

ARCHITECTURAL SPECIFICATIONS:

DIVISION 1 – GENERAL CONDITIONS:

- A. THE WORK INCLUDED UNDER THIS CONTRACT HEADING SHALL CONSIST OF FURNISHING ALL OF THE LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO CONSTRUCT THE ALTERATIONS OUTLINED AND ILLUSTRATED IN THIS DRAWING SET. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS. IN NO CASE SHALL WORK BE INSTALLED CONTRARY TO OR BELOW THE MINIMUM LEGAL STANDARDS, OR IN VIOLATION OF APPLICABLE CODES.
- B. THE CONTRACTOR SHALL OBTAIN A BUILDING PERMIT PRIOR TO COMMENCEMENT OF WORK.
- C. THE CONTRACTOR SHALL PROVIDE CERTIFIED SHOP DRAWINGS, AND/OR PRODUCT LITERATURE, FOR REVIEW AS ELECTRONIC SUBMITTALS TO THE THE OWNER VIA EMAIL. PHYSICAL MATERIAL SAMPLES SHALL BE DELIVERED TO THE OWNER WHERE REQUIRED. THIS SHALL BE DONE AS SOON AS POSSIBLE AND IN THE PROPER SEQUENCE TO AVOID DELAYS IN THE WORK. LISTED BELOW IS A SUMMARY OF REQUIRED ITEMS TO SUBMIT FOR REVIEW:
- SUSPENDED CEILING GRID SYSTEM AND TILE PADS.
 - MODULAR CARPET (CARPET TILES) AND RELATED ACCESSORIES.
 - RUBBER BASEBOARD.
 - TRANSITION/TERMINATION ACCESSORY.
 - METAL STUDS.
 - INTERIOR SOLID CORE WOOD DOORS.
- D. ALTERNATIVE PRODUCT MANUFACTURERS MUST HAVE IDENTICAL AND/OR SIMILAR FEATURES AND PERFORMANCE CHARACTERISTICS TO THE PRODUCT SPECIFIED. ALL BIDS SHALL BE BASED UPON THE STANDARDS AND/OR BASIS FOR DESIGN SPECIFIED, OR THEIR EQUALS. BIDDERS DESIRING TO MAKE SUBSTITUTIONS FOR THE STANDARDS AND/OR BASIS FOR DESIGN SPECIFIED, OR THEIR EQUALS, OR FOR A PROPOSED DIFFERENT METHOD OF CONSTRUCTION, SHALL LIST THE PROPOSED SUBSTITUTIONS OR METHODS WITH THEIR BID, TOGETHER WITH ANY DEVIATION FROM THEIR BASE BID AMOUNT WITHOUT THE SUBSTITUTION. THE OWNER WILL DETERMINE IF THE FEATURES AND CHARACTERISTICS OF THE PROPOSED EQUALS OR SUBSTITUTIONS ARE EQUAL AND ACCEPTABLE. THE OWNER RESERVES THE RIGHT TO SELECT THE COMBINATION OF PRICE, PRODUCTS, AND METHODS THAT IS IN THE BEST INTEREST OF FIVE RIVERS METROPARKS.
- E. ALL EQUIPMENT, FIXTURES, AND CONSTRUCTION FINISH MATERIALS ARE TO BE STORED, HANDLED, AND INSTALLED IN STRICT ACCORDANCE WITH INDUSTRY STANDARDS AND THE MANUFACTURER'S RECOMMENDATIONS FOR EACH SPECIFIC ITEM.
- F. UNLESS OTHERWISE CALLED FOR, WARRANTIES ON ALL WORK, MATERIAL, FIXTURES, AND EQUIPMENT SHALL EXTEND FOR A PERIOD OF ONE YEAR, AND WILL COMMENCE ON THE DATE OF SUBSTANTIAL COMPLETION AS DETERMINED AND AGREED UPON BY THE OWNER AND CONTRACTOR.
- G. MAINTAIN ON JOBSITE ONE COPY OF CONTRACT DOCUMENTS (DRAWINGS, SPECIFICATIONS, AND ADDENDA), REVIEWED SHOP DRAWINGS, CHANGE ORDERS, FIELD ORDERS, AND OTHER MODIFICATIONS TO THE CONTRACT. LEGIBLY MARK ON DRAWINGS IN RED ALL DEVIATIONS FROM THE ORIGINAL CONTRACT DOCUMENTS. THE COMBINATION OF THESE DOCUMENTS SHALL BE REFERRED TO AS RECORD DRAWINGS.
- H. THE CONTRACTOR, AND OWNER WILL ATTEND REGULAR COORDINATION MEETINGS. MEETING SCHEDULE TO BE DETERMINED AT THE START OF CONSTRUCTION.
- I. UPON NOTICE TO PROCEED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A SCHEDULE SHOWING THE COMPLETE SEQUENCE OF CONSTRUCTION ACTIVITY WITH THE DATES FOR BEGINNING AND COMPLETION OF EACH MAJOR ELEMENT OF CONSTRUCTION. SUBMIT INITIAL SCHEDULE TO THE OWNER FOR REVIEW WITHIN SEVEN (7) DAYS AFTER NOTICE TO PROCEED. THE OWNER WILL REVIEW THE SCHEDULE AND RETURN IT TO THE CONTRACTOR WITHIN FIVE (5) DAYS AFTER RECEIPT WITH COMMENTS. IF REQUIRED, THE CONTRACTOR SHALL RESUBMIT A FINAL REVISED SCHEDULE WITHIN THREE (3) DAYS FROM RECEIPT.
- J. THE CONTRACTOR SHALL CLEAN THE CONSTRUCTION SITE IN A THOROUGH AND WORKMANLIKE MANNER TO THE SATISFACTION OF THE OWNER DURING THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL PROPERLY DISPOSE OF MATERIALS WITHOUT USING THE EXISTING ON-SITE DUMPSTERS.
- K. THE CONTRACTOR SHALL PROVIDE THE NECESSARY BARRIERS TO CONTAIN DUST AND PARTICLE CREATED DURING CONSTRUCTION INCLUDING PROTECTION OF THE HVAC SYSTEM AND RELATED DUCTWORK. THE CONTRACTOR SHALL CLEAN UP THE WORK-SITE ON A DAILY BASIS.
- L. REGULAR WORKING HOURS ARE 8:00AM TO 4:30PM, MONDAY THROUGH FRIDAY. THE CONTRACTOR MAY WORK OUTSIDE REGULAR WORKING HOURS ONLY WITH PRIOR APPROVAL FROM THE OWNER.
- M. THE CONTRACTOR IS TO THOROUGHLY AND PROFESSIONALLY CLEAN THE PORTIONS OF THE BUILDING WITHIN THE SCOPE OF WORK AT THE COMPLETION OF THE PROJECT. WORK TO INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING TASKS:
- REMOVE ALL TEMPORARY LABELS FROM MATERIALS, EQUIPMENT, AND ACCESSORIES.
 - CLEAN AND VACUUM CARPET IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- N. THE CONTRACTOR IS TO PROVIDE MAINTENANCE MATERIALS AT THE COMPLETION OF THE PROJECT FOR FUTURE REPAIRS AND TOUCH-UP. MATERIALS TO INCLUDE THE FOLLOWING ITEMS AND MINIMUM QUANTITIES:
- MODULAR CARPET (1 BOX).
- O. FURNISH AND INSTALL MODULAR CARPET (CARPET TILE). OWNER TO SELECT MODULAR CARPET. PRIOR TO INSTALLATION OF MODULAR CARPET (CARPET TILE) ALONG WITH RELATED ACCESSORIES, THE INSTALLER MUST THOROUGHLY READ AND STRICTLY FOLLOW THE MANUFACTURER'S FLOOR PREPARATION AND PRODUCT INSTALLATION INSTRUCTIONS. MODULAR CARPET IS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CRI STANDARDS FOR INSTALLATION OF COMMERCIAL CARPET. USE ONLY APPROVED PRIMERS AND ADHESIVES APPROPRIATE TO SUBSTRATE CONDITIONS.
- P. CONTRACTOR SHALL COORDINATE WITH THE FURNITURE SUPPLIER AND INSTALLER TO ASSURE THE AREAS OF ALTERATION ARE PROPERLY PREPARED FOR THE INSTALLATION OF FURNITURE INCLUDING ELECTRIC POWER REQUIREMENTS. FURNITURE CONTACT: FRIENDS OFFICE, LINDA GROOVER – OSTERFELD 937-689-6246).

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E4.1	PANEL BOARD SCHEDULES AND SINGLE LINE DIAGRAM

interior alterations at the:

FIVE RIVERS METROPARKS Administrative Office

409 East Monument Avenue, Third Floor Dayton Ohio 45402



- project description:
The project shall consist of interior alterations within the following areas:
- Planning Room
 - Human Resources
 - Visitor Services

OWNER / TENANT:	ARCHITECT:	MEP ENGINEER:	LANDLORD:
FIVE RIVERS METROPARKS 409 E. MONUMENT AVE., THIRD FLOOR DAYTON, OHIO 45402 CONTACT: JOHN EUBANKS (937) 274-3180	GREG L. LAUTERBACH, ARCHITECT, LLC 200 BROWN STREET DAYTON, OHIO 45402 CONTACT: GREG LAUTERBACH (937) 222-0719	L2 ENGINEERING 7945 WASHINGTON WOODS DRIVE DAYTON, OHIO 45459 CONTACT: RICH SIMPKINS (937) 361-6731	THE DAYTON HYDRAULIC COMPANY 6601 CENTERVILLE BUSINESS PARKWAY DAYTON, OHIO 45459

CODE DATA [APPLICABLE CODES – 2024 OHIO EXISTING BUILDING CODE (OEB) AND 2024 OHIO BUILDING CODE (OBC)]:

THIS PROJECT (ALTERATION TO AN EXISTING BUILDING) SHALL COMPLY WITH OEB CHAPTER 3 (SECTION 301.3 AND 302-309) AND OEB CHAPTER 5 (PRESCRIPTIVE COMPLIANCE METHOD).

- USE AND OCCUPANCY CLASSIFICATION:
BUSINESS GROUP B – NO CHANGE OF USE AND OCCUPANCY CLASSIFICATION
- TYPE OF CONSTRUCTION:
TYPE IIB
- BUILDING AREA:
THIRD FLOOR TENANT SPACE = 24,633SF
- BUILDING HEIGHT:
4 STORIES
- OCCUPANT LOAD:
241 PEOPLE (PER ORIGINAL DRAWING SET) – NO CHANGE IN OCCUPANT LOAD
- FIRE PROTECTION:
THE BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER AND FIRE ALARM SYSTEM. ALTERATIONS TO THE FIRE PROTECTION SYSTEM SHALL BE PROVIDED IN A SEPARATE SUBMISSION AND SHALL BE SEALED BY A LICENSED FIRE PROTECTION DESIGNER.
- NUMBER OF EXITS:
TWO EXISTING FIRE-RATED EGRESS STAIRS.
- EXIT ACCESS TRAVEL DISTANCE:
THE PROPOSED ALTERATIONS DO NOT AFFECT OR LENGTHEN PATHS OF EGRESS OR EXIT ACCESS TRAVEL DISTANCES.
- ACCESSIBILITY:
THE BUILDING SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF OBC CHAPTER 11, ICC A117.1-2009, AND OEB SECTIONS 306.7.1 THROUGH 306.7.16; UNLESS TECHNICALLY INFEASIBLE.
- ALTERATIONS (OEB SECTION 503):
EXCEPT AS PROVIDED IN CHAPTER 3 OF THIS CODE OR THIS SECTION, ALTERATIONS TO ANY BUILDING, STRUCTURE, OR SYSTEM (EGRESS, FIRE PROTECTION, SMOKE CONTROL, MECHANICAL, PLUMBING, ETC.) ARE TO COMPLY WITH THE REQUIREMENTS OF THE CODE FOR NEW CONSTRUCTION ONLY TO THE EXTENT OF THE PROPOSED ALTERATION. PORTIONS OF THE STRUCTURE OR SYSTEM NOT ALTERED AND NOT AFFECTED BY THE ALTERATION ARE NOT REQUIRED TO COMPLY WITH THE CODE REQUIREMENTS FOR A NEW STRUCTURE. ALTERATIONS ARE TO BE SUCH THAT THE EXISTING BUILDING, STRUCTURE, OR SYSTEM IS NO LESS COMPLYING WITH THE PROVISIONS OF THIS CODE THAN THE EXISTING BUILDING OR STRUCTURE WAS PRIOR TO THE ALTERATION.

GENERAL NOTES:

- A.) ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES.
- B.) THE CONTRACTOR SHALL CARRY LIABILITY, WORKMAN'S COMPENSATION, AND OTHER INSURANCE'S AS NECESSARY TO PROTECT HIM FROM CLAIMS ARISING OUT OF OR RESULTING FROM CONSTRUCTION OPERATIONS.
- C.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF DEBRIS ASSOCIATED WITH THE SCOPE OF WORK.
- D.) THE CONTRACTOR SHALL PROVIDE AND INSTALL DUST BARRIER AND PROTECTION PRIOR TO COMMENCEMENT OF DEMOLITION (IF APPLICABLE).
- E.) THE CONTRACTOR SHALL PROVIDE AND INSTALL SHORING AND/OR BRACING TO SUPPORT STRUCTURE DUE TO REMOVAL OF LOAD-BEARING MATERIALS PRIOR TO THE START OF ANY DEMOLITION WORK.
- F.) THE CONTRACTOR SHALL PROTECT ALL HVAC, PLUMBING AND ELECTRICAL SYSTEMS TO REMAIN DURING DEMOLITION.
- G.) THE CONTRACTOR SHALL ADVISE OWNER, ARCHITECT AND LOCAL BUILDING OFFICIALS OF ANY STRUCTURAL ISSUES; IF DISCOVERED, AND CEASE TO WORK UNTIL SUCH ISSUES ARE PROPERLY RESOLVED.
- H.) THE CONTRACTOR SHALL VERIFY ALL WORK, DIMENSIONS AND DETAILS AND REPORT AND DISCREPANCIES TO THE OWNER AND ARCHITECT PRIOR TO COMMENCING WORK. DURING CONSTRUCTION, THE OWNER AND ARCHITECT ARE TO BE ADVISED REGARDING ANY DISCREPANCIES IN MEASUREMENT, DIMENSION, LOCATION OR DETAILS PRIOR TO CONTRACTOR'S PROCEEDING WITH THAT PORTION OF THE WORK.
- J.) THE CONTRACTOR SHALL MAINTAIN A TEMPORARY BARRICADE AT ALL OPENINGS INTO THE BUILDING TO PROVIDE ADEQUATE SECURITY FROM INTRUDERS.
- K.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING IN GOOD CONDITION ANY PORTIONS OF THE EXISTING BUILDING AND SITE TO REMAIN AND SHALL REPLACE OR REPAIR AT HIS EXPENSE ANY PORTIONS DAMAGED AS A RESULT OF THE WORK, CONSTRUCTION PROCESS OR EXPOSURE TO WEATHER.
- L.) THE CONTRACTOR SHALL CONSULT REPRESENTATIVES OF LOCAL UTILITIES, INCLUDING GAS, WATER, POWER, SEWER, TELEPHONE AND TV WHERE APPLICABLE, CONCERNING LOCATIONS AND AVAILABILITY OF UTILITIES PRIOR TO COMMENCING WORK OR CONNECTING UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITY LINES.

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seal:	
	Greg L. Lauterbach, 071464 exp. 12/31/27
signature:	

greg l. lauterbach, architect

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FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

title:

drawn by:
Greg Lauterbach

Sheet

G.01

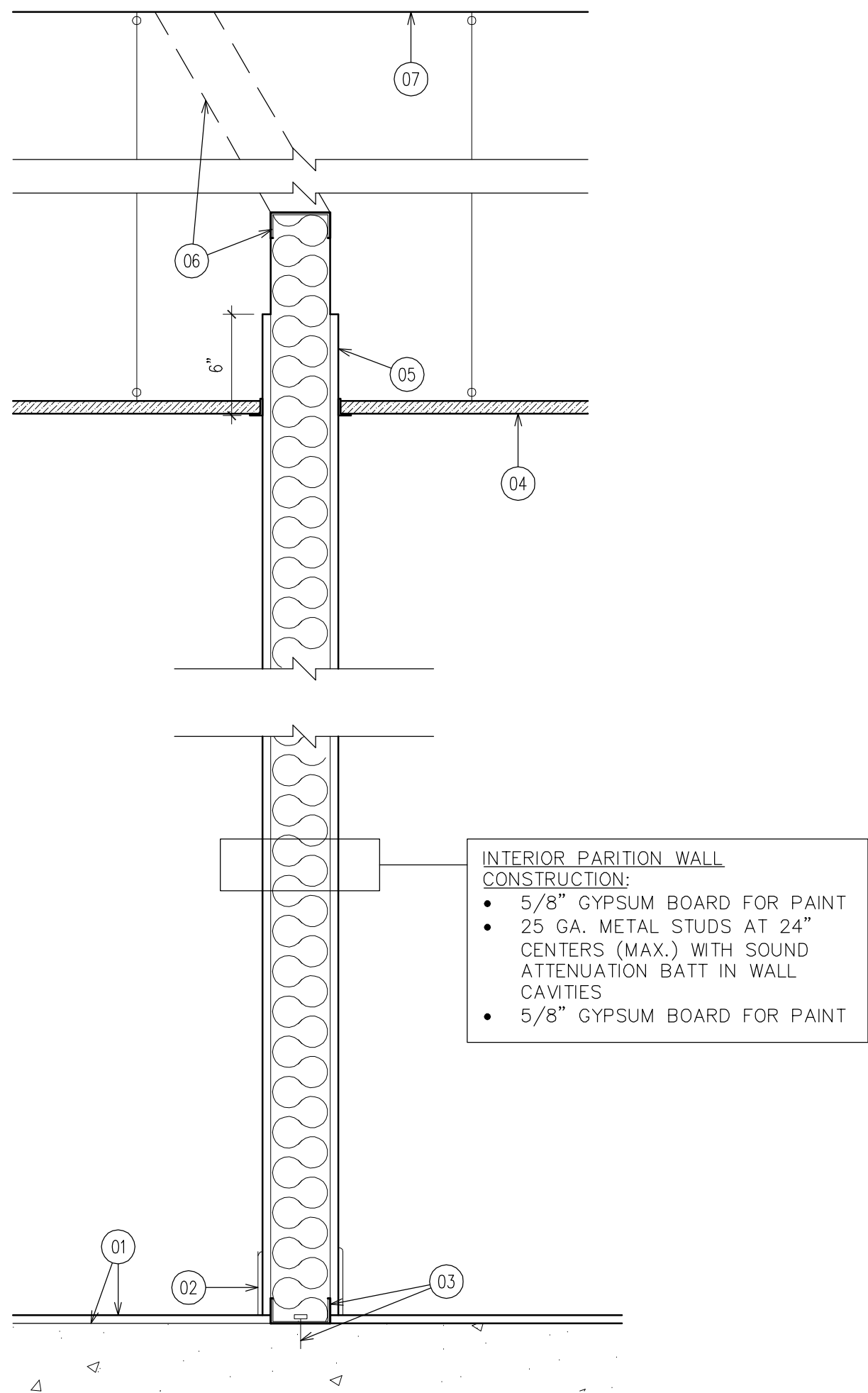
ROOM FINISH SCHEDULE					
NUMBER	ROOM NAME	FLOOR	WALLS	BASE TRIM	CEILING
301	VISITOR SERVICES	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
310A	CONFERENCE ROOM	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
310B	PLANNING ROOM	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
328	HUMAN RESOURCE AREA	NEW CARPET 'B'	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
343B	PLANNING ROOM	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
354A	CHIEF OFFICE	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
354B	DIRECTOR OFFICE	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
355	CHIEF OFFICE	EXIST. CARPET TO REMAIN	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM
357	HUDDLE ROOM	NEW CARPET 'A'	5/8" GYP BD FOR PAINT	4" RUBBER BASEBOARD	SUSPENDED CEILING GRID SYSTEM

GENERAL NOTES:

A.) ALL GYPSUM BOARD (DRYWALL) TO BE A LEVEL THREE FINISH.

KEYED NOTES:

- 01 FINISHED FLOOR OVER CONCRETE FLOOR DECK.
02 RUBBER BASE. MATCH EXISTING.
03 METAL STUD TRACK. PROVIDE ACOUSTIC SEALANT AND ANCHOR TO CONCRETE FLOOR AT 24" CENTERS.
04 SUSPENDED CEILING GRID SYSTEM WITH ACOUSTIC TILE PADS. SECURE GRID TO STRUCTURE ABOVE. CEILING HEIGHT VARIES - VERIFY DIMENSIONS IN FIELD.
05 GYPSUM BOARD MAY STOP 6" ABOVE FINISHED CEILING HEIGHT.
06 3-5/8" METAL TOP TRACK. PROVIDE METAL STUD "KICKERS" AS REQUIRED TO SECURE WALL TO STRUCTURE ABOVE.
07 STRUCTURE (FLOOR) ABOVE.

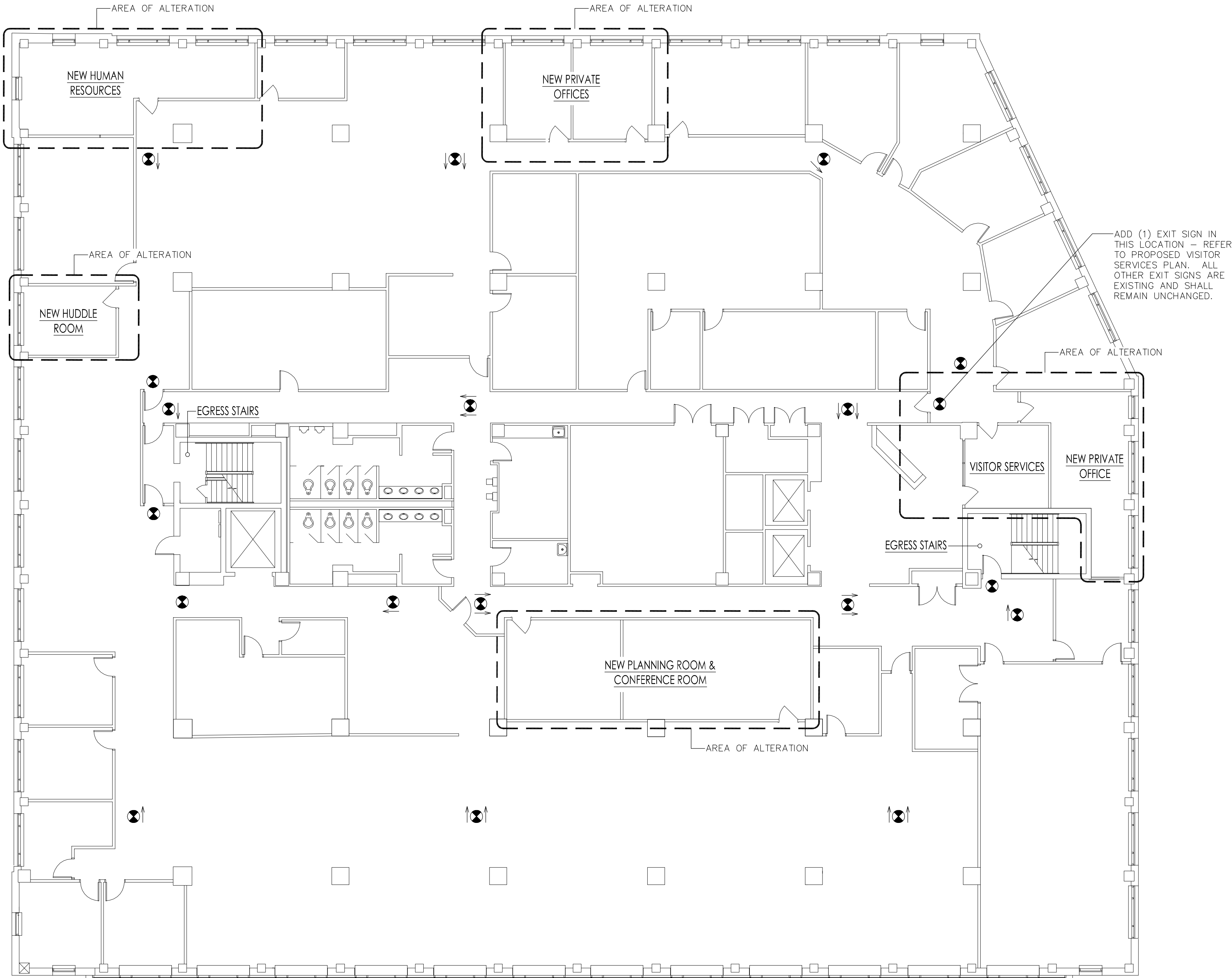


TYPICAL INTERIOR WALL SECTION
SCALE: 1 1/2" = 1'-0"

NOTE: INTERIOR WALL FRAMING SHALL BE MODIFIED TO ACCOMMODATE MECHANICAL RUNS AND OTHER UTILITIES ABOVE THE CEILING. AS SUCH, INTERIOR PARTITION WALLS ARE NOT REQUIRED TO EXTEND TO THE UNDERSIDE OF THE FLOOR DECK ABOVE. THE INTERIOR WALL HEIGHTS SHALL VARY DEPENDING UPON THE SITE CONDITIONS PRESENTED IN THE FIELD.

ROOM FINISH SPECIFICATIONS (INTERIOR FINISHES TO COMPLY WITH CHAPTER 8 OF THE OHIO BUILDING CODE):

- A.) NEW CARPET 'A': REMOVE EXISTING VCT FLOORING AND PREP FLOOR PER CARPET MANUFACTURER'S SPECIFICATIONS. INSTALL NEW CARPET TILE. OWNER SHALL PROVIDE CARPET TILES FOR HUDDLE ROOM 357 - STATEMENT STONE (BT390) CANYON CLAY (862) BY MOHAWK GROUP.
- B.) NEW CARPET 'B': REMOVE EXISTING CARPET FLOORING AND PREP FLOOR PER CARPET MANUFACTURER'S SPECIFICATIONS. INSTALL NEW CARPET TILE. GENERAL CONTRACTOR SHALL PROVIDE CARPET TILES FOR THE HUMAN RESOURCE AREA - MANUFACTURER: MOHAWK GROUP, COLLECTION: EXPEDITION II, STYLE NAME: ECOSPHERE II GT378, COLOR: 848 CARAVAN, INSTALLATION METHOD: MULTI-DIRECTIONAL.
- C.) WALL PAINT: OWNER TO SELECT COLORS.
- D.) 4" RUBBER BASEBOARD: MATCH EXISTING PROFILE. OWNER TO SELECT FROM STANDARD COLOR.
- E.) SUSPENDED CEILING GRID SYSTEM: MATCH EXISTING CEILING GRID AND TILE PADS.
- F.) HOLLOW METAL DOOR FRAME PAINT: MATCH EXISTING COLOR.
- G.) INTERIOR WOOD DOORS: SOLID CORE WOOD - STAIN/COLOR AND FINISH TO MATCH EXISTING.



REFERENCE AND EGRESS PLAN

SCALE: 3/32" = 1'-0"



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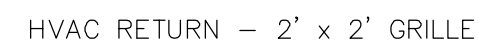
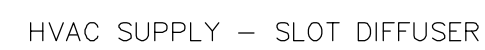
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A.) RECONFIGURE CURRENT SPRINKLER LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. DRAWINGS AND PERMITS BY OTHERS.

B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.

C.) RE-USE EXISTING MATERIALS (I.E. DOORS, CEILING TILES, LIGHT FIXTURES, HVAC DEVICES, ETC.) IF MATERIALS ARE IN GOOD CONDITION AND ARE ABLE TO BE RE-USED. CONSULT OWNER IF QUESTIONS ARISE REGARDING MATERIAL RE-USE.

D.) VERIFY IN FIELD ALL EXISTING FIELD CONDITIONS PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION WORK INCLUDING CONDITIONS ABOVE SUSPENDED CEILINGS.

E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.

F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.

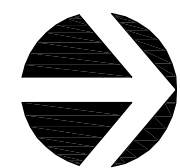
G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.

H.) OFFICE FURNITURE SHOWN FOR REFERENCE PURPOSES ONLY. CONTACT OFFICE FURNITURE SUPPLIER FOR PRECISE DIMENSIONS AND ELECTRICAL REQUIREMENTS.



SCALE: 1/4" = 1'-0"

NOTE: REFLECTED CEILING PLANS ARE FOR REFERENCE ONLY. CONSULT MEP DRAWINGS FOR SPECIFICATIONS AND ADDITIONAL INFORMATION.



SCALE: $1/4" = 1'-0"$



DOOR NOTES:

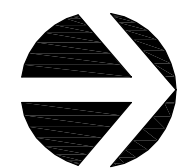
A.) ALL NEW DOOR HARDWARE (THRESHOLDS, CLOSERS, LOCK SETS, ETC.) SHALL MEET ACCESSIBILITY GUIDELINES OF OBC CHAPTER 11 AND ICC A117.1-2009.
B.) DOOR HARDWARE TO BE LEVER STYLE AND MATCH EXISTING.
C.) AT NEW DOORS, PROVIDE DOOR STOPS (FLOOR OR WALL MOUNTED) TO PREVENT DOOR FROM DAMAGING ADJACENT WALL.
D.) DOORS TO BE KEYPED PER OWNER'S DIRECTOR.

01 3 5/8" 25 GA. METAL STUDS AT 24" CENTERS (MAX.)
WITH 5/8" GYPSUM BOARD BOTH SIDES. PROVIDE 3
1/2" SOUND ATTENUATION BATT IN CAVITIES TO 9'-6"
ABOVE FINISHED FLOOR. (SHOWN SOLID GRAY)

02 FURNITURE AND FIXTURES BY OTHERS.



SCALE: 1/4" = 1'-0"

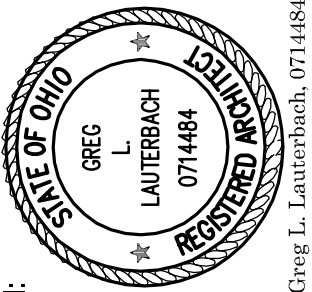


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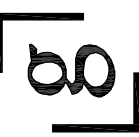
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owner and location:

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time:

drawn by:

Greg Lauterbach

Sheet:

A.02

DOOR SCHEDULE										
NUMBER	NEW / EXISTING	DOOR WIDTH	HEIGHT	DOOR THICK.	DOOR MATERIAL	FRAME	HARDWARE FUNCTION	DOOR CLOSER	ACCESS CONTROL	REMARKS
354A	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	OFFICE	NO	NO	
354B	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	OFFICE	NO	NO	

DOOR NOTES:
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B.) DOOR HARDWARE TO BE LEVER STYLE AND MATCH EXISTING.
C.) AT NEW DOORS, PROVIDE DOOR STOPS (FLOOR OR WALL MOUNTED) TO PREVENT DOOR FROM DAMAGING ADJACENT WALL.
D.) DOORS TO BE KEYED PER OWNER'S DIRECTION.

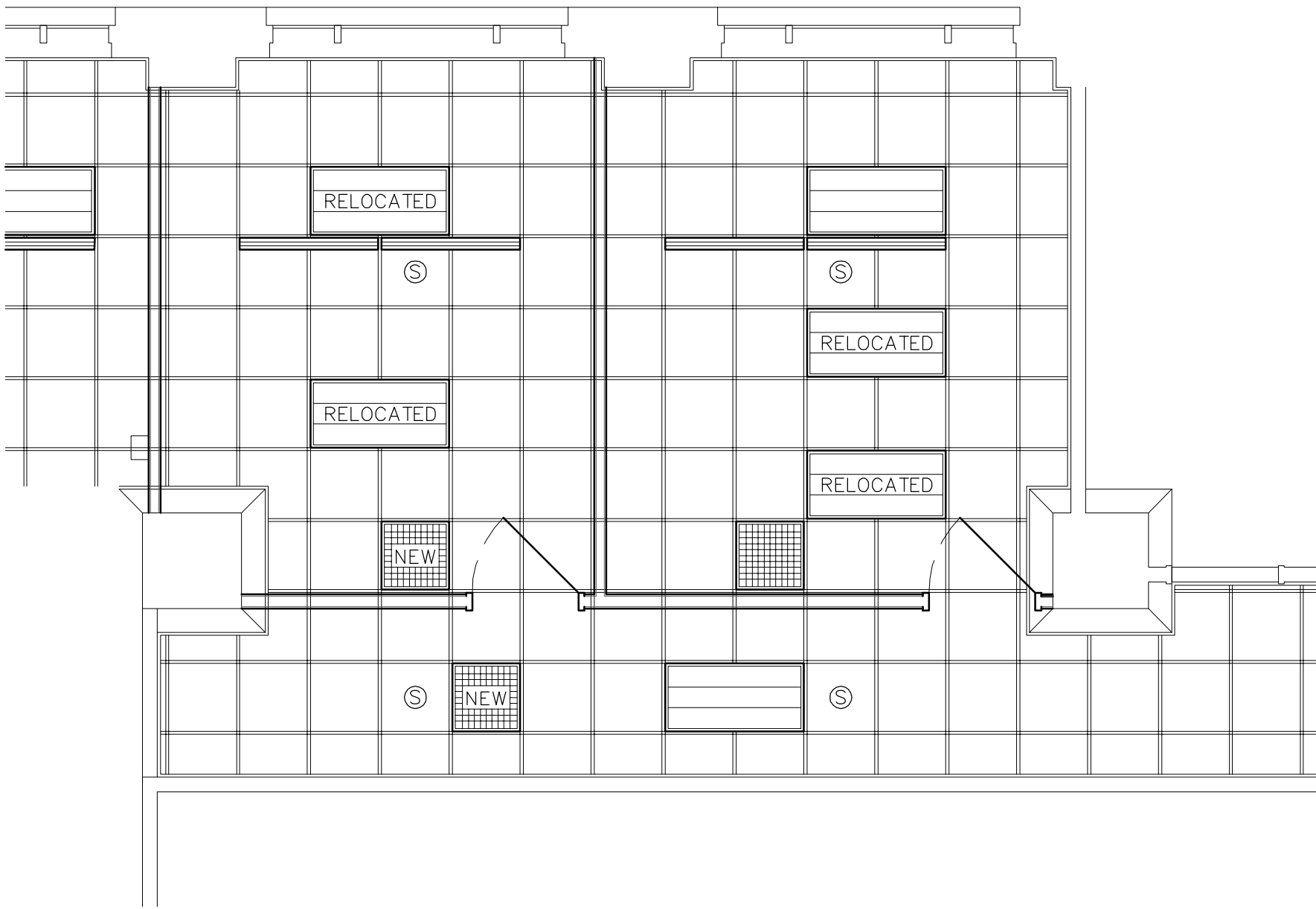
- KEYED NOTES:
- 01 3 5/8" 25 GA. METAL STUDS AT 24" CENTERS (MAX.) WITH 5/8" GYPSUM BOARD BOTH SIDES. PROVIDE 3 1/2" SOUND ATTENUATION BATT IN CAVITIES TO 9'-6" ABOVE FINISHED FLOOR. (SHOWN SOLID GRAY)
 - 02 RELOCATE FIRE ALARM & STROBE.
 - 03 OFFICE FURNITURE BY OTHER.

