA 19102 PHONE: 267-687-0150 WWW.KIMLEY-HORN.COM
Loo No.	KHA PROJECT KHA PROJECT 112359002 DATE DATE 01/31/2024 Scale AS SHOWN Designed BY UCS Drawn BY LDH CHECKED BY LTM
	PHOTOMETRICS - SECOND FLOOR
BR LLF 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85	PRACAGE MAINTENANCE PPA CARAGE MAINTENANCE REPAIRS - OLD CITY REPAIRS - OLD CITY PREPARED FOR PHILADELPHIA PARING AUTHORITY PHILADELPHIA PARING AUTHORITY PHILADELPHIA PARING AUTHORITY

2.	LLF
	0.85
	0.85
	N/A

16.0

EXIT LIGHT CO. WLT-R-W-S-AC-CW

N/A



6.52

8.9 5 1.78

5.94 8.9 3.8 2.34,

Illuminance (FC)

Illuminance (FC)

LIGHTING SUMMARY TABLE

Stairs_1

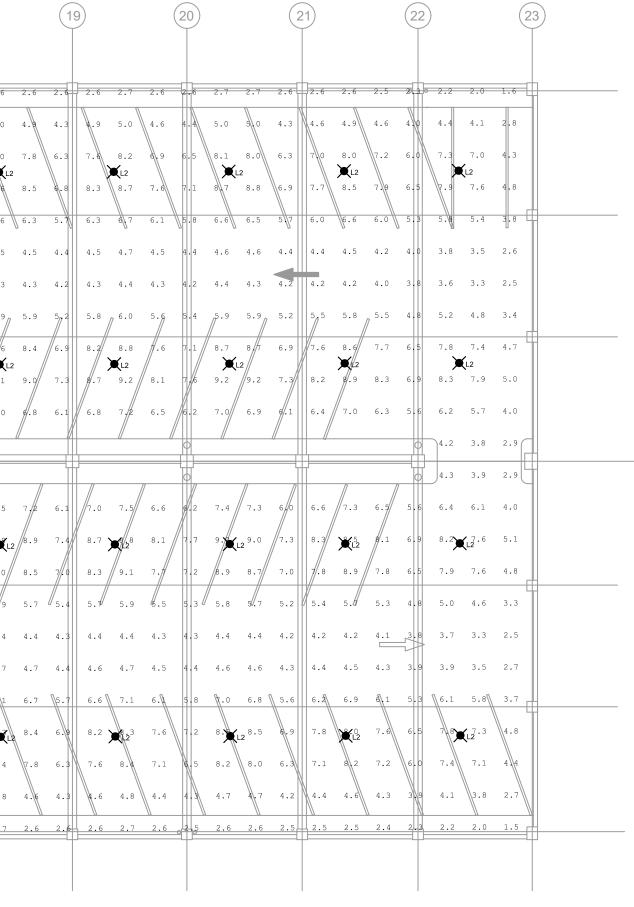
Stairs_2

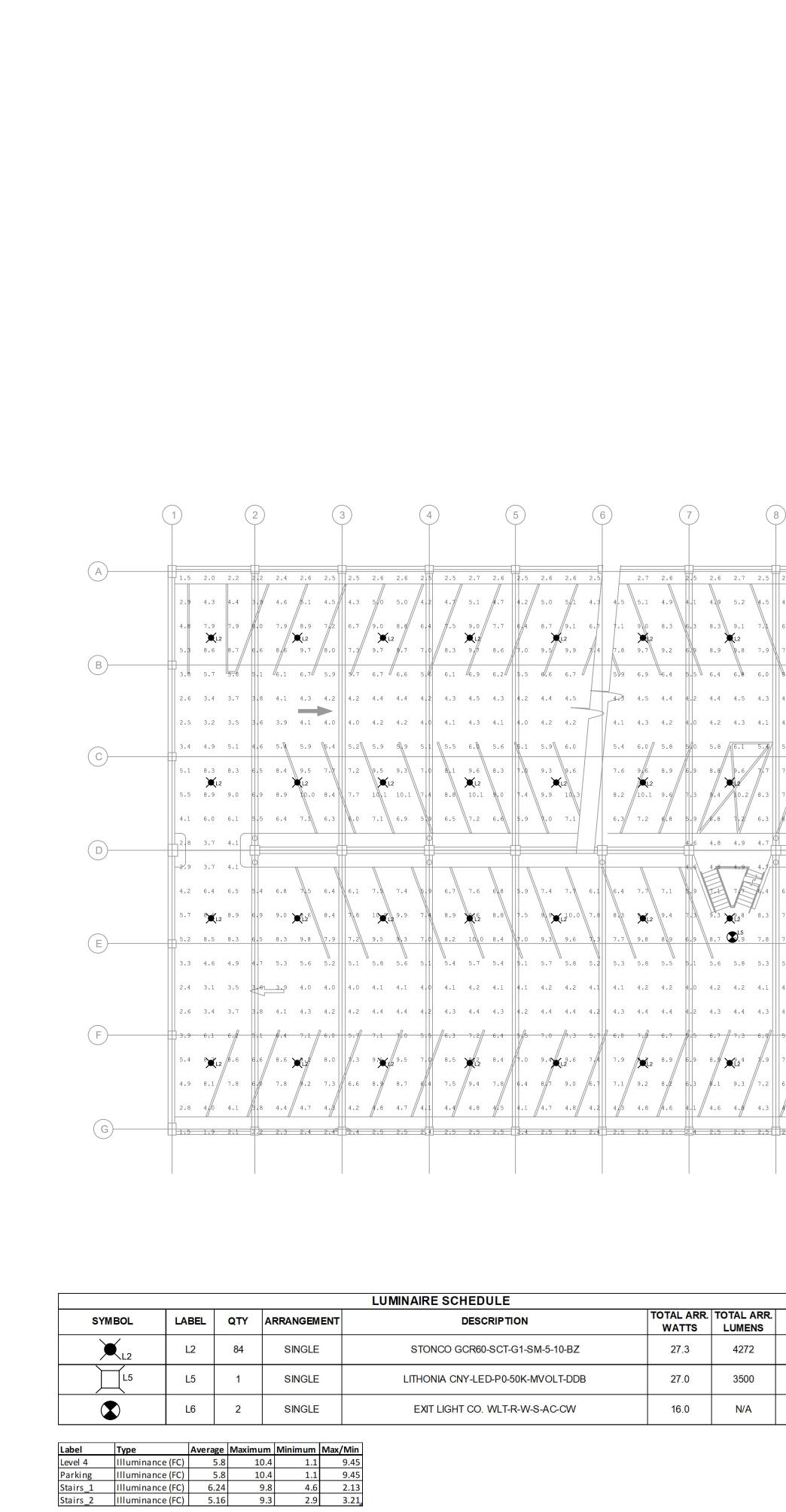
Alt A
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LLF 0.85 0.85 N/A

07/29/24 JCS	08/16/24 JCS						DATE BY
ADDENDUM #4 REVISION	ADDENDUM #7 REVISION						REVISIONS
-	2						No.
				© 2024 KIMLEY-HORN AND ASSOCIA	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	PHILAUELPHIA, PA 19102 Disone off for off	WWW.KIMLEY-HORN.COM
ICENSED PLOTESSIONAL	the second	AND COLOR		STER	SA		E
OJECT	112359002	DATE	01/31/2024	SCALE AS SHOWN	DESIGNED BY JCS	DRAWN BY LDH	CHECKED BY LTM
	112359002				\succ		
	11235						PENNSYLVANIA

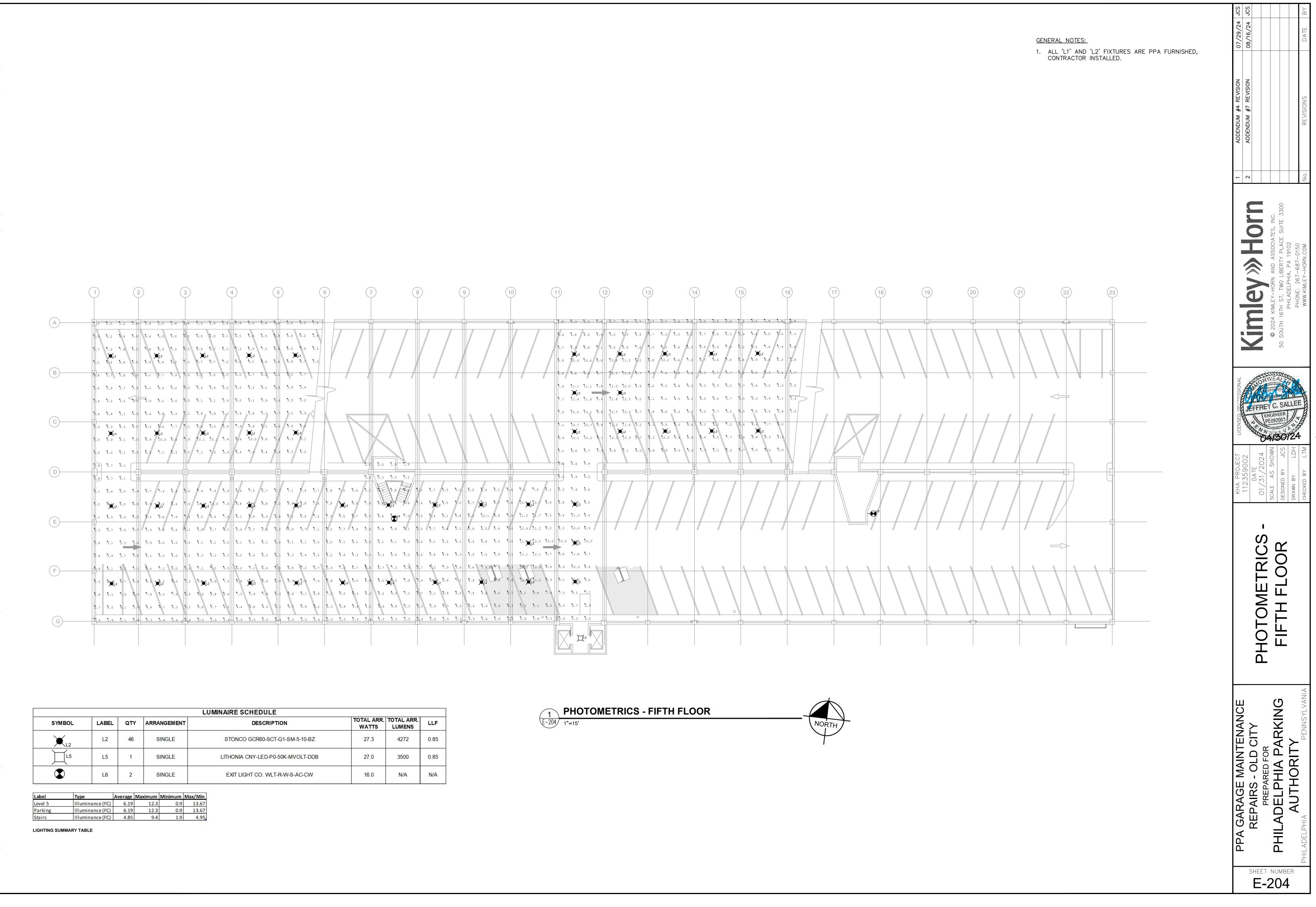




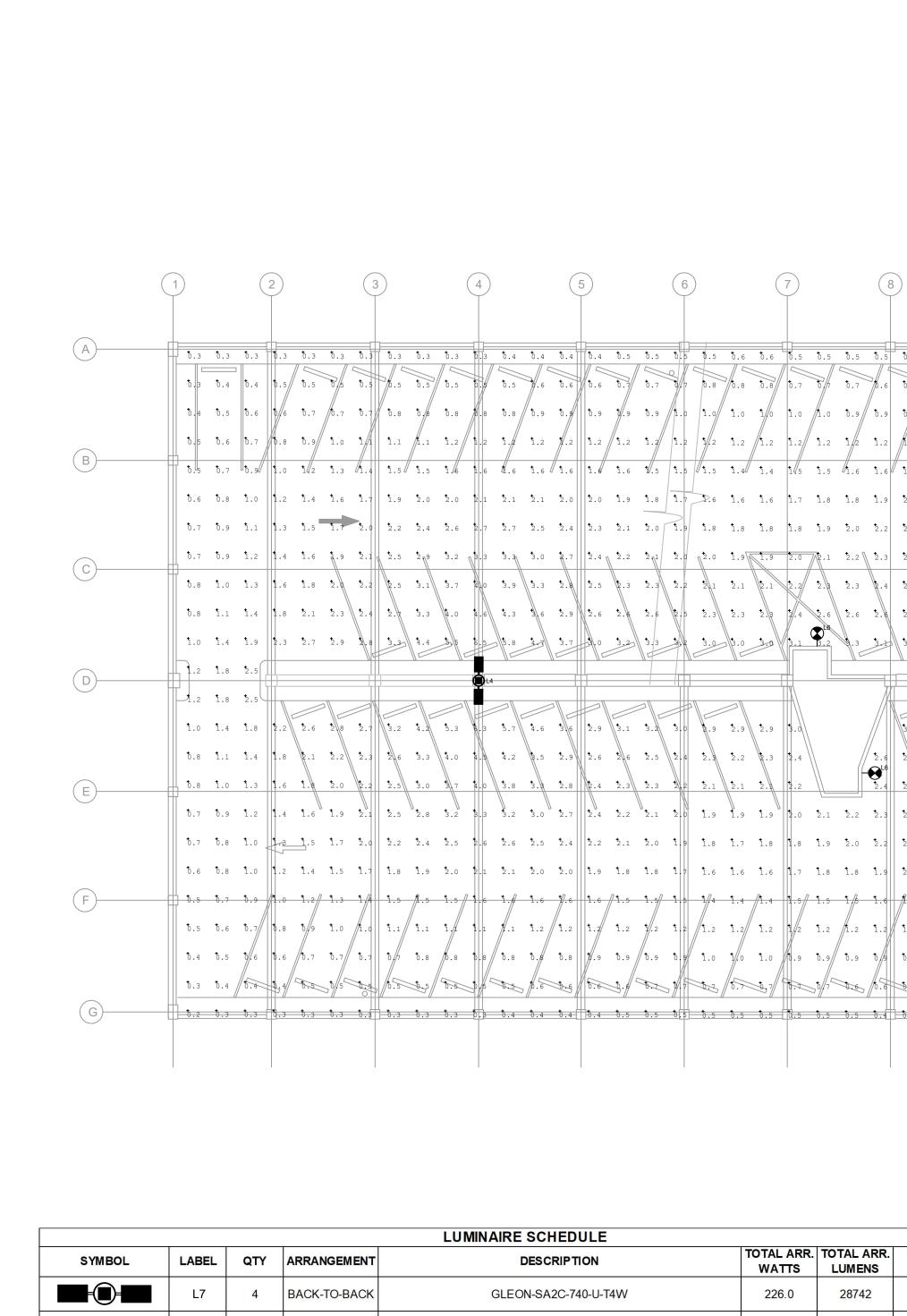
LIGHTING SUMMARY TABLE

GENERAL NOTES. 1. ALL L'I' AND 'L' ENTURES ARE PPA FURNSHE CONTRACTOR INSTALLED.	ADDENDUM #4 REVISION O7/29/24 JC ND ASSOCIATES, INC. ADDENDUM #7 REVISION 08/16/24 JCS ND ASSOCIATES, INC. ERTY PLACE SUITE 3300 No. REVISION 08/16/24 JCS RTY PLACE SUITE 3300 PA 19102 Mo. REVISIONS DATE DATE DATE
	FOUETRICS KHA PROJECT LICENSED Annenssional PHOTOMETRICS UDATE UDATE UDATE 01/31/2024 01/31/2024 ERGNED BY UCS ERGNED BY UCS FOURTH FLOOR ERGNED BY UCS ERGNED BY UCS ERGNED BY UCS PRADURTICS ERGNED BY UCS ERGNED BY UCS ERGNED BY UCS PRANDING ERGNED BY UCS ERGNED BY UCS ERGNED BY UCS PRANDING ERGNED BY UCS ERGNED BY UCS ERGNED BY UCS PRANDING ERGNED BY UCS ERGNED BY UCS ERGNED BY UCS
LLF 0.85 0.86 NM	PPA CARAGE MAINTENANCE PPA CARAGE MAINTENANCE REPAIRS - OLD CITY REPAIRS - OLD CITY PREPARS - OLD CITY PREPARS - OLD CITY PAURANA PAURANA AUTHORITY PHILADEL PHILA PARKING AUTHORITY PHILADEL PHILA PARKING AUTHORITY PHILADEL PHILA PARKING AUTHORITY PHILADEL PHILA PARKING





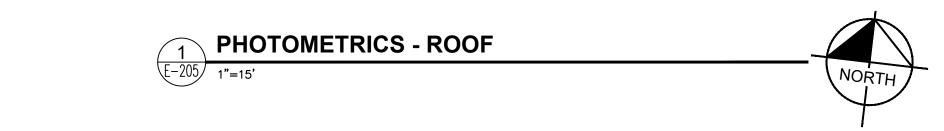
Label	Туре	Average	Maximum	Minimum	Max/Min
Level 5	Illuminance (FC)	6.19	12.3	0.9	13.67
Parking	Illuminance (FC)	6.19	12.3	0.9	13.67
Stairs	Illuminance (FC)	4.85	9.4	1.9	4.95



