

PROFESSIONAL SEAL

PROJECT NUMBER: 190427.00

CLIENT / PROJECT INFORMATION



DRAWING INDEX

NUMBER	SHEET NAME	NUMBER	SHEET NAME	NUMBER	SHEET NAME	NUMBER	SHEET NAME	NUMBER	SHEET NAME		
<b>GENERAL DRAWINGS</b>											
G000	COVER SHEET	A141	OVERALL FURNITURE PLAN - LEVEL 01 (FOR REFERENCE ONLY)	FP203	6TH FLOOR FIRE PROTECTION PLAN	M404	MECHANICAL SCHEDULES	E703	ELECTRICAL PANEL SCHEDULES		
G010	ARCHITECTURAL STANDARDS	A145	OVERALL FURNITURE PLAN - LEVEL 06 (FOR REFERENCE ONLY)	FP204	7TH FLOOR FIRE PROTECTION PLAN	M405	MECHANICAL SCHEDULES	E704	ELECTRICAL PANEL SCHEDULES		
G020	SCOPE RESPONSIBILITY MATRIX	A146	OVERALL FURNITURE PLAN - LEVEL 06 (FOR REFERENCE ONLY)	<b>PLUMBING DRAWINGS</b>						E705	ELECTRICAL PANEL SCHEDULES
G101	OVERALL LIFE SAFETY PLAN - LEVEL 01	A147	OVERALL FURNITURE PLAN - LEVEL 07 (FOR REFERENCE ONLY)	P001	PLUMBING DATA SHEET	<b>ELECTRICAL DRAWINGS</b>					
G105	OVERALL LIFE SAFETY PLAN - LEVEL 05	A151	OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 01	P002	PLUMBING SPECIFICATIONS	E001	ELECTRICAL DATA SHEET	<b>TELECOMMUNICATIONS DRAWINGS</b>			
G106	OVERALL LIFE SAFETY PLAN - LEVEL 06	A155	OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 05	P003	PLUMBING SPECIFICATIONS	E001A	ELECTRICAL DATA SHEET	T0.01	TELECOM DATA SHEET		
G107	OVERALL LIFE SAFETY PLAN - LEVEL 07	A156	OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 06	P101	1ST FLOOR PLUMBING DEMO PLAN	E002	ELECTRICAL SPECIFICATIONS	T1.01	TELECOM FIRST FLOOR PLAN		
<b>STRUCTURAL DRAWINGS</b>											
S101	PARTIAL STRUCTURAL FRAMING PLANS	A157	OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 07	P201	1ST FLOOR PLUMBING PLAN	E003	ELECTRICAL SPECIFICATIONS	T1.05	TELECOM FIFTH FLOOR PLAN		
S201	GENERAL NOTES STRUCTURAL SECTION AND DETAILS	A401	ENLARGED FLOOR PLANS	P202	5TH FLOOR PLUMBING PLAN	E004	ELECTRICAL SPECIFICATIONS	T1.06	TELECOM SIXTH FLOOR PLAN		
<b>ARCHITECTURAL DEMOLITION DRAWINGS</b>											
AD101	DEMOLITION FLOOR PLAN - LEVEL 01	A402	ENLARGED FLOOR PLANS	P203	6TH FLOOR PLUMBING PLAN	E101	FIRST FLOOR ELECTRICAL DEMOLITION PLAN	T1.07	TELECOM SEVENTH FLOOR PLAN		
AD105	DEMOLITION FLOOR PLAN - LEVEL 05	A451	ELEVATIONS	P204	7TH FLOOR PLUMBING PLAN	E201	1ST FLOOR LIGHTING PLAN	T2.01	TELECOM DETAILS		
AD106	DEMOLITION FLOOR PLAN - LEVEL 06	A452	ELEVATIONS	P401	PLUMBING DETAILS	E202	5TH FLOOR LIGHTING PLAN	T2.02	TELECOM ELEVATIONS		
AD107	DEMOLITION FLOOR PLAN - LEVEL 07	A453	ELEVATIONS	<b>MECHANICAL DRAWINGS</b>						AV0.01	AV DATA SHEET
AD151	DEMOLITION REFLECTED CEILING PLAN - LEVEL 01	A454	ELEVATIONS	M001	MECHANICAL DATA SHEET	E203	6TH FLOOR LIGHTING PLAN	AV1.01	AV FIRST FLOOR PLAN		
<b>ARCHITECTURAL DRAWINGS</b>											
A101	OVERALL FLOOR PLAN - LEVEL 01	A560	CEILING DETAILS	M002	MECHANICAL SPECIFICATIONS	E204	7TH FLOOR LIGHTING PLAN	AV1.05	AV FIFTH FLOOR PLAN		
A105	OVERALL FLOOR PLAN - LEVEL 05	A565	DETAILS	M003	MECHANICAL SPECIFICATIONS	E301	1ST FLOOR POWER PLAN	AV1.06	AV SIXTH FLOOR PLAN		
A106	OVERALL FLOOR PLAN - LEVEL 06	A570	MILLWORK DETAILS	M004	MECHANICAL SPECIFICATIONS	E302	5TH FLOOR POWER PLAN	AV1.07	AV SEVENTH FLOOR PLAN		
A107	OVERALL FLOOR PLAN - LEVEL 07	A572	MILLWORK DETAILS	M003	MECHANICAL SPECIFICATIONS	E303	6TH FLOOR POWER PLAN	ES0.01	SECURITY DATA SHEET		
A111	OVERALL REFLECTED CEILING PLAN - LEVEL 01	A573	MILLWORK DETAILS	M101	1ST FLOOR MECHANICAL DEMO PLAN	E304	7TH FLOOR POWER PLAN	ES1.01	SECURITY FIRST FLOOR PLAN		
A115	OVERALL REFLECTED CEILING PLAN - LEVEL 05	A600	DOOR TYPES, DETAILS & SCHEDULE	M102	5TH FLOOR MECHANICAL DEMO PLAN	EM301	1ST FLOOR MECHANICAL POWER PLAN	ES1.05	SECURITY FIFTH FLOOR PLAN		
A116	OVERALL REFLECTED CEILING PLAN - LEVEL 06	A601	DOOR SCHEDULE - DEMOUNTABLE PARTITIONS	M103	6TH FLOOR MECHANICAL DEMO PLAN	EM302	5TH FLOOR MECHANICAL POWER PLAN	ES1.06	SECURITY SIXTH FLOOR PLAN		
A117	OVERALL REFLECTED CEILING PLAN - LEVEL 07	A620	CURTAIN WALL TYPES AND DETAILS	M104	7TH FLOOR MECHANICAL DEMO PLAN	EM303	6TH FLOOR MECHANICAL POWER PLAN	ES1.07	SECURITY SEVENTH FLOOR PLAN		
A125	OVERALL FINISH PLAN - LEVEL 01	A630	INTERIOR PARTITION TYPES	M201	1ST FLOOR MECHANICAL PLAN	EM304	7TH FLOOR MECHANICAL POWER PLAN	ES2.01	SECURITY CARD ACCESS DETAILS		
A126	OVERALL FINISH PLAN - LEVEL 06	A640	INTERIOR ROOM FINISH SCHEDULE	M202	5TH FLOOR MECHANICAL PLAN	EM305	ROOF MECHANICAL DEMO PLAN	ES2.02	SECURITY CAMERA DETAILS		
A127	OVERALL FINISH PLAN - LEVEL 07	A641	INTERIOR FINISH SCHEDULES	M203	6TH FLOOR MECHANICAL PLAN	E401	1ST FLOOR FIRE ALARM PLAN	SM0.01	SOUND MASKING DATA SHEET		
<b>FIRE PROTECTION DRAWINGS</b>											
FP001	FIRE PROTECTION DATA SHEET	M204	7TH FLOOR MECHANICAL PLAN	M205	ROOF MECHANICAL PLAN	E402	5TH FLOOR FIRE ALARM PLAN	SM1.05	SOUND MASKING PLAN - LEVEL 5		
FP002	FIRE PROTECTION SPECIFICATIONS	M301	MECHANICAL DETAILS	M301	MECHANICAL DETAILS	E403	6TH FLOOR FIRE ALARM PLAN	SM1.06	SOUND MASKING PLAN - LEVEL 6		
FP003	FIRE PROTECTION SPECIFICATIONS	M302	MECHANICAL DETAILS	M302	MECHANICAL DETAILS	E404	7TH FLOOR FIRE ALARM PLAN	SM1.07	SOUND MASKING PLAN - LEVEL 7		
FP201	1ST FLOOR FIRE PROTECTION PLAN	M401	MECHANICAL SCHEDULES	M401	MECHANICAL SCHEDULES	E501	ELECTRICAL DETAILS				
FP202	5TH FLOOR FIRE PROTECTION PLAN	M402	MECHANICAL SCHEDULES	M402	MECHANICAL SCHEDULES	E502	ELECTRICAL FIRE ALARM RISER DIAGRAM				
		M403	MECHANICAL SCHEDULES	M403	MECHANICAL SCHEDULES	E503	ELECTRICAL DETAILS				
						E601	ELECTRICAL RISER DIAGRAMS				
						E701	ELECTRICAL SCHEDULES				
						E702	ELECTRICAL PANEL SCHEDULES				

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Phone Number	412.322.9280
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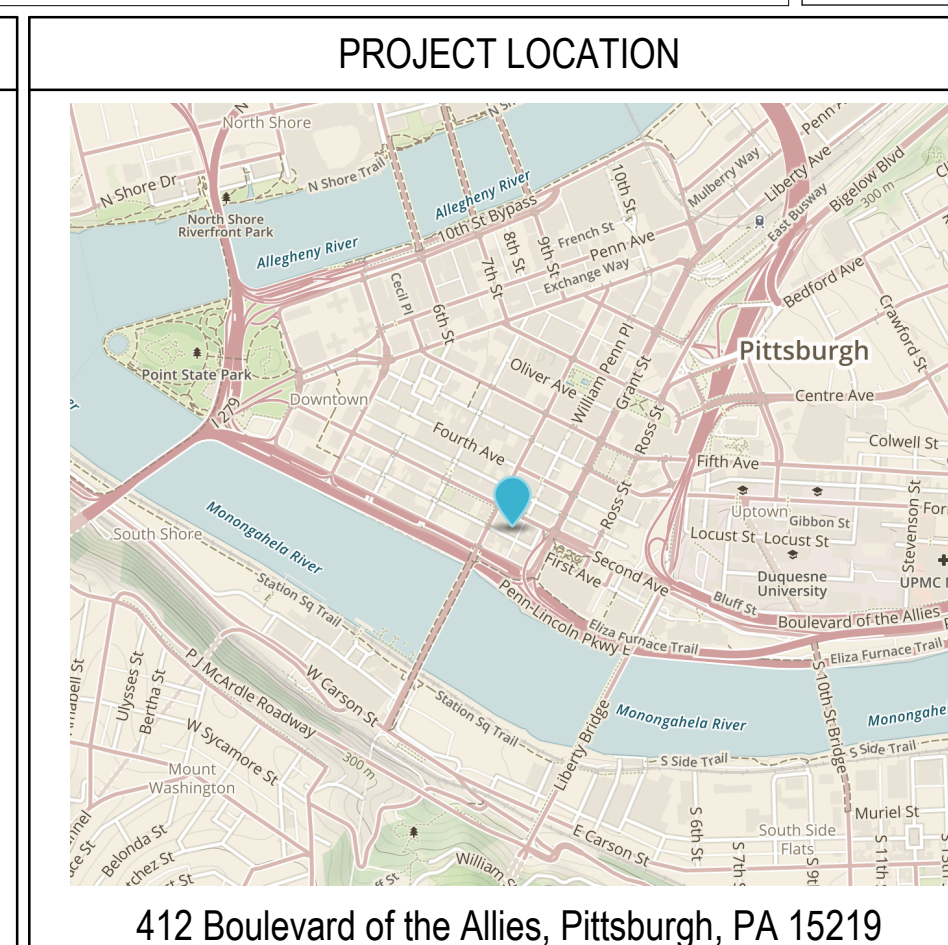
**REFERENCE SYMBOLS**

	STRUCTURAL GRID		REVISION CLOUD / DELTA
	LEVEL INDICATOR		SPOT ELEVATION
	MATCHLINE		EXTERIOR / INTERIOR ELEVATION
	BUILDING SECTION		NORTH ARROWS
	WALL SECTION		REFERENCE CALLOUT
	DETAIL SECTION		ALTERNATIVE MATCHLINE

REFER TO ENLARGED PLAN 1/A350

**ABBREVIATIONS**

AB ANCHOR BOLT	CONT CONTINUOUS	FIN FINISHED	MATL MATERIAL	PTD PAINTED TILE	UH UNIT HEATER
ACT ACOUSTIC CEILING TILE	CONTR CONTRACTOR	FLR FLOOR	MAX MAXIMUM	QT QUARRY TILE	UNFIN UNFINISHED
ADJ ADJUSTABLE	COORD COORDINATE	FRFP FIBER REINFORCED GYPSUM PANEL	MECH MECHANICAL	R RADIUS	UNDRSIDE OF DECK
AFF ABOVE FINISHED FLOOR	CORR CORRIDOR	FTG FOOTING	MED MEDIUM	RD ROOF DRAIN	UNLESS OTHERWISE NOTED
AGGR AGGREGATE	CPT CARPET	FURN FURNISHED	MEMB MEMBRANE	REC RECESSED	UV UNIT VENTILATOR
A/C AIR CONDITIONING	CRS COURSES	GALV GALVANIZED	MEP MECHANICAL, ELECTRICAL, AND PLUMBING	RECP RECEPTACLE	VCT VINYL COMPOSITION TILE
ALT ALTERNATE	CT CERAMIC TILE	GB GRAB BAR	MFR MANUFACTURER	REINF REINFORCING	VERT VERTICAL
ALUM ALUMINUM	CUFT(CF) CUBIC FOOT	GC GENERAL CONTRACTOR	MN MINIMUM	REQD REQUIRED	WI WITH
ANOD ANODIZED	OW COLD WATER	GFCP GLASS FIBER REINFORCED CONCRETE	MISC MISCELLANEOUS	REV REVISION	WC WATER CLOSET
ATTEN ATTENUATION	D DRYER	GL GLASS	NON-COM NON-COMBUSTIBLE	RFT RESILIENT FLOOR TILE	WD WOOD
AUTO AUTOMATIC	DEG DEGREE	HWWD HARDWOOD	NO NOMINAL	RM ROOM	WF WIDE FLANGE
AVG AVERAGE	DBL DOUBLE	GYP GYPSUM	NO NOT IN CONTRACT	RUB RUBBER	WP WORK POINT
B/ BOTTOM OF	DIA DIAMETER	HAGB HIGH ABUSE GYPSUM BOARD	NO NUMBER	RV ROOF VENT	WT WEIGHT
BC BRICK COURSE	DM DIMENSION	HB HOSE BIBB	NOM NOMINAL	REX REMOVE EXISTING	
BD BOARD	DM DIMENSION	HWWD HARDWOOD	NON-COM NON-COMBUSTIBLE	SEL SELECT	
BLDG BUILDING	DIV DIVISION	HWDR HARDWARE	OA OVERALL	SGT STRUCTURAL GLAZED TILE	
BLK BLOCK	DW DISHWASHER	HM HOLLOW METAL	OC ON CENTER	SIM SIMILAR	
BM BENCHMARK	EJ EXPANSION JOINT	HT HORIZONTAL	OD OUTSIDE DIAMETER	SPEC SPECIFICATION	
CB CATCH BASIN	ELEC ELECTRICAL	HT HEIGHT	OFF OFF	SQFT(SF) SQUARE FOOT	
CFMF COLD FORMED METAL FRAMING	ELEV ELEVATION	HW HOT WATER	OPP OPPOSITE	SS STAINLESS STEEL	
CG CORNER GUARD	ENCL ENCLOSURE	HWT HOT WATER TANK	OVD OVERHEAD	STD STANDARD	
CJ CONTROL JOINT	EQ EQUAL	ID INSIDE DIAMETER	PART PARTITION	STOR STORAGE	
CL CENTERLINE	EQU EQUIPMENT	IGU INSULATED GLAZING UNIT	PL PLATE	STRUCT STRUCTURAL	
CLG CEILING	EXIST EXISTING	INCL INCLUDED	PLAM PLASTIC LAMINATE	SUSP CLG SUSPENDED CEILING	
CLO CLOSET	EXP BOLT EXPANSION BOLT	INSUL INSULATION	PLMB PLUMBING	TI TOP OF	
CLR CLEAR	EWC ELECTRIC WATER COOLER	JAN JANITOR	POL POLISHED	TEL TELEPHONE	
CMU CONCRETE MASONRY UNIT	FAB FABRICATED	JB JUNCTION BOX	PREFAB PREFABRICATED	TEMP TEMPERED	
COL COLUMN	FD FLOOR DRAIN	JT JOINT	PREFIN PREFINISHED	TERR TERRAZZO	
COMP COMPOSITION	FIN FINISH	LAM LAMINATE	PREP PREPARATION	TG TONGUE AND GROOVE	
CONC CONCRETE	FE FIRE EXTINGUISHER	LV LAVATORY	PROC PROCEDURE	THK THICK OR THICKNESS	
CONN CONNECTION	FE FIRE EXTINGUISHER CABINET	LF LINEAR FEET	PROP PROPERTY	TLT TOILET	
CONST CONSTRUCTION	FHC FIRE HOSE CABINET	MAS MASONRY	PT PAINT	TYP TYPICAL	

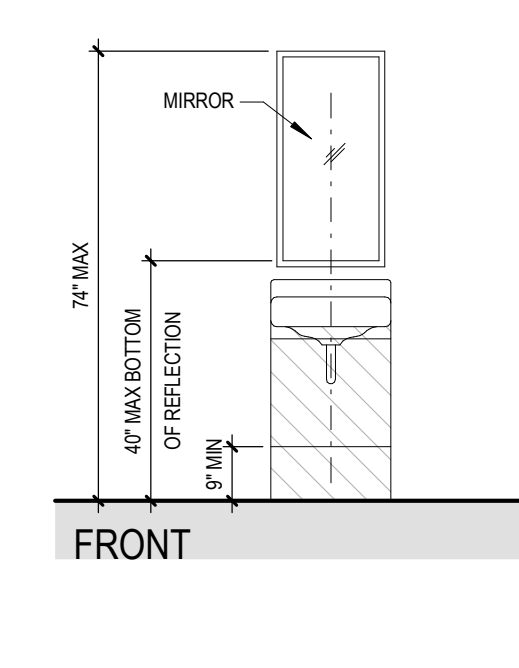
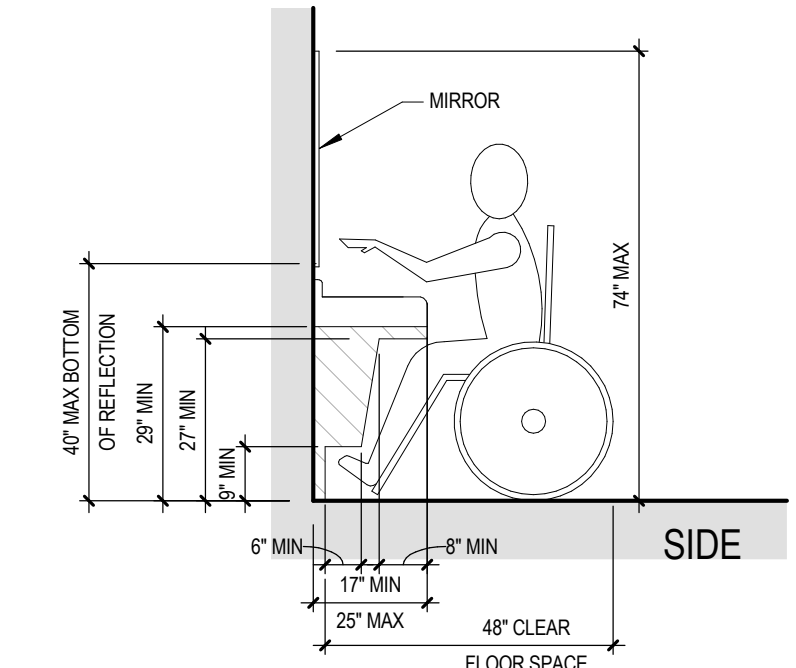
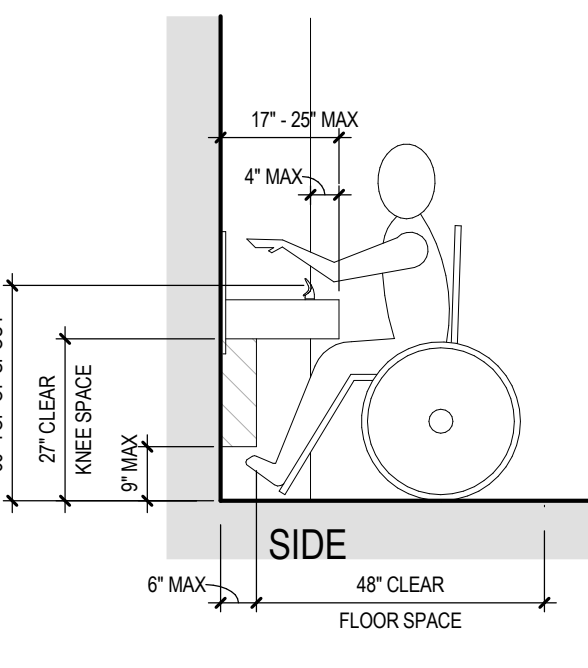
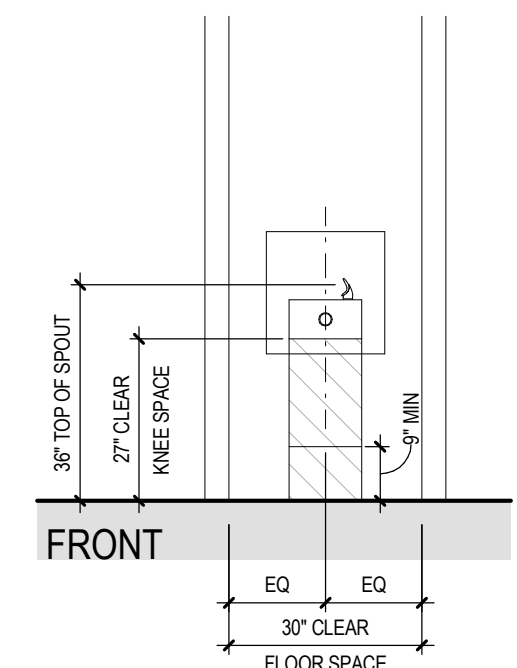
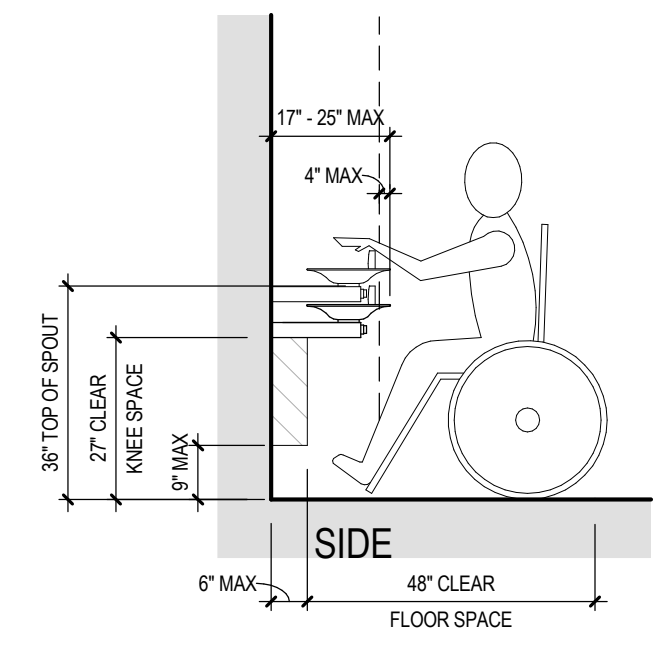
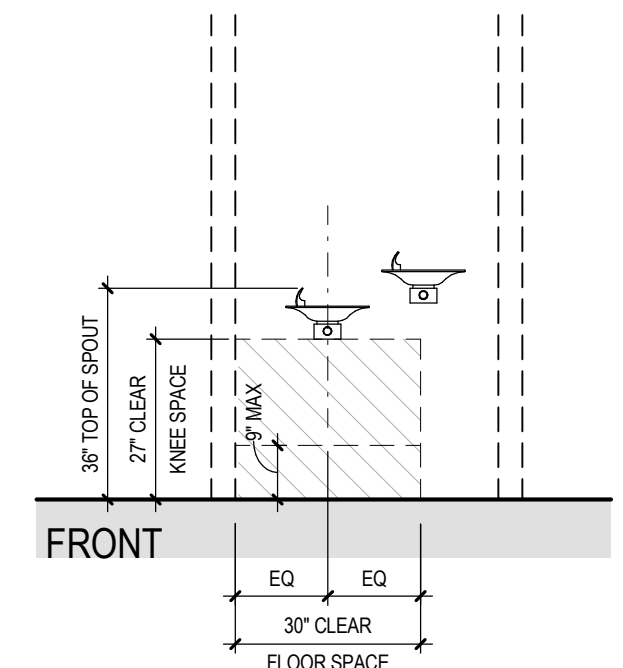
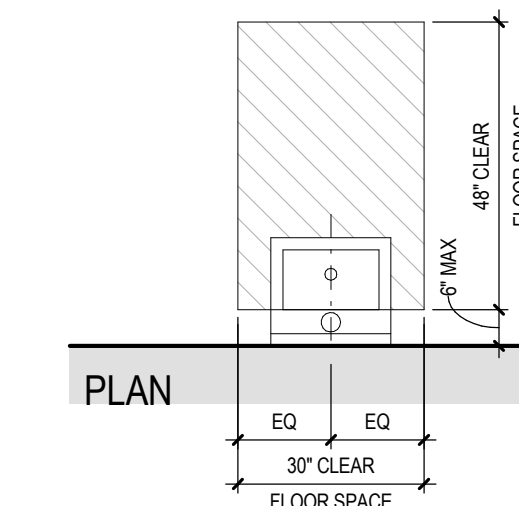
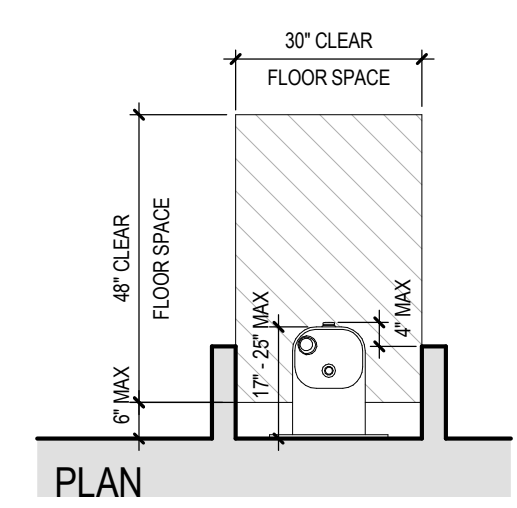
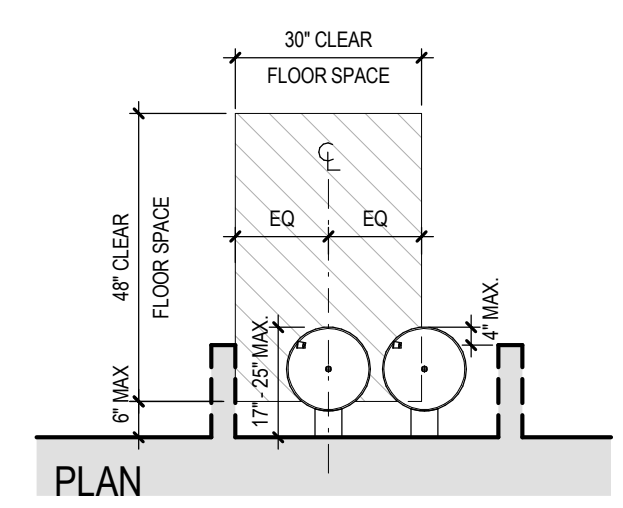
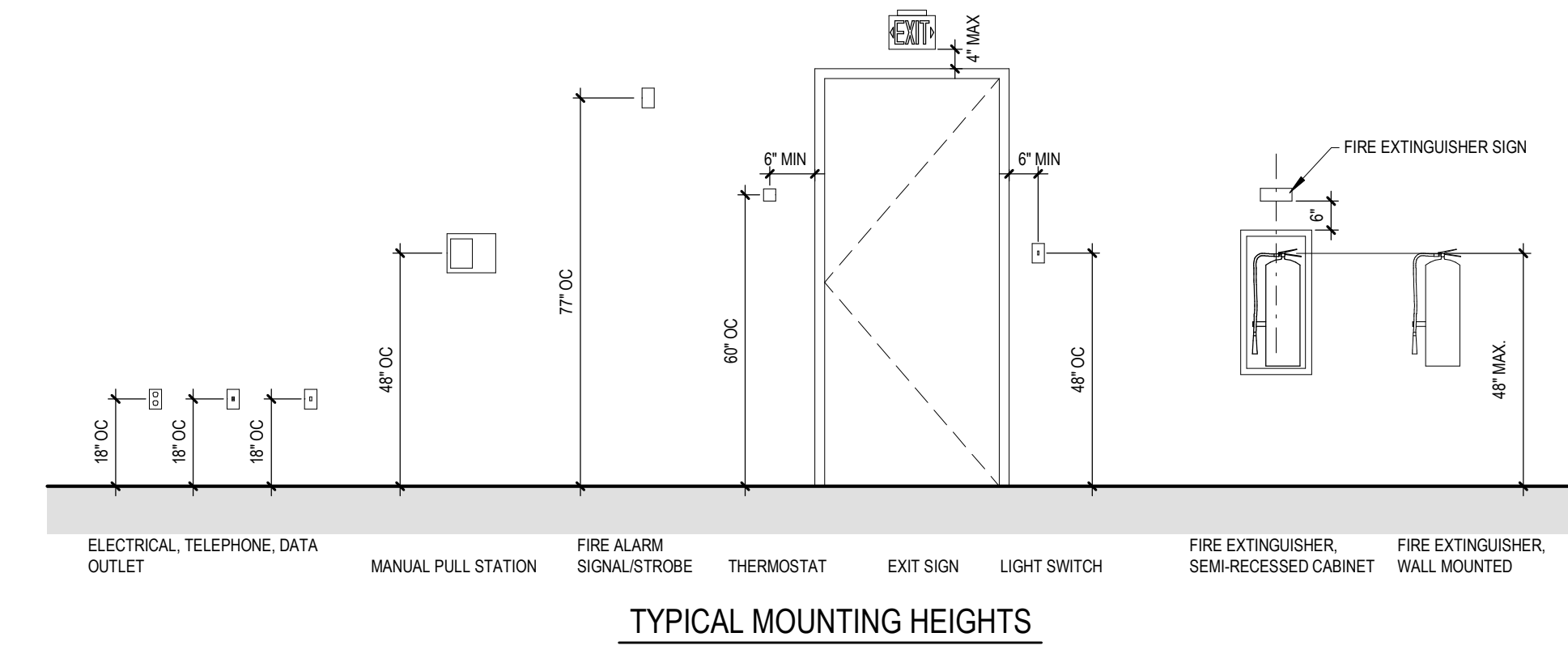


**GENERAL NOTES**

- DO NOT SCALE DRAWINGS.
- THE DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT DOCUMENTS AND PROJECT SPECIFICATIONS.
- FIELD VERIFY JOB CONDITIONS AND DIMENSIONS AND NOTIFY THE ARCHITECT OF DEVIATIONS FROM THE DRAWINGS.
- INSTALL MATERIALS AND PRODUCTS IN ACCORDANCE WITH THE MANUFACTURERS LATEST WRITTEN RECOMMENDATIONS.
- SUPPORT EQUIPMENT FROM STRUCTURAL MEMBERS. DO NOT SUPPORT FROM DECK UNON.
- GENERAL CONTRACTOR SHALL PROVIDE LINTELS, LOUVERS AND SUPPORTS AT MECHANICAL OPENINGS UNON.
- FIRE-RETARDANT WOOD BLOCKING SHALL BE INSTALLED FOR WALL MOUNTED ITEMS WHERE REQUIRED.
- USE SOLID CORE BRICK ABOVE RECESSED AREAS TO ACCOMMODATE THE EXTERIOR ARCHITECTURE. REFER TO EXTERIOR ELEVATIONS.

**HACP - Housing Authority of the City of Pittsburgh**  
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**CONSTRUCTION DOCUMENTS REVISION 3**  
 09/03/2020

- IT IS THE RESPONSIBILITY OF ALL PRIME CONTRACTORS TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSION. REPORT DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
- COORDINATE ALL WORK WITH MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
- PATCH ALL PENETRATIONS IN EXISTING FLOOR SLABS TO MATCH ADJACENT SURFACES.
- PATCH PERIMETER WALLS TO PROVIDE A SMOOTH LEVEL OF DRYWALL FINISH FROM FLOOR TO UNDERSIDE OF EXISTING DECK, UNLESS NOTED OTHERWISE.
- PATCH EXISTING CONCRETE ENCASED BEAMS AS NEEDED TO REPAIR ANY LOOSE CONCRETE AT BEAM ENCASUREMENT. PATCH TO MATCH EXISTING.
- ADD GYPSUM BOARD ABOVE 8'-0" AT EXISTING PERIMETER, STAIR AND CORE LOCATIONS WHERE GYPSUM BOARD DOES NOT EXIST. PATCH AND SKIMCOAT TO PREP FOR NEW PAINT FINISH.
- PATCH ANY HOLES IN WALLS AT BEAM AND COLUMN CONNECTION.
- PATCH ELEVATOR HOISTWAY AS NEEDED TO MEET 2-HR RATING. BOLT SECURE DOORS BEFORE COVERING.
- FIREPROOFING THAT HAS BEEN DAMAGED AND/OR DISTURBED THROUGHOUT THE ENTIRETY OF THE FLOOR TO BE REPAIRED IN COMPLIANCE WITH ALL APPLICABLE CODES. WORK INCLUDES, BUT IS NOT LIMITED TO, DAMAGE INCURRED DURING PREVIOUS DEMOLITION(S) AND THROUGHOUT NEW CONSTRUCTION WORK.
- EXISTING CORE WALLS TO BE REPAIRED TO RECEIVE NEW FINISHES. GENERAL CONTRACTOR SHALL VERIFY EXTENT OF REPAIRS REQUIRED TO COMPLETE NEW CONSTRUCTION WORK. REFER TO ARCHITECTURAL DRAWINGS FOR SCOPE OF NEW CONSTRUCTION.
- ALL EXISTING COLUMNS THAT HAVE ANY HOLES LARGER THAN 1" TO BE PATCHED TO MATCH EXISTING FINISH. PREP FOR PAINTING.
- FLOORS TO RECEIVE FLOOR LEVELING TOPPING AS REQUIRED TO PROVIDE REQUIRED LEVEL SURFACE FOR FINAL FINISHES. REFER TO PROJECT MANUAL FOR SPECIFICATION.
- GC TO PROVIDE FIRESTOPPING AT FLOOR AND STAIR PENETRATIONS TO MEET THE CODE REQUIRED RATINGS.
- PROVIDE FIRE CALKING AROUND ANY PENETRATIONS AT SHAFT WALL. PATCH AND SKIMCOAT DRYWALL TO PREP FOR NEW PAINT FINISH.
- PROVIDE BLOCKING AT METAL STUD WALLS WHERE WALL MOUNTED PARTITIONS TO BE PROVIDED BY DEMOUNTABLE PARTITION PROVIDERS.
- PROVIDE BLOCKING AT METAL STUD WALLS WHERE WALL MOUNTED TV'S WILL BE INSTALLED. REFER TO ELECTRICAL AND AVIT DRAWINGS FOR ADDITIONAL INFORMATION. IF MOUNTED TO A DEMOUNTABLE WALL, BLOCKING TO BE PROVIDED BY THE DEMOUNTABLE PARTITION PROVIDER.
- PATCH EXISTING WALLS AT LOCATIONS WHERE OLD OUTLETS, EXTINGUISHER CABINETS OR OTHER DEVICES WERE REMOVED. PREPARE FOR FINAL FINISH.
- PROVIDE CORNER BEAD AND DRYWALL FINISHING AT EXISTING WINDOW RETURNS WHERE GYPSUM INTEGRITY IS COMPROMISED. SKIMCOAT AREAS WHERE DRYWALL FINISH HAS BEEN DAMAGED. PREPARE FOR PAINT FINISH.
- PATCH EXISTING HOLES IN ELEVATOR RESTROOM CORE AND PREPARE GWB FOR FINAL PAINT FINISH.
- PATCH EXTERIOR WALLS AS REQUIRED FOR NEW OUTLETS.
- GC TO PROVIDE FIRE TREATED PLYWOOD BLOCKING AT NEW ELECTRICAL PANEL MOUNTING LOCATIONS AND AT WALL MOUNTED EQUIPMENT LOCATIONS.
- ALL APPLIANCES BY GC. COORDINATE APPLIANCE SIZES WITH CASEWORK.
- PROVIDE NEW WINDOW SILL TO MATCH EXISTING WHERE NEEDED.
- REPAIR EXISTING WINDOW SILL TO MATCH EXISTING WHERE NEEDED.
- MODIFY EXISTING STAIR DOOR TO INCORPORATE ELECTRONIC STRIKE TO ALLOW DOOR TO REMAIN LOCKED. DOOR TO BE UNLOCKED FROM THE STAIR SIDE WITH CARD READER. LOCK TO BE RELEASED FROM OFFICE SIDE WITH EXISTING PANIC HARDWARE. GC TO PROVIDE AND INSTALL ELECTRIC STRIKE. DOOR TO BE CAPABLE OF BEING UNLOCKED SIMULTANEOUSLY WITHOUT UNLATCHING UPON A SIGNAL FROM THE FIRE COMMAND CENTER. REFER TO DOOR SCHEDULE.
- PATCH ANY HOLES AT WALLS ABOVE WINDOW HEAD HEIGHT.
- HOLD COLUMN WRAP AS TIGHT TO PLUMBING AS POSSIBLE UNLESS OTHERWISE NOTED.
- FAIL SAFE ELECTROMAGNETICALLY LOCKED DOOR HARDWARE PROVIDED AND INSTALLED BY DEMOUNTABLE PARTITION PROVIDER.
- VERTICAL DOOR PULLS TO MEET ACCESSIBILITY GUIDELINES. CARD READER BY OWNER. PUSH TO EXIT BUTTON, AND DOOR RELEASE SENSOR TO BE PROVIDED AND INSTALLED BY GC.
- REFER TO DOOR SCHEDULES FOR DOOR AND DOOR HARDWARE SCOPE. DOOR HARDWARE PROVIDED BY DEMOUNTABLE PARTITION PROVIDER TO INSTALL.



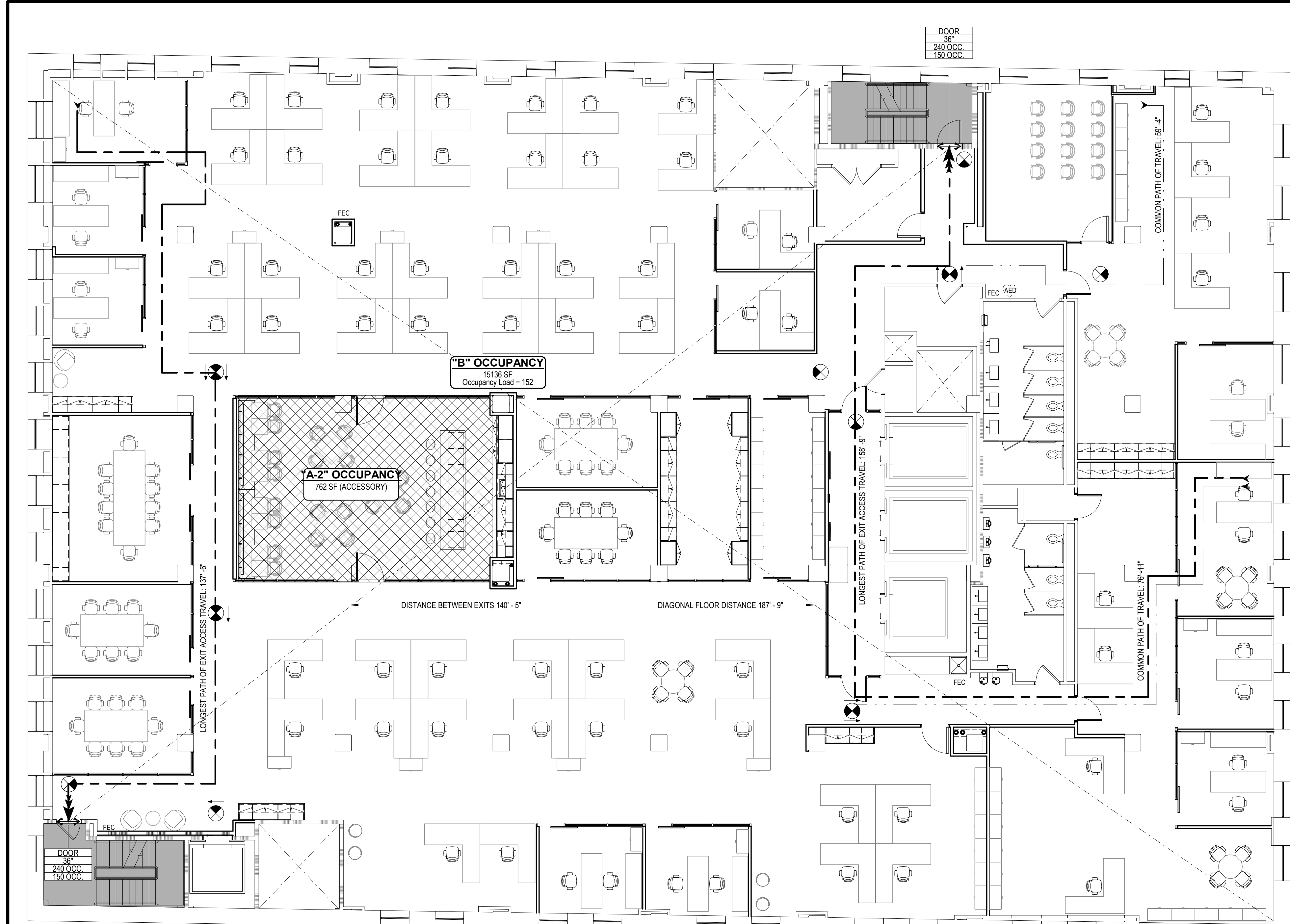
HIGH-LOW DRINKING FOUNTAIN

DRINKING FOUNTAIN

ACCESSIBLE LAVATORY







**2 OVERALL LIFE SAFETY PLAN - LEVEL 05**  
1/8" = 1'-0"

**APPLICABLE CODES - LEVEL 05**

**APPLICABLE CODES:**  
 UNIFORM CONSTRUCTION CODE (UCC), PA ACT 45  
 INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION  
 INTERNATIONAL MECHANICAL CODE (IMC), 2015 EDITION  
 INTERNATIONAL PLUMBING CODE (IPC), 2015 EDITION  
 INTERNATIONAL FIRE CODE (IFC), 2015 EDITION  
 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION  
 ARTICLE XV OF THE ALLEGHENY COUNTY HEALTH DEPARTMENT'S  
 RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE -  
 CURRENT EDITION  
 NFPA 70 - 2008 ELECTRICAL CODE

**ACCESSIBILITY STANDARDS:**  
 ICC/ANSI A117.1 - 2009 ACCESSIBLE AND USABLE BUILDINGS AND  
 FACILITIES  
 CHAPTER 11 - 2018 INTERNATIONAL BUILDING CODE  
 APPENDIX E - 2018 INTERNATIONAL BUILDING CODE

**AUTHORITY HAVING JURISDICTION:**  
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 INSPECTIONS

**CHAPTER 3 - OCCUPANCY CLASSIFICATION**

TYPE "B" BUSINESS - 15,136 SF

303.1.2 THE FOLLOWING ROOMS AND SPACES SHALL NOT BE CLASSIFIED AS ASSEMBLY OCCUPANCIES: A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS, OR LESS THAN 750 SQUARE FEET IN AREA, AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP "B" OCCUPANCY OR AS A PART OF THAT OCCUPANCY.

**CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY**

403.2.1.1.2 IN A HIGH-RISE BUILDING, THE FIRE-RESISTANCE RATING OF THE BUILDING ELEMENTS IN TYPE B CONSTRUCTION SHALL BE PERMITTED TO BE REDUCED TO THE FIRE-RESISTANCE RATING IN TYPE IIA.

**CHAPTER 5 - BUILDING HEIGHT & AREA**

TYPE "B" CONSTRUCTION (EXISTING)

ALLOWABLE HEIGHT - 12 STORIES / 180' - 0"  
 ACTUAL - 9 STORIES / 116' - 10"  
 ALLOWABLE BUILDING AREA - UL SF/FLOOR  
 ACTUAL (LEVEL 05) - 16,434 SF

508.1 WHERE A BUILDING CONTAINS MORE THAN ONE OCCUPANCY GROUP, THE BUILDING OR PORTION THEREOF SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 508.2, 508.3, 508.4, OR A COMBINATION OF THESE SECTIONS.

508.3 AREAS/OCCUPANCIES WITHIN SCOPE ARE TO BE CONSIDERED NONSEPARATED OCCUPANCIES IN ACCORDANCE TO THE PROVISIONS SET FORTH IN SECTION 508.2.

**CHAPTER 6 - TYPES OF CONSTRUCTION**

TYPE "B" CONSTRUCTION (EXISTING)

TABLE 601 PRIMARY STRUCTURE: 1 HOUR  
 BEARING WALLS - EXTERIOR: 1 HOUR  
 BEARING WALLS - INTERIOR: 1 HOUR  
 NON-BEARING WALLS - INTERIOR: 0 HOUR  
 FLOOR CONSTRUCTION: 1 HOUR  
 ROOF CONSTRUCTION: 1 HOUR

**CHAPTER 8 - INTERIOR FINISHES**

803.11 INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN TABLE 803.11 FOR THE GROUP AND LOCATION DESIGNATED.

TABLE 803.11 OCCUPANCY GROUP B  
 EXIT ENCLOSURES/PASSAGEWAYS: B  
 CORRIDORS: C  
 ROOMS/ENCLOSED SPACES: C

**CHAPTER 9 - FIRE PROTECTION SYSTEMS**

906.1 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN NEW AND EXISTING GROUP B OCCUPANCIES.

TABLE 906.3(1) FIRE EXTINGUISHER - CLASS A FIRE, 2-A RATING  
 MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER = 75'-0"

907.1 FIRE ALARM AND DETECTION SYSTEM AND EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM PROVIDED BY BASE BUILDING.

**CHAPTER 10 - MEANS OF EGRESS**

1004.1.1 OCCUPANCY GROUP B: BUSINESS AREAS - 100 GROSS  
 15,081 SF / 100 GROSS SF/OCCUPANT = 152 OCCUPANTS  
 152 OCCUPANTS IN SCOPE (LEVEL 01 ONLY)

1005.3.1 THE TOTAL WIDTH OF MEANS OF EGRESS SHALL NOT BE LESS THAN THE TOTAL OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.3 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.2 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

EXCEPTION #1 FOR OTHER THAN GROUP H AND I-2 OCCUPANCIES, THE CAPACITY, IN INCHES, OF MEANS OF EGRESS SHALL BE CALCULATED BY MULTIPLYING BY 0.2 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.15 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

(STAIRWAYS) 152 OCCUPANTS x 0.2" = 30.4" REQUIRED / 92" (EXISTING)

(OTHERS) 152 OCCUPANTS x 0.15" = 22.8" REQUIRED / 68" PROVIDED

1006.2.1 TWO EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD OR THE COMMON PATH OF TRAVEL EXCEEDS THE VALUES LISTED IN TABLE 1006.2.1.

TABLE 1006.2.1 OCCUPANCY GROUP B (SPRINKLERED)  
 MAXIMUM OCCUPANT LOAD OF SPACE: 49  
 MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 100'-0"

1007.1.1 THE SEPARATION DISTANCE BETWEEN TWO EXIT ACCESS DOORWAYS SHALL NOT BE LESS THAN ONE-HALF OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED.

EXCEPTION #2 WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE SEPARATION DISTANCE SHALL NOT BE LESS THAN ONE-THIRD OF THE OVERALL DIAGONAL DIMENSION OF THE AREA SERVED.

1009.1 ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS FROM ANY ACCESSIBLE SPACE.

**CHAPTER 10 - MEANS OF EGRESS**

1017.2 EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED THE DISTANCES GIVEN IN TABLE 1017.2.

TABLE 1017.2 OCCUPANCY GROUP B (SPRINKLERED): 300'-0"

1020.1 CORRIDORS SHALL BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLE 1020.1.

TABLE 1020.1 CORRIDORS SERVING OCCUPANCY GROUPS B WITH AN OCCUPANT LOAD GREATER THAN 30 IN A BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM = 0 HOUR FIRE-RESISTANCE RATING REQUIRED.

1020.4 WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 20'-0".

EXCEPTION #2 IN OCCUPANCY GROUP B, WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE LENGTH OF THE DEAD-END CORRIDORS SHALL NOT EXCEED 50'-0".

**CHAPTER 11 - ACCESSIBILITY**

1109.2 AT LEAST ONE OF EACH TYPE OF FIXTURE, ELEMENT, CONTROL, OR DISPENSER IN EACH ACCESSIBLE TOILET ROOM SHALL BE ACCESSIBLE.

**CHAPTER 30 - ELEVATORS AND CONVEYING SYSTEMS**

3006.2 ELEVATOR HOISTWAY DOOR OPENINGS SHALL BE PROTECTED IN HIGH-RISE BUILDINGS IN ACCORDANCE WITH SECTION 3006.3.

3006.3.4 THE ELEVATOR HOISTWAY SHALL BE PRESSURIZED IN ACCORDANCE WITH SECTION 909.2.1.

**CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS**

(ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV)

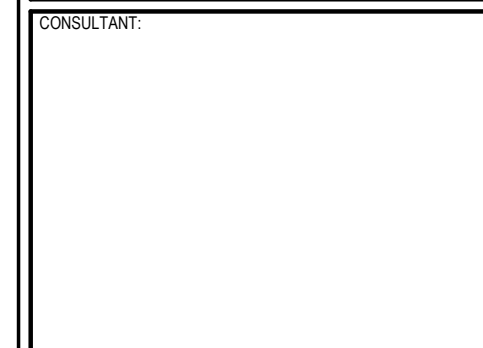
403.3.3 (IPC 2015) IN OCCUPANCIES OTHER THAN COVERED AND OPEN MALL BUILDINGS, THE REQUIRED PUBLIC AND EMPLOYEE TOILET FACILITIES SHALL BE LOCATED NOT MORE THAN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH THE TOILET FACILITIES AND THE PATH OF TRAVEL TO SUCH FACILITIES SHALL NOT EXCEED A DISTANCE OF 500'.

CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV) DELETE 500' FROM IPC 403.3.3 AND REPLACE WITH 500'.

REFER TO G106 "APPLICABLE CODES - LEVEL 06" FOR COMBINED TOTAL MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES FOR LEVEL 05 AND LEVEL 06

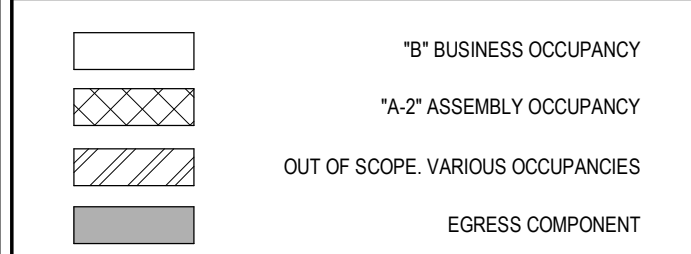
**LIFE SAFETY NOTES**

1. AN ASTERISK (\*) ON THE IBC OCCUPANCY TAG INDICATES THE AREA CALCULATION IS A ROUNDED UP GROSS AREA MEASUREMENT FOR THE TRUE REQUIRED OCCUPANCY OF THIS AREA PER LEVEL AS DEFINED IN TABLE 1004.1.1 OF THE INTERNATIONAL BUILDING CODE, REFER TO THE GROSS AREA SCHEDULE.

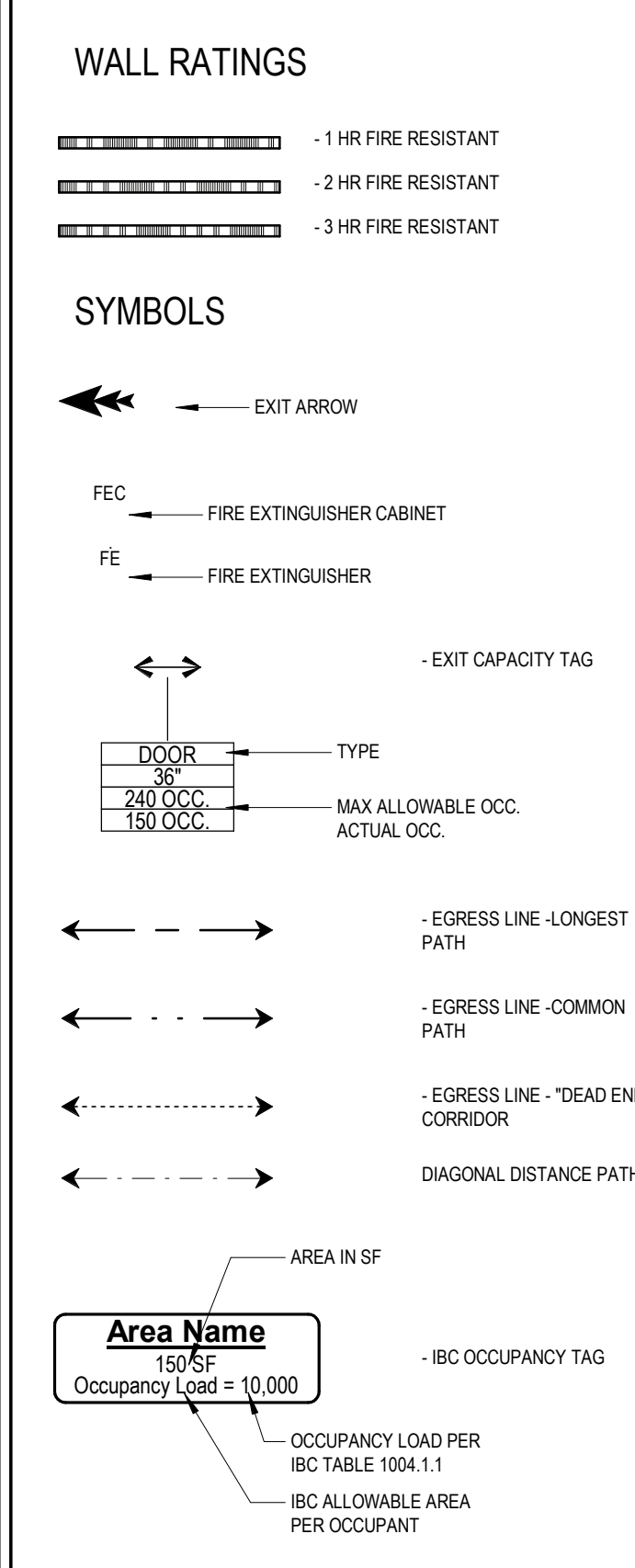


200 ROSS STREET  
 PITTSBURGH, PA 15219  
 (412) 456-5000  
 hapg.org

**OCCUPANCY LEGEND**



**LIFE SAFETY LEGEND**



**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

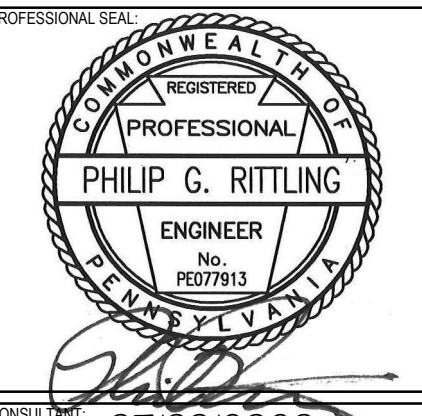
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

SHEET NAME:  
**OVERALL LIFE SAFETY PLAN - LEVEL 05**

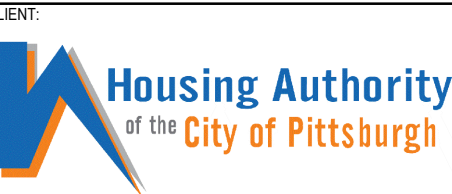
STREET NO. **G105**







CONSULTANT: 07/09/2020  
**TSE**  
 Taylor Structural Engineers, Inc.  
 2275 Swallow Hill Road, Building 100  
 Pittsburgh, Pennsylvania 15220  
 Phone: (412) 722-0880  
 Fax: (412) 722-0887  
 TSE Project No.: 6229



200 ROSS STREET  
 PITTSBURGH, PA 15219  
 (412) 456-5000  
 hacp.org

HACP - Housing Authority of the City of Pittsburgh  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

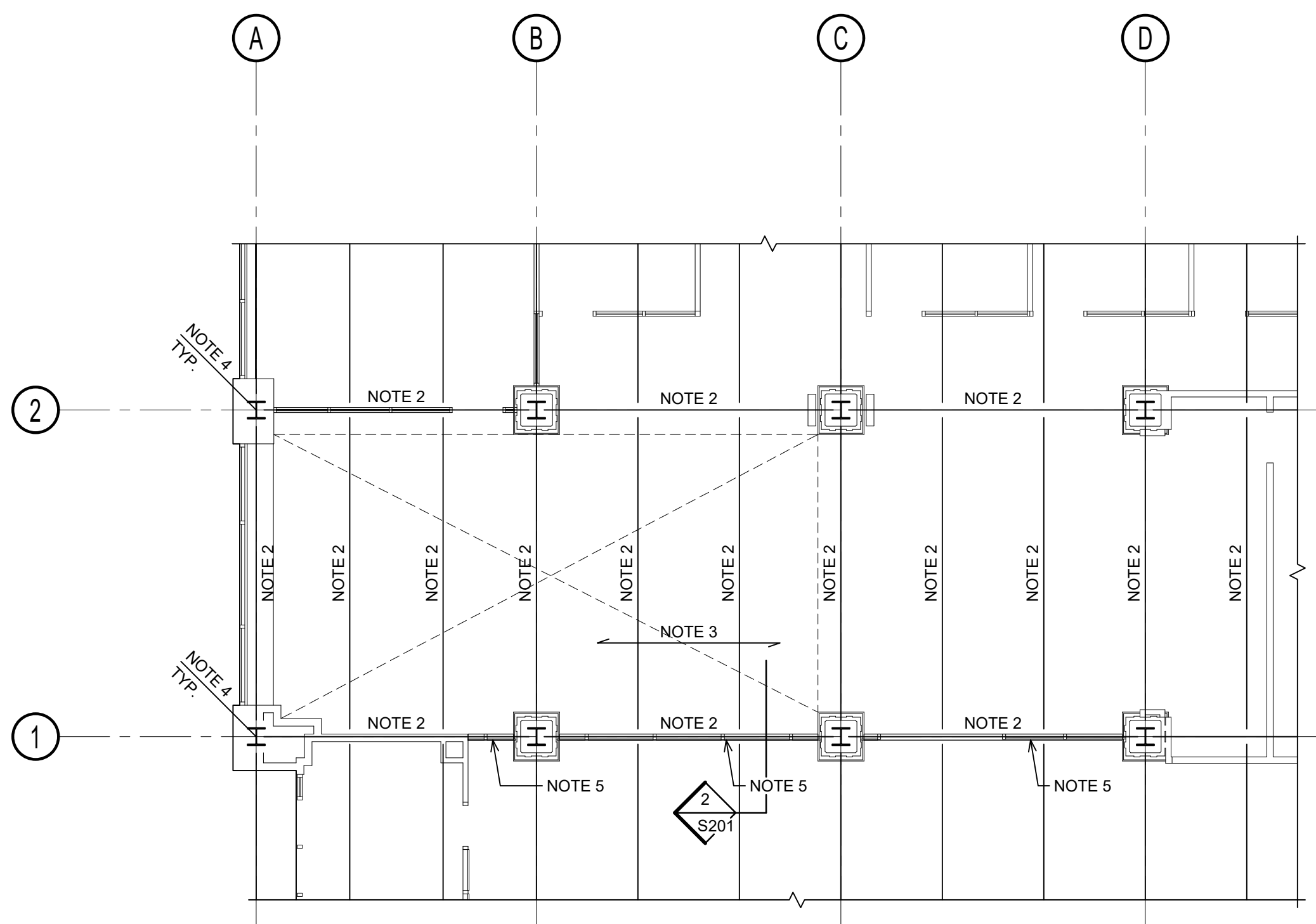
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2	100% CONSTRUCTION DOCUMENTS REV. 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REV. 1	07/29/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	TFB	PGR

SHEET NAME:

PARTIAL STRUCTURAL  
 FRAMING PLANS

S101  
 TRUE NORTH  
 PLAN NORTH

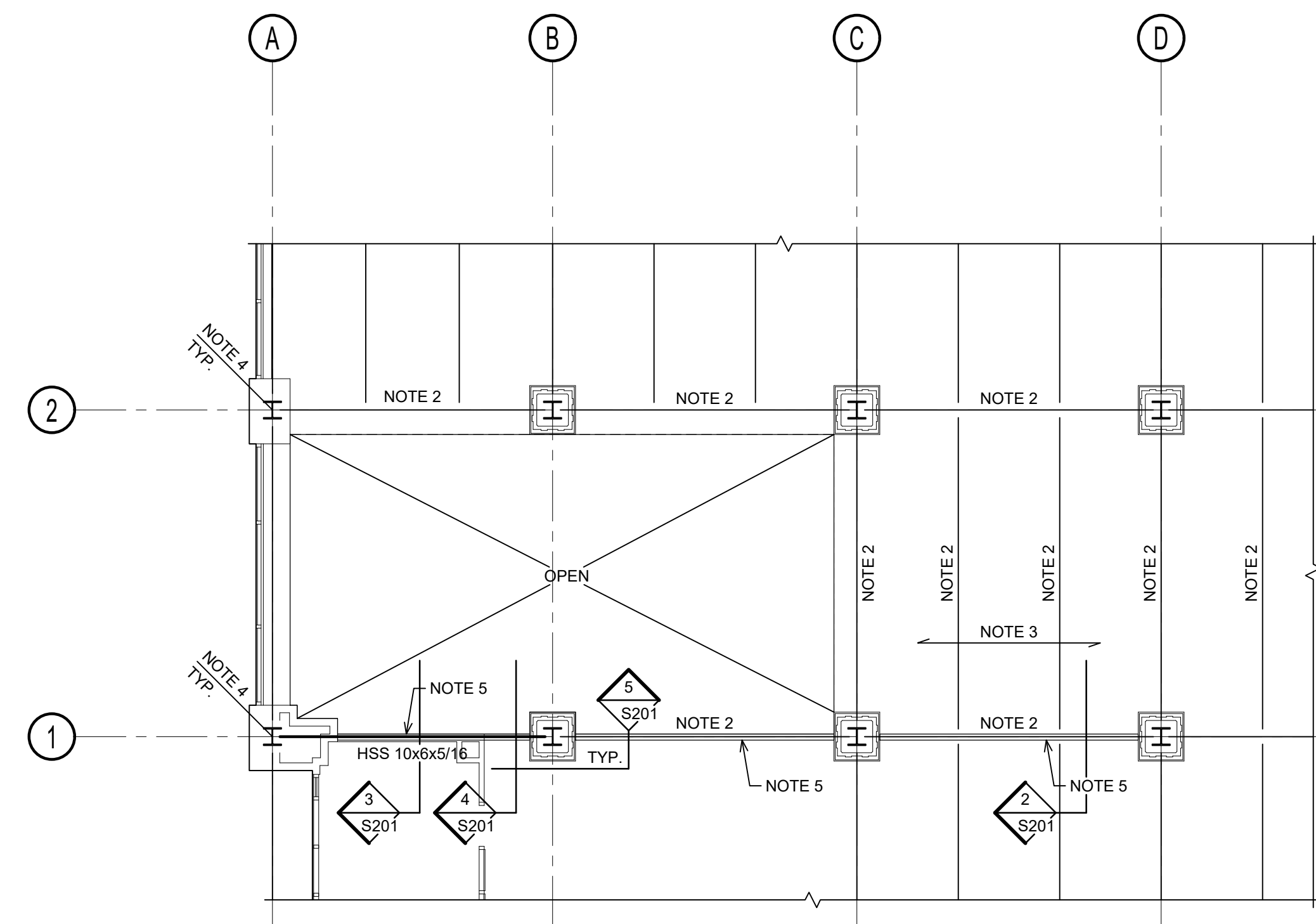


**LEVEL 01 FRAMING PLAN**

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF STRUCTURAL WORK. NOTIFY ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. EXISTING STEEL BEAM/GIRDER ENCASED IN CONCRETE FIRE PROOFING. VERIFY IN FIELD.
3. EXISTING CONCRETE FLOOR DECK. VERIFY IN FIELD.
4. EXISTING BUILT-UP STEEL COLUMN ENCASED IN CONCRETE FIREPROOFING. VERIFY IN FIELD.
5. NEW CURTAIN WALL. REFER TO ARCHITECTURAL DRAWINGS AND MANUFACTURER REQUIREMENTS FOR ADDITIONAL INFORMATION.

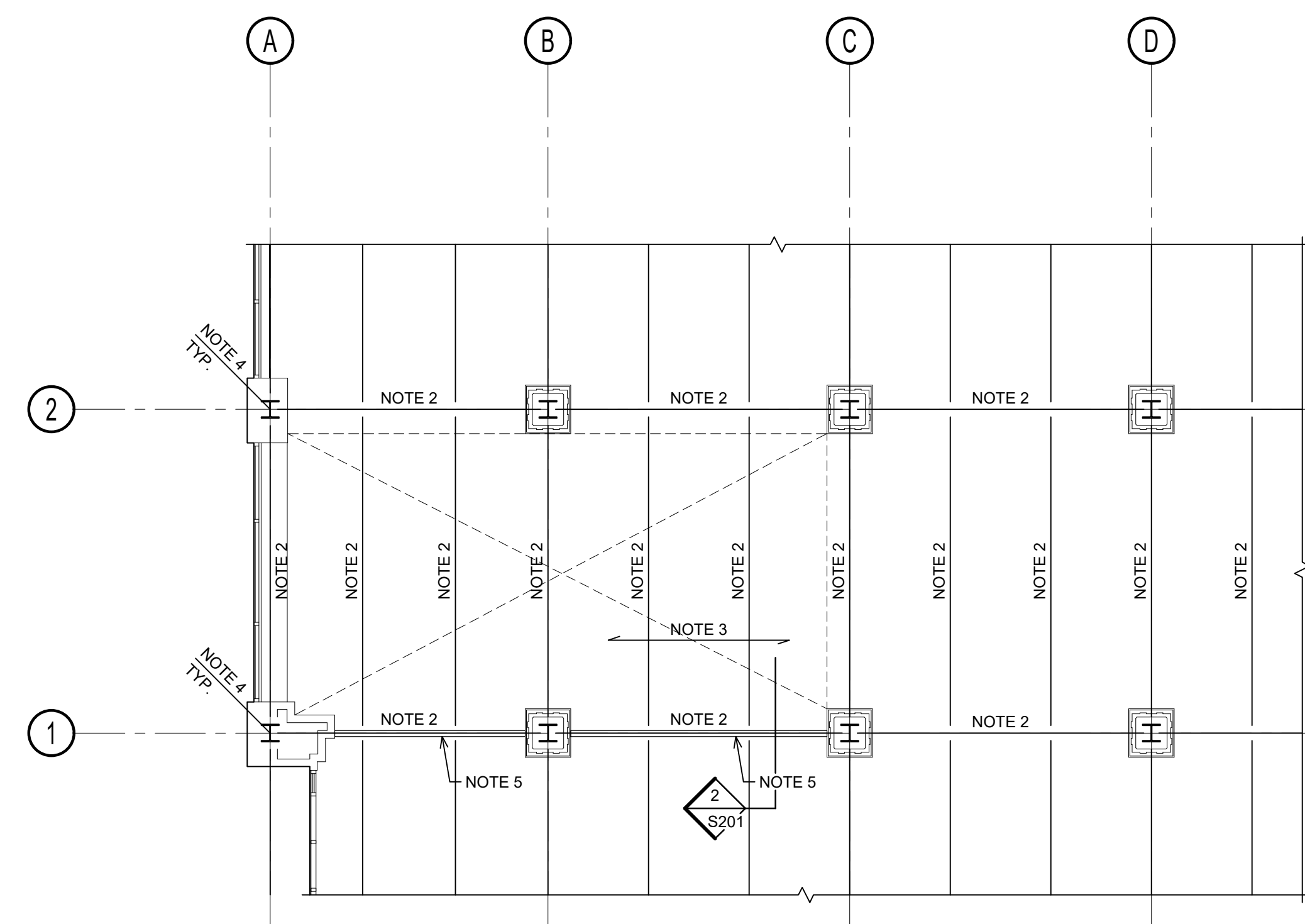


**MEZZANINE FRAMING PLAN**

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF STRUCTURAL WORK. NOTIFY ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. EXISTING STEEL BEAM/GIRDER ENCASED IN CONCRETE FIRE PROOFING. VERIFY IN FIELD.
3. EXISTING CONCRETE SLAB-ON-DECK. VERIFY IN FIELD.
4. EXISTING BUILT-UP STEEL COLUMN ENCASED IN CONCRETE FIREPROOFING. VERIFY IN FIELD.
5. NEW CURTAIN WALL. REFER TO ARCHITECTURAL DRAWINGS AND MANUFACTURER REQUIREMENTS FOR ADDITIONAL INFORMATION.



**LEVEL 02 FRAMING PLAN**

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF STRUCTURAL WORK. NOTIFY ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. EXISTING STEEL BEAM/GIRDER ENCASED IN CONCRETE FIRE PROOFING. VERIFY IN FIELD.
3. EXISTING CONCRETE FLOOR DECK. VERIFY IN FIELD.
4. EXISTING BUILT-UP STEEL COLUMN ENCASED IN CONCRETE FIREPROOFING. VERIFY IN FIELD.
5. NEW CURTAIN WALL. REFER TO ARCHITECTURAL DRAWINGS AND MANUFACTURER REQUIREMENTS FOR ADDITIONAL INFORMATION.



**GENERAL NOTES:**

**DESIGN LIVE LOADS**

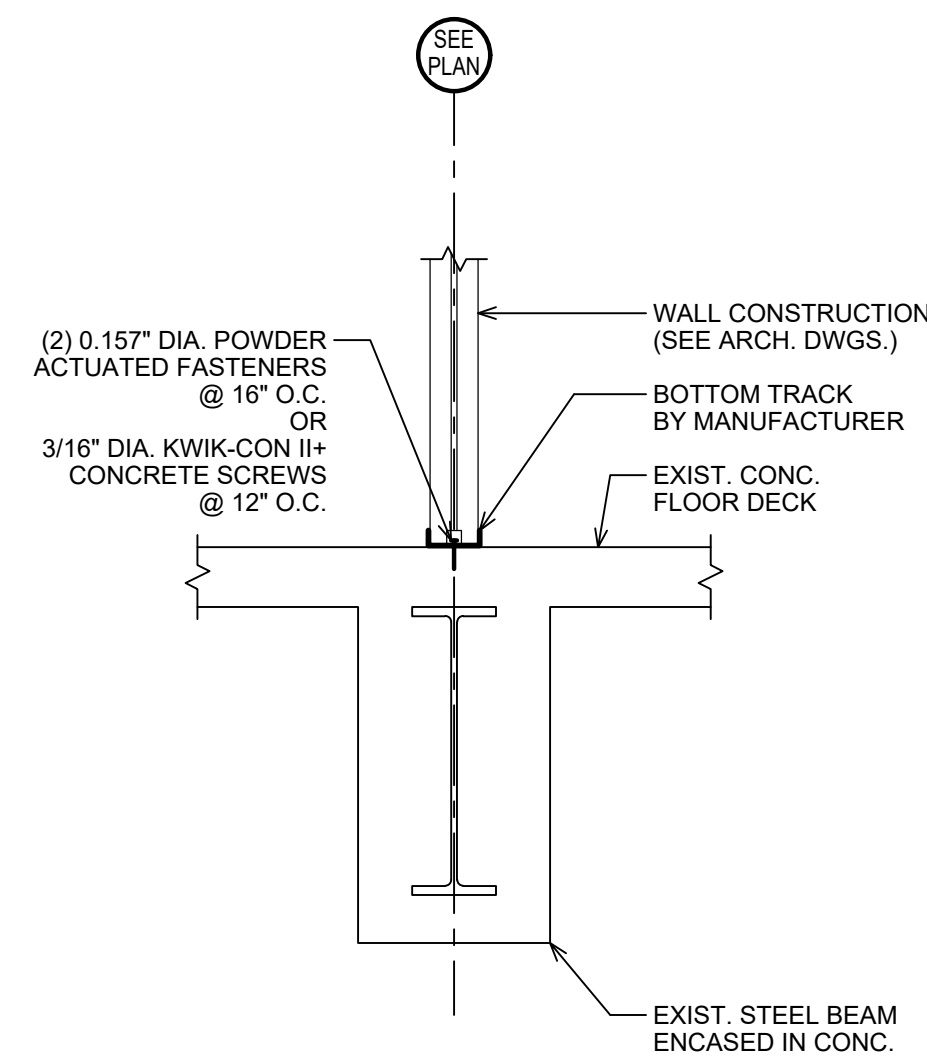
- DL-1 INTERIOR WIND PRESSURE ..... 10 PSF
- DL-2 CURTAIN WALL DEAD LOAD ..... 15 PSF
- DL-3 CURTAIN WALL DEFLECTION LIMIT ..... 1/4"

**STRUCTURAL STEEL**

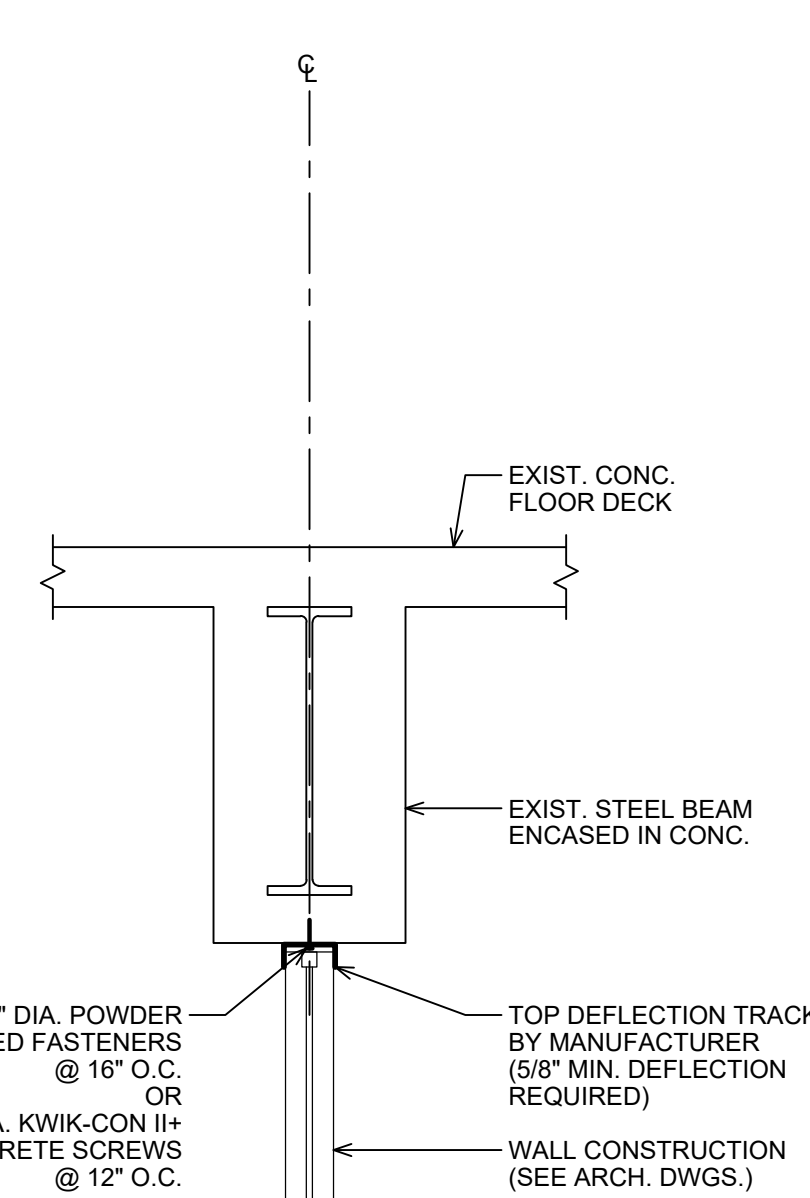
- S-1 ALL STRUCTURAL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360-10) OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- S-2 GRADE OF STEEL  
 WIDE FLANGE SHAPES ..... ASTM A992  
 STEEL HSS SHAPES ..... ASTM A500, GRADE B OR C  
 STEEL PIPES ..... ASTM A53, TYPE E, GRADE B  
 COLUMN BASE PLATES AND MOMENT CONNECTION END PLATES ..... ASTM A572, GRADE 50  
 OTHER SHAPES, PLATE, AND BARS ..... ASTM A36, TYPICAL
- S-3 ALL STRUCTURAL BOLTS SHALL BE ASTM A325, 3/4" DIAMETER, TYPE N, UNLESS NOTED OTHERWISE.
- S-4 ALL STRUCTURAL WELDING SHALL CONFORM TO AWS D1.1 OF THE AMERICAN WELDING SOCIETY. E70 ELECTRODES SHALL BE USED FOR ALL WELDING.
- S-5 ALL BEAM END CONNECTIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED FOR THE END REACTIONS INDICATED ON THE DRAWINGS. WHERE END REACTIONS ARE NOT INDICATED, THE END CONNECTION SHALL BE DESIGNED FOR ONE HALF OF THE UNIFORM LOAD CAPACITY OF THE MEMBER IN ACCORDANCE WITH AISC SPECIFICATIONS.
- S-6 ALL MODIFICATIONS REQUIRED FOR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE DURING SHOP FABRICATION. FIELD BURNING OF STRUCTURAL STEEL IS PROHIBITED.
- S-7 UNLESS SPECIFICALLY DIMENSIONED ON PLANS, ALL FILLER BEAMS WITHIN BAYS ARE INTENDED TO BE EQUALLY SPACED.
- S-8 ALL STRUCTURAL STEEL SHALL BE SHOP COATED WITH METAL PRIMER CONFORMING TO SSPC-PAINT 25. ALL STEEL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP2 "HAND TOOL CLEANING" OR SSPC-SP3 "POWER TOOL CLEANING" PRIOR TO APPLYING THE PRIMER COAT. SURFACES WITHIN 3 INCHES OF WELDS SHALL NOT BE PAINTED PRIOR TO WELDING. MEMBERS TO BE FIREPROOFED AND PORTIONS TO BE IN CONTACT WITH SLIP-CRITICAL BOLTED CONNECTIONS SHALL NOT BE PAINTED.

**CONCRETE/MASONRY ANCHORS**

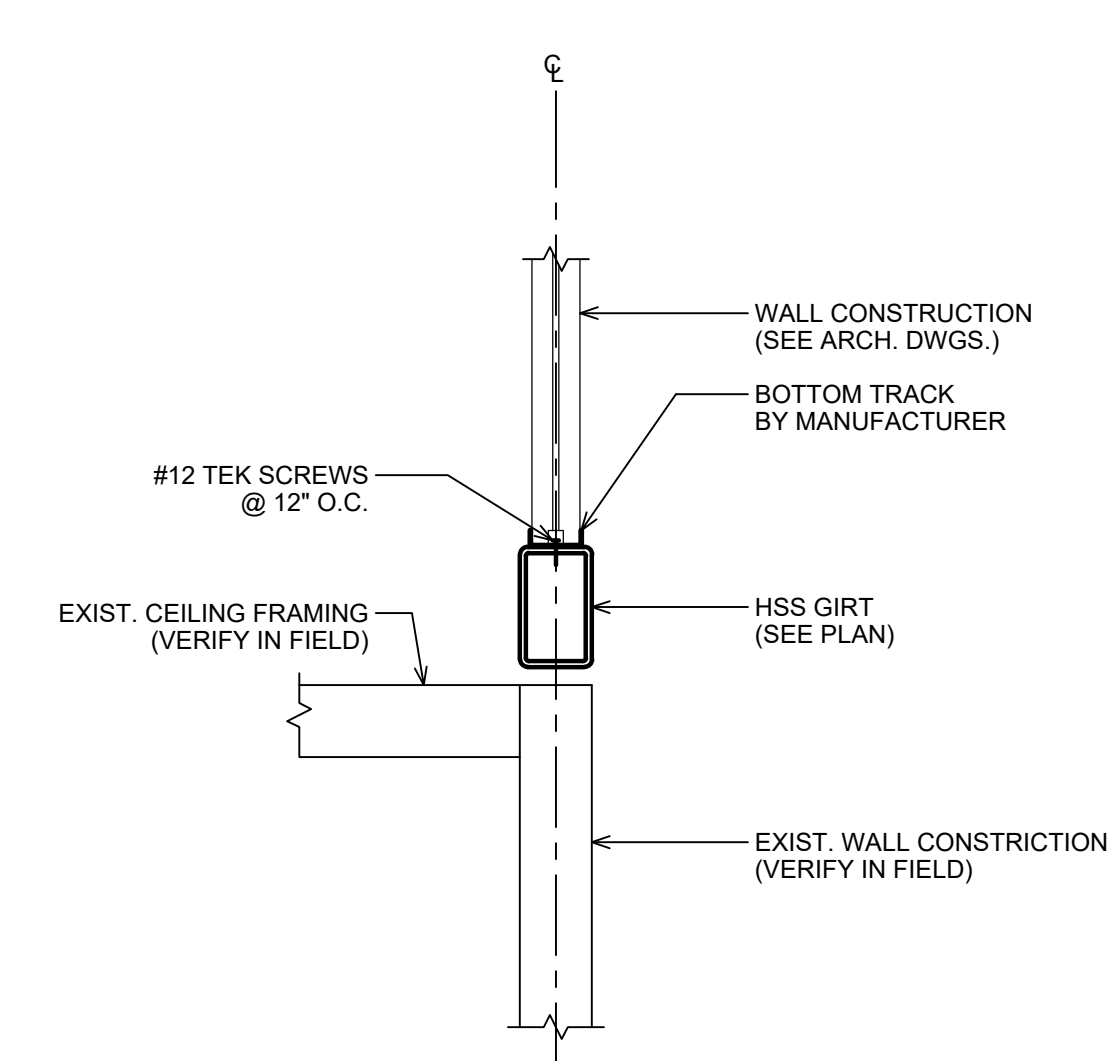
- A-1 ALL EXPANSION ANCHORS SHALL BE "HILTI KWIK-BOLT 3", AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION A-A 1923A, TYPE 4.
- A-2 ALL SLEEVE ANCHORS SHALL BE "HILTI HLC SLEEVE ANCHORS", AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL.
- A-3 ALL ADHESIVE ANCHORS SHALL BE "HILTI HIT ADHESIVE ANCHORS", AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL. SCREEN TUBES SHALL BE ADDED AT ALL INSTALLATIONS IN CAVITY WALLS AND WALLS WITH HOLLOW CELLS.
- A-4 ALL THREADED RODS FOR ADHESIVE ANCHORS SHALL BE "HILTI HAS-E" CARBON STEEL THREADED RODS, AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., CONFORMING TO ISO 898 CLASS 5.8 WITH A MINIMUM TENSILE STRENGTH OF 72.5 KSI AND A MINIMUM YIELD STRENGTH OF 58 KSI.
- A-5 ALL SCREW ANCHORS SHALL BE "KWIK-CON II+ TORX HEX HEAD", AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL.
- A-6 ALL POWDER ACTUATED FASTENERS SHALL BE "HILTI X-U" AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL.
- A-7 ALL ANCHOR SPACING, EMBEDMENT, EDGE DISTANCE, AND INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. REFER TO SECTIONS AND DETAILS ON THE DRAWINGS FOR ADDITIONAL INFORMATION.
- A-8 SUBSTITUTIONS:  
 ANY PROPOSED ANCHOR SUBSTITUTIONS BY THE CONTRACTOR MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. PROPOSED SUBSTITUTION SUBMITTALS MUST INCLUDE STRUCTURAL CALCULATIONS, SIGNED AND SEALED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER, DEMONSTRATING THAT THE PROPOSED ANCHORS ARE STRUCTURALLY ADEQUATE FOR THE SPECIFIC LOADS AND CONDITIONS AT EACH LOCATION WHERE THE SUBSTITUTION IS TO BE CONSIDERED. (DUE TO VARIOUS CONDITIONS AND ADJUSTMENT FACTORS THAT MUST BE CONSIDERED WHEN CALCULATING ANCHOR CAPACITIES, LOAD TABLES PREPARED BY OTHER MANUFACTURERS FOR SIMILAR ANCHOR TYPES ARE NOT SUFFICIENT FOR DETERMINING ANCHOR SUITABILITY).



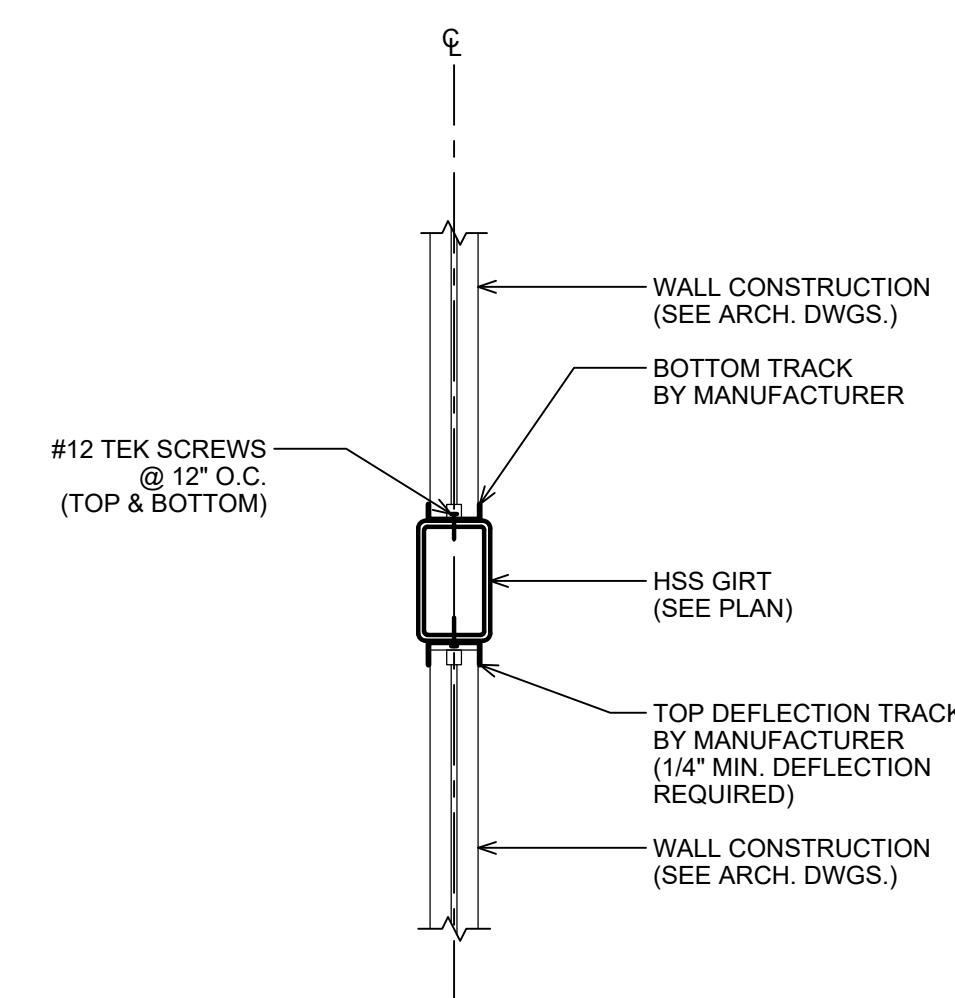
**1 SECTION**  
S201 SCALE: 3/4" = 1'-0"



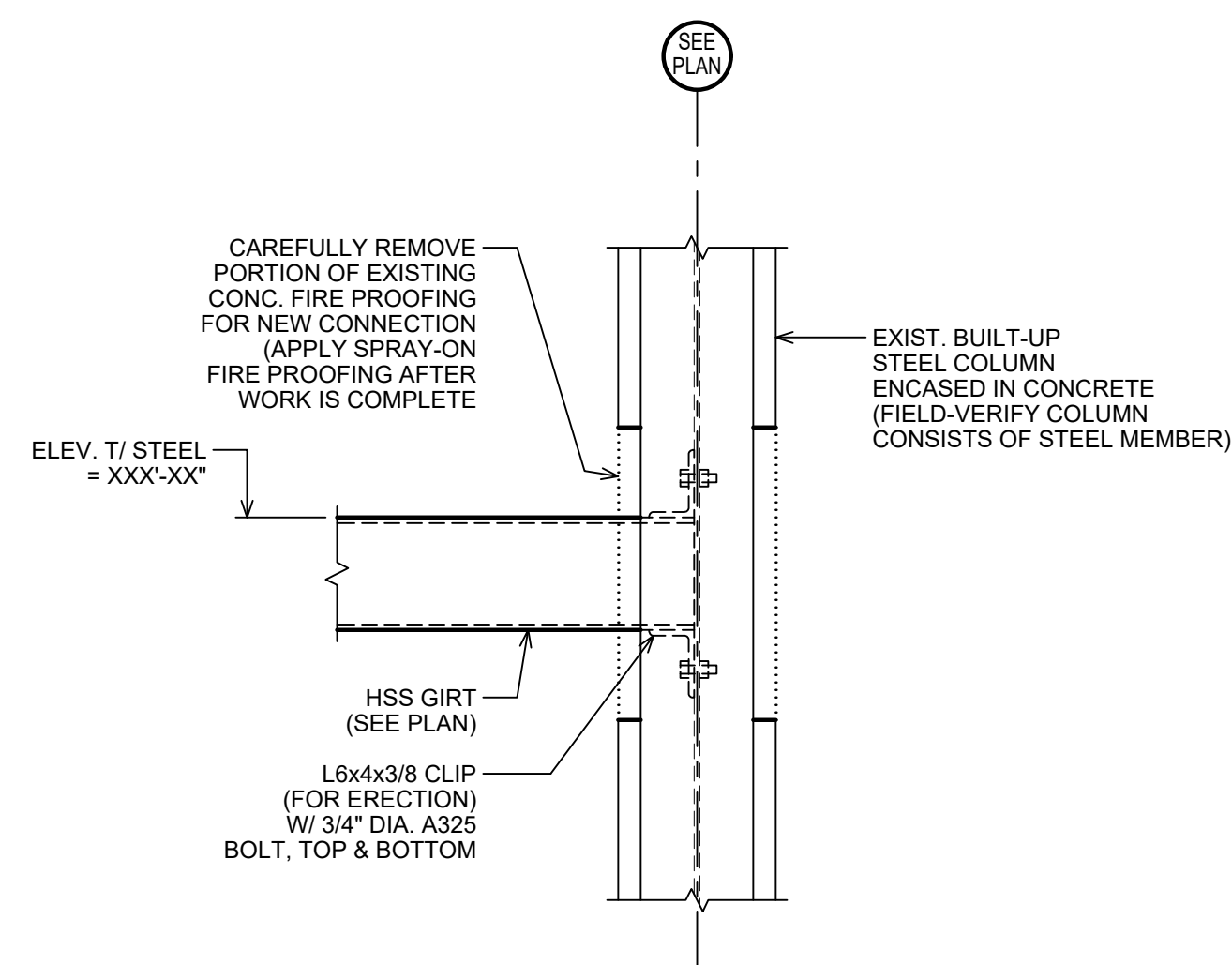
**2 SECTION**  
S201 SCALE: 3/4" = 1'-0"



**3 SECTION**  
S201 SCALE: 3/4" = 1'-0"



**4 SECTION**  
S201 SCALE: 3/4" = 1'-0"



**5 SECTION**  
S201 SCALE: 3/4" = 1'-0"  
NOTE: FIELD WELDED CONNECTION IS ACCEPTABLE IF EXISTING STEEL IS VERIFIED TO BE WELDABLE.

100% CONSTRUCTION DOCUMENTS REV. 3	09/03/2020
100% CONSTRUCTION DOCUMENTS REV. 2	07/30/2020
100% CONSTRUCTION DOCUMENTS REV. 1	07/09/2020

#	DESCRIPTION	DATE
PROJECT ISSUANCE		

PROJECT NO: 190427.00	DRAWN BY: TFB	REVIEWED BY: PGR
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SHEET NAME:  
**GENERAL NOTES,  
STRUCTURAL SECTION  
AND DETAILS**

SHEET NO.:  
**S201**  
TRUE NORTH  
PLAN NORTH

- DEMOLITION NOTES**
- REFER TO SHEET G010 PROJECT GENERAL NOTES.
  - EACH PRIME CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THEIR RESPECTIVE TRADE SCOPE. ANY DISCREPANCIES OR DISPUTES IN SCOPE OF WORK SHALL BE BROUGHT TO THE GC'S OR ARCHITECTS ATTENTION IMMEDIATELY.
  - DEMO TEMPORARY LIGHTING AROUND ELEVATOR CORE PREVIOUSLY USED FOR ELEVATOR PERMIT OPERATION.
  - ITEMS SHOWN IN DASHED LINES ARE TO BE DEMOLISHED AND REMOVED, UNLESS OTHERWISE NOTED. REVIEW ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS ITEMS.
  - THE SCOPE OF DEMOLITION WORK HAS BEEN INDICATED ON THESE DOCUMENTS FOR THE CONTRACTOR'S INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE FULL SCOPE, EXTENT, NATURE, AND MANNER OF DEMOLITION REQUIRED.
  - REFER TO THE ARCHITECTURAL, PLUMBING, FIRE PROTECTION, MECHANICAL, ELECTRICAL, AND TECHNOLOGY DOCUMENTS PRIOR TO DEMOLITION ACTIVITIES AND COORDINATE EXTENT OF DEMOLITION SCOPE TO MATCH THE REQUIREMENTS OF NEW CONSTRUCTION.
  - ONLY WORKMEN SKILLED AND KNOWLEDGEABLE IN THEIR RESPECTIVE TRADES SHALL BE EMPLOYED IN DEMOLITION WORK.
  - CONTRACTOR SHALL TAKE SPECIAL CARE TO DEMOLISH ONLY WORK WHICH IS REQUIRED TO BE DEMOLISHED AND NOT TO DISTURB ANY WORK WHICH IS TO REMAIN. IF IN THE COURSE OF DEMOLITION THE CONTRACTOR DESTROYS OR DISTURBS ANY WORK WHICH IS TO REMAIN, HE SHALL AT HIS OWN EXPENSE REPAIR OR REPLACE.
  - AREAS, SURFACES, AND FINISHES NOT AFFECTED BY THE WORK OF THIS CONTRACT SHALL BE PROTECTED PRIOR TO AND UNTIL COMPLETION OF CONTRACTED WORK.
  - FIRE EXIT DOORS AND/OR CORRIDORS MUST REMAIN USABLE FOR EMERGENCY EGRESS. PROVIDE AND MAINTAIN SEALS.
  - PROVIDE AND MAINTAIN SEALS AROUND DOORWAYS TO PREVENT DUST FROM ENTERING OCCUPIED SPACES.
  - PROVIDE TEMPORARY DUST PARTITIONS TO SEPARATE DEMOLITION AREAS FROM OCCUPIED SPACES.
  - THE OWNER HAS FIRST RIGHT OF REFUSAL. CONTRACTOR MUST NOTIFY THE OWNER THREE DAYS PRIOR TO STARTING A CONSTRUCTION PHASE SO THE OWNER MAY REMOVE ANY ITEMS.
  - THE OWNER HAS THE RIGHT TO RETAIN ANY EXISTING FURNITURE AND EQUIPMENT. COORDINATE WITH THE CONSTRUCTION DOCUMENTS AND THE OWNER THE RETAINAGE, STORAGE, RELOCATION, OR DISPOSAL OF LOOSE FURNITURE AND EQUIPMENT THROUGHOUT THE EXISTING STRUCTURE(S).
  - REMOVE, RETAIN OWNERSHIP, AND DISCARD DEMOLISHED ITEMS THAT ARE NOT TO BE REUSED OR TURNED OVER TO THE OWNER IN A MANNER FULLY APPROVED BY LOCAL AUTHORITIES AND GOVERNING AGENCIES.
  - CUTS AND PENETRATIONS IN EXISTING WORK REQUIRED TO ACCOMPLISH NEW WORK SHALL BE DONE NEATLY AND WITHOUT DISTURBING ADJACENT WORK TO REMAIN.
  - WHERE DEMOLITION OF EXISTING CONSTRUCTION AND/OR EQUIPMENT OCCURS, PATCH AND REPAIR FLOOR, WALL, AND CEILING CONSTRUCTION AND/OR FINISHES TO MATCH ADJACENT EXISTING CONSTRUCTION TO REMAIN.
  - PATCHING OF EXISTING MASONRY OPENINGS TO BE DONE WITH MATERIAL OF THE SAME TYPE AND SIZE AS EXISTING AND IS TO BE TOOTHED INTO ADJACENT CONSTRUCTION.
  - WHERE ITEMS ARE TO BE REMOVED FROM STRUCTURAL GLAZED TILE, CERAMIC TILE, BRICK, OR OTHER SIMILAR MATERIALS THE CONTRACTOR SHALL REPLACE THE DISTURBED PIECE(S) TO MATCH THE ADJACENT CONSTRUCTION. SALVAGED MATERIAL IN GOOD CONDITION WILL BE ACCEPTED. WHEN SALVAGED MATERIAL IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE AN APPROVED MATCH INCLUDING GROUT AND/OR MORTAR COLORS.
  - REMOVE ALL PROTRUDING JUNCTION AND ELECTRICAL BOXES. FIELD VERIFY USE AND COORDINATE WITH ELEC. DWGS.

**DEMO KEYED NOTES**

NO	DESCRIPTION
D01	DECORATIVE COLUMN SURROUNDS TO REMAIN. PATCH/REBUILD AS NEEDED TO MATCH EXISTING.
D02	REMOVE TV WALL AND SAVE FOR RELOCATION. COST TO REMOVE, RELOCATE AND STORE TV WALL IS PART OF "BASE BUILDING COST". PRICE SEPARATELY FROM TENANT FIT-OUT PACKAGE.
D03	REMOVE KITCHEN CABINETRY, COUNTERTOPS, PLUMBING FIXTURES, APPLIANCES SAVE AND STORE FOR THE PITTSBURGH HOUSING AUTHORITY.
D07	SALVAGE EXISTING CARPET FOR REUSE ON LEVEL 00 CITY OF PITTSBURGH.
D08	DEMO FINISH OFF BUILD OUT, PATCH AND REPAIR GYPSUM AS NEEDED THROUGHOUT.
D09	REMOVE AND STORE SHUFFLEBOARD.
D10	REMOVE EXISTING WINDOW STOOL. PREPARE TO RECEIVE NEW FINISH. DO.
D11	REMOVE EXISTING TILE AND PREPARE TO RECEIVE NEW FINISH.
D17	REMOVE EXISTING PAPER TOWEL DISPENSER AND RELOCATE TO EAST WALL WITHIN ADA REACH RANGES AND CLEAR DISTANCE FROM TOILET. PATCH AND REPAIR EXISTING WALL AS NEEDED.
D18	SALVAGE ALL EXISTING TILE PEICES FOR BASE BUILDING BUILD-OUT. DEMO REMAINING TILE.
D20	DEMO EXISTING INTERIOR WALLS.
D23	DEMO EXISTING FALCETS.
D24	DEMO EXISTING SOAP DISPENSERS.
D25	DEMO EXISTING DOOR FRAME.
D28	DEMO EXISTING DOOR AND DOOR FRAME.

**DEMOLITION LEGEND**

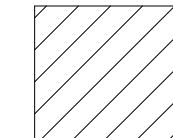
**LINESTYLES**

EXISTING \_\_\_\_\_

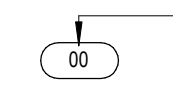
DEMOLITION - - - - -

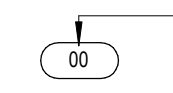
NEW \_\_\_\_\_

**PATTERNS**

 OUT OF SCOPE

**SYMBOLS**

 KEYED NOTE VALUE


 KEYNOTE

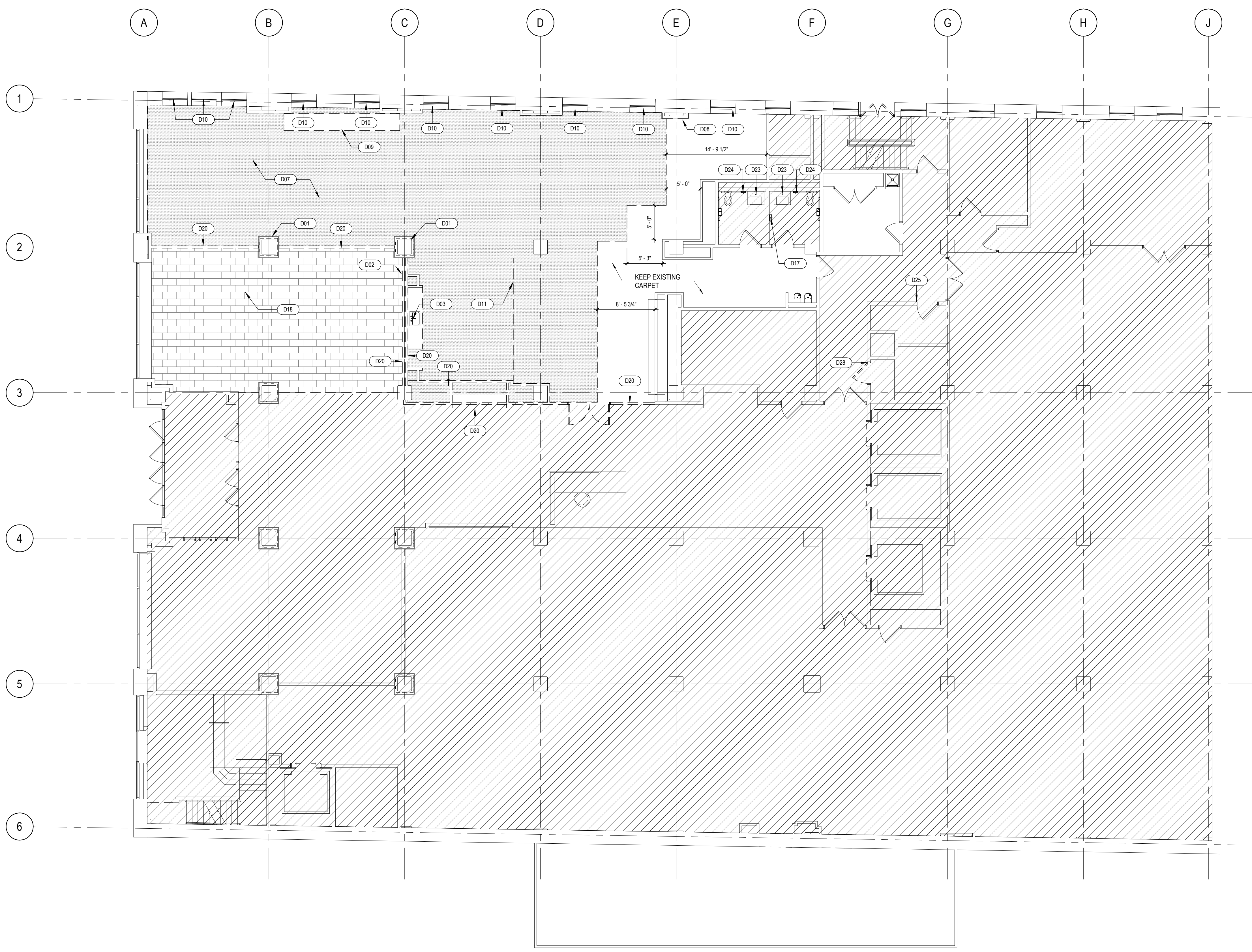
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4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT ISSUANCE

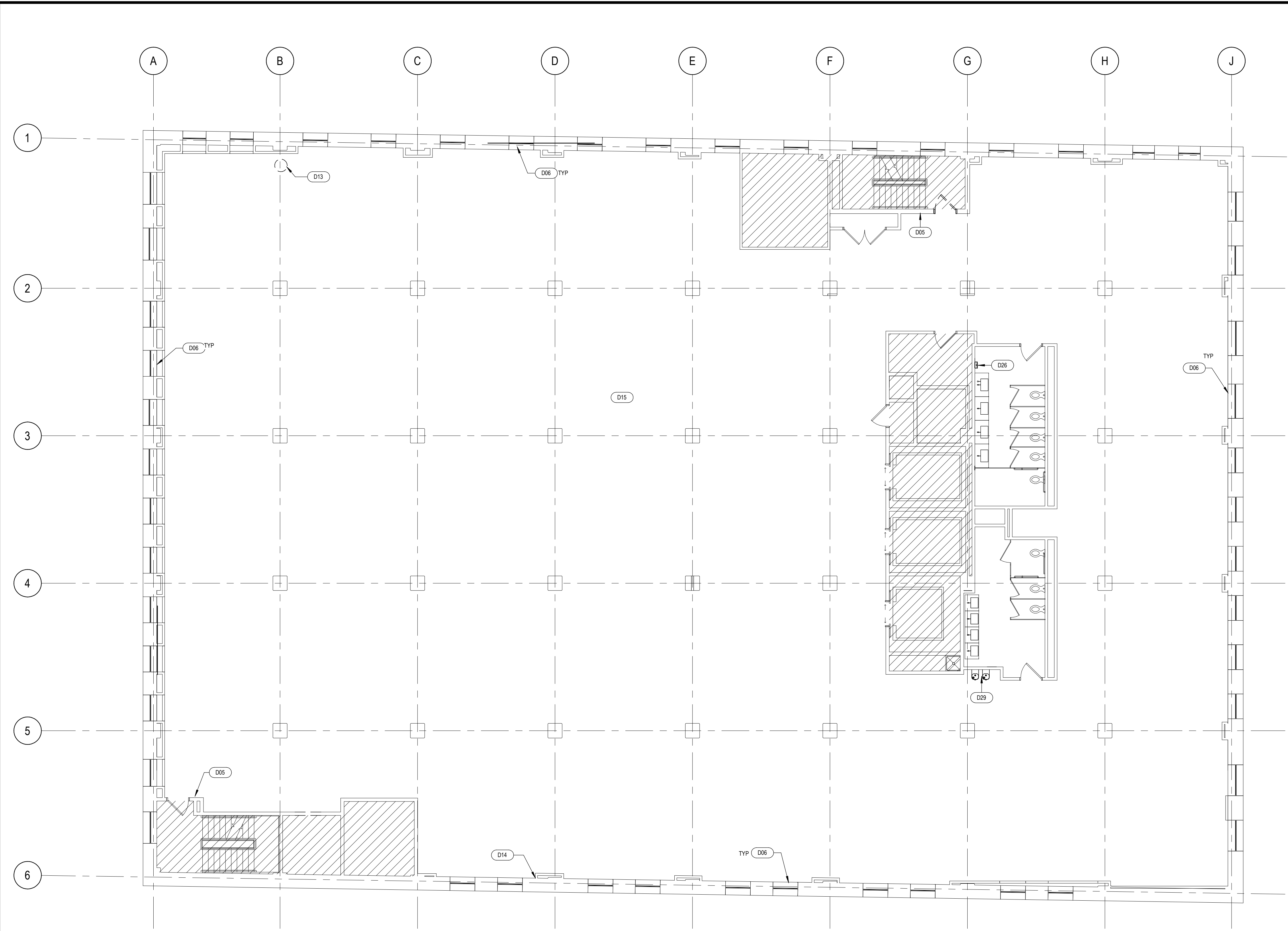
PROJECT NO: 190427.00	DRAWN BY: AE7	REVIEWED BY: JW
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SHEET NAME:  
DEMOLITION FLOOR PLAN - LEVEL 01

AD101  
  
 PLAN NORTH



**1 DEMOLITION FLOOR PLAN - LEVEL 01**  
 1/8" = 1'-0"



1 DEMOLITION FLOOR PLAN - LEVEL 05  
1/8" = 1'-0"

**DEMOLITION NOTES**

- REFER TO SHEET G010 PROJECT GENERAL NOTES.
- EACH PRIME CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THEIR RESPECTIVE TRADE SCOPE. ANY DISCREPANCIES OR DISPUTES IN SCOPE OF WORK SHALL BE BROUGHT TO THE GC'S OR ARCHITECT'S ATTENTION IMMEDIATELY.
- DEMO TEMPORARY LIGHTING AROUND ELEVATOR CORE PREVIOUSLY USED FOR ELEVATOR PERMIT OPERATION.
- ITEMS SHOWN IN DASHED LINES ARE TO BE DEMOLISHED AND REMOVED, UNLESS OTHERWISE NOTED. REVIEW ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS ITEMS.
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- AREAS, SURFACES, AND FINISHES NOT AFFECTED BY THE WORK OF THIS CONTRACT SHALL BE PROTECTED PRIOR TO AND UNTIL COMPLETION OF CONTRACTED WORK.
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- PROVIDE AND MAINTAIN SEALS AROUND DOORWAYS TO PREVENT DUST FROM ENTERING OCCUPIED SPACES.
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- REMOVE ALL PROTRUDING JUNCTION AND ELECTRICAL BOXES. FIELD VERIFY USE AND COORDINATE WITH ELEC. DWGS.

