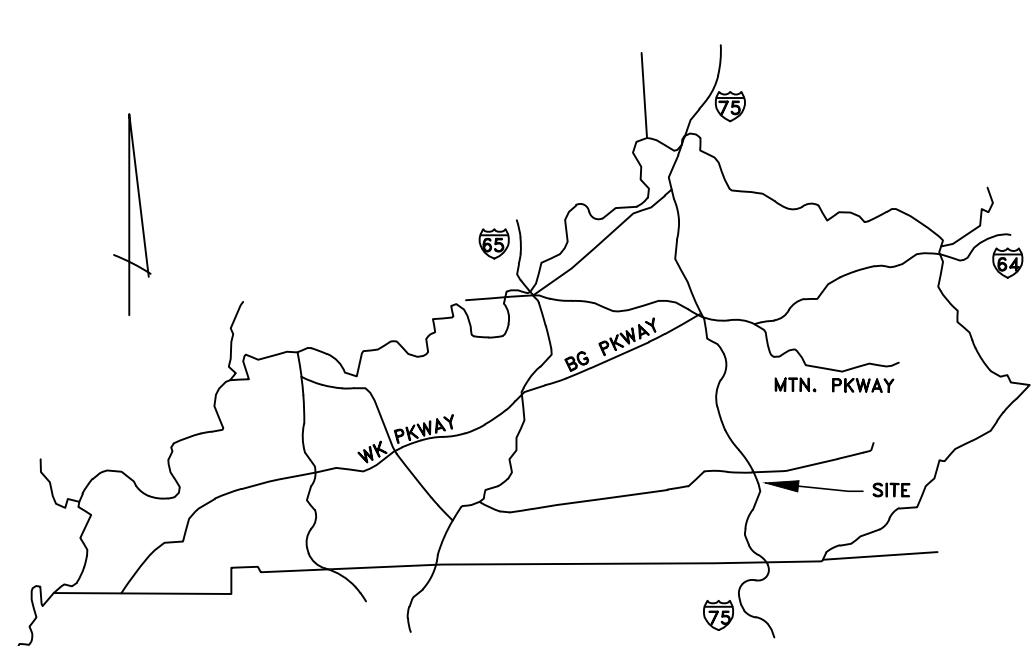


London Speculative Building #11- Air Park Drive

London-Laurel County Economic Development Authority

LAUREL COUNTY, KENTUCKY



nse

OF KENTUCKY, INC.

Engineers
Architects
Planners

624 Wellington Way
Lexington, KY 40503
www.mselex.com

Phone: (859)223-5694
Fax: (859)223-2607

Bldg Code Summary Notes:

A. **Construction Description:** New Metal Building System Manufacturer, on existing concrete foundation and slab for Storage.
Moderate-hazard storage, Group S-1, Storage Group

B. **Building Data:**
Construction Type: **Chapter 5, General Building Heights and Areas**
Type IIB (**Chapter 6, Types of Construction**)
Sprinklers: **None**
Occupancy: **S-1**
Height and Area: **No Height or Area Increase Utilized**
Building Height: **Proposed: 30 ft., 24 ft. gave height. Allowed: 55 ft.**
Number of Stories: **Proposed: 1, Allowed 2**
Building Area: **Proposed: 12,000 sf, Allowed: 17,500 sf**
(No separation required between S-1 and B)
Building Shell Only

C. **Fire Protection Systems:** **Chapter 9**
Portable Fire Extinguishers, as Required (Section 906)

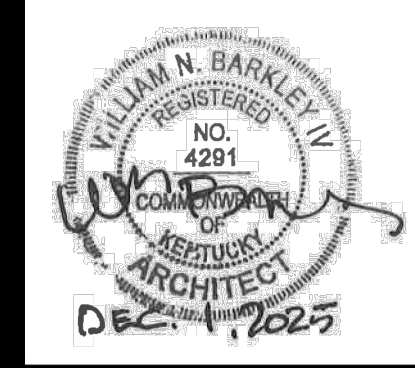
D. **Table 1004.1.2, Maximum Floor Area Allowances Per Occupant:**
Warehouses Occupant Load Factor (OLF)= 500 gross
12,000/500 = 24 Occupants

E. **Table 1017.2, Exit Access Travel Distance (Allowed)**
Occupancy S-1, w/o Sprinklers = 200 ft, Actual = 163 ft

December 2, 2025

SCHEDULE OF DRAWINGS

COVER SHEET- DRAWING INDEX	CS
STRUCTURAL GENERAL NOTES	S1
EXISTING FOUNDATION PLAN	S2
STRUCTURAL DEMOLITION DETAILS	S3
STRUCTURAL DETAILS	S4
AS-BUILT FLOOR PLAN	A1.1
PROPOSED FLOOR PLAN	A1.2
PROPOSED EXTERIOR ELEVATIONS	A2.1
BUILDING SECTIONS	A3.1
DOOR SCHEDULE AND DETAILS	A6.1
PLUMBING PLAN	P1
HVAC PLAN	M1
ELECTRICAL LEGEND AND NOTES	E0
ELECTRICAL PLAN	E1
ELECTRICAL DETAILS AND SCHEDULES	E6
ELECTRICAL SPECIFICATIONS	E7



GENERAL NOTES

GOVERNING CODES AND CRITERIA

- 2018 KENTUCKY BUILDING CODE.
- THE LATEST EDITION OF ALL REFERENCED CODES, SPECIFICATIONS AND STANDARDS IS IMPLIED, UNLESS OTHERWISE SPECIFICALLY NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN/ERECTION OF ADEQUATE SHORING/BRACING DURING CONSTRUCTION.
- ALL INFORMATION BELOW SHALL APPLY TYPICALLY UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- SHOP DRAWINGS, ILLUSTRATIONS, BROCHURES, ETC., WHICH ARE PREPARED BY THE CONTRACTOR, SUB-CONTRACTOR, MANUFACTURER OR DISTRIBUTOR IN CONNECTION WITH SOME PORTION OF THE WORK ARE TO BE SUBMITTED AND APPROVED PRIOR TO COMMENCEMENT OF CONSTRUCTION OR INSTALLATION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES WHICH MAY EXIST.

DESIGN LIVE LOADS

FLOOR LIVE LOAD (LIGHT STORAGE, EXISTING SLAB ON-GRADE) 125 PSF

ROOF LIVE LOAD 20 PSF MIN

ROOF SNOW LOAD
GROUND SNOW LOAD Pg = 15 PSF
SNOW EXPOSURE FACTOR Ce = 1.0
IMPORTANCE FACTOR Is = 1.0
FLAT-ROOF SNOW LOAD* (Pf ≥ 0.7xCexCtIsxPg, Pm = IsxPg MIN.) Pm = 15 PSF
SLOPE-ROOF SNOW LOAD* (Ps = CsxPf) Ps = 15 PSF
THERMAL FACTOR Ct = 1.0

WIND LOAD

BASIC WIND SPEED (ULTIMATE) 115 MPH
EXPOSURE CATEGORY EXPOSURE C

WIND PRESSURES (ULTIMATE), EFFECTIVE AREA 10 SF:
ALSO REFER TO COMPONENTS AND CLADDING DIAGRAMS, THIS SHEET:

	PRESSURES	OVERHANG PRESSURES
ROOF ZONE 1	19.9 PSF / -60.1 PSF	-69.8 PSF
ROOF ZONE 2e	19.9 PSF / -60.1 PSF	-97.7 PSF
ROOF ZONE 2n	19.9 PSF / -88.7 PSF	-97.7 PSF
ROOF ZONE 2r	19.9 PSF / -88.7 PSF	-97.7 PSF
ROOF ZONE 3e	19.9 PSF / -88.7 PSF	-114.5 PSF
ROOF ZONE 3r	19.9 PSF / -105.5PSF	-134.0 PSF
WALL ZONE 4	32.4 PSF / -35.1 PSF	
WALL ZONE 5	32.4 PSF / -43.4 PSF	

EARTHQUAKE DESIGN DATA

LATERAL FORCE PROCEDURE (ASCE 7-16) EQUIVALENT LATERAL FORCE
BASIC FORCE RESISTING SYSTEM BUILDING FRAME SYSTEMS
SEISMIC RESISTING SYSTEM ORDINARY STEEL MOMENT / CONCENTRICALLY BRACED FRAMES
SEISMIC RISK CATEGORY II
IMPORTANCE FACTOR I = 1.0
LAUREL CO. KY, SPECTRAL RESPONSE ACCELERATION (TABLE 1613.3.1, KBC) Ss = 0.238
DESIGN SPECTRAL RESPONSE ACCELERATION Sps = 0.254
LAUREL CO. KY, SPECTRAL RESPONSE ACCELERATION (TABLE 1613.3.1, KBC) S1 = 0.100
DESIGN SPECTRAL RESPONSE ACCELERATION S01 = 0.160
SEISMIC DESIGN CATEGORY C
SEISMIC SITE CLASSIFICATION (PROJECT GEOTECH. REPORT BY SOLID GROUND ENG.) D
DESIGN BASE SHEAR FACTOR Cs = 0.0725 / 0.060
SEISMIC BASE SHEAR V = 5.2 KIPS

DESIGN STRESSES (EXISTING, REFERENCED SAM ENGINEERING DRAWINGS)

CONCRETE (STRENGTH DESIGN) MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS:
EXTERIOR CONCRETE (6% AIR) f'c = 4,500 PSI
ALL OTHER CONCRETE f'c = 4,000 PSI

REINFORCING BARS (ASTM A615) fy = 60,000 PSI
WELDED WIRE FABRIC SMALLER THAN W1.2 (ASTM A185) fy = 56,000 PSI
CHANNELS, ANGLES, PLATES AND BARS (ASTM A36) fy = 36,000 PSI

SOIL BEARING PRESSURE FOR FOUNDATIONS (INFO FROM ORIGINAL BLDG. DRAWINGS)
SOIL (MIDWEST ENGINEERING, DRAWINGS BY SAMS ENGINEERING LONDON, KY) 2,000 PSF

PRE-ENGINEERED BUILDING

- CONFORM TO THE APPLICABLE REQUIREMENTS OF THE METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA METAL BUILDING SYSTEM MANUAL).
- CALCULATIONS, REACTIONS, AND DRAWINGS SHALL BE SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF KENTUCKY.

FOUNDATION CONSTRUCTION

FOOTINGS FOR THE NEW BUILDING ARE EXISTING. ONLY THE CONCRETE OF THE TOP SECTION OF THE EXISTING PIERS (APPROXIMATELY 4" DEEP) WILL BE REMOVED USING HYDRODEMOLITION. THE EXISTING ANCHOR BOLTS (APPROXIMATELY 2" DEEP) WILL ALSO BE CUT AND REMOVED TO BELOW THE TOP OF THE NEW PIER. THE EXPOSED REBAR ALONG WITH THE "HAIRPINS" WILL REMAIN IN PLACE AND THE NEW CONCRETE WILL BE BONDED TO THE REMAINING CONCRETE PIERS AND EXPOSED REINFORCING.

CONCRETE CONSTRUCTION

- ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY ACI 318 LATEST EDITION. SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH ACI DETAILING MANUAL NOTE: CONSTRUCTION AND REMOVAL OF FORMS AND RESHORING SHALL BE INSPECTED BY THE CONTRACTOR'S ENGINEER.
- FURNISH BAR SUPPORTS WHERE NECESSARY DURING CONSTRUCTION.
- PROVIDE PIPE SLEEVES AND INSERTS IN CONCRETE WORK WHERE REQUIRED. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
- ALL EXPOSED CONCRETE SUBJECTED TO FREEZING AND THAWING TO HAVE A MINIMUM CEMENT CONTENT OF 6 SACKS PER YARD, A MAXIMUM WATER/CEMENT RATIO OF 0.40, AND 6% ±1% OF ENTRAINED AIR.
- IN CONCRETE SLAB-ON-GROUND, WELDED WIRE FABRIC REINFORCING SHALL BE 1 1/2" FROM TOP SURFACE OF THE SLAB, EXCEPT AS OTHERWISE NOTED, AND SHALL BE POSITIVELY SUPPORTED AND MAINTAINED IN THAT POSITION DURING CONCRETE PLACEMENT. ALSO REFER TO FLOOR SLAB SECTION.
- SPLICES:
A. LAP ALL COMPRESSION SPLICES 30 TIMES THE DIAMETER OF THE LARGER BAR.
B. LAP ALL TENSION SPLICES IN ACCORDANCE WITH THE FOLLOWING TABLE:

BAR SIZE	CONCRETE COMPRESSIVE STRENGTH			1. INCREASE SPLICE LENGTH BY THE FOLLOWING: 2. NOTE: INCREASED LENGTHS ARE CUMULATIVE.
	3,000 PSI	4,000 PSI	4,500 PSI	
#3	22"	19"	18"	
#4	30"	26"	25"	+30%
#5	37"	32"	30"	+50%
#6	45"	39"	35"	+30%
#7	63"	54"	51"	
#8	72"	62"	60"	

- CONCRETE PROTECTION FOR REINFORCEMENT:
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER
NO. 6 AND LARGER 2"
NO. 5 BAR, W31 OR D31 WIRE AND SMALLER 1 1/2"

- SUBMIT THE PROPOSED CONCRETE MIX DESIGN & LABORATORY TEST REPORTS OF THE MIX DESIGN. INCLUDE THE FOLLOWING:

- GRADATION & QUALITIES OF FINES & COARSE AGGREGATES.
- PROPORTIONS OF ALL THE INGREDIENTS INCLUDING ALL ADMIXTURES ADDED EITHER AT THE TIME OF BATCHING OR AT THE JOB SITE.
- WATER/CEMENT RATIO & WATER/CEMENTITIOUS RATIO.
- SLUMP - ASTM C143.
- AIR CONTENT - ASTM C173.
- UNIT WEIGHT OF CONCRETE - ASTM C138.
- STRENGTHS AT 28 DAYS - ASTM C39.

- SUBMIT EPOXY TYPE CONCRETE BONDING AGENT (CATALOG CUT).

- HYDRO-DEMOLITION

DESCRIPTION:
THIS WORK CONSISTS OF USING HYDRO-DEMOLITION TO REMOVE THE DAMAGED CONCRETE AT THE TOP OF EACH OF THE COLUMN SUPPORT PIERS TO A DEPTH, AS SHOWN IN THE DETAILS ON SHEET S-3 OR TO SOUND CONCRETE AND PROVIDE A ROUGH, BONDABLE SURFACE. ALL THE REINFORCEMENT EXPOSED IN THE PIERS ARE TO REMAIN IN PLACE, INCLUDING THE HAIRPINS (REBAR) WHICH WRAPPED AROUND THE ANCHOR BOLTS. CUT OFF THE EXISTING ANCHOR BOLTS ABOVE THE HAIRPINS.

QUALIFICATIONS:
AT LEAST TEN (10) WORKING DAYS BEFORE THE START OF WORK, THE CONTRACTOR SHALL SUBMIT WRITTEN DOCUMENTATION PROVING EXPERIENCE WITH AT LEAST TEN SUCCESSFUL AND VERIFIABLE PROJECTS SIMILAR IN SIZE AND SCOPE TO THIS WORK WITHIN THE LAST THREE (3) YEARS. THE SUPERVISING PERSON SHALL HAVE SUPERVISED THREE (3) VERIFIABLE PROJECTS OF SIMILAR MAGNITUDE AND TYPE. THE SUPERVISING PERSON SHALL BE PRESENT DURING OPERATIONS. THE HYDRO-DEMOLITION SYSTEM SHALL BE OPERATED BY AN OPERATOR TRAINED AND CERTIFIED BY THE EQUIPMENT MANUFACTURER AND HAVE A MINIMUM OF TWO (2) YEARS OF EXPERIENCE WITH THE MACHINERY USED FOR THE PERFORMANCE OF THE HYDRO-DEMOLITION "THE DOCUMENTATION FOR THE CONTRACTOR, SUPERVISING PERSON, AND OPERATOR SHALL INCLUDE THE FOLLOWING:

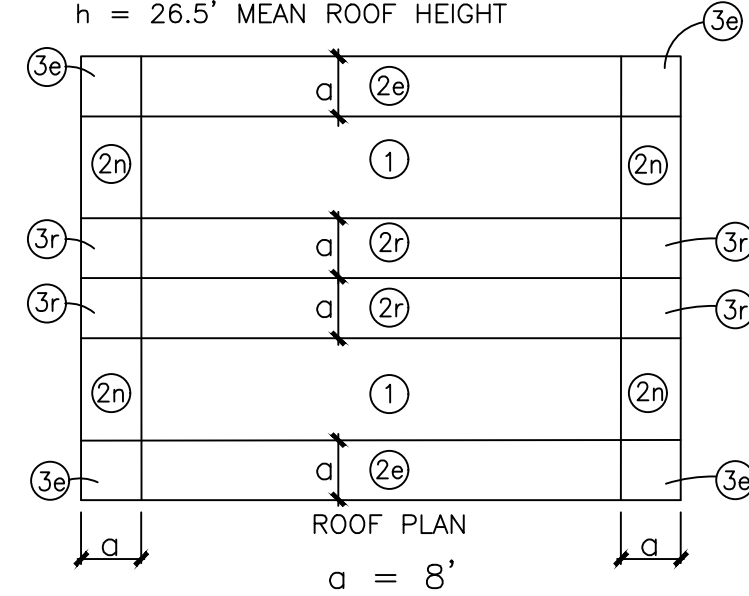
- (1) YEARS OF EXPERIENCE WITH HYDRO-DEMOLITION WITH SIMILAR PROJECTS
- (2) PAST HYDRO-DEMO PROJECT NAMES AND DATES
- (3) CERTIFICATION BY EQUIPMENT MANUFACTURER AS APPLICABLE
- (4) REFERENCE NAMES AND CONTACT INFORMATION

HYDRO-DEMOLITION EQUIPMENT:
THE HYDRO-DEMOLITION EQUIPMENT SHALL CONSIST OF A WATER SUPPLY SYSTEM, A HIGH-PRESSURE WATER PUMPING SYSTEM, A DEMOLITION UNIT, AND A VACUUM SYSTEM CAPABLE OF QUICKLY REMOVING ALL THE DEBRIS GENERATED BY THE DEMOLITION UNIT AND WATER SUPPLY SYSTEM. THE EQUIPMENT SHALL BE COMPUTERIZED, SELF-PROPELLED ROBOTIC MACHINE THAT UTILIZES A HIGH-PRESSURE WATER JET STREAM CAPABLE OF SELECTIVELY REMOVING THE UNSOUND AND THE SOUND CONCRETE TO THE DEPTH SPECIFIED AND ATTAINING PRESSURES IN THE RANGE OF 13,000 TO 20,000 PSI. ALSO, IT SHALL BE CAPABLE OF CLEANING RUST AND CONCRETE PARTICLES FROM ALL THE EXPOSED REINFORCING STEEL.

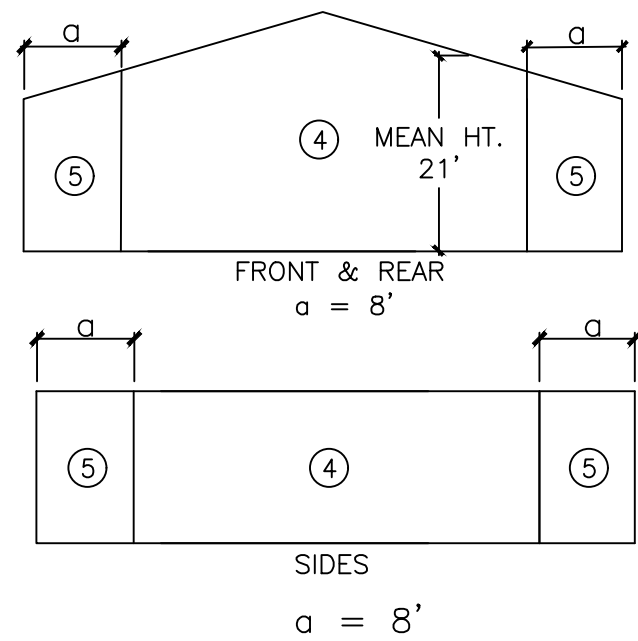
WIND PRESSURE - COMPONENT & CLADDING

SEE GENERAL NOTES, WIND LOADS, THIS SHEET.

24" EAVE, SLOPE 1.5/12
h = 26.5' MEAN ROOF HEIGHT



COMPONENTS AND CLADDING
WIND PRESSURE DIAGRAM (ROOF)



COMPONENTS AND CLADDING
WIND PRESSURE DIAGRAM (WALLS)

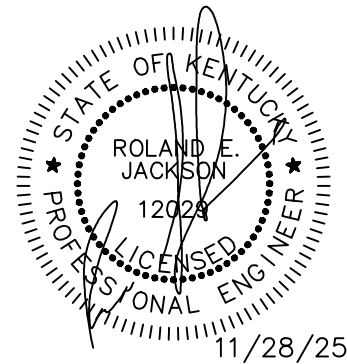
SPECIAL INSPECTIONS

REPORTS OF INSPECTION AND TESTING SHALL BE SENT TO THE ARCHITECT/ENGINEER. SUCH INSPECTION AND TESTING SHALL INCLUDE:

- CONCRETE: MIX DATA, DAILY POUR REPORTS, CYLINDER TESTS, SLUMP, ENTRAINED AIR TESTS TEMPERATURE.
- REINFORCEMENT: PLACEMENT, TYPE AND SIZE.
- FOUNDATIONS: BEARING SURFACE.
- MASONRY: CERTIFICATION OF ALL MATERIALS, VERIFICATION OF COMPRESSIVE STRENGTH, & REBAR PLACEMENT.
- STRUCTURAL WELDING

ABBREVIATIONS

AB	ANCHOR BOLT	E.N.	EDGE NAILING	P.L.F.	POUNDS PER LINEAL FOOT
A.F.F.	ABOVE FINISHED FLOOR	E.W.	EACH WAY	P.S.F.	POUNDS PER SQUARE FOOT
ANCH.	ANCHOR	EXIST.	EXISTING	P.S.I.	POUNDS PER SQUARE INCH
ARCH.	ARCHITECT/ARCHITECTURAL	EXP.	EXPANSION	P.T.	PRESSURE TREATED
B.F.E.	BOTTOM OF FOOTING ELEV.	EXT.	EXTERIOR	REINF.	REINFORCED
BLDG.	BUILDING	FDN.	FOUNDATION	REQ'D.	REQUIRED
BLKG.	BLOCKING	F.F.E.	FINISHED FLOOR ELEVATION	RET.	RETAINING
BM.	BEAM	F.N.	FINISH NAILING	SCHED.	SCHEDULE
BOT.	BOTTOM	FRMG.	FRAMING	SECT.	SECTION
BRG.	BEARING	FTG.	FOOTING	SIM.	SIMILAR
B.S.E.	BRICK/BLOCK SEAT ELEV.	F.V.	FIELD VERIFY	STL.	STEEL
CB.	CONCRETE BLOCK	GA.	GAUGE	STIFF.	STIFFENER
CJ	CONTROL JOINT/	G.L.B.	GLUELAM BEAM	STRUCT.	STRUCTURAL
CL	CONSTRUCTION JOINT	HORIZ.	HORIZONTAL	S.Y.P.	SOUTHERN YELLOW PINE
CL	CENTER LINE	J.B.E.	JOIST BEARING ELEVATION	T.B.E.	TRUSS BEARING ELEVATION
C.M.U.	CONCRETE MASONRY UNIT	JT.	JOINT	T.F.E.	TOP OF FOOTING ELEVATION
COL.	COLUMN	L.G.M.F.	LIGHT GAUGE METAL FRMG.	T.L.	TOTAL LOAD
CONC.	CONCRETE	L.L.	LIVE LOAD	T.S.E.	TOP OF STEEL ELEVATION
CONT.	CONTINUOUS	LLH	LONG LEG HORIZONTAL	T.W.E.	TOP OF WALL ELEVATION
CTRD.	CENTER	LLV	LONG LEG VERTICAL	TYP.	TYPICAL
DBL.	DOUBLE	MAX.	MAXIMUM	U.N.O.	UNLESS NOTED OTHERWISE
DIA.	DIAMETER	MFG.	MANUFACTURER	VERT.	VERTICAL
D.L.	DEAD LOAD	MIN.	MINIMUM	w/	WITH
DWG.	DRAWING(S)	M.O.	MASONRY OPENING	WWF	WELDED WIRE FABRIC
EA.	EACH	MTL.	METAL		
E.F.	EACH FACE	O.C.	ON CENTER		
E.J.	EXPANSION JOINT	OPNG.	OPENING		
ELEV.	ELEVATION	PL	PLATE		



London Spec Building

London-Laurel Economic
Development Authority

200 Air Park Drive

London, Kentucky 40744 Laurel County

DATE	REVISION	BY
PROJECT NO. 204-0121	DESIGNED BY REJ	
	DRAWN BY	
	CHECKED BY	
	REVIEWED BY	
DATE NOVEMBER 13, 2026		
SCALE AS NOTED		

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DRAWING NO.