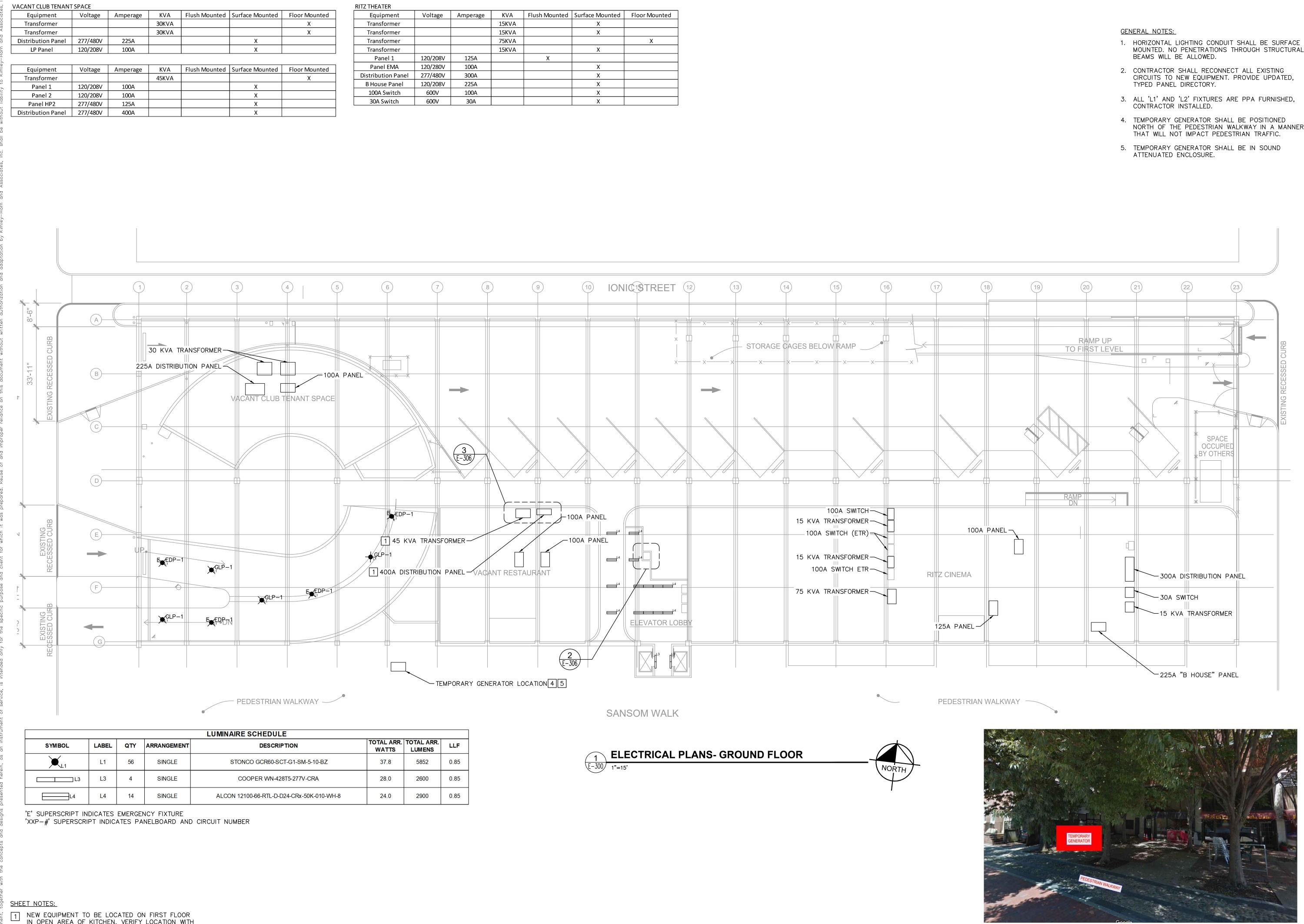
LUMINAIRE SCHEDULE								
SYMBOL	LABEL	QTY	ARRANGEMENT	DESCRIPTION	TOTAL ARR. WATTS	TOTAL ARR. LUMENS	LLF	BUG RATING
	L7	4	ВАСК-ТО-ВАСК	GLEON-SA2C-740-U-T4W	226.0	28742	0.85	B2-U0-G3
L5	L5	1	SINGLE	LITHONIA CNY-LED-P0-50K-MVOLT-DDB	27.0	3500	0.85	
	L6	4	SINGLE	EXIT LIGHT CO. WLT-R-W-S-AC-CW	16.0	N/A	N/A	

Label	Туре	Average	Maximum	Minimum	Max/Min
Roof Level	Illuminance (Fc)	1.68	6.5	0.2	32.5
LIGHTING SUMMARY TABLE					

8 9 10					(21) (22) (23)
5 b.4 b.4				b.s b.s <td></td>	
9 0,9 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	to.8 to.8 to.8 to.7 to.7 to.7 to.8 to.8 to.8	8 t.8 t.8 t.8 t.8 t.8 t.8 t.8	9 6.9 6.9 6.9 1.0 1.0 1.0 1.0	t.o 1.0 0.9 0.9 0.9 0.9 0.8 0.8 0.8 0.8 0.8	to.8 to.7 to.7 to.7 to.6 to.5 to.5 to.4
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9 2.0 2.1 2.1 2.1 2.1 2.0 2.0 1.8 1.7 1.6	1.4 1.3 1.1 1.1 1.1 1.1 1.2 1.3 1.5	5 1.6 1.7 1.9 2.0 2.0 2.1 2.1 2	.1 2.1 2.0 1.9 1.8 1.8 1.7 1.6 1.6	1.7 1.8 1.8 1.9 2.0 2.0 2.1 2.1 2.1 2.0 1.9	1 8 1.7 1.5 1.3 1.1 b.9 b.7 b.6
				1.8 1.9 2.0 2.1 2.3 2.5 2.6 2.7 2.7 2.5 2.4 $\overline{M}/0$ 2.0 $\overline{/2}.1$ 2.2// 2.5 2.// 3.1 $\overline{/3}.3$ $\overline{/3}.1$ 2.//	
				1 1 2.2 1 1 2.3 1 2.5 1 2.9 1 3.5 1 4.0	
	1 1.8 1.6 1.4 1.4 1.4 1.6 1.9 1.1 2.6 2.3 2.0 1.8 1.7 1.8 2.1 2.4 2.7			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
	3.0 2.4 2.0				2.2 1.6
3.3 4.3 5.4 3 5.6 4.6 3.6 2.8 2.9 GUARE	D2V6A12.5 1.9 1.7 1.8 2.0 28 2.6	5 2.9 2.8 2.9 3 .8 4.9 5.0 5.1 5	1 4.0 3.1 3.0 9.2 3.1 3.0	3.0 3.1 3.2 3.1 3.4 3.9 \$.0 6.0 6.0 5.9 3.8	2.2 1.6 1.0 2.9 2.8 2.8 2.5 2.1 1.7 1.3 0.9
6 2.8 3.4 4.0 4.5 4.2 3.5 2.8 2.4 2.4 2.2	2.0 1.8 1.5 1.4 1.4 1.4 1.6 1.8 2.1	* 2.3 * 2.4 * 2.5 * 3.0 * 3,7 * 4.4 * 4.4 * 3	8 3.2 2.7 2.6 2.6 2.6 2.4	2.3 2.5 2/6 2.6 2.6 3.1 3.8 4.4 4.4 5.7 3.0	2.5 2.3 2.2 2.0 1.6 1.3 1.0 0.7
4 2.7 3.1 3 7 4.0 3.8 3.3 2.7 2.3 2.1 2.0 3 2.6 2.9 3.2 3.3 3.2 3.0 2.6 2.2 2.0 1.8				2/1 2.2 2.3 2.3 2.5 2.8 3.5 8.9 3.9 3.5 2.9 2.0 2.0 2.1 2.2 2.5 2.8 3.1 3.3 3.2 3.0 2.7	
				1.8 1.9 2.0 2.1 2.3 2.4 2.5 2.6 2.6 2.5 2.3	
				1.6 1.7 1.8 1.9 2.0 2.0 2.1 2.0 2.0 1.9 1.5 1.5 1.6 1.6 1.6 1.6 1.6 1.5 1.5	
2 1.2 1.2 1.2 1.2 1.1 1.2 1.1 1.1 1.1 1.	1.0 t/9 t.9 t.8 t.8 t.9 t.9 t.0 t.0	1.1 1.1 1.1 1.1 1.2 1.1 1.2 1	2 1 .2	1.2 1.2 1.2 1.2 1.2 1.2 1.1 1.1	1 1.0 5.9 5.9 5.8 5.7 5.6 5.4
	b.s b.7 b.7 b.7 b.7 b.7 b.7 b.7 b.8 b.8 <td></td> <td>8 0.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 5 0.6 0.6 0.7 0.7 0.7 0.7 0.7</td> <td>1.0 b.9 b.9 b.9 b.9 b.8 b.8 b.8 b.8 b.8 b.8 b.8 b.8 b.8</td> <td>b.7 b.7 b.7 b.6 b.6 b.6 b.5 b.4</td>		8 0.0 0.9 0.9 0.9 0.9 1.0 1.0 1.0 5 0.6 0.6 0.7 0.7 0.7 0.7 0.7	1.0 b.9 b.9 b.9 b.9 b.8 b.8 b.8 b.8 b.8 b.8 b.8 b.8 b.8	b.7 b.7 b.7 b.6 b.6 b.6 b.5 b.4
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07/29/24 JCS	08/16/24 JCS					DATE BY
ADDENDUM #4 REVISION	ADDENDUM #7 REVISION					REVISIONS
-	7					No.
	Kimlevikhorn		© 2024 KIMLEY-HORN AND ASSOCIATES, INC.	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	phone: 267-687-0150	WWW.KIMLEY-HORN.COM
DPPCESSIONAL	E STATE	STORE FRE	SSS WE GISTER FE SI Y C	ALT EDNAL SA		
KHA PROJECT LICENSED PROF	112359002 DATF	01/31/2024	SCALE AS SHOWN	DESIGNED BY JCS	DRAWN BY LDH	снескер ву LTM
		PHOTOMETRICS - 01/31/2024	SCALE AS	~		CHECKED BY LTM
		PHOTOMETRICS 01/31/	SCALE AS			PENNSYLVANIA



IN OPEN AREA OF KITCHEN. VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION. EXTEND AND RECONNECT ALL EXISTING CIRCUITS.

Amperage	KVA	Flush Mounted	Surface Mounted	Floor Mounted
	15KVA		Х	
	15KVA		Х	
	75KVA			Х
	15KVA		Х	
125A		Х		
100A			Х	
300A			Х	
225A			Х	
100A			Х	
30A			Х	

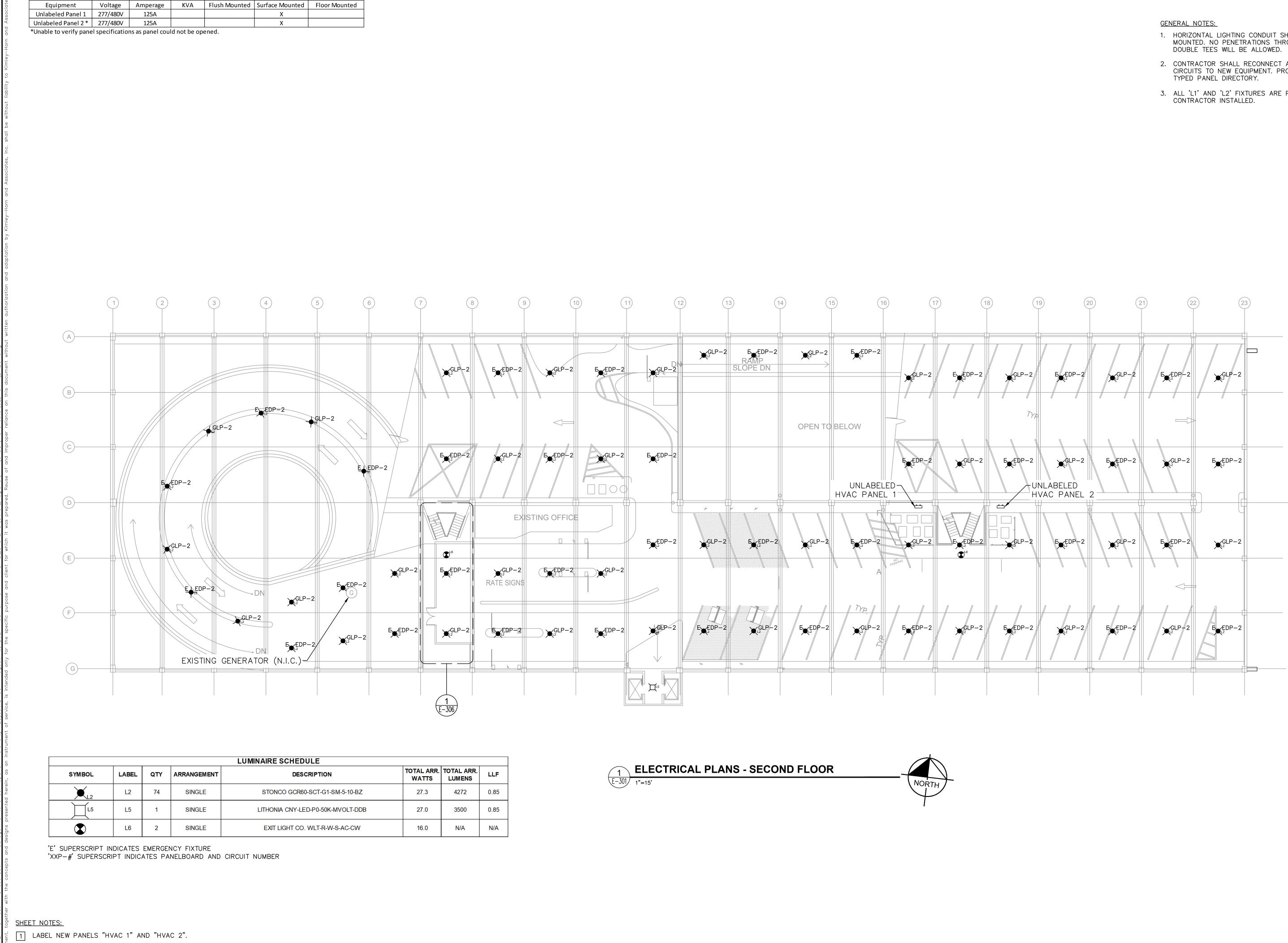
.F	
35	
35	
35	

- MOUNTED. NO PENETRATIONS THROUGH STRUCTURAL

- NORTH OF THE PEDESTRIAN WALKWAY IN A MANNER

TEMPORARY GENERATOR LOCATION

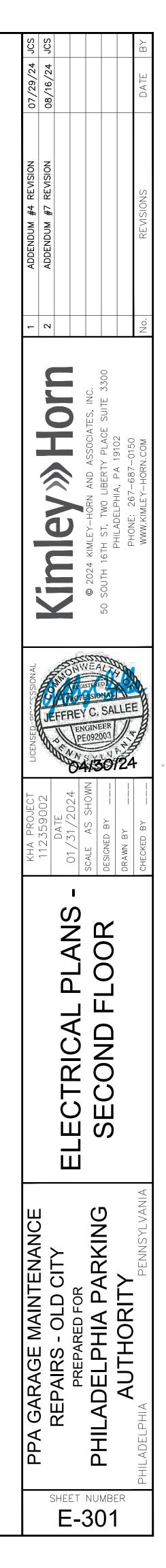
	ADDENDUM #/ REVISION 08/16/24 JCS				REVISIONS DATE BY
C	N				No.
	KIMIey »Horn	© 2024 KIMLEY-HORN AND ASSOCIATES, INC.	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	PHILADELPHIA, PA 19102 Philants and alea	WWW.KIMLEY-HORN.COM
ICENSED DE SSIONAL	EFFRI	COISTE COISTE DEE SII Y C ENGIN PE092	ALT ED SA EER 2003		E
	E 2024	NMOHS	X NCS	НОЛ	
KHA PROJECT LIC 112.359002		SCALE AS	DESIGNED BY JCS	DRAWN BY LDH	CHECKED BY LTM
	FIECTRICAL PLANS. 01/31/2024	SCALE AS	→		CHECKED BY LTM