**DEMO KEYED NOTES**

NO	DESCRIPTION
D05	REMOVE EXISTING GYPSUM, REBUILD STUDS AND FURRING WALLS AS NEEDED TO UNDERSIDE OF DECK. ALL BUILD-OUTS ON SAME SURFACE ARE TO BE FLUSH.
D06	REPAIR/REPLACE EXISTING WINDOW SILL TO MATCH EXISTING.
D13	FIELD VERIFY CONDITION OF EXISTING DRAIN TO CONFIRM REMOVAL. CUT AND LEVEL WITH EXISTING FLOOR TO PREPARE FOR NEW FINISH.
D14	COORDINATE WITH ELECTRICAL DWGS USE OF EXISTING ELECTRICAL BOX TO CONFIRM REMOVAL. REMOVE AND PATCH TO PREPARE FOR NEW FINISH.
D15	PROVIDE FLOOR LEVELING WHEREVER NEEDED.
D26	DEMO EXISTING PAPER TOWEL/TRASH
D29	REPLACE EXISTING WATER FOUNTAIN

**DEMOLITION LEGEND**

**LINESTYLES**

EXISTING: ———

DEMOLITION: - - - - -

NEW: ———

**PATTERNS**

[Hatched Pattern] OUT OF SCOPE

**SYMBOLS**

[Circle with 00] KEYED NOTE VALUE

[Circle with 00] KEYNOTE

**AE7**  
2840 LIBERTY AVENUE SUITE 403  
PITTSBURGH, PA 15222  
(412) 932 2044  
www.ae7.com

PROFESSIONAL SEAL

JEFFREY A. CHETZEL

CONSULTANT

**Housing Authority**  
of the City of Pittsburgh

CLIENT

**Housing Authority**  
of the City of Pittsburgh

200 ROSS STREET  
PITTSBURGH, PA 15219  
(412) 456-5000  
hacp.org

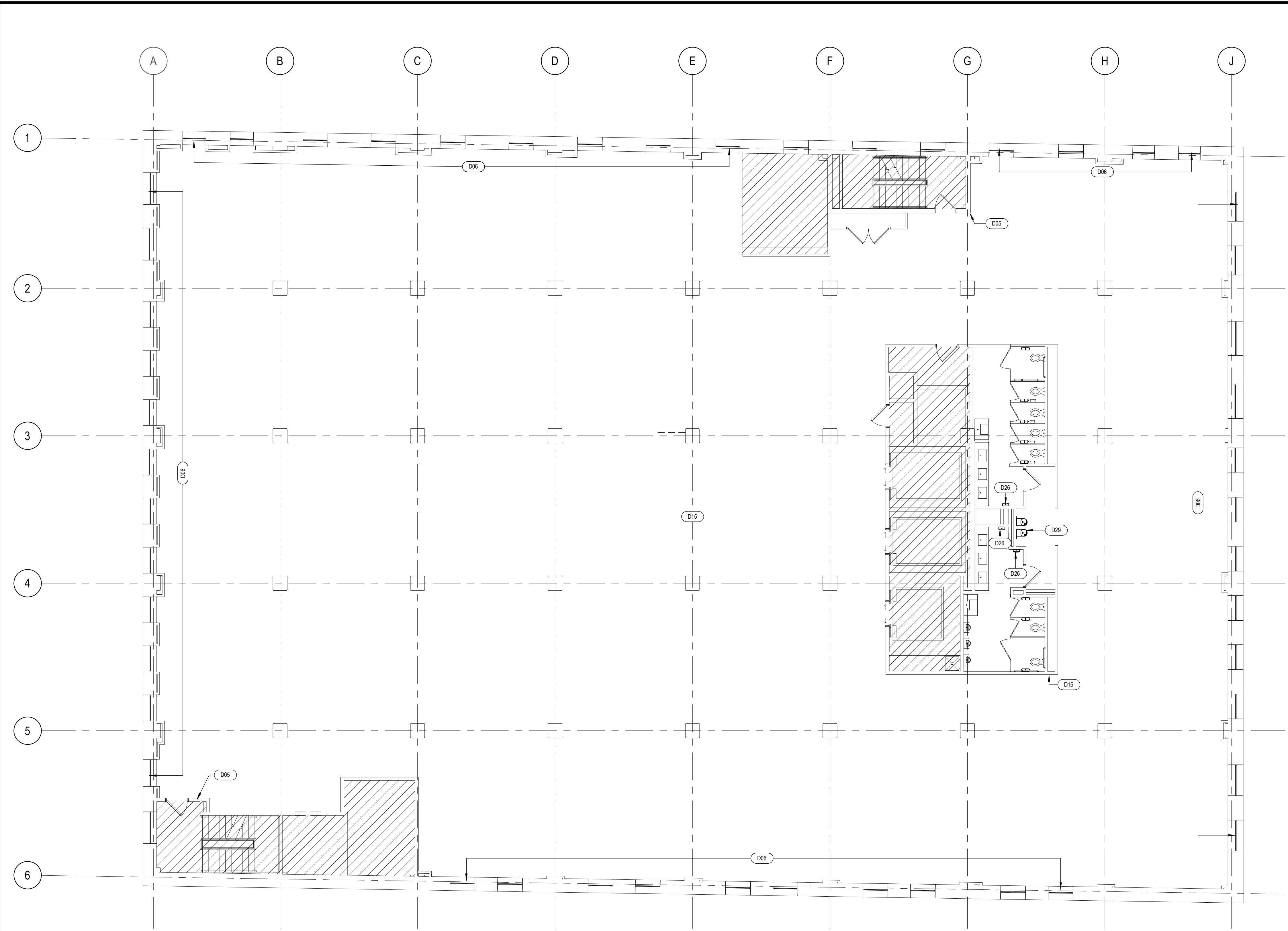
HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00  
DRAWN BY: AE7  
REVIEWED BY: JW

SHEET NAME: DEMOLITION FLOOR PLAN - LEVEL 05

AD105  
TRUE NORTH  
PLAN NORTH



1 DEMOLITION FLOOR PLAN - LEVEL 06  
1/8" = 1'-0"

**DEMOLITION NOTES**

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D15	PROVIDE FLOOR LEVELING WHEREVER NEEDED.
D16	REMOVE FIRE EXTINGUISHER BOX. PATCH AND PREPARE TO RECEIVE NEW FINISH.
D26	DEMO EXISTING PAPER TOWEL/TRASH
D29	REPLACE EXISTING WATER FOUNTAIN

**DEMOLITION LEGEND**

**LINESTYLES**

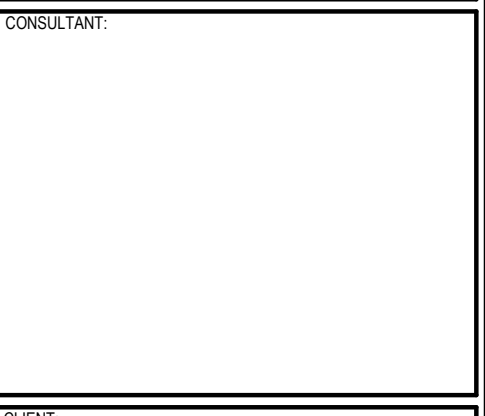
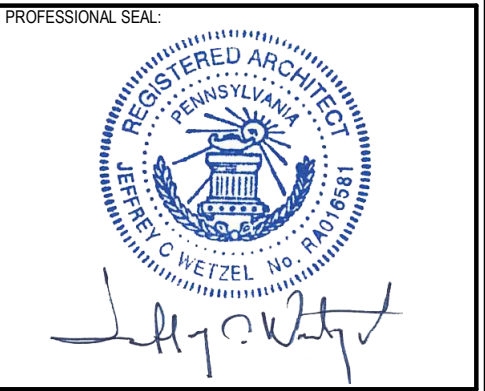
- EXISTING: Solid line
- DEMOLITION: Dashed line
- NEW: Solid line with dots

**PATTERNS**

- OUT OF SCOPE: Diagonal hatching

**SYMBOLS**

- KEYED NOTE VALUE: Circle with number
- KEYNOTE: Circle with number and line



200 ROSS STREET  
PITTSBURGH, PA 15219  
(412) 456-5000  
hacp.org

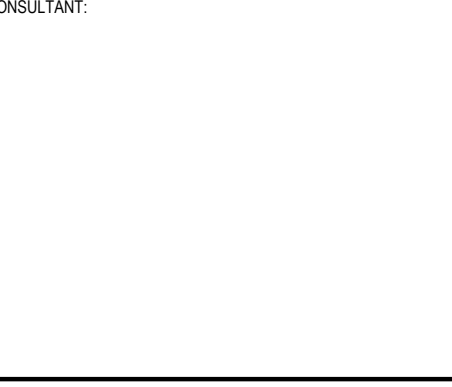
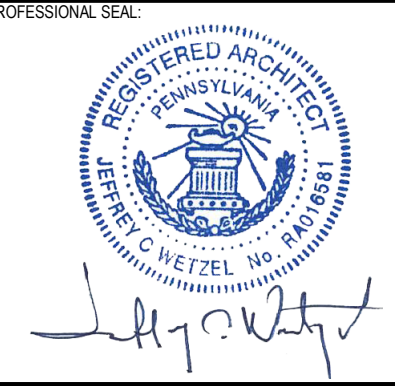
HACP - Housing Authority of the City of Pittsburgh  
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1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00  
DRAWN BY: AE7  
REVIEWED BY: JW

SHEET NAME: DEMOLITION FLOOR PLAN - LEVEL 06

AD106  
TRUE NORTH  
PLAN NORTH



200 ROSS STREET  
PITTSBURGH, PA 15219  
(412) 456-5000  
hacp.org

HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

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### DEMOLITION LEGEND


**LINESTYLES**

EXISTING: \_\_\_\_\_

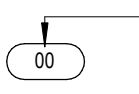
DEMOLITION: - - - - -

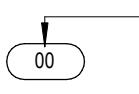
NEW: \_\_\_\_\_

**PATTERNS**

 OUT OF SCOPE

**SYMBOLS**

 KEYED NOTE VALUE

 KEYNOTE

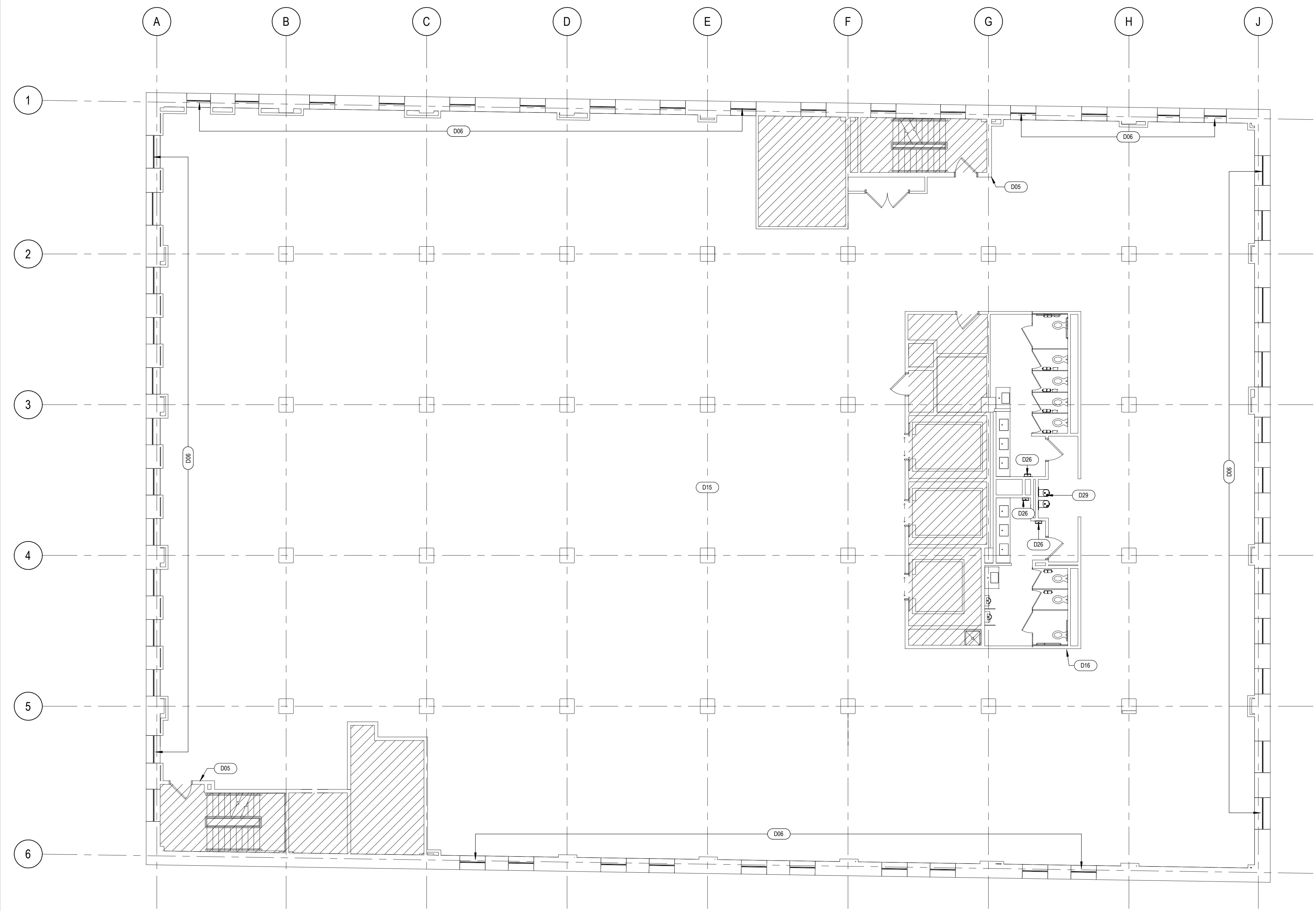
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1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00	DRAWN BY: AE7	REVIEWED BY: JW
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SHEET NAME:  
**DEMOLITION FLOOR PLAN - LEVEL 07**

SHEET NO:  
**AD107**

TRUE NORTH  
PLAN NORTH



**1 DEMOLITION FLOOR PLAN - LEVEL 07**  
1/8" = 1'-0"

NO	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	AE7	JW

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**DEMO KEYED NOTES**

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D21	REMOVE EXISTING LIGHTING/PENDANTS AND STORE FOR HACP FIT-OUT. REMAINDER OF LIGHTS WILL BE STORED FOR THE CITY OF PITTSBURGH LVL 00 FIT-OUT.
D22	DEMO EXISTING CEILING.
D27	REMOVE EXISTING LIGHTING/PENDANTS AND STORE.

**DEMOLITION LEGEND**

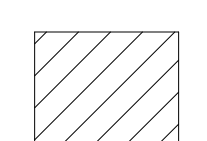
**LINESTYLES**

EXISTING \_\_\_\_\_

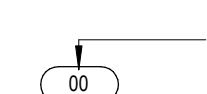
DEMOLITION - - - - -


NEW \_\_\_\_\_

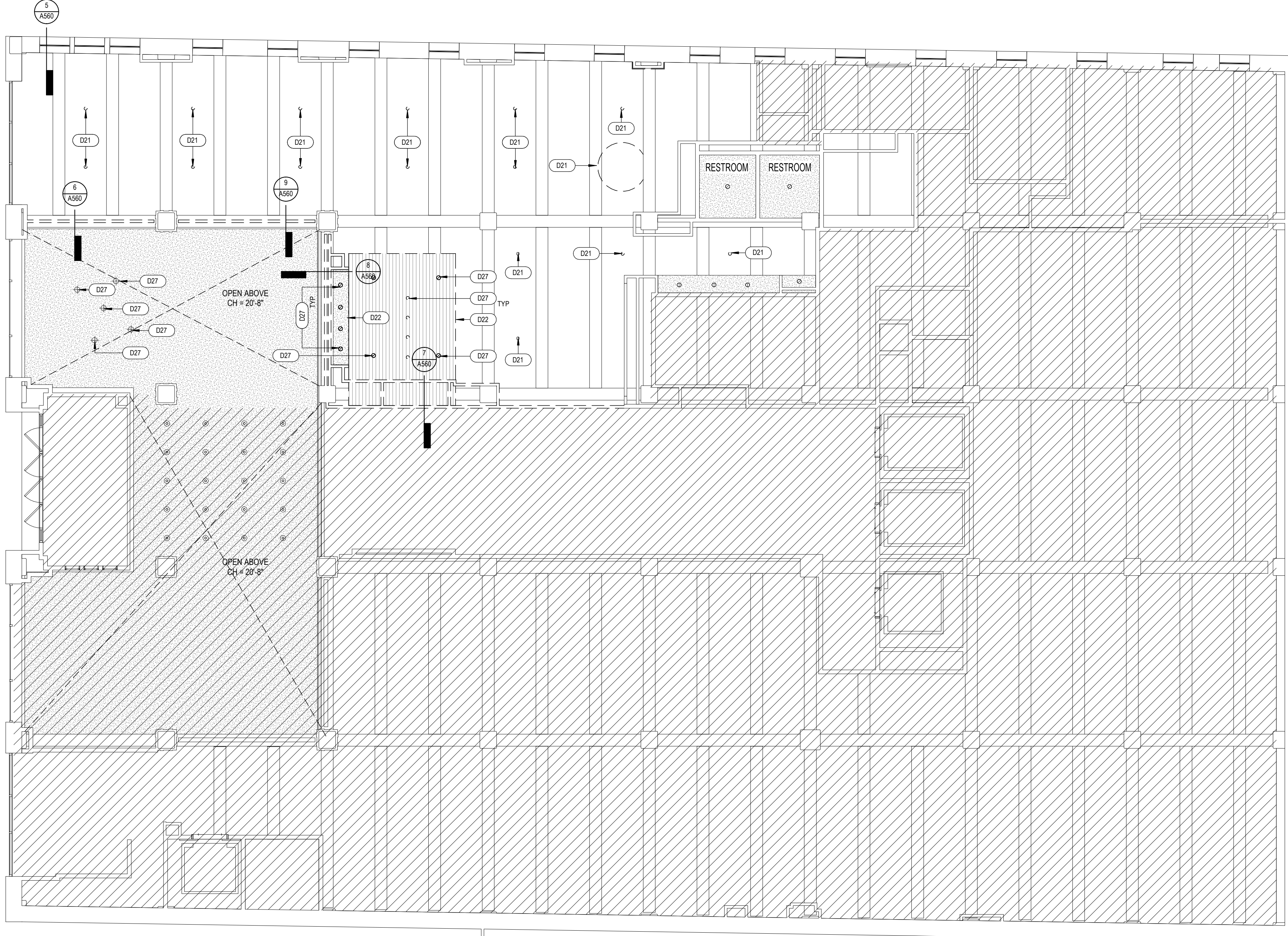
**PATTERNS**

 OUT OF SCOPE

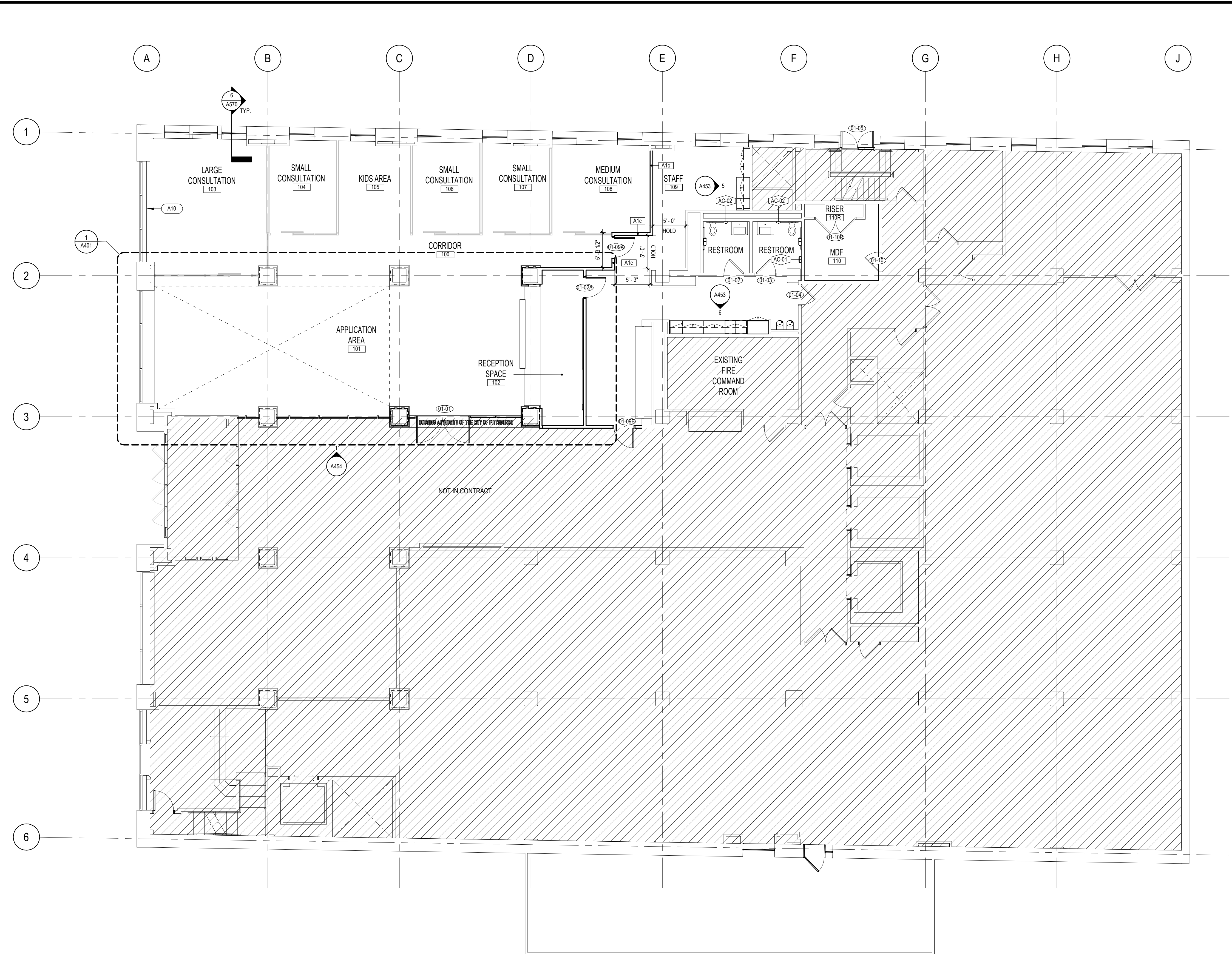
**SYMBOLS**

 KEYED NOTE VALUE

 KEY NOTE



**1** OVERALL REFLECTED CEILING PLAN - LEVEL 01  
1/8" = 1'-0"



1 OVERALL FLOOR PLAN - LEVEL 01  
1/8" = 1'-0"

**PLAN NOTES**

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- INTERIOR DIMENSIONS ARE TO CENTER OF WALL U.O.N.
- DOORS WITH STUD WALLS TO BE A TYPICAL 4" DISTANCE ON HINGE SIDE FROM ADJACENT WALL. DOORS WITH MASONRY WALLS TO BE A TYPICAL SINGLE UNIT DISTANCE ON HINGE SIDE FROM ADJACENT WALL.
- RETURN FURRED/LAMINATED GYP. BD. TO DOOR AND/OR WINDOW FRAMES AS REQUIRED - TYP.
- CONSTRUCT PARTITIONS FROM FLOOR SLAB TO UNDERSIDE OF DECK U.O.N.
- STUD PARTITIONS SHALL HAVE DOUBLE STUDS AT DOOR JAMBS, OPENINGS, AND CORNERS.
- PROVIDE FIRE-RETARDANT WOOD BLOCKING FOR WALL MOUNTED ITEMS, INCLUDING ITEMS FURNISHED BY THE OWNER.
- AT STUD PARTITIONS PROVIDE DIAGONAL BRACING AT OPENINGS GREATER THAN 4'-0" WIDE
- PARTITIONS DESIGNATED AS SOUND RATED SHALL BE:
  - SEALED WITH ACOUSTICAL SEALANT AT EACH FACE OF PARTITION WHERE PENETRATED BY DUCT, PIPE, CONDUIT, OR OTHER APPURTENANCES.
  - SEALED WITH ACOUSTICAL SEALANT CONTINUOUSLY AT PERIMETER, SILLS, JAMBS, AND HEADS - EACH SIDE.
- PARTITIONS DESIGNATED TO BE FIRE RATED SHALL BE:
  - SET TOP AND BOTTOM PARTITION RUNNER TRACKS IN BEDS OF SEALANT.
  - PACK VOIDS BETWEEN TOP OF PARTITION AND UNDERSIDE OF STRUCTURE WITH FIRE SAFING.
  - CLOSE PENETRATIONS WITH FIRE-STOPPING MATERIALS PER U.L. DESIGN.
- GYP. BOARD PARTITIONS DESIGNATED IN WET AREAS SHALL HAVE PROVIDED GALVANIZED STUDS, FASTENERS AND MSC. METAL ACCESSORIES.
- PARTITION TYPES OVER OPENINGS SHALL MATCH ADJACENT PARTITIONS U.O.N.

**PLAN KEYED NOTES**

NO	DESCRIPTION
A10	REPAINT EXISTING RADIATORS TO MATCH BASE BUILDING

**PLAN LEGEND**

	EXISTING CONSTRUCTION
	DEMOUNTABLE WALL PARTITION (NOT INCLUDED IN GC SCOPE)
	NEW CONSTRUCTION
	ROOM NAME
	ROOM NUMBER
	ROOM TAG
	AREA
	DOOR TAG REFER TO SHEET A600-P1
	PARTITION TAG REFER TO SHEET A630
	WINDOW TAG
	KEYED NOTE VALUE
	KEYNOTE
	NOT IN SCOPE

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PROFESSIONAL SEAL:

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CONSULTANT:

CLIENT:

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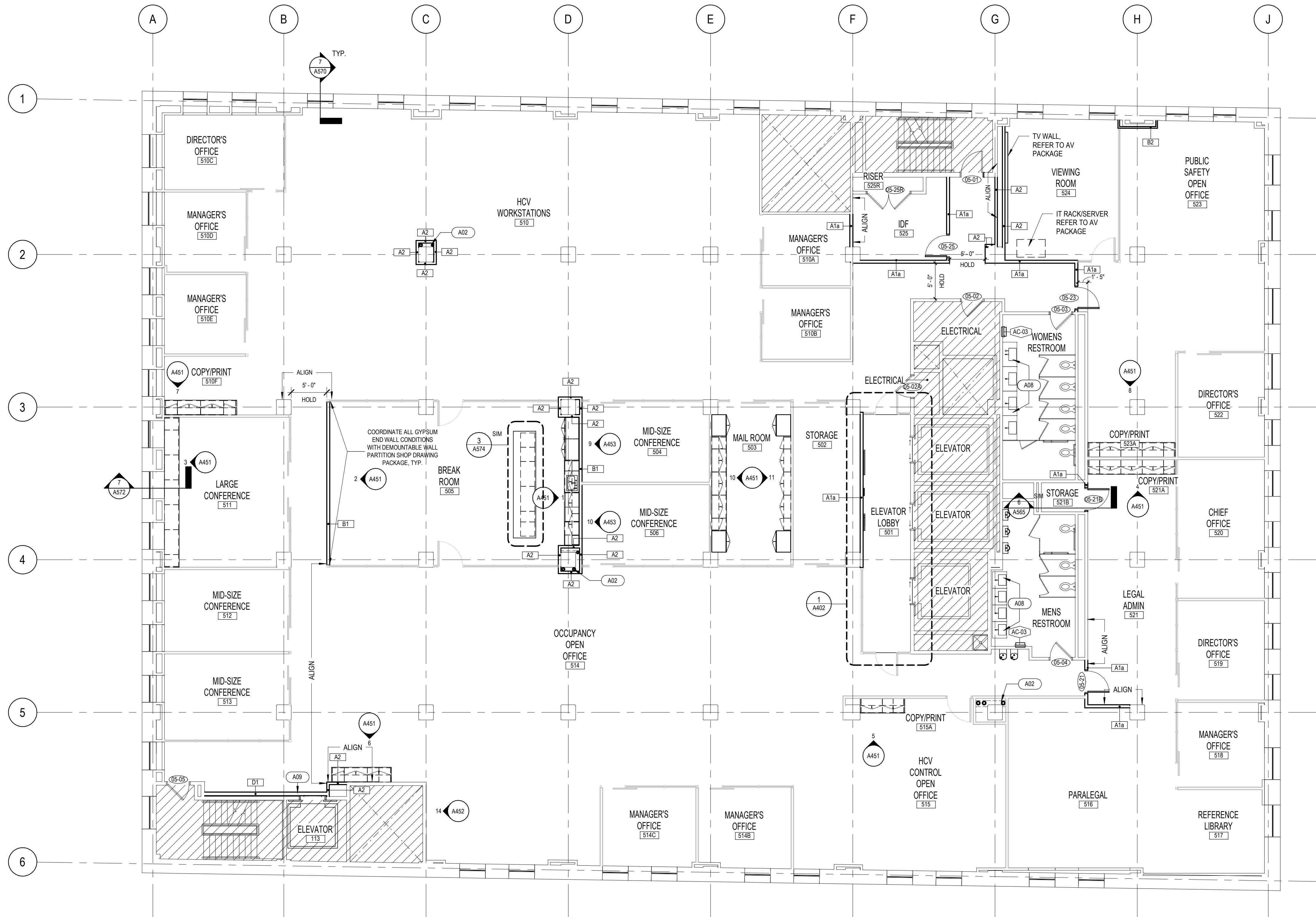
HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

NO	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00  
DRAWN BY: AE7  
REVIEWED BY: JW

SHEET NAME: OVERALL FLOOR PLAN - LEVEL 01  
SHEET NO: A101

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1 OVERALL FLOOR PLAN - LEVEL 05  
1/8" = 1'-0"

**PLAN NOTES**

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- INTERIOR DIMENSIONS ARE TO CENTER OF WALL U.O.N.
- DOORS WITH STUD WALLS TO BE A TYPICAL 4" DISTANCE ON HINGE SIDE FROM ADJACENT WALL. DOORS WITH MASONRY WALLS TO BE A TYPICAL SINGLE UNIT DISTANCE ON HINGE SIDE FROM ADJACENT WALL.
- RETURN FURRED/LAMINATED GYP. BD. TO DOOR AND/OR WINDOW FRAMES AS REQUIRED - TYP.
- CONSTRUCT PARTITIONS FROM FLOOR SLAB TO UNDERSIDE OF DECK U.O.N.
- STUD PARTITIONS SHALL HAVE DOUBLE STUDS AT DOOR JAMBS, OPENINGS, AND CORNERS.
- PROVIDE FIRE-RETARDANT WOOD BLOCKING FOR WALL MOUNTED ITEMS, INCLUDING ITEMS FURNISHED BY THE OWNER.
- AT STUD PARTITIONS PROVIDE DIAGONAL BRACING AT OPENINGS GREATER THAN 4'-0" WIDE.
- PARTITIONS DESIGNATED AS SOUND RATED SHALL BE:
  - SEALED WITH ACOUSTICAL SEALANT AT EACH FACE OF PARTITION WHERE PENETRATED BY DUCT, PIPE, CONDUIT, OR OTHER APPURTENANCES.
  - SEALED WITH ACOUSTICAL SEALANT CONTINUOUSLY AT PERIMETER, SILLS, JAMBS, AND HEADS - EACH SIDE.
- PARTITIONS DESIGNATED TO BE FIRE RATED SHALL BE:
  - SET TOP AND BOTTOM PARTITION RUNNER TRACKS IN BEDS OF SEALANT.
  - PACK VOIDS BETWEEN TOP OF PARTITION AND UNDERSIDE OF STRUCTURE WITH FIRE SAFING.
  - CLOSE PENETRATIONS WITH FIRE STOPPING MATERIALS PER U.L. DESIGN.
- GYP/SUM BOARD PARTITIONS DESIGNATED IN WET AREAS SHALL HAVE PROVIDED GALVANIZED STUDS, FASTENERS AND MSC. METAL ACCESSORIES.
- PARTITION TYPES OVER OPENINGS SHALL MATCH ADJACENT PARTITIONS U.O.N.

**PLAN KEYED NOTES**

NO	DESCRIPTION
A02	EXISTING PLUMBING PIPES. REFER TO PLUMBING DRAWINGS.
A08	REFER TO DETAIL 7/A570 FOR EXPOSED PIPE DETAIL FOR EXISTING PLUMBING AND SINKS. PART OF "BASE BUILDING COST" - PRICE SEPARATELY FROM TENANT FIT-OUT PACKAGE.
A09	FRAME OVER EXISTING ELEVATOR DOOR AND OPERATIONAL DEVICES WITH SHAFTHALL PER WALL TYPE D1. CONFIRM ACCESS TO THE 5TH THRU 7TH FLOOR IS LOCKED OFF THE ELEVATOR OPERATION.

**PLAN LEGEND**

	EXISTING CONSTRUCTION
	DEMOUNTABLE WALL PARTITION (NOT INCLUDED IN GC SCOPE)
	NEW CONSTRUCTION
	ROOM NAME
	ROOM NUMBER
	AREA
	DOOR TAG REFER TO SHEET A600-P1
	PARTITION TAG REFER TO SHEET A630
	WINDOW TAG
	KEYED NOTE VALUE
	KEYNOTE
	NOT IN SCOPE

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haap.org

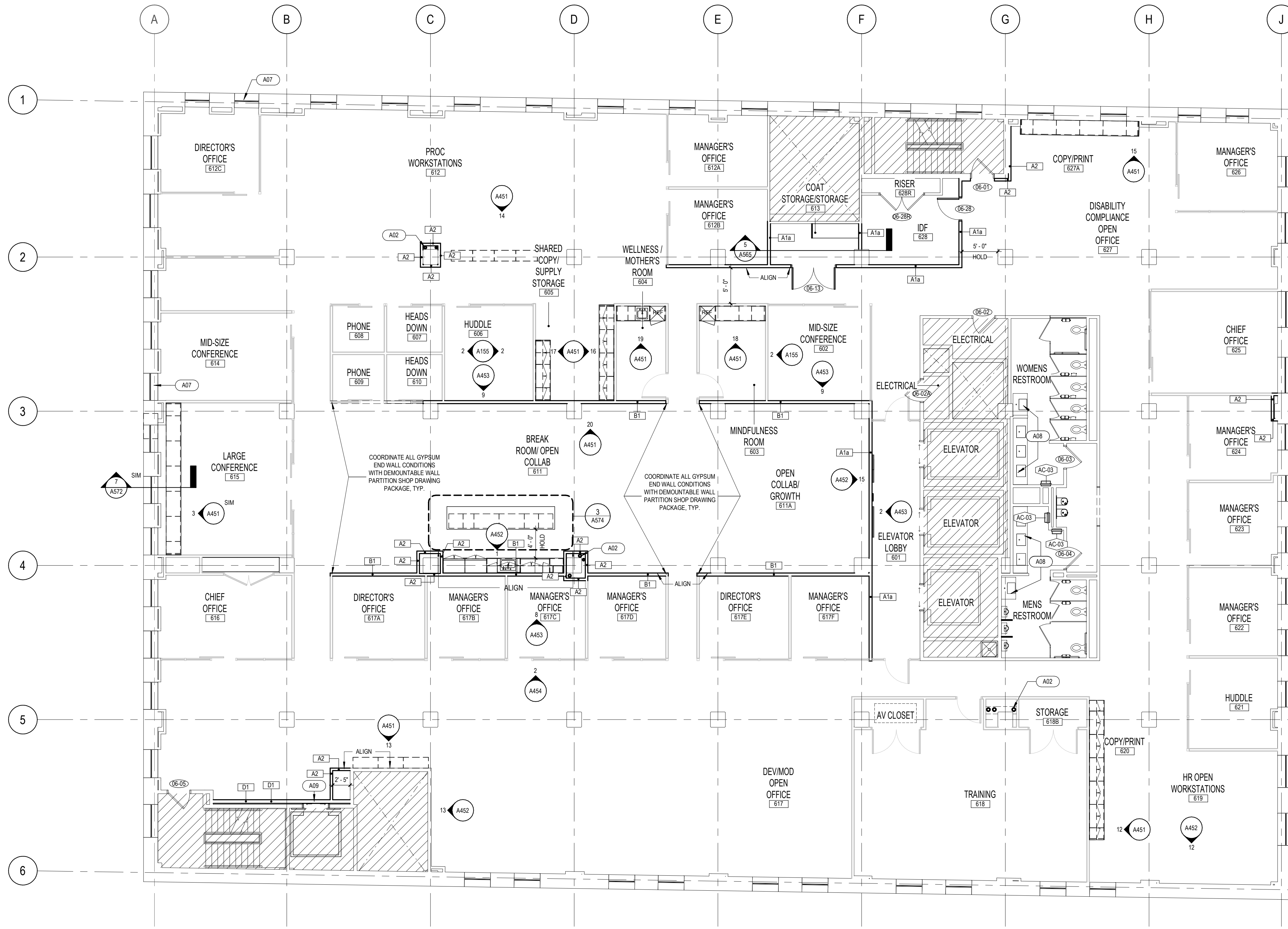
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00	DRAWN BY: AE7	REVIEWED BY: JW
SHEET NAME: OVERALL FLOOR PLAN - LEVEL 05		
SHEET NO: A105		

TRUE NORTH  
PLAN NORTH





1 OVERALL FLOOR PLAN - LEVEL 06  
1/8" = 1'-0"

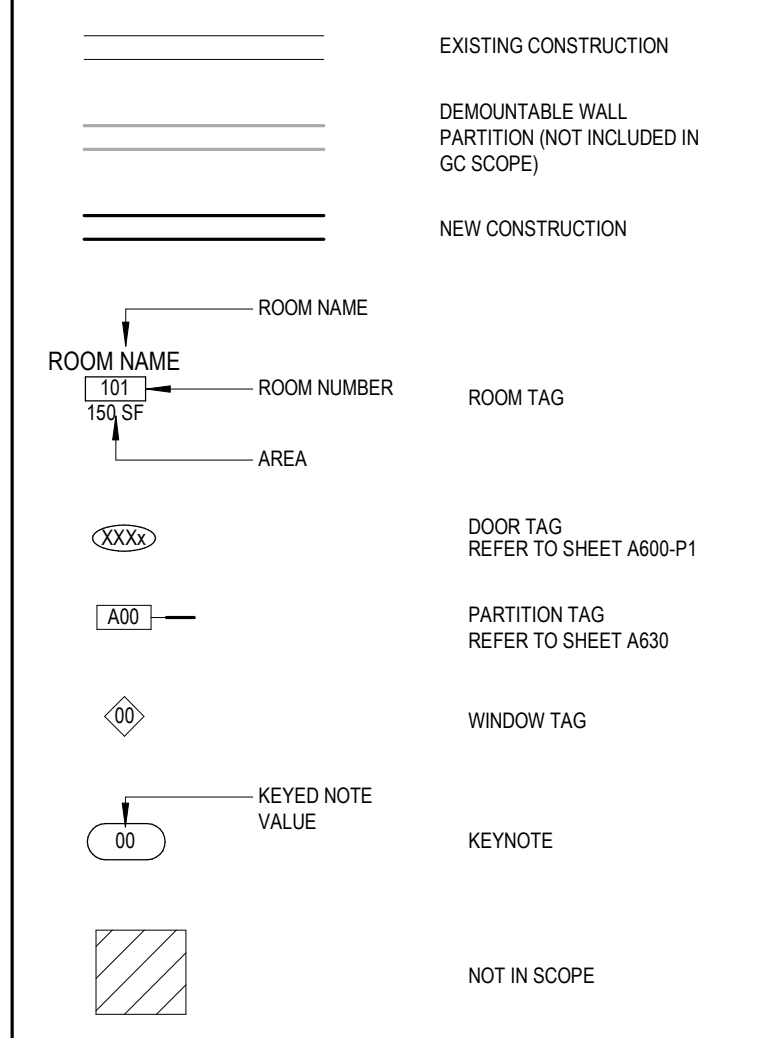
PLAN NOTES

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- INTERIOR DIMENSIONS ARE TO CENTER OF WALL U.O.N.
- DOORS WITH STUD WALLS TO BE A TYPICAL 4" DISTANCE ON HINGE SIDE FROM ADJACENT WALL. DOORS WITH MASONRY WALLS TO BE A TYPICAL SINGLE UNIT DISTANCE ON HINGE SIDE FROM ADJACENT WALL.
- RETURN FURRED/LAMINATED GYP. BD. TO DOOR AND/OR WINDOW FRAMES AS REQUIRED - TYP.
- CONSTRUCT PARTITIONS FROM FLOOR SLAB TO UNDERSIDE OF DECK U.O.N.
- STUD PARTITIONS SHALL HAVE DOUBLE STUDS AT DOOR JAMBS, OPENINGS, AND CORNERS.
- PROVIDE FIRE-RETARDANT WOOD BLOCKING FOR WALL MOUNTED ITEMS, INCLUDING ITEMS FURNISHED BY THE OWNER.
- AT STUD PARTITIONS PROVIDE DIAGONAL BRACING AT OPENINGS GREATER THAN 4'-0" WIDE
- PARTITIONS DESIGNATED AS SOUND RATED SHALL BE:
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  - SEALED WITH ACOUSTICAL SEALANT CONTINUOUSLY AT PERIMETER, SILLS, JAMBS, AND HEADS - EACH SIDE.
- PARTITIONS DESIGNATED TO BE FIRE RATED SHALL BE:
  - SET TOP AND BOTTOM PARTITION RUNNER TRACKS IN BEDS OF SEALANT.
  - PACK VOIDS BETWEEN TOP OF PARTITION AND UNDERSIDE OF STRUCTURE WITH FIRE SAFING.
  - CLOSE PENETRATIONS WITH FIRE-STOPPING MATERIALS PER U.L. DESIGN.
- GYPSUM BOARD PARTITIONS DESIGNATED IN WET AREAS SHALL HAVE PROVIDED GALVANIZED STUDS, FASTENERS AND MSC. METAL ACCESSORIES.
- PARTITION TYPES OVER OPENINGS SHALL MATCH ADJACENT PARTITIONS U.O.N.

PLAN KEYED NOTES

NO	DESCRIPTION
A02	EXISTING PLUMBING PIPES. REFER TO PLUMBING DRAWINGS.
A07	REPAIR NON-OPERATIONAL WINDOW
A08	REFER TO DETAIL 7/A570 FOR EXPOSED PIPE DETAIL FOR EXISTING PLUMBING AND SINKS. PART OF "BASE BUILDING COST" - PRICE SEPARATELY FROM TENANT FIT-OUT PACKAGE.
A09	FRAME OVER EXISTING ELEVATOR DOOR AND OPERATIONAL DEVICES WITH SHAFTWALL PER WALL TYPE D1. CONFIRM ACCESS TO THE 5TH THRU 7TH FLOOR IS LOCKED OFF THE ELEVATOR OPERATION.

PLAN LEGEND



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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00 DRAWN BY: AE7 REVIEWED BY: JW  
SHEET NAME: OVERALL FLOOR PLAN - LEVEL 06  
SHEET NO: A106  
TRUE NORTH  
PLAN NORTH



NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

**CEILING NOTES**

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- ALL EXPOSED CEILING, INFRASTRUCTURE AND COLUMNS TO BE PT-10 U.O.N.
- ACOUSTICAL CEILING GRID IS TO BE LAID IN CONTINUOUS CEILING RUNS. DEMOUNTABLE WALLS COME IN AFTER. IMPARTATIVE TO FOLLOW CEILING START POINTS AS NOTED ON REFLECTED CEILING PLANS.
- COORDINATE REFLECTED CEILING PLAN WITH HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATION DRAWINGS.
- REFER TO RCP PLANS AND PARTITION TYPES FOR BULKHEAD LOCATIONS.
- ALL 8'-6" GYP AND DEMOUNTABLE WALLS TO RECEIVE AXISSTRAXIOM CLASSIC TRIM - WHITE FINISH

**RCP KEYED NOTES**

NO.	DESCRIPTION
C01	EXTENSIVE REPAIR ON EXISTING BEAMS, PREPARE PREP TO RECEIVE NEW PAINT.
C02	PAINT EXISTING REGISTER TO MATCH EXISTING GYPSUM CEILING.
C03	INSTALL ACOUSTICAL CEILING TILE AS ONE CONTINUOUS RUN UNLESS NOTED OTHERWISE. REFER TO OVERALL REFLECTED FINISH PLANS OR ENLARGED REFLECTED FINISH PLANS FOR INSTALL TILE START POINT.

**CEILING LEGEND**

**SYMBOLS**

HEIGHT A.F.F. | TYPE → [10'-10" | A1] → - CEILING TAG

ROOM NAME | ROOM NUMBER → [101 | 150 SF] → - ROOM TAG

KEYNOTE VALUE → [7] → - KEYNOTE TAG

↑ → - TILING START POINT

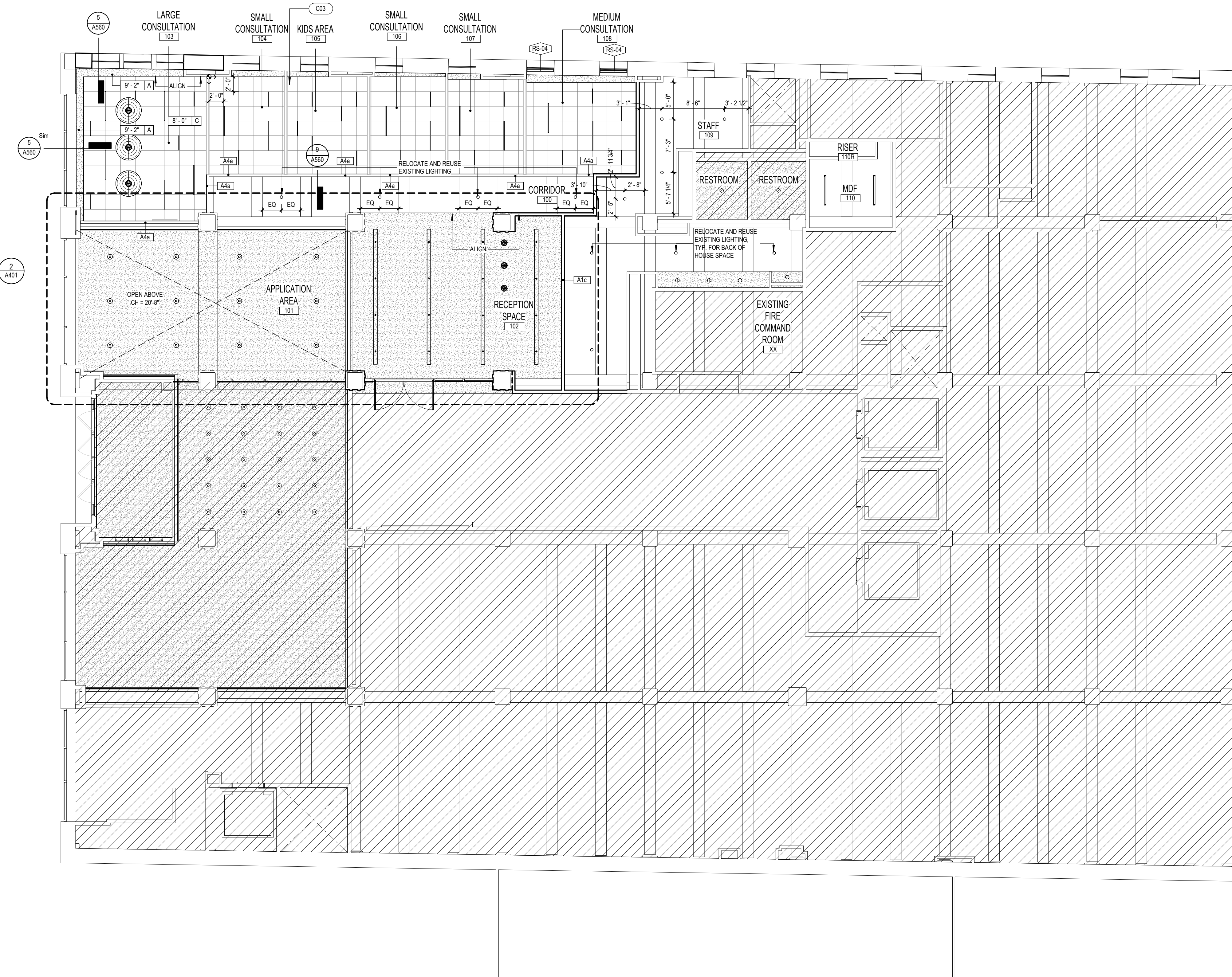
[Hatched Box] → NOT IN SCOPE

**CEILING TYPE CODES**

A-	5/8" GVB WITH PT-03 FINISH U.O.N.
B- ACT-01	REFER TO FINISH LEGEND
C- ACT-02	REFER TO FINISH LEGEND
D- ACP-01	REFER TO FINISH LEGEND
E- ACP-02	REFER TO FINISH LEGEND
F- ACP-03	REFER TO FINISH LEGEND
G- ACP-04	REFER TO FINISH LEGEND

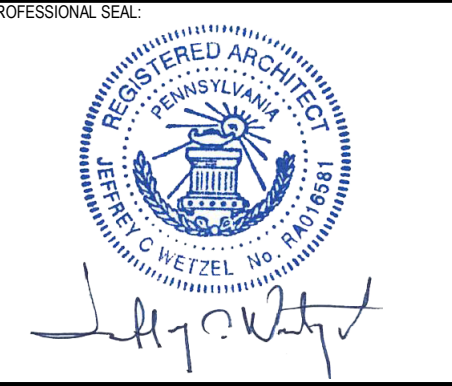
**ABBREVIATIONS**

RS-01	MANUAL EQUINOX BLACKOUT 0102 ALABASTER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE CONFERENCES/VIEWING ROOM)
RS-02	AUTOMATIC (WITH 102 MOTOR AND MINI INTERFACE) EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE WITH GREYSTON SYSTEM. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (BOARD ROOM/ TRAINING ROOM)
RS-03	MANUAL EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE EXECUTIVE CONFERENCE)
RS-04	MANUAL SOND COLLECTION 1102 CANAL 1% OPEN ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LV. 01 CONSULT ROOM/ EXECUTIVE SUITE)



**1** OVERALL REFLECTED CEILING PLAN - LEVEL 01  
1/8" = 1'-0"





CONSULTANT:

CLIENT:  
**Housing Authority**  
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hacp.org

**HACP - Housing Authority of the City of Pittsburgh**  
412 Boulevard of the Allies, Pittsburgh, PA 15219

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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

SHEET NAME:  
**OVERALL REFLECTED CEILING PLAN - LEVEL 06**

TRUE NORTH  
**A116**  
PLAN NORTH

**CEILING NOTES**

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- ALL EXPOSED CEILING INFRASTRUCTURE AND COLUMNS TO BE PT-10 U.O.N.
- ACOUSTICAL CEILING GRID IS TO BE LAID IN CONTINUOUS CEILING RUNS. DEMOUNTABLE WALLS COME IN AFTER IMPARTATIVE TO FOLLOW CEILING START POINTS AS NOTED ON REFLECTED CEILING PLANS.
- COORDINATE REFLECTED CEILING PLAN WITH HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATION DRAWINGS.
- REFER TO RCP PLANS AND PARTITION TYPES FOR BULKHEAD LOCATIONS.
- ALL 8'-6" GYP AND DEMOUNTABLE WALLS TO RECEIVE AXISSTRAXION CLASSIC TRIM - WHITE FINISH

**RCP KEYED NOTES**

NO	DESCRIPTION
C01	EXTENSIVE REPAIR ON EXISTING BEAMS, PREPARE PREP TO RECEIVE NEW PAINT.
C02	PAINT EXISTING REGISTER TO MATCH EXISTING GYPSUM CEILING.
C03	INSTALL ACOUSTICAL CEILING TILE AS ONE CONTINUOUS RUN UNLESS NOTED OTHERWISE. REFER TO OVERALL REFLECTED FINISH PLANS OR ENLARGED REFLECTED FINISH PLANS FOR INSTALL TILE START POINT

**CEILING LEGEND**

**SYMBOLS**

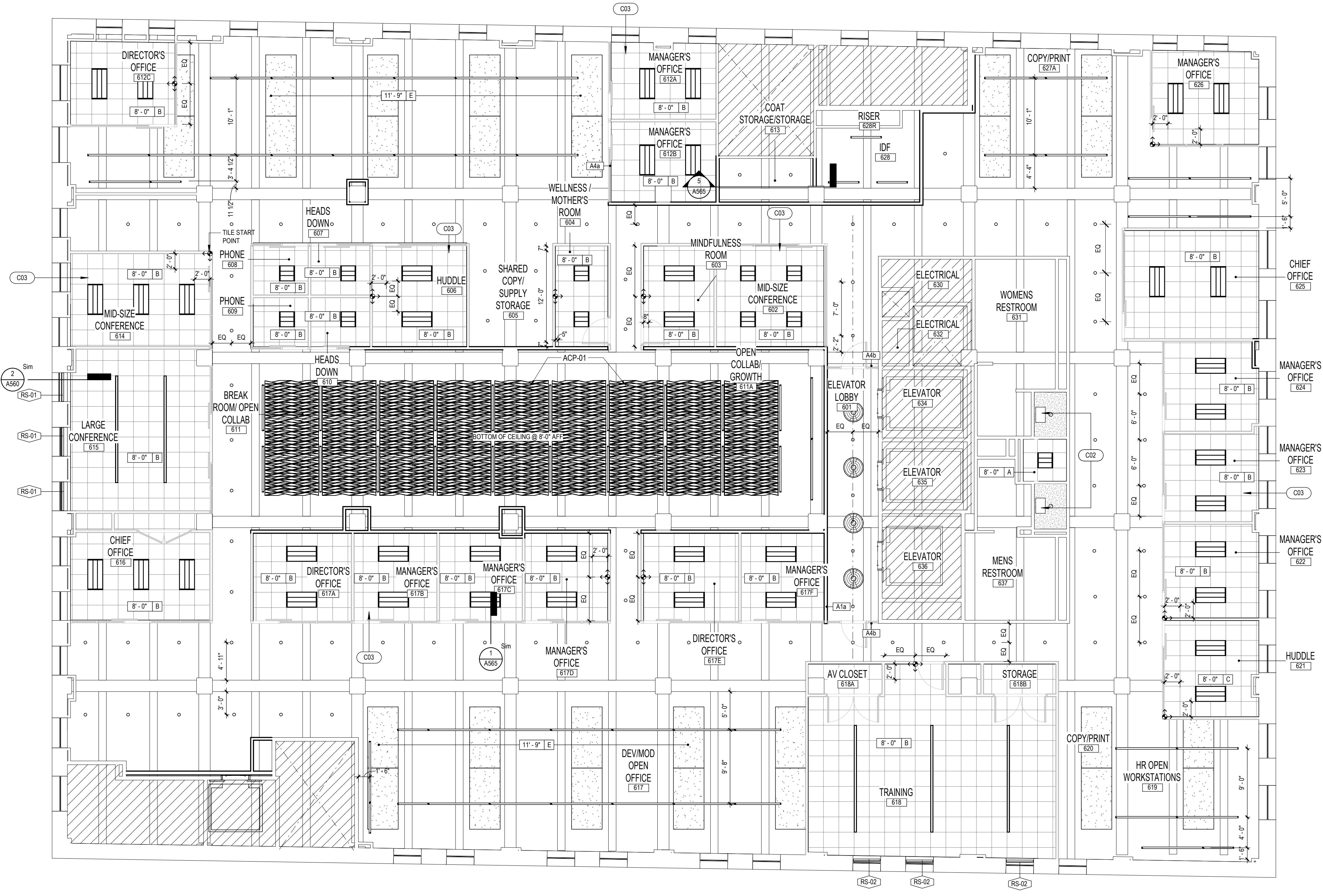
HEIGHT A.F.F. | TYPE → - CEILING TAG  
 ROOM NAME | ROOM NUMBER → - ROOM TAG  
 KEYNOTE VALUE → - KEYNOTE TAG  
 TILING START POINT  
 NOT IN SCOPE

**CEILING TYPE CODES**

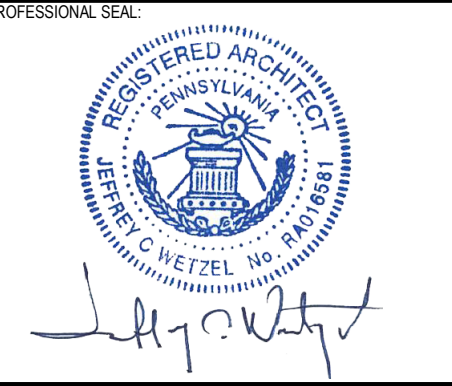
A-	5/8" GVB WITH PT-03 FINISH U.O.N.
B- ACT-01	REFER TO FINISH LEGEND
C- ACT-02	REFER TO FINISH LEGEND
D- ACP-01	REFER TO FINISH LEGEND
E- ACP-02	REFER TO FINISH LEGEND
F- ACP-03	REFER TO FINISH LEGEND
G- ACP-04	REFER TO FINISH LEGEND

**ABBREVIATIONS**

RS-01	MANUAL EQUINOX BLACKOUT 0102 ALABASTER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE CONFERENCES/VIEWING ROOM)
RS-02	AUTOMATIC (WITH 102 MOTOR AND MINI INTERFACE) EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE WITH GESTRON SYSTEM. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (BOARD ROOM TRAINING ROOM)
RS-03	MANUAL EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE EXECUTIVE CONFERENCE)
RS-04	MANUAL SQUO COLLECTION 1102 CANAL 1% OPEN ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LV. 01 CONSULT ROOM/ EXECUTIVE SUITE)



**1 OVERALL REFLECTED CEILING PLAN - LEVEL 06**  
1/8" = 1'-0"



CONSULTANT:



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**HACP - Housing Authority of the City of Pittsburgh**  
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#	PROJECT ISSUANCE	

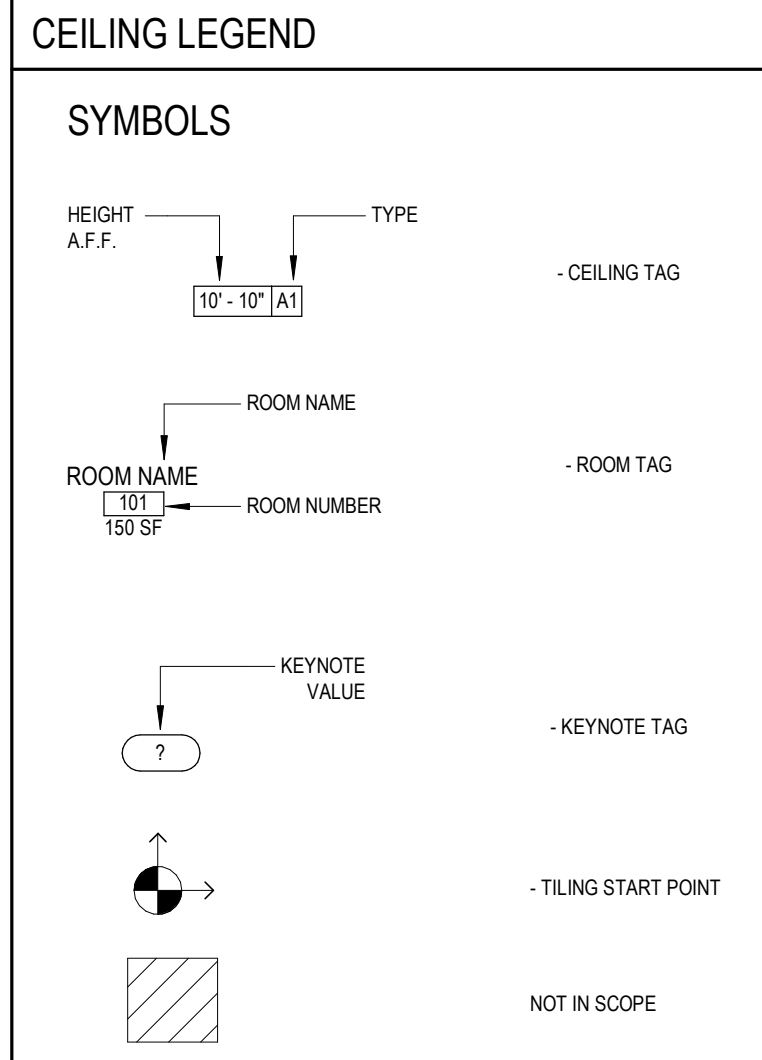
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

SHEET NAME:  
**OVERALL REFLECTED CEILING PLAN - LEVEL 07**  
 STREET NO. **A117**  
 TRUE NORTH  
 PLAN NORTH

- CEILING NOTES**
- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
  - ALL EXPOSED CEILING INFRASTRUCTURE AND COLUMNS TO BE PT-10 U.O.N.
  - ACOUSTICAL CEILING GRID IS TO BE LAID IN CONTINUOUS CEILING RUNS. DEMOUNTABLE WALLS COME IN AFTER IMPARTATIVE TO FOLLOW CEILING START POINTS AS NOTED ON REFLECTED CEILING PLANS.
  - COORDINATE REFLECTED CEILING PLAN WITH HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATION DRAWINGS.
  - REFER TO RCP PLANS AND PARTITION TYPES FOR BULKHEAD LOCATIONS.
  - ALL 8'-6" GYP AND DEMOUNTABLE WALLS TO RECEIVE AXISSTRAXION CLASSIC TRIM - WHITE FINISH

**RCP KEYED NOTES**

NO.	DESCRIPTION
C01	EXTENSIVE REPAIR ON EXISTING BEAMS, PREPARE PREP TO RECEIVE NEW PAINT.
C02	PAINT EXISTING REGISTER TO MATCH EXISTING GYPSUM CEILING.
C03	INSTALL ACOUSTICAL CEILING TILE AS ONE CONTINUOUS RUN UNLESS NOTED OTHERWISE. REFER TO OVERALL REFLECTED FINISH PLANS OR ENLARGED REFLECTED FINISH PLANS FOR INSTALL TILE START POINT.

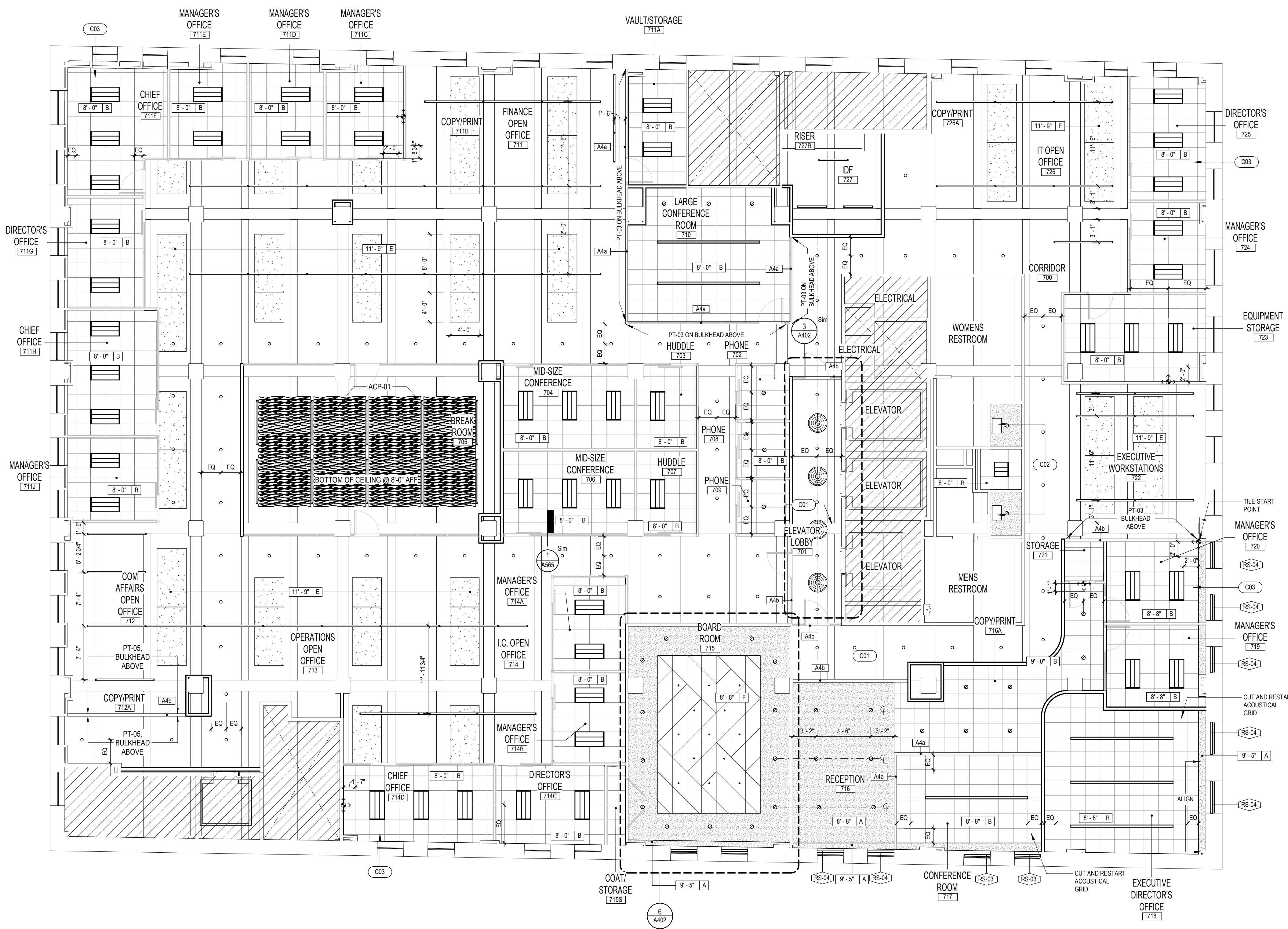


**CEILING TYPE CODES**

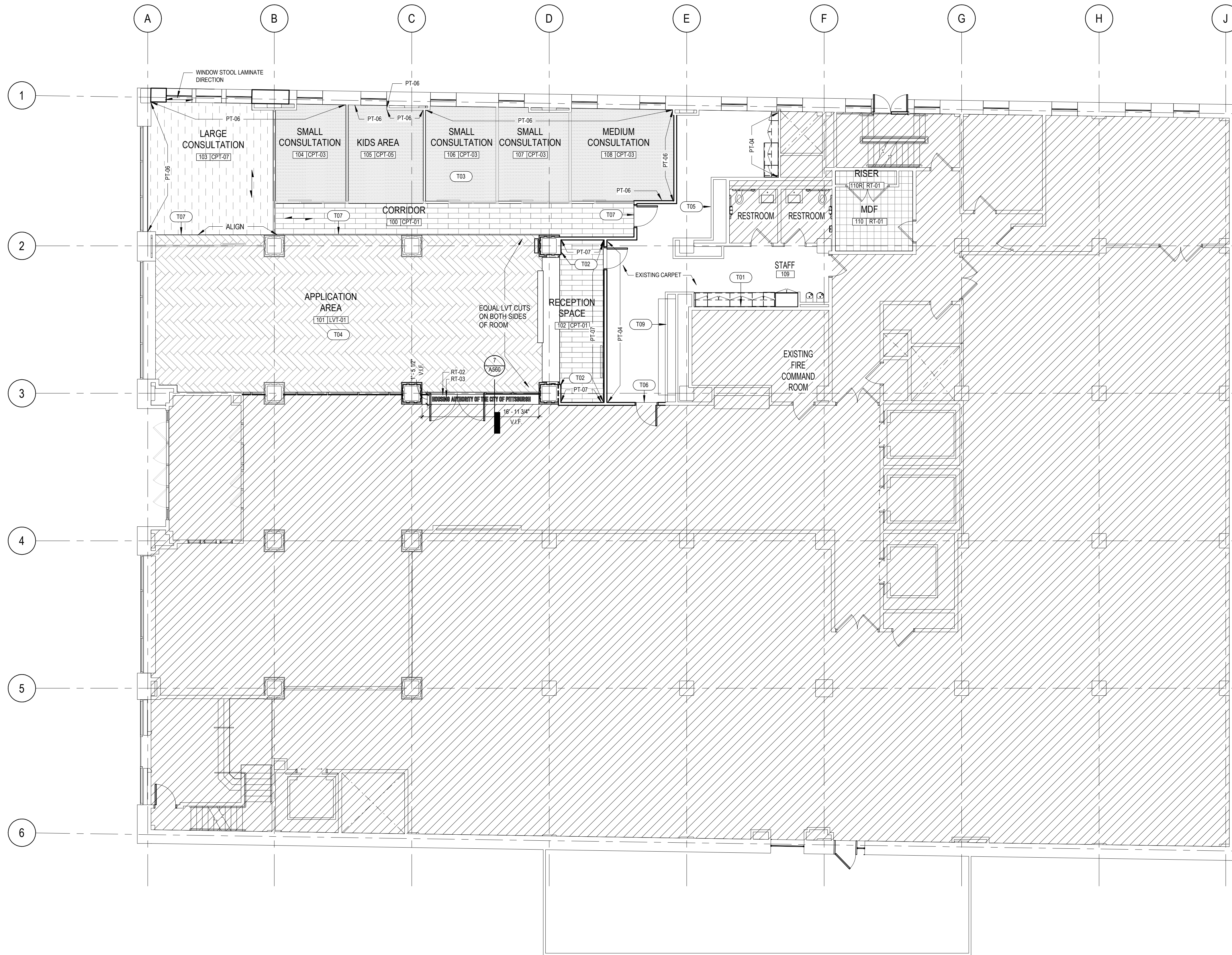
A-	58" GVB WITH PT-03 FINISH U.O.N.
B- ACT-01	REFER TO FINISH LEGEND
C- ACT-02	REFER TO FINISH LEGEND
D- ACP-01	REFER TO FINISH LEGEND
E- ACP-02	REFER TO FINISH LEGEND
F- ACP-03	REFER TO FINISH LEGEND
G- ACP-04	REFER TO FINISH LEGEND

**ABBREVIATIONS**

RS-01	MANUAL EQUINOX BLACKOUT 0102 ALABASTER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE CONFERENCE/VIEWING ROOM)
RS-02	AUTOMATIC (WITH 102 MOTOR AND MINI INTERFACE) EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE WITH GESTRON SYSTEM. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (BOARD ROOM TRAINING ROOM)
RS-03	MANUAL EQUINOX BLACKOUT 0105 SILVER ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (LARGE EXECUTIVE CONFERENCE)
RS-04	MANUAL SOND COLLECTION 1102 CANAL 1% OPEN ROLLER SHADE. REFER TO DETAIL DRAWINGS FOR MOUNTING. FOR FINISH SPECIFICATION, REFER TO PROJECT MANUAL (L.V. 01 CONSULT ROOM/ EXECUTIVE SUITE)



**1** OVERALL REFLECTED CEILING PLAN - LEVEL 07  
 1/8" = 1'-0"



1 OVERALL FINISH PLAN - LEVEL 01  
1/8" = 1'-0"

- ### FINISH PLAN NOTES
- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. REPORT DISCREPANCIES AND UNIFORMED CONDITIONS TO THE ARCHITECT IMMEDIATELY.
  - GC TO DETERMINE EXISTING FLOOR PREPARATION REQUIREMENTS WITH ALL FLOORING MANUFACTURERS.
  - ALL FINISHES TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
  - ALL DIMENSIONS ARE MEASURED TO THE FINISHED WALL SURFACE UNLESS NOTED OTHERWISE.
  - COORDINATE FINISH LOCATIONS WITH CEILING LOCATIONS AND DEMOUNTABLE WALL LOCATIONS.
  - ALL WALL FINISHES ARE TO RECEIVE PT-01 U.O.N. SEE ROOM FINISH SCHEDULE FOR MORE DETAILED INFORMATION.
  - ALL CEILING FINISHES ARE TO RECEIVE PT-10 U.O.N.
  - ALL EXPOSED COLUMNS ARE TO RECEIVE PT-11 U.O.N.
  - PROVIDE ADA COMPLIANT TRANSITION STRIPS BETWEEN ALL DISSIMILAR FLOOR MATERIALS OF DIFFERING THICKNESSES. SEE FINISH LEGEND FOR PRODUCT INFORMATION. FLOORING MATERIALS OF THE SAME THICKNESS TO BE BUTTED TOGETHER WITH NO TRANSITIONS.
  - ALL FLOOR FINISHES TO EXTEND UNDERNEATH CASEWORK AND EQUIPMENT.
  - ALL FINISHES BEING APPLIED TO DEMOUNTABLE PARTITIONS ARE TO BE PROVIDED BY THE DEMOUNTABLE PARTITION VENDOR AND ARE NOT INCLUDED IN THE GC SCOPE OF WORK.
  - FLOORING PATTERN LAYOUT IS TO BE CENTERED WITHIN THE EXTENTS OF THE FINISH U.O.N.

### FINISH PLAN LEGEND

**SYMBOLS**

- FLOOR TRANSITION
- FLOORING TYPE B
- FLOORING TYPE A
- Room Name
- ROOM TAG WITH FLOOR FINISH
- FLOOR FINISH
- ROOM NUMBER
- FLOOR PATTERN DIRECTION
- NOT IN SCOPE

### FINISH PLAN KEYED NOTES

NO	DESCRIPTION
T01	KEEP EXISTING WALL COVERING AND TOUCH UP EXISTING WALL PAINT AS NEEDED.
T02	WING WALLS WILL MATCH THE ADJACENT REBUILT COLUMN COLOR.
T03	FINISH ALTIDUCT 1 - KEEP EXISTING CARPET
T04	FINISH ALTIDUCT 2 - KEEP EXISTING PORCELAIN TILE
T05	KEEP EXISTING FIREPLACE WALL
T06	TREDSAFE METAL TRANSITION DT040 - BETWEEN SIMILAR HEIGHT FLOORING MATERIALS
T07	TARKETT SLIM LINE TRANSITION GRAY HAZE RUBBER TRANSITION - CARPET TO LVT
T09	KEEP EXISTING WOOD WALL, SEATING, AND PAINT COLOR. TOUCH UP PAINT AS NEEDED.

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PITTSBURGH, PA 15222  
(412) 932 2044  
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PROFESSIONAL SEAL

JEFFREY C. KRETZEL

CONSULTANT

CLIENT

Housing Authority  
of the City of Pittsburgh

200 ROSS STREET  
PITTSBURGH, PA 15219  
(412) 456-5500  
hacp.org

HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
	REVISION #3	
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
	REVISION #2	
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
	REVISION #1	
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO. 190427.00	DRAWN BY AE7	REVIEWED BY JW
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SHEET NAME:  
OVERALL FINISH PLAN - LEVEL 01

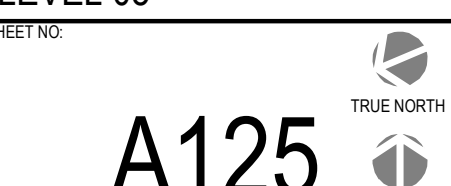
SHEET NO.  
A121

TRUE NORTH  
PLAN NORTH

NO	DESCRIPTION	DATE
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4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

SHEET NAME:  
 OVERALL FINISH PLAN - LEVEL 05

TRUE NORTH  
  
 PLAN NORTH

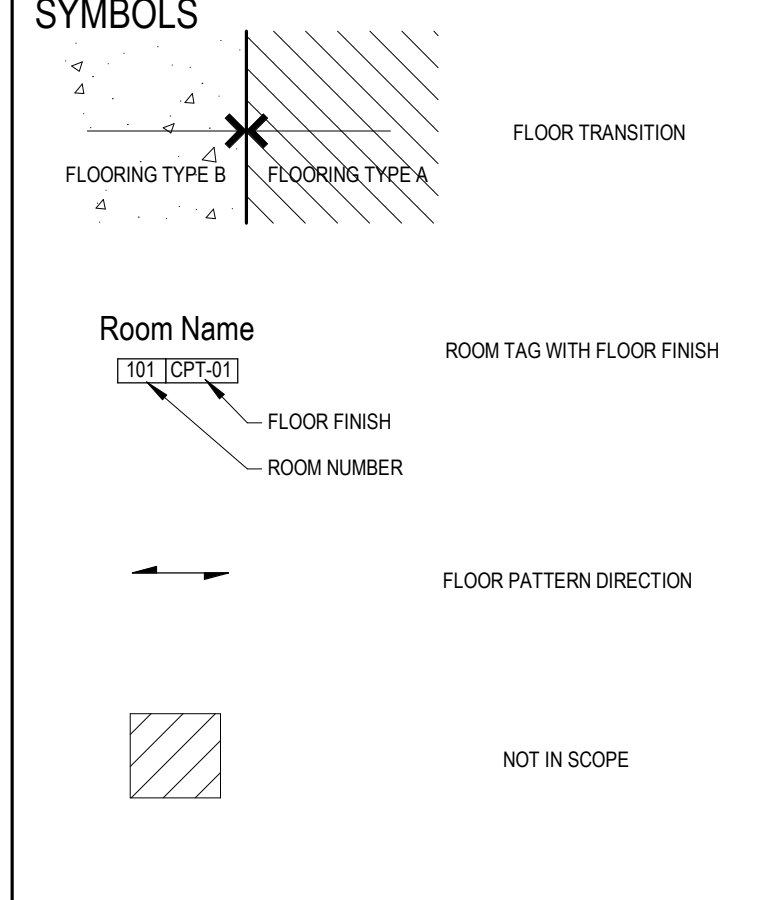
A125  
 © AE7 Pittsburgh, LLC 2020

**FINISH PLAN NOTES**

- REFER TO SHEET 0010 FOR PROJECT GENERAL NOTES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. REPORT DISCREPANCIES AND UNIFORMED CONDITIONS TO THE ARCHITECT IMMEDIATELY.
- GO TO DETERMINE EXISTING FLOOR PREPARATION REQUIREMENTS WITH ALL FLOORING MANUFACTURERS.
- ALL FINISHES TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
- ALL DIMENSIONS ARE MEASURED TO THE FINISHED WALL SURFACE UNLESS NOTED OTHERWISE.
- COORDINATE FINISH LOCATIONS WITH CEILING LOCATIONS AND DEMOUNTABLE WALL LOCATIONS.
- ALL WALL FINISHES ARE TO RECEIVE PT-01 U.O.N. SEE ROOM FINISH SCHEDULE FOR MORE DETAILED INFORMATION.
- ALL CEILING FINISHES ARE TO RECEIVE PT-10 U.O.N.
- ALL EXPOSED COLUMNS ARE TO RECEIVE PT-11 U.O.N.
- PROVIDE ADA COMPLIANT TRANSITION STRIPS BETWEEN ALL DISSIMILAR FLOOR MATERIALS OF DIFFERING THICKNESSES. SEE FINISH LEGEND FOR PRODUCT INFORMATION. FLOORING MATERIALS OF THE SAME THICKNESS TO BE BUTTED TOGETHER WITH NO TRANSITIONS.
- ALL FLOOR FINISHES TO EXTEND UNDERNEATH CASEWORK AND EQUIPMENT.
- ALL FINISHES BEING APPLIED TO DEMOUNTABLE PARTITIONS ARE TO BE PROVIDED BY THE DEMOUNTABLE PARTITION VENDOR AND ARE NOT INCLUDED IN THE GC SCOPE OF WORK.
- FLOORING PATTERN LAYOUT IS TO BE CENTERED WITHIN THE EXTENTS OF THE FINISH U.O.N.

**FINISH PLAN LEGEND**

**SYMBOLS**



FLOOR TRANSITION  
 FLOORING TYPE B  
 FLOORING TYPE A

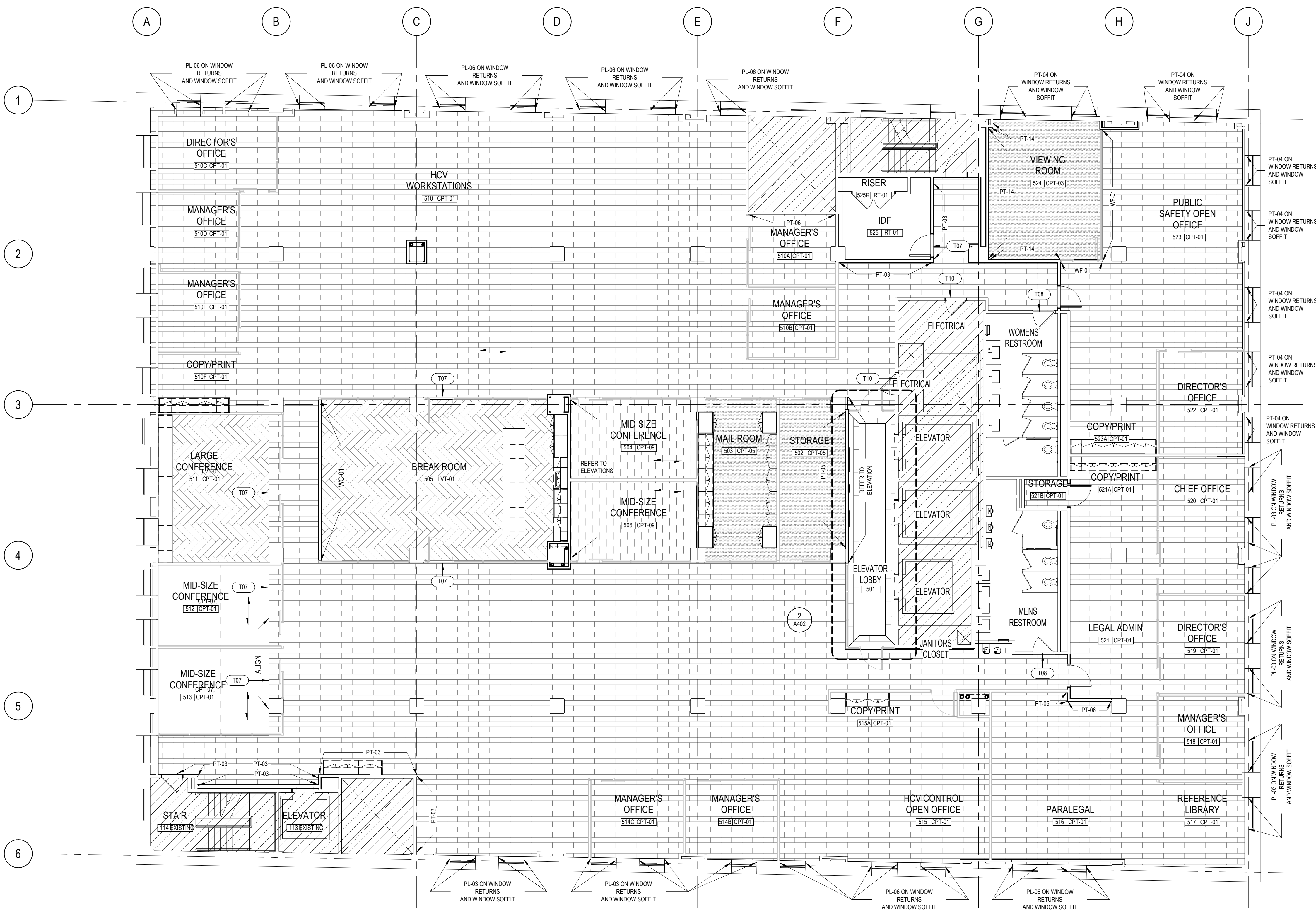
Room Name  
 [T07] [CPT-01]  
 FLOOR FINISH  
 ROOM NUMBER

FLOOR PATTERN DIRECTION

NOT IN SCOPE

**FINISH PLAN KEYED NOTES**

NO	DESCRIPTION
T07	TARKETT SLIM LINE TRANSITION GRAY HAZE RUBBER TRANSITION - CARPET TO LVT
T08	SCHLUTER RENO TK - BETWEEN FLOORING MATERIAL OF DIFFERING HEIGHTS
T10	TARKETT SLIM LINE TRANSITION GRAY HAZE RUBBER TRANSITION - CARPET TO SUB FLOOR



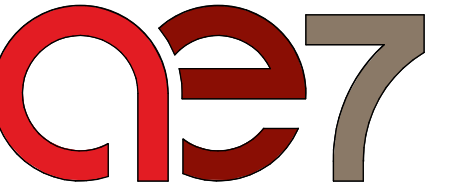
1 OVERALL FINISH PLAN - LEVEL 05  
 1/8" = 1'-0"



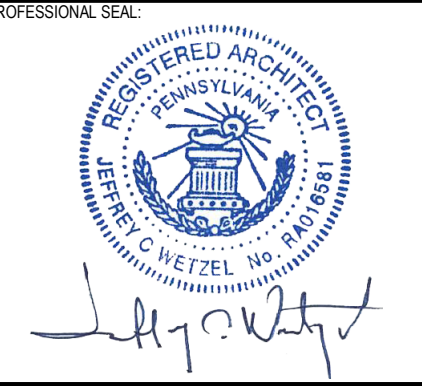








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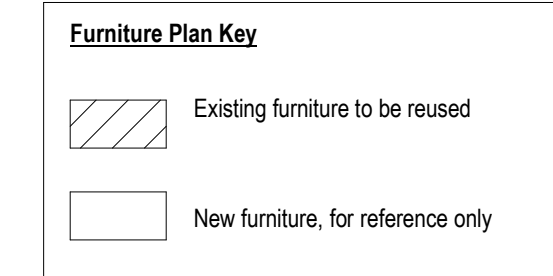
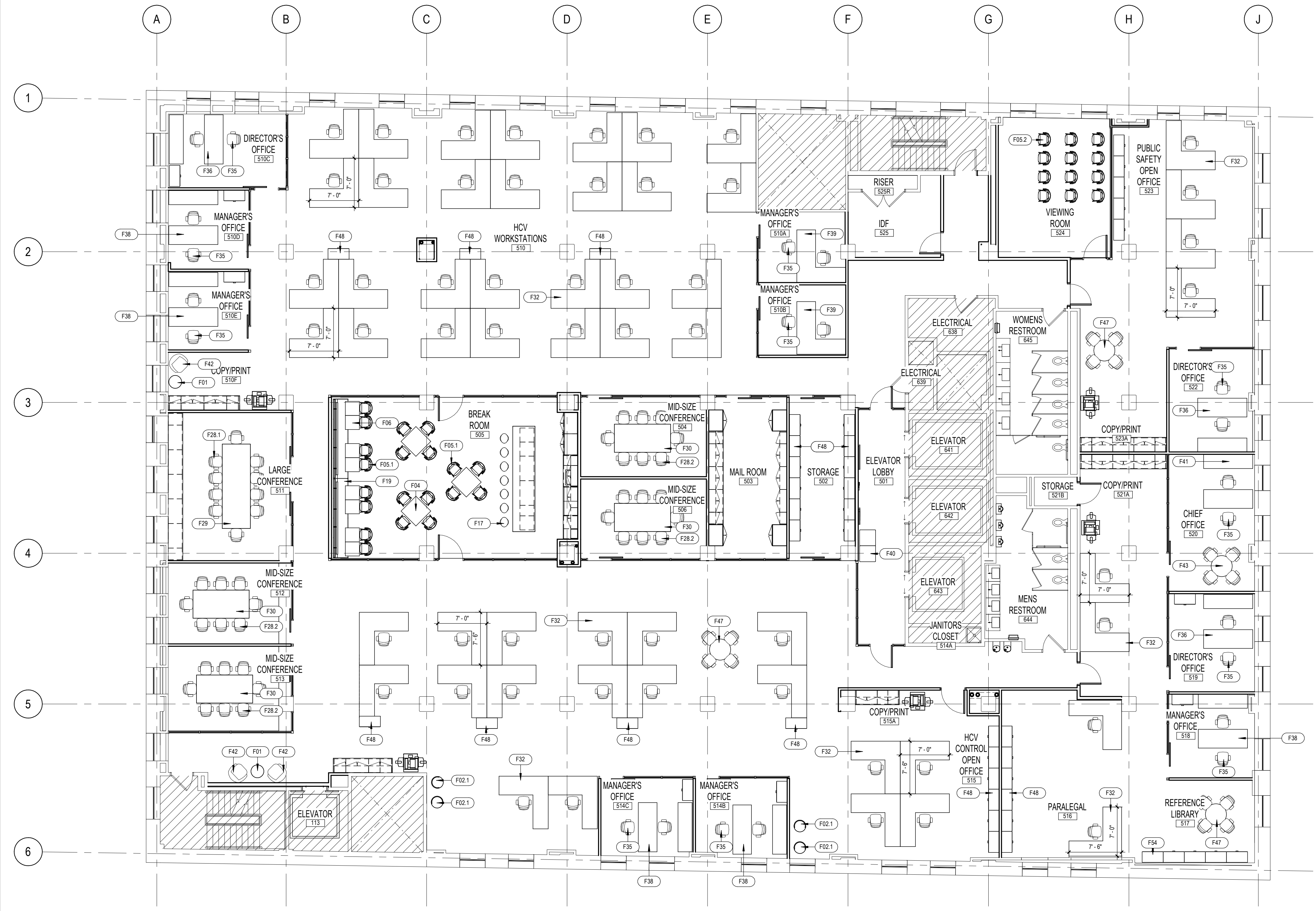
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4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

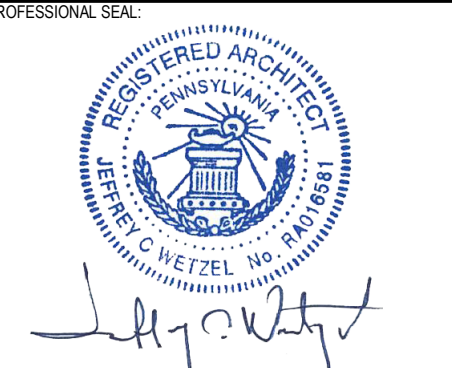
SHEET NAME:  
OVERALL FURNITURE PLAN - LEVEL 05 (FOR REFERENCE ONLY)

SHEET NO.  
A145  
TRUE NORTH  
PLAN NORTH

FURNITURE KEYED NOTES	
Key Value	Keynote Text
F01	OFS MAIVE END TABLE
F02.1	OFS ROUND OTTOMAN WITH BACKREST, BLUE
F04	VERSTEEL PLATFORM SQUARE TABLE
F05.1	JSI WINK ARMLESS CHAIR, NAVY
F05.2	SIT ON IT RIO CHAIR, TANGERINE
F06	VERSTEEL PLATFORM RECTANGULAR TABLE
F17	JSI WINK STOOL
F19	OFS CONTACT BANQUETTE
F28.1	HOM IGNITION CHAIR, ORANGE
F28.2	HOM IGNITION CHAIR, TALPE
F29	HOM PRESIDE CONF TABLE
F30	HOM PRESIDE CONF TABLE
F32	HOM WORKSTATION AND HOM SOLVE CHAIR
F35	HOM IGNITION GUEST CHAIR
F36	HOM DIR OFFICE EXTERIOR
F38	HOM MGR OFFICE EXTERIOR
F39	HOM MGR OFFICE INTERIOR
F40	OFS HEVA BENCH
F41	HOM CHIEF OFFICE
F42	OFS KASURA GUEST CHAIR
F43	HOM PRESIDE ROUND CONF TABLE, IGNITION TASK CHAIR
F47	HOM PRESIDE BREAK TABLE, IGNITION GUEST CHAIR
F48	3 DRAWER LATERAL FILE, QTY DEFINED BY CLIENT
F54	HOM S SHELF BOOKCASE



1 OVERALL FURNITURE PLAN - LEVEL 05 (FOR REFERENCE ONLY)  
1/8" = 1'-0"



CONSULTANT:



CLIENT:  
**Housing Authority**  
 of the City of Pittsburgh

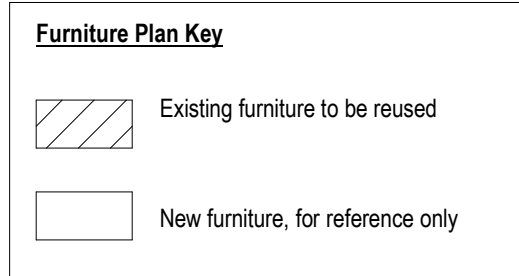
200 ROSS STREET  
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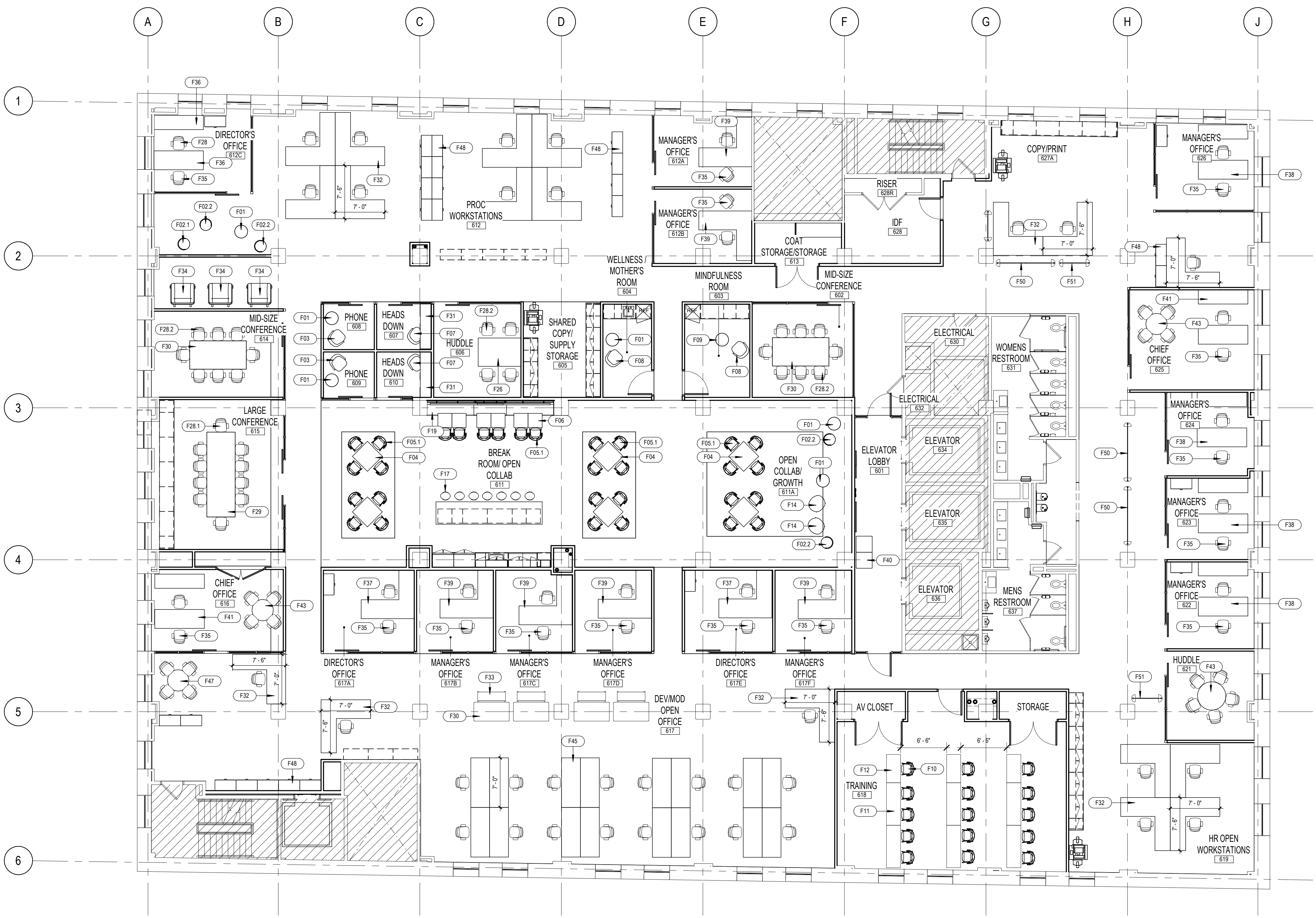
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3	07/09/2020	100% CONSTRUCTION DOCUMENTS
4	07/30/2020	100% CONSTRUCTION DOCUMENTS
5	09/03/2020	100% CONSTRUCTION DOCUMENTS

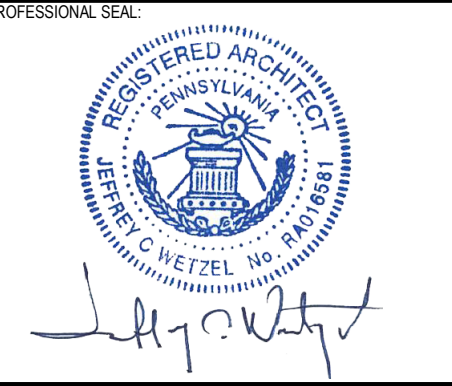
PROJECT NO. 190427.00  
 DRAWN BY: AE7  
 REVIEWED BY: JW  
 SHEET NAME:  
**OVERALL FURNITURE PLAN - LEVEL 06 (FOR REFERENCE ONLY)**  
 STREET NO. **A146**

Key Value	Keynote Text
F01	OFS MAIVE END TABLE
F02.1	OFS ROUND OTTOMAN WITH BACKREST, BLUE
F02.2	OFS ROUND OTTOMAN WITH BACKREST, ORANGE
F03	HON FLOOR CHAIR
F04	VERSTEEL PLATFORM SQUARE TABLE
F05.1	JSI WINK ARMLESS CHAIR, NAVY
F06	VERSTEEL PLATFORM RECTANGULAR TABLE
F07	OFS HARPIN
F08	OFS SHARA CHAIR
F09	OFS SHARA OTTOMAN
F10	GLOBAL SONIC
F11	HON HUDDLE NESTING LARGE
F12	HON HUDDLE NESTING SMALL
F14	SOURCE SAY O LOUNGE CHAIR
F17	JSI WINK STOOL
F19	OFS COACT BANQUETTE
F26	VERSTEEL ELIGA TABLE
F28	
F28.1	HON IGNITION CHAIR, ORANGE
F28.2	HON IGNITION CHAIR, TAUPE
F29	HON PRESIDE CONF TABLE
F30	HON PRESIDE CONF TABLE
F31	OFS KINTRA TABLE
F32	HON WORKSTATION AND HON SOLVE CHAIR
F33	HON PRESIDE SEATED HEIGHT TABLE AND BENCH
F34	JSI CAIV CHAIR
F35	HON IGNITION GUEST CHAIR
F36	HON DIR OFFICE EXTERIOR
F37	HON DIR OFFICE INTERIOR
F38	HON MGR OFFICE EXTERIOR
F39	HON MGR OFFICE INTERIOR
F40	OFS HEYA BENCH
F41	HON CHIEF OFFICE
F43	HON PRESIDE ROUND CONF TABLE, IGNITION TASK CHAIR
F45	HON BENCHING WORKSTATION AND HON SOLVE CHAIR
F47	HON PRESIDE BREAK TABLE, IGNITION GUEST CHAIR
F48	3 DRAWER LATERAL FILE, QTY DEFINED BY CLIENT
F50	LOFTWALL 78W W, 78W H
F51	LOFTWALL 52W W, 78W H



**1** OVERALL FURNITURE PLAN - LEVEL 06 (FOR REFERENCE ONLY)  
 1/8" = 1'-0"



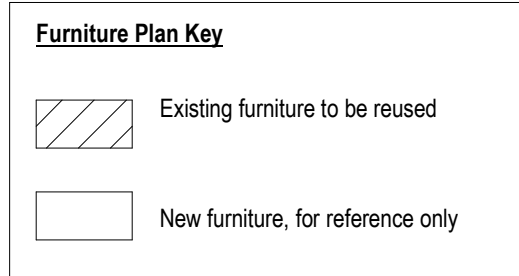
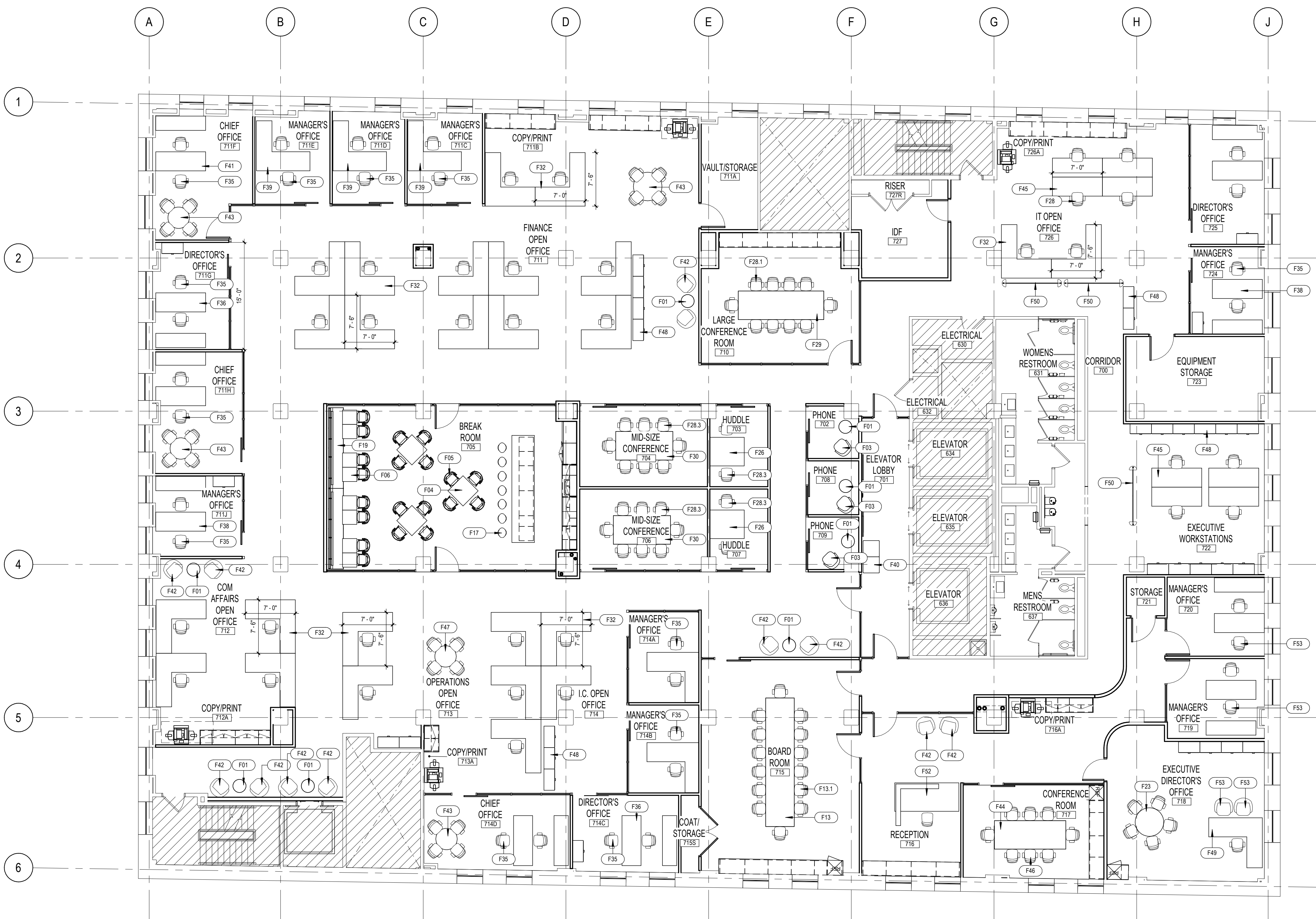


CONSULTANT:



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FURNITURE KEYED NOTES	
Key Value	Keynote Text
F01	OFS MANVE END TABLE
F03	HON FLOCK CHAIR
F04	VERSTEEL PLATFORM SQUARE TABLE
F05	VERSTEEL PLATFORM RECTANGULAR TABLE
F06	OFS CONF TABLE WITH PEDESTAL BASE
F13.1	OFS SLEEK HIGH BACK CHAIRS
F17	JSI WINK STOOL
F19	OFS COACT BANQUETTE
F23	MARTINI SWIVEL
F26	VERSTEEL ELUGA TABLE
F28	HON IGNITION CHAIR, ORANGE
F28.1	HON IGNITION CHAIR, NAVY
F29	HON PRESIDE CONF TABLE
F30	HON PRESIDE CONF TABLE
F32	HON WORKSTATION AND HON SOLVE CHAIR
F35	HON IGNITION GUEST CHAIR
F36	HON DIR OFFICE EXTERIOR
F38	HON MGR OFFICE EXTERIOR
F39	HON MGR OFFICE INTERIOR
F40	OFS HEVA BENCH
F41	HON CHIEF OFFICE
F42	OFS KASURA GUEST CHAIR
F43	HON PRESIDE ROUND CONF TABLE, IGNITION TASK CHAIR
F44	JSI CONFERENCE TABLE
F45	HON BENCHING WORKSTATION AND HON SOLVE CHAIR
F46	HON CERES MULTIPURPOSE CHAIR
F47	HON PRESIDE BREAK TABLE, IGNITION GUEST CHAIR
F48	3 DRAWER LATERAL FILE, QTY DEFINED BY CLIENT
F49	JSI CEO OFFICE SLUITE
F50	LOFTWALL 78&W, 78&H
F52	OFS RECEPTION DESK
F53	JSI GALLERY GUEST CHAIR



1 OVERALL FURNITURE PLAN - LEVEL 07 (FOR REFERENCE ONLY)  
 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT ISSUANCE

PROJECT NO. 190427.00	DRAWN BY AE7	REVIEWED BY JW
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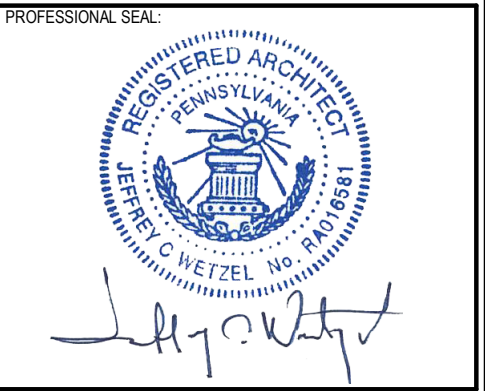
SHEET NAME  
 OVERALL FURNITURE PLAN - LEVEL 07 (FOR REFERENCE ONLY)

SHEET NO.  
**A147**

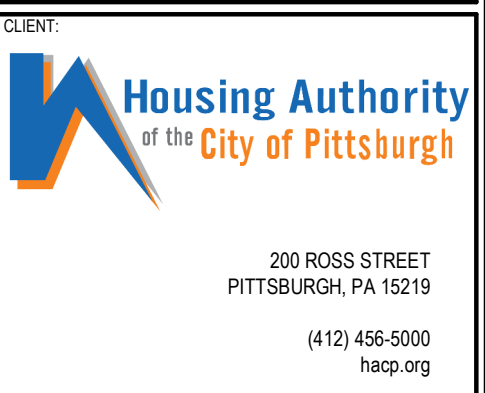








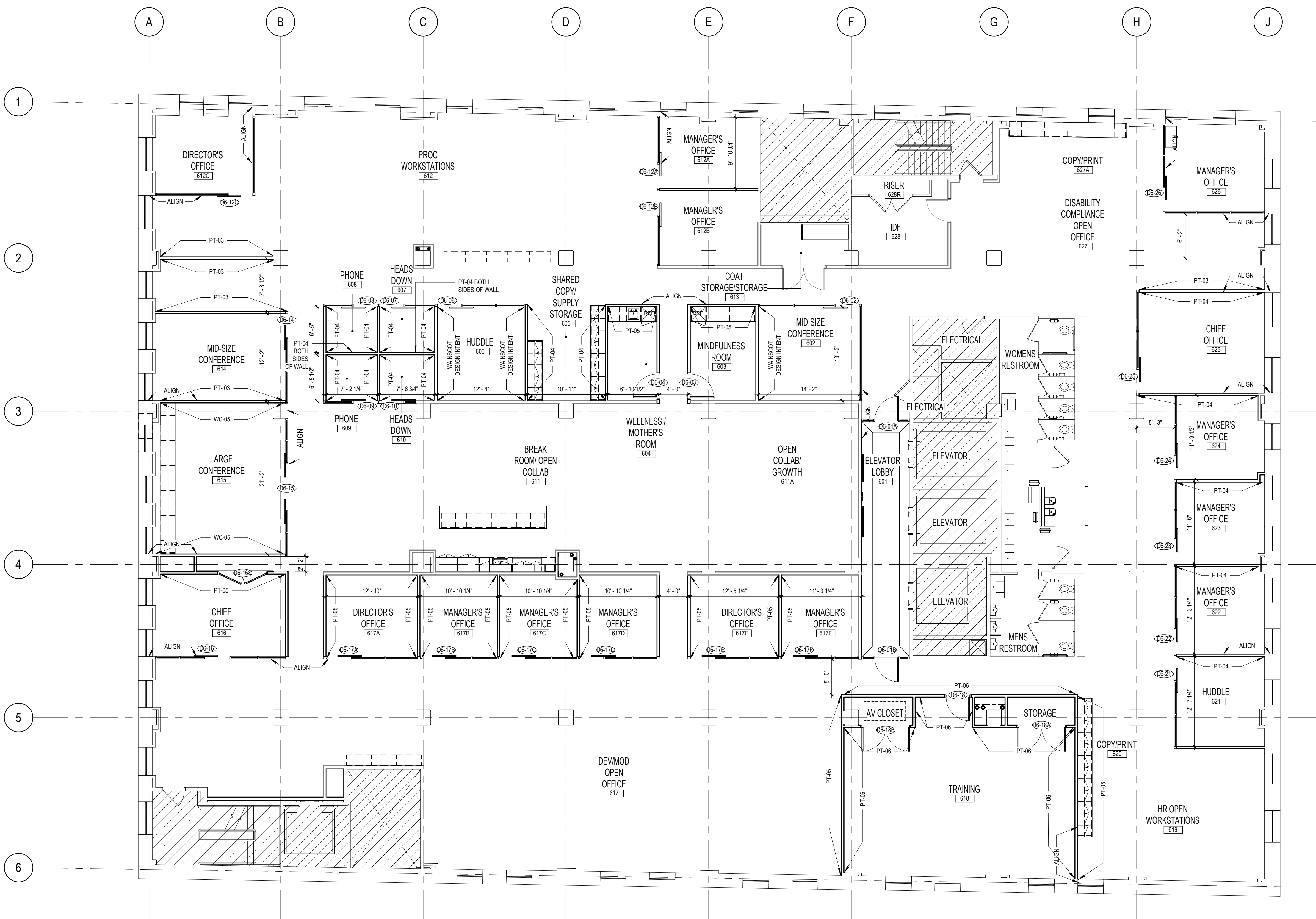
CONSULTANT:



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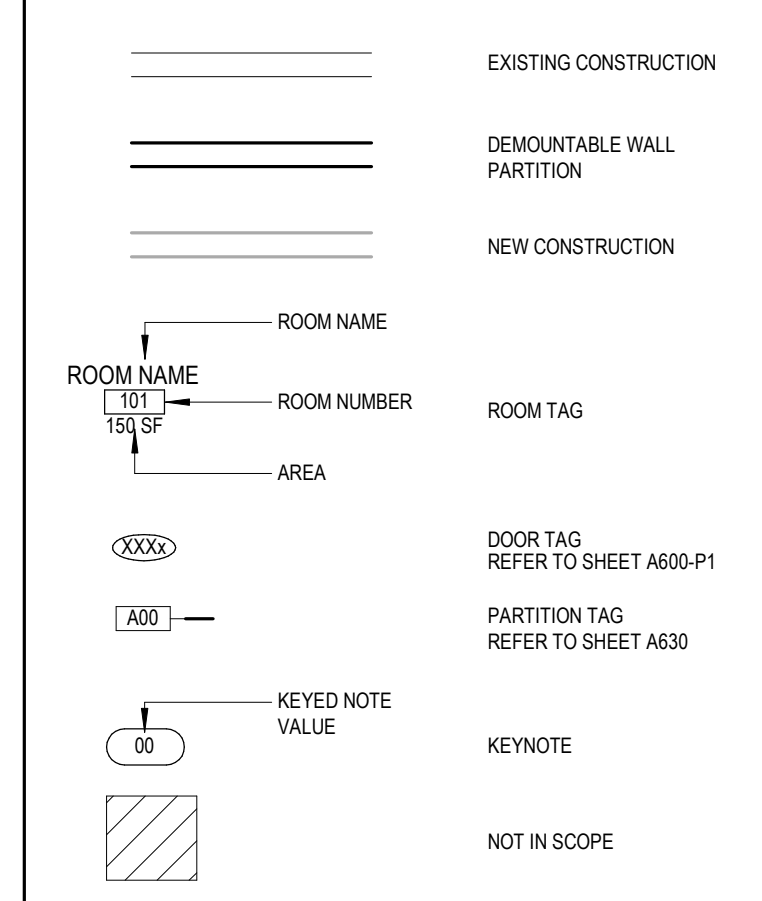
**DEMOUNTABLE PLAN NOTES**

- REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.
- REFER TO RESPONSIBILITY MATRIX ON SHEET G020 FOR ADDITIONAL CLARIFICATION REGARDING GC VS. DEMOUNTABLE PARTITION VENDOR SCOPE.