S1

SHEET OF



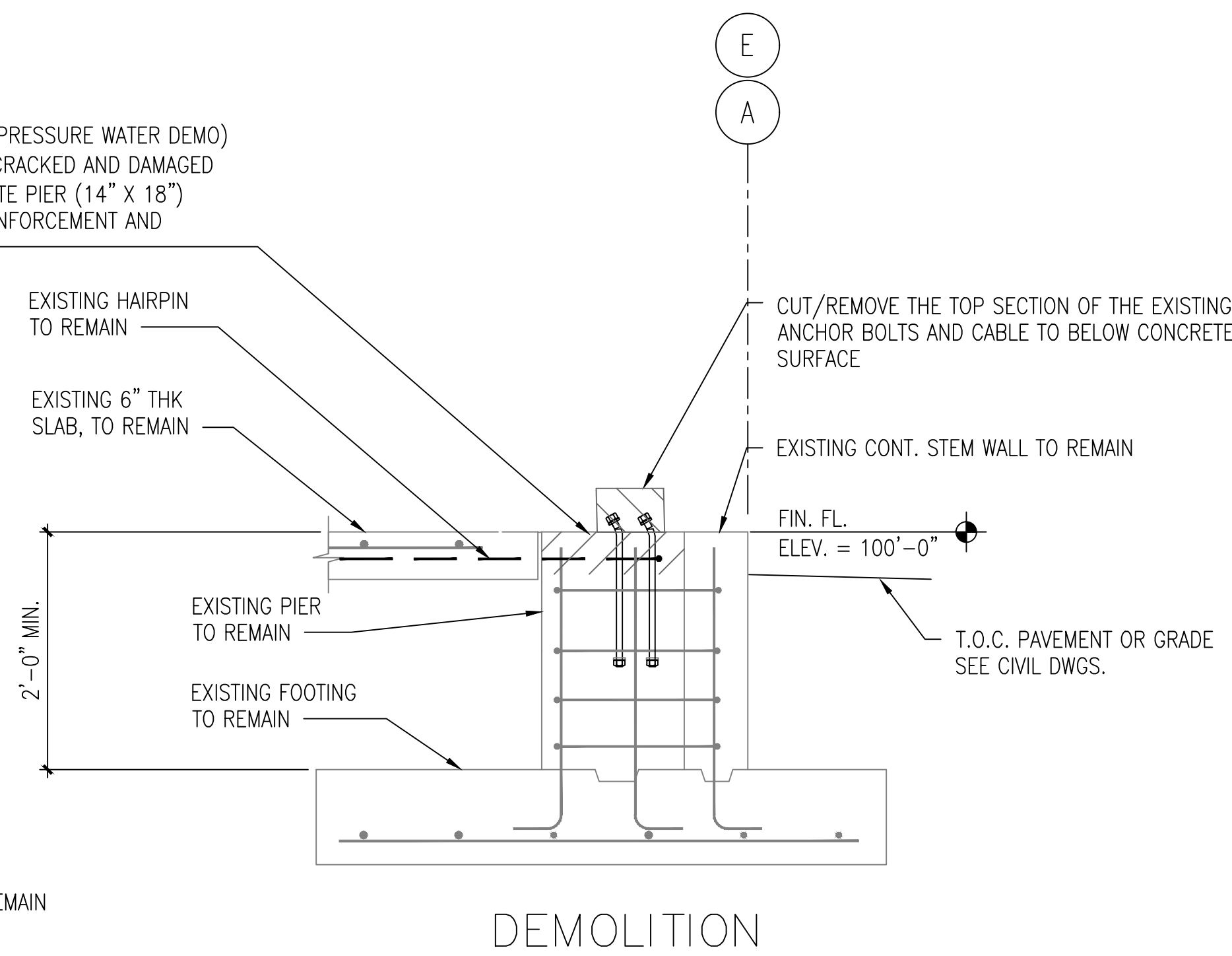
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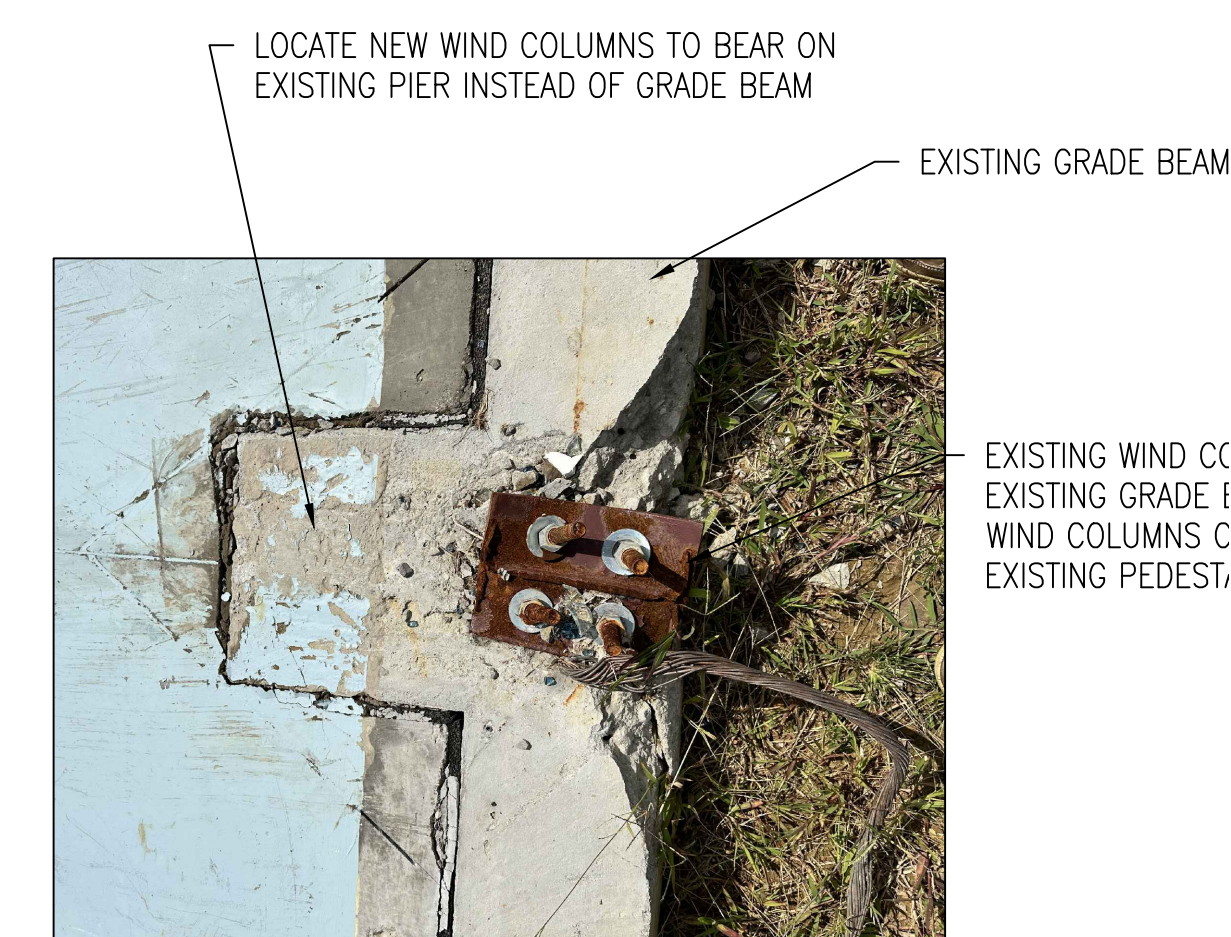
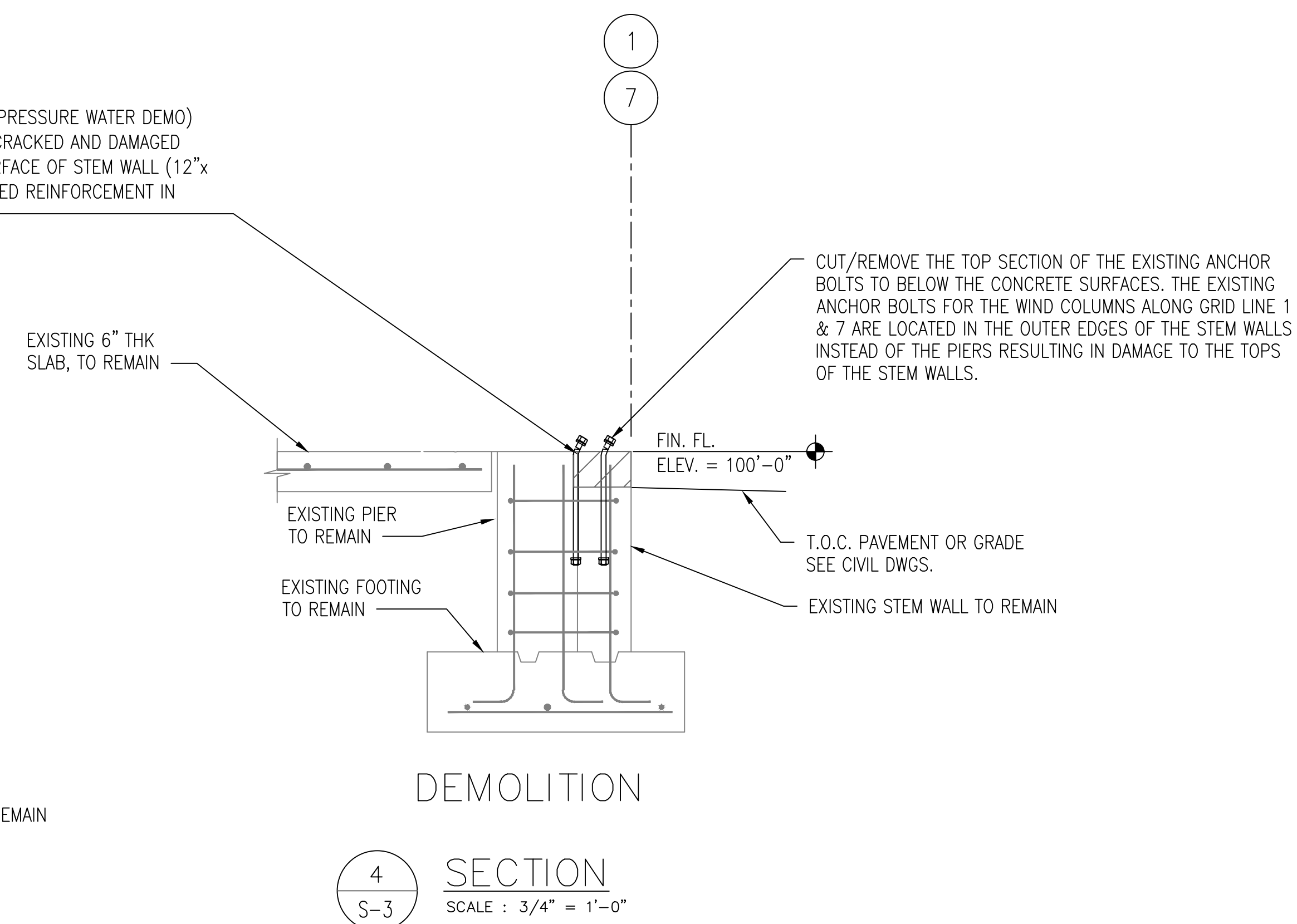
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MEET OF



MAIN COLUMN PEDESTAL DAMAGE



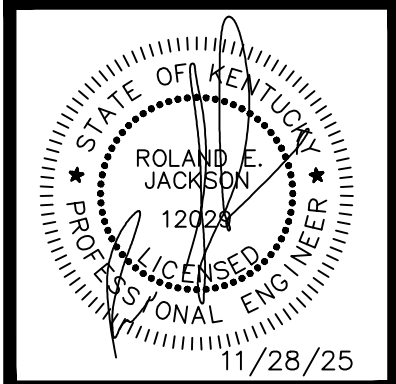
WIND COLUMN GRADE BEAM DAMAGE

PROJECT NO.	20-0121	DESIGNED BY	REJ	DRAWN BY		CHECKED BY	REVIEWED BY	DATE	11/19/25	SCALE	AS NOTED	BY	
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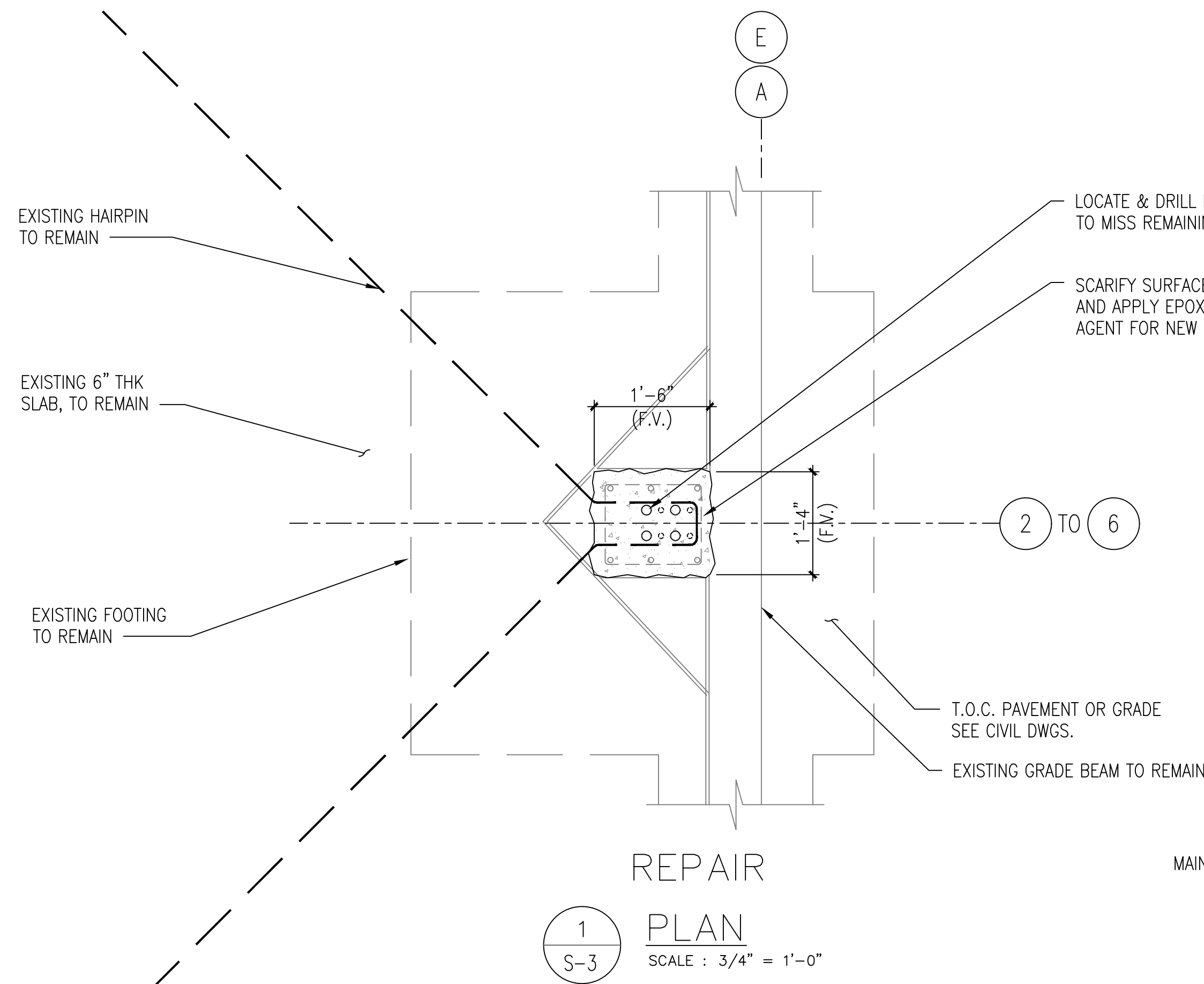
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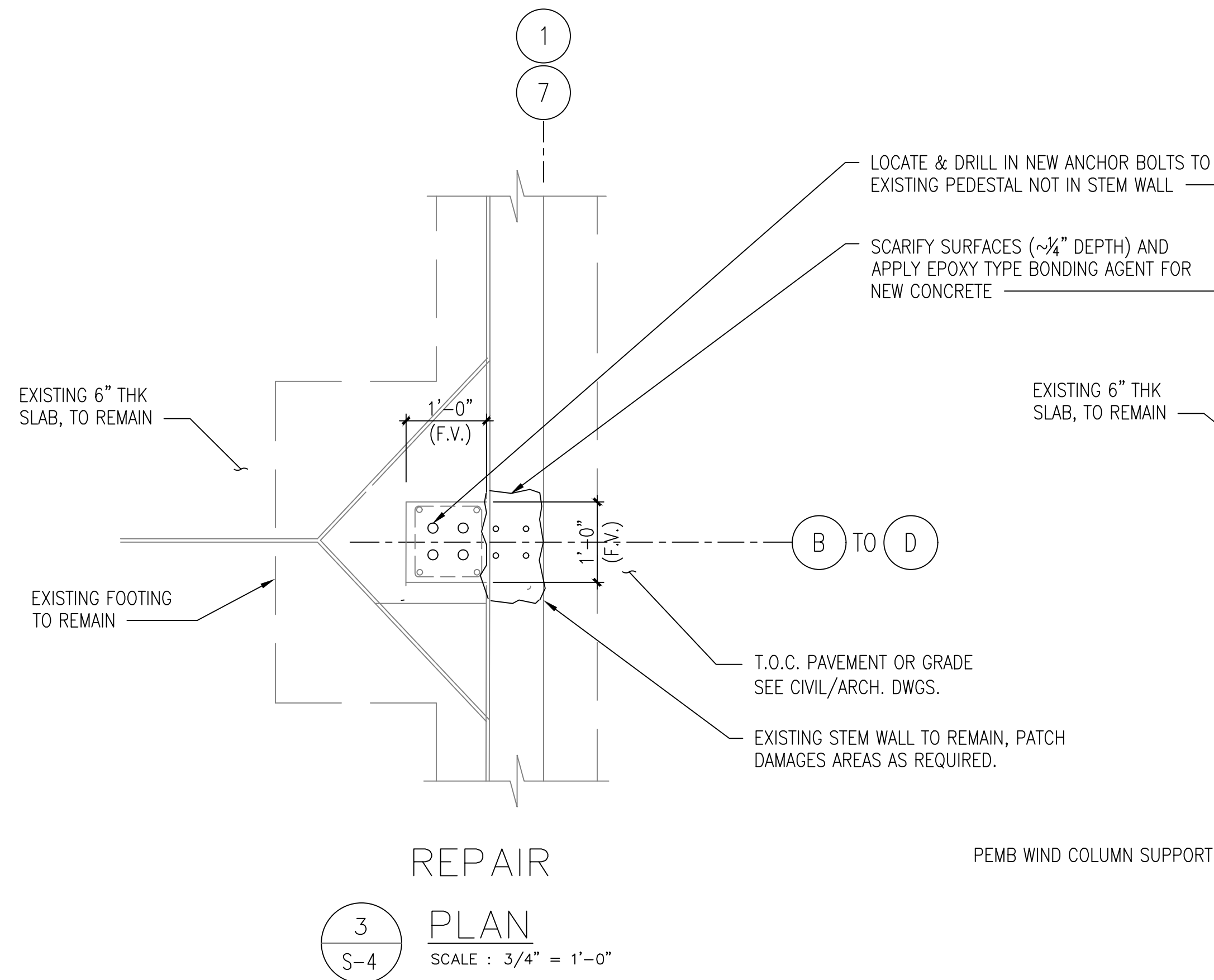
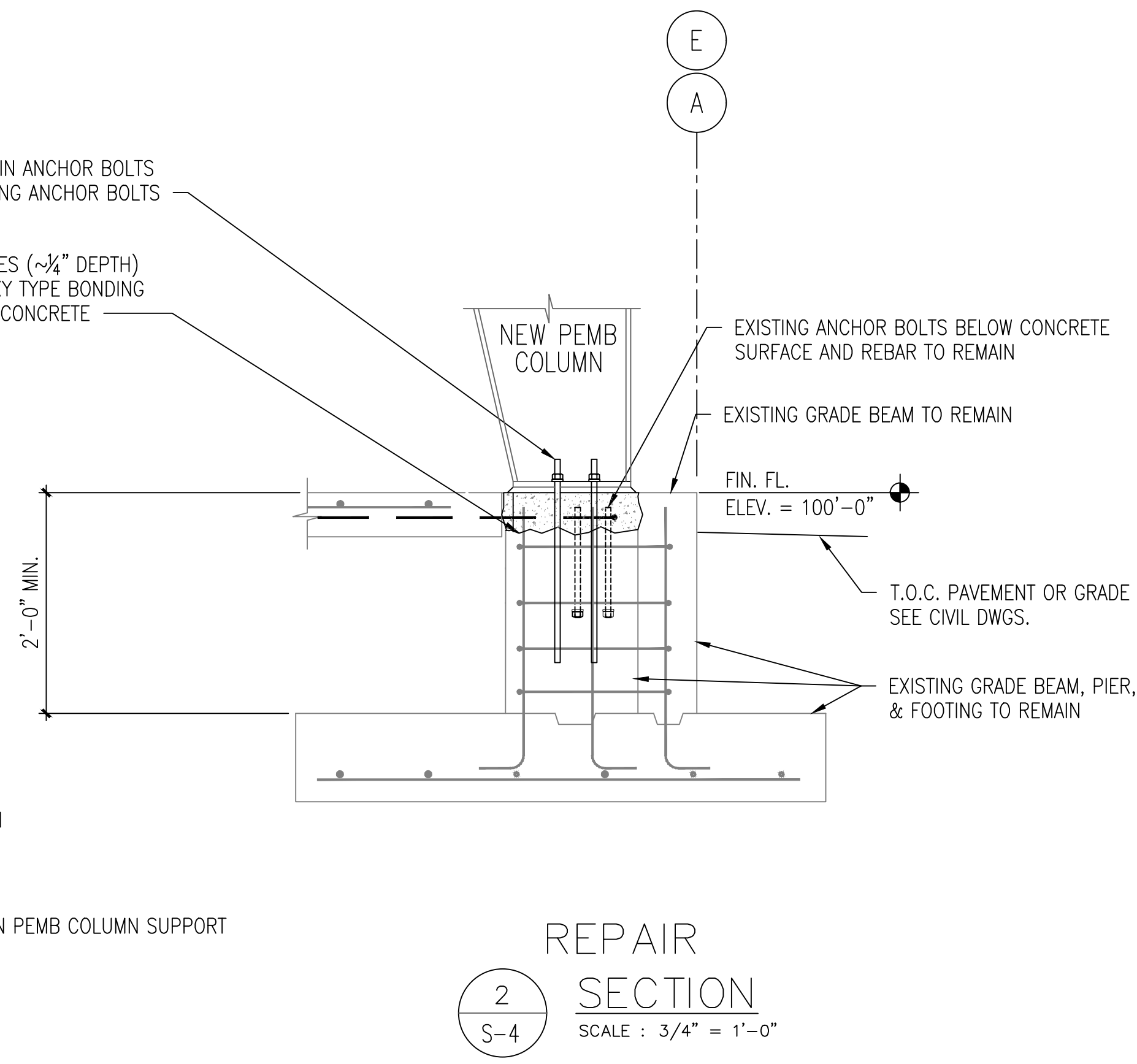
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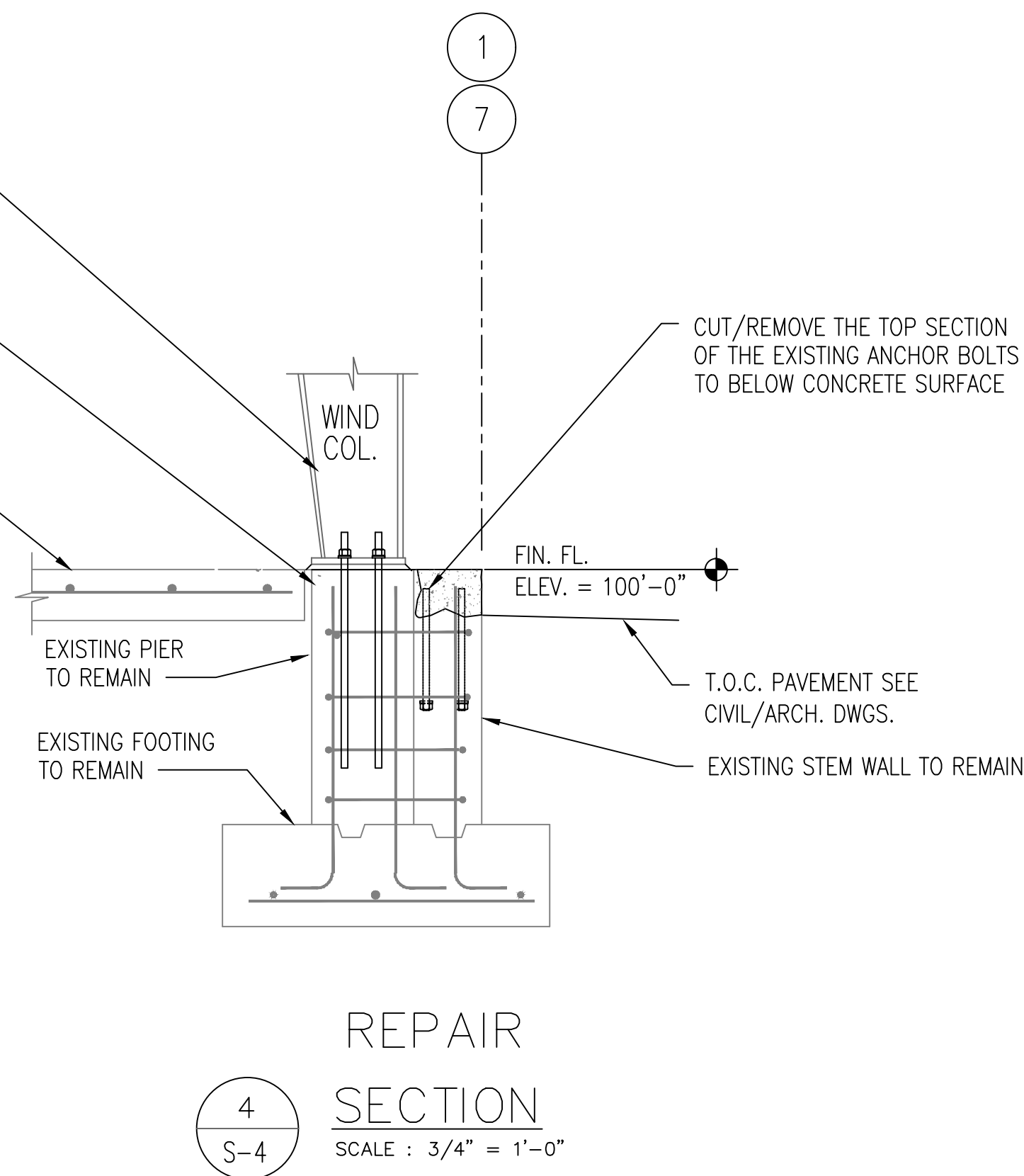
London Spec Building
London-Laurel Economic
Development Authority
200 Air Park Drive
London, Kentucky 40744 Laurel County