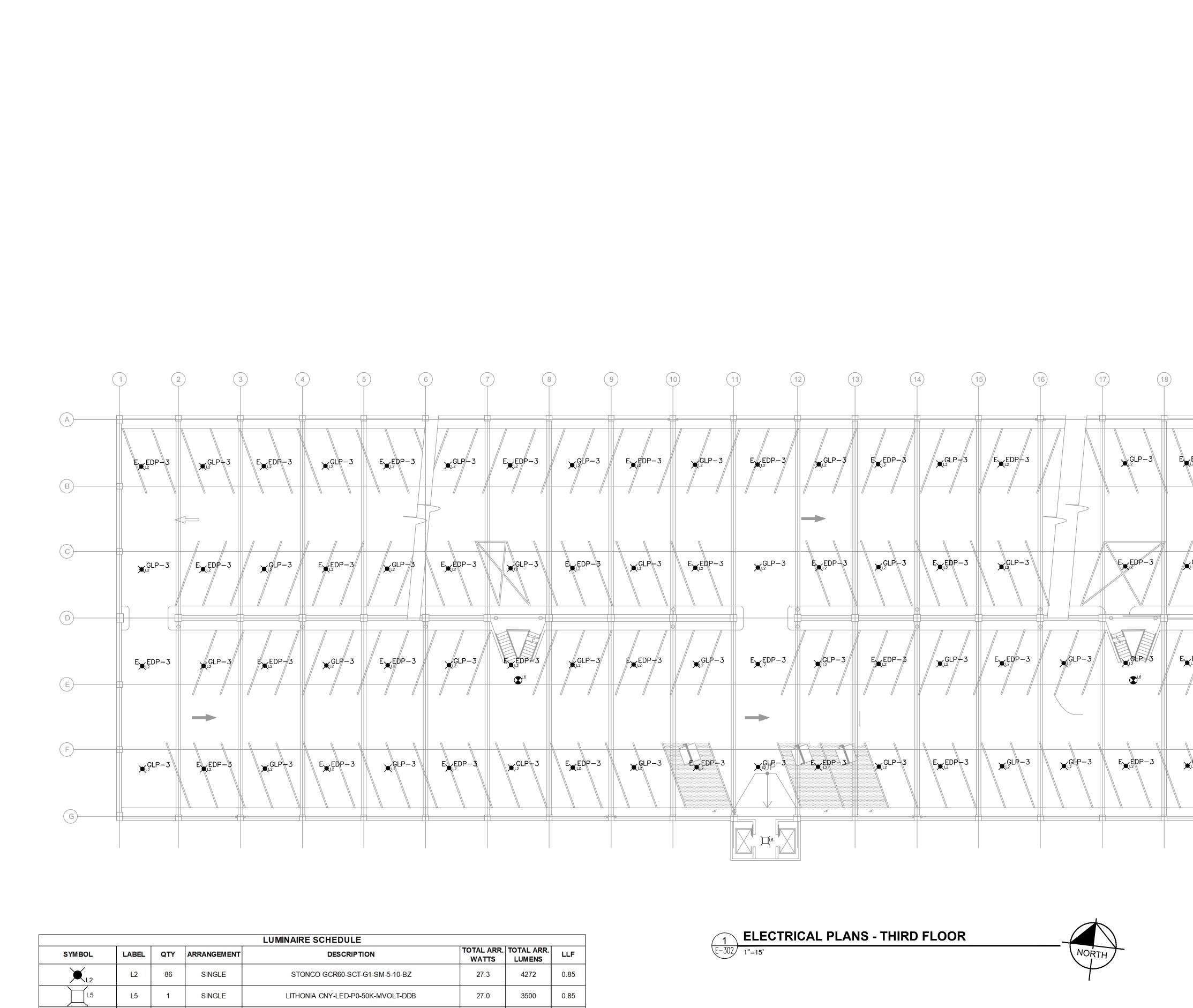


LLF
0.85
0.85
N/A



- 1. HORIZONTAL LIGHTING CONDUIT SHALL BE SURFACE MOUNTED. NO PENETRATIONS THROUGH STRUCTURAL
- 2. CONTRACTOR SHALL RECONNECT ALL EXISTING CIRCUITS TO NEW EQUIPMENT. PROVIDE UPDATED,
- 3. ALL 'L1' AND 'L2' FIXTURES ARE PPA FURNISHED,





'E' SUPERSCRIPT INDICATES EMERGENCY FIXTURE 'XXP-#' SUPERSCRIPT INDICATES PANELBOARD AND CIRCUIT NUMBER

2

SINGLE

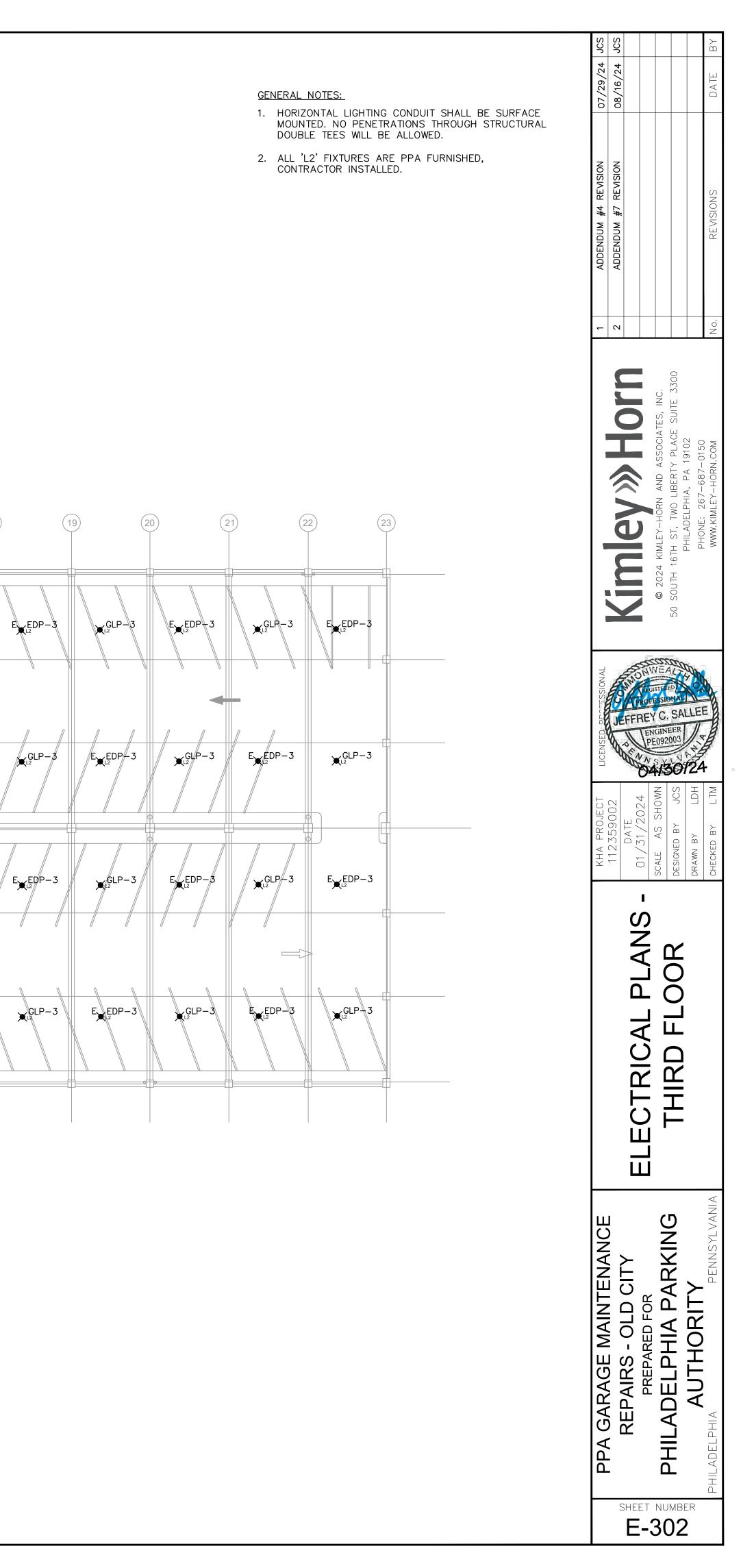
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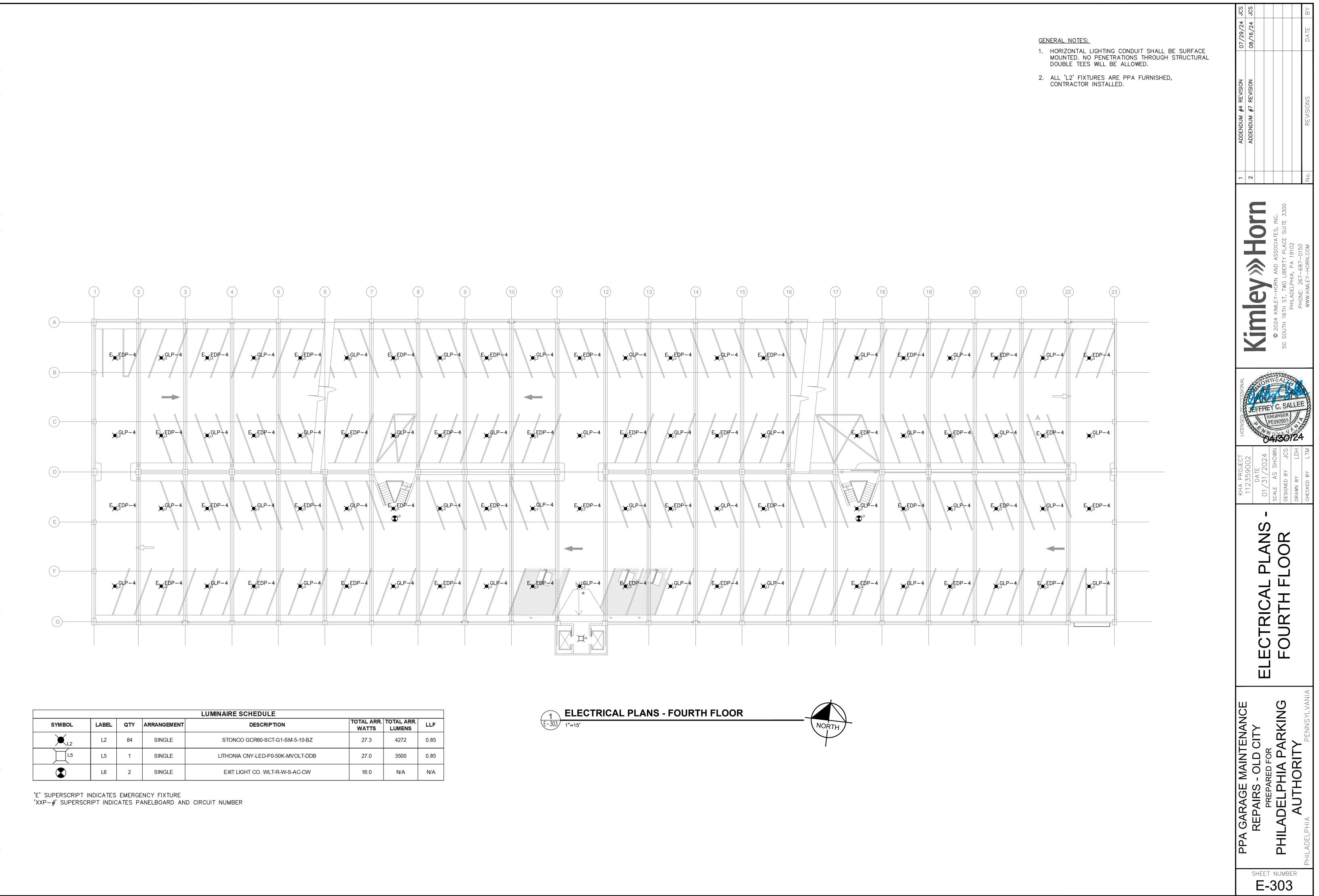
L6