**1** OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 06 (FOR REFERENCE ONLY)  
 1/8" = 1'-0"

**PLAN LEGEND**



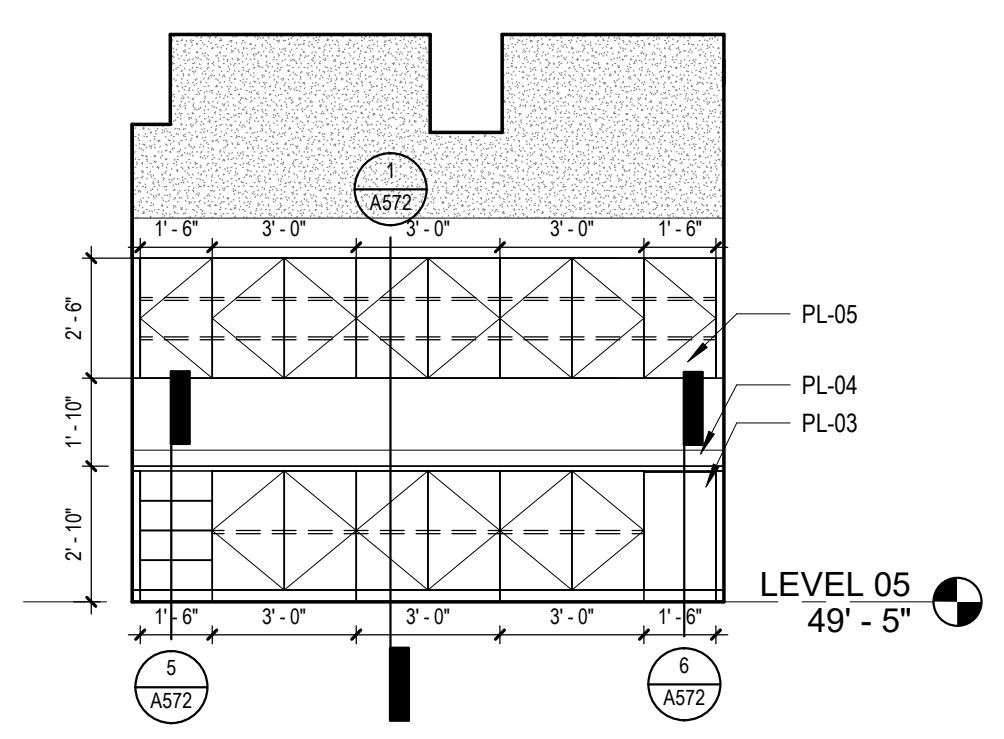
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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO. 190427.00	DRAWN BY AE7	REVIEWED BY JW
SHEET NAME <b>OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 06</b>		
SHEET NO. <b>A156</b>		

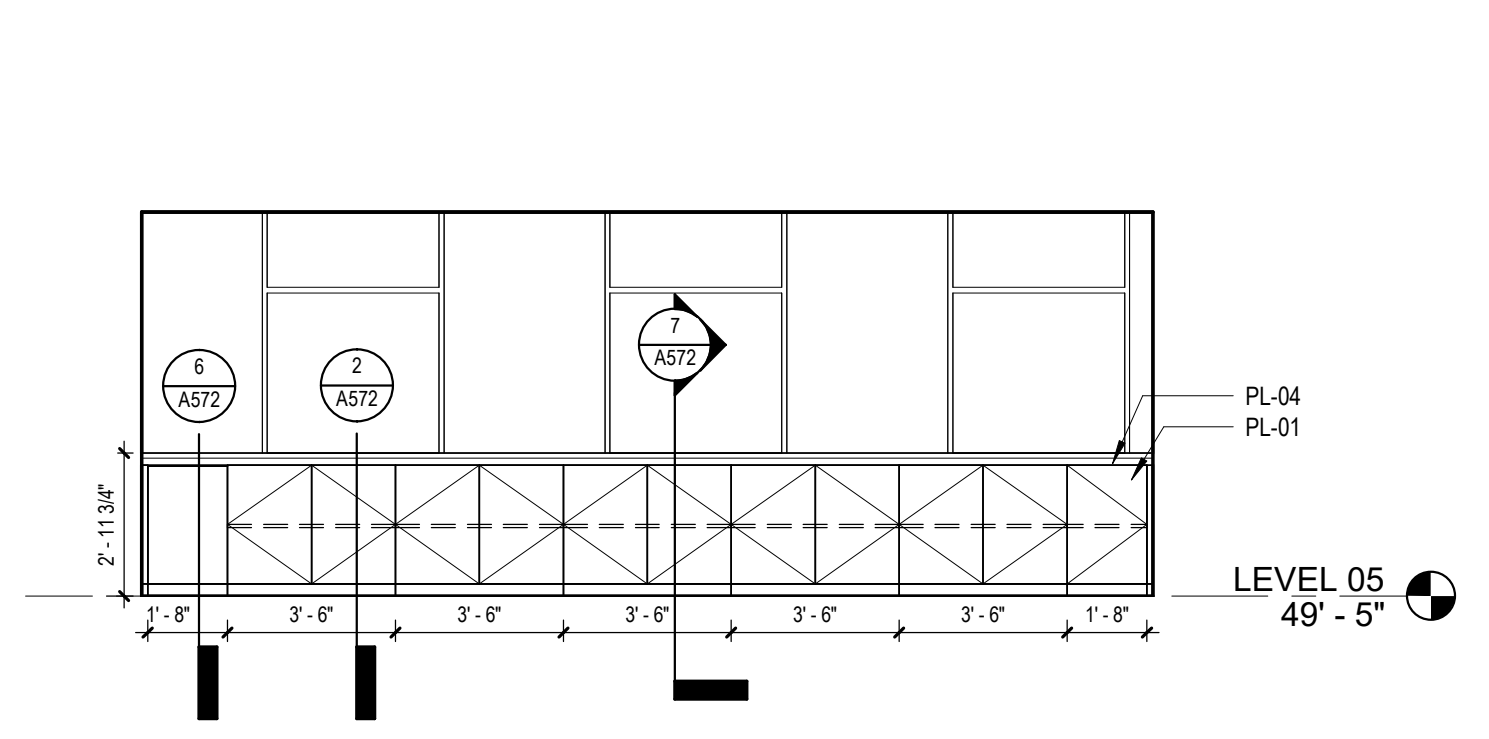




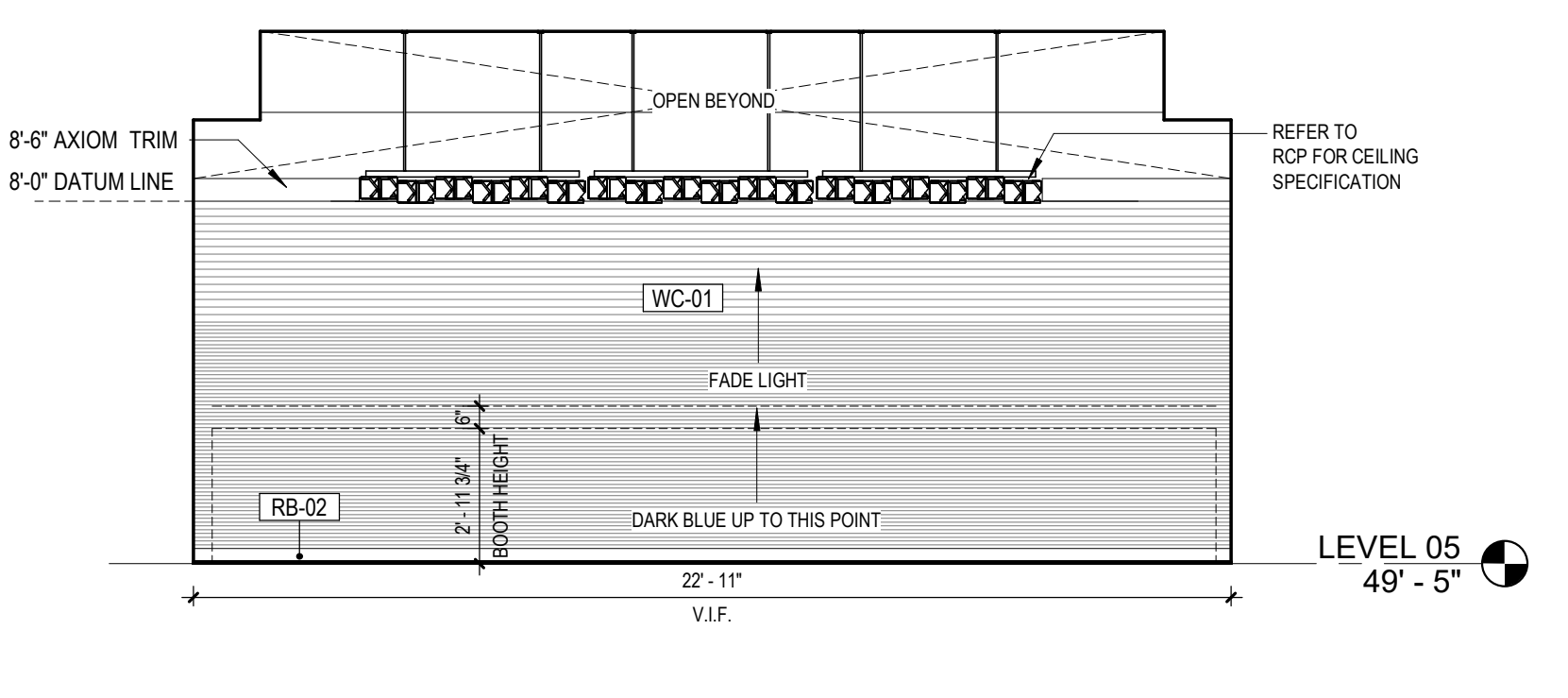




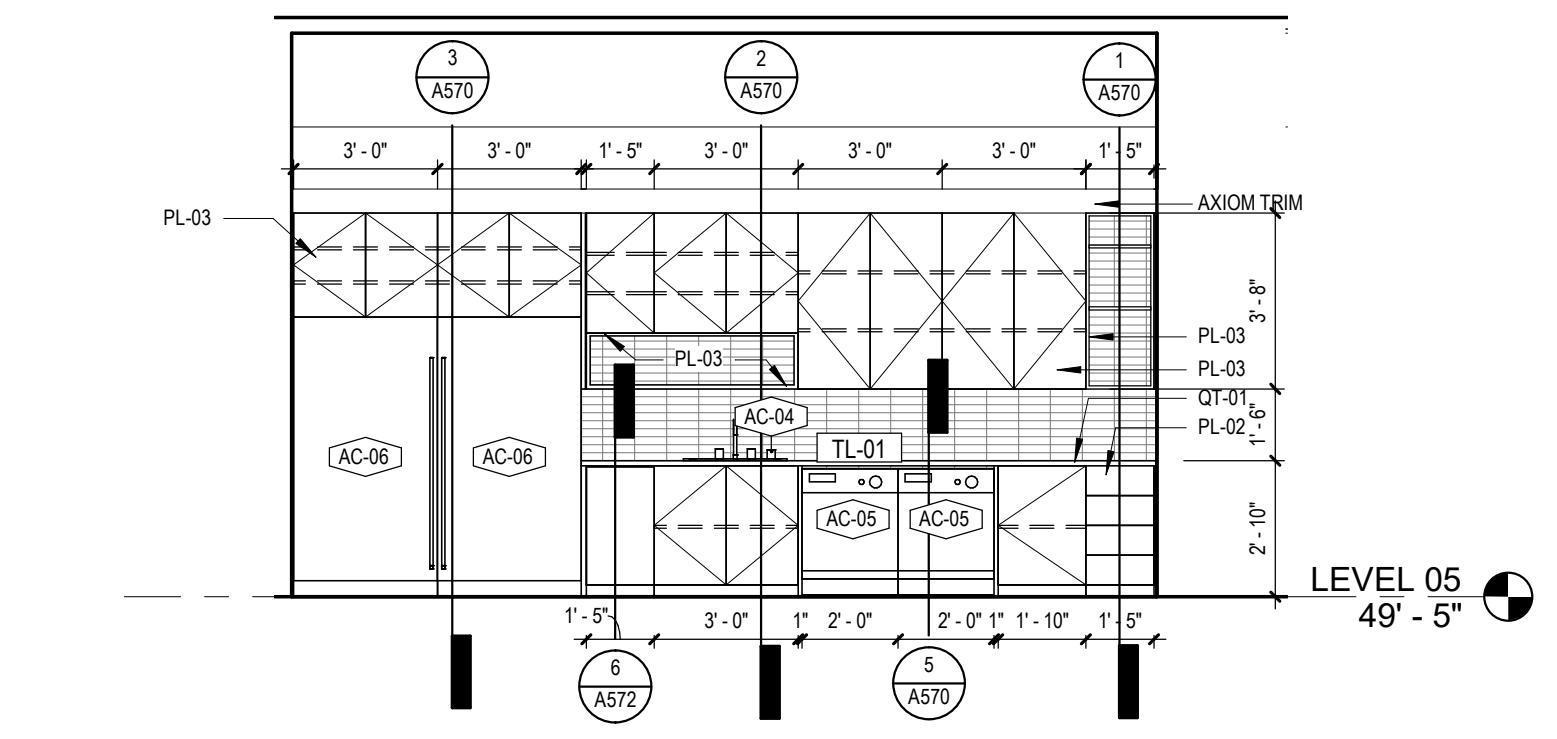
4 LEGAL COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



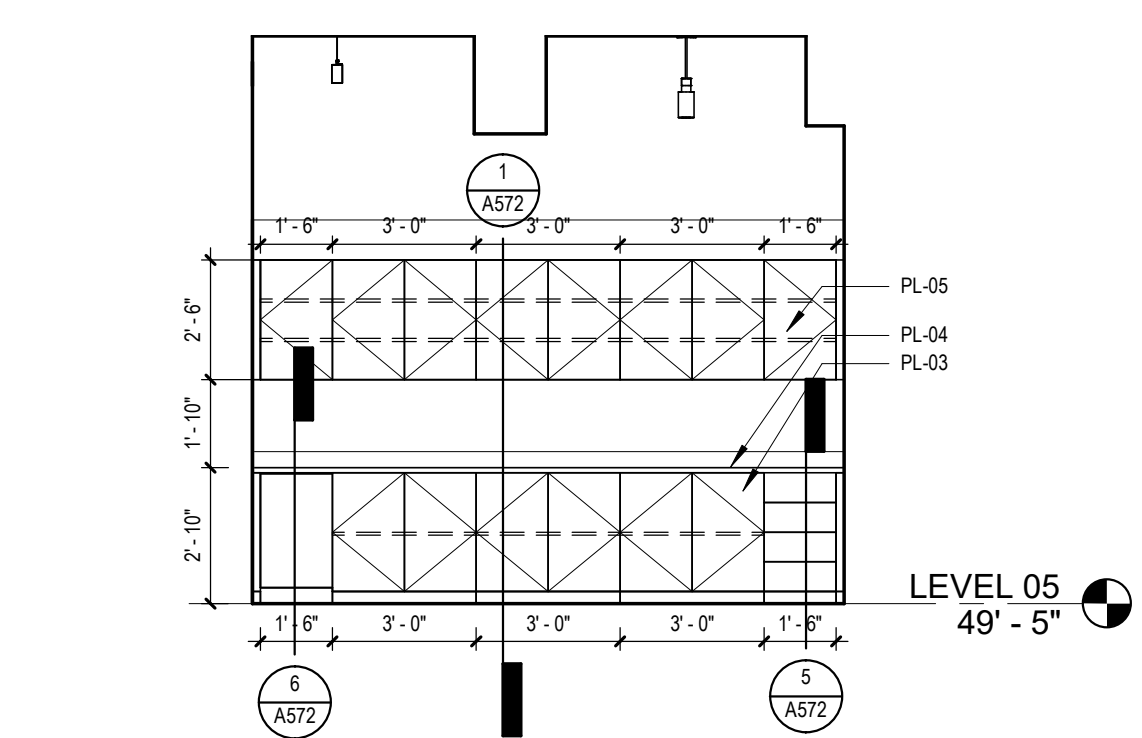
3 LARGE CONFERENCE ROOM - ELEVATION 1  
 1/4" = 1'-0"



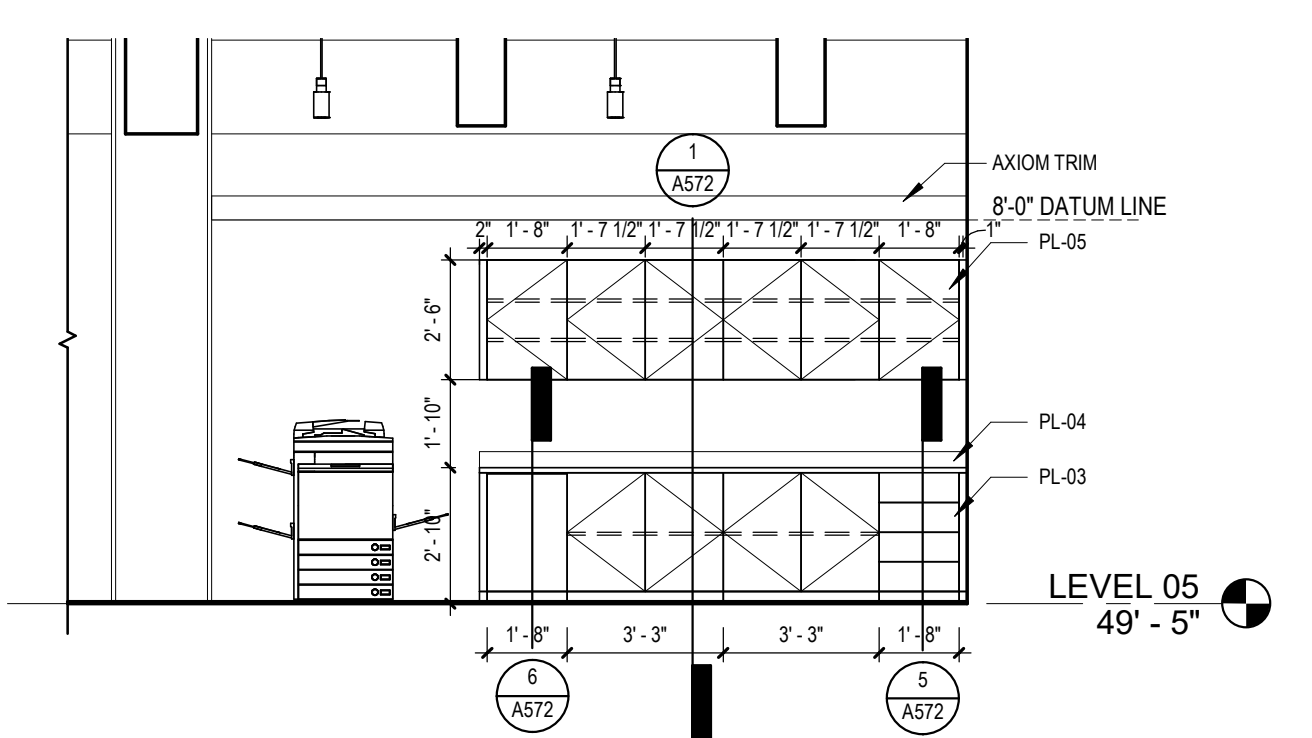
2 TYPICAL BREAK ROOM FEATURE WALL LVL 05/07  
 1/4" = 1'-0"



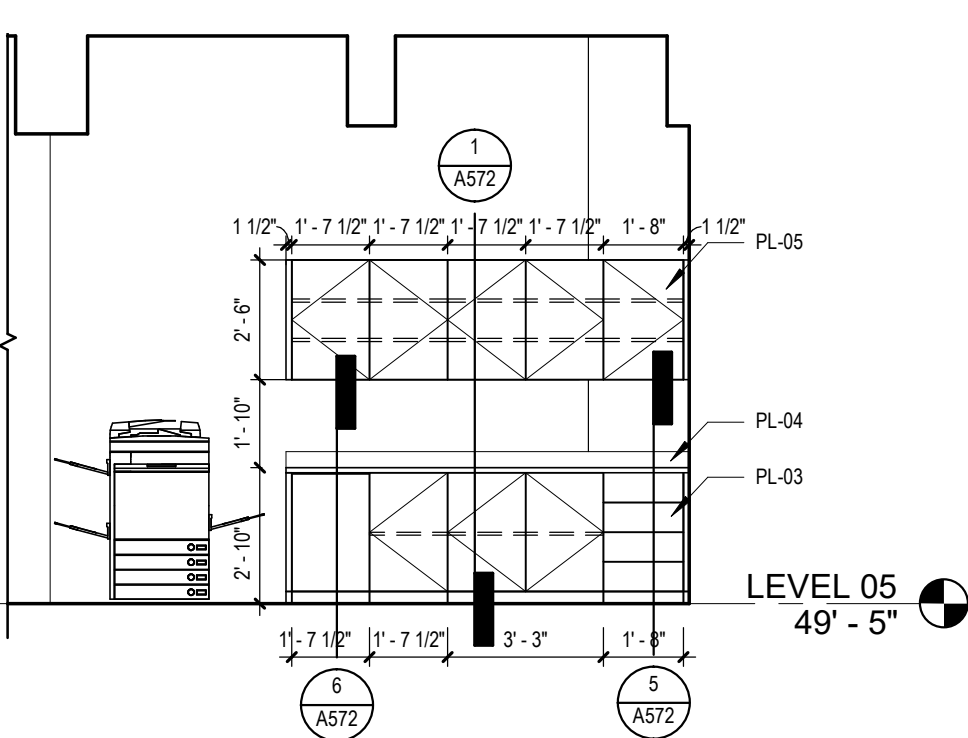
1 LVL 05/LVL 07 BREAK ROOM - ELEVATION 1  
 1/4" = 1'-0"



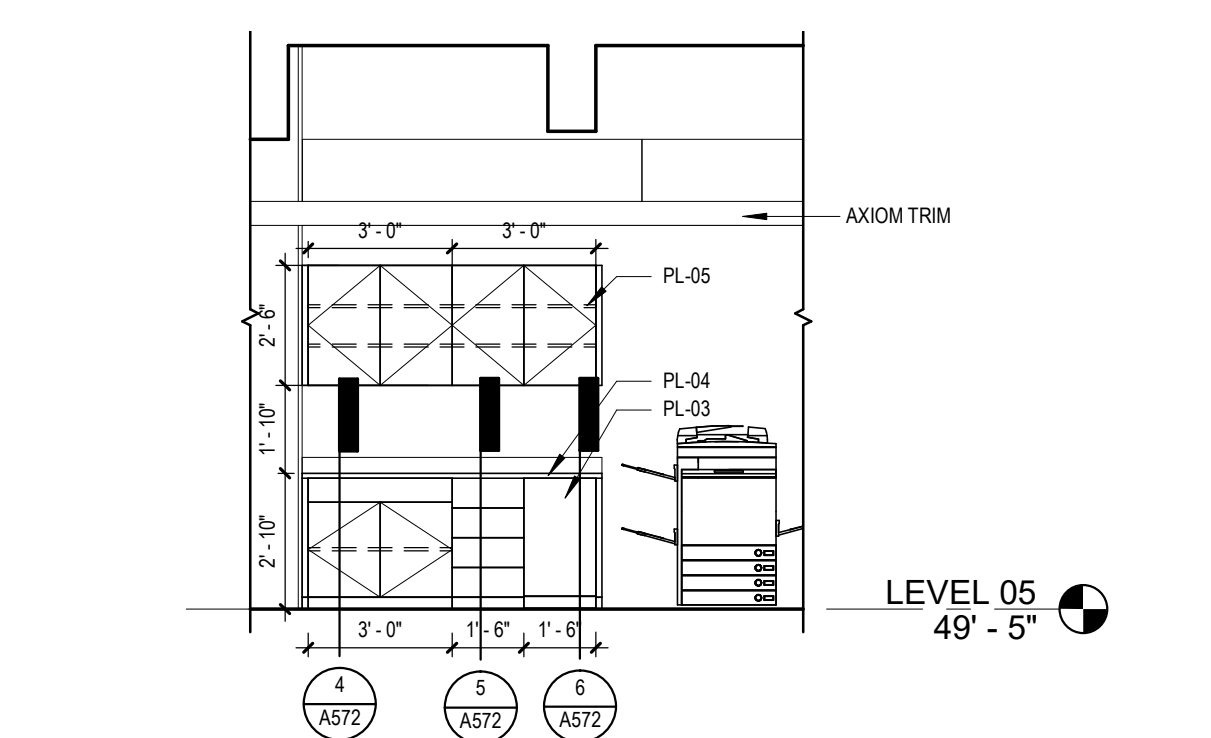
8 PUBLIC SAFETY COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



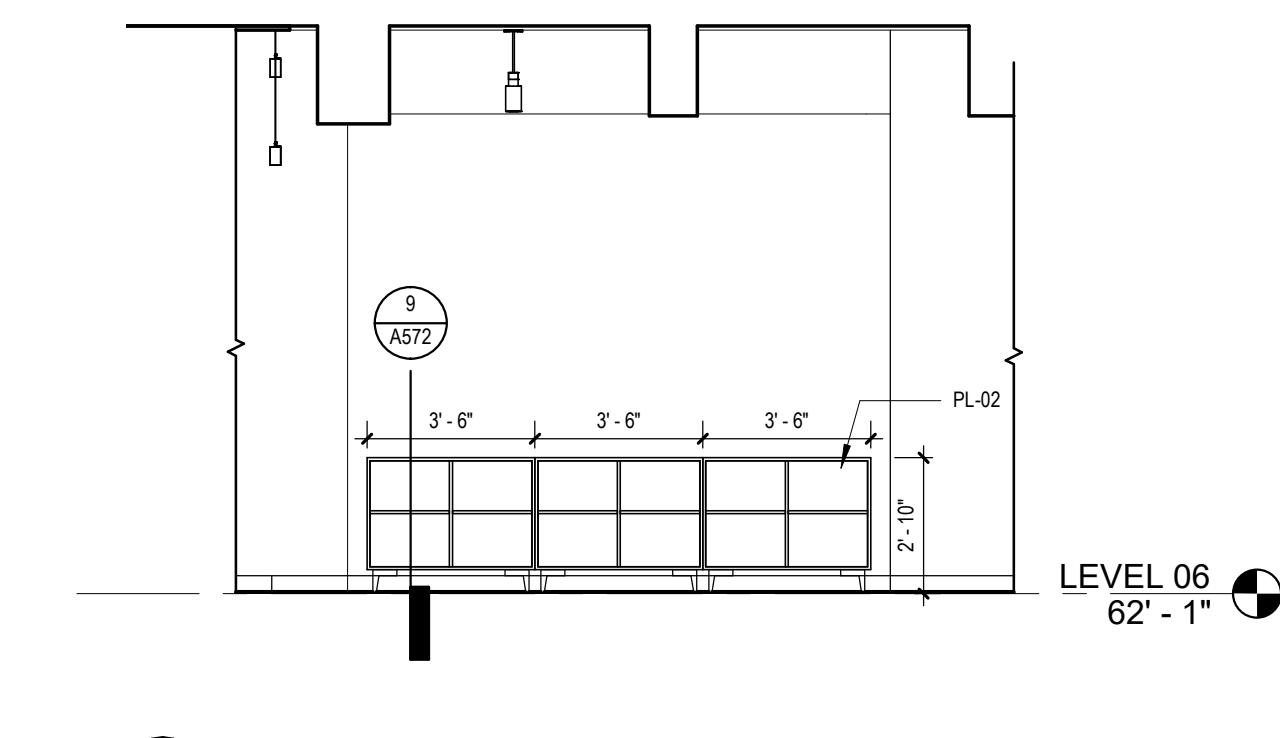
7 HCV COPY/PRINT - ELEVATION 1  
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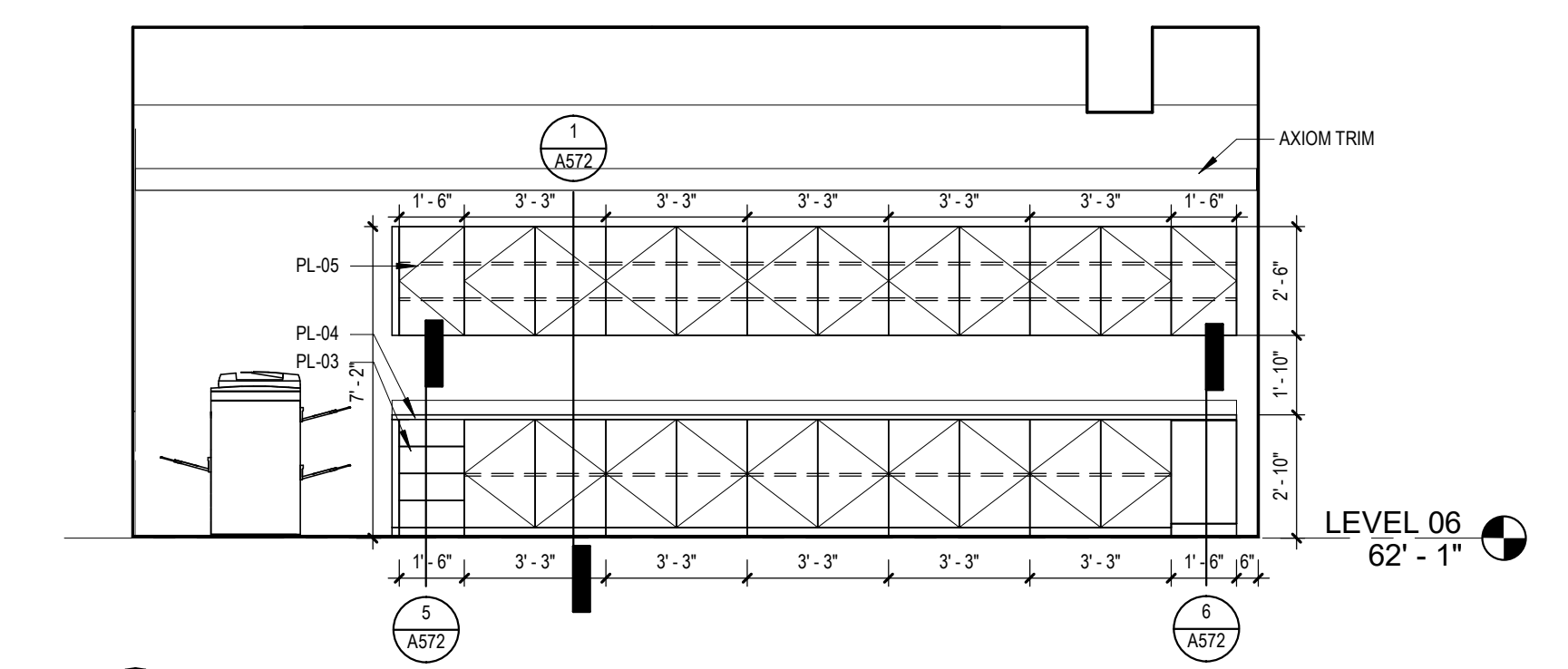
6 OCCUPANCY COPY/PRINT - ELEVATION 1  
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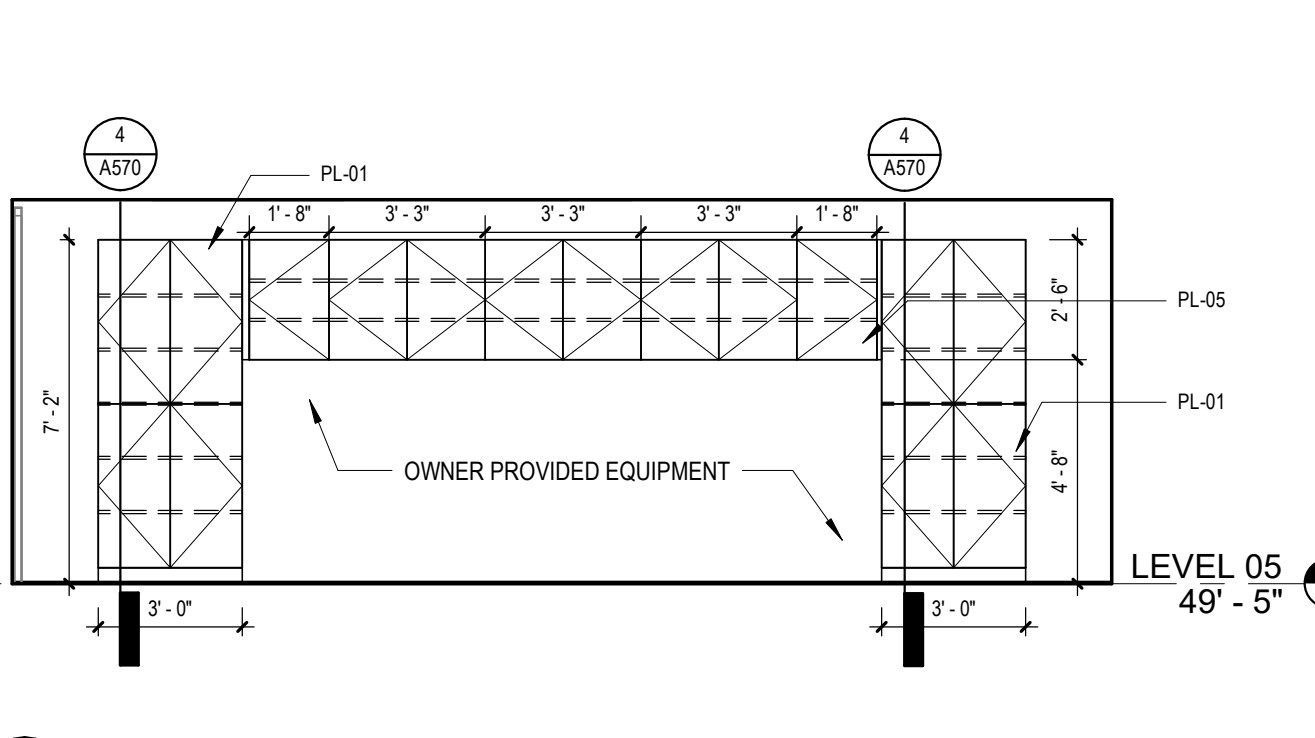
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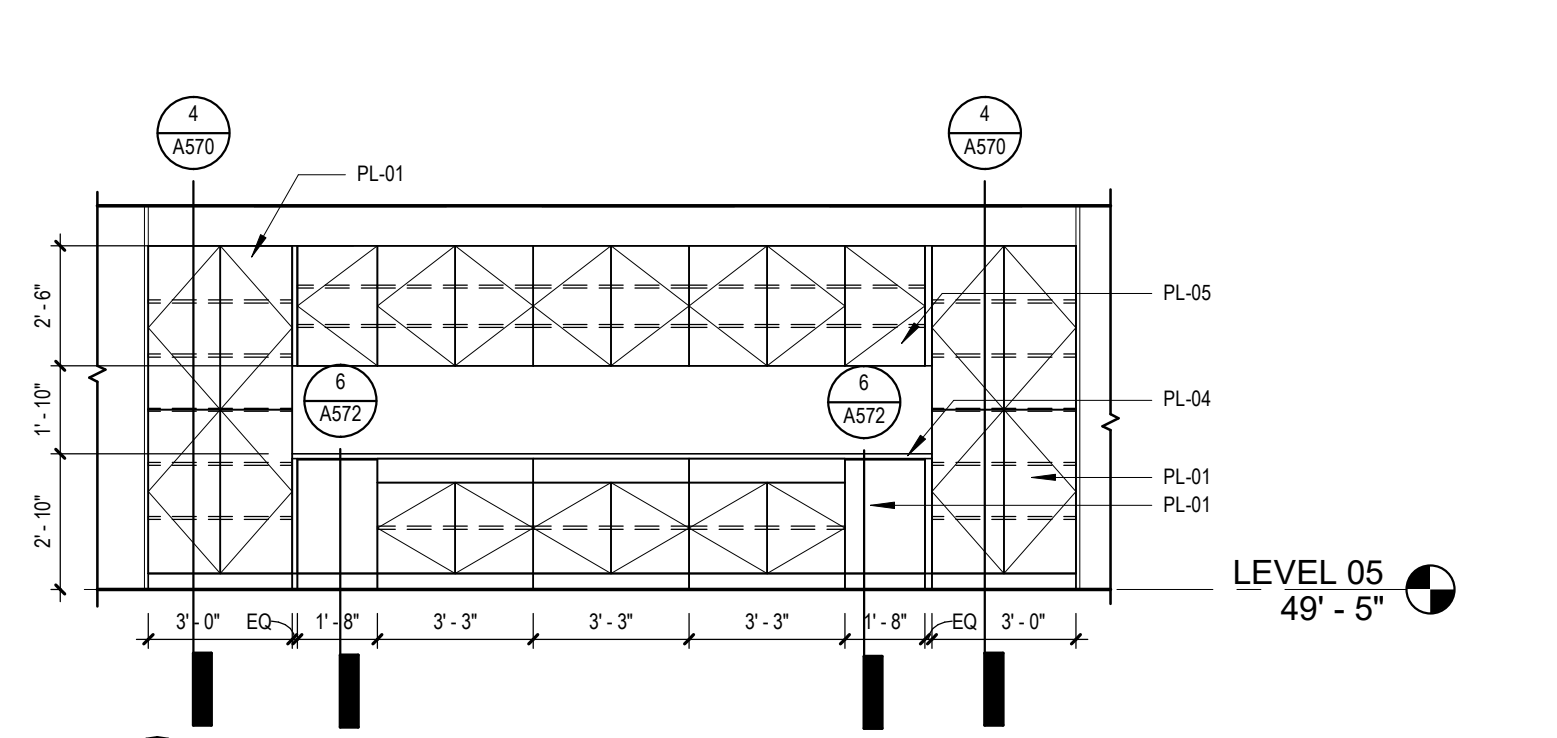
13 DEV/MOD SUPPLY STORAGE - ELEVATION 1  
 1/4" = 1'-0"



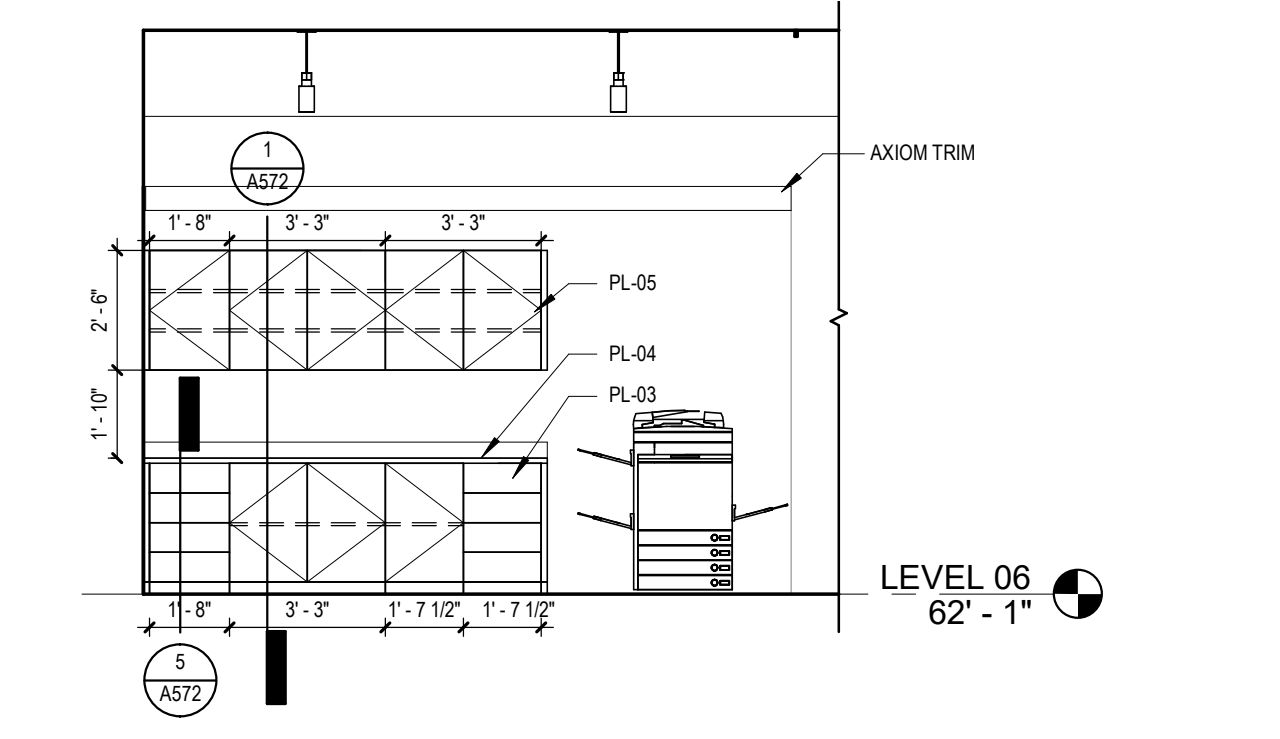
12 HR COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



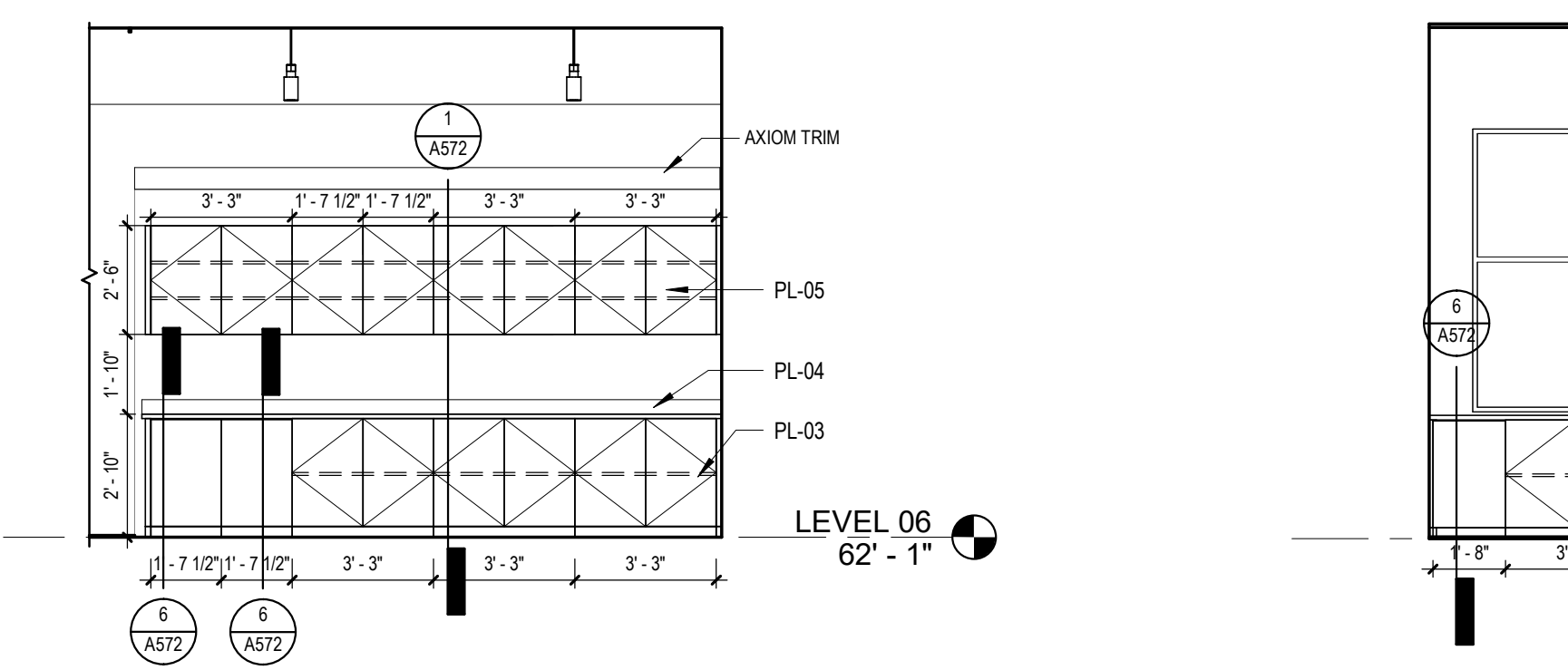
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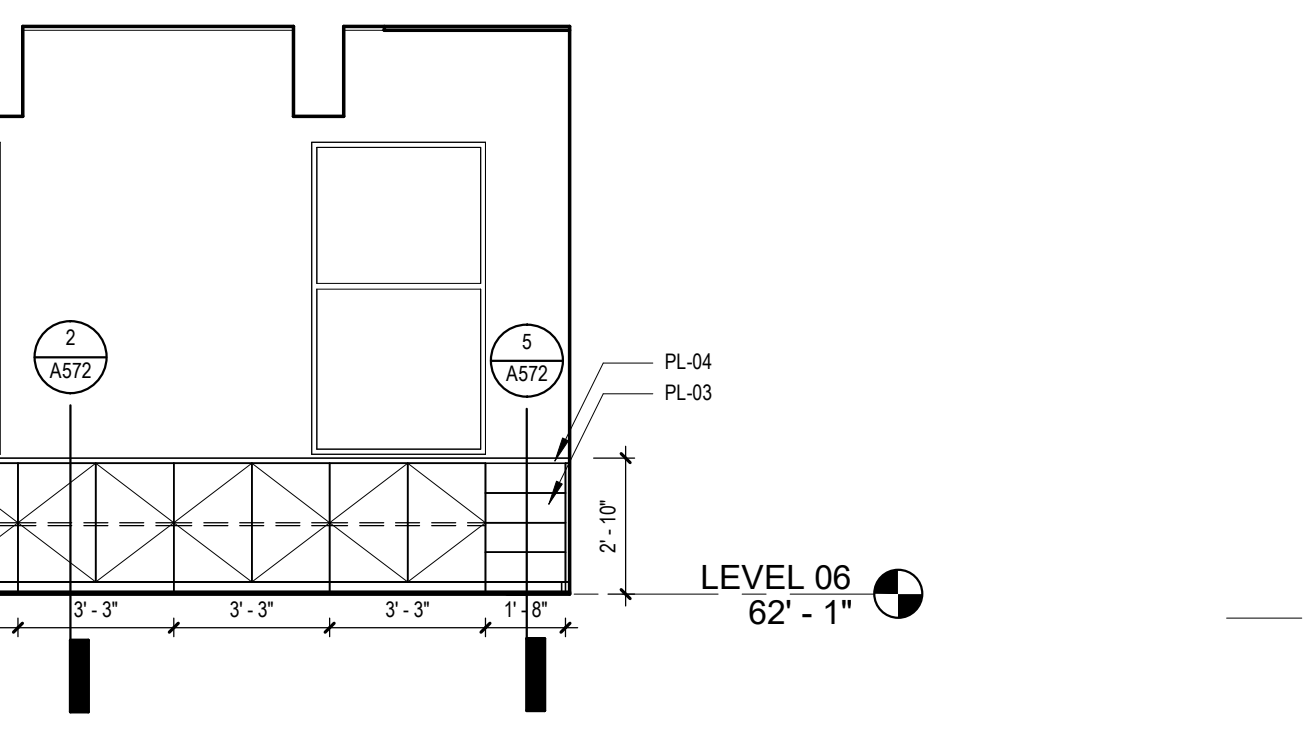
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 1/4" = 1'-0"



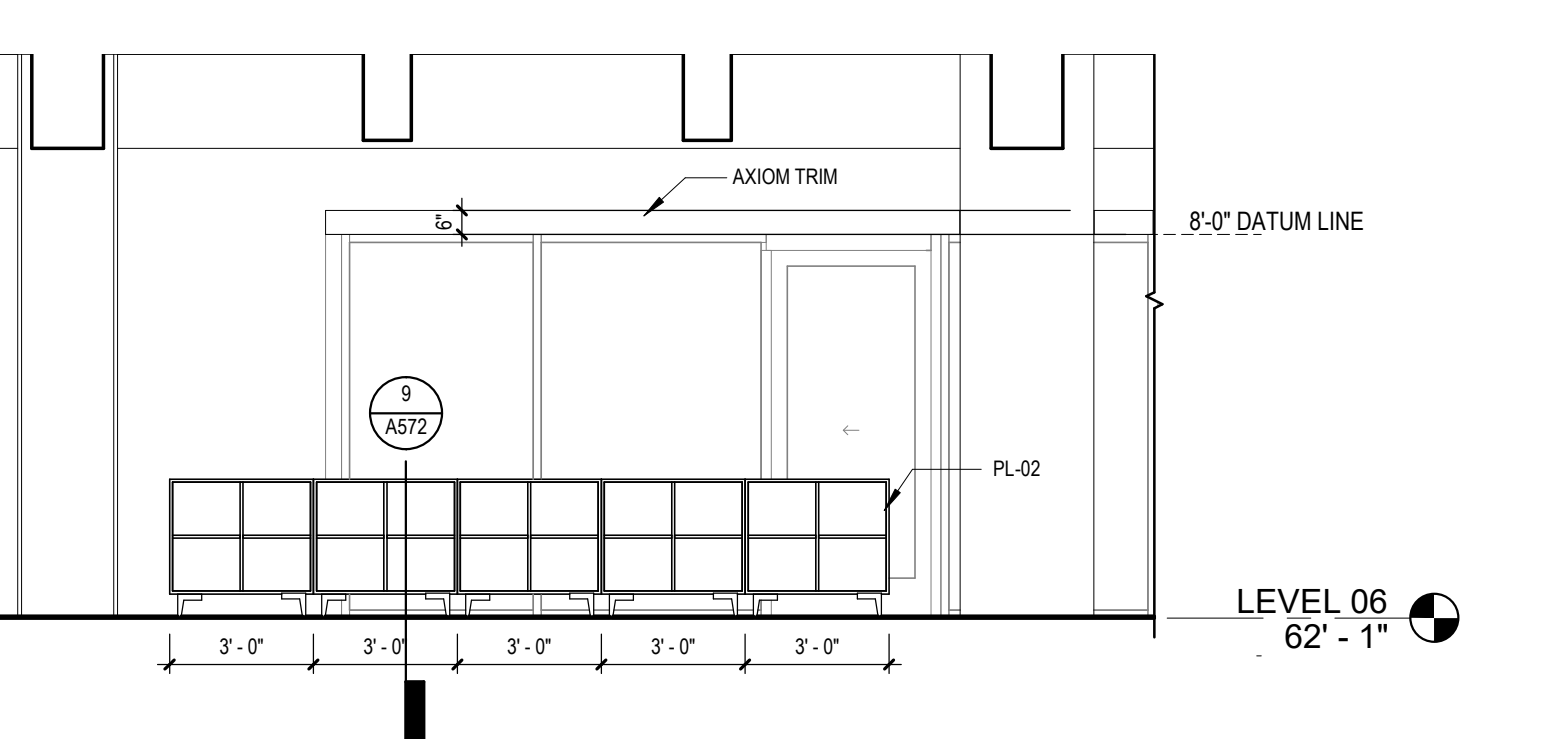
17 SHARED COPY/STORAGE ROOM - ELEVATION 2  
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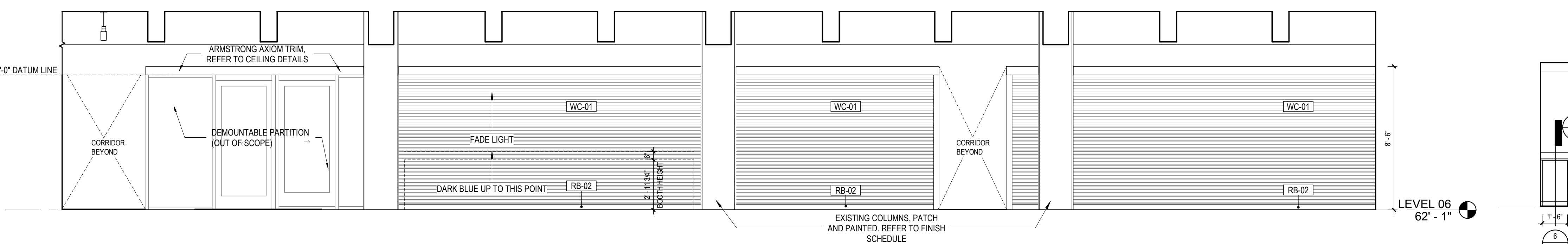
16 SHARED COPY/STORAGE ROOM - ELEVATION 1  
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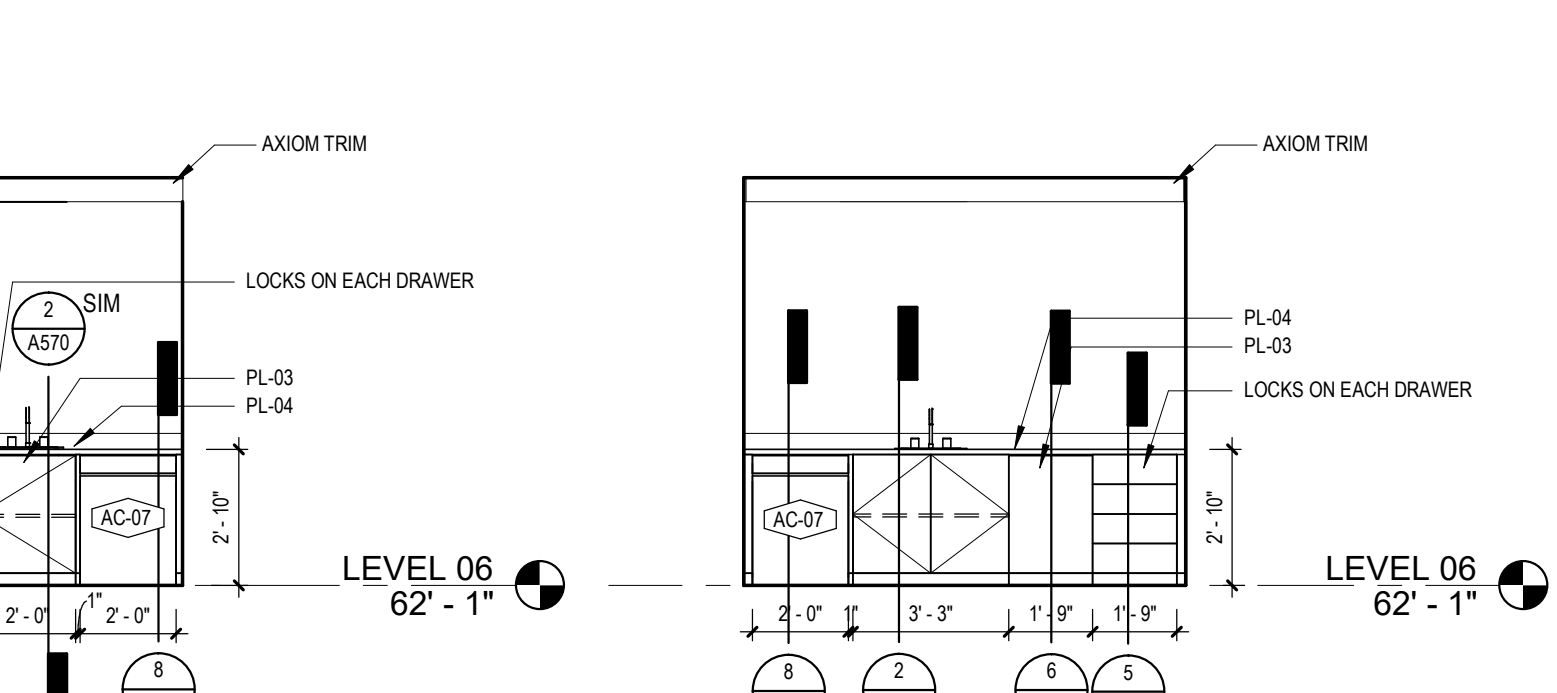
15 DISABILITY COMPLIANCE COPY/PRINT - ELEVATION 1  
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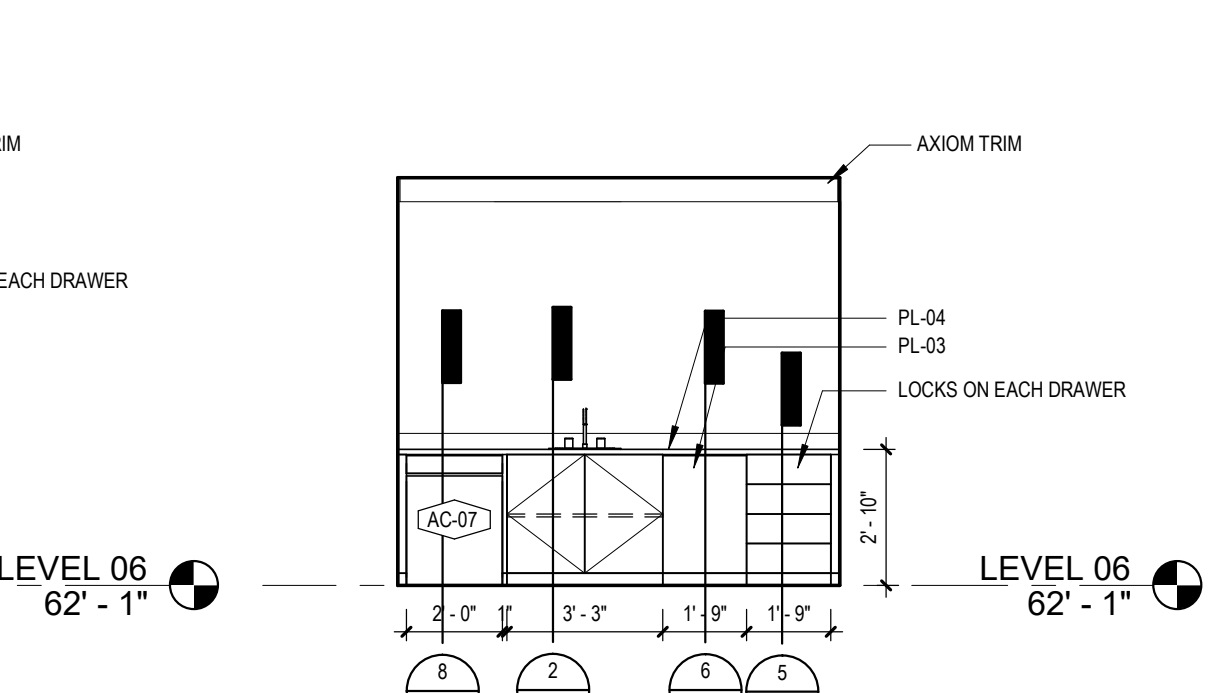
14 PROCUREMENT SUPPLY STORAGE - ELEVATION 1  
 1/4" = 1'-0"



20 BREAK ROOM/COLLAB - ELEVATION 1  
 1/4" = 1'-0"

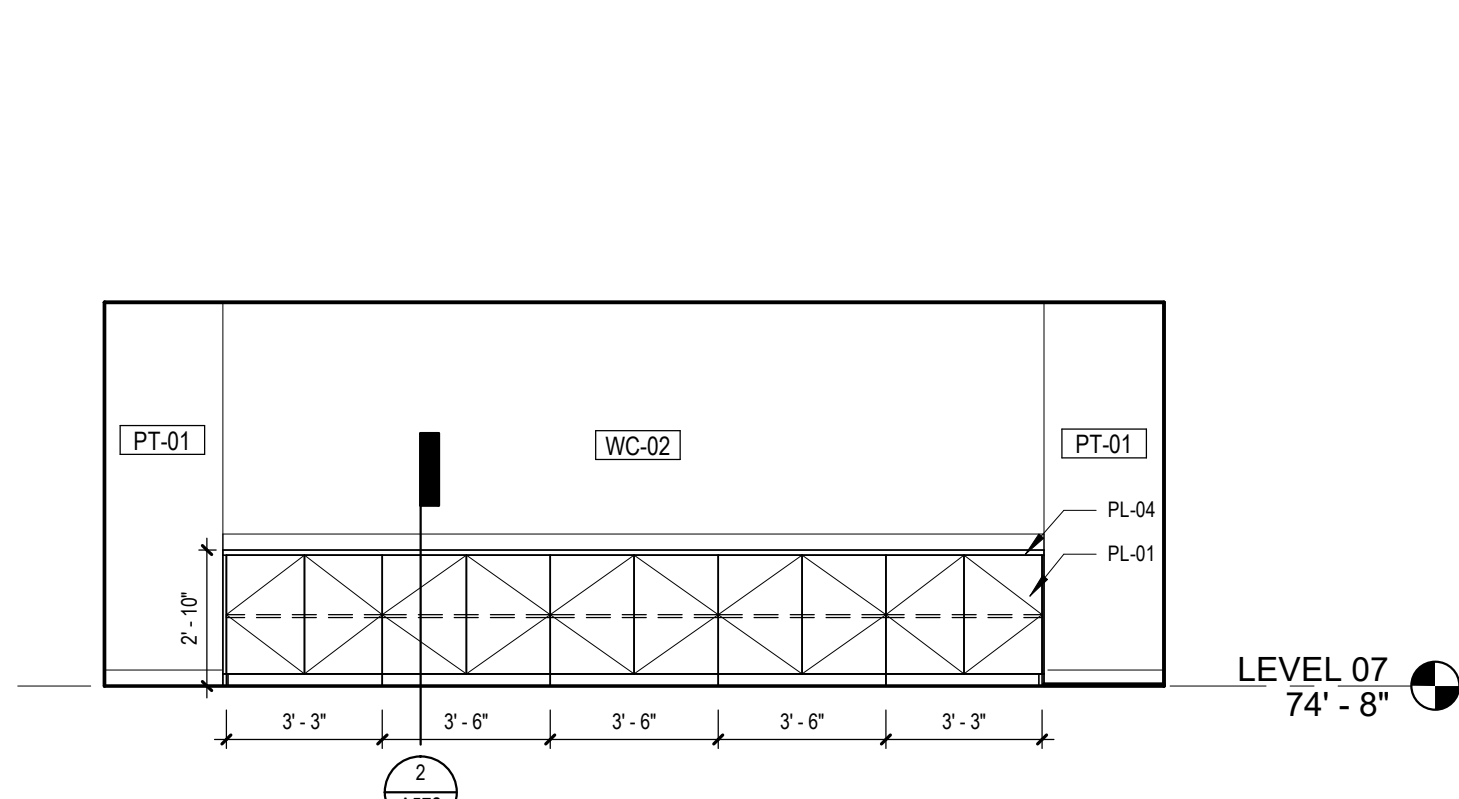


19 MOTHER'S ROOM - ELEVATION 1  
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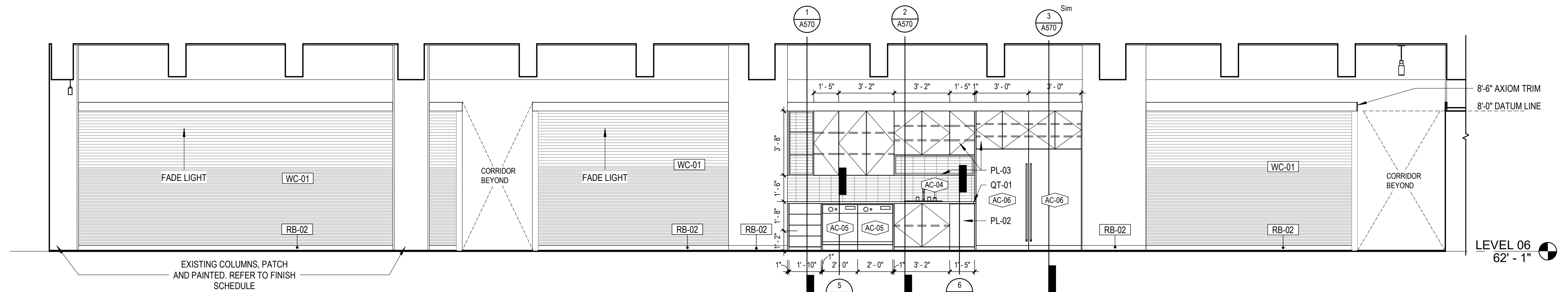


18 MINDFULNESS ROOM - ELEVATION 1  
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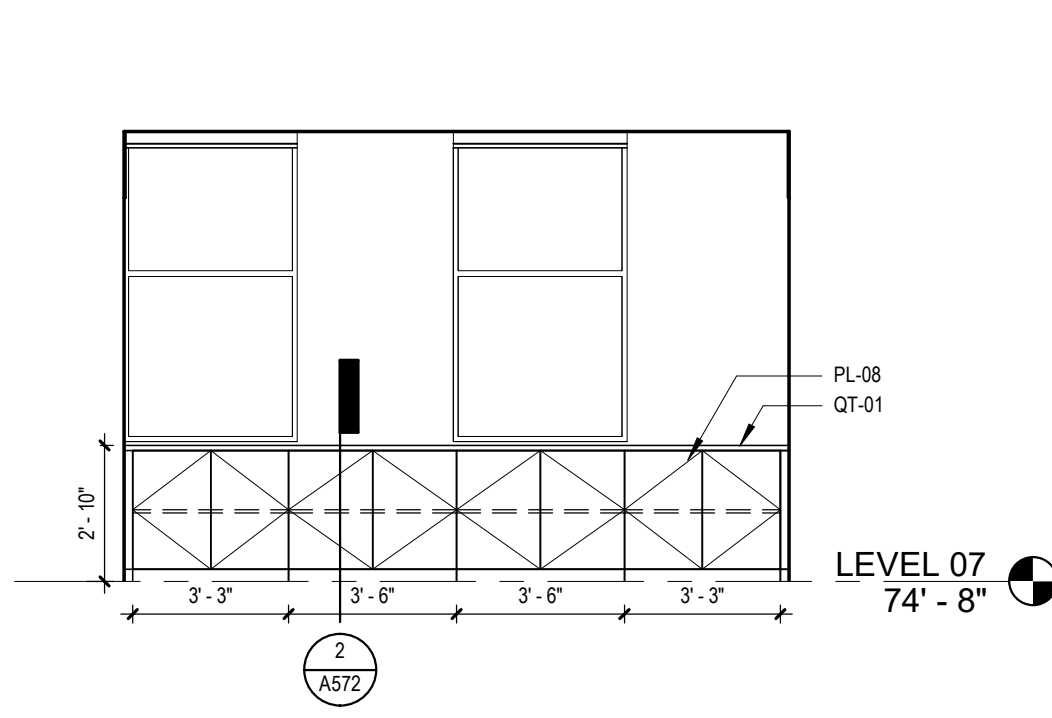
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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
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1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE
PROJECT ISSUANCE		
PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	AE7	JW
SHEET NAME:		
ELEVATIONS		
SHEET NO.		
A451		
TRUE NORTH		
PLAN NORTH		



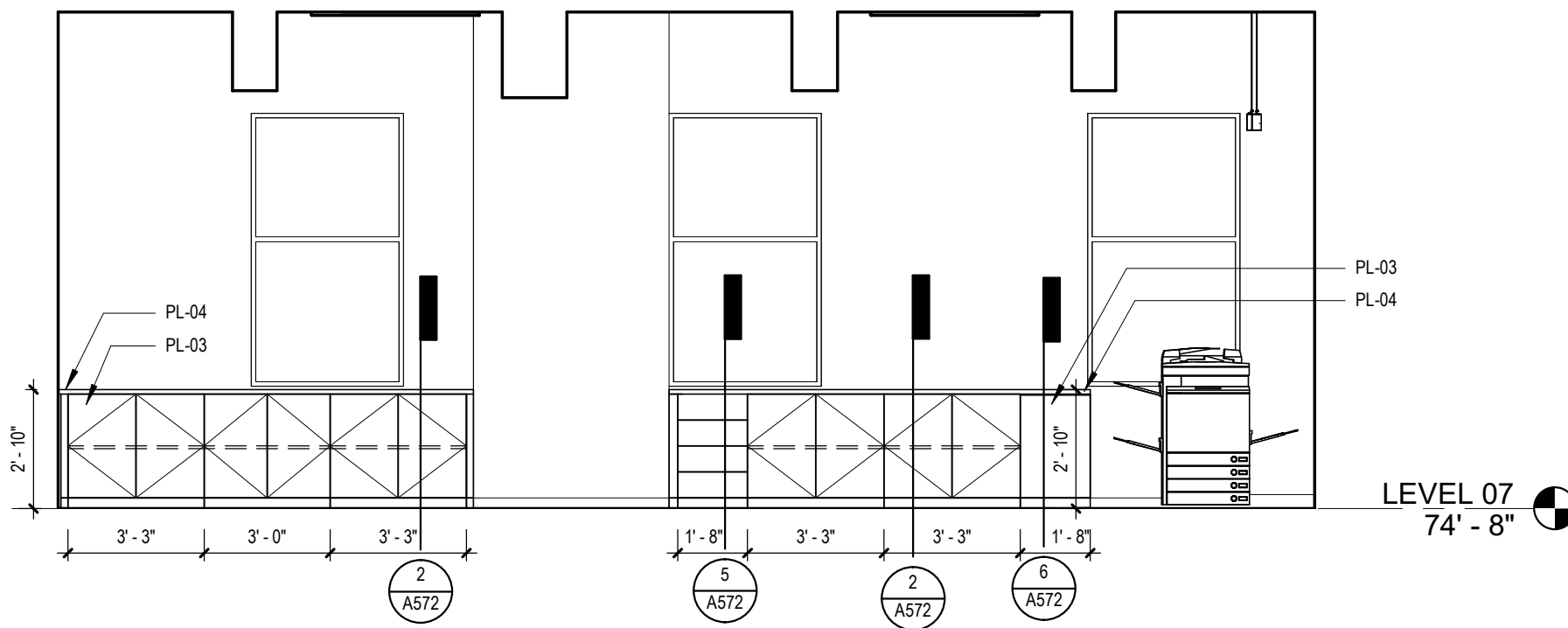
2 LARGE CONFERENCE CASEWORK - ELEVATION 1  
 1/4" = 1'-0"



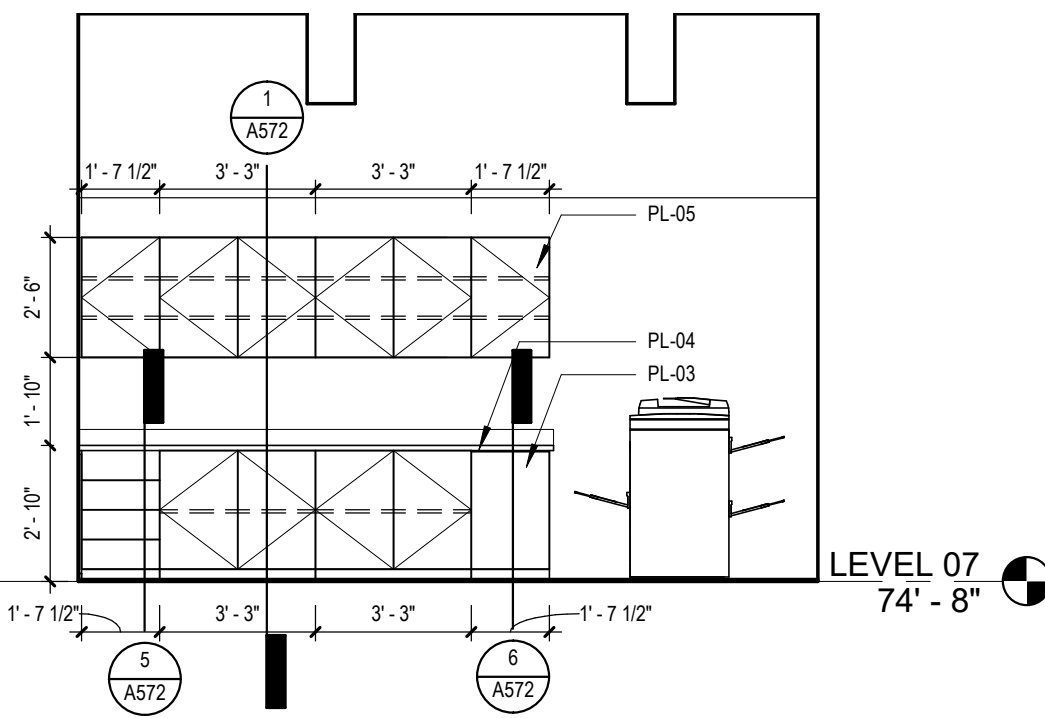
1 BREAK ROOM/ COLLAB - ELEVATION 2  
 1/4" = 1'-0"



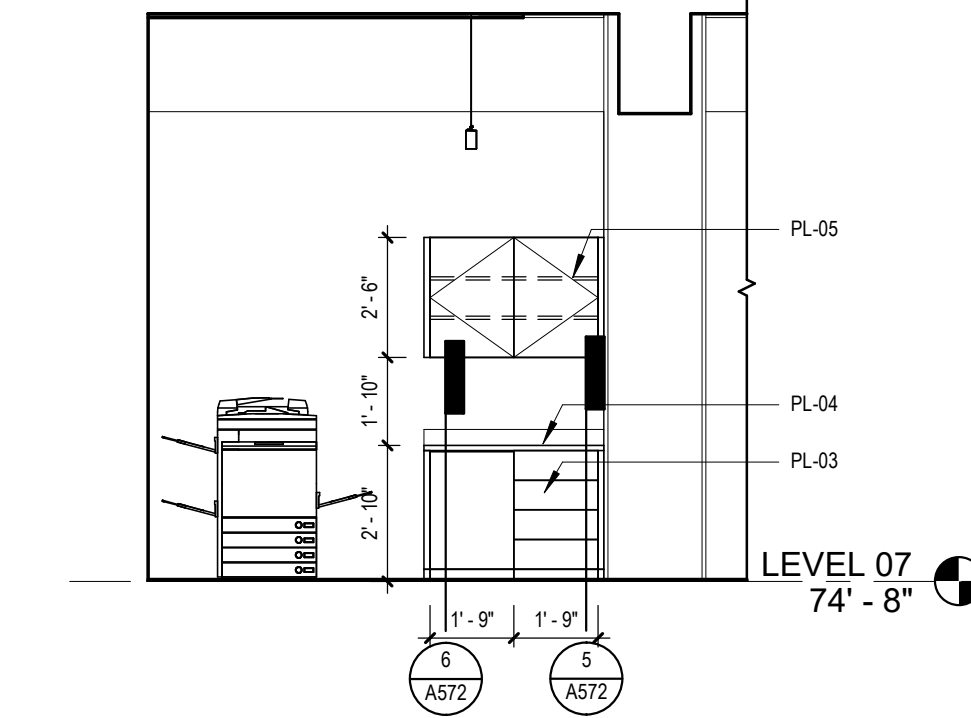
7 EXECUTIVE RECEPTION CASEWORK - ELEVATION 1  
 1/4" = 1'-0"



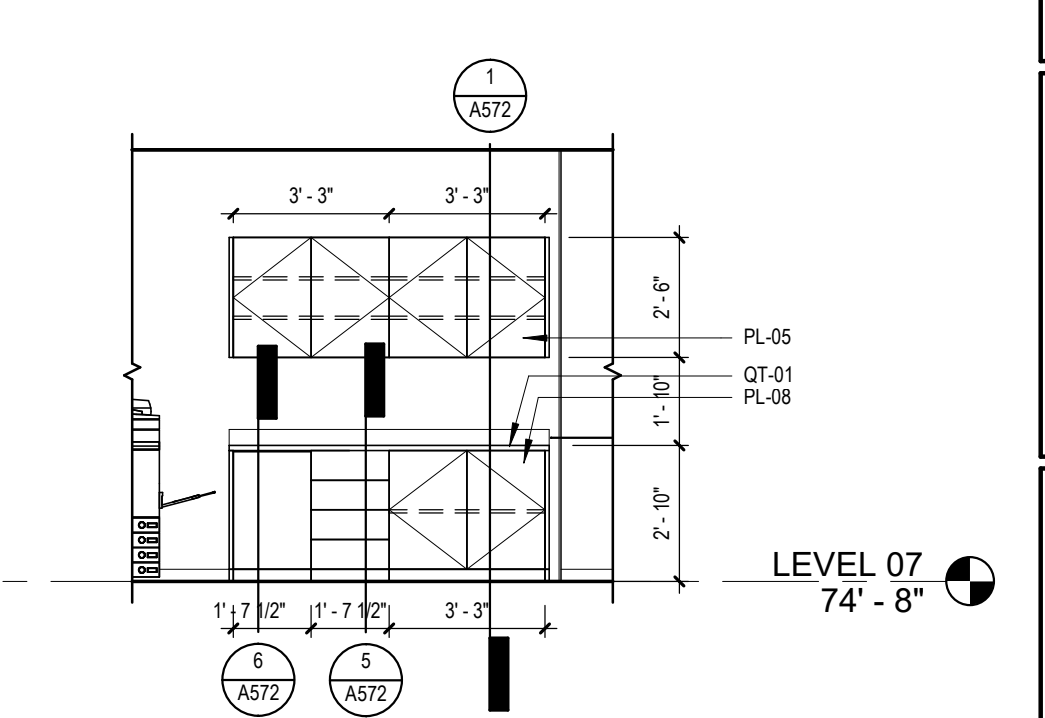
6 FINANCE COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



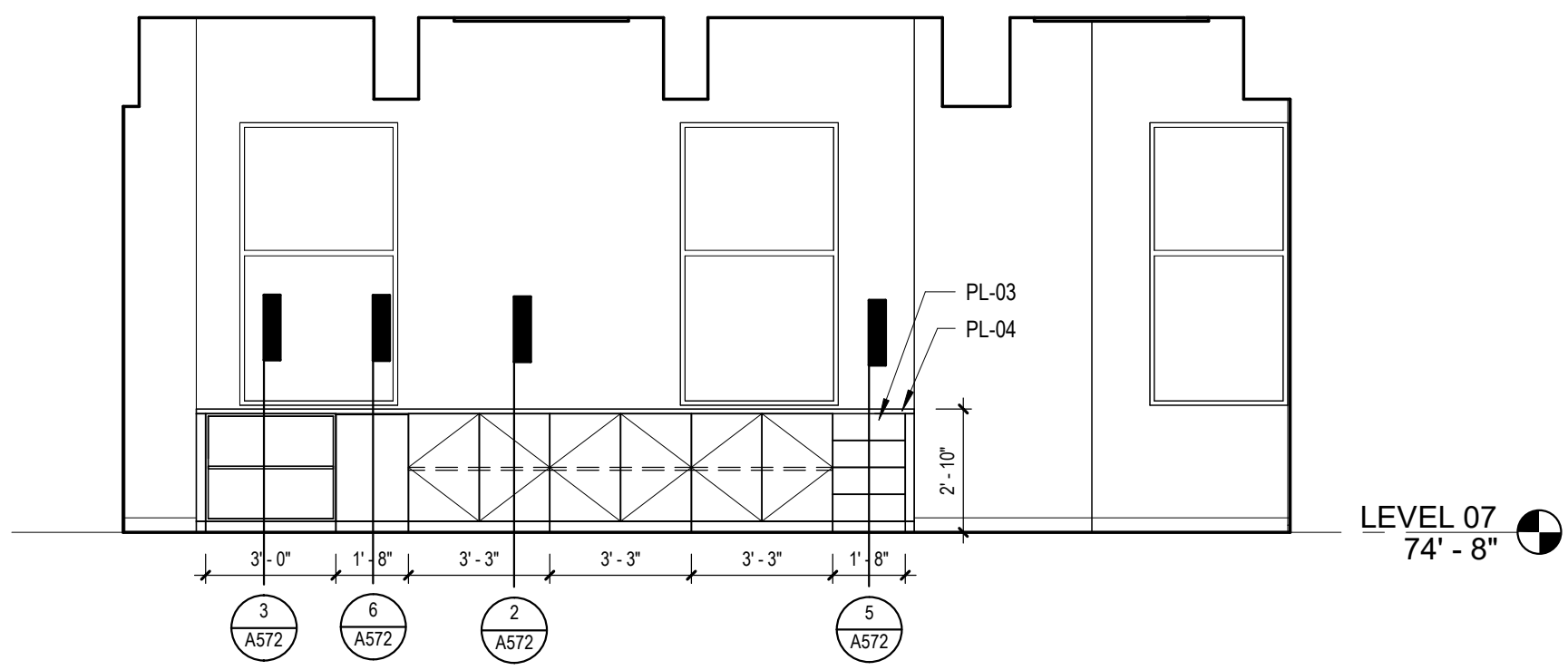
5 COMMUNITY AFFAIRS COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



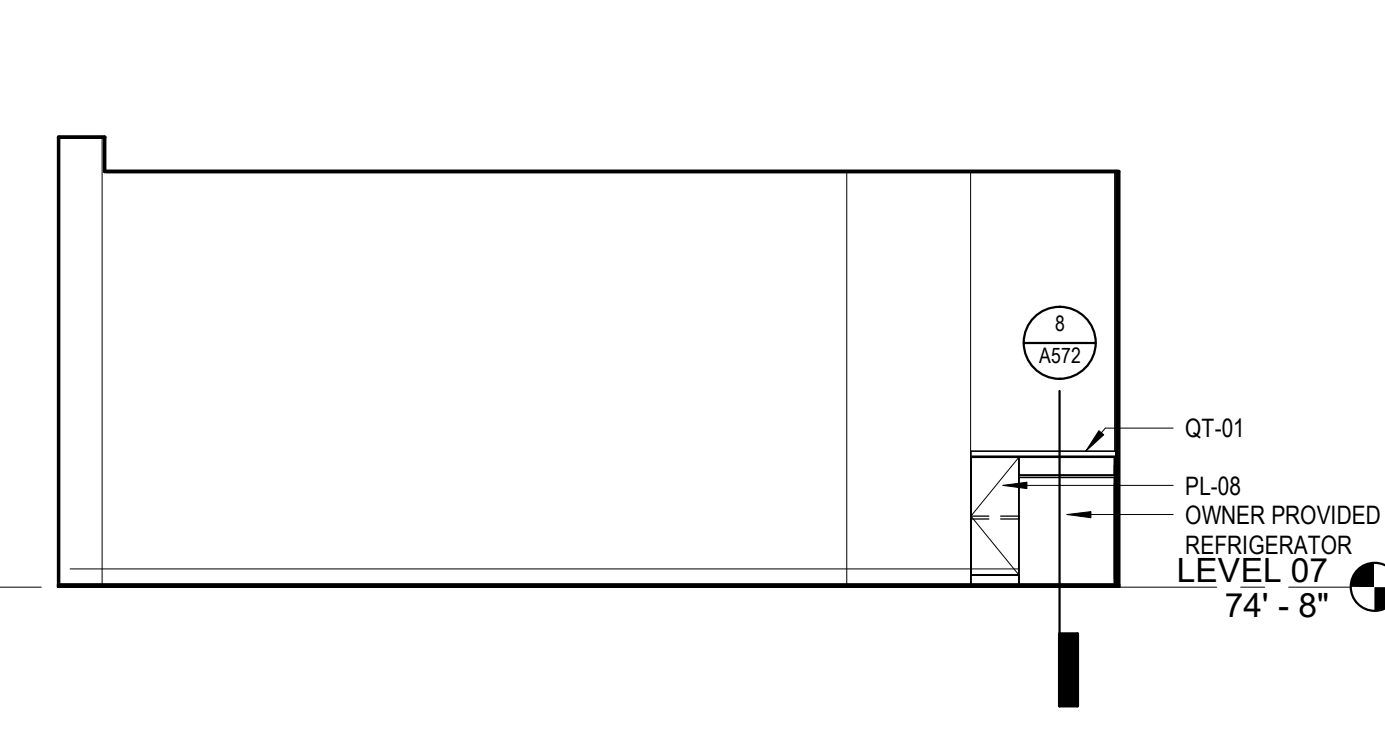
4 OPERATIONS COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



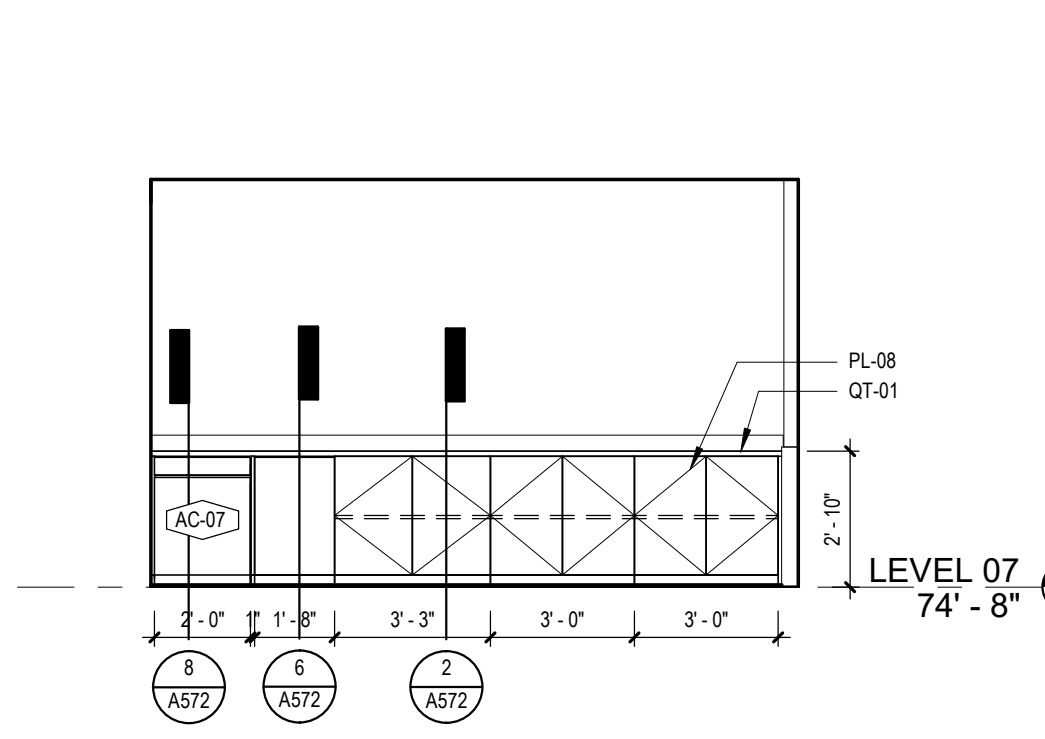
3 EXECUTIVE COPY/PRINT - ELEVATION 1  
 1/4" = 1'-0"



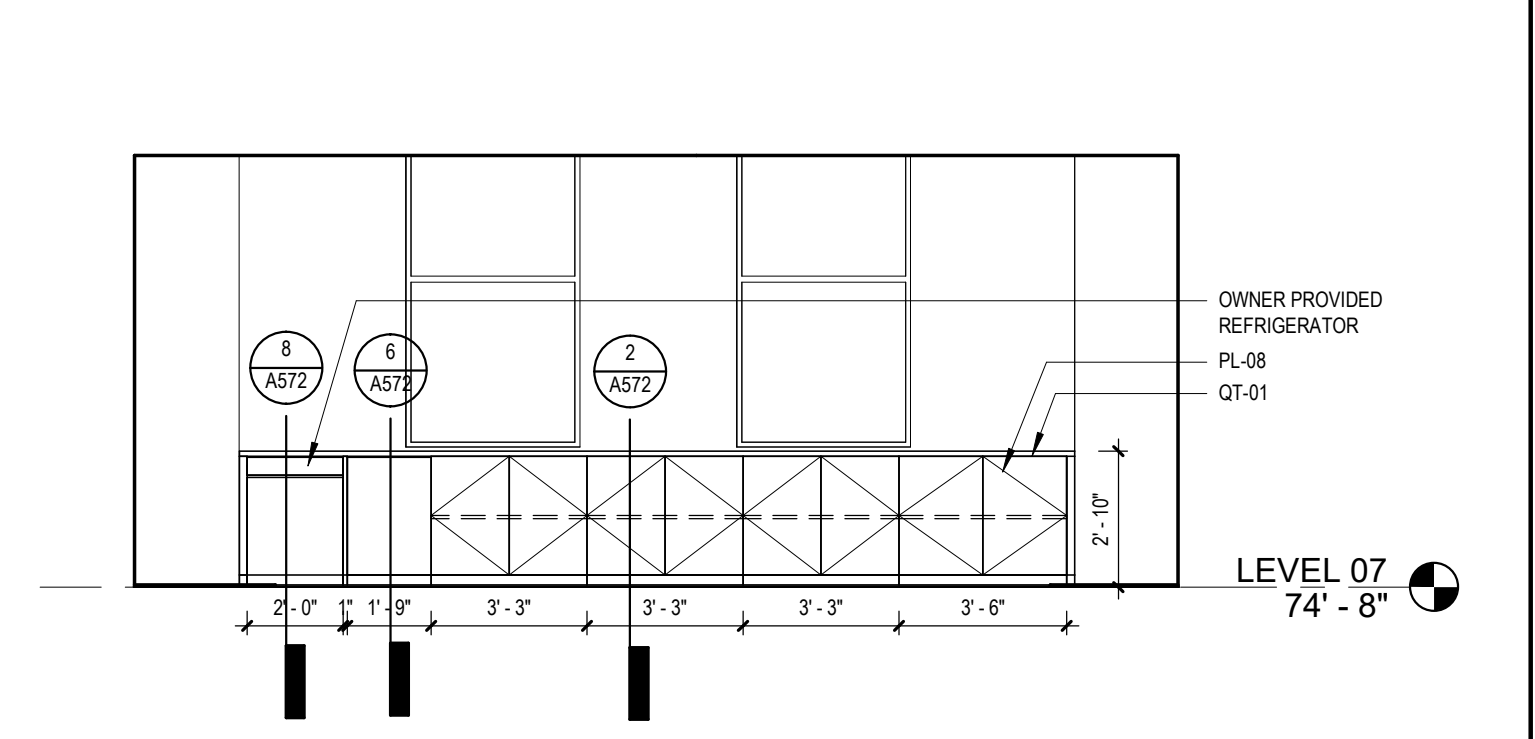
11 IT SUPPLY STORAGE/ COPY/ PRINT - ELEVATION 1  
 1/4" = 1'-0"



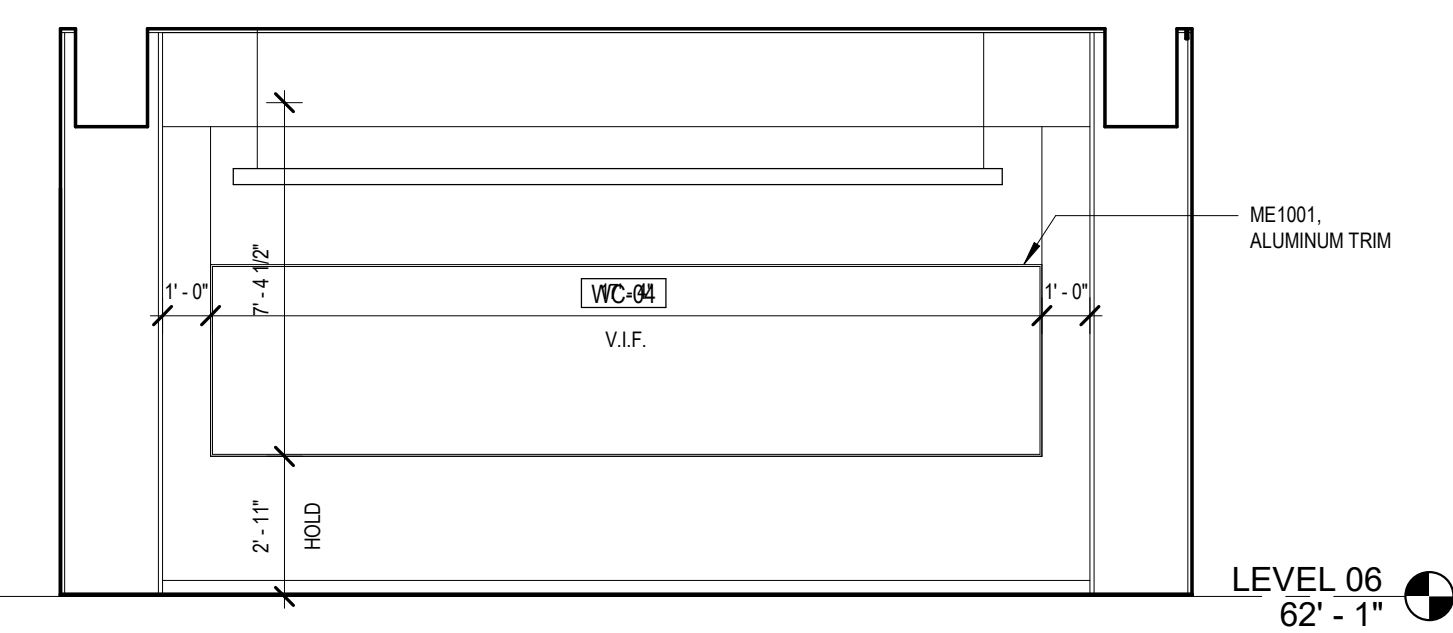
10 EXECUTIVE DIRECTORS CASEWORK - ELEVATION 2  
 1/4" = 1'-0"



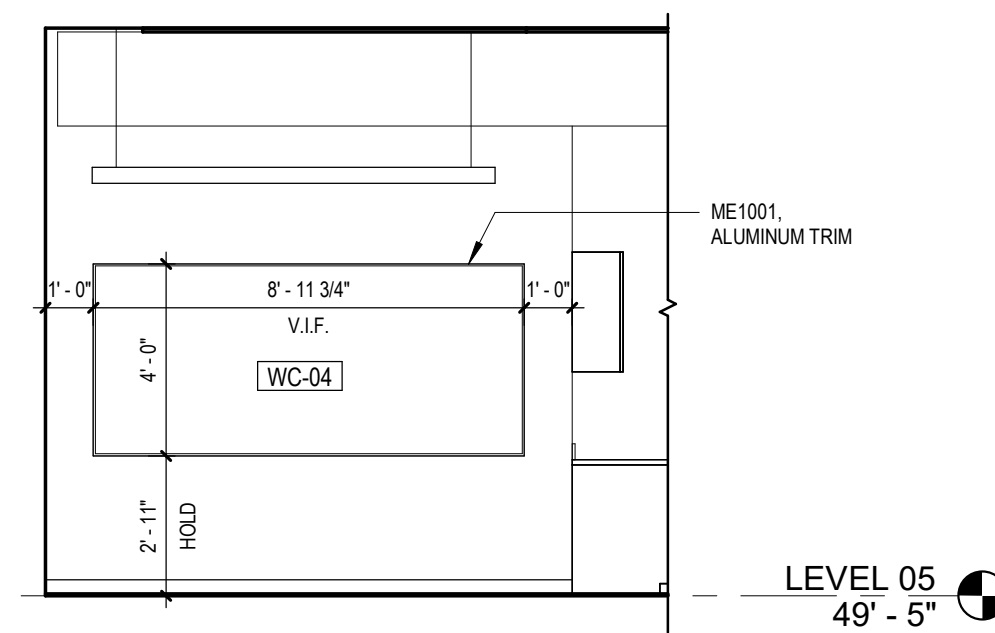
9 EXECUTIVE CONFERENCE CASEWORK - ELEVATION 1  
 1/4" = 1'-0"



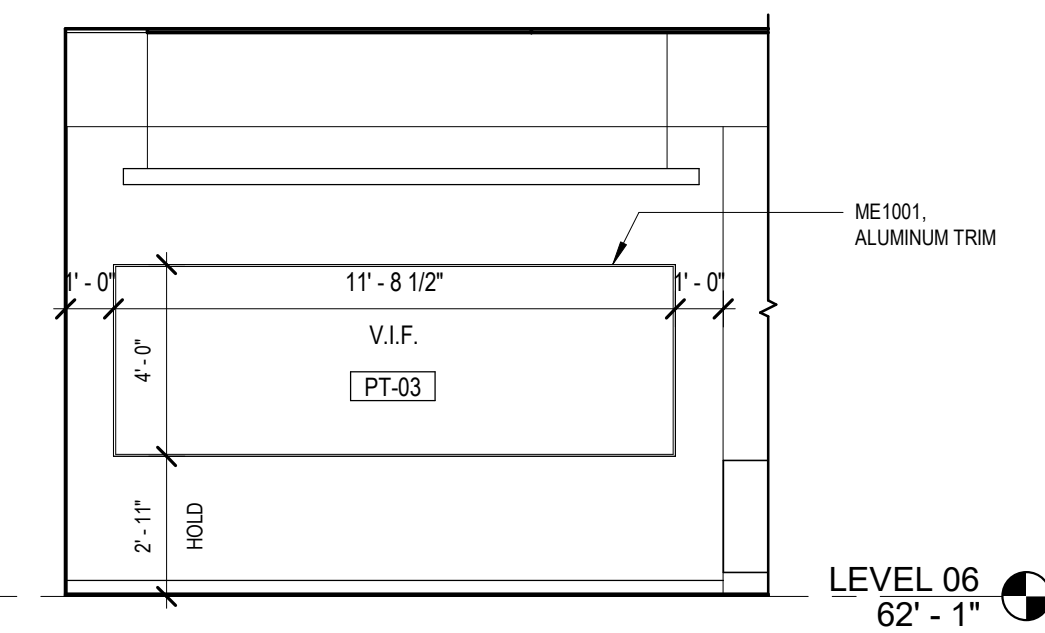
8 BOARD ROOM CASEWORK - ELEVATION 1  
 1/4" = 1'-0"



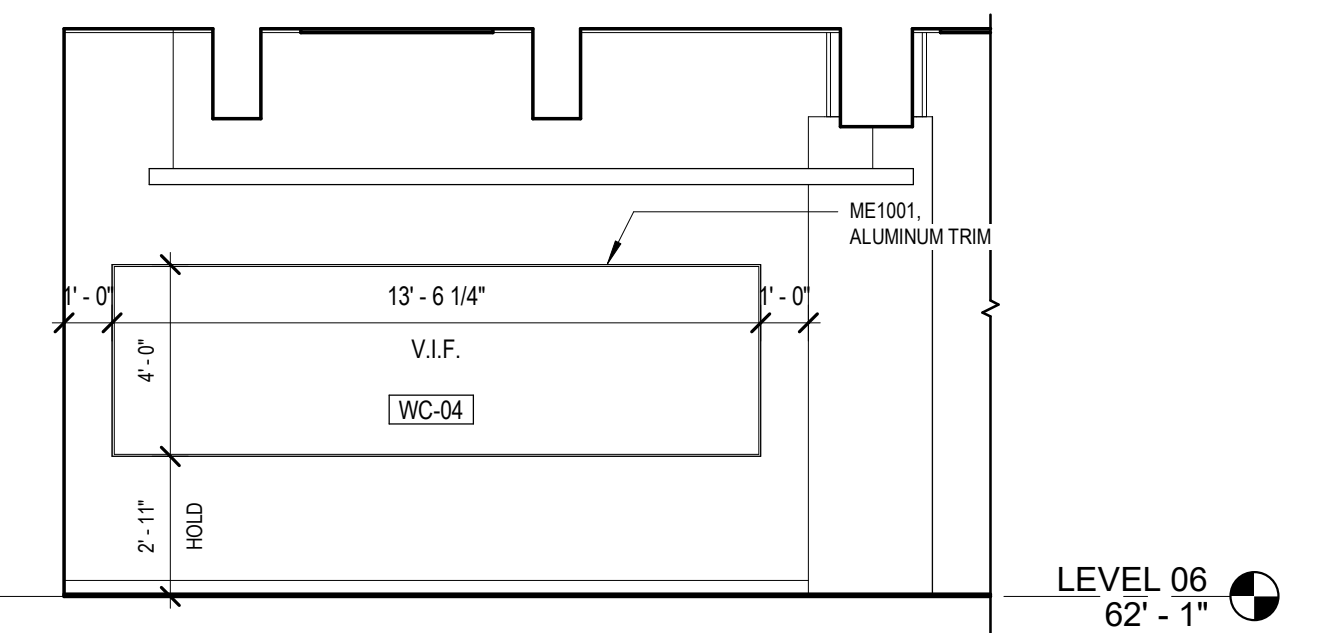
15 DEV/MOD COLLABORATION WHITEBOARD - ELEVATION 1  
 1/4" = 1'-0"



14 OCCUPANCY WHITEBOARD - ELEVATION 1  
 1/4" = 1'-0"



13 DEV/MOD WHITEBOARD - ELEVATION 1  
 1/4" = 1'-0"



12 HR WHITEBOARD - ELEVATION 1  
 1/4" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

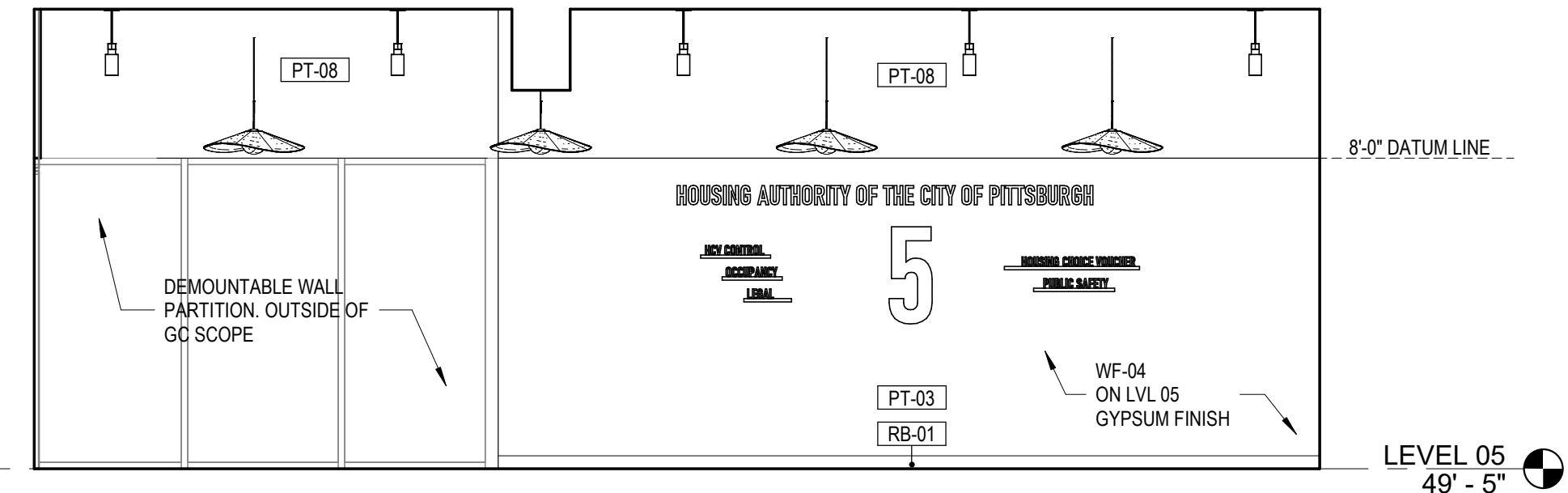
SHEET NAME:

ELEVATIONS

A452  
 TRUE NORTH  
 PLAN NORTH

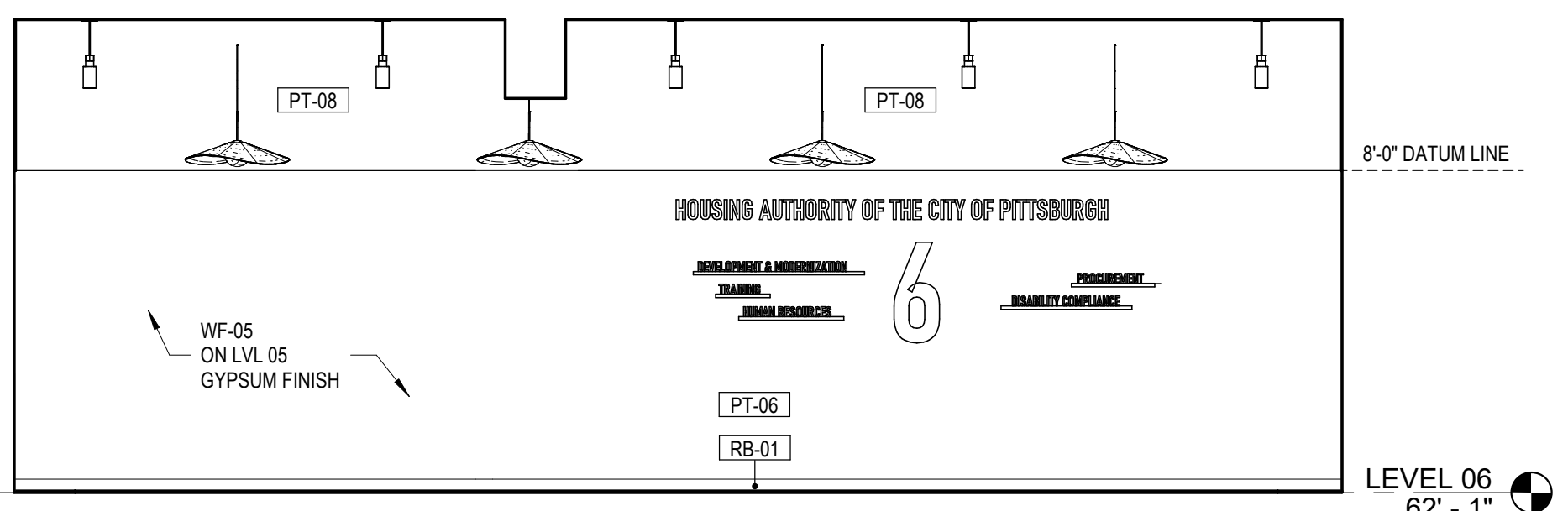
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW



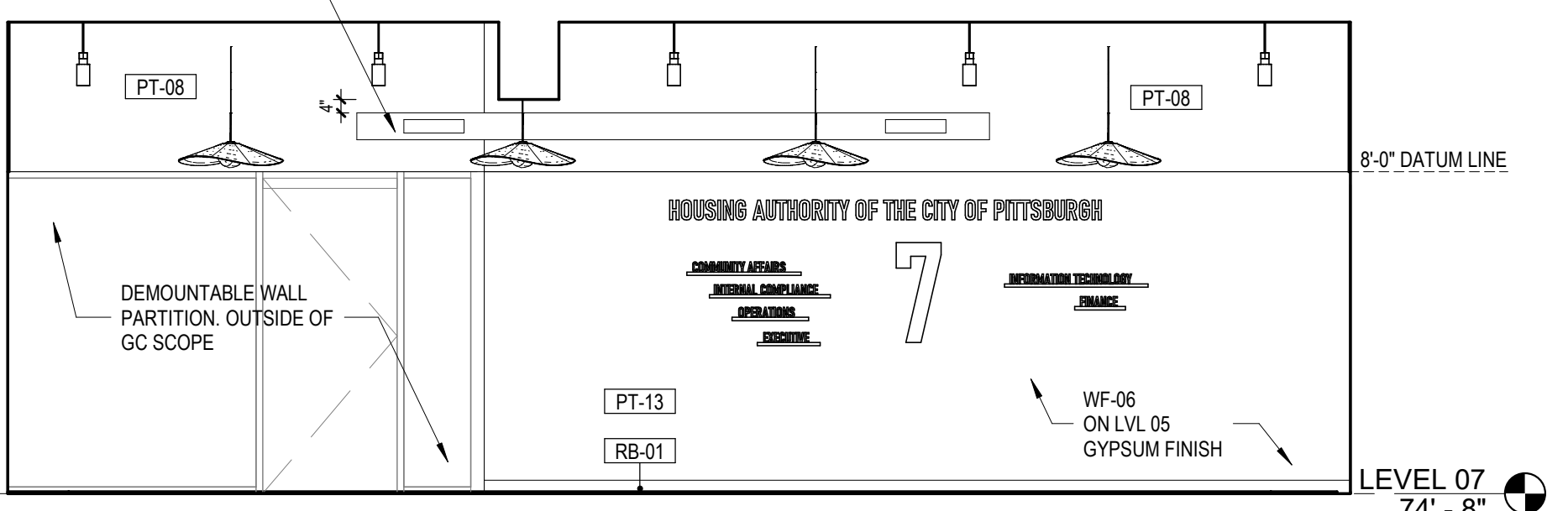
1 LEVEL 05 ELEVATOR LOBBY - ELEVATION 1  
 1/4" = 1'-0"

SIGNAGE BY OTHERS CONTRACTOR TO PROVIDE BLOCKING IN THE WALL LOCATIONS BE COORDINATED BY SIGNAGE CONTRACTOR. SHOWN FOR REFERENCE ONLY.



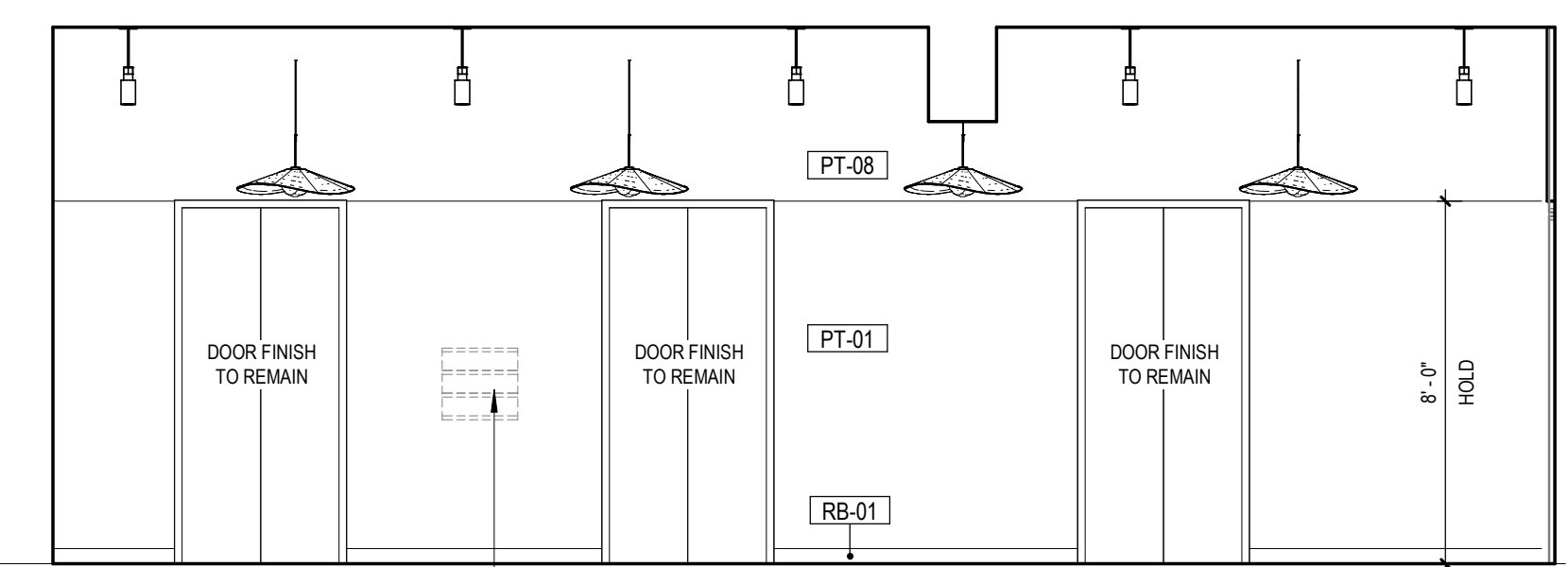
2 LEVEL 06 ELEVATOR LOBBY - ELEVATION 1  
 1/4" = 1'-0"

SIGNAGE BY OTHERS CONTRACTOR TO PROVIDE BLOCKING IN THE WALL LOCATIONS BE COORDINATED BY SIGNAGE CONTRACTOR. SHOWN FOR REFERENCE ONLY.



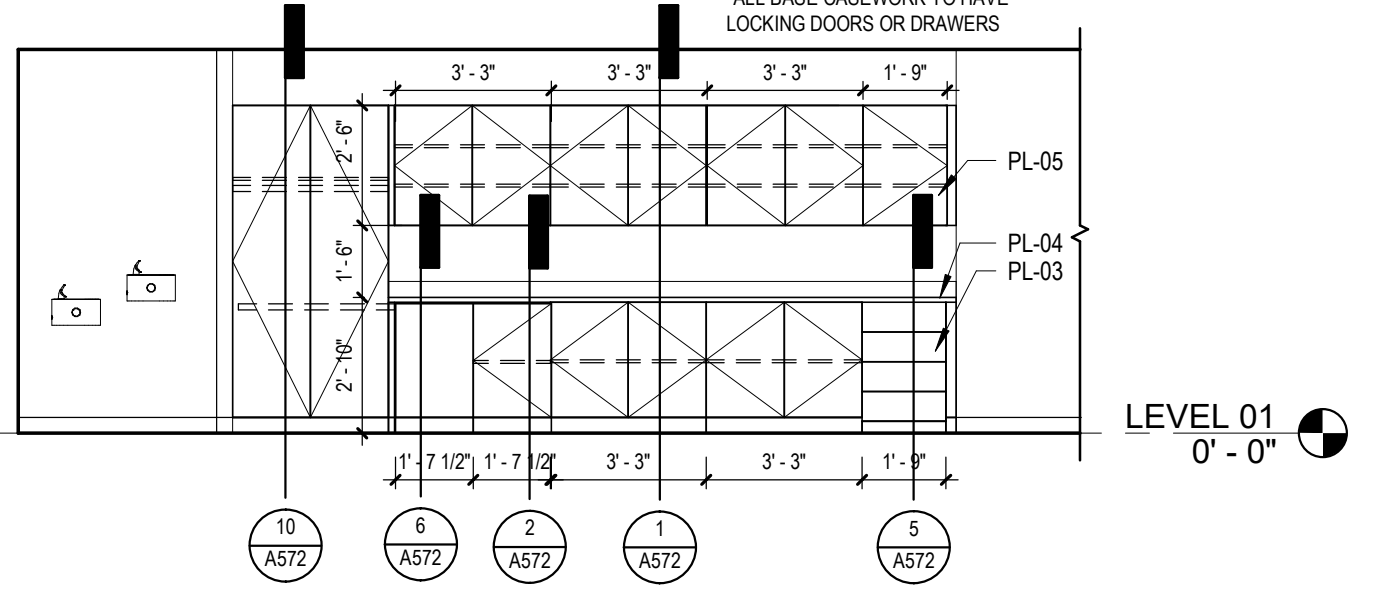
3 LEVEL 07 ELEVATOR LOBBY - ELEVATION 1  
 1/4" = 1'-0"

SIGNAGE BY OTHERS CONTRACTOR TO PROVIDE BLOCKING IN THE WALL LOCATIONS BE COORDINATED BY SIGNAGE CONTRACTOR. SHOWN FOR REFERENCE ONLY.