RCP LEGEND:

- 24" x 24" SUSPENDED CEILING GRID
- 2' x 4' LIGHT FIXTURE
- SPRINKLER HEAD
- HVAC SUPPLY - SLOT DIFFUSER
- HVAC RETURN - 2' x 2' GRILLE
- CEILING MOUNTED PROJECTOR
- CEILING MOUNTED RECEPTACLE
- EMERGENCY EGRESS LIGHT WITH BATTERY BACK-UP
- FIRE ALARM AND STROBE

GENERAL NOTES:

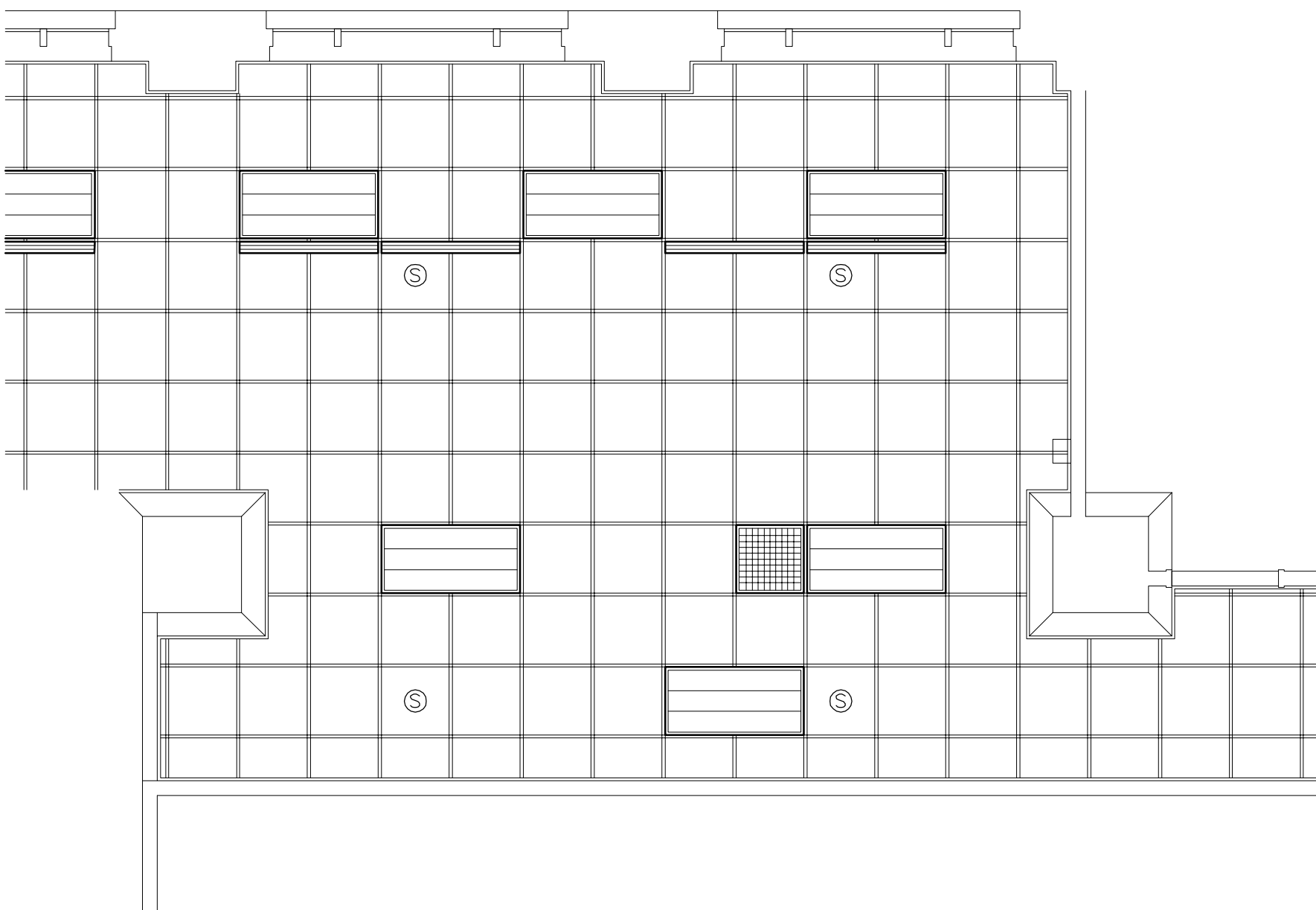
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- B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.
- C.) RE-USE EXISTING MATERIALS (I.E. DOORS, CEILING TILES, LIGHT FIXTURES, HVAC DEVICES, ETC.) IF MATERIALS ARE IN GOOD CONDITION AND ARE ABLE TO BE RE-USED. CONSULT OWNER IF QUESTIONS ARISE REGARDING MATERIAL RE-USE.
- D.) VERIFY IN FIELD ALL EXISTING FIELD CONDITIONS PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION WORK INCLUDING CONDITIONS ABOVE SUSPENDED CEILINGS.
- E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.
- F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.
- G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.
- H.) OFFICE FURNITURE SHOWN FOR REFERENCE PURPOSES ONLY. CONTACT OFFICE FURNITURE SUPPLIER FOR PRECISE DIMENSIONS AND ELECTRICAL REQUIREMENTS.



PROPOSED RCP - HUMAN RESOURCE AREA

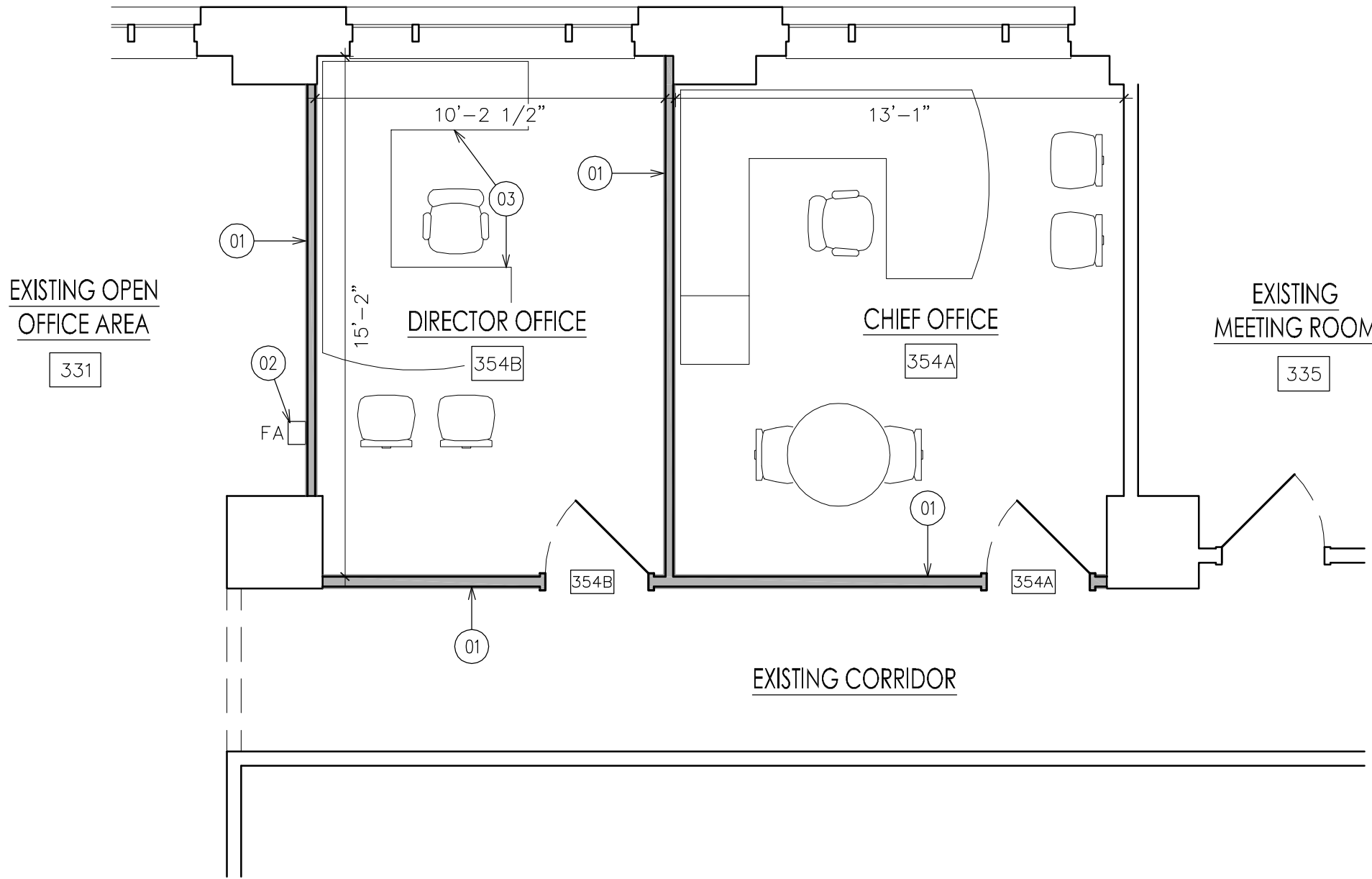
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NOTE: REFLECTED CEILING PLANS ARE FOR REFERENCE ONLY. CONSULT MEP DRAWINGS FOR SPECIFICATIONS AND ADDITIONAL INFORMATION.



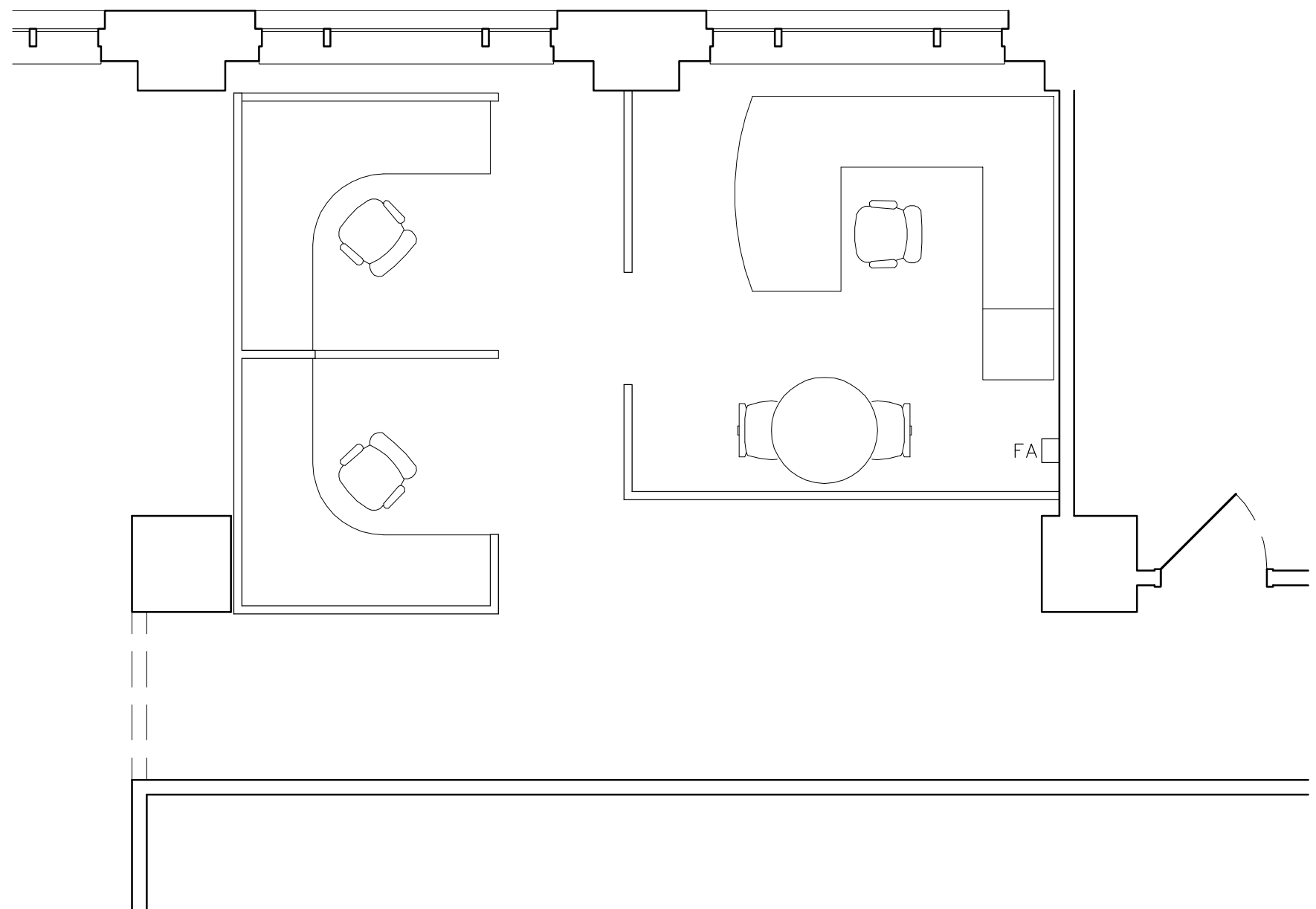
EXISTING RCP - HUMAN RESOURCE AREA

SCALE: 1/4" = 1'-0"



PROPOSED PRIVATE OFFICE

SCALE: 1/4" = 1'-0"



EXISTING HUMAN RESOURCE AREA

SCALE: 1/4" = 1'-0"

date of issue: 06.25.26 - BID SET

seal: GREG L. LAUTERBACH 071464 EXPIRES 12/31/27

greg l. lauterbach, architect
200 Brown Street
Dayton, Ohio 45402
937.222.0719 / phone

owner and location: FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

title: drawn by: Greg Lauterbach

sheet: A.03

GENERAL NOTES:

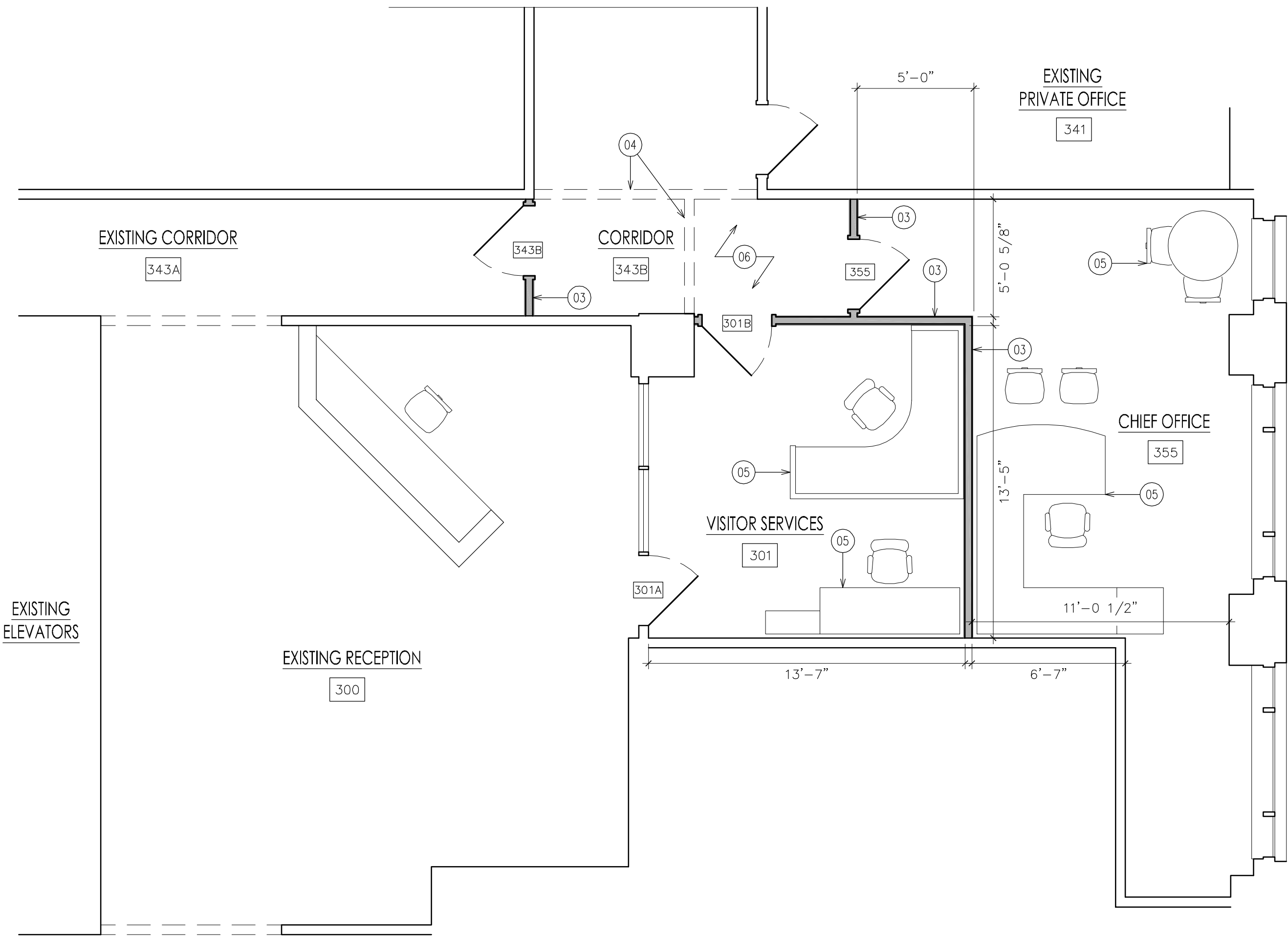
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- B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.
- C.) RE-USE EXISTING MATERIALS (I.E. DOORS, CEILING TILES, LIGHT FIXTURES, HVAC DEVICES, ETC.) IF MATERIALS ARE IN GOOD CONDITION AND ARE ABLE TO BE RE-USED. CONSULT OWNER IF QUESTIONS ARISE REGARDING MATERIAL RE-USE.
- D.) VERIFY IN FIELD ALL EXISTING FIELD CONDITIONS PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION WORK INCLUDING CONDITIONS ABOVE SUSPENDED CEILINGS.
- E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.
- F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.
- G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.
- H.) OFFICE FURNITURE SHOWN FOR REFERENCE PURPOSES ONLY. CONTACT OFFICE FURNITURE SUPPLIER FOR PRECISE DIMENSIONS AND ELECTRICAL REQUIREMENTS.

KEYED NOTES:

- 01 REMOVE EXISTING PARTITION WALL. HEADER AT 8'-6" ABOVE FINISHED FLOOR TO REMAIN.
- 02 CAREFULLY REMOVE EXISTING DOOR AND DOOR HARDWARE FOR RE-USE.
- 03 3 5/8" 25 GA. METAL STUDS AT 24" CENTERS (MAX.) WITH 5/8" GYPSUM BOARD BOTH SIDES. PROVIDE 3 1/2" SOUND ATTENUATION BATT IN CAVITIES TO 9'-6" ABOVE FINISHED FLOOR. (SHOWN SOLID GRAY)
- 04 HEADER AT 8'-6" ABOVE FINISHED FLOOR (SHOWN DASHED).
- 05 NEW OFFICE FURNITURE BY OTHERS.
- 06 CONSULT OWNER REGARDING CARPET IN THIS AREA.

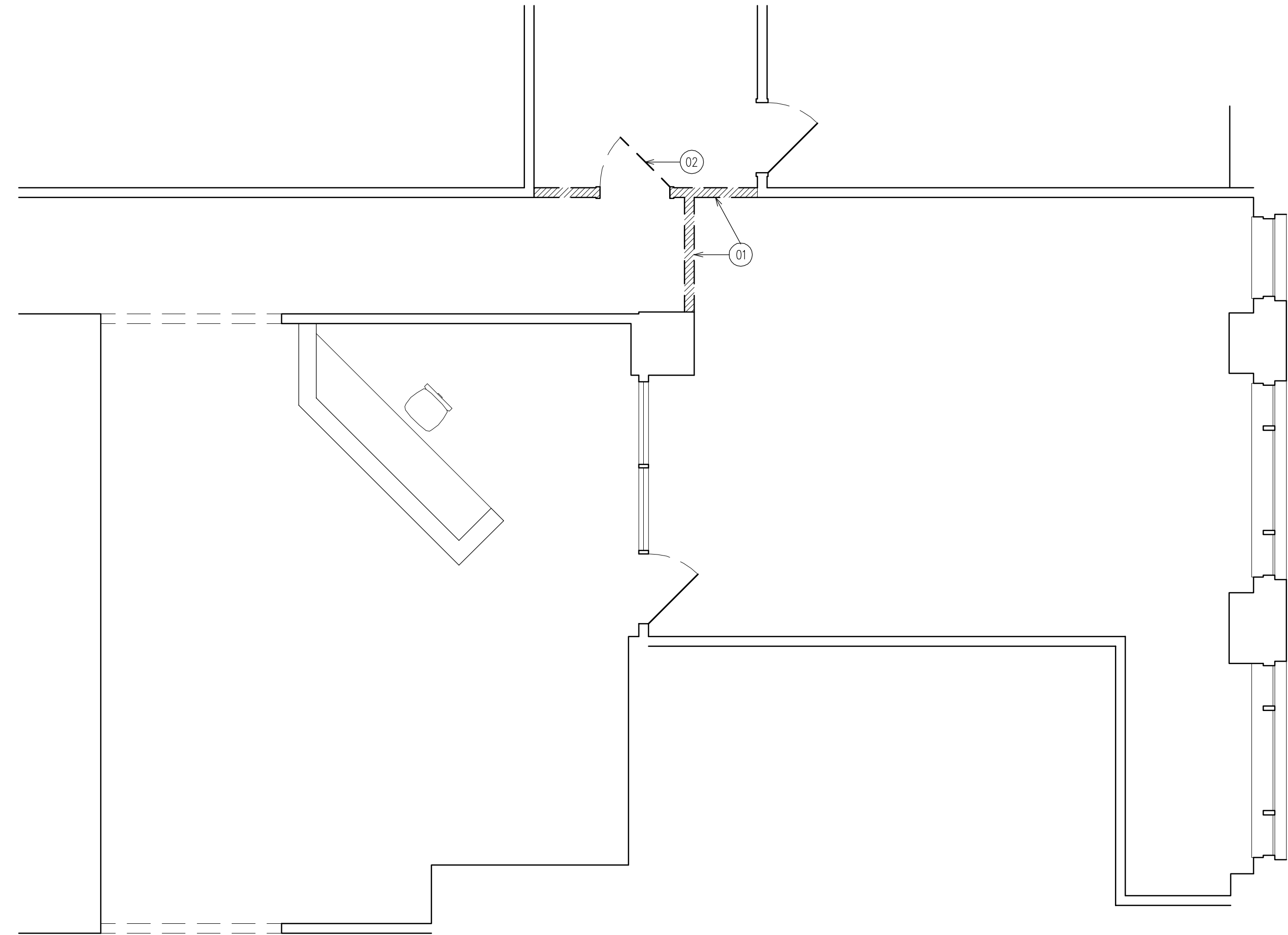
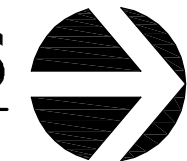
DOOR SCHEDULE										
NUMBER	NEW / EXISTING	DOOR WIDTH	HEIGHT	DOOR THICK.	DOOR MATERIAL	FRAME	HARDWARE FUNCTION	DOOR CLOSER	ACCESS CONTROL	REMARKS
301A	EXISTING	3'-0"	7'-0"	1 3/4"	STOREFRONT	ALUMINUM	OFFICE	YES	NO	EXISTING DOOR AND DOOR HARDWARE TO REMAIN
301B	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	PASSAGE	YES	YES	
343B	REUSE EXISTING	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	ENTRANCE	YES	YES	REUSE EXISTING ACCESS CONTROL
355	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	OFFICE	YES	NO	

- DOOR NOTES:
- A.) ALL NEW DOOR HARDWARE (THRESHOLDS, CLOSERS, LOCK SETS, ETC.) SHALL MEET ACCESSIBILITY GUIDELINES OF OBC CHAPTER 11 AND ICC A117.1-2009.
- B.) DOOR HARDWARE TO BE LEVER STYLE AND MATCH EXISTING.
- C.) AT NEW DOORS, PROVIDE DOOR STOPS (FLOOR OR WALL MOUNTED) TO PREVENT DOOR FROM DAMAGING ADJACENT WALL.
- D.) DOORS TO BE KEYED PER OWNER'S DIRECTION.



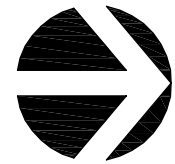
PROPOSED VISITOR SERVICES

SCALE: 1/4" = 1'-0"



EXISTING VISITOR SERVICES

SCALE: 1/4" = 1'-0"



date of issue: 06.25.26 - BID SET

seal: GREG L. LAUTERBACH, 071484, expires 12/31/27, signature: Greg L. Lauterbach

greg l. lauterbach, architect
200 Brown Street
Dayton, Ohio 45402
937.222.0719 / phone

owner and location: FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

title:
drawn by: Greg Lauterbach

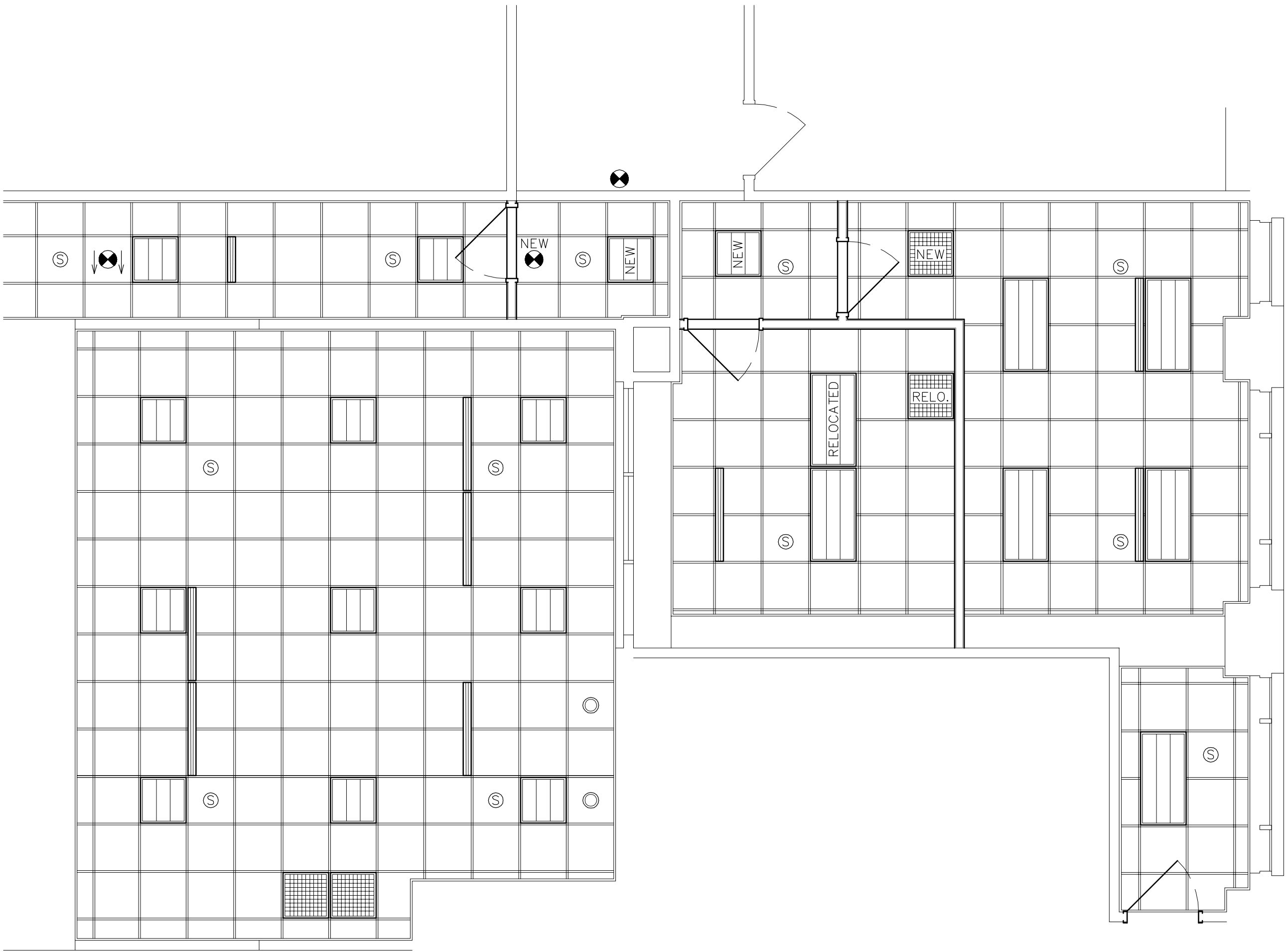
sheet: A.04

RCP LEGEND:

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GENERAL NOTES:

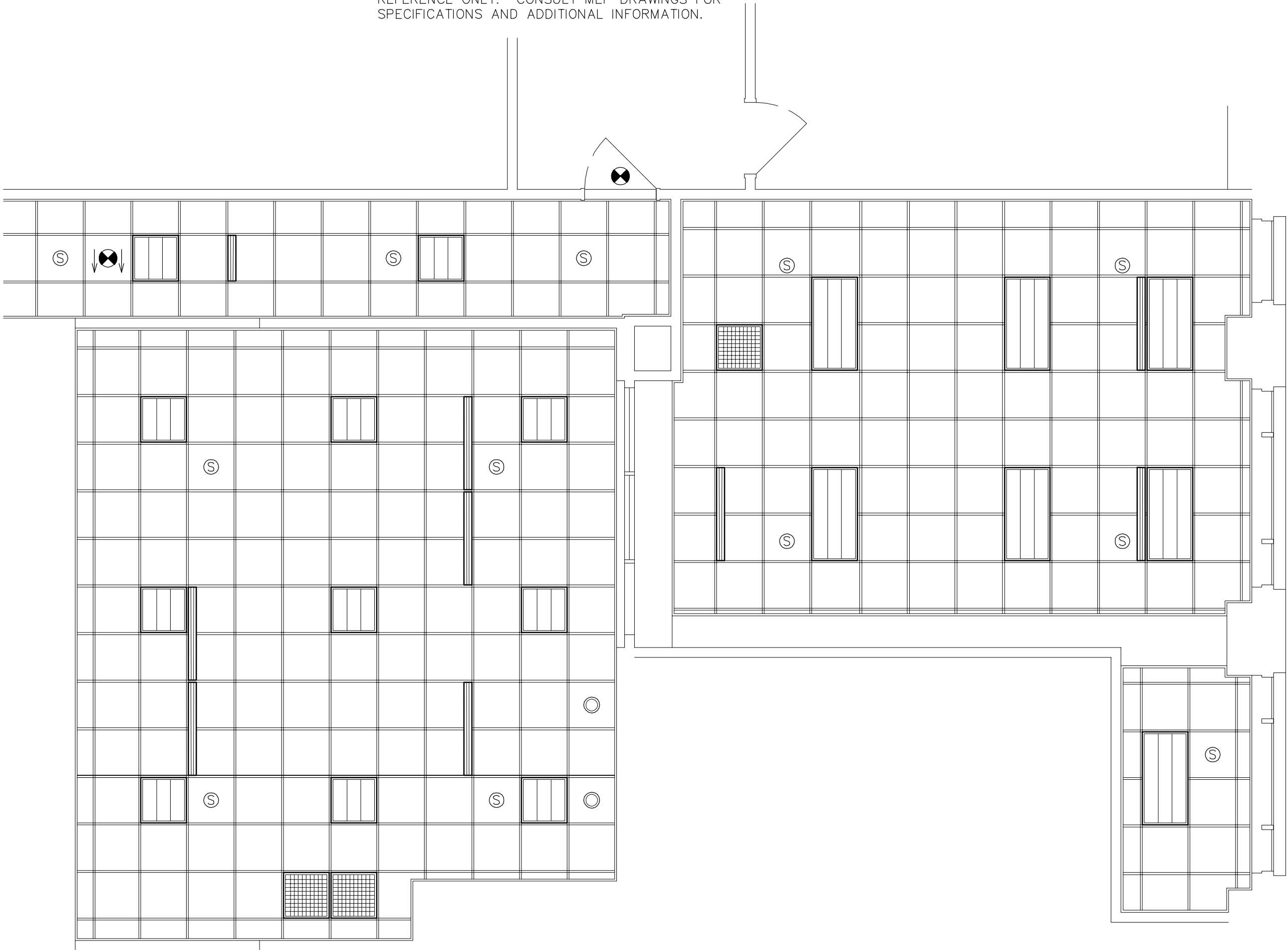
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- B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.
- C.) RE-USE EXISTING MATERIALS (I.E. DOORS, CEILING TILES, LIGHT FIXTURES, HVAC DEVICES, ETC.) IF MATERIALS ARE IN GOOD CONDITION AND ARE ABLE TO BE RE-USED. CONSULT OWNER IF QUESTIONS ARISE REGARDING MATERIAL RE-USE.
- D.) VERIFY IN FIELD ALL EXISTING FIELD CONDITIONS PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION WORK INCLUDING CONDITIONS ABOVE SUSPENDED CEILINGS.
- E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.
- F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.
- G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.
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PROPOSED RCP - VISITOR SERVICES

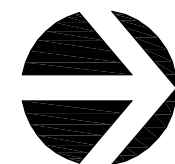
SCALE: 1/4" = 1'-0"

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EXISTING RCP - VISITOR SERVICES

SCALE: 1/4" = 1'-0"



date of issue:
06.25.26 - BID SET

seal:
GREG L. LAUTERBACH
071464
REGISTERED ARCH.
Greg L. Lauterbach, 071464
exp. 12/31/27
signature:

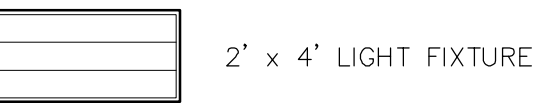
greg l. lauterbach, architect
200 Brown Street
Dayton, Ohio 45402
937.222.0719 / phone
gl

owner and location:
FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

title:
drawn by:
Greg Lauterbach

sheet:
A.05

RCP LEGEND:



GENERAL NOTES:

A.) RECONFIGURE CURRENT SPRINKLER LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. DRAWINGS AND PERMITS BY OTHERS.

B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.

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E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.

F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.

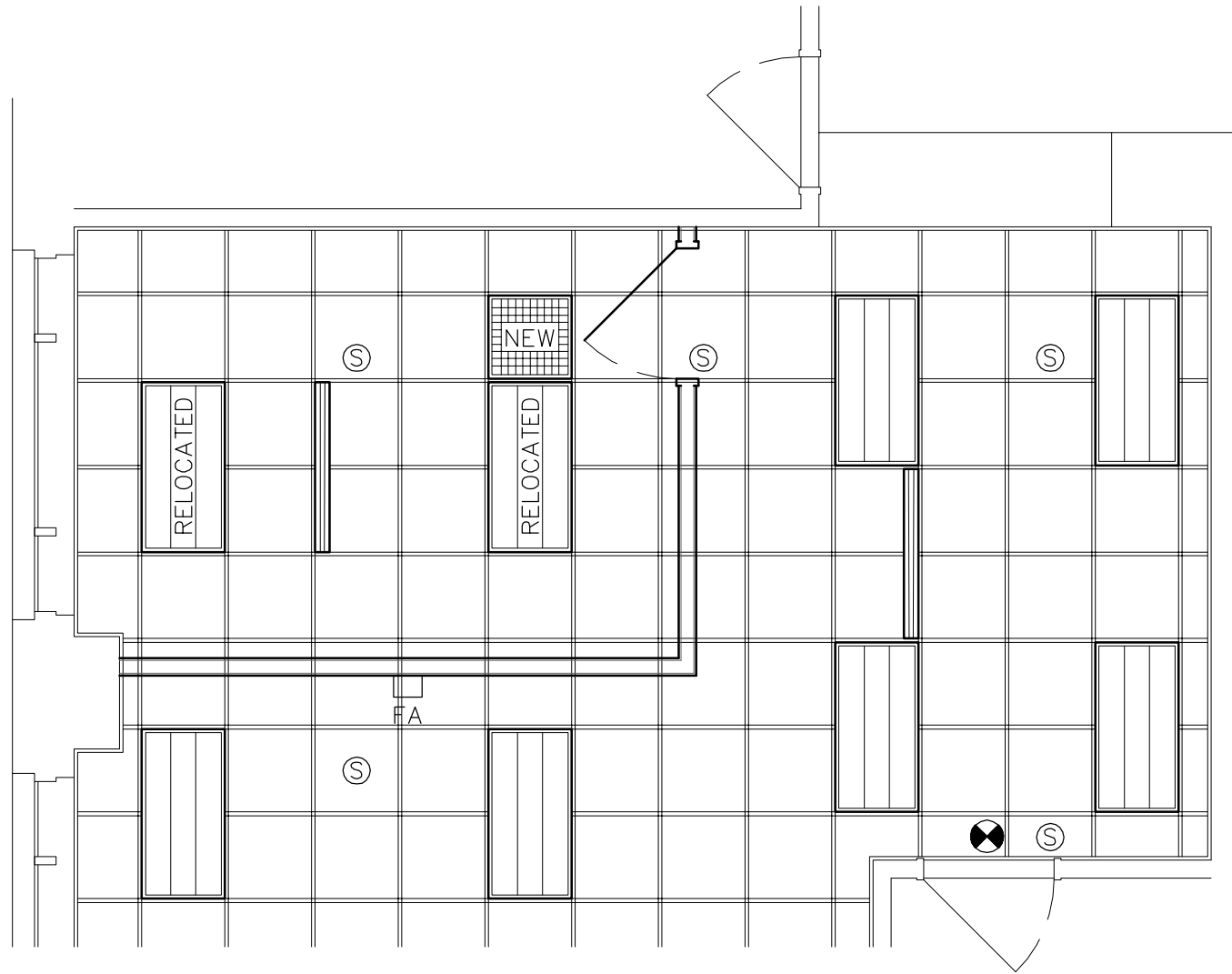
G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.

H.) OFFICE FURNITURE SHOWN FOR REFERENCE PURPOSES ONLY. CONTACT OFFICE FURNITURE SUPPLIER FOR PRECISE DIMENSIONS AND ELECTRICAL REQUIREMENTS.