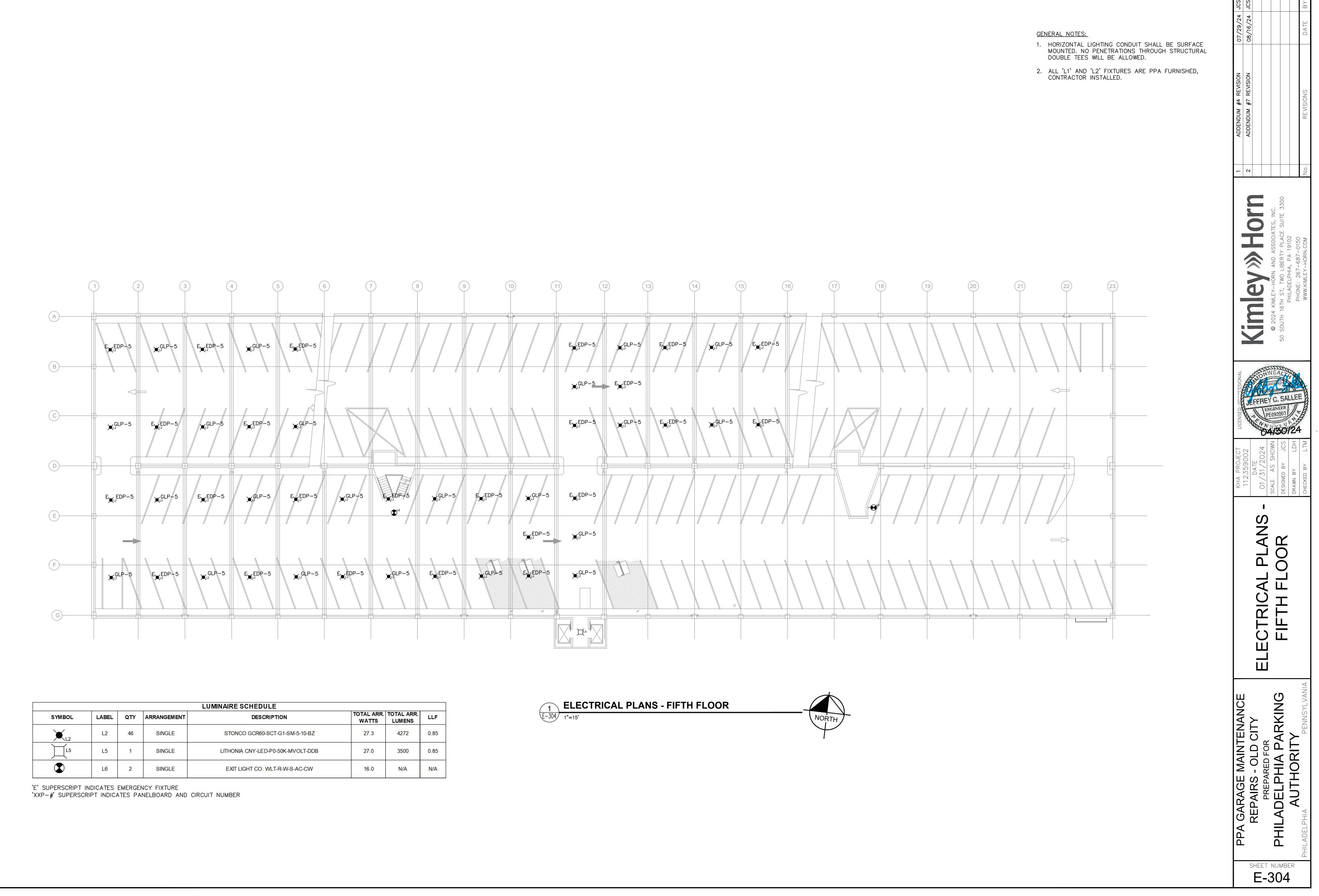
N/A

16.0

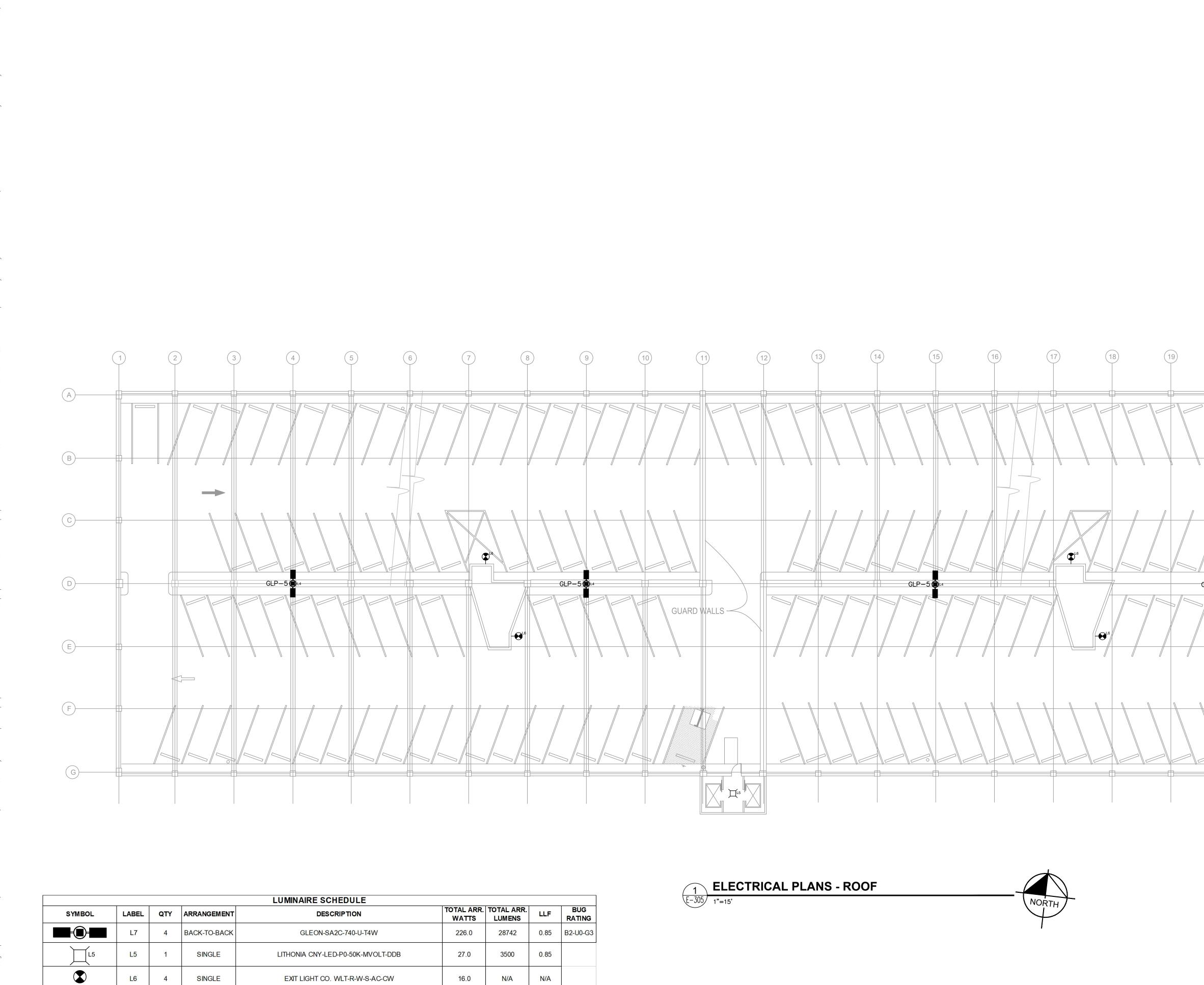
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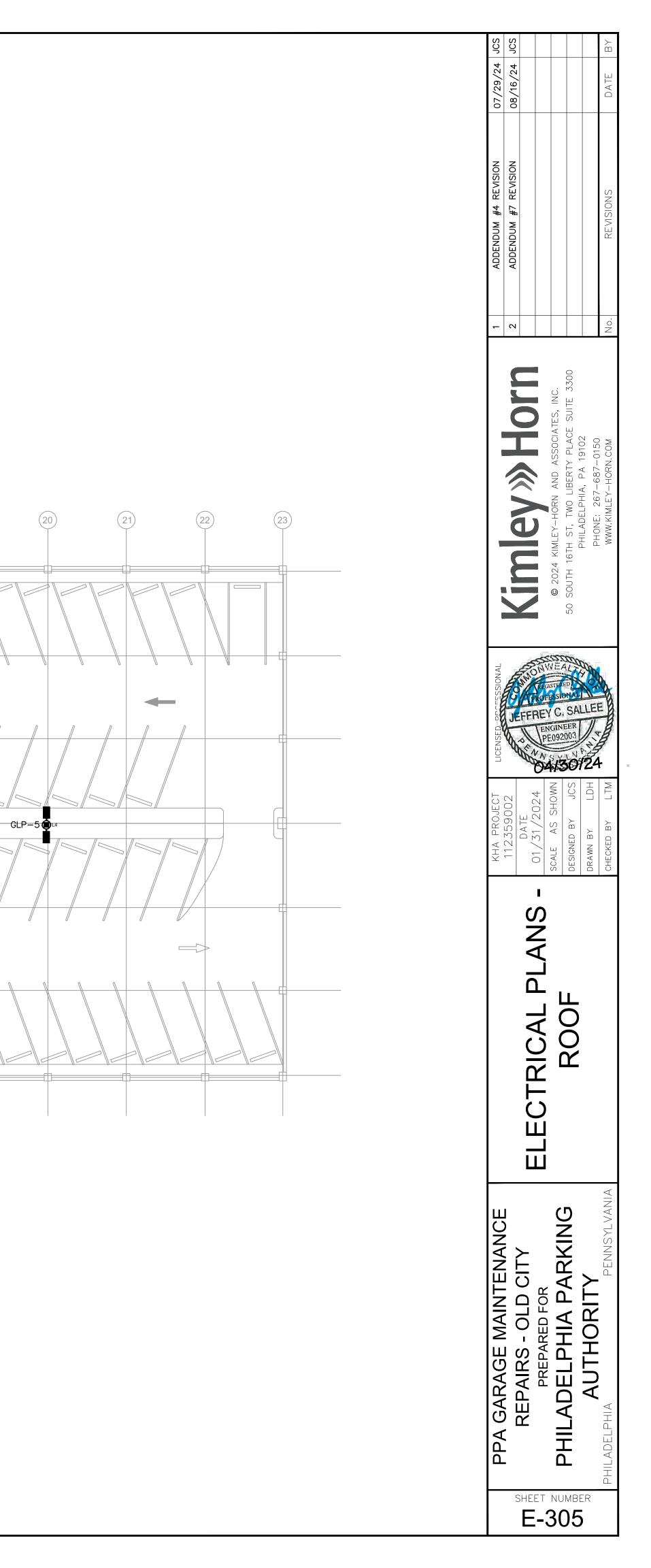


LLF
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0.85
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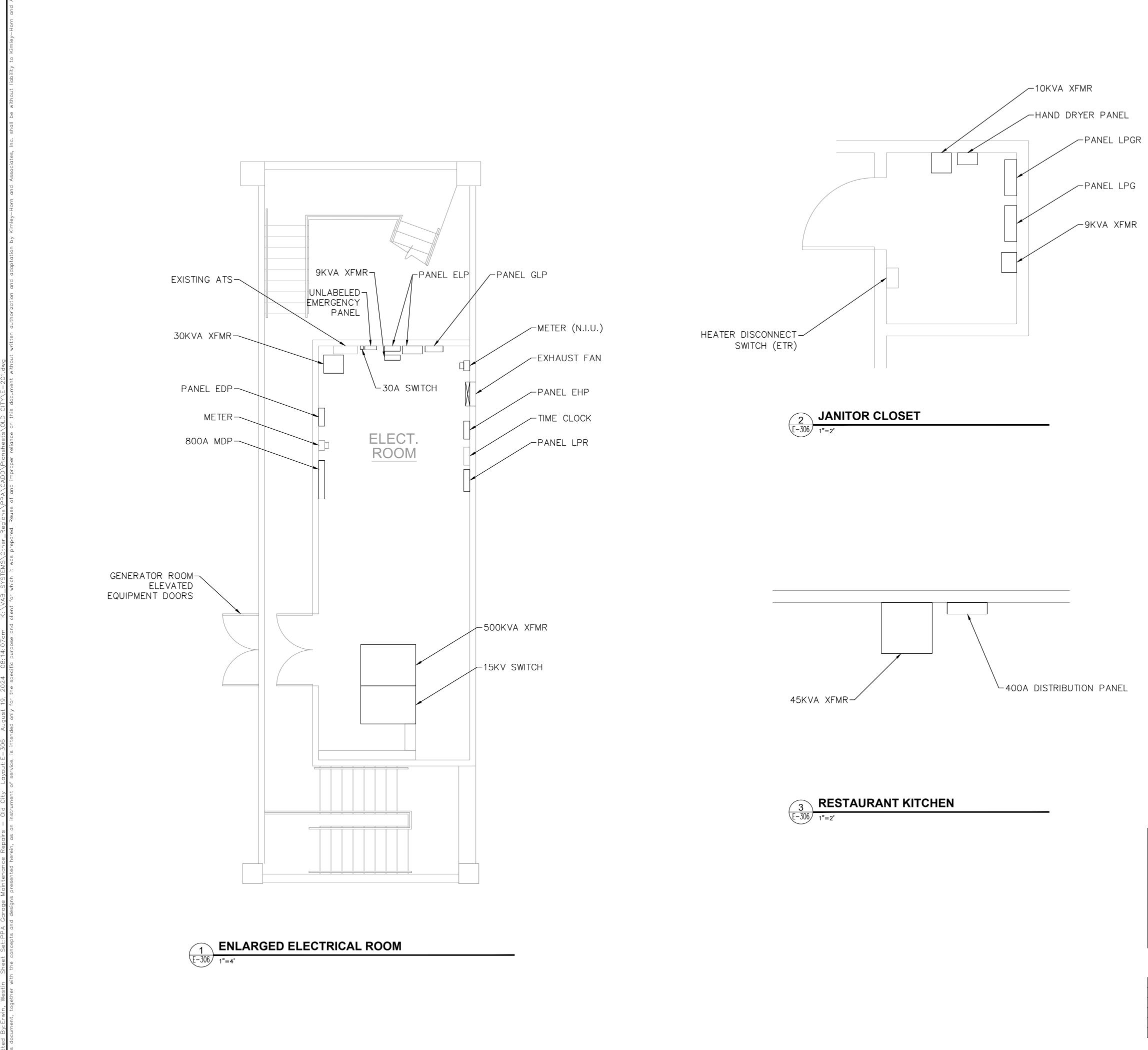


'XXP-#' SUPERSCRIPT INDICATES PANELBOARD AND CIRCUIT NUMBER

LLF	BUG RATING
0.85	B2-U0-G3
0.85	
N/A	



(19)



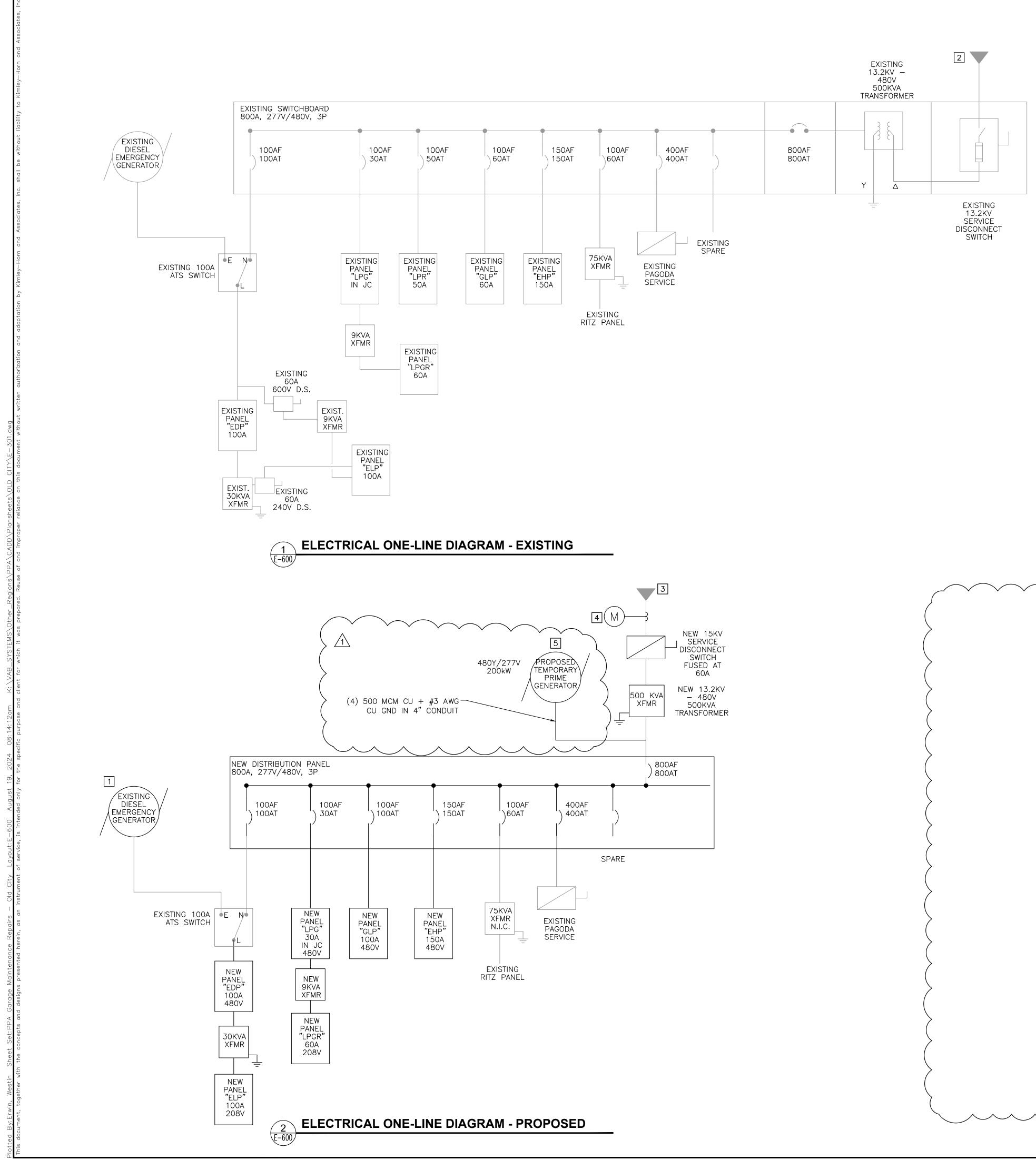
GENERAL NOTES:

- 1. EQUIPMENT TO BE DEMOLISHED SHALL BE TURNED OVER TO PPA. IF PPA DOES NOT WANT EQUIPMENT, THE EQUIPMENT SHALL BECOME CONTRACTOR'S PROPERTY AND RESPONSIBILITY TO REMOVE FROM THE SITE.
- CONTRACTOR SHALL RECONNECT ALL EXISTING CIRCUITS TO NEW EQUIPMENT. PROVIDE UPDATED, TYPED PANEL DIRECTORY.
- CONFIRM WITH 15KV SWITCH MANUFACTURER THAT SWITCH CAN BE LAID DOWN WHEN BEING BROUGHT INTO THE ELECTRICAL ROOM.

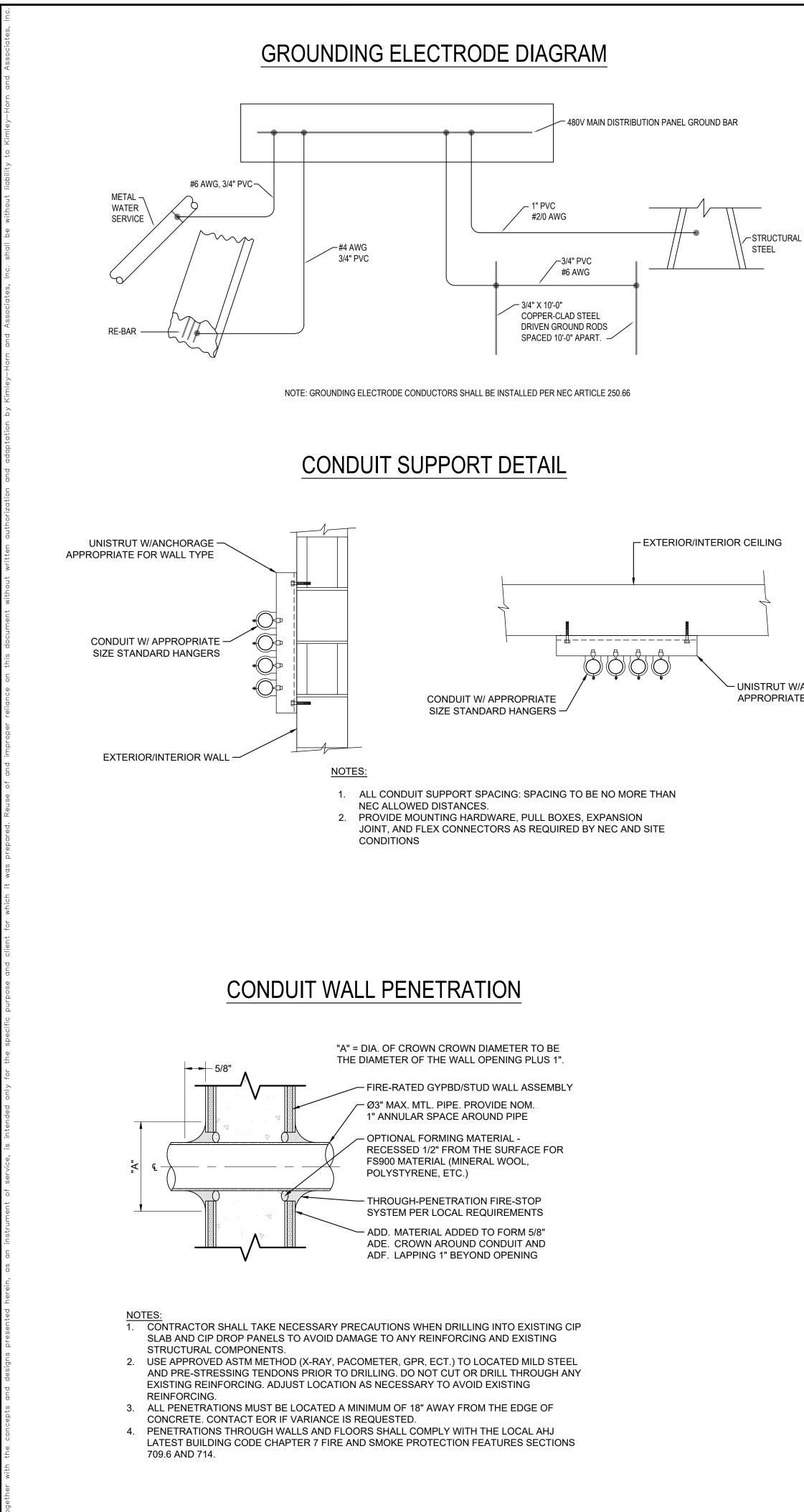
ENLARGED ELECTRICAL	ROOM					
Equipment	Voltage	Amperage	KVA	Flush Mounted	Surface Mounted	Floor Mounted
Transformer			9KVA		Х	
Transformer			30KVA			Х
Transformer			500KVA			Х
MDP	277/480V	800A			Х	
Panel EHP	277/480V	150A			Х	
Panel LPR	277/480V	30A			Х	
Panel GLP	277/480V	100A			Х	
Panel ELP	277/480V	225A			Х	
Emergency Panel	600V	30A			X	
Panel EDP	120/208V	100A			Х	
15KV Switch	13.2KV	100A				Х

_	JANITOR CLOSET						
	Equipment	Voltage	Amperage	KVA	Flush Mounted	Surface Mounted	Floor Mounted
	Transformer			9KVA		X	
	Transformer			10KVA		X	
	Panel LPG	277/480V	100A			X	
	Panel LPGR	120/208V	60A			X	
	Hand Dryer Panel	120/208V	60A			X	
-	Transformer Panel LPG Panel LPGR	120/208V	60A			X X X X X X	