MAIN PEMB COLUMN SUPPORT



PEMB WIND COLUMN SUPPORT



DATE	REVISION	BY
PROJECT NO. 204-0121	DESIGNED BY REJ	
	DRAWN BY	
	CHECKED BY REJ	
	REVIEWED BY	
DATE 11/19/2025	SCALE AS NOTED	

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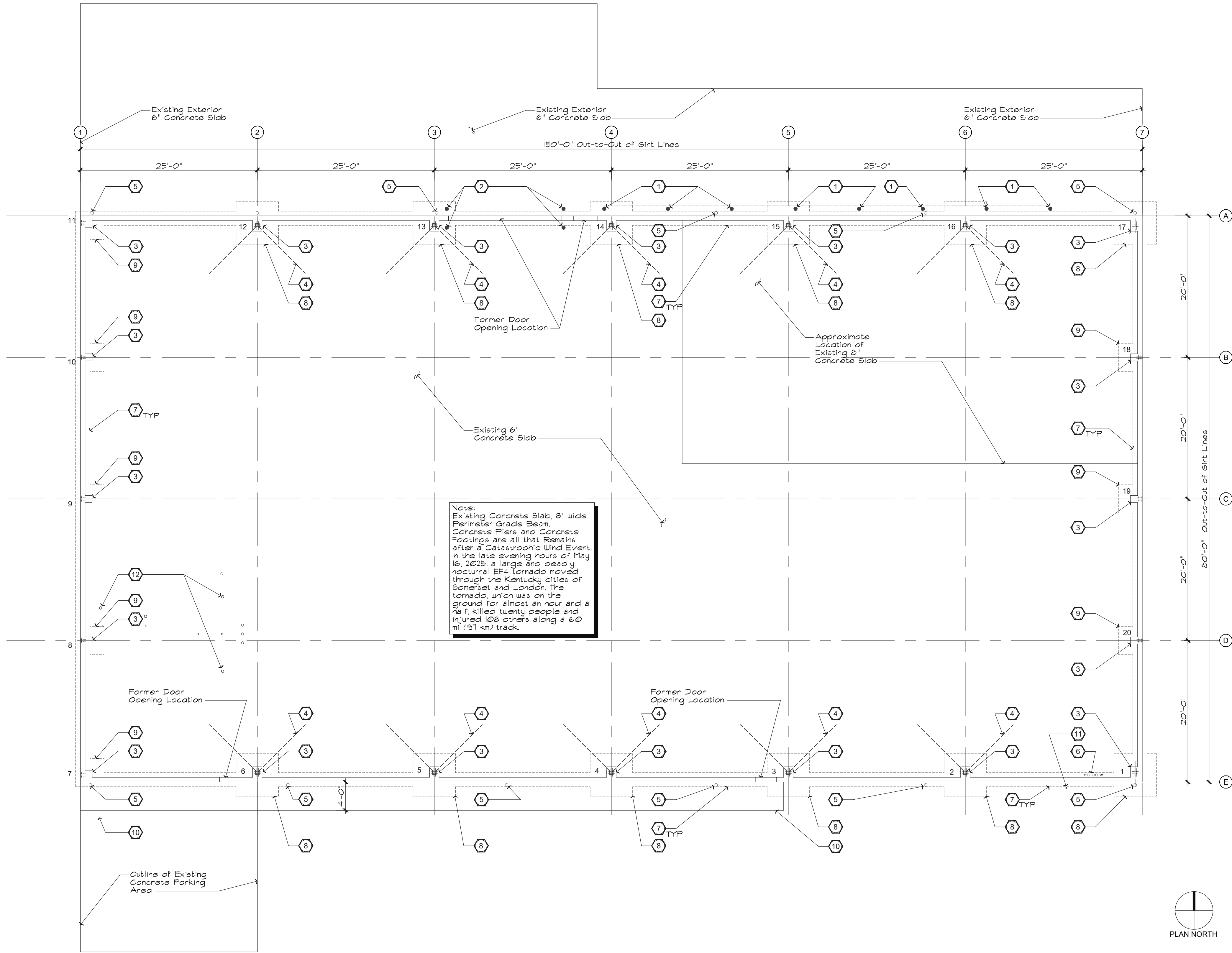
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Demolition Keynotes: (36)

1. REMOVE EXISTING CONCRETE FILLED PIPE BOLLARDS (8) AND STEEL RAILS (SHOWN DASHED)
2. EXISTING CONCRETE FILLED PIPE BOLLARDS TO REMAIN
3. REMOVE PORTIONS OF PRE-ENGINEERED METAL BUILDING (PEMB) ANCHOR BOLTS AND CONCRETE PIERS- CAREFULLY WORK AROUND EXISTING HAIR PINS WHICH ARE TO REMAIN- REFER TO STRUCTURAL
4. EXISTING HAIR PINS TO REMAIN- REFER TO STRUCTURAL
5. EXISTING PVC PIPE CONNECTOR TO SUB-SURFACE DRAINAGE SYSTEM TO REMAIN; VERIFY WORKING ORDER- TEST PIPING FOR FLOW VIABILITY; REMOVE ANY BLOCKAGE WHERE POSSIBLE; REUSE
6. REMAINS OF ELECTRICAL STUB-UPS
7. OUTLINE (SHOWN DASHED) OF CONCRETE FOUNDATION BELOW- 2'-0\"/>
8. OUTLINE (SHOWN DASHED) OF CONCRETE PIER FOOTING (BELOW)- 6'-0\"/>
9. OUTLINE (SHOWN DASHED) OF CONCRETE PIER FOOTING (BELOW)- 4'-0\"/>
10. OUTLINE OF EXISTING CONCRETE SIDEWALK
11. PROBABLE GAS LINE LOCATION
12. APPROXIMATE LOCATIONS OF EXISTING PLUMBING

Demolition Sheet Notes

1. INFORMATION AND WORK SHOWN AS EXISTING ON DRAWINGS WAS TAKEN FROM NOTES OF CURSORY FIELD MEASUREMENTS AND 'AS-BUILT' CONSTRUCTION DOCUMENTS; ACTUAL DIMENSIONS MAY VARY SLIGHTLY FROM THOSE INDICATED; CONSEQUENTLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL WORK NECESSARY TO RENOVATE, ALTER, CHANGE AND REPAIR EXISTING SYSTEMS BASED UPON VERIFICATION OF ACTUAL FIELD CONDITIONS
2. REPAIR EXISTING CONCRETE SLAB, GRIND AND SMOOTH UNEVEN SURFACES, FILL CRACKS AND LEVEL PRIOR TO INSTALLING NEW FLOOR FINISHES
3. ALL DEMOLITION WORK SHALL BE PERFORMED WITH 'DUE CARE AND DILIGENCE' SO AS TO PREVENT UNNECESSARY DAMAGE TO SYSTEMS THAT SHALL REMAIN IN OPERATION DURING AND AT THE CONCLUSION OF WORK; DETERMINE EXACT LOCATIONS OF EXISTING EQUIPMENT, DEVICES AND WIRING PRIOR TO COMMENCEMENT OF WORK
4. ALL MATERIALS REMOVED DURING DEMOLITION WORK AND NOT INDICATED FOR REUSE OR TO BE SAVED FOR OWNER SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE DEMOLITION PROCEDURES AND SEQUENCES TO ENSURE STABILITY AND SAFETY DURING DEMOLITION, AND TO PROVIDE AND MAINTAIN SHORING, BRACING AND STRUCTURAL SUPPORT AS REQUIRED TO PRESERVE STABILITY AND TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF CONSTRUCTION TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED
6. RESTORE EXPOSED FINISHES OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO ADJOINING CONSTRUCTION SUCH THAT INDICATIONS OF PATCHING AND REFINISHING ARE NOT APPARENT
7. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION (AHJ)

Sheet Notes:

1. DIMENSIONS ON DRAWINGS WERE TAKEN FROM FIELD MEASUREMENTS AND 'AS-BUILT' DRAWINGS; ACTUAL DIMENSIONS MAY VARY SLIGHTLY FROM THOSE INDICATED

General Notes

- A. ALL CONTRACTORS SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND VERIFY THEY RELATE TO THE REQUIREMENTS OF DEMOLITION WORK AND NEW WORK SHOWN ON THESE DRAWINGS AND IN THE SPECIFICATIONS; THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AND CONNECTIONS ARE BASED UPON INFORMATION TAKEN FROM LIMITED FIELD INVESTIGATIONS; CONTRACTOR SHALL MAKE REQUIRED REVISIONS TO SYSTEM COMPONENTS AS NECESSITATED BY ACTUAL FIELD CONDITIONS AT NO ADDITIONAL COST TO OWNER OR ARCHITECT; REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE ARCHITECT BEFORE CONSTRUCTION BEGINS.
- B. GENERAL CONTRACTOR MUST SECURE ALL NECESSARY INSPECTIONS FOR GOVERNMENTAL APPROVALS.
- C. CONTRACTORS SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND QUANTITIES OF EXISTING MATERIALS PRIOR TO PROCEEDING WITH WORK AND CONTACT OWNER/ARCHITECT IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
- D. CONTRACTOR SHALL ENSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES; WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE KENTUCKY BUILDING CODE, NATIONAL ELECTRIC CODE, AND ALL OTHER FEDERAL, STATE AND LOCAL AGENCY REGULATIONS; CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS THE CONTRACTOR SHALL OBSERVE THE MORE STRINGENT REQUIREMENTS.
- E. CONTRACTOR AND HIS OR HER SUBCONTRACTORS SHALL BE LICENSED BY THE STATE IN WHICH THE PROJECT IS LOCATED AND APPROVED IN ADVANCE BY THE OWNER.
- F. CONTRACTOR SHALL PROVIDE AND FILE ALL APPLICATIONS, PAY FOR ALL NECESSARY PERMITS AND SECURE CERTIFICATES OF OCCUPANCY FOR THE PROJECT.
- G. GENERAL CONTRACTOR SHALL SECURE ALL NECESSARY INSPECTIONS; THE BUILDING OFFICIAL IS AUTHORIZED TO MAKE OR REFUSE INSPECTIONS OF ANY CONSTRUCTION WORK TO ASCERTAIN COMPLIANCE WITH THE PROVISIONS OF BUILDING CODES AND OTHER LAWS THAT ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AHJ); SYSTEMS SHALL NOT BE CONCEALED FROM VIEW UNTIL INSPECTED AND APPROVED BY (AHJ).
- H. PROVIDE AND MAINTAIN FIRE EXTINGUISHERS ON PROJECT SITE DURING CONSTRUCTION.
- I. CONTRACTORS SHALL REFER TO OTHER DRAWINGS AND SPECIFICATIONS AND BECOME FAMILIAR WITH THE ENTIRE SCOPE OF WORK TO THE EXTENT THAT THEIR WORK AFFECTS OR IS AFFECTED BY OTHER CONTRACTORS WORK.
- J. LOCATION OF UTILITIES ARE APPROXIMATE- CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE WITH ALL NECESSARY UTILITY COMPANIES PRIOR TO PROCEEDING WITH WORK IF REQUIRED.
- K. G.C. AND SUB CONTRACTORS ARE RESPONSIBLE FOR ANY AND ALL MATERIAL AND EXISTING CONDITIONS FOUND AND LOCATED THAT ARE NOT INDICATED ON CONSTRUCTION DOCUMENTS.



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CHECKED BY	IANB
REVIEWED BY	IANB
DATE	December 1, 2025
SCALE	AS NOTED

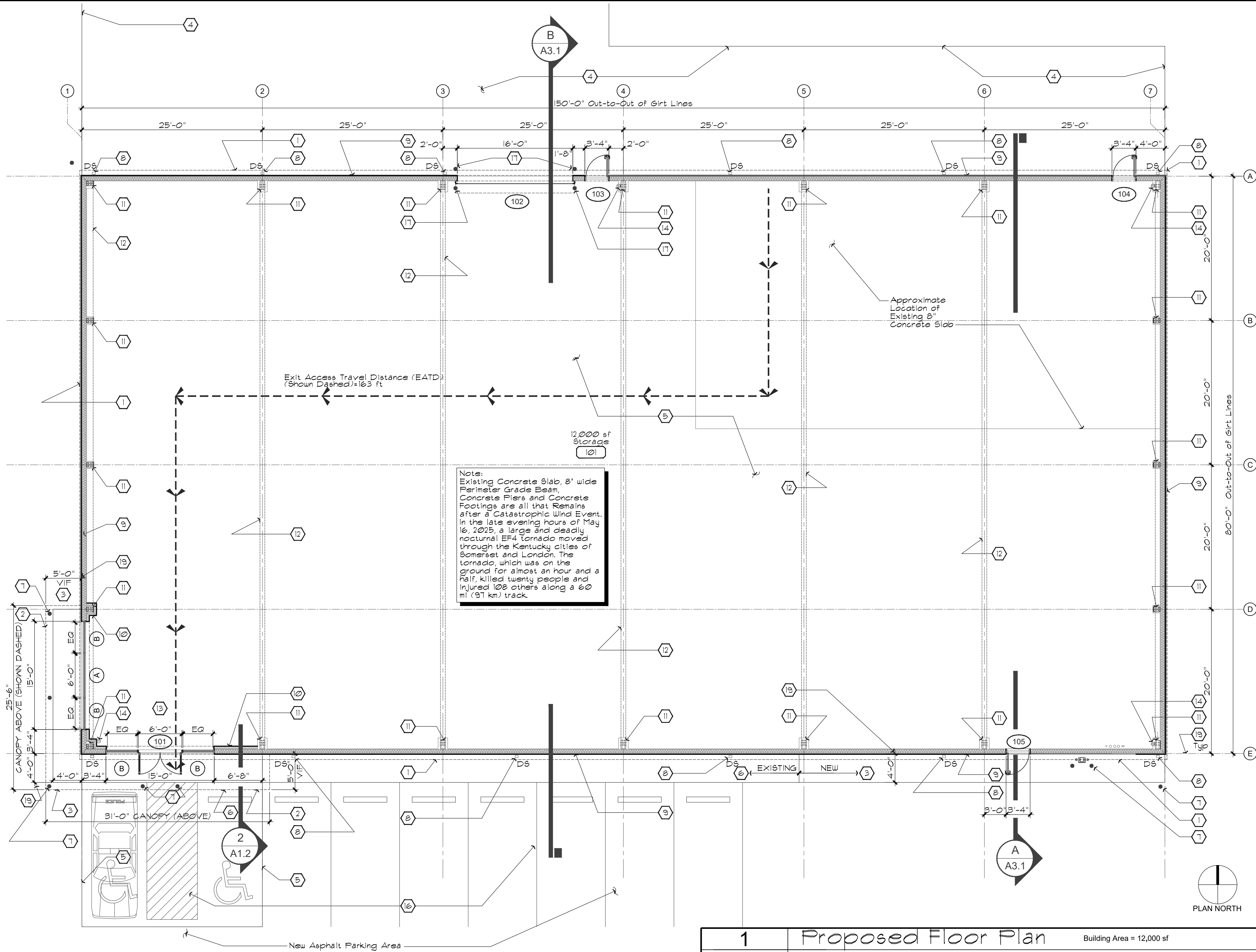
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SHEET OF

1	As-Built/Demolition Plan
1/8" = 1'-0"	Concrete Slab Area = 12,000 sf



Keynotes:

1. OUTLINE OF ROOF OVERHANG ABOVE- (SHOWN DASHED)
2. OUTLINE (SHOWN DASHED) OF CANOPY (ABOVE)
3. CONCRETE SIDEWALK: REFER TO SITE/CIVIL
4. CONCRETE SLAB: REFER TO STRUCTURAL
5. EXISTING CONCRETE SLAB
6. EXISTING CONCRETE SIDEWALK
7. BOLLARD- STEEL PIPE W/ CONCRETE FILL (PAINT): REFER TO SITE/CIVIL
8. 'DS' DENOTES PREFINISHED CORRUGATED ALUMINUM DOWNSPOUT BY MBSM WITH PVC BOOT (BY CONTRACTOR)- CONNECT TO SUBSURFACE DRAINAGE SYSTEM
9. EXTERIOR WALL: PRE-FINISHED METAL WALL PANELS POLYESTER BACKED BATT INSULATION BY FASS STEEL GIRTS AND STEEL STUD METAL BUILDING SYSTEM MANUFACTURER (MBSM) (TYPICAL)
10. INTERIOR METAL FURRING AND UNFACED BATT INSULATION WITH 1/2" GYPSUM BOARD- WHERE INDICATED (ADMIN AREA) (KEY: PAINT OR SEMI-PERMEABLE WALL FINISH, WHERE INDICATED)
11. PRE-ENGINEERED METAL BLDG (FEMB) COLUMN AND BASE PLATE
12. OUTLINE OF FEMB BEAM (ABOVE)- SHOWN DASHED
13. SOLAR GUARD WINDOW TINT AT EXTERIOR WINDOW LOCATIONS- TINT COLOR SELECTED BY OWNER
14. BRACKET MOUNT HAND-HELD FIRE EXTINGUISHER DENOTED BY 'FE'- PROVIDE WOOD BLOCKING IN PARTITION FOR SECURE MOUNTING (Model MF6 Larsens or Equal)
15. NEW PARKING STRIPING
16. ELECTRICAL PANELS: REFER TO ELECTRICAL
17. EXISTING BOLLARD- STEEL PIPE W/ CONCRETE FILL (PAINT)
18. NOT USED
19. DIMENSION/S TO FACE OF CONCRETE OR GIRT LINE OR BOTH