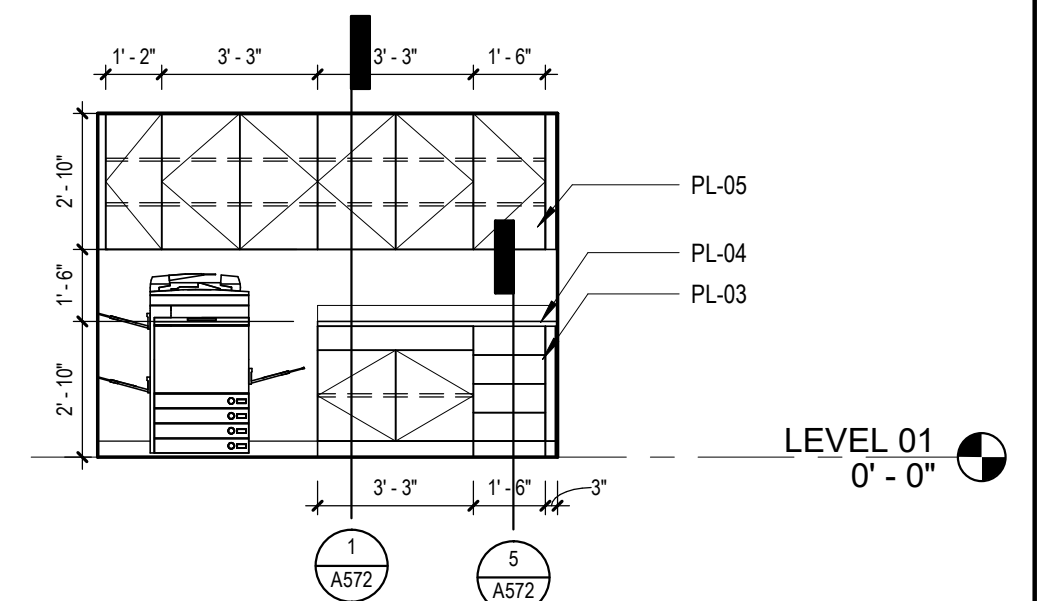


4 TYPICAL ELEVATOR LOBBY - ELEVATION 1  
 1/4" = 1'-0"

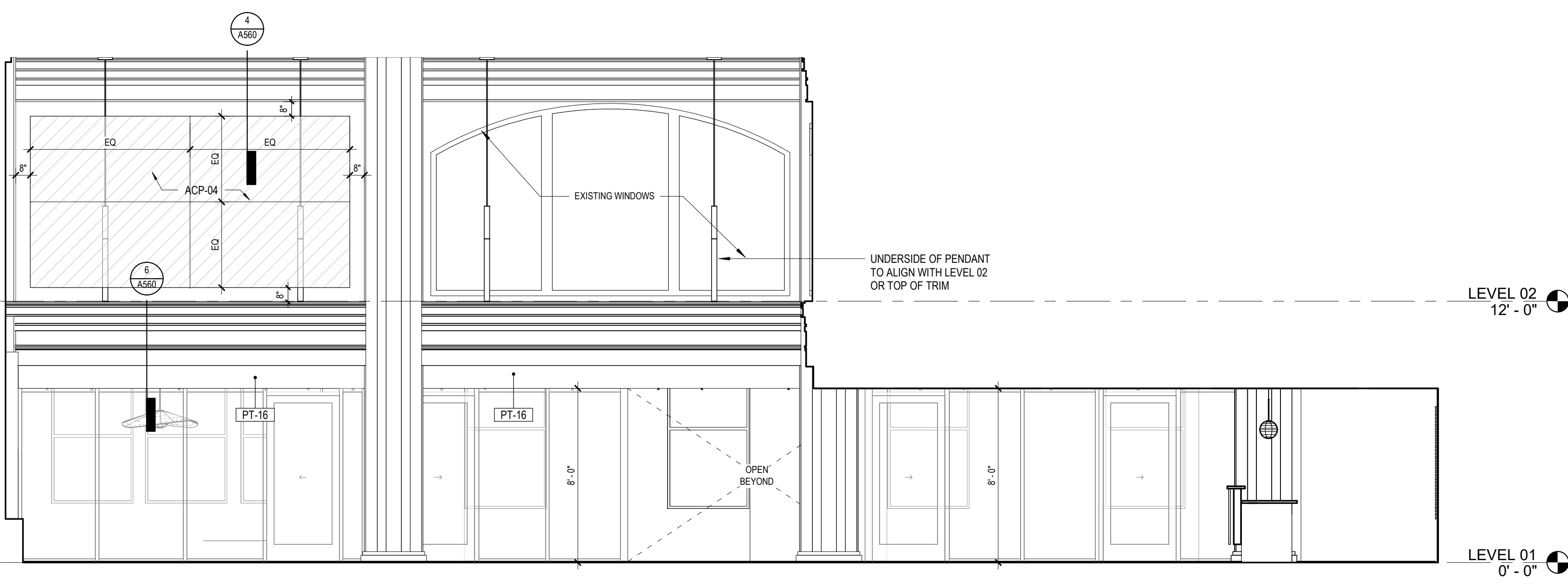
DIRECTORY SIGNAGE. REFER TO WAYFINDING PACKAGE FOR HEIGHT AND LOCATION.



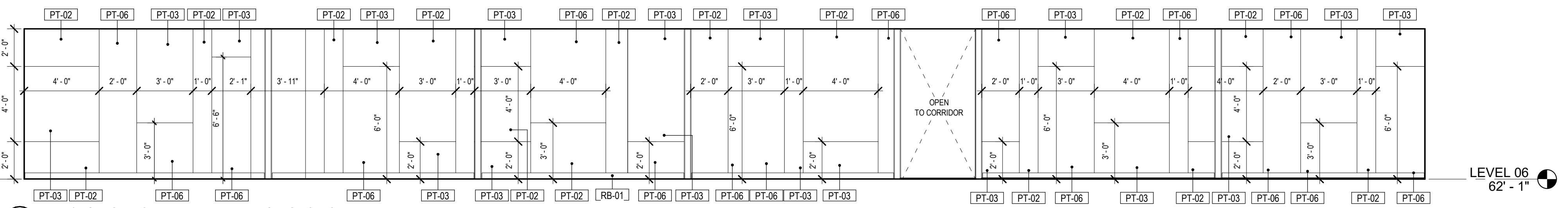
6 STAFF CORRIDOR - ELEVATION 1  
 1/4" = 1'-0"



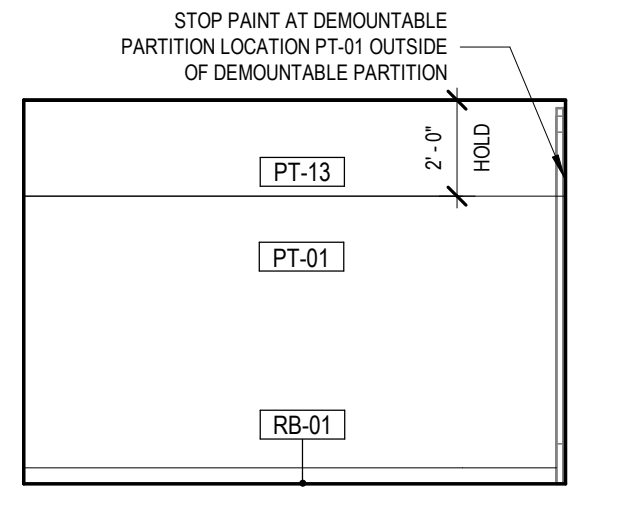
5 STAFF CORRIDOR - ELEVATION 2  
 1/4" = 1'-0"



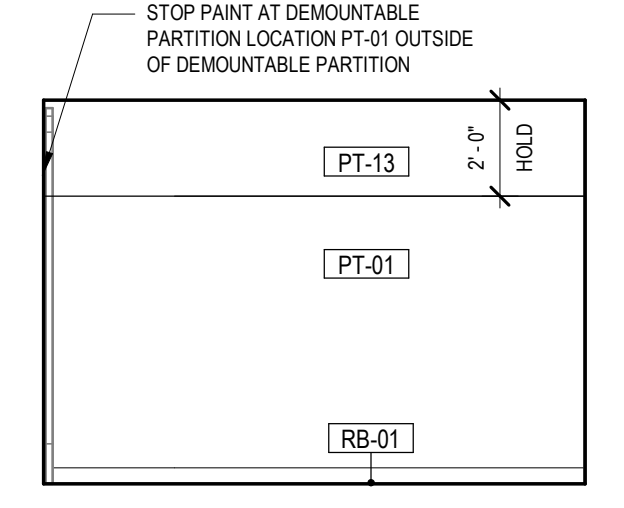
7 APPLICATION AREA - ELEVATION 2  
 1/4" = 1'-0"



8 DEV/MOD OFFICE WALL - ELEVATION SECTION  
 1/4" = 1'-0"



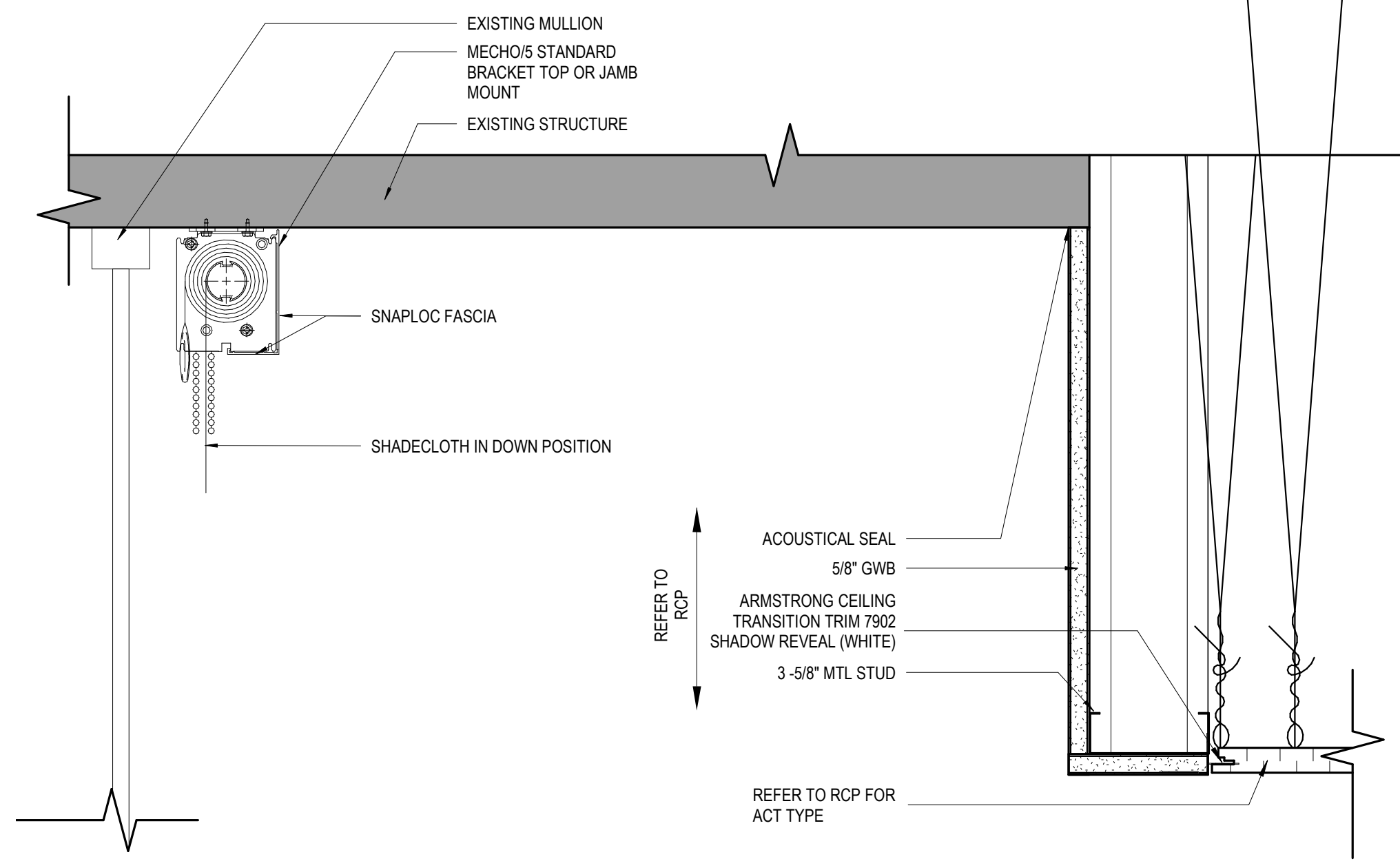
9 MID SIZE CONFERENCE - ELEVATION 1  
 1/4" = 1'-0"



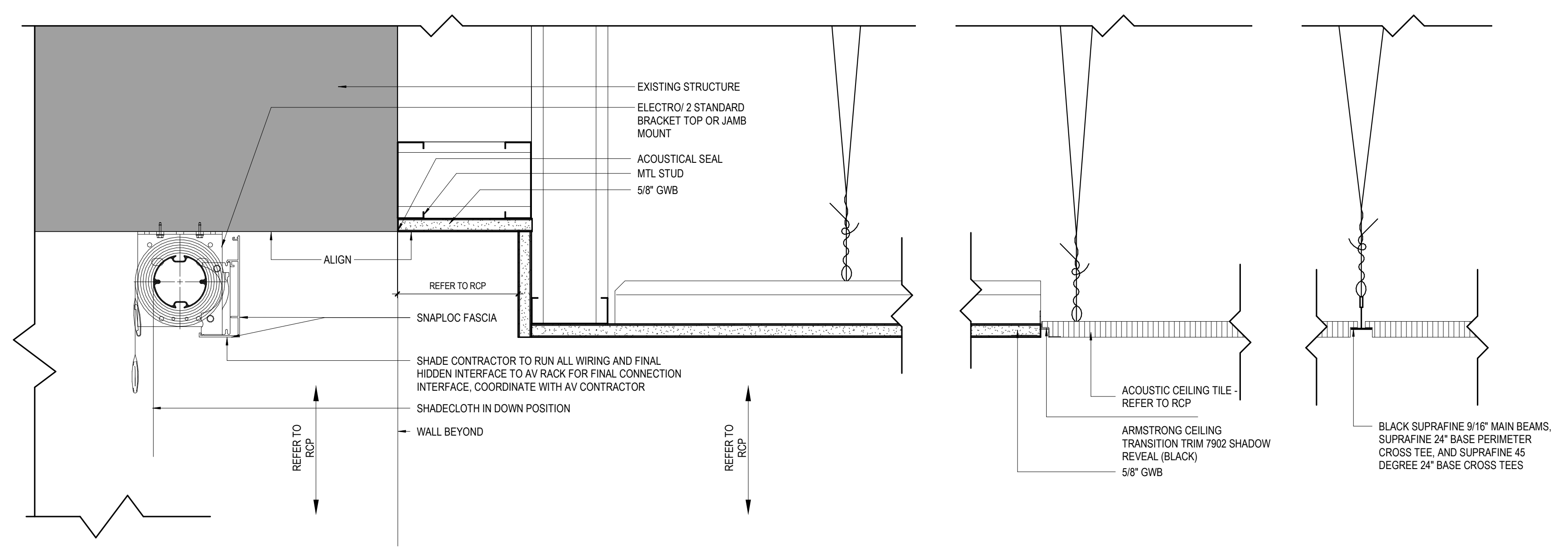
10 MID SIZE CONFERENCE - ELEVATION 2  
 1/4" = 1'-0"



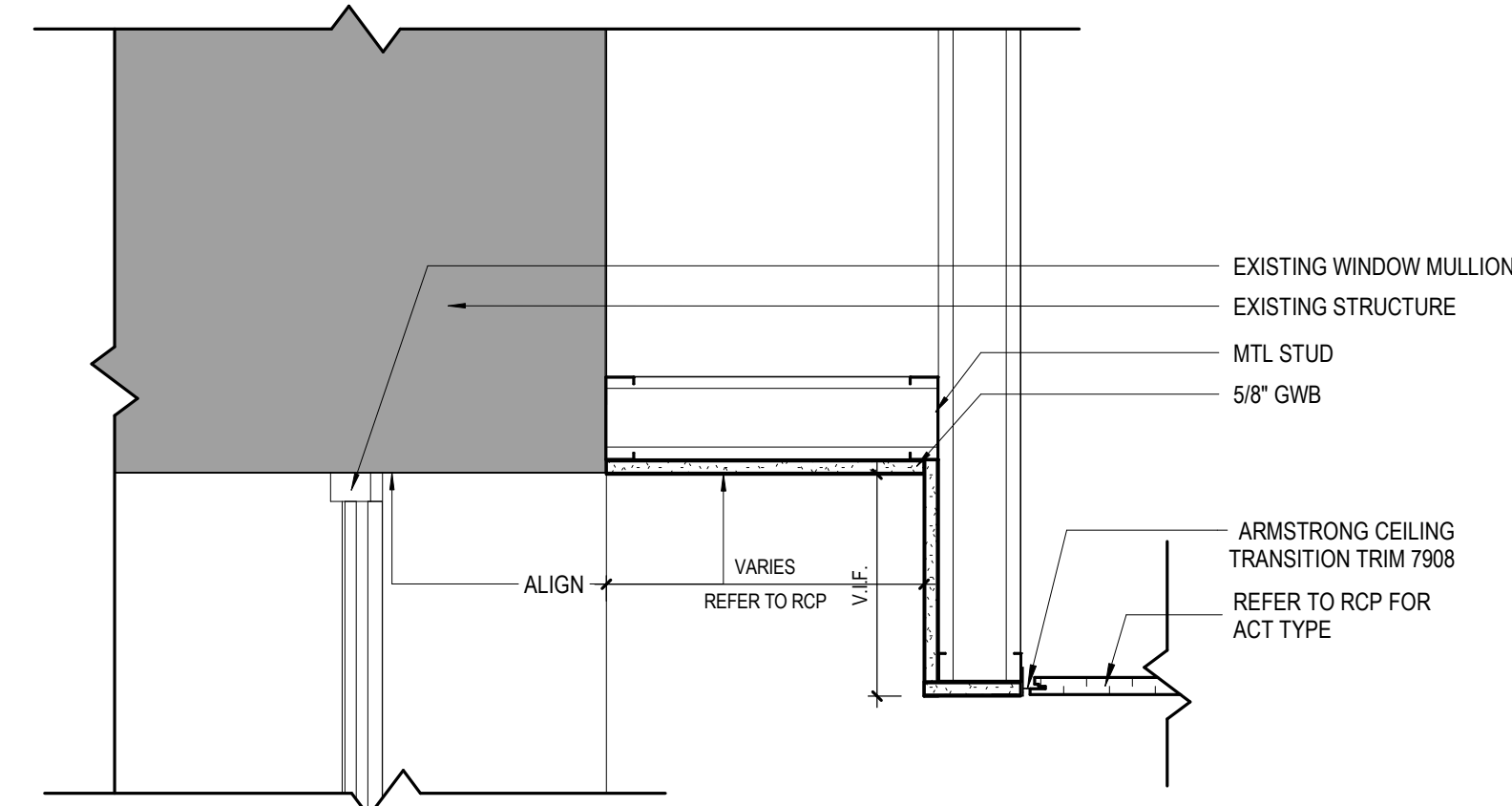




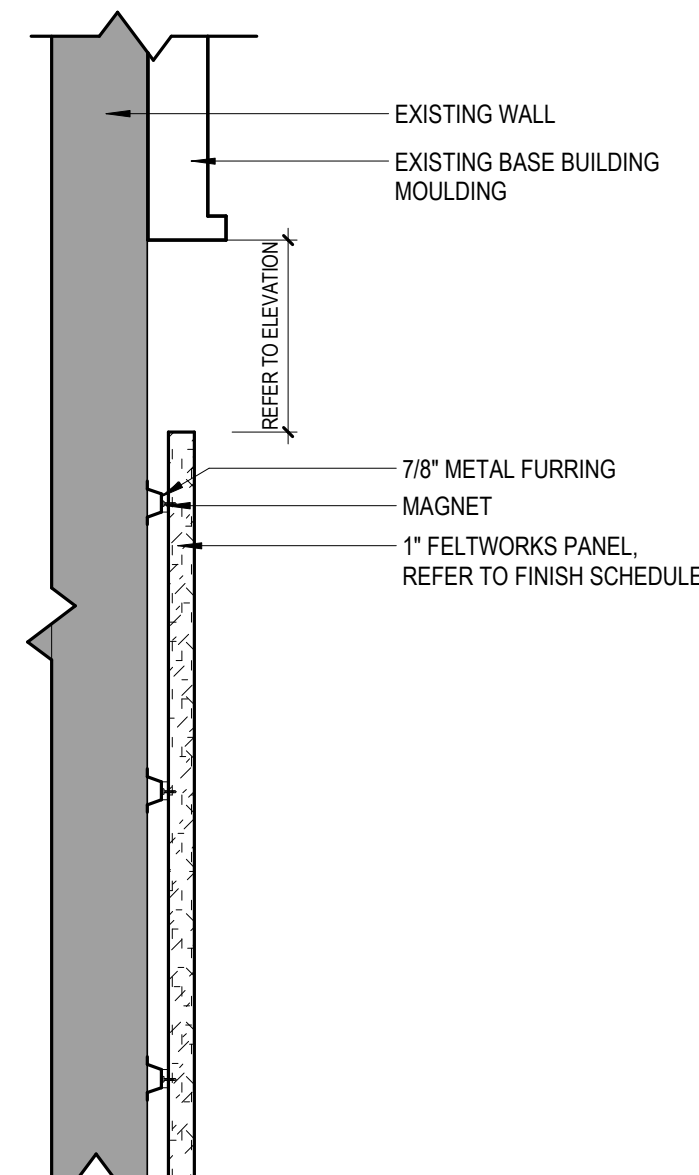
2 MANUAL ROLLER SHADE DETAIL - RS-01, RS-03, RS-04  
3/4" = 1'-0"



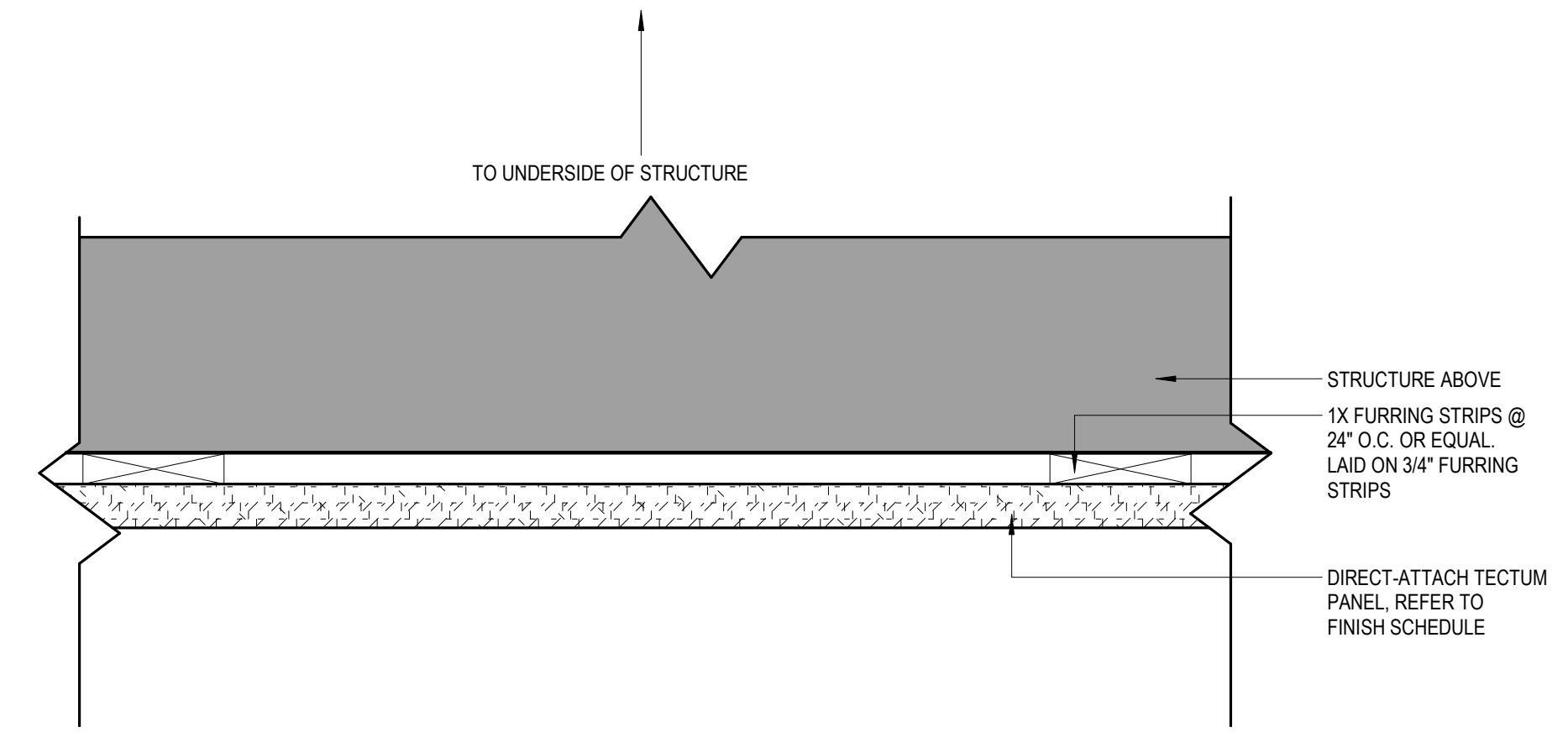
1 BOARD ROOM / TRAINING ROOM ROLLER SHADE AND POCKET DETAIL - RS-02  
3/4" = 1'-0"



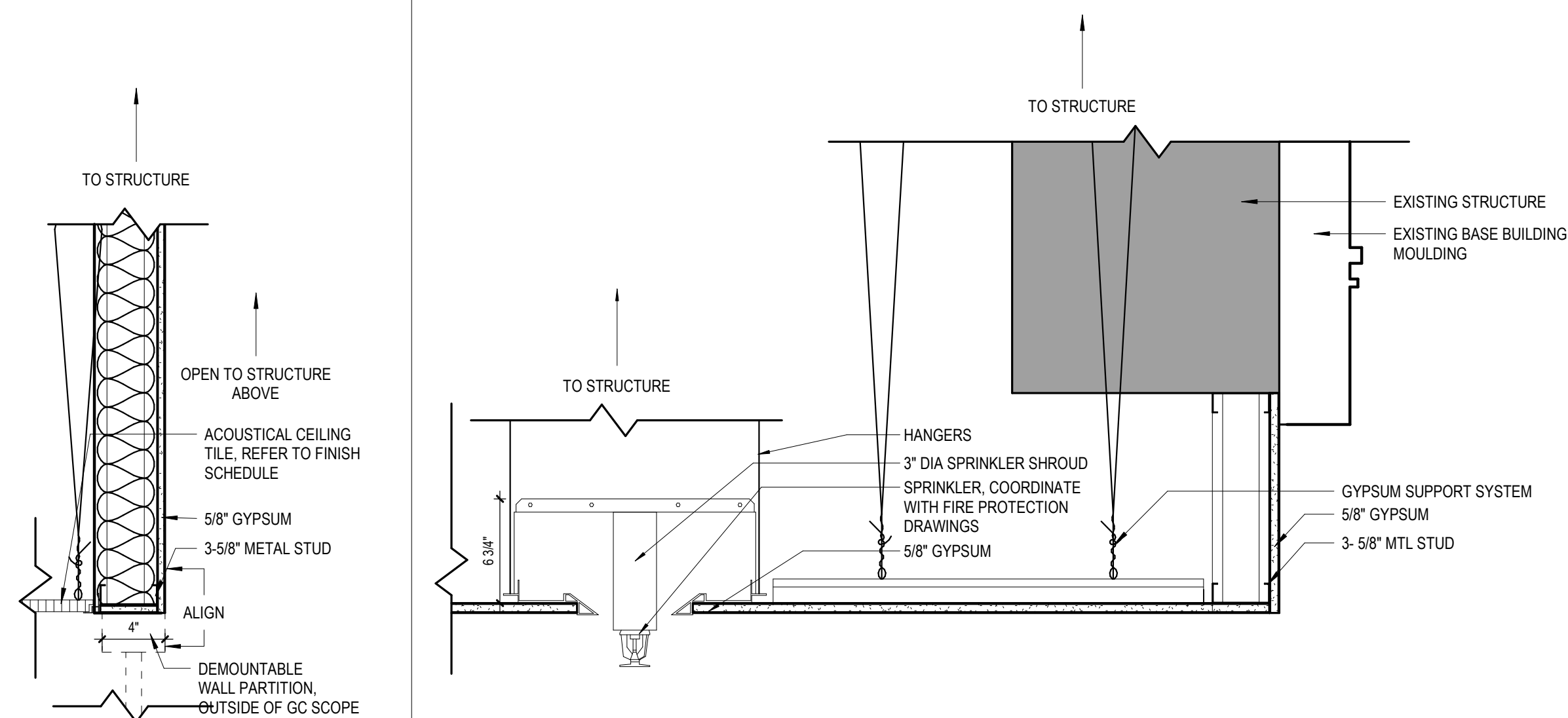
5 GYPSUM POCKET @ LVL 01 WINDOWS  
1 1/2" = 1'-0"



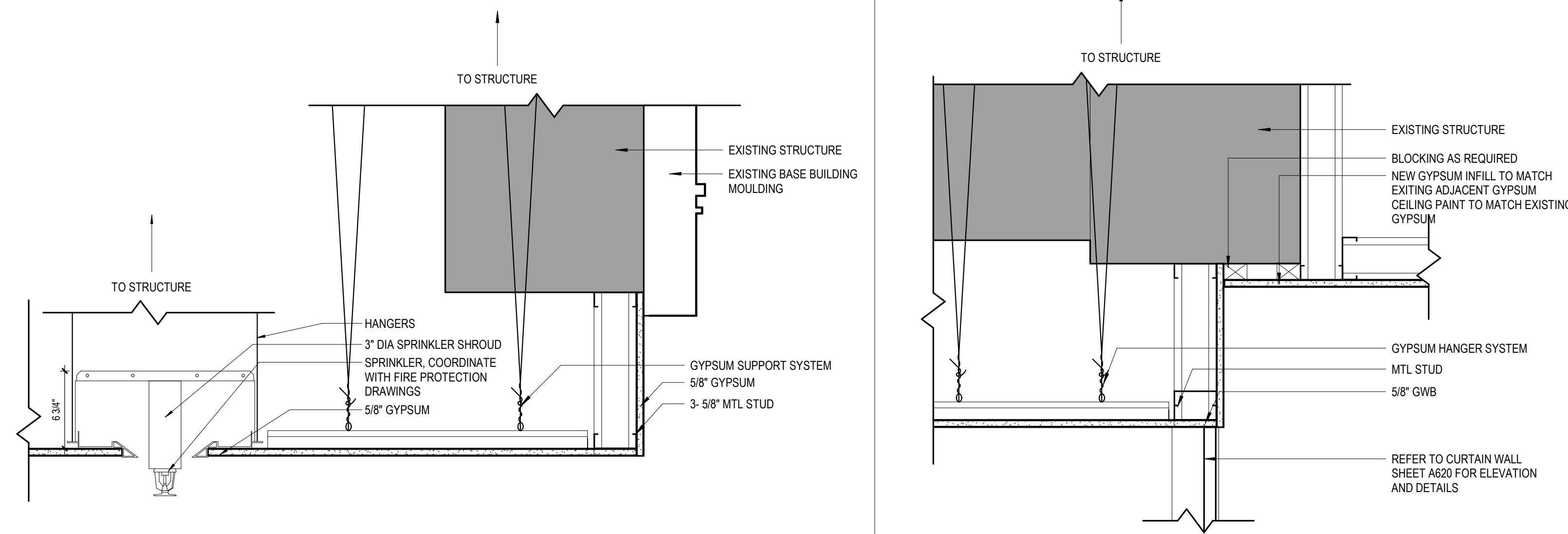
4 FELTWORKS PANEL @ LVL 01 WALL  
1 1/2" = 1'-0"



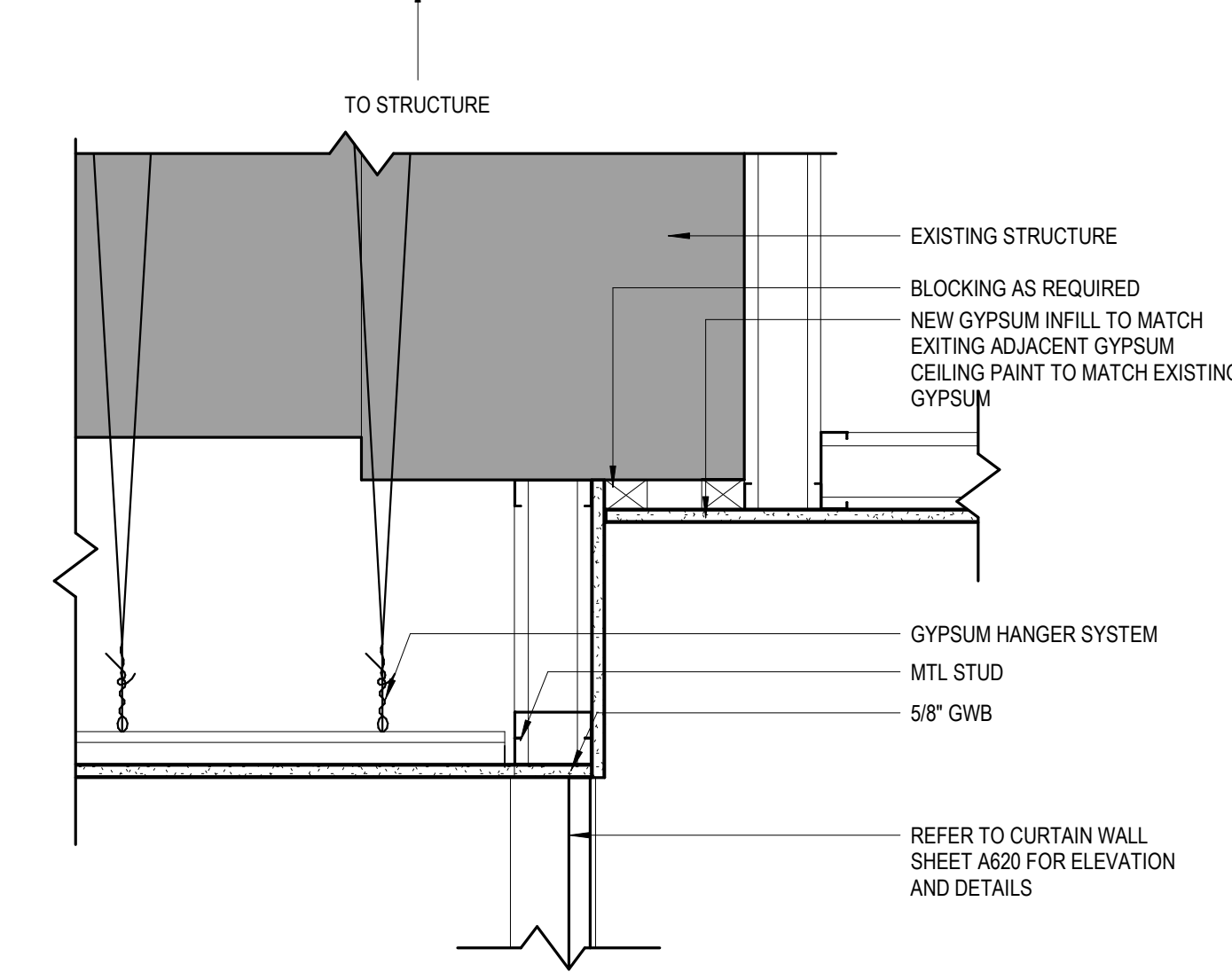
3 DETAIL @ CEILING TECTUM PANEL  
3/4" = 1'-0"



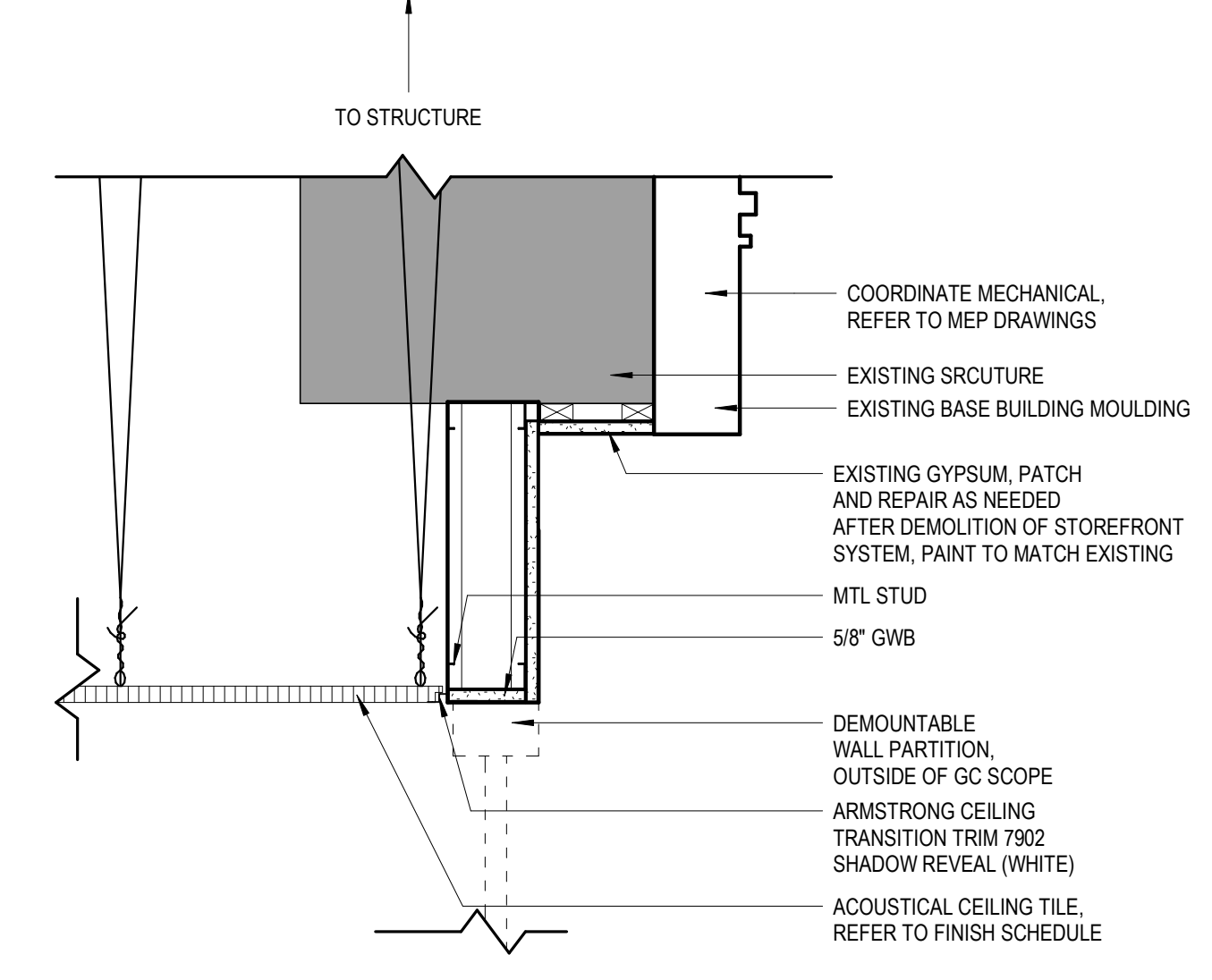
9 BULKHEAD @ LVL 01 CONSULT ROOMS  
1 1/2" = 1'-0"



8 SERVICE INTEGRATION CEILING DETAIL @ LVL 01 APPLICATION  
1 1/2" = 1'-0"



7 CEILING @ BULKHEAD/STOREFRONT  
1 1/2" = 1'-0"

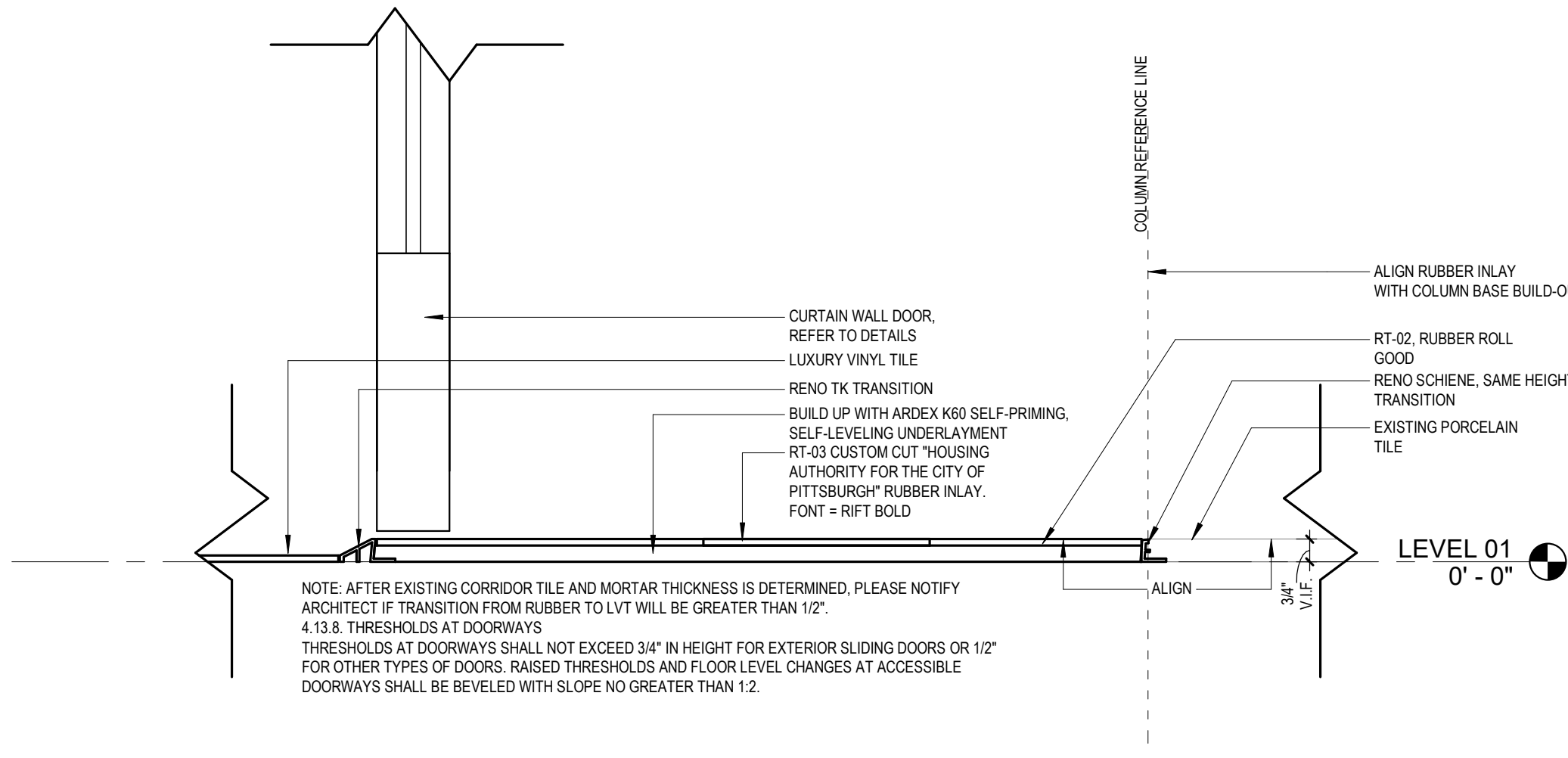


6 CEILING DETAIL @ LVL 01 LARGE CONSULT  
1 1/2" = 1'-0"

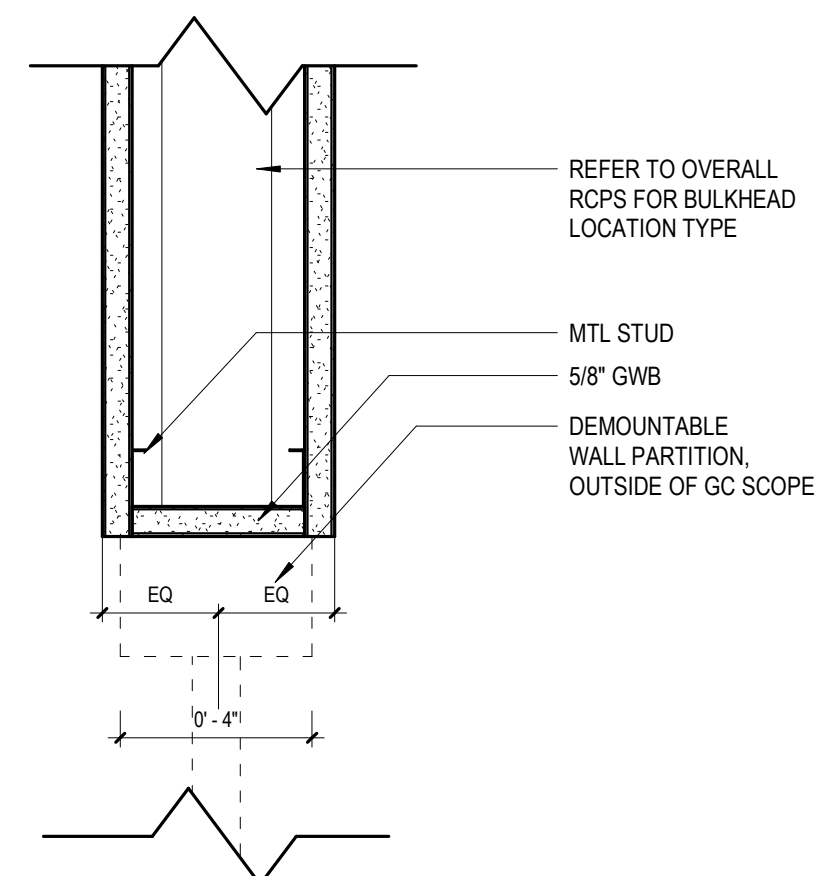
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00  
DRAWN BY: AE7  
REVIEWED BY: JW  
SHEET NAME: CEILING DETAILS

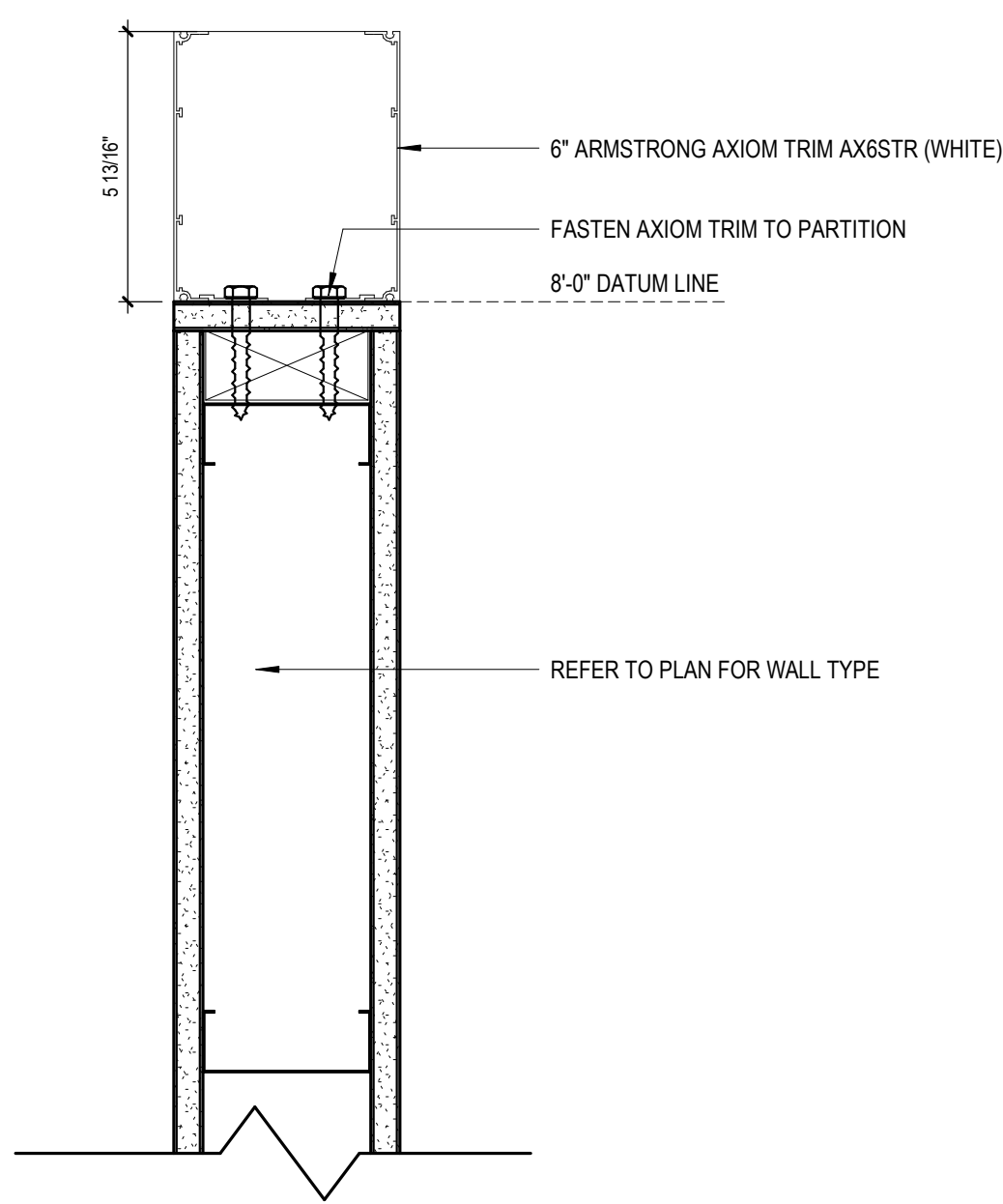
**A560**  
TRUE NORTH  
PLAN NORTH



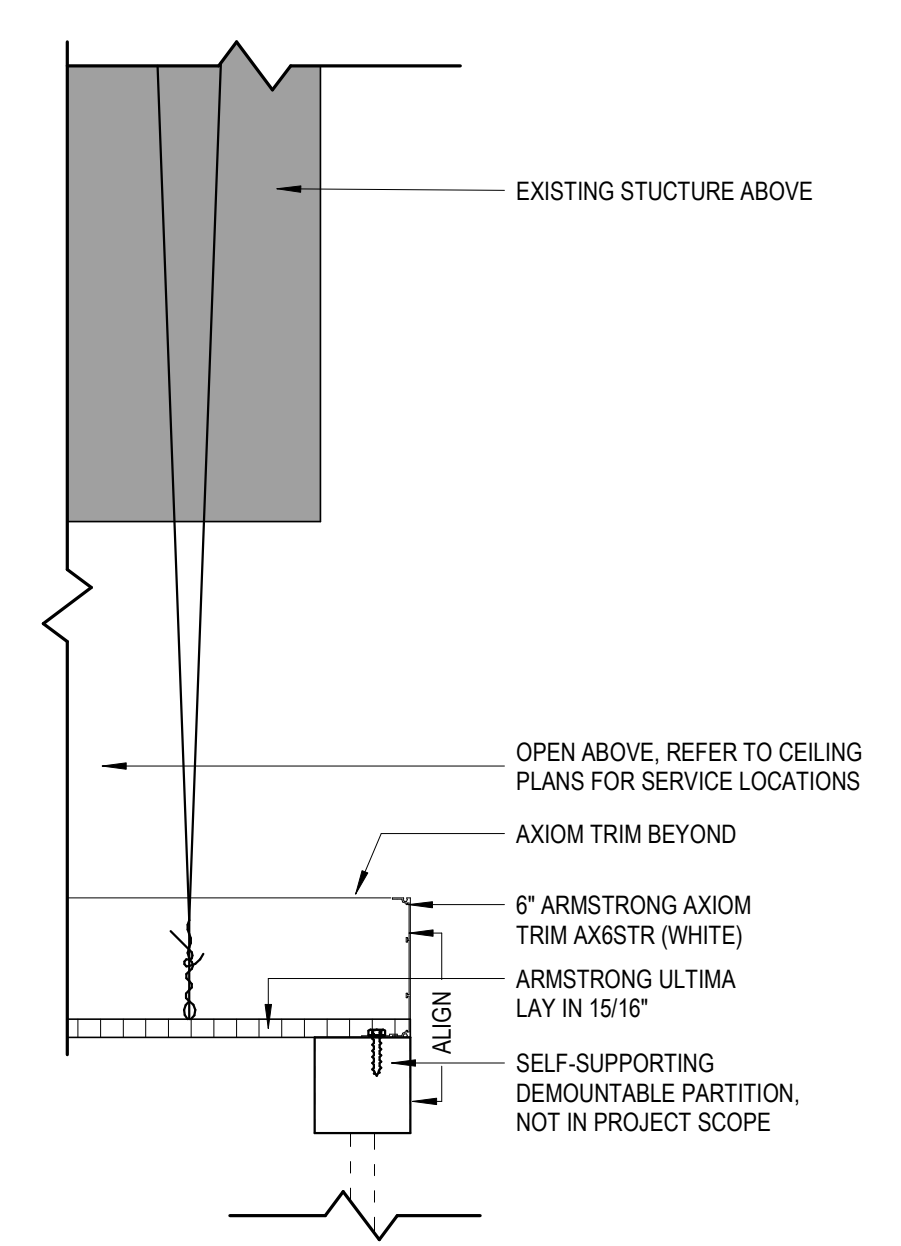
4 DETAIL @ LVL 01 ENTRY  
 3" = 1'-0"



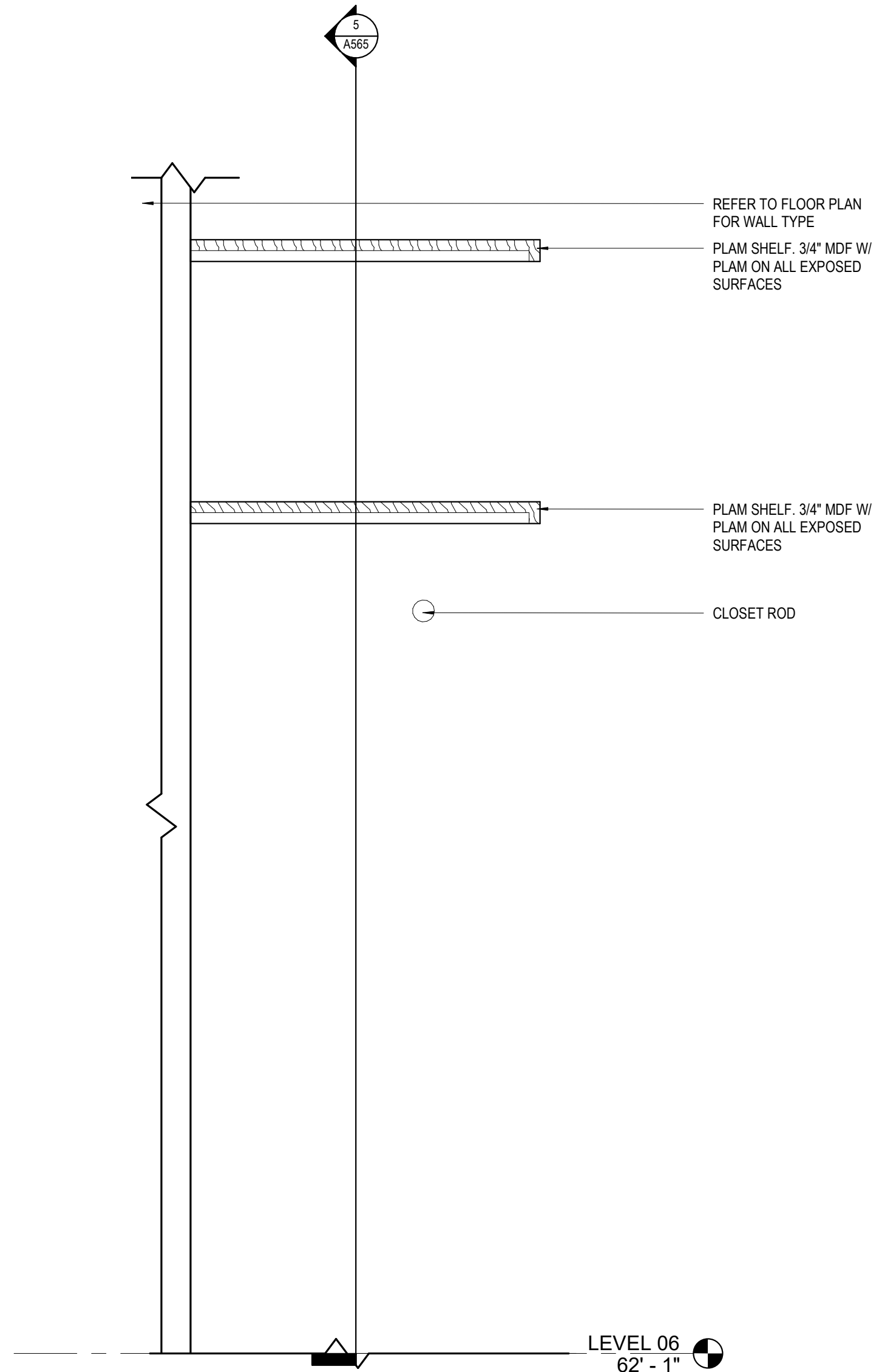
3 TYPICAL BULKHEAD ABOVE DEMOUNTABLE PARTITION  
 3" = 1'-0"



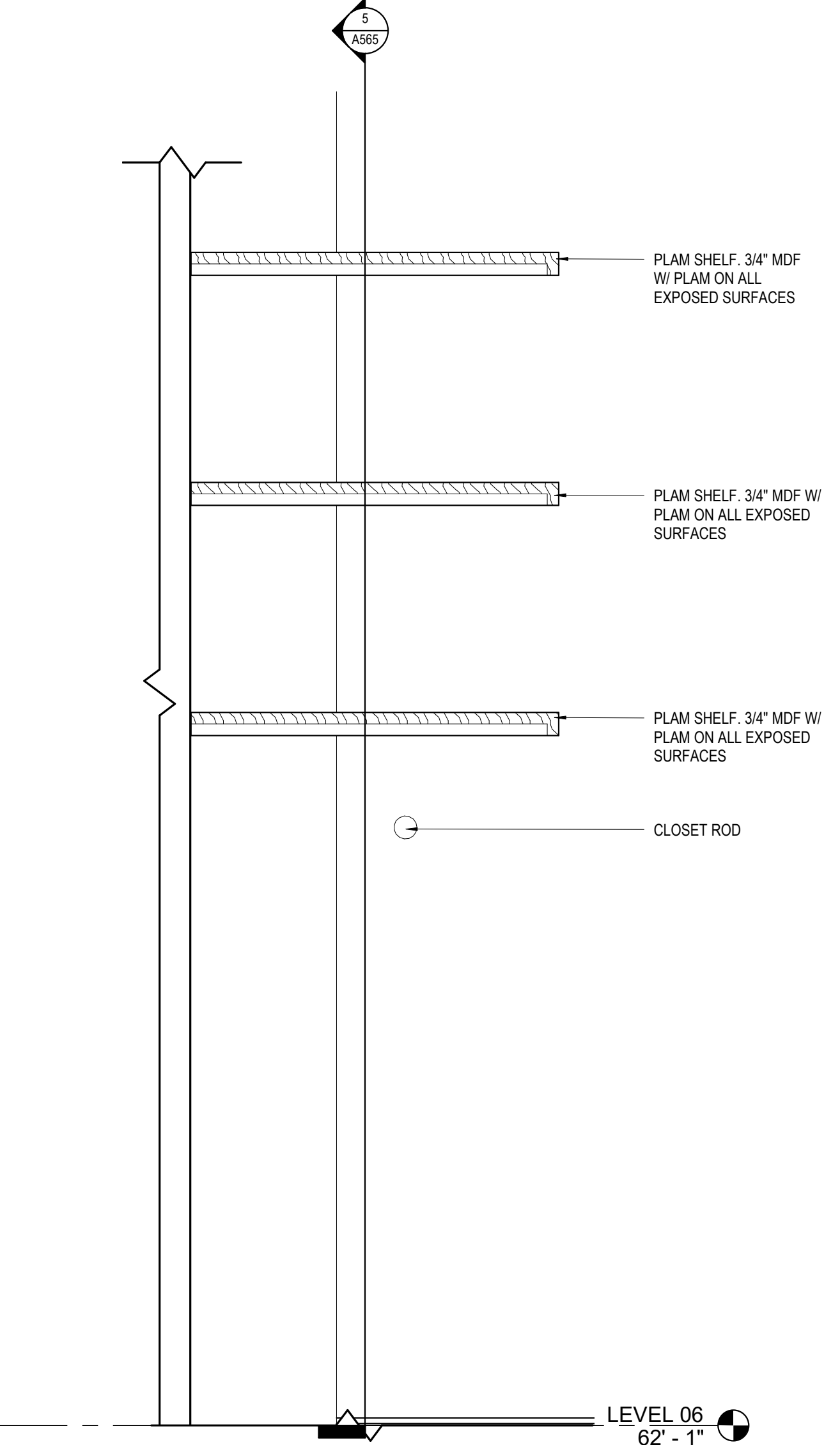
2 ARMSTRONG CEILING - AXIOM CLASSIC COMPONENT DETAIL  
 3" = 1'-0"



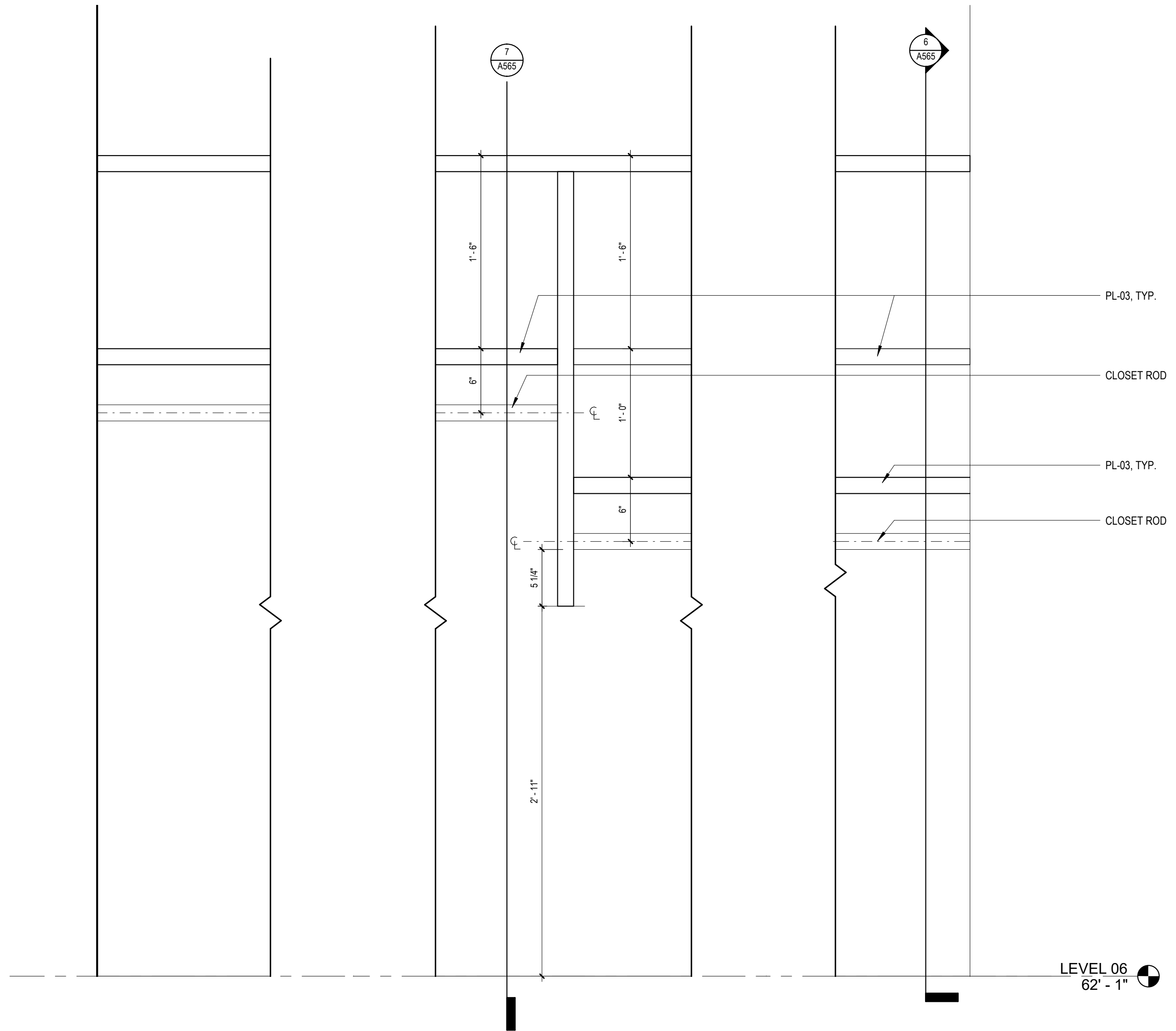
1 TYPICAL DEMOUNTABLE WALL/ACT/AXIOM DETAIL  
 1 1/2" = 1'-0"



7 COAT CLOSET - SECTION 1  
 1 1/2" = 1'-0"




6 COAT CLOSET - SECTION 2  
 1 1/2" = 1'-0"



5 TYPICAL SPLIT COAT CLOSET SECTION  
 1 1/2" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

SHEET NAME:  
 DETAILS  
 A565  


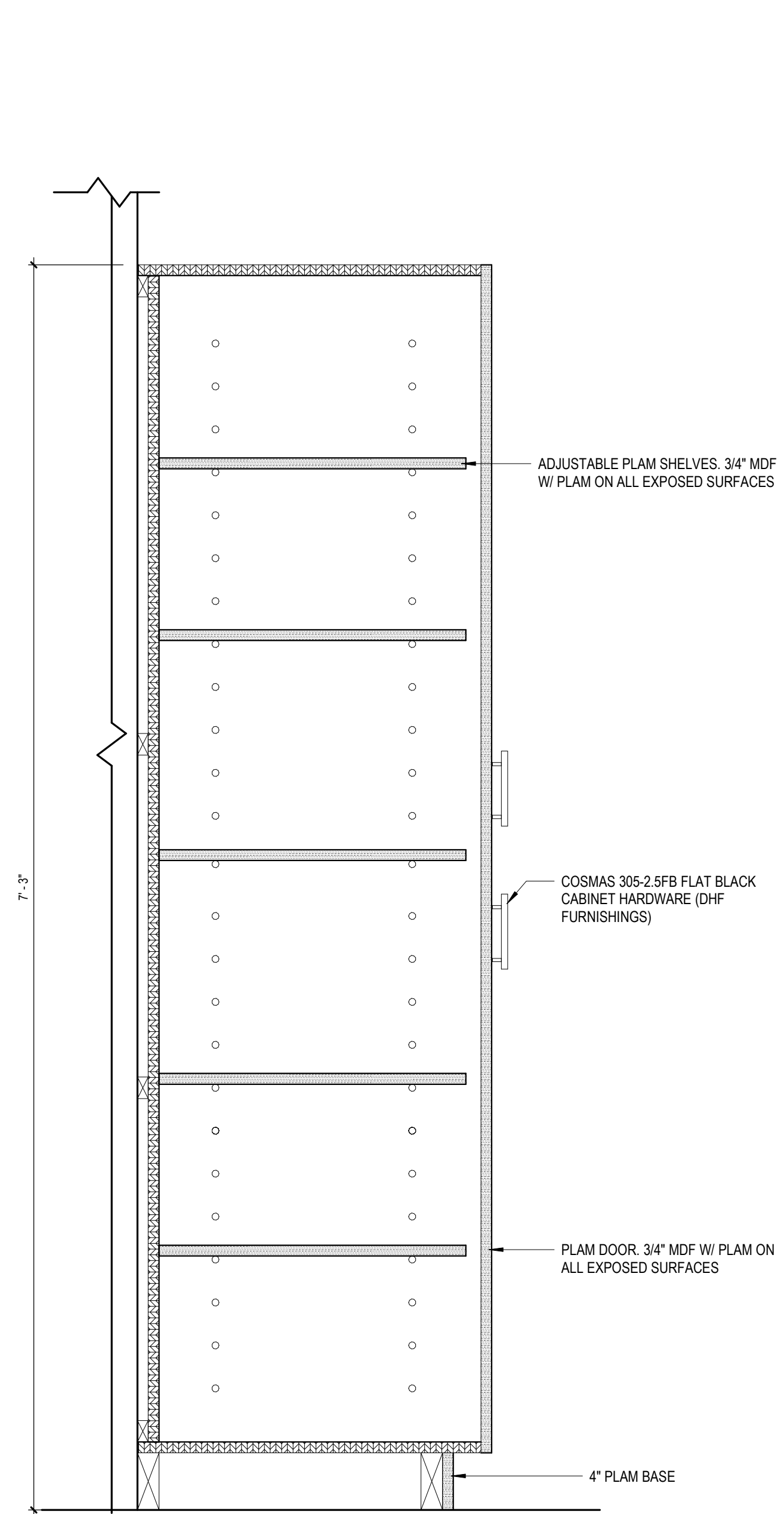
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

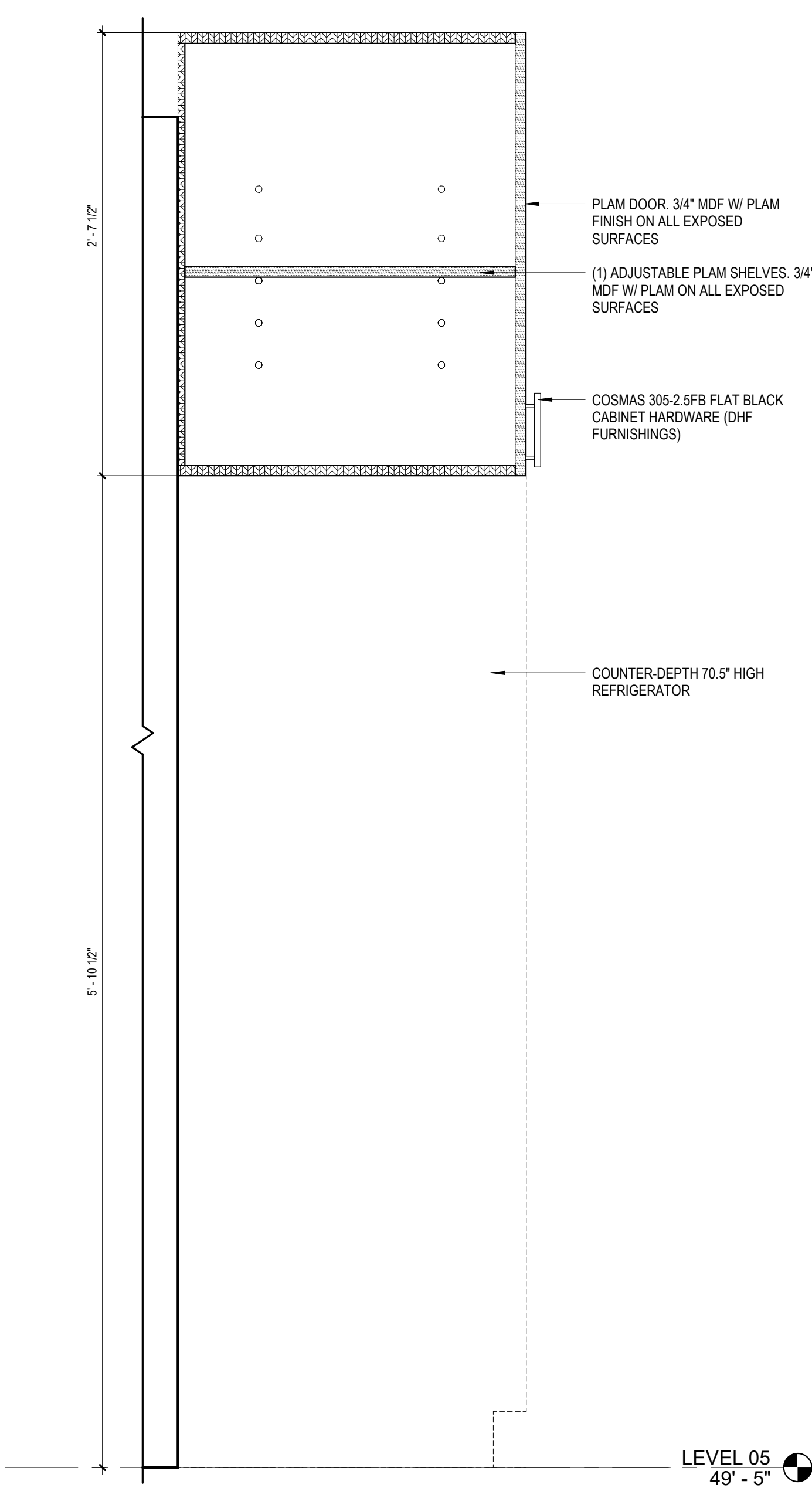
SHEET NAME:

MILLWORK DETAILS

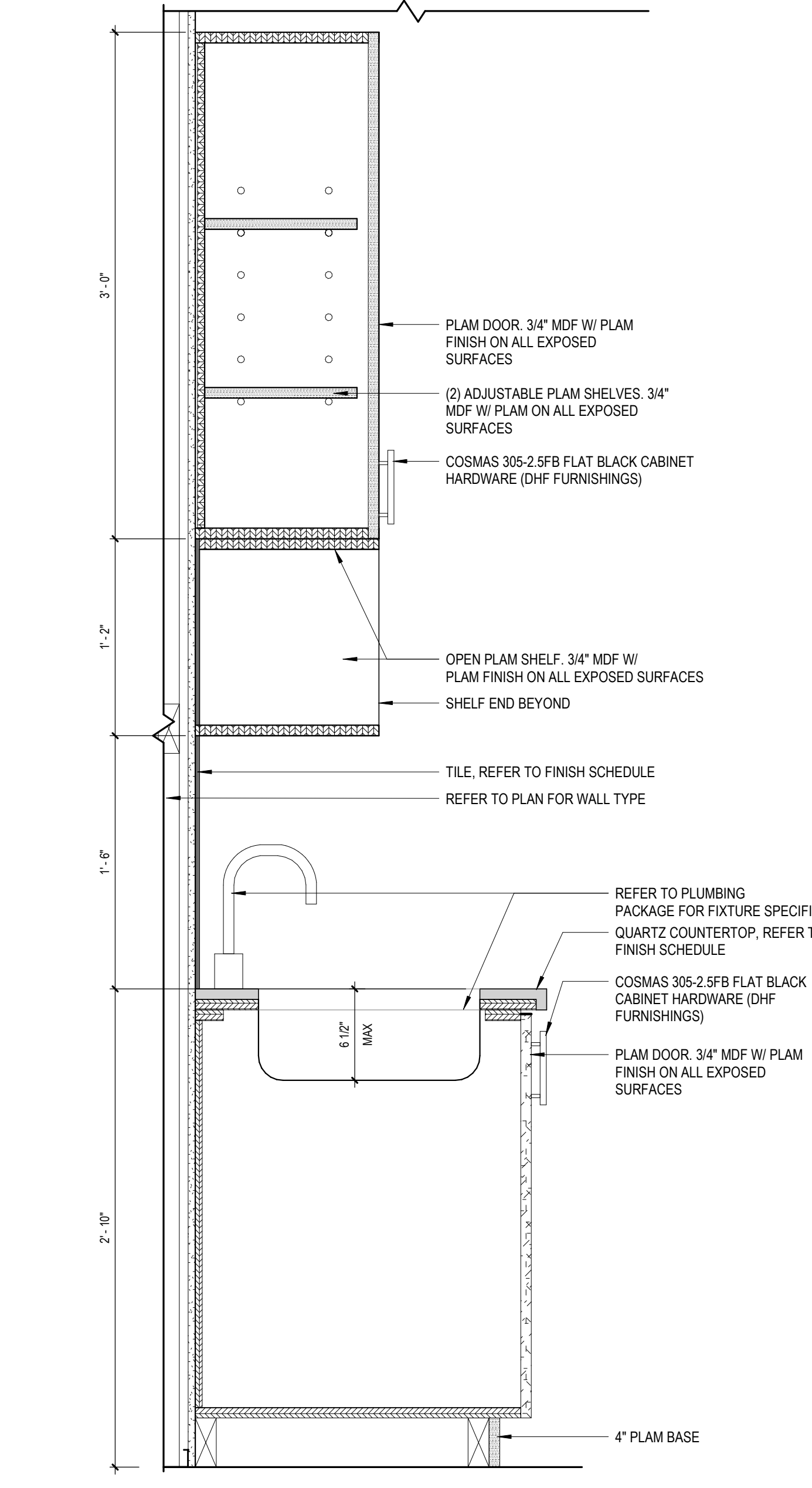
**A570**  
 TRUE NORTH  
 PLAN NORTH



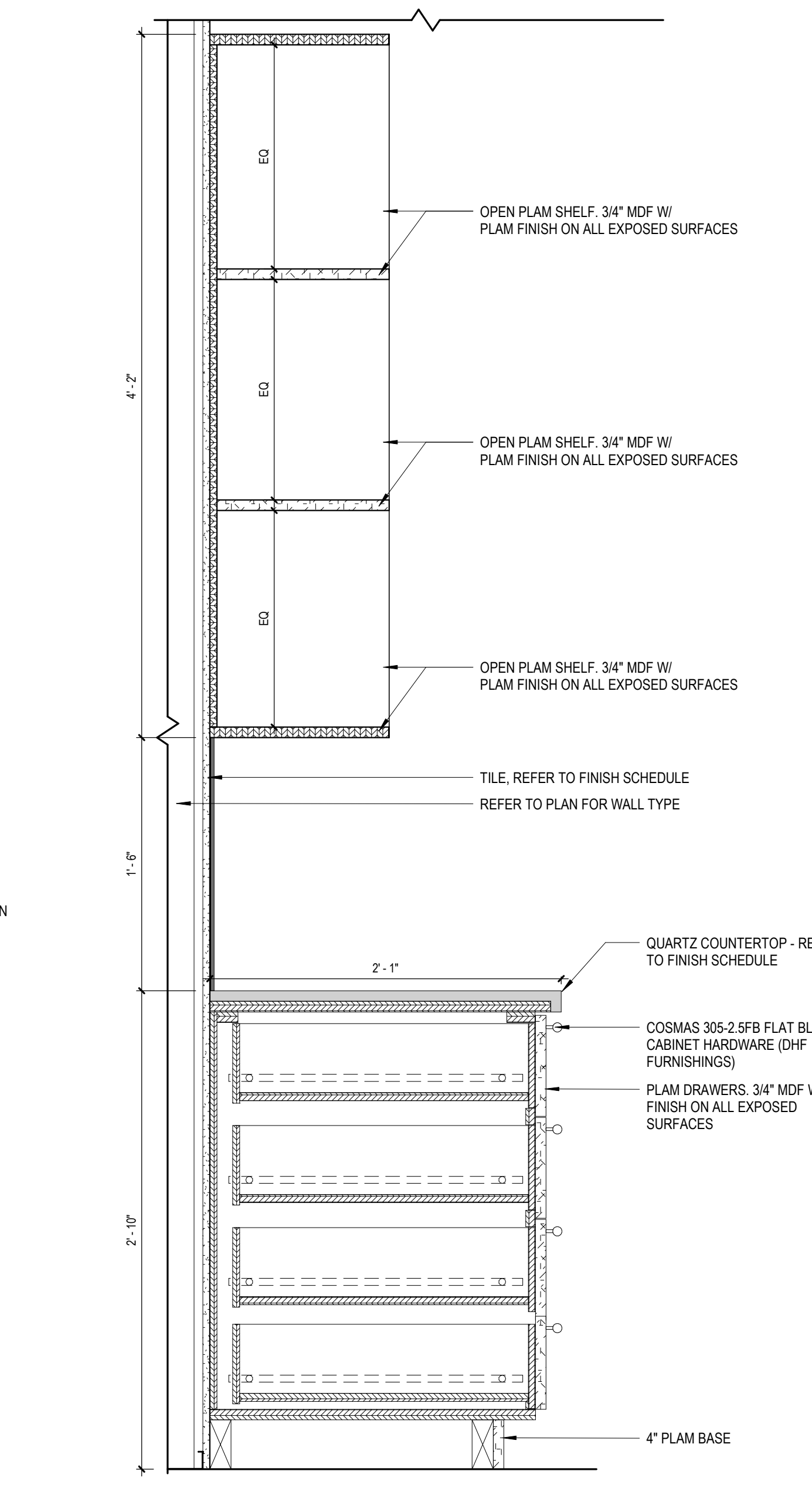
4 TALL CABINET  
 1 1/2" = 1'-0"



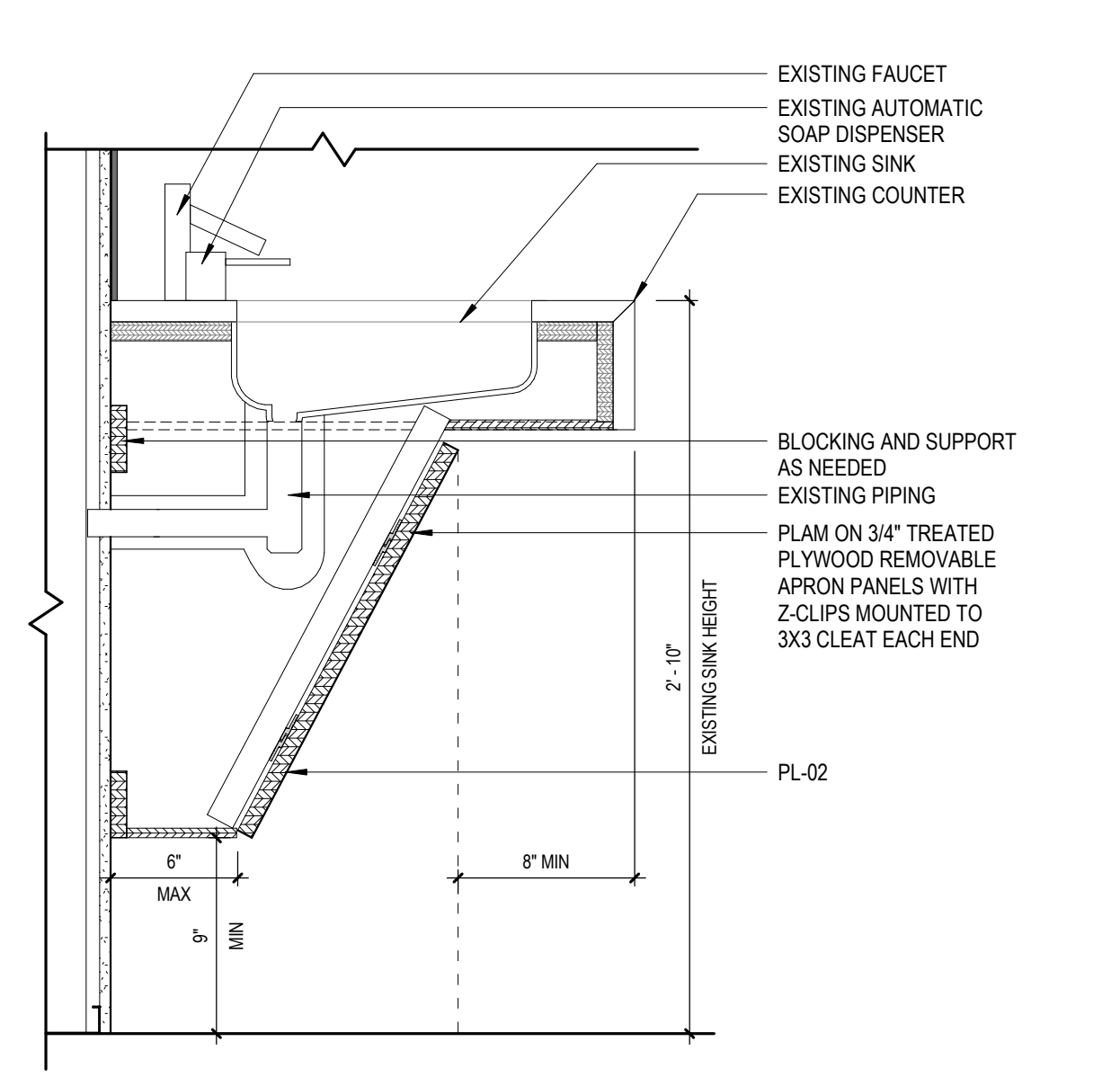
3 REFRIGERATOR CASEWORK  
 1 1/2" = 1'-0"



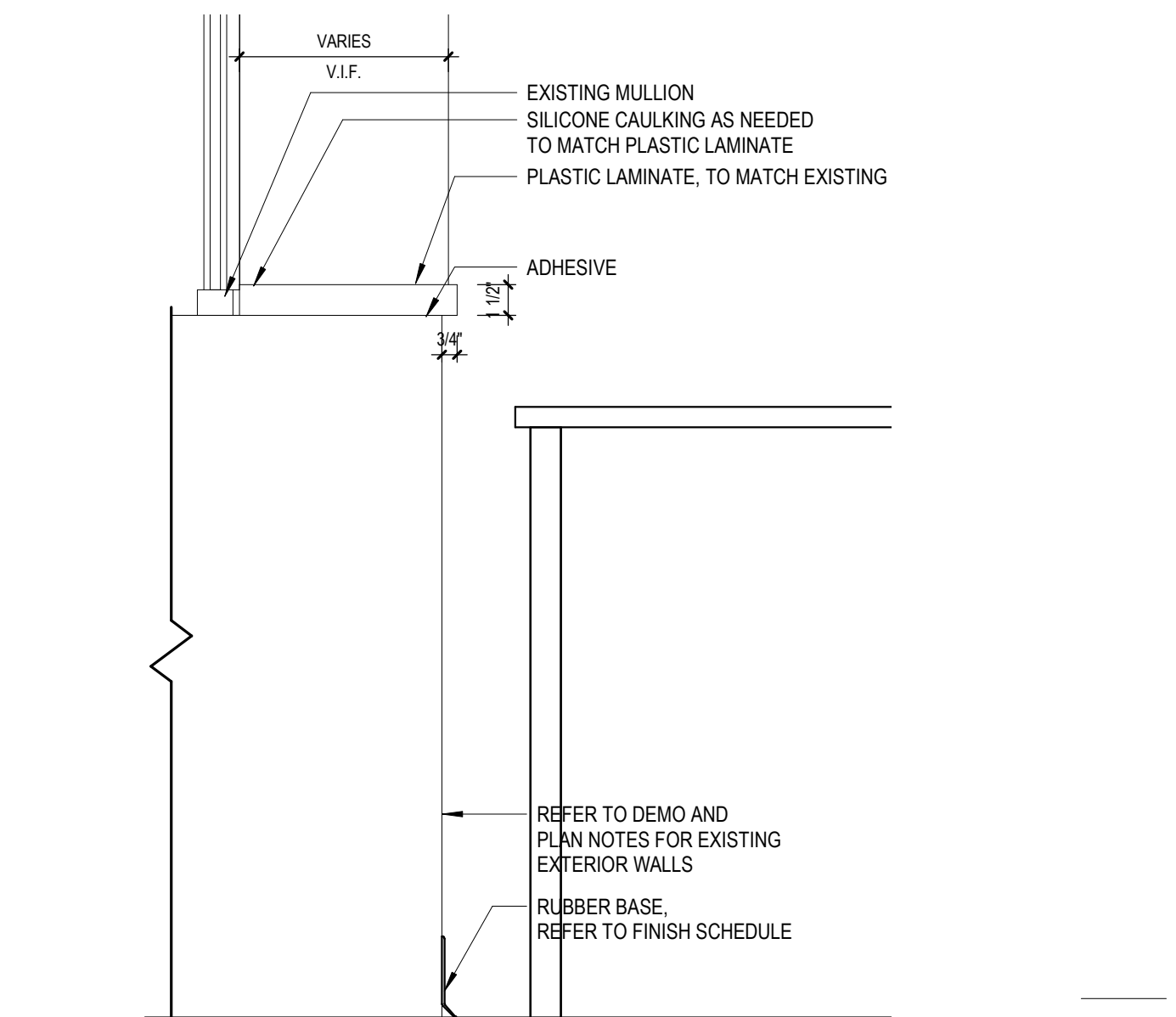
2 BREAK ROOM TYPICAL SINK DETAIL  
 1 1/2" = 1'-0"



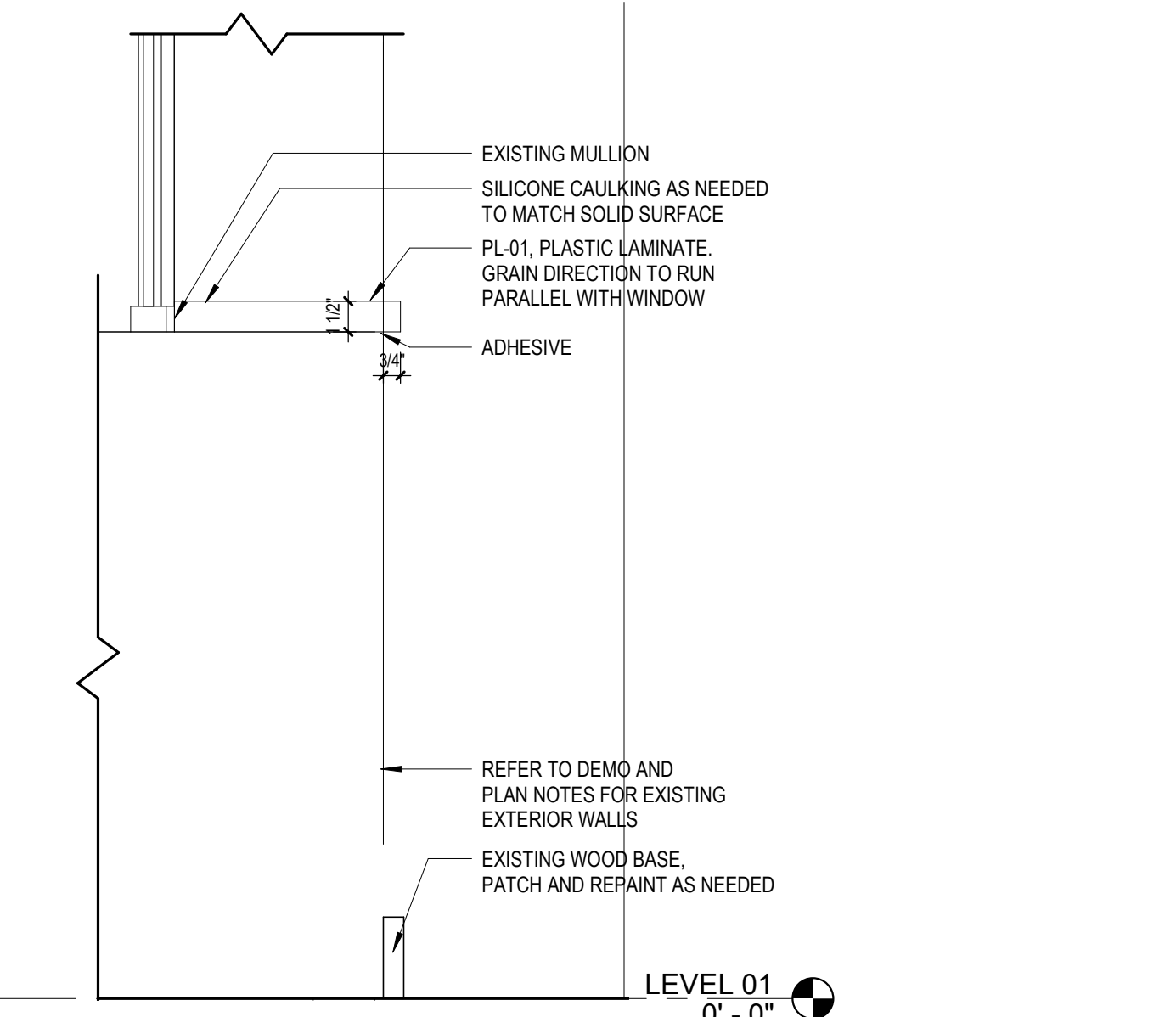
1 BREAK ROOM OPEN SHELF/ 4 DRAWER DETAIL  
 1 1/2" = 1'-0"



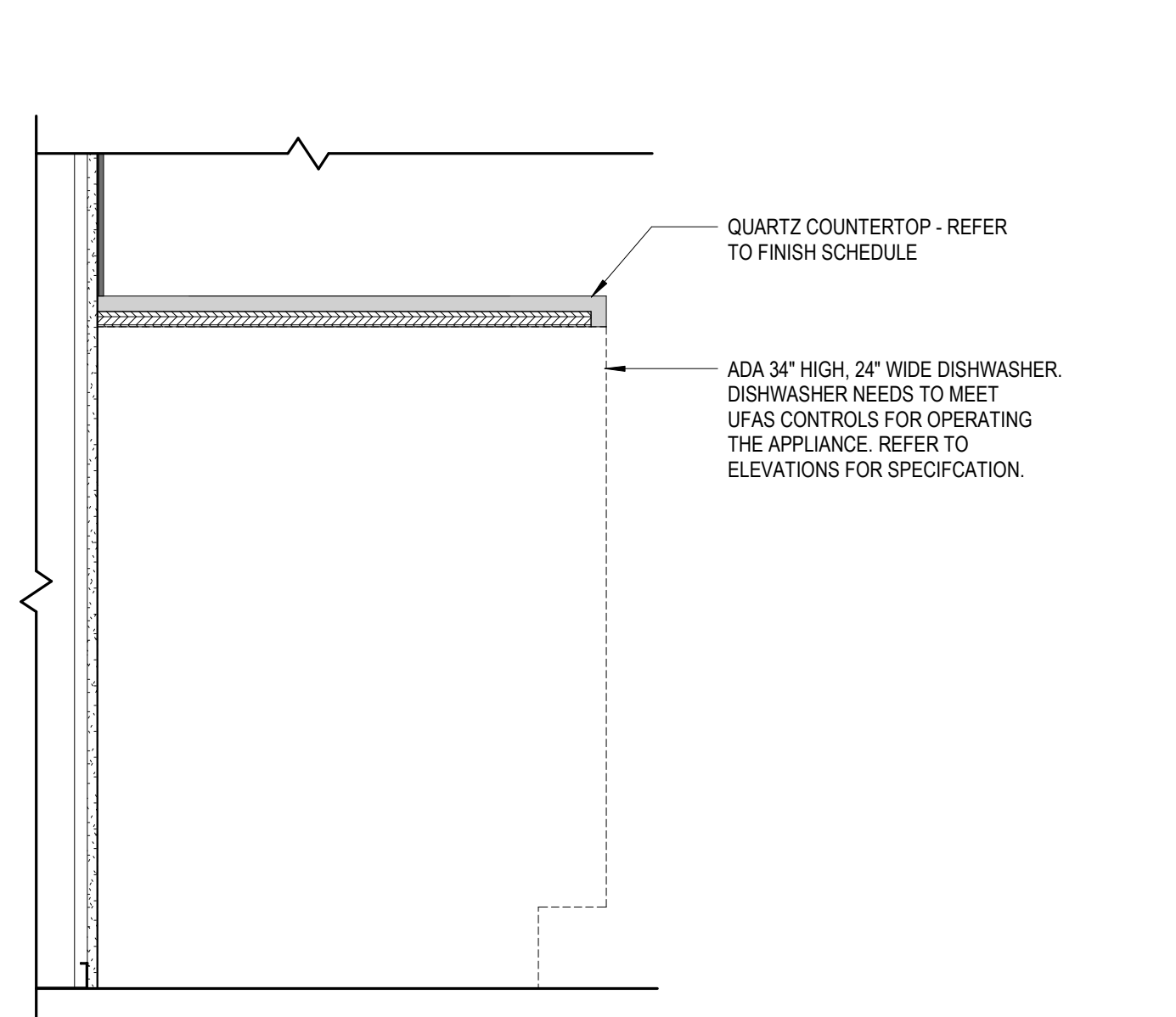
8 EXISTING SINK WITH NEW PLUMBING PROTECTION DETAIL  
 1 1/2" = 1'-0"



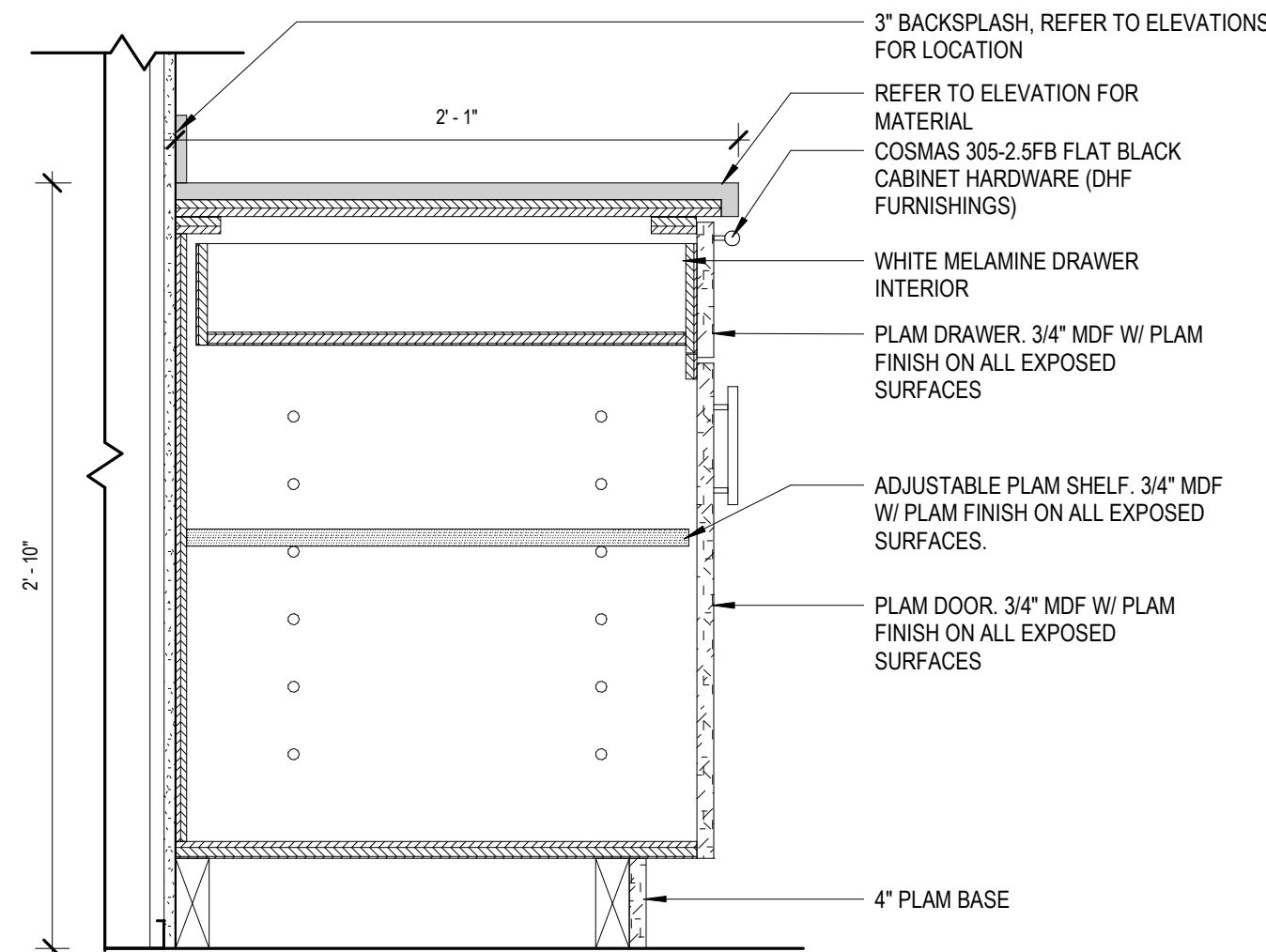
7 TYPICAL WINDOW STOOL DETAIL - LVL 05, 06, & 07  
 1 1/2" = 1'-0"



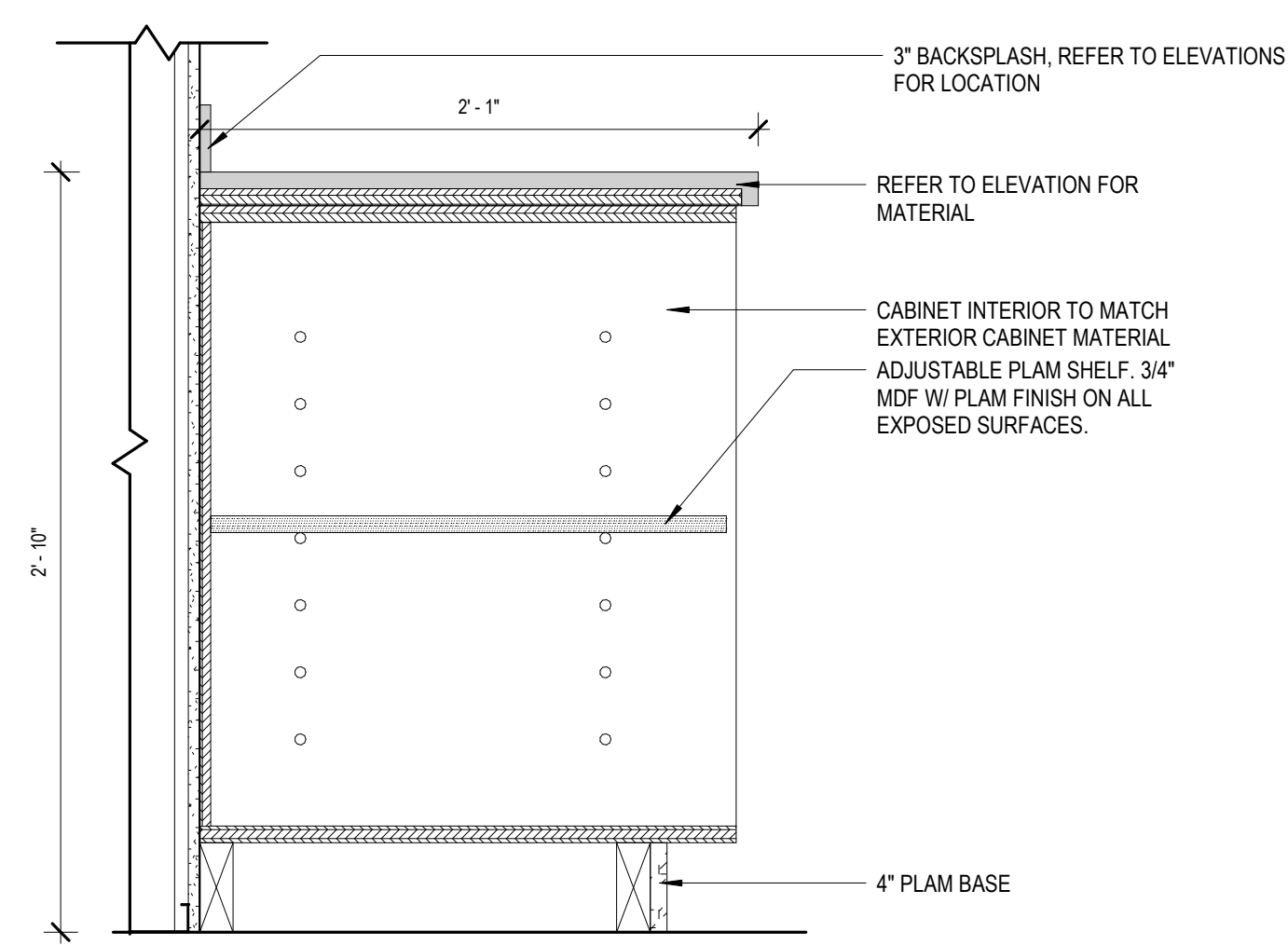
6 LVL 01 TYPICAL WINDOW STOOL DETAIL  
 1 1/2" = 1'-0"



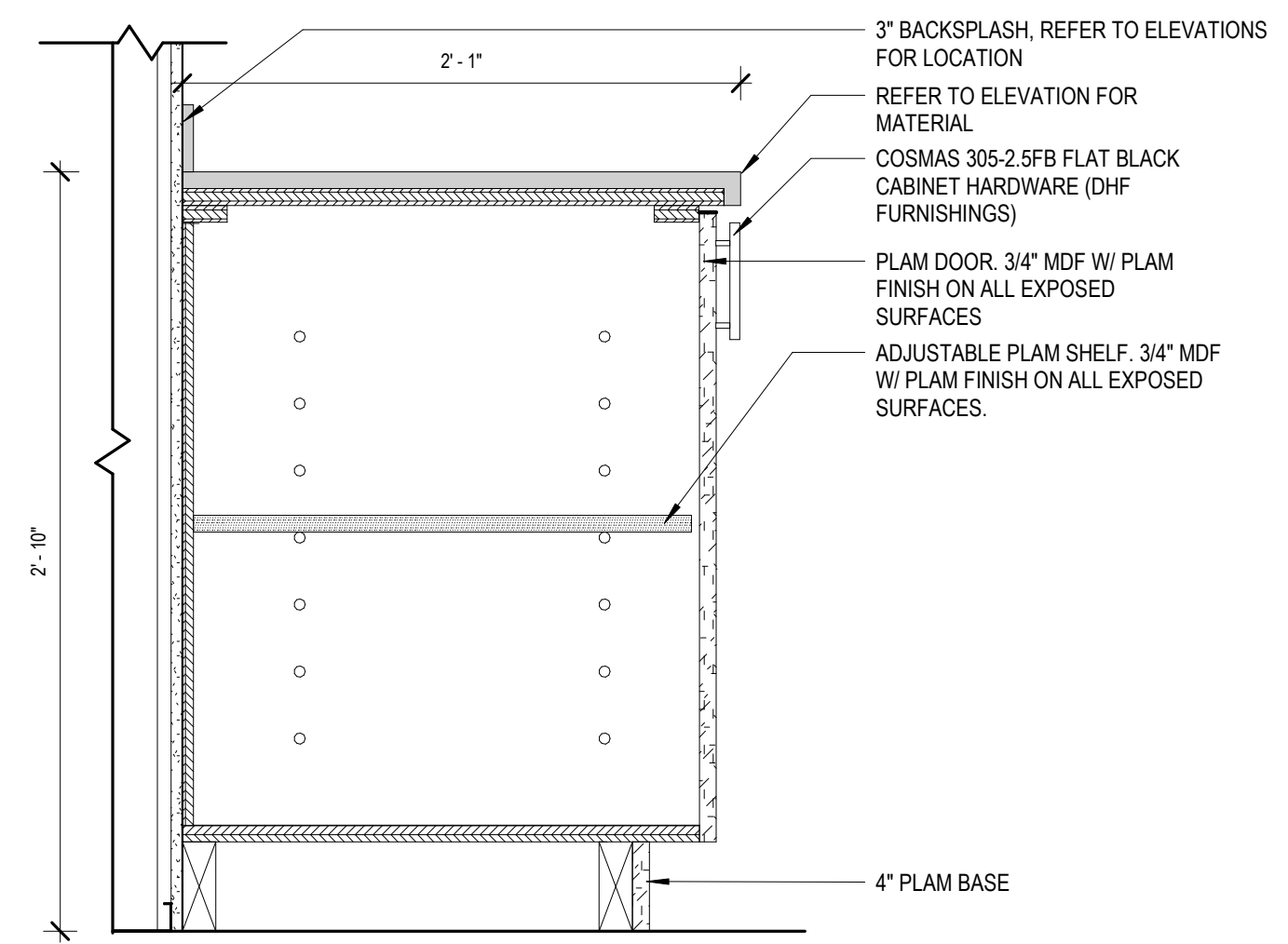
5 BREAK ROOM CASEWORK @ DISHWASHER  
 1 1/2" = 1'-0"



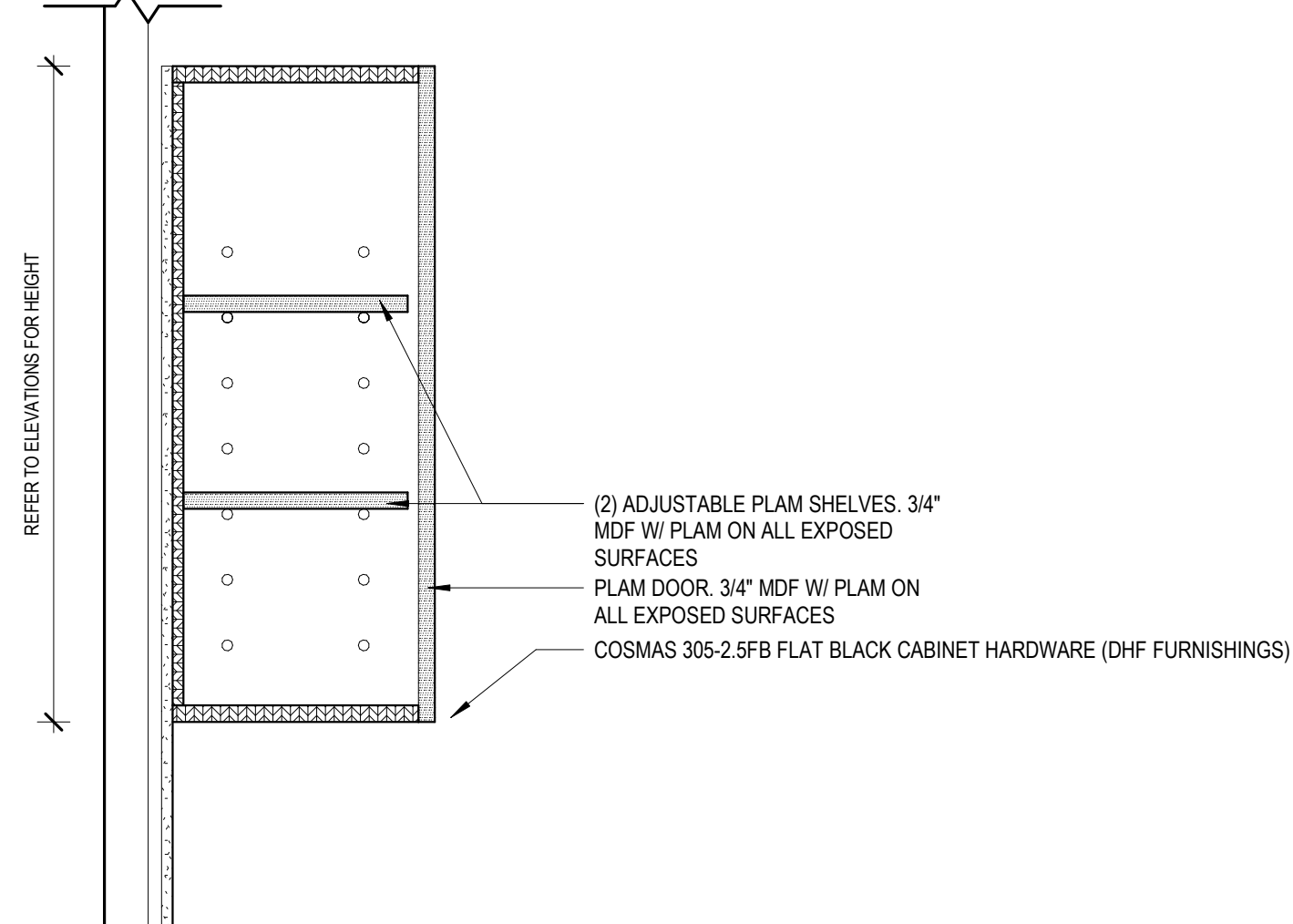
**4** TYPICAL BASE CABINET WITH TOP DRAWER  
 1 1/2" = 1'-0"