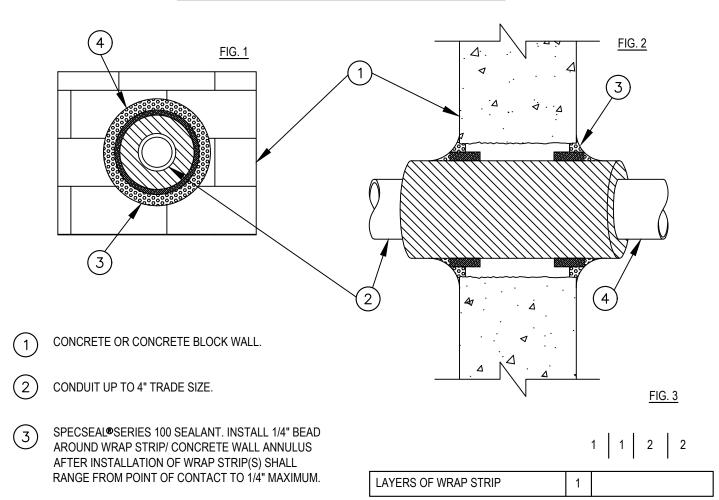
JCS	JCS						ВΥ
07/29/24 JCS	08/16/24 JCS						DATE
ADDENDUM #4 REVISION	ADDENDUM #7 REVISION						REVISIONS
~	2						No.
				© 2024 KIMLEY-HORN AND ASSOCIATES, INC.	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300 dhii adfidhia da 19103	PHONE 267-687-0150	WWW.KIMLEY-HORN.COM
KHA PROJECT LICENSED PROFESSIONAL	2359002	DATE TANK TANK TANK	E PE N	C. NMOHS SP	ER V V SON	BY LDH RATE IN THE REAL	D BY LTM
KHA KHA	1123			SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
						NOOK	
PPA GARAGE MAINTENANCE			PREPARED FOR			AUTHORITY	PHILADELPHIA PENNSYLVANIA
	S	HEE E			мве)6		



/24 <u>SHEET NOTES:</u> GENERATOR REPLACED IN 2023 THROUGH A
 SEPERATE PROJECT 80 2 COORDINATE SERVICE SHUTDOWN WITH PECO 3 COORDINATE SERVICE ENERGIZATION WITH PECO 4 OBTAIN METER FROM PECO TEMPORARY GENERATOR TO BE PRIME POWER 芇 문 #7 DURING DEMOLITION OF EXISTING SERVICE AND INSTALLATION OF PROPOSED SERVICE EQUIPMEN 1CONTRACTOR SHALL COORDINATE WITH PPA 2 WEEKS IN ADVANCE OF UTILITY POWER DISCONNECT AND UTILITY POWER RECONNECT. - N OL \otimes >Kiml O O 0 204/30/24 \sim DA 231 E LINE DIAGRAMS AND PANEL SCHEDULES ONE PPA GARAGE MAINTENANCE REPAIRS - OLD CITY PREPARED FOR PHILADELPHIA PARKING AUTHORITY SHEET NUMBER E-600



CONDUIT PENETRATION



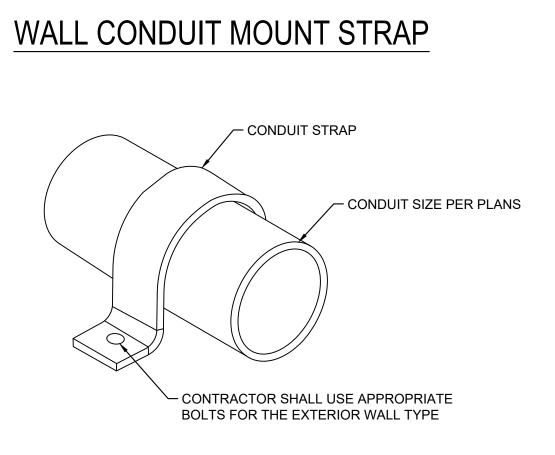
SPECSEAL[®](SSW12 OR SSWRED) WRAP STRIP. WRAP PRODUCT AROUND CONDUIT, SECURE STEEL TIE 4 WIRE, AND RECESS 1-3/4" INTO WALL CAVITY. SEE FIG. 3 FOR THE NUMBER OF LAYERS REQUIRED.

<u>NOTE:</u>

THE PRODUCTS USED IN THIS DESIGN SYSTEM HAVE BEEN TESTED AS FOLLOWS: ASTM E814 (UL1479)

ASTM E119 (TIME/ TEMP. EXPOSURE) (COTTON WASTE IGNITION) ANNULAR SPACE REQUIREMENTS

UNISTRUT W/ANCHORAGE APPROPRIATE FOR CEILING TYPE



ADDENDUM #4 REVISION 07/29/24 JCS ADDENDUM #7 REVISION 08/16/24 JCS					o. REVISIONS DATE BY
1		S 2823 KIMLEY-HORN AND ASSOCIATES. INC:	50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300	PHILADELFRIA, FA 19102 PHONE: 267-687-0150	WWW.KIMLEY-HORN.COM
KHA PROJECT LICENSED PROFESSIONAL	FFRE	SCALE AS SHOWN AS MORE AS SCALE AS SHOWN	SA	DRAWN BY LDH	CHECKED BY LTM
		പ്പ			
		DETAILS			

<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

			125	MCB Ma	in AIC: N/	A Branch	AIC: 18,00	0 ENCL	(NEMA)	:1 MT	G: Surfac	e			
					225 Amp F	rame , Gro	ound Bar, I	_ocking Co	ver, Pan	el Card.					
Departmention of Load Conved	Br	eaker	Wire		A/Phase			CKT No.		A /Phase		Wire	Brea	aker	Departmention of Lood Convol
Description of Load Served	Amp	Pole		Α	В	C	$\int CK I NO.$	CKT NO.	А	В	С	vire	Amp	Pole	Description of Load Served
				EX			1	2	EX						
MAIN CIRCUIT BREAKER 125	125	3	EX		EX		3	4		EX		EX	50	3	HEATING
						EX	5	6			EX	1			
				EX			7	8	EX						
HEAT + AIR INSIDE UNIT	70	3	EX		EX		9	10		EX		EX	40	3	208Y/120 TRANSFORMER
						EX	11	12			EX				
LIGHTS	20	1	EX	EX			13	14	EX						
LIGHTS	20	1	EX		EX		15	16		EX		EX	50	3	O.S. A.C.
SPACE						EX	17	18			EX				
	I		1	1	1	1	1	1 1		1		1		I	

1 E-602 225A DISTRIBUTION PANEL - CLUB TENANT N.T.S.

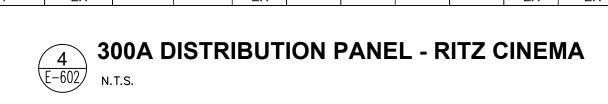
							Panel Sch								
		Existin	ng 100A Pane								e: 3 Wire	e: 4 Hertz	: 60		
			N	1LO Main			,	,	,		Surface				
	100 Amp Frame , Ground Bar, Locking Cover, Panel Card.														
Description of Load Served	Br	eaker	Wire		APhase			CKT No.		APhase		Wire	Brea	aker	Description of Load Served
	Amp	Pole	VVIIC	A	В	C			Α	В	C	VVIIC	Amp	Pole	Description of Load Oct Ved
MEN'S LIGHTS (DIMMER)	20	1	EX	EX			1	2	EX			EX	20	1	MEN'S SHOW CASE LIGHTS (DIM)
MEN'S LIGHT	15	1	EX		EX		3	4		EX		EX	20	1	MEN'S SHOW CASE LIGHTS
STOCK ROOM PERIMETER LIGHTS	20	1	EX			EX	5	6			EX	EX	20	1	FRONT STORE LIGHTS
STOCK ROOM PERIMETER LIGHTS	15	1	EX	EX			7	8	EX			EX	20	1	FRONT STORE LIGHTS
WOMENS SHOW CASE LIGHTS	15	1	EX		EX		9	10		EX		EX	20	1	PORCH LIGHTS
OMENS SHOW CASE LIGHTS (DIMMER)	20	1	EX			EX	11	12			EX	EX	20	1	HEAT
WOMENS LIGHTS (DIMMER)	20	1	EX	EX			13	14	EX			EX	15	1	EMERGENCY LIGHT MEN
POWER PAC	20	1	EX		EX		15	16		EX		EX	20	1	BELL TELEPHONE CIRCUIT
EMERGENCY LIGHTS WOMEN	30	1	EX			EX	17	18			EX	EX	20	1	RECEPTACLE AND TIME CLOCK
HOT WATER HEATER	15	1	EX	EX			19	20	EX			EX	20	1	SPARE
EXISTING	15	1	EX		EX		21	22		EX		EX	20	1	CASH REGISTER
WOEMNS LIGHTS	20	1	EX			EX	23	24			EX	EX	20	1	RECEPTACLE - BATHROOM
AC	20	1	EX	EX			25	26	EX			EX	15	1	ALARM
SPARE	20	1	EX		EX		27	28		EX		EX	20	1	SPARE
FAN LIGHTS	20	1	EX			EX	29	30			EX	EX	20	1	SPARE

2 E-602 **100A PANEL - CLUB TENANT** N.T.S.

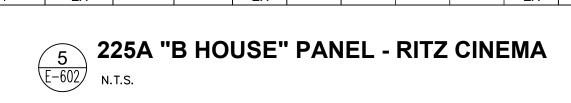
							Panel Sch	nedule							
			Existing 125	5A Panel	Location: 7				7V Pha	ase: 3 V	Vire: 4	Hertz: 60			
			ML	O Main A	AIC: N/A B	ranch AIC	C: Unknow	n ENCL	(NEMA):	1 MTC	G: Surface	Э			
				1	125 Amp Fr	ame , Gro	ound Bar,	Locking Co	over, Pane	el Card.					
Description of Load Served	Br	reaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	vviie	А	В	C			А	В	C	VIIe	Amp	Pole	Description of Load Served
BOXOFFICE	20	1	EX	EX			1	2	EX			EX	20	1	WOMENS BATH
UPSTAIRS SODA	20	1	EX		EX		3	4		EX		EX	20	1	A CEILING LIGHTS
UPSTAIRS STORAGE ROOM	20	1	EX			EX	5	6			EX	EX	20	1	TICKET CEILING
RECEPT IN FRONT WALL B-SCREEN	20	1	EX	EX			7	8	EX			EX	20	1	BEHIND COUNTER LIGHTS
FRONT WALL RECEPTACLES	20	1	EX		EX		9	10		EX		EX	20	1	EXIT / EM BACK WALL
TICKET BOOTH	20	1	EX			EX	11	12			EX	EX	20	1	EXISTING
EXISTING LOBBY RECEPTICLES	20	1	EX	EX			13	14	EX			EX	20	1	EXISTING
TICKET BOOTH	20	1	EX		EX		15	16		EX		EX	20	1	CANOPY FRONT EAST
FIRE ALARM PANEL	20	1	EX			EX	17	18			EX	EX	20	1	CANOPY LIGHT WEST
TICKET BOOTH	20	1	EX	EX			19	20	EX			EX	20	1	MENS ROOM
RECEPT BELOW PANEL	20	1	EX		EX		21	22		EX		EX	20	1	EXISTING
RECEPT BELOW PANEL - BOTTOM	20	1	EX			EX	23	24			EX	EX	20	1	FEED FOR-C-LOBBY FIXTURES
COUNTER	100	2	EX	EX			25	26	EX			EX	20	1	WATER COOLER
PANEL	100	۷			EX		27	28		EX		EX	20	1	LOBBY RECEPTACLE BY OFFICE
OFFICE COMPUTER	20	1	EX			EX	29	30			EX	EX	20	1	EXIT / EMERGENCY FRONT
EXHAUST FANS	20	1	EX	EX			31	32	EX			EX	20	1	SPARE
HOT WATER HEATER	50	2	EX		EX		33	34		EX		EX	20	1	TEMP LIGHTS
	50	۷				EX	35	36				EX	20	1	SPARE

125 PANEL - RITZ CINEMA 3 E-602 N.T.S.

							Panel Sch								
		Existi	ng 300A Dis	tribution Pa	inel Loca	tion: Thea	ater Office	Volts: 20	8Y/120V	Phase:	3 Wire:	4 Hertz:	60		
			Μ	LO Main	AIC: N/A	Branch A	IC: 10,000	ENCL. (NEMA):	1 MTG	: Surface				
				2	225 Amp Fi	rame , Gro	ound Bar, I	_ocking Co	ver, Pan	el Card.					
Description of Load Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	vviie	А	В	C			А	В	C	vvie	Amp	Pole	Description of Load Served
				EX			1	2	EX						
DIGITAL PROJECTOR	60	3	EX		EX		3	4		EX		EX	30	3	RECTIFIER
						EX	5	6			EX				
MANUAL CONTROL PANEL	20	1	EX	EX			7	8	EX			EX	20	1	PROJECTOR MTR
CHRISTIE PLATTER	20	1	EX		EX		9	10		EX		EX	20	1	EXISTING
REAR LIGHTS / RECEPTACLES	20	1	EX			EX	11	12			EX	EX	20	1	WALL LIGHTS FRONT
DIMMER HOUSE LIGHTS	20	1	EX	EX			13	14	EX			EX	20	1	MASKING MOTOR
VAIN FOR CANDY STAND AND LOBY					EX		15	16		EX		EX	20	1	EXISTING
PANELS	100	3	EX			EX	17	18			EX	EX	20	1	OUTSIDE REC LOBBY EXIT DOOF
FANELS				EX			19	20	EX			EX	20	1	HOUSE LIGHTS
SPARE	20	1	EX		EX		21	22		EX		EX	20	1	FLOOD LIGHTS
SPARE	20	1	EX			EX					EX	EX	20	1	CLEANING LIGHTS



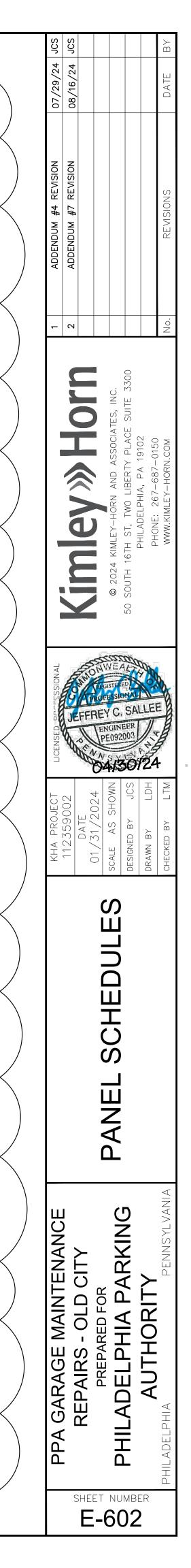
							Panel Sch	nedule
		Exis	ting 225A B H	IOUSE Pa	nel Locat	ion: Thea	ter Office	Volts: 2
			M	LO Main	AIC: N/A	Branch A	IC: 10,000	ENCL.
				2	225 Amp Fi	rame , Gro	ound Bar, I	Locking C
Description of Load Served	Bi	reaker	Wire		A/Phase		CKT No.	
	Amp	Pole	vvie	А	В	С		
				EX			1	2
DIGITAL PROJECTOR	60	3	EX		EX		3	4
						EX	5	6
MANUAL CONTROL PANEL	20	1	EX	EX			7	8
CHRISTIE PLATTER	20	1	EX		EX		9	10
REAR LIGHTS / RECEPTACLES	20	1	EX			EX	11	12
DIMMER HOUSE LIGHTS	20	1	EX	EX			13	14
MAIN FOR CANDY STAND AND LOBY					EX		15	16
PANELS	100	3	EX			EX	17 ·	18
T ANELS				EX			19	20
SPARE	20	1	EX		EX		21	22
SPARE	20	1	EX			EX		



							Panel Sch	nedule							
		Existing	Sound Panel	Location	: Near The	ater Con	cession St	and Volts	: 240Y/12	20V Pha	ase:3 V	Vire: 4 He	rtz: 60		
			Μ	LO Main	AIC: N/A	Branch A	JC: 10,000	ENCL.	(NEMA):	1 MTG	: Surface				
					100 Amp Fr	rame , Gr	ound Bar, I	Locking Co	ver, Pane	el Card.					
Description of Load Served	Br	eaker	Wire	A/Phase				CKT No.	A/Phase			Wire	Bre	aker	Departmention of Load Sorriad
Description of Load Served	Amp	Pole	vire	A	В	C		URT NO.	А	В	C		Amp	Pole	Description of Load Served
SOUND RACK REC #1	20	1	EX	EX			1	2	EX						
SOUND RACK REC #2	20	1	EX		EX		3	4		EX		EX	30	3	EXISTING
SOUND RACK REC #3	20	1	EX			EX	5	6			EX				
SOUND RACK REC #4	20	1	EX	EX			7	8	EX			EX	20	1	OUTLET DIGITAL
SOUND RACK REC #5	20	1	EX		EX		9	10		EX		EX	20	1	EXISTING
SOUND RACK REC #6	20	1	EX			EX	11	12			EX	EX	20	1	EXISTING
SPACE							13	14	EX			EX	20	1	EXISTING
SPACE							15	16							SPACE
SPACE							17	18						2	SURGEBREAKER
SPACE							19	20]	2		JURGEBREAKER