Sheet Notes

- A. ALL DIMENSIONS INDICATED ARE ACTUAL DIMENSIONS AND ARE TO FACE OF EXPOSED CONCRETE, EXPOSED CHU, GYPSUM BOARD FINISH OR TO COLUMN CENTERLINE AS APPLICABLE UNLESS NOTED OTHERWISE (UNO) (ROUGH OPENINGS SHALL ALLOW FOR 8MM SPACE)
- B. INSTALL STANDARD WOOD BLOCKING IN METAL STUD PARTITIONS AT LOCATIONS WHERE WALL-MOUNTED CASEWORK, FIXTURES, TOILET ACCESSORIES, FIRE EXTINGUISHERS, OWNER FURNISHED EQUIPMENT, AND OTHER ITEMS NOTED TO BE SECURELY MOUNTED USING WOOD BLOCKING ARE INDICATED
- C. THE TERM 'ALIGN' REFERS TO ALIGNMENT OF SIMILAR COMPONENTS OF CONSTRUCTION (WALLS, JAMBS, ETC) WHICH ARE ADJACENT OR THE COMPONENTS SHALL BE IN LINE WITH EACH OTHER ACROSS VOIDS TO PROVIDE A FLUSH FINISH SURFACE
- D. DRAWINGS ARE PREPARED USING DIMENSIONS AND PRODUCT CONFIGURATIONS OR DETAILS OF SPECIFIC MANUFACTURERS; DIMENSIONS AND DETAILS FOR SPECIFIC PRODUCTS MAY CHANGE BEFORE THEY ARE ACTUALLY INCORPORATED INTO THE WORK. CONTRACTOR SHALL VERIFY THAT THE MANUFACTURERS ARE ALSO ACCEPTABLE; THEREFORE ACTUAL INSTALLATION DETAILS AND DIMENSIONS MAY DIFFER FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY THAT THE MANUFACTURERS ARE ALSO ACCEPTABLE; THEREFORE ACTUAL INSTALLATION DETAILS AND DIMENSIONS MAY DIFFER FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY THAT THE MANUFACTURERS ARE ALSO ACCEPTABLE; THEREFORE ACTUAL INSTALLATION DETAILS AND DIMENSIONS MAY DIFFER FROM THOSE SHOWN.
- E. WALKWAYS AT STAIRS, THRESHOLDS, CHANGES IN FLOOR FINISH AND SLOPED FLOOR TO FLOOR DRAINS TO ASSURE COMPLIANCE WITH CURRENT ACCESSIBILITY REQUIREMENTS (VERIFY WITH AHJ)
- F. COORDINATE STOREFRONT OPENING REQUIREMENTS WITH SELECTED PROVIDER (MANUFACTURER) PARTICULAR SYSTEM WIDTH, HEIGHT AND STATED CLEARANCE REQUIREMENTS
- G. PRIOR TO APPLICATION OF GYP BD AND OTHER FINISHES OBTAIN FRAMING INSPECTION AND INWALL DEVICE CONNECTION APPROVALS FROM AUTHORITIES HAVING JURISDICTION
- H. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
- J. PROVIDE CLOSE OUT BINDER AND WARRANTY INFORMATION

Legend

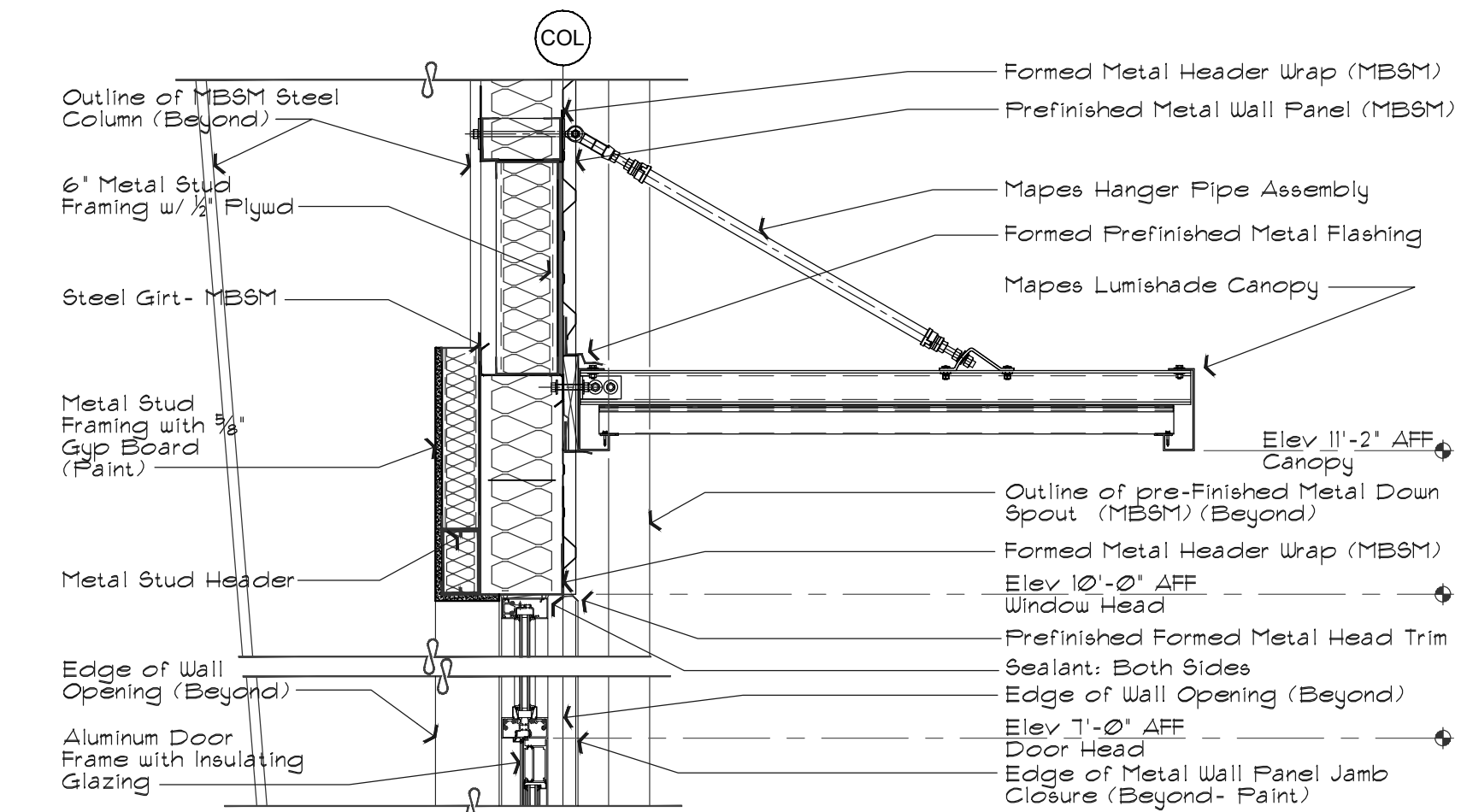
- Metal Wall Panel Over Metal Girt w/ Batt Insulation
- Metal Stud Wall or Partition
- Indicates Items Above (Shown Dashed)
- Door Designation
- Window Designation
- Room Name and Number
- Partition Type (Not Used)

Blg Code Summary Notes:

- A. **Construction Description.** New Pre-Engineered Metal Building, with concrete foundation and slab for Storage. **Moderate-hazard storage, Group S-1.** Storage
- B. **Building Data:**
 - Construction Type: Type IIB (Chapter 6, Types of Construction)
 - Sprinklers: None
 - Occupancy: S-1
 - Height and Area: No Height or Area Increase Utilized
 - Building Height: Proposed: 24 ft, 20 ft eave height. Allowed: 55 ft
 - Number of Stories: Proposed: 1, Allowed: 1
 - Building Area: Proposed: 12,000 sf, Allowed: 17,500 sf
 - (No separation required between S-1 and B)
- C. **Fire Protection Systems:** Chapter 9
 - Portable Fire Extinguishers, as Required (Section 906)
- D. **Table 1004.1.2, Maximum Floor Area Allowances Per Occupant:**
 - Warehouses Occupant Load Factor (OLF)= 500 gross
 - 12,000/500 = 24 Occupants
- E. **Table 1017.2, Exit Access Travel Distance (Allowed):**
 - Occupancy S-1, w/ Sprinklers = 200 ft, Actual = 163 ft

1 Proposed Floor Plan

Building Area = 12,000 sf
1/8" = 1'-0" New Pre-Engineered Metal Bldg to be Constructed on Existg 12,000 sf Concrete Slab



2 Detail

Over Front Entrance Storefront
3/4" = 1'-0" Mapes Canopy Connection to FEMB



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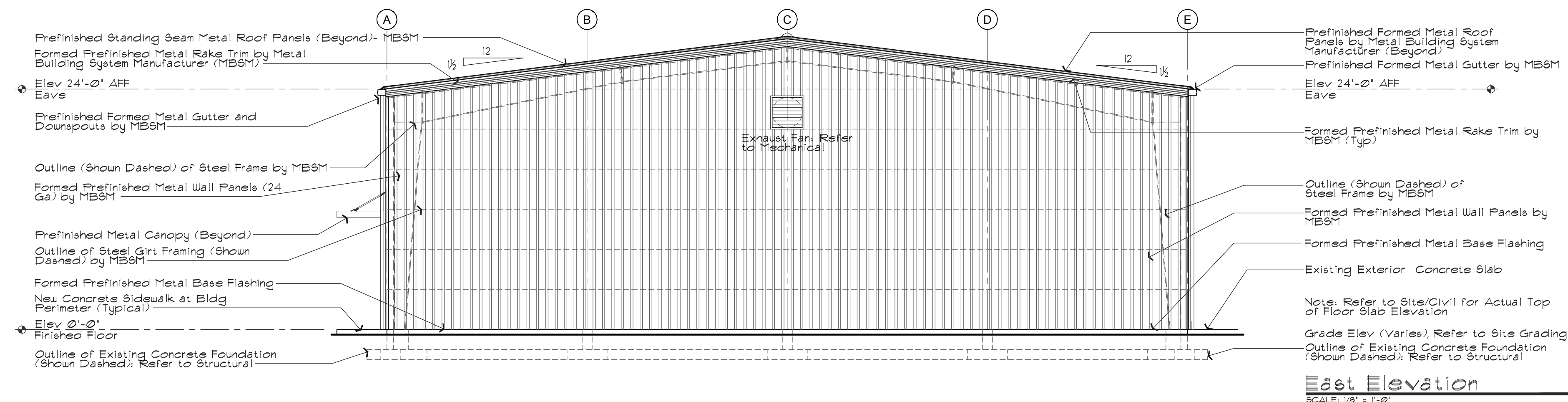
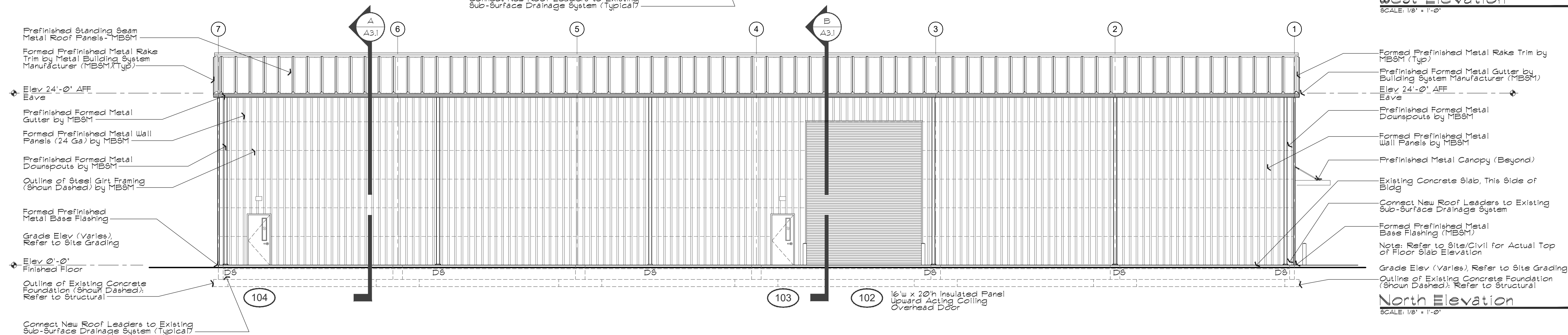
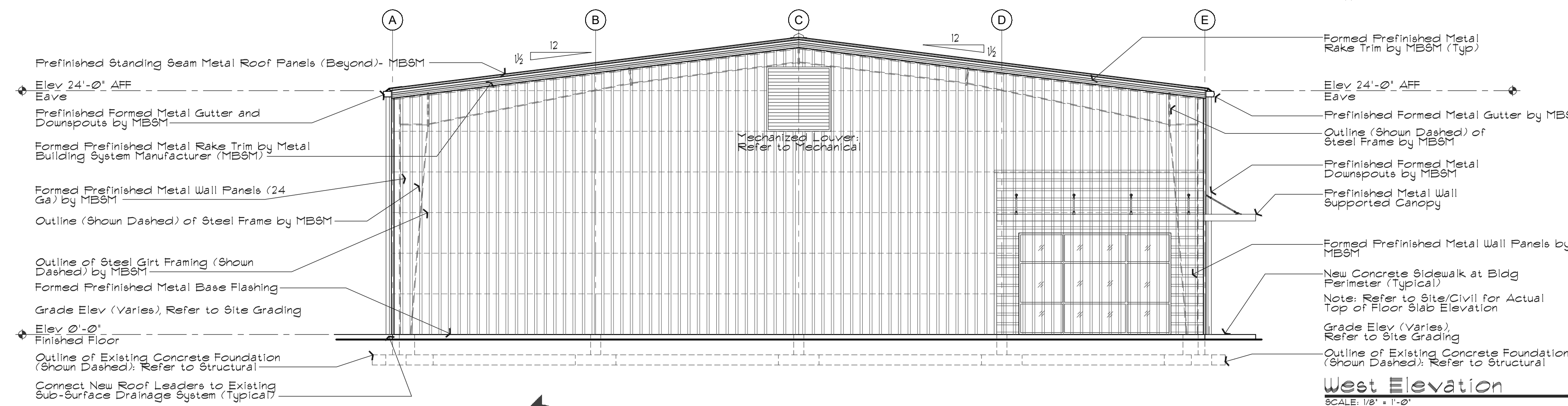
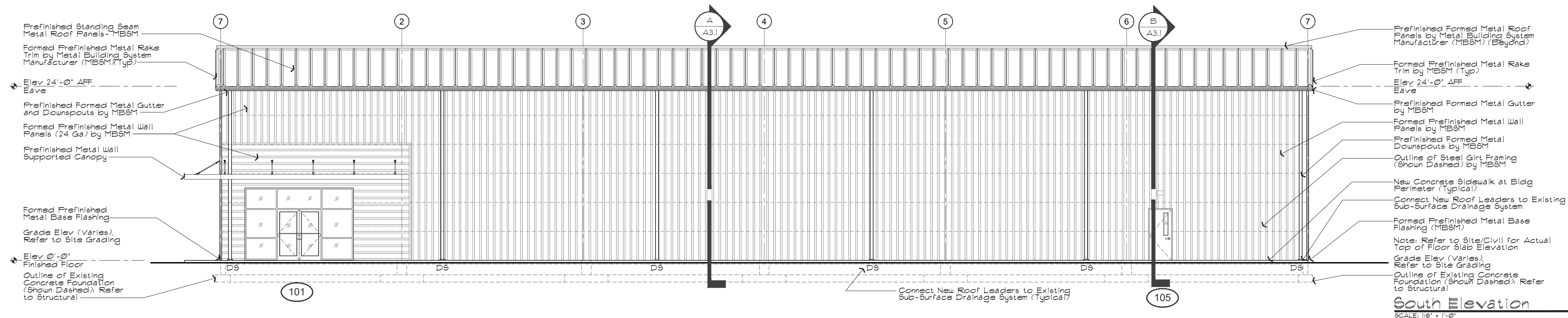
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SHEET 1 OF 1



Finishes Notes:

- A. EXTERIOR ROOF PANELS, WALL PANELS, COIL STOCK AND TRIM - BY METAL BUILDING SYSTEM MANUFACTURER (MBSM); POLYVINYLIDENE FLUORIDE (PVDF) PAINT SYSTEM COLORS TO BE SELECTED FROM MANUFACTURERS' FULL RANGE
- B. INTERIOR ROOF - SIMPLE SAYER FABRIC SYSTEM
- C. INTERIOR WALLS - POLYESTER BACKED BATT INSULATION
- D. STOREFRONT - MEDIUM BRONZE

- B. INTERIOR ROOF- SIMPLE SAVER FABRIC SYSTEM

- C. INTERIOR WALLS- POLYESTER BACKED
BATT INSULATION

- D. STOREFRONT- MEDIUM BRONZE



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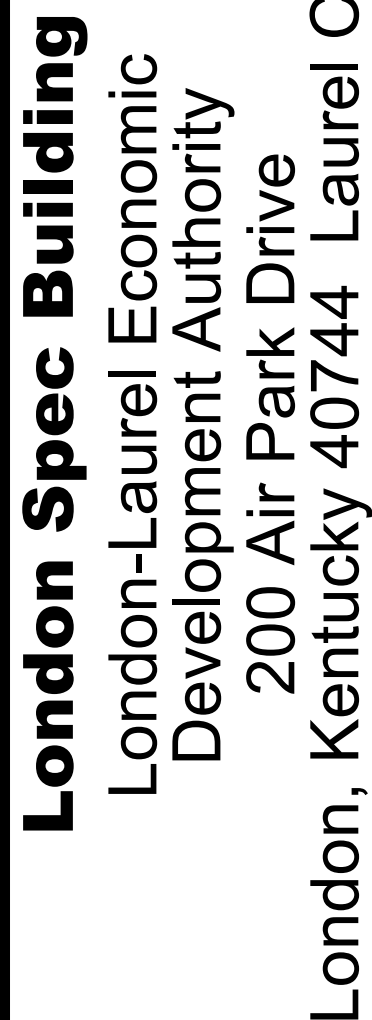
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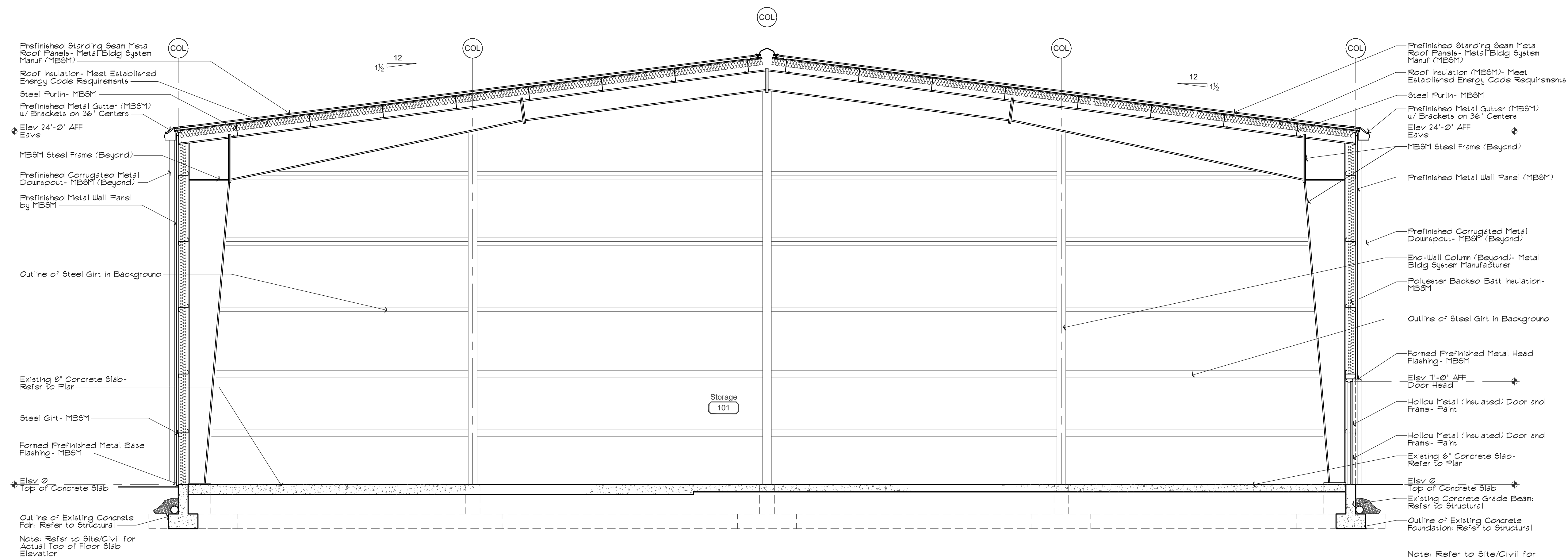
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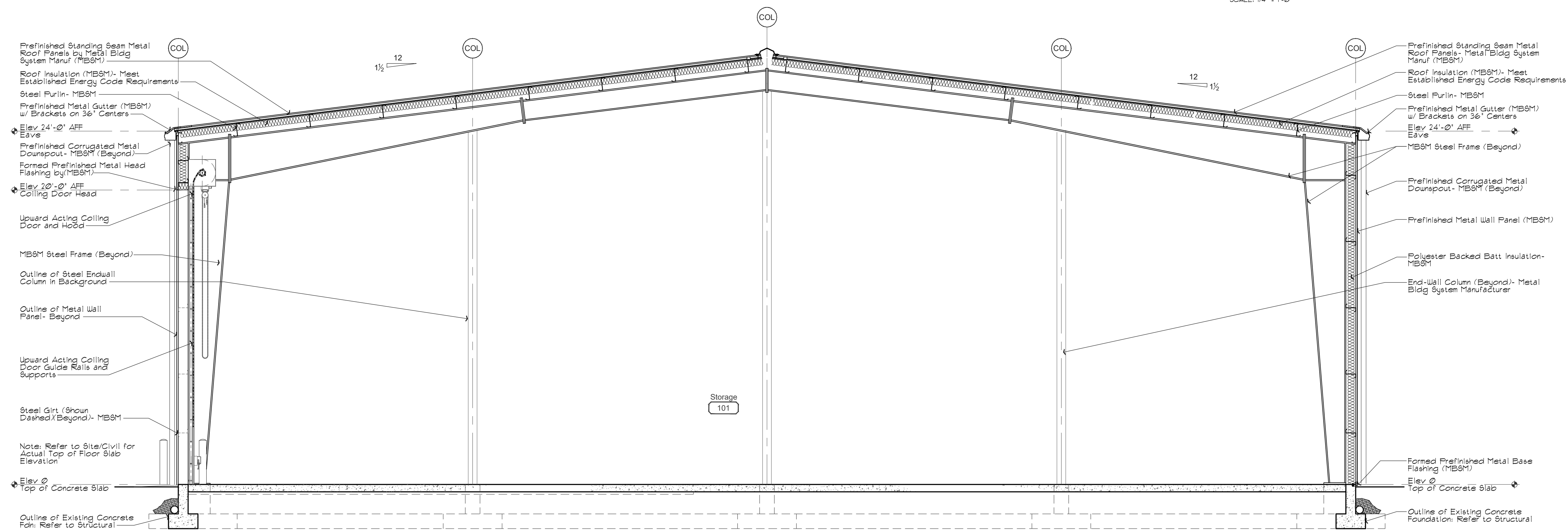
A-3.1

SHEET OF



Section A

Note: Refer to Site/Civil for Actual Top of Floor Slab Elevation



Section E



1. EXISTING SANITARY SEWER AND DOMESTIC WATER SERVICES ROUTED TO BUILDING SHALL REMAIN (NOT SHOWN ON PLANS).
2. ALL EXISTING SANITARY SEWER ROUGH-IN OPENINGS AND DOMESTIC WATER STUB-UPS IN BUILDING SLAB TO REMAIN (NOT SHOWN ON PLANS).
3. WHERE EXISTING DOMESTIC WATER SERVICE PIPING PENETRATES SLAB, CONTRACTOR SHALL INSTALL MAIN SHUT OFF BALL VALVE AT FLOOR, CONTRACTOR SHALL PERMANENTLY LABEL VALVE "MAIN WATER SHUT OFF". CAP PIPING SECONDARY OF SHUT OFF FOR FUTURE EXTENSION.
4. SEAL ALL PIPING PENETRATIONS THROUGH EXTERIOR WALLS WITH SILICONE SEALANT AS REQUIRED TO MAKE WATER-WEATHER TIGHT.
5. THE CONTRACTOR SHALL MEET WITH GAS UTILITY COMPANY ON SITE PRIOR TO BEGINNING WORK TO ENSURE ALL UTILITY REQUIREMENTS WILL BE MET. ANY COST ASSOCIATED WITH THE UTILITY COMPANY SHALL BE COVERED BY THE CONTRACTOR, IF APPLICABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, TESTING AND/OR SCHEDULED INSPECTIONS.