DOOR SCHEDULE										
NUMBER	NEW / EXISTING	DOOR WIDTH	HEIGHT	DOOR THICK.	DOOR MATERIAL	FRAME	HARDWARE FUNCTION	DOOR CLOSER	ACCESS CONTROL	REMARKS
357	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	PASSAGE	NO	NO	

DOOR NOTES:

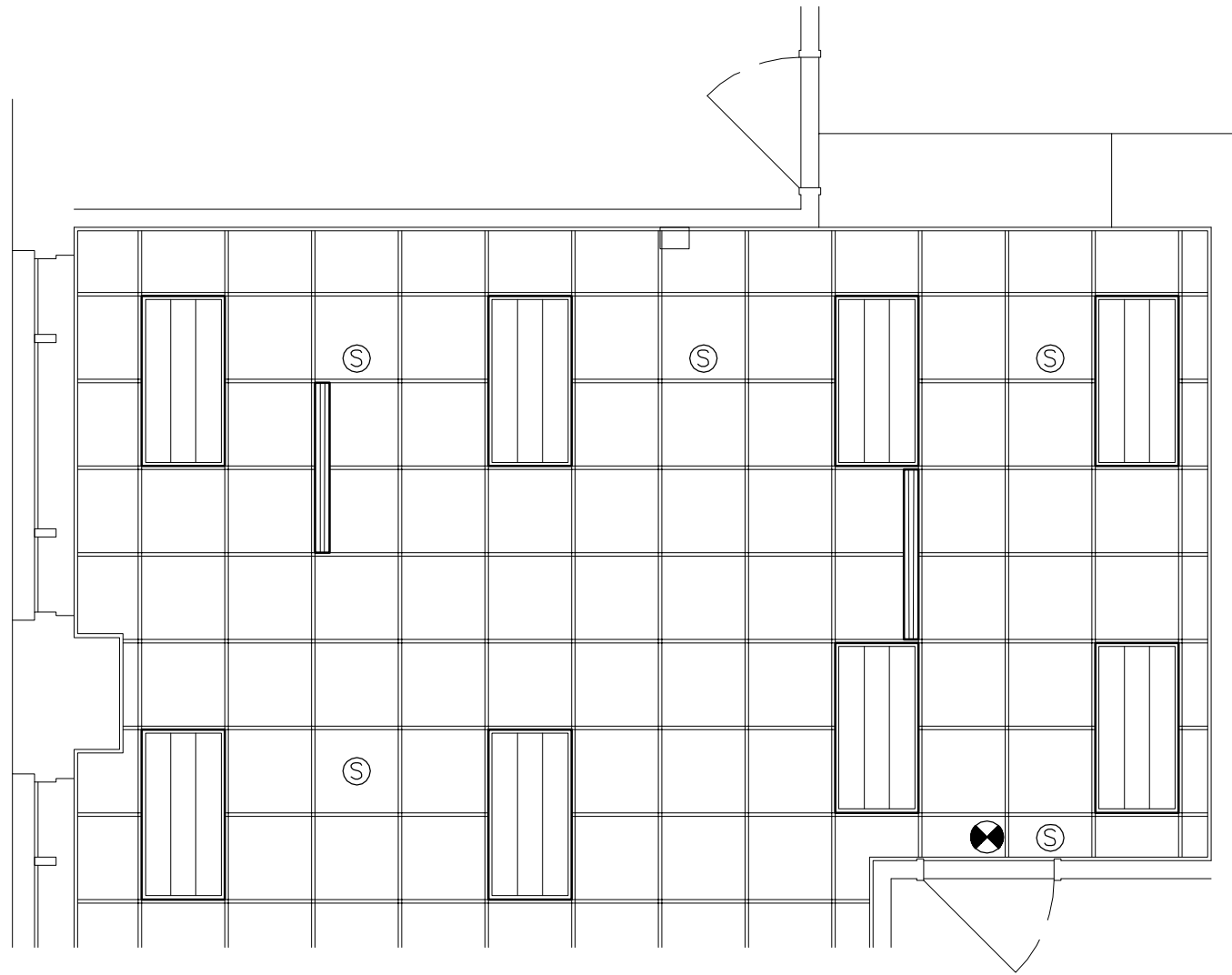
- A.) ALL NEW DOOR HARDWARE (THRESHOLDS, CLOSERS, LOCK SETS, ETC.) SHALL MEET ACCESSIBILITY GUIDELINES OF OBC CHAPTER 11 AND ICC A117.1-2009.
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C.) AT NEW DOORS, PROVIDE DOOR STOPS (FLOOR OR WALL MOUNTED) TO PREVENT DOOR FROM DAMAGING ADJACENT WALL.
D.) DOORS TO BE KEYED PER OWNER'S DIRECTION.



PROPOSED RCP - HUDDLE ROOM

SCALE: 1/4" = 1'-0"

NOTE: REFLECTED CEILING PLANS ARE FOR REFERENCE ONLY. CONSULT MEP DRAWINGS FOR SPECIFICATIONS AND ADDITIONAL INFORMATION.

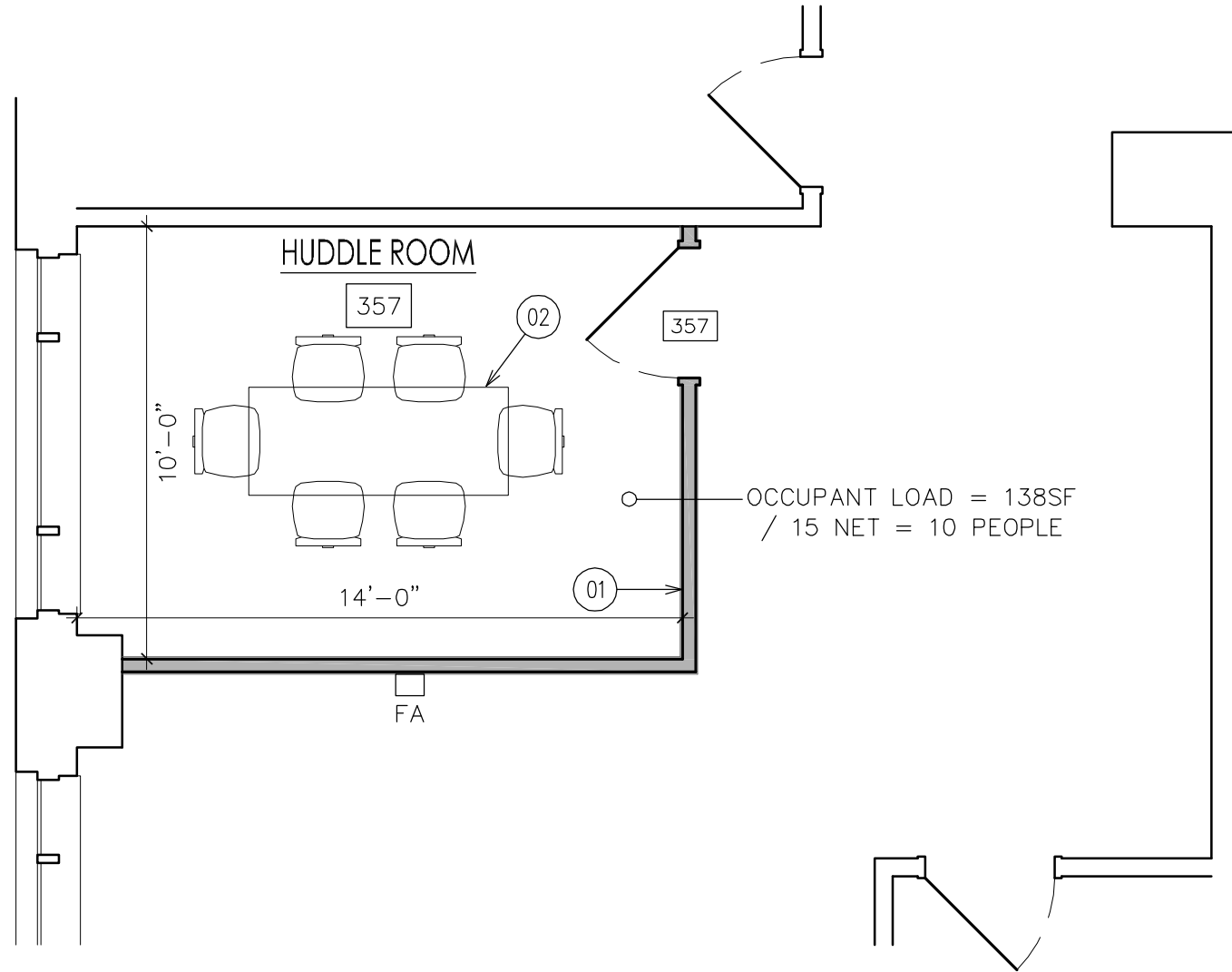


EXISTING RCP - BREAK ROOM

SCALE: 1/4" = 1'-0"

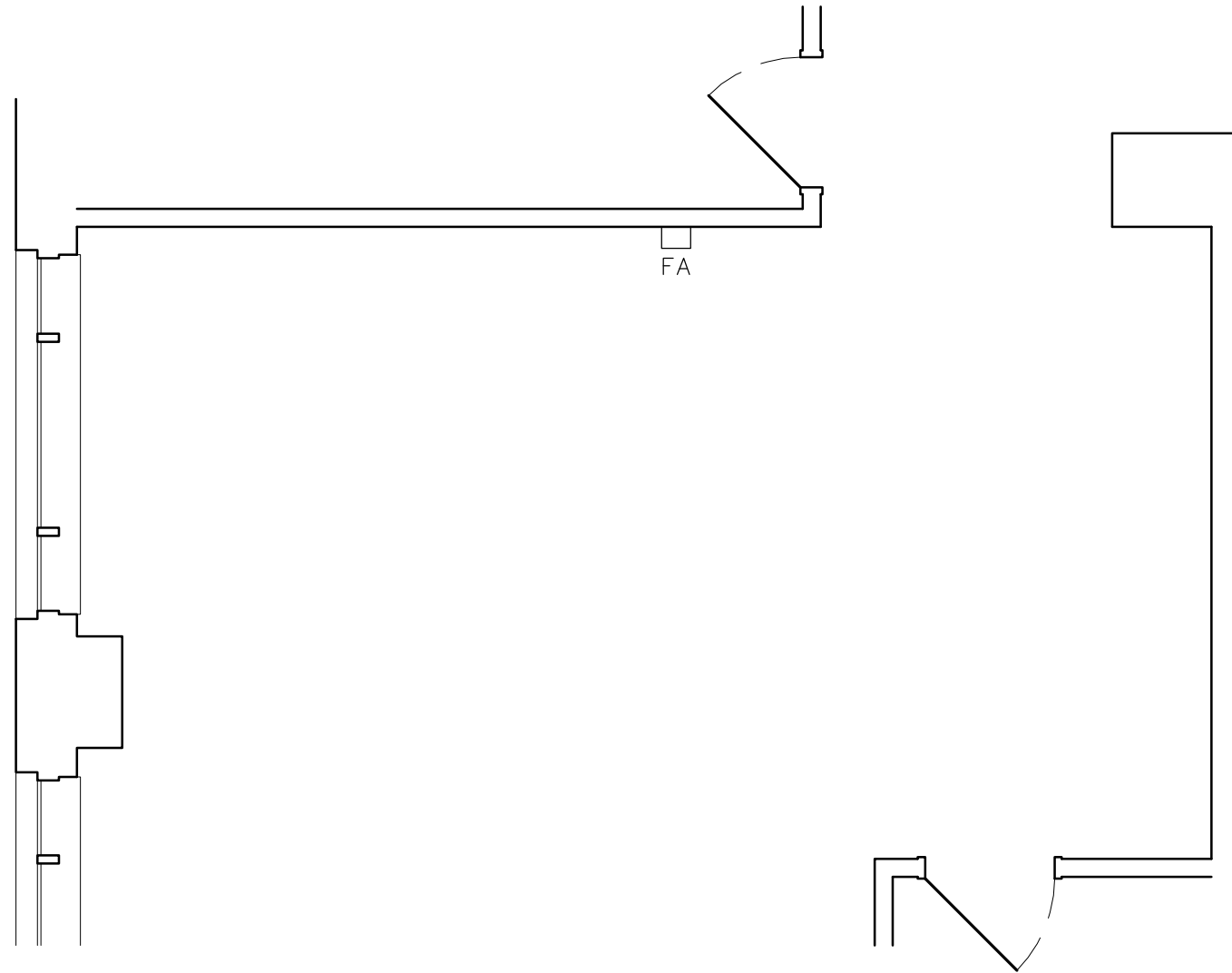
KEYED NOTES:

- 01 3 5/8" 25 GA. METAL STUDS AT 24" CENTERS (MAX.) WITH 5/8" GYPSUM BOARD BOTH SIDES. PROVIDE 3 1/2" SOUND ATTENUATION BATT IN CAVITIES TO 9'-6" ABOVE FINISHED FLOOR. (SHOWN SOLID GRAY)
02 FURNITURE AND FIXTURES BY OTHERS.



PROPOSED HUDDLE ROOM

SCALE: 1/4" = 1'-0"



EXISTING BREAK ROOM

SCALE: 1/4" = 1'-0"

date of issue:	06.25.26 - BID SET

seal:	
signature:	

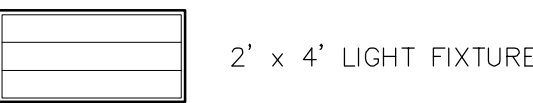
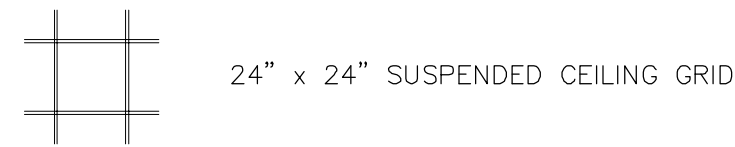
greg l. lauterbach, architect
200 Brown Street Dayton, Ohio 45402 937.222.0719 / phone

owner and location:	FIVE RIVERS METROPARKS 409 East Monument Avenue, Third Floor Dayton, Ohio 45402
---------------------	---

title:	
drawn by:	Greg Lauterbach

sheet:	A.06
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RCP LEGEND:



GENERAL NOTES:

A.) RECONFIGURE CURRENT SPRINKLER LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. DRAWINGS AND PERMITS BY OTHERS.

B.) RECONFIGURE CURRENT HVAC AND ELECTRIC LAYOUT TO ACCOMMODATE NEW FLOOR PLAN AS REQUIRED. REFER TO MEP DRAWINGS.

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D.) VERIFY IN FIELD ALL EXISTING FIELD CONDITIONS PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION WORK INCLUDING CONDITIONS ABOVE SUSPENDED CEILINGS.

E.) ALL DRYWALL WORK TO BE LEVEL 3 FINISH.

F.) DIMENSIONS SHOWN ON PLAN ARE TO NEW METAL FRAMING OR EXISTING FINISHED SURFACES, UNLESS NOTED OTHERWISE.

G.) EXISTING SUSPENDED CEILING GRIDS AT APPROXIMATELY 9' ABOVE FINISHED FLOOR.

H.) OFFICE FURNITURE SHOWN FOR REFERENCE PURPOSES ONLY. CONTACT OFFICE FURNITURE SUPPLIER FOR PRECISE DIMENSIONS AND ELECTRICAL REQUIREMENTS.

DOOR SCHEDULE

NUMBER	NEW / EXISTING	DOOR WIDTH	HEIGHT	DOOR THICK.	DOOR MATERIAL	FRAME	HARDWARE FUNCTION	DOOR CLOSER	ACCESS CONTROL	REMARKS
328	NEW	3'-0"	7'-0"	1 3/4"	SOLID CORE WOOD	2" HOLLOW METAL	PASSAGE	YES	NO	

DOOR NOTES:

A.) ALL NEW DOOR HARDWARE (THRESHOLDS, CLOSERS, LOCK SETS, ETC.) SHALL MEET ACCESSIBILITY GUIDELINES OF OBC CHAPTER 11 AND ICC A117.1-2009.

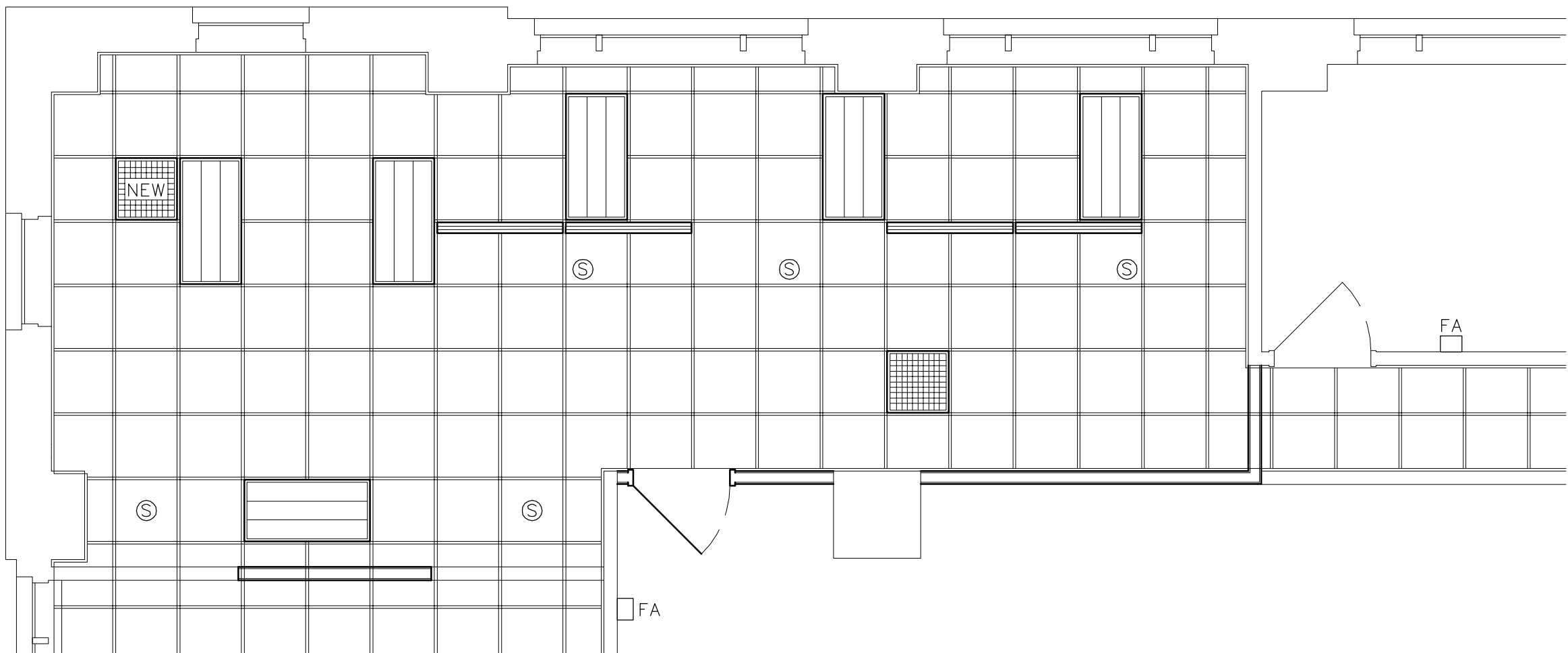
B.) DOOR HARDWARE TO BE LEVER STYLE AND MATCH EXISTING.

C.) AT NEW DOORS, PROVIDE DOOR STOPS (FLOOR OR WALL MOUNTED) TO PREVENT DOOR FROM DAMAGING ADJACENT WALL.

D.) DOORS TO BE KEYED PER OWNER'S DIRECTION.

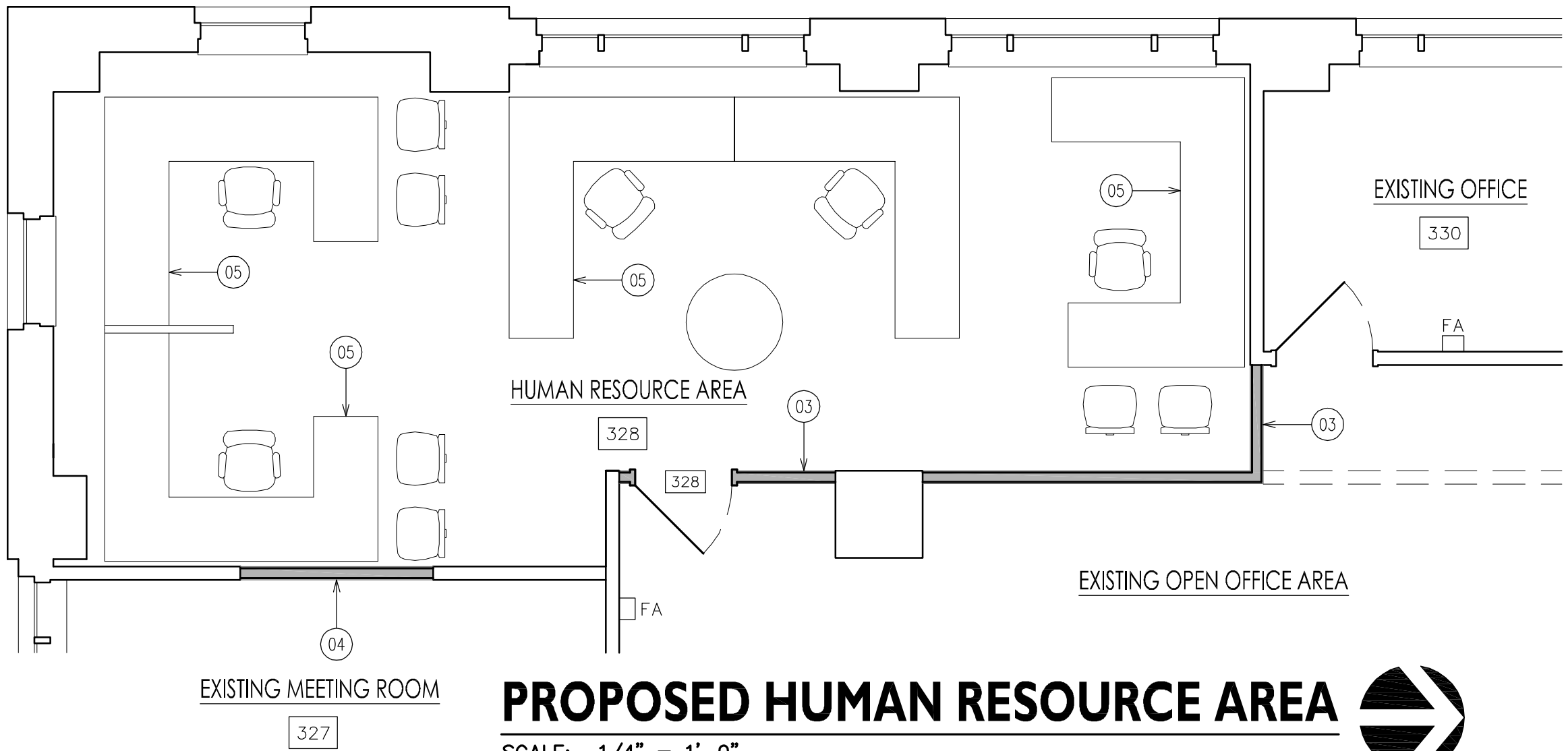
KEYED NOTES:

- 01 REMOVE EXISTING PARTITION WALL.
- 02 CAREFULLY REMOVE EXISTING DOOR AND DOOR HARDWARE FOR POSSIBLE RE-USE.
- 03 3 5/8" 25 GA. METAL STUDS AT 24" CENTERS (MAX.) WITH 5/8" GYPSUM BOARD BOTH SIDES. PROVIDE 3 1/2" SOUND ATTENUATION BATT IN CAVITIES TO 9'-6" ABOVE FINISHED FLOOR. (SHOWN SOLID GRAY)
- 04 INFILL EXISTING DOOR OPENING WITH TYPICAL PARTITION WALL CONSTRUCTION.
- 05 NEW OFFICE FURNITURE BY OTHERS.



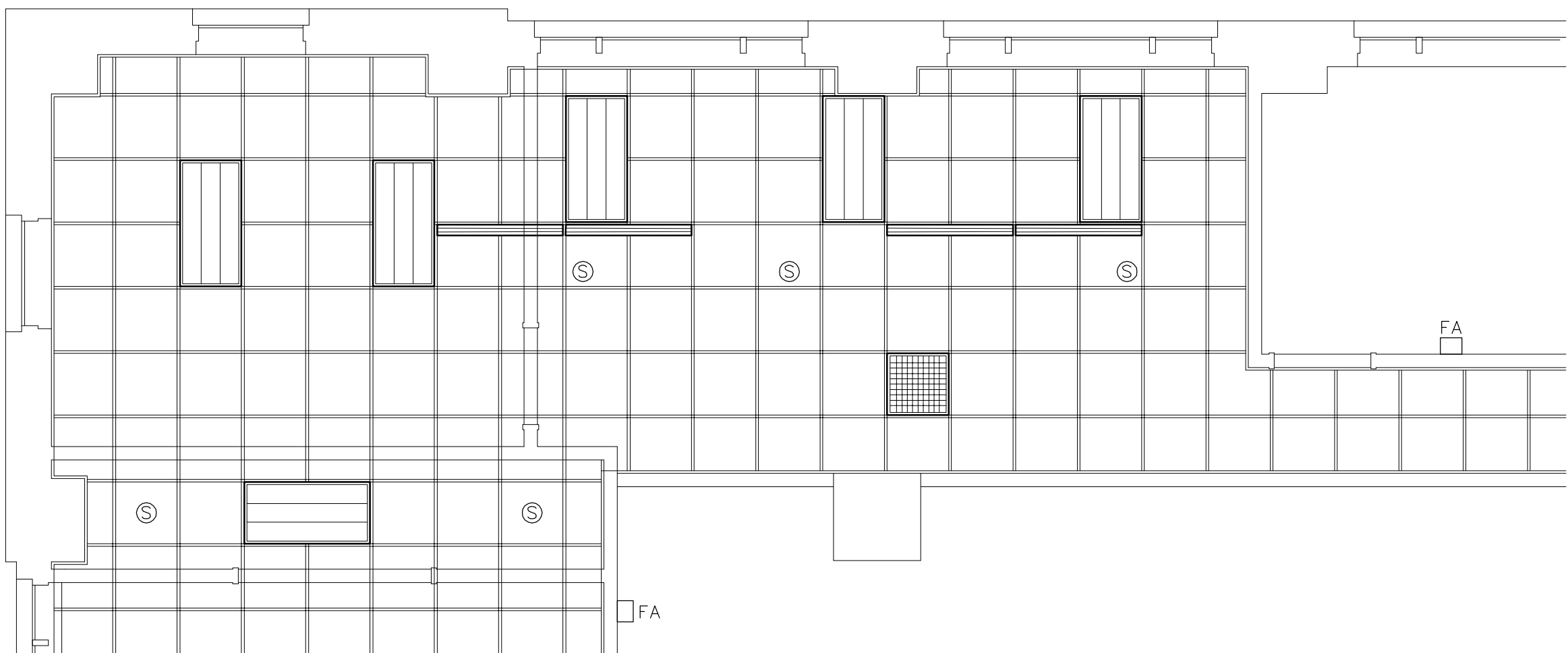
PROPOSED RCP - HUMAN RESOURCE AREA

SCALE: 1/4" = 1'-0"



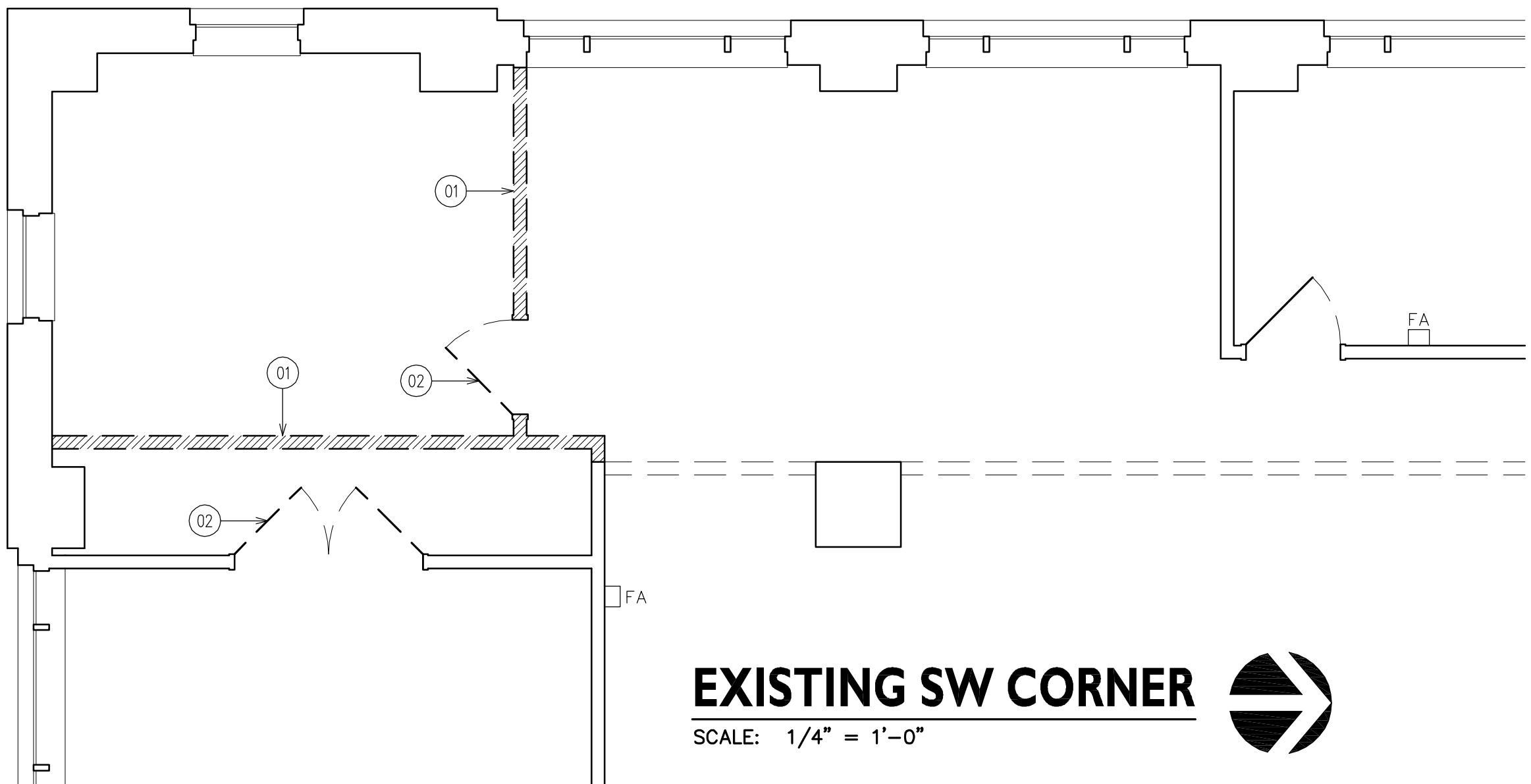
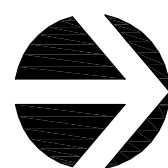
PROPOSED HUMAN RESOURCE AREA

SCALE: 1/4" = 1'-0"



EXISTING RCP - SW CORNER

SCALE: 1/4" = 1'-0"

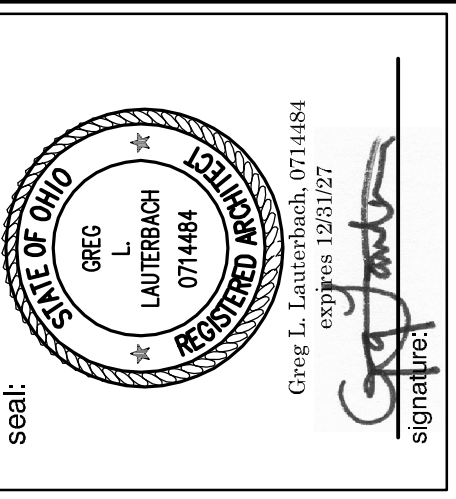


EXISTING SW CORNER

SCALE: 1/4" = 1'-0"



date of issue:	06.25.26 - BID SET



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200 Brown Street
Dayton, Ohio 45402
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owner and location:

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

title:

drawn by:
Greg Lauterbach

sheet:

A.07

GENERAL LIGHTING/POWER NOTES

1. LIGHT FIXTURES DESIGNATED AS "NIGHT LIGHTS" SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.
2. EXIT LIGHTS SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.
3. ALL RECESSED DOWNLIGHTS MOUNTED IN GRID CEILING SHALL BE CENTERED IN CEILING TILE, UNLESS NOTED.
4. IN ALL MECHANICAL ROOMS, COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH HVAC DUCTWORK.
5. CONDUCTORS FOR BRANCH CIRCUITRY ARE #12 AWG MINIMUM, UNLESS NOTED. DERATE PER CODE WHERE CIRCUITS ARE COMBINED.
6. ALL HOMERUN CONDUCTORS BACK TO PANEL SHALL BE #10 AWG MINIMUM, UNLESS NOTED. PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUITRY. DERATE PER CODE WHERE CIRCUITS ARE COMBINED.
7. ALL CONDUIT DROPS FOR PLENUM RATED CABLES SHALL BE PROVIDED WITH A CONDUIT BUSHING ABOVE CEILING.
8. WHERE TERMINATED IN J-BOX, ALL SPARE CIRCUITRY SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBER.
9. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL NECESSARY AUXILIARY CONTACTS, RELAY, ETC. IN MOTOR STARTERS FOR REQUIRED CONTROL OF MECHANICAL EQUIPMENT.
10. DO NOT SUPPORT CONDUIT OFF OF CEILING GRID, CEILING GRID SUPPORTS, MECHANICAL SUPPORTS, OR ANY OTHER TRADE'S SUPPORTS. INSTALL CONDUITS AND BOXES ON SEPARATE SUPPORTS FROM BAR JOIST OR STRUCTURE.
11. COORDINATE OUTLET LOCATIONS FOR ALL KITCHEN AND BAR EQUIPMENT PRIOR TO ROUGH-IN.
12. NEW FIRE ALARM DEVICES SHOWN FOR REFERENCE ONLY. FINAL DESIGN AND PERMIT DRAWINGS TO BE PROVIDED BY FIRE ALARM MANUFACTURERS THROUGH A DELEGATED DESIGN APPROACH. ANNUNCIATING STROBES SHALL BE SYNCHRONIZED. PROVIDE ADEQUATE POWER FOR NEW PANELS TO SUPPORT ALL NEW DEVICES PROVIDING ADDITIONAL 20% CAPACITY ON NAC CIRCUIT.

ABBREVIATIONS

A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BKR	BREAKER
C	CONDUIT
CATV	CABLE TELEVISION
CUH	CABINET UNIT HEATER
CKT	CIRCUIT
Cu	COPPER
E	EXISTING
EF	EXHAUST FAN
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	EMERGENCY METALLIC TUBING
FCU	FAN COIL UNIT
G	GROUND
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
HP	HORSEPOWER
J	JUNCTION BOX
KVA	KILOVOLT AMPERE
KW	KILOWATTS
LGTG	LIGHTING
MECH	MECHANICAL
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
P	PHASE (POLE)
TYP	TELEPHONE TERMINAL BOX
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VOLTS
VAV	VARIABLE AIR VOLUME
VIF	VERIFY IN FIELD
W	WATTS
WC	WATER COOLER
WP	WEATHERPROOF
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE

GENERAL PROJECT NOTES

1. WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL, STATE OF OHIO, 2023 NEC AND NATIONAL CODES, RECOMMENDATIONS, REGULATIONS, AND REQUIREMENTS.
2. COORDINATE ELECTRICAL REQUIREMENTS FOR NEW WORK WITH THE PLUMBING AND MECHANICAL CONTRACTORS. VERIFY VOLTAGE, PHASE AND ACCESSORY REQUIREMENTS, SUCH AS MOTOR STARTERS AND DISCONNECTS.
3. CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR HIS WORK. OPENING IN WALLS, FLOORS AND CEILINGS SHALL BE FILLED IN, PATCHED, PAINTED AND FINISHED IN A MANNER TO MATCH THE QUALITY OF THE EXISTING, LIKE ADJACENT SURFACES.
4. NEW OPENINGS IN EXISTING WALLS AND FLOORS SHALL BE CORE DRILLED OR SAW CUT. OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES.
5. ALL CONDUIT SHALL BE 3/4" MINIMUM U.N.O. MC CABLE IS ALLOWED.
6. CONDUIT SHALL BE CONCEALED IN CEILING OR WALLS WHEREVER POSSIBLE.
7. ALL BRANCH CIRCUITS AND FEEDERS SHALL CONTAIN A GREEN INSULATED GROUND CONDUCTOR. GROUNDING BY MEANS OF RACEWAY IS NOT PERMITTED.
8. REFER TO MECHANICAL, PLUMBING, AND ARCHITECTURAL PLANS FOR EXACT LOCATION OF EQUIPMENT.
9. CONTRACTOR SHALL COORDINATE EXACT HEIGHT OF DEVICES DESIGNED AS OVER COUNTER WITH CASE WORK AND FURNITURE DRAWINGS.
10. VERIFY CEILING TYPES PER THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE APPROPRIATE TYPE FIXTURE, LAY-IN FOR GRID, FLANGE FOR DRYWALL, ETC.
11. VERIFY AND COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES MOUNTED IN CASEWORK OR ABOVE COUNTERS WITH SPECIFIC EQUIPMENT FURNISHED.
12. NO MORE THAN 3 PHASE CONDUCTORS SHALL BE INSTALLED IN ANY ONE CIRCUIT, UNLESS NOTED OTHERWISE. EACH BRANCH CIRCUIT SHALL CONTAIN THEIR OWN NEUTRAL CONDUCTOR. NO SHARED NEUTRALS.
13. CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR CONDUIT OR CABLE TRAY PENETRATIONS THAT PENETRATE ACoustICAL RATED OR SMOKE AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL ASSEMBLY RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.
14. BRANCH CIRCUIT WIRING CHART TO BE UTILIZED AS GUIDELINE FOR VOLTAGE DROP COMPENSATION, INCREASE CONDUIT SIZING PER WIRE SIZE. (APPLIES TO ALL SHEETS)

A. 20A-120 VOLT CIRCUITS

a. #12 WIRE - 75' LENGTH MAX.

b. #10 WIRE - 125' LENGTH MAX. - #10 GRD.

c. #8 WIRE - 200' LENGTH MAX. - #8 GRD.

d. #6 WIRE - 300' LENGTH MAX. - #6 GRD.
15. PROVIDE ALL PULL BOXES, IN ACCESSIBLE AREA, THAT EXCEED NEC NUMBER OF BENDS OR LENGTH IN FEEDER AND BRANCH CIRCUITS. INSTALL BOXES WHERE REQUIRED PER CODE.
16. ALL WIRING DEVICES SHALL BE OF HEAVY DUTY COMMERCIAL GRADE CONSTRUCTION. REFER TO ARCHITECTURAL SHEETS AND CODE SHEET FOR ALL FIRE-RATED PARTITION LOCATIONS AND RATINGS. COORDINATE COLORS WITH ARCHITECT.
17. CONTRACTOR IS RESPONSIBLE FOR ALL CORE-DRILLS REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.
18. ROUTING OF CIRCUITRY INSTALLED IN CASEWORK, CABINETRIES, ETC. SHALL BE COORDINATED FOR PROPER CONCEALMENT AND FUNCTION OF CASEWORK, CABINETRIES, ETC.
19. VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION, TRENCHING, OR DRILLING.
20. ALL ROOF PENETRATIONS OR PATCHES SHALL BE MADE PER ROOFING MANUFACTURER WARRANTY REQUIREMENTS.
21. ALL EXPOSED METAL CONDUITS ARE TO BE PAINTED TO MATCH THE ADJACENT SURFACE. COORDINATION OF PAINTING OF CONDUIT IS TO BE BY THE ELECTRICAL CONTRACTOR, WITH PAINTING BY OTHERS.
22. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED JUNCTION BOXES, PULL BOXES, ETC FOR A COMPLETE INSTALLATION PER THE N.E.C. AND LOCAL CODES. ALL CONDUCTORS SHALL BE RATED FOR 90 DEGREE CELSIUS.
23. COORDINATE WORK WITH OTHER TRADES. COORDINATION OR SCHEDULING SHALL BE RESPONSIBILITY OF THE INVOLVED CONTRACTORS.
24. ALL LOW VOLTAGE CABLING INSTALLED IN SPACES WITHOUT A LAY-IN OR WITH A HARD CEILING SHALL BE INSTALLED IN CONDUIT AND BOXES.
25. ALL LOADS CALCULATED AND SHARED ON THESE PLANS ARE INTENDED FOR ENGINEERING USE ONLY AND NOT INTENDED TO BE USED BY ANYONE ELSE FOR ANY REASON. ANY USE OF THESE CALCULATIONS BY ANYONE OTHER THAN L2 ENGINEERING IS DONE AT THEIR OWN RISK.
26. FINAL COORDINATION WITH EQUIPMENT IS THE RESPONSIBILITY OF THE E.C. COORDINATION SHOWN ON PLANS IS FOR THE BASIS OF DESIGN. ANY CHANGES TO EQUIPMENT FOR ANY REASON MUST BE COORDINATED BY THE E.C. PRIOR TO ROUGH IN OR PURCHASING OF ELECTRICAL EQUIPMENT.
27. THE ELECTRICAL SCOPE INCLUDES ALL CONSTRUCTION DOCUMENTS. SOME OF THE ELECTRICAL DEMOLITION AND NEW WORK SCOPE OR DETAILS MAY BE SHOWN ON OTHER DISCIPLINES INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, PLUMBING AND HVAC DRAWINGS. IT IS THE RESPONSIBILITY OF THE EC TO REVIEW ALL DOCUMENTS AND PROVIDE ALL LABOR AND MATERIALS SHOWN ON ALL DRAWINGS AND ALL SPECIFICATIONS. EC IS RESPONSIBLE FOR OBTAINING A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.