Volts: 20	8Y/120V	Phase: 3	3 Wire:	4 Hertz:	60		
ENCL.	(NEMA): [·]	1 MTG:	Surface				
_ocking Co	over, Pane	el Card.					
		A/Phase		Miro	Brea	aker	Description of Load Served
GRT NU.	А	В	С	vvire	Amp	Pole	Description of Load Served
2	EX						
4		EX		EX	30	3	RECTIFIER
6			EX				
8	EX			EX	20	1	PROJECTOR MTR
10		EX		EX	20	1	
12			EX	EX	20	1	WALL LIGHTS FRONT
14	EX			EX	20	1	MASKING MOTOR
16		EX		EX	20	1	EXISTING
18			EX	EX	20	1	OUTSIDE REC LOBBY EXIT DOOR
20	EX			EX	20	1	HOUSE LIGHTS
22		EX		EX	20	1	FLOOD LIGHTS
			EX	EX	20	1	CLEANING LIGHTS
	ENCL. (_ocking Co CKT No. 2 4 6 8 10 12 14 16 18 20	Ocking Cover, Pane CKT No. A 2 EX 4 6 8 EX 10 12 14 EX 16 18 20 EX	ENCL. (NEMA): 1 MTG: _ocking Cover, Panel Card. A/Phase CKT No. A B 2 EX 4 4 EX 6 8 EX 10 12 12 14 16 EX 18 20 EX 10	ENCL. (NEMA): 1 MTG: Surface _ocking Cover, Panel Card. A/Phase CKT No. A B C 2 EX	ENCL. (NEMA): 1 MTG: Surface _ocking Cover, Panel Card.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $



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∕2∖

<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

		Existing 400	A Distribution	Panel Lo	cation: Ex	isting Ele	ctrical Roc	m Volts:	480Y/277	7V Phas	e: 3 Wi	re: 4 Hert	z: 60		
			MLC) Main Al					,	MTG: Si	urface				
				400		ne , Groui	nd Bar, Lo	cking Cover	r, Panel (
Description of Load Served		eaker	Wire		A/Phase			CKT No.		A/Phase		Wire		aker	Description of Load Served
•	Amp	Pole	*****	A	В	С			Α	В	С	*****	Amp	Pole	
SPACE		1					1	2						1	SPACE
SPACE		1					3	4						1	SPACE
SPACE		1					5	6						1	SPACE
SPACE		1					7	8						1	SPACE
SPACE		1					9	10						1	SPACE
SPACE		1					11	12			EX				
SPACE		1					13	14	EX			EX	20	3	ELEC DUCT HEATER #1
SPACE		1					15	16		EX					
					EX	17	18			EX					
ELEC HEAT DOWNSTAIRS #3	30	3	EX	EX			19	20	EX			EX	20	3	AIR HANDLER
					EX		21	22		EX					
						EX	23	24						1	SPACE
TRANS	60	3	EX	EX			25	26						1	SPACE
					EX		27	28						1	SPACE
SPACE		1					29	30			EX				
SPACE		1					31	32	EX			EX	70	3	CONDENSOR UNITS PANNE
SPACE		1					33	34		EX		-			
						EX	35	36						1	SPACE
ELEC DUCT HEATER #2	70	3	EX	EX			37	38						1	SPACE
		-			EX		39	40						1	SPACE
			1 PA	ANEL .s.	HP2 -	VAC	ANT	REST	AUR	ANT					

							anel Schec								
		Existing	g 100A Pane	I Location	: Kitchen	- Near Fir	e Alarm ۱	/olts: 208Y/	120V I	Phase: 3	Wire: 4	Hertz: 60			
			MLC) Main AlC	: N/A Bra	nch AIC:	10,000 E	ENCL. (NEN	<i>I</i> А): 1	MTG: Su	urface				
				100	Amp Fram	ne , Groui	nd Bar, Loo	cking Cover	, Panel (Card.					
Description of Load Served	Br	reaker	Wire		A/Phase					A/Phase		Wire	Brea	aker	Departmention of Load Service
Description of Load Served	Amp	Pole		A	B	С			А	B	C	vvie	Amp	Pole	Description of Load Served
EXISTING	EX	2	EX	EX			1	2	EX			EX	EX	1	EXISTING
EXISTING		2			EX		3	4		EX		EX	EX	1	EXISTING
EXISTING	EX	1	EX			EX	5	6			EX	EX	EX	1	EXISTING
EXISTING	EX	1	EX	EX			7	8	EX			EX	EX	1	EXISTING
EXISTING	EX	1	EX		EX		9	10		EX		EX	EX	1	EXISTING
EXISTING	EX	1	EX			EX	11	12			EX	EX	EX	1	EXISTING
EXISTING	EX	1	EX	EX			13	14	EX			EX	EX	1	EXISTING
EXISTING	EX	1	EX		EX		15	16		EX		EX	EX	1	EXISTING
EXISTING	EX	1	EX			EX	17	18			EX	EX	EX	1	EXISTING
EXISTING	EX	1	EX	EX			19	20	EX			EX	EX	1	EXISTING
EXISTING	EX	1	EX		EX		21	22		EX		EX	EX	1	EXISTING
EXISTING	EX	1	EX			EX	23	24			EX	EX	EX	1	EXISTING
SPACE							25	26	EX			EX	EX	1	EXISTING
EXISTING	EX	1	EX		EX		27	28		EX		EX	EX	1	EXISTING
EXISTING	EX	1	EX			EX	29	30			EX	EX	EX	1	EXISTING
EXISTING	EX	1	EX	EX			31	32	EX			EX	EX	1	EXISTING
EXISTING	EX	1	EX		EX		33	34		EX		EX	EX		EXISTING
EXISTING	EX	1	EX			EX	35	36			EX	EX	EX	1	EXISTING



	Br	reaker			Amp Fram A/Phase	,			,	A/Phase			Brea	aker	
Description of Load Served	Amp	Pole	- Wire	A	В	С	CKT NO.	CKT No.	Α	В	С	Wire	Amp	Pole	Description of Load Serve
SPACE		1	EX				1	2	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		3	4		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	5	6			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			7	8	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		9	10		EX		EX	20	1	EXISTING
EXISTING	20	1	EX			EX	11	12			EX	EX	20	1	EXISTING
EXISTING	20	1	EX	EX			13	14	EX			EX	20	1	EXISTING
EXISTING	20	1	EX		EX		15	16		EX		EX	30	2	EXISTING
EXISTING	20	1	EX			EX	17	18			EX	EX	30	2	EXISTING
EXISTING	20	1	EX	EX			19	20	EX			EX	20	1	EXISTING
EXISTING	15	1	EX		EX		21	22		EX		EX	20	1	EXISTING
EXISTING	15	1	EX			EX	23	24			EX	EX	20	1	EXISTING
EXISTING	20	2	EX	EX			25	26	EX			EX	30	1	EXISTING
EXISTING	20	2			EX		27	28		EX		EX	20	2	EXISTING
EXISTING	20	2	EX			EX	29	30			EX		20	2	EXISTING
EXISTING	20	2		EX			31	32	EX						
EXISTING	20	1	EX		EX		33	34		EX		EX	100	3	EXISTING
EXISTING	20	1	EX			EX	35	36			EX				

							Panel Sch	nedule							
			H۱	/AC1 Loc	ation: Gara	age Volt	s: 480Y/27	'70V Ph	ase: 3	Wire: 4	Hertz: 60)			
			N	/ILO Mair	n AIC: N/A	Branch A	IC: 10,000	ENCL. ((NEMA):	1 MTG:	Surface				
					125 Amp Fi	rame , Gro	ound Bar,	Locking Co	over, Pan	el Card.					
Description of Load Served	В	reaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Bre	aker	Description of Load Serve
Description of Load Served	Amp	Pole	vviie	Α	В	С			A	В	С		Amp	Pole	Description of Load Serve
				EX			1	2	EX						
HVAC	60		EX		EX		3	4		EX		EX		3	HVAC
						EX	5	6			EX				
				EX			7	8	EX						
HVAC	60		EX		EX		9	10		EX		EX		3	HVAC
						EX	11	12			EX				
SPACE			1	EX			13	14	EX					1	SPACE
SPACE			1				15	16		EX				1	SPACE
SPACE			1				17	18			EX			1	SPACE
SPACE			1	EX			19	20	EX					1	SPACE

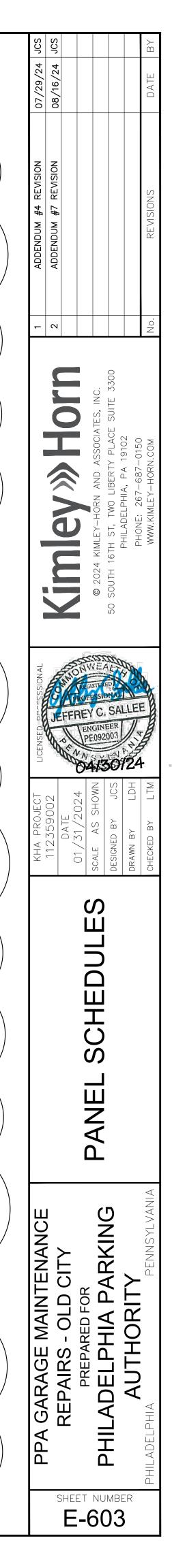
4 E-603 HVAC1 - FLOOR 2 N.T.S.

			1	, 1	125 Amp Fr	rame , Gro	ound Bar, I	Locking Co	ver, Pan				-		
Description of Load Served		eaker	Wire		A/Phase	-	CKT No.	CKT No.		APhase		Wire		aker	Description of Load Served
	Amp	Pole		A	В	С			Α	В	С		Amp	Pole	
				EX			1	2	EX						
HVAC 2	60		EX		EX		3	4		EX		EX		3	HVAC 3
						EX	5	6			EX				
				EX			7	8	EX						
HVAC 1	60		EX		EX		9	10		EX		EX		3	HVAC 4
						EX	11	12			EX				
				EX			13	14	EX					1	SPACE
HVAC 5	60		EX		EX		15	16		EX				1	SPACE
						EX	17	18			EX			1	SPACE
SPACE			1	EX			19	20	EX					1	SPACE
				1											
			5 E-603 N												

							Panel Sch	edule							
			Panel	LPG Loca	ition: Janito				Phase: 3	Wire: 4	Hertz	: 60			
					AIC: N/A E										
					100 Amp Fr				, ,						
Departmention of Load Sonved	Br	eaker	Wire		A/Phase			CKT No.		APhase		Wire	Brea	aker	Description of Load Sorred
Description of Load Served	Amp	Pole	vviie	A	В	С		CKT NO.	А	В	С	VVILE	Amp	Pole	Description of Load Served
MEN + LADIES ROOM	20	1	EX	EX			1	2	EX			EX	20	1	STAIRWAY 1+2 LIGHTS
LOBBY	20	1	EX		EX		3	4		EX		EX	20	1	ELEVATOR LOBBY LIGHTS
RM 101 102 STORAGE	20	1	EX			EX	5	6			EX	EX	20	1	SPARE
SWITCHGEAR + STORAGE ROOM	20	1	EX	EX			7	8	EX						
TRANS FEED	20	1	EX		EX		9	10		EX		EX	20	3	LOBBY UNIT HELPTER
						EX	11	12			EX				
TRANSFORMER		3	EX	EX			13	14	EX						SPACE
					EX		15	16		EX					SPACE
SPACE						EX	17	18			EX				SPACE
SPACE				EX			19	20	EX						SPACE
SPACE					EX		21	22		EX					SPACE
SPACE						EX	23	24			EX				SPACE

6	LPG - JANITOR CLO
E-603	N.T.S.

LOSET



∕1∖

∕2∖

<u>GENERAL NOTE:</u> CONTRACTOR SHALL VERIFY PANEL SCHEDULE ON PLANS WITH PANELS ON SITE. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

						Pa	anel Sch	edule							
			Panel L	PGR Loc	ation: Jani	tor Closet	Volts: 20)8Y/120V	Phase:	3 Wire:	4 Hertz	z: 60			
			100	AMCB N	lain AIC:N	/A Branch A	JC: 10,0	00 ENCL	. (NEMA)	:1 MT	G: Surfac	е			
					125 Amp Fi	rame , Grour	nd Bar, L	_ocking Co	ver, Pan	el Card.					
Description of Load Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	VVIIe	A	В	C C	ALL INU.	CRTNU.	А	В	С	VVIIe	Amp	Pole	Description of Load Served
EXHAUST FAN	20	1	EX	EX			1	2	EX			EX	20	1	WATER COOLER
SPARE	20	1					3	4		EX		EX	20	1	ELEV LOBBY RECEPT
SPARE	20	1					5	6			EX	EX	20	1	METER ROOM
SPARE	20	1					7	8	EX			EX	20	1	1ST TO 5TH FLOOR RECEPT NEAR ELE
SPARE	20	1					9	10		EX		EX	20	1	RM 101 RECEPT
MEZZ STORAGE RM RECEPT	20	1	EX			EX	11	12			EX	EX	20	1	MEZZ + MACHINE RM RECEPT
TIME CLOCK		1		EX			13	14				EX	20	1	SPACE
SPACE							15	16				EX	20	1	SPACE
SPACE							17	18				EX	20	1	SPACE
SPACE							19	20				EX	20	1	SPACE
SPACE							21	22				EX	20	1	SPACE
SPACE							23	24				EX	20	1	SPACE

1E-604PANEL LPGR - JANITORS CLOSETN.T.S.

/		\checkmark	\checkmark	\checkmark		\sim		\checkmark		\checkmark	\sim	
Γ							Panel Sch	nedule				
				Panel LP Loca	ation: Janit	ors Closet	Volts: 12	20/240V	Phase: 1	Wire: 3	Hertz: 60)
				MLO Mai	n AIC: N/A	Branch A	C: 10,000	ENCL. ((NEMA): 1	MTG:	Surface	
					125 Amp F	Frame , Gro	ound Bar, I	Locking Co	over, Pane	el Card.		
、Γ	Departmention of Load Sonwad		Breaker	Wire	A/P	hase		CKT No.	A/Pł	nase	Wire	
\geq	Description of Load Served	Amp	Pole	vvire	A	В		CKINO.	А	В	vire	
		4.5	2	EX	EX		1	2	EX		EX	
	LADIES HAND DRYER	15	2	EX		EX	3	4		EX	EX	
		4.5		EX	EX		5	6	EX		EX	
	MENS HAND DRYER	15	2	EX		EX	7	8		EX	EX	
		•		•	•	•	•	•	•	•	•	

E-604/

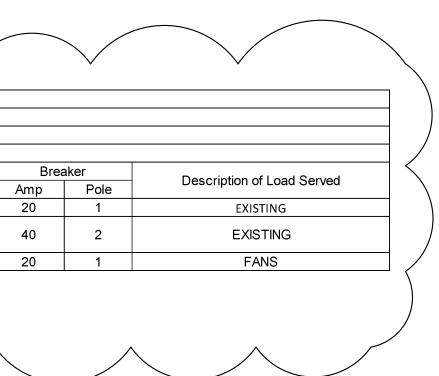
HAND DRYER PANEL - JANITORS CLOSET

						Pa	anel Schec	lule							
		Existi	ng Panel GLP	Location	1: Existing E	Electrical	Room V	olts: 480Y/	277V P	hase: 3	Wire: 4	Hertz: 60			
			MLO) Main A	IC: N/A Bra	anch AIC:	: 10,000	ENCL. (NE	EMA): 1	MTG: S	Surface				
				100) Amp Fram	ne , Grour	nd Bar, Loo	cking Cove	r, Panel (Card.					
Description of Load Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Serve
Description of Load Served	Amp	Pole	VVIIE	А	В	С	GRT NU.	GRI NU.	А	В	C	VVIIe	Amp	Pole	Description of Load Serve
	20	1	EXIST	EX			1	2	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		3	4		EX		EXIST	20	1	EXISTING
	20	1	EXIST			EX	5	6			EX	EXIST	30	1	EXISTING
EXISTING	20	1	EXIST	EX			7	8	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		9	10		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	11	12			EX	EXIST	30	1	EXISTING
EXISTING	20	1	EXIST	EX			13	14	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		15	16		EX		EXIST	30	1	EXISTING
EXISTING	20	1	EXIST			EX	17	18			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			19	20	EX			EXIST	20	1	EXISTING

BANEL GLP - ELECTRICAL ROOM

		Eviatia		Location	- Eviatina El		nel Sched			haaa. 0	Miros A				
		Existir	ng Panel ELP									Hertz: 60			
			MLC		IC: N/A Bra				,	MTG: S	urtace				
			1	100	Amp Frame	e , Groun	d Bar, Loc	king Cove	r, Panel C						I
Description of Load Served		reaker	Wire		A/Phase			CKT No.		A/Phase		Wire		aker	Description of Load Se
	Amp	Pole		A	В	С			A	В	С		Amp	Pole	•
				EX			1	2	EX			EXIST	20	1	EXISTING
EXISTING	50	3	EXIST		EX		3	4		EX		EXIST	20	1	EXISTING
						EX	5	6			EX	EXIST	30	1	EXISTING
EXISTING	20	1	EXIST	EX			7	8	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		9	10		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	11	12			EX	EXIST	30	1	EXISTING
EXISTING	20	1	EXIST	EX			13	14	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		15	16		EX		EXIST	30	1	EXISTING
EXISTING	20	1	EXIST			EX	17	18			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			19	20	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		21	22		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	23	24			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			25	26	EX			EXIST	20	1	EXISTING
			EVIOT		EX		27	28		EX		EXIST	20	1	EXISTING
EXISTING	20	2	EXIST			EX	29	30			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			31	32	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		33	34		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	35	36			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX	1		37	38	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		39	40		EX		EXIST	20	1	EXISTING
SPACE		-					41	42			EX	EXIST	20	1	EXISTING