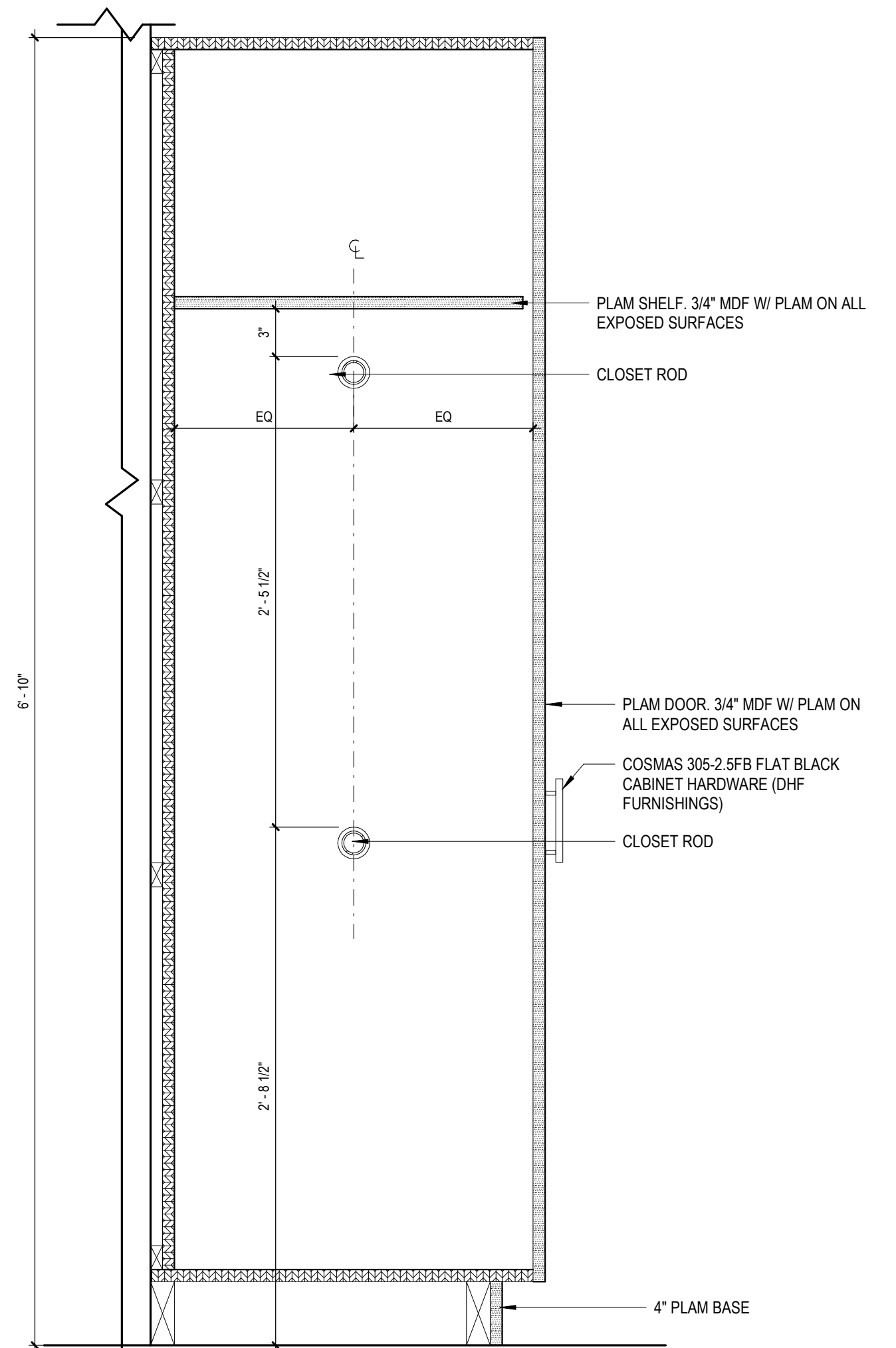
**3** OPEN CABINET  
 1 1/2" = 1'-0"



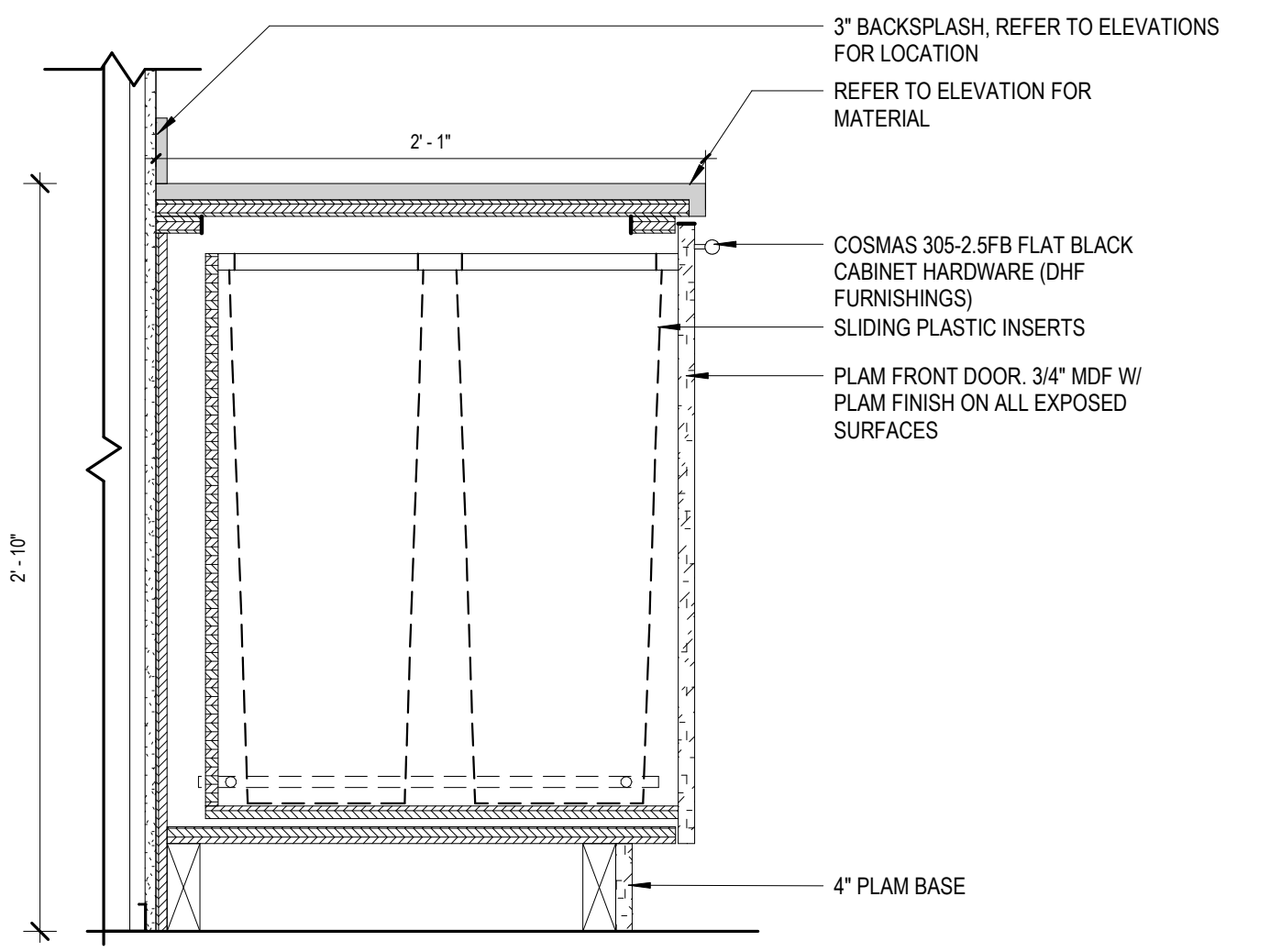
**2** TYPICAL BASE CABINET  
 1 1/2" = 1'-0"



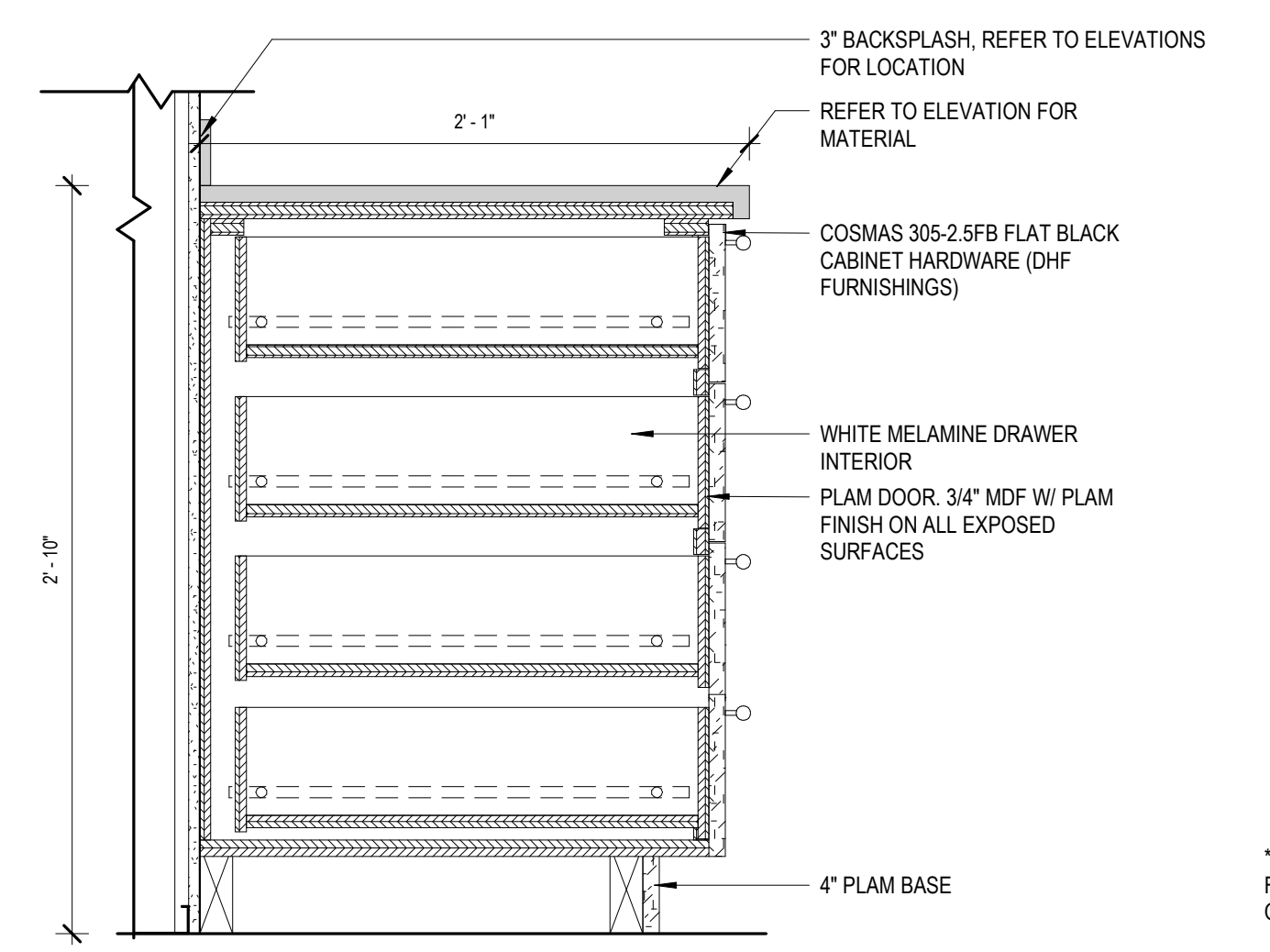
**1** TYPICAL LOWER AND UPPER CABINET SECTION  
 1 1/2" = 1'-0"



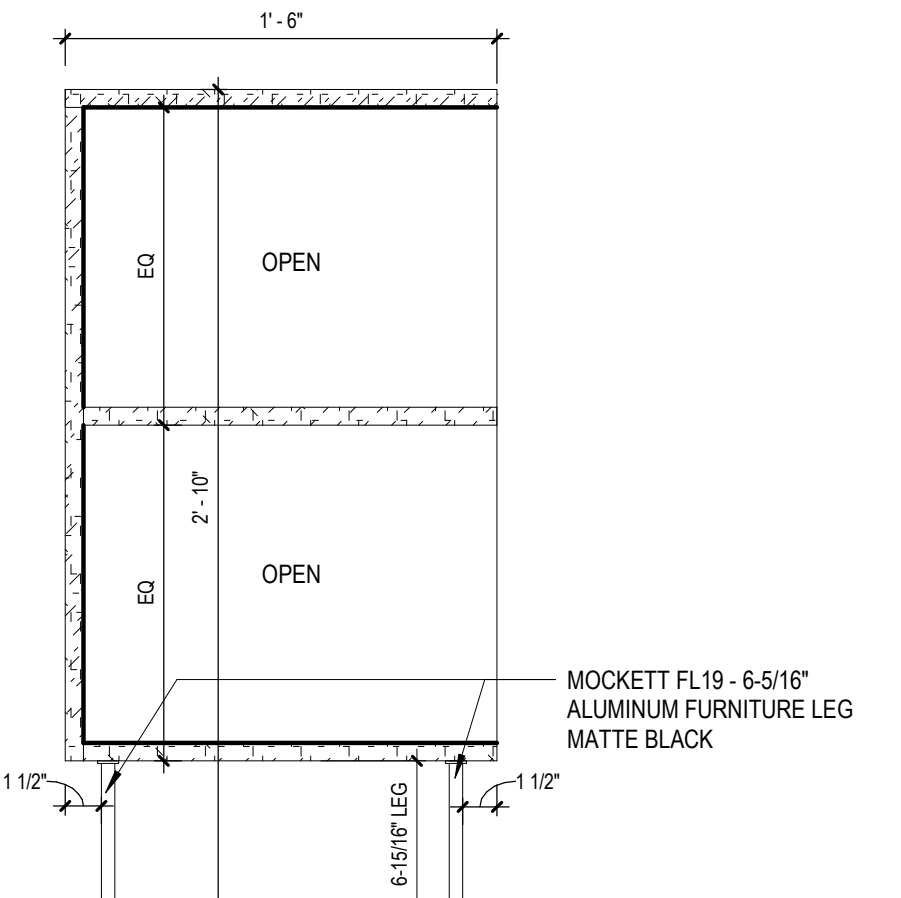
**10** TALL COAT CABINET  
 1 1/2" = 1'-0"



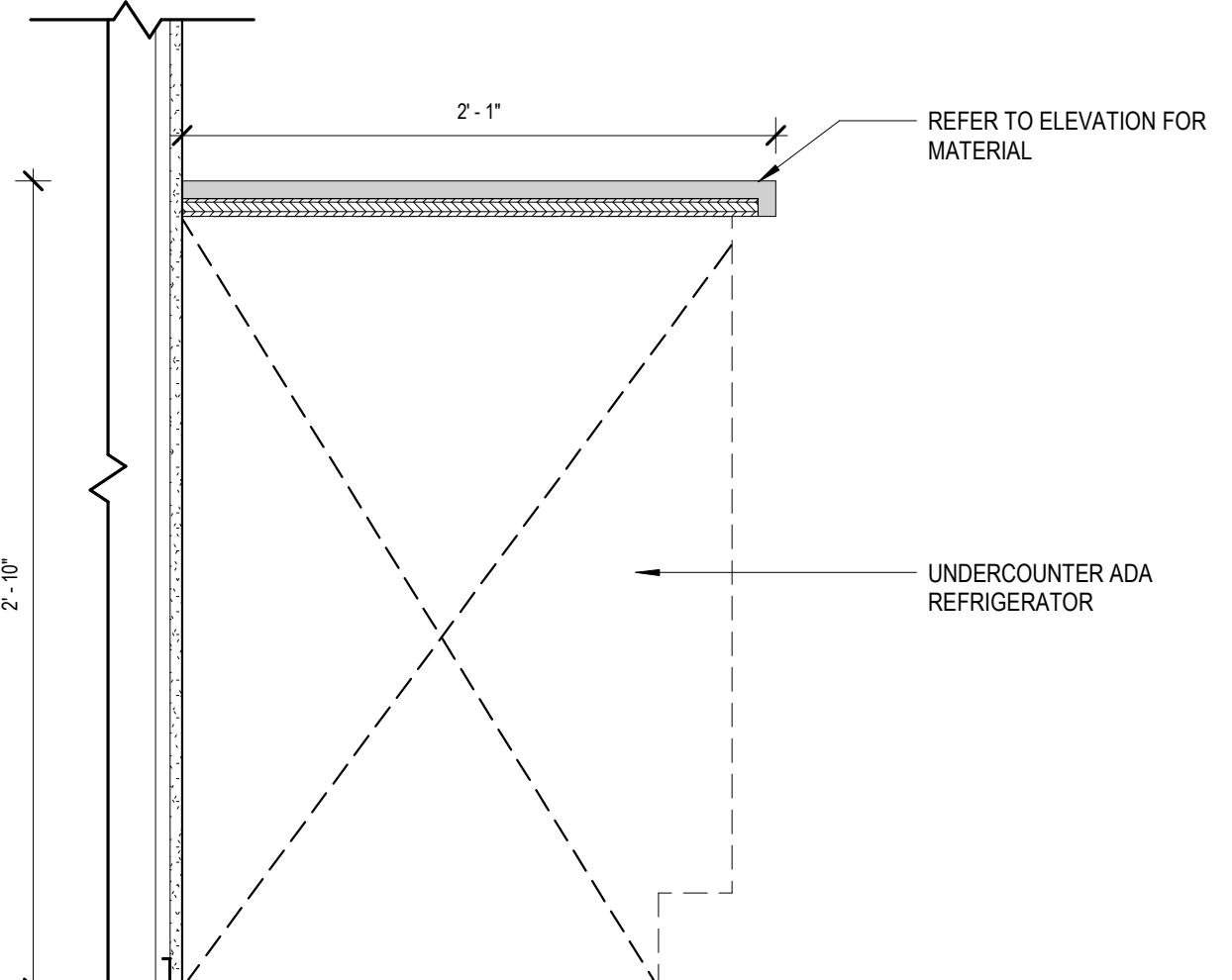
**6** TRASH/RECYCLING CASEWORK  
 1 1/2" = 1'-0"



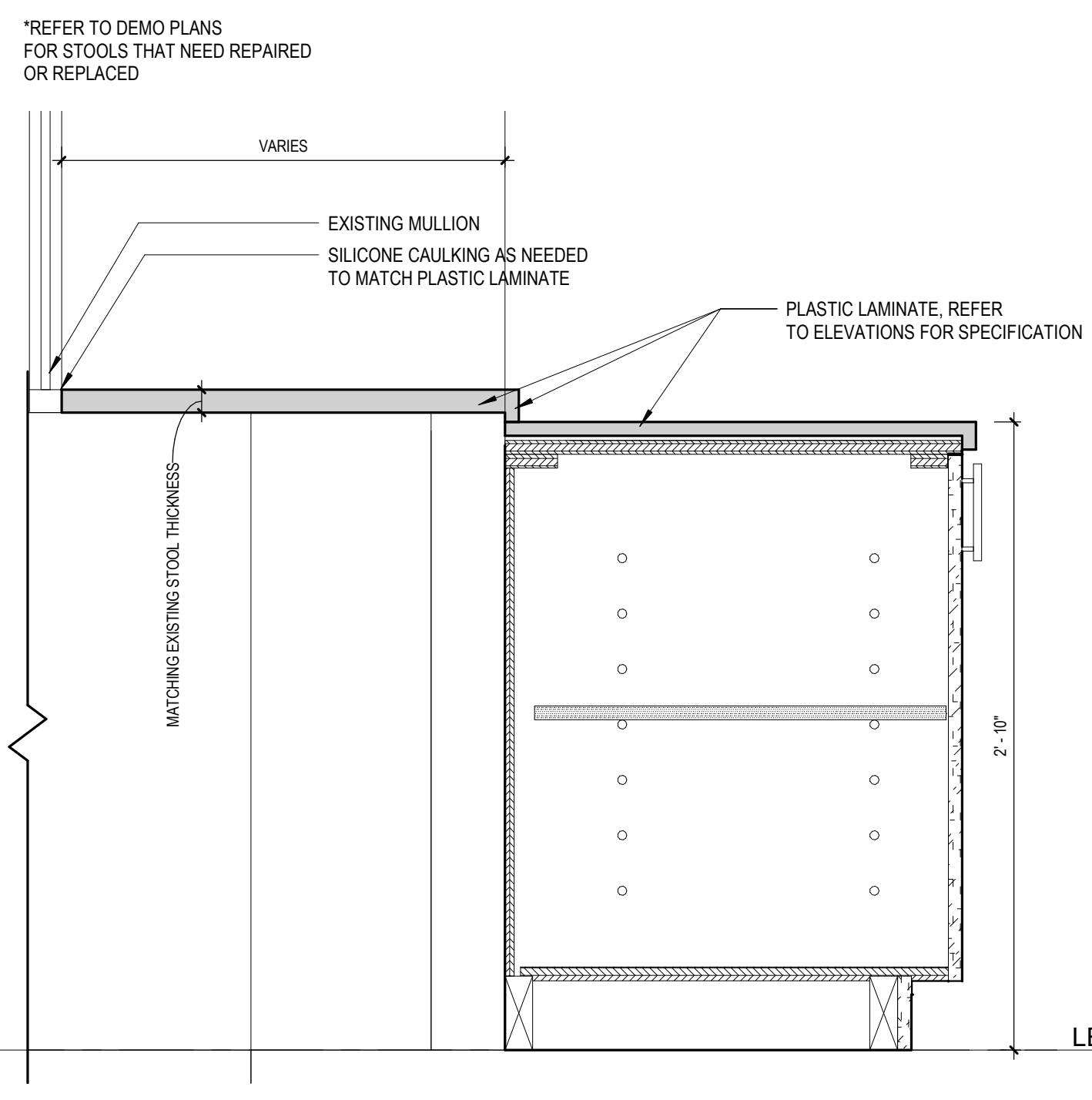
**5** FOUR DRAWERED BASE CABINET  
 1 1/2" = 1'-0"



**9** MOVEABLE REFERENCE LIBRARY SHELVES  
 1 1/2" = 1'-0"



**8** CASEWORK @ UNDERCOUNTER FRIDGE  
 1 1/2" = 1'-0"

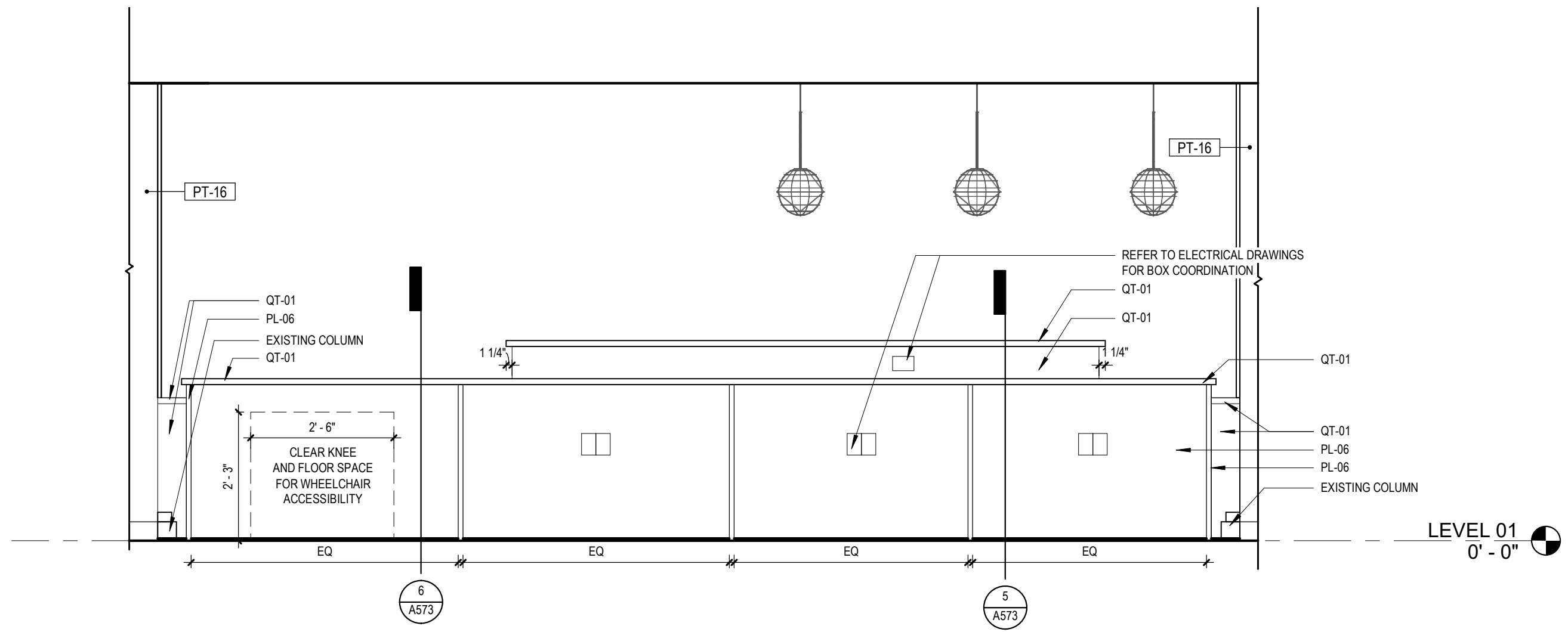


**7** TYPICAL WINDOW STOOL DETAIL @ CONFERENCE ROOM  
 1 1/2" = 1'-0"

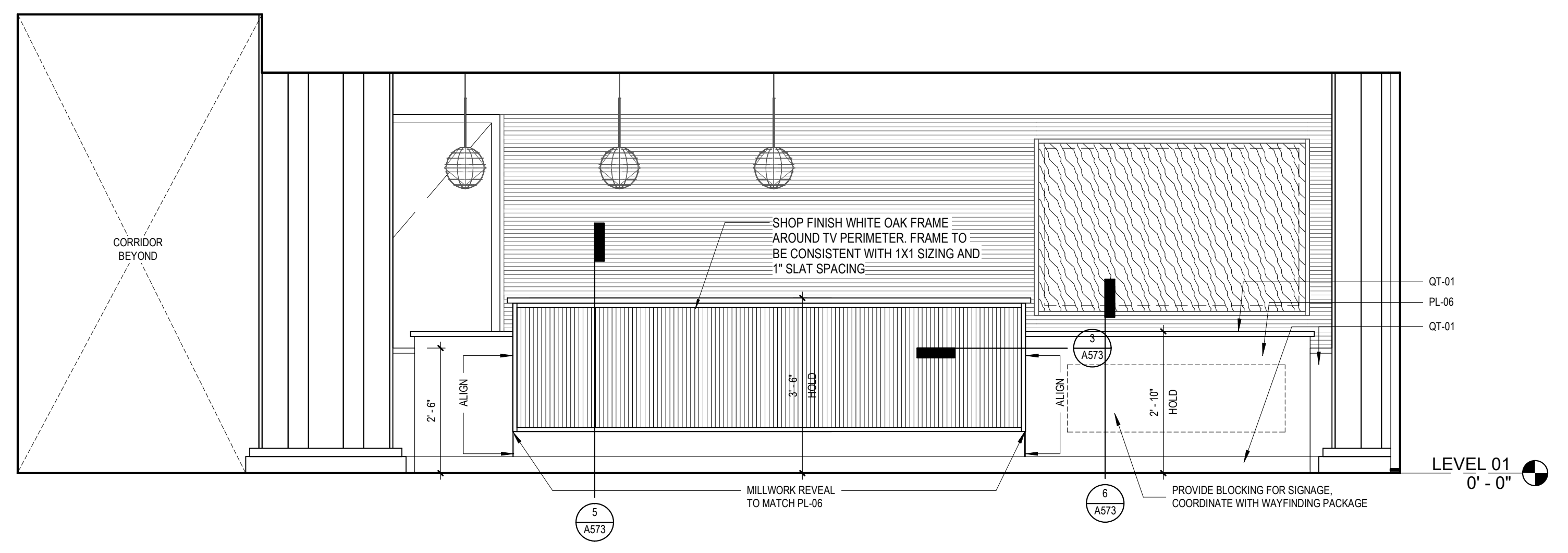
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

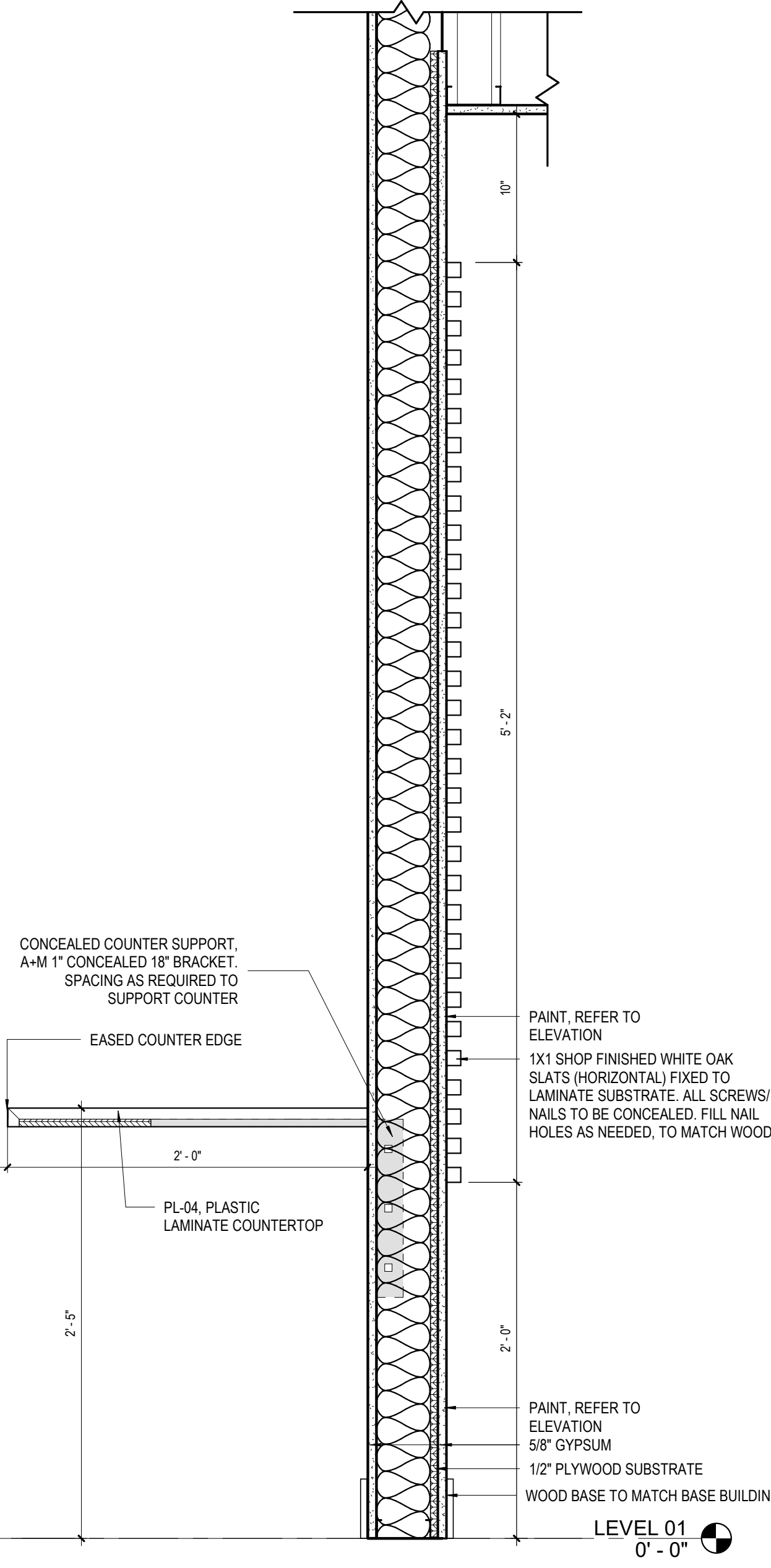
SHEET NAME: MILLWORK DETAILS  
 STREET NO: A572  
 LEVEL 05  
 49' - 5"



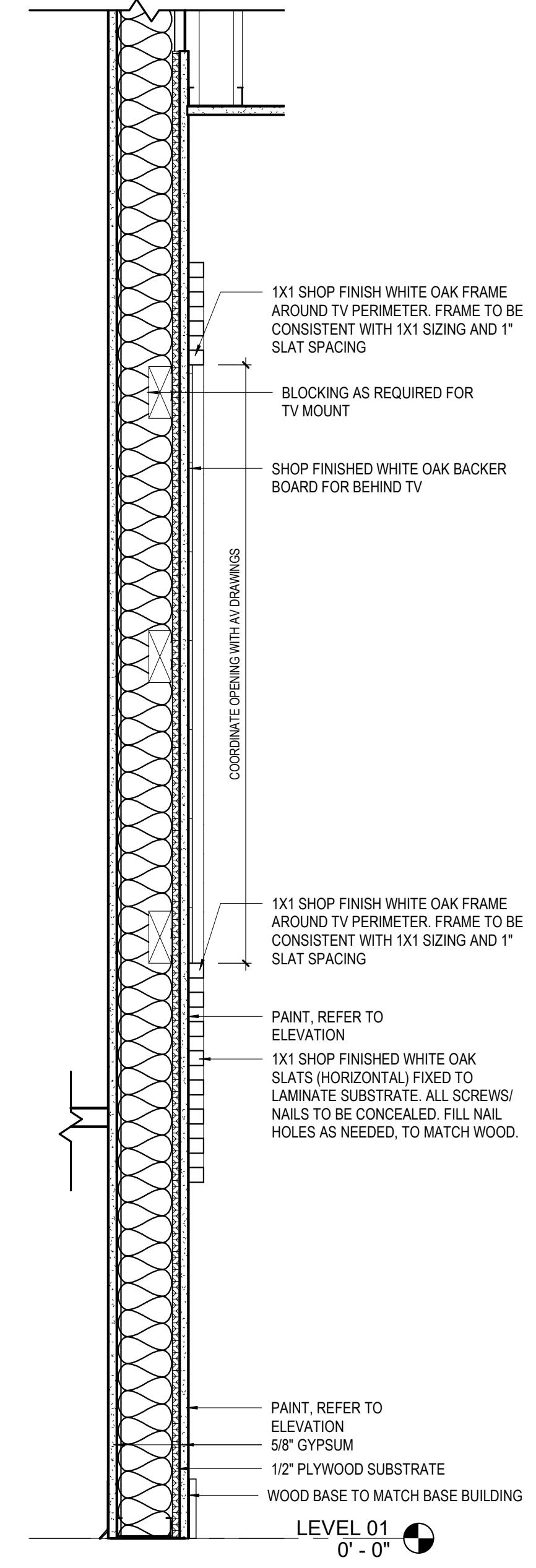
2 RECEPTION SPACE - ELEVATION 2  
 1/2" = 1'-0"



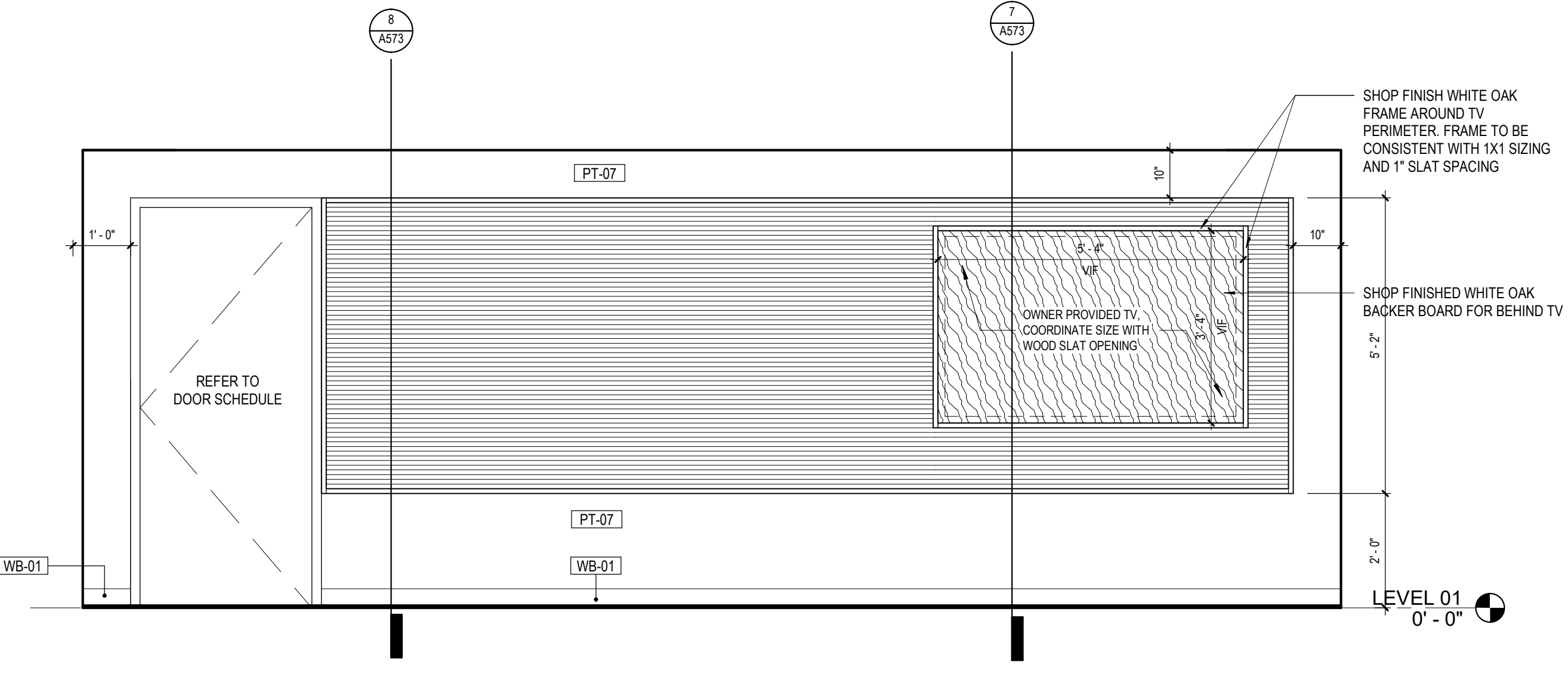
1 APPLICATION AREA - ELEVATION 1  
 1/2" = 1'-0"



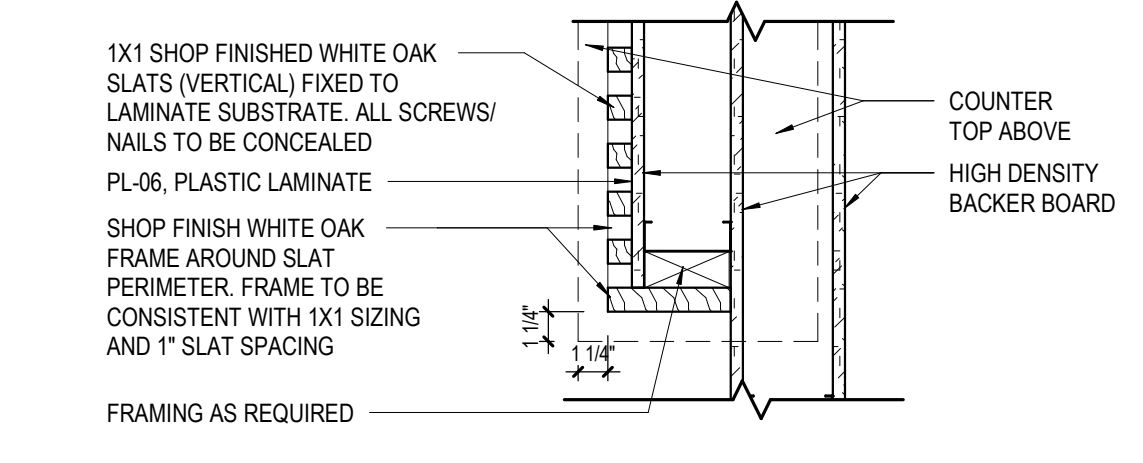
8 DETAIL @ RECEPTION WOOD WALL  
 1 1/2" = 1'-0"



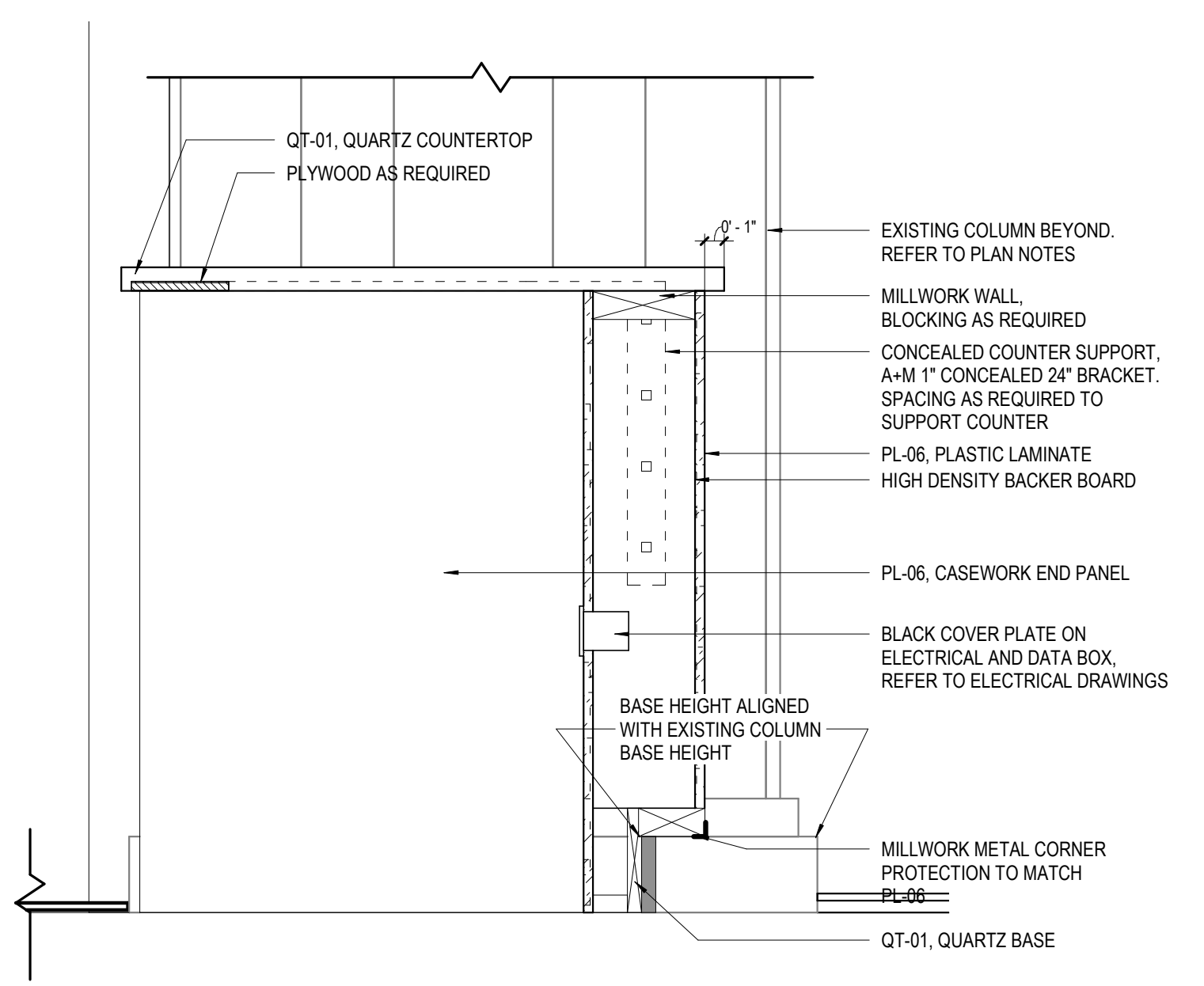
7 DETAIL @ WOOD WALL/ TV  
 1 1/2" = 1'-0"



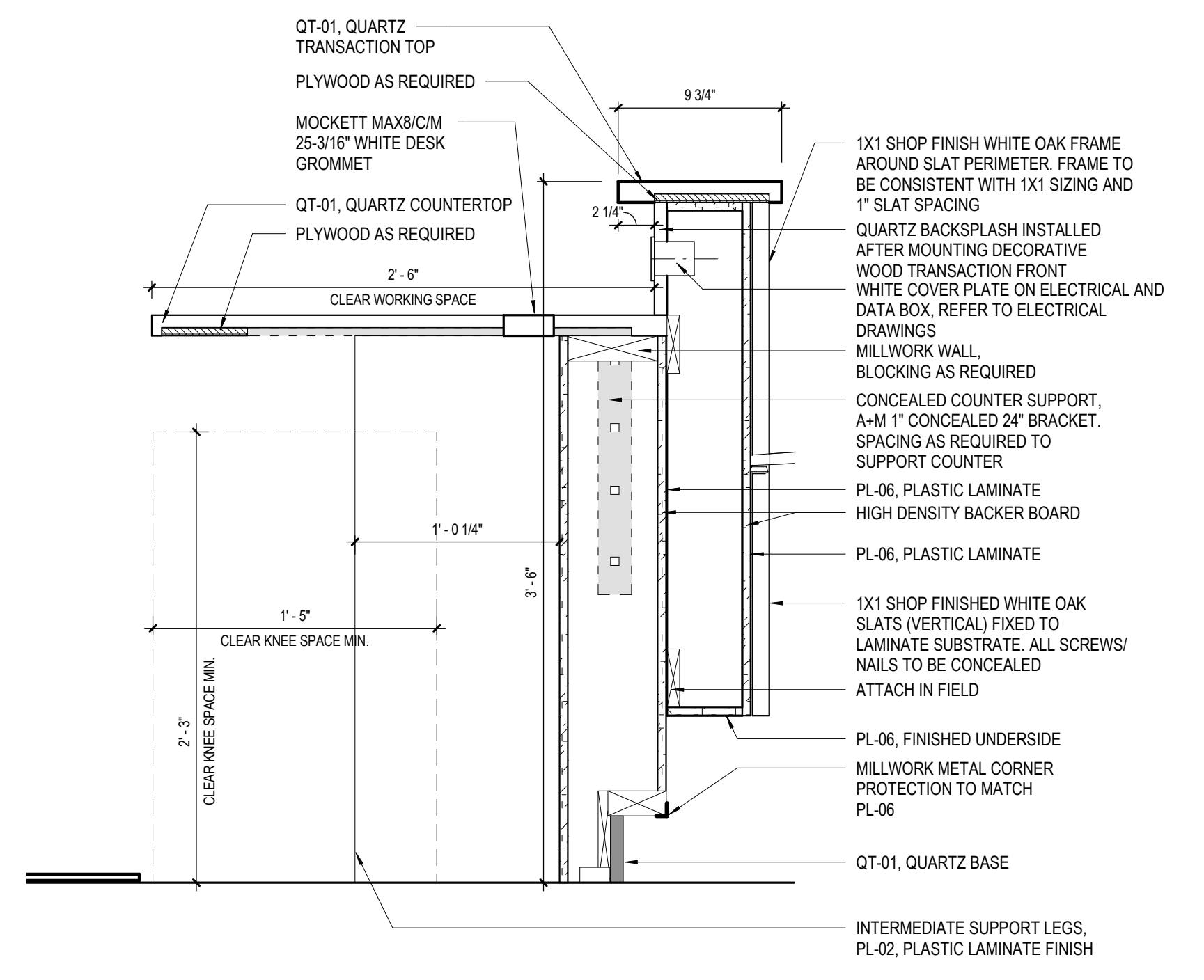
4 RECEPTION SPACE - ELEVATION 1  
 1/2" = 1'-0"



3 RECEPTION DESK CORNER DETAIL  
 1 1/2" = 1'-0"



6 RECEPTION - DETAIL 2  
 1 1/2" = 1'-0"



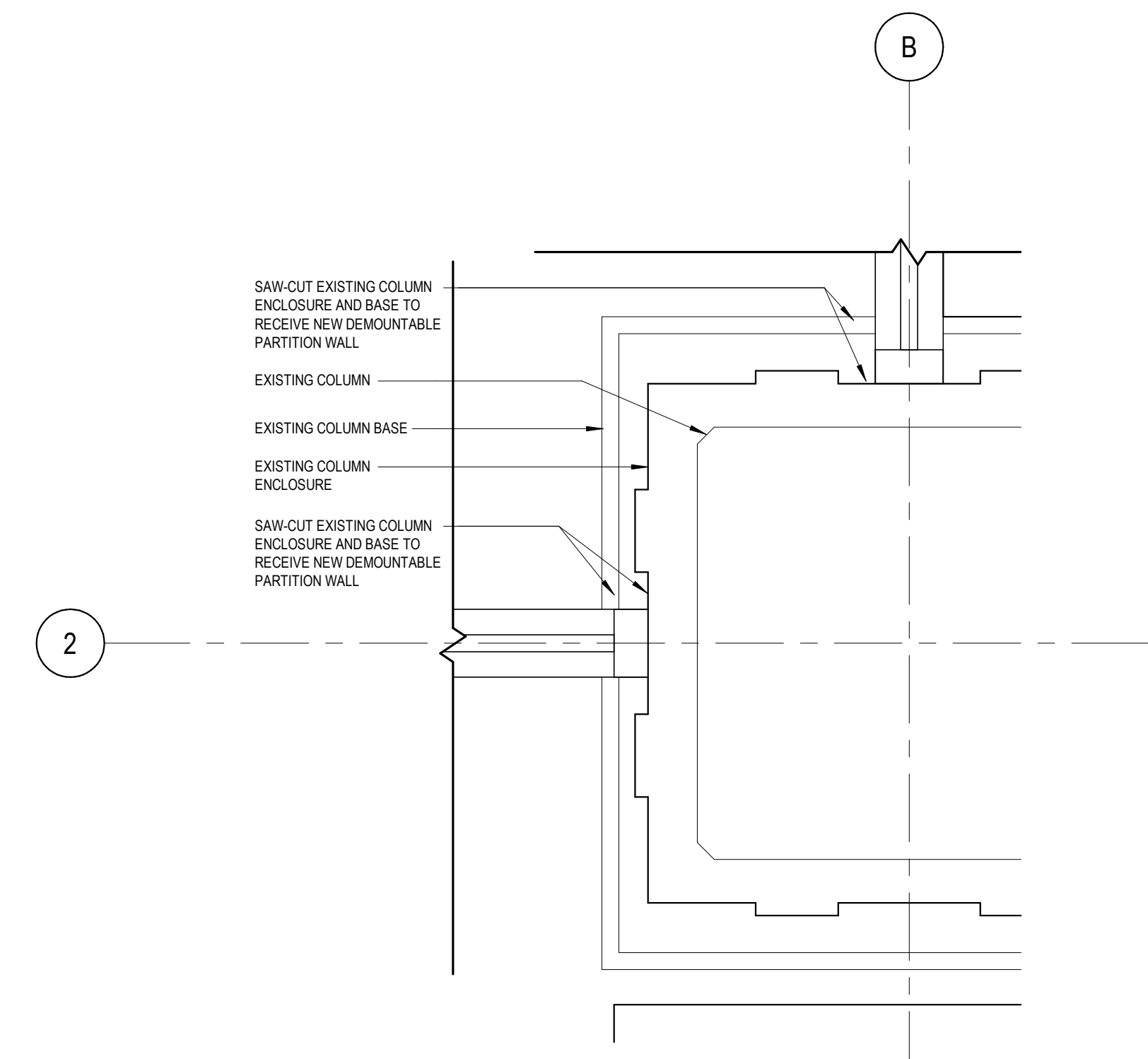
5 RECEPTION - DETAIL 1  
 1 1/2" = 1'-0"

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

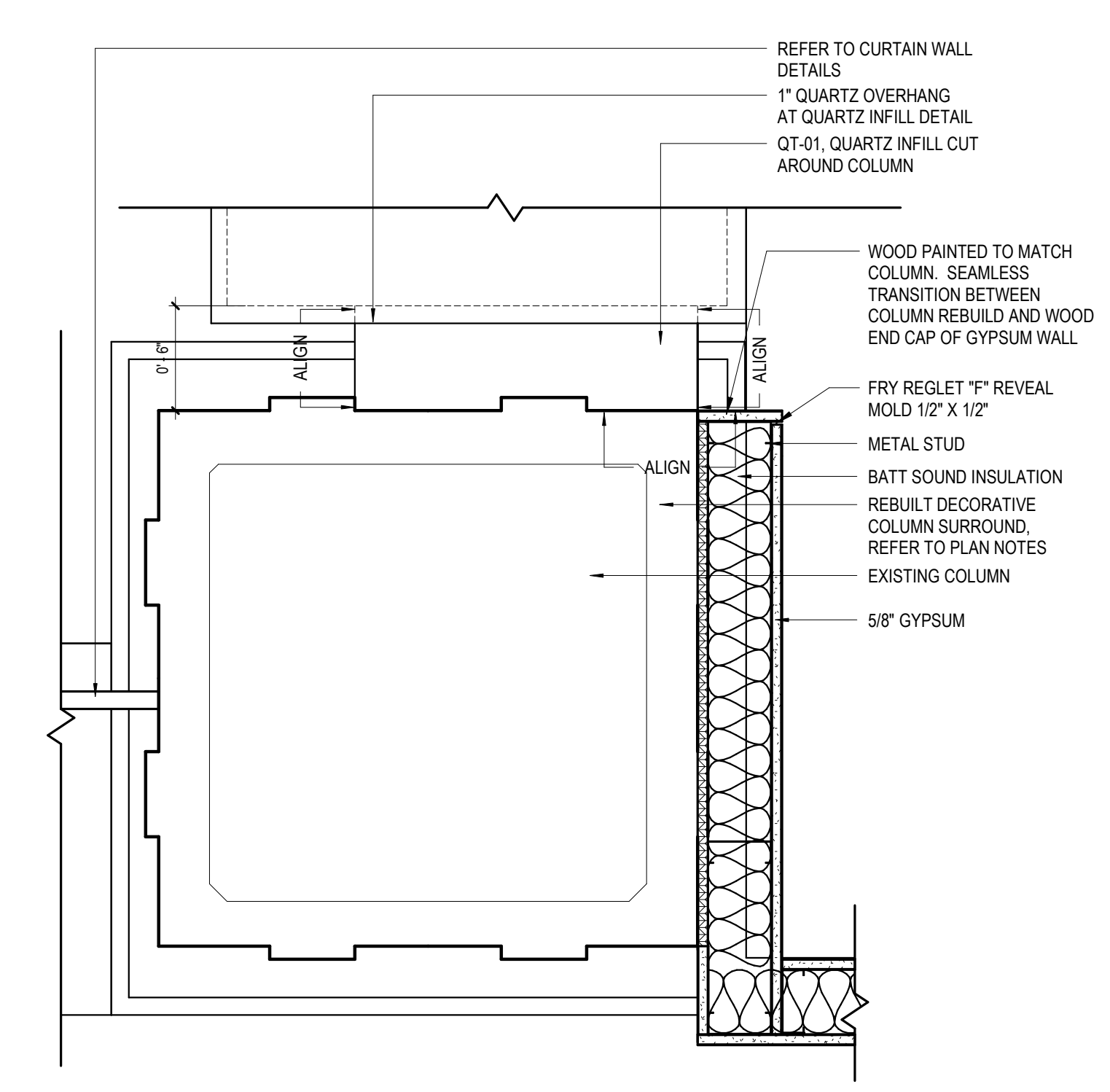
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	AE7	JW

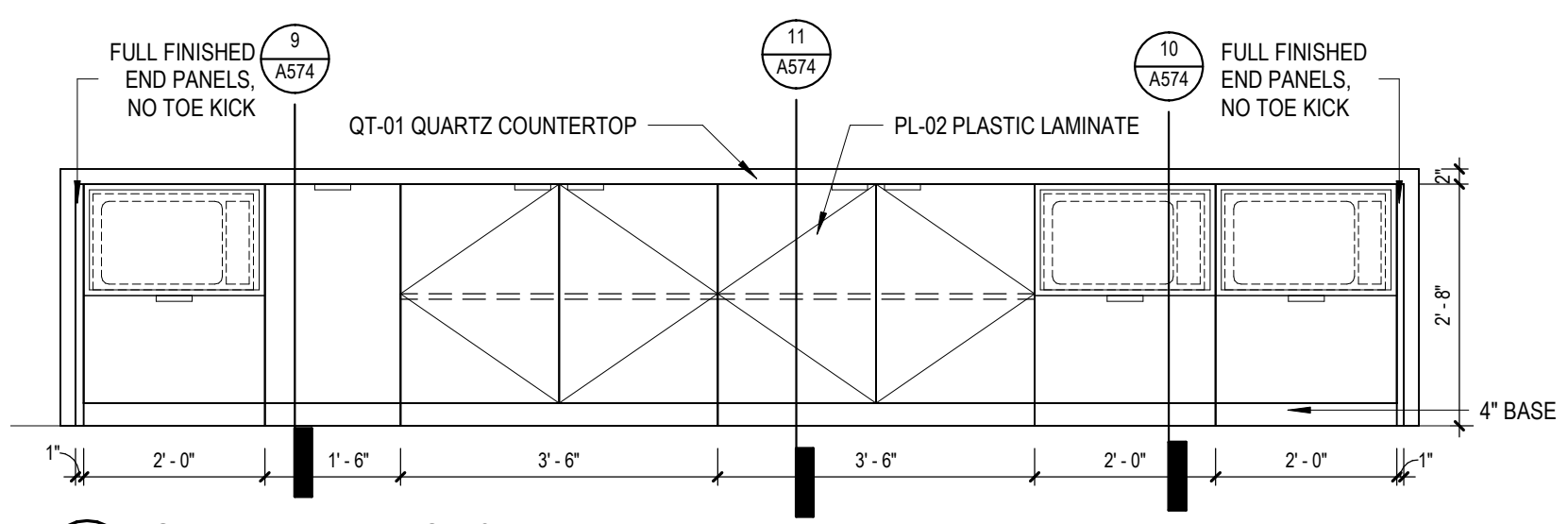
SHEET NAME:



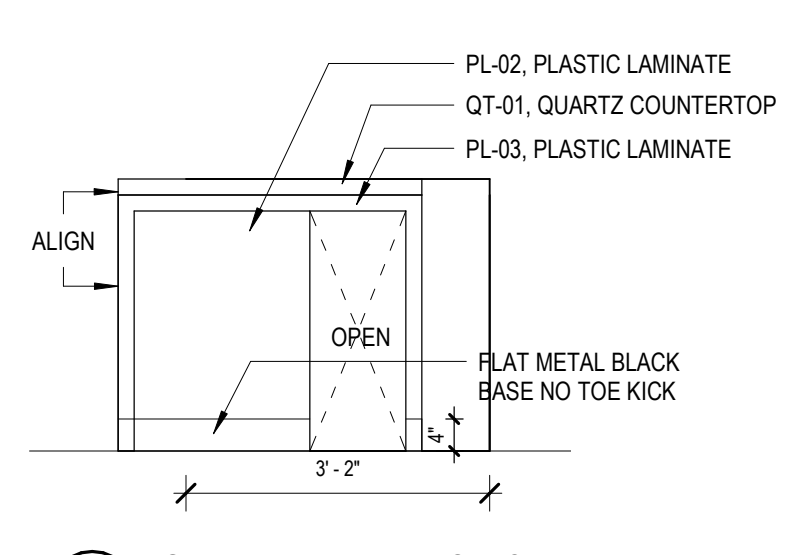
2 DEMOUNTABLE PARTITION DETAIL @ COLUMN  
 1/12" = 1'-0"



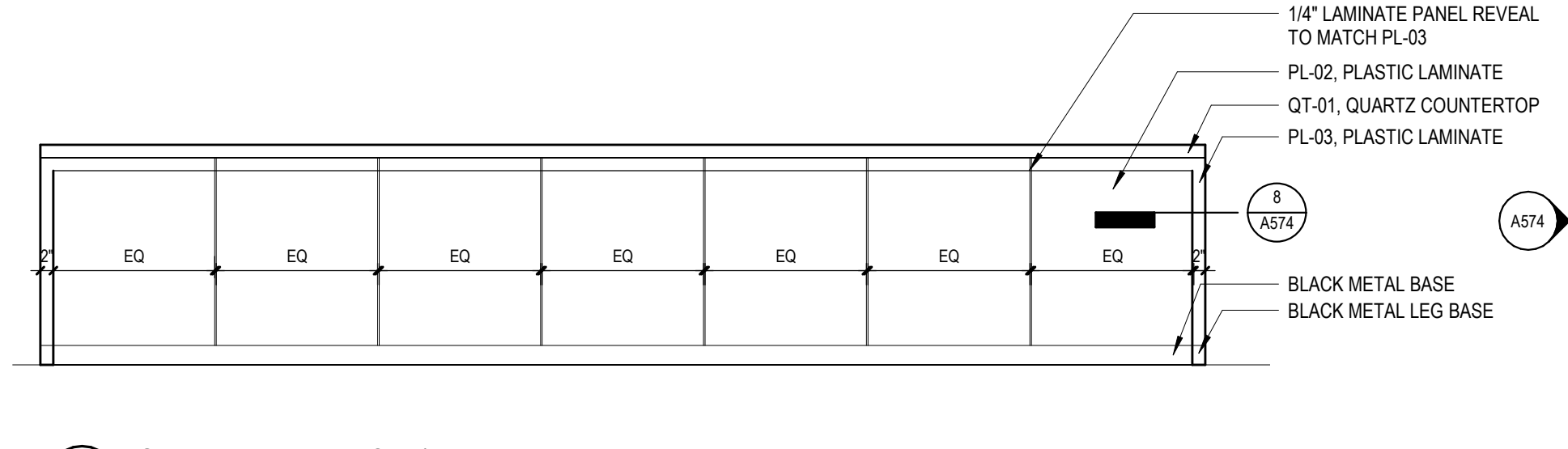
1 INFILL DETAIL @ COLUMN  
 1/12" = 1'-0"



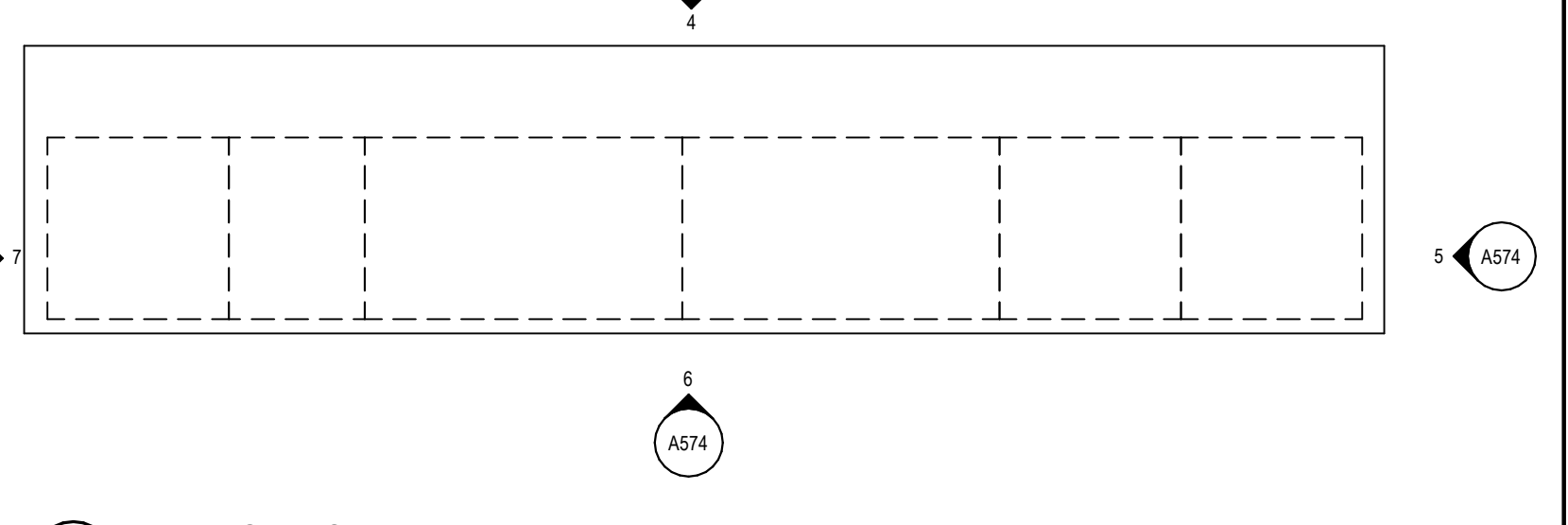
6 ISLAND - ELEVATION 3  
 1/2" = 1'-0"



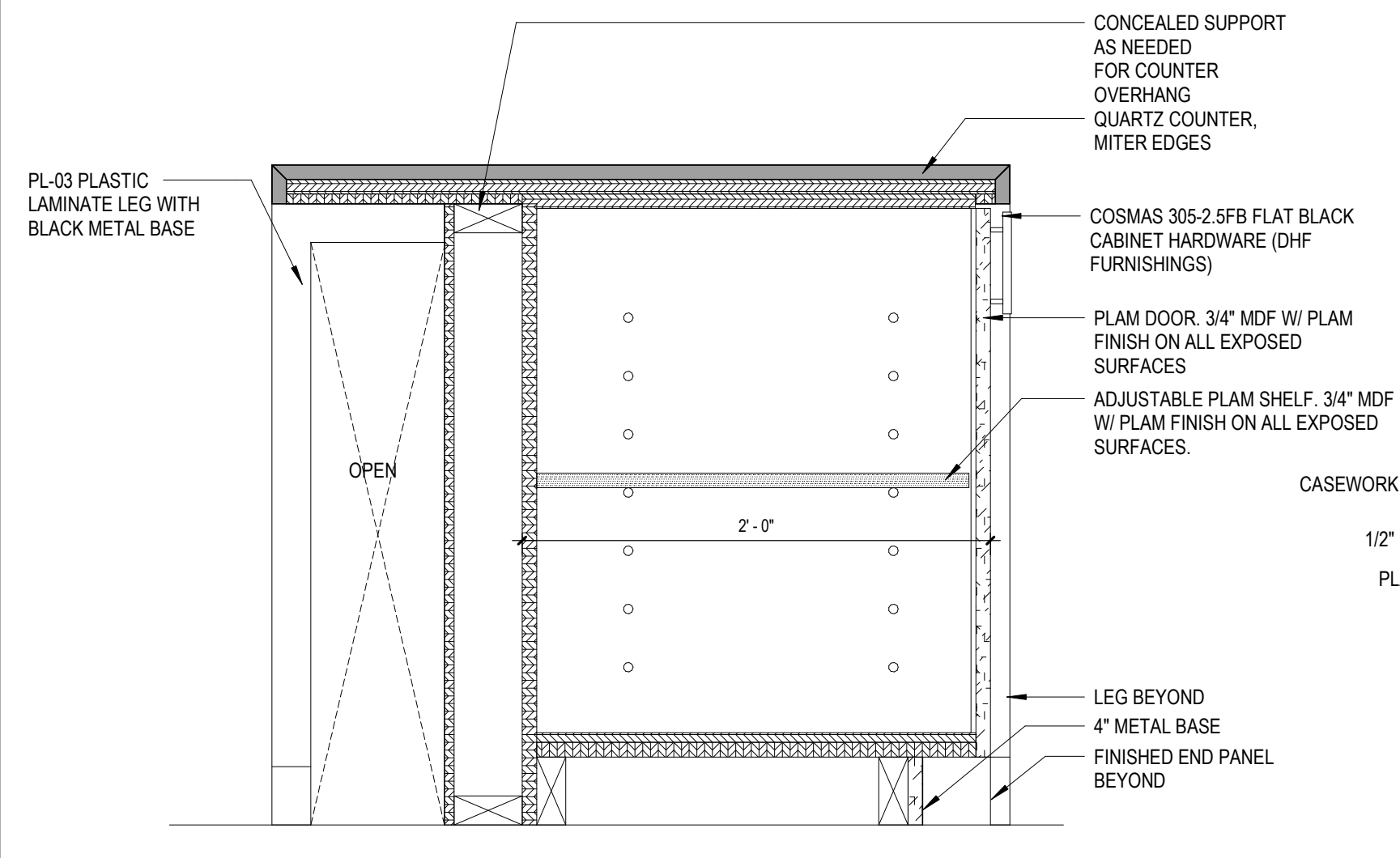
5 ISLAND - ELEVATION 2  
 1/2" = 1'-0"



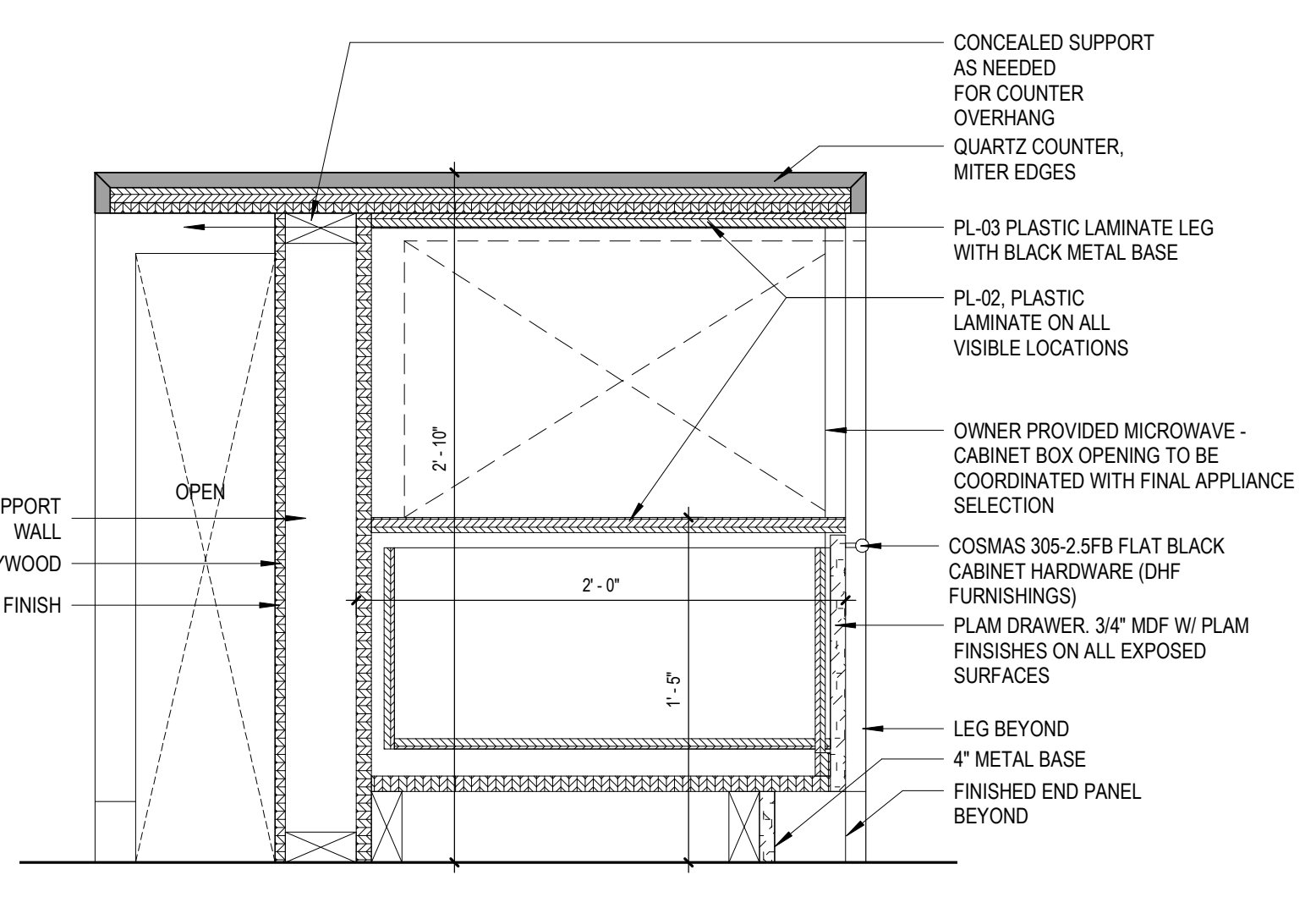
4 ISLAND - ELEVATION 1  
 1/2" = 1'-0"



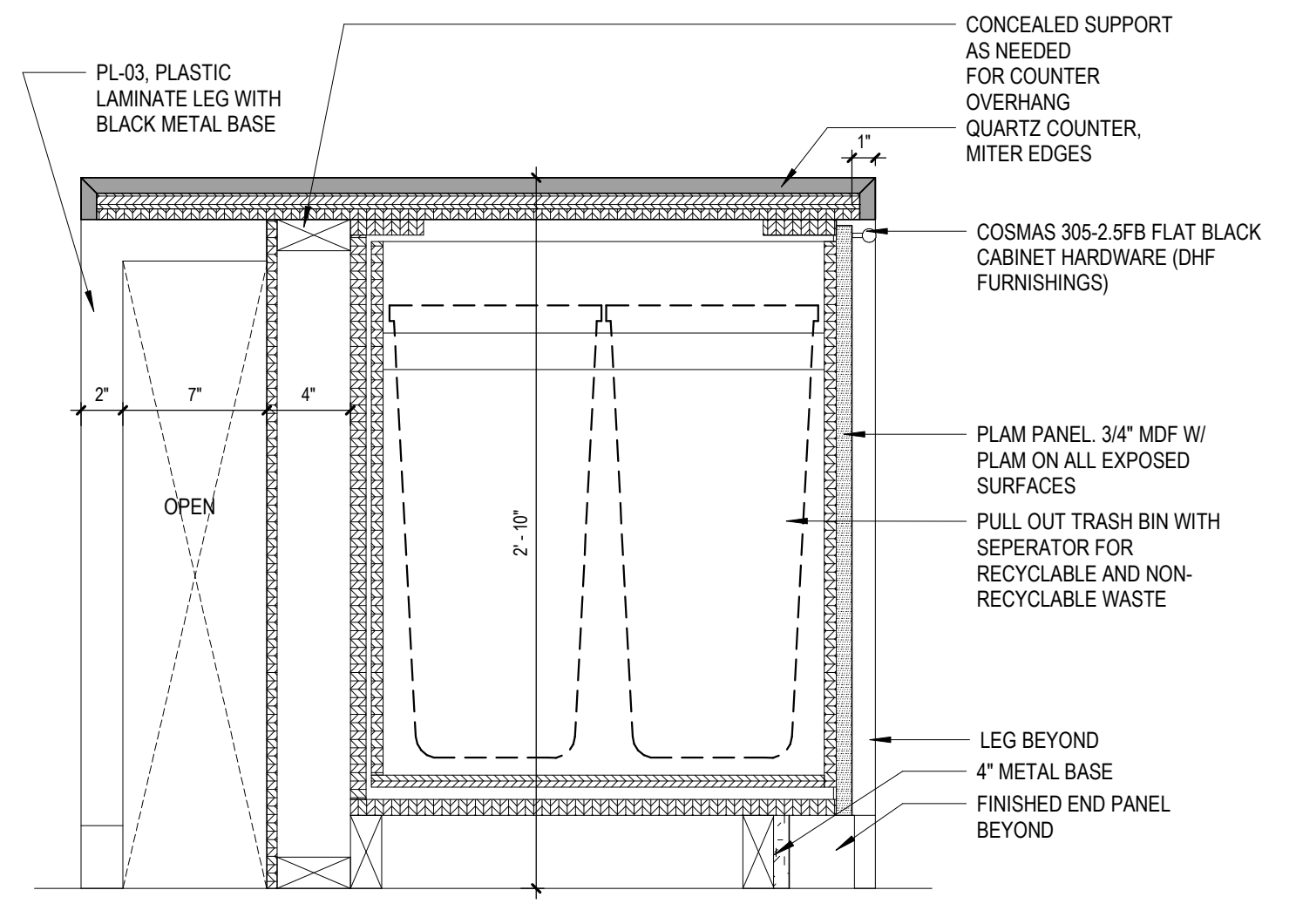
3 ENLARGED ISLAND  
 1/2" = 1'-0"



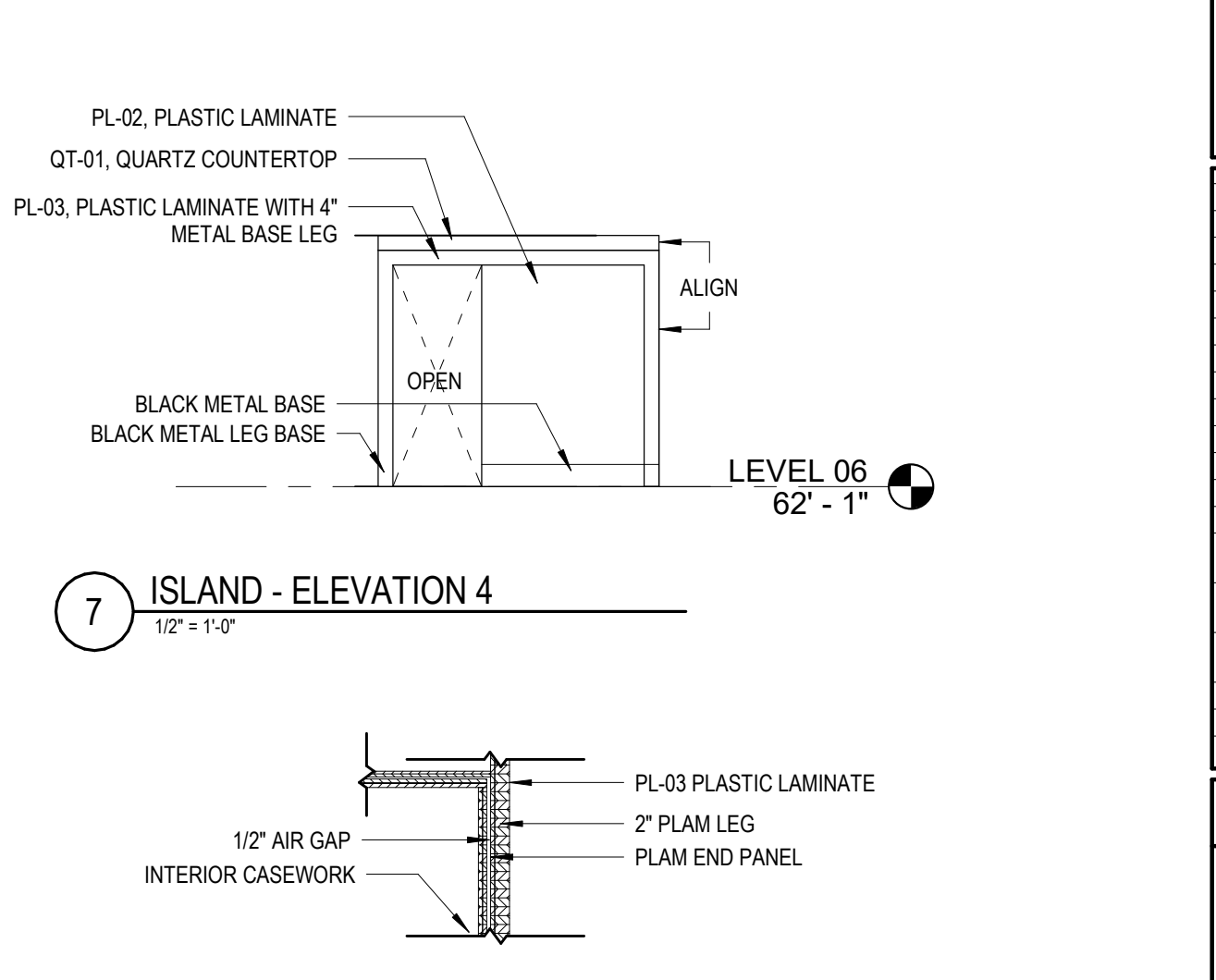
11 STORAGE @ ISLAND  
 1/12" = 1'-0"



10 MICROWAVE @ ISLAND  
 1/12" = 1'-0"



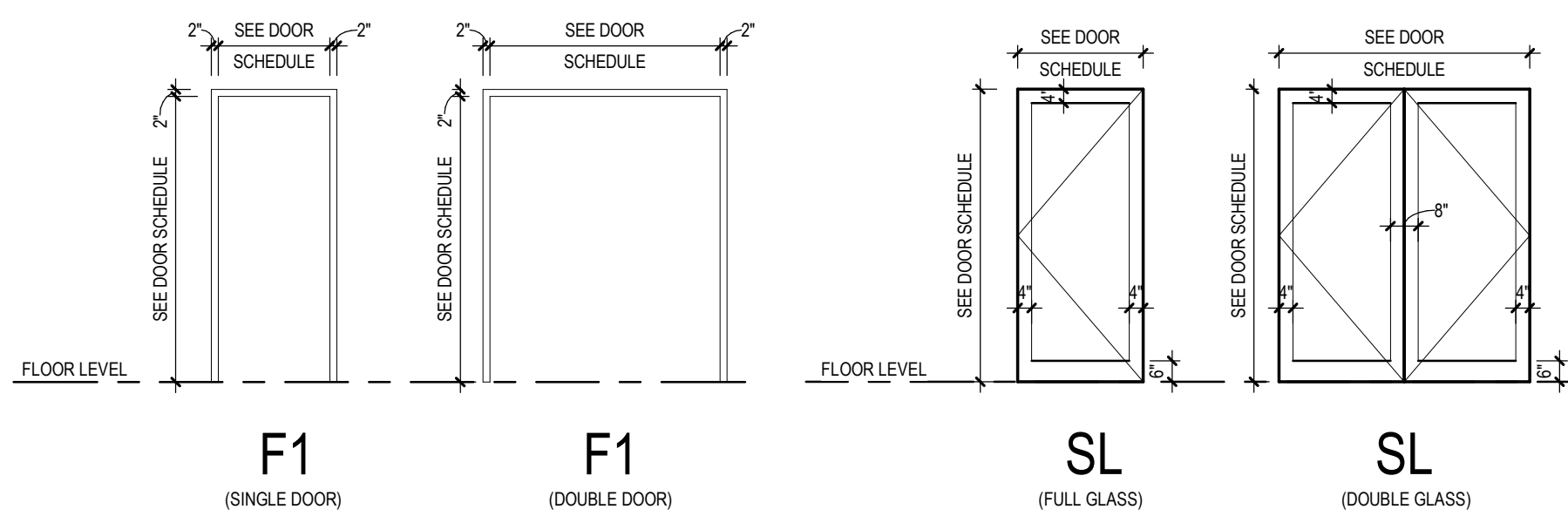
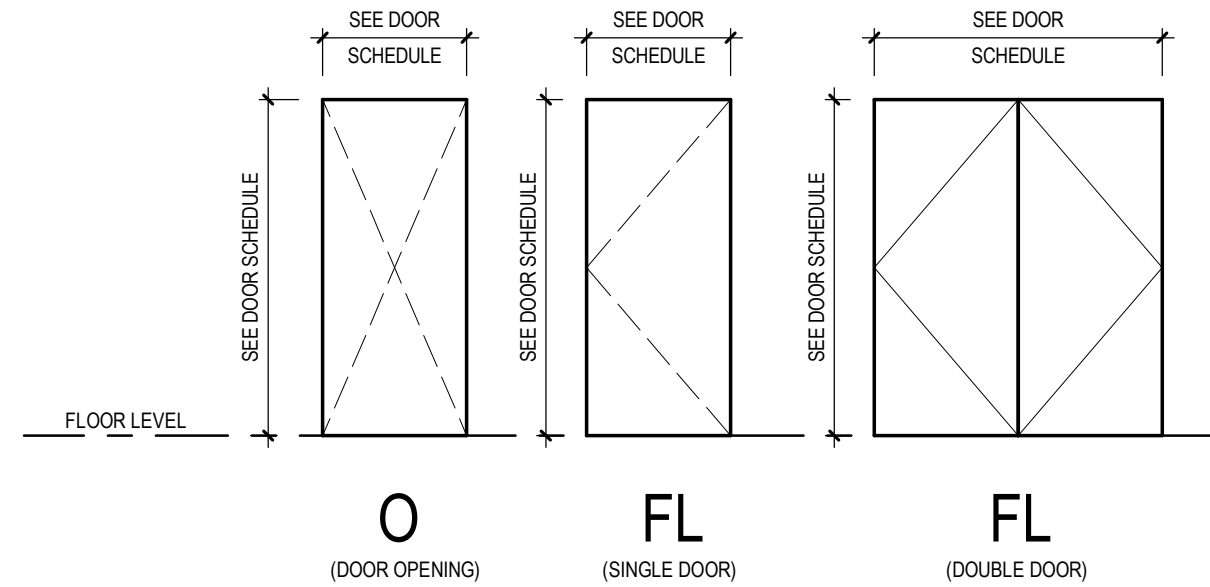
9 TRASH/RECYCLING @ ISLAND  
 1/12" = 1'-0"



8 ISLAND SECTION DETAIL  
 1/2" = 1'-0"

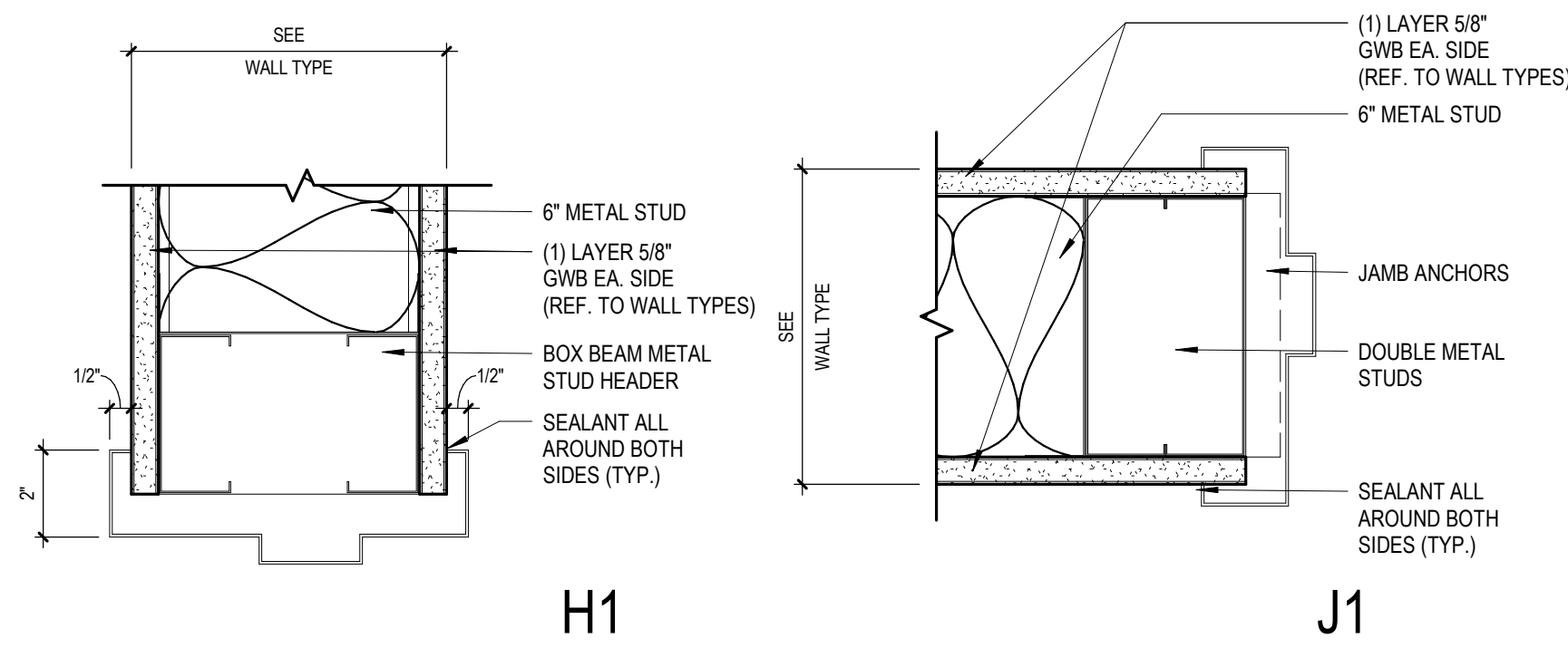
**DOOR SCHEDULE**

DOOR NUMBER	DOORS				FRAMES				DETAILS			HARDWARE SET	FIRE RATING	ACOUSTIC RATING	REMARKS		
	PANEL 1 WIDTH	PANEL 2 WIDTH	PANEL HEIGHT	PANEL THICKNESS	PANEL 1 TYPE	PANEL 2 TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH					HEAD	JAMB
01-01	4'-0"	4'-0"	7'-7"	2"	FL	FL	ALUM	PNT	A454	ALUM	--	H4	J1	S4	1		
01-02	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
01-02A	3'-0"		7'-0"	2"	SL	--	EXIST	PNT	F1	EXIST	PNT	H3	J3		1		
01-02E	3'-2"		0'-1"	2"	NA	--											
01-03	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
01-04	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1		8		EXTERIOR
01-05	2'-6"	2'-6"	7'-0"	2"	FL	FL	HM	PNT	F1	ALUM	--	H4	J1	S4	1		
01-09A	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		2		
01-09B	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		2		
01-10	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1		1		
01-10R	3'-0"	3'-0"	7'-0"	1 3/4"	FL	FL	EXIST	PNT	F1	EXIST	PNT	H1	J1				
05-01	3'-0"		7'-0"	2"	FL	--	HM	PNT	F1	HM	PNT	H2	J2		4	90 MIN	
05-02	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1		1		
05-02A	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
05-03	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
05-04	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
05-05	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H2	J2				
05-21	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		1	90 MIN	
05-21B	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		5		1/2" UNDERCUT
05-23	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		1		
05-25	3'-0"		7'-0"	2"	FL	--	HM	PNT	F1	HM	PNT	H1	J1		1		
05-25R	3'-0"	3'-0"	7'-0"	1 3/4"	FL	FL	EXIST	PNT	F1	EXIST	PNT	H1	J1				
06-01	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H2	J2			90 MIN	
06-02	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
06-02A	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
06-03	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
06-04	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1			90 MIN	
06-05	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H2	J2				
06-13	3'-0"	3'-0"	7'-0"	1 3/4"	FL	FL	HM	PNT	F1	HM	PNT	H1	J1		7		
06-28	3'-0"		7'-0"	2"	FL	--	HM	PNT	F1	HM	PNT	H1	J1		1		
06-28R	3'-0"	3'-0"	7'-0"	1 3/4"	FL	FL	EXIST	PNT	F1	EXIST	PNT	H1	J1				
07-01	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H2	J2		3	90 MIN	
07-02	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
07-02A	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
07-03	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
07-04	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H1	J1				
07-05	3'-0"		7'-0"	2"	FL	--	EXIST	PNT	F1	EXIST	PNT	H2	J2			90 MIN	
07-18	3'-0"		7'-0"	2"	SL	--	HM	PNT	F1	HM	PNT	H1	J1		1		
07-27	3'-0"		7'-0"	2"	FL	--	HM	PNT	F1	HM	PNT	H1	J1		1		
07-27R	3'-0"	3'-0"	7'-0"	1 3/4"	FL	FL	EXIST	PNT	F1	EXIST	PNT	H1	J1				

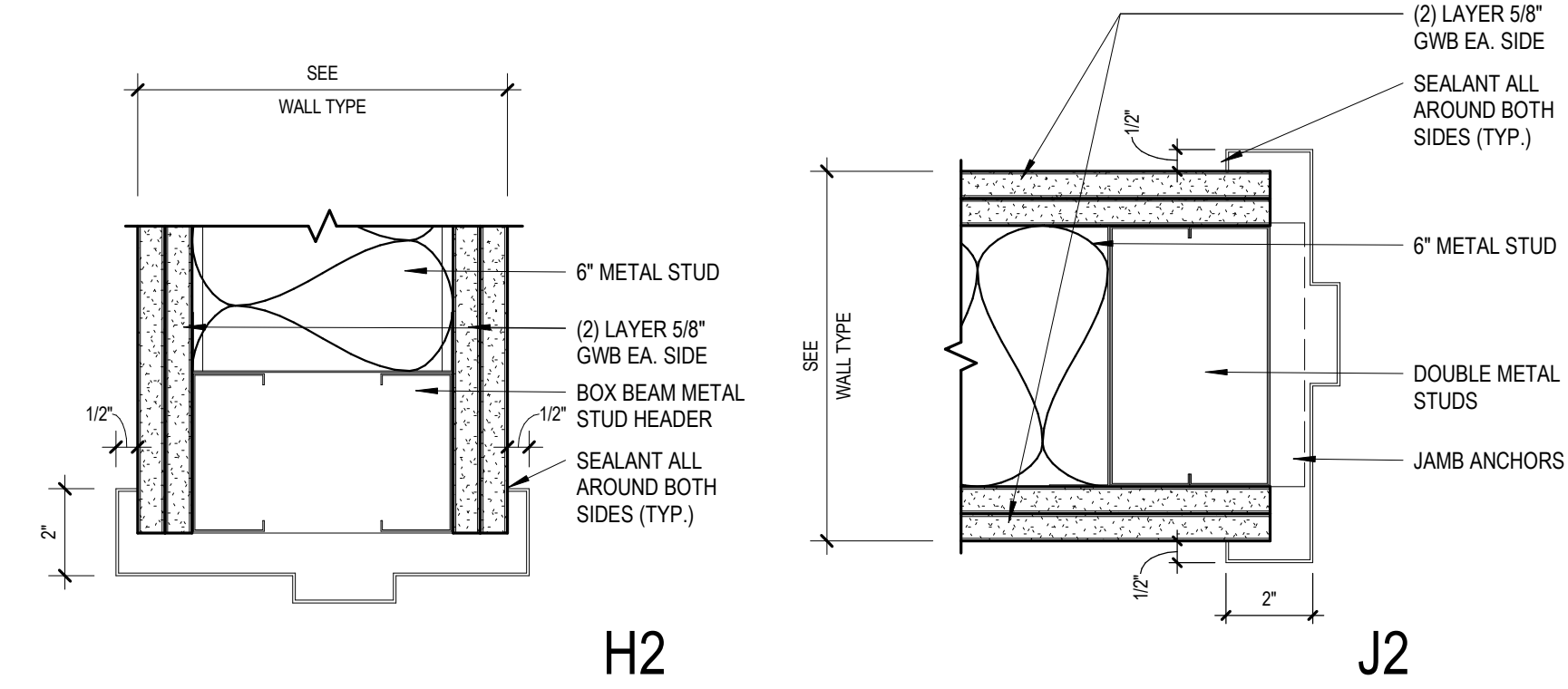


3 DOOR FRAME TYPES  
 1/4" = 1'-0"

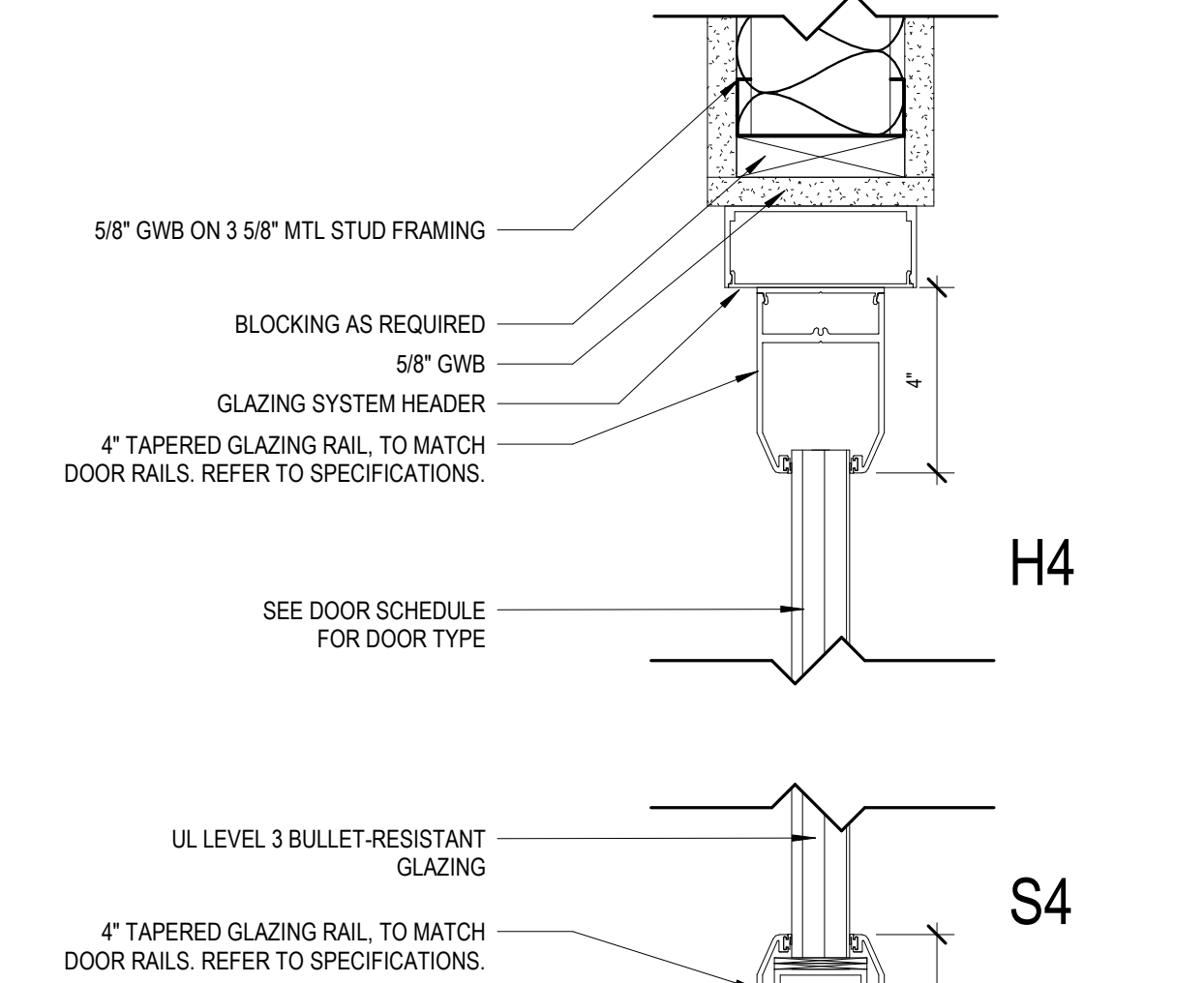
1 DOOR PANEL TYPES  
 1/4" = 1'-0"



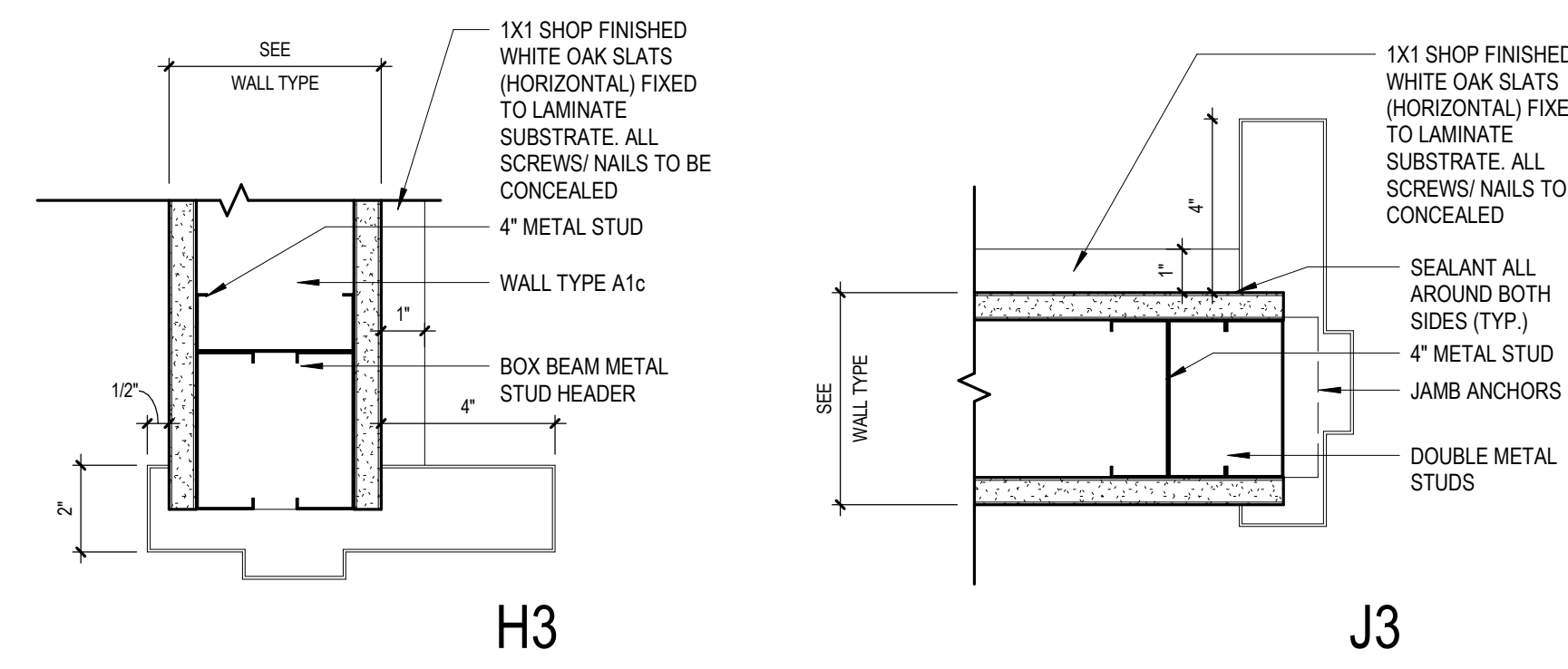
4 DOOR FRAME @ GWB PARTITION  
 3/8" = 1'-0"



5 DOOR FRAME @ 2HR GWB PARTITION  
 3/8" = 1'-0"



7 DOOR FRAME @ GLASS PARTITION  
 3/8" = 1'-0"



6 DOOR FRAME @ RECEPTION DESK  
 3/8" = 1'-0"

**DOOR HARDWARE SETS**

- II. MANUFACTURERS:**
  - HINGES: HAGER
  - LOCKSETS, LATCHSETS: FALCON
  - PANIC DEVICES: FALCON
  - CLOSERS: HAGER
  - STOPS, BOLTS: HAGER
  - OVERHEAD STOP: ABH
  - ELECTRIC STRIKES: H.E.S.
- III. FINISH:**
  - US26D (SATIN CHROME), US32D (SATIN STAINLESS) CLOSERS SPRAYED TO MATCH.
- IV. KEYING:**
  - FALCON: 6 PIN, INTERCHANGEABLE CORES
- V. HARDWARE SETS:**
  - SET #1:** 3 HINGES BB1279 4.5" 4.5" 26D, 1 STOREROOM LOCKSET B581BD-D-626, 1 CLOSER 5200-AL, 1 KICK PLATE 8" X 34" X .050 X 32D, 1 WALL STOP 238W 32D, 1 ELECTRIC STRIKE S200C-630 (CARD READER, POWER, CONTROLS BY SECURITY VENDOR)
  - SET #2:** 3 HINGES BB1279 4.5" 4.5" 26D, 1 PANIC DEVICE 25-R-510L-630, 1 CYLINDER, INT. CORE, 1 CLOSER 5200-AL, 1 KICK PLATE 8" X 34" X .050 X 32D, 1 ELECTRIC STRIKE S200C-630 (CARD READER, POWER, CONTROLS BY SECURITY VENDOR)
  - SET #3:** 3 HINGES BB1279 4.5" 4.5" 26D, 1 STOREROOM LOCKSET B581BD-D-262 1 CLOSER 5200-AL, 1 KICK PLATE 8" X 34" X .050 X 32D, 1 WALL STOP 238W 32D
  - SET #4:** 2 HINGES BB1279 4.5" 4.5" 26D, 1 ELECTRIC HINGE BB1279 ETW-8 4.5" 4.5" 26D, 1 ELECTRIC TRIM PANIC DEVICE FSA-F-25-R-510NL-630 (FAIL SAFE) 1 CYLINDER, 1 CLOSER 5200-AL, 1 KICK PLATE 8" X 34" X .050 X 32D, 1 WALL STOP 238W 32D, 1 POWER SUPPLY P5902 (CARD READER, POWER & WIRING BY THE SECURITY VENDOR)
  - SET #5:** 3 HINGES BB1279 4.5" 4.5" 26D, 1 STOREROOM LOCKSET B581BD-D-626 1 OVERHEAD STOP 4423 32D
  - SET #6:** 3 HINGES BB1279 4.5" 4.5" 26D, 1 ENTRY LOCKSET B511BD-D-626 1 WALL STOP 238W 32D
  - SET #7:** 6 HINGES BB1279 4.5" 4.5" 26D, 1 CLASSROOM LOCKSET B561BD-D-626, 2 FLUSH BOLTS 282D 26D, 1 DUST PROOF STRIKE 280X 26D, 2 OVERHEAD STOPS 4423 32D
  - SET #8:** 1 PANIC DEVICE 25-R-510L-630 1 CYLINDER, INT. CORE (BALANCE OF HARDWARE EXISTING)
  - SET #9:** 1 STOREROOM LOCKSET B581BD-D-626, 1 ELECTRIC STRIKE S200C-630 (BALANCE OF HARDWARE EXISTING)
  - SET #10:** 1 STOREROOM LOCKSET B581BD-D-626 (BALANCE OF HARDWARE EXISTING)
  - SET #11:** 1 OFFICE LOCKSET B511BD-D-626 (BALANCE OF HARDWARE EXISTING)

**DOOR NOTES**

- REFER TO FLOOR PLANS FOR DIRECTION OF SLIDE, SWING, AND HAND OF EACH DOOR
- REFER TO SCHEDULE FOR DESCRIPTION OF HARDWARE SET
- PROVIDE RESILIENT SILENCERS AT HOLLOW METAL FRAMES - 3 PER DOOR PANEL
- PROVIDE BLOCKING AS REQUIRED
- DIMENSIONS AT EXISTING OPENINGS DIMENSIONS REQUIRE FIELD VERIFICATION PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS
- ALL DOORS WILL RECEIVE NEW FALCON LOCKSETS, LATCHSETS.
- COORDINATE ALL KEYING WITH HACP LOCKSMITH.