1. APPROXIMATE LOCATION OF EXISTING SLEEVED GAS SERVICE STUB-UP. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
2. PROVIDE NEW GAS METER LOOP PER UTILITY COMPANY REQUIREMENTS WITH ASSOCIATED LOOKING GAS COCKS, TEST PORTS AND PRESSURE REGULATORS. PROVIDE GAS SERVICE SECONDARY OF METER WITH 11" W.C. PRESSURE.
3. CONTRACTOR SHALL VENT GAS REGULATORS AS NECESSARY TO ACHIEVE REQUIRED CLEARANCES FROM NEARBY BUILDING OPENING.
4. PROVIDE 2" GAS PIPING TURNED UP INSIDE BUILDING WITH MAIN SHUT OFF VALVE 48" AFF. CONTRACTOR SHALL PERMANENTLY LABEL VALVE "MAIN GAS SHUT OFF". CAP PIPING SECONDARY OF SHUT OFF VALVE FOR FUTURE EXTENSION.

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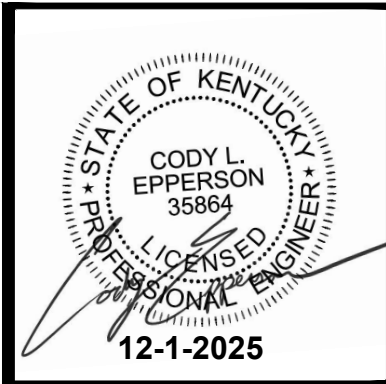
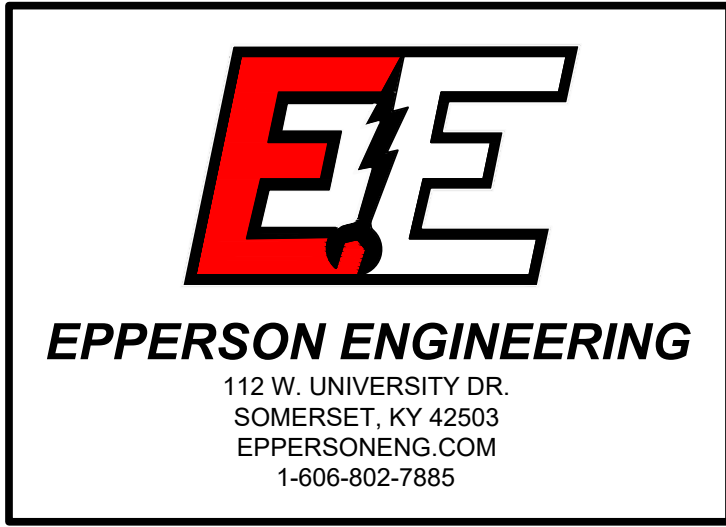
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P1



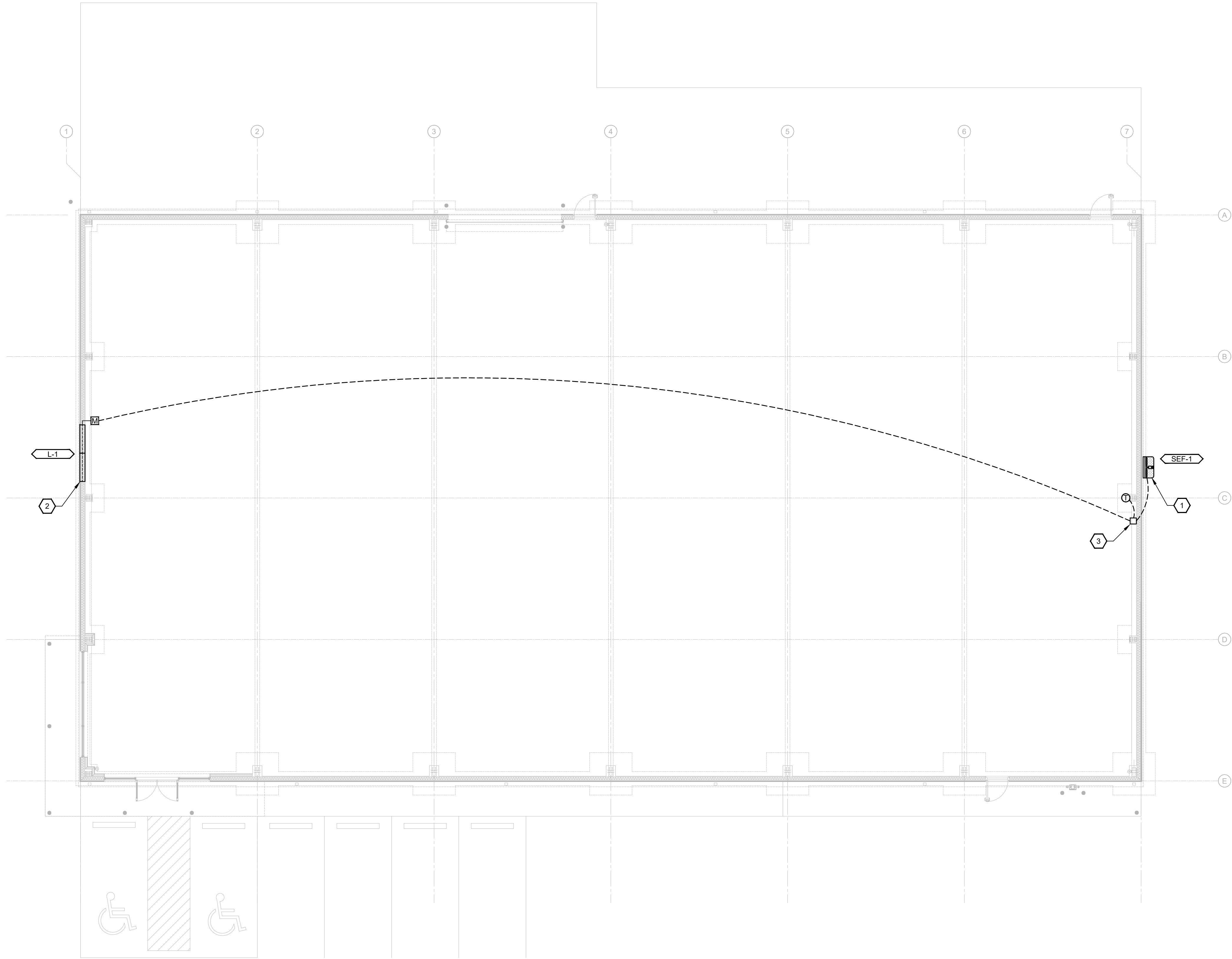
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GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR ALL PERMITS, TESTING, AND INSPECTIONS.
2. ALL MECHANICAL EQUIPMENT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE.
3. ALL EXTERIOR BUILDING PENETRATIONS MUST BE COORDINATED WITH THE ARCHITECT AND SHALL BE FLASHED AND SEALED WEATHER-TIGHT. ALL MATERIALS AND COLORS MUST BE PRE-APPROVED BY THE ARCHITECT. NEW OPENINGS AND/OR PENETRATIONS FOR MECHANICAL ITEMS SHALL BE CUT, SLEEVED, ETC. BY THE MECHANICAL CONTRACTOR.
4. ALL HVAC EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. UTILIZE FACTORY FILTERS DURING CONSTRUCTION.
5. MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OUTDOOR AIR INTAKES AND EXHAUST AS REQUIRED BY IMC.
6. ALL CONTROL WIRING SHALL BE INSTALLED IN CONDUIT.
7. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR CONNECTIONS TO ALL HVAC EQUIPMENT.
8. STRUCTURAL MEMBERS SHALL NOT BE CUT OR COMPROMISED IN ANY WAY FOR THE INSTALLATION OF HVAC EQUIPMENT.
9. MAINTAIN CLEARANCES AROUND ALL HVAC EQUIPMENT, DEVICES, CONTROLLERS, ETC. PER MANUFACTURER'S RECOMMENDATIONS.
10. SIDEWALL EXHAUST FAN AND ASSOCIATED LOUVER SHALL BE MOUNTED AT SAME HEIGHT ABOVE FLOOR TO BOTTOM OF EQUIPMENT. MOUNT AS HIGH AS POSSIBLE IN SPACE.

SHEET NOTES

1. PROVIDE SIDEWALL EXHAUST FAN MOUNTED 20' AFF TO BOTTOM OF EQUIPMENT. UNIT OPERATION SHALL BE INTERLOCKED WITH ASSOCIATED LOUVER IN SPACE (SEE NOTE 2) AND SHALL BE CONTROLLED VIA WALL MOUNTED HOA CONTROLLER FOR AUTOMATIC OR MANUAL OPERATION (SEE NOTE 3).
2. PROVIDE INTAKE LOUVER WITH ELECTRONIC 24V ACTUATOR MOUNTED 20' AFF TO BOTTOM OF EQUIPMENT. LOUVER SHALL OPEN WITH EXHAUST FAN OPERATION. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
3. PROVIDE WALL MOUNTED HOA CONTROLLER IN PROTECTED ENCLOSURE. FOR AUTOMATIC OPERATION, PROVIDE REMOTE WALL MOUNTED TEMPERATURE/HUMIDITY SENSOR (GREENHECK PRODUCT OR EQUIVALENT). FOR HAND OPERATION, PROVIDE REMOTE MANUAL OVERRIDE (NORMALLY-OPEN) SWITCH. THE SENSOR AND SWITCH SHALL BE MOUNTED DIRECTLY ADJACENT TO THE ASSOCIATED HOA CONTROLLER.
 - 3.1. IN AUTOMATIC (COOLING) MODE, IF TEMPERATURE EXCEEDS 85 DEGREES FAHRENHEIT, LOUVER SHALL OPEN AND EXHAUST FAN SHALL ACTIVATE PROPORTIONALLY (BETWEEN 20%-100% MAX SPEED) UNTIL THE CONTROLLER READING DROPS BELOW 75 DEGREES FAHRENHEIT. AT WHICH TIME THE LOUVER SHALL CLOSE AND EXHAUST FAN SHALL DEACTIVATE.
 - 3.2. IN HAND (OVERRIDE) MODE, THE LOUVER SHALL OPEN AND EXHAUST FAN SHALL ACTIVATE AT 20% MAX SPEED.



1 FLOOR PLAN - HVAC
1/8" = 1'-0"

LOUVER SCHEDULE											
MARK	MANUFACTURER	MODEL	INTAKE/ EXHAUST	SIZE (INCHES)			CFM	PRESSURE DROP (IN)	FREE AREA (SQ. FT.)	VELOCITY (FPM)	NOTES
				WIDTH	HEIGHT	DEPTH					
L-1	GREENHECK	EAC-601	INTAKE	90	66	6	16,000	0.073	20.94	764	ALL
<p>NOTES:</p> <ol style="list-style-type: none">1. COLOR SELECTED BY ARCHITECT2. ALUMINUM CONSTRUCTION3. DRAINABLE BLADES4. PROVIDE WITH INSECT SCREEN5. PROVIDE WITH 2" FILTER RACK AND FILTER6. PROVIDE WITH 24V MOTORIZED ACTUATOR/DAMPER7. PROVIDE REQUIRED MOUNTING HARDWARE8. PROVIDE WITH FACTORY FLANGE FRAME9. PROVIDE WITH MOUNTING ANGLES AS NEEDED <p>OTHER ACCEPTABLE MANUFACTURERS INCLUDE: UNITED ENERTECH, RUSKIN</p>											


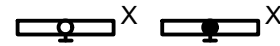
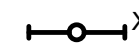


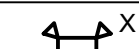
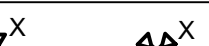







SIDEWALL EXHAUST FAN SCHEDULE														
MARK	MANUFACTURER	MODEL	TYPE	CFM	ESP (IN WG)	SONES	DRIVE TYPE	RPM	ELECTRICAL				NOTES	
									V/Ø	HP	MCA	MOCP		
SEF-1	GREENHECK	AER-42-VG	SIDEWALL	16,000	0.429	45	DIRECT	921	480/3	3	5.5	15	ALL	
NOTES:														
1. PROVIDE WITH SHORT WALL HOUSING WITH OSHA GUARD														
2. PROVIDE WITH REMOTE HOA CONTROLLER WITH REMOTE TEMPERATURE/HUMIDITY SENSOR AND OVERRIDE SWITCH (REFER TO PLANS FOR LOCATION)														
3. PROVIDE WITH APPROPRIATE GRAVITY OPERATED BACKDRAFT DAMPER														
4. PROVIDE WITH 45 DEG. WEATHERHOOD WITH INTEGRAL BIRD SCREEN														
5. PROVIDE WITH ALUMINUM PROPELLER														
6. PROVIDE WITH NEMA-1 TOGGLE DISCONNECT SWITCH														
OTHER ACCEPTABLE MANUFACTURERS INCLUDE: COOK, CARNES														







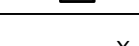

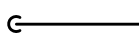
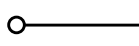
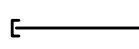
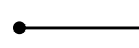
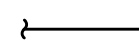



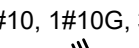




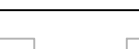
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CE		CE		CE		December 1, 2025		AS NOTED	



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DRAWING NO.
M1

ELECTRICAL LEGEND

LIGHTING	
SYMBOL	DESCRIPTION
	RECESSED LUMINAIRE
	WALL BRACKET STRIP LUMINAIRE (NORMAL & EMERGENCY)
	INDUSTRIAL STRIP LUMINAIRE
	SURFACE OR PENDANT STRIP LUMINAIRE (NORMAL & EMERGENCY)
	DOWNLIGHT LUMINAIRE
	SURFACE OR PENDANT MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE (NORMAL & EMERGENCY)
	EMERGENCY LUMINAIRE
	REMOTE HEAD EMERGENCY LUMINAIRE (SINGLE & TWIN)
	COMBINATION EXIT SIGN EMERGENCY LUMINAIRE (WALL & CEILING)
	EXIT SIGN - SINGLE FACE (WALL & CEILING)
	EXIT SIGN - DOUBLE FACE (WALL & CEILING)
	LIGHTING CONTROL TAG - 'X' INDICATES LIGHTING CONTROL RISER NUMBER ASSOCIATED WITH ROOM/AREA
	LIGHT SWITCH - 'X' INDICATES THE FOLLOWING TYPES: 3 - 3 WAY, 4 - 4 WAY, K - KEY OPERATED, D - DIMMER, OS - LINE VOLTAGE OCCUPANCY SENSOR, L - LOW VOLTAGE, M - MANUAL MOTOR STARTER W/ HANDLE GUARD KIT AND PADLOCK. SEE LIGHTING CONTROL RISER SHEETS FOR ADDITIONAL TYPES
	BATTERY PACK
	OCCUPANCY/VACANCY SENSOR (CEILING)
	LIGHTING CONTACTOR; MECHANICALLY-HELD AND POLES AS REQUIRED
	TIME CLOCK
	PHOTOCELL

POWER	
SYMBOL	DESCRIPTION
	TAMPER RESISTANT DUPLEX RECEPTACLE - 'X' INDICATES THE FOLLOWING: C - ABOVE COUNTER, CM - CEILING MOUNTED, E - EMERGENCY, G - GROUND FAULT CIRCUIT INTERRUPTER, GB - BLANK FACE GROUND FAULT CIRCUIT INTERRUPTER, IG - ISOLATED GROUND, P - PLUG LOAD CONTROL, S - CONTAINS INTEGRAL SURGE PROTECTION, WP - WEATHER PROOF, USB - CONTAINS USB PORT(S). (NOTE: 'X' NOTATION DESCRIPTIONS TYPICAL FOR ALL RECEPTACLE TYPES)
	TAMPER RESISTANT QUADRUPLUX RECEPTACLE
	TAMPER RESISTANT SINGLE RECEPTACLE
	TAMPER RESISTANT SPECIAL PURPOSE RECEPTACLE
	TAMPER RESISTANT FLOOR MOUNTED OR RECESSED RECEPTACLE(S) AND COVERPLATE; SEE DRAWINGS FOR QUANTITY REQUIRED
	COMBINATION FLOOR BOX WITH QUANTITY OF TAMPER RESISTANT DUPLEX RECEPTACLES AND RJ45 DATA JACKS/UTP CABLES AS NOTED ON DRAWINGS.
	CONDUIT TURNED DOWN
	CONDUIT TURNED UP
	CONDUIT WITH END CAP
	EQUIPMENT CONNECTION
	CIRCUIT CONTINUATION
	CIRCUIT HOMERUN TO ELECTRICAL DISTRIBUTION BOARD (SWITCHBOARD, PANELBOARD, ETC.). THE NUMBER OF TICK MARKS INDICATE QUANTITY OF PHASE AND NEUTRAL CONDUCTORS. LONG TICK MARKS REPRESENT PHASE (UNGROUND)ED CONDUCTORS. SHORT TICK MARKS REPRESENT NEUTRAL (GROUND)ED CONDUCTORS. A GROUNDING CONDUCTOR IS NOT SHOWN AS A TICK MARK HOWEVER SHALL BE INSTALLED WITH ALL CIRCUITS. TICK MARKS AND CONDUCTOR SIZES ARE ONLY SHOWN ON THE HOMERUN. INSTALL THE REQUIRED QUANTITY AND SIZE OF CONDUCTORS TO EACH DEVICE ON THE SAME CIRCUIT AS INDICATED ON THE DRAWINGS. IF CONDUCTOR SIZES NOT SHOWN ON HOMERUN, THE FOLLOWING IS REQUIRED: MINIMUM CONDUCTOR SIZE = #12 MINIMUM CONDUIT SIZE = 3/4 INCH CIRCUIT NOTATION EXAMPLE: 4#10 = (3) #10 PHASE CONDUCTORS AND (1) #10 NEUTRAL CONDUCTOR 1#10G = (1) #10 GROUNDING CONDUCTOR 3/4"G = CONDUIT SIZE P-1 = DISTRIBUTION BOARD "P" - STARTING POLE POSITION IN BOARD
	SURFACE MOUNTED PANELBOARD (DISTRIBUTION & BRANCH CIRCUIT); 'X' INDICATES IDENTIFICATION
	FLUSH MOUNTED PANELBOARD (BRANCH CIRCUIT); 'X' INDICATES IDENTIFICATION
	ELECTRICAL METER
	GROUND ROD
	EMERGENCY SHUT-OFF BUTTON
	JUNCTION BOX
	DISCONNECT SWITCH (SIZE/POLES/NEMA - INDICATED ON DRAWINGS)
	DISCONNECT SWITCH WITH ENCLOSED FUSE(S) OR CIRCUIT BREAKER (SIZE/POLES/FUSING/NEMA - INDICATED ON DRAWINGS)
	VARIABLE FREQUENCY DRIVE
	ELECTRIC MOTOR

SYSTEMS	
SYMBOL	DESCRIPTION
	VOICE/DATA OUTLET WITH QUANTITY OF RJ45 JACK(S) AND CAT6 UTP CABLE(S) AS INDICATED - #V REPRESENTS THE NUMBER OF VOICE JACKS AND CABLES, #D REPRESENTS THE NUMBER OF DATA JACKS AND CABLES (NOTE: #V/#D NOTATION DESCRIBED ABOVE TYPICAL FOR ALL COMMUNICATION OUTLETS); C - ABOVE COUNTER, CG - CEILING MOUNTED
	DATA OUTLET FOR WIRELESS ACCESS POINT WITH TWO RJ45 DATA JACKS AND TWO CAT6 UTP CABLES BACK TO COMMUNICATION EQUIPMENT IN NEAREST MDF/IDF (WALL & CEILING)

ABBREVIATIONS	
1Ø	1-PHASE
+X'	INDICATES MOUNTING HEIGHT TO BOTTOM OF DEVICE
C	DEVICE TO BE INSTALLED 4 INCHES ABOVE COUNTER/TABLE BACKSPLASH TO BOTTOM OF DEVICE
SPD	SURGE PROTECTION DEVICE
W	DEVICE TO BE INSTALLED 42" ABOVE FLOOR TO BOTTOM OF DEVICE
WP	PROVIDE DEVICE WITH VERTICALLY MOUNTED WEATHERPROOF COVER. RECEPTACLES TO BE WEATHER-RESISTANT TYPE AND PROVIDED WITH A CAST ALUMINUM, EXTRA DUTY, WHILE-IN-USE COVER

ELECTRICAL DEVICE MOUNTING HEIGHTS	
INTERIOR RECEPTACLES	16 INCHES TO BOTTOM
EXTERIOR RECEPTACLES	24 INCHES TO BOTTOM
SWITCHES	48 INCHES TO TOP
NOTE: MOUNTING HEIGHTS UNLESS OTHERWISE NOTED ON DRAWINGS	

ELECTRICAL NOTES

GENERAL

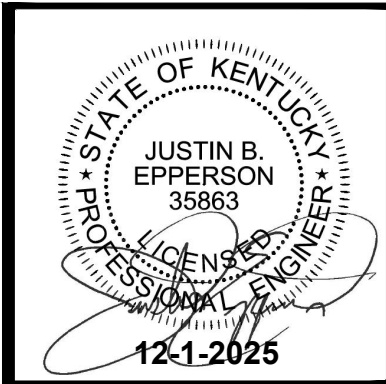
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD, AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
- ALL MATERIALS USED IN THE INSTALLATION SHALL BE U.L. APPROVED AND NEW.
- DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOF, ETC.
- DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
- CONTRACTOR SHALL NOTIFY AND COOPERATE WITH OTHER TRADES SUCH THAT NO DUCTS, PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER, OR PASS THOROUGH ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
- THE MINIMUM SIZE OF THE CONDUCTORS ARE TO BE #12 AWG THHN COPPER, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. STRANDED CONDUCTORS ARE NOT ALLOWED IN THE CONDUCTORS SMALLER THAN #10 AWG.
- USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTED.
- THE CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
- CONTRACTOR SHALL REVIEW ALL ARCHITECT'S ELEVATIONS, SECTIONS AND FLOOR PLANS PRIOR TO ROUGH-IN OF ELECTRICAL JUNCTION BOXES.
- ALL JUNCTION BOXES SHALL HAVE MINIMUM DEPTH OF 2-1/8" UNLESS OTHERWISE SPECIFIED. SECURE ALL JUNCTION BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER PLASTER RINGS.
- LIGHT SWITCHES INSTALLED ADJACENT TO EACH OTHER, SHALL BE GANGED TOGETHER WITH ONE PIECE COVER PLATE.
- CONTRACTOR SHALL MEET WITH MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, AND REQUIREMENTS OF MECHANICAL EQUIPMENT CONNECTIONS PRIOR TO INSTALLATIONS.
- CONNECT ALL EMERGENCY LIGHT FIXTURES, NIGHT LIGHTS, EGRESS LIGHTS, AND EXIT SIGNS TO UNSWITCHED CONDUCTOR(S).
- THE CONTRACTOR SHALL TERMINATE THE ELECTRICAL CONNECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/FEMALE CONNECTOR, RECEPTACLE, PLUGS, ETC.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL THE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ROUGH-IN.
- VERIFY EXACT LOCATION(S) OF ALL EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
- AT THE END OF THE JOB, PROVIDE BLANK COVER PLATES TO MATCH THE OTHER COVER PLATES FOR ALL JUNCTION BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.