ELECTRICAL LEGEND

LIGHTING		FIRE ALARM	
A1			FIRE ALARM PULL STATION, 44" AFF MOUNTING HEIGHT
			FIRE ALARM HORN/STROBE, 80" AFF MOUNTING HEIGHT
A1			FIRE ALARM DUCT MOUNTED SMOKE DETECTOR. S = SUPPLY, R = RETURN - COORDINATE WITH DUCTWORK. MAKE SAMPLING TUBE FULL WIDTH OF DUCT IN LENGTH. PROVIDE SMOKE DETECTOR FOR DAMPER OPERATION AND 120 VOLT POWER CONNECTION AS SHOWN ON THE POWER DRAWINGS. COORDINATE ALL CONNECTIONS WITH MECHANICAL CONTRACTOR. CONNECT TO ALARM SYSTEM.
C1			FIRE ALARM CEILING MOUNTED SMOKE DETECTOR.
C1			FIRE ALARM ANNUNCIATOR PANEL.
			FIRE ALARM CONTROL PANEL.
X1			FIRE ALARM STROBE, 80" AFF MOUNTING HEIGHT.
X1			BLUE EXTERIOR STROBE LIGHT FOR FIRE DEPARTMENT CONNECTION WP - WEATHERPROOF
EM			WP
			FS
			SPRINKLER SYSTEM FLOW SWITCH FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED BY ELECTRICAL CONTRACTOR.
			TS
			SPRINKLER SYSTEM GATE VALVE. SUPERVISORY SWITCH FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED BY ELECTRICAL CONTRACTOR.
			WP
			FIRE ALARM STROBE, 80" AFF MOUNTING HEIGHT.
			RPS
			Z
			R
			E.O.L.R.
			KB
			CO
POWER		DOOR ACCESS	
			E
			DC
			CR
			HC
		INTRUDER DETECTION SYSTEM	
			PIR
			KP
		DATA & COMMUNICATION	
			2
			W
			18"
			4
			6
			WAP
GENERAL			
	1	DETAIL # _____ DETAIL REFERENCE TAG, DRAWING # REFER TO DETAIL SHEETS	
		KEYNOTE FOR DRAWING	
	1	DETAIL REFERENCE TAG (SECTION)	
	EF-1	MECHANICAL EQUIPMENT TAG. REFER TO EQUIPMENT DATA SCHEDULE.	
		INDICATES NEW WORK.	
		INDICATES TO BE REMOVED.	
		INDICATES EXISTING TO REMAIN.	

ELECTRICAL INDEX OF DRAWINGS	
SHEET NUMBER	SHEET NAME
E0.1	ELECTRICAL LEGEND AND GENERAL NOTES
E0.2	ELECTRICAL EQUIPMENT AND LIGHTING SCHEDULE
E0.3	ELECTRICAL SPECIFICATIONS
E1.1	ELECTRICAL POWER PLAN - OVERALL PLAN
E1.2	ELECTRICAL LIGHTING AND POWER PLAN - VISITOR SERVICES
E1.3	ELECTRICAL LIGHTING AND POWER PLAN - CONFERENCE & PLANNING ROOMS
E1.4	ELECTRICAL LIGHTING AND POWER PLAN - HUMAN RESOURCES
E1.5	ELECTRICAL LIGHTING AND POWER PLAN - PRIVATE OFFICES
E1.6	ELECTRICAL LIGHTING AND POWER PLAN - HUDDLE ROOM
E3.1	ELECTRICAL DETAILS
E4.1	PANELBOARD SCHEDULES AND SINGLE LINE DIAGRAM

7949 Washington Woods Dr
Dayton, OH 45459
www.LtwoE.com

CONSULTANTS:

#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS

409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

ELECTRICAL LEGEND AND GENERAL NOTES

DRAWING TITLE

DESIGNED BY | ATD

DRAWN BY | JRJ

CHECKED BY | RLS

DATE | 06-25-26

DRAWING NO.

E0.1

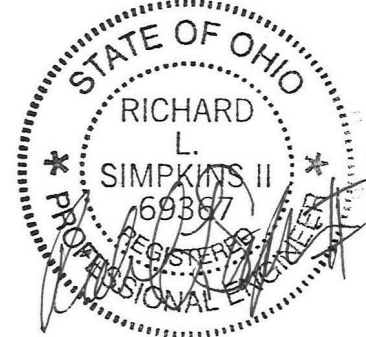
LIGHTING FIXTURE SCHEDULE																			
FIXTURE SYMBOL	FIXTURE VOLTAGE	FIXTURE INPUT WATTS	TEMPERATURE (K)	DELIVERED LUMENS	MANUFACTURER AND MODEL NUMBER	OTHER ACCEPTABLE MANUFACTURER	DIFFUSER MEDIA	CLASSIFICATION	TRIM COLOR					MOUNTING	SIZE (IN.)			NOTES	
								EM - EMERGENCY N - NORMAL HAZ - HAZARDOUS HB - HIGH BAY LB - LOW BAY HM - HIGH MAST	WHITE	NICKEL	CHROME	BUSHED NICKEL	STANDARD		SEE NOTE	S - SURFACE R - RECESSED SM - STEM MTD. WM - WALL MTD. C - CHAIN MTD. UC - UNDER CAB. CS - CEIL. SURF.	DIAMETER OR WIDTH		LENGTH
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
-	-	-	-	-	-	AS PRE-APPROVED	-	-	X	X	X	X	X	X	-	-	-	-	-
X1	-	-	-	-	COMPASS #CCR	AS PRE-APPROVED	EMERGENCY EGRESS	EM	X						UNIVERSAL	19.25	8.125	1.75	-
ER	-	-	-	-	COMPASS #CORS	AS PRE-APPROVED	EMERGENCY EGRESS	EM	X						WM-8'-0"	4.5	DIA	6.7	-
CU2	-	-	-	-	COMPASS #CU2	AS PRE-APPROVED	EMERGENCY EGRESS	EM	X						WM-8'-0"	4	9	2.75	-
NOTES:																			
1. BLACK/ GOLD.																			

LIGHTING FIXTURE SCHEDULE



7949 Washington Woods Dr
Dayton, OH 45459
www.LtwoE.com

CONSULTANTS:

[illegible]

CLIENT:

PROJECT TITLE	DATE
FIVE RIVERS METROPARKS	10/1/2014
409 East Monument Avenue, Third Floor	
Dayton, Ohio 45402	

DRAWING
TITLE

DESIGNED BY	ATD
DRAWN BY	JRJ
CHECKED BY	RLS
DATE	06-25-26
DRAWING NO.	

DRAWING NO.

E0.2

7/9/2026 5:07:52 PM

ELECTRICAL SPECIFICATIONS

GENERAL PROVISIONS

- A.

REFERENCE

1.

THE GENERAL CONDITIONS AND OTHER CONTRACT DRAWINGS AS SET FORTH IN THE FOREGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS PROJECT, IN SO FAR AS THEY APPLY HERETO.

2.

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.
- B.

CONTRACT DRAWINGS

1.

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.

2.

CONSULT ALL CONTRACT DRAWINGS WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATION TO SECURE COORDINATION.

3.

WIRING LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.

4.

OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.
- C.

JOB-SITE COPY OF DOCUMENTS

1.

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 MADE DURING CONSTRUCTION. THESE SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE. 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. AN ADDITIONAL SET OF DRAWINGS WILL BE FURNISHED BY THE OWNER'S REPRESENTATIVE FOR THIS PURPOSE UPON REQUEST.
- D.

MANUFACTURER'S DRAWINGS

1.

THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW, (4) COPIES OF MANUFACTURER'S DRAWINGS AND WIRING DIAGRAMS (OR ELECTRONIC SUBMITTALS IN PDF FORMAT). 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 PROGRAMS 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 COMPRISES 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:

ITEMS SHOP DRAWINGS TYPE SUBMITTALS REQUIRED

LIGHTING FIXTURES
WIRING DEVICES
LIGHTING CONTROLS
- E.

GUARANTEES

1.

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 PASSED ALONG TO THE OWNER FOR FULL BENEFIT OF THE MANUFACTURER'S WARRANTY.

WORK INCLUDED

- A.

INSTALLATION, MATERIALS, AND WORKMANSHIP

6.

FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER SIMILAR APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.

7.

THE ELECTRICAL CONTRACTOR, IN SO FAR 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 & REFUSE DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.

8.

ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF A QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.
- B.

COORDINATION OF PLANS AND SPECIFICATIONS

1.

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

CUTTING AND PATCHING

1.

PATCHING SHALL MATCH EXISTING SURFACES IN KIND AND FINISH AND SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.

2.

REPAIR OF DAMAGES, BY THE ELECTRICAL CONTRACTOR, TO NEWLY PATCHED AND REFINISHED AREAS SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE, TO MATCH EXISTING CONDITION.

3.

WHERE REQUIRED TO MAINTAIN FIRE RATING, OPENINGS SHALL BE SEALED UTILIZING 3M BRAND FIRE BARRIER PENETRATION SEALING SYSTEMS. FIRE BARRIER OR FIRE STOP SYSTEMS FROM CROUSE-HINDS, THOMAS & BETTS OR DOW CORNING MAY BE USED AT CONTRACTOR'S OPTION. THIS INCLUDES HOLES LEFT DUE TO REMOVAL OF EXISTING CONDUITS, BUS DUCT, ETC. OPENINGS SHALL BE TEMPORARILY FIRE STOPPED UNTIL PERMANENT FIRE STOPPING IS DONE.
- D.

CLEANING AND PAINTING

1.

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.

2.

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 MATERIALS BEFORE FINAL ACCEPTANCE OF THE WORK.

3.

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

- A.

CODES:

1.

ALL WORK PERFORMED UNDER THIS SPECIFICATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS PREPARED AND PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND ANY APPLICABLE STATE OR LOCAL CODES.
- B.

FEES:

1.

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

TESTS AND SPECICAITONS

- A.

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.
- B.

WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
- C.

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 OWNERS REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.
- D.

THE ELECTRICAL CONTRACTOR SHALL TEST AND OBTAIN ACCEPTANCE FOR THE FOLLOWING SYSTEMS:

1. EMERGENCY LIGHTING.
2. RECEPTACLE AND EQUIPMENT POWER.
3. LIGHTING.
4. LIGHTING CONTROLS

CONDUIT

- A.

FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY SYSTEM.
- B.

ALL WIRING SHALL BE RUN IN EMT CONDUIT OR MC CABLE UNLESS OTHERWISE NOTED.
- C.

ALL CONDUIT SIZES STATED HEREIN OR MARKED ON THE DRAWINGS ARE MINIMUM SIZE AND SHALL BE NO LESS THAN 1/2" UNLESS OTHERWISE NOTED.
- D.

ALL CONDUIT SHALL BE SUBSTANTIALLY SUPPORTED BY PIPE STRAPS OR SUITABLE CLAMPS OR HANGERS ATTACHED TO THE ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE RIGID INSTALLATION; 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. "MINERALAC" TYPE SUPPORTS AND "UNISTRUT" TYPE ONE BOLT SUPPORTS WITH SQUARE ENDS SHALL NOT BE USED AT ANY LOCATION.

WIRE AND CABLE

- A.

ALL CONDUCTORS SHALL BE STRANDED AND OF THE AWG SIZE AND TYPE SHOWN ON THE DRAWINGS. WHERE NO SIZE OR TYPE IS SHOWN, CONDUCTORS SHALL NOT BE LESS THAN #12 TYPE XHHW, THHN, OR THWN. ALL CONDUCTORS SHALL BE COPPER AND HAVE 600 VOLT INSULATION; BE UL LABELED AND OF AMERICAN MANUFACTURER.
- B.

ALL CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
- C.

THE FOLLOWING COLOR CODE SHALL BE USED:

208 VOLT

- PHASE A

BLACK
- PHASE B

RED
- PHASE C

BLUE
- NEUTRAL

WHITE
- EQUIPMENT GROUND

GREEN

- D.

CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE.
- E.

CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE 1/2", WRAPPED TWICE AROUND AT THE FOLLOWING POINTS:

1. AT EACH TERMINAL.
2. AT EACH CONDUIT ENTRANCE.
3. AT INTERVALS NOT MORE THAN 12 INCHES APART.
4. IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.

- F.

ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANELBOARD GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH-CIRCUIT NUMBERS.
- G.

EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR.

BOXES AND PLATES

- A.

FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULLBOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND WORKMANLIKE MANNER.
- B.

PULLBOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND SIZE AND GAUGE, IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE UL LABELED.
- C.

FLUSH OUTLET, JUNCTION AND PULLBOXES SHALL BE PRESSED STEEL GALVANIZED OR SHERARDIZED AND SHALL BE A MINIMUM OF 4" SQUARE OR OCTAGONAL SIMILAR TO APPLETON #40.
- D.

SWITCH PLATES ON FLUSH AND CAST BOXES SHALL BE UNBREAKABLE, FINISH TO MATCH DEVICE.
- E.

DUPLEX RECEPTACLE PLATES ON FLUSH AND CAST BOXES SHALL BE UNBREAKABLE, FINISH TO MATCH DEVICE.
- F.

ALL BOXES SHALL BE RIGIDLY SUPPORTED FROM BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED.

SWITCHES

- A.

120V-20A
LEGRAND #CS20AAC1W, HUBBELL #CS120W, EATON #CS120W
- 120V-20A 3-WAY
LEGRAND #CS20AAC3W, HUBBELL #CS320W, EATON #CS320W
- 120V-20A 4-WAY
LEGRAND #CS20AAC4W, HUBBELL #CS420W, EATON #CS420W
- 120V-20A OC
LEGRAND #DSW-301-W, HUBBELL #AD2000W22, EATON #OSD10A-W
- 120V-20A DOC
LEGRAND #DW-311-W, HUBBELL #ADD2000W1, EATON #OS10D7-W
- 120V-20A PILOT
LEGRAND #692WG, HUBBELL #HBL1221PL, EATON #AH1221PL

RECEPTACLES

- A.

120V-20A
LEGRAND #CR20W, HUBBELL #CR20W, EATON #CR20W
- 120V-20A TR
LEGRAND #TR20W, HUBBELL #CR20WHTR, EATON #TRCR20W
- 120V-20A GF
LEGRAND #2097TRAW, HUBBELL #GFRTR20W, EATON #SGF20W
- 120V-20A USB
LEGRAND #TR20USBAC6W, HUBBELL #USB20ACPDW, EATON #TRUSBPDAC20W
- 120V-20A WP/GF
LEGRAND #2097TRWRW, HUBBELL #GFRTW20W, EATON #TWRSGF20W

WIRING DEVICES

- A.

WIRING DEVICES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH THE CATALOG NUMBERS AND MANUFACTURERS LISTED IN THE SCHEDULE WHICH FOLLOWS. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
- B.

COORDINATE DEVICE COLOR WITH ARCHITECT.

IDENTIFICATION

- H.

EACH PIECE OF ELECTRICAL EQUIPMENT AND INDIVIDUAL SWITCHES, ALL DISCONNECTS, STARTERS ALL EXHAUST FAN MANUAL STARTING SWITCHES, ALL POWER AND LIGHTING PANELS, ALL CABINETS AND PULL BOXES, ETC., SHALL BE IDENTIFIED ON THE FRONT COVER OR TRIM WITH ITS NAME AND/OR DESIGNATION NUMBER OR LETTER AS SHOWN ON THE DRAWINGS AND WITH THE VOLTAGE AVAILABLE WITHIN THE PANEL.
- I.

IDENTIFICATION SHALL BE IN THE FORM OF LAMINATED PLASTIC NAMEPLATES, BLACK FACE, WITH THE LETTERS ENGRAVED INTO THE WHITE BACKGROUND, MINIMUM 1/4" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEETMETAL SCREW ATTACHMENT, NO "DYMO" OR SIMILAR TYPE LABELS WILL BE ALLOWED.
- J.

THE FOLLOWING IS AN EXAMPLE OF THE NAMEPLATE LAYOUT AND WORDING:

AC-1 DISCONNECT
208V - 1- CKT B-1.2
- K.

PLASTIC NAMEPLATES SHALL BE ATTACHED TO FACE OF ELECTRICAL DEVICE BY SHEETMETAL SCREWS. LOCATE PLATE SO WORDING READS HORIZONTALLY AND PLATE DOES NOT OBSTRUCT OTHER IDENTIFICATION PLATES, LATCHES OR OPERATORS.
- L.

WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH THE SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKING SHALL BE READILY VISIBLE AND STATE "CAUTION - SERIES RATED SYSTEM."

GROUNDING

- A.

ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTOR 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 SECTION "WIRE AND CABLE."
- B.

ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
- C.

CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40 PVC NON-METALLIC ELECTRICAL CONDUIT WITH UL LABEL. SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENCIRCLED BY METALLIC HANGERS OR SUPPORTS.
- D.

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.
- E.

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 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.
- F.

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.

LIGHTING FIXTURES

- A.

FLUSH FIXTURES MAY BE FURNISHED WITH PRE-WIRED FEATURE PROVIDED THEY ARE UL APPROVED FOR 75 C WIRING AND THE JUNCTION BOX CAPACITY IS SUFFICIENT FOR THE CIRCUIT WIRING REQUIREMENTS.
- B.

CLEARANCES FOR RECESSED PORTIONS OF FIXTURES FROM COMBUSTIBLE MATERIAL AND THERMAL INSULATION, SHALL BE IN ACCORDANCE WITH NEC ARTICLE 410.66.
- C.

ANY FIXTURES SCRATCHED, BENT, CRACKED OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT THIS CONTRACTOR'S EXPENSE.
- D.

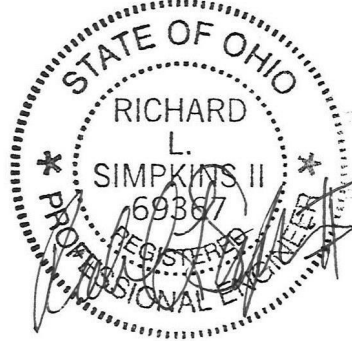
ALL FIXTURES SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
- E.

ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT), BY USE OF A PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.



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CONSULTANTS:



#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
408 East Monument Avenue, Third Floor
Dayton, Ohio 45402

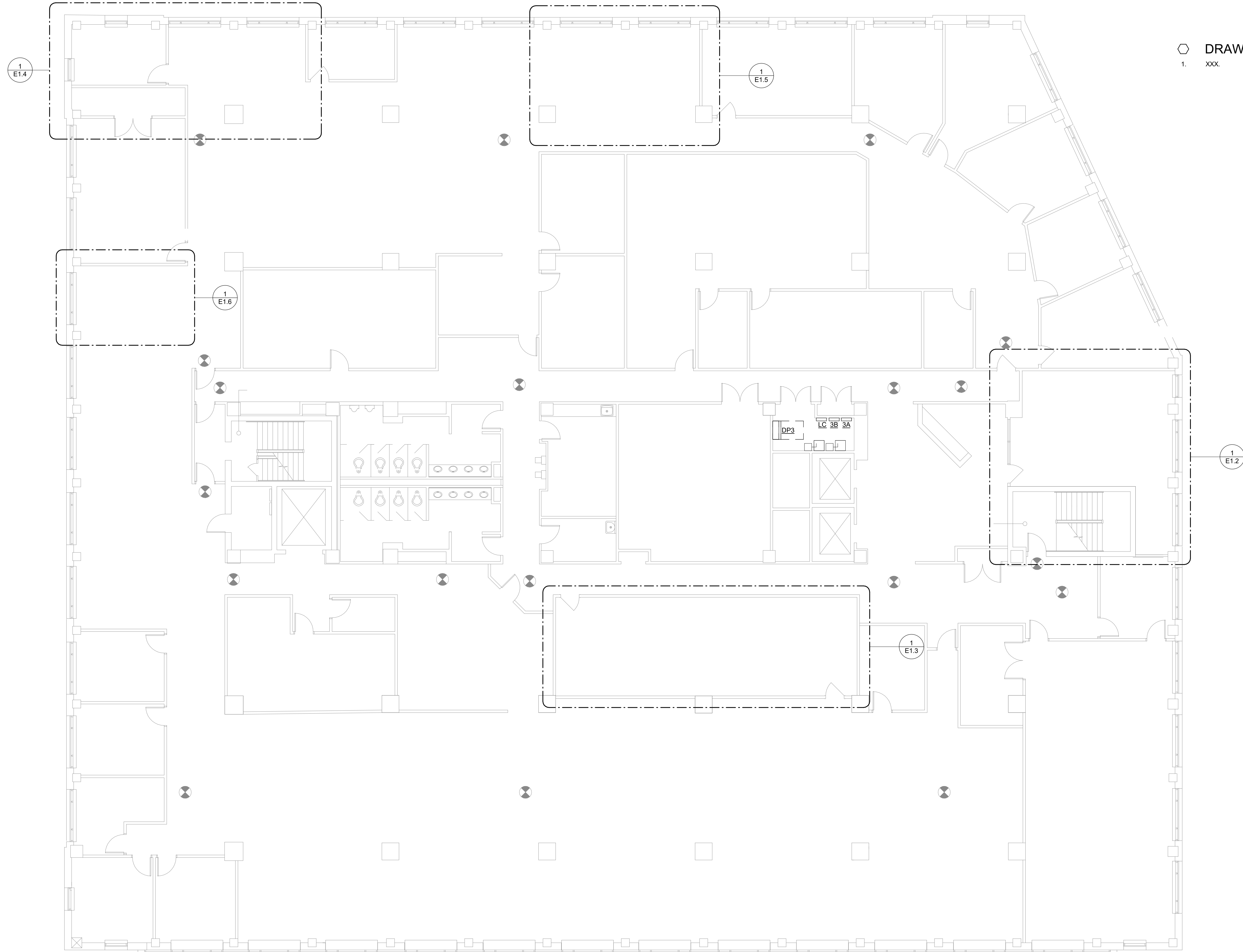
ELECTRICAL SPECIFICATIONS

DESIGNED BY | ATD
DRAWN BY | JRJ
CHECKED BY | RLS
DATE | 06-25-26

DRAWING NO.

E0.3

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DRAWING NOTES
1. XXX.

1 POWER PLAN - EXISTING - OVERALL PLAN
1/8" = 1'-0"



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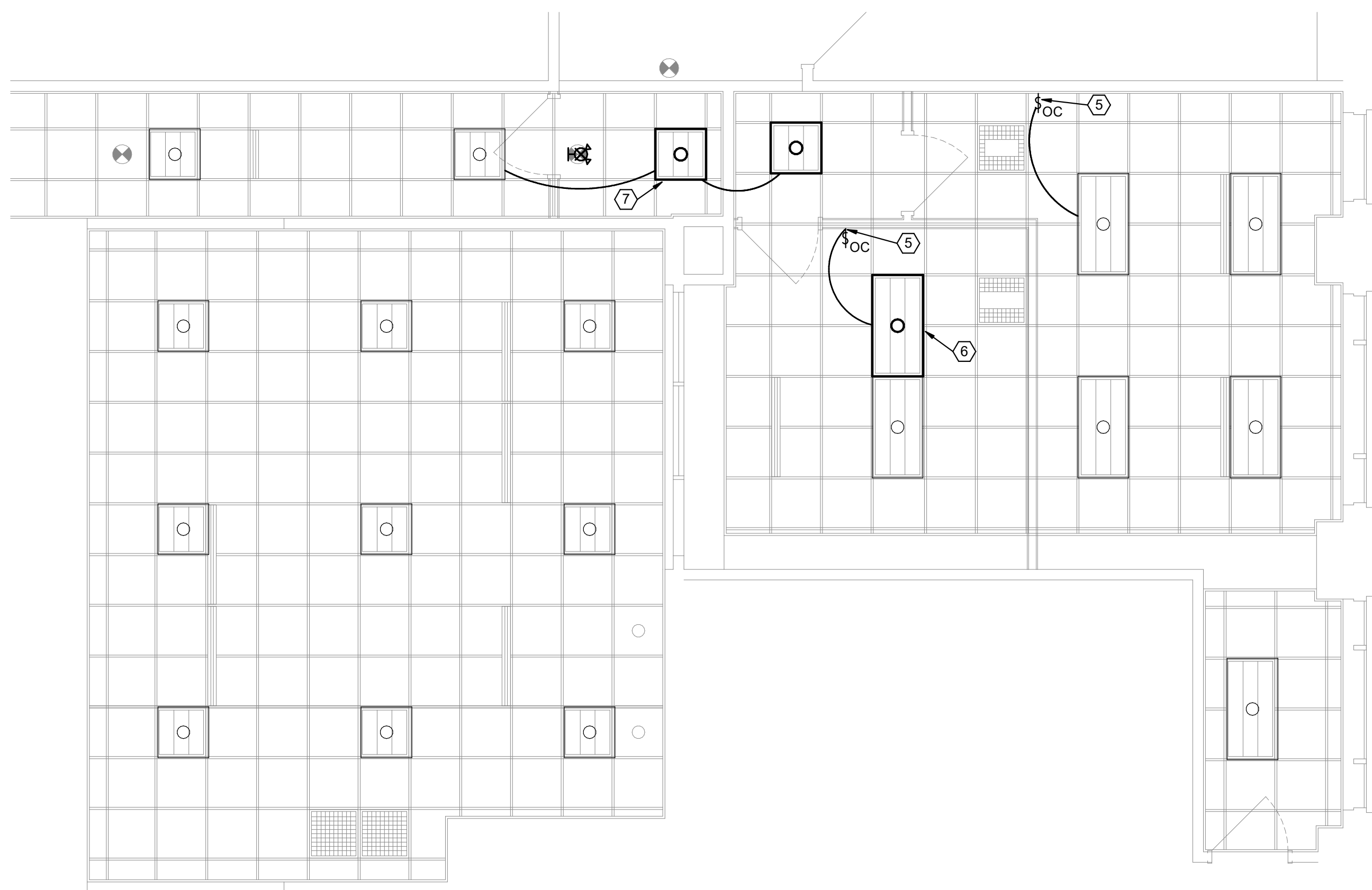
PROJECT
TITLE

**ELECTRICAL POWER PLAN - OVERALL
PLAN**

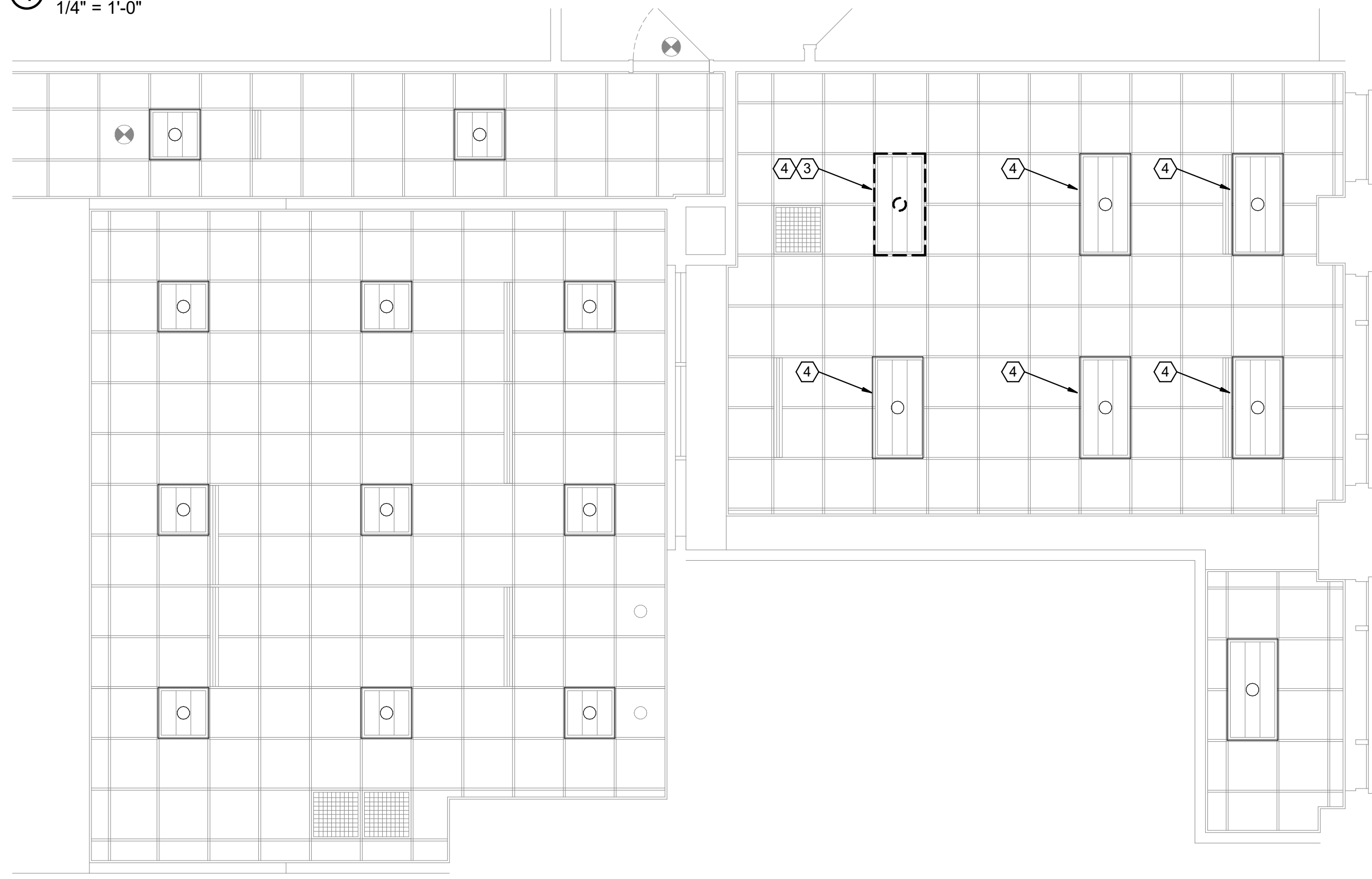
DRAWING
TITLE

DESIGNED BY | ATD
DRAWN BY | JRJ
CHECKED BY | RLS
DATE | 06-25-26
DRAWING NO.

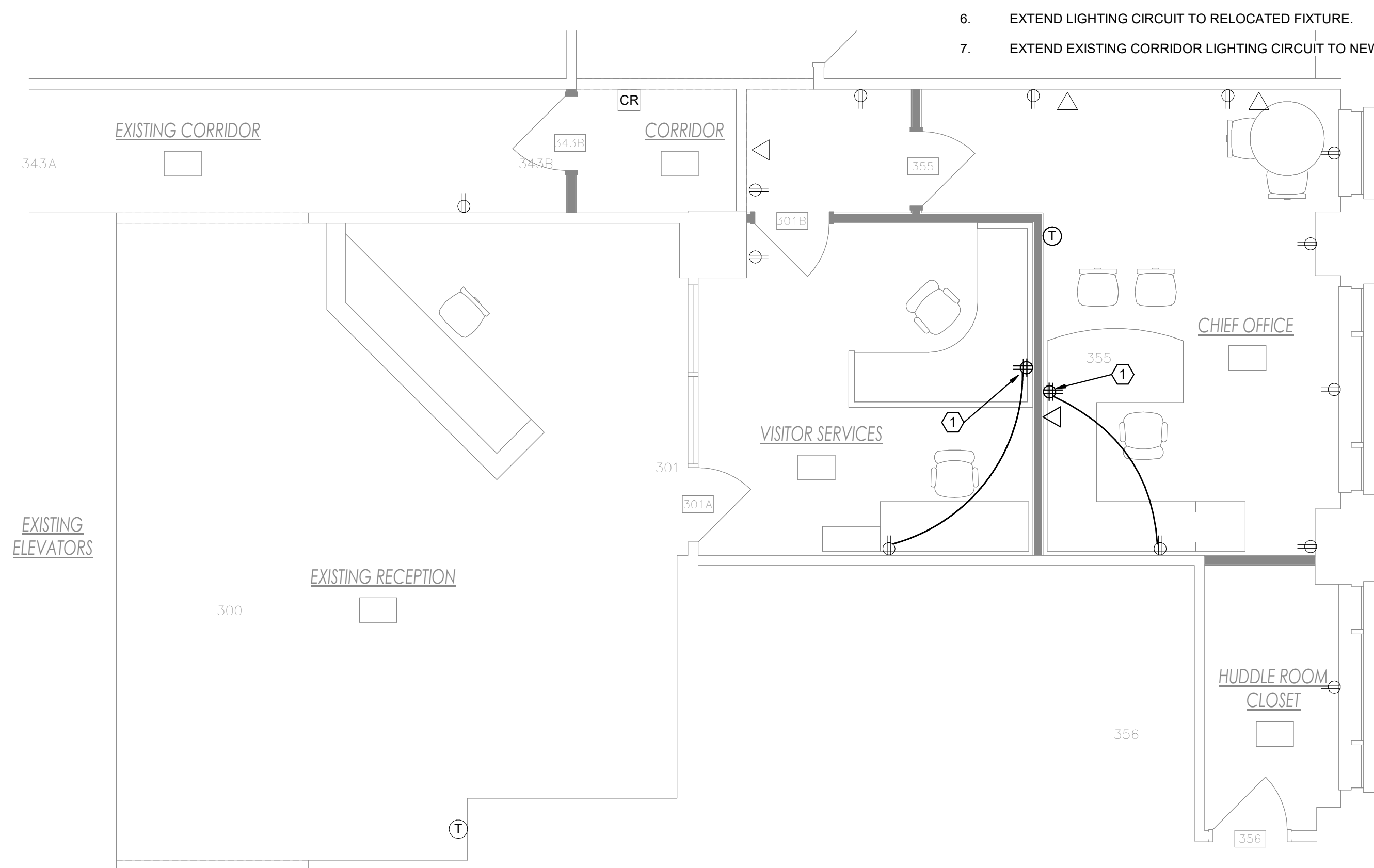
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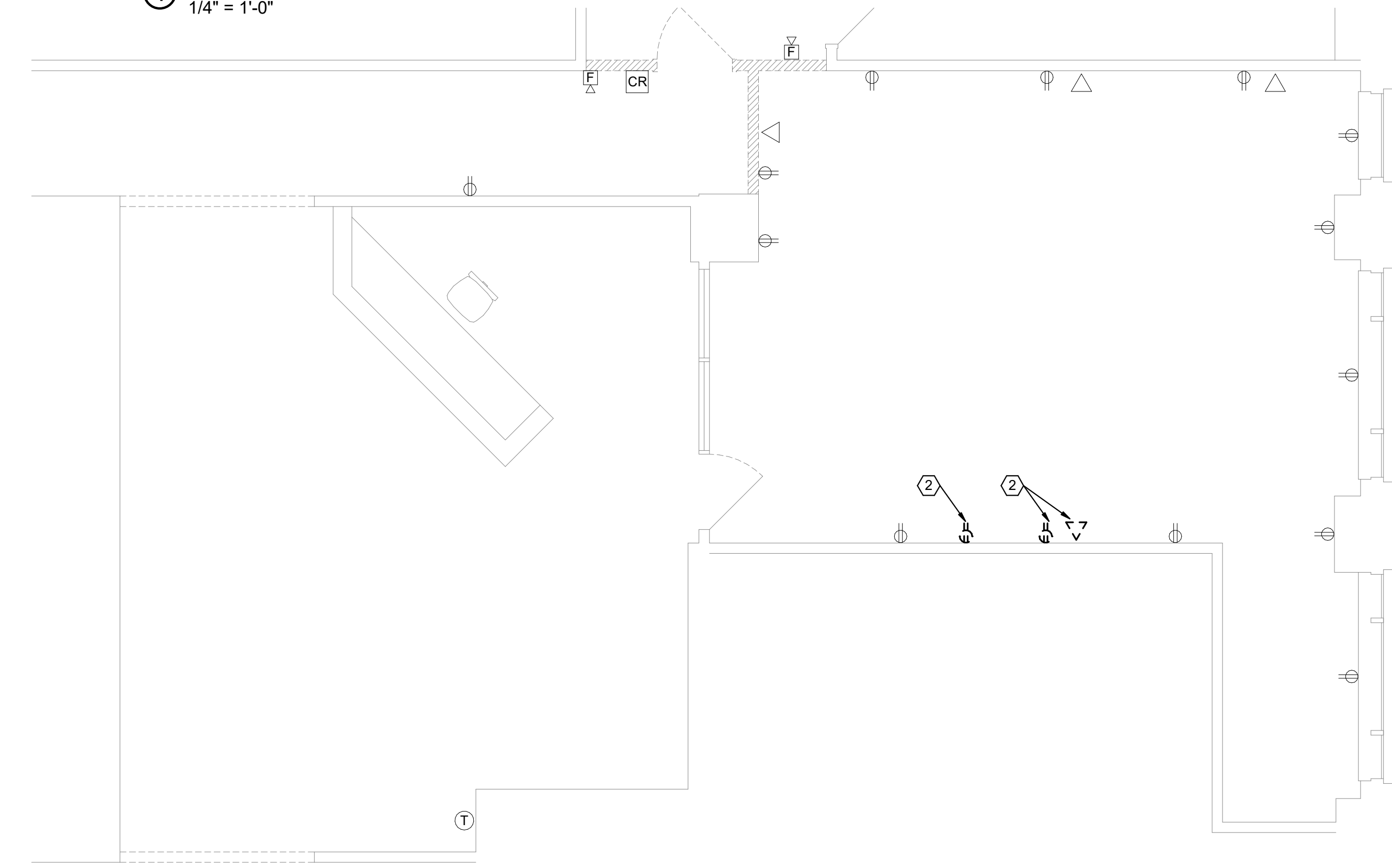
④ LIGHTING PLAN - NEW WORK - VISITOR SERVICES PLAN
1/4" = 1'-0"



③ LIGHTING PLAN - DEMOLITION - VISITOR SERVICES PLAN
1/4" = 1'-0"



① POWER PLAN - NEW WORK - VISITOR SERVICES
1/4" = 1'-0"



② POWER PLAN - DEMOLITION - VISITOR SERVICES
1/4" = 1'-0"

DRAWING NOTES

1. EXTEND EXISTING CIRCUIT TO NEW RECEPTACLE LOCATION.
2. REMOVE DEVICE AND BOX RETAIN CIRCUIT FOR EXTENSION TO NEW LOCATION.
3. REMOVE EXISTING LIGHTING FIXTURE AND RETAIN FOR RELOCATION. REFER TO NEW WORK PLAN.
4. REMOVE FIXTURES IN THIS SPACE FROM EXISTING LIGHTING CONTROLS. REFER TO NEW WORK PLAN FOR NEW LIGHTING CONTROLS.
5. PROVIDE NEW SWITCH LEG AND LIGHTING CONTROLS AS INDICATED.
6. EXTEND LIGHTING CIRCUIT TO RELOCATED FIXTURE.
7. EXTEND EXISTING CORRIDOR LIGHTING CIRCUIT TO NEW FIXTURES.