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	Author	Checker
SHEET NAME:		
DOOR TYPES, DETAILS & SCHEDULE		
SHEET NO.		
A600		

# DOOR SCHEDULE

wt	DOORS						FRAMES				DETAILS			HARDWARE SET	REMARKS	
	SIZE			PANEL THICKNESS	PANEL 1 TYPE	PANEL 2 TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	HEAD	JAMB			SILL
	PANEL 1 WIDTH	PANEL 2 WIDTH	PANEL HEIGHT													
D1-03	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D1-04	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D1-06	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D1-07	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D1-08	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-01A	3'-2"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-01B	3'-2"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-02A	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-02B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-03	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-05	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-05A	3'-6"		7'-7"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-05B	3'-6"		7'-7"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-06	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-10A	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-10B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-10C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-10D	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-10E	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-11	3'-4"	3'-4"	7'-8"	1 3/4"	NA	NA									D1	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-12	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-13	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-14B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-14C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-15A	3'-4"		7'-7"	2"	NA	NA									D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-18	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-19	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-20	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-22	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D5-24	3'-4"		7'-8"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-01A	3'-4"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-01B	3'-4"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-02	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-03	3'-4"		7'-10"	2"	NA	NA									D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-04	3'-4"		7'-10"	2"	NA	NA									D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-06	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-07	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-08	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-09	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-10	3'-4"		7'-6"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-12A	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-12B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-12C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-14	3'-4"		7'-8"	1 3/4"	NA										D3	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-15	3'-4"	3'-4"	7'-8"	1 3/4"	NA	NA									D1	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-16	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-16S	3'-4"	3'-4"	7'-10"	1 3/4"	F	F									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17A	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17D	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17E	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-17F	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-18	3'-4"		7'-7"	2"	NA	NA									D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-18A	3'-4"	3'-4"	7'-10"	1 3/4"	F	F									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-18B	3'-4"	3'-4"	7'-10"	1 3/4"	F	F									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS 1/2" UNDERCUT.
D6-21	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-22	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-23	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-24	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-25	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D6-26	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-01A	3'-4"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-01B	3'-4"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-02	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-03	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-04	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-05A	3'-4"		7'-7"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-05B	3'-4"		7'-7"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-06	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-07	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-08	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-09	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-10	3'-4"		7'-8"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11A	3'-4"		7'-10"	2"	NA	NA									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11D	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11E	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11F	3'-4"		7'-8"	2"	NA										D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11G	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11H	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-11J	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-13	3'-4"		7'-7"	2"	NA										D6	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-14A	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-14B	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-14C	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-14D	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-15A	3'-4"		7'-8"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-15B	3'-4"		7'-8"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-15S	3'-4"	3'-4"	7'-10"	1 3/4"	F	F									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-16	3'-4"		7'-7"	2"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-16C	3'-4"		7'-7"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-17	3'-4"		7'-8"	1 3/4"	NA										D4	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-19	3'-4"		7'-8"	2"	NA										D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-20	3'-4"		7'-8"	2"	NA										D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-21	3'-4"		7'-10"	2"	NA	NA									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-23	3'-4"		7'-10"	2"	NA	NA									D5	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-24	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS
D7-25	3'-4"		7'-8"	1 3/4"	NA										D2	REFER TO DEMOUNTABLE PARTITION SHOP DRAWINGS



CONSULTANT:



**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

## DEMOUNTABLE PARTITION DOOR HARDWARE SETS

### II. MANUFACTURERS

HINGES	HAGER
LOCKSETS, LATCHSETS	FALCON
PANIC DEVICES	FALCON
CLOSERS	HAGER
STOPS, BOLTS	HAGER
OVERHEAD STOP	ABH
ELECTRIC STRIKES	H.E.S

### III. FINISH

630 FINISH

### IV. KEYING

FALCON: 6 PIN, INTERCHANGEABLE CORES

### V. HARDWARE SETS

<b>SET #01 (DOUBLE SLIDER)</b>	1 BLADE BACK TO BACK BAR PULL - 30" 1 DOUBLE BARN DOOR V4 TRACK 1 SOFT CLOSE
<b>SET #02 (LOCKING)</b>	1 BLADE BACK TO BACK BAR PULL 630 FINISH - 30" 1 ADAMS LOCK 1 BARRIOT BARN DOOR SLIM TRACK 1 SOFT CLOSE
<b>SET #03 (NONLOCKING)</b>	1 BLADE BACK TO BACK BAR PULL 630 FINISH - 30" 1 BARRIOT BARN DOOR SLIM TRACK 1 SOFT CLOSE
<b>SET #04 (PIVOTING)</b>	1 BLADE BACK TO BACK BAR PULL 630 FINISH - 30" 1 SOFT CLOSE
<b>SET #05 (PIVOTING, LOCKING)</b>	1 BLADE BACK TO BACK BAR PULL 630 FINISH - 30" 1 SOFT CLOSE
<b>SET #06 (PIVOTING, CARD READER)</b>	1 BLADE BACK TO BACK BAR PULL 630 FINISH - 30" 1 CLOSER 5200-630 1 ELECTRIC STRIKE 5200C-630 (CARD READER, POWER, CONTROLS BY SECURITY VENDOR)

## DOOR NOTES

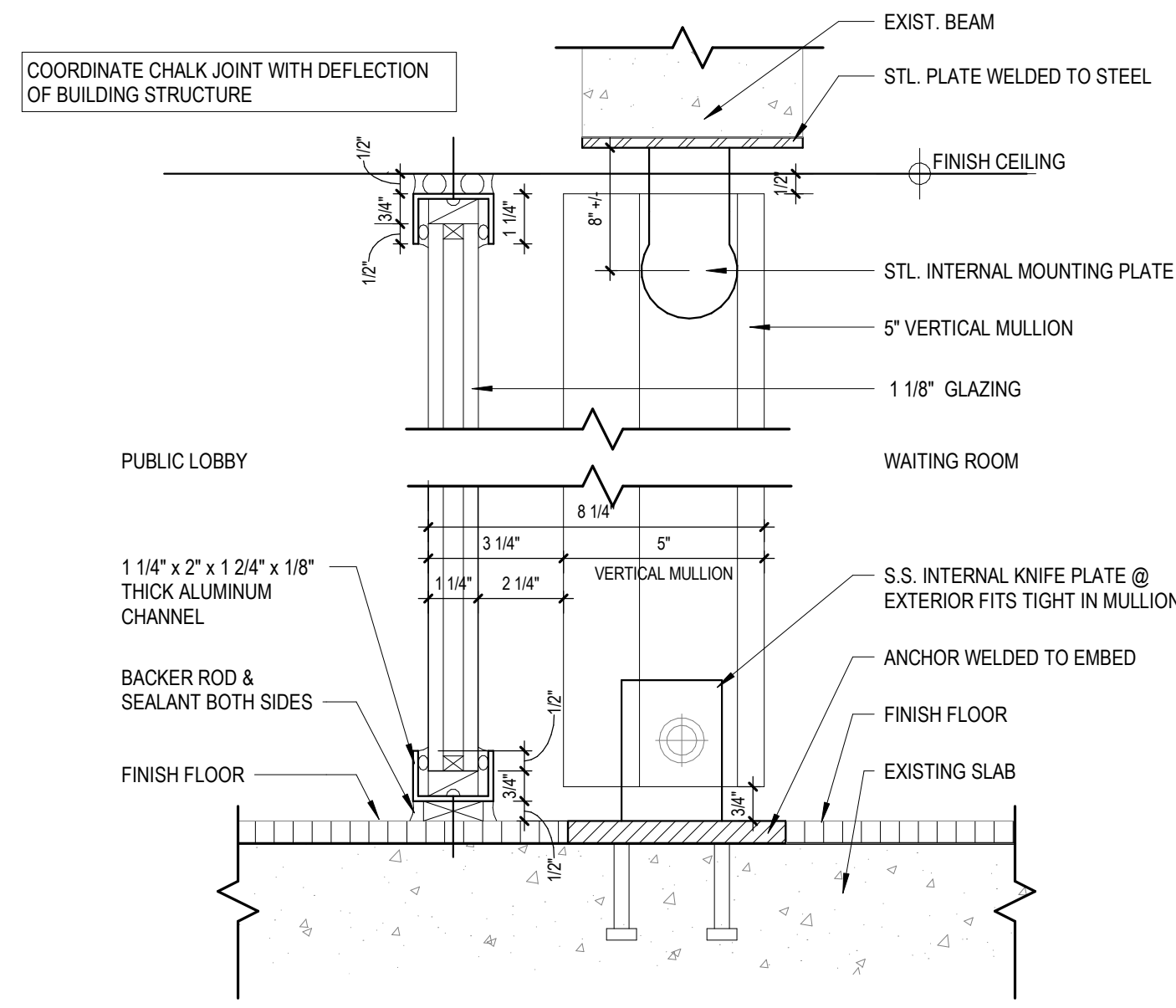


#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
#	PROJECT ISSUANCE	

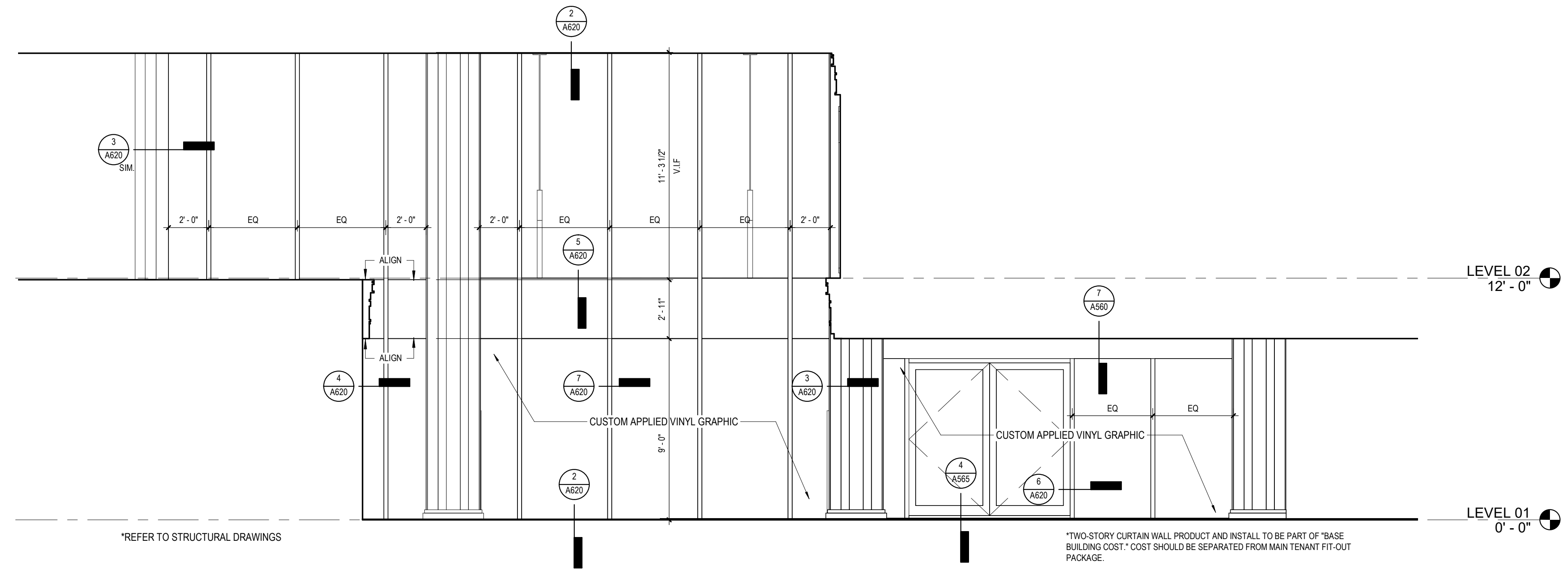
PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	Author	Checker

SHEET NAME:  
**CURTAIN WALL TYPES AND DETAILS**

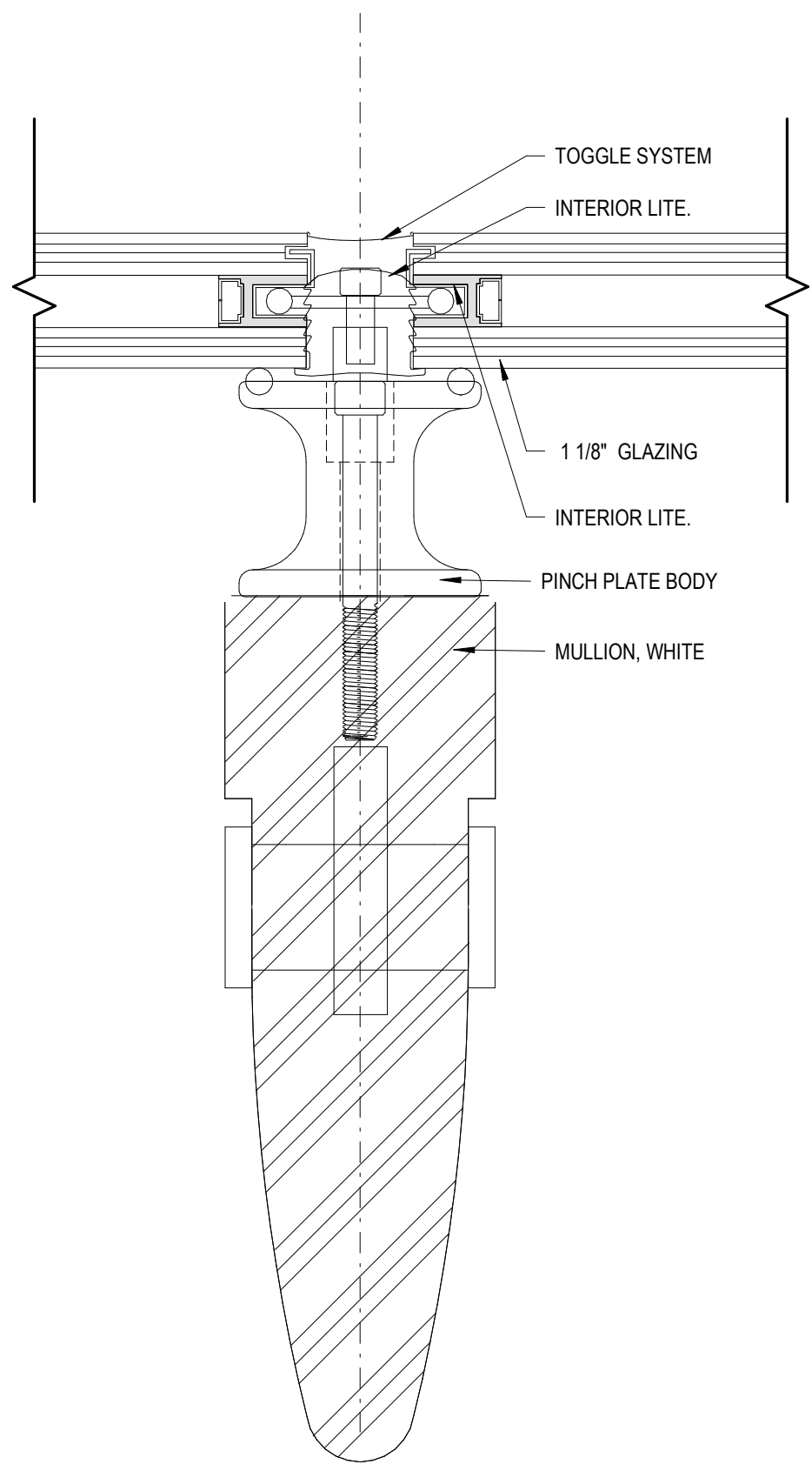
STREET NO:  
**A620**  

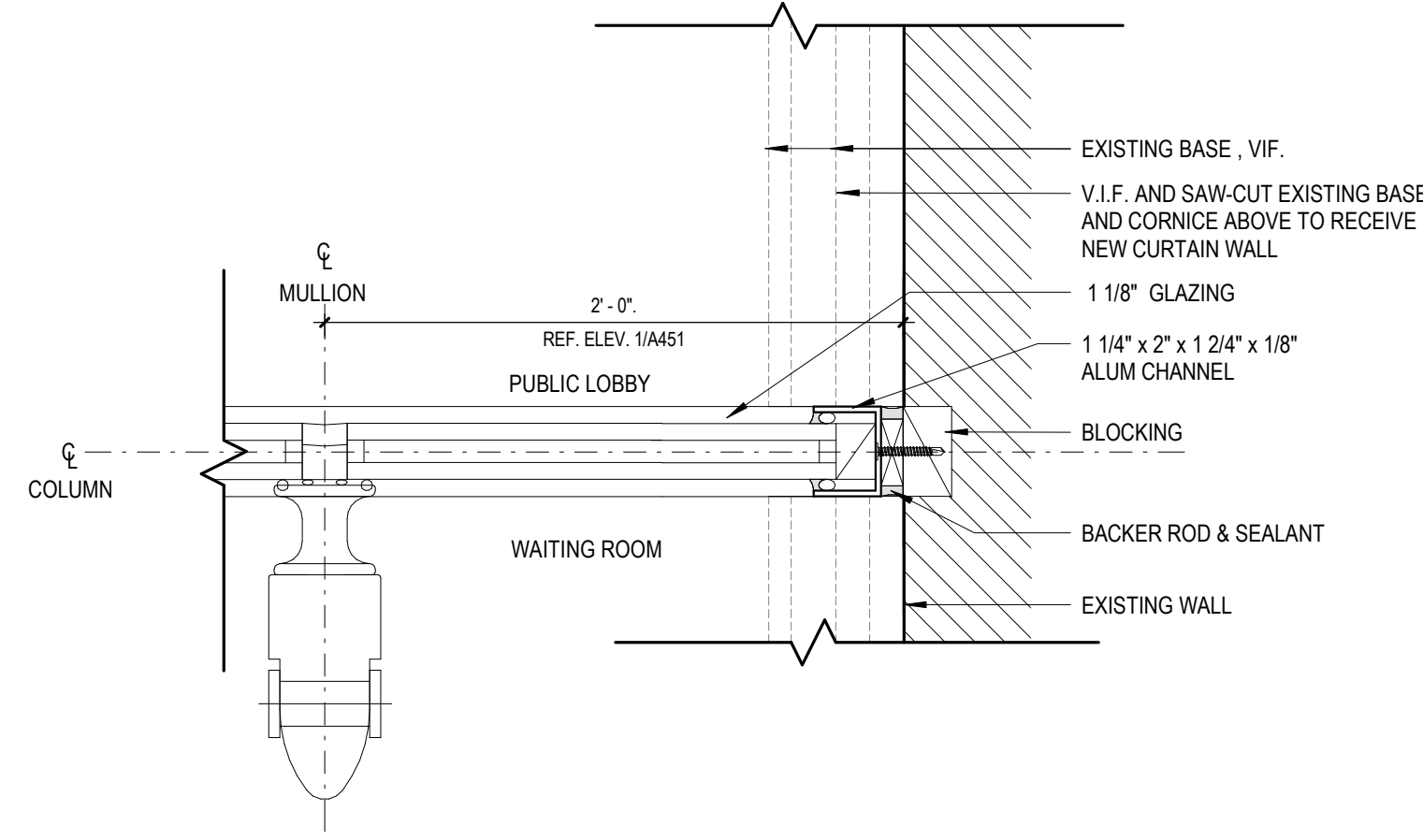
**2 STOREFRONT DETAIL - HEAD & BASE**  
 3" = 1'-0"



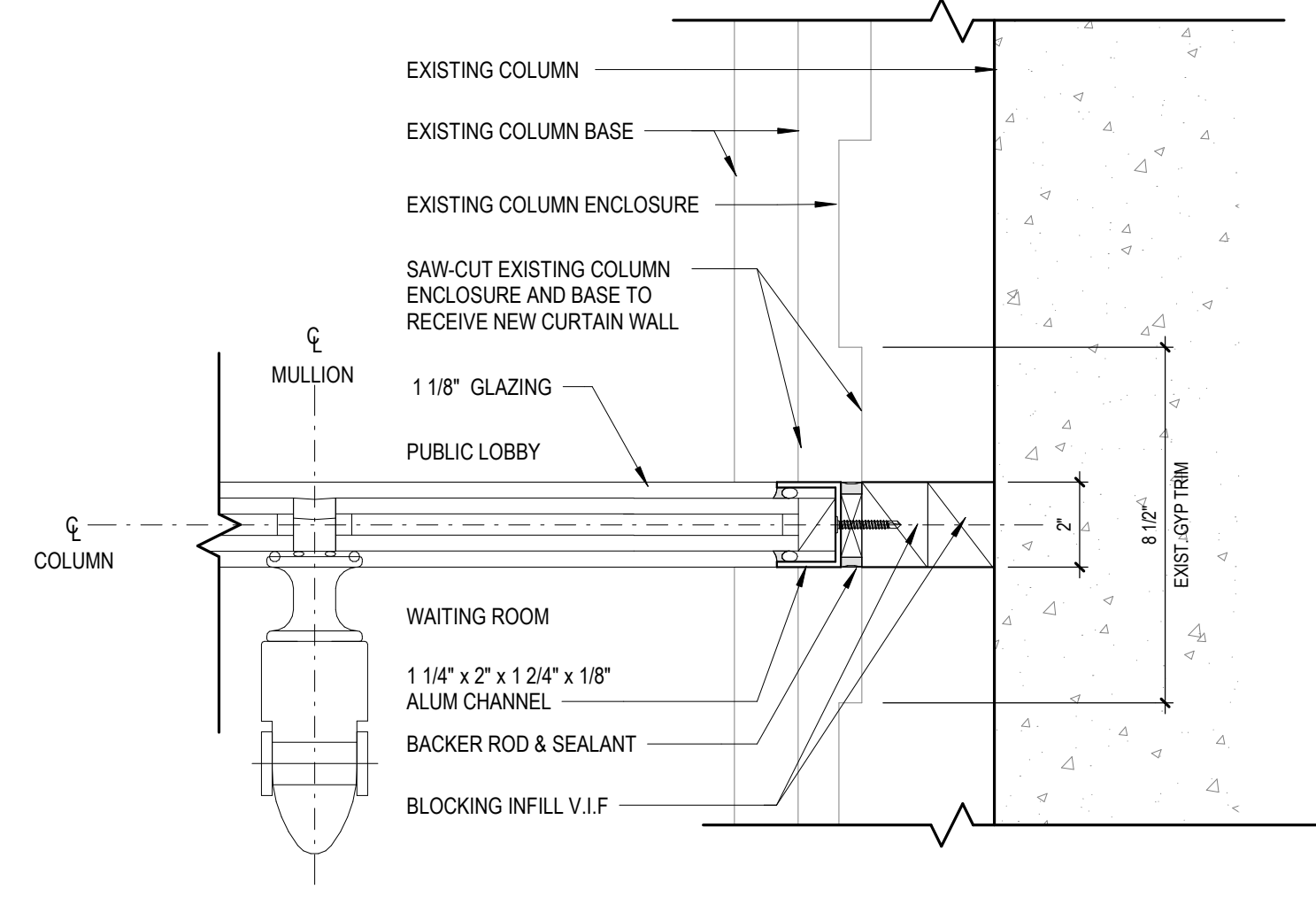
**1 ENTRANCE LOBBY - ELEVATION 1**  
 1/4" = 1'-0"



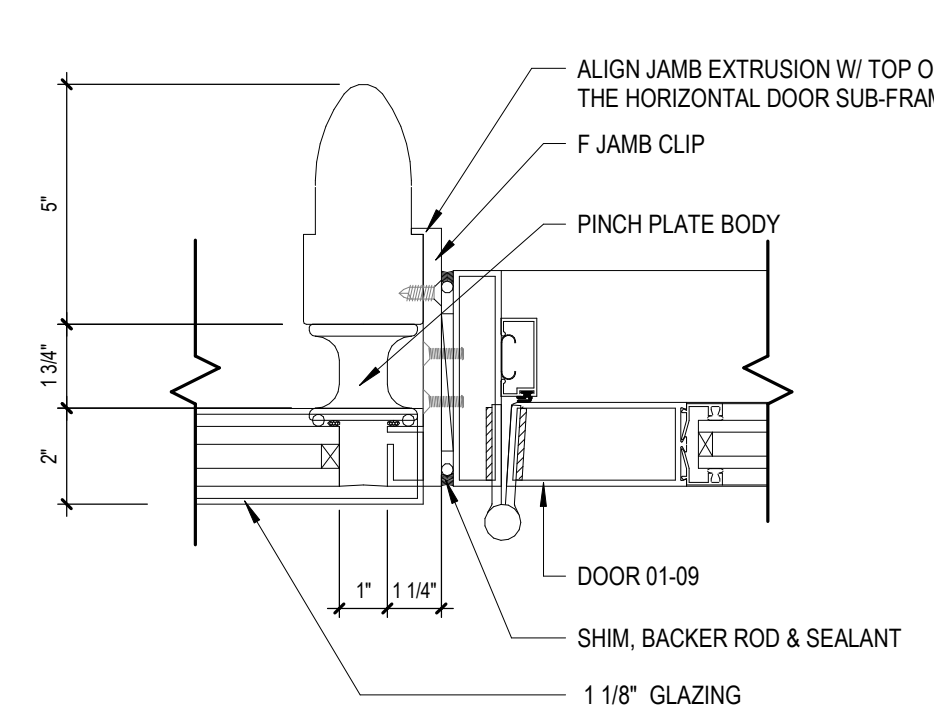
**7 STOREFRONT DETAIL - MULLION**  
 3" = 1'-0"



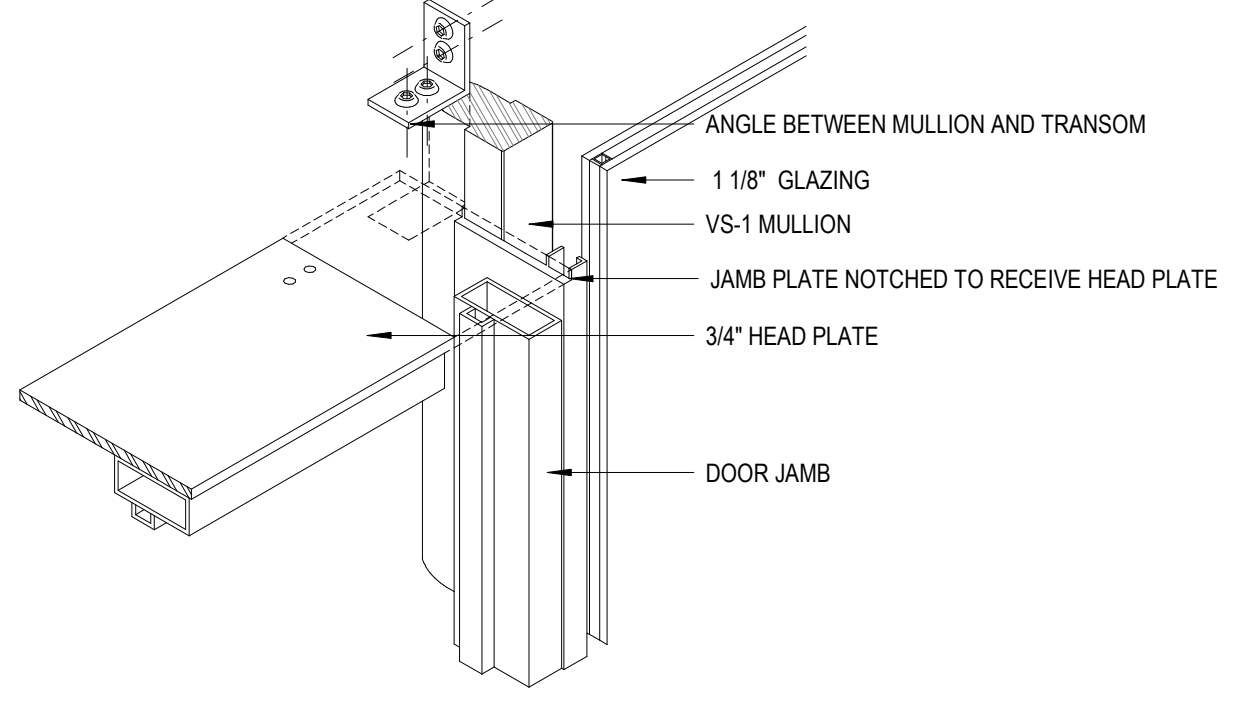
**4 STOREFRONT DETAIL - JAMB @ WALL**  
 3" = 1'-0"



**3 STOREFRONT DETAIL - JAMB @ COLUMN**  
 3" = 1'-0"



**6 STOREFRONT DETAIL - JAMB @ DOOR**  
 3" = 1'-0"



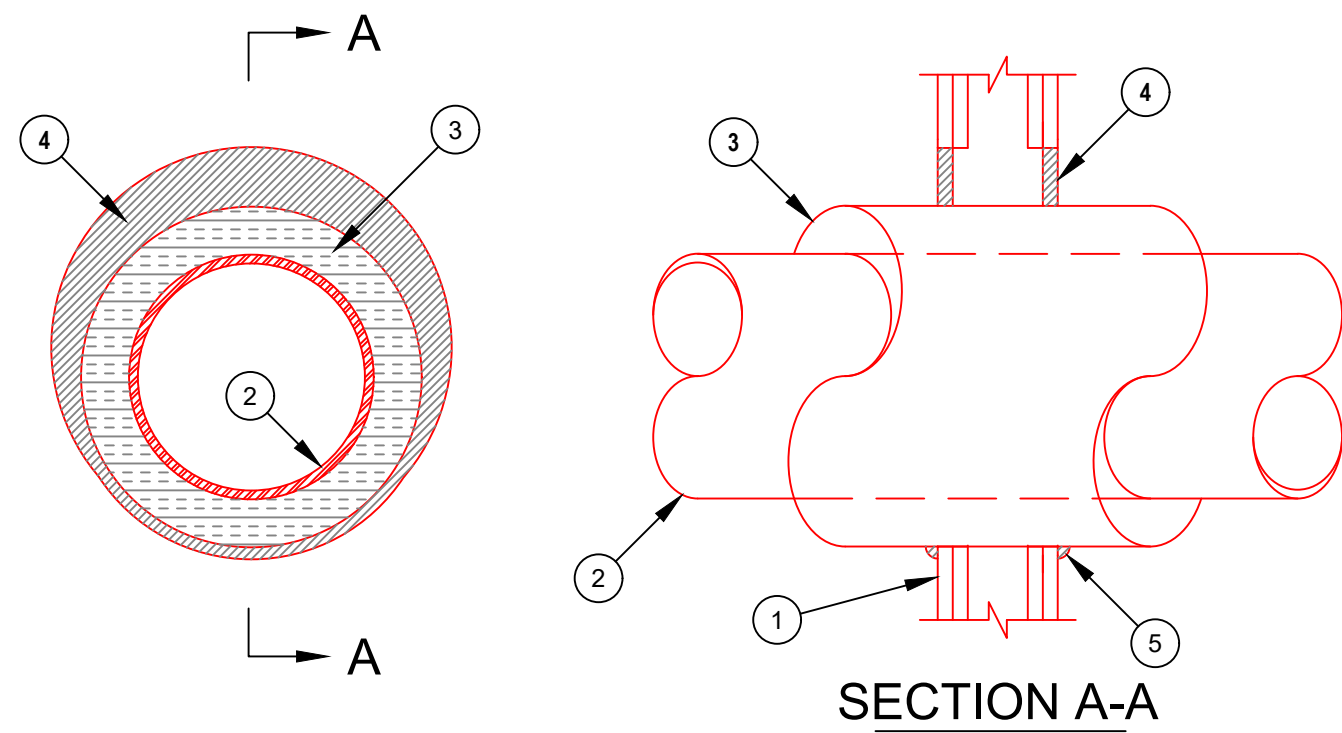
**5 STOREFRONT DETAIL - GRAVITY FITTING**  
 3" = 1'-0"



ROOM FINISH SCHEDULE

NO	ROOM NAME	FLOOR	BASE	WALLS				CEILING	NOTES
				N	S	E	W		
522R	RISER	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	EXISTING	
103	LARGE CONSULTATION	CPT-07	RB-01	PT-06	WF-01	WF-05	PT-06	ACT-02	
104	SMALL CONSULTATION	CPT-03	RB-01	PT-06	WF-01	WF-05	PT-06	ACT-02	
101	APPLICATION AREA	LVT-01	RB-01	REFER TO ELEVATION	WF-02	REFER TO ELEVATION	EXISTING, TOUCH UP AS NEEDED	GWB, ACP-04	
102	RECEPTION SPACE	CPT-01	WB-01, TO MATCH EXISTING	PT-07	PT-07	REFER TO ELEVATION	PT-16	GWB	
723	EQUIPMENT STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	ACT-01	
725	DIRECTORS OFFICE	CPT-01	RB-01	PT-05	PT-01	PT-01	WF-01	ACT-01	
724	MANAGERS OFFICE	CPT-01	RB-01	PT-01	PT-05	PT-01	WF-01	ACT-01	
722	EXECUTIVE WORKSTATIONS	CPT-01	RB-01	PT-03	PT-01	PT-01	PT-01	PT-10, ACP-02	
720	MANAGERS OFFICE	CPT-12	RB-01	PT-06	PT-01	PT-01	WF-01, PT-01	ACT-01	
719	MANAGERS OFFICE	CPT-12	RB-01	PT-01	PT-06	PT-01	WF-01, PT-01	ACT-01	
718	EXECUTIVE DIRECTORS OFFICE	CPT-12	RB-01	PT-03	WF-02	PT-03	PT-03	ACT-01	
714C	DIRECTORS OFFICE	CPT-01	RB-01	WF-01	PT-01	PT-04	PT-01	ACT-01	
709	PHONE	CPT-07	RB-01	PT-01	PT-01	PT-05	WF-01	ACT-01	
704	MID-SIZE CONFERENCE	CPT-07	RB-01	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
711D	MANAGERS OFFICE	CPT-01	RB-01	PT-01	WF-01	PT-01	PT-04	ACT-01	
711E	MANAGERS OFFICE	CPT-01	RB-01	PT-01	WF-01	PT-01	PT-04	ACT-01	
711F	CHIEF OFFICE	CPT-01	RB-01	PT-01	PT-04, WF-01	PT-01, WF-01	PT-01, WF-01	ACT-01	
715	BOARD ROOM	CPT-11	RB-01	WF-03 UP TO 8'-0" AFF, PT-08 ABOVE	WF-03 UP TO 8'-0" AFF, PT-08 ABOVE	WF-03 UP TO 8'-0" AFF, PT-08 ABOVE	WF-03 UP TO 8'-0" AFF, PT-08 ABOVE	GWB, ACP-03	
716	RECEPTION	CPT-12	RB-01	WF-01	PT-03	PT-03	WF-03	GWB	
510C	DIRECTORS OFFICE	CPT-01	RB-01	PT-06	PT-01	WF-01	PT-01	ACT-01	
510D	MANAGERS OFFICE	CPT-01	RB-01	PT-01	PT-01	WF-01	PT-01	ACT-01	
510E	MANAGERS OFFICE	CPT-01	RB-01	PT-06	PT-01	WF-01	PT-01	ACT-01	
511	LARGE CONFERENCE	LVT-01, CPT-01	RB-01	WF-05	WF-05	WF-01	PT-01	ACT-01	
512	MID-SIZE CONFERENCE	CPT-01, CPT-01	RB-01	PT-03	PT-01	WF-01	PT-01	ACT-01	
513	MID-SIZE CONFERENCE	CPT-01, CPT-01	RB-01	PT-03	WF-01	WF-01	PT-01	ACT-01	
514H	CHIEF OFFICE	CPT-01	RB-01	PT-05	PT-01	WF-01	PT-01	ACT-01	
504	MID-SIZE CONFERENCE	CPT-09	RB-01	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
506	MID-SIZE CONFERENCE	CPT-09	RB-01	REFER TO ELEVATION	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
525	IDF	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
711J	MANAGERS OFFICE	CPT-01	RB-01	PT-05	PT-01	WF-01	PT-01	ACT-01	RB-01 ON EXISTING EXTERIOR WALLS, EXISTING WALLS, OR NEW GYPSUM WALLS
714D	CHIEF OFFICE	CPT-01	RB-01	WF-01	PT-01	PT-04	PT-01	ACT-01	
514C	MANAGERS OFFICE	CPT-01	RB-01	WF-01	PT-01	PT-04	PT-01	ACT-01	REFER TO FINISH PLANS FOR PAINTS ON EXTERIOR OF OFFICE
502	STORAGE	CPT-06	RB-01	WF-01	WF-01	PT-05	PT-05	ACT-01	
522	DIRECTORS OFFICE	CPT-01	RB-01	WF-01	PT-03	PT-01	PT-01	ACT-01	
524	VIEWING ROOM	CPT-03	RB-01	REFER TO FINISH PLANS	PT-14, WF-01	WF-01	PT-14	PT-12, AP-02 (PAINTED TO MATCH CEILING)	
520	CHIEF OFFICE	CPT-01	RB-01	PT-03	PT-01	WF-01	PT-01	ACT-01	
517	REFERENCE LIBRARY	CPT-01	RB-01	PT-03	PT-01	N/A	PT-10	ACT-01	
617A	DIRECTORS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
617B	MANAGERS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
617C	MANAGERS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
617D	MANAGERS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
617E	DIRECTORS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
617F	MANAGERS OFFICE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	PT-05	PT-05	ACT-01	
616	CHIEF OFFICE	CPT-03	RB-01	PT-05	WF-01	PT-01	PT-01	ACT-01	
615	LARGE CONFERENCE	LVT-01, CPT-01	RB-01	WF-05	WF-05	WF-01	PT-01	ACT-01	
614	MID-SIZE CONFERENCE	CPT-07	RB-01	PT-01	PT-03	WF-01	PT-01	ACT-01	
612C	DIRECTORS OFFICE	CPT-01	RB-01	PT-01, REFER TO FINISH PLAN	PT-01	WF-01	PT-01, REFER TO FINISH PLAN	ACT-01	
612B	MANAGERS OFFICE	CPT-01	RB-01	PT-01	PT-01	PT-04	WF-01	ACT-01	
625	CHIEF OFFICE	CPT-01	RB-01	PT-01	PT-04	WF-01	WF-01	ACT-01	
624	MANAGERS OFFICE	CPT-01	RB-01	PT-04	PT-01	PT-01	WF-01	ACT-01	
623	MANAGERS OFFICE	CPT-01	RB-01	PT-04	PT-01	PT-01	WF-01	ACT-01	
618	TRAINING	CPT-07	RB-01	PT-06	PT-01	PT-06	PT-06	ACT-01	
602	MID-SIZE CONFERENCE	CPT-08	RB-01	WF-01	REFER TO ELEVATION	WF-01	REFER TO ELEVATION	ACT-01	
606	HUDDLE	CPT-02	RB-01	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
605	SHARED COPY/ SUPPLY STORAGE	CPT-02	RB-01	N/A	PT-04	PT-04	PT-04	PT-10	
603	MINDFULNESS ROOM	CPT-02	RB-01	PT-05	PT-01	PT-01	PT-01	ACT-01	
604	WELLNESS /MOTHERS ROOM	CPT-02	RB-01	PT-05	PT-01	PT-01	PT-01	ACT-01	
605	BREAK ROOM	LVT-01	RB-02	WF-01	WF-01	REFER TO ELEVATION	WF-01	PT-10, ACP-01	
711G	DIRECTORS OFFICE	CPT-01	RB-01	PT-01	PT-04	WF-01	PT-01	ACT-01	
727	IDF	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
628	IDF	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
611	BREAK ROOM OPEN COLLAB	LVT-02	RB-02	WF-01	WF-01	PT-05	N/A	PT-10, ACP-01	
703	MID-SIZE CONFERENCE	CPT-07	RB-01	REFER TO ELEVATION	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
703	HUDDLE	CPT-03	RB-01	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
707	HUDDLE	CPT-03	RB-01	REFER TO ELEVATION	WF-01	REFER TO ELEVATION	REFER TO ELEVATION	ACT-01	
614B	MANAGERS OFFICE	CPT-01	RB-01	WF-01	PT-01	PT-04	PT-01	ACT-01	REFER TO FINISH PLANS FOR PAINTS ON EXTERIOR OF OFFICE
711C	MANAGERS OFFICE	CPT-01	RB-01	PT-01	WF-01	PT-01	PT-04	ACT-01	
710B	MANAGERS OFFICE	CPT-01	RB-01	PT-06	WF-01	PT-01	WF-01	ACT-01	
714A	MANAGERS OFFICE	CPT-01	RB-01	WF-01	PT-04	PT-01	WF-01	ACT-01	
714B	MANAGERS OFFICE	CPT-01	RB-01	PT-01	PT-04	PT-01	WF-01	ACT-01	
717	CONFERENCE ROOM	LVT-01	RB-01	WF-01	PT-03	WF-05	WF-05	ACT-01	
601	ELEVATOR LOBBY	CPT-04, LVT-02	RB-01	PT-08 ABOVE 8'	PT-08 ABOVE 8'	PT-01, PT-08 ABOVE 8'	PT-06, WF-05, PT-08 ABOVE 8'	PT-10	
708	PHONE	CPT-01	RB-01	PT-01	PT-01	WF-01	PT-01	ACT-01	
702	PHONE	CPT-07	RB-01	PT-01	PT-01	PT-05	WF-01	ACT-01	
607	HEADS DOWN	CPT-02	RB-01	WF-01	PT-04	PT-04	PT-04	ACT-01	
610	HEADS DOWN	CPT-02	RB-01	WF-01	PT-04	PT-04	PT-04	ACT-01	
608	PHONE	CPT-02	RB-01	WF-01	PT-04	PT-04	PT-04	ACT-01	
609	PHONE	CPT-02	RB-01	WF-01	PT-04	PT-04	PT-04	ACT-01	
712	COM AFFAIRS OPEN OFFICE	CPT-01	RB-01	PT-01	PT-05	N/A	PT-01	PT-10, ACP-02	
505	BREAK ROOM	LVT-01	RB-02	WF-01	WF-01	REFER TO ELEVATION	WF-01	PT-10, ACP-01	
503	MAIL ROOM	CPT-05	RB-01	WF-01	WF-01	PT-05	PT-05	ACT-01	
710	LARGE CONFERENCE ROOM	LVT-01	RB-01	WF-05, REFER TO FINISH PLAN	WF-01	WF-01	WF-05	ACT-01	
521B	STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
501	ELEVATOR LOBBY	CPT-06, LVT-02	RB-01	PT-08 ABOVE 8'	PT-08 ABOVE 8'	PT-01, PT-08 ABOVE 8'	PT-13, WF-06, PT-08 ABOVE 8'	PT-10	
501	ELEVATOR LOBBY	CPT-04, LVT-02	RB-01	PT-08 ABOVE 8'	PT-08 ABOVE 8'	PT-01, PT-08 ABOVE 8'	PT-03, WF-04, PT-08 ABOVE 8'	PT-10	
613	COAT STORAGE/STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
610A	MANAGERS OFFICE	CPT-01	RB-01	PT-06	WF-01	PT-01	WF-01	ACT-01	
611A	OPEN COLLAB GROWTH	LVT-02	RB-02	WF-01	WF-01	PT-05	N/A	PT-10, ACP-01	
617	DEV/MD OPEN OFFICE	CPT-01	RB-01	WF-01	REFER TO FINISH PLANS	PT-05	REFER TO FINISH PLANS	PT-10, ACP-02	
619	HR OPEN WORKSTATIONS	CPT-01	RB-01	PT-01	PT-05	PT-01	PT-05	PT-10, ACP-02	
711	FINANCE OPEN OFFICE	CPT-01	RB-01	WF-01	WF-01	PT-03	WF-01	PT-10, ACP-02	
713	OPERATIONS OPEN OFFICE	CPT-01	RB-01	WF-01	PT-03	WF-01	PT-03	PT-10, ACP-02	
610	HCV WORKSTATIONS	CPT-01	RB-01	PT-01	N/A	PT-01	N/A	PT-10, ACP-02	
623	PUBLIC SAFETY OPEN OFFICE	CPT-01	RB-01	REFER TO FINISH PLANS	N/A	REFER TO FINISH PLANS	N/A	PT-10, ACP-02	
715S	COAT STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	ACT-01	COORDINATE SHELVING INTERIOR WITH DEMOUNTABLE WALL MANUF.
721	STORAGE	CPT-12	RB-01	PT-01	PT-01	PT-01	PT-01	ACT-01	COORDINATE SHELVING INTERIOR WITH DEMOUNTABLE WALL MANUF.
726	IT OPEN OFFICE	CPT-01	RB-01	PT-05	PT-01	WF-01	PT-04	PT-10, ACP-02	
110R	RISER	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	EXISTING	
228R	RISER	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	EXISTING	
227R	RISER	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	EXISTING	
515	HCV CONTROL OPEN OFFICE	CPT-01	RB-01	PT-06	PT-01	PT-03	PT-03	PT-10, ACP-02	
700	CORRIDOR	CPT-01	RB-01	REFER TO FINISH PLANS	REFER TO FINISH PLANS	REFER TO FINISH PLANS	REFER TO FINISH PLANS	PT-10	
714	I.C. OPEN OFFICE	CPT-01	RB-01	WF-01	WF-01	WF-01	PT-03	PT-10, ACP-02	
100	CORRIDOR	CPT-01	WB-01, TO MATCH EXISTING	WF-01	PT-01	PT-01	WF-01	EXISTING, TOUCH UP AS NEEDED	
711A	VAULT STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	ACT-01	
105	KIDS AREA	CPT-06	EXISTING WOOD BASE, TOUCH UP AS NEEDED	N/A	N/A	REFER TO ELEVATION	REFER TO ELEVATION	ACT-02	
106	SMALL CONSULTATION	CPT-03	EXISTING WOOD BASE, TOUCH UP AS NEEDED	PT-06	WF-01	PT-06	PT-01	ACT-02	
107	SMALL CONSULTATION	CPT-03	EXISTING WOOD BASE, TOUCH UP AS NEEDED	PT-06	WF-01	PT-03	PT-01	ACT-02	
108	MEDIUM CONSULTATION	CPT-03	EXISTING WOOD BASE, TOUCH UP AS NEEDED	PT-06	WF-01	PT-06	PT-06	ACT-02	
109	IDF	RT-01	RB-01	PT-01	PT-01	PT-01	PT-01	PT-10	
612	PROC WORKSTATIONS	CPT-01	RB-01	REFER TO FINISH PLANS	N/A	WF-01	PT-04	PT-10, ACP-02	
612A	MANAGERS OFFICE	CPT-01	RB-01	PT-01	PT-01	PT-04	WF-01	ACT-01	
624A	COAT STORAGE	CPT-01	RB-01	PT-01	PT-01	PT-01	PT-01	ACT-01	COORDINATE SHELVING INTERIOR WITH DEMOUNTABLE WALL MANUF.
619	DIRECTORS OFFICE	CPT-01	RB-01	PT-06	PT-01	PT-01	WF-01	ACT-01	
618	MANAGERS OFFICE	CPT-01							





WALL ASSEMBLY RATING HR	THROUGH PENETRANT		PIPE COVERING THKNS IN.	ANNULAR SPACE		T RATING HR
	TYPE +	MAX DIAM IN.		MIN IN.	MAX IN.	
1	A	4	1	0	1-1/2	1/2
1	B or C	2	1 or 1-1/2	0	1-1/2	1/2
1	A	4	1-1/2	0	1-1/2	1
1	A	12	2	0	1-7/8	3/4
1	B or C	6	2	0	1-7/8	1
2	A	4	1	0	1-1/2	1
2	B or C	4	1 or 1-1/2	0	1-1/2	1
2	B or C	6	2	0	1-7/8	1
2	A	4	1-1/2	0	1-1/2	1-3/4
2	A	12	2	0	1-7/8	1-1/2
2	B or C	6	2	0	1-7/8	1

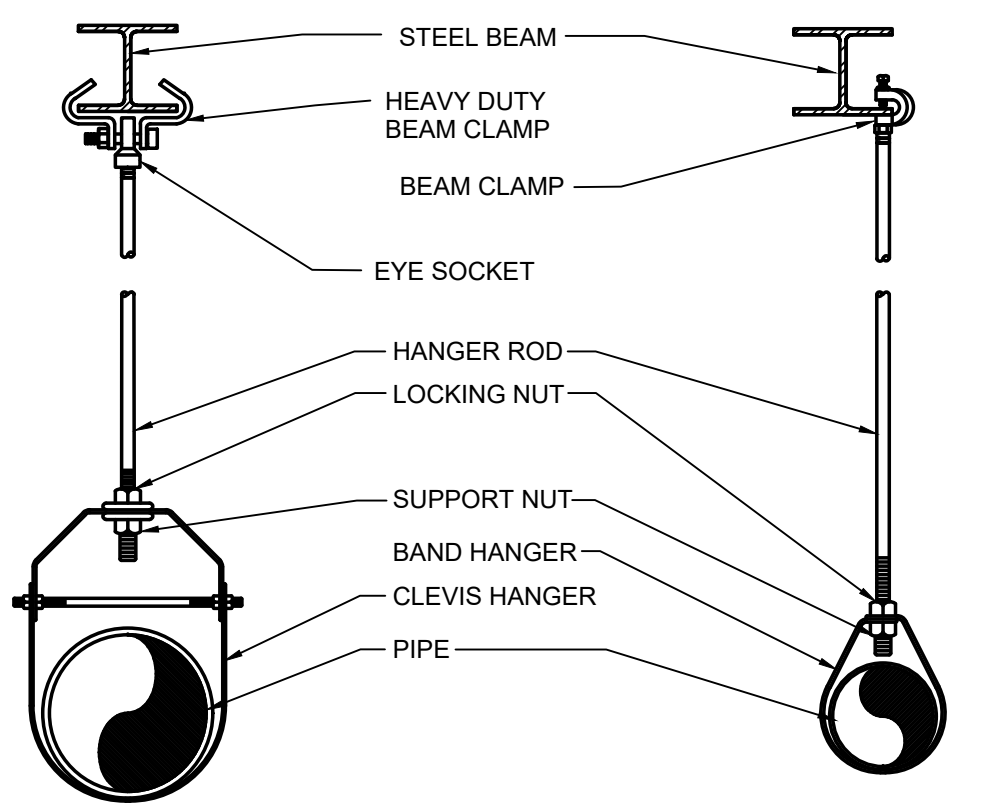
\*INDICATES PENETRANT TYPE AS ITEMIZED IN ITEM 2.

- WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC.
  - GYPSUM BOARD\* — 5/8 IN. THICK, 4 FT WIDE, WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 18-5/8 IN. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
- THROUGH PENETRANTS — ONE METALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDERS OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:
  - STEEL PIPE — NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE — NOM 12 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
  - PIPE COVERING\* — NOM 1, 1-1/2 OR 2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH THE PRODUCT.
  - PIPE COVERING\*\* — (NOT SHOWN) — AS AN ALTERNATE TO ITEM 3, MAX 2 IN. THICK CYLINDRICAL CALCIUM SILICATE (MIN 14 PCF) UNITS SIZED TO THE OUTSIDE DIAM OF THE PIPE OR TUBE MAY BE USED. PIPE INSULATION SECURED WITH STAINLESS STEEL BANDS OR MIN 8 AWG STAINLESS STEEL WIRE SPACED MAX 12 IN. OC. WHEN THE ALTERNATE PIPE COVERING IS USED, THE T RATING SHALL BE DETERMINED FROM THE TABLE ABOVE.
  - FILL, VOID OR CAVITY MATERIAL\* — SEALANT — MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS. FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE COVERING AND GYPSUM BOARD, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE COVERING/GYPSUM BOARD INTERFACE ON BOTH SURFACES OF WALL.
  - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE SEALANT
  - BEARING THE UL CLASSIFICATION MARK

SYSTEM NO. W-L-5029

F RATINGS — 1 AND 2 HR (SEE ITEM 1)  
 T RATINGS — 1/2, 3/4, 1, 1-1/2 AND 1-3/4 HR (SEE ITEM 3)  
 L RATING AT AMBIENT — 4 CFM/SQ FT  
 L RATING AT 400 F — LESS THAN 1 CFM/SQ FT

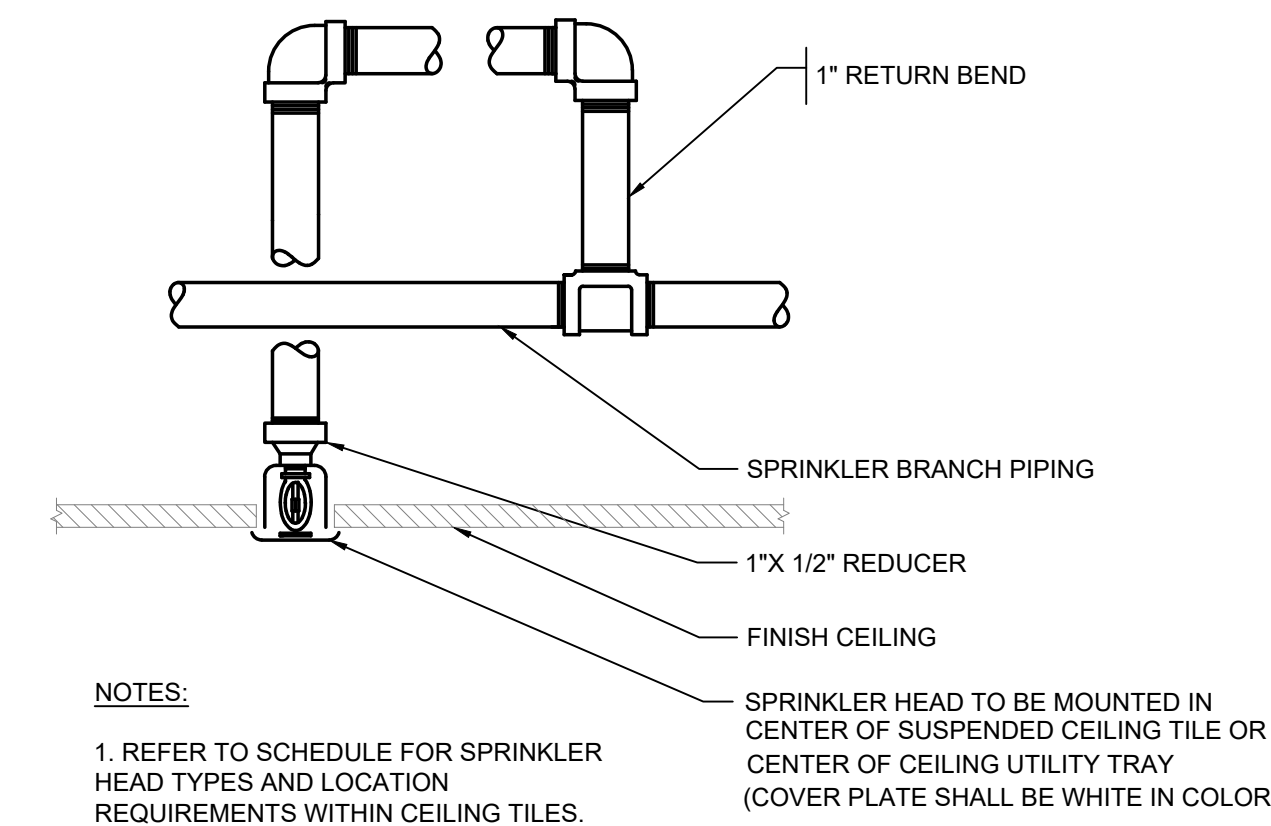
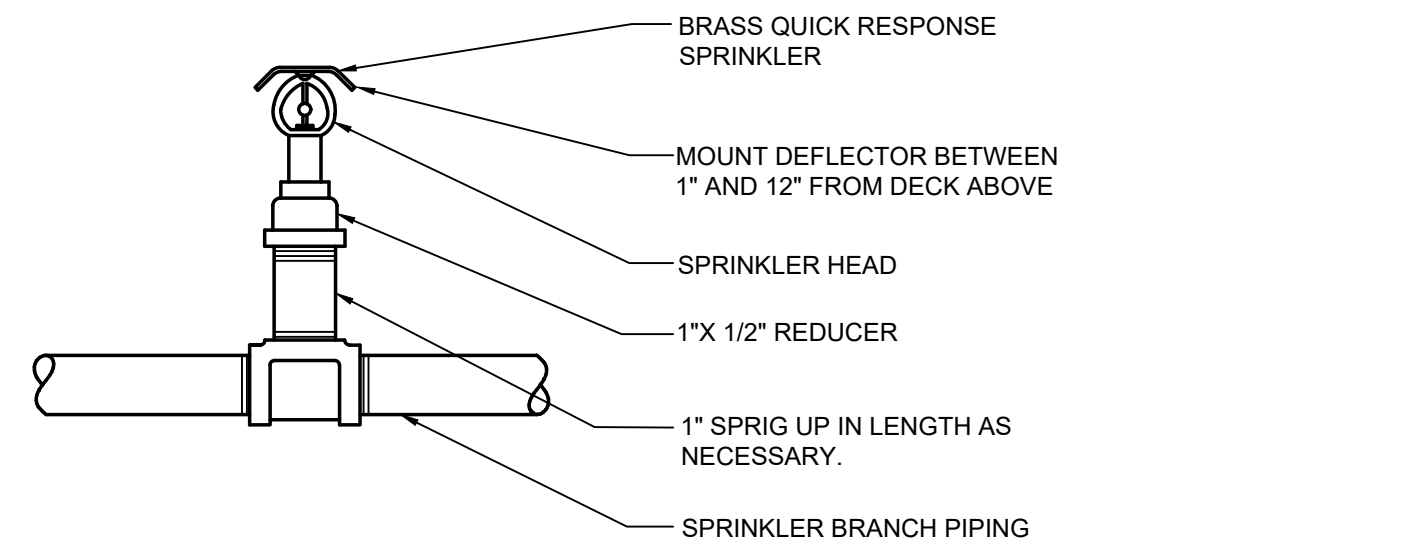
1 PIPE PENETRATION DETAIL - DRYWALL  
 F0.01 NOT TO SCALE



HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.
2 1/2" THRU 3"	1/2" DIA.
4" AND 5"	5/8"

HANGER ROD SPACING	
PIPE SIZE	MAX. SPACING
1"	7'
1 1/4"	8'
1 1/2"	9'
2"	10'
2 1/2"	11'
3" THRU 8"	12'

3 TYPICAL UPRIGHT SPRINKLER HEAD  
 F0.01 NOT TO SCALE



NOTES:  
 1. REFER TO SCHEDULE FOR SPRINKLER HEAD TYPES AND LOCATION REQUIREMENTS WITHIN CEILING TILES.  
 SPRINKLER HEAD TO BE MOUNTED IN CENTER OF SUSPENDED CEILING TILE OR CENTER OF CEILING UTILITY TRAY (COVER PLATE SHALL BE WHITE IN COLOR)

4 TYPICAL CONCEALED SPRINKLER HEAD RETURN BEND DROP  
 F0.01 NOT TO SCALE

NOTE:  
 THE INDICATED SCOPE OF WORK LINE IS FOR GUIDANCE ONLY AND REPRESENTS THE LIMIT OF GENERAL CONSTRUCTION WORK. THIS CONTRACTOR MAY BE REQUIRED TO DO WORK IN AREAS OUTSIDE OF THIS SCOPE LINE WHERE NECESSARY TO DEMOLISH, INSTALL NEW SYSTEMS OR EXTEND TO EXISTING SYSTEMS IN ORDER TO PERFORM THE WORK INDICATED ON THESE DRAWINGS. COORDINATE WITH OWNER'S REPRESENTATIVE TO GAIN ACCESS TO ADJOINING SPACES AND TO MINIMIZE DISRUPTION OF SERVICES.

NOTE:  
 THESE FIRE PROTECTION DRAWINGS REPRESENT A PERFORMANCE DESIGN LEVEL OF DESIGN AND DO NOT SHOW ALL THE PIPING AND EQUIPMENT REQUIRED FOR FINAL INSTALLATION. CONTRACTOR SHALL EXPAND ON THESE DRAWINGS TO COMPLETE THE DESIGN WITH HIS FINAL SYSTEM DRAWINGS. PRICING PREPARED BASED ON THESE DRAWINGS SHALL MAKE ALLOWANCES FOR ITEMS NOT SHOWN BUT NEEDED FOR COMPLETE SYSTEMS.

FIRE PROTECTION NOTES AND DESIGN PARAMETERS:

- THESE DRAWINGS ARE DIAGRAMMATICAL AND SHOW THE GENERAL INTENT OF THE FIRE SUPPRESSION SYSTEM. THE CONTRACTOR SHALL PROVIDE FULL SPRINKLER COVERAGE IN THE PROJECT AREAS. MAKE ADJUSTMENTS TO PIPE RUNS AND SPRINKLER LOCATIONS SHOWN ON THESE DRAWINGS AS NECESSARY TO COORDINATE WITH OTHER TRADES.
- CONTRACTOR SHALL PERFORM A NEW WATER FLOW TEST OR OBTAIN WATER FLOW INFORMATION FROM BUILDING MANAGEMENT STAFF. FLOW TEST INFORMATION MUST BE NOT MORE THAN 1 YEAR OLD TO BE VALID FOR USE.
- PROJECT SCOPE INCLUDES: RENOVATION OF A WET SPRINKLER SYSTEM IN THE OCCUPIED SPACES COMPLETE WITH NEW BRANCH LINES TAPPED INTO EXISTING CROSS MAINS, NEW ARM-OVERS, NEW SPRINKLERS, AND SYSTEM TESTING.
- THE CONTRACTOR SHALL HYDRAULICALLY CALCULATE AND DESIGN THE SUPPRESSION SYSTEMS BASED ON THE RESULTS OF THE NEW WATER FLOW TEST. A 10 PERCENT PRESSURE FACTOR SHALL BE USED BETWEEN THE FLOW TEST RESULTS AND THE DESIGN PRESSURE. DO NOT USE THE QUICK RESPONSE DERATING FACTOR FOR COVERAGE AREA.
- DESIGN STANDARDS SHALL INCLUDE: INTERNATIONAL BUILDING CODE - CURRENTLY ENFORCED EDITION; NFPA-13 STANDARD FOR AUTOMATIC SPRINKLERS - CURRENTLY ENFORCED EDITION.
- GENERAL BUILDING CLASSIFICATION: LIGHT HAZARD IN PUBLIC SPACES AND ORDINARY HAZARD IN MECHANICAL OR ELECTRICAL ROOMS.
- DESIGN DENSITY: LIGHT HAZARD = 0.10 GPM/SQ. FT. OVER 1,500 SQ. FT. 225 SQ. FT. MAXIMUM PER SPRINKLER, EXCEPT FOR USE OF EXTENDED COVERAGE SPRINKLERS - THEN USE THE MANUFACTURERS PRINTED INFORMATION ON EXTENDED COVERAGE FOR REQUIRED FLOW AND PRESSURE BASED ON COVERAGE AREA. ORDINARY HAZARD - 0.15 GPM/SQ. FT. OVER 1,500 SQ. FT. WITH 130 SQ. FT. MAX PER SPRINKLER.
- LOCATE SPRINKLERS AS NECESSARY TO MEET NFPA-13 AND FM-GLOBAL SPACING RULES AS THEY APPLY TO NEW BUILDING CONSTRUCTION OF NON-COMBUSTIBLE CONSTRUCTION.
- PROVIDE A COMPLETE SET OF LAYOUT DRAWINGS AND HYDRAULIC CALCULATIONS. SUBMIT (3) COPIES OF DRAWINGS AND CALCULATIONS TO THE CITY AND OWNERS INSURANCE COMPANY FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION.
- SYSTEM COMPONENTS SHALL BE UL LISTED AND FM/GLOBAL APPROVED.
- PROVIDE INSPECTORS TEST VALVE AT MOST REMOTE AREA AS REQUIRED BY THE CITY, AND AUXILIARY DRAINS AS NECESSITATED BY THE SYSTEM LAYOUT.
- PROVIDE A STANDPIPE FOR USE DURING CONSTRUCTION IN COMPLIANCE WITH SECTION 9 OF THE BUILDING CODE. WHEN EXISTING SYSTEMS ARE SHUT DOWN FOR CONSTRUCTION, PROVIDE FIRE WATCH SERVICES UNTIL THE SUPPRESSION SYSTEM IS REACTIVATED.
- COORDINATE FINAL LOCATION OF SPRINKLERS WITH FINAL LOCATION OF LIGHTS, DUCTWORK, DIFFUSERS, STRUCTURAL ELEMENTS AND CEILING ELEVATIONS. CONTRACTOR SHALL PROVIDE AN END PRODUCT OF A FULLY CODE COMPLIANT SPRINKLERED PROJECT SITE WITH THE ENTIRE WORK AREA SPACE COVERED UNDER THE CONTRACT. SOME AREAS MAY REQUIRE MORE THAN CODE MINIMUM NUMBER OF SPRINKLERS TO COINCIDE WITH ARCHITECTURAL LAYOUTS AND CENTER OF TILE REQUIREMENTS.
- CONTRACTOR SHALL OBTAIN NECESSARY FIRE PROTECTION SYSTEMS PERMITS, TESTS, APPROVALS, AND INSPECTIONS AS PART OF THE SCOPE OF THIS PROJECT.
- COORDINATE WITH BUILDING MANAGEMENT FOR ACCEPTABLE TIMES TO SHUT SYSTEM OFF FOR CONSTRUCTION, AND FOR TIMES TO ENTER SECTIONS OF THE BUILDING NOT PART OF THIS PROJECT. PROVIDE FIRE WATCH WHILE SYSTEM IS SHUT DOWN.
- SPRINKLERS SHALL BE ALL NEW EQUIPMENT. COMPLY AND PROVIDE SPRINKLERS MATCHING BUILDING MINIMUM STANDARDS - COORDINATE WITH BUILDING MANAGEMENT. IN THE ABSENCE OF BUILDING STANDARDS, PROVIDE SPRINKLERS EQUAL TO THOSE LISTED IN THE SCHEDULE. DO NOT REUSE EXISTING SPRINKLERS

PROJECT SPRINKLER DESIGN SUMMARY	
DESIGN AREA	DESIGN AREA IS 1,500 SQ. FT.
CEILING HEIGHT	CEILINGS VARY FROM 9'-0" TO OPEN TO DECK ABOVE
TYPE OF SYSTEM	WET SPRINKLER SYSTEM RENOVATION
DESIGN CRITERIA	NFPA - 13; NFPA - 14; NFPA - 20
AHJ	CITY OF PITTSBURGH BUILDING INSPECTION AND FIRE DEPARTMENT
DESIGN DENSITY	ORDINARY HAZARD = 0.15 GPM OVER 1,500 SQ. FT. LIGHT HAZARD = 0.10 GPM OVER 1,500 SQ. FT.
HOSE STREAM ALLOWANCE	ORDINARY HAZARD = 250 GPM LIGHT HAZARD = 100 GPM
SPRINKLER SPACING	ORDINARY HAZARD = 200 SQ. FT. PER SPRINKLER LIGHT HAZARD = 130 SQ. FT. PER SPRINKLER
K-FACTOR	ORDINARY HAZARD - K = 5.6 LIGHT HAZARD - K = 5.6
FIRE PUMP INFO	750 GPM FIRE PUMP - 60 HP-208V, 3 PH, 60 AMP 116 PSI BOOST; JOCKEY PUMP - 11 GPM AT 140 PSI

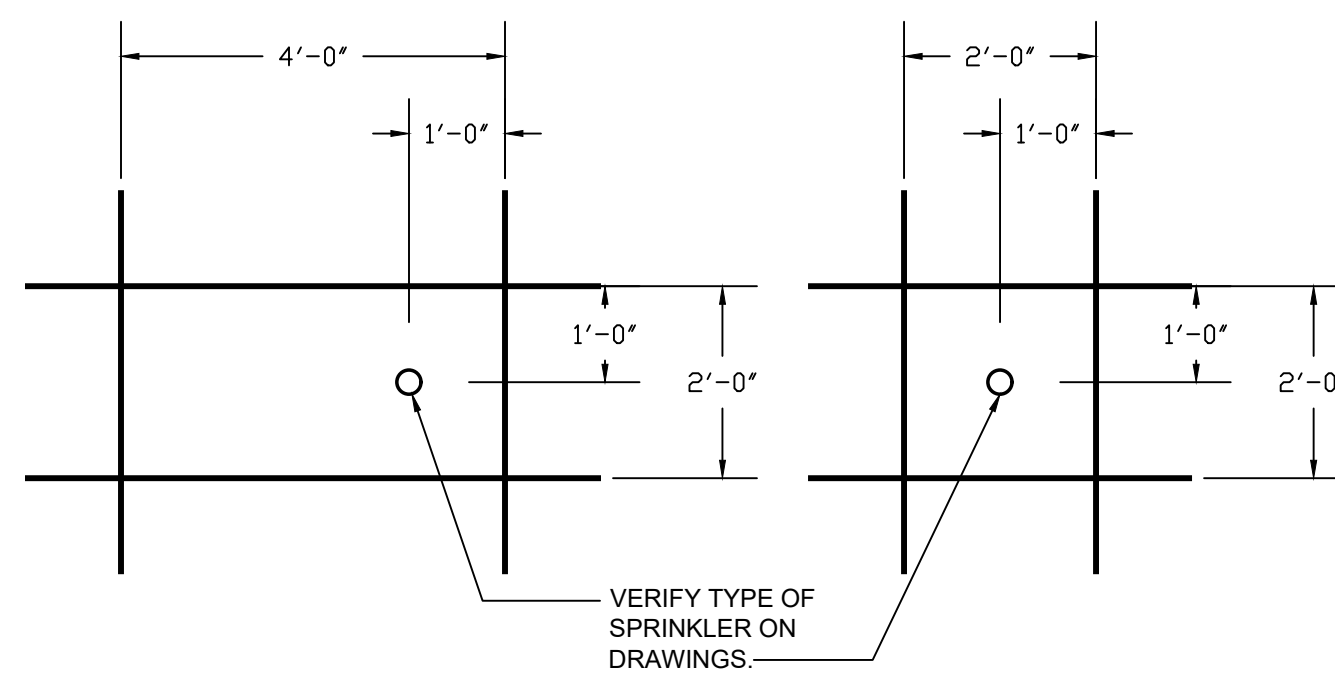
FIRE PROTECTION SCHEDULE AND LEGEND		
SYMBOL	ABRV.	DESCRIPTION
↔		PIPE TURNED UP
↔↓		PIPE TURNED DOWN
↔↔		PIPE TEE UP
↔↔↓		PIPE TEE DOWN
↔↔↔		CAPPED PIPE
↔↔↔↔		PIPE BREAK
○		CONCEALED PENDENT SPRINKLER
⊙		SEMI RECESSED SPRINKLER
⊙		UPRIGHT SPRINKLER
●		PENDENT SPRINKLER
△		HORIZONTAL SIDEWALL SPRINKLER
○ <sub>EC</sub>		CONCEALED EXTENDED COVERAGE SPRINKLER
● <sub>DP</sub>		DRY PENDENT (USE IN FREEZING ENVIRONMENTS)
○ <sub>DS</sub>		DRY SPRINKLER
○ <sub>EX</sub>		EXISTING SPRINKLER TO REMAIN
○ <sub>RX</sub>		EXISTING SPRINKLER TO BE REMOVED
↔↔↔↔		CHECK VALVE
↔↔↔↔	FHV	FIRE HOSE VALVE
↔↔↔↔		FLOW SWITCH
↔↔↔↔		TAMPER SWITCH
↔↔↔↔		PRESSURE SWITCH
↔↔↔↔	PG	PRESSURE GAUGE
↔↔↔↔		FIRE HOSE RACK IN CABINET
↔↔↔↔		FIRE HOSE RACK
↔↔↔↔		WET PIPE SPRINKLER ALARM VALVE
↔↔↔↔		DRY PIPE SPRINKLER ALARM VALVE
↔↔↔↔		OS&Y VALVE
↔↔↔↔		OS&Y VALVE WITH TAMPER SWITCH
↔↔↔↔		FIRE DEPARTMENT SIAMESE CONNECTION
↔↔↔↔		FIRE PUMP TEST MANIFOLD
↔↔↔↔	F	FIRE PROTECTION PIPING
↔↔↔↔	DF	DRY FIRE PROTECTION PIPING
↔↔↔↔	PAF	PRE-ACTION FIRE PROTECTION PIPING
↔↔↔↔	D	FIRE PROTECTION DRAIN PIPING
↔↔↔↔	SP	SPRINKLER PIPING
↔↔↔↔	DSP	DRY SPRINKLER PIPING
↔↔↔↔	EXF	EXISTING FIRE PROTECTION PIPING
↔↔↔↔	RXF	REMOVE EXISTING FIRE PROTECTION PIPING

NOTE: SOME SYMBOLS MAY NOT BE USED ON DRAWINGS.

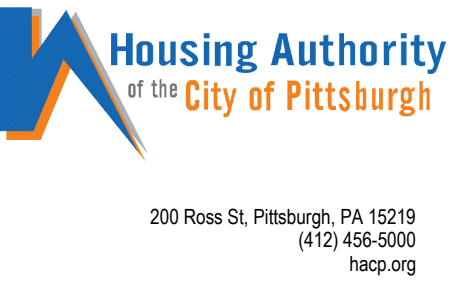
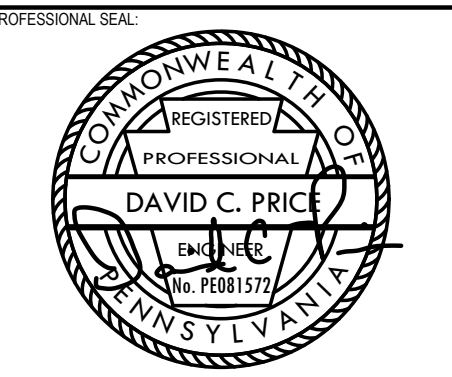
SPRINKLER SCHEDULE								
TYPE SYMBOL	TYPE DESCRIPTION	MANUFACTURER & MODEL NUMBER	SIN	K-FACTOR	FINISH	TEMP RATING	PSI RATING	COMMENTS
⊙	UPRIGHT SPRINKLER	VIKING MICROFAST QUICK RESPONSE	VK300	5.6	BRASS/CHROME	155 °F TYPICAL, 212 °F MECHANICAL AND ELECTRICAL SPACES	175	2
⊙	SEMI RECESSED SPRINKLER	VIKING MICROFAST QUICK RESPONSE	VK302	5.6	WHITE	155 °F	175	1
○	CONCEALED PENDENT SPRINKLER	VIKING MIRAGE QUICK RESPONSE	VK462	5.6	BRASS WITH COLORED COVER PLATE	155 °F WITH 135 °F COVER PLATE	175	1
●	PENDENT SPRINKLER	VIKING MICROFAST QUICK RESPONSE	VK302	5.6	WHITE	155 °F TYPICAL, 212 °F MECHANICAL AND ELECTRICAL SPACES	175	1
● <sub>DP</sub>	DRY PENDENT (USE IN FREEZING ENVIRONMENTS)	VIKING STANDARD RESPONSE	VK154	5.6	CHROME	155 °F	175	3
△	HORIZONTAL SIDEWALL SPRINKLER	VIKING MICROFAST QUICK RESPONSE	VK305	5.6	WHITE	155 °F WITH CHROME MODEL	175	1

- NOTES:  
 1. PROVIDE WHITE OR BLACK COVER PLATES OR SPRINKLERS AND ESCUTCHEONS AS NEEDED BY THE ARCHITECTURAL FINISH SCHEDULE. COORDINATE WITH GC.  
 2. PROVIDE UPRIGHT SPRINKLERS WITH CHROME FINISH TO PROTECT SPRINKLER BODY.  
 3. PROVIDE DRY PENDENT SPRINKLERS WITH CHROME FINISH AND CHROME ESCUTCHEON.

2 SPRINKLER PIPE HANGER INSTALLATION DETAIL  
 F0.01 NOT TO SCALE



5 ACOUSTICAL CEILING TILE SPRINKLER LOCATION DETAIL  
 F1.01 N.T.S.



HACP - Housing Authority of the City of Pittsburgh  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

PROJECT ISSUANCE	
#	DESCRIPTION
5	100% CONSTRUCTION DOCUMENTS REVISION #5
4	100% CONSTRUCTION DOCUMENTS REVISION #2
3	100% CONSTRUCTION DOCUMENTS REVISION #1
2	100% CONSTRUCTION DOCUMENTS
1	100% DESIGN DEVELOPMENT
#	DESCRIPTION

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

SHEET NAME: FIRE PROTECTION DATA SHEET

SHEET NO: FP-001

# FIRE PROTECTION SPECIFICATIONS

## GENERAL INFORMATION

### A. GENERAL

- CONFORM TO GENERAL AND SPECIAL CONDITIONS OF CONTRACT.
- CHECK OTHER PLANS AND SPECIFICATIONS AND FULLY COORDINATE WITH OTHER TRADES, OWNER AND ARCHITECT REQUIREMENTS.
- VISIT SITE, CHECK FACILITIES AND CONDITIONS MAKE NECESSARY OBSERVATIONS, MEASUREMENTS, NOTE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED, AND TAKE ITEMS INTO CONSIDERATION IN BID.
- SYSTEMS SHALL BE COMPLETE AND WORKABLE IN RESPECTS, AND PLACED IN OPERATION.
- CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF RUBBISH DAILY. CONTRACTOR SHALL PROTECT THEIR WORK AND EXISTING OR ADJACENT PROPERTY AGAINST WEATHER, TO MAINTAIN THEIR WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
- CONTRACTORS SHALL CONFIRM TO UTILITY COMPANY REQUIREMENTS. COORDINATE CONNECTION POINTS IN FIELD.
- ARRANGE FOR AND OBTAIN OWNER'S AND INSURANCE REPRESENTATIVE'S PERMISSION FOR ANY SERVICE SHUTDOWNS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN.
- PIPING, CONTROLS, ETC., SHALL NOT BE INSTALLED, OR ROUTED ABOVE, ELECTRICAL PANELS AND EQUIPMENT OR THROUGH ELEVATOR MACHINE ROOMS.
- THE CONTRACTOR SHALL COORDINATE AND OBTAIN A WRITTEN LISTING OF ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT FROM ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT. ADDITIONAL COMPENSATION WILL NOT BE MADE FOR LACK OF CONTRACTOR COORDINATION OF EQUIPMENT ELECTRICAL CHARACTERISTICS.
- DURING THE BUILDING CONSTRUCTION SOME EXISTING INSTALLATION MAY BE EXPOSED THAT WILL HAVE TO BE CHANGED, ALTERED, REROUTED AND/OR ABANDONED. ANY SUCH WORK WHICH COMES UNDER THE JURISDICTION OF THIS CONTRACTOR SHALL BE DONE BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
- WORK RELATED TO THE EXISTING BUILDING SHALL BE COORDINATED TO MINIMIZE INTERFERENCE OR INTERRUPTION OF NORMAL BUILDING USE BY OWNER. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR PHASING REQUIREMENTS.
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING CONDITIONS THAT MAY AFFECT THE BID. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED FOR FAILURE TO REVIEW EXISTING CONDITIONS PRIOR TO BIDDING.

### B. CODES, PERMITS, STANDARDS AND REGULATIONS

- CONFORM TO APPLICABLE CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ETC.), GOVERNMENT REGULATIONS, UTILITY COMPANY REQUIREMENTS, AND APPLICABLE STANDARDS.
- OBTAIN PERMITS AND PAY FEES. ARRANGE FOR ALL REQUIRED TESTS, INSPECTIONS AND APPROVALS. PROVIDE COPIES OF INSPECTIONS AND APPROVALS TO THE A/E.

### C. RELATED WORK SPECIFIED ELSEWHERE

- OPENINGS AND CHASES, WHEN SHOWN ON ARCHITECTURAL DRAWINGS.
- TEMPORARY FIRE PROTECTION.
- POURED-IN-PLACE CONCRETE.
- FINISH PAINTING.
- ELECTRIC POWER WIRING.

### D. DRAWINGS

- THE SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC. CONFIRM DIMENSIONS BY FIELD MEASUREMENT.
- THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING WHICH IS NOT COVERED BY DRAWINGS, SHALL BE OBTAINED FROM THE ARCHITECT OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY.
- DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT ONE ANOTHER. ANY MATERIALS OR LABOR CALLED FOR IN ONE BUT NOT THE OTHER SHALL BE PROVIDED.

### E. DEMOLITION AND REMOVAL

- DISCONNECT, DISASSEMBLE, CAP, PLUG AND REMOVE PIPING, DUCTS AND EQUIPMENT INDICATED ON THE DRAWINGS, AND AS REQUIRED FOR THE PROJECT.
- ANY EQUIPMENT DESIGNATED BY OWNER TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO THE OWNER'S STORAGE.
- DEMOLITION TO BE DONE IN A MANNER NOT TO DAMAGE ADJACENT WORK AND NOT AFFECT THE OPERATION OF SYSTEMS TO REMAIN IN USE. ANY ITEM TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR OR THAT REQUIRES DAMAGE DUE TO THE ABSOLUTE NECESSITY FOR DEMOLITION REQUIREMENTS SHALL BE REPLACED AND/OR REPAIRED AT HIS EXPENSE.
- OPENINGS ON PIPING AND DUCTS THAT REMAIN SHALL BE CAPPED AND PROPERLY SECURED.
- ASBESTOS REMOVAL WILL BE HANDLED BY THE OWNER AND IS NOT A PART OF THIS WORK.
- EXAMINE AREAS AND CONDITIONS UNDER WHICH DEMOLITION WORK SHALL BE PERFORMED. CONTRACTOR SHALL COORDINATE WORK WITH OTHER DEMOLITION WORK.
- REMOVE SUPPORTS, HANGERS, AND ACCESSORIES FROM EQUIPMENT AND MATERIAL INDICATED TO BE REMOVED.

### F. BASE EQUIPMENT, MATERIALS AND SUBSTITUTIONS

- EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS AND U.L. LISTED AND F.M. APPROVED IF APPROPRIATE.
- BASE BID MANUFACTURERS ARE INCLUDED IN SPECIFICATIONS OR LISTED IN SCHEDULE ON DRAWINGS. ANY OTHER MANUFACTURER'S ARE CONSIDERED A SUBSTITUTION.
- THE NAME, OR MAKE OF ANY ARTICLE, DEVICE, MATERIAL, FORM OF CONSTRUCTION, FIXTURE, ETC., STATED IN THIS SPECIFICATION, SHALL BE KNOWN AS A "STANDARD".
- PROPOSALS SHALL BE BASED ON "STANDARDS" SPECIFIED.
- THE EQUIPMENT SCHEDULES ON DRAWINGS INDICATE MANUFACTURERS EQUIPMENT MODEL NUMBERS UPON WHICH DESIGN HAS BEEN BASED. THE USE OF OTHER MANUFACTURERS EQUIPMENT THAT IS LISTED AS ACCEPTABLE ALTERNATES THAT REQUIRES STRUCTURAL CHANGES, CHANGES IN ROOF OPENINGS, CHANGE OF PIPE SIZES & BUILDING CONFIGURATION, ARCHITECTURAL CHANGES, ETC., SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ADDITIONAL COSTS OF SUCH CHANGES SHALL BE PAID BY THE CONTRACTOR SUBMITTING THE ALTERNATES.
- SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EVALUATE AND CERTIFY WITH DOCUMENTATION THAT THE SUBSTITUTION IS EQUIVALENT IN ALL RESPECTS TO THE BASE SPECIFICATIONS.
- IF SUBSTITUTIONS ARE APPROVED, NOTIFY ALL OTHER CONTRACTORS, SUBCONTRACTORS OR TRADES AFFECTED BY SUBSTITUTION AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION, WHETHER BY CONTRACTOR OR OTHERS, SHALL BE RESPONSIBILITY OF, AND PAID FOR BY SUBSTITUTING CONTRACTOR. APPROVED SHOP DRAWINGS DOES NOT ABSOLVE THIS CONTRACTOR FROM THIS RESPONSIBILITY.

8. EQUIPMENT SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURER'S DATA AND INSTALLATION INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFORM TO THESE REQUIREMENTS.

### G. CHECK, TEST, START, ADJUST, BALANCE AND INSTRUCTIONS

- AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AND REQUIREMENTS OF THE SPECIFICATIONS.
- PIPING SHALL BE TESTED AND FREE OF LEAKS. MAKE REPAIRS NEEDED FOR A LEAK FREE SYSTEM.
- CONCEALED OR INSULATED WORK SHALL REMAIN UNCOVERED UNTIL REQUIRED INSPECTIONS, AND TESTS HAVE BEEN COMPLETED. IF CONSTRUCTION SCHEDULE REQUIRES IT, ARRANGE FOR TESTS ON PARTS OF SYSTEM AS REQUIRED.
- INSTRUCT OWNER IN OPERATION OF SYSTEMS AND SUBMIT OPERATING AND MAINTENANCE MANUAL ON EQUIPMENT AND SYSTEMS AS REQUIRED BY THE SPECIFICATIONS. PROVIDE A MINIMUM OF 16 HOURS OF INSTRUCTION TO OWNER'S REPRESENTATIVE.

### H. CUTTING, PATCHING AND DRILLING

- CUTTING AND PATCHING OF THE BUILDING CONSTRUCTION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER.
- NEATLY SAW CUT RECTANGULAR OPENINGS, SET SLEEVE THROUGH OPENING, AND FINISH PATCH OR PROVIDE TRIM FLANGE AROUND OPENING.
- CORE DRILL AND SLEEVE ROUND OPENINGS.
- DO NOT CUT ANY STRUCTURAL COMPONENTS WITHOUT ARCHITECT'S/ENGINEER'S APPROVAL.
- PATCH AND FINISH TO MATCH ADJACENT AREAS THAT HAVE BEEN CUT, DAMAGED OR MODIFIED AS A RESULT OF THE INSTALLATION OF THE MECHANICAL OR ELECTRICAL EQUIPMENT. FIRE STOP PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER, AND MAINTAIN FIRE RATING OF ASSEMBLY.
- CONTRACTORS SHALL CONFIRM WITH OWNER/ARCHITECT, PRIOR TO BID, TIMES AVAILABLE FOR NOISE PRODUCING WORK SUCH AS CUTTING AND CORE DRILLING OF FLOORS, WALLS, ETC., AS WELL AS TIMES FOR WORK WHICH REQUIRE ACCESS INTO ADJOINING TENANT SPACES. INCLUDE PREMIUM TIME IN BID.
- INFORMATION REGARDING REQUIRED PIPE OPENINGS IN WALLS, FLOORS, CHASES, ETC., AND CONCRETE EQUIPMENT PADS OR FOUNDATIONS SHALL BE GIVEN TO THE GENERAL CONTRACTOR BY THIS CONTRACTOR PRIOR TO THE CONSTRUCTION PERIOD. IF THIS CONTRACTOR FAILS TO COMPLY WITH THIS REQUEST, OR IF INCORRECT INFORMATION IS GIVEN, THE NECESSARY CUTTING AND PATCHING WILL BE PERFORMED BY THE GENERAL CONTRACTOR, AT THIS CONTRACTOR'S EXPENSE.

### I. WARRANTY

- FULLY WARRANT MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.
- PROVIDE MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING EXTENDED WARRANTIES.
- REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

### J. SHOP DRAWING SUBMITTALS

- SUBMIT SHOP DRAWINGS FOR MECHANICAL EQUIPMENT, FIRE PROTECTION SYSTEMS, DUCTWORK, AND PLUMBING FIXTURES AND EQUIPMENT WITH ADEQUATE DETAILS AND SCALES TO CLEARLY SHOW CONSTRUCTION. INDICATE THE OPERATING CHARACTERISTICS FOR EACH REQUIRED ITEM. CLEARLY IDENTIFY EACH ITEM ON THE SUBMITTAL AS TO MARK, LOCATION AND USE. USING SAME IDENTIFICATION AS PROVIDED ON DESIGN DRAWINGS. SUBMITTALS WITH MULTIPLE ITEMS MUST BE MARKED FOR PROPOSED ITEM OR SUBMITTAL WILL BE REJECTED.
- FIRE PROTECTION DRAWINGS SHALL BE FULLY DIMENSIONED BASED ON FIELD VERIFIED BUILDING CLEARANCES AND ARCHITECTURAL CEILING LAYOUTS. INDICATE STRUCTURAL, LIGHTING, DUCTWORK AND PIPING AT ALL CRITICAL LOCATIONS.
- CONTRACTOR SHALL REVIEW AND INDICATE HIS APPROVAL OF EACH SHOP DRAWING PRIOR TO SUBMITTAL FOR REVIEW. DO NOT START WORK OR FABRICATION UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER AND RETURNED TO THE CONTRACTOR.
- SUBMITTALS SHALL BE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND NOT FOR DIMENSIONS OR QUANTITIES. THE SUBMITTAL REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PURCHASE OF ANY ITEM IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS OR ITS COMPLETE AND PROPER INSTALLATION.
- WHERE SUBMITTALS VARY FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL CLEARLY INDICATE ON SUBMITTAL OR ACCOMPANYING DOCUMENTS THE NATURE AND REASON FOR VARIATIONS.
- REFER TO VARIOUS SECTIONS FOR LISTING OF SHOP DRAWINGS REQUIRED ON THIS PROJECT.
- EACH MANUFACTURER OR HIS REPRESENTATIVE SHALL CHECK THE APPLICATION OF HIS EQUIPMENT AND CERTIFY AT TIME OF SHOP DRAWING SUBMITTAL THAT EQUIPMENT HAS BEEN PROPERLY SELECTED AND CAN BE INSTALLED, SERVICED AND MAINTAINED WHERE INDICATED ON DRAWINGS. ADVISE ENGINEER IN WRITING WITH SUBMITTAL DRAWINGS OF ANY POTENTIAL PROBLEMS. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ANY CHANGES THAT MIGHT BE NECESSARY BECAUSE OF PHYSICAL CHARACTERISTICS OF EQUIPMENT THAT HAVE NOT BEEN CALLED TO THE ENGINEER'S ATTENTION AT THE TIME OF SUBMITTAL.
- FIRE PROTECTION SUBMITTAL SHALL BE SUBMITTED AS A COMPLETE PACKAGE CONSISTING OF PRODUCT CUT SHEETS, DRAWING AND CALCULATIONS. INCOMPLETE PACKAGE WILL BE REJECTED.

### K. RECORD DRAWINGS

- EACH CONTRACTOR OR SUBCONTRACTOR SHALL KEEP ONE (1) COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON THE JOB SITE, THE CONTRACTOR SHALL REGULARLY RECORD ANY DEVIATIONS, AND/OR CHANGES FROM CONTRACT DRAWINGS MADE DURING CONSTRUCTION.
- THESE DRAWINGS SHALL RECORD THE LOCATION OF EQUIPMENT, PIPING, ELECTRIC SERVICE, SEWERS, WASTES, VENTS, DUCTS, CONDUIT AND OTHER PIPING, BY MEASURED DIMENSIONS TO EACH SUCH ITEM FROM READILY IDENTIFIABLE AND ACCESSIBLE WALLS OR CORNERS OF THE BUILDING. PLANS ALSO SHALL SHOW INVERT ELEVATION OF SANITARY, AND/OR STORM SEWERS AND TOP ELEVATION OF OTHER BELOW-GRADE LINES.
- RECORD DRAWINGS SHALL BE KEPT CLEAN AND UNDAMAGED AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN RECORDING DEVIATIONS FROM WORKING DRAWINGS AND EXACT LOCATIONS OF CONCEALED WORK.
- AFTER THE PROJECT IS COMPLETED, THESE SETS OF DRAWINGS SHALL BE DELIVERED TO THE ARCHITECT IN GOOD CONDITION, AS A PERMANENT RECORD OF THE INSTALLATION.

## FIRE PROTECTION SPRINKLER SYSTEM

### A. SCOPE

- FURNISH LABOR, MATERIALS AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE FIRE PROTECTION SYSTEMS FOR PROJECT. SPRINKLER SYSTEM DESIGN AND HYDRAULIC CALCULATIONS SHALL BE PROVIDED WITH THIRD PARTY PROFESSIONAL ENGINEERS STAMP.
- SPRINKLER WORK FOR PROJECT ESSENTIALLY CONSISTS OF, BUT NOT LIMITED TO, THE FOLLOWING:
  - MODIFY EXISTING WET PIPE SPRINKLER SYSTEM AS REQUIRED TO CONFORM TO NEW CEILING AND/OR WALL LAYOUT, AND NEW SYSTEMS.
  - EXTEND WET SPRINKLER SYSTEM FOR NEW OR REMODELED AREAS FROM EXISTING SYSTEM IN BUILDING.
  - PREPARE SUBMITTAL DRAWINGS AND HYDRAULIC CALCULATIONS AS REQUIRED FOR APPROVAL BY OWNER'S INSURANCE COMPANY, BUILDING DEPARTMENT, LOCAL AUTHORITY

HAVING JURISDICTION AND NFPA REQUIREMENTS. COMPLY WITH NFPA-13 REQUIREMENTS FOR PREPARATION OF DRAWINGS AND CALCULATIONS.

d. FLUSH AND CONDUCT PRESSURE TEST OF COMPLETED SYSTEM IN ACCORDANCE WITH NFPA AND AUTHORITIES HAVING JURISDICTION. DELIVER ALL CERTIFICATES TO OWNER.

e. OTHER ITEMS INDICATED ON DRAWINGS OR REQUIRED FOR COMPLETE INSTALLATION AND TO SATISFY ALL CODE REQUIREMENTS.

f. PIPING SHALL NOT BE INSTALLED AT LOCATIONS SUBJECT TO FREEZING, UNLESS PROVIDED AS DRY PIPE SYSTEM, OR ANTI-FREEZE SYSTEM. PROVIDE FIRE WATCH.

### B. DESIGN BASIS

- DESIGN BASIS FOR SYSTEM SHALL BE PER NFPA 13, LIFE SAFETY CODE 101 IN ACCORDANCE WITH CODE AND LOCAL AUTHORITY HAVING JURISDICTION. SYSTEM SHALL BE A HYDRAULICALLY DESIGNED.
- PIPE SIZES INDICATED ON DRAWING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTORS HYDRAULIC DESIGN.
- STANDARD-PRESSURE PIPING SYSTEM COMPONENT: LISTED FOR 175-PSIG MAXIMUM WORKING PRESSURE.
- SPRINKLER SYSTEM DESIGN SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION, AND OWNER'S INSURANCE UNDERWRITER, PRIOR TO START OF CONSTRUCTION.
- PROVIDE MARGIN OF SAFETY FOR AVAILABLE WATER FLOW AND PRESSURE AND 10 PERCENT.
- SPRINKLER OCCUPANCY HAZARD CLASSIFICATIONS:
  - BUILDING SERVICE AREAS: ORDINARY HAZARD, GROUP 1.
  - RESTROOMS: LIGHT HAZARD.
  - ELECTRICAL EQUIPMENT ROOMS: ORDINARY HAZARD, GROUP 1.
  - GENERAL STORAGE AREAS: ORDINARY HAZARD, GROUP 1.
  - MECHANICAL EQUIPMENT ROOMS: ORDINARY HAZARD, GROUP 1.
  - OFFICE AND PUBLIC AREAS: LIGHT HAZARD.
- MINIMUM DENSITY FOR AUTOMATIC-SPRINKLER PIPING DESIGN:
  - LIGHT-HAZARD OCCUPANCY: 0.10 GPM OVER 1500-SQ. FT. AREA.
  - ORDINARY-HAZARD, GROUP 1 OCCUPANCY: 0.15 GPM OVER 1500-SQ. FT. AREA.
- MAXIMUM PROTECTION AREA PER SPRINKLER:
  - OFFICE AND PUBLIC SPACES: 225 SQ. FT. (20.9 SQ. M)
  - STORAGE AREAS: 130 SQ. FT.
  - MECHANICAL EQUIPMENT ROOMS: 130 SQ. FT.
  - ELECTRICAL EQUIPMENT ROOMS: 130 SQ. FT.
  - OTHER AREAS: ACCORDING TO NFPA 13 RECOMMENDATIONS UNLESS OTHERWISE INDICATED.
- TOTAL COMBINED HOSE-STREAM DEMAND REQUIREMENT: ACCORDING TO NFPA 13 UNLESS OTHERWISE INDICATED:
  - LIGHT-HAZARD OCCUPANCIES: 100 GPM (6.3 L/S) FOR 30 MINUTES.
  - ORDINARY-HAZARD OCCUPANCIES: 250 GPM (15.75 L/S) FOR 60 TO 90 MINUTES.

### C. DRAWINGS AND CALCULATIONS

- CONTRACTOR SHALL PREPARE SUBMITTAL DRAWING AND HYDRAULIC CALCULATIONS FOR SPACE IN ACCORDANCE WITH OWNER'S INSURANCE COMPANY AND BUILDING DEPARTMENT REQUIREMENTS. DRAWINGS AND CALCULATIONS SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER. PROVIDE PROFESSIONAL ENGINEERS STAMP AND SIGNATURE ON DRAWINGS AND HYDRAULIC CALCULATIONS.
- CONTRACTOR SHALL OBTAIN FLOW TEST DATA ON CITY WATER MAIN AND SUBMIT DATA WITH CALCULATIONS. PERFORM FLOW TEST IF DATA IS OLDER THAN ONE YEAR.
- PROVIDE WET STANDPIPE SYSTEM FOR PROJECT IN ACCORDANCE WITH NFPA 14 REQUIREMENTS, AND AUTHORITY HAVING JURISDICTION.
- CONTRACTOR AND DESIGNER SHALL BE STATE AND LOCAL CERTIFIED. DESIGNER SHALL BE MINIMUM LEVEL 3 NICET CERTIFIED. CONTRACTOR DRAWINGS AND CALCULATIONS SHALL BE REVIEWED AND STAMPED BY REGISTERED ENGINEER.

### D. EXCAVATION AND BACKFILL

- PERFORM EXCAVATION AND BACKFILL REQUIRED FOR INSTALLATION OF PIPING.
- EXCAVATE TO DEPTH REQUIRED TO INSTALL PIPING AT REQUIRED LEVEL AND PITCH. PIPE SHALL BE INSTALLED ON SAND BEDDING TO GIVE UNIFORM BEARING ALONG LENGTH OF PIPE (SAND INSIDE BUILDING AND INTERLOCKING AGGREGATE OUTSIDE BUILDING).
- BACKFILL WITH BEDDING MATERIAL TO A MINIMUM OF TWELVE (12) INCHES ABOVE TOP OF PIPES AND COMPACT. BALANCE OF BACKFILL IN GRASS AREAS SHALL BE CLEAN EARTH UP TO SIX (6) INCHES ABOVE SURROUNDING GRADES, UNDER FLOORS SAND, AND UNDER PAVING INTERLOCKING AGGREGATE. BACKFILL SHALL BE COMPACTED IN MAXIMUM SIX (6) INCH LAYERS.
- EXCAVATIONS SHALL BE BACKFILLED WITH CLEAN EARTH, EXCLUDING RUBBISH AND BOULDERS AND THE DIRT SHALL BE PROPERLY COMPACTED.
- PATCH FLOOR TO MATCH EXISTING.

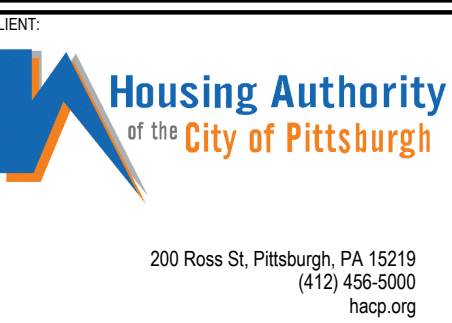
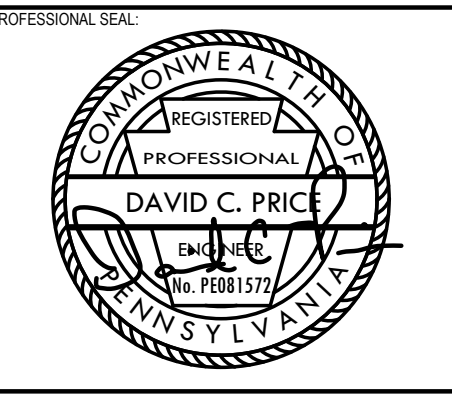
### E. PIPING

- PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13, 14 AND 24 REQUIREMENTS.
- FIRE PROTECTION PIPING SHALL BE AS FOLLOWS:
  - UNDERGROUND SERVICE-ENTRANCE PIPING:
    - DUCTILE-IRON, MECHANICAL-JOINT PIPE AND FITTINGS AND RESTRAINED JOINTS [ INCLUDE CORROSION-PROTECTIVE ENCASEMENT.]
  - INSIDE BUILDING:
    - 2 INCH AND SMALLER: THREADED-END, SCHEDULE 40 STEEL PIPE, CAST- OR MALLEABLE-IRON THREADED FITTINGS; AND THREADED JOINTS.
    - 2 1/2 INCH AND LARGER: GROOVED-END, SCHEDULE 10 STEEL PIPE; GROOVED-END FITTINGS; GROOVED-END-PIPE COUPLINGS; AND GROOVED JOINTS.
  - INSTALL STANDPIPES WHERE INDICATED ON DRAWINGS, INCLUDING SUPERVISED ISOLATION VALVE, AND WATERFLOW SWITCH AT BASE OF RISER. PROVIDE FIRE DEPARTMENT VALVE WITH CAP AND CHAIN AT EACH FLOOR.
  - PROVIDE GALVANIZED PIPING AND FITTINGS FOR DRY FIRE PROTECTION SYSTEM.
  - CONTRACTOR SHALL ARRANGE FOR SHUTDOWN OF EXISTING SYSTEM WITH LANDLORD, OWNER MAINTENANCE AND FIRE ALARM PERSONNEL, AND INSURANCE UNDERWRITER. PROVIDE FIRE WATCH WHILE SYSTEM IS SHUT DOWN.
  - FLUSH PIPING UPON COMPLETION OF PROJECT AND TEST PER NFPA 13.
  - INSTALL INSPECTOR'S TEST CONNECTION WITH DRAIN VALVE AND TERMINATE DRAIN THROUGH EXTERIOR WALL WITH GALVANIZED PIPE, TEST FITTING AND SPLASH BLOCK.
  - SYSTEMS REQUIRING GALVANIZED PIPING SHALL BE PROVIDED WITH SCREWED FITTINGS, AND UNIONS.

### F. SPRINKLERS

- SPRINKLERS SHALL BE AS SCHEDULED ON DRAWINGS.
- SPRINKLERS SHALL MATCH EXISTING BASE BUILDING STANDARDS.
- BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE PRODUCT INDICATED IN SPECIFICATION OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING MANUFACTURERS:
  - VIKING CORPORATION
  - VICTAULIC CO.
  - TYCO
- INSTALL HIGHER TEMPERATURE SPRINKLER HEADS AS REQUIRED BY CODE OR APPLICATION.
- SUBMIT SAMPLES OF SPRINKLERS TO ARCHITECT PRIOR TO FABRICATION OF ANY PIPING.

### I. HANGERS AND SUPPORTS



HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/27/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00 DRAWN BY: TJT REVIEWED BY: DCP  
SHEET NAME: FIRE PROTECTION SPECIFICATIONS  
SHEET NO: FP-002  
TRUE NORTH  
PLAN NORTH

1. HANGERS FOR BLACK OR GALVANIZED STEEL PIPE SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL NO. 100, OR APPROVED EQUAL.
2. HANGERS FOR COPPER TUBING SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL NO. 102-A, OR APPROVED EQUAL.
3. TRAPEZE HANGERS OF A TYPE APPROVED BY THE ENGINEER MAY BE USED WHERE PIPES ARE DESIGNED TO RUN PARALLEL AND AT THE SAME ELEVATION.
4. STRAP HANGERS SHALL NOT BE PERMITTED.
5. CONTRACTOR SHALL PROVIDE RISER CLAMPS FOR VERTICAL PIPING AT EACH LEVEL. RISER CLAPS SHALL BE MICHIGAN HANGER CO., MODEL NO. 510 FOR STEEL PIPING AND MODEL NO. 511 FOR COPPER TUBING OR APPROVED EQUAL. USE "SHORT-END" RISER CLAMPS WHERE SPACE IS LIMITED.
6. IN CONCRETE, MICHIGAN HANGER CO., MODEL NO. 355 INSERTS, OR APPROVED EQUAL. INSERTS SHALL PERMIT ADJUSTMENT FROM 3/4 INCH THROUGH 1-1/4 INCH. IN METAL DECKS, CONTRACTOR SHALL PROVIDE REDHEAD SDI INSERTS, OR APPROVED EQUAL. POWDER PROPELLED INSERTS WILL BE PERMITTED IN NEW CONSTRUCTION WHERE TYPE AND LOCATION ARE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
7. CONTRACTOR SHALL PROVIDE SIDE BEAM CLAMPS FOR SUPPORTING PIPING FROM STRUCTURAL STEEL MEMBERS. BEAM CLAMPS SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL 300 OR APPROVED EQUAL.
8. WHERE OTHER MEANS OF SUPPORT PIPING ARE REQUIRED OR DESIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE ENGINEER'S APPROVAL PRIOR TO INSTALLING THOSE SUPPORTS.
9. HANGER SHALL BE PROVIDED AT EACH CHANGE OF DIRECTION.
10. HANGERS AND SUPPORTS SHALL BE SPACED AT INTERVALS WHICH WILL PREVENT SAGGING AND REDUCE STRAIN ON VALVES AND SPECIALTIES. HANGER SPACING SHALL BE NO GREATER AND ROD SIZE SHALL BE NO SMALLER THAN THAT SHOWN IN THE FOLLOWING TABLE. HANGERS SHALL ALLOW FOR EXPANSION AND CONTRACTION. HANGERS AND SUPPORTS MUST COMPLY WITH NFPA-13 REQUIREMENTS.

FERROUS PIPING AND COPPER TUBING:

DIAMETER OF PIPE	MAXIMUM SPACING	ROD SIZE
UP TO 1"	8 FT.	3/8"
1-1/4" TO 1-1/2"	10 FT	3/8"
2" THRU 3"	12 FT	3/8"
4" AND 5"	15 FT	1/2"
6" AND LARGER	15 FT	5/8"

11. RISER CLAMPS SHALL BE INSTALLED ABOVE THE FLOOR AT EACH LEVEL. RISER CLAMPS MAY BE SUSPENDED BELOW FLOOR LEVEL, WITH HANGER RODS AND INSERTS, WHERE THE INSTALLATION OF ESCUTCHEON PLATES IS REQUIRED.

J. PIPE WALL SEALS

1. WALL PIPE SEALS WITH RUBBER LINKS SHALL BE THUNDERLINE LINK SEAL, OR APPROVED EQUAL. WALL PIPE SEALS WITH INORGANIC MATERIAL LINKS THE PENETRATIONS OF FIRE RATED WALLS SHALL BE THUNDERLINE PYRO-PAC, OR APPROVED EQUAL.
2. SEALS SHALL BE MODULAR MECHANICAL TYPE CONSISTING OF INTERLOCKING SYNTHETIC RUBBER OR INORGANIC MATERIAL LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING.
3. LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS BELT AROUND THE PIPE. A PRESSURE PLATE SHALL BE PROVIDED UNDER THE BOLT HEAD AND NUT OF EACH LINK.
4. AFTER THE SEAL ASSEMBLY IS POSITIONED IN THE SLEEVE, THE TIGHTENING OF THE BOLTS SHALL CAUSE THE SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATER-TIGHT SEAL BETWEEN THE PIPE AND SLEEVE.
5. SEALS SHALL BE CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN THE PIPE AND SLEEVE, THUS REDUCING CHANCES OF CATHODIC REACTION BETWEEN THESE TWO MEMBERS.
6. SLEEVES SHALL BE MANUFACTURED FROM HEAVY-WALL, WELDED OR SEAMLESS STEEL PIPE. A FULL CIRCLE CONTINUOUSLY WELDED WATER STOP PLATE SHALL BE PROVIDED TO ASSURE POSITIVE WATER SEALING OF THE SLEEVE. SLEEVE SHALL BE PROTECTED BY A COATING OF ENRICHED RED PRIMER.

L. PIPE IDENTIFICATION

11. CONTRACTOR SHALL PROVIDE IDENTIFICATION LABELS, TAGS, ETC., FOR FIRE PROTECTION PIPING AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
12. THE IDENTIFICATION OF PLUMBING PIPING SHALL BE IN ACCORDANCE WITH ANSI STANDARD A13.1.
13. PRESSURE SENSITIVE PIPE MARKERS SHALL BE MANUFACTURED BY THE BRADY CO., OR APPROVED EQUAL. PIPE MARKERS SHALL BE MANUFACTURER'S STANDARD PRODUCT.

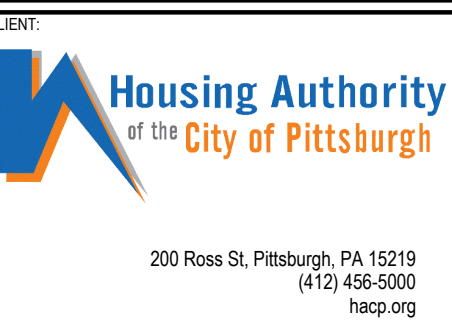
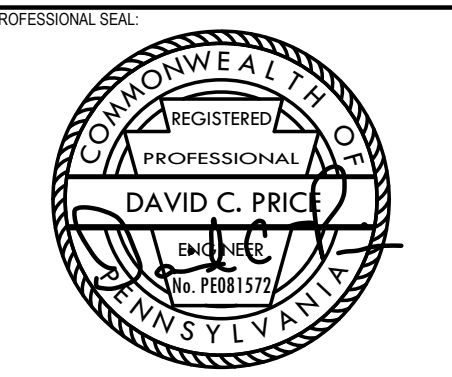
M. ACCESS DOORS

1. ACCESS DOORS SHALL BE PROVIDED IN WALLS AND CEILINGS WHERE REQUIRED TO PERMIT PROPER ACCESS TO VALVES AND ANY OTHER SUCH DEVICES WHICH REQUIRE MAINTENANCE OR SERVICE. DOORS PLACED IN WALLS, PARTITIONS OR OTHER FIRE-RATED CONSTRUCTION SHALL HAVE A LABEL SIGNIFYING THAT THE DOOR HAS THE SAME FIRE RATING AS THE FIRE-RATED CONSTRUCTION.
2. THIS CONTRACTOR SHALL FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.
3. ACCESS PANELS SHALL BE CONSTRUCTED OF 14 GAUGE STEEL, WITH 16 GAUGE STEEL FRAMES. DOORS SHALL FINISH FLUSH WITH THE SURROUNDING SURFACE. FRAMES SHALL HAVE 3 INCH WIDE EXPANDED METAL FOR PLASTERED SURFACES AND PLAIN FLANGED TYPE FRAME FOR TILE, MASONRY OR GYPSUM BOARD SURFACES. DOORS AND FRAMES SHALL BE FURNISHED PRIME COATED. DOORS INSTALLED IN CERAMIC TILE OR OTHER NON-PAINTED SURFACES SHALL BE STAINLESS STEEL.
4. HINGES SHALL BE CONCEALED SPRING TYPE, TO ALLOW DOORS TO BE OPENED 175 DEGREES. LOCKS SHALL BE FLUSH SCREWDRIVER TYPE WITH STEEL CAMS.
5. ACCESS PANELS SHALL BE 16 INCHES BY 16 INCHES OR LARGER AS MAY BE REQUIRED FOR PROPER ACCESS TO THE DEVICE BEING SERVED.
6. ACCESS PANELS ARE NOT REQUIRED IN COMPLETELY ACCESSIBLE LIFT OUT TILE CEILINGS. CONTRACTOR SHALL REVIEW THE ROOM FINISH SCHEDULE ON THE ARCHITECTURAL DRAWINGS TO VERIFY THE NEED FOR ACCESS PANELS.

N. FIRESTOPPING

1. SERVICES THAT PASS THRU FIRE OR SMOKE RATED PARTITIONS, WALLS, FLOORS, SHALL BE FIRESTOPPED. FIRE STOPPING SYSTEM RATING SHALL MATCH PARTITION RATING. FIRE STOPPING SYSTEM SHALL MEET THE REQUIREMENTS OF BUILDING CODE.
2. FIRESTOPPING AND/OR SMOKE STOPPING MATERIAL AND INSTALLATION SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.

END OF FIRE PROTECTION SPECIFICATIONS



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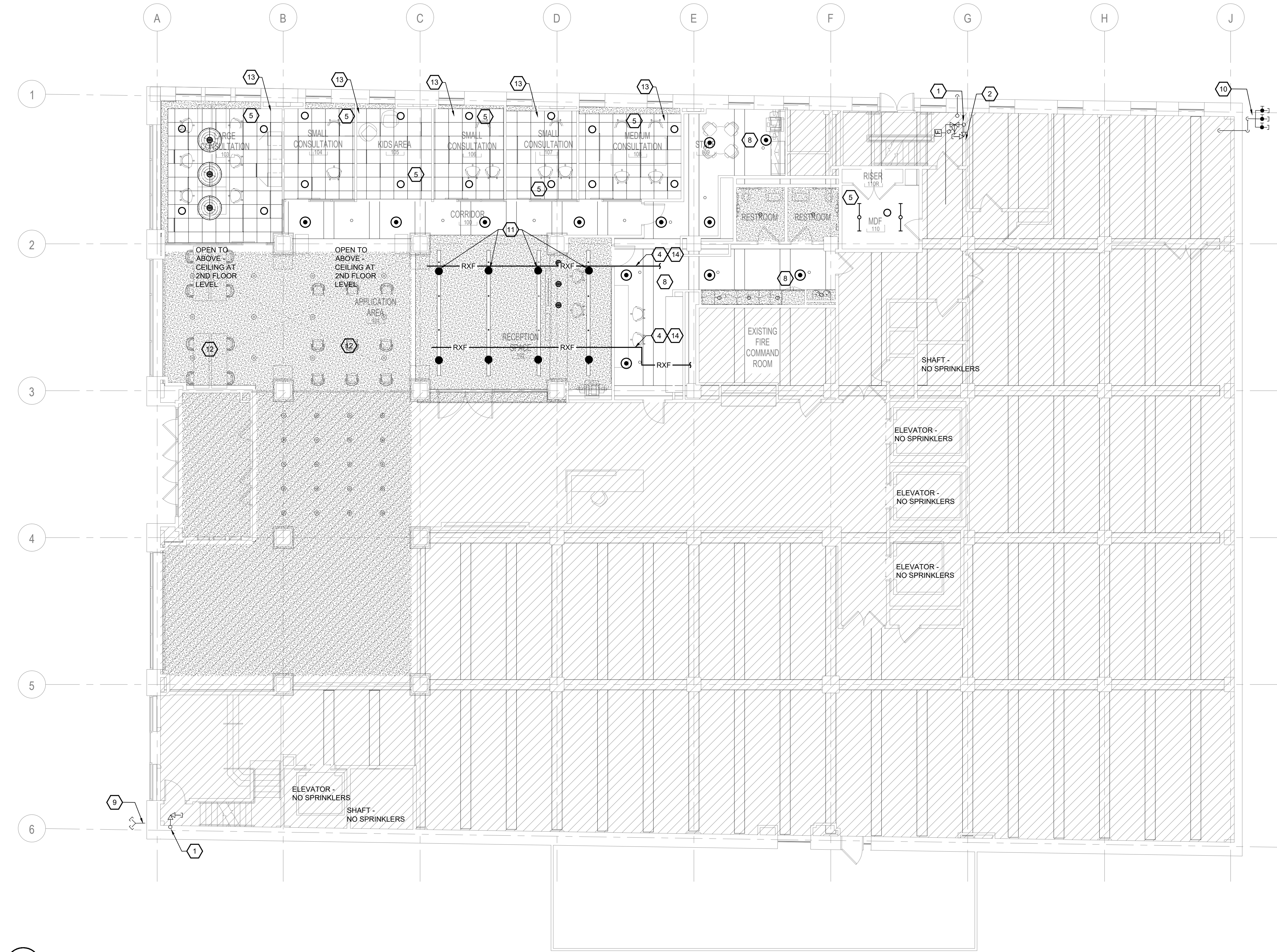
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO. 190427.00 DRAWN BY: TJT REVIEWED BY: DCP

SHEET NAME: FIRE PROTECTION SPECIFICATIONS

SHEET NO. FP-003

TRUE NORTH  
PLAN NORTH



**FIRE PROTECTION KEY NOTES:**

1. EXISTING 6 INCH STANDPIPE AND FIRE HOSE VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE.
2. EXISTING SPRINKLER SYSTEM FLOOR CONTROL VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE. TO COMPLY WITH CITY INSPECTOR, PROVIDE NEW PRESSURE GAUGES UP AND DOWN STREAM OF THE EXISTING PRESSURE REGULATING VALVE AND PROVIDE NEW 3/4" 175 PSI PRESSURE RELIEF VALVE DOWNSTREAM OF THE PRESSURE REGULATING VALVE. EXTEND DRAIN FROM RELIEF VALVE AND CONNECT TO EXISTING DRAIN RISER. PROVIDE NEW SIGNS TO COMPLY WITH SECTION 6.7.4 OF NFPA-13 TO INDICATE ALL CONTROL, DRAIN AND TEST CONNECTION VALVES.
3. DISCONNECT AND REMOVE EXISTING SPRINKLERS MARKED WITH "RX" TO MAKE WAY FOR NEW TENANT SPACE LAYOUT. (TYPICAL)
4. DISCONNECT AND REMOVE EXISTING SPRINKLER PIPING MARKED WITH "RXF" TO MAKE WAY FOR NEW TENANT SPACE LAYOUT. (TYPICAL)
5. PROVIDE NEW WHITE CONCEALED SPRINKLERS WITH WHITE COVER PLATES IN NEW OFFICES FITTED WITH LAY-IN TILE CEILINGS. (TYPICAL) PROVIDE DESIGN DENSITY OF 0.10 GPM OVER 1,500 SF FOR LIGHT HAZARD OCCUPANCY.
6. RE-ROUTE EXISTING CROSS MAIN PIPING TO PROVIDE CLEAR SPACE FOR NEW TENANT DUCTWORK.
7. PROVIDE NEW BRASS PIPING TO NEW SPRINKLER LOCATIONS. CONNECT TO EXISTING PIPING.
8. PROVIDE NEW BRASS UPRIGHT SPRINKLERS IN THIS AREA AND COORDINATE WITH NEW OFFICE WALLS, DUCT WORK AND OTHER ITEMS MOUNTED IN CEILINGS. (TYPICAL)
9. EXISTING FIRE DEPARTMENT INLET CONNECTION SHALL REMAIN AT THIS LOCATION AND CONTINUE IN SERVICE.
10. EXISTING FIRE PUMP TEST HEADER SHALL REMAIN AT THIS LOCATION AND CONTINUE IN SERVICE.
11. PROVIDE CHROME PLATED PENDENT SPRINKLERS IN THE ARCHITECTURAL UTILITY TROUGH IN CEILING. SEE DETAIL ON ARCHITECTURAL DRAWINGS FOR DETAIL AND FIELD COORDINATE WITH GC FOR INSTALLATION WITHIN THE TROUGH. (TYPICAL FOR ALL TROUGHS)
12. EXISTING SPRINKLERS IN THIS AREA ARE AT THE 2ND FLOOR CEILING AND SHALL REMAIN AND CONTINUE IN SERVICE.
13. REMOVE EXISTING EXPOSED UPRIGHT SPRINKLERS AND BRASS PIPING UNDER DUCTWORK IN THIS AREA AND CAP AT MAIN.
14. RAISE EXISTING PIPING CURRENTLY AT 8'-8" TO BOTTOM OF PIPE TO MAINTAIN A MINIMUM OF 9'-5" TO MAKE CLEARANCE FOR NEW 9 FOOT CEILING.