LIGHTING

- THE CONTRACTOR SHALL INSTALL THE REQUIRED NUMBER OF CONDUCTORS BETWEEN SWITCHES, LIGHT FIXTURES AND ASSOCIATED DEVICES FOR A COMPLETE AND WORKING SYSTEM. PROVIDE SINGLE-LEVEL OR DUAL-LEVEL SWITCHING, THREE-WAY SWITCHING OR OTHER SWITCHING METHOD AS INDICATED ON THE DRAWINGS.
- INSTALL AN UNSWITCHED CONDUCTOR TO ALL EXIT SIGNS, EMERGENCY LIGHTS AND ALL OTHER FIXTURES USED FOR EMERGENCY ILLUMINATION AND SUPPLIED WITH INTEGRAL OR EXTERNAL BATTERIES.

SITE UTILITIES

- THE CONTRACTOR SHALL MEET WITH ALL ASSOCIATED UTILITY COMPANIES ON SITE PRIOR TO BEGINNING WORK TO DISCUSS SCOPE OF WORK. ANY REQUIRED REVISIONS/ALTERATIONS PERTAINING TO THE SCOPE OF WORK SHOWN ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD.



London Spec Building

London-Laurel Economic Development Authority

200 Air Park Drive

London, Kentucky 40744 Laurel County

PROJECT NO. 204-0121		DATE		REVISION		BY	
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DRAWN BY	JE						
CHECKED BY	JE						
REVIEWED BY	JE						
DATE	December 1, 2025						
SCALE	AS NOTED						

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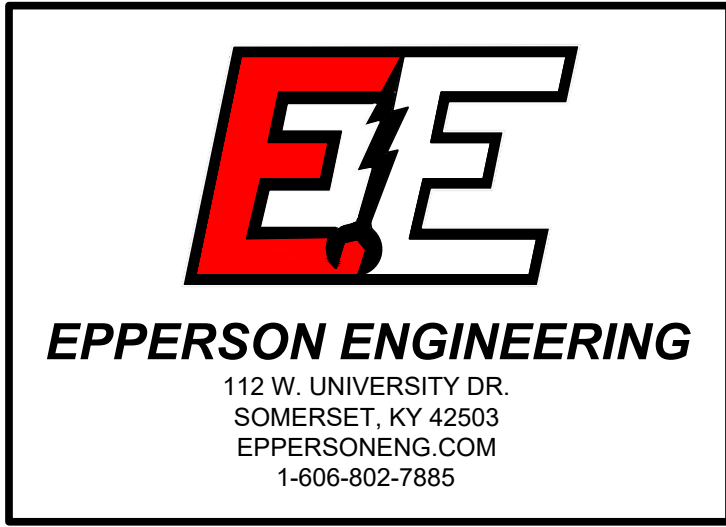
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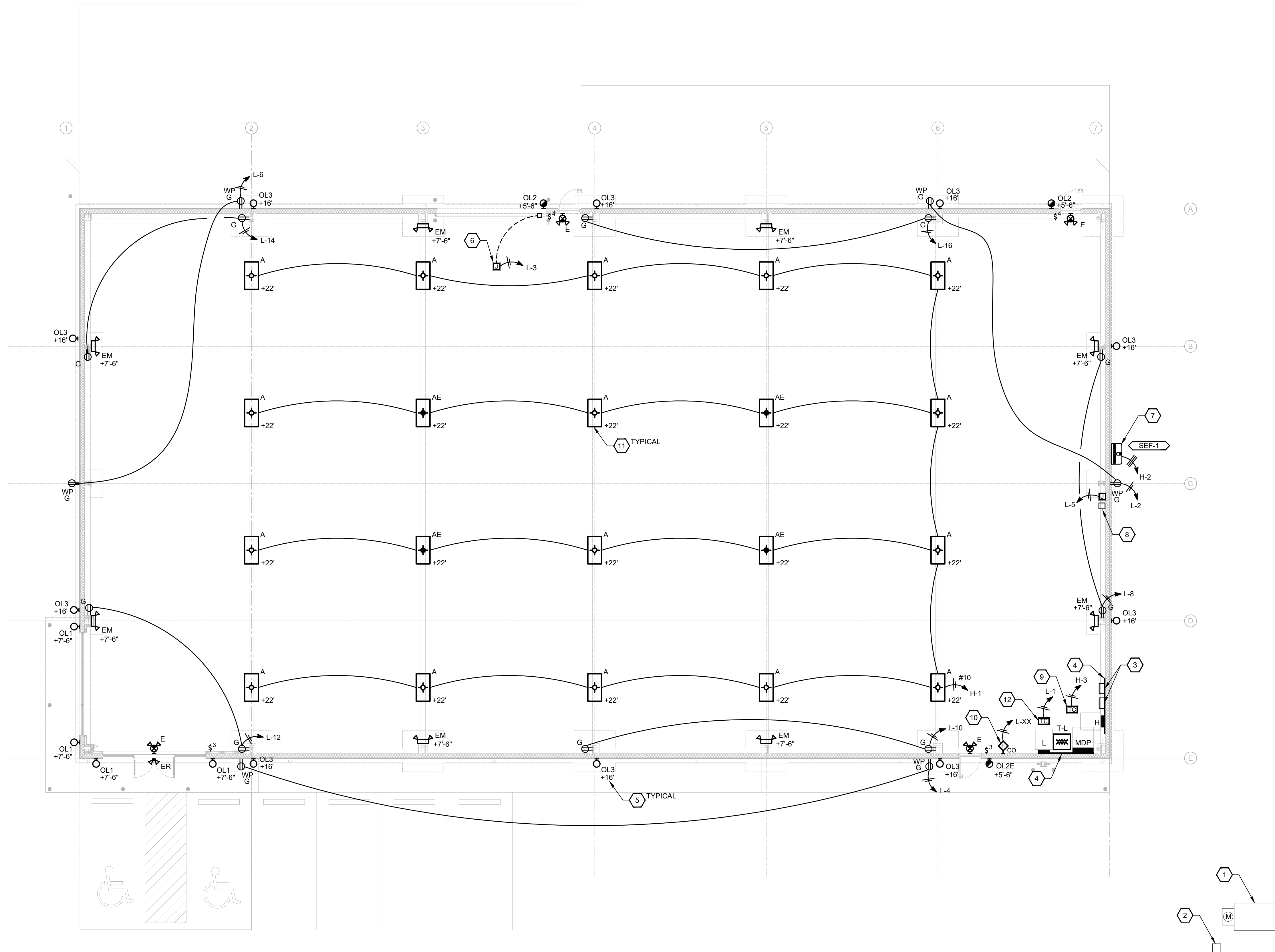
SHEET INDEX	
SHEET NUMBER	SHEET TITLE
E0	ELECTRICAL LEGEND & NOTES
E1	ELECTRICAL PLAN
E6	ELECTRICAL DETAILS & SCHEDULES
E7	ELECTRICAL SPECIFICATIONS

DRAWING NO.

E0



London Spec Building
London-Laurel Economic
Development Authority
200 Air Park Drive
London, Kentucky 40744 Laurel County



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

GENERAL NOTES

1. REFER TO SHEET E0.
2. COORDINATE ALL NEW POWER AND TELECOMMUNICATIONS SERVICE ENTRANCES WITH LOCAL UTILITY COMPANY REPRESENTATIVES.
3. CONNECT ALL EXIT SIGNS (TYPE 'E') AND EMERGENCY LIGHT FIXTURES (TYPE 'AE', TYPE 'EM', TYPE 'OL2') TO UNSWITCHED INTERIOR LIGHTING CIRCUIT. WIRING NOT SHOWN ON PLANS.
4. CONNECT 3-WAY AND 4-WAY LIGHT SWITCHES SHOWN TO INTERIOR LIGHTING CIRCUIT TO ACHIEVE LIGHTING CONTROL AT EACH BUILDING ENTRANCE. WIRING NOT SHOWN ON PLANS.
5. PROVIDE WIRING FOR EXTERIOR LIGHT FIXTURES SHOWN AND ROUTE THROUGH TIMECLOCKS MOUNTED ADJACENT TO PANELS. WIRING NOT SHOWN ON PLANS. ENSURE ALL TIMECLOCKS ARE SET THE SAME TO ALLOW UNIFORM OPERATION.
6. ALL EXPOSED WIRING/CABLING SHALL BE ROUTED IN EMT CONDUIT (FLEXIBLE CONDUIT SHALL ONLY BE PERMITTED WITHIN 5' OF EQUIPMENT/DEVICE TERMINATIONS).
7. COORDINATE ALL ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT WITH EQUIPMENT INSTALLER.
8. UPSIZE BRANCH CIRCUIT CONDUCTORS AS NECESSARY TO NOT EXCEED 3% VOLTAGE DROP.

SHEET NOTES

1. EXISTING UTILITY PADMOUNT TRANSFORMER AND ASSOCIATED METER BASE, APPROXIMATELY 75' FROM PLAN SOUTHEAST CORNER OF BUILDING, TO REMAIN (APPROXIMATE LOCATION SHOWN ON PLANS FOR REFERENCE ONLY - FIELD VERIFY EXACT LOCATION). CONTRACTOR SHALL PROVIDE NEW ELECTRIC SERVICE ENTRANCE TO BUILDING. EXISTING SERVICE ENTRANCE CONDUIT PATHWAYS PREVIOUSLY SERVING BUILDING MAY BE REUSED IF POSSIBLE. REFER TO POWER ONE-LINE DIAGRAM ON THIS SHEET FOR ADDITIONAL INFORMATION. COORDINATE ALL WORK WITH UTILITY COMPANY AND LOCAL AHJ.
2. EXISTING UTILITY TELECOMMUNICATION PEDESTAL ON SITE, APPROXIMATELY 75' FROM PLAN SOUTHEAST CORNER OF BUILDING, TO REMAIN (APPROXIMATE LOCATION SHOWN ON PLANS FOR REFERENCE ONLY - FIELD VERIFY EXACT LOCATION). PROVIDE NEW TELECOMMUNICATION SERVICE ENTRANCE TO BUILDING. EXISTING CONDUIT PATHWAY(S) PREVIOUSLY SERVING BUILDING MAY BE REUSED IF POSSIBLE. COORDINATE ALL WORK WITH LOCAL SERVICE PROVIDER.
3. PROPOSED LOCATION OF NEW TELECOMMUNICATION SERVICE ENTRANCE EQUIPMENT, COORDINATE WITH SERVICE PROVIDER.
4. PROVIDE FIRE RATED BACKBOARD BEHIND POWER AND TELECOMMUNICATION EQUIPMENT. MOUNT BACKBOARD 24" ABOVE FINISHED FLOOR.
5. INDICATES MOUNTING HEIGHT ABOVE GRADE/FINISHED FLOOR TO BOTTOM OF LIGHT FIXTURE. TYPICAL.
6. PROVIDE CONNECTION TO OVERHEAD DOOR OPERATOR WITH 3/4" CONDUIT TO ASSOCIATED WALL MOUNTED CONTROLLER. COORDINATE EXACT LOCATION OF DOOR OPERATOR AND WALL CONTROLLER WITH EQUIPMENT INSTALLER.
7. PROVIDE CONNECTION TO SIDEWALL EXHAUST FAN. DISCONNECT SWITCH FURNISHED WITH EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR.
8. PROVIDE CONNECTION FROM SIDEWALL EXHAUST FAN TO ASSOCIATED WALL MOUNTED HOA CONTROLLER BELOW. COORDINATE WITH MECHANICAL CONTRACTOR. HOA CONTROLLER REQUIRES A DEDICATED 120V CIRCUIT WITH HARD-WIRED CONNECTION.
9. PROVIDE 7-DAY 277V MECHANICAL TIME CLOCK FOR CONTROL OF EXTERIOR LIGHT FIXTURES (DOES NOT INCLUDE TYPE 'OL1' - SEE NOTE 12). MOUNT TIME CLOCK ADJACENT TO PANEL 'H'.
10. PROVIDE HARD-WIRED CARBON MONOXIDE DETECTOR WHERE GAS SERVICE ENTERS BUILDING. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
11. FOR EACH INSTANCE OF LIGHT FIXTURE TYPE 'A' AND TYPE 'AE', PROVIDE CONDUIT STEM MOUNT WITH BACK-UP AIRCRAFT CABLE SUPPORT. ALSO PROVIDE A L7-20R RECEPTACLE WITHIN 6' OF LIGHT FIXTURE LOCATION. LIGHT FIXTURE TO COME PRE-WIRED WITH 6' PIGTAIL CORD AND SHIP LOOSE WITH L7-20P CORD END ACCESSORY. TYPICAL.
12. PROVIDE 7-DAY 120V MECHANICAL TIME CLOCK FOR CONTROL OF ALL INSTANCES OF EXTERIOR LIGHT FIXTURES TYPE 'OL1'. MOUNT TIME CLOCK ADJACENT TO PANEL 'L'.

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DRAWING NO.
E1

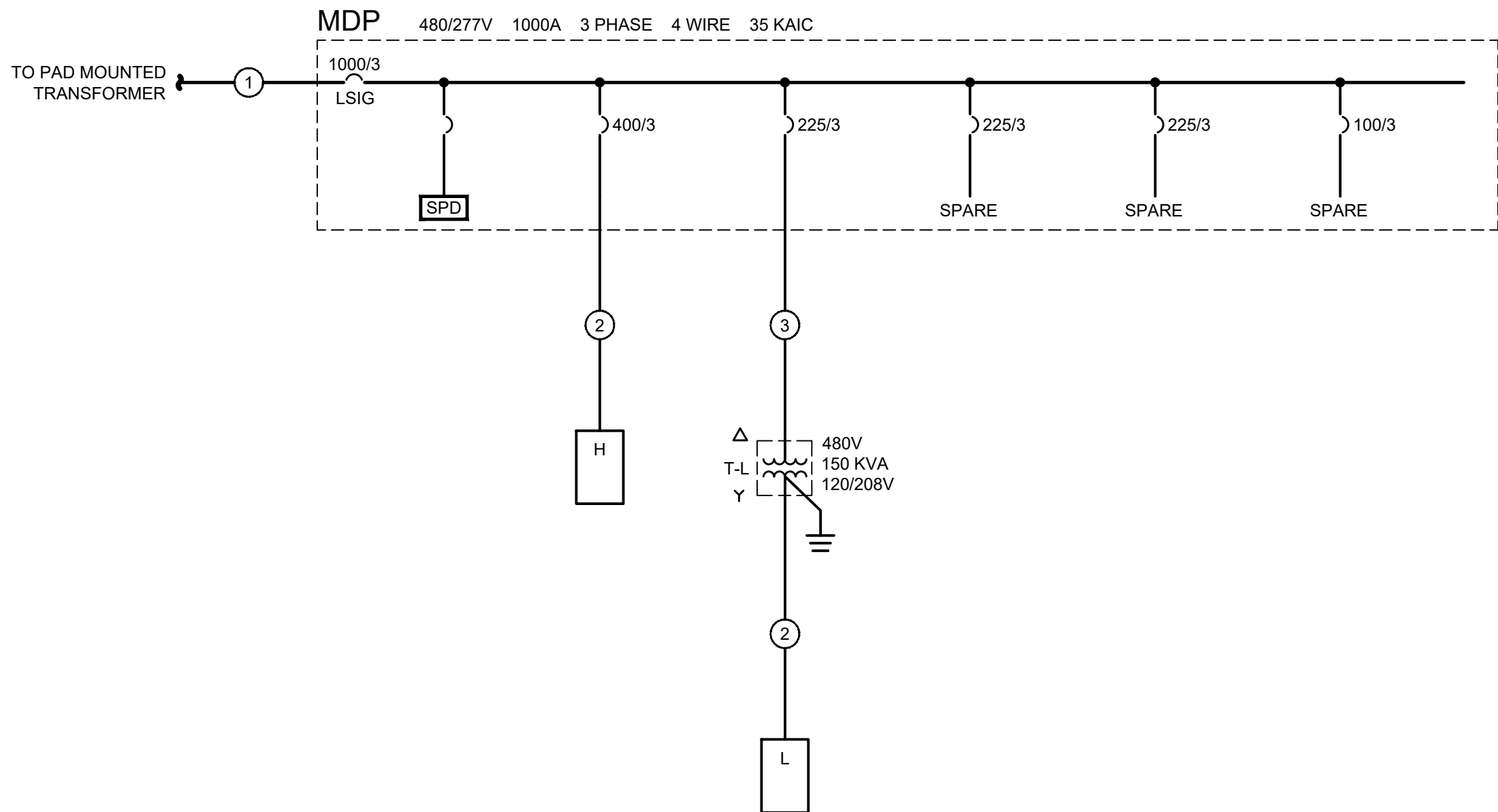
LIGHT FIXTURE SCHEDULE											
FIXTURE TYPE	DESCRIPTION	MOUNTING	VOLTAGE	LAMPS						MANUFACTURER/MODEL NUMBER	NOTES
				TYPE	LUMENS	WATTS	DIMMING	CRI	COLOR TEMP		
A	LED HIGH PERFORMANCE HIGH BAY, RECTANGULAR FORM FACTOR, CAST ALUMINUM CONSTRUCTION, POWDER COAT WHITE FINISH, DIFFUSED LENS, WIDE THROW OPTICS, 6' PIGTAIL CORD, FIELD SELECTABLE CCT AND FIELD SELECTABLE WATTAGE.	PENDANT	MVOLT	LED	32,130	220	0-10V	≥80	4000K	NICOR HML 3 320S U S B S 8 C AIR CRAFT CABLE ACCESSORY: ACMK110 TWIST LOCK PLUG ACCESSORY: L720P	1, 4
AE	SAME AS TYPE 'A' EXCEPT WITH FIELD INSTALLED 40 WATT EMERGENCY BATTERY PACK	PENDANT	MVOLT	LED	10,710	40	0-10V	≥80	4000K	NICOR HML 3 320S U S B S 8 E40 C4 BATTERY ACCESSORY: HML1EM40WRVWH	1, 3, 4
E	EXIT SIGN COMBO, NICAD BATTERY BACKUP FOR 90 MINUTES, INTEGRAL TEST SWITCH, LED INDICATOR, REMOTE HEAD CAPACITY OF TWO HEADS, RED/GREEN FIELD SELECTABLE LETTERS. WHITE HOUSING.	WALL	MVOLT	LED	193	4	N/A	N/A	N/A	NICOR: ECL1-20-UNV-WH-S-2-R SURE-LITES EQUAL MAXLITE EQUAL	1, 2, 5
EM	TWO-HEAD EMERGENCY EGRESS LIGHT WITH BATTERY BACKUP FOR 90 MINUTES, INTEGRAL TEST SWITCH, LED INDICATOR, AIMABLE OPTICS, WHITE HOUSING.	WALL	MVOLT	LED	203	2.5	N/A	N/A	N/A	NICOR: EML3-10-UNV-WH-SD SURE-LITES EQUAL MAXLITE EQUAL	-
ER	TWIN, REMOTE HEAD, EMERGENCY EGRESS LIGHT, TO BE POWERED FROM ADJCENT EXIT SIGN TYPE "E", WEATHERPROOF HOUSING, GRAY COLOR.	WALL	LOW	LED	202	3	N/A	N/A	N/A	NICOR: ECL120RHWP2 SURE-LITES EQUAL MAXLITE EQUAL	1, 5
OL1	LED OUTDOOR VERTICAL LIGHT DESIGNER WALL SCONCE. 24" HEIGHT, BLACK FINISH, ADA COMPLIANT, IP-65 WET LOCATION RATED, FIELD SELECTABLE CCT.	WALL	120	LED	2,500	26	N/A	≥80	5000K	LUXRITE: LR40318	1, 4
OL2E	LED OUTDOOR EMERGENCY TEAR DROP, DIE CAST ALUMINUM BODY, SEPERABLE BACK PLATE, IP65 WET LOCATION RATED, POLYCARBONATE LENS, COLD WEATHER CLIMATE NICAD BATTERY BACKUP FOR 90 MINUTES, INTEGRAL TEST SWITCH, LED INDICATOR, INTEGRAL PHOTOCELL THAT CAN BE ENABLED OR DISABLED. DISBALE PHOTOCELL.	WALL	MVOLT	LED	1,074	13.4	N/A	≥70	5000K	NICOR: EOT1MV2K	1
OL3	TRADITIONAL FORM FACTOR LED WALL PACK, DIE-CAST ALUMINUM HOUSING, SEPERABLE HINGED BACK PLATE, POWDERCOAT PAINT, CLEAR PRISMATIC GLASS LENS, INTEGRAL PHOTOCELL THAT CAN BE ENABLED OR DISABLED. DISBALE PHOTOCELL. FIELD SELECTABLE CCT, FIELD SELECTABLE WATTAGE, FIELD SELECTABLE BEAM ANGLE (NEAR, MID, FAR). SET BEAM ANGLE TO MID.	WALL	MVOLT	LED	17,920	116.3	N/A	≥80	5000K	NICOR: OWG 5 120S U S 8 BZ	1, 4
<div>GENERAL</div> <div>ALL LIGHT FIXTURES TO MEET THE FOLLOWING CRITERIA UNLESS OTHERWISE NOTED: - MINIMUM 5 YEAR WARRANTY - RATED L70/50,000HR LIFE - UL LISTED</div> <div>NOTES</div> <div>1. ARCHITECT TO SELECT COLOR/FINISH 2. SINGLE OR DOUBLE FACE AND DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS; CENTER ABOVE DOOR WHERE APPLICABLE. 3. PROVIDE WITH REMOTE TEST SWITCH FOR BATTERY BACKUP FEATURE. 4. LIGHT FIXTURE HAS FIELD SELECTABLE CCT AND/OR WATTAGE. SET IN FIELD PER SCHEDULE. 5. CENTER OVER DOOR.</div>											

NOTES

- CONTRACTOR TO DETERMINE A.I.C AND/OR SCOR RATING OF PANELBOARDS, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES BASED ON SERVICE ENTRANCE CHARACTERISTICS; CONTRACTOR SHALL PERMANENTLY LABEL SERVICE ENTRANCE EQUIPMENT WITH MAXIMUM AVAILABLE FAULT CURRENTS.
- PROVIDE PERMANENT ARC FLASH LABEL ON SERVICE ENTRANCE EQUIPMENT PER NEC 110.16
- FEEDERS SHOWN ARE FOR COPPER WIRING.
- SERVICE SHALL BE METERED AT PAD MOUNT TRANSFORMER. COORDINATE WITH UTILITY COMPANY METERING DEPARTMENT.