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CONSULTANTS:



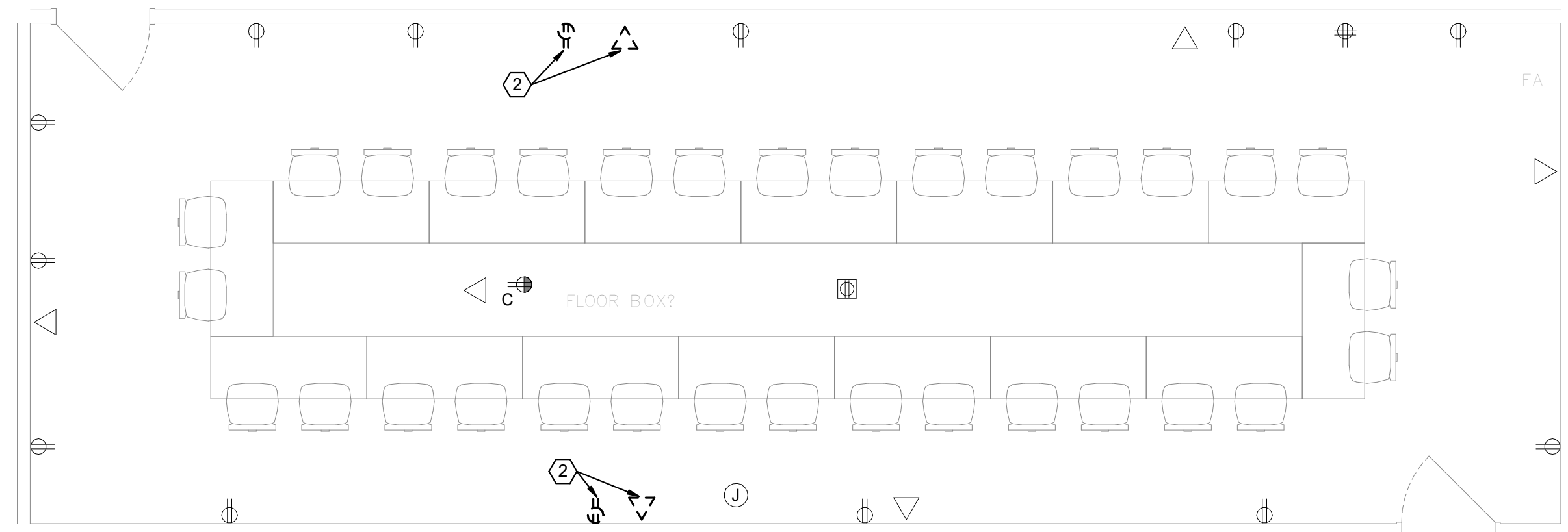
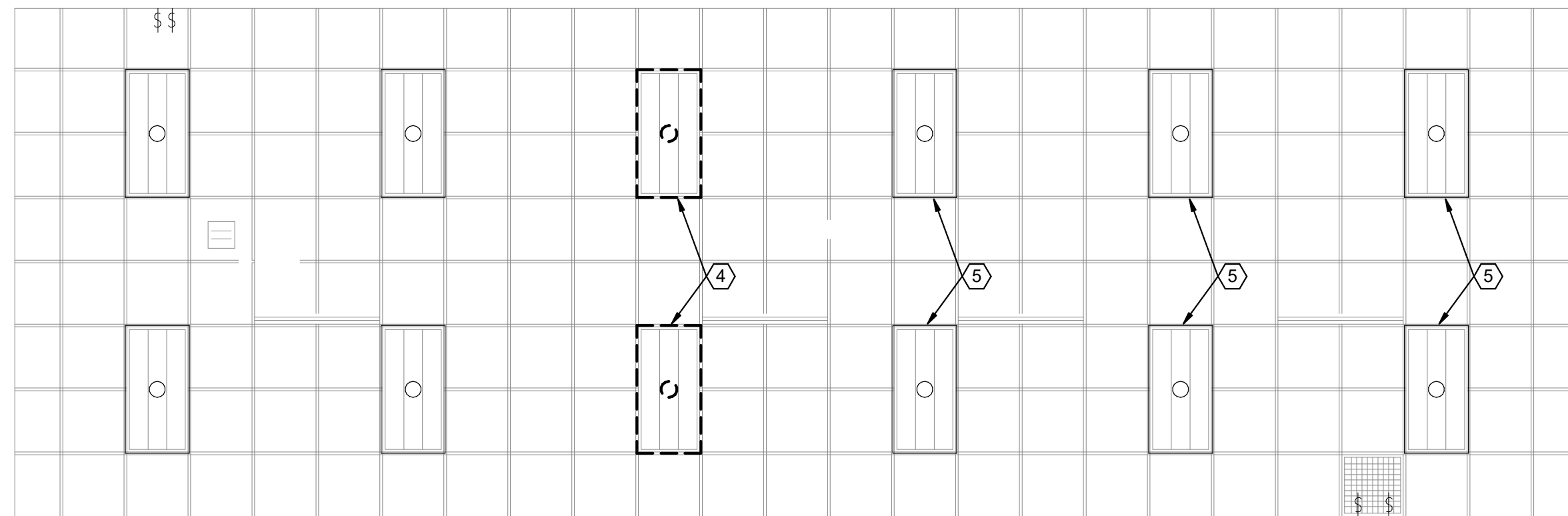
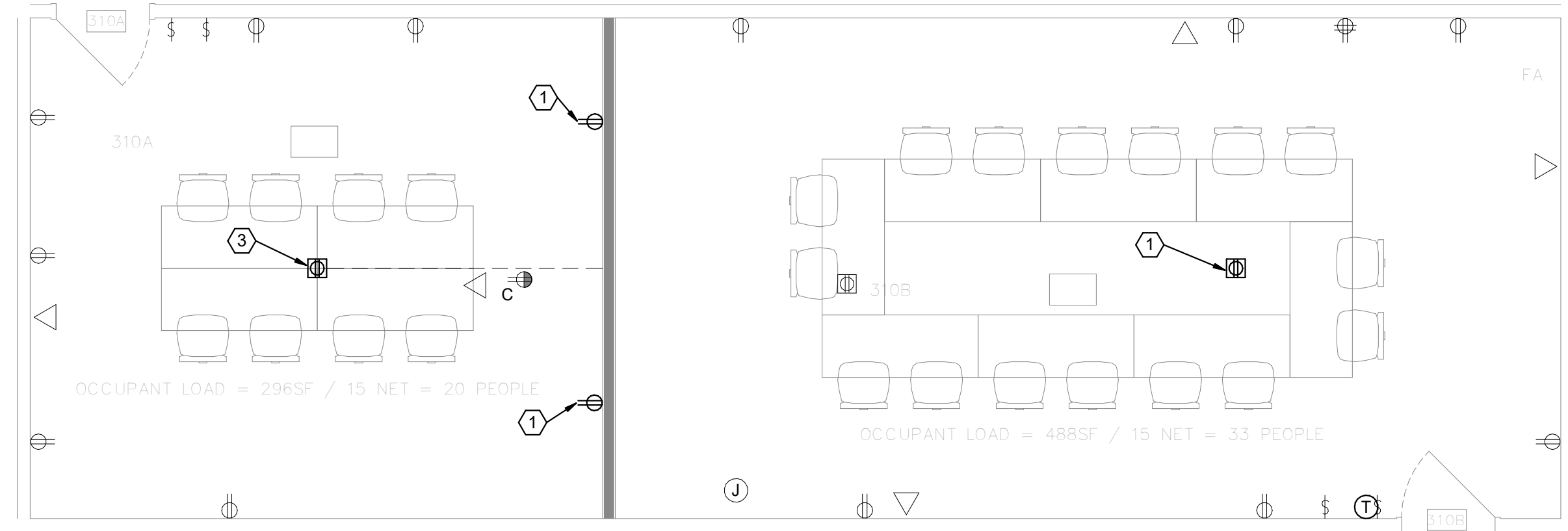
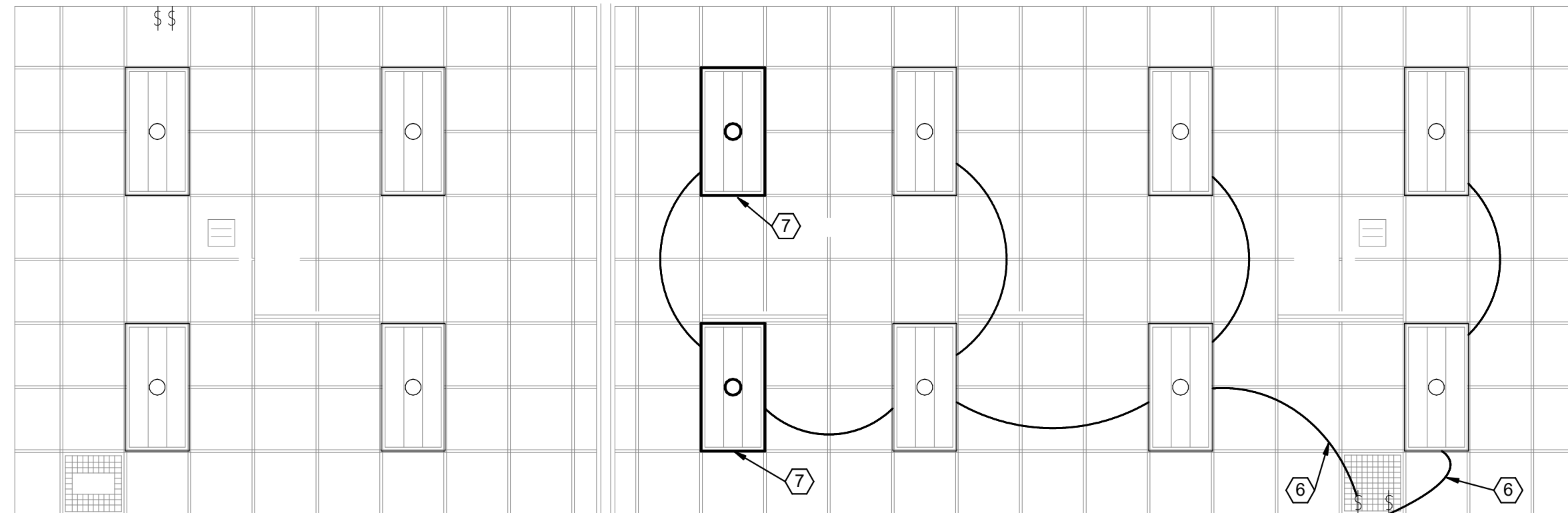
#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

**ELECTRICAL LIGHTING AND POWER
PLAN - VISITOR SERVICES**

DESIGNED BY: ATD
DRAWN BY: JRJ
CHECKED BY: RLS
DATE: 06-25-26
DRAWING NO.



- ## DRAWING NOTES
1. EXTEND EXISTING CIRCUIT TO NEW RECEPTACLE LOCATION.
 2. REMOVE DEVICE AND BOX RETAIN CIRCUIT FOR EXTENSION TO NEW LOCATION.
 3. PROVIDE OVERFLOOR RACEWAY WITH 4-GANG BOX. LEGRAND #OFROB APPROVED OR EQUAL.
 4. REMOVE EXISTING LIGHTING FIXTURE AND RETAIN FOR RELOCATION. REFER TO NEW WORK PLAN.
 5. REMOVE FIXTURES IN THIS SPACE FROM EXISTING LIGHTING CONTROLS. REFER TO NEW WORK PLAN FOR NEW LIGHTING CONTROLS.
 6. PROVIDE NEW SWITCH LEG AND LIGHTING CONTROLS AS INDICATED.
 7. EXTEND LIGHTING CIRCUIT TO RELOCATED FIXTURE.



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CONSULTANTS:

[illegible]

11170

PROJECT TITLE
FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

DRAWING
TITLE

DESIGNED BY	ATD
DRAWN BY	JRJ
CHECKED BY	RLS
DATE	06-25-26
DRAWING NO.	

DRAWING NO.

Ξ1.3



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CONSULTANTS:



#	DATE	DESCRIPTION
1	06-25-26	BID SET

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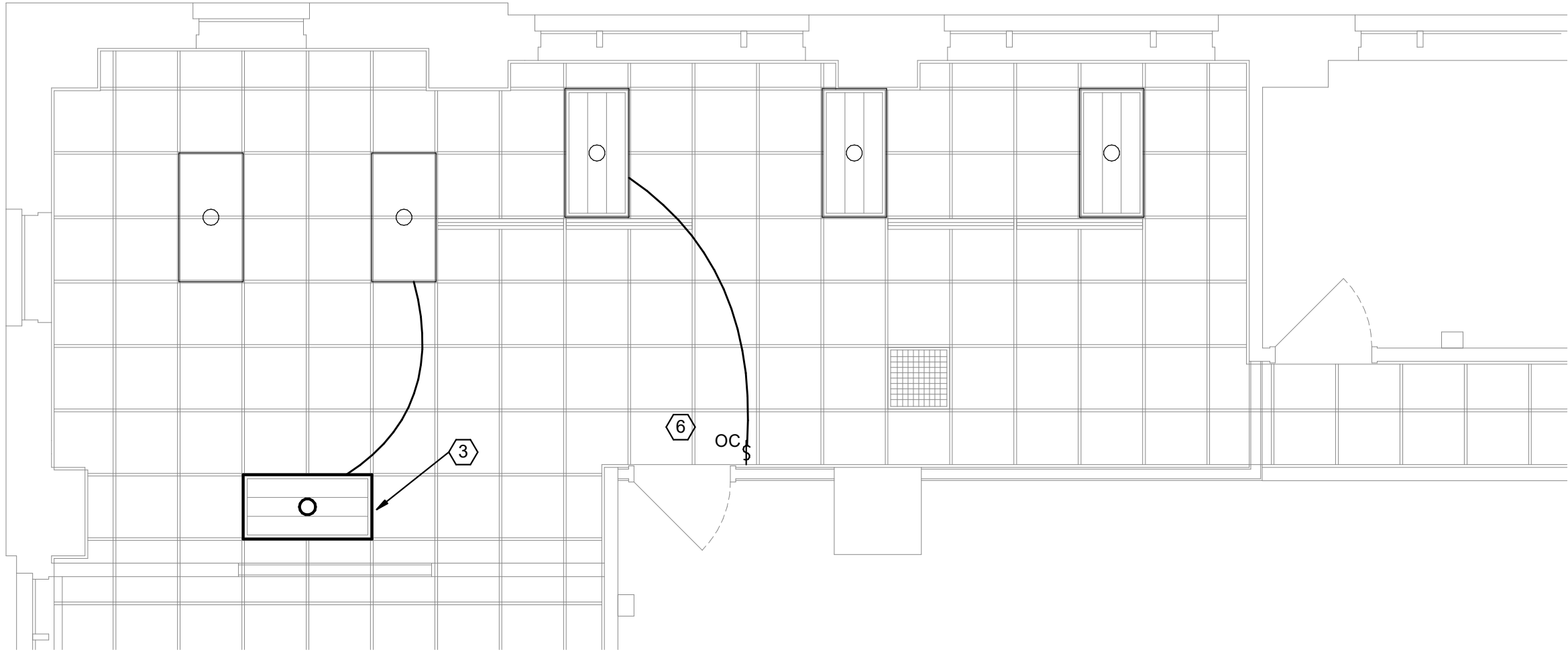
**ELECTRICAL LIGHTING AND POWER
PLAN - HUMAN RESOURCES**

DESIGNED BY | ATD
DRAWN BY | JRJ
CHECKED BY | RLS
DATE | 06-25-26
DRAWING NO.

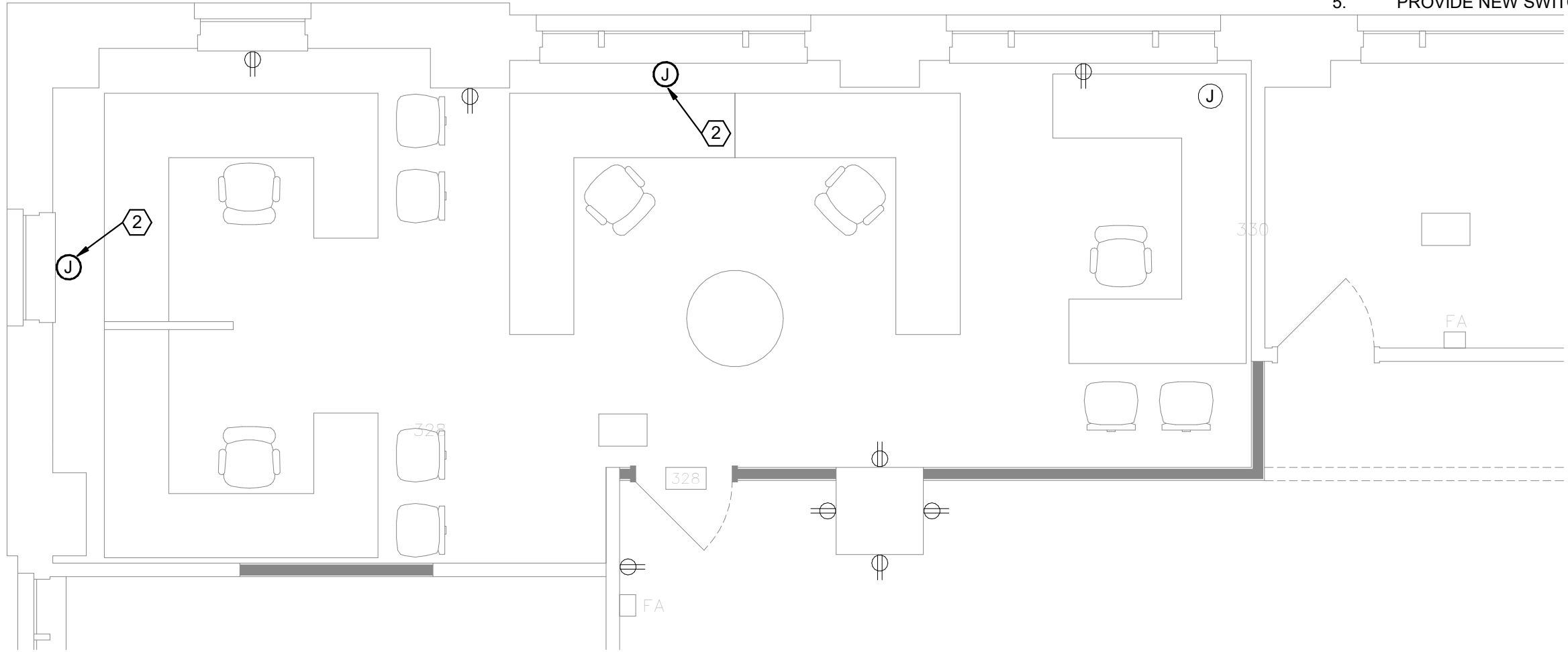
E1.4

DRAWING NOTES

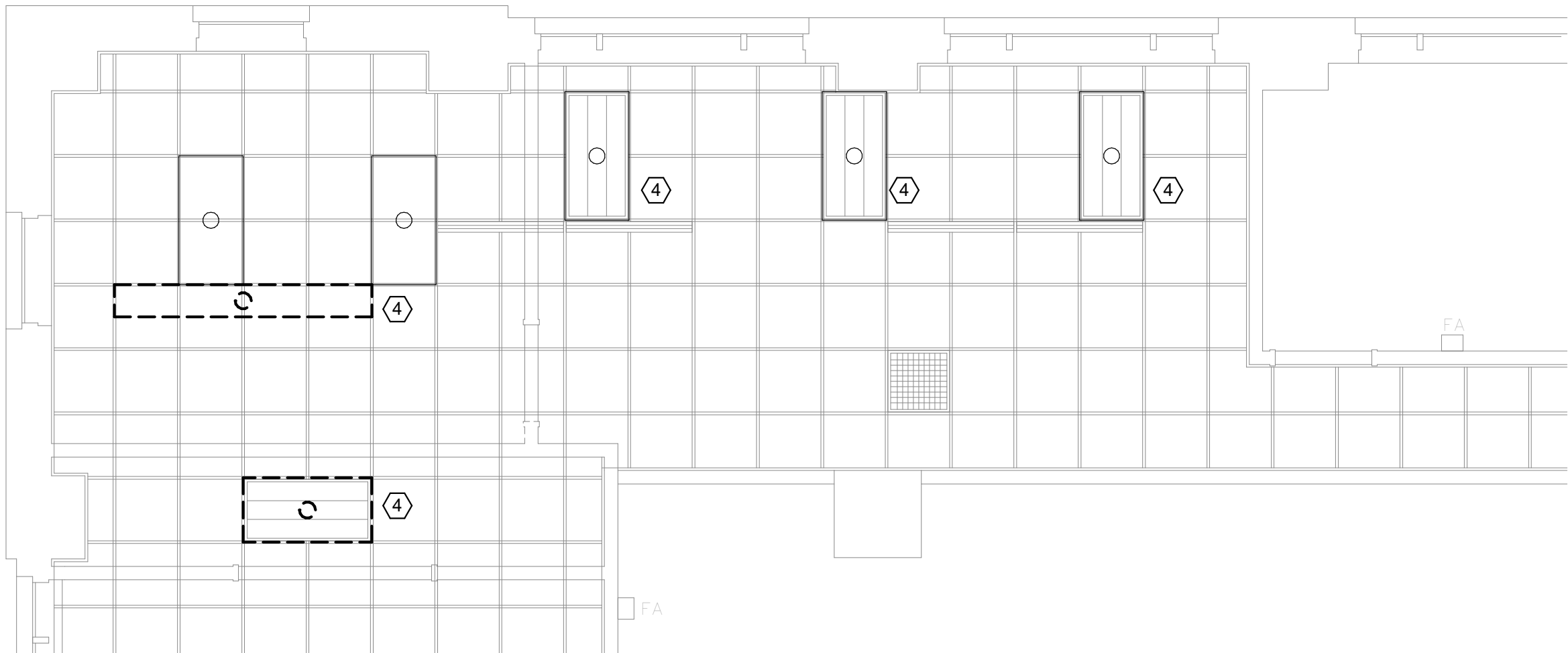
1. REMOVE DEVICE. RETAIN CIRCUIT.
2. UTILIZE EXISTING CIRCUIT. PROVIDE FURNITURE CONNECTION FROM EXISTING BOX. COORDINATE REQUIREMENTS WITH FURNITURE PROVIDER.
3. EXTEND LIGHTING CIRCUIT TO RELOCATED FIXTURE.
4. REMOVE FIXTURES IN THIS SPACE FROM EXISTING LIGHTING CONTROLS. REFER TO NEW WORK PLAN FOR NEW LIGHTING CONTROLS.
5. PROVIDE NEW SWITCH LEG AND LIGHTING CONTROLS AS INDICATED.



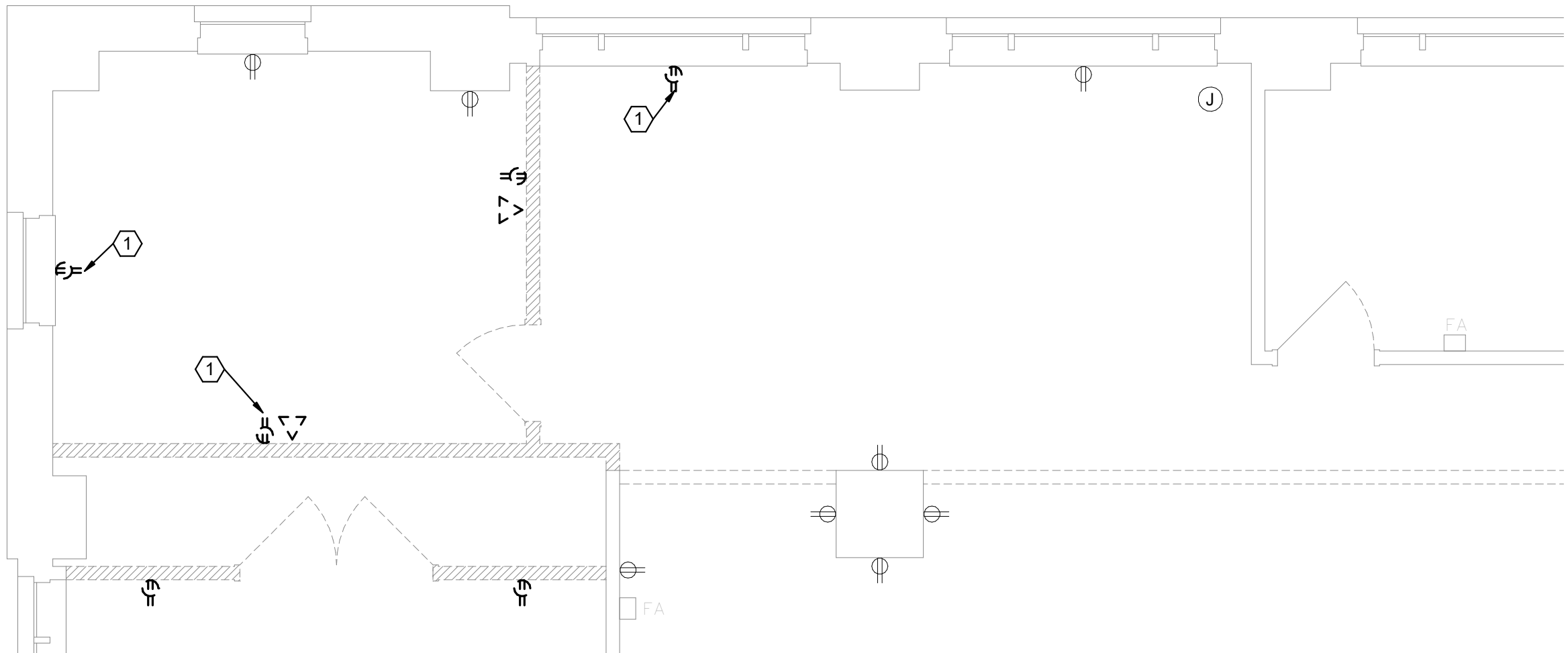
④ LIGHTING PLAN - NEW WORK - HUMAN RESOURCES - RCP
1/4" = 1'-0"



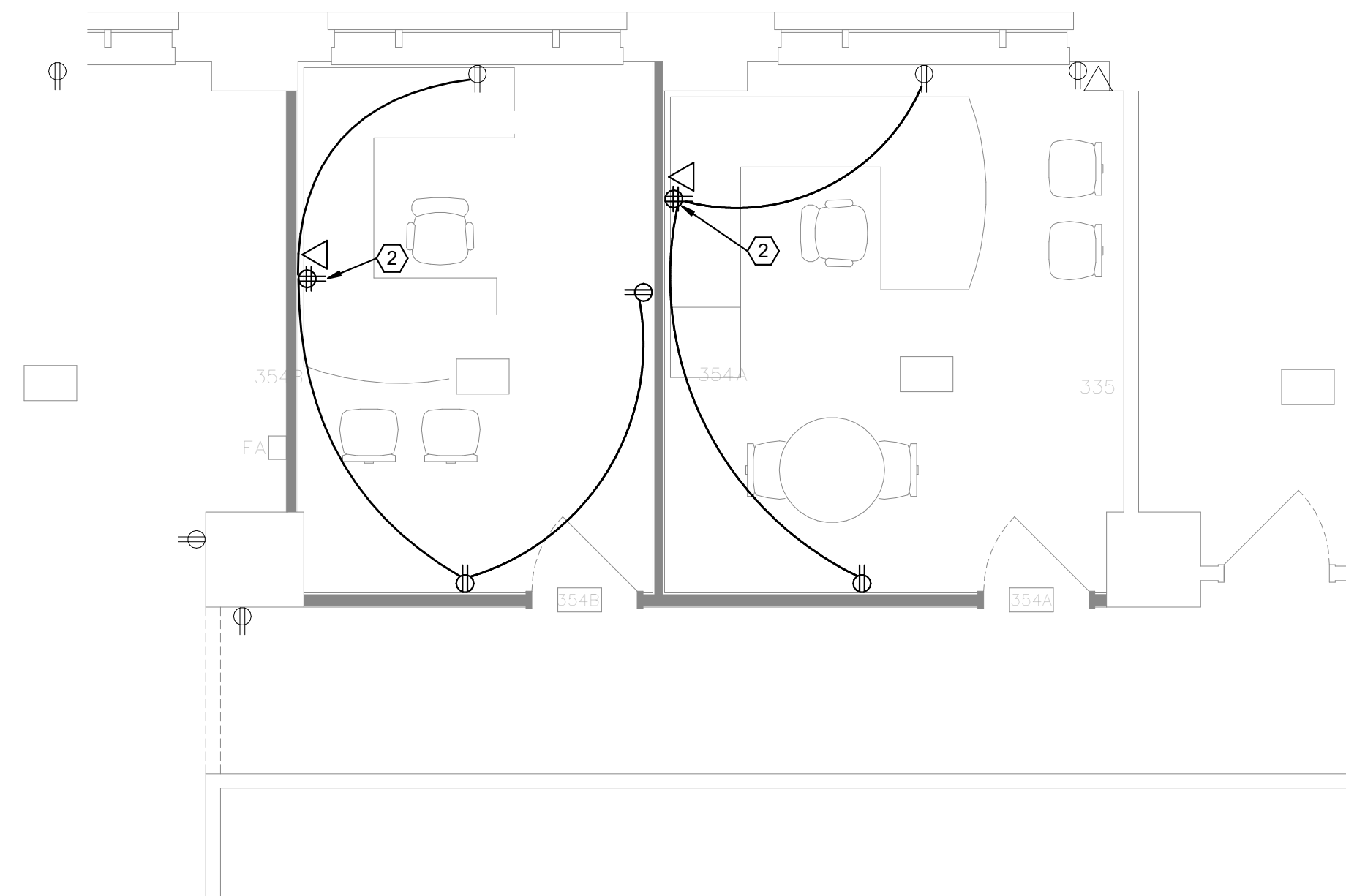
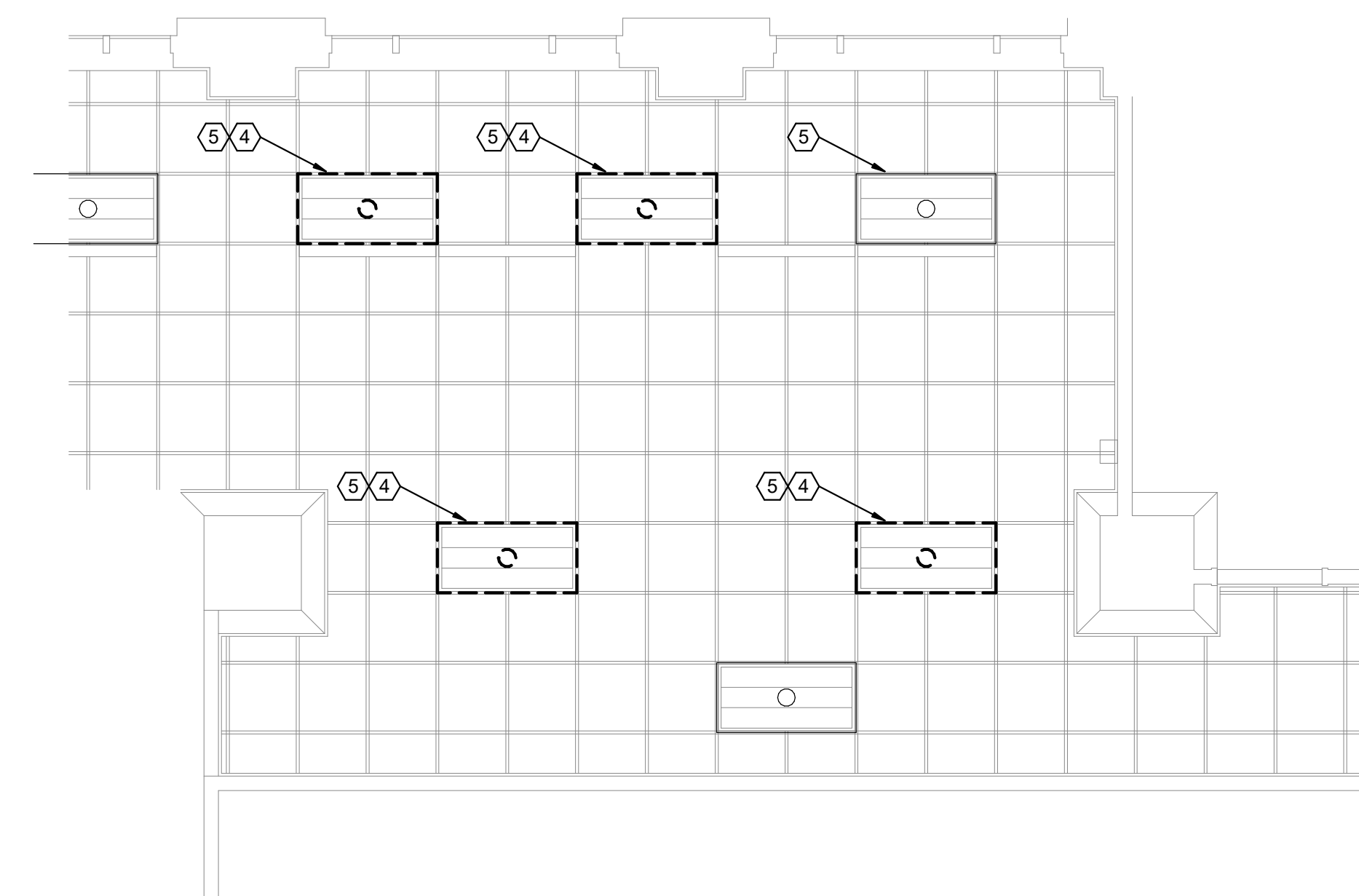
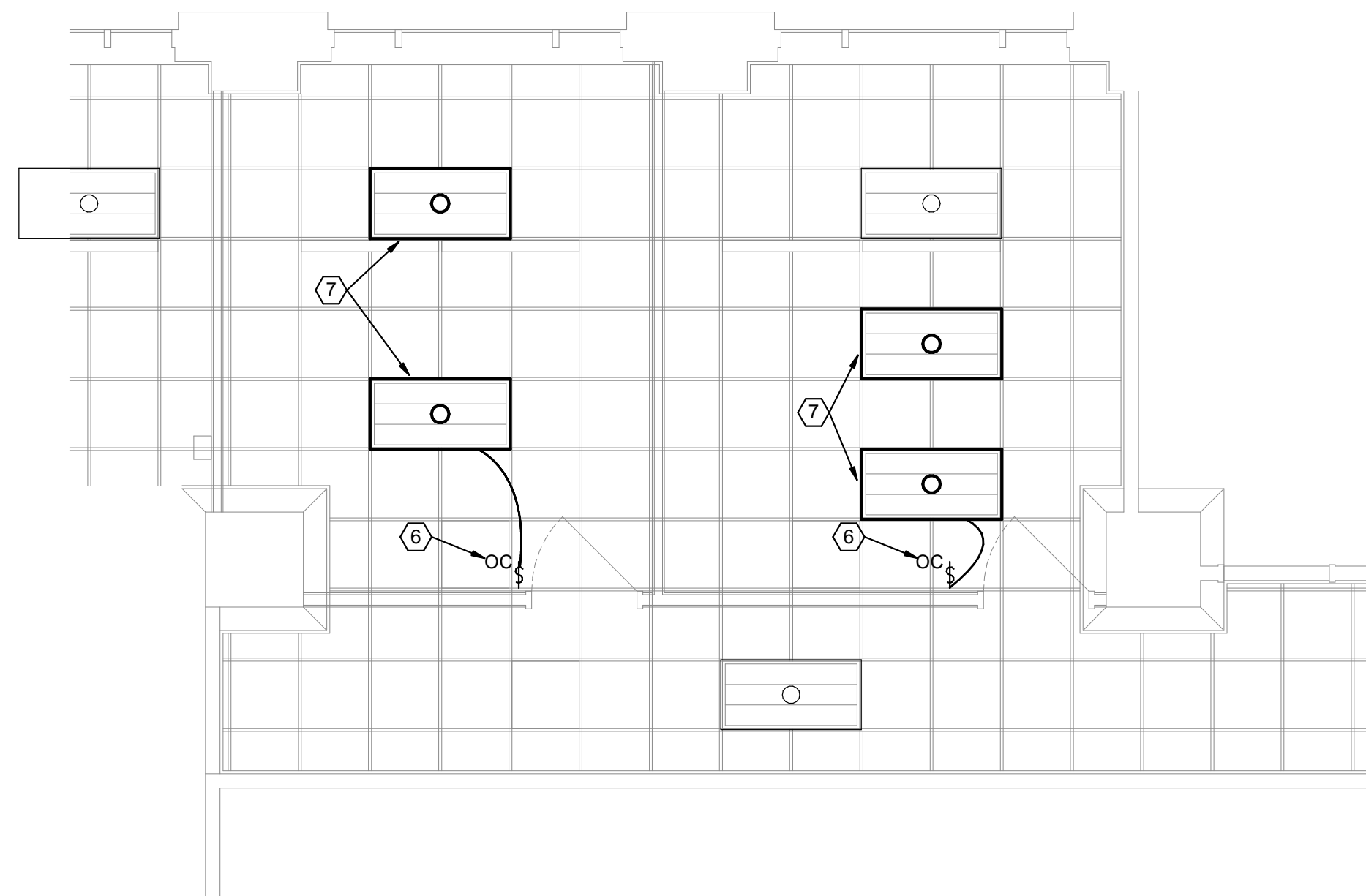
① POWER PLAN - NEW WORK - HUMAN RESOURCES
1/4" = 1'-0"



③ LIGHTING PLAN - DEMOLITION - SW CORNER - RCP
1/4" = 1'-0"



② POWER PLAN - DEMOLITION - SW CORNER
1/4" = 1'-0"



- ## DRAWING NOTES
1. EXTEND EXISTING CIRCUIT TO NEW RECEPTACLE LOCATION.
 2. REMOVE DEVICE AND RETAIN CIRCUIT FOR EXTENSION TO NEW LOCATION.
 3. REMOVE DEVICE AND TO NEAREST BOX ABOVE CEILING.
 4. REMOVE EXISTING LIGHTING FIXTURE AND RETAIN FOR RELOCATION. REFER TO NEW WORK PLAN.
 5. REMOVE FIXTURES IN THIS SPACE FROM EXISTING LIGHTING CONTROLS. REFER TO NEW WORK PLAN FOR NEW LIGHTING CONTROLS.
 6. PROVIDE NEW SWITCH LEG AND LIGHTING CONTROLS AS INDICATED.
 7. EXTEND LIGHTING CIRCUIT TO RELOCATED FIXTURE.