**FIRE PROTECTION GENERAL NOTES:**

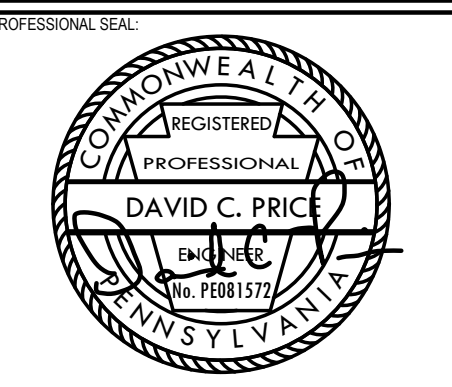
- A. SPRINKLER CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING CROSS MAINS AND BRASS PIPING.
- B. SPRINKLER CONTRACTOR SHALL COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXISTING PIPING WITH NEW DUCTWORK, LIGHTS, CEILINGS AND OTHER CEILING MOUNTED EQUIPMENT. SPRINKLER CONTRACTOR SHALL RELOCATE ANY EXISTING PIPING THAT IS BLOCKING NEW DUCTWORK RUNS.
- C. SPRINKLER CONTRACTOR SHALL ADJUST THE ELEVATION OF ANY EXISTING BRASS PIPING CURRENTLY BELOW 9 FEET TO MAINTAIN A MINIMUM OF 9 FEET CLEAR TO THE BOTTOM OF PIPE.

**1 1ST FLOOR FIRE PROTECTION PLAN**  
 FP-201 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP





CONSULTANT:  
**Allen & Shariff**  
DESIGN | BUILD | MANAGE  
Allen & Shariff Engineering, LLC  
700 River Avenue, Suite 600  
Pittsburgh, PA 15212  
Tel: 412.322.9280

CLIENT:  
**Housing Authority**  
of the City of Pittsburgh  
200 Ross St. Pittsburgh, PA 15219  
(412) 456-5000  
hacp.org

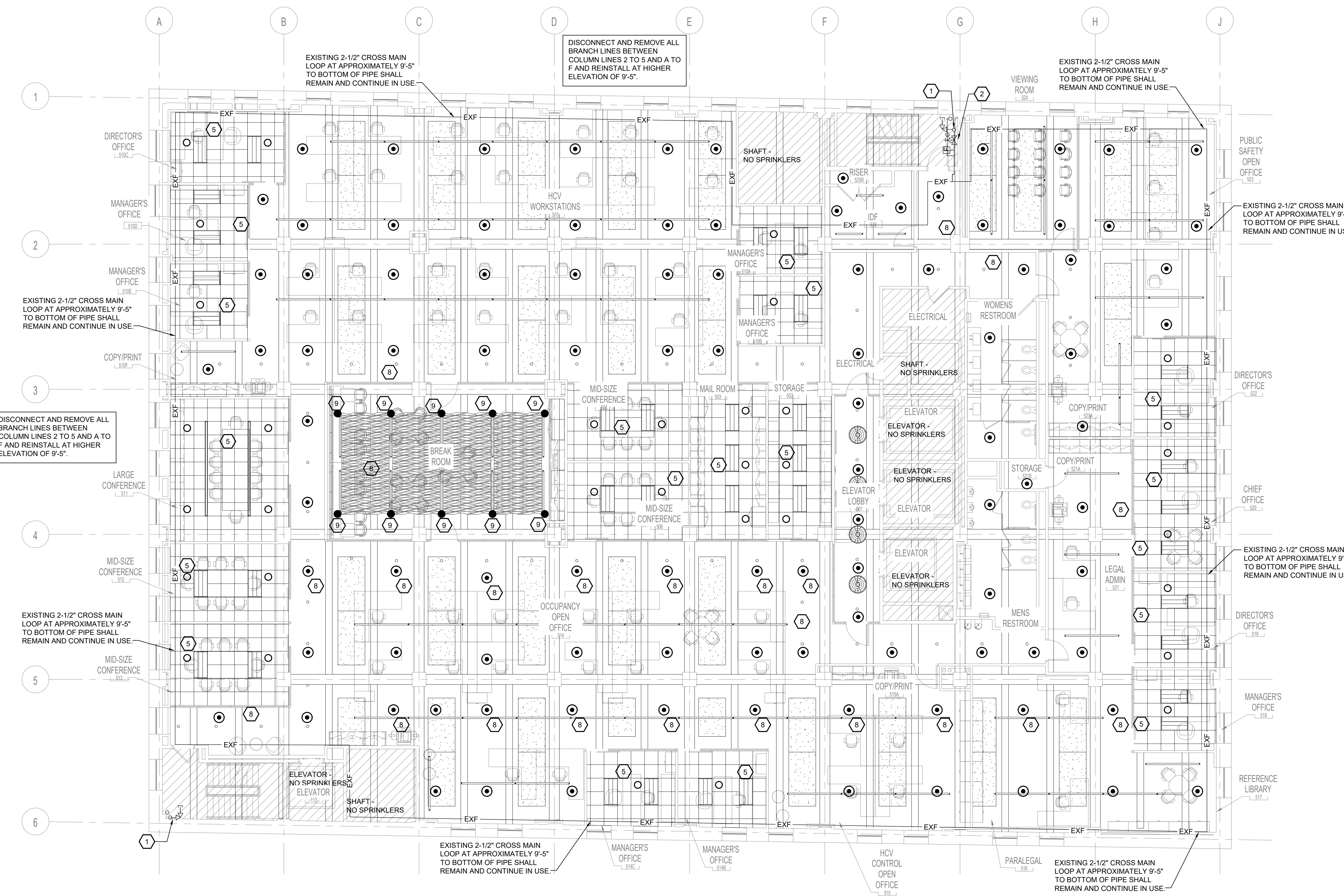
HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

**FIRE PROTECTION KEY NOTES:**

- EXISTING STANDPIPE AND FIRE HOSE VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE.
- EXISTING SPRINKLER SYSTEM FLOOR CONTROL VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE. TO COMPLY WITH CITY INSPECTOR, PROVIDE NEW PRESSURE GAUGES UP AND DOWN STREAM OF THE EXISTING PRESSURE REGULATING VALVE AND PROVIDE NEW 3/4" 175 PSI PRESSURE RELIEF VALVE DOWNSTREAM OF THE PRESSURE REGULATING VALVE. EXTEND DRAIN FROM RELIEF VALVE AND CONNECT TO EXISTING DRAIN RISER. PROVIDE NEW SIGNS TO COMPLY WITH SECTION 6.7.4 OF NFPA-13 TO INDICATE ALL CONTROL DRAIN AND TEST CONNECTION VALVES.
- WHERE NOT OTHERWISE NOTED TO BE REMOVED, EXISTING SPRINKLERS MAY BE REUSED IF THEY COMPLY WITH NEW TENANT SPACE LAYOUT. (TYPICAL)
- WHERE NOT OTHERWISE NOTED TO BE REMOVED, EXISTING SPRINKLER PIPING MAY BE REUSED IF THEY COMPLY WITH NEW TENANT SPACE LAYOUT. (TYPICAL)
- PROVIDE NEW WHITE CONCEALED SPRINKLERS WITH WHITE COVER PLATES IN NEW OFFICES FITTED WITH LAY-IN TILE CEILINGS. (TYPICAL) PROVIDE DESIGN DENSITY OF 0.10 GPM OVER 1,500 SF FOR LIGHT HAZARD OCCUPANCY.
- RE-ROUTE EXISTING CROSS MAIN PIPING TO PROVIDE CLEAR SPACE FOR NEW TENANT DUCTWORK.
- PROVIDE NEW BRASS UPRIGHT SPRINKLERS IN THIS AREA AND COORDINATE WITH NEW OFFICE WALLS, DUCT WORK AND OTHER ITEMS MOUNTED IN CEILINGS. (TYPICAL)
- PROVIDE NEW BRASS UPRIGHT SPRINKLERS ABOVE THE SPECIAL SOFT-FOLD CEILING AND AT THE CEILING ELEVATION PROVIDE CHROME PLATED PENDENT SPRINKLERS WITH PROTECTION DISC TO PROTECT FROM THE UPRIGHT SPRINKLERS ABOVE.

**FIRE PROTECTION GENERAL NOTES:**

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- SPRINKLER CONTRACTOR SHALL COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXISTING PIPING WITH NEW DUCTWORK, LIGHTS, CEILINGS AND OTHER CEILING MOUNTED EQUIPMENT. SPRINKLER CONTRACTOR SHALL RELOCATE ANY EXISTING PIPING THAT IS BLOCKING NEW DUCTWORK RUNS.
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- PROVIDE SPRINKLERS WITH PROTECTIVE CAGES UNDER ALL DUCTWORK 48 INCHES WIDE AND GREATER. FIELD COORDINATE WITH HVAC CONTRACTOR.



**1 5TH FLOOR FIRE PROTECTION PLAN**  
FP-202 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

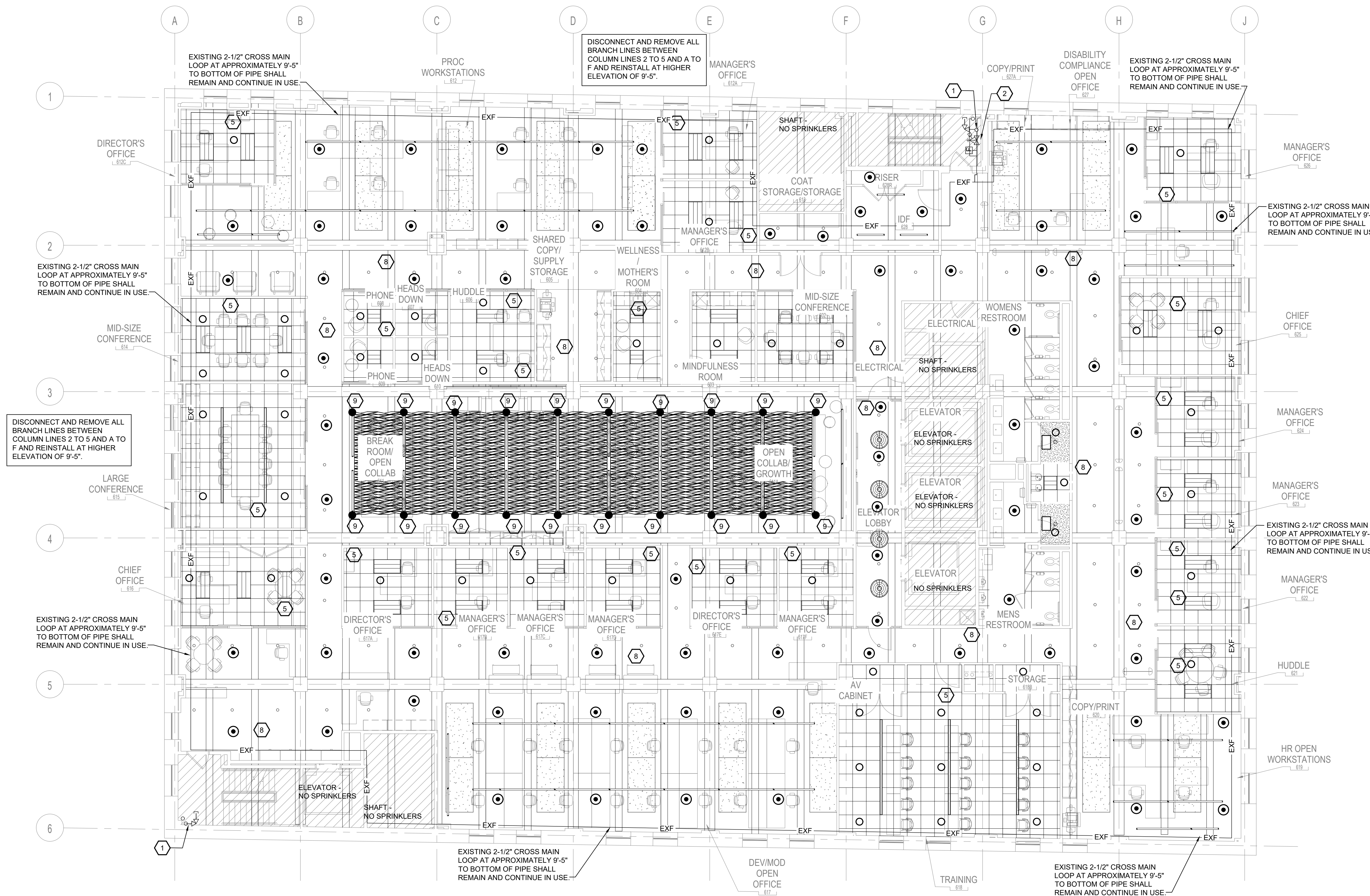
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

**FIRE PROTECTION KEY NOTES:**

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- PROVIDE NEW WHITE CONCEALED SPRINKLERS WITH WHITE COVER PLATES IN NEW OFFICES FITTED WITH LAY-IN TILE CEILINGS. (TYPICAL) PROVIDE DESIGN DENSITY OF 0.10 GPM OVER 1,500 SF FOR LIGHT HAZARD OCCUPANCY.
- RE-ROUTE EXISTING CROSS MAIN PIPING TO PROVIDE CLEAR SPACE FOR NEW TENANT DUCTWORK.
- PROVIDE NEW BRANCH PIPING TO NEW SPRINKLER LOCATIONS. CONNECT TO EXISTING PIPING.
- PROVIDE NEW BRASS UPRIGHT SPRINKLERS IN THIS AREA AND COORDINATE WITH NEW OFFICE WALLS, DUCT WORK AND OTHER ITEMS MOUNTED IN CEILINGS. (TYPICAL)
- PROVIDE NEW BRASS UPRIGHT SPRINKLERS ABOVE THE SPECIAL SOFT-FOLD CEILING AND AT THE CEILING ELEVATION PROVIDE CHROME PLATED PENDENT SPRINKLERS WITH PROTECTION DISC TO PROTECT FROM THE UPRIGHT SPRINKLERS ABOVE.

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**1 6TH FLOOR FIRE PROTECTION PLAN**

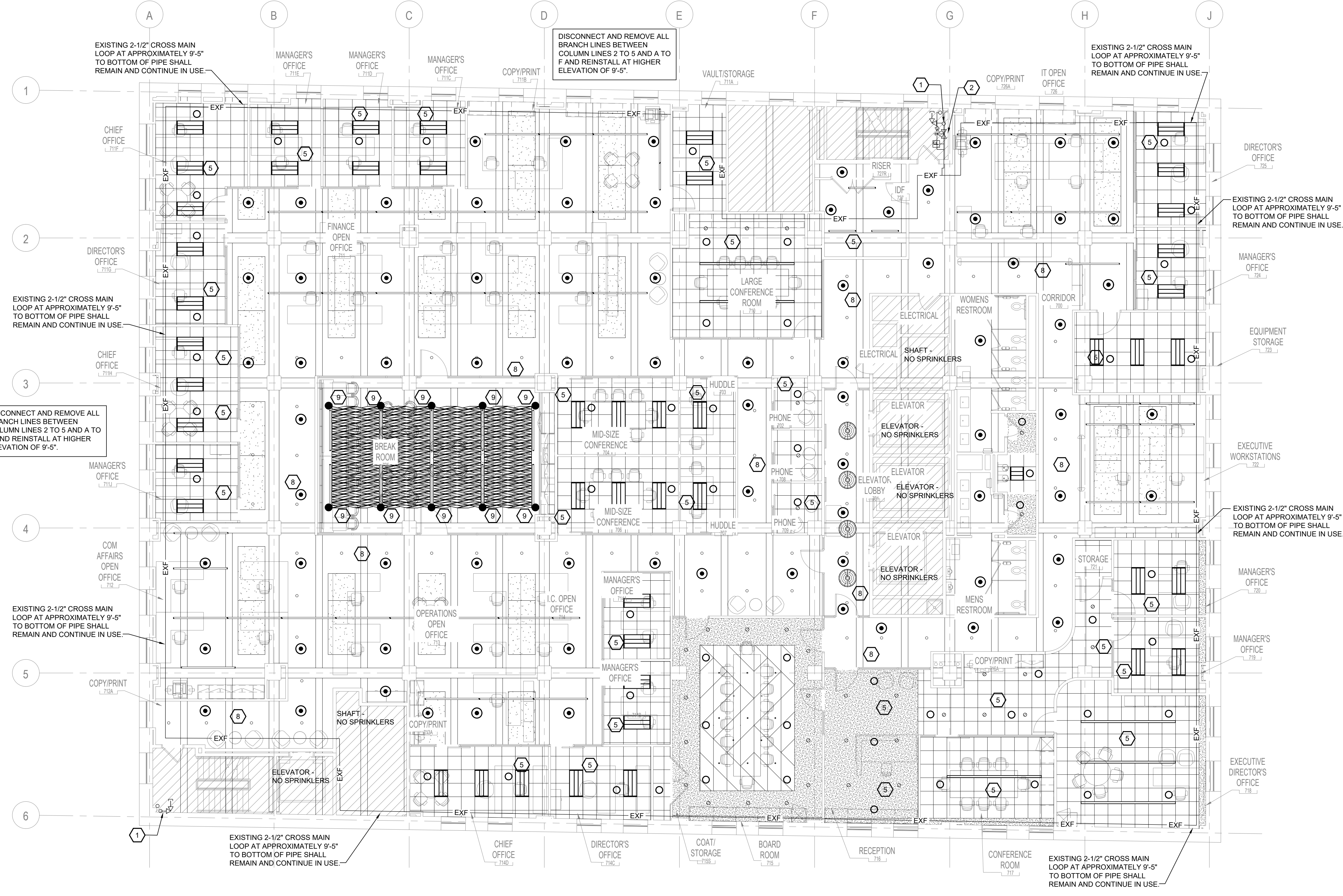
FP-203 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

SHEET NO.  
**6TH FLOOR  
 FIRE PROTECTION PLAN**

TRUE NORTH  
**FP-203**  
 PLAN NORTH



**FIRE PROTECTION KEY NOTES:**

- EXISTING STANDPIPE AND FIRE HOSE VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE.
- EXISTING SPRINKLER SYSTEM FLOOR CONTROL VALVE SHALL REMAIN AT THIS APPROXIMATE LOCATION AND CONTINUE IN USE. TO COMPLY WITH CITY INSPECTOR, PROVIDE NEW PRESSURE GAUGES UP AND DOWN STREAM OF THE EXISTING PRESSURE REGULATING VALVE AND PROVIDE NEW 3/4" 175 PSI PRESSURE RELIEF VALVE DOWNSTREAM OF THE PRESSURE REGULATING VALVE. EXTEND DRAIN FROM RELIEF VALVE AND CONNECT TO EXISTING DRAIN RISER. PROVIDE NEW SIGNS TO COMPLY WITH SECTION 6.7.4 OF NFPA-13 TO INDICATE ALL CONTROL, DRAIN AND TEST CONNECTION VALVES.
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- RE-ROUTE EXISTING CROSS MAIN PIPING TO PROVIDE CLEAR SPACE FOR NEW TENANT DUCTWORK.
- PROVIDE NEW BRASS UPRIGHT SPRINKLERS IN THIS AREA AND COORDINATE WITH NEW OFFICE WALLS, DUCT WORK AND OTHER ITEMS MOUNTED IN CEILINGS. (TYPICAL)

**FIRE PROTECTION GENERAL NOTES:**

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- PROVIDE SPRINKLERS WITH PROTECTIVE CAGES UNDER ALL DUCTWORK 48 INCHES WIDE AND GREATER. FIELD COORDINATE WITH HVAC CONTRACTOR.

**1 7TH FLOOR FIRE PROTECTION PLAN**  
FP-204 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

7TH FLOOR  
FIRE PROTECTION PLAN  
SHEET NO. **FP-204**



PLUMBING SPECIFICATION

SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. COMMISSIONING IS A SYSTEMATIC PROCESS OF ENSURING THAT THE BUILDING SYSTEMS PERFORM INTERACTIVELY ACCORDING TO THE DESIGN INTENT AND THE OWNER'S OPERATIONAL NEEDS...

B. COMMISSIONING DURING THE CONSTRUCTION PHASE IS INTENDED TO ACHIEVE THE FOLLOWING SPECIFIC OBJECTIVES ACCORDING TO THE CONTRACT DOCUMENTS:

- 1. VERIFY THAT APPLICABLE EQUIPMENT AND SYSTEMS ARE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND TO INDUSTRY ACCEPTED MINIMUM STANDARDS...

C. THE COMMISSIONING PROCESS DOES NOT TAKE AWAY FROM OR REDUCE THE RESPONSIBILITY OF THE SYSTEM DESIGNERS OR INSTALLING CONTRACTORS TO PROVIDE A FINISHED AND FULLY FUNCTIONING PRODUCT.

1.02 RESPONSIBILITIES

A. ARCHITECT & ENGINEER

- 1. RESOLVE OPERATIONAL AND DESIGN ISSUES TO ACHIEVE PROPERLY FUNCTIONING SYSTEMS. 2. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS.

B. OWNER

- 1. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS. 2. ARRANGE FOR FACILITY OPERATING AND MAINTENANCE PERSONNEL TO ATTEND MEETINGS NECESSARY TO FACILITATE THE CX PROCESS.

C. MECHANICAL: REFER TO DIVISION 23

D. ELECTRICAL: REFER TO DIVISION 26

1.03 DEFINITIONS

A. BOD: BASIS OF DESIGN: A DOCUMENT THAT RECORDS CONCEPTS, CALCULATIONS, DECISION AND PRODUCT SELECTIONS USED TO MEET THE OPR AND TO SATISFY APPLICABLE REGULATORY REQUIREMENTS...

B. COMMISSIONING PLAN: A DOCUMENT THAT OUTLINES THE ORGANIZATION, SCHEDULE, ALLOCATION OF RESOURCES AND DOCUMENTATION REQUIREMENTS OF THE COMMISSIONING PROCESS.

C. CXA: COMMISSIONING AUTHORITY

D. OPR: OWNER'S PROJECT REQUIREMENTS: A DOCUMENT THAT DETAILS THE FUNCTIONAL REQUIREMENTS OF A PROJECT AND THE EXPECTATIONS OF HOW IT WILL BE USED AND OPERATED...

E. SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS: WHERE THESE TERMS ARE USED TOGETHER OR SEPARATELY, THEY SHALL MEAN "AS-BUILT" SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS.

1.04 RELATED WORK

- 1. DIVISION 23 - "MECHANICAL SYSTEMS COMMISSIONING" 2. DIVISION 26 - "ELECTRICAL SYSTEMS COMMISSIONING" 3. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISION 1 SPECIFICATION SECTIONS...

1.05 COMMISSIONING TEAM

A. MEMBERS APPOINTED BY CONTRACTOR: INDIVIDUALS, EACH HAVING THE AUTHORITY TO ACT ON BEHALF OF THE ENTITY HE OR SHE REPRESENTS, EXPLICITLY ORGANIZED TO IMPLEMENT THE COMMISSIONING PROCESS THROUGH COORDINATED ACTION...

B. MEMBERS APPOINTED BY OWNER:

- 1. CXA: THE DESIGNATED PERSON, COMPANY, OR ENTITY THAT PLANS, SCHEDULES AND COORDINATES THE COMMISSIONING TEAM TO IMPLEMENT THE COMMISSIONING PROCESS. 2. REPRESENTATIVES OF THE FACILITY USER AND OPERATION AND MAINTENANCE PERSONNEL.

END OF SECTION 019113

GENERAL INFORMATION

A. GENERAL

- 1. CONFORM TO GENERAL AND SPECIAL CONDITIONS OF CONTRACT. 2. SPECIFICATIONS ARE APPLICABLE TO CONTRACTORS AND/OR SUBCONTRACTORS. 3. THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND EQUIPMENT DRAWINGS AND SPECIFICATIONS ARE INCORPORATED INTO, AND BECOME A PART OF THIS DIVISION...

- 9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN. 10. PIPING, CONTROLS, ETC., SHALL NOT BE INSTALLED, OR ROUTED ABOVE, ELECTRICAL PANELS AND EQUIPMENT OR THROUGH ELEVATOR MACHINE ROOMS.

B. CODES, PERMITS, STANDARDS AND REGULATIONS

- 1. CONFORM TO APPLICABLE CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ETC.), GOVERNMENT REGULATIONS, UTILITY COMPANY REQUIREMENTS, AND APPLICABLE STANDARDS. 2. OBTAIN PERMITS AND PAY FEES. ARRANGE FOR REQUIRED TESTS, INSPECTIONS AND APPROVALS.

C. RELATED WORK SPECIFIED ELSEWHERE

- 1. OPENINGS AND CHASES, WHEN SHOWN ON ARCHITECTURAL DRAWINGS. 2. TEMPORARY WATER SERVICE, SANITARY FACILITIES, FIRE PROTECTION AND HEATING DURING CONSTRUCTION. 3. POURED-IN-PLACE CONCRETE.

D. DRAWINGS

- 1. THE SYSTEMS SHOWN THE DRAWINGS ARE DIAGRAMMATIC. CONFIRM DIMENSIONS BY FIELD MEASUREMENT. 2. THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING WHICH IS NOT COVERED BY DRAWINGS, SHALL BE OBTAINED FROM THE ARCHITECT OR HIS REPRESENTATIVE IN THE FIELD...

E. DEMOLITION AND REMOVAL

- 1. DISCONNECT, DISASSEMBLE, CAP, PLUG AND REMOVE ALL PIPING, DUCTS AND EQUIPMENT INDICATED ON THE DRAWINGS, AND AS REQUIRED FOR THE PROJECT. 2. ANY EQUIPMENT DESIGNATED BY OWNER TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO THE OWNER'S ON SITE.

F. BASE EQUIPMENT, MATERIALS AND SUBSTITUTIONS

- 1. EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS AND U.L. LABELED. 2. BASE BID MANUFACTURERS ARE INCLUDED IN SPECIFICATIONS OR LISTED IN SCHEDULE ON DRAWINGS. OTHER MANUFACTURERS ARE CONSIDERED A SUBSTITUTION.

G. CHECK, TEST, START, ADJUST, BALANCE AND INSTRUCTIONS

- 1. AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AND REQUIREMENTS OF THE SPECIFICATIONS. 2. PIPING SHALL BE TESTED AND FREE OF LEAKS. MAKE REPAIRS NEEDED FOR LEAK FREE SYSTEMS.

H. CUTTING, PATCHING AND DRILLING

- 1. CUTTING AND PATCHING OF THE BUILDING CONSTRUCTION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. 2. NEATLY SAW CUT RECTANGULAR OPENINGS. SET SLEEVE THROUGH OPENING, AND FINISH PATCH OR PROVIDE TRIM FLANGE AROUND OPENINGS.

- 3. NEATLY SAW CUT FLOORS FOR SEWER INSTALLATION AND PATCH FLOOR TO MATCH EXISTING, INCLUDING FLOOR COVERING. PROVIDE IRON DOWEL RODS TO ANCHOR CONCRETE PATCH TO EXISTING CONCRETE FLOORS. RODS SHALL BE PLACED @ 12" ON CENTER FOR THE ENTIRE LENGTH OF PATCH. 4. CORE DRILL AND SLEEVE ROUND OPENINGS.

I. WARRANTY

- 1. FULLY WARRANT MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE. 2. PROVIDE MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL AVAILABLE EXTENDED WARRANTIES.

J. SHOP DRAWING SUBMITTALS

- 1. SUBMIT SHOP DRAWINGS WITH ADEQUATE DETAILS AND SCALES TO CLEARLY SHOW CONSTRUCTION. INDICATE THE OPERATING CHARACTERISTICS FOR EACH REQUIRED ITEM. CLEARLY IDENTIFY EACH ITEM ON THE SUBMITTAL AS TO MARK, LOCATION AND USE, USING SAME IDENTIFICATION AS PROVIDED ON DESIGN DRAWINGS.

K. RECORD DRAWINGS

- 1. EACH CONTRACTOR OR SUBCONTRACTOR SHALL KEEP ONE (1) COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON THE JOB SITE. THE CONTRACTOR SHALL REGULARLY RECORD DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING CONSTRUCTION.

PLUMBING SYSTEMS

A. SCOPE

- 1. PROVIDE PLUMBING FIXTURES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN ON DRAWINGS AND PLACE IN PROPER OPERATION. 2. PLUMBING SYSTEMS TO ESSENTIALLY CONSIST OF BUT NOT LIMITED TO THE FOLLOWING: a. SANITARY WASTE AND VENT PIPING AND SANITARY SEWER EXTENDED TO EXISTING BUILDING FACILITIES...

B. EXCAVATION AND BACKFILL

- 1. PERFORM EXCAVATION AND BACKFILL REQUIRED FOR INSTALLATION OF PIPING. 2. EXCAVATE TO DEPTH REQUIRED TO INSTALL PIPING AT REQUIRED LEVEL AND PITCH. PIPE SHALL BE INSTALLED ON SAND BEDDING TO GIVE UNIFORM BEARING ALONG LENGTH OF PIPE...

- 3. BACKFILL WITH BEDDING MATERIAL TO A MINIMUM OF TWELVE (12) INCHES ABOVE TOP OF PIPES AND COMPACT. BALANCE OF BACKFILL IN GRASS AREAS SHALL BE CLEAN EARTH UP TO SIX (6) INCHES ABOVE SURROUNDING GRADES. UNDER FLOORS SAND, AND UNDER PAVING INTERLOCKING AGGREGATE. ALL BACKFILL SHALL BE COMPACTED IN MAXIMUM SIX (6) INCH LAYERS.

C. CONNECTIONS TO EQUIPMENT FURNISHED BY OTHERS

- 1. PROVIDE VALVED WATER AND/OR GAS CONNECTION FOR EQUIPMENT FURNISHED BY OTHER CONTRACTORS OR OWNER. PROVIDE SANITARY DRAINAGE AND VENT CONNECTIONS FOR EQUIPMENT FURNISHED BY OTHERS. 2. INCLUDE ACCESSORIES REQUIRED BY CODE, DRAWINGS, OR MANUFACTURER'S INSTRUCTIONS.

D. SANITARY DRAINAGE PIPING AND SEWERS

- 1. PROVIDE SANITARY SEWERS, STACKS, VENTS, FLOOR DRAINS, AND CLEANOUTS FOR PROJECT AND EXTEND TO EXISTING BUILDING FACILITIES AS INDICATED ON THE DRAWINGS. 2. DRAINAGE PIPING SHALL BE PITCHED A MINIMUM OF 1/4" PER FOOT FOR SIZES 3" AND UNDER, AND 1/8" PER FOOT FOR SIZES 4" AND LARGER OR TO GRADES INDICATED ON DRAWINGS.

E. WATER PIPING

- 1. INCLUDE UNIONS, OR OTHER DISCONNECT MEANS, STOPS OR VALVES FOR ISOLATION OF FIXTURES AND EQUIPMENT. VALVES SHALL FULLY COMPATIBLE WITH PIPING FOR SERVICE INTENDED. AS MANUFACTURED BY APOLLO, NIBCO, CRANE OR OTHER APPROVED MANUFACTURER. 2. INSTALL SHOCK ABSORBERS AT EACH FIXTURE OR WHERE REQUIRED TO PREVENT WATER HAMMER.

F. FIXTURES AND EQUIPMENT

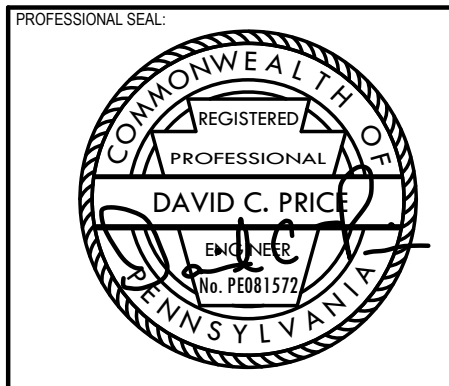
- 1. FURNISH FIXTURES AND EQUIPMENT INDICATED AND SCHEDULED ON DRAWINGS, COMPLETE WITH ACCESSORIES, CONTROLS AND INSTALLATION ITEMS REQUIRED. 2. INSTALL IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND PLACE IN SATISFACTORY OPERATION.

G. CLEANOUTS

- 1. CLEANOUTS SHALL BE INSTALLED FLUSH WITH FINISHED FLOOR OR WALLS WITH PLATED COVERS. 2. CLEANOUTS SHALL BE AS SCHEDULED ON DRAWINGS.

H. FLOOR, CEILING AND WALL PLATES:

- 1. FIT PIPE PASSING THROUGH WALLS, FLOORS OR CEILINGS IN FINISHED ROOMS WITH STEEL OR BRASS ESCUTCHEONS. WHERE SURFACE IS TO RECEIVE A PAINT FINISH ESCUTCHEONS SHALL BE PRIME PAINTED, OTHERWISE MAKE ESCUTCHEONS NICKEL OR CHROME PLATED.



200 Ross St. Pittsburgh, PA 15219 (412) 456-5000 hap.org

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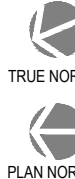
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Table with 2 columns: #, DESCRIPTION, DATE. Rows 1-5.

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PLUMBING SPECIFICATIONS

P-002



**J. INSULATION**

- INSULATE ABOVE-GRADE HOT AND COLD WATER PIPING, RAIN CONDUCTORS AND ROOF DRAIN SUMPS WITH ONE (1") INCH THICK MOLDED FIBERGLASS HAVING TYPE ASJ JACKET AND MANUFACTURED BY OWENS-CORNING FIBERGLASS COMPANY.
- INCLUDE INSULATION OF FITTINGS AND VALVES. KEEP VAPOR BARRIERS INTACT. APPLY TO MANUFACTURER'S RECOMMENDATIONS.
- AT PIPE HANGERS, PROVIDE SOLID INSULATION COUPLING SYSTEM TO PREVENT INSULATION DAMAGE OR COMPRESSION. INSULATION COUPLINGS SHALL BE THE KLO-SHURE INSULATION COUPLING SYSTEM AS MANUFACTURED BY ANVIL-STRUT.
- INSULATE BELOW-GRADE PIPING INSIDE BUILDING WITH 3/8" FOAMED PLASTIC INSULATION.
- INSULATE EXPOSED WASTE AND SUPPLY PIPING UNDER LABORATORIES WITH THE LAV-SHIELD SAFETY COVERS AS PER "PLUMBEREX SPECIALTY PRODUCTS, INC." OR EQUAL.
- REPAIR DAMAGED SECTIONS OF EXISTING PIPING INSULATION, BOTH PREVIOUSLY DAMAGED OR DAMAGED DURING THIS CONSTRUCTION PERIOD. USE INSULATION OF SAME THICKNESS AS SPECIFIED. INSTALL NEW JACKET LAPPING AND SEALED OVER EXISTING.
- EXISTING PVC PIPING IN PLENUM CEILINGS SHALL BE INSULATED TO MEET PLENUM RATINGS, WITH PRODUCT TYPICAL TO FYR-WRAP. INSTALL AS REQUIRED BY MANUFACTURER.

**K. HANGERS AND SUPPORTS**

- HANGERS FOR BLACK OR GALVANIZED STEEL PIPE SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL NO. 100, OR APPROVED EQUAL.
- HANGERS FOR CAST IRON PIPE SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL NO. 400, OR APPROVED EQUAL.
- HANGERS FOR COPPER TUBING SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL NO. 102-A, OR APPROVED EQUAL.
- TRAPEZE HANGERS OF A TYPE APPROVED BY THE ENGINEER. MAINTAIN PIPE INSULATION AT PIPE ANCHORS. PROVIDE INSULATION COUPLERS AS SPECIFIED ABOVE.
- CONTRACTOR SHALL PROVIDE INSULATION HANGER WITH PROTECTIVE SHIELDS, SUCH AS MICHIGAN HANGER CO., MODEL NO. 103, OR APPROVED EQUAL. 5 INCH LONG SECTION OF 1/2 INCH THICK CALCIUM SILICATE SECTIONAL PIPE INSULATION WITH FACTORY LONGITUDINAL LAP SHALL BE PROVIDED AT HANGER POINTS. BUTT JOINTS SHALL BE SEALED WITH INSULATING CEMENT.
- STRAP HANGERS SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL PROVIDE RISER CLAMPS FOR VERTICAL PIPING AT EACH LEVEL. RISER CLAPS SHALL BE MICHIGAN HANGER CO., MODEL NO. 510 FOR STEEL PIPING AND MODEL NO. 511 FOR COPPER TUBING OR APPROVED EQUAL. USE "SHORT-END" RISER CLAMPS WHERE SPACE IS LIMITED.
- IN CONCRETE, MICHIGAN HANGER CO., MODEL NO. 355 INSERTS, OR APPROVED EQUAL. INSERTS SHALL PERMIT ADJUSTMENT FROM 3/4 INCH THROUGH 1-1/4 INCH. IN METAL DECKS, CONTRACTOR SHALL PROVIDE REDHEAD SDI INSERTS, OR APPROVED EQUAL. POWDER PROPELLED INSERTS WILL BE PERMITTED IN NEW CONSTRUCTION WHERE TYPE AND LOCATION ARE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL PROVIDE SIDE BEAM CLAMPS FOR SUPPORTING PIPING FROM STRUCTURAL STEEL MEMBERS. BEAM CLAMPS SHALL BE MANUFACTURED BY MICHIGAN HANGER CO., MODEL 300 OR APPROVED EQUAL.
- WHERE OTHER MEANS OF SUPPORT PIPING ARE REQUIRED OR DESIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE ENGINEER'S APPROVAL PRIOR TO INSTALLING THOSE SUPPORTS.
- HANGER SHALL BE PROVIDED AT EACH CHANGE OF DIRECTION.
- HANGERS AND SUPPORTS SHALL BE SPACED AT INTERVALS WHICH WILL PREVENT SAGGING AND REDUCE STRAIN ON VALVES AND SPECIALTIES. HANGER SPACING SHALL BE NO GREATER AND ROD SIZE SHALL BE NO SMALLER THAN THAT SHOWN IN THE FOLLOWING TABLE. HANGERS SHALL ALLOW FOR EXPANSION AND CONTRACTION.

**FERROUS PIPING AND COPPER TUBING:**

DIAMETER OF PIPE	MAXIMUM SPACING	ROD SIZE
1/2" THRU 1-1/2"	6 FT.	3/8"
2" THRU 3"	10 FT	1/2"
4" THRU 5"	12 FT	5/8"
6" AND LARGER	16 FT	3/4"

**CAST IRON PIPING:**

DIAMETER OF PIPE	MAXIMUM SPACING	ROD SIZE
1 1/2" THRU 3"	EACH JOINT	3/8"
4" AND 5"	EACH JOINT	1/2"
6" AND 8"	EACH JOINT	3/4"
10" THRU 15"	EACH JOINT	3/4"

- RISER CLAMPS SHALL BE INSTALLED ABOVE THE FLOOR AT EACH LEVEL. RISER CLAMPS MAY BE SUSPENDED BELOW FLOOR LEVEL, WITH HANGER RODS AND INSERTS, WHERE THE INSTALLATION OF ESCUTCHEON PLATES IS REQUIRED.

**L. PIPE WALL SEALS**

- WALL PIPE SEALS WITH RUBBER LINKS SHALL BE THUNDERLINE LINK SEAL, OR APPROVED EQUAL. WALL PIPE SEALS WITH INORGANIC MATERIAL LINKS THE PENETRATIONS OF FIRE RATED WALLS SHALL BE THUNDERLINE PYRO-PAC, OR APPROVED EQUAL.
- SEALS SHALL BE MODULAR MECHANICAL TYPE CONSISTING OF INTERLOCKING SYNTHETIC RUBBER OR INORGANIC MATERIAL LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING.
- LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS BELT AROUND THE PIPE. A PRESSURE PLATE SHALL BE PROVIDED UNDER THE BOLT HEAD AND NUT OF EACH LINK.
- AFTER THE SEAL ASSEMBLY IS POSITIONED IN THE SLEEVE, THE TIGHTENING OF THE BOLTS SHALL CAUSE THE SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATER-TIGHT SEAL BETWEEN THE PIPE AND SLEEVE.
- SEALS SHALL BE CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN THE PIPE AND SLEEVE, THUS REDUCING CHANCES OF CATHODIC REACTION BETWEEN THESE TWO MEMBERS.
- SLEEVES SHALL BE MANUFACTURED FROM HEAVY-WALL, WELDED OR SEAMLESS STEEL PIPE. A FULL CIRCLE CONTINUOUSLY WELDED WATER STOP PLATE SHALL BE PROVIDED TO ASSURE POSITIVE WATER SEALING OF THE SLEEVE. SLEEVE SHALL BE PROTECTED BY A COATING OF ENRICHED RED PRIMER.

**M. VALVES**

- BALL VALVES 2-INCHES AND SMALLER SHALL BE 150 PSI SWP, 600 PSI WOG, BRONZE, 2-PIECE DESIGN, WITH PTFE TEFLON SEATS AND SEALS, AND BLOW-OUT PROOF STEMS MADE OF LEAD FREE BRONZE. VALVES SHALL HAVE THREADED ENDS FOR USE IN STEEL PIPING AND SOLDER OR PRESS-FIT ENDS FOR USE IN COPPER TUBING. BALL VALVES SHALL BE APOLLO 70LF-11/70LF-200-11, OR APPROVED EQUAL. PROVIDE THERMA-SEAL INSULATING TEE HANDLES FOR VALVES USED IN LINES WHICH ARE TO BE INSULATED.
- BUTTERFLY VALVES SHALL BE LUG WAFER TYPE, SUITABLE FOR 150 PSI WOG AT TEMPERATURE RANGING FROM 25 DEGREES F THROUGH 230 DEGREES F.
- BUTTERFLY VALVES SHALL HAVE FULLY REPLACEABLE SEATS MADE OF EPDM ELASTOMER. BUTTERFLY VALVES CLOSURE SHALL BE BUBBLE TIGHT.
- BUTTERFLY VALVES SHALL HAVE CAST IRON OR SEMI-STEEL BODIES. ONE PIECE TYPE 416 STAINLESS STEEL STEMS, AND BRONZE DISCS. DISCS SHALL BE ANCHORED TO STEM WITH BRONZE DRIVE PINS. SEMI-STEEL DISCS WITH WELDED NICKEL EDGE MAY BE USED IN LIEU OF BRONZE DISCS.

- PROVIDE 2 INCH EXTENSION NECKS ON ALL VALVES INSTALLED IN INSULATED LINES.
- LEVER TYPE HANDLE OPERATORS SHALL BE PROVIDED ON VALVES UP TO 4 INCHES IN SIZE. GEAR OPERATORS SHALL BE PROVIDED ON VALVES OVER 4 INCHES IN SIZE, AND ON VALVES REQUIRING CHAIN OPERATION. VALVES USED FOR BALANCING SHALL HAVE INFINITE POSITION LEVER OR GEAR OPERATORS WITH ADJUSTABLE, OPEN POSITION "MEMORY" STOP.
- BUTTERFLY VALVES SHALL BE NIBCO LD-2000, ITT GRINNELL 8000 SERIES, OR APPROVED EQUAL.
- GLOBE VALVES (3 INCH AND SMALLER) SHALL BE 150#, TEFLON DISC, UNION BONNET TYPE VALVES WITH THREADED OR SOLDER JOINT ENDS; GLOBE VALVES WITH THREADED ENDS SHALL BE HAMMOND, MODEL 1B413T, OR APPROVED EQUAL. GLOBE VALVES FOR INSTALLATION IN COPPER TUBING SHALL BE HAMMOND, MODEL 1B423, OR APPROVED EQUAL.
- CHECK VALVES (3 INCH AND SMALLER) SHALL BE 125# WITH REMOVABLE, REGRINDABLE DISCS AND THREADED OR SOLDER JOINT ENDS. CHECK VALVES TO BE INSTALLED IN HORIZONTAL LINES SHALL BE HAMMOND, MODEL 1B940, OR APPROVED EQUAL, (SCREWED JOINTS) OR HAMMOND, MODEL 1B941, OR APPROVED EQUAL (SOLDER JOINTS). CHECK VALVES TO BE INSTALLED IN VERTICAL PIPING SHALL BE HAMMOND, MODEL 1B939, OR APPROVED EQUAL. CONTRACTOR SHALL PROVIDE SWEAT-TO-THREAD ADAPTERS FOR SOLDER JOINT CONNECTIONS.
- GATE VALVES FOR UNDERGROUND WATER SERVICE SHALL BE UL LISTED AND FM APPROVED, 175#, WWP, WITH CAST IRON BODIES BRONZE MOUNTED, NON-RISING STEMS, SOLID WEDGE DISCS, AND INDICATOR POST FLANGES. VALVES SHALL BE STOCKHAM VALVE MODEL, G-635, WITH CONVENTIONAL PACKING AND MECHANICAL JOINT ENDS.
- PROVIDE VALVE TAGS AND VALVE CHART PER ASME A13.1 SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS.

**N. STRAINERS**

- Y-TYPE STRAINERS - BRONZE 3" AND SMALLER
  - STRAINER BODY TO BE ASTM B584 OR B62 BRONZE WITH THREADED OR SOLDER END CONNECTIONS AND .033 INCH PERFORATED TYPE 304 STAINLESS STEEL SCREEN OR 20 MESH TYPE 304 STAINLESS STEEL SCREEN ACCESSIBLE WITHOUT REMOVING THE STRAINER FROM THE LINE.
- Y-TYPE STRAINERS - IRON 3" AND SMALLER
  - STRAINER BODY TO BE CLASS 250 THREADED, TAPPED SCREW-IN BONNET WITH PLUG AND STAINLESS STEEL SCREEN. BODY AND BONNET TO BE ASTM A126. SCREEN MUST BE ACCESSIBLE WITHOUT REMOVING THE STRAINER FROM THE LINE.
- Y-TYPE STRAINERS - IRON 2 1/2" AND LARGER
  - STRAINER BODY TO BE CLASS 125 FLANGED, TAPPED BOLTED BONNET WITH PLUG AND STAINLESS STEEL SCREEN. BODY AND BONNET TO BE ASTM A126. SCREEN MUST BE ACCESSIBLE WITHOUT REMOVING THE STRAINER FROM THE LINE.
- ACCEPTABLE MANUFACTURERS -
  - NIBCO
  - APOLLO
  - WATTS

**O. PIPE IDENTIFICATION**

- CONTRACTOR SHALL PROVIDE IDENTIFICATION LABELS, TAGS, ETC., FOR PLUMBING AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- THE IDENTIFICATION OF PLUMBING PIPING SHALL BE IN ACCORDANCE WITH ANSI STANDARD A13.1, EXCEPT AS HEREINAFTER SPECIFIED.
- PRESSURE SENSITIVE PIPE MARKERS SHALL BE MANUFACTURED BY THE BRADY CO., OR APPROVED EQUAL. PIPE MARKERS SHALL BE MANUFACTURER'S STANDARD PRODUCT.

**P. VACUUM BREAKERS**

- VACUUM BREAKERS SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL CODE AND SHALL BE PROVIDED FOR HOSE BIBBS, WALL HYDRANTS, FLUSHOMETERS AND ANY FIXTURE OR EQUIPMENT HAVING DOMESTIC WATER SUPPLY.

**Q. ACCESS DOORS**

- ACCESS DOORS SHALL BE PROVIDED IN WALLS AND CEILINGS WHERE REQUIRED TO PERMIT PROPER ACCESS TO VALVES AND ANY OTHER SUCH DEVICES WHICH REQUIRE MAINTENANCE OR SERVICE. DOORS PLACED IN WALLS, PARTITIONS OR OTHER FIRE-RATED CONSTRUCTION SHALL HAVE A LABEL SIGNIFYING THAT THE DOOR HAS THE SAME FIRE RATING AS THE FIRE-RATED CONSTRUCTION.
- THIS CONTRACTOR SHALL FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.
- ACCESS PANELS SHALL BE CONSTRUCTED OF 14 GAUGE STEEL, WITH 16 GAUGE STEEL FRAMES. DOORS SHALL FINISH FLUSH WITH THE SURROUNDING SURFACE. FRAMES SHALL HAVE 3 INCH WIDE EXPANDED METAL FOR PLASTERED SURFACES AND PLAIN FLANGED TYPE FRAME FOR TILE, MASONRY OR GYPSUM BOARD SURFACES. DOORS AND FRAMES SHALL BE FURNISHED PRIME COATED. DOORS INSTALLED IN CERAMIC TILE OR OTHER NON-PAINTED SURFACES SHALL BE STAINLESS STEEL.
- HINGES SHALL BE CONCEALED SPRING TYPE, TO ALLOW DOORS TO BE OPENED 175 DEGREES. LOCKS SHALL BE FLUSH SCREWDRIVER TYPE WITH STEEL CAMS.
- ACCESS PANELS SHALL BE 16 INCHES BY 16 INCHES OR LARGER AS MAY BE REQUIRED FOR PROPER ACCESS TO THE DEVICE BEING SERVED.
- ACCESS PANELS ARE NOT REQUIRED IN COMPLETELY ACCESSIBLE LIFT OUT TILE CEILINGS. PRIOR TO BIDDING CONTRACTOR SHALL REVIEW THE ROOM FINISH SCHEDULE ON THE ARCHITECTURAL DRAWINGS IN ORDER TO VERIFY THE NEED FOR ACCESS PANELS.

**R. MOTOR STARTERS**

- UNLESS OTHERWISE INDICATED, EVERY MOTOR NOT SPECIFIED TO BE PROVIDED WITH A CONTROLLER AT THE FACTORY SHALL BE PROVIDED WITH A CONTROLLER AS SPECIFIED HEREIN. CONTROLLERS SHALL BE FURNISHED BY THIS CONTRACTOR. INSTALLATION OF CONTROLLERS SHALL BE BY THE ELECTRICAL CONTRACTOR.
- MOTOR CONTROLLERS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF NEMA STANDARD IC-1, INDUSTRIAL CONTROL AND BE HEAVY DUTY CONSTRUCTION. CONTROLLER SIZES SHALL BE VERIFIED TO BE COMPATIBLE WITH HORSEPOWER OF THE MOTOR. CONTROLLERS SHALL BE MANUFACTURED BY ALLEN-BRADLEY CO., GENERAL ELECTRIC, CUTLER-HAMMER OR APPROVED EQUAL.
- MANUAL MOTOR STARTERS
  - SWITCHES SHALL BE TUMBLER-SWITCH STYLE. THE MANUAL MOTOR STARTERS SHALL PROVIDE OVERLOAD PROTECTION WHICH CLOSELY FOLLOWS THE MOTOR LOAD. MANUAL MOTOR STARTERS FOR OUTDOOR USE SHALL BE NEMA TYPE 4X, INDOOR USE SHALL BE NEMA TYPE 1, EXPLOSION PROOF USE SHALL BE NEMA TYPE 7.

**S. DISCONNECT SWITCHES**

- THIS CONTRACTOR SHALL FURNISH SAFETY DISCONNECT SWITCHES (FUSED AND NON-FUSED) REQUIRED FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. IN ADDITION, THIS CONTRACTOR SHALL FURNISH A SAFETY DISCONNECT SWITCH FOR MOTORS AND EQUIPMENT WHICH DO NOT HAVE COMBINATION STARTERS OR INTEGRAL DISCONNECTING MEANS. FUSIBLE DISCONNECT SWITCHES SHALL BE PROVIDED FOR EQUIPMENT RATED FOR USE ONLY WITH FUSES (SUCH AS CONDENSING UNITS, COMPRESSORS, ETC.). SUCH SWITCHES SHALL BE ONE, TWO OR THREE POLE

TYPE, WITH SOLID NEUTRAL FOR 4 WIRE SERVICE, AND SHALL HAVE THE PROPER CURRENT AND VOLTAGE RATING AS REQUIRED. INSTALLATION OF ALL DISCONNECT SWITCHES SHALL BE BY THE ELECTRICAL CONTRACTOR.

- SAFETY SWITCHES SHALL BE NEMA HEAVY DUTY TYPE AND SHALL CARRY THE UNDERWRITERS' LABORATORIES LABEL. FUSIBLE SWITCHES SHALL INCORPORATE CLASS "R" FUSE REJECTION FEATURE AND SHALL BE BRACED TO WITHSTAND 200,000 AMPERE RMS SYMMETRICAL FAULT CURRENT. SAFETY SWITCHES SHALL CONFORM TO FEDERAL SPECIFICATION W-S-865.
- PROVIDE HEAVY-DUTY TYPE, SHEET ENCLOSED, SAFETY SWITCHES. THE TYPE, SIZE, AND RATING SHALL BE AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE MOTOR OR EQUIPMENT SERVED. THE ENCLOSURE FOR DISCONNECT SWITCHES SHALL BE NEMA TYPE 1 FOR INDOOR USE, NEMA TYPE 4X FOR OUTDOOR USE AND NEMA TYPE 7 FOR EXPLOSION PROOF USE. DISCONNECTS SHALL BE MANUFACTURED BY ALLEN-BRADLEY, GENERAL ELECTRIC, CUTLER-HAMMER APPROVED EQUAL.
- SWITCHES SHALL INCORPORATE QUICK-MAKE, QUICK-BREAK OPERATING HANDLES. THE MECHANISM SHALL BE AN INTEGRAL PART OF THE BOX, NOT THE COVER, AND SWITCHES SHALL HAVE A COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENINGS OF THE SWITCH DOOR IN THE ON POSITION OR CLOSING OF THE SWITCH MECHANISM WITH THE DOOR OPEN. CURRENT CARRYING PARTS SHALL BE CONSTRUCTED OF HIGH-CONDUCTIVITY COPPER WITH SILVER-TUNGSTEN TYPE SWITCH CONTACT.
- FUSE CLIPS SHALL BE POSITIVE PRESSURE TYPE REINFORCED FUSE CLIPS.

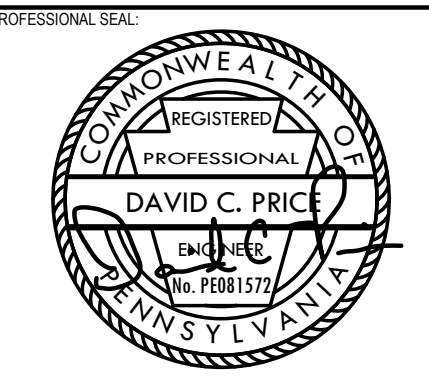
**T. FIRESTOPPING**

- SERVICES THAT PASS THRU FIRE OR SMOKE RATED PARTITIONS, WALLS, FLOORS, SHALL BE FIRESTOPPED. FIRE STOPPING SYSTEM RATING SHALL MATCH PARTITION RATING. FIRE STOPPING SYSTEM SHALL MEET THE REQUIREMENTS OF ASTM E 814, UL 1479, AND BE FACTORY MUTUAL APPROVED.
- FIRESTOPPING AND/OR SMOKE STOPPING MATERIAL AND INSTALLATION SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.

**U. WATER HEATERS**

- DOMESTIC WATER HEATERS MARKED WH ON THE DRAWINGS SHALL BE MANUFACTURED BY "LOCHINVAR", "STATE" OR "BRADFORD-WHITE". WATER HEATERS SHALL BE AS SPECIFIED ON THE WATER HEATER SCHEDULE OF THE DRAWINGS AND SHALL HAVE MINIMUM STORAGE CAPACITIES AND RECOVERY RATES NOTED. HEATERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- PROPERLY SUPPORT HEATER AND WATER. THE BASE SHALL BE COMPRISED OF A STEEL CHANNEL SYSTEM AS MANUFACTURED BY "UNISTRUT", OR ARCHITECT/ENGINEER APPROVED EQUIVALENT. THE SYSTEM SHALL BE FACTORY FABRICATED FOR FIELD INSTALLATION. BASE SHALL BE EQUIPPED WITH A STEEL PLATE PLATFORM AND SHALL BE ANCHORED TO THE BUILDING CONSTRUCTION WITH POWDER ACTIVATED OR MECHANICAL TYPE FASTENERS ("HILTI" OR ARCHITECT APPROVED EQUIVALENT) WITH THREADED HANGER RODS. ANCHORING SYSTEM SHALL BE COMPATIBLE WITH TYPE OF BUILDING CONSTRUCTION. ANCHOR FASTENERS TO BUILDING CONSTRUCTION WITH PULL-OUT AND SHEAR CAPACITIES APPROPRIATE FOR THE SUSPENDED CEILING.
- WATER HEATERS SHALL BE EQUIPPED WITH TEMPERATURE AND PRESSURE RELIEF VALVES AND STAINLESS STEEL DRIP PANS WITH MINIMUM 4" RAISED EDGES. CONTRACTOR SHALL PIPE THE DRAIN PANS AND THE T&P VALVES TO INDIRECT WASTE ASSEMBLIES AS INDICATED ON THE PLANS OR AS REQUIRED BY CODE.

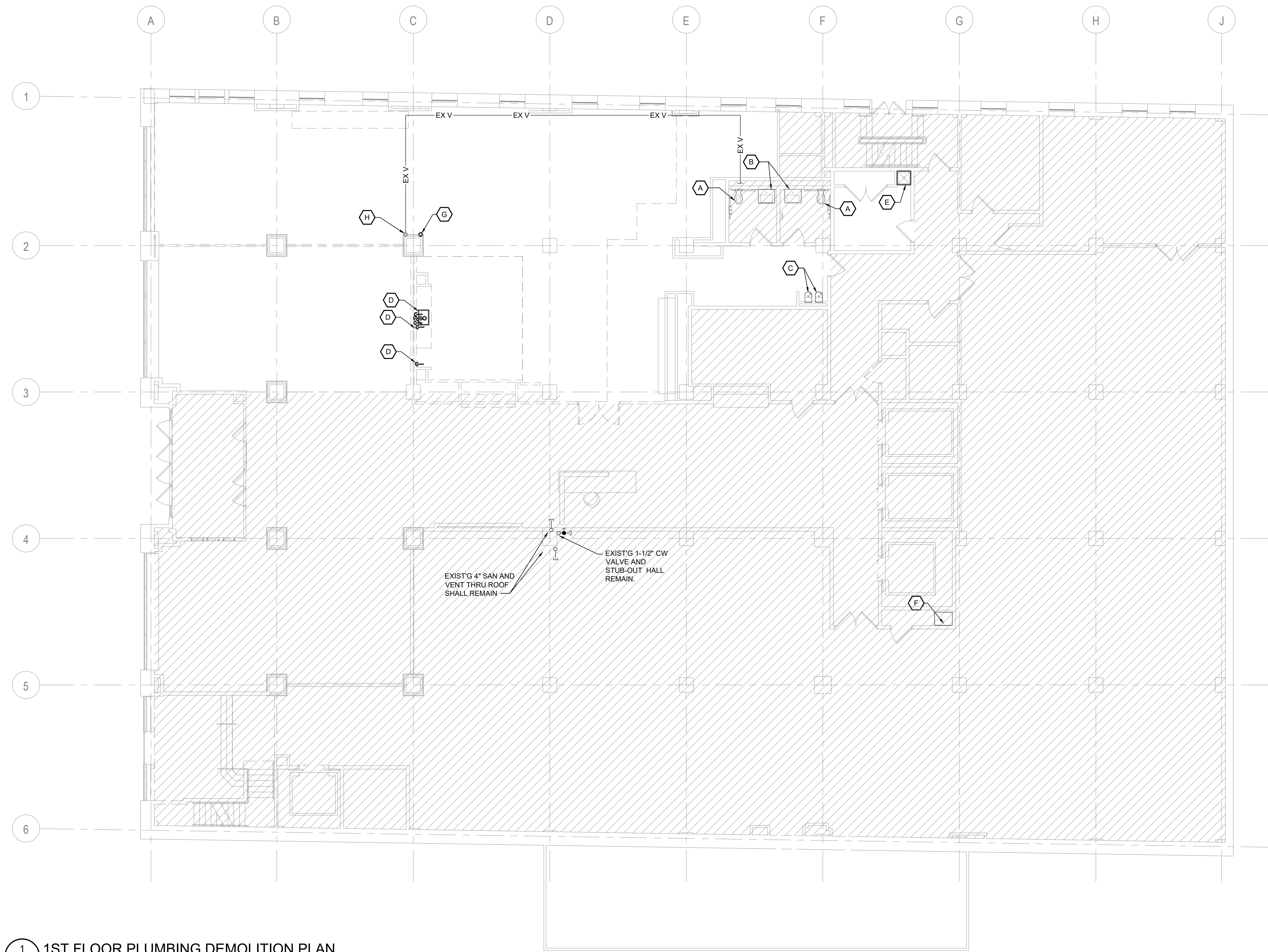
**END OF PLUMBING SPECIFICATIONS**



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NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/27/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE

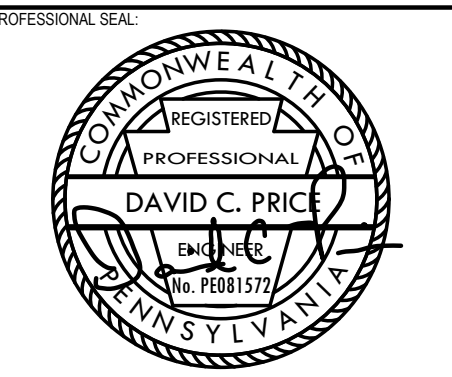
PROJECT NO: 190427.00 DRAWN BY: TJT REVIEWED BY: DCP  
SHEET NAME: PLUMBING SPECIFICATIONS  
SHEET NO: P-003  
TRUE NORTH  
PLAN NORTH



**PLUMBING DEMOLITION KEY NOTES:**

- A. EXISTING WATER CLOSET FIXTURE SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE. DISCONNECT AND REMOVE MANUAL FLUSH VALVE AND REPLACE WITH NEW BATTERY OPERATED FLUSH VALVE. PROVIDE NEW TOILET SEAT.
- B. EXISTING LAVATORY SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE. REMOVE EXISTING FAUCET AND PREPARE SINK AND ROUGH-INS TO RECEIVE NEW HANDS FREE AUTO FAUCET.
- C. EXISTING ELECTRIC WATER COOLER AT THIS LOCATION SHALL REMAIN AND CONTINUE IN USE.
- D. DISCONNECT AND REMOVE EXISTING KITCHEN SINK, COFFEE MAKER CONNECTION AND ICE MAKER CONNECTION AT THESE APPROXIMATE LOCATIONS. CAP PIPING AT THE MAINS IN THE CEILING OF BASEMENT LEVEL AND PATCH FLOOR PENETRATIONS.
- E. DISCONNECT AND REMOVE EXISTING MOP BASIN AT THIS APPROXIMATE LOCATION. REMOVE BRANCH LINES BACK TO MAINS AND CAP PIPING.
- F. EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- G. DISCONNECT AND REMOVE A 10 FOOT SECTION OF CRACKED COST IRON 4 INCH SANITARY STACK AT THIS LOCATION AND REPLACE WITH NEW PIPING. STANDARD CAST IRON NO-HUB COUPLINGS EXIST AT THE TOP BUT PIPING WILL NEED TO BE SNAP-CUT NEAR FLOOR LINE BELOW THE CRACKED PORTION OF PIPING.
- H. EXISTING 3 INCH VENT STACK AT THIS LOCATION SHALL REMAIN AND CONTINUE IN USE.

**1 1ST FLOOR PLUMBING DEMOLITION PLAN**  
 P-101 1/8" = 1'-0"



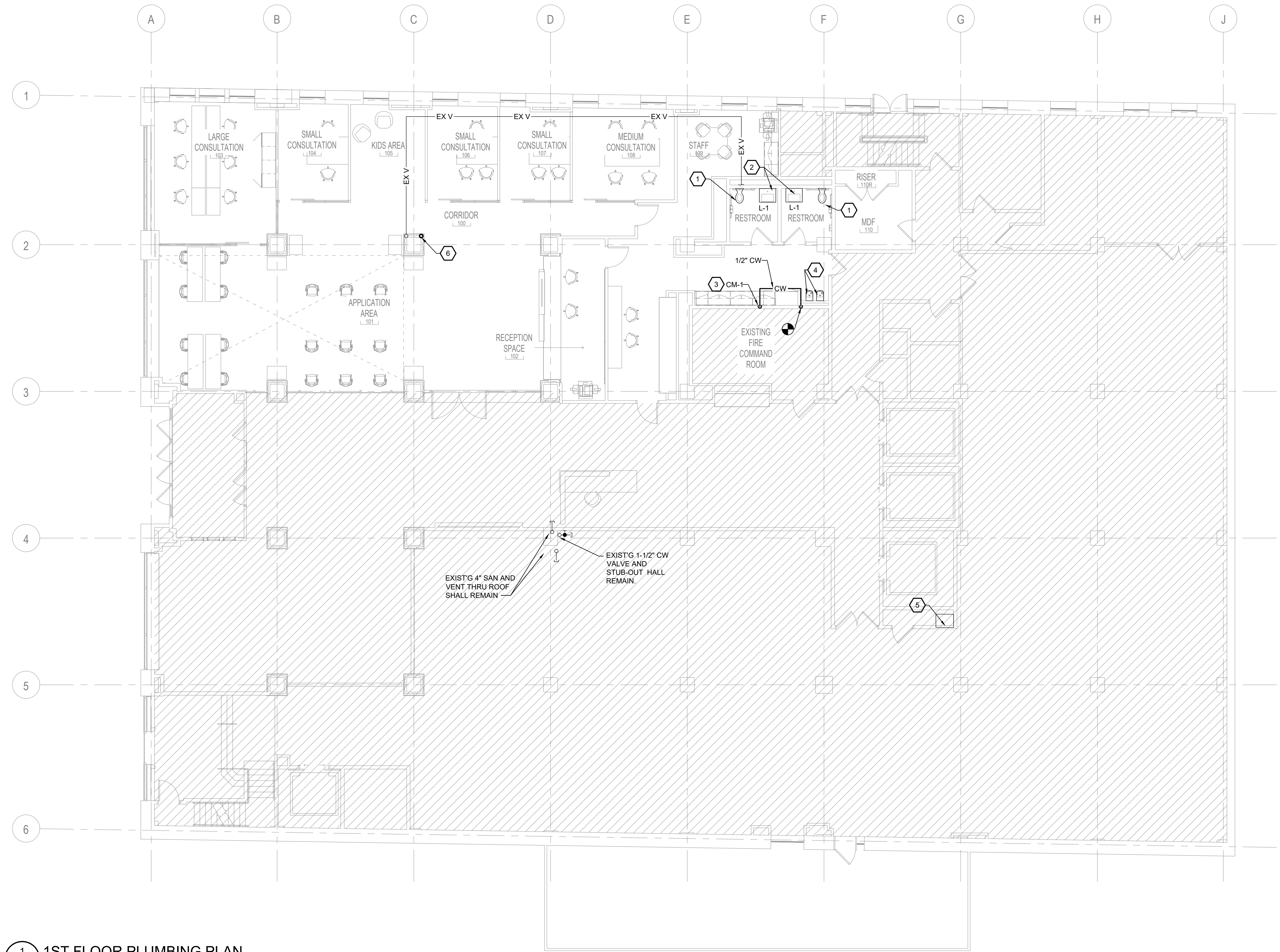
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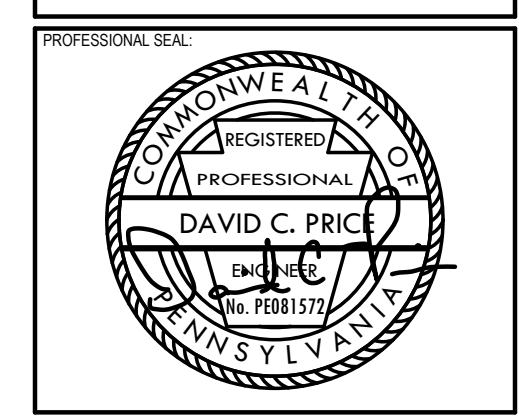
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1	100% DESIGN DEVELOPMENT	01/23/2020
PROJECT ISSUANCE		

PROJECT NO: 190427.00	DRAWN BY: TJT	REVIEWED BY: DCP
SHEET NAME: <b>1ST FLOOR PLUMBING DEMOLITION PLAN</b>		
SHEET NO.: <b>P-101</b>		



- PLUMBING KEY NOTES:** (#)
- EXISTING WATER CLOSET FIXTURE SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE. PROVIDE NEW BATTERY OPERATED FLUSH VALVE AND PROVIDE NEW TOILET SEAT. SEE PLUMBING FIXTURE SCHEDULE FOR WC-1.
  - EXISTING LAVATORY SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE. PROVIDE NEW HANDS-FREE AUTOMATIC FAUCET - SEE PLUMBING FIXTURE SCHEDULE FOR FIXTURE L-1.
  - PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER. EXTEND 1/2" CW TO LOCATION OF EXISTING ELECTRIC WATER COOLERS AND CONNECT TO EXISTING COLD WATER - FIELD VERIFY EXACT LOCATION.
  - EXISTING ELECTRIC WATER COOLER AT THIS LOCATION SHALL REMAIN AND CONTINUE IN USE.
  - EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
  - SNAP CUT EXISTING CRACKED 4 INCH CAST IRON SANITARY STACK JUST ABOVE FLOOR LINE AND REPLACE 10 FOOT SECTION OF DAMAGED PIPING UP TO EXISTING NO-HUB COUPLING AND PROVIDE NEW NO-HUB COUPLING.



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**1 1ST FLOOR PLUMBING PLAN**  
 P-201 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
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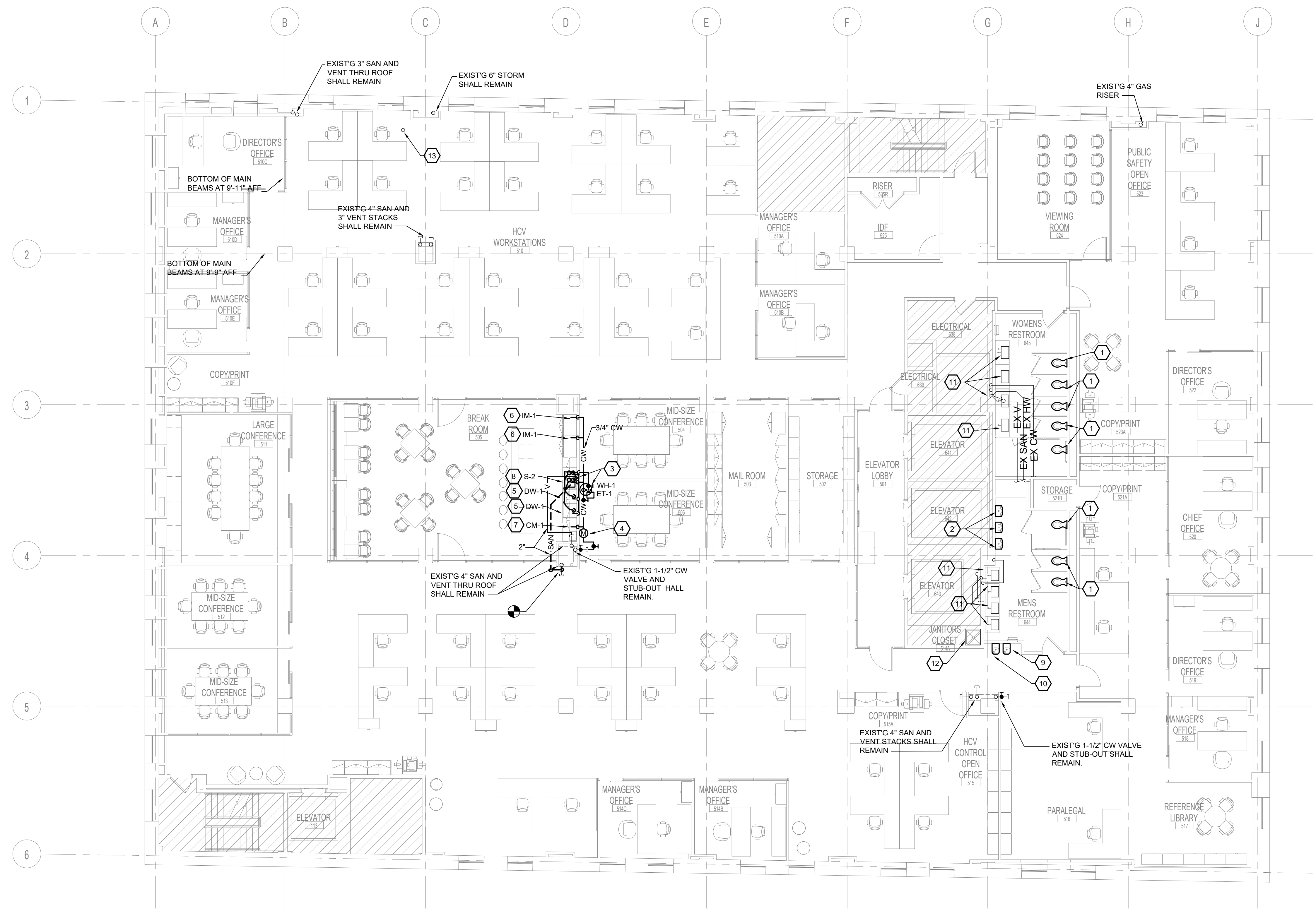
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

SHEET NAME:  
**1ST FLOOR PLUMBING PLAN**  
 SHEET NO.:  
**P-201**



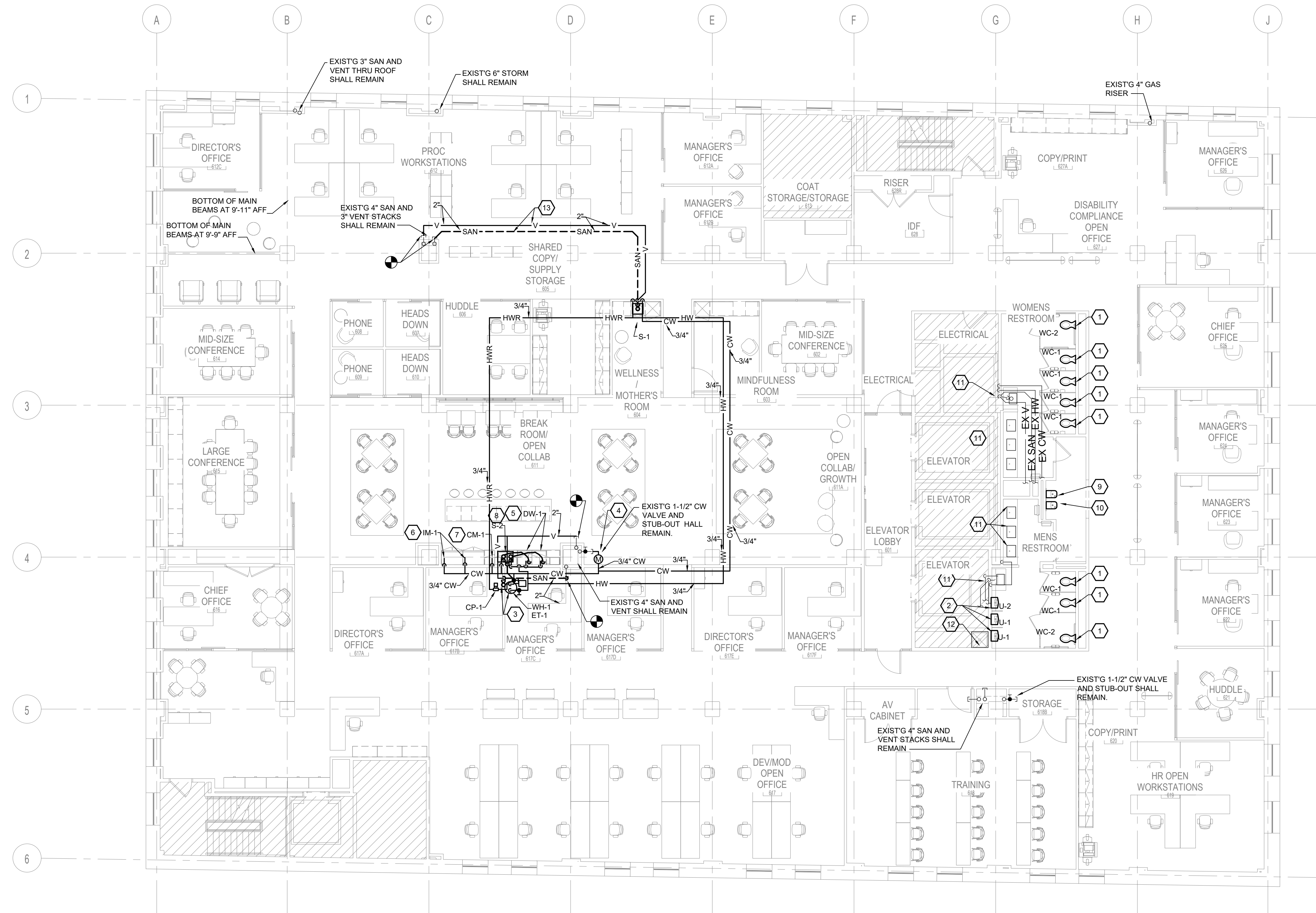
**PLUMBING KEY NOTES:** (#)

- EXISTING LOW FLOW 1.28 GPF WATER CLOSET WITH MANUAL OPERATED 1.28 GPF WATER CLOSET FLUSH VALVE RECENTLY INSTALLED SHALL REMAIN IN THIS LOCATION AND CONTINUE IN USE. REPLACE THE MANUAL FLUSH VALVE WITH NEW BATTERY OPERATED UNIT LISTED FOR WC-1 IN THE FIXTURE SCHEDULE.
- EXISTING RECENTLY INSTALLED LOW FLOW 0.5 GPF BATTERY OPERATED PISTON STYLE URINAL FLUSH VALVE SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- PROVIDE NEW ELECTRIC WATER HEATER ABOVE CEILING WITH SUPPORT PLATFORM. EXTEND 3/4" COLD AND HOT WATER TO HEATER CONNECTION PORTS. PROVIDE WITH EXPANSION TANK ON COLD WATER SUPPLY LINE. EXTEND HEATER DRAIN AND T&P VALVE DRAIN TO SAFE WASTE RECESSED IN WALL BOX. SEE DETAIL.
- PROVIDE 3/4" WATER METER WITH REMOTE READER TO COMPLY WITH LEAD REQUIREMENTS OF TENANT WATER METERING. MOUNT METER ABOVE CEILING AND REMOTE READER IN LOCATION SELECTED BY ARCHITECT ON SITE.
- EXTEND DISHWASHER DRAIN HOSE TO UNDERSIDE OF COUNTER TOP AND ANCHOR PRIOR TO EXTENDING AND CONNECTING TO SINK TAIL PIECE WITH SIDE INLET CONNECTION.
- PROVIDE RECESSED WALL BOX WITH ICE MAKER CONNECTION SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR.
- PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER.
- PROVIDE DOUBLE BOWL STAINLESS STEEL UNDER COUNTER MOUNTED KITCHEN SINK WITH CHROME PLATED SINGLE LEVER FAUCET WITH PULL-OUT SPRAY HOSE TYPE SPOUT. INCLUDE TAIL PIECES WITH SIDE INLET FOR DISHWASHER CONNECTION AT EACH BOWL.
- EXISTING RECENTLY INSTALLED ELECTRIC WATER COOLER AT STANDARD MOUNTING HEIGHT SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- EXISTING RECENTLY INSTALLED ELECTRIC WATER COOLER MOUNTED AT ADA ACCESSIBILITY HEIGHT SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- EXISTING COUNTER TOP MOUNTED LAVATORY SINK AND FAUCET SHALL REMAIN AND CONTINUE IN USE.
- EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- DISCONNECT AND REMOVE EXISTING WATER CLOSET FLOOR FLANGE AT THIS APPROXIMATE LOCATION - FIELD VERIFY EXACT LOCATION. REMOVE BRANCH LINE BACK TO MAIN AND CAP.



**1 5TH FLOOR PLUMBING PLAN**  
 P-202 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP
SHEET NAME:	5TH FLOOR PLUMBING PLAN	
SHEET NO.:	P-202	



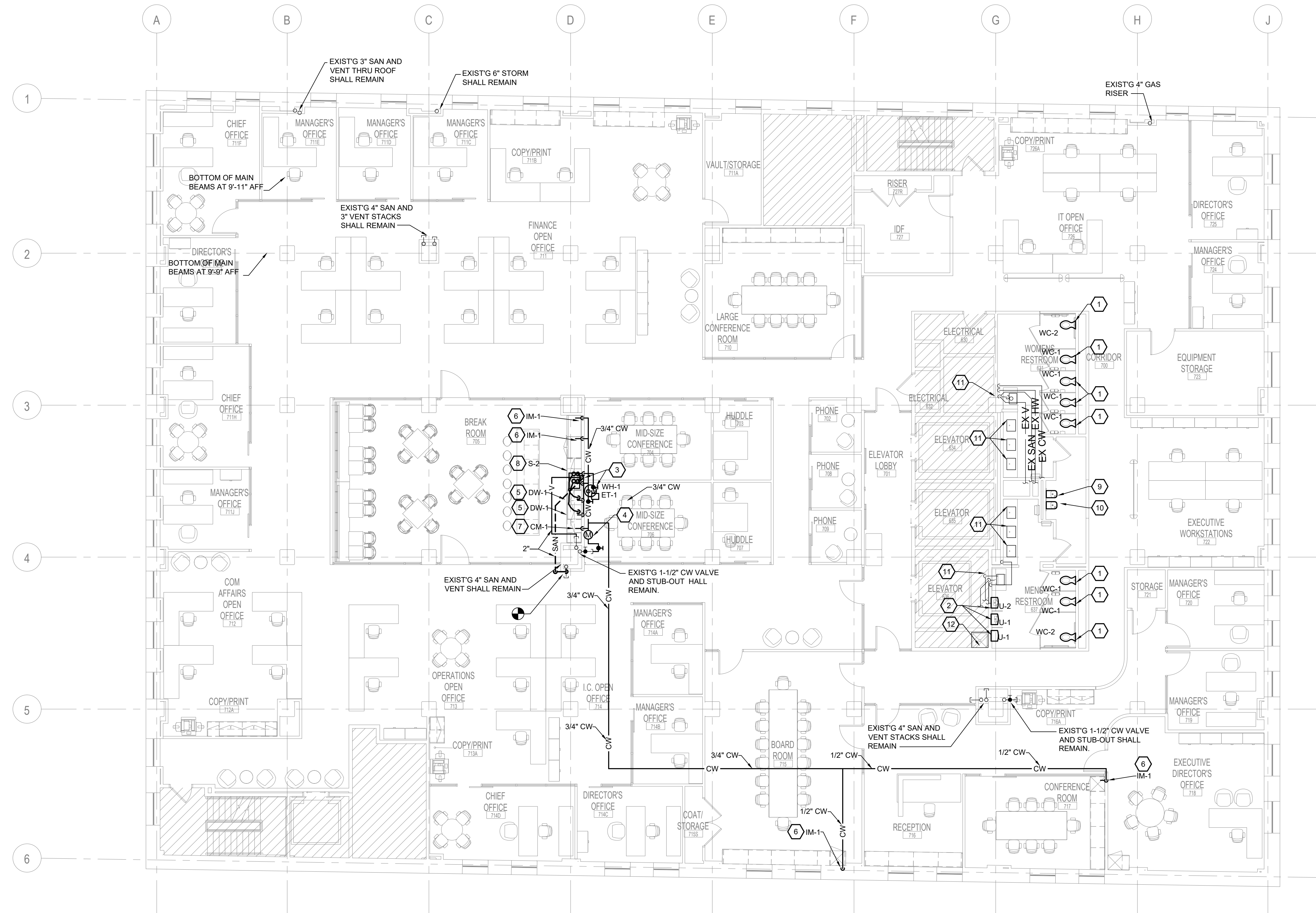
**PLUMBING KEY NOTES:** #

- DISCONNECT AND REMOVE EXISTING 1.6 GPF MANUAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 1.28 GPF PISTON STYLE WATER CLOSET FLUSH VALVE. PROVIDE NEW PISTON STYLE BATTERY POWERED SENSOR OPERATED 1.28 GPF WATER CLOSET FLUSH VALVE AND CONNECT TO EXISTING WATER CLOSET AND SUPPLY PIPING - FIELD ADJUST AS NEEDED. ALSO PROVIDE NEW TOILET SEAT.
- DISCONNECT AND REMOVE EXISTING 1.0 GPF MANUAL URINAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 0.5 GPF BATTERY OPERATED PISTON STYLE URINAL FLUSH VALVE. PROVIDE NEW PISTON STYLE 0.5 GPF BATTERY POWERED SENSOR OPERATED URINAL FLUSH VALVE AND CONNECT TO EXISTING URINAL AND SUPPLY PIPING - FIELD ADJUST AS NEEDED.
- PROVIDE NEW ELECTRIC WATER HEATER WITH SUPPORT PLATFORM. EXTEND 3/4" COLD AND HOT WATER TO HEATER CONNECTION PORTS. PROVIDE WITH EXPANSION TANK ON COLD WATER SUPPLY LINE. EXTEND HEATER DRAIN AND T&P VALVE DRAIN TO SAFE WASTE RECESSED IN WALL BOX. SEE DETAIL.
- PROVIDE 3/4" WATER METER WITH REMOTE READER TO COMPLY WITH LEED REQUIREMENTS OF TENANT WATER METERING. MOUNT METER ABOVE CEILING AND REMOTE READER IN LOCATION SELECTED BY ARCHITECT ON SITE.
- EXTEND DISHWASHER DRAIN HOSE TO UNDERSIDE OF COUNTER TOP AND ANCHOR PRIOR TO EXTENDING AND CONNECT TO SINK TAIL PIECE WITH SIDE INLET CONNECTION.
- PROVIDE RECESSED WALL BOX WITH ICE MAKER CONNECTION SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR.
- PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER.
- PROVIDE DOUBLE BOWL STAINLESS STEEL UNDER COUNTER MOUNTED KITCHEN SINK WITH CHROME PLATED SINGLE LEVER FAUCET WITH PULL-OUT SPRAY HOSE TYPE SPOUT. INCLUDE TAIL PIECES WITH SIDE INLET FOR DISHWASHER CONNECTION AT EACH BOWL.
- PROVIDE NEW ELECTRIC WATER COOLER AT STANDARD MOUNTING HEIGHT COMPLETE WITH NEW TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE.
- PROVIDE NEW ELECTRIC WATER COOLER MOUNTED AT ADA ACCESSIBILITY HEIGHT COMPLETE WITH BOTTLE FILL STATION, TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE.
- EXISTING COUNTER TOP MOUNTED LAVATORY SINK AND FAUCET SHALL REMAIN AND CONTINUE IN USE.
- EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- APPROXIMATE LOCATION OF NEW SANITARY AND VENT PIPING. FIELD COORDINATE WITH OTHER DISCIPLINES FOR BEST LOCATION OF THIS PIPING ON BOTH FLOORS AND MAKE ADJUSTMENTS AS NEEDED.

**1 6TH FLOOR PLUMBING PLAN**  
P-203 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

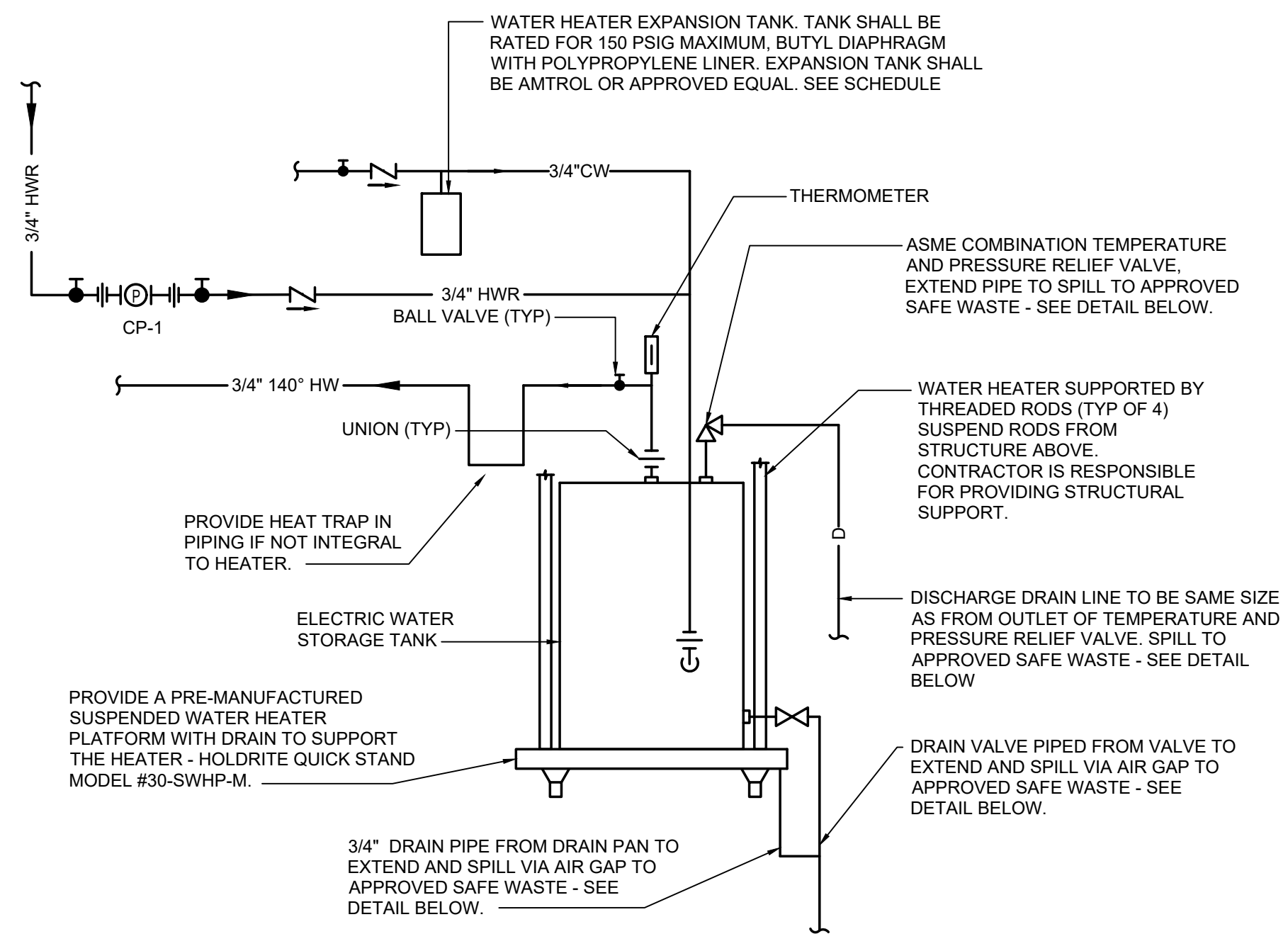


**PLUMBING KEY NOTES:** #

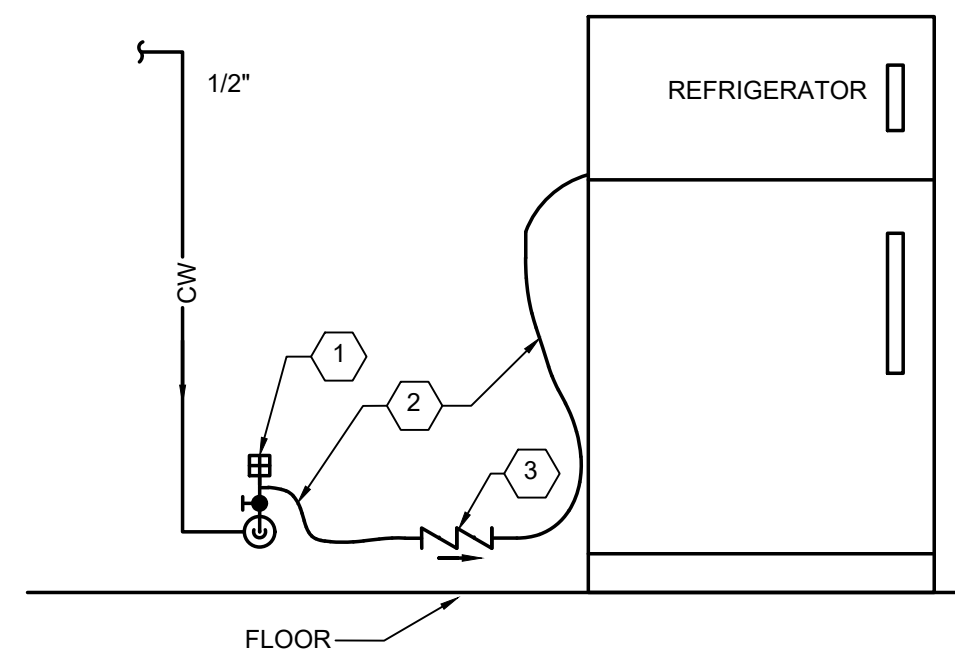
1. DISCONNECT AND REMOVE EXISTING 1.6 GPF MANUAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 1.28 GPF PISTON STYLE WATER CLOSET FLUSH VALVE. PROVIDE NEW PISTON STYLE BATTERY POWERED SENSOR OPERATED 1.28 GPF WATER CLOSET FLUSH VALVE AND CONNECT TO EXISTING WATER CLOSET AND SUPPLY PIPING - FIELD ADJUST AS NEEDED. ALSO PROVIDE NEW TOILET SEAT.
2. DISCONNECT AND REMOVE EXISTING 1.0 GPF MANUAL URINAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 0.5 GPF BATTERY POWERED SENSOR OPERATED PISTON STYLE URINAL FLUSH VALVE. PROVIDE NEW PISTON STYLE 0.5 GPF BATTERY OPERATED URINAL FLUSH VALVE AND CONNECT TO EXISTING URINAL AND SUPPLY PIPING - FIELD ADJUST AS NEEDED.
3. PROVIDE NEW ELECTRIC WATER HEATER ABOVE CEILING WITH SUPPORT PLATFORM. EXTEND 3/4" COLD AND HOT WATER TO HEATER CONNECTION PORTS. PROVIDE WITH EXPANSION TANK ON COLD WATER SUPPLY LINE. EXTEND HEATER DRAIN AND T&P VALVE DRAIN TO SAFE WASTE RECESSED IN WALL BOX. SEE DETAIL.
4. PROVIDE 3/4" WATER METER WITH REMOTE READER TO COMPLY WITH LEED REQUIREMENTS OF TENANT WATER METERING. MOUNT METER ABOVE CEILING AND REMOTE READER IN LOCATION SELECTED BY ARCHITECT ON SITE.
5. EXTEND DISHWASHER DRAIN HOSE TO UNDERSIDE OF COUNTER TOP AND ANCHOR PRIOR TO EXTENDING AND CONNECTING TO SINK TAIL PIECE WITH SIDE INLET CONNECTION.
6. PROVIDE RECESSED WALL BOX WITH ICE MAKER CONNECTION SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR.
7. PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER.
8. PROVIDE DOUBLE BOWL STAINLESS STEEL UNDER COUNTER MOUNTED KITCHEN SINK WITH CHROME PLATED SINGLE LEVER FAUCET WITH PULL-OUT SPRAY HOSE TYPE SPOUT. INCLUDE TAIL PIECES WITH SIDE INLET FOR DISHWASHER CONNECTION AT EACH BOWL.
9. PROVIDE NEW ELECTRIC WATER COOLER AT STANDARD MOUNTING HEIGHT COMPLETE WITH NEW TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE.
10. PROVIDE NEW ELECTRIC WATER COOLER MOUNTED AT ADA ACCESSIBILITY HEIGHT COMPLETE WITH BOTTLE FILL STATION, TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE.
11. EXISTING COUNTER TOP MOUNTED LAVATORY SINK AND FAUCET SHALL REMAIN AND CONTINUE IN USE.
12. EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.

**1** 7TH FLOOR PLUMBING PLAN  
 P-204 1/8" = 1'-0"

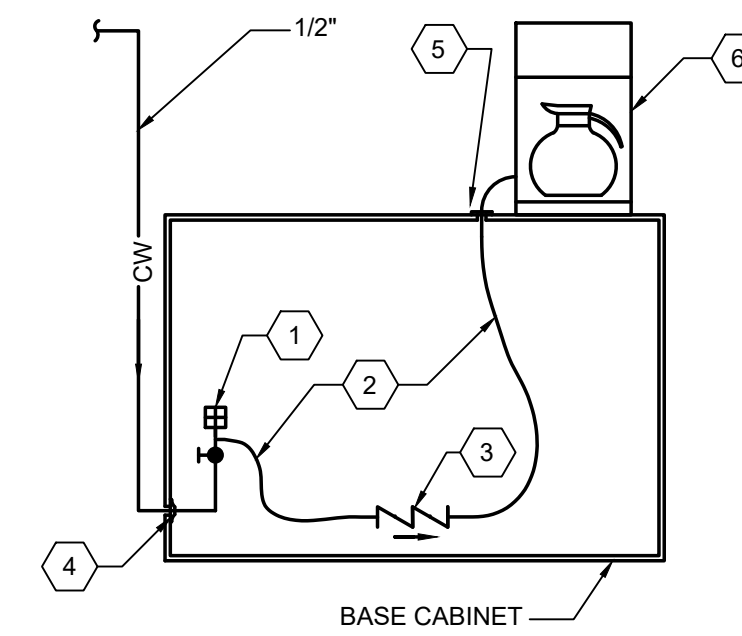
#	DESCRIPTION	DATE
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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020



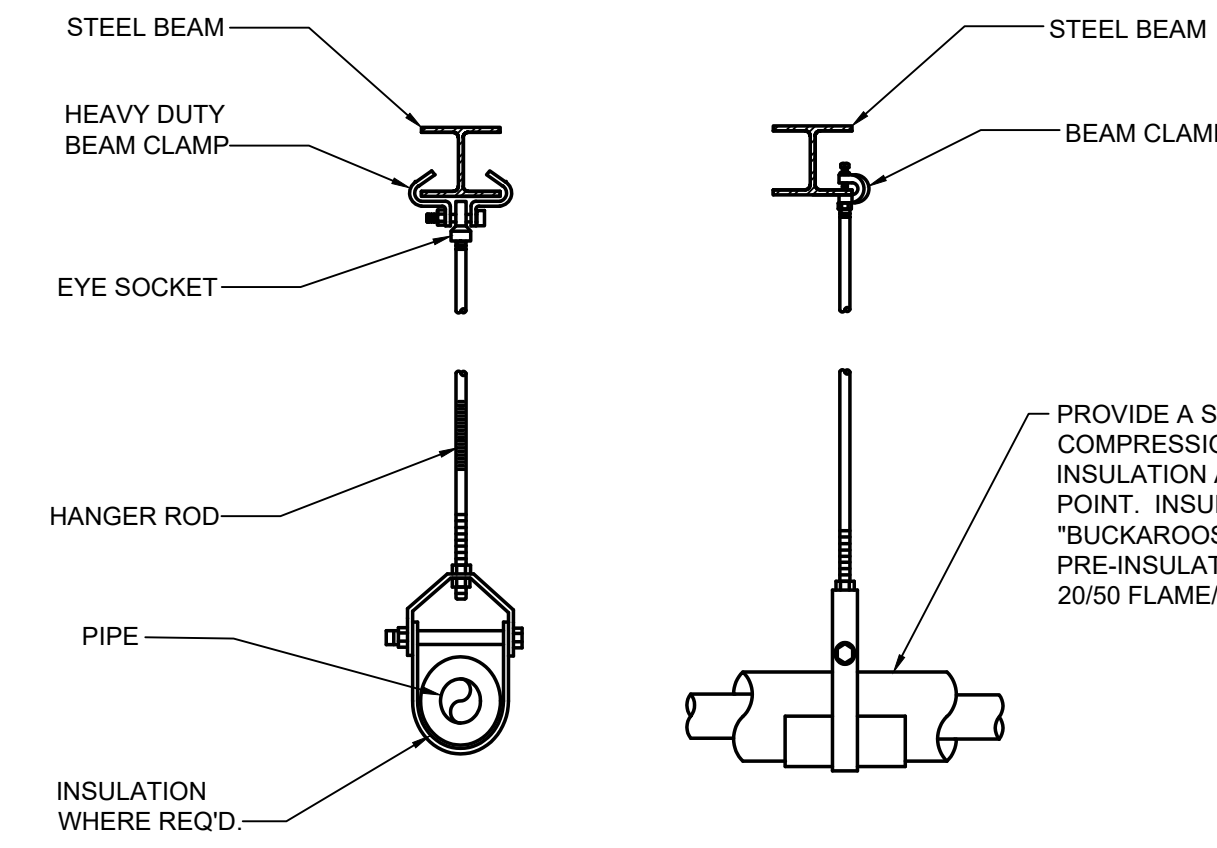
**1 ELECTRIC WATER HEATER (CEILING MOUNTED) WITH RECIRC**  
P401 NOT TO SCALE



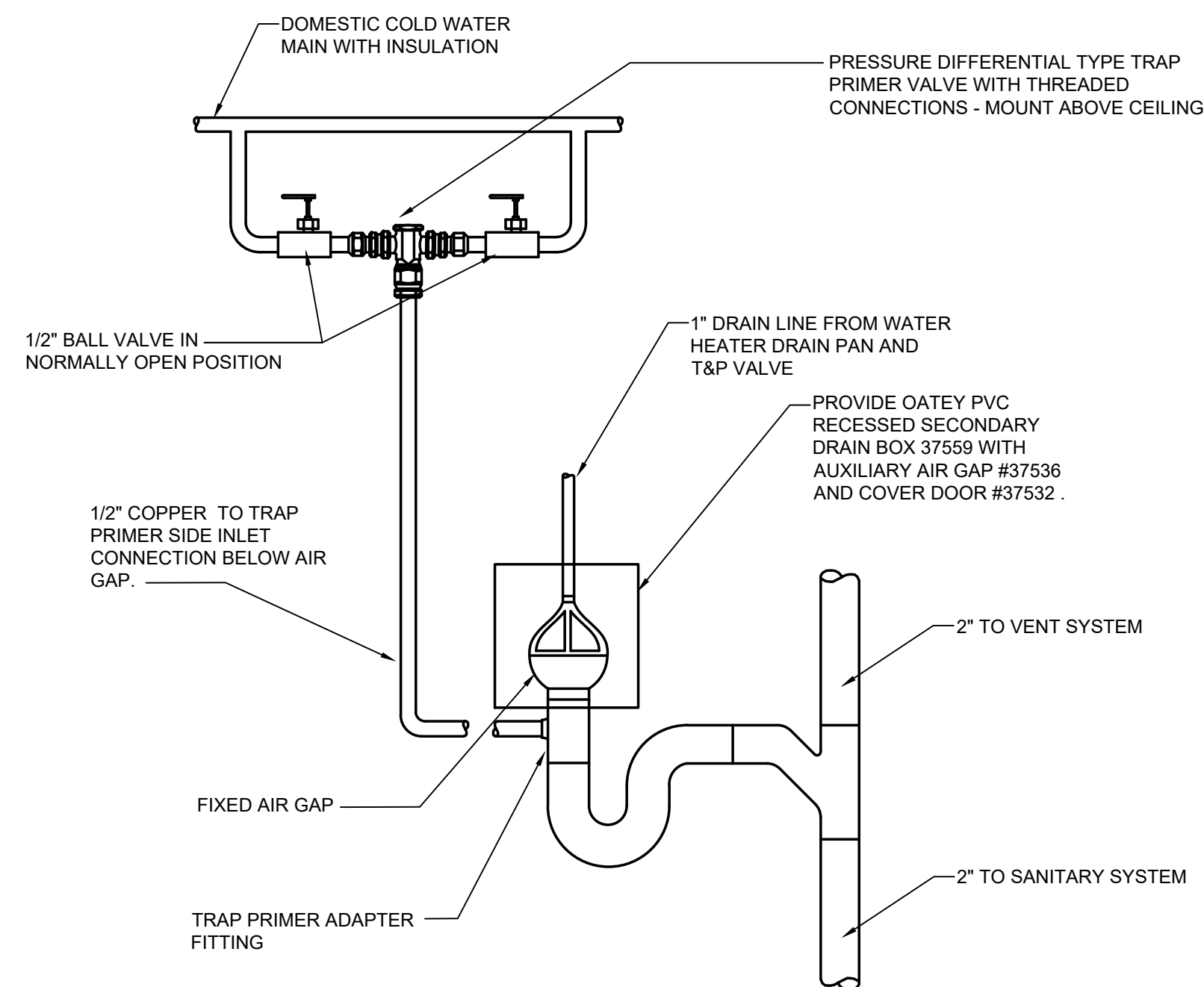
**2 ICE MAKER WITHOUT FILTER CONNECTION SCHEMATIC**  
P401 NOT TO SCALE



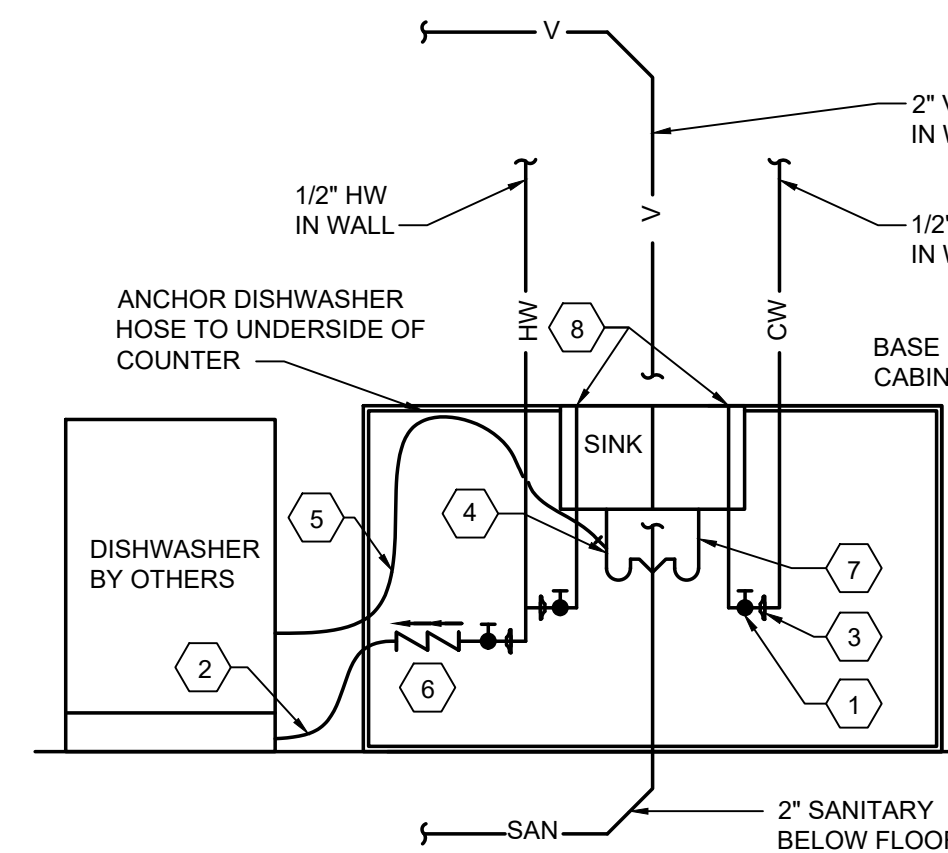
**3 COFFEE MAKER (CM-1) CONNECTION SCHEMATIC AND WATER DISPENSER (WD-1) CONNECTION SCHEMATIC**  
P401 NOT TO SCALE



**4 CLEVIS PIPE HANGER - STEEL CONSTRUCTION**  
P401 NOT TO SCALE



**5 SAFE WASTE WITH TRAP PRIMER DETAIL**  
P401 NOT TO SCALE



1. WATTS KWIKSTOP OR McGUIRE QUARTER TURN SUPPLY STOP (TYPICAL) PROVIDE WITH ADA ACCESSIBLE INSULATION WRAP.
2. 3/8\" FLEXIBLE HOSE WITH BRAIDED JACKET (WATTS # FS-4560DWSS) PROVIDE WITH ADA ACCESSIBLE INSULATION WRAP.
3. CHROME PLATED PVC ESCUTCHEON (TYPICAL).
4. SINK TAIL PIECE WITH DISHWASHER DRAIN CONNECTION (SIOUX CHIEF # 216-086).
5. DISHWASHER DRAIN LINE - EXTEND TO UNDERSIDE OF COUNTER TOP AND ANCHOR TO COUNTER TOP. PROVIDE 3/8\" FLEXIBLE INSULATION ON DRAIN HOSE TO PROVIDE ADA ACCESSIBLE PROTECTION.
6. PROVIDE AN INLINE DUAL CHECK VALVE BACKFLOW PREVENTER (ASSE 1024) WATTS MODEL #LF-7C ON THE HOT WATER SUPPLY. PROVIDE WITH ADA ACCESSIBLE INSULATION WRAP.
7. STANDARD 1-1/2\" SINK TAILPIECE AND GRID DRAIN. PROVIDE WITH ADA ACCESSIBLE INSULATION WRAP.
8. PROVIDE CONNECTION TO FAUCET

**6 SINK WITH DISHWASHER CONNECTIONS SCHEMATIC**  
P401 NOT TO SCALE

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
PROJECT ISSUANCE		

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	TJT	DCP

SHEET NAME:  
**PLUMBING DETAILS**

SHEET NO.:  
**P-401**

**GENERAL MECHANICAL NOTES (ALL DRAWINGS):**

- MECHANICAL CONTRACTOR SHALL PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE HVAC SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND REQUIRED BY CODE.
- THE CONTRACT DOCUMENT DRAWINGS ARE DIAGRAMMATIC ONLY, AND ARE INTENDED TO CONVEY THE SCOPE AND GENERAL ARRANGEMENT OF WORK.
- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR BY FIELD INSPECTION PRIOR TO BIDDING. ANY INTERFERENCES TO INSTALLATION SHALL BE NOTED AND THE CONTRACTOR SHALL INCLUDE IN HIS BID PRICE THE COST TO AVOID OR RELOCATE ALL ITEMS, INCLUDING ITEMS OF OTHER TRADES, THAT INTERFERE. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. ALL OFFSETS, RISES, TRANSITIONS AND DROPS IN DUCTS AND PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS OR PIPE ADAPTERS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
- PROVIDE ACCESS IN WALLS & CEILINGS TO ACCESS ALL EQUIPMENT, VALVES, CONTROL DEVICES, VOLUME DAMPERS, AND FIRE/SMOKE DAMPERS. ACCESS SHALL BE RATED IN ACCORDANCE WITH FIRE RATING OF CEILING AND WALLS AS NOTED IN THE ARCHITECTURAL DRAWINGS.
- FOLLOW MANUFACTURE'S RECOMMENDATIONS FOR INSTALLATION OF EQUIPMENT. ALSO REFER TO TYPICAL DETAILS FOR INSTALLATION OF EQUIPMENT.
- ALL MATERIALS FURNISHED, AND ALL WORK PERFORMED BY THE MECHANICAL CONTRACTOR SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THE LATEST APPLICABLE EDITIONS OF NFPA, IEEE, OSHA, SMACNA, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, AND ANY STATE, COUNTY, AND LOCAL CODES.
- ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED SUFFICIENTLY AND ANY ADDITIONAL SUPPORT SHALL BE PROVIDED AS REQUIRED TO PROVIDE VIBRATION FREE AND SAFE INSTALLATION. ALL MISCELLANEOUS STEEL REQUIRED AND/OR AS SHOWN IN DETAILS FOR DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. SUPPORT ALL DUCTWORK, PIPING AND EQUIPMENT MOUNTED ABOVE THE CEILING DIRECTLY FROM THE STRUCTURE. ALL ATTACHMENTS TO BEAMS, TRUSSES, OR JOIST SHALL BE MADE AT PANEL POINTS WITH BEAM CLAMPS MEETING MSS STANDARDS.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC AND ELECTRICAL SPECIFICATIONS FOR THIS PROJECT.