4 E-604 PANEL ELP - ELECTRICAL ROOM



2

							anel Sched								
		Existir	ng Panel EHP		: Existing I						Wire: 4	Hertz: 60			
			MLC		C: N/A Bra			ENCL. (NE	,	MTG: S	Surface				
				250	Amp Fram	ne , Grour	nd Bar, Loo	cking Cove	r, Panel (Card.					
Description of Load Served	B	reaker	Wire		A/Phase			CKT No.		A/Phase	-	Wire	Brea	aker	Description of Load Served
Description of Edad Served	Amp	Pole	VVIIC	A	В	С	CRTNO.		А	В	C	vviie	Amp	Pole	Description of Load Served
				EX			1	2	EX						
EXISTING	60	3	EXIST		EX		3	4		EX		EXIST	40	1	EXISTING
						EX	5	6			EX				
				EX			7	8	EX						
EXISTING	20	3	EXIST		EX		9	10		EX		EXIST	30	3	EXISTING
						EX	11	12			EX				
				EX			13	14	EX						ELEVATOR MACHINE ROOM
EXHAUST FAN #4	20	3	EXIST		EX		15	16		EX		EXIST	20	3	HEATER
						EX	17	18			EX				TIEATER
				EX			19	20	EX						ELEVATOR MACHINE ROOM
ENTRANCE DOOR GATE	20	3	EXIST		EX		21	22		EX		EXIST	20	3	EXHAUST FAN
						EX	23	24			EX				EXTAGOTTAN
MEN'S ROOM WATER HEATER	20	2	EXIST	EX			25	26	EX			EXIST	20	1	EXISTING
MEN'S ROOM WATER HEATER	20	2	EABT		EX		27	28		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	29	30			EX	EXIST	20	1	EXISTING
EXISTING	20	1	EXIST	EX			31	32	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		33	34		EX		EXIST	20	1	EXISTING
SPACE							35	36							SPACE
SPACE							37	38							SPACE
SPACE							39	40							SPACE
SPACE							41	42							SPACE



						Pa	anel Sched	ule							
	E	xisting Unlabe	led Emergend	cy Panel	Location: I	Existing E	lectrical R	oom Volt	s: 208Y/	120V Ph	ase: 3	Wire: 4 He	ertz: 60		
			MLO) Main A	IC: N/A Br	anch AIC	: 10,000	ENCL. (NE	MA): 1	MTG: S	urface				
				125	6 Amp Fram	ie , Groui	nd Bar, Loc	king Cover	r, Panel	Card.					
Description of Load Served	Br	eaker	Wire		A/Phase			CKT No.		A/Phase		Wire	Brea	aker	Description of Load Served
Description of Load Served	Amp	Pole	vvile	A	В	С	GRT NO.		A	В	C	vvile	Amp	Pole	Description of Load Server
EXIT SIGNS	20	1	EXIST	EX			1	2	EX			EXIST	20	1	EXISTING
EXISTING	20	1	EXIST		EX		3	4		EX		EXIST	20	1	EXISTING
EXISTING	20	1	EXIST			EX	5	6			EX	EXIST	30	1	EXISTING
EXISTING	20	1	EXIST	EX			7	8	EX			EXIST	20	1	EXISTING
FACP	20	1	EXIST		EX		9	10		EX		EXIST	20	1	EXISTING
							11	12							
							13	14							

6 E-604 N.T.S. UNLABELED EMERGENCY PANEL - EXISTING ELECTRICAL ROOM

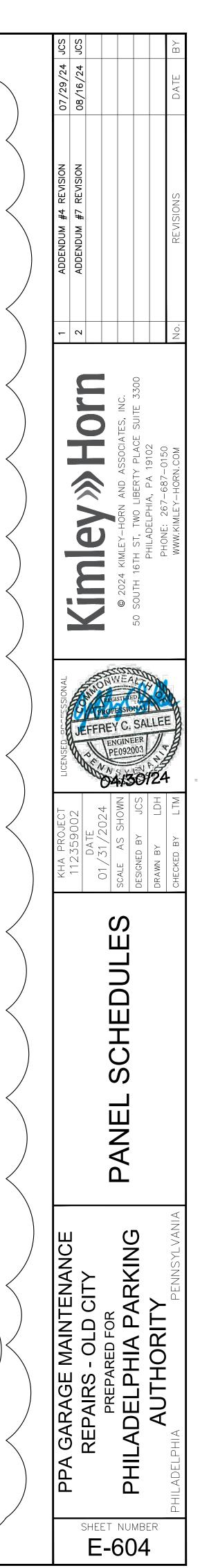
						Pa	nel Sched	ule							
		Existing	g Panel LPR	Location:	Existing E	lectrical l	Room Vo	olts: 480Y/2	277V P	hase: 3	Wire: 4	Hertz: 60			
			MLO	Main Al	C: N/A Bra	anch AIC:	10,000	ENCL. (N	EMA): 1	MTG: S	Surface				
				100	Amp Fram	ie , Grour	nd Bar, Loo	king Cove	er, Panel (Card.					
Description of Load Served	Br	reaker	Wire	A/Phase				A/Phase			Wire	Breaker		Description of Load Served	
Description of Load Served	Amp	Pole	vviie	А	В	С		CKT No. CKT No.	A	В	C		Amp	Pole	Description of Load Served
OUTSIDE RADIUS RAMP LIGHTS TOP	20	1	EXIST	EX			1	2	EX			EXIST	20	1	INSIDE RADIUS RAMP LIGHTS
OUTSIDE RADIUS RAMP LIGHTS TOP	20	1	EXIST		EX		3	4		EX		EXIST	20	1	INSIDE RADIUS RAMP LIGHTS
OUTSIDE RADIUS RAMP LIGHTS BOTTOM	20	1	EXIST			EX	5	6			EX	EXIST	30	1	GROUND FLOOR LIGHTS
OUTSIDE RADIUS RAMP LIGHTS BOTTOM	20	1	EXIST	EX			7	8	EX			EXIST	20	1	GROUND FLOOR B LINE
							9	10		EX		EXIST	20	1	EXISTING
							11	12							

7 E-604 PANEL LRP - EXISTING ELECTRICAL ROOM

						\frown						\backslash	\frown		\sim
	\checkmark	\backslash	\checkmark		\checkmark		\searrow			\checkmark		\sim	\sim		\checkmark \checkmark
							Panel Sch	edule							
			Existing Pa	nel EDP	_ocation: E				77 Pha	se: 3 W	'ire: 4 H	lertz: 60			
			-		AIC: N/A										
					100 Amp F	rame , Gr	ound Bar, I	Locking Co	over, Pane	I Card.					
	Br	Breaker		A/Phase					A/Phase		Wire	Breaker		Description of Load Sorved	
Description of Load Served	Amp	Pole	Wire	A	В	С		CKT NO.	Α	В	С	vvire	Amp	Pole	Description of Load Served
SPACE							1	2	EX						
SPACE							3	4		EX		EX	80	3	EXISTING
SPACE							5	6			EX				
				EX			7	8	EX						
EXISTING	80	3	EX		EX		9	10		EX		EX	40	3	15KW TRANFORMER FEED
						EX	11	12			EX				

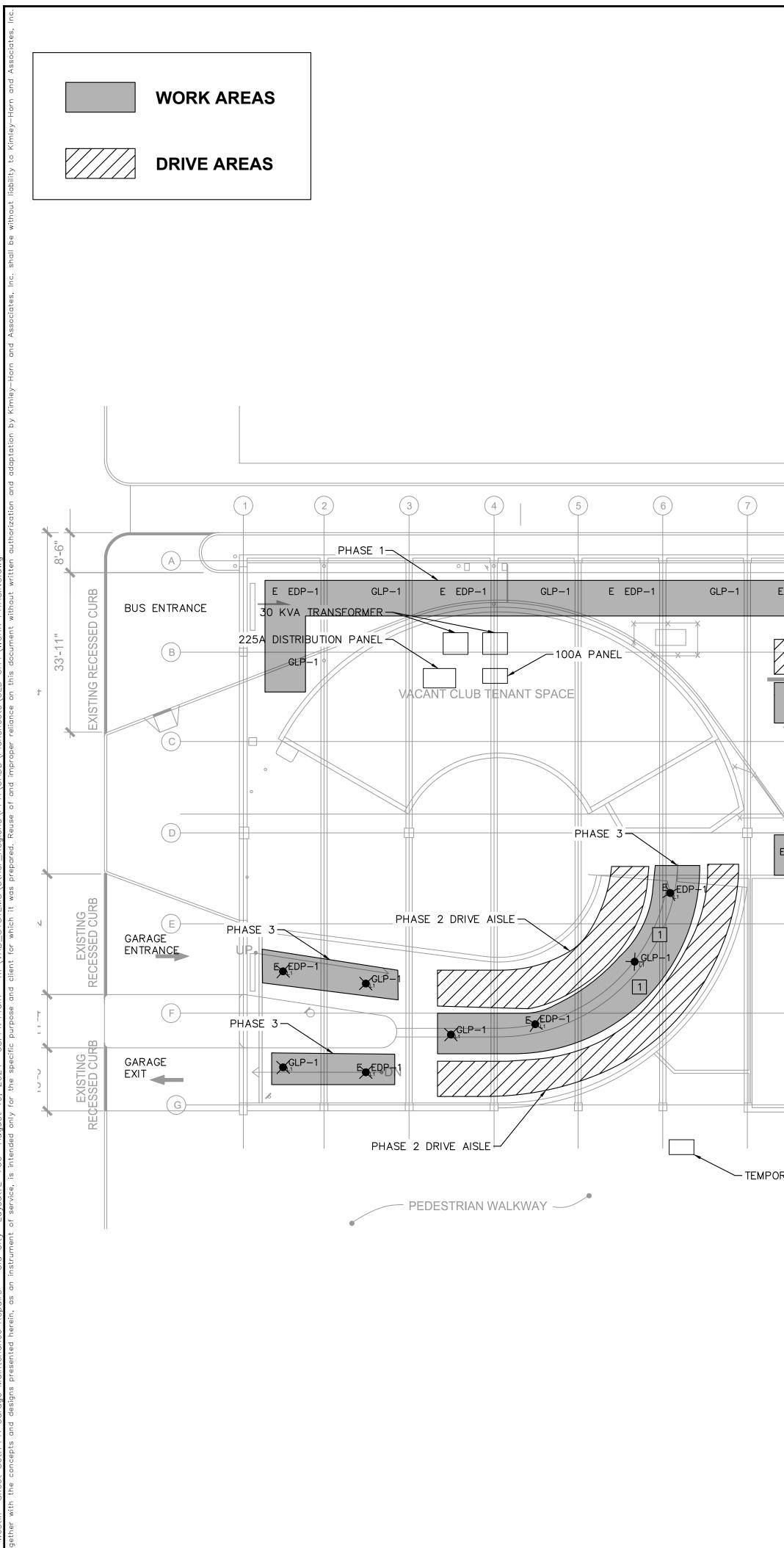
8 E-604 N.T.S.

PANEL EDP - EXISTING ELECTRICAL ROOM



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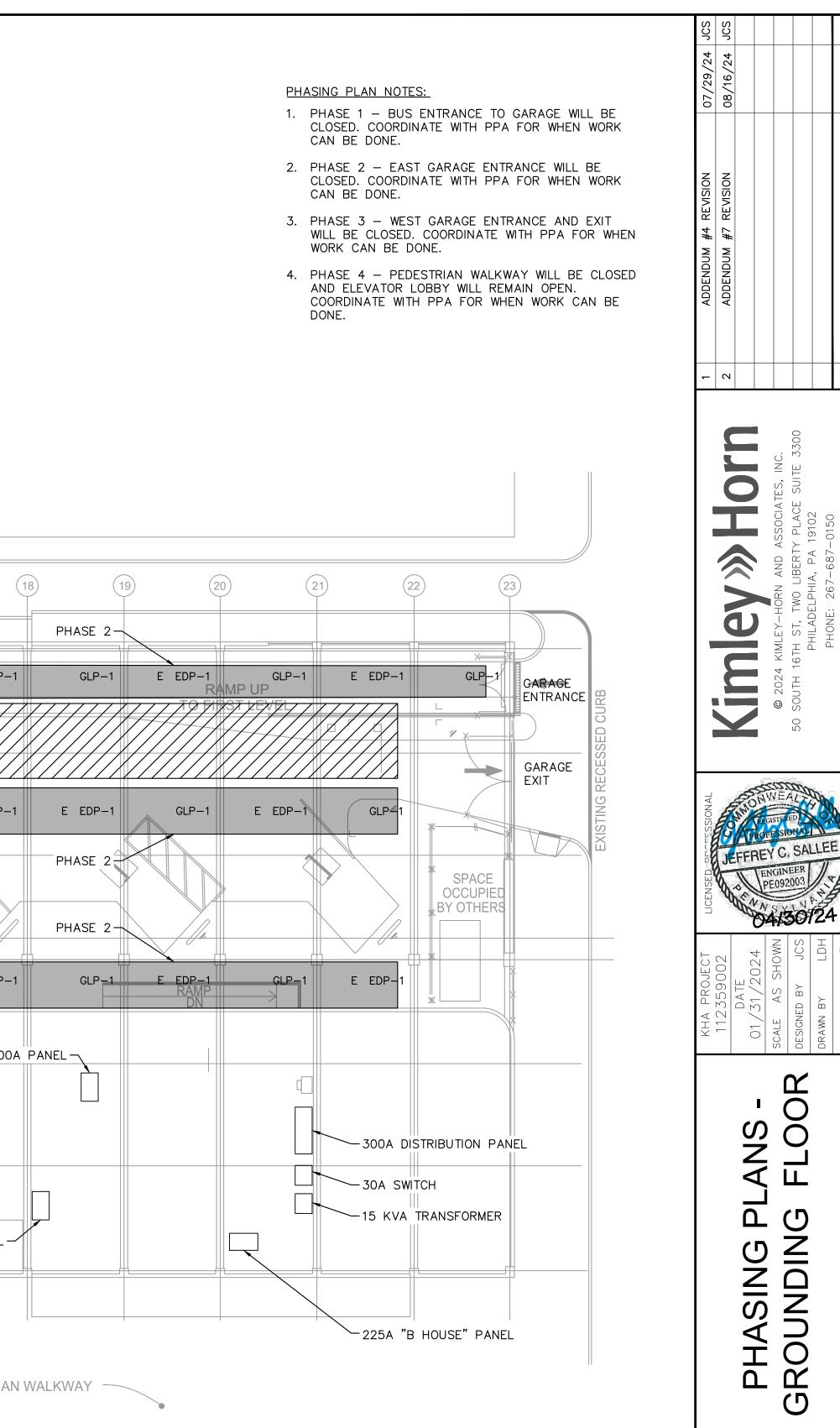
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8	9 (STREET (1	2) (1	3)	14) (1	5) (1	6) (1	7)
					X	x			
EDP-1 GI	_P-1 E EDP-1	GLP-1	×		PHASE 3	DRIVE AISLE		GLP-1	E EDP-
			×—		×	××			
GLP-1 E EI	DP-1 GLP-1	E EDP-1	GLP-1	E EDP-1	GLP-1	E EDP-1	GLP-1	E EDP-1	GLP-
E EDP-1 GI	LP-1 E EDP-1	GLP-1	E EDP-1	GLP-1	E EDP-1	GLP-1	E EDP-1	GLP-1	E EDP-
		PANEL	PHASE 4			15 KVA TRA			100
	100A	PANEL					TCH (ETR)		
VACANT REST	JULI					15 KVA TRA 100A S	WITCH ETR		Z CINEMA
						75 KVA TRA			
			EVATOR LOBB	Y					25A PANEL
RARY GENERATOR L	OCATION	Ľ		_					