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CLIENT:

PROJECT
TITLE

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

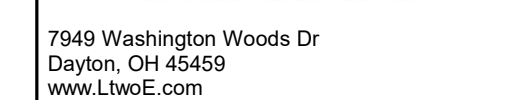
DRAWING
TITLE

ELECTRICAL LIGHTING AND POWER
PLAN - PRIVATE OFFICES

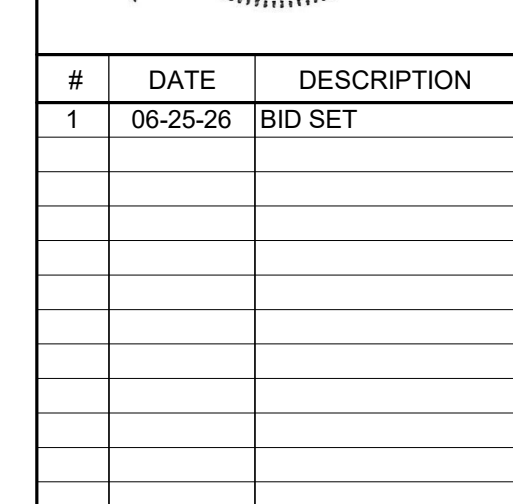
DESIGNED BY	ATD
DRAWN BY	JRJ
CHECKED BY	RLS
DATE	06-25-20
DRAWING NO	

DRAWING NO.

E1.5



CONSULTANTS:



CLIENT:

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

DRAWING
TITLE

ELECTRICAL LIGHTING AND POWER
PLAN - HUDDLE ROOM

DESIGNED BY	ATD
DRAWN BY	JRJ
CHECKED BY	RLS
DATE	06-25-26
DRAWING NO.	

E1.6



- ## DRAWING NOTES
1. EXTEND EXISTING CIRCUIT TO NEW RECEPTACLE LOCATION.
 2. REMOVE DEVICE AND BOX TO NEAREST BOX ABOVE CEILING.
 3. REMOVE EXISTING LIGHTING FIXTURE AND RETAIN FOR RELOCATION. REFER TO NEW WORK PLAN.
 4. REMOVE FIXTURES IN THIS SPACE FROM EXISTING LIGHTING CONTROLS. REFER TO NEW WORK PLAN FOR NEW LIGHTING CONTROLS.
 5. PROVIDE NEW SWITCH LEG AND LIGHTING CONTROLS AS INDICATED.
 6. EXTEND LIGHTING CIRCUIT TO RELOCATED FIXTURE.



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#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

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409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

ELECTRICAL DETAILS

DESIGNED BY | ATD
DRAWN BY | JRL
CHECKED BY | RLS
DATE | 06-25-26
DRAWING NO.

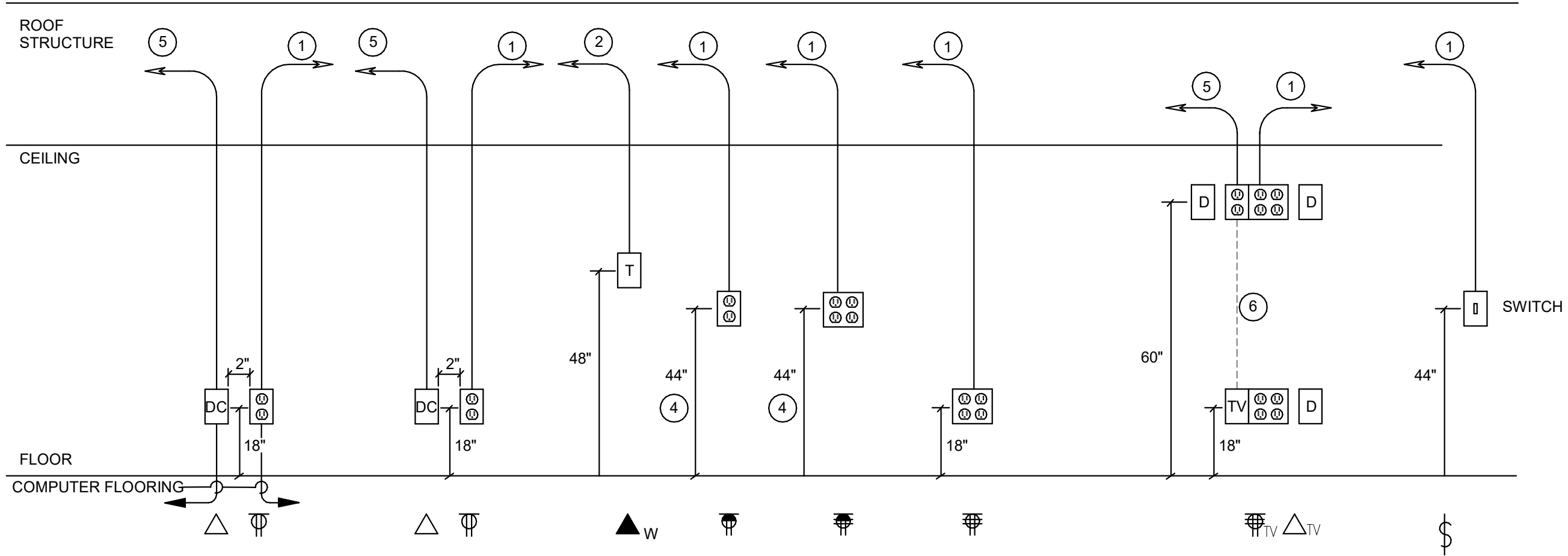
E3.1

DETAIL NOTES:

- 120V RECEPTACLE BRANCH CIRCUIT. REFER TO POWER PLANS
- 3/4" CONDUIT WITH CABLES TO CABLETRAY/DATA/COMM. BACKBOARD.
- SWITCH LEG
- OR 4" ABOVE BACKSPLASH
- STUB 1" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE BUSHING
- 1" CONDUIT

LEGEND

- DC DATA/COMMUNICATIONS OUTLET
- T TELEPHONE OUTLET
- TV AV BOX
- 120V POWER OUTLET
- SWITCH
- DOUBLE DUPLEX 120V POWER OUTLET



1 TYPICAL DEVICE ELEVATION DETAILS
NTS

Switchboard: DP3

Location:

Supply From:

Mounting: FLOOR

Enclosure: Switchboard

Volts: 480/277 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type: MLO

Mains Rating: 800 A

MCB Rating: 0 A

Notes: EXISTING

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	EAST AHU	3	200 A	150 A	480 VA	
2	WEST AHU	3	200 A	150 A	480 VA	
3	LC PANEL	3	200 A	200 A	0 VA	
4	PANEL 3F	3	100 A	60 A	480 VA	
5	PANELS 3A, 3B	3	100 A	100 A	480 VA	
6	PNL N-X SERVER ROOM	3	400 A	100 A	0 VA	
7	TRANSFORMER	3	100 A	100 A	480 VA	
8	PI PANEL	3	200 A	200 A	0 VA	
Total Conn. Load:					2400 VA	
Total Amps:					3 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	2400 VA	100.00%	2400 VA	Total Conn. Load:	2400 VA
				Total Est. Demand:	2400 VA
				Total Conn.:	3 A
				Total Est. Demand:	3 A

Notes:

Branch Panel: 3A													
Location: Supply From: Mounting: Surface Enclosure: Type 1					Volts: 120/208 Wye Phases: 3 Wires: 4			A.I.C. Rating: Mains Type: MLO Mains Rating: 225 A MCB Rating: 0 A					
Notes: EXISTING													
CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	W WALL OUT RM 335 OUT, FLR REC	20 A	1	0	0					1	20 A	RM 337, 339, 340, 341 OUTLETS, NORTH	2
3	FIRE PANEL	20 A	1			0	0			1	20 A	OUTLETS RM 301	4
5	COLUMN OUTLETS ROOM 338	20 A	1					0	0	2	20 A	AC UNIT	6
7	COLUMN OUTLETS ROOM 337	20 A	1	0	0					--	--	--	8
9	COLUMN IT RM 346	20 A	1			0	0			2	30 A	INSTA-HOT KITCHENETTE	10
11	COLUMN OUTLETS ROOM 338	20 A	1					0	0	--	--	--	12
13		20 A	1	0	0					1	20 A	VAV, 3-14, 3-17	14
15	W COLUMN OUT.RM 335, COPIER	20 A	1			0	0			1	20 A	VAV, 3-16, 3-18	16
17	COLUMN OUTLETS ROOM 332, 334, 335	20 A	1					0	0	1	20 A	RECEPTION COUNTER OUTLETS	18
19	COLUMN OUTLETS ROOM 331	20 A	1	0	0					1	20 A		20
21	COLUMN OUTLETS ROOM 331	20 A	1			0	0			1	20 A	OUTLET MECHANICAL ROOM	22
23	COLUMN OUTLETS ROOM 331	20 A	1					0	0	1	20 A	NOVAR CONTROL CORRIDOR 338	24
25	SOUTH/COLUMN ROOM 331 OUTLETS	20 A	1	0	0					1	20 A		26
27	SOUTH/COLUMN ROOM 331 OUTLETS	20 A	1			0	0			1	20 A	BOARD RM 306 OUTLETS NORTH & RM 305	28
29		20 A	1					0	0	1	20 A		30
31	DEDICATED OUTLET ROOM 346 NORTH	20 A	1	0	0					1	20 A	BOARD RM 306 OUTLETS EAST/NORTH	32
33	OUTLETS ROOM 346	20 A	1			0	0			2	30 A	SPARE	34
35	OUTLETS 333/334 CAN LIGHTS 335	20 A	1					0	0	--	--	--	36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			2	100 A	SPARE	40
41	SPARE	20 A	1					0	0	--	--	--	42
				Total Load:		0 VA		0 VA		0 VA			
				Total Amps:		0 A		0 A		0 A			
Legend:													
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals					
								Total Conn. Load: 0 VA					
								Total Est. Demand: 0 VA					
								Total Conn.: 0 A					
								Total Est. Demand: 0 A					
Notes:													

Branch Panel: 3B													
Location: Supply From: Mounting: Surface Enclosure: Type 1				Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: Mains Type: MLO Mains Rating: 225 A MCB Rating: 0 A					
Notes: EXISTING													
CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPARE	20 A	1	0	0					1	20 A	OUTLETS ROOM 346	2
3	SPARE	20 A	1			0	0			1	20 A	OUTLETS 338, 346	4
5	SPARE	20 A	1					0	0	1	20 A	OULETS ROOM 342	6
7	SPARE FF331-W-WALL	20 A	1	0	0					1	20 A		8
9	SPARE	20 A	1			0	0			1	20 A	OUTLETS 335, 336, 337	10
11	SPARE	20 A	1					0	0	1	20 A	OUTLETS ROOM 330	12
13	SPARE	20 A	1	0	0					1	20 A	Wi-II 338 / OUTLETS	14
15	Wi-Fi ROOM 324	20 A	1			0	0			1	20 A	FF331-W-WALL	16
17	Wi-Fi ROOM 331	20 A	1					0	0	1	20 A	SPARE	18
19	OUTLETS ROOM 349	20 A	1	0	0					1	20 A	SPARE	20
21	DEDICATED OUTLET ROOM 346 EAST	20 A	1			0	0			1	20 A	SPARE	22
23	OUTLET BELOW PANEL	20 A	2					0	0	1	20 A	OUTLET ROOM 333	24
25	--	--	--	0	0					1	20 A	SPARE	26
27	OUTLETS 326, 332	20 A	1			0	0			1	20 A	P.P. ROOM 331 / OUTLET 333	28
29	AC SERVER ROOM / AIR HANDELER	40 A	2					0	0	1	20 A	EXHAUST FAN RESTROOMS	30
31	--	--	--	0	0					1	20 A	DEDICATED OUTLET 332	32
33	CAN LIGHTS/OUTLETRoom 300	20 A	1			0	0			1	20 A	OUTLETS ROOM 349	34
35	OUTLET ROOM 349	20 A	1					0	0	1	20 A		36
37	SPARE	20 A	1	0	0					1	20 A	OUTLET ROOM 349	38
39	SPARE	20 A	1			0	0			2	40 A	AC SERVER ROOM	40
41	SPARE	20 A	1					0	0	--	--		42
				Total Load:		0 VA		0 VA		0 VA			
				Total Amps:		0 A		0 A		0 A			
Legend:													
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals					
								Total Conn. Load: 0 VA					
								Total Est. Demand: 0 VA					
								Total Conn.: 0 A					
								Total Est. Demand: 0 A					
Notes:													

Branch Panel: LC

Location:

Supply From:

Mounting: Recessed

Enclosure: Type 1

Volts: 480/277 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type: MLO

Mains Rating: 225 A

MCB Rating: 0 A

Notes:3 EXISTING

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EMG/EXIT LIGHTING / RM 342, 347, 348	20 A	1	0	0		1	20 A	EXIT LIGHTS RM 300, 301 / ROOMS 335-341	2
3	EMG/EXIT LIGHTING ROOMS 330-334	20 A	1		0	0	1	20 A	EMG LIGHTING 346	4
5	EMG LIGHTING ROOMS 326-329	20 A	1			0	0	1	EXIT LIGHTING ROOMS 311, 312, 321	6
7	HALLWAY/EXIT LIGHT	20 A	1	0	0		1	20 A	LIGHTING RMS 313, 314	8
9	SPARE	20 A	1		0	0	1	20 A	LIGHTING ROOMS 315, 316, 317, 323	10
11	SPARE	20 A	1			0	0	1	SPARE	12
13	LIGHTING 308, 310	20 A	1	0	0		1	20 A	EMG LIGHTING 309	14
15	LIGHTING 309	20 A	1		0	0	1	20 A	SPARE	16
17	SPARE	20 A	1			0	0	1	EXIT LIGHTING ROOMS 305, 306	18
19	SPARE	20 A	1	0	0		1	20 A	SPARE	20
21	SPARE	20 A	1		0	0	1	20 A	SPARE	22
23	SPARE	20 A	1			0	0	1	SPARE	24
25	SPARE	20 A	1	0	0		1	20 A	SPARE	26
27	SPARE	20 A	1		0	0	1	20 A	SPARE	28
29	SPACE	--	1			--	--	1	SPACE	30
31	SPACE	--	1	--	--		1	--	SPACE	32
33	SPACE	--	1		--	--	1	--	SPACE	34
35	SPACE	--	1			--	--	1	SPACE	36
37	SPACE	--	1	--	--		1	--	SPACE	38
39	SPACE	--	1		--	--	1	--	SPACE	40
41	SPACE	--	1			--	--	1	SPACE	42
				Total Load:	0 VA	0 VA	0 VA			
				Total Amps:	0 A	0 A	0 A			

Legend:

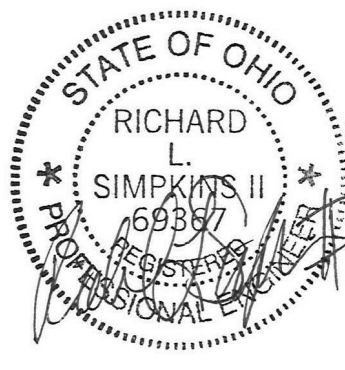
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 0 VA
				Total Est. Demand: 0 VA
				Total Conn.: 0 A
				Total Est. Demand: 0 A

Notes:



7949 Washington Woods Dr
Dayton, OH 45459
www.LtwoE.com

CONSULTANTS:



#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
408 East Monument Avenue, Third Floor
Dayton, Ohio 45402

PROJECT
TITLE

PANELBOARD SCHEDULES AND
SINGLE LINE DIAGRAM

DRAWING
TITLE

DESIGNED BY | ATD
DRAWN BY | JRU
CHECKED BY | RLS
DATE | 06-25-26

DRAWING NO.

E4.1

GENERAL NOTES

- A. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT (WITH THEMSELVES OR FIELD CONDITIONS), THE CONTRACTOR MUST OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK.
- B. CONTRACTOR(S) SHALL VISIT THE SITE TO ACQUAINT THEMSELVES WITH THE EXISTING OR NEWLY INSTALLED CONDITIONS. CONTRACTOR(S) SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, UTILITIES, AND EXISTING OR NEWLY INSTALLED CONDITIONS PRIOR TO CONSTRUCTION.
- C. THE CONSTRUCTION DOCUMENTS AND DRAWING NOTES / SPECIFICATIONS ARE INTENDED TO DESCRIBE AND PROVIDE FOR A FINISHED PIECE OF WORK. THE WORK SHALL BE COMPLETED IN EVERY DETAIL EVEN THOUGH EVERY ITEM NECESSARILY INVOLVED IS NOT PARTICULARLY MENTIONED OR SPECIFIED. ALL WORK SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND / OR MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS. IF ANY CONTRACTOR IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DOCUMENTS, OR FINDS DISCREPANCIES IN OR OMISSIONS FROM ANY PART OF THE DOCUMENTS, HE MUST CONTACT THE ARCHITECT FOR CLARIFICATION.
- D. ALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE, MASONRY, OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE. WHEN EXISTING CONDITIONS ARE SHOWN, DIMENSIONS ARE TO FACE OF EXISTING FINISH, UNLESS NOTED OTHERWISE
- E. FINISH FLOOR ELEVATIONS ARE FOR GENERAL REFERENCE. REFER TO CIVIL SHEETS FOR ACTUAL FINISH FLOOR ELEVATIONS.
- F. EQUIPMENT AND FURNITURE SHOWN IS FOR REFERENCE ONLY. EQUIPMENT AND FURNITURE PROVIDED BY OWNER (UNLESS NOTED OTHERWISE) COORDINATE EQUIPMENT AND FURNITURE INSTALLATION AND UTILITY CONNECTIONS WITH OWNER AND OWNER'S SUPPLIER.
- G. **DEFINITIONS:**
NECESSARY: WORK NEEDED TO COMPLETE THE WORK TO "MAKE IT OPERATIONAL".

REQUIRED: WORK NEEDED TO BE IN COMPLIANCE WITH BUILDING CODE, GOVERNING CODE, OR JURISDICTION HAVING AUTHORITY.

PROVIDE: RESPONSIBLE FOR PURCHASE, DELIVERY, RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).

FURNISH: RESPONSIBLE FOR PURCHASE AND DELIVERY OF ITEM(S).

INSTALL: RESPONSIBLE FOR RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).

BASIS OF DESIGN: AN ACCEPTABLE MANUFACTURER OR PRODUCT, DESIGNATED BY THE DESIGN PROFESSIONAL, WHICH EXHIBITS THE INTENDED STANDARDS AND DESIGN CRITERIA THAT MUST BE MET FOR PERFORMANCE. THE ITEM(S) INDICATED MAY BE PROVIDED OR AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)

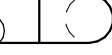
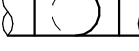
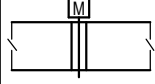
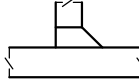
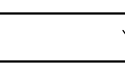
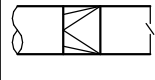
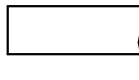
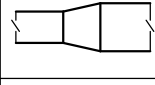
OR EQUAL: MAY FOLLOW A "BASIS OF DESIGN" OR OTHER SPECIFIED MANUFACTURER OR PRODUCT AND INDICATES THAT AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)

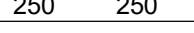
HVAC
GENERAL SPECIFICATIONS

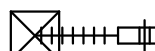
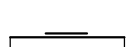
- A. UPON COMPLETION OF ALL HVAC WORK, THE CONTRACTOR SHALL SUBMIT (2) COPIES OF THE MANUFACTURER'S OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A COMPLETE SET OF RECORD DRAWINGS WITH ANY AND ALL CHANGES OR MODIFICATIONS TO THE DESIGN, CONSTRUCTION, SYSTEMS, OR EQUIPMENT CLEARLY INDICATED. SHOP DRAWINGS, INFORMATION ON THE THERMOSTATS, CONTROL WIRING DIAGRAMS, AND OTHER PERTINENT INFORMATION.
- B. **HVAC EQUIPMENT:** ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST HAVE A CONDENSATE DRAIN AND BE TRAPPED IN ACCORDANCE WITH MANUFACTURER'S DATA. ALL COMPRESSORS ARE TO INCLUDE A 5-YEAR EXTENDED WARRANTY.
- C. **GAS PIPING (IF INCLUDED IN THE PROJECT):** CONTRACTOR TO COORDINATE (INCLUDING VERIFICATION OF EXISTING SYSTEM EQUIPMENT, MAINS, LINE SIZES, AND REQUIREMENTS) AND SIZE GAS PIPING PER MANUFACTURER'S RECOMMENDATIONS, LOCAL CODE, AND UTILITY COMPANY REQUIREMENTS, UNLESS PROVIDED OTHERWISE IN THE CONSTRUCTION DOCUMENTS - **ARCHITECT/ENGINEER TO REVIEW AND APPROVE GAS PIPING SIZING PRIOR TO INSTALLATION.** GAS PIPING TO BE INSTALLED PER NFPA 54. REFER TO PLUMBING GENERAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- D. **REFRIGERANT LINE SET:** HVAC CONTRACTOR TO SIZE REFRIGERANT LINE SET SIZES PER MANUFACTURER'S RECOMMENDATIONS AND FIELD CONDITIONS - **ARCHITECT/ENGINEER TO REVIEW AND APPROVE LINE SET SIZES PRIOR TO INSTALLATION.** LINES EXCEEDING 150 FEET IN LENGTH REQUIRE A PUMP (SIZED AND PROVIDED BY THE HVAC CONTRACTOR).
- E. **NOISE AND VIBRATION:** MECHANICAL AND ELECTRICAL EQUIPMENT IS TO OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION. ALL MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE VIBRATION ISOLATED OR FREE FROM ALL BEAMS, COLUMNS, FLOORS, CEILINGS, JOISTS, WALLS, AND OTHER PARTS OF THE BUILDING STRUCTURE. HANGER RODS FOR ALL PIPING, EQUIPMENT, AND DUCTWORK CONNECTED TO MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE PROVIDED WITH KINETICS OR APPROVED EQUAL FIBERGLASS ISOLATOR HANGERS. PROVIDE FLEXIBLE COLLARS IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT (FANS, ROOFTOP UNITS, ETC.) AND DUCTS. THE FLEXIBLE CONNECTION IS TO BE RATED FOR THE OPERATING PRESSURE OF THE SYSTEM.
- F. **CURBS AND STEEL FRAMING FOR SUPPORT:** PROVIDE ALL NECESSARY CURBS AND STEEL FRAMING REQUIRED TO INSTALL ALL HVAC EQUIPMENT AS DESCRIBED OR IMPLIED ON THE DRAWINGS. CURBS SHALL BE OF THE SAME MANUFACTURER OF THE EQUIPMENT SUPPORTED. INSULATE UNDER THE COMPRESSOR SECTION TO PREVENT CONDENSATION. ALL CURBS MUST BE INSTALLED SO THAT TOP OF CURBS ARE LEVEL.
- G. **DUCTWORK:** DUCTWORK IS TO BE FABRICATED WITH GALVANIZED SHEET STEEL (NO FIBERGLASS ALLOWED) IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE" AND NAIMA "FIBROUS GLASS DUCT CONSTRUCTION STANDARDS" LATEST EDITIONS; CONFORMING TO THE REQUIREMENTS IN THE REFERENCED STANDARD FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS. ALL JOINTS, SEAMS, AND CONNECTIONS MUST BE SECURELY FASTENED AND SEALED AIRTIGHT IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE AND OHIO MECHANICAL CODE.
- H. **BRANCH DUCTWORK:** ALL DUCT BRANCHES TO DIFFUSERS ARE TO BE RECTANGULAR OR ROUND RIGID DUCT. ALL BRANCH TAKEOFFS FROM RECTANGULAR MAINS TO BE CONNECTED TO SPIN COLLARS WITH SCOOPS AND QUADRANT DAMPERS.
- a. WHERE ROUND DUCTWORK IS INDICATED ON PLANS, PROVIDE RECTANGULAR DUCTWORK. IF ROUND DUCTWORK CANNOT BE INSTALLED BECAUSE OF OBSTRUCTIONS, INSUFFICIENT CLEARANCES OR OTHER CAUSES DUE TO FIELD CONDITIONS, CONTRACTOR'S OPTION TO INSTALL RECTANGULAR DUCTWORK IN LIEU OF INDICATED ROUND DUCTWORK AT OTHER LOCATIONS. SIZE ALL RECTANGULAR DUCTWORK CONVERSIONS COMPARABLE TO INDICATED DUCTWORK SIZE PER SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE" LATEST EDITION. SHOULD THE CONTRACTOR BE IN DOUBT OF THE REQUIREMENTS UNDER THIS SECTION, DUCTWORK SIZING, OR SHOULD ANY DISCREPANCY BE REVEALED BASED ON FIELD CONDITIONS, IMMEDIATELY CONTACT THE ARCHITECT FOR CLARIFICATION.
- I. **FLEXIBLE DUCTWORK:** FLEX DUCTWORK IS TO BE NFPA 90 AND 90A APPROVED INDICATING NO VIBRATION TESTED IN ACCORDANCE WITH UL 181, AND LISTED AND LABELED AS CLASS 0 OR CLASS 1 DUCT. NO FLEX DUCT RUN TO EXCEED **8'-0" MAXIMUM** TOTAL LENGTH AT ANY ONE LOCATION. ALL FLEX CONNECTIONS TO BE TAPED AND STRAPPED PER MANUFACTURER'S INSTRUCTIONS.
- J. **DUCTWORK INSULATION:** INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A. **DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS.** INSULATE DUCTWORK PER THE DUCT CONSTRUCTION SCHEDULE. PROVIDE DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C411, OR AS REQUIRED BY LOCAL CODES.
- K. PROVIDE A FLEXIBLE CONNECTION BETWEEN BONNET AND RIGID DUCT ON ALL SUPPLY AND RETURN DUCTWORK.
- L. **DIFFUSERS, GRILLES, REGISTERS, AND DAMPERS:** PROVIDE DIFFUSERS, GRILLES, AND REGISTERS AS SCHEDULED. DEVICES TO BE COMPLETE WITH BALANCING DAMPERS, FRAMES, AND ALL ACCESSORIES. FINISH AS INDICATED. PROVIDE UL LISTED (UL555) FIRE RATED DAMPERS AT ALL FIRE PARTITION OR FIRE BARRIER PENETRATIONS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS. ALL GRAVITY DAMPERS REQUIRE SEALS.
- M. **SUPPORT AND BRACING:** INSTALL RIGID ROUND AND RECTANGULAR METAL DUCTWORK WITH APPROVED SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS AND STATE BUILDING CODE. SUPPORT HORIZONTAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND WITHIN 2 FEET OF EACH ELBOW AND WITHIN 4 FEET OF EACH BRANCH INTERSECTION USING DOUBLE STRAP HANGERS ON EACH SIDE OF FITTING. SUPPORT VERTICAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND AT EACH FLOOR. FLEXIBLE AND OTHER FACTORY MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NO WOOD SHALL BE USED TO SUPPORT OR BRACE DUCTS. PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES. PROVIDE FIXED ANCHORS AT EACH MECHANICAL DIFFUSER OR GRILLE TO CEILING GRID, CEILING GRID CONTRACTOR TO PROVIDE SUPPORT WIRES AT OPPOSITE CORNER OF LIGHT FIXTURES, MECHANICAL DIFFUSERS, AND GRILLES TO STRUCTURE ABOVE.

HVAC
GENERAL SPECIFICATIONS CONT'D

- N. **CONTROLS:** EACH UNIT TO BE CONTROLLED BY THERMOSTAT WITH PROPER STAGES OF HEATING AND COOLING - MOUNTED AT 48" AFF (REFER TO MECHANICAL SHEETS FOR MODEL NO. AND LOCATION). CONTROL WIRING IS TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. POWER WIRING IS TO BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THERMOSTAT SHALL BE 7-DAY PROGRAMMABLE AND SHALL BE SETUP TO INCLUDE 5 DEGREE DEADBAND, TEMPERATURE OVERLAP RESTRICTION AND TEMPERATURE SETBACK DURING UNOCCUPIED HOURS.
- O. **POWER AND CONTROL WIRING:** ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY POWER WIRING FOR HVAC EQUIPMENT FROM SUITABLE FUSED DISCONNECT SOURCE TO UNIT WITH FUSED DISCONNECT TO MEET NATIONAL ELECTRIC CODE (NEC), STATE AND LOCAL CODES. HVAC CONTRACTOR TO PROVIDE 24 VOLT OR LESS CONTROL WIRING.
- P. **STARTUP:** HVAC CONTRACTOR TO PROVIDE STARTUP PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- Q. **AIRFLOW AND TESTING:** ALL DUCT AS PER SMACNA GUIDELINES. THE SYSTEM TO BE BALANCED AND TESTED BY AN INDEPENDENT, "NEBB" CERTIFIED, BALANCING CONTRACTOR PER "NEBB"
- A. PROCEDURES. THE HVAC CONTRACTOR SHALL INCLUDE THE COST OF THE BALANCING AND TESTING IN HIS BID. THE BALANCING CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, AND EQUIPMENT NECESSARY TO COMPLETELY BALANCE THE AIR FLOW FOR THE HVAC SYSTEMS AS SHOWN ON THE DRAWINGS. HVAC CONTRACTOR SHALL INSTALL NEW FILTERS IN ALL UNITS PRIOR TO THE AIR BALANCE. THE COMPLETE AIR BALANCE SHALL TAKE PLACE WITH OUTSIDE AIR DAMPERS IN MINIMUM POSITION. BALANCE THE SYSTEM TO WITHIN +.5 PERCENT OF THE DESIGN REQUIREMENTS. THE HVAC CONTRACTOR AT NO ADDITIONAL COST SHALL PERFORM ANY REQUIRED CHANGES REQUIRED TO ACHIEVE SPECIFIED FLOW RATES. ALL CONTROL SEQUENCES SHALL BE TESTED (INTERLOCKED EQUIPMENT, SMOKE DETECTORS, SMOKE EVACUATION, ECONOMIZER, CO2 SENSORS, ETC.) AND OPERATING STATUS RECORDED IN THE REPORT. A DIGITAL OR THREE (3) PRINTED COPIES OF THE BALANCE AND TESTING REPORT SHALL BE PROVIDED TO THE OWNER, OWNER'S REPRESENTATIVE, OR ARCHITECT BEFORE PROJECT CLOSE OUT FOR REVIEW. THE BALANCING CONTRACTOR SHALL RECHECK ANY ITEMS THAT THE OWNER OR ARCHITECT DEMS REASONABLY NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- R. VENTILATION AND COMBUSTION AIR INTAKE: PROVIDE OUTSIDE VENTILATION AIR BY NATURAL VENTILATION OR MECHANICAL EQUIPMENT AS REQUIRED BY THE MECHANICAL CODE (REFER TO OUTSIDE AIR VENTILATION SCHEDULE). IF GAS-FIRED EQUIPMENT IS USED, VERIFY THAT THE MECHANICAL ROOM AND / OR MECHANICAL EQUIPMENT ARE PROVIDED WITH ADEQUATE COMBUSTION AND DILUTION AIR IN COMPLIANCE WITH THE MECHANICAL CODE. PROVIDE ADDITIONAL AIR AS REQUIRED. PROVIDE A VENT DESIGNED FOR THE TYPE OF APPLIANCE BEING VENTED FOR ALL GAS-FIRED EQUIPMENT TO THE EXTERIOR. PROVIDE VENTS DIRECTLY TO THE EXTERIOR FOR ALL EXHAUST FANS. ALL EXHAUST AND INTAKE OPENINGS MUST BE LOCATED A MINIMUM OF 10 FEET FROM LIT LINES OR BUILDINGS ON THE SAME LOT.
- S. PROVIDE A SMOKE DETECTOR IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES (PER OMC SECTION 606.2.1), WHERE TWO OR MORE UNITS SHARE THE SAME RETURN. THE COMBINED AMOUNT OF CFM SHALL BE USED IN DETERMINING WHETHER A DUCT SMOKE DETECTOR IS REQUIRED. COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND THE ELECTRICAL OR FIRE ALARM CONTRACTORS.
- T. PROVIDE ACCESS TO ALL DAMPERS, CONTROLS, AND OTHER ITEMS IN DUCTWORK THAT REQUIRE SERVICE OR INSPECTION. IF THE ACCESS PANEL LOCATION IS EXPOSED, THE OWNER OR THE ARCHITECT MUST APPROVE IT PRIOR TO INSTALLATION. ACCESS PANELS ARE NOT REQUIRED ABOVE LAY-IN GRID TYPE CEILINGS.
- U. ALL HVAC EVAPORATORS AND COOLING COILS REQUIRE A CONDENSATE DRAIN, WHICH IS CONVEYED TO AN APPROPRIATE PLACE OF DISPOSAL (TYPICALLY INDIRECTLY INTO A FLOOR DRAIN). A SECONDARY DRAIN OR AUXILIARY DRAIN PAN (WITH A SEPARATE DRAIN OR A WATER LEVEL DETECTION DEVICE CONFORMING TO UL 508 THAT WILL SHUT OFF THE EQUIPMENT SERVED PRIOR TO OVERFLOW OF THE AUXILIARY DRAIN PAN) IS REQUIRED FOR ANY EQUIPMENT THAT PRODUCES CONDENSATE AND WHERE DAMAGE MAY OCCUR AS A RESULT OF OVERFLOW FROM THE EQUIPMENT DRAIN PAN OR STOPPAGE IN THE CONDENSATE DRAIN (PER OMC SECTION 307.2.3). COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND PLUMBING CONTRACTORS AND THE ARCHITECT.
- V. ALL ROOF AND/OR EXTERIOR WALL PENETRATIONS ARE TO BE SEALED AIR AND WATER TIGHT, COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS. ALL EQUIPMENT, PIPES, DUCTS, ETC. ARE TO BE INSTALLED CONCEALED ABOVE THE CEILING UNLESS SHOWN OTHERWISE.
- W. VERIFY ALL SUSPENDED MECHANICAL LOADS WITH ARCHITECT PRIOR TO ORDERING NEW MECHANICAL EQUIPMENT.
- X. HVAC CONTRACTOR TO COORDINATE ROUTING AND LOCATION OF ALL DEVICES WITH BUILDING STRUCTURE AND OTHER CEILING MOUNTED DEVICES.
- Y. HVAC CONTRACTOR TO REVIEW DRAWINGS FOR COMPLIANCE WITH LOCAL CODES AND WITH AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. CONTACT ARCHITECT WITH ANY QUESTIONS OR CONCERNS.
- Z. **COMMISSIONING:** THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ENGAGING A SEPARATE THIRD PARTY COMMISSIONING AGENT TO PERFORM ALL REQUIREMENTS SET FORTH IN SECTION C408 OF INTERNATIONAL ENERGY CONSERVATION CODE 2021. THESE INCLUDE, BUT ARE NOT LIMITED TO:
- BUILDING OPERATIONS MANUAL
 - COMMISSIONING PLAN
 - AIR AND HYDRONIC BALANCING AS APPLICABLE
 - FUNCTIONAL TESTING
 - PRELIMINARY COMMISSIONING REPORT
 - FINAL COMMISSION REPORT AND FINDINGS
- ALL DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS OF THE RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

DUCTWORK SYMBOL LEGEND			
	SUPPLY OR OUTSIDE AIR DUCT UP		RADIUS RECTANGULAR ELBOW
	RETURN OR EXHAUST AIR DUCT UP		SUPPLY OR OUTSIDE AIR ROUND DUCT UP
	SUPPLY OR OUTSIDE AIR DUCT DOWN		RETURN OR EXHAUST AIR ROUND DUCT UP
	RETURN OR EXHAUST AIR DUCT DOWN		ROUND DUCT DOWN
	SUPPLY OR OUTSIDE AIR DUCT OFFSET		ROUND OFFSET
	RETURN AIR DUCT OFFSET		ROUND ELBOW
	MANUAL BALANCING DAMPER		ROUND WYE
	MOTORIZED DAMPER		RECTANGULAR BRANCH TAKEOFF
	FIREDAMPER		RECTANGULAR DUCT TERMINATION
	RECTANGULAR TO ROUND TRANSITION		ROUND DUCT TERMINATION
	RECTANGULAR TRANSITION		
	STANDARD RECTANGULAR ELBOW		

ANNOTATION SYMBOL LEGEND			
	THERMOSTAT OR TEMP. SENSOR		SECTION SYMBOL
	HUMIDISTAT		
	SWITCH		
	KEYED NOTE SYMBOL		EQUIPMENT PLAN MARK
	CONNECT TO EXISTING		
	VAV TERMINAL UNIT MARK		
	EQUIPMENT MARK		DETAIL SYMBOL
	AIR DEVICE MARK - NECK SIZE		
	ROUND DUCT SIZE		
	RECTANGULAR DUCT SIZE		

AIR DEVICE AND DUCT ACCESS. LEGEND			
	RETURN AIR GRILLE		SUPPLY AIR DIFFUSER (HARD CONNECTION)
	SUPPLY AIR DIFFUSER WITH FLEXIBLE RUNOUT AND DAMPER		RETURN OR EXH. GRILLE (HARD CONNECTION)
	SIDEWALL DIFFUSER		14X14 TRANSFER OPENING IN WALL
	SUPPLY AIR DIFFUSER (HARD CONNECTION)		TRANSFER OPENING IN WALL
	RETURN OR EXH. GRILLE (HARD CONNECTION)		

PIPE SYMBOL LEGEND	
	PIPE DOWN
	PIPE UP
	TEE DOWN
	TEE UP
	PIPE BREAK (FOR CLARITY)
	CAPPED PIPE
	REFRIGERANT SUCTION PIPE
	REFRIGERANT HOT GAS PIPE

HVAC INDEX OF DRAWINGS	
SHEET NUMBER	SHEET NAME
H0.1	HVAC LEGEND AND GENERAL NOTES
H0.2	HVAC SCHEDULES
H0.4	HVAC SPECIFICATIONS
H1.1	HVAC FLOOR PLAN - OVERALL PLAN
H1.2	HVAC PLAN - VISITOR SERVICES
H1.3	HVAC PLAN - CONFERENCE & PLANNING ROOMS
H1.4	HVAC FLOOR PLAN - HUMAN RESOURCE AREA
H1.5	HVAC FLOOR PLAN - PRIVATE OFFICES
H1.6	HVAC FLOOR PLAN - HUDDLE ROOM

7949 Washington Woods Dr
Dayton, OH 45459
www.LtwoE.com

CONSULTANTS:

#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
408 East Monument Avenue, Third Floor
Dayton, Ohio 45402

PROJECT TITLE

HVAC LEGEND AND GENERAL NOTES

DRAWING TITLE

DESIGNED BY: JRJ
DRAWN BY: JRJ
CHECKED BY: DST
DATE: 06-25-26

DRAWING NO.