**DUCTWORK GENERAL NOTES (ALL DRAWINGS):**

- ALL DUCTWORK INDICATED IS SCHEMATIC AND SHOW ONLY RELATIVE POSITIONS. PROVIDE OFFSETS, RISES, TRANSITIONS AND ELBOWS AS NEEDED TO INSTALL PROPERLY.
- PROVIDE ACCESS DOORS IN DUCTWORK FOR OPERATION, ADJUSTMENT, AND MAINTENANCE OF ALL HVAC DEVICES, FANS, DAMPERS, (FIRE, SMOKE, BALANCING) COILS, AND TERMINAL EQUIPMENT.
- LOCATIONS OF TERMINAL DEVICES, AIR OUTLETS AND INLETS ARE APPROXIMATE. LOCATE PER THE ARCHITECTURAL DRAWINGS AND TO AVOID OTHER TRADES WORK. COORDINATE LOCATIONS WITH OTHER TRADES. CONSULT ARCHITECT/ENGINEER FOR CLARIFICATION IF CONFLICTS OCCUR.
- DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE FACE-TO-FACE DIMENSIONS AND DO NOT INCLUDE DUCT LINER WHERE SPECIFIED. INCREASE DIMENSIONS OF LINED DUCTWORK TO PROVIDE FREE INSIDE AREA EQUAL DIMENSIONS SHOWN. REFER TO THE SPECIFICATIONS FOR LOCATION OF LINED DUCTWORK.
- FINAL CONNECTIONS FROM HIGH VELOCITY MAIN DUCTS TO AIR TERMINAL UNITS SHALL BE MADE WITH FLEXIBLE DUCTWORK NOT EXCEEDING 3 FEET IN LENGTH. CONNECTIONS BETWEEN LOW VELOCITY DUCTWORK AND/OR TERMINAL UNITS TO AIR INLETS AND OUTLETS SHALL BE MADE WITH FLEXIBLE DUCTWORK NOT EXCEEDING 6 FEET IN LENGTH. LONGER DUCT RUN OUTS SHALL BE CONSTRUCTED OF HARD DUCT OF THE SAME MATERIAL SPECIFIED FOR THE SYSTEM SERVED AND INSULATED AS SPECIFIED FOR THAT SYSTEM. FLEXIBLE DUCTWORK SHALL BE OF THE PRESSURE CLASS AND FACTORY INSULATED AS SPECIFIED FOR THE SYSTEM WHERE INSTALLED.
- FLEXIBLE DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WITHOUT ANY SAGS, SHARP TURNS OR KINKS. AT THE MINIMUM, THE FLEXIBLE DUCTWORK SHALL BE FASTENED TO THE HARD DUCT BY A NYLON STRAP SECURED BY SHEETMETAL SCREWS TO PREVENT SLIPPING OFF FROM COLLAR.
- PROVIDE VOLUME DAMPERS AT EACH AIR OUTLET, AIR INLET AND TERMINAL DEVICE AND AT EACH BRANCH TAKE-OFF CONNECTION FROM THE MAIN.

**MECHANICAL PIPING GENERAL NOTES (ALL DRAWINGS):**

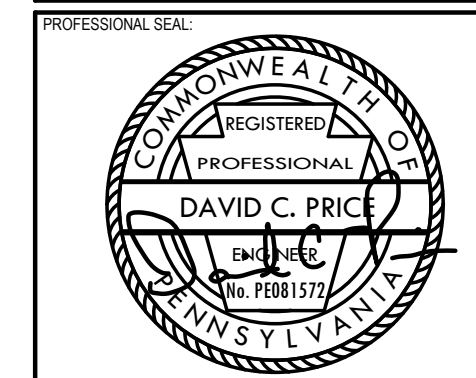
- ALL PIPING SHOWN HAS BEEN DRAWN SCHEMATICALLY FOR CLARITY AND SHOW ONLY RELATIVE POSITIONS. PROVIDE OFFSETS AND ELBOWS AS NEEDED TO INSTALL PROPERLY AND TO AVOID INTERFERENCES.
- ALL NEW OR REPLACED HYDRONIC PIPING SHALL BE INSTALLED SO THAT IT CAN BE COMPLETELY VENTED AT HIGH POINTS AND DRAINED AT LOW POINTS. PROVIDE AIR VENTS AT HIGH POINTS, TYPE PER SPECIFICATIONS. PROVIDE 1/2" BALL VALVES WITH HOSE END CONNECTIONS AND CAPS AT LOW POINT. ALL WATER MAINS SHALL BE INSTALLED LEVEL, UNLESS OTHERWISE NOTES.
- PROVIDE SERVICE VALVES AT EACH BRANCH CONNECTION FROM MAINS AND AT EACH TERMINAL DEVICE OR EQUIPMENT CONNECTION.
- CONTRACTOR SHALL PROVIDE NEW VALVES ON EXISTING PIPING WHERE THE PIPES ARE TO BE REMOVED SO THAT THE SYSTEM DOES NOT HAVE TO BE DRAINED WHILE REMOVING EXISTING UNITS, INSTALLING NEW UNITS AND MAKING CONNECTIONS TO NEW EQUIPMENT.

MECHANICAL DUCTWORK & GENERAL SYMBOLS LEGEND		
SYMBOL	ABRV.	DESCRIPTION
	XTR	EXISTING EQUIPMENT OR DUCTWORK TO REMAIN
	RX	EXISTING EQUIPMENT OR DUCTWORK TO BE REMOVED
		NEW EQUIPMENT OR DUCTWORK
		LINED DUCTWORK
		SUPPLY DUCT UP
		SUPPLY DUCT DOWN
		RETURN / EXHAUST DUCT UP
		RETURN / EXHAUST DUCT DOWN
		ROUND DUCT ELBOW UP
		ROUND DUCT ELBOW DOWN
		ELBOW WITH TURNING VANES
		DUCT OFFSET UP
		DUCT OFFSET DOWN
		SQUARE / RECTANGULAR DUCT TRANSITION
		SQUARE/RECTANGULAR TO ROUND DUCT TRANSITION
	CD	CEILING DIFFUSER - ROUND NECK - # THROW DIRECTIONS
	SD	SUPPLY DIFFUSER - RECTANGULAR - MULTI-DIRECT.
	SG/EG	SIDEWALL SUPPLY or RETURN GRILLE - (R = REGISTER)
	LD	LINEAR DIFFUSER. SEE SCHEDULE FOR INFORMATION.
	RG/EG	RETURN or EXHAUST GRILLE - (R = REGISTER)
		FLEXIBLE DUCT
	FLEX	FLEXIBLE DUCT CONNECTION (TO EQUIPMENT)
		SPIN TAP WITH VOLUME CONTROL DAMPER
	AD	DUCT ACCESS DOOR
	VD	VOLUME CONTROL DAMPER
	BDD	BACKDRAFT DAMPER
	MD	MOTORIZED DAMPER
	FD	VERTICAL FIRE DAMPER (WALL)
	HFD	HORIZONTAL FIRE DAMPER (FLOOR)
	SD	VERTICAL SMOKE DAMPER (WALL)
	HSD	HORIZONTAL SMOKE DAMPER (FLOOR)
	FD/SD	COMBINATION VERTICAL FIRE & SMOKE DAMPER
	HFD/SD	COMBINATION HORIZONTAL FIRE & SMOKE DAMPER
	RD	CEILING RADIATION FIRE DAMPER
	DD	DUCT SMOKE DETECTOR
	T	THERMOSTAT
	T <sub>o</sub>	THERMAL DIFFUSER THERMOSTAT
	SP	STATIC PRESSURE SENSOR
	CO	CARBON DIOXIDE SENSOR
	TAG #	EQUIPMENT UNIT DESIGNATION
	TAG CFM	DIFFUSER, REGISTER & GRILLE UNIT DESIGNATION W/ CFM
	U	UNDER CUT DOOR
	L	LOUVERED DOOR
		CONNECTION POINT, NEW TO EXISTING
		DISCONNECTION POINT
	1	DRAWING KEYNOTE
	1	DEMOLITION DRAWING KEYNOTE
		REVISION NUMBER
	RA or EA	RETURN OR EXHAUST AIR
	SA or OA	SUPPLY OR OUTSIDE AIR

MECHANICAL PIPING SYMBOLS LEGEND		
SYMBOL	ABRV.	DESCRIPTION
	HWS	HEATING WATER SUPPLY PIPING
	HWR	HEATING WATER RETURN PIPING
	CWS	CONDENSER WATER SUPPLY PIPING
	CWR	CONDENSER WATER RETURN PIPING
	CHWS	CHILLED WATER SUPPLY PIPING
	CHWR	CHILLED WATER RETURN PIPING
	G	NATURAL GAS PIPING
	D	CONDENSATE DRAIN PIPING
	R	REFRIGERANT PIPING
	LPS	LOW PRESSURE STEAM SUPPLY PIPING (0-15 PSIG)
	MPS	MEDIUM PRESSURE STEAM SUPPLY PIPING (16-60 PSIG)
	HPS	HIGH PRESSURE STEAM SUPPLY PIPING (61 to 200 PSIG)
	LPR	LOW PRESSURE STEAM CONDENSATE RETURN
	MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
	HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
	PC	PUMPED STEAM CONDENSATE
	V	VENT PIPING
	CW	CITY (DOMESTIC) WATER
	FOS	FUEL OIL SUPPLY PIPING
	FOR	FUEL OIL RETURN PIPING
		ELBOW TURNED UP
		ELBOW TURNED DOWN
		BOTTOM PIPE CONNECTION
		TOP PIPE CONNECTION
		PIPING CAP
		UNION
		FLANGED CONNECTION
		CONCENTRIC PIPE REDUCER
		ECCENTRIC PIPE REDUCER
		FLOW ARROW
	BV	BALL VALVE
	BFV	BUTTERFLY VALVE
	PV	PLUG VALVE
	GV	GATE VALVE
	GBV	GLOBE VALVE
	CV	CHECK VALVE
		2-WAY CONTROL VALVE
		3-WAY CONTROL VALVE
		CIRCUIT SETTER (BALANCING VALVE)
		STRAINER (W/ BALL VALVE AND CAP)
		BACKFLOW PREVENTER
		PRESSURE REGULATING VALVE
		PRESSURE RELIEF VALVE
		TRIPLE DUTY VALVE WITH MEASURING CONNECTIONS
		PRESSURE GAGE W/ SHUT-OFF

MECHANICAL ABBREVIATIONS	
ABRV.	DESCRIPTION
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
MBH	1000 - BRITISH THERMAL UNITS
KW	1000-WATT (1 KW = 3,412 BTUH)
SENS.	SENSIBLE
LAT.	LATENT
E.A.T.	ENTERING AIR TEMPERATURE
L.A.T.	LEAVING AIR TEMPERATURE
E.W.T.	ENTERING WATER TEMPERATURE
L.W.T.	LEAVING WATER TEMPERATURE
DB/WB	DRY BULB / WET BULB
IN. W.G.	INCHES WATER GAUGE (AIR)
FT. W.G.	FEET WATER GAUGE (HYDRONIC)
E.S.P.	EXTERNAL STATIC PRESSURE
T.S.P.	TOTAL STATIC PRESSURE
TG	TRANSFER GRILLE
TR	TOP REGISTER
(E)	EXISTING
R / R	REMOVE EXISTING ITEM & RELOCATE TO NEW LOCATION
UNO	UNLESS NOTED OTHERWISE
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
Ø OR PH	PHASE
Ø	DIAMETER
AFF	ABOVE FINISHED FLOOR
ELEV.	ELEVATION FROM DATUM

- NOTES:  
1. NOT ALL SYMBOLS AND ABBREVIATIONS ARE IN USE FOR THIS PROJECT.



200 Ross St. Pittsburgh, PA 15219  
(412) 456-5000  
hacp.org

HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

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2	100% CONSTRUCTION DOCUMENTS REVISION #2	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT ISSUANCE		
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	KAS & AGR	DCP
SHEET NAME:		
MECHANICAL DATA SHEET		
SHEET NO. M-001		
TRUE NORTH		

MECHANICAL SPECIFICATIONS

SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. COMMISSIONING IS A SYSTEMATIC PROCESS OF ENSURING THAT THE BUILDING SYSTEMS PERFORM INTERACTIVELY ACCORDING TO THE DESIGN INTENT... B. COMMISSIONING DURING THE CONSTRUCTION PHASE IS INTENDED TO ACHIEVE THE FOLLOWING SPECIFIC OBJECTIVES... C. DEDUCT ALTERNATE, ELIMINATE ENHANCED COMMISSIONING IN ACCORDANCE WITH LEED V4.1 ENHANCED COMMISSIONING AND VERIFICATION...

1.02 RESPONSIBILITIES

A. ARCHITECT & ENGINEER

- 1. RESOLVE OPERATIONAL AND DESIGN ISSUES TO ACHIEVE PROPERLY FUNCTIONING SYSTEMS. 2. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS. 3. PROVIDE THE BOD TO THE CXA FOR REVIEW...

B. OWNER

- 1. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS. 2. ARRANGE FOR FACILITY OPERATING AND MAINTENANCE PERSONNEL TO ATTEND MEETINGS NECESSARY TO FACILITATE THE CX PROCESS. 3. PROVIDE THE OPR DOCUMENTATION TO THE CXA FOR USE IN DEVELOPING THE CX PLAN...

C. MECHANICAL: REFER TO DIVISION 23

D. ELECTRICAL: REFER TO DIVISION 26

1.03 DEFINITIONS

- A. BOD: BASIS OF DESIGN: A DOCUMENT THAT RECORDS CONCEPTS, CALCULATIONS, DECISION AND PRODUCT SELECTIONS USED TO MEET THE OPR AND TO SATISFY APPLICABLE REGULATORY REQUIREMENTS... B. COMMISSIONING PLAN: A DOCUMENT THAT OUTLINES THE ORGANIZATION, SCHEDULE, ALLOCATION OF RESOURCES AND DOCUMENTATION REQUIREMENTS... C. CXA: COMMISSIONING AUTHORITY... D. OPR: OWNER'S PROJECT REQUIREMENTS: A DOCUMENT THAT DETAILS THE FUNCTIONAL REQUIREMENTS OF A PROJECT... E. SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS: WHERE THESE TERMS ARE USED TOGETHER OR SEPARATELY, THEY SHALL MEAN "AS-BUILT" SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS.

1.04 RELATED WORK

- 1. DIVISION 23 - "MECHANICAL SYSTEMS COMMISSIONING" 2. DIVISION 26 - "ELECTRICAL SYSTEMS COMMISSIONING" 3. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION. 4. OPR AND BOD DOCUMENTATION ARE INCLUDED BY REFERENCE FOR INFORMATION ONLY. 5. PRELIMINARY CX PLAN FOUND IN THIS SECTION

1.05 COMMISSIONING TEAM

- A. MEMBERS APPOINTED BY CONTRACTOR: INDIVIDUALS, EACH HAVING THE AUTHORITY TO ACT ON BEHALF OF THE ENTITY HE OR SHE REPRESENTS, EXPLICITLY ORGANIZED TO IMPLEMENT THE COMMISSIONING PROCESS THROUGH COORDINATED ACTION. THE COMMISSIONING TEAM SHALL CONSIST OF, BUT NOT BE LIMITED TO, REPRESENTATIVES OF CONTRACTOR, INCLUDING PROJECT SUPERINTENDENT AND SUBCONTRACTORS, INSTALLERS, SUPPLIERS AND SPECIALISTS DEEMED APPROPRIATE BY THE CXA. B. MEMBERS APPOINTED BY OWNER:

- 1. CXA: THE DESIGNATED PERSON, COMPANY, OR ENTITY THAT PLANS, SCHEDULES AND COORDINATES THE COMMISSIONING TEAM TO IMPLEMENT THE COMMISSIONING PROCESS. OWNER WILL ENGAGE THE CXA UNDER A SEPARATE CONTRACT. 2. REPRESENTATIVES OF THE FACILITY USER AND OPERATION AND MAINTENANCE PERSONNEL. 3. ARCHITECT AND ENGINEERING DESIGN PROFESSIONALS.

END OF SECTION 019113

MECHANICAL GENERAL CONDITIONS (230010)

A. GENERAL

- 1. CONFORM TO ALL GENERAL AND SPECIAL CONDITIONS OF CONTRACT AS SPECIFIED BY ARCHITECT AND/OR OWNER. 2. PRODUCTS AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, GOVERNMENT REGULATIONS, UTILITY COMPANY REQUIREMENTS, ETC. OF ALL AUTHORITIES HAVING JURISDICTION. WORK SHALL COMPLY WITH THE FOLLOWING CODES, STANDARDS AND ORGANIZATIONS: INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL PLUMBING CODE (IPC), INTERNATIONAL ENERGY CODE, NATIONAL ELECTRIC CODE, NFPA, UNDERWRITERS LABORATORY (UL), IRI, FM, SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" GUIDELINES, DETAILS, & MODEL SPECIFICATION, ASHRAE. WHERE CONFLICTS EXIST BETWEEN CODES, STANDARDS OR THIS SPECIFICATION THE HIGHER REQUIREMENT SHALL APPLY. DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY THE ABOVE AUTHORITIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW, OBTAIN PERMITS AND PAY ALL FEES. ARRANGE FOR ALL REQUIRED

INSPECTIONS AND APPROVALS. CONFIRM ALL UTILITY COMPANY REQUIREMENTS AND CONNECTION POINTS IN FIELD, PRIOR TO STARTING WORK.

- 3. ALL SPECIFICATIONS AND DRAWINGS, I.E. ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. ANY INFORMATION CONFLICTS WITHIN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION. DRAWINGS ARE DIAGRAMMATIC. CONFIRM ALL DIMENSIONS BY FIELD MEASUREMENT. THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING WHICH IS NOT COVERED BY DRAWINGS, SHALL BE OBTAINED FROM THE ARCHITECT OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY.

- 4. VISIT SITE, CHECK FACILITIES AND CONDITIONS MAKE ALL NECESSARY OBSERVATIONS, MEASUREMENTS, NOTE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED, AND TAKE ALL ITEMS INTO CONSIDERATION IN BID.

- 5. EACH CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH DAILY. CONTRACTOR SHALL PROTECT THEIR WORK AND EXISTING OR ADJACENT PROPERTY AGAINST WEATHER, TO MAINTAIN THEIR WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED, SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.

- 6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN.

- 7. NO PIPING, DUCTWORK, CONTROLS, ETC. SHALL BE INSTALLED OR ROUTED ABOVE ELECTRICAL PANELS AND EQUIPMENT OR THROUGH ELEVATOR ROOMS.

- 8. THE CONTRACTOR SHALL COORDINATE AND OBTAIN A WRITTEN LISTING OF ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT FROM ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR LACK OF CONTRACTOR COORDINATION OF ELECTRICAL CHARACTERISTICS.

- 9. DURING THE BUILDING CONSTRUCTION SOME EXISTING INSTALLATION MAY BE EXPOSED THAT WILL HAVE TO BE CHANGED, ALTERED, REROUTED AND/OR ABANDONED. ANY SUCH WORK WHICH COMES UNDER THE JURISDICTION OF THIS CONTRACTOR SHALL BE DONE BY THIS CONTRACTOR WITHOUT EXTRA COST TO THE OWNER, AS THOUGH FULLY DETAILED ON PLANS AND/OR DESCRIBED IN THE SPECIFICATIONS.

- 10. WORK RELATED TO THE EXISTING BUILDING SHALL BE COORDINATED TO MINIMIZE INTERFERENCE OR INTERRUPTION OF NORMAL BUILDING USE BY OWNER. REFER TO ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS.

- 11. IN CASES OF DOUBT AS TO THE WORK INTENDED, OR IN THE EVENT OF NEED FOR EXPLANATION THEREOF, THE CONTRACTOR SHALL REQUEST SUPPLEMENTARY INSTRUCTIONS FROM THE ENGINEER. NO CHANGES ARE TO BE MADE TO THE WORK OF THIS CONTRACT WITHOUT PRIOR KNOWLEDGE AND APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL HOLD THE OWNER AND ITS CONSULTANTS HARMLESS AGAINST ALL CLAIMS AND JUDGMENTS ARISING OUT OF THE CONTRACTORS PERFORMANCE OF THE WORK OF THIS CONTRACT. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK, WHICH HE EXPECTS ADDITIONAL COMPENSATION BEYOND THE CONTRACT AMOUNT, WITHOUT WRITTEN AUTHORIZATION FROM THE APPROPRIATE AUTHORITY. FAILURE TO OBTAIN SUCH AUTHORIZATION SHALL INVALIDATE ANY CLAIM FOR EXTRA COMPENSATION.

- 12. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SO AS TO INSURE QUIET OPERATION. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING, STRUCTURE OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO THE QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEM OR EQUIPMENT AS REQUIRED.

- 13. OBTAIN PERMITS AND PAY ALL FEES. ARRANGE FOR ALL REQUIRED INSPECTIONS AND APPROVALS.

B. DEMOLITION

- 1. DISCONNECT, DISASSEMBLE, CAP, PLUG AND REMOVE ALL MEP ELEMENTS (PIPING, DUCTS, ELECTRICAL DEVICES, WIRING, CONDUIT, EQUIPMENT, HANGERS, SUPPORTS, ETC.) INDICATED ON THE DRAWINGS OR NOT OTHERWISE REQUIRED FOR COMPLETED PRODUCT, NO MEP ELEMENTS ARE TO BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED. NOT ALL ITEMS TO BE REMOVED ARE INDICATED ON DRAWING.

- 2. ALL OPENINGS ON PIPING AND DUCTS THAT REMAIN SHALL BE CAPPED AND PROPERLY SECURED. WIRING SHALL BE DISCONNECTED AT CIRCUIT BREAKERS AND REMOVED AND BREAKERS MARKED "SPARE." REMOVE AND RECLAIM ANY REFRIGERANT IN EXISTING SYSTEMS PRIOR TO DEMOLITION OF ANY EQUIPMENT ACCORDING TO FEDERAL REQUIREMENT.

- 3. ANY EQUIPMENT DESIGNATED BY OWNER TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO AN OWNER DESIGNATED AREA ON SITE.

- 4. ALL ASBESTOS REMOVAL (IF REQUIRED) WILL BE HANDLED BY THE OWNER AND IS NOT A PART OF THIS WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; NOTIFY ARCHITECT AND OWNER IMMEDIATELY.

C. BASIS OF DESIGN AND SUBSTITUTIONS

- 1. MANUFACTURERS LISTED ARE BASIS OF DESIGN. SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER, ARCHITECT & ENGINEER. IF SUBSTITUTION IS SUBMITTED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO EVALUATE IT AND CERTIFY THAT THE SUBSTITUTION IS EQUIVALENT IN ALL RESPECTS TO THE BASIS OF DESIGN. WHERE SUBMITTALS VARY FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL CLEARLY INDICATE ON SUBMITTAL OR ACCOMPANYING DOCUMENTS THE NATURE AND REASON FOR VARIATIONS. IF SUBSTITUTIONS ARE APPROVED, NOTIFY ALL OTHER CONTRACTORS, SUBCONTRACTORS OR TRADES AFFECTED BY SUBSTITUTION AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION, WHETHER BY CONTRACTOR OR OTHERS, SHALL BE RESPONSIBILITY OF AND PAID FOR BY SUBSTITUTING CONTRACTOR. APPROVED SHOP DRAWINGS DOES NOT ABSOLVE THIS CONTRACTOR FROM THIS RESPONSIBILITY. APPROVAL OF SUBSTITUTIONS IS AT THE DISCRETION OF THE ARCHITECT & ENGINEER AND IF SUBMITTED AFTER THE BID, AT THE RISK OF THE CONTRACTOR.

- 2. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS AND U.L. LABELED.

D. CUTTING, PATCHING AND DRILLING

- 1. ALL CUTTING AND PATCHING OF THE BUILDING CONSTRUCTION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR UNLESS SHOWN ON ARCHITECTURAL DRAWINGS AND CONFIRMED AS TO SIZE AND LOCATION PRIOR TO NEW CONSTRUCTION. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. NEATLY SAW CUT ALL RECTANGULAR OPENINGS, SET SLEEVE THROUGH OPENING, AND FINISH PATCH OR PROVIDE TRIM FLANGE AROUND OPENING. CORE DRILL AND SLEEVE ALL ROUND OPENINGS. DO NOT CUT ANY STRUCTURAL COMPONENTS WITHOUT ARCHITECT'S APPROVAL.

- 2. PATCH AND FINISH TO MATCH ADJACENT AREAS THAT HAVE BEEN CUT, DAMAGED OR MODIFIED AS A RESULT OF THE INSTALLATION OF THE MECHANICAL OR ELECTRICAL EQUIPMENT. FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER.

- 3. ALL CONTRACTORS SHALL CONFIRM WITH OWNER, PRIOR TO BID, TIMES AVAILABLE FOR NOISE PRODUCING WORK SUCH AS CUTTING AND CORE DRILLING OF FLOORS, WALLS, ETC., AS WELL AS TIMES FOR WORK WHICH REQUIRE ACCESS INTO ADJOINING TENANT SPACES. INCLUDE ANY PREMIUM TIME IN BID.

- 4. INFORMATION REGARDING REQUIRED PIPE OPENINGS IN WALLS, FLOORS, CHASES, ETC., AND CONCRETE EQUIPMENT PADS OR FOUNDATIONS SHALL BE GIVEN TO THE GENERAL CONTRACTOR BY THIS CONTRACTOR PRIOR TO THE CONSTRUCTION PERIOD. IF THIS CONTRACTOR FAILS TO COMPLY WITH THIS REQUEST, OR IF INCORRECT INFORMATION IS GIVEN, THE NECESSARY CUTTING AND PATCHING WILL BE PERFORMED BY THE GENERAL CONTRACTOR, AT THIS CONTRACTOR'S EXPENSE.

E. WARRANTY

- 1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES ON HVAC EQUIPMENT.

- 2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

F. SHOP DRAWING SUBMITTALS

- 1. SUBMIT SHOP DRAWINGS FOR MECHANICAL EQUIPMENT, FIRE PROTECTION SYSTEMS, DUCTWORK, AND PLUMBING FIXTURES AND EQUIPMENT WITH ADEQUATE DETAILS AND SCALES TO CLEARLY SHOW CONSTRUCTION. INDICATE THE OPERATING CHARACTERISTICS FOR EACH REQUIRED ITEM. CLEARLY IDENTIFY EACH ITEM ON THE SUBMITTAL AS TO MARK, LOCATION AND USE, USING SAME IDENTIFICATION AS PROVIDED ON DESIGN DRAWINGS.

- 2. DUCTWORK AND FIRE PROTECTION DRAWINGS SHALL BE FULLY DIMENSIONED BASED ON FIELD VERIFIED BUILDING CLEARANCES AND ARCHITECTURAL CEILING LAYOUTS, AND INDICATE STRUCTURAL, LIGHTING, DUCTWORK AND PIPING AT ALL CRITICAL LOCATIONS.

- 3. CONTRACTOR SHALL REVIEW AND INDICATE HIS APPROVAL OF EACH SHOP DRAWING PRIOR TO SUBMITTAL FOR REVIEW. DO NOT START WORK OR FABRICATION UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER AND RETURNED TO THE CONTRACTOR.

- 4. SUBMITTALS WILL BE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND NOT FOR DIMENSIONS OR QUANTITIES. THE SUBMITTAL REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PURCHASE OF ANY ITEM IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS OR ITS COMPLETE AND PROPER INSTALLATION.

- 5. WHERE SUBMITTALS VARY FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL CLEARLY INDICATE ON SUBMITTAL OR ACCOMPANYING DOCUMENTS THE NATURE AND REASON FOR VARIATIONS.

- 6. REFER TO VARIOUS SECTIONS FOR LISTING OF SHOP DRAWINGS REQUIRED ON THIS PROJECT.

- 7. EACH MANUFACTURER OR HIS REPRESENTATIVE MUST CHECK THE APPLICATION OF HIS EQUIPMENT AND CERTIFY AT TIME OF SHOP DRAWING SUBMITTAL THAT EQUIPMENT HAS BEEN PROPERLY APPLIED AND CAN BE INSTALLED, SERVICED AND MAINTAINED WHERE INDICATED ON DRAWINGS. ADVISE ENGINEER IN WRITTEN DRAWINGS OF ANY POTENTIAL PROBLEMS. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ANY CHANGES THAT MIGHT BE NECESSARY BECAUSE OF PHYSICAL CHARACTERISTICS OF EQUIPMENT THAT HAVE NOT BEEN CALLED TO THE ENGINEER'S ATTENTION AT THE TIME OF SUBMITTAL.

G. RECORD DRAWINGS

- 1. EACH CONTRACTOR OR SUBCONTRACTOR SHALL KEEP ONE (1) COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON THE JOB SITE TO WHICH HE SHALL REGULARLY RECORD ANY DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING CONSTRUCTION.

- 2. THESE DRAWINGS SHALL RECORD THE LOCATION OF ALL CONCEALED EQUIPMENT, PIPING, ELECTRIC SERVICE, SEWERS, WASTES, VENTS, DUCTS, CONDUIT AND OTHER PIPING, BY MEASURED DIMENSIONS TO EACH SUCH ITEM FROM READILY IDENTIFIABLE AND ACCESSIBLE WALLS OR CORNERS OF THE BUILDING. PLANS ALSO SHALL SHOW INVERT ELEVATION OF SEWERS AND TOP ELEVATION OF ALL OTHER BELOW-GRADE LINES.

- 3. RECORD DRAWINGS SHALL BE KEPT CLEAN AND UNDAMAGED AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN RECORDING DEVIATIONS FROM WORKING DRAWINGS AND EXACT LOCATIONS OF CONCEALED WORK.

- 4. AFTER THE PROJECT IS COMPLETED, THESE SETS OF DRAWINGS SHALL BE DELIVERED TO THE ARCHITECT IN GOOD CONDITION, AS A PERMANENT RECORD OF THE INSTALLATION AS ACTUALLY CONSTRUCTED.

H. FIRESTOPPING

- 1. ALL SERVICES THAT PASS THRU FIRE OR SMOKE RATED PARTITIONS, WALLS, FLOORS, SHALL BE FIRESTOPPED. FIRE STOPPING RATING SHALL MATCH PARTITION RATING. ALL FIRE STOPPING SYSTEM SHALL MEET THE REQUIREMENTS OF ASTM E 814, UL 1479, AND BE FACTORY MUTUAL APPROVED.

- 2. ALL FIRESTOPPING AND/OR SMOKE STOPPING MATERIAL AND INSTALLATION SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.

I. ACCESS DOORS & PANELS

- 1. ACCESS DOORS SHALL BE PROVIDED IN WALLS AND CEILINGS WHERE REQUIRED TO PERMIT PROPER ACCESS TO VALVES AND ANY OTHER SUCH DEVICES WHICH REQUIRE MAINTENANCE OR SERVICE. DOORS PLACED IN WALLS, PARTITIONS OR OTHER FIRE-RATED CONSTRUCTION SHALL HAVE A LABEL SIGNIFYING THAT THE DOOR HAS THE SAME FIRE RATING AS THE FIRE-RATED CONSTRUCTION.

- 2. THIS CONTRACTOR SHALL FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.

- 3. ACCESS PANELS SHALL BE CONSTRUCTED OF 14 GAUGE STEEL, WITH 16 GAUGE STEEL FRAMES. DOORS SHALL FINISH FLUSH WITH THE SURROUNDING SURFACE. FRAMES SHALL HAVE 3 INCH WIDE EXPANDED METAL FOR PLASTERED SURFACES AND PLAIN FLANGED TYPE FRAME FOR TILE, MASONRY OR GYPSUM BOARD SURFACES. DOORS AND FRAMES SHALL BE FURNISHED PRIME COATED. DOORS INSTALLED IN CERAMIC TILE OR OTHER NON-PAINTED SURFACES SHALL BE STAINLESS STEEL. HINGES SHALL BE CONCEALED SPRING TYPE, TO ALLOW DOORS TO BE OPENED 175 DEGREES. LOCKS SHALL BE FLUSH SCREWDRIVER TYPE WITH STEEL CAMS. ACCESS PANELS SHALL BE 16 INCHES BY 16 INCHES OR LARGER AS MAY BE REQUIRED FOR PROPER ACCESS TO THE DEVICE BEING SERVED.

- 4. ACCESS PANELS ARE NOT REQUIRED IN COMPLETELY ACCESSIBLE LIFT OUT TILE CEILINGS. CONTRACTOR SHALL REVIEW THE ROOM FINISH SCHEDULE ON THE ARCHITECTURAL DRAWINGS IN ORDER TO VERIFY THE NEED FOR ACCESS PANELS.

DUCTWORK (233113)

- 1. FABRICATE AND ERECT ALL DUCTWORK TO ASHRAE AND SMACNA STANDARDS FROM NO. 1 GALVANIZED STEEL. COMPLY WITH NFPA BULLETIN 90A REQUIREMENTS.

- 2. SUPPLY DUCTWORK UPSTREAM OF TERMINAL UNITS AND WITHIN 15' OF ANY AHU FAN OUTLET SHALL HAVE A SMACNA 3" STATIC PRESSURE RATING WITH SEAL CLASS A SEAMS AND JOINTS.

- 3. GENERAL SUPPLY AND RETURN DUCTWORK HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS B SEAMS AND JOINTS.

- 4. OUTDOOR AIR INTAKE DUCTWORK SHALL HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS A SEAMS AND JOINTS.

- 5. ALL EXPOSED ROUND AND OVAL DUCTWORK IN SHALL HAVE SPIRAL LOCKSEAM CONSTRUCTION.

- 6. ALL RECTANGULAR TRANSFER DUCTWORK SHALL HAVE 1" THICK ACOUSTICAL LINER.

- 7. GENERAL EXHAUST DUCTWORK UNDER 45' IN LENGTH SHALL HAVE A SMACNA 1" STATIC PRESSURE RATING WITH SEAL CLASS B SEAM AND JOINTS. EXHAUST DUCTWORK OVER 45' IN LENGTH SHALL HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS A SEAM AND JOINTS.

- 8. ALL FLEXIBLE DUCTWORK SHALL BEAR THE UL 181 LABEL (CLASS 1 AIR DUCT) AND SHALL BE FACTORY INSULATED (1-1/2", 0.6 LB., FIBERGLASS) ATCO UPC #076 I OR EQUAL. FLEXIBLE DUCTWORK SHALL COMPLY W/ NFPA 90A, AND NFPA 90B. ALL FLEXIBLE DUCTWORK CONNECTED TO DIFFUSERS SHALL NOT BE LESS THAN THE NECK SIZE OF THE DIFFUSER. MINIMUM FLEXIBLE DUCT BEND RADIUS OF CURVATURE SHALL BE 3 DUCT DIAMETERS. MAXIMUM LENGTH SHALL BE 80'. NO MORE THAN THE EQUIVALENT OF TWO (2) 90 DEGREE BENDS WILL BE ACCEPTABLE. FLEXIBLE DUCTS SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE AND CONNECTED WITH PLASTIC DRAW BANDS TIGHTENED WITH MANUFACTURER'S TOOL. FLEXIBLE DUCTS ARE NOT PERMITTED IN ROOMS WITHOUT CEILINGS.

- 9. INCLUDE ALL ACOUSTIC, DOUBLE RADIUS AIRFOIL SHAPED PERFORATED ALUMINUM TURNING VANES, MANUAL DAMPERS, FLEXIBLE CONNECTORS, GRILLES AND DIFFUSERS, ACOUSTIC LINING, AND OTHER SHEET METAL ACCESSORIES FOR THE PROJECT. VOLUME DAMPERS TO BE OF OPPOSED BLADE TYPE CONSTRUCTED IN ACCORDANCE WITH "SMACNA" STANDARDS.

- 10. ALL BRANCH CONNECTION FITTINGS IN RECTANGULAR DUCTWORK SHALL BE 45 DEGREE TRANSITION TYPE, CONICAL FITTINGS OR SPIN-IN FITTINGS. BUTT FITTINGS ARE NOT ACCEPTABLE.

- 11. PROVIDE FIRE DAMPERS WITH ACCESS DOORS AT ALL FIRE RATED WALLS, PARTITIONS AND CEILINGS. DAMPERS SHALL HAVE RATING EQUIVALENT TO BARRIER. DAMPER SHALL BE THE DYNAMIC TYPE AND SHALL BE ABLE TO CLOSE AGAINST AN AIRSTREAM. DAMPERS SHALL MEET ALL NFPA AND IBC REQUIREMENTS.

- 12. PROVIDE SMOKE DAMPERS WITH ACCESS DOORS AT ALL SMOKE BARRIERS/PARTITIONS. UNIT SHALL INCORPORATE BLADE END SWITCHES (OPEN AND CLOSED), AND OUTSIDE THE DUCT MOUNTED UL LISTED MOTOR. PROVIDE MANUFACTURER'S STANDARD U.L. LISTED OPEN-CLOSE-RESET SWITCH AND POSITION PILOT LIGHTS IN UNIT MOUNTED ENCLOSURE. ENCLOSURE TO BE CAPABLE OF BEING REMOVED FOR REMOTE MOUNTING TO ENSURE VISIBILITY AFTER SYSTEM INSTALLATION.

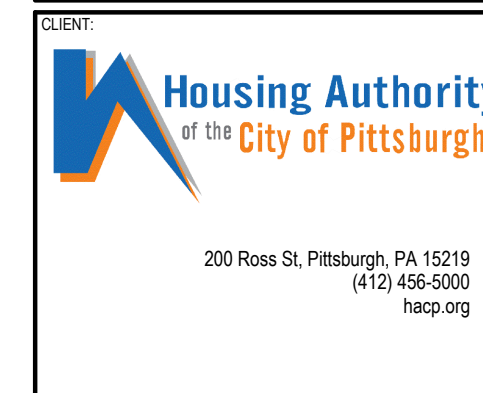
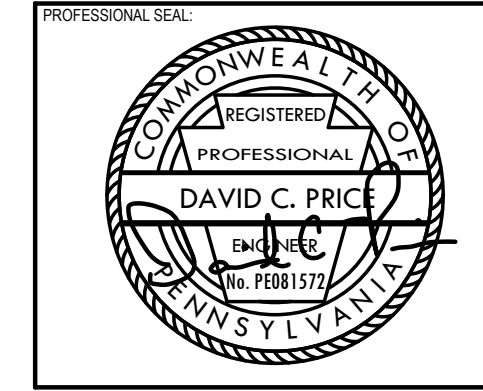
- 13. PROVIDE COMBINATION FIRE/SMOKE DAMPERS AT ALL FIRE/SMOKE RATED SHAFT AND WALL LOCATIONS. EACH COMBINATION FIRE SMOKE DAMPER SHALL HAVE FABRICATED AIRFOIL BLADES MEETING REQUIREMENTS OF UL STANDARD 555 & 555S AND HAVE AN 1-1/2 HOUR RATING. BASIS OF DESIGN SHALL BE GREENHECK MODEL FSD 200 SERIES. DAMPERS SHALL BE EQUIPPED STANDARD WITH AN ELECTRIC HEAT-RESPONSIVE DEVICE THAT PERFORMS THE SAME FUNCTION AS A FUSIBLE LINK TO CLOSE DAMPER AT 350 °F. PROVIDE POSITION INDICATING SWITCHES TO MEET REQUIREMENTS OF SMOKE PURGE CONTROL AND/OR BUILDING MANAGEMENT SYSTEM CONTROLS. THE DAMPER OPERATION AND CONSTRUCTION SHALL MEET UL REQUIREMENTS.

- 14. PROVIDE CURBS FOR ALL ROOF OPENINGS FOR DUCTS, FLUES, PIPING AND EQUIPMENT. CURBS SHALL BE FURNISHED AS ACCESSORIES TO THE EQUIPMENT OR 8" HIGH PATE OR EQUAL EQUIPMENT SUPPORTS SPANNING STRUCTURE AND FLASHED INTO ROOFING. ALL CUTTING, FLASHING, AND PATCHING OF ROOF SHALL BE BY OWNER'S ROOFING CONTRACTOR AND PAID FOR BY MECHANICAL CONTRACTOR.

- 15. PROVIDE BIG FOOT H FRAME SETS SUPPORT SYSTEM OR SIMILAR FOR ALL ROOFTOP DUCTWORK. SPACING SHALL BE PER SMACNA GUIDELINES.

HYDRONIC PIPING (232113)

- 1. PIPE AND FITTINGS -- HYDRONIC PIPING 2" AND SMALLER SHALL BE TYPE "L" HARD COPPER TUBING ASTM B 88-832 WITH SWEATED JOINTS



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Table with 4 columns: #, DESCRIPTION, DATE, PROJECT ISSUANCE. Includes revision history for 100% construction documents.

MECHANICAL SPECIFICATIONS SHEET M-002. Includes drawing title, project details, and sheet information.



**PIPE WALL SEALS (230517)**

- WALL PIPE SEALS WITH RUBBER LINKS SHALL BE THUNDERLINE LINK SEAL, OR APPROVED EQUAL. WALL PIPE SEALS WITH INORGANIC MATERIAL LINKS THE PENETRATIONS OF FIRE RATED WALLS SHALL BE THUNDERLINE PYRO-PAC, OR APPROVED EQUAL.
- SEALS SHALL BE MODULAR MECHANICAL TYPE CONSISTING OF INTERLOCKING SYNTHETIC RUBBER OR INORGANIC MATERIAL LINKS SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. LINKS SHALL BE LOOSELY ASSEMBLED WITH BOLTS TO FORM A CONTINUOUS BELT AROUND THE PIPE. A PRESSURE PLATE SHALL BE PROVIDED UNDER THE BOLT HEAD AND NUT OF EACH LINK. SEALS SHALL BE CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN THE PIPE AND SLEEVE, THUS REDUCING CHANCES OF CATHODIC REACTION BETWEEN THESE TWO MEMBERS.
- AFTER THE SEAL ASSEMBLY IS POSITIONED IN THE SLEEVE, THE TIGHTENING OF THE BOLTS SHALL CAUSE THE SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATER-TIGHT SEAL BETWEEN THE PIPE AND SLEEVE.
- SLEEVES SHALL BE MANUFACTURED FROM HEAVY-WALL, WELDED OR SEAMLESS STEEL PIPE. A FULL CIRCLE CONTINUOUSLY WELDED WATER STOP PLATE SHALL BE PROVIDED TO ASSURE POSITIVE WATER SEALING OF THE SLEEVE. SLEEVE SHALL BE PROTECTED BY A COATING OF ENRICHED RED PRIMER.

**IDENTIFICATION (230593)**

- CONTRACTOR SHALL PROVIDE IDENTIFICATION LABELS, TAGS, ETC. AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN. THE IDENTIFICATION SHALL BE IN ACCORDANCE WITH ANSI STANDARD A13.1. PRESSURE SENSITIVE MARKERS SHALL BE MANUFACTURED BY THE BRADY CO., OR APPROVED EQUAL. MARKERS SHALL BE MANUFACTURER'S STANDARD PRODUCT. PRESSURE SENSITIVE PIPE MARKERS SHALL BE MANUFACTURED BY THE BRADY CO., OR APPROVED EQUAL. PIPE MARKERS SHALL BE MANUFACTURER'S STANDARD PRODUCT.

**MOTOR CONTROLLERS (230513)**

- UNLESS OTHERWISE INDICATED, EVERY MOTOR NOT SPECIFIED TO BE PROVIDED WITH A CONTROLLER AT THE FACTORY SHALL BE PROVIDED WITH A CONTROLLER AS SPECIFIED HEREIN. CONTROLLERS SHALL BE FURNISHED BY THIS CONTRACTOR. INSTALLATION OF ALL CONTROLLERS SHALL BE BY THE ELECTRICAL CONTRACTOR.
- MOTOR CONTROLLERS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF NEMA STANDARD IC-1. INDUSTRIAL CONTROL AND BE HEAVY DUTY CONSTRUCTION. CONTROLLER SIZES SHALL BE VERIFIED TO BE COMPATIBLE WITH HORSEPOWER OF THE MOTOR. CONTROLLERS SHALL BE MANUFACTURED BY ALLEN-BRADLEY CO., GENERAL ELECTRIC, CUTLER-HAMMER OR APPROVED EQUAL.
- MANUAL MOTOR STARTERS:
  - SWITCHES SHALL BE TUMBLER-SWITCH STYLE. THE MANUAL MOTOR STARTERS SHALL PROVIDE OVERLOAD PROTECTION WHICH CLOSELY FOLLOWS THE MOTOR LOAD. MANUAL MOTOR STARTERS FOR OUTDOOR USE SHALL BE NEMA TYPE 4X, INDOOR USE SHALL BE NEMA TYPE 1, EXPLOSION PROOF USE SHALL BE NEMA TYPE 7.
- COMBINATION MOTOR CONTROLLERS:
  - COMBINATION MOTOR CONTROLLERS SHALL BE PROVIDED WITH MOLDED CASE MOTOR CIRCUIT PROTECTORS OR MOLDED CASE CIRCUIT BREAKERS AS INDICATED. MOTOR CIRCUIT PROTECTIVE DEVICES SHALL HAVE SHORT CIRCUIT CAPACITY AS REQUIRED. UNIT CONTROL CIRCUIT FUSING SHALL BE PROVIDED. THE MOTOR CIRCUIT PROTECTIVE DEVICE SHALL BE MOUNTED IN THE SAME ENCLOSURE AS THE MAGNETIC CONTROLLER AND SHALL BE OPERABLE BY HAND FROM OUTSIDE THE ENCLOSURE. THE HANDLE SHALL BE SO INTERLOCKED WITH THE DOOR THAT IT MUST BE RETURNED TO THE "OFF" POSITION BEFORE THE DOOR CAN BE OPENED, BUT A COIN-PROOF DEFEAT MECHANISM SHALL BE PROVIDED TO ALLOW AUTHORIZED PERSONNEL TO OPEN THE ENCLOSURE DOOR WITHOUT OPENING THE DISCONNECTING DEVICE. PROVISIONS FOR PADLOCKING THE DISCONNECT HANDLE IN THE "OFF" POSITION SHALL BE MADE. THE ENCLOSURE FOR COMBINATION STARTERS SHALL BE NEMA TYPE 1 FOR INDOOR USE AND NEMA TYPE 4X FOR OUTDOOR USE, AND NEMA TYPE 7 FOR EXPLOSION PROOF USE.
  - MOTOR CIRCUIT PROTECTORS SHALL BE THE CONTINUOUSLY ADJUSTABLE, INSTANTANEOUS MAGNETIC TRIP TYPE CIRCUIT BREAKER AND SHALL BE SO CONSTRUCTED THAT ALL POLES OPEN, CLOSE AND TRIP SIMULTANEOUSLY.
- OVERLOAD AND SHORT CIRCUIT PROTECTION:
  - HEATER ELEMENTS SHALL BE PROVIDED FOR OVERLOAD PROTECTION. MOTOR CIRCUIT PROTECTOR SHALL BE PROVIDED FOR MOTOR SHORT CIRCUIT PROTECTION.

**DISCONNECT SWITCHES (230514)**

- THIS CONTRACTOR SHALL FURNISH ALL SAFETY DISCONNECT SWITCHES (FUSED AND NON-FUSED) REQUIRED FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. IN ADDITION, THIS CONTRACTOR SHALL FURNISH A SAFETY DISCONNECT SWITCH FOR ALL MOTORS AND EQUIPMENT WHICH DO NOT HAVE COMBINATION STARTERS OR INTEGRAL DISCONNECTING MEANS. FUSIBLE DISCONNECT SWITCHES SHALL BE PROVIDED FOR ALL EQUIPMENT RATED FOR USE ONLY WITH FUSES (SUCH AS CONDENSING UNITS, COMPRESSORS, ETC.). SUCH SWITCHES SHALL BE ONE, TWO OR THREE POLE TYPE, WITH SOLID NEUTRAL FOR 4 WIRE SERVICE, AND SHALL HAVE THE PROPER CURRENT AND VOLTAGE RATING AS REQUIRED. INSTALLATION OF ALL DISCONNECT SWITCHES SHALL BE BY THE ELECTRICAL CONTRACTOR.
- ALL SAFETY SWITCHES SHALL BE NEMA HEAVY DUTY TYPE AND SHALL CARRY THE UNDERWRITERS' LABORATORIES LABEL. FUSIBLE SWITCHES SHALL INCORPORATE CLASS "R" FUSE REJECTION FEATURE AND SHALL BE BRACED TO WITHSTAND 200,000 AMPERE RMS SYMMETRICAL FAULT CURRENT. SAFETY SWITCHES SHALL CONFORM TO FEDERAL SPECIFICATION W-S-865.
- PROVIDE HEAVY-DUTY TYPE, SHEET ENCLOSED, SAFETY SWITCHES. THE TYPE, SIZE, AND RATING SHALL BE AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE MOTOR OR EQUIPMENT SERVED. THE ENCLOSURE FOR DISCONNECT SWITCHES SHALL BE NEMA TYPE 1 FOR INDOOR USE, NEMA TYPE 4X FOR OUTDOOR USE AND NEMA TYPE 7 FOR EXPLOSION PROOF USE. DISCONNECTS SHALL BE

MANUFACTURED BY ALLEN-BRADLEY, GENERAL ELECTRIC, CUTLER-HAMMER APPROVED EQUAL.

- SWITCHES SHALL INCORPORATE QUICK-MAKE, QUICK-BREAK OPERATING HANDLES. THE MECHANISM SHALL BE AN INTEGRAL PART OF THE BOX, NOT THE COVER, AND SWITCHES SHALL HAVE A COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENING OF THE SWITCH DOOR IN THE ON POSITION OR CLOSING OF THE SWITCH MECHANISM WITH THE DOOR OPEN. CURRENT CARRYING PARTS SHALL BE CONSTRUCTED OF HIGH-CONDUCTIVITY COPPER WITH SILVER-TUNGSTEN TYPE SWITCH CONTACT.
- FUSE CLIPS SHALL BE POSITIVE PRESSURE TYPE REINFORCED FUSE CLIPS.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL POWER WIRING TO ALL MECHANICAL CONTRACTOR FURNISHED EQUIPMENT. THE MECHANICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL CONTROL WIRING TO ALL FURNISHED EQUIPMENT, INCLUDING CONTROL DEVICES, STARTERS AND INTEGRAL DISCONNECT SWITCHES OF CONTRACTOR FURNISHED EQUIPMENT.

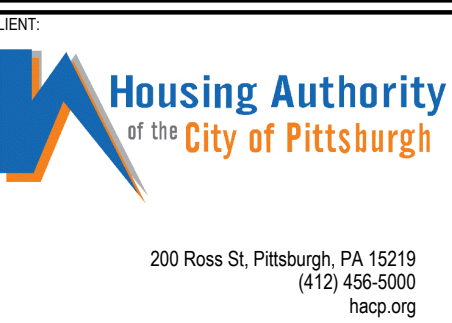
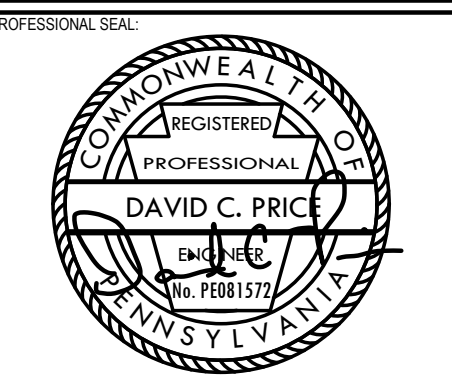
**CHECK, TEST, START, ADJUST, BALANCE AND INSTRUCTIONS (230593)**

- AFTER INSTALLATION, CHECK ALL EQUIPMENT, AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL PIPING SHALL BE TESTED AND FREE OF LEAKS.
- CONCEALED OR INSULATED WORK SHALL REMAIN UNCOVERED UNTIL REQUIRED TESTS HAVE BEEN COMPLETED, BUT IF CONSTRUCTION SCHEDULE REQUIRES IT, ARRANGE FOR PRIOR TESTS ON PARTS OF SYSTEM AS APPROVED BY THE TENANT.
- BALANCE ALL SYSTEMS, CALIBRATE CONTROLS, CHECK FOR PROPER OPERATION AND SEQUENCE UNDER ALL CONDITIONS AND MAKE ALL NECESSARY ADJUSTMENTS.
- AFTER INSTALLATION AND EQUIPMENT IS PLACED IN OPERATION, HVAC CONTRACTOR IS RESPONSIBLE FOR BALANCING SYSTEMS. BALANCING SHALL BE PERFORMED BY AN INDEPENDENT AABC CERTIFIED CONTRACTOR.
- ADJUST AND BALANCE THE AIR SYSTEMS BEFORE HYDRONIC, STEAM, AND REFRIGERANT SYSTEMS. TESTING AND BALANCING SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT AABC NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE. GPM'S SHALL BE BALANCED WITHIN 10% OF DESIGN. AFTER ALL AIR SYSTEMS ARE INSTALLED, EACH SUPPLY AIR OUTLET SHALL BE AIR BALANCED TO WITHIN 10% OF THE CFM SHOWN WITH AIR PATTERNS SET AS INDICATED ON DRAWINGS (OR WITHIN 10 CFM WHEN BELOW 100 CFM). FAN RPM'S AND ZONE DAMPERS SHALL BE ADJUSTED AND SHEAVES SHALL BE REPLACED AS REQUIRED TO ACHIEVE AIR BALANCE. ALL ZONES OR PORTIONS THEREOF SERVING OTHER SPACES AND WHICH MAY BE AFFECTED BY THE PROJECT SHALL BE TRAVERSED PRIOR TO CONSTRUCTION. THE FINAL AIR BALANCE SHALL RESTORE THESE AIR QUANTITIES. BEFORE AND AFTER AIR QUANTITIES SHALL BE LISTED IN THE AIR BALANCE REPORT
- START UP AND PLACE ALL SYSTEMS IN OPERATION AND TAG ALL SWITCHES AND CONTROLS WITH PERMANENT LABELS.
- INSTRUCT OWNER IN OPERATION OF SYSTEMS AND SUBMIT OPERATING AND MAINTENANCE MANUAL ON ALL EQUIPMENT AND SYSTEMS.

**BUILDING FLUSH-OUT AND AIR TESTING (NO SPECIFICATION SECTION)**

- IN ACCORDANCE WITH THE INDOOR AIR QUALITY ASSESSMENT CREDIT OF LEED V4.1, THE MECHANICAL CONTRACTOR SHALL PERFORM ONE OF THE FOLLOWING TWO OPTIONS AFTER CONSTRUCTION HAS CONCLUDED. ALL INTERIOR FINISHES, SUCH AS MILLWORK, DOORS, PAINT, CARPET, ACOUSTIC TILES, AND MOVEABLE FURNISHINGS MUST BE INSTALLED PRIOR TO EITHER OPTION BEING IMPLEMENTED.
- OPTION 1 : FLUSH-OUT: PATH 1 OR PATH 2 CAN BE PURSUED. PATH SHALL BE DETERMINED IN COORDINATION WITH OWNER PREFERENCE.
  - PATH 1 : PRIOR TO OCCUPANCY FLUSH-OUT
    - INSTALL NEW FILTRATION MEDIA
    - PERFORM A BUILDING FLUSHOUT BY SUPPLYING A TOTAL AIR VOLUME OF 14,000 CUBIC FEET OF OUTDOOR AIR PER SQUARE FOOT OF GROSS FLOOR AREA WHILE MAINTAINING AN INTERNAL TEMPERATURE OF AT LEAST 60 DEGREES FAHRENHEIT AND NO HIGHER THAN 80 DEGREES FAHRENHEIT AND RELATIVE HUMIDITY NO HIGHER THAN 60%.
    - ESTIMATED TIME OF BUILDING FLUSH-OUT : 180 HOURS (7.5 DAYS)
  - PATH 2 : DURING OCCUPANCY
    - PERFORM A BUILDING FLUSHOUT BY SUPPLYING A TOTAL AIR VOLUME OF 3,500 CUBIC FEET OF OUTDOOR AIR PER SQUARE FOOT OF GROSS FLOOR AREA WHILE MAINTAINING AN INTERNAL TEMPERATURE OF AT LEAST 60 DEGREES FAHRENHEIT AND NO HIGHER THAN 80 DEGREES FAHRENHEIT AND RELATIVE HUMIDITY NO HIGHER THAN 60%. ONCE SPACE IS OCCUPIED, IT MUST BE VENTILATED AT A MINIMUM OF 0.30 CFM PER SQUARE FOOT OF OUTDOOR AIR OR THE DESIGN MINIMUM OUTDOOR AIR RATE DETERMINED IN EQ PREREQUISITE MINIMUM INDOOR AIR QUALITY PERFORMANCE IN LEED V4.1, WHICHEVER IS GREATER.
    - DURING EACH DAY OF THE FLUSHOUT PERIOD, VENTILATION MUST BEGIN AT LEAST 3 HOURS BEFORE OCCUPANCY AND CONTINUE DURING OCCUPANCY. CONDITIONS SHALL BE MAINTAINED UNTIL A TOTAL OF 14,000 CUBIC FEET PER SQUARE FOOT OF OUTDOOR AIR HAS BEEN DELIVERED TO THE SPACE.
    - ESTIMATED TIME OF BUILDING FLUSH-OUT PRIOR TO OCCUPANCY : 45 HOURS (1.9 DAYS)
    - ESTIMATED TIME OF COMPLETE BUILDING FLUSH-OUT: 135 HOURS (11.6 DAYS AT 4AM STARTUP TO 6PM)
- PATH 1 : PRIOR TO OCCUPANCY FLUSH-OUT
  - PARTICULATE MATTER AND INORGANIC GASES - TEST FOR PARTICULATE MATTER (PM) AND INORGANIC GASES LISTED IN LEED V4.1 TABLE 1 OF INDOOR AIR QUALITY ASSESSMENT CREDIT, USING AN ALLOWED TEST METHOD AND DEMONSTRATE THE CONTAMINANTS DO NOT EXCEED CONCENTRATION LIMITS LISTED IN TABLE.
  - VOLATILE ORGANIC COMPOUNDS (VOC) - PERFORM A SCREEN TEST FOR TOTAL VOCs. UTILIZE ISO 16000-6, EPA TO-17, OR EPA TO-15 TO COLLECT AND ANALYZE AIR SAMPLE.
  - PROVIDE CALCULATIONS OF TVOC VALUE PER EN 16515:2017, CDPH STANDARD METHOD V1.2 2017 SECTION 3.9.4 OR ALTERNATIVE CALCULATION METHOD.
  - TVOC LEVELS EXCEEDING 500 MICROGRAMS PER CUBED METER SHALL RESULT IN AN

INVESTIGATION OF POTENTIAL ISSUES IN ACCORDANCE WITH LEED V4.1 INDOOR AIR QUALITY ASSESSMENT.



**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #4	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #3	07/09/2020
2	100% CONSTRUCTION DOCUMENTS REVISION #2	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO. 190427.00	DRAWN BY KAS & AGR	REVIEWED BY DCP
SHEET NAME:		

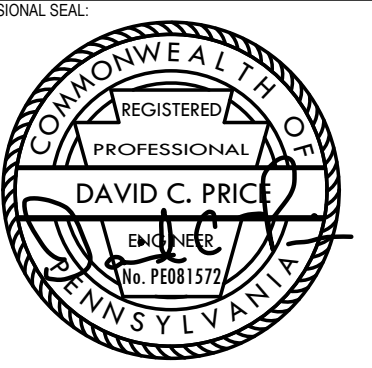
MECHANICAL SPECIFICATIONS

SHEET NO.

**M-004**

TRUE NORTH  
PLAN NORTH



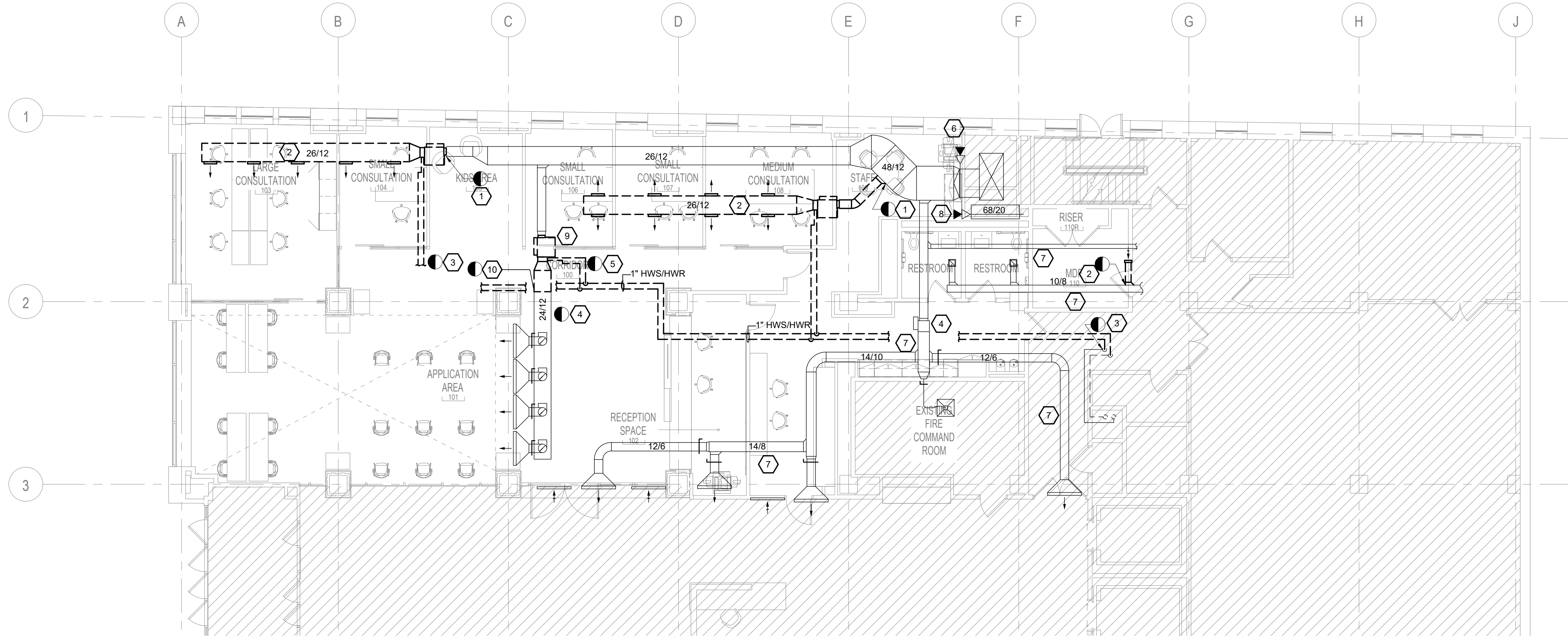


**MECHANICAL DEMOLITION GENERAL NOTES:**

- MC SHALL VERIFY ALL EXISTING EQUIPMENT, PIPING, DUCTWORK, AND APPURTENANCES SIZES AND LOCATION IN FIELD PRIOR TO BID.
- MC SHALL VERIFY ALL EQUIPMENT TO REMAIN IS FUNCTIONING PROPERLY AND IS IN GOOD WORKING CONDITION.
- MC SHALL PROVIDE NEW ISOLATION VALVES AT ANY PIPING CAP AS A RESULT OF DEMOLITION OF PORTION OF HYDRONIC SYSTEM.
- VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK TO REMAIN. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

**MECHANICAL KEY NOTES: #**

- EXISTING MECHANICAL EQUIPMENT, ASSOCIATED APPURTENANCES, AND DUCTWORK DOWNSTREAM OF MECHANICAL EQUIPMENT SHALL BE DEMOLISHED. VERIFY LOCATION AND SIZE OF EQUIPMENT AND DUCTWORK IN FIELD.
- EXISTING DUCTWORK AND ALL ASSOCIATED GRILLES, REGISTERS, DIFFUSERS AND APPURTENANCES SHALL BE DISCONNECTED AND DEMOLISHED. VERIFY SIZE AND LOCATION IN FIELD. MC SHALL PROVIDE NEW SECTION OF DUCTWORK IN MAIN AT POINT OF DISCONNECT SIZED IN ACCORDANCE WITH EXISTING DUCTWORK SIZE.
- EXISTING HOT WATER PIPING AND ALL ASSOCIATED APPURTENANCES TO BE DEMOLISHED. PROVIDE ISOLATION VALVES AT DISCONNECT POINT FOR FUTURE CONNECTION.
- EXISTING MECHANICAL EQUIPMENT, ASSOCIATED APPURTENANCES, AND DUCTWORK DOWNSTREAM OF MECHANICAL EQUIPMENT SHALL REMAIN. VERIFY LOCATION AND SIZE OF EQUIPMENT AND DUCTWORK IN FIELD.
- EXISTING HOT WATER BRANCH PIPING AND ALL ASSOCIATED APPURTENANCES TO REMAIN AND SHALL BE DISCONNECTED FROM MAIN PIPING. PROVIDE ISOLATION VALVES AT DISCONNECT POINT FOR FUTURE CONNECTION.
- EXISTING SUPPLY DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING MOTORIZED DAMPER AND COMBINATION FIRE/SMOKE DAMPER TO REMAIN.
- EXISTING DUCTWORK AND ALL ASSOCIATED GRILLES, REGISTERS, DIFFUSERS AND APPURTENANCES TO REMAIN. VERIFY SIZE AND LOCATION IN FIELD.
- EXISTING RETURN DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING COMBINATION FIRE/SMOKE DAMPER TO REMAIN. MC TO VERIFY PRESENCE OF BIRDSCREEN AT DUCT STUB. MC TO PROVIDE BIRDSCREEN IF NOT CURRENTLY INSTALLED.
- EXISTING PARALLEL FAN POWERED BOX AND ALL ASSOCIATED APPURTENANCES TO BE RELOCATED. VERIFY EXACT LOCATION IN FIELD.
- SUPPLY DUCT TO BE DEMOLISHED FROM FAN POWERED BOX SUPPLY AIR OPENING UP TO THIS POINT. VERIFY SIZE AND EXACT LOCATION IN FIELD.



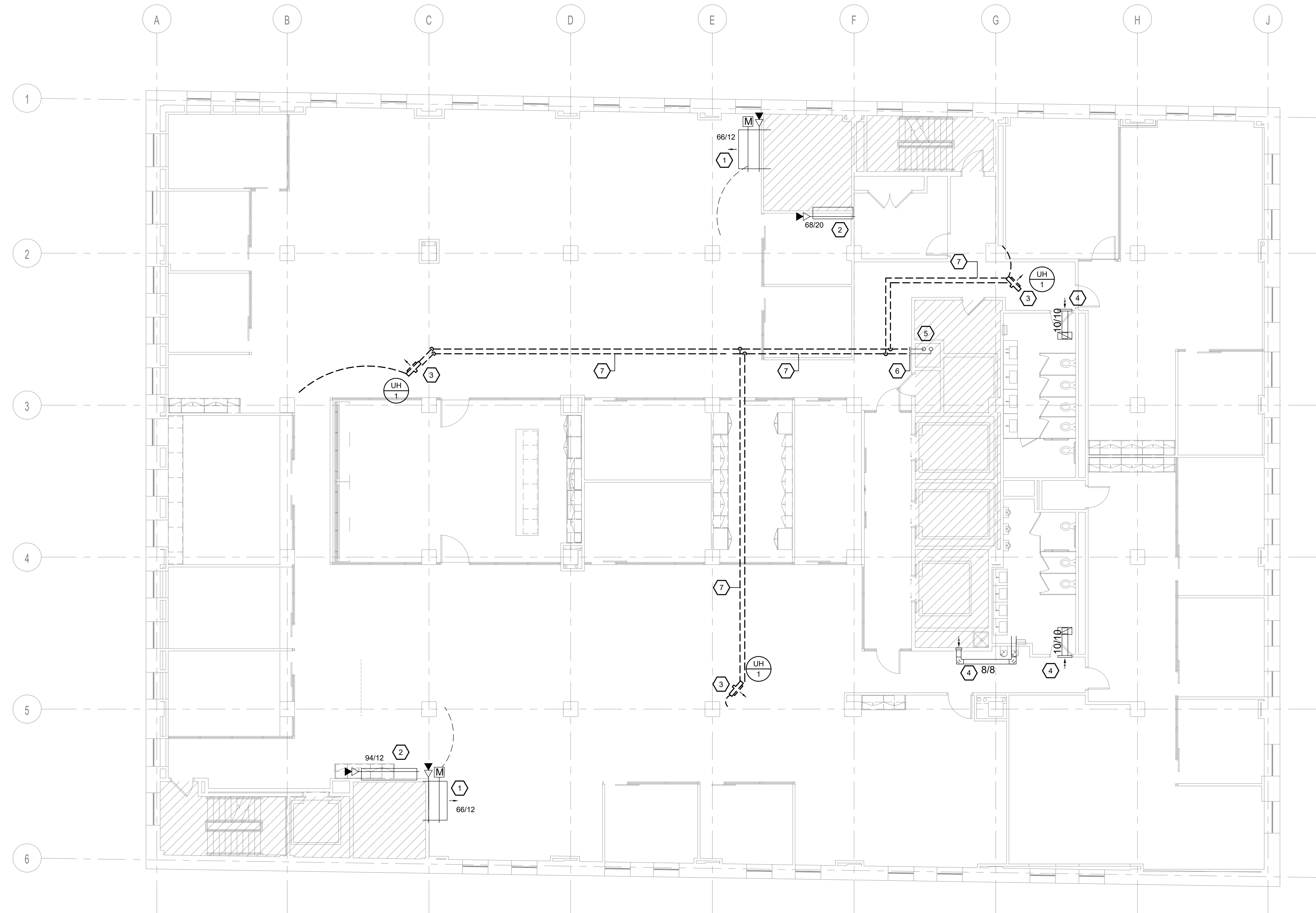
**1 1ST FLOOR MECHANICAL PLAN - DEMOLITION**  
 M-101 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
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1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	KAS & AGR	DCP

SHEET NAME:  
**1ST FLOOR MECHANICAL DEMOLITION PLAN**

SHEET NO.:  
**M-101**



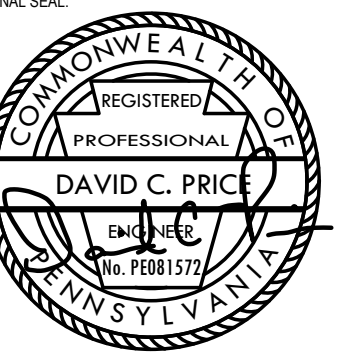
**MECHANICAL DEMOLITION GENERAL NOTES:**

1. MC SHALL VERIFY ALL EXISTING EQUIPMENT, PIPING, DUCTWORK, AND APPURTENANCE SIZES AND LOCATION IN FIELD PRIOR TO BID.
2. MC SHALL VERIFY ALL EQUIPMENT TO REMAIN IS FUNCTIONING PROPERLY AND IS IN GOOD WORKING CONDITION.
3. MC SHALL PROVIDE NEW ISOLATION VALVES AT ANY PIPING GAP AS A RESULT OF DEMOLITION OF PORTION OF HYDRONIC SYSTEM.
4. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK TO REMAIN. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.
5. ALL EXISTING HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH MECHANICAL HEATING SYSTEM, AS WELL AS ALL HANGERS, INSULATION AND OTHER APPURTENANCES, SHALL BE DEMOLISHED ON FLOOR. VERIFY SIZE, LOCATION AND QUANTITY IN FIELD.
6. ALL EXISTING FAN POWERED VAV BOXES AND SINGLE DUCT VAV BOXES, AS WELL AS ALL APPURTENANCES AND DUCTWORK CONNECT TO UNITS, SHALL BE DEMOLISHED. VERIFY QUANTITY, SIZE, AND LOCATION IN FIELD.

**MECHANICAL DEMOLITION KEY NOTES: #**

1. EXISTING SUPPLY DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING MOTORIZED DAMPER AND COMBINATION FIRE/SMOKE DAMPER TO REMAIN.
2. EXISTING RETURN DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING COMBINATION FIRE/SMOKE DAMPER TO REMAIN. MC TO VERIFY PRESENCE OF BIRDSCREEN AT DUCT STUB. MC TO PROVIDE BIRDSCREEN IF NOT CURRENTLY INSTALLED.
3. EXISTING HOT WATER UNIT HEATER AND ALL ASSOCIATED APPURTENANCES TO BE DISCONNECTED AND RETURNED TO OWNER IN GOOD CONDITION. VERIFY LOCATION IN FIELD.
4. EXISTING DUCTWORK TO REMAIN. VERIFY SIZE AND LOCATION IN FIELD.
5. EXISTING HOT WATER SUPPLY AND RETURN RISERS IN SHAFT TO REMAIN.
6. EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM SHAFT INTO FUTURE TENANT SPACE TO BE CAPPED NO LESS THAN 3 FEET FROM SHAFT FOR FUTURE CONNECTION. MC TO PROVIDE MANUAL ISOLATION VALVES ON SUPPLY AND RETURN PIPING IF NOT CURRENTLY INSTALLED.
7. EXISTING HOT WATER SUPPLY AND RETURN PIPING AND ALL ASSOCIATED APPURTENANCES TO BE DEMOLISHED. MC TO VERIFY EXACT ROUTING AND LOCATION OF PIPING IN FIELD.

**1** 5TH FLOOR MECHANICAL PLAN - DEMOLITION  
M-102 1/8" = 1'-0"



CONSULTANT:  
**Allen & Shariff**  
DESIGN | BUILD | MANAGE  
Allen & Shariff Engineering, LLC  
700 River Avenue, Suite 600  
Pittsburgh, PA 15212  
Tel: 412.322.9280

CLIENT:  
**Housing Authority**  
of the City of Pittsburgh  
200 Ross St. Pittsburgh, PA 15219  
(412) 456-5000  
hacp.org

**HACP - Housing Authority of the City of Pittsburgh**  
412 Boulevard of the Allies, Pittsburgh, PA 15219

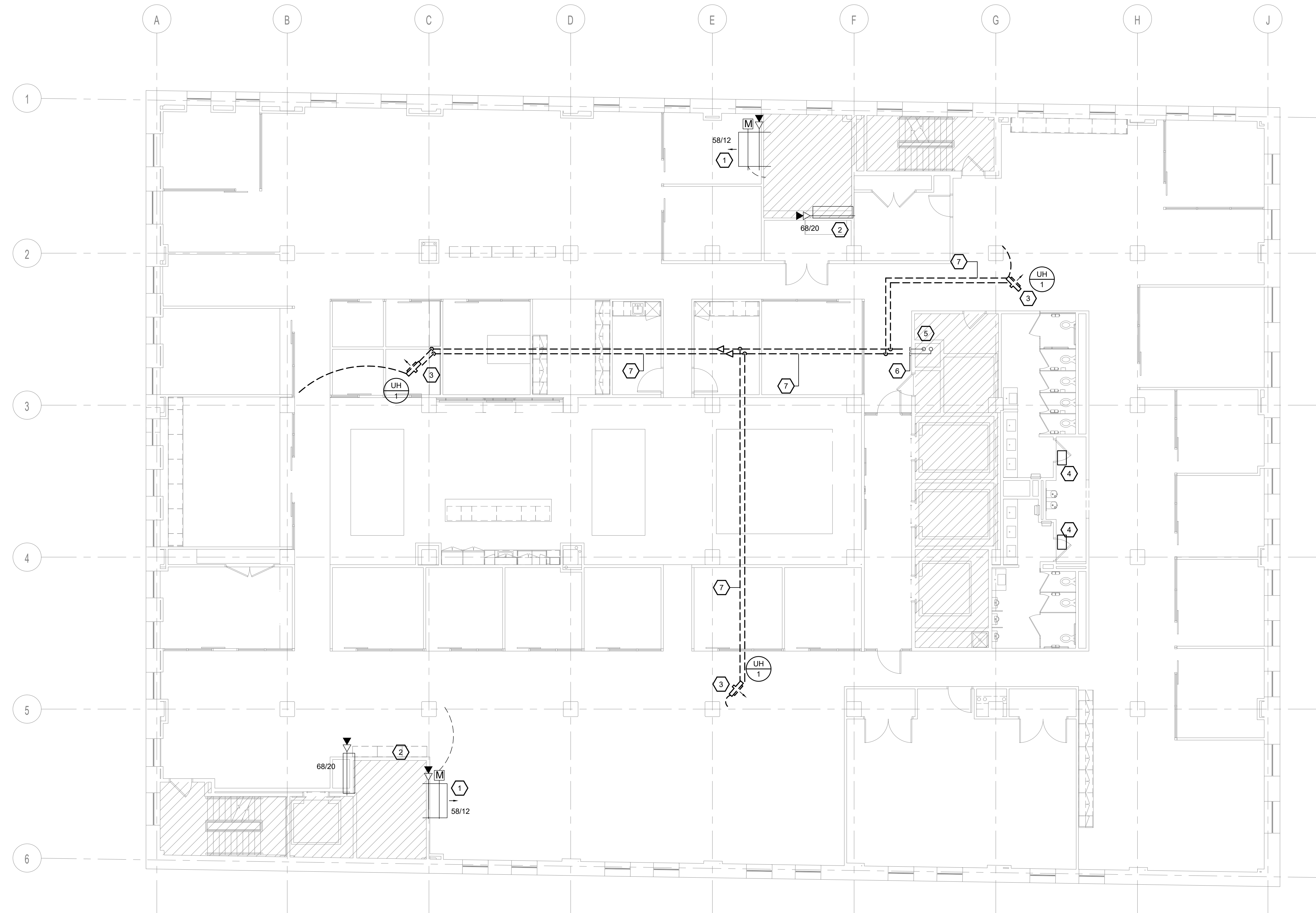
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1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	KAS & AGR	DCP

SHEET NAME:  
**5TH FLOOR  
MECHANICAL DEMOLITION  
PLAN**

SHEET NO.:  
**M-102**

TRUE NORTH  
PLAN NORTH



**MECHANICAL DEMOLITION GENERAL NOTES:**

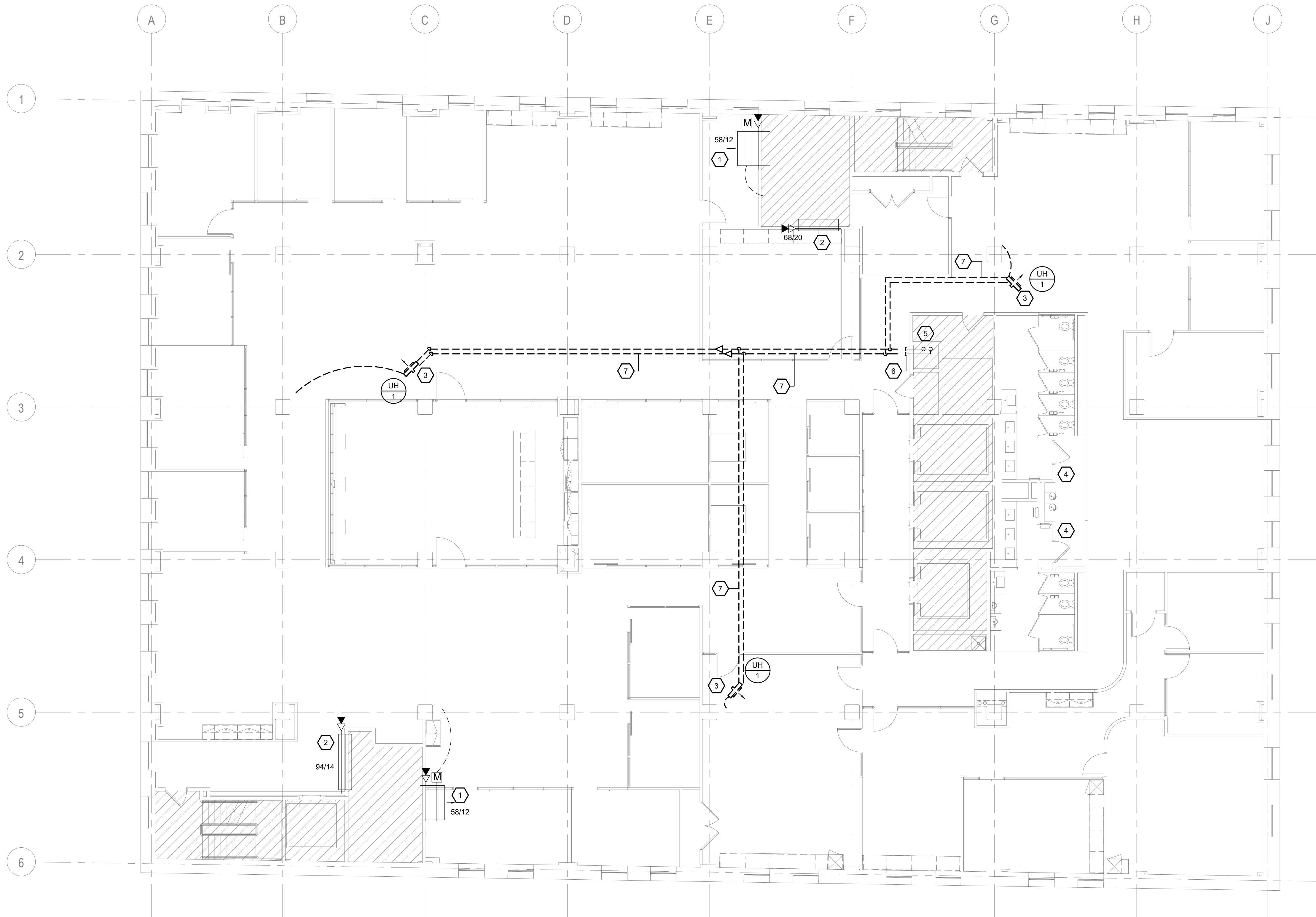
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3. MC SHALL PROVIDE NEW ISOLATION VALVES AT ANY PIPING CAP AS A RESULT OF DEMOLITION OF PORTION OF HYDRONIC SYSTEM.
4. VERIFY EXISTING BAGNET ROUTER INSTALLED IN PREVIOUS WORK TO REMAIN. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BAGNET ROUTER UNLESS OTHERWISE NOTED.
5. ALL EXISTING HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH MECHANICAL HEATING SYSTEM, AS WELL AS ALL HANGERS, INSULATION AND OTHER APPURTENANCES, SHALL BE DEMOLISHED ON FLOOR. VERIFY SIZE, LOCATION AND QUANTITY IN FIELD.
6. ALL EXISTING FAN POWERED VAV BOXES AND SINGLE DUCT VAV BOXES, AS WELL AS ALL APPURTENANCES AND DUCTWORK CONNECT TO UNITS, SHALL BE DEMOLISHED. VERIFY QUANTITY, SIZE, AND LOCATION IN FIELD.

**MECHANICAL DEMOLITION KEY NOTES: #**

1. EXISTING SUPPLY DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING MOTORIZED DAMPER AND COMBINATION FIRE/SMOKE DAMPER TO REMAIN.
2. EXISTING RETURN DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING COMBINATION FIRE/SMOKE DAMPER TO REMAIN. MC TO VERIFY PRESENCE OF BIRDSCREEN AT DUCT STUB. MC TO PROVIDE BIRDSCREEN IF NOT CURRENTLY INSTALLED.
3. EXISTING HOT WATER UNIT HEATER AND ALL ASSOCIATED APPURTENANCES TO BE DISCONNECTED AND RETURNED TO OWNER IN GOOD CONDITION. VERIFY LOCATION IN FIELD.
4. EXISTING TRANSFER GRILLES AND DUCTWORK FOR BATHROOMS TO REMAIN. VERIFY SIZE AND LOCATION IN FIELD.
5. EXISTING HOT WATER SUPPLY AND RETURN RISERS IN SHAFT TO REMAIN.
6. EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM SHAFT INTO FUTURE TENANT SPACE TO BE CAPPED NO LESS THAN 3 FEET FROM SHAFT FOR FUTURE CONNECTION. MC TO PROVIDE MANUAL ISOLATION VALVES ON SUPPLY AND RETURN PIPING IF NOT CURRENTLY INSTALLED.
7. EXISTING HOT WATER SUPPLY AND RETURN PIPING AND ALL ASSOCIATED APPURTENANCES TO BE DEMOLISHED. MC TO VERIFY EXACT ROUTING AND LOCATION OF PIPING IN FIELD.

**1 6TH FLOOR MECHANICAL PLAN - DEMOLITION**  
M-103 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020



**MECHANICAL DEMOLITION GENERAL NOTES:**

1. MC SHALL VERIFY ALL EXISTING EQUIPMENT, PIPING, DUCTWORK, AND APPURTENANCE SIZES AND LOCATION IN FIELD PRIOR TO BID.
2. MC SHALL VERIFY ALL EQUIPMENT TO REMAIN IS FUNCTIONING PROPERLY AND IS IN GOOD WORKING CONDITION.
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4. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK TO REMAIN. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.
5. ALL EXISTING HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH MECHANICAL HEATING SYSTEM, AS WELL AS ALL HANGERS, INSULATION AND OTHER APPURTENANCES, SHALL BE DEMOLISHED ON FLOOR. VERIFY SIZE, LOCATION AND QUANTITY IN FIELD.
6. ALL EXISTING FAN POWERED VAV BOXES AND SINGLE DUCT VAV BOXES, AS WELL AS ALL APPURTENANCES AND DUCTWORK CONNECT TO UNITS, SHALL BE DEMOLISHED. VERIFY QUANTITY, SIZE, AND LOCATION IN FIELD.

**MECHANICAL DEMOLITION KEY NOTES:** #

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2. EXISTING RETURN DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING COMBINATION FIRE/SMOKE DAMPER TO REMAIN. MC TO VERIFY PRESENCE OF BIRDSCREEN AT DUCT STUB. MC TO PROVIDE BIRDSCREEN IF NOT CURRENTLY INSTALLED.
3. EXISTING HOT WATER UNIT HEATER AND ALL ASSOCIATED APPURTENANCES TO BE DISCONNECTED AND RETURNED TO OWNER IN GOOD CONDITION. VERIFY LOCATION IN FIELD.
4. EXISTING TRANSFER GRILLES AND DUCTWORK FOR BATHROOMS TO REMAIN. VERIFY SIZE AND LOCATION IN FIELD.
5. EXISTING HOT WATER SUPPLY AND RETURN RISERS IN SHAFT TO REMAIN.
6. EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM SHAFT INTO FUTURE TENANT SPACE TO BE CAPPED NO LESS THAN 3 FEET FROM SHAFT FOR FUTURE CONNECTION. MC TO PROVIDE MANUAL ISOLATION VALVES ON SUPPLY AND RETURN PIPING IF NOT CURRENTLY INSTALLED.
7. EXISTING HOT WATER SUPPLY AND RETURN PIPING AND ALL ASSOCIATED APPURTENANCES TO BE DEMOLISHED. MC TO VERIFY EXACT ROUTING AND LOCATION OF PIPING IN FIELD.

1 7TH FLOOR MECHANICAL PLAN - DEMOLITION  
M-104 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
PROJECT ISSUANCE		

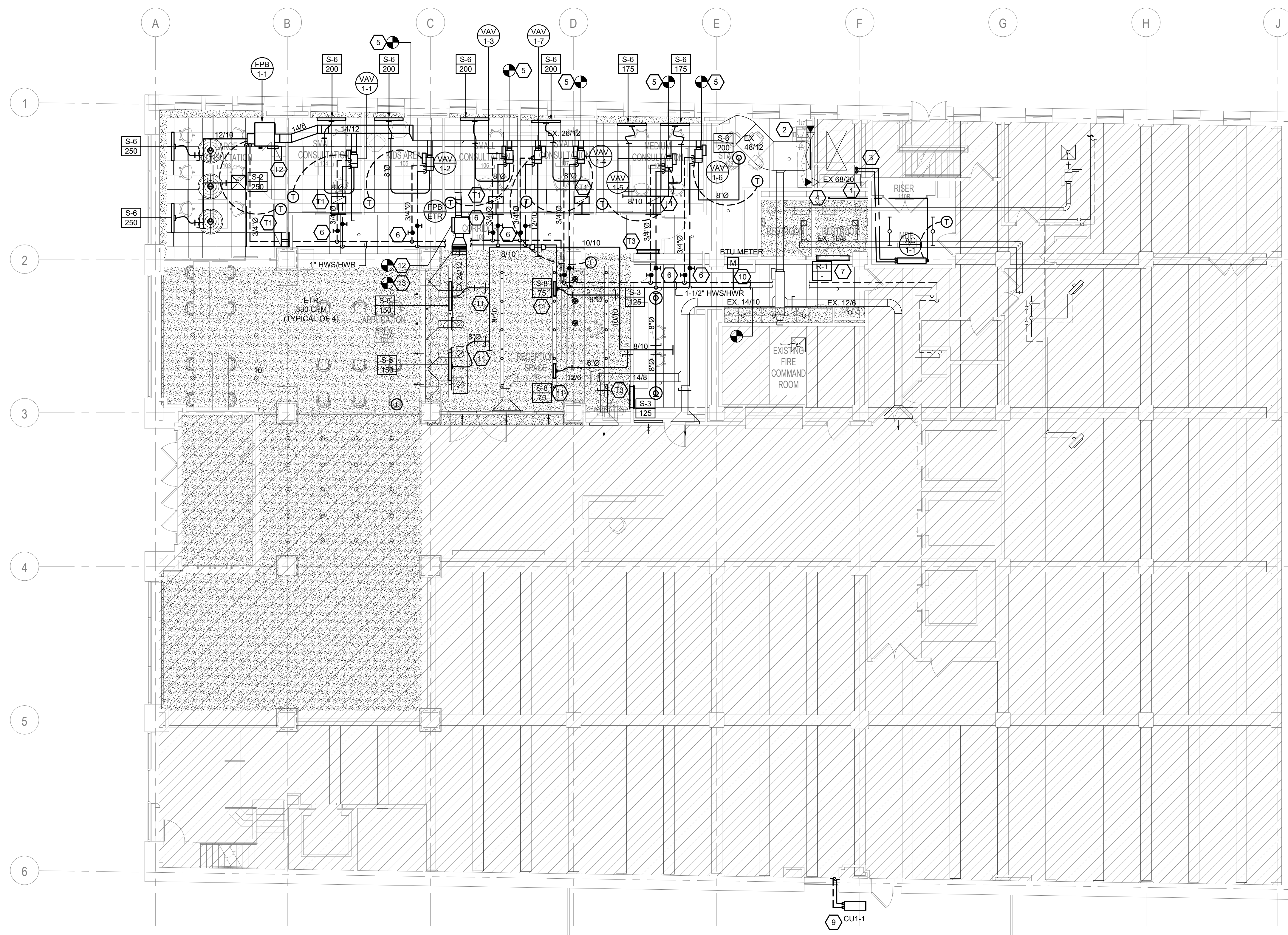
PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	KAS & AGR	DCP
SHEET NAME:		
7TH FLOOR MECHANICAL DEMOLITION PLAN		
SHEET NO.:		
M-104		

**MECHANICAL GENERAL NOTES:**

1. PROVIDE MERV 8 FILTERS AT ALL PARALLEL FAN POWERED BOX RETURN OPENINGS.
2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT.
6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.
7. INLET AND OUTLET OF FAN POWERED BOXES AND SINGLE DUCT VAV BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
8. NEW MECHANICAL EQUIPMENT SHALL BE INSTALLED NO LESS THAN 10 FEET FROM THE ROOF EDGE OR PARAPET. ANY MECHANICAL EQUIPMENT INSTALLED WITHIN 10 FEET OF ROOF EDGE SHALL BE PROVIDED WITH PROTECTIVE SERVICE RAILING FOR PROPER SERVICE AND MAINTENANCE OF EQUIPMENT.
9. MC TO PROVIDE PIPE SUPPORT STANDS ON ROOF FOR REFRIGERANT LINESETS. PIPE SUPPORTS SHALL BE PROVIDED EVERY 5'-0" OF HORIZONTAL RUN.
10. NEW SPLIT SYSTEM CONDENSING UNITS SHALL BE MOUNTED ON THE MANUFACTURER'S 18" UNIT STANDS WITH VIBRATION ISOLATION PADS.

**MECHANICAL KEY NOTES: (#)**

1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY.
2. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
3. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
4. 5/8" SUCTION AND 3/8" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
5. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT NEW SAFEWASTE CONNECTION (BY P.C.) IN EXISTING RESTROOM AT LAVATORY SINK. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
6. MEDIUM PRESSURE SUPPLY BRANCH CONNECTS TO EXISTING SUPPLY MAIN. MC TO VERIFY SIZE AND LOCATION OF EXISTING SUPPLY AIR DUCT IN FIELD AND PROVIDE TRANSITIONS AS NECESSARY FOR DUCT CONNECTION.
7. HOT WATER SUPPLY AND RETURN PIPING SHALL CONNECTS TO EXISTING HOT WATER PIPING. MC TO VERIFY LOCATION AND SIZE OF EXISTING PIPING IN FIELD.
8. TRANSFER GRILLE TO BE INSTALLED AT PARTITION WALL IN CORRIDOR AND SHALL BE DUCTED INTO RETURN CEILING PLENUM ABOVE RESTROOM.
9. CONDENSING UNIT TO BE INSTALLED ON OVERHANG ABOVE RAISED CONCRETE PATIO AT FIRST FLOOR. SUCTION AND LIQUID LINESET SHALL BE ROUTED TO AHU-1. COORDINATE ROUTING IN FIELD. PROVIDE LONG LINE KIT APPLICATION FOR ALL REFRIGERANT LINESETS EXCEEDING 80 FEET. ACCESS TO MECHANICAL EQUIPMENT SHALL BE VIA TEMPORARY LADDER FROM PATIO LANDING, AS DISTANCE FROM LOW ROOF LEVEL TO LANDING IS LESS THAN 16 FEET. PROVIDE MANUFACTURER PROVIDED 12" MINIMUM HEAT PUMP STANDS WITH VIBRATION ISOLATION PADS. MC SHALL VERIFY ROOF WARRANTY IS NOT VOIDED BY INSTALLATION OF HEAT PUMP STANDS.
10. INSTALL BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING.
11. LINEAR SLOT DIFFUSER TO BE INSTALLED IN RECESSED MODULAR LINEAR LIGHTING TRACK SYSTEM. DIFFUSER AND ENGINEERED PLENUM BOX TO BE HUNG FROM CEILING OR STRUCTURE ABOVE. FINAL LOCATION OF DIFFUSER SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN. BRANCH DUCTWORK CONNECTING TO DIFFUSER SHALL TRANSITION AND SHALL BE ROUTED AS NECESSARY TO AVOID STRUCTURAL BEAMS, EXISTING DUCTWORK AND PIPING.
12. EXISTING PARALLEL FAN POWERED VAV BOX AND ALL ASSOCIATED APPURTENANCES TO BE RELOCATED TO THIS LOCATION. HOT WATER SUPPLY AND RETURN PIPING SHALL BE RECONNECTED TO FAN POWERED BOX. EXTEND PIPING AS NECESSARY. VERIFY EXISTING SIZE AND LOCATION IN FIELD.
13. NEW SUPPLY DUCTWORK SHALL CONNECT TO RELOCATED FAN POWERED BOX. TRANSITION NEW DUCTWORK UP TO EXISTING ELEVATION OF SUPPLY DUCTWORK CONCEALED ABOVE DROPPED CEILING IN RECEPTION SPACE 102. MAKE TRANSITIONS AS NECESSARY TO CONNECT TO EXISTING DUCTWORK.



**1 1ST FLOOR MECHANICAL PLAN - NEW WORK**  
 M-201 1/8" = 1'-0"

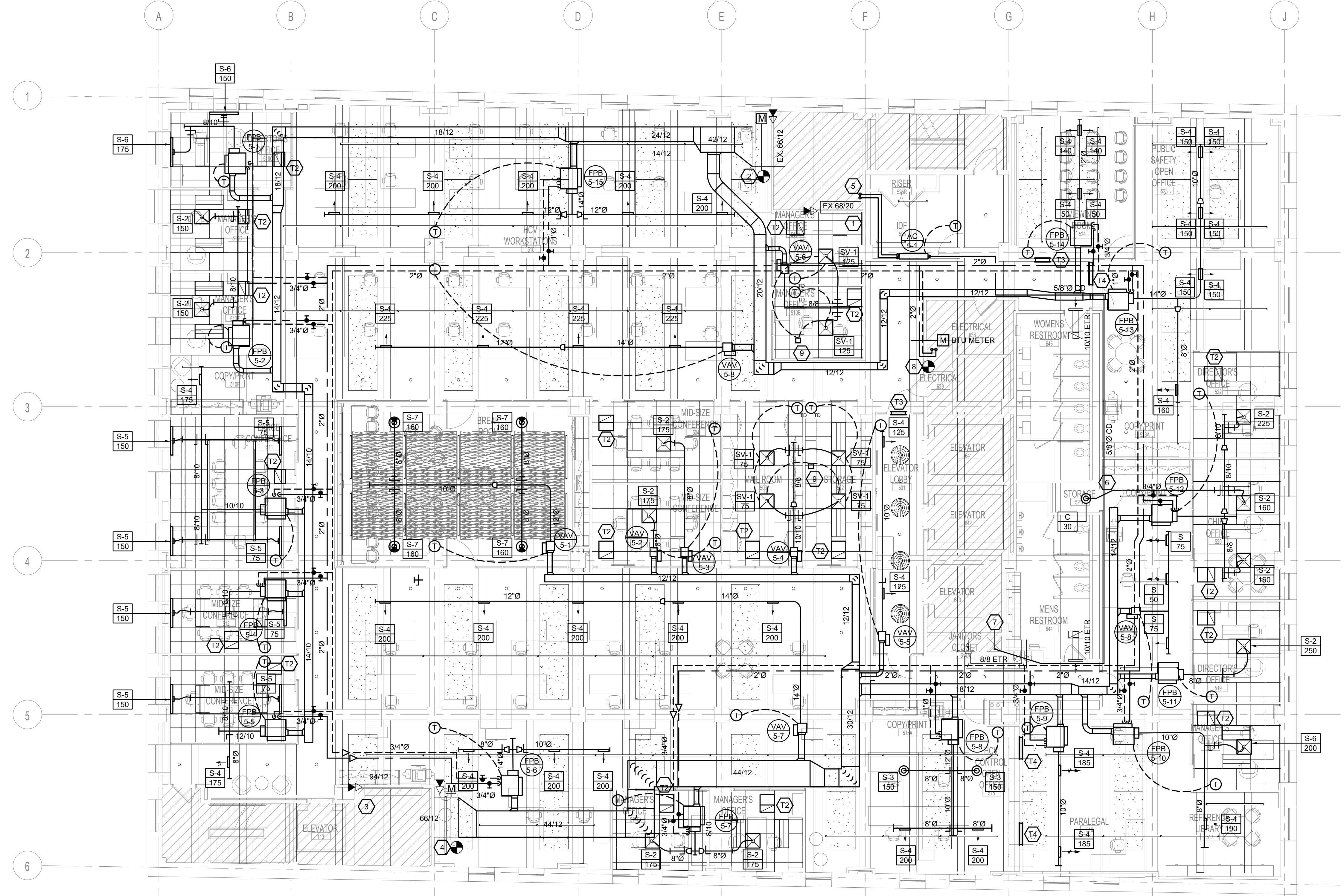
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4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO: 190427.00  
 DRAWN BY: KAS & AGR  
 REVIEWED BY: DCP

SHEET NAME:  
**1ST FLOOR MECHANICAL PLAN**

SHEET NO:  
**M-201**

TRUE NORTH  
 PLAN NORTH



1 5TH FLOOR MECHANICAL PLAN  
M-202 1/8" = 1'-0"

**MECHANICAL GENERAL NOTES:**

1. PROVIDE MERV 8 FILTERS AT ALL PARELLEL FAN POWERED BOX RETURN OPENINGS.
2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

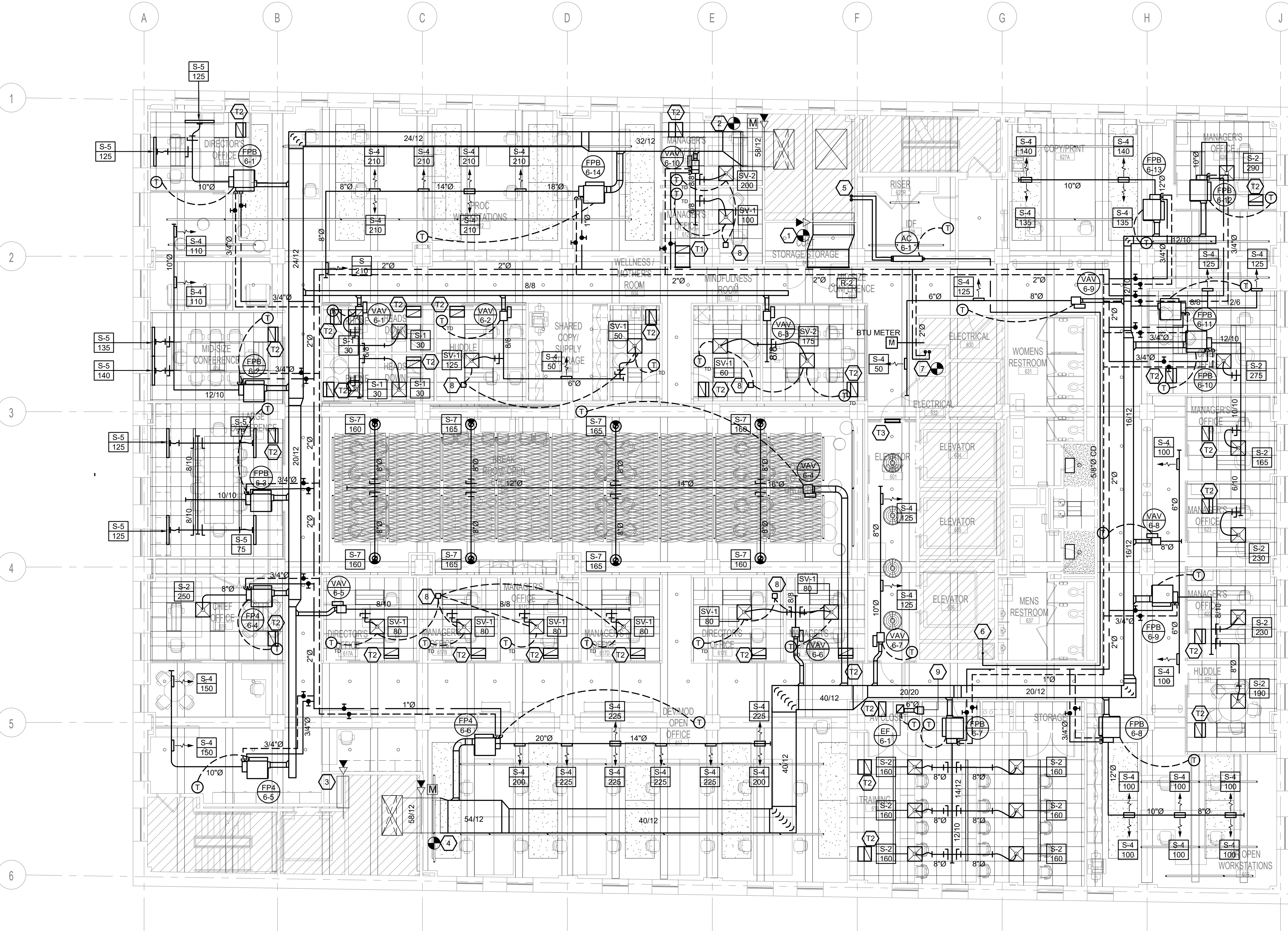
**MECHANICAL KEY NOTES:** (E)

1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 66X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 94X12 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 66X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
5. 1/2" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
6. PROVIDE 1/2" UNDERCUT OF DOOR.
7. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
8. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENETRATION IN ACCORDANCE WITH THE IBC. INSTALL BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
9. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE

PROJECT ISSUANCE

PROJECT NO: 190427.00	DRAWN BY: KAS & AGR	REVIEWED BY: DCP
SHEET NAME:		



**1 6TH FLOOR MECHANICAL PLAN**  
 M-203 1/8" = 1'-0"

**MECHANICAL GENERAL NOTES:**

1. PROVIDE MERV 8 FILTERS AT ALL PARELLEL FAN POWERED BOX RETURN OPENINGS.
2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO SIXTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

**MECHANICAL KEY NOTES:** #

1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT RUNS TO GRILLE AT WALL PARTITION. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 94X12 RETURN AIR DUCT STUBS INTO OPEN OFFICE SPACE. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
5. 3/8" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
6. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
7. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENETRATION IN ACCORDANCE WITH THE IBC. INSTALL BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
8. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.
9. EXHAUST DUCTWORK TRANSITIONS TO 12"X6" DUCT STUBS INTO PLENUM SPACE ABOVE ACOUSTIC TILE CEILING.

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	KAS & AGR	DCP

SHEET NO. **6TH FLOOR MECHANICAL PLAN**

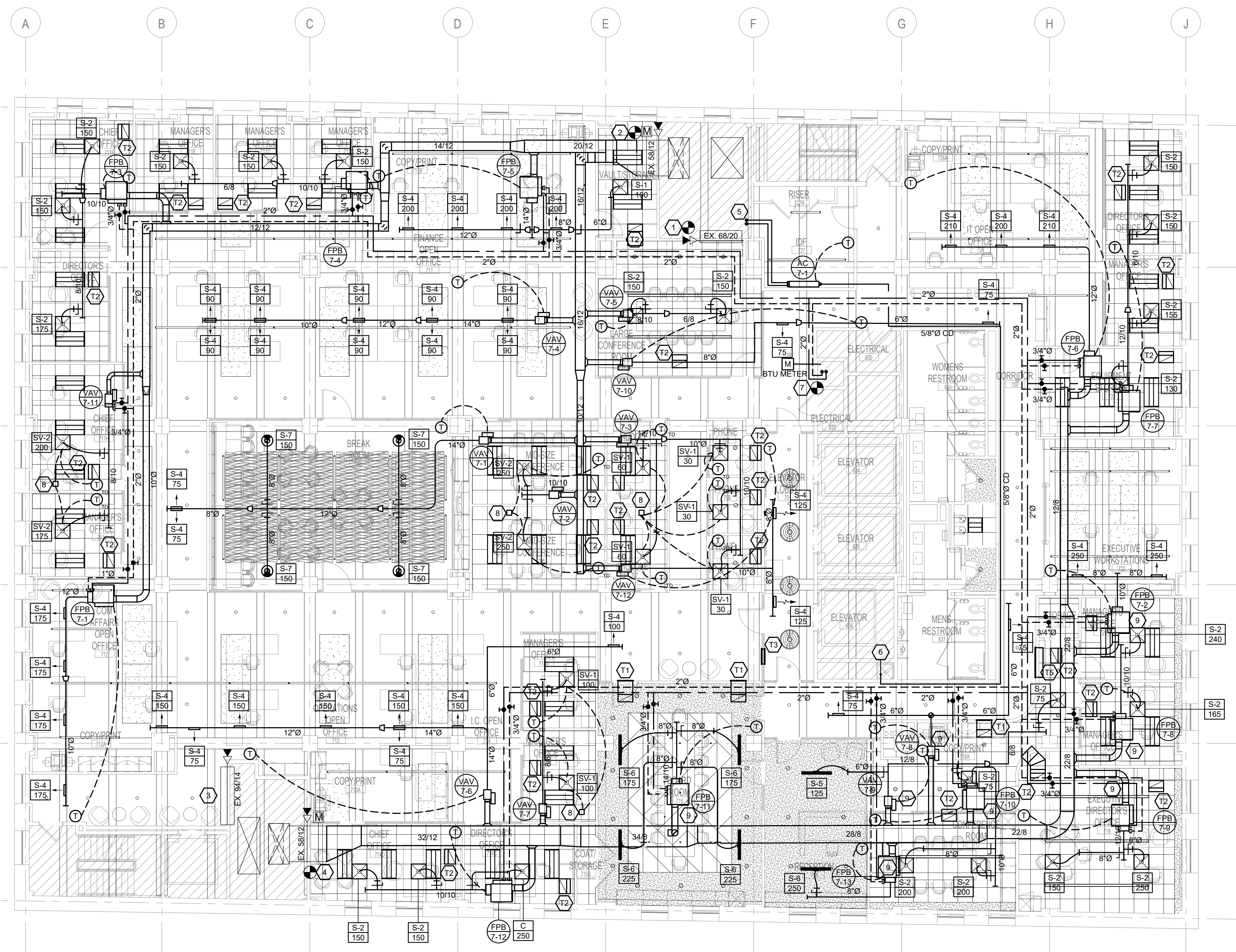
**M-203**

**MECHANICAL GENERAL NOTES:**

1. PROVIDE MERV 8 FILTERS AT ALL PARALLEL FAN POWERED BOX RETURN OPENINGS.
2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
3. THERMOSTATS SHALL BE INSTALLED AT 4" ABOVE FINISHED FLOOR.
4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

**MECHANICAL KEY NOTES:**

1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 94X14 RETURN AIR DUCT STUBS INTO OPEN OFFICE SPACE. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
5. 3/8" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
6. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
7. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENETRATION IN ACCORDANCE WITH THE IBC. INSTALL BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
8. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.
9. PARALLEL FAN POWERED BOX OR SINGLE DUCT VAV BOX SHALL BE INSTALLED IN BETWEEN STRUCTURAL MEMBERS SUCH THAT EQUIPMENT FITS ABOVE CEILING HEIGHT DENOTED IN ARCHITECT'S REFLECTED CEILING PLANS. PROVIDE DUCT TRANSITIONS AS NECESSARY FROM SUPPLY MAIN TO EQUIPMENT AND FROM DISCHARGE OUTLET TO ASSOCIATED DIFFUSERS AND GRILLES SUCH THAT CEILING HEIGHT IS MAINTAINED.

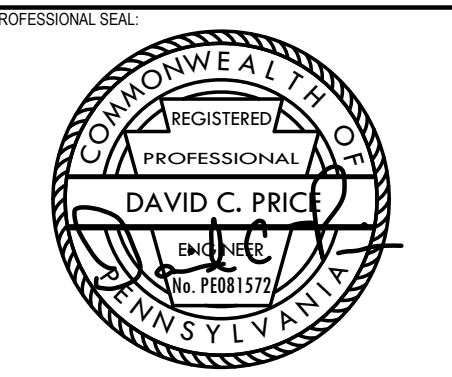


**1 7TH FLOOR MECHANICAL PLAN**  
 M-204 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	KAS & AGR	DCP
SHEET NAME:		