ONE LINE SCHEDULE

1	3 SETS (4#400, 3"C)
2	2 SETS (4#3/0, 1#3G, 2-1/2"C)
3	3#4/0, 2-1/2"C

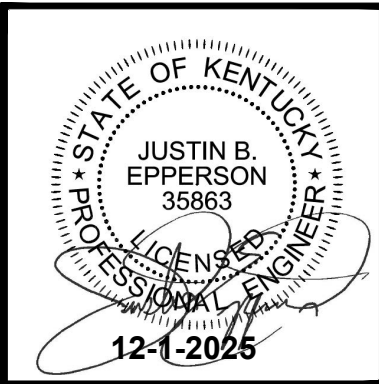


POWER ONE-LINE DIAGRAM

NOT TO SCALE

PANEL 'H'													
BRANCH CIRCUIT PANELBOARD													
VOLTAGE			3 PHASE	POLES	MAIN AMPS		MAIN TYPE		A. I. RATING		MOUNTING		
277/480			4 WIRE	42	400		MLO		35,000		SURFACE		
POLE NO.	BREAKER		LOAD SERVED	PHASE LOADS					LOAD SERVED	SEF-1/L-1	BREAKER		POLE NO.
	TRIP	P		KVA	A	B	C	KVA			TRIP	P	
1	20	1	LTG: INTERIOR	4.4	7.2			2.8			15	3	2
3	20	1	LTG: EXTERIOR	1.2		4.0		2.8		-			4
5	20	1	SPARE	0.0				2.8	2.8				6
7	20	1	SPARE	0.0	0.0			0.0	SPACE				8
9	20	1	SPARE	0.0		0.0		0.0	SPACE				10
11			SPACE	0.0			0.0	0.0	SPACE				12
13			SPACE	0.0	0.0			0.0	SPACE				14
15			SPACE	0.0		0.0		0.0	SPACE				16
17			SPACE	0.0			0.0	0.0	SPACE				18
19			SPACE	0.0	0.0			0.0	SPACE				20
21			SPACE	0.0		0.0		0.0	SPACE				22
23			SPACE	0.0			0.0	0.0	SPACE				24
25			SPACE	0.0	0.0			0.0	SPACE				26
27			SPACE	0.0		0.0		0.0	SPACE				28
29			SPACE	0.0			0.0	0.0	SPACE				30
31			SPACE	0.0	0.0			0.0	SPACE				32
33			SPACE	0.0		0.0		0.0	SPACE				34
35			SPACE	0.0			0.0	0.0	SPACE				36
37			SPACE	0.0	0.0			0.0	SPACE				38
39			SPACE	0.0		0.0		0.0	SPACE				40
41			SPACE	0.0			0.0	0.0	SPACE				42
PHASE TOTALS:				7.2	4.0	2.8	TOTAL:		13.91	KVA			
NOTES:													
1. PANEL TO HAVE HINGED DOOR TRIM													
ABBREVIATIONS:													
G - GFCI BREAKER													
A - AFCI BREAKER													
L - LOCKOUT BREAKER													
S - SHUNT TRIP BREAKER													
C - COMBINATION GFCI/AFCI BREAKER													
MCB - MAIN CIRCUIT BREAKER													
MLO - MAIN LUG ONLY													

PANEL 'L'													
BRANCH CIRCUIT PANELBOARD													
VOLTAGE		3 PHASE		POLES		MAIN AMPS		MAIN TYPE		A. I. RATING		MOUNTING	
120/208		4 WIRE		42		400		MLO		22,000		SURFACE	
POLE NO.	BREAKER		LOAD SERVED	PHASE LOADS					LOAD SERVED	BREAKER		POLE NO.	
	TRIP	P		KVA	A	B	C	KVA		TRIP	P		
1	20	1	LTG. EXTERIOR (OL1s)	0.1	0.5			0.4	REC: EXTERIOR	20	1	2	
3	20	1	OVERHEAD DOOR	1.0		1.4		0.4	REC: EXTERIOR	20	1	4	
5	20	1	HQA CONTROLLER	0.5			0.9	0.4	REC: EXTERIOR	20	1	6	
7			SPACE	0.0	0.4			0.4	REC: INTERIOR	20	1	8	
9			SPACE	0.0		0.4		0.4	REC: INTERIOR	20	1	10	
11			SPACE	0.0			0.4	0.4	REC: INTERIOR	20	1	12	
13			SPACE	0.0	0.4			0.4	REC: INTERIOR	20	1	14	
15			SPACE	0.0		0.4		0.4	REC: INTERIOR	20	1	16	
17			SPACE	0.0			0.0	0.0	SPARE	20	1	18	
19			SPACE	0.0	0.0			0.0	SPARE	20	1	20	
21			SPACE	0.0		0.0		0.0	SPARE	20	1	22	
23			SPACE	0.0			0.0	0.0	SPARE	20	1	24	
25			SPACE	0.0	0.0			0.0	SPARE	20	1	26	
27			SPACE	0.0		0.0		0.0	SPARE	20	1	28	
29			SPACE	0.0			0.0	0.0	SPARE	20	1	30	
31			SPACE	0.0	0.0			0.0	SPACE			32	
33			SPACE	0.0		0.0		0.0	SPACE			34	
35			SPACE	0.0			0.0	0.0	SPACE			36	
37	150	3	OFFICE (FUTURE)	0.0	0.0			0.0	SPACE			38	
39			-	0.0		0.0		0.0	SPACE			40	
41				0.0			0.0	0.0	SPACE			42	
PHASE TOTALS:				1.2	2.1	1.2	TOTAL:		4.48	KVA			
NOTES:													
1. PANEL TO HAVE HINGED DOOR TRIM													
ABBREVIATIONS:													
G - GFCI BREAKER													
A - AFCI BREAKER													
L - LOCKOUT BREAKER													
S - SHUNT TRIP BREAKER													
C - COMBINATION GFCI/AFCI BREAKER													
MCB - MAIN CIRCUIT BREAKER													
MLO - MAIN LUG ONLY													



London Spec Building

London-Laurel Economic
Development Authority

200 Air Park Drive
London, Kentucky 40744 Laurel County

PROJECT NO.	204-0121
DESIGNED BY	JE
DRAWN BY	JE
CHECKED BY	JE
REVIEWED BY	JE
DATE	December 1, 2025
SCALE	AS NOTED

Engineers
Architects
Planners

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DRAWING NO.

E6

ELECTRICAL SPECIFICATIONS

GENERAL PROVISIONS

1. REFERENCE

- THE INSTRUCTION TO BIDDERS, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, ALTERNATES, ADDENDA, CONTRACT DRAWINGS AND SPECIFICATIONS AS SET FORTH IN THE FORTHGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS TITLE.
- ALL SPECIFICATIONS UNDER THIS DIVISION TITLE ARE DIRECTED TO AND ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS OTHER TRADES OR PERSONS ARE SPECIFICALLY MENTIONED, "ELECTRICAL CONTRACTOR" IS INFERRED AND INTENDED.

2. DEFINITIONS

- THE TERM "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
- THE TERM "INSTALL" SHALL MEAN WORK WHICH INCLUDES THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.
- THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.

3. EXISTING SITE CONDITIONS

- THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND BECOME FAMILIAR WITH THE CONDITIONS AFFECTING THE INSTALLATION. SUBMISSION OF A PROPOSAL SHALL PURPOSE KNOWLEDGE OF SUCH CONDITIONS AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED WHERE EXTRA LABOR OR MATERIALS ARE REQUIRED BECAUSE OF IGNORANCE OF THESE CONDITIONS.

4. CONTRACT DRAWINGS

- THE DRAWINGS ACCOMPANYING THESE SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE AS IF CALLED FOR BY BOTH. IF IN ANY INSTANCE CONFLICTING STATEMENTS OCCUR, THE CONTRACTOR SHALL INCLUDE THE MORE EXPENSIVE OF THE TWO.
- CONSULT ALL CONTRACT DRAWINGS (ARCHITECTURAL, MECHANICAL AND ALL OTHERS) WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATIONS TO SECURE COORDINATION.
- IT IS THE PURPOSE OF THE ELECTRICAL DRAWINGS TO INDICATE THE APPROXIMATE LOCATION OF ALL EQUIPMENT, OUTLETS, ETC. ASCERTAIN EXACT LOCATIONS AND ARRANGE WORK ACCORDINGLY.
- WIRING LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.
- OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.
- INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, SERVICES AND PERMITS NECESSARY FOR THE PROPER COMPLETION OF ALL ELECTRIC WORK SHOWN. ITEMS OMITTED, BUT NECESSARY, TO MAKE THE ELECTRICAL SYSTEM COMPLETE AND WORKABLE SHALL BE UNDERSTOOD TO FORM PART OF THE WORK.

5. PERMITS AND INSPECTIONS

- SECURE AND PAY PERMITS AND INSPECTIONS REQUIRED FOR THE ELECTRICAL WORK.

6. JOB-SITE COPY OF DOCUMENTS

- MAINTAIN AT THE SITE ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA, APPROVED SHOP DRAWINGS, CHANGE ORDERS AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES AS A PERMANENT RECORD OF THE INSTALLATION AS CONSTRUCTED. THE DRAWINGS MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR THE OWNER UPON COMPLETION OF THE WORK.

7. MANUFACTURER'S DRAWINGS

- THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW (1) COPIES OF MANUFACTURER'S DRAWINGS AND CUT SHEETS. THE ENGINEER WILL REVIEW CONTRACTOR'S SHOP DRAWINGS AND RELATED SUBMITTALS (AS INDICATED BELOW) WITH RESPECT TO THE ABILITY OF THE DETAILED WORK, WHEN COMPLETE, TO BE A PROPERLY FUNCTIONING INTEGRAL ELEMENT OF THE OVERALL SYSTEM DESIGNED BY THE ENGINEER. BEFORE SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER, CONTRACTOR SHALL: REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAM INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF CONTRACTOR; APPROVE EACH SUCH SUBMISSION BEFORE SUBMITTING IT; AND SO STAMP EACH SUCH SUBMISSION BEFORE SUBMITTING IT. THE ENGINEER SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPROMISES A VARIATION UNLESS CONTRACTOR ADVISES ENGINEER OTHERWISE VIA A WRITTEN INSTRUMENT WHICH IS ACKNOWLEDGED BY ENGINEER IN WRITING. THE ITEMS, TYPES OF SUBMITTALS AND RELATED MATERIAL (IF ANY) CALLED FOR ARE INDICATED BELOW:

SHOP DRAWING LOG ITEMS - SUBMITTAL REQUESTED:

- ELECTRICAL POWER CONDUCTORS AND CABLES - CUT SHEETS
- RACEWAY AND BOXES - CUT SHEETS
- WIRING DEVICES - CUT SHEETS
- LIGHT FIXTURES - CUT SHEETS

8. GUARANTEES

- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PRODUCT GUARANTEES GREATER THAN ONE (1) YEAR SHALL BE REGISTERED AND OR TRANSFERRED TO THE OWNER FOR THE FULL BENEFIT/EXTENT OF THE MANUFACTURER'S WARRANTY.
- OPERATION PRIOR TO COMPLETION: WHEN ANY MECHANICAL OR ELECTRICAL EQUIPMENT IS OPERATED DURING CONSTRUCTION THE WARRANTY PERIOD SHALL NOT COMMENCE UNTIL THE EQUIPMENT IS OPERATED BY THE OWNER. PROPERLY CLEAN AND ADJUST THE EQUIPMENT AND COMPLETE ALL PUNCH LIST ITEMS BEFORE FINAL ACCEPTANCE BY THE OWNER. THE DATE OF ACCEPTANCE AND THE START OF THE WARRANTY MAY NOT BE THE SAME DATE. ALL INCANDESCENT/FLUORESCENT LAMPS OPERATED FOR MORE THAN 50 HOURS DURING CONSTRUCTION SHALL BE REPLACED WITH NEW LAMPS PRIOR TO OWNER ACCEPTANCE.

9. SHUTDOWNS AND INTERRUPTIONS

- THE EXISTING ELECTRICAL AND TELEPHONE/INTERNET SERVICE, AND ALL EXISTING COMMUNICATION, FIRE ALARM, SECURITY SYSTEMS, ORIGINATING WITHIN THE SPACE OR PASSING THROUGH THE SPACE, SERVING OTHER AREAS OF THE BUILDING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD. ANY SERVICE SHUTDOWNS THAT MAY BE REQUIRED SHALL BE SCHEDULED THROUGH THE OWNER AND SHALL BE DONE AT A TIME DIRECTED BY THE OWNER. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE SHUTDOWN PERIODS EVEN THOUGH PREMIUM-TIME WORK MAY BE REQUIRED. PROVIDE TEMPORARY SERVICE TO EQUIPMENT OR SYSTEMS THAT CANNOT BE SHUTDOWN, AS DETERMINED BY OWNER.
- PROVIDE A MINIMUM OF ONE WEEK'S NOTICE TO THE OWNER BEFORE ANY SERVICE SHUTDOWN IS SCHEDULED.

10. LISTINGS

- EQUIPMENT AND MATERIALS USED ON THIS PROJECT SHALL BE NEW AND U.L. LABELED FOR THE APPLICATION.

WORK INCLUDED

1. INSTALLATION, MATERIALS, AND WORKMANSHIP

- FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS, AND OTHER SIMILAR APPARATUS NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.
- THE ELECTRICAL CONTRACTOR, INsofar AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION, AND AT THE COMPLETION OF THE WORK, SHALL PROPERLY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF DUMPSTER & REFUSED DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.
- ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.

2. COORDINATION OF PLANS AND SPECIFICATIONS

- CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THERE IS ANY QUESTION REGARDING THE MEANING OR INTENT OF EITHER PLANS OR SPECIFICATIONS, OR UPON NOTICING ANY DISCREPANCIES OR OMISSIONS IN EITHER PLANS OR SPECIFICATIONS.

3. CUTTING AND PATCHING

- DO ALL CUTTING AND PATCHING IN EXISTING CONSTRUCTION AS NECESSARY FOR INSTALLATION OF THIS WORK. HAVE CUTTING DONE BY SKILLED MECHANICS AS CAREFULLY AS POSSIBLE AND WITH AS LITTLE DAMAGE AS POSSIBLE.
- DETERMINE IF ANY STRUCTURAL ELEMENTS SUCH AS REBAR OR POST TENSION CABLES, EXIST IN FLOORS, WALLS OR ROOFS BY INSPECTION COORDINATED WITH THE LANDLORDS TENANT COORDINATOR OR STRUCTURAL ENGINEER AND BY USE OF X-RAY WHEN REQUIRED PRIOR TO ANY CUTTING OR CORE DRILLING. IF SUCH ELEMENTS EXIST, REPORT THIS IMMEDIATELY TO THE ARCHITECT AND LANDLORD'S TENANT COORDINATOR FOR RESOLUTION PRIOR TO CUTTING OR DRILLING.
- ALL ELECTRICAL EQUIPMENT SHALL BE KEPT DRY AND CLEAN DURING THE CONSTRUCTION PERIOD. INTERIOR OF ALL ENCLOSURES SHALL BE CLEANED OF DIRT AND DEBRIS BEFORE INSTALLING TRIM OR COVERS.
- ALL FINISHED SURFACES OF EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE THOROUGHLY CLEANED OF DIRT AND ALL SCRATCHED OR DAMAGED SURFACES SHALL BE TOUCHED UP WITH MATCHING MATERIAL BEFORE FINAL ACCEPTANCE OF THE WORK.
- WHEN ALL WORK IS COMPLETED AND ALL WORK HAS BEEN SATISFACTORILY TESTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, ALL CONDUIT AND OTHER EXPOSED SURFACES SHALL BE THOROUGHLY CLEANED.

CODES AND FEES

1. CODES:

- WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF LOCAL AND STATE CODES. AS WELL AS THE LATEST STATE ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, AS INTERPRETED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORKS INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

2. FEES:

- OBTAIN AND PAY FOR ANY AND ALL PERMITS AND INSPECTIONS REQUIRED BY ALL LAWS AND REGULATIONS AND PUBLIC AUTHORITY HAVING JURISDICTION.

TEST AND INSPECTIONS

- OBTAIN ALL INSPECTIONS REQUIRED BY ALL LAWS, ORDINANCES, RULES, REGULATIONS, OR PUBLIC AUTHORITY HAVING JURISDICTION AND OBTAIN CERTIFICATES OF SUCH INSPECTIONS AND SUBMIT SAME TO THE OWNER'S REPRESENTATIVE. PAY ALL FEES, CHARGES, AND OTHER EXPENSES IN CONNECTION THEREIN. OBTAIN OCCUPANCY PERMIT AS REQUIRED BY OWNER. FINAL PAYMENT SHALL NOT BE MADE UNTIL OCCUPANCY PERMIT IS OBTAINED.
- WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
- THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK FOUND UNACCEPTABLE BY THE OWNER'S REPRESENTATIVE WHETHER OBSERVED BEFORE OR AFTER SUBSTANTIAL COMPLETION AND WHETHER OR NOT FABRICATED, INSTALLED OR COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTING SUCH UNACCEPTABLE WORK, INCLUDING COMPENSATION FOR THE OWNER'S REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.

CONDUIT

- FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY SYSTEM.
- RIGID OR INTERMEDIATE GRADE GALVANIZED STEEL CONDUIT IN WET LOCATIONS, CONCRETE, EXTERIOR MASONRY WALLS AND EXPOSED LOCATIONS SUBJECT TO DAMAGE.
- GALVANIZED STEEL ELECTRICAL METALLIC TUBING IN DRY LOCATIONS, INTERIOR PARTITIONS, AND CEILING SPACE.
- FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO TRANSFORMERS, MOTORS AND EQUIPMENT. LIQUID TIGHT FLEXIBLE METAL CONDUIT IN WET AND DAMP LOCATIONS.
- FLEXIBLE METALLIC TUBING FROM OUTLET BOX TO RECESSED LIGHT FIXTURES IN SUSPENDED CEILINGS, SIX FOOT MAXIMUM LENGTH.
- SCHEDULE 40 PVC RIGID NON-METALLIC CONDUIT BURIED BELOW GROUND FLOOR SLAB AND FOR EXTERIOR UNDERGROUND.
- RACEWAYS SHALL BE SIZED IN ACCORDANCE WITH N.E.C.. MINIMUM CONDUIT SIZE SHALL BE 3/4 INCH.
- CONDUIT FITTINGS FOR RIGID CONDUIT SHALL BE THREADED CAST FERROUS ALLOY WITH GASKETS AND COVERS WHERE REQUIRED CONDUIT FITTINGS FOR EMT TO BE SET SCREW TYPE. LOCKNUTS SHALL BE OF THE BONDING TYPE WITH RING WHICH BITE INTO THE METAL OF THE BOX. BUSHINGS SHALL BE OF THE INSULATING TYPE.
- METAL CONDUITS SHALL BE COUPLED AND SECURED TO ALL BOXES IN A MANNER THAT PROVIDES AN ELECTRICALLY CONTINUOUS GROUND PATH FROM POINT OF SERVICE TO ALL OUTLETS.
- RIGID CONDUITS SHALL BE TERMINATED IN SHEET STEEL WITH DOUBLE LOCKNUTS AND AN INSULATING BUSHING. EMPTY CONDUITS STUBBED SHALL BE THREADED AND CAPPED.
- NYLON PULL STRING SHALL BE INSTALLED IN ALL EMPTY CONDUITS.
- CONDUIT ROUTING INDICATED ON THE DRAWINGS IS DIAGRAMMATIC ONLY AND IS NOT NECESSARILY THE INTENDED ACTUAL CONDUIT RUN. CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE ACTUAL INSTALLATION WITH REGARD TO AVAILABLE SPACE AND SHALL COOPERATE WITH OTHER TRADES.
- ALL CONDUITS SHALL BE SIZED AND INSTALLED SO THAT THE REQUIRED NUMBER OF CONDUCTORS MAY BE PULLED IN WITHOUT INJURY OR STRAIN.
- CONDUIT RUNS SHALL BE LOCATED TO AVOID EQUIPMENT AND ACCESS TO EQUIPMENT OF OTHER TRADES.
- CONDUITS SHALL BE CONTINUOUS AND SECURED TO ALL BOXES IN SUCH A MANNER THAT EACH CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS FROM THE POINT OF SERVICE TO ALL OUTLET BOXES. RUN CONDUITS CONCEALED UNLESS OTHERWISE INDICATED. WHERE IT IS NOT POSSIBLE TO INSTALL CONCEALED CONDUIT, PERMISSION MUST BE OBTAINED FROM THE ARCHITECT TO RUN SURFACE WIREMOLD OR CONDUIT. THE ROUTING AND ELEVATION OF SUCH SURFACE MOUNTED RACEWAYS MUST BE COORDINATED WITH THE ARCHITECT BEFORE INSTALLATION. EXPOSED RACEWAYS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO STRUCTURAL MEMBERS AND SHALL BE PAINTED TO MATCH ADJACENT FINISHES.
- ENDS OF EACH CONDUIT SHALL BE CAPPED WITH AN APPROVED CAP OR DISC TO PREVENT THE ENTRANCE OF FOREIGN MATERIALS DURING CONSTRUCTION.
- CONDUITS THAT PASS-THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS, OR DECKS SHALL BE INSTALLED SO AS TO MAINTAIN THE FIRE OR SMOKE RATING.
- EXPANSION FITTINGS SHALL BE INSTALLED AT ALL POINTS WHERE CONDUITS CROSS BUILDING EXPANSION JOINTS.
- CONDUIT ENTRIES INTO BUILDING SHALL BE MADE WATERTIGHT. ALL UNDERGROUND JOINTS SHALL BE SEALED.
- EXTERIOR UNDERGROUND CONDUITS SHALL BE INSTALLED 36 INCHES MINIMUM BELOW FINISHED GRADE.

BUSHINGS AND CONNECTORS

- WHERE RIGID OR INTERMEDIATE METAL CONDUIT ENTERS A BOX, SECURE THE CONDUIT TO THE BOX WITH A LOCKNUT ON THE OUTSIDE AND INSIDE. PROVIDE BUSHINGS FOR CONDUIT TERMINALS AT BOXES. FOR CONDUCTORS THRU #8 AWG BUSHINGS SHALL BE GALVANIZED, NON-INSULATING TYPE, AND FOR CONDUCTORS LARGER THAN #8 AWG BUSHINGS ARE TO BE INSULATING TYPE. IF THE CONDUIT FITTING PROVIDES EQUIVALENT PROTECTION OF THE CONDUCTORS, THE BUSHING MAY BE ELIMINATED.