H0.1

AIR INLETS AND OUTLETS SCHEDULE								
PLAN MARK	DESCRIPTION	BASIS OF DESIGN		MOUNTING	FINISH	MATERIAL	ACCESSORIES	NOTES
		MANUF.	MODEL					
B1	EGGCRATE RETURN GRILLE	TITUS	50F	LAY-IN	WHITE	STEEL	-	
S1	PLENUM SLOT DIFFUSER, 2-SLOT, 1" SLOTS	TITUS	TBDI-10			STEEL	INSULATED PLENUM	
GENERAL NOTES: A. LAY-IN AIR DEVICES SHALL BE DESIGNED TO INSTALL INTO A 24"x24" OR 24"x48" ACT CEILING SYSTEM B. ACCEPTABLE ALTERNATE MANUFACTURERS: PRICE, KREUGER AND TUTTLE & BAILEY C. PROVIDE AUXILIARY MOUNTING FRAME FOR DEVICES INSTALLED WITHIN GYPSUM, PLASTER, TILE OR OTHER SIMILAR SURFACE D. UNLESS OTHERWISE DESIGNATED ON PLANS, SUPPLY DIFFUSERS SHALL BE 4-WAY DIRECTIONAL DISCHARGE. NOTES: 1. .								

DUCTWORK CONSTRUCTION SCHEDULE												
DUCT SYSTEM	SHAPE	PRESS. CLASS W.G.	MATERIAL	LINER			INSULATION				NOTES	
				THK.	TYPE	D	THK.	TYPE	D	JACKET		
CONCEALED SUPPLY	RND/RECT	-/+2"	GS	-	-	-	1.5"	FGW	-	FFJ	7	
CONCEALED RETURN	RND/RECT	-/+2"	GS	-	-	-	1.5"	FGW	-	FFJ		
CONCEALED RETURN IN PLENUMS	RND/RECT	-/+2"	GS	-	-	-	-	-	-	-		
CONCEALED SUPPLY AIR DEVICE RUNOUT	RND	+1"	IFD	-	-	-	1.5"	IFD	-	FFJ	1	
OUTSIDE AIR	RND/RECT	-1"	GS	-	-	-	1.5"	FGW	-	FFJ		
EXHAUST	RND/RECT	-1"	GS	-	-	-	-	-	-	-		
EXPOSED SPIRAL SUPPLY	RND	+2"	GS	1"	PFL	-	-	-	-	-		
EXPOSED SUPPLY & RETURN	RND/RECT	-/+2"	GS	-	-	-	-	-	-	-		
KITCHEN HOOD GREASE DUCT	RND/RECT	-2"	GS	-	-	-	NOTE 3	FPW	-	FFJ	2,3,4	
EXTERIOR DUCTWORK	RECT	-/+2"	GS	-	-	-	2"	FB	-	ALUM	5	
ATTIC DUCTWORK	RND/RECT.	-/+2"	GS	-	-	-	1.5"	FGW	-	FFJ	6	
GENERAL NOTES:			SCHEDULE NOTES:									
A. ALL PAINTING BY GENERAL CONTRACTOR.			1. ROUND RUNOUTS TO AIR DEVICES SHALL BE EXTERNALLY INSULATED.									
B. ALL DUCT JOINTS AND SEAMS SHALL BE SEALED PER OMC CHAPTER 5.			2. DUCT FIRE WRAP SHALL BE OF THICKNESS AND DENSITY TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES.									
1. REMOVE DUCTWORK THAT IS NOT APPLICABLE.			3. DUCTWORK SHALL COMPLY WITH OHIO MECHANICAL CODE AND NFPA 96.									
2. <u>UPDATE CODE REFERENCE FOR APPLICABLE CODES, I.E. OMC IS LISTED.</u>			4. ALL SEAMS SHALL BE CONTINUOUSLY WELDED.									
3. UPDATE SCHEDULE NOTE #S FOR REMAINING DUCT SYSTEMS.			5. EXTERIOR DUCTWORK SHALL HAVE ALUMINUM JACKETING OVER RIGID INSULATION BOARD. ALL SEAMS SHALL BE OVERLAPPED AND SEALED WATERTIGHT.									
4. DELETE THIS NOTE			6. DUCTWORK LOCATED IN ATTIC SHALL BE INSULATED WITH MINIMUM R-6 INSULATION.									
			7. INCLUDES DUCTWORK ROUTED IN ABOVE CEILING PLENUM SPACES.									
ABBREVIATIONS:												
AIFD	ACOUSTICAL INSULATED FLEX-DUCT	FFJ	FOIL FACED JACKET	PGGS				PAINTGRIP GALVANIZED STEEL				
ALUM	ALUMINUM	FGW	FIBERGLASS WRAP	PVCGS				PVC COATED GALVANIZED STEEL				
ABA	ADHESIVE BACKED ALUMINUM	FW	FIRE WRAP	RECT				RECTANGULAR				
ASJ	ALL SERVICE JACKET	GS	GALVANIZED STEEL	RND				ROUND				
CS	CARBON STEEL	GSSP	GALVANIZED STEEL SPIRAL PIPE	SS				STAINLESS STEEL				
D	DENSITY (PCF)	IFD	INSULATED FLEXIBLE DUCT	TH				THICKNESS				
DWI	DOUBLEWALL INSULATED	MFF	MATT FACED FIBERGLASS	UFD				UNISULATED FLEXIBLE DUCT				
ETPS	EXTRUDED POLYSTYRENE	PFF	PERFORATED FABRIC DUCT									
FB	FIBERGLASS BOARD	PFL	PREFORMED LINER									

HVAC DESIGN CRITERIA	
<u>GENERAL DESIGN INFORMATION</u> BUILDING LOCATION: CITY, STATE	<u>OUTDOOR DESIGN INFORMATION</u> SUMMER DRY BULB: 90.3°F (ASHRAE 0.4%) SUMMER WET BULB: 73.6°F (ASHRAE 0.4%) WINTER DRY BULB: 0.6°F (ASHRAE 99.6%)
<u>INDOOR DESIGN INFORMATION</u> INDOOR SUMMER DRY BULB: 75°F INDOOR SUMMER RH%: 60% MAX. INDOOR WINTER DRY BULB: 70°F INDOOR WINTER RH%: AMBIENT	<u>APPLICABLE CODES</u> MECHANICAL: OHIO MECHANICAL CODE 2024 PLUMBING: OHIO PLUMBING CODE 2024 ENERGY: ASHRAE 90.1-2019 VENTILATION: ASHRAE 62.1-2019



7949 Washington Woods Dr
Dayton, OH 45459
www.LtwoE.com

CONSULTANTS:



#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
Dayton, Ohio 45402

HVAC SCHEDULES

PROJECT TITLE

DESIGNED BY | JRJ
DRAWN BY | JRJ
CHECKED BY | DST
DATE | 06-25-26

DRAWING NO.

H0.2

MECHANICAL SPECIFICATIONS

SECTION 15010: BASIC MECHANICAL REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATION SECTIONS, APPLY TO THE WORK OF THIS SECTION.

1.02 SUMMARY

- A. FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES FOR ALL MECHANICAL WORK AS SPECIFIED AND INDICATED, IN ACCORDANCE WITH PROVISIONS OF CONTRACT DOCUMENTS. COMPLETELY COORDINATE WITH WORK OF ALL OTHER TRADES. ALTHOUGH SUCH WORK IS NOT SPECIFICALLY INDICATED, FURNISH AND INSTALL ALL SUPPLEMENTARY OR MISCELLANEOUS ITEMS, APPURTENANCES AND DEVICES INCIDENTAL TO OR NECESSARY FOR A SOUND, SECURE AND COMPLETE INSTALLATION.
- B. FURNISH AND PROVIDE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS AND PAY ALL GOVERNMENT SALES TAXES, FEES AND OTHER COSTS INCURRED IN CONNECTION WITH THE WORK. OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR THE WORK.
- C. DRAWINGS, USE AND INTERPRETATION:
- A. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT, EXCEPT -WHEN SPECIFICALLY DIMENSIONED OR DETAILED.
- B. FOR EXACT LOCATIONS OF BUILDING ELEMENTS, REFER TO DIMENSIONED ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- C. FIELD MEASUREMENTS TAKE PRECEDENCE OVER DIMENSIONED DRAWINGS.
- D. PIPING AND DUCTWORK PLANS ARE INTENDED TO SHOW SIZE, CAPACITY, APPROXIMATE LOCATION, DIRECTION AND GENERAL RELATIONSHIP OF ONE WORK PHASE TO ANOTHER, BUT NOT THE EXACT DETAIL OR ARRANGEMENT.
- E. FIELD VERIFY LOCATIONS AND ARRANGEMENT OF ALL EXISTING SYSTEMS AND EQUIPMENT.

1.03 QUALITY ASSURANCE

- A. PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- 1.04 JOB CONDITIONS
- A. CAUSE AS LITTLE INTERFERENCE OR INTERRUPTION OF EXISTING UTILITIES AND SERVICES AS POSSIBLE. SCHEDULE WORK WHICH WILL CAUSE INTERFERENCE OR INTERRUPTION IN ADVANCE WITH CONSTRUCTION MANAGER.
- B. EXAMINE CONTRACT DOCUMENTS TO DETERMINE HOW OTHER WORK WILL AFFECT EXECUTION OF MECHANICAL WORK.
- C. DETERMINE AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES.
- D. ESTABLISH LINES AND LEVELS FOR EACH SYSTEM AND COORDINATE WITH OTHER SYSTEMS TO PREVENT CONFLICTS AND MAINTAIN PROPER CLEARANCES AND ACCESSIBILITY.

PART 2 - PRODUCTS

2.01 GENERAL

- A. MATERIALS FOR MECHANICAL WORK: USE ONLY PRIME QUALITY, NEW MATERIALS, APPARATUS AND EQUIPMENT.
- a. STANDARD PRODUCTS OF MANUFACTURER SPECIFIED.
- b. WHERE MORE THAN ONE UNIT IS REQUIRED ON ANY ITEM, FURNISH BY THE SAME MANUFACTURER, EXCEPT WHERE SPECIFIED OTHERWISE.
- c. INSTALL SAME MANUFACTURER, EXCEPT AS OTHERWISE SPECIFIED.
- d. INSTALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. FURNISH EQUIPMENT THAT WILL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT ANY SOUND OR VIBRATION THAT IS OBJECTIONABLE IN THE OPINION OF THE ARCHITECT/ENGINEER. VIBRATION OR NOISE CONSIDERED OBJECTIONABLE WILL BE CORRECTED BY THE SUBCONTRACTOR AT HIS EXPENSE.
- C. FURNISH AND INSTALL ALL NECESSARY FOUNDATIONS, SUPPORTS, PADS, BASES AND PIERS REQUIRED FOR ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT.
- D. PROVIDE ALL REQUIRED FIRESTOPPING AT PIPING AND DUCT PENETRATIONS OF FIRE RATED WALL, FLOORS, CEILINGS AND ROOFS.

2.02 MATERIALS AND EQUIPMENT

- A. DELIVER MATERIALS OR EQUIPMENT TO SITE IN THE MANUFACTURER'S ORIGINAL UNOPENED, LABELED CONTAINERS AND ADEQUATELY PROTECT AGAINST MOISTURE, TAMPERING OR DAMAGE FROM IMPROPER HANDLING OR STORAGE. DO NOT DELIVER TO SITE BEFORE ITEMS ARE READY FOR INSTALLATION.
- B. FACTORY APPLIED FINISHES: REPAIR AND/OR REFINISH WORK DAMAGED BY THE WORK OF THIS DIVISION, TO THE ENGINEER'S SATISFACTION. OBTAIN FINISHING MATERIALS FROM EQUIPMENT MANUFACTURER.
- C. COMPLY WITH THE REQUIREMENTS FOR SUBSTITUTIONS SPECIFIED ELSEWHERE IN THIS SECTION.

2.03 MANUFACTURERS

- A. QUALIFICATIONS: FIRMS REGULARLY ENGAGED IN MANUFACTURE OF PRODUCTS SPECIFIED, OF TYPES AND CAPACITIES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 5 YEARS, UNLESS OTHERWISE SPECIFIED.
- B. SUBJECT TO COMPLIANCE WITH REQUIREMENTS SPECIFIED, PROVIDE MATERIAL OR PRODUCT FROM ONE OF THE MANUFACTURERS LISTED FOR EACH ITEM.

2.04 SUBMITTALS

- A. WITHIN THIRTY DAYS AFTER AWARD OF CONTRACT, PROVIDE SIX COPIES OF A COMPLETE LIST OF ALL MATERIALS AND EQUIPMENT PROPOSED FOR THIS PROJECT.
- B. INCLUDE MAKE, TYPE, MANUFACTURER'S NAME, TRADE DESIGNATION, OPERATING WEIGHT AND LOCATION OF THE CENTER OF GRAVITY (WHERE APPLICABLE) OF EACH ITEM OF EQUIPMENT IN MANUFACTURER'S CUT SHEET.
- C. REVIEW OF SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY OF DEVIATIONS FROM THE PLANS OR SPECIFICATIONS, UNLESS HE HAS, IN WRITING, CALLED THE ARCHITECT'S/ENGINEER'S ATTENTION TO DEVIATIONS AT THE TIME OF SUBMISSION, AND OBTAINED HIS WRITTEN REVIEW. REVIEW OF SUBMITTALS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN SHOP DRAWINGS OR LITERATURE.
- D. EQUIPMENT REQUIRING SUBMITTALS:
- a. HVAC EQUIPMENT
- b. GRILLES, REGISTERS, DIFFUSERS.

2.05 SUBSTITUTION

- A. GENERAL:
- a. MODEL, SIZE AND SCHEDULED DATA REFER TO THE MANUFACTURER INDICATED IN EQUIPMENT SCHEDULES.
- b. MANUFACTURERS NAMED IN THIS SPECIFICATION ARE ACCEPTABLE, BUT THEIR EQUIPMENT, MATERIALS AND/OR METHODS ARE SUBJECT TO THE ENGINEER'S REVIEW AND ACCEPTANCE.
- c. WHERE "OR EQUAL" IS MENTIONED AND MANUFACTURER, MATERIAL AND/OR METHOD OTHER THAN SPECIFIED ARE SUBMITTED FOR APPROVAL, INCLUDE PROOF OF EQUALITY. THE BURDEN OF PROOF AS TO THE EQUALITY OF ANY PROPOSED SUBSTITUTE MANUFACTURER, MATERIAL OR METHOD SHALL REST UPON THE CONTRACTOR.
- d. THE ENGINEER'S DECISION SHALL BE FINAL.
- B. REQUESTS FOR SUBSTITUTION REVIEW AND ACCEPTANCE SHALL BE ACCOMPLISHED BY TABLE OF COMPARISON LISTING PERTINENT FEATURES OF BOTH SPECIFIED AND PROPOSED MATERIALS, SUCH AS MATERIAL OF CONSTRUCTION, REPLACEMENT OR MAINTENANCE ACCESS, MOTOR TYPE, HORSEPOWER, VOLTAGE, PHASE, SERVICE FACTOR. REVIEW OF PROPOSED SUBSTITUTIONS WILL NOT BE MADE UNTIL RECEIPT OF SATISFACTORY COMPARISON TABULATION.
- C. SUBMITTAL OF SUBSTITUTIONS SHALL BE LIMITED TO ONE PROPOSAL FOR EACH TYPE OR KIND OF ITEM, UNLESS OTHERWISE PERMITTED BY ENGINEER. IF FIRST PROPOSED PRODUCT SUBMITTAL IS REJECTED, CONTRACTOR SHALL THEN SUBMIT THE FIRST-NAMED OR SCHEDULED PRODUCT.

PART 3 - EXECUTION

3.01 GENERAL

- A. COORDINATE ALL WORK WITH THE VARIOUS TRADES INVOLVED TO PROVIDE A COMPLETE AND SATISFACTORY INSTALLATION.
- B. WHEN CHANGES IN LOCATION OF ANY WORK ARE REQUIRED, OBTAIN APPROVAL OF ENGINEER BEFORE MAKING CHANGE.
- C. DO NOT CHANGE INDICATED SIZES WITHOUT APPROVAL OF ENGINEER.
- D. PROVIDE ALL NECESSARY OFFSETS AND CROSSOVERS IN PIPING AND DUCTWORK, WHETHER INDICATED OR NOT.
- E. INSTALL PIPING PARALLEL TO WALLS AND VERTICALLY PLUMB.
- F. EXAMINE AREAS AND CONDITIONS UNDER WHICH MECHANICAL SYSTEM MATERIALS AND PRODUCTS ARE TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER.

3.02 ELECTRICAL

- A. ELECTRIC MOTORS REQUIRED FOR EQUIPMENT SPECIFIED IN THIS SECTION SHALL BE PROVIDED AND INSTALLED BY THIS SUBCONTRACTOR. MOTOR STARTERS, DISCONNECTS, RELAYS, PILOT LIGHTS, ETC., ARE, IN GENERAL, TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. STARTERS, RELAYS, CONTROLS, ETC. WHICH ARE FACTORY ASSEMBLED INTO PACKAGED EQUIPMENT SHALL BE FURNISHED BY THIS SUBCONTRACTOR UNDER THIS SECTION OF THE SPECIFICATIONS.
- B. ALL MOTORS SHALL BE PROVIDED WITH ADEQUATE STARTING AND PROTECTIVE EQUIPMENT AS SPECIFIED OR REQUIRED. MOTOR CAPACITY SHALL BE SUFFICIENT TO OPERATE DRIVEN DEVICE UNDER ALL CONDITIONS OF OPERATION AND LOAD WITHOUT OVERLOAD. MINIMUM HORSEPOWER SHALL BE AS SPECIFIED.

3.03 EXCAVATING, TRENCHING, AND BACKFILLING

- A. GENERAL: LAY PIPE TO REQUIRED LINES AND GRADES. PLACE FITTINGS AND VALVES AT REQUIRED LOCATIONS AND WITH JOINTS CENTERED, SPIGOTS HOME, AND VALVE STEMS PLUMB.
- a. SUBSURFACE EXPLORATIONS: WHENEVER NECESSARY TO DETERMINE LOCATION OF EXISTING UNDERGROUND UTILITY STRUCTURES, EXAMINE AVAILABLE RECORDS AND MAKE EXPLORATIONS AND EXCAVATIONS NECESSARY TO DETERMINE UTILITY LOCATIONS.
- b. OBSTRUCTIONS CAUSED BY OTHER UTILITY STRUCTURES: WHERE GRADES OR ALIGNMENT OF PIPE IS OBSTRUCTED BY EXISTING UTILITY STRUCTURES SUCH AS CONDUITS, DUCTS, PIPES, BRANCH CONNECTIONS TO MAIN SEWERS, OR MAIN DRAINS, PERMANENTLY SUPPORT, RELOCATE, REMOVE, OR RECONSTRUCT OBSTRUCTION.
- c. PROTECTING UNDERGROUND AND SURFACE STRUCTURES: PROVIDE TEMPORARY SUPPORT AND ADEQUATE PROTECTION AND MAINTENANCE OF UNDERGROUND AND SURFACE UTILITY STRUCTURES, DRAINS, SEWERS, AND OTHER OBSTRUCTIONS ENCOUNTERED IN PROGRESS OF THE WORK. PROTECT POLES, FENCES, TREES, AND OTHER PROPERTY UNLESS THEIR REMOVAL IS AUTHORIZED. SATISFACTORYLY RESTORE ANY PROPERTY DAMAGED.
- d. DEVIATIONS: MAKE NO DEVIATION FROM REQUIRED LINE OR GRADE WITHOUT WRITTEN PERMISSION.

3.04 CUTTING AND PATCHING

- A. PROVIDE ALL CUTTING AND PATCHING NECESSARY TO INSTALL THE WORK SPECIFIED IN THIS PROJECT.
- B. SECTIONS:
- a. PATCHING SHALL MATCH ADJACENT SURFACES.
- b. NO STRUCTURAL MEMBERS SHALL BE CUT WITHOUT THE APPROVAL OF THE ARCHITECT/ENGINEER.
- c. LOCATE OPENINGS AND SLEEVES TO PERMIT NEAT INSTALLATION OF PIPING, DUCTWORK AND EQUIPMENT.

3.05 INSTALLATION OF EQUIPMENT

- A. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- B. PROVIDE ALL NECESSARY ANCHORING DEVICES AND SUPPORTS.
- a. USE STRUCTURAL SUPPORTS SUITABLE FOR EQUIPMENT, OR AS INDICATED.
- b. CHECK LOADINGS AND DIMENSIONS OF EQUIPMENT WITH SHOP DRAWINGS.
- c. DO NOT CUT OR WELD TO BUILDING STRUCTURAL MEMBERS, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- d. PROVIDE ALL EQUIPMENT SUPPORTS NOT DETAILED ON ARCHITECTURAL AND MECHANICAL DRAWINGS.
- C. VERIFY THAT EQUIPMENT WILL FIT SUPPORT LAYOUTS INDICATED.
- a. WHERE SUBSTITUTE EQUIPMENT IS USED, REVISE INDICATED SUPPORTS TO FIT.
- b. COORDINATE SIZE AND LOCATION OF ROOF PENETRATIONS AND WALL OPENINGS WITH WORK OF OTHER SECTIONS.
- D. INSTALL RAIN HOODS AND METAL COUNTER FLASHINGS AS INDICATED AND TO MAKE ALL PENETRATIONS OF MECHANICAL WORK THROUGH WALLS AND ROOFS, WATER AND WEATHER-TIGHT. FURNISH ALL CLAMPS, WATERPROOFING MATERIAL AND LABOR NECESSARY. INSTALL EQUIPMENT TO PERMIT EASY ACCESS FOR NORMAL MAINTENANCE.
- a. MAINTAIN EASY ACCESS TO FILTERS, MOTORS, DRIVES, VALVES, ETC.
- b. MINOR CHANGES FROM THE DRAWINGS MAY BE MADE, WITH PRIOR APPROVAL, TO ALLOW FOR BETTER ACCESSIBILITY.
- E. IN MECHANICAL AREAS, COORDINATE LOCATIONS OF FLOOR DRAINS, FLOOR SINKS, ETC., WITH LOCATIONS OF EQUIPMENT AND HOUSEKEEPING PADS. LOCATE DRAINS TO PROPERLY SERVE EQUIPMENT AND TO RESULT IN ORDERLY ROUTING OF DRAIN PIPING, WHILE MINIMIZING TRIPPING HAZARDS, ETC.

3.06 INSTALLATION OF EQUIPMENT FURNISHED BY OWNER OR OTHER DIVISION

- A. RECEIVE, UN-CRATE, INSPECT, MOVE IN PLACE AND INSTALL ANY OWNER SUPPLIED EQUIPMENT. PROVIDE ROUGH-IN AND FINAL CONNECTIONS TO ALL EQUIPMENT REQUIRING MECHANICAL SERVICES.
- B. INSTALL ALL FITTINGS, VALVES, AND OTHER ITEMS FURNISHED AS INTEGRAL PART OF EQUIPMENT, BUT SHIPPED LOOSE.

3.07 FIELD QUALITY CONTROL

- A. PERFORM INDICATED TESTS TO DEMONSTRATE WORKMANSHIP, OPERATION, AND PERFORMANCE.
- a. CONDUCT TESTS IN PRESENCE OF INSPECTORS OF AGENCIES HAVING JURISDICTION, AS REQUIRED.
- b. FURNISH ALL LUBRICATING MATERIALS REQUIRED FOR TEST.
- B. REPAIR OR REPLACE EQUIPMENT AND SYSTEMS FOUND INOPERATIVE OR DEFECTIVE AND RE-TEST.
- a. IF EQUIPMENT OR SYSTEM FAILS RE-TEST, REPLACE IT WITH PRODUCTS WHICH CONFORM WITH CONTRACT DOCUMENTS. CONTINUE REMEDIAL MEASURES AND RETESTS UNTIL SATISFACTORY RESULTS ARE OBTAINED.

3.08 ADJUST AND CLEAN

- A. INSPECT ALL EQUIPMENT AND PUT IN GOOD WORKING ORDER.
- B. CLEAN ALL EXPOSED AND CONCEALED ITEMS:
- a. CLEAN FLOOR DRAINS, CLEANOUTS, AND PLUMBING FIXTURES.
- b. CLEAN SPECIALTIES SUCH AS TRAPS AND STRAINERS.
- C. EQUIPMENT AND MATERIALS: REMOVE FOREIGN MATERIALS INCLUDING DIRT, GREASE, SPLASHED
- D. PAINT, AND PLASTER, ETC. RESTORE TO ORIGINAL CONDITION AND FINISH DAMAGED.
- E. DOMESTIC WATER SYSTEMS:
- a. STERILIZATION: AFTER ABOVE FLUSHING, DRAINING, AND REFILLING, STERILIZE DOMESTIC WATER SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF PUBLIC HEALTH AGENCY HAVING JURISDICTION.
- b. IF HEALTH DEPT. DOES NOT HAVE SPECIFIC REQUIREMENTS, USE FOLLOWING ALTERNATIVE.
- c. ALTERNATIVE PROCEDURE: STERILIZE DOMESTIC WATER SYSTEMS WITH 4% CHLORINE SOLUTION INJECTED INTO SYSTEM TO CONCENTRATION OF 50 PARTS PER MILLION AND ALLOW TO STAND FOR 24 HOURS.
- d. AFTER THIS PERIOD, PURGE THROUGHOUT ENTIRE STRUCTURE AT OUTLETS; REDUCE SYSTEM CHLORINE CONTENT TO LESS THAN 1 PART PER MILLION.
- e. WARNING SIGNS: PROVIDE SIGNS AT OUTLETS DURING CHLORINATION.
- f. GAS: AFTER TESTING OF NATURAL GAS SYSTEM, AND BEFORE ANY GAS IS PUT INTO LINE, BLOW OUT ENTIRE SYSTEM OF PIPING TO REMOVE SCALE AND DIRT; PURGE AIR BY FILLING SYSTEM WITH GAS.
- G. ADJUSTING: ADJUST EQUIPMENT AND SYSTEM COMPONENTS AS INDICATED OR AS OTHERWISE REQUIRED TO RESULT IN INTENDED SYSTEM OPERATION. THEREAFTER, AS A RESULT OF SYSTEM OPERATION, OR AS DIRECTED, MAKE READJUSTMENTS AS NECESSARY TO REFINE PERFORMANCE AND TO EFFECT COMPLETE SYSTEM TUNE-UP.

3.09 TESTING

- A. PIPING:
- a. ALL PLUMBING PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE UNIFORM PLUMBING CODE, LATEST EDITION. OTHER PIPING SYSTEMS SHALL BE TESTED TO 1.5 TIMES THE OPERATING PRESSURE, FOR A MINIMUM PERIOD OF TWO HOURS.
- b. IF THE TEST PRESSURES FALLS MORE THAT 5 PERCENT DURING THE TEST PERIOD, THE LEAK SHALL BE LOCATED, REPAIRED, AND THE TEST REPEATED.
- B. TEST THERMOMETERS, PRESSURE GAGES, AND WATER METERS FOR ACCURATE INDICATION:
- a. AUTOMATIC WATER FEEDERS, AIR VENTS, TRAP PRIMERS, VACUUM BREAKERS, AND OTHER SPECIALTIES FOR PROPER PERFORMANCE.
- C. SYSTEMS:
- a. ALL SYSTEMS, INCLUDING HEATING, VENTILATING, AIR CONDITIONING, AND PLUMBING SYSTEMS, SHALL BE TESTED AT THE COMPLETION OF THE BUILDING TO ESTABLISH THAT THE SYSTEMS OPERATE AS SPECIFIED AND REQUIRED.
- b. TESTING SHALL BE PERFORMED AFTER AIR AND WATER BALANCING IS COMPLETED.
- c. ALL CONTROLS SHALL BE CALIBRATED ACCURATELY AND ALL EQUIPMENT SHALL BE ADJUSTED FOR SATISFACTORY OPERATION. EXCESSIVE VIBRATION OR NOISE FROM ANY SYSTEM SHALL BE CORRECTED.
- D. THE AIR CONDITIONING SYSTEM SHALL BE TESTED FOR SATISFACTORY OPERATION WHEN THE OUTSIDE AIR TEMPERATURE REACHES 80 DEGREES F. OR WARMER. ALL OTHER SYSTEMS SHALL BE TESTED AT BUILDING COMPLETION.
- E. ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ARCHITECT/ENGINEER OR HIS REPRESENTATIVE.
- F. HANGERS AND SUPPORTS: WITH SYSTEMS IN NORMAL OPERATION, TEST HANGERS, SUPPORTS AND RODS TO INSURE THEY ARE PLUMB AND SUPPORTING PROPER SHARE OF LOAD.
- G. ADDITIONALLY SUPPORT SYSTEMS AND EQUIPMENT THAT SWAY, CRAWL, OR VIBRATE.
- H. OTHER MATERIALS AND EQUIPMENT:
- a. TEST AS SPECIFIED; AS RECOMMENDED BY EQUIPMENT MANUFACTURER; AND AS OTHERWISE NECESSARY OR DIRECTED TO ASSURE THEY ARE COMPLETE, OPERABLE, AND READY FOR USE.

3.10 BALANCING

- A. PRIOR TO FINAL ACCEPTANCE BY THE OWNERS, ALL AIR SYSTEMS IN THE BUILDING SHALL BE BALANCED TO DELIVER THE QUANTITIES AS SPECIFIED OR DIRECTED.
- B. THE AIR BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AGENCY SPECIALIZING IN BALANCING.
- C. TEST PROCEDURES:
- a. EXAMINE INSTALLED WORK AND CONDITIONS UNDER WHICH TESTING IS TO BE DONE TO ENSURE THAT WORK HAS BEEN COMPLETED, CLEANED, AND IS OPERABLE DO NOT PROCEED WITH TESTING UNTIL ALL NECESSARY DEVIATIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO TESTER.
- b. TEST, ADJUST AND BALANCE ENVIRONMENTAL SYSTEMS AND COMPONENTS, AS INDICATED, IN ACCORDANCE WITH PROCEDURES OUTLINED IN APPLICABLE STANDARDS.
- c. TEST, ADJUST AND BALANCE SYSTEM DURING SUMMER SEASON FOR AIR CONDITIONING SYSTEMS AND DURING WINTER SEASON FOR HEATING SYSTEMS, INCLUDING AT LEAST PERIOD OF OPERATION AT OUTSIDE CONDITIONS WITHIN 5 DEGREES F WET BULB TEMPERATURE OF MAXIMUM SUMMER DESIGN CONDITION, AND WITHIN 10 DEGREES F DRY BULB TEMPERATURE OF MINIMUM WINTER DESIGN CONDITION. WHEN SEASONAL OPERATION DOES NOT PERMIT MEASURING FINAL TEMPERATURES, THEN TAKE FINAL TEMPERATURE READINGS WHEN SEASONAL OPERATION DOES PERMIT.
- d. PREPARE REPORT OF TEST RESULTS, INCLUDING INSTRUMENTATION CALIBRATION REPORTS, IN FORMAT RECOMMENDED BY APPLICABLE STANDARDS.
- e. PATCH HOLES IN INSULATION, DUCTWORK AND HOUSINGS, WHICH HAVE BEEN CUT OR DRILLED FOR TEST PURPOSES, IN MANNER RECOMMENDED BY ORIGINAL INSTALLER.
- f. MARK EQUIPMENT SETTINGS, INCLUDING DAMPER CONTROL POSITIONS, VALVE INDICATORS, FAN SPEED CONTROL LEVERS, AND SIMILAR CONTROLS AND DEVICES. TO SHOW FINAL SETTINGS AT COMPLETION OF TAB WORK. PROVIDE MARKINGS WITH PAINT OR OTHER SUITABLE PERMANENT IDENTIFICATION MATERIALS.
- g. RETEST, ADJUST, AND BALANCE SYSTEMS SUBSEQUENT TO SIGNIFICANT SYSTEM MODIFICATIONS, AND RESUBMIT TEST RESULTS.
- D. AIR BALANCING:
- a. GENERAL:
- BALANCE SO THAT OUTSIDE AIR FLOW DOES NOT GO BELOW MINIMUM VALUE AT ANY TIME.
 - VERIFY PROPER AUTOMATIC OPERATION OF AUTOMATIC OUTSIDE, RETURN, AND EXHAUST AIR DAMPERS THROUGHOUT ENTIRE RANGE OF OPERATION.
 - BALANCE WITH FILTER PRESSURE DROP AT MIDPOINT BETWEEN CLEAN AND DIRTY FILTERS. ARTIFICIALLY CREATE REQUIRED PRESSURE DROP, IF NECESSARY, BY BLANKING OFF COILS.
 - BALANCE WITH DOORS AND WINDOWS IN THEIR NORMAL, CLOSED POSITION.
- b. BALANCE AIR TO FOLLOWING TOLERANCES:
- EACH OUTLET AND EACH INLET: PLUS 10% TO MINUS 10% OF CFM INDICATED ON DRAWINGS.
 - EACH ROOM AND AIR TERMINAL UNIT: 0% TO PLUS 10% OF AIR MONITOR CFM.
 - EACH FAN: 0% TO PLUS 10% OF SYSTEM CFM.
- c. ADJUST THROW PATTERNS OF SUPPLY AIR OUTLETS INCLUDING SLOT DIFFUSERS.
- d. ADJUST FOR DRAFT FREE ROOM AIR DISTRIBUTION.
- e. ADJUST AS INDICATED. WHERE NOT INDICATED, ADJUST AS DIRECTED BY ENGINEER. REQUEST SUCH DIRECTION PRIOR TO BALANCING.
- f. UNLESS OTHERWISE INDICATED OR DIRECTED, ADJUST AIR OUTLETS TO DISTRIBUTE AIR HORIZONTALLY ALONG CEILING AND ADJUST PERIMETER SLOT DIFFUSERS TO BLOW AWAY FROM BUILDING PERIMETER.
- g. SYSTEM DESIGN STATIC PRESSURES ARE APPROXIMATIONS. MAKE CHANGES IN SHEAVES AND BELTS AS REQUIRED FOR SPECIFIED STATIC PRESSURE DIFFERENTIAL ACROSS FAN, AND RATED SPEED.
- h. INSPECT ALL ROOMS FOR ROOM TEMPERATURES, DRAFTS, AND NOISE. MAKE ADJUSTMENTS TO CORRECT ANY PROBLEMS.