SANSOM WALK

PHASING PLANS - GROUNDING FLOOR E-300 1"=15' NORTH



PEDESTRIAN WALKWAY



ARKING

PHIL/

SHEET NUMBER

E-700

ADELPHIA P/ AUTHORIT

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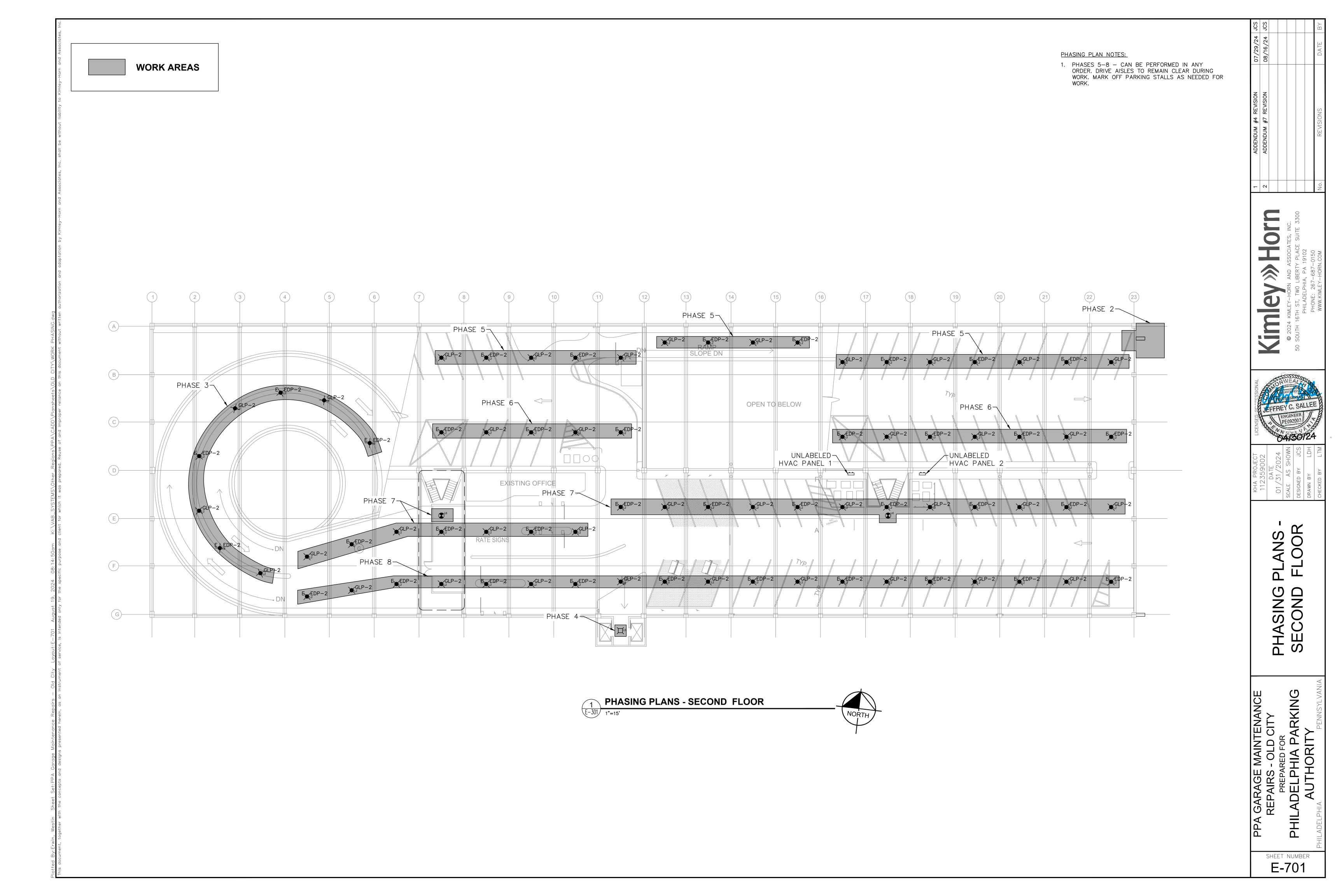
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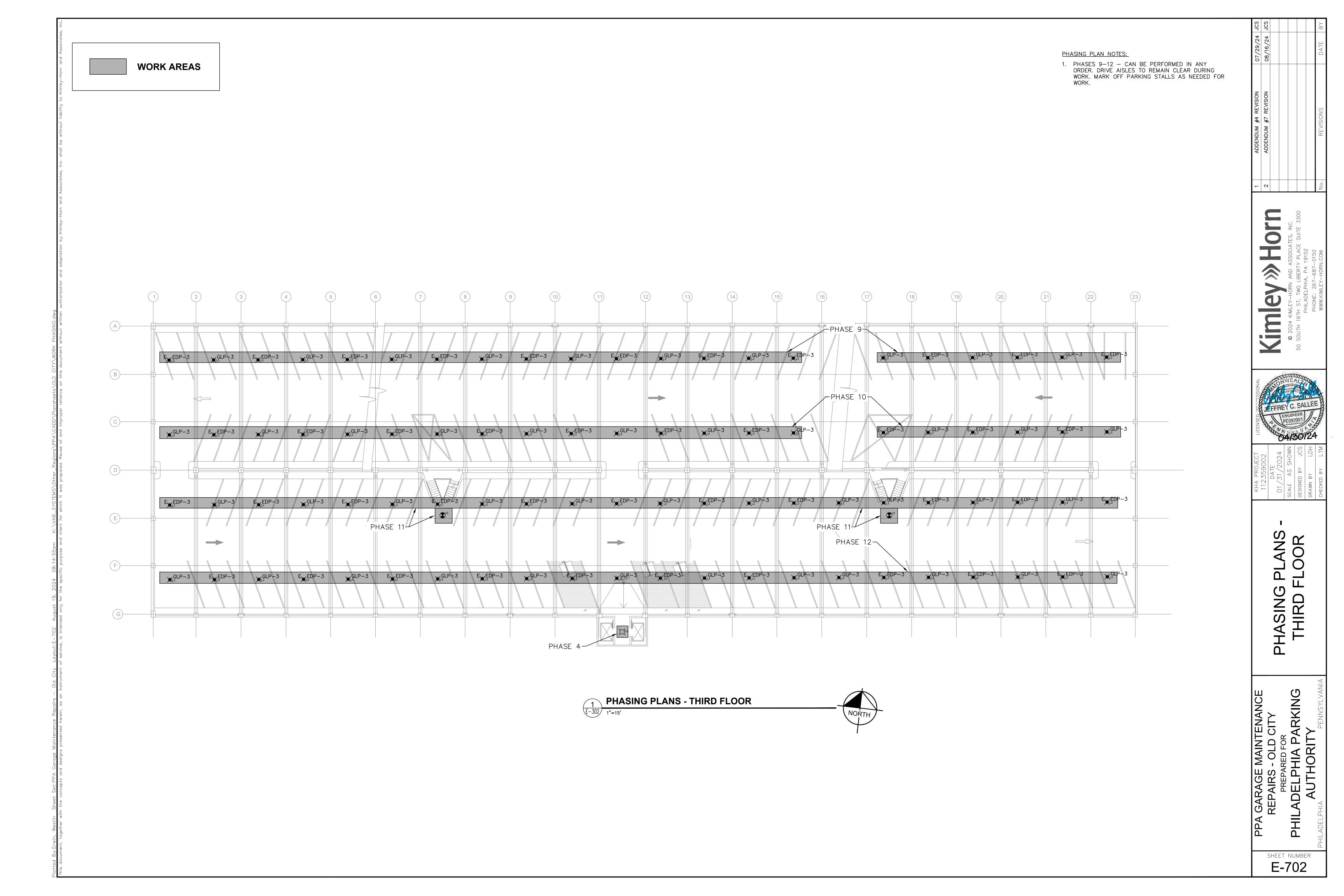
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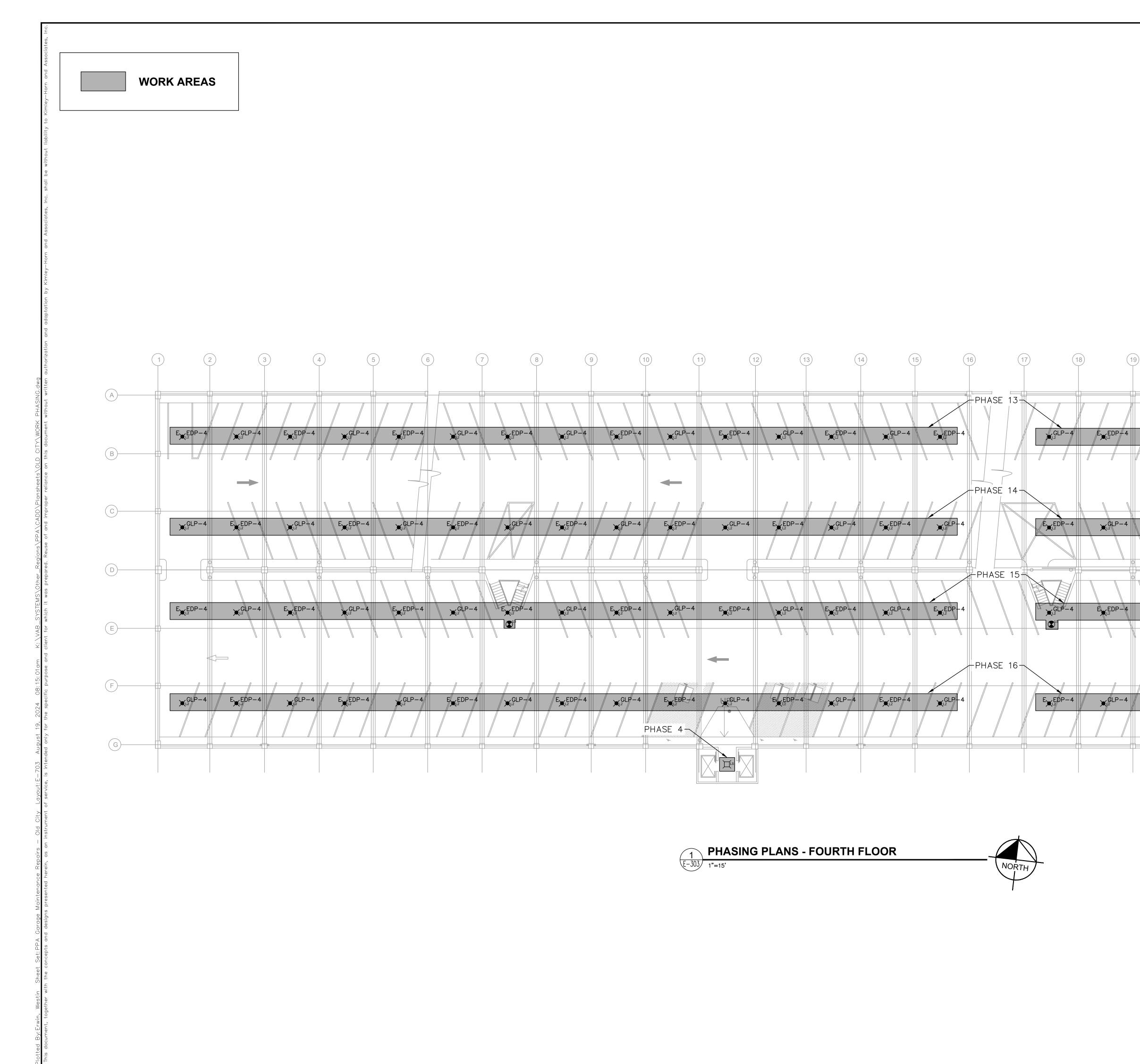
REPAIR

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TEMPORARY GENERATOR LOCATION



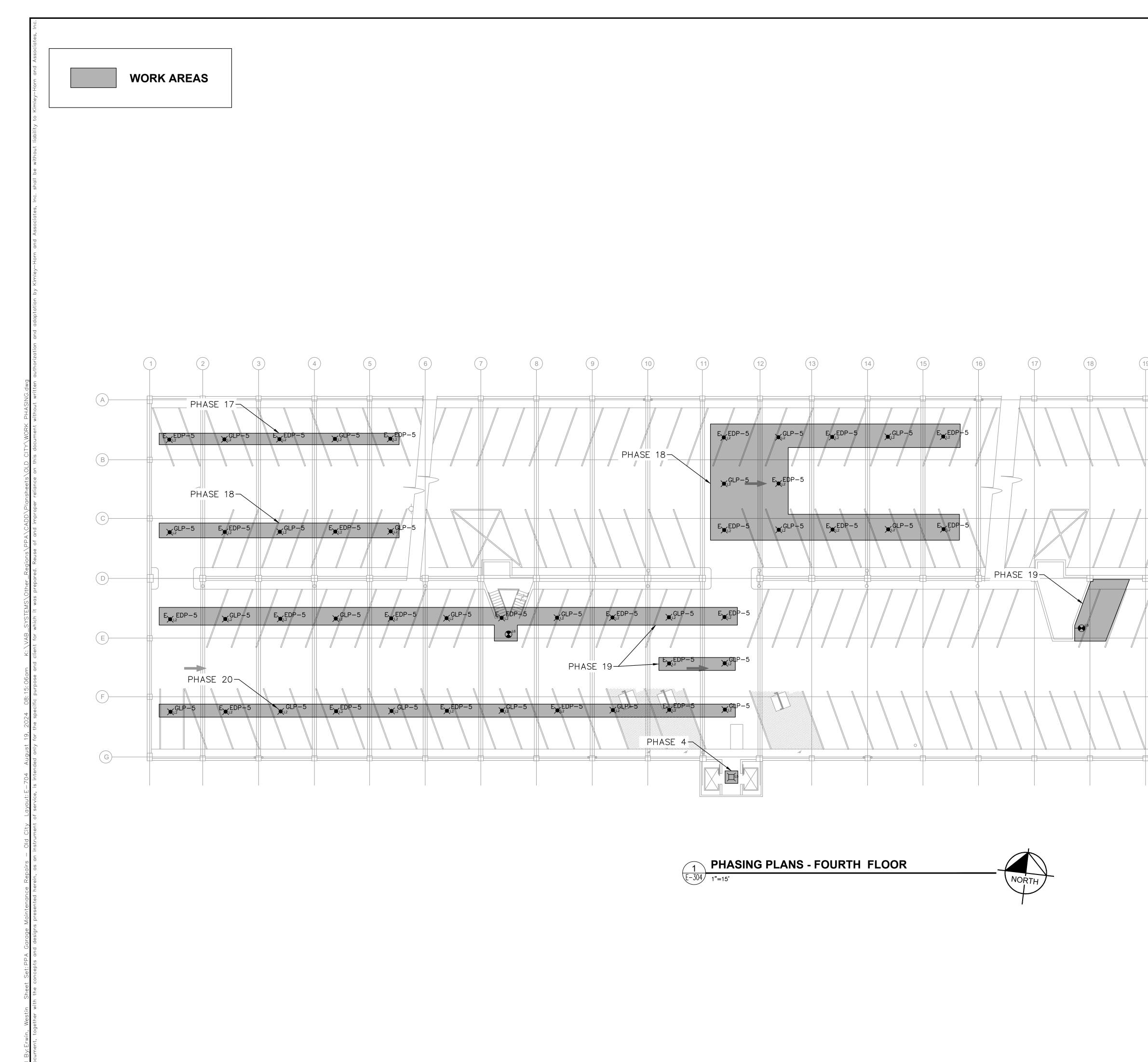




PHASING PLAN NOTES: 1. PHASES 13–16 – CAN BE PERFORMED IN ANY ORDER. DRIVE AISLES TO REMAIN CLEAR DURING WORK. MARK OFF PARKING STALLS AS NEEDED FOR	07/29/24 JCS 08/16/24 JCS
WORK.	ADDENDUM #4 REVISION ADDENDUM #7 REVISION REVISIONS
	- N <u>Z</u>
20 21 22 23	OUECT Increasional 9002 Increasional 72024 Increasional 72024 Increasional 72024 Increasional 72024 Increasional 72024 Increasional 8 Shown Increasional 7 Juck Increasional 8 Shown Increasional 9 Juck Increasional 9 Juck Increasional 9 Juck Increasional 1 Juck <t< th=""></t<>
$\mathbf{x}_{L_2}^{GLP-4} = \mathbf{x}_{L_2}^{GLP-4} = \mathbf{x}$	KHA PROJECT 112359002 DATE 01/31/2024 SCALE AS SHOW DESIGNED BY JC DRAWN BY LD CHECKED BY LD CHECKED BY LT
$E_{x}EDP-4$ $E_{x}EDP-4$ $E_{x}EDP-4$ $E_{x}EDP-4$ $E_{x}EDP-4$ $E_{x}EDP-4$	PHASING PLANS - FOURTH FLOOR
	PPA GARAGE MAINTENANCE REPAIRS - OLD CITY PREPARED FOR PREPARED FOR PHILADELPHIA PARKING AUTHORITY AUTHORITY PHILADELPHIA PARKING AUTHORITY PHILADELPHIA PARKING

SHEET NUMBER

E-703



PHASING PLAN NOTES: 1. PHASES 17-20 - CAN BE PERFORMED IN ANY ORDER. DRIVE AISLES TO REMAIN CLEAR DURING WORK. MARK OFF PARKING STALLS AS NEEDED FOR WORK.	1ADDENDUM #4 REVISION07/29/24JCS2ADDENDUM #7 REVISION08/16/24JCS108/16/24JCSJCS108/16/24JCSJCS108/16/24JCSJCS108/16/24JCSJCS111JCSJCS1111JCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS1111JCSJCS111JCSJCSJCS111JCSJCSJCS111JCSJCSJCS111JCSJCSJCS111JCSJCSJCS111JCSJCSJCS111JCSJCSJCS11JCSJCSJCS11JCSJCSJCS11JCSJCSJCS </th
	Kimley Morn © 2024 KIMLEY-HORN AND ASSOCIATES, INC. 50 SOUTH 16TH ST, TWO LIBERTY PLACE SUITE 3300 PHILADELPHIA, PA 19102 PHILADELPHIA, PA 19102 PHONE: 267–687–0150 WWW.KIMLEY-HORN.COM
	KHA PROJECT KHA PROJECT 112359002 DATE 112359002 DATE 01/31/2024 DATE 01/31/2024 DATE 01/31/2024 DATE 01/31/2024 DATE 01/31/2024 DATE DESIGNED BY JC DRAWN BY LDH DRAWN BY LDH CHECKED BY LTM
	FOURTH FLOOR
	PRACARAGE MAINTENANCE PRACARAGE MAINTENANCE REPAIRS - OLD CITY REPAIRS - OLD CITY PREPARED FOR PHILADELPHIA PARKING AUTHORITY CHLADELPHIA PARKING