HANGERS AND SUPPORTS

- CONDUIT SUPPORTS SHALL BE ATTACHED TO BUILDING STRUCTURAL MEMBERS ONLY BY ONE AND TWO-WHOLE STRAPS AND/OR SUITABLE CLAMPS OR HANGERS, AND NOT TO ANY BUILDING SUB SYSTEMS SUCH AS SUSPENDED CEILINGS, MECHANICAL DUCTS OR PIPES. DO NOT USE PERFORATED STRAP-TYPE HANGER, WIRE TIES, OR PLUMBERS STRAP.
- IN NO CASE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER PIPE FOR REPAIRS.
- PROVIDE ANGLE IRON FRAMES AND SUPPORTS FOR JUNCTION BOXES AND CABINETS TO PREVENT STRAIN ON ENTERING CONDUITS. GROUP EXPOSED CONDUITS TOGETHER. CONDUIT PENETRATIONS IN CEILINGS SHALL BE TIGHT TO THE CONDUIT AND SEALED.
- SUPPORT RIGID STEEL, IMC, AND EMT RACEWAYS AT MAX TEEN FEET INTERVALS AND

WITHIN THREE FEET OF OUTLET AND JUNCTION BOXES, CABINETS, OR FITTINGS. SUPPORT WITHIN 12" OF EACH CHANGE IN DIRECTION. USE ONE-HOLE MALLEABLE IRON CLAMPS. SUPPORT MULTIPLE RUNS ON GALVANIZED UNISTRUT.

WIRE AND CABLE

- FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE U.L. LABELED, 98% CONDUCTIVITY COPPER-STAMPED AT 12" INTERVALS WITH CONDUITOR SIZE AND INSULATION TYPE.
- FEEDER CIRCUIT CONDUCTORS SHALL BE TYPE "XHHW-2" OR "THHN", 600 VOLT, STRANDED COPPER, 90 DEGREE C RATED.
- BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "THWN/THHN-2", 600 VOLT, 90 DEGREE C, COPPER. WIRE SIZES #8 AWG AND LARGER SHALL BE STRANDED, BRANCH CIRCUIT CONDUCTORS SMALLER THAN SIZE #8 AWG SHALL BE SOLID. BRANCH CIRCUIT CONDUCTORS SHALL ALSO BE PERMISSIBLE TO BE TYPE "MC" THHN-2, 600 VOLT, 90 DEGREE C, COPPER WITH INSULATED GREEN GROUND WIRE ENCLOSED IN AN ALUMINUM OR GALVANIZED STEEL ARMOR "CONDUIT" THAT IS APPROVED FOR EXPOSED OR CONCEALED APPLICATIONS.
- MINIMUM WIRE SIZE SHALL BE #12 AWG OR LARGER AS REQUIRED TO LIMIT VOLTAGE DROP AT FURTHEST OUTLET TO 3%.
- CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
- THE FOLLOWING COLOR CODE SHALL BE USED:
120/208V, 3-PHASE: BLACK, RED, BLUE, NEUTRAL WHITE, GROUND GREEN
277/480V, 3-PHASE: BROWN, ORANGE, YELLOW, NEUTRAL GREY, GROUND GREEN
- CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE
- CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE 1/4". WRAPPED TWICE AROUND AT THE FOLLOWING POINTS:
 - AT EACH TERMINAL
 - AT EACH CONDUIT ENTRANCE
 - AT INTERVALS NOT MORE THAN 12 INCHES APART IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.
- ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANEL BOARDS GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH-CIRCUIT NUMBERS.
- EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR
- INSULATION RESISTANCE TESTS SHALL BE MADE ON THE ELECTRICAL SYSTEM WITH AN APPROVED MEGOHMMETER.
- AFTER INSTALLATION, TEST FOR GROUNDS, SHORT CIRCUITS AND PROPER FUNCTION OF EACH SYSTEM RELATED WIRING. FAULTS IN THE INSTALLATION SHALL BE CORRECTED.
- INSTALLATION:
 - PULL WIRE AND CABLES USING WIRE PULLING LUBRICANT RATED FOR USE WITH WIRE AND CABLES.
 - COLOR CODE WIRE AND CABLE FOR CIRCUITS AS CALLED FOR IN THE NATIONAL ELECTRICAL CODE. COLOR CODING OF FEEDERS SHALL BE BY MEANS OF COLORED TAPE AT TERMINALS.
 - INDIVIDUAL BRANCH CIRCUITS ARE SHOWN ON THE DRAWINGS FOR CLARITY. LIGHTING AND RECEPTACLE CIRCUITS MAY BE GROUPED FOR HOMERUNS, SO LONG AS CONDUCTOR AMPACITIES ARE DERATED PER N.E.C. REQUIREMENTS. NEUTRAL CONDUCTORS IN RECEPTACLE CIRCUITS SERVING DATA EQUIPMENT LOADS SHALL NOT BE SHARED.
 - WIRING FROM LEGALLY REQUIRED EMERGENCY AND STANDBY POWER GENERATION SOURCES SHALL BE KEPT INDEPENDENT OF EACH OTHER AND INDEPENDENT OF ALL OTHER BRANCH CIRCUITS WIRING, AND SHALL NOT ENTER THE SAME RACEWAY, CABLE, BOX, OR CABINET WITH OTHER WIRING, UNLESS SPECIFICALLY ALLOWED BY THE N.E.C.

BOXES AND PLATES

- FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULL BOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND WORKMANLIKE MANNER.
- PULL BOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND GAUGE, SIZED IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE U.L. LABELED.
- BOXES AT EXTERIOR AREAS TO BE WATERTIGHT AND DUST-TIGHT WITH GASKETED COVERS.
- ALL BOXES FOR EXPOSED WORK IN FINISHED SPACES SHALL BE "FS" TYPE WITH THREADED HUBS WITH RIGID CONDUIT RISER (DEEP WIRE MOLD BOXES).
- ALL BOXES SHALL BE RIGIDLY SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM. ALL BOXES SHALL BE 4" SQUARE BOXES MINIMUM WITH RAISED COVERS SUITABLE FOR THE WALL MATERIAL. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED.
- FLOOR BOXES:
 - DESCRIPTION: FLOOR BOXES COMPATIBLE WITH FLOOR BOX SERVICE FITTINGS PROVIDED IN ACCORDANCE WITH THE WIRING DEVICES SECTION OF THIS SPECIFICATION; WITH PARTITIONS TO SEPARATE MULTIPLE SERVICES; FURNISHED WITH ALL COMPONENTS, ADAPTERS, AND TRIMS REQUIRED FOR COMPLETE INSTALLATION.
 - USE CAST IRON OR NONMETALLIC FLOOR BOXES WITHIN SLAB ON GRADE.
 - USE SHEET-STEEL, CAST-IRON, OR NONMETALLIC FLOOR BOXES WITHIN SLAB ABOVE GRADE.
 - METALLIC FLOOR BOXES; FULLY ADJUSTABLE (WITH INTEGRAL MEANS FOR LEVELING ADJUSTMENT PRIOR TO AND AFTER CONCRETE POUR).
- MANUFACTURER; SAME AS MANUFACTURER OF FLOOR BOX SERVICE FITTINGS.
- UNDERGROUND BOXES/ENCLOSURES:
 - DESCRIPTION: IN-GROUND, OPEN BOTTOM BOXES FURNISHED WITH FLUSH, NON-SKID COVERS WITH TEXT INDICATING TYPE OF SERVICE AND STAINLESS-STEEL TAMPER RESISTANT COVER BOLTS.
 - COVER TEXT: AS INDICATED ON DRAWINGS.
 - SIZE: AS INDICATED ON DRAWINGS.
 - DEPTH: AS REQUIRED TO EXTEND BELOW FROST LINE TO PREVENT FROST UPHEAVAL, BUT NOT LESS THAN 12 INCHES.
 - APPLICATION:
 - SIDEWALKS AND LANDSCAPED AREAS (SUBJECT ONLY TO OCCASIONAL NON-DELIBERATE VEHICULAR TRAFFIC): USE POLYMER CONCRETE OR COMPOSITE ENCLOSURE WITH MINIMUM SCTE 77, TIER A LOADING RATING.
 - PARKING LOTS (SUBJECT ONLY TO OCCASIONAL NON-DELIBERATE VEHICULAR TRAFFIC): USE POLYMER CONCRETE OR COMPOSITE ENCLOSURE WITH MINIMUM SCTE 77, TIER 15 LOAD RATING.
 - DO NOT USE POLYMER CONCRETE ENCLOSURES IN AREAS SUBJECT TO DELIBERATE VEHICULAR TRAFFIC SUCH AS STREETS AND HIGHWAYS.
 - COMPOSITE UNDERGROUND BOXES/ENCLOSURES: COMPLY WITH SCTE 77

WIRING DEVICES

- WIRING DEVICES SHALL BE SIMILAR TO THOSE LISTED BELOW AND OF SPECIFIED AMPERAGE. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
- DUPLEX GROUNDING TYPE RECEPTACLE - 20 AMP, 125 VOLTS
 - HUBBELL 5352
 - ARROW HART 5352
- SINGLE POLE SWITCHES - 20 AMP, 120 VOLT
- WEATHERPROOF RECEPTACLES - 20 AMP, 125 VOLT - NEMA 5-20R
 - HUBBELL 5352 WITH 5205 COVER INTERMATIC GUARDIAN
 - I SERIES, NEMA 3R COVER
 - ARROW HART 5352 WITH 4500 COVER
- GFCI RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20R
 - HUBBELL GF 5262 WITH MATCHING NYLON COVER PLATE OR WO-26 W.P. COVER.
- GROUND ALL RECEPTACLES IN ACCORDANCE WITH ARTICLE 250.146 OF NEC AND AS INDICATED IN THE GROUNDING SECTION OF THIS SPECIFICATION.

DISCONNECT SWITCHES

- PROVIDE MOTOR DRIVEN EQUIPMENT WITH PROPERLY SIZED AND RATED DISCONNECT SWITCHES TO COMPLY WITH N.E.C. REQUIREMENTS, WHETHER OR NOT INDICATED ON THE DRAWINGS.

- DISCONNECT SWITCHES SHALL BE MANUFACTURED BY SQUARE D OR BY APPROVED ALTERNATE MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE OR SIEMENS.

IDENTIFICATION

- PROVIDE NAMEPLATES ON PANELBOARDS, DISTRIBUTION EQUIPMENT, SAFETY SWITCHES, MOTOR STARTERS, JUNCTION BOXES, AND CONTROL DEVICES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, LETTERING SHALL INCLUDE THE NAME OR DESIGNATION OF THE EQUIPMENT, HORSEPOWER, VOLTAGE RATING AND SERVICE DESIGNATION.
- IDENTIFICATION NAMEPLATES SHALL BE PLASTIC, BLACK IN COLOR, WITH THE ENGRAVED WHITE LETTERS. LETTERS SHALL BE A MINIMUM OF 1/8" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEET METAL SCREW ATTACHMENT. NO "DYMO" OR SIMILAR TYPE LABELS WILL BE ALLOWED.
- PANEL BOARD DIRECTORY: A TYPED CIRCUIT DIRECTORY SHALL BE PROVIDED INDICATING LOCAL AREA SERVED AND LOCATION FOR EACH BRANCH CIRCUIT.

GROUNDING

- ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTORS SIZED IN ACCORDANCE WITH NEC TABLE 250-122, EXCEPT NOT BE SMALLER THAN #12 FOR POWER AND LIGHTING CIRCUITS AND #14 FOR CONTROL CIRCUITS. ALL GROUND CONDUCTORS SHALL BE GREEN, OR AS SPECIFIED UNDER THE WIRE AND CABLE SECTION OF THIS SPECIFICATION.
- ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
- CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40 PVC NON-METALLIC ELECTRICAL CONDUIT WITH U.L. LABEL. SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENVICLED BY METALLIC HANGERS OR SUPPORTS.
- THE GROUND CONDUCTOR SHALL BE CONNECTED TO THE NEUTRAL IN ONLY TWO LOCATIONS - ON THE SUPPLY SIDE OF THE SERVICE DISCONNECT MEANS PER NEC-250-24 AND ON SEPARATELY DERIVED SYSTEMS PER NEC 250-30.
- AT EACH RECEPTACLE BOX, THE GROUND CONDUCTOR SHALL ENTER AND CONNECT, WITH NORMAL WIRING CONNECTOR, TO: 1) THE GROUND PIGTAIL TO RECEPTACLE 2) THE GROUND PIGTAIL TO THE BOX GROUND SCREW; AND 3) THE OUTGOING GROUND CONDUCTOR TO NEXT DEVICE, IF NOT AT END OF RUN. METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES.
- CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS, WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS SHALL BE REQUIRED.
- THE GROUNDING CONDUCTOR FOR BRANCH CIRCUITS FEEDING ISOLATED GROUND RECEPTACLES SHALL BE CONNECTED ONLY AT THE ISOLATED GROUND RECEPTACLE GROUND TERMINALS, AND AT THE GROUND BUS OF THE SERVING PANEL.
- A GROUND CONTINUITY TEST SHALL BE MADE ON THE ENTIRE GROUNDING SYSTEM FROM THE SERVICE TO EVERY OUTLET.

LIGHTING FIXTURES

- CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AS INDICATED IN FIXTURE SCHEDULE SHOWN ON DRAWINGS, AND SPECIFIED HEREIN.
- NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE-D TYPE PK, FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
- ALL LIGHTING FIXTURES INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE FURNISHED COMPLETE WITH ALL NECESSARY COMPONENTS, PARTS, HANGER KITS, DRIVERS, ADAPTERS, STEMS, CABLES AND ACCESSORIES REQUIRED FOR INSTALLATION AS SHOWN ON DRAWINGS.
- ANY LIGHTING FIXTURES SCRATCHED, BENT, CRACKED, OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
- ALL LIGHTING FIXTURES SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
- ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT), BY USE OF PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.

TELEPHONE/DATA SYSTEMS

- SUMMARY
 - INCLUDES BUT NOT LIMITED TO
 - FURNISH AND INSTALL BUILDING TELEPHONE AND COMPUTER NETWORK RACEWAY AND CABLE SYSTEM AS DESCRIBED IN CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, RACEWAY, OUTLETS, MODULAR JACKS, DEVICE PLATES, CABLES, PUNCH DOWN BLOCKS, PATCH PANELS, EQUIPMENT CABINETS, CABLE TRAYS, BUNDLING AND OTHER MISCELLANEOUS ITEMS REQUIRED FOR A COMPLETE WORKING SYSTEM.
- COMPONENTS
 - TELEPHONE/DATA OUTLETS SHALL BE PROVIDED WITH SINGLE OR DOUBLE DEVICE BOX, AS REQUIRED FOR OUTLET INDICATED.
 - BUILDING TELEPHONE AND COMPUTER NETWORK SYSTEM CABLE:
 - 23 GAUGE, SOLID TINNED COPPER, FOUR TWISTED PAIRS, CATEGORY 6
 - USE PLENUM-RATED CABLE IN CEILINGS AND AREAS USED FOR PLENUM AIR RETURN
 - TELEPHONE TERMINATION BLOCKS
 - UL VERIFIED CATEGORY 6110 TERMINATION WITH TIN LEAN PLATED IDC
 - TELEPHONE/NETWORK JACKS
 - WALL JACKS
 - CAT6 - HUBBELL HX16 OR ALTERNATE MANUFACTURER WITH EQUIVALENT PERFORMANCE STANDARD.
 - PLATES
 - HUBBELL - IFF SERIES (PORT QUANTITY AS REQUIRED, COLOR BY ARCHITECT FROM MANUFACTURERS FULL LINE)
 - CONNECTOR BLOCKS FOR CATEGORY 6 AND UTP CABLING: TYPE 110 INSULATION DISPLACEMENT CONNECTORS; CAPACITY SUFFICIENT FOR CABLES TO BE TERMINATED PLUS 25 PERCENT SPARE CAPACITY.

1. INSTALLATION

- TERMINATE CABLES AT EACH OUTLET WITH SPECIFIED MODULAR JACK ASSEMBLY.
- TERMINATE CABLES ON PUNCH DOWN BLOCKS OR PATCH PANELS AT TERMINAL BOARD.
- PROVIDE TYPED LABELS AT ALL JACKS CORRESPONDING TO TYPED NUMBERING SYSTEM AT TERMINAL STRIP.
- ALL EQUIPMENT MOUNTED ON EQUIPMENT ROOM WALLS SHALL BE ATTACHED TO 3/4" PLYWOOD BOARDS, PAINTED WITH FIRE RESISTANT PAINT.

4. QUALITY ASSURANCE

- COMPLY WITH APPLICABLE PORTIONS OF NEC, ANSI/EIA/TIA 568 AS TO TYPE PRODUCTS USED AND INSTALLATION OF COMPONENTS. PROVIDE PRODUCTS AND MATERIAL WHICH HAVE BEEN UL-LISTED AND LABELED.

FIRE AND SMOKE INTEGRITY

- SEAL BUILDING OPENINGS THROUGHOUT, CAUSED BY INSTALLATION OF ALL TYPES OF ELECTRICAL EQUIPMENT (CONDUIT, CABLE/WIRE, PANELS, ETC.) WHERE OPENINGS ARE IN FLOORS OR FIRE RATED WALLS CONFIGURE THE PENETRATION IN CONFORMANCE WITH UL LISTED CRITERIA, INSURE FIRE AND SMOKE BARRIER INTEGRITY THROUGHOUT. WHERE INTUMESCENT SEALER/CAULKING IS REQUIRED USE MATERIALS OF 3M OR DOW CORNING.

POWER AND LIGHTING PANELS

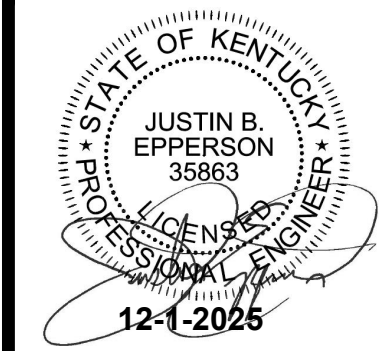
- FURNISH AND INSTALL, AS SCHEDULED AND SHOWN ON THE DRAWINGS, POWER PANELS FOR OPERATION ON VOLTAGES INDICATED.
- BRANCH CIRCUIT PANEL BOARDS SHALL BE DEAD-FRONT CIRCUIT BREAKER TYPE, WITH VOLTAGE, AMPERAGE, MAIN CIRCUIT BREAKER OR MAIN LUGS ONLY, AS NOTED ON DRAWINGS. ALL PANEL BOARDS SHALL BE PROVIDED WITH SOLID NEUTRALS AND GROUNDING BUS WITH LUGS.
- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC, MOLDED CASE, BOLT-ON TYPE, WITH QUANTITY, AMPERAGE, AND POLES AS NOTED ON THE PANEL SCHEDULES. SHORT CIRCUIT INTERRUPTING CAPACITY SHALL BE AS NOTED ON THE DRAWINGS. TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP. AUTOMATIC TRIPPING SHALL BE INDICATED BY THE OPERATING HANDLE ASSUMING A MID-POSITION BETWEEN ON AND OFF. PROVIDE HACR BREAKERS AS REQUIRED BY ALL HVAC EQUIPMENT AND MANUFACTURERS.
- PANEL BOARD ENCLOSURES SHALL BE GENERAL PURPOSE, SURFACE OR FLUSH-MOUNTED

AS NOTED ON DRAWINGS, WITH GALVANIZED BACKBOX AND PAINTED FRONT WITH LOCKABLE DOOR. A GLAZED DIRECTORY FRAME SHALL BE PROVIDED INSIDE THE DOOR AND BE OF SUFFICIENT SIZE TO GIVE DESCRIPTION OF EACH CIRCUIT. ALL SECTIONS OF MULTI-SECTION PANELS SHALL BE SAME SIZE.

- TWO KEYS SHALL BE PROVIDED WITH EACH PANEL, AND ALL PANELS SHALL BE KEYPED ALIKE.
- SCREW FASTENED HANDLE LOCK-ON DEVICES SHALL BE PROVIDED ON BRANCH CIRCUIT BREAKERS FOR EMERGENCY, EXIT, SECURITY AND NIGHT LIGHTING.
- BRANCH CIRCUIT PANELBOARDS SHALL BE SQUARE-D, TYPE 'NQ', 120/208 VOLT 3-PHASE, 4-WIRE OR TYPE 'NF', 277/480V, 3-PHASE, 4-WIRE. DISTRIBUTION PANELBOARDS SHALL BE SQUARE-D, TYPE 'LINE', REFER TO PANEL SCHEDULES FOR PANEL SPECIFICS. EQUIVALENT ALTERNATE MANUFACTURERS: CUTLER HAMMER, GENERAL ELECTRIC, OR SIEMENS.
- ALL LIGHTING AND APPLIANCE PANELBOARDS SHALL HAVE A LAMINATED TYPE-WRITTEN CIRCUIT DIRECTORY THAT SHALL SHOW LOADING AS CONNECTED DURING CONSTRUCTION.
- THE BRANCH CIRCUIT NUMBERS USED ON THE DRAWINGS SHALL BE APPLIED FOR THE CONSTRUCTION. HOWEVER, AT THE COMPLETION OF THE WORK, CIRCUIT NUMBER ADJUSTMENTS SHALL BE MADE AS REQUIRED TO PROVIDE BALANCED PHASE LOADING ON EACH PANELBOARD.
- FLUSH/RECESSED MOUNTED PANELBOARDS SHALL BE INSTALLED WITH A MINIMUM OF THREE EMPTY 1/2" CONDUITS STUBBED UP TO THE NEAREST ACCESSIBLE CEILING SPACE FOR CONVENIENT FUTURE EXPANSION.

FUSES

- FURNISH AND INSTALL A COMPLETE SET OF FUSES THROUGHOUT FOR FUSIBLE EQUIPMENT IN THE PROJECT. FUSES SHALL BE AS MANUFACTURED BY BUSMAN, GOULD OR LITTELFUSE.
- PROVIDE FUSES OF THE SAME MANUFACTURER THROUGHOUT. FUSES SHALL BE U.L. LISTED, CURRENT LIMITING AND HAVE AN INTERRUPTING RATING OF 100,000 RMS AMPERES SYMMETRICAL.
 - FUSES RATED 601 TO 6000 AMPERES SHALL BE TIME-DELAY, CURRENT-LIMITING, U.L. LISTED, NEMA CLASS L
 - FUSES RATED 600 AMPERES AND LESS SERVING PANEL BOARDS SHALL BE UL CLASS C, RK-1 DUAL ELEMENT (UNLESS NOTED OTHERWISE).
 - FUSES RATED 600 AMPERES AND LESS SERVING MOTOR CIRCUITS SHALL BE UL CLASS RK-5 DUAL-ELEMENT TIME DELAY.



London Spec Building
London-Laurel Economic
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PROJECT NO.	DATE	REVISION	BY
NO. 204-0121			
DESIGNED BY	JE		
DRAWN BY	JE		
CHECKED BY	JE		
REVIEWED BY	JE		
DATE	December 1, 2025		
SCALE	AS NOTED		

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