3.11 SYSTEMS START UP

- A. STARTUP REQUIREMENTS APPLY TO CONTRACTOR AND OWNER SUPPLIED EQUIPMENT AND SYSTEMS.
- B. PRIOR TO FINAL ACCEPTANCE, AT TIME AGREED TO BY OWNER AND ENGINEER, PUT ALL SYSTEMS INTO SATISFACTORY OPERATION.
- C. AT FIRST HEATING OR COOLING SEASON FOLLOWING FINAL ACCEPTANCE, START UP SYSTEMS NOT STARTED DUE TO LACK OF SEASONAL DESIGN LOAD OR OPERATION OF THE CENTRAL SYSTEM.
- D. OPERATE ALL SYSTEMS IN GOOD WORKING ORDER FOR PERIOD OF FIVE (5) WORKING DAYS.
- E. PROVIDE SERVICES OF AUTHORIZED FACTORY SERVICE REPRESENTATIVE TO PERFORM START-UP AND OPERATION DEMONSTRATION SERVICES.
- F. PERFORM SERVICES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN START-UP INSTRUCTIONS. TEST CONTROL AND DEMONSTRATE COMPLIANCE WITH REQUIREMENTS. REPLACE DAMAGED OR MALFUNCTIONING CONTROLS AND EQUIPMENT.
- G. MAINTENANCE AND OPERATION TRAINING:
- a. AFTER THE MECHANICAL SYSTEM IS COMPLETELY INSTALLED AND OPERATIONS, THE MECHANICAL CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO HOURS TRAINING AND INSTRUCTION TIME FOR THE BUILDING OWNER OR HIS REPRESENTATIVE. DURING THIS PERIOD, THE CONTRACTOR SHALL INSTRUCT THE OWNER IN THE OPERATION AND MAINTENANCE OF ALL PARTS OF THE MECHANICAL SYSTEM, USING THE O&M MANUAL WHERE APPLICABLE.

3.12 SPECIAL TOOLS

- A. FURNISH TO OWNER NOT LATER THAN WHEN OWNER TAKES POSSESSION OF EQUIPMENT.
- B. DEFINITION OF SPECIAL TOOLS: IDENTIFIED IN OR OTHERWISE IMPLIED BY, THE MANUFACTURER'S OPERATION AND MAINTENANCE MANUALS FOR THE FURNISHED EQUIPMENT, OR WHICH ARE OTHERWISE REQUIRED FOR THE OPERATION, WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES FOR OPERATION, ADJUSTMENT AND MAINTENANCE. SPECIAL TOOLS DO NOT INCLUDE THOSE REQUIRED FOR MAJOR REPAIRS NORMALLY DONE BY FACTORY TRAINED OR OTHERWISE SPECIALIZED SERVICE PERSONNEL, NOR DO THEY INCLUDE THOSE NORMALLY FOUND IN THE POSSESSION OF OWNER'S ON SITE MAINTENANCE PERSONNEL.

3.13 RECORD DOCUMENTS AND OPERATING AND MAINTENANCE MANUALS

- A. THE CONTRACTOR SHALL PROVIDE TWO COPIES OF AN OPERATIONS AND MAINTENANCE MANUAL AT LEAST THIRTY DAYS PRIOR TO COMPLETION OF WORK. THE MANUAL SHALL BE OF THE THREE RING BINDER TYPE, ENTITLED, "OPERATION AND MAINTENANCE MANUAL," WITH THE JOB NAME AND YEAR OF COMPLETION ALSO INCLUDED. THE MANUAL SHALL INCLUDE, AS A MINIMUM:
- a. LIST OF ALL EQUIPMENT WITH MANUFACTURER'S NAME, MODEL NUMBER, AND LOCAL REPRESENTATIVE, SERVICE FACILITIES AND NORMAL CHANNEL OF SUPPLY FOR EACH ITEM.
- b. SYSTEM DESCRIPTION: DESCRIPTION OF START UP AND OPERATING PROCEDURES.
- c. CONTROLS: DIAGRAMS AND DESCRIPTION OF OPERATION SEQUENCE OF EACH SYSTEM.
- d. EQUIPMENT: MANUFACTURER'S BROCHURES, RATINGS, CERTIFIED SHOP DRAWINGS, LUBRICATION CHARTS AND DATA, PARTS LISTS WITH PART NUMBERS, AND BELT AND SHEAVE DATA. MARK EACH SHEET WITH EQUIPMENT IDENTIFICATION NUMBER AND ACTUAL INSTALLED CONDITION.
- e. MATERIALS AND ACCESSORIES: MANUFACTURER'S BROCHURES, PARTS LISTS WITH PART NUMBERS AND LUBRICATION DATA WHERE APPLICABLE. MARK EACH SHEET WITH EQUIPMENT IDENTIFICATION NUMBER OR SYSTEM AND LOCATION OF INSTALLATION; AND TO SPECIFICALLY IDENTIFY WHICH OPTIONS ARE PROVIDED (IN CASE WHERE DATA SHEET SHOWS MULTIPLE OPTIONS).
- f. CERTIFICATE OF FACTORY TEST AND CODE COMPLIANCE AS SPECIFIED.
- g. AIR AND/OR WATER SYSTEM BALANCE REPORT AS HEREIN SPECIFIED.
- h. GUARANTEE LETTER AS HEREIN SPECIFIED.
- i. ANY ADDITIONAL INFORMATION REQUIRED TO ENABLE THE OWNER TO PROPERLY OPERATE AND MAINTAIN THE BUILDING MECHANICAL SYSTEM.
- B. PROVIDE TWO COMPLETE SETS OF BLUELINE AS-BUILT MECHANICAL DRAWINGS.
- a. THE DRAWINGS SHALL INDICATE ALL DEPARTURES FROM THE CONTRACT DRAWINGS, AND SHALL LOCATE ALL UNDERGROUND UTILITY LINES WITH DIMENSIONS FROM ESTABLISHED BUILDING LINES. MAKE ALL NOTATIONS NEAT AND LEGIBLE, WITH RED INDELBLE PENCIL. AT THE COMPLETION OF THE WORK, THESE AS-BUILT DRAWINGS SHALL BE SIGNED AND DATED BY THE MECHANICAL CONTRACTOR, AND RETURNED TO THE ARCHITECT/ENGINEER.

3.14 GUARANTEE

- A. ALL WORK FURNISHED UNDER THIS SECTION SHALL BE GUARANTEED IN WRITING TO BE FREE FROM DEFECTIVE WORK OR MATERIALS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE CONTRACT. ALL REPAIRS OR REPLACEMENTS BECAUSE OF DEFECTIVE MATERIALS OR WORKMANSHIP OR NONCOMPLIANCE WITH CODE SHALL BE PROVIDED WITHOUT ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL FURNISH A LETTER INDICATING ABOVE GUARANTEE WITH SPACE FOR DATE OF ACCEPTANCE AND EXPIRATION OF GUARANTEE. LETTER SHALL BE INCLUDED IN O&M MANUAL.

END OF SECTION 15010



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#	DATE	DESCRIPTION
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CLIENT:

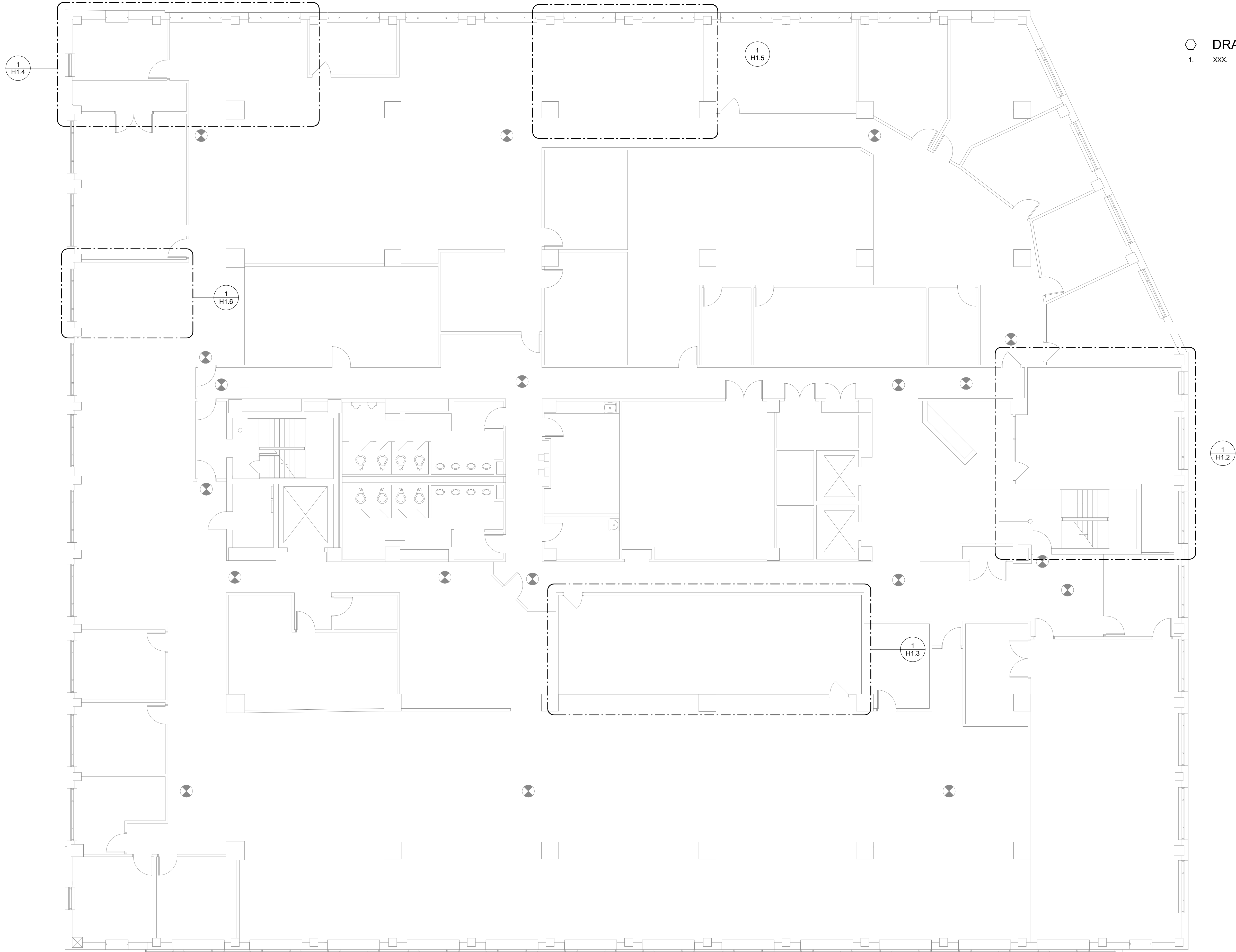
FIVE RIVERS METROPARKS
408 East Monument Avenue, Third Floor
Dayton, Ohio 45402

DESIGNED BY JRJ
DRAWN BY JRJ
CHECKED BY DST
DATE: 06-25-26
DRAWING NO.

H0.4

HVAC SPECIFICATIONS

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1 HVAC PLAN - NEW WORK - OVERALL PLAN
1/8" = 1'-0"

DRAWING NOTES
1. XXX.



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PROJECT TITLE

HVAC FLOOR PLAN - OVERALL PLAN

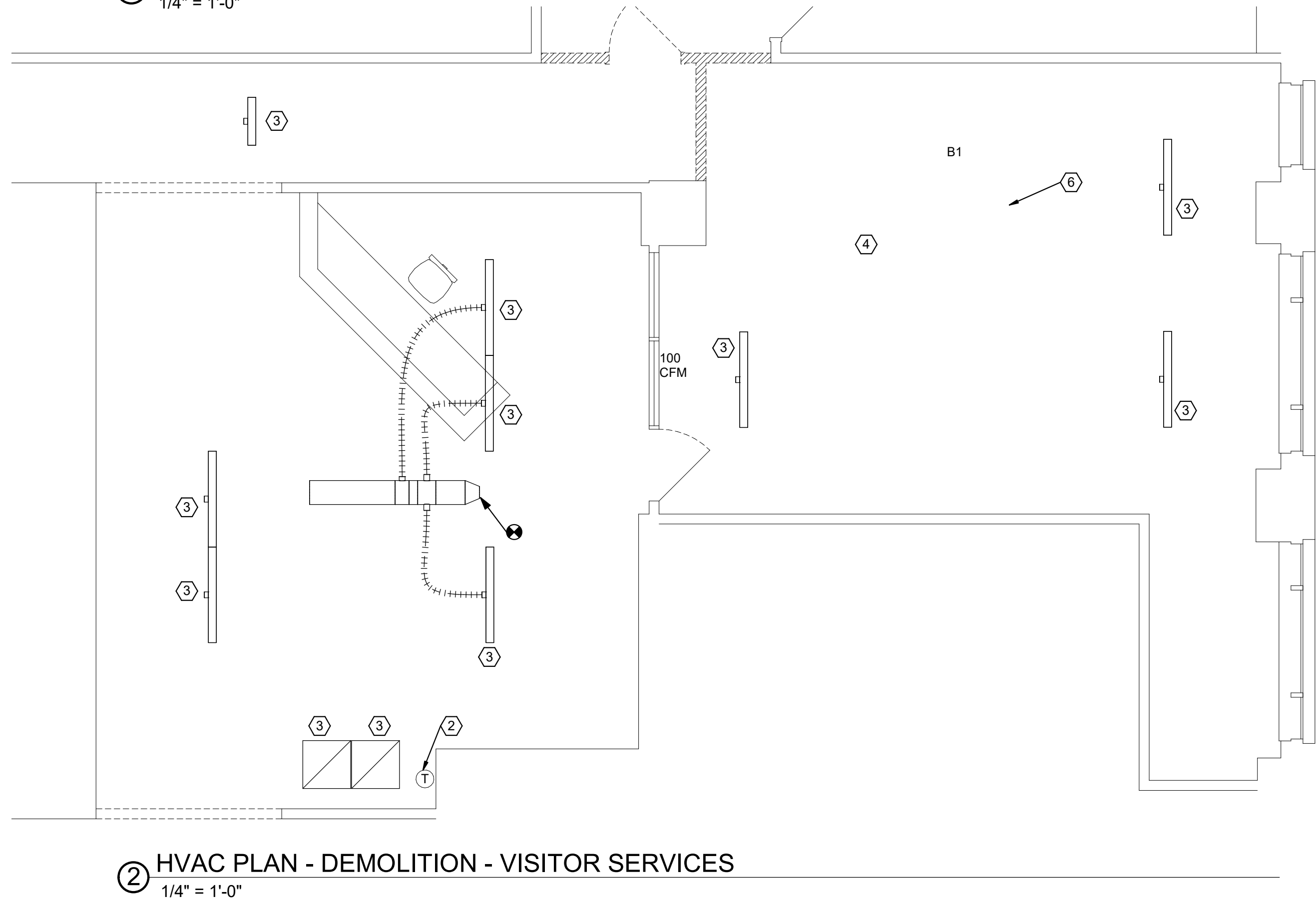
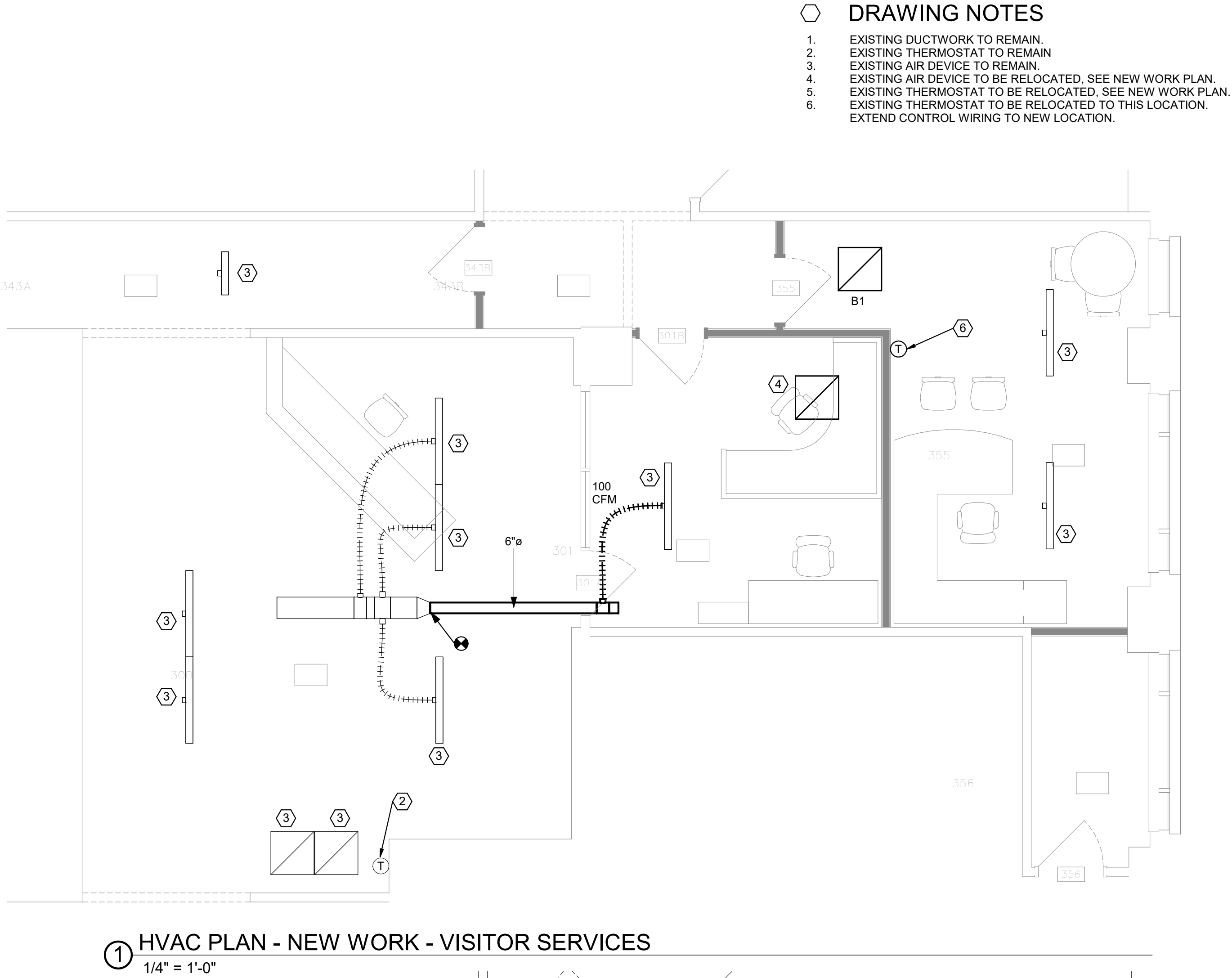
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DRAWN BY | JRJ
CHECKED BY | DST
DATE | 06-25-26
DRAWING NO.

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AIR INLETS AND OUTLETS SCHEDULE								
PLAN MARK	DESCRIPTION	BASIS OF DESIGN		MOUNTING	FINISH	MATERIAL	ACCESSORIES	NOTES
		MANUF.	MODEL					
B1	EGGCRATE RETURN GRILLE	TITUS	50F	LAY-IN	WHITE	STEEL	-	
S1	PLENUM SLOT DIFFUSER, 2-SLOT, 1" SLOTS	TITUS	TBDI-10			STEEL	INSULATED PLENUM	
GENERAL NOTES:								
A. LAY-IN AIR DEVICES SHALL BE DESIGNED TO INSTALL INTO A 24"x24" OR 24"x48" ACT CEILING SYSTEM								
B. ACCEPTABLE ALTERNATIVE MANUFACTURERS: PRICE, KREUGER AND TUTTLE & BAILEY								
C. PROVIDE AUXILIARY MOUNTING FRAME FOR DEVICES INSTALLED WITHIN GYPSUM, PLASTER, TILE OR OTHER SIMILAR SURFACE								
D. UNLESS OTHERWISE DESIGNATED ON PLANS, SUPPLY DIFFUSERS SHALL BE 4-WAY DIRECTIONAL DISCHARGE								





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PROJECT
TITLE

HVAC PLAN - VISITOR SERVICES

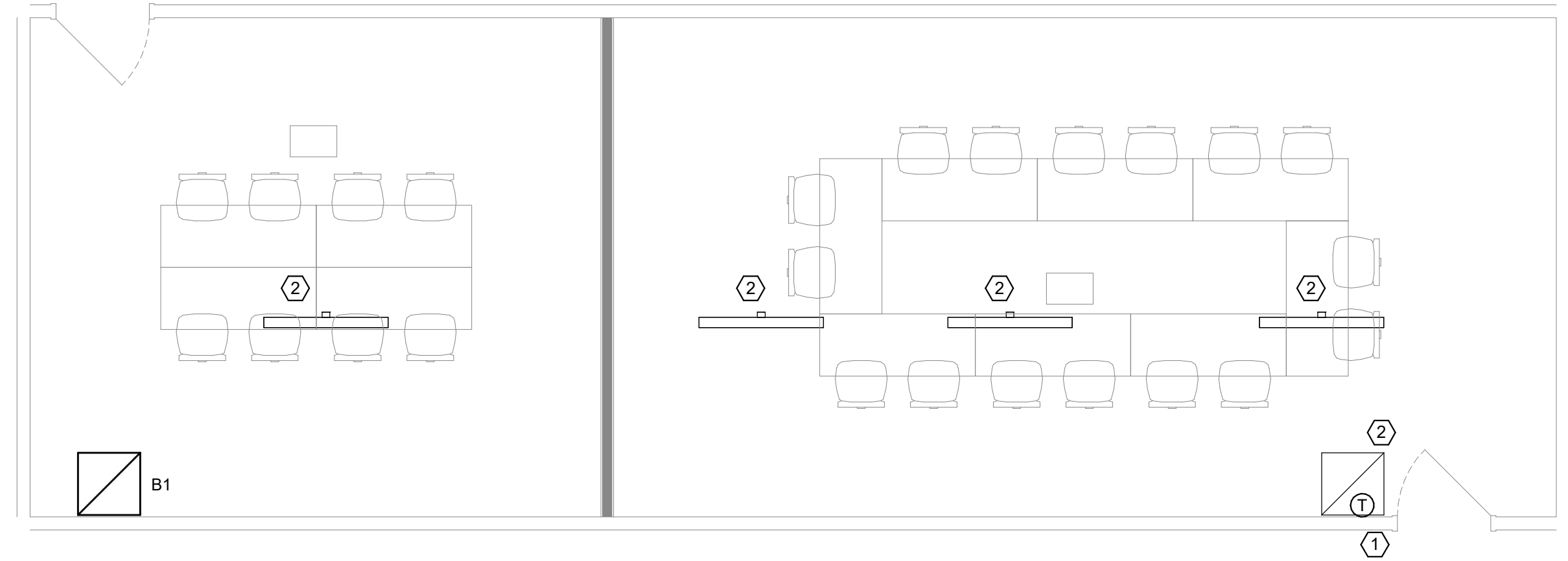
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TITLE

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DRAWN BY | JRJ
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DATE | 06-25-26

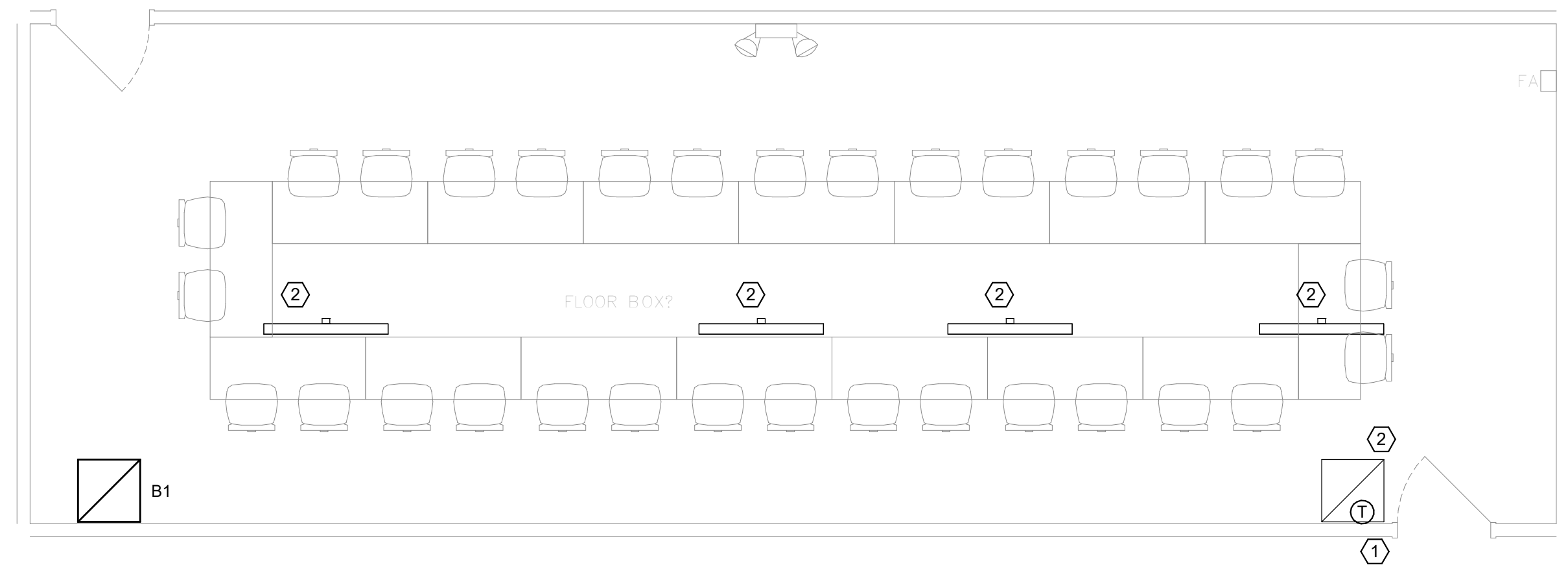
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AIR INLETS AND OUTLETS SCHEDULE								
PLAN MARK	DESCRIPTION	BASIS OF DESIGN		MOUNTING	FINISH	MATERIAL	ACCESSORIES	NOTES
		MANUF.	MODEL					
B1	EGGCRATE RETURN GRILLE	TITUS	50F	LAY-IN	WHITE	STEEL	-	
S1	PLENUM SLOT DIFFUSER, 2-SLOT, 1" SLOTS	TITUS	TBDI-10			STEEL	INSULATED PLENUM	
GENERAL NOTES:								
A. LAY-IN AIR DEVICES SHALL BE DESIGNED TO INSTALL INTO A 24"x24" OR 24"x48" ACT CEILING SYSTEM B. ACCEPTABLE ALTERNATIVE MANUFACTURERS: PRICE, KREUGER AND TUTTLE & BAILEY C. PROVIDE AUXILIARY MOUNTING FRAME FOR DEVICES INSTALLED WITHIN GYPSUM, PLASTER, TILE OR OTHER SIMILAR SURFACE D. UNLESS OTHERWISE DESIGNATED ON PLANS, SUPPLY DIFFUSERS SHALL BE 4-WAY DIRECTIONAL DISCHARGE								



① HVAC PLAN - NEW WORK - PLANNING & CONFERENCE ROOMS
1/4" = 1'-0"



② HVAC PLAN - DEMOLITION - PLANNING & CONFERENCE ROOMS
1/4" = 1'-0"



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CONSULTANTS:

[illegible]

1110

PROJECT TITLE

FIVE RIVERS METROPARKS

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DRAWING TITLE
HVAC PLAN - CONFERENCE & PLANNING ROOMS

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DATE	06-25-26
DRAWING NO.	

DRAWING NO.

H1.3

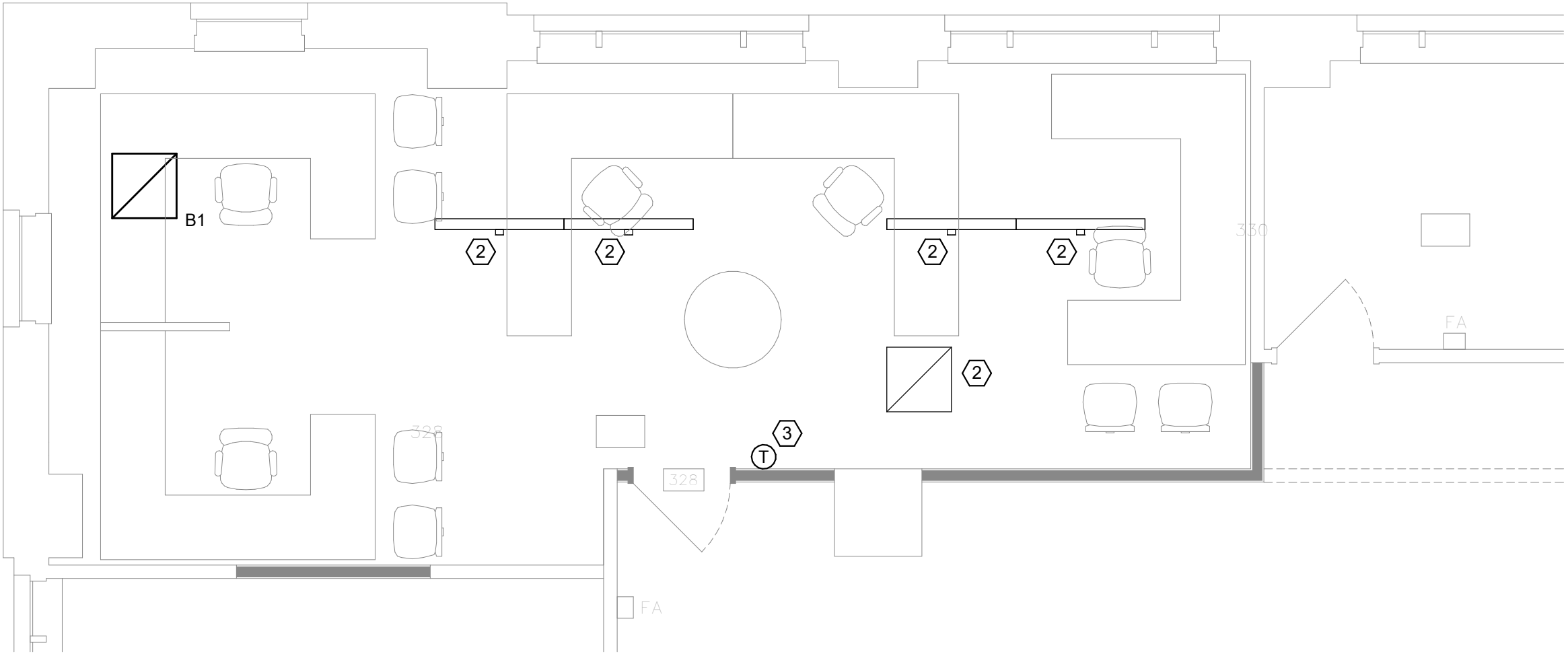
AIR INLETS AND OUTLETS SCHEDULE								
PLAN MARK	DESCRIPTION	BASIS OF DESIGN		MOUNTING	FINISH	MATERIAL	ACCESSORIES	NOTES
B1	EGGCRATE RETURN GRILLE	TITUS	50F	LAY-IN	WHITE	STEEL	-	
S1	PLENUM SLOT DIFFUSER, 2-SLOT, 1" SLOTS	TITUS	TBDI-10			STEEL	INSULATED PLENUM	
GENERAL NOTES: A. LAY-IN AIR DEVICES SHALL BE DESIGNED TO INSTALL INTO A 24"x24" OR 24"x48" ACT CEILING SYSTEM B. ACCEPTABLE ALTERNATIVE MANUFACTURERS: PRICE, KREUGER AND TUTTLE & BAILEY C. PROVIDE AUXILIARY MOUNTING FRAME FOR DEVICES INSTALLED WITHIN GYPSUM, PLASTER, TILE OR OTHER SIMILAR SURFACE D. UNLESS OTHERWISE DESIGNATED ON PLANS, SUPPLY DIFFUSERS SHALL BE 4-WAY DIRECTIONAL DISCHARGE								

- ⬡

1.
- ⬡

2.
- ⬡

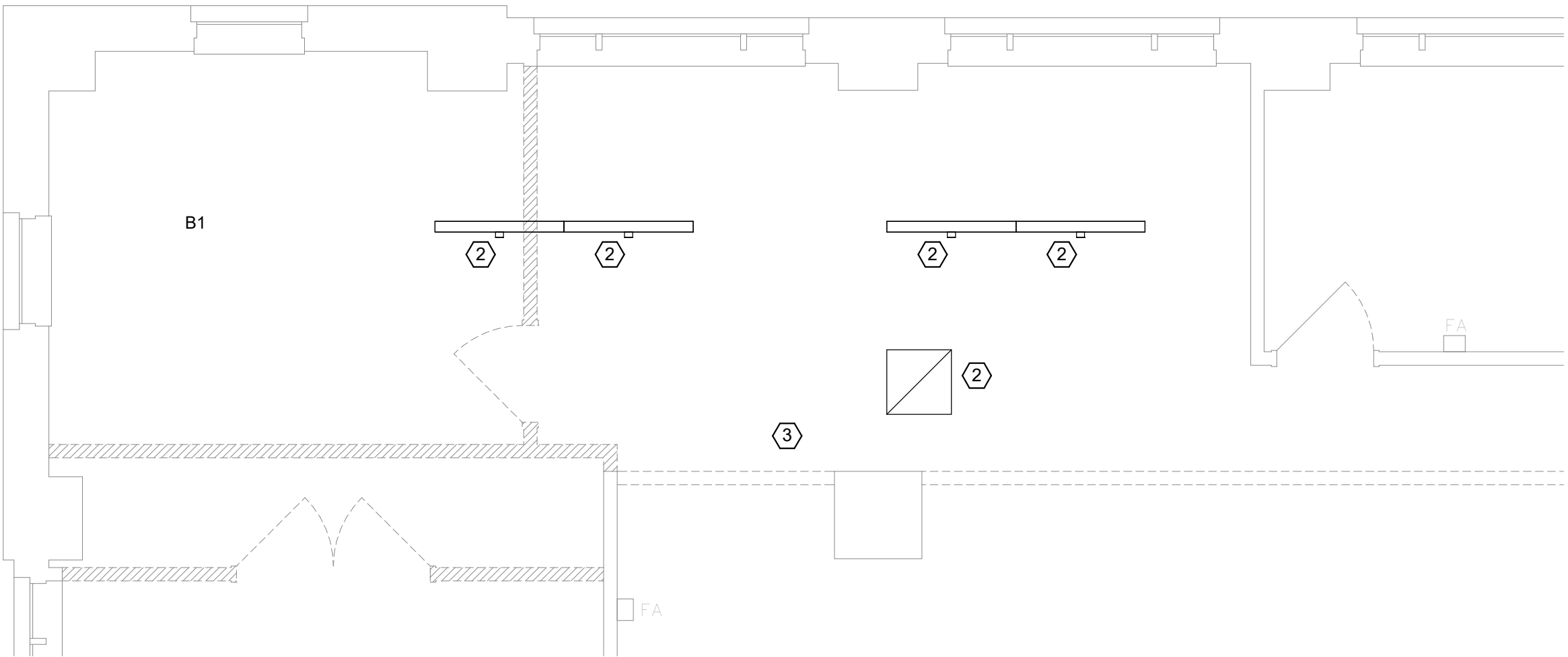
3.
- DRAWING NOTES
- EXISTING THERMOSTAT TO BE RELOCATED. SEE NEW WORK PLAN.
- EXISTING AIR DEVICE TO REMAIN.
- EXISTING THERMOSTAT TO BE RELOCATED TO THIS LOCATION.
- EXTEND CONTROL WIRING TO NEW LOCATION.



①

HVAC PLAN - NEW WORK - HUMAN RESOURCE AREA

1/4" = 1'-0"



②

HVAC PLAN - DEMOLITION - HUMAN RESOURCE AREA

1/4" = 1'-0"

L2

ENGINEERING

7949 Washington Woods Dr
Dayton, OH 45459
www.L2wE.com

CONSULTANTS:

STATE OF OHIO
RICHARD L. SIMPKINS II
69397
REGISTERED PROFESSIONAL ENGINEER

#	DATE	DESCRIPTION
1	06-25-26	BID SET

CLIENT:

FIVE RIVERS METROPARKS
409 East Monument Avenue, Third Floor
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PROJECT
TITLE

HVAC FLOOR PLAN - HUMAN
RESOURCE AREA

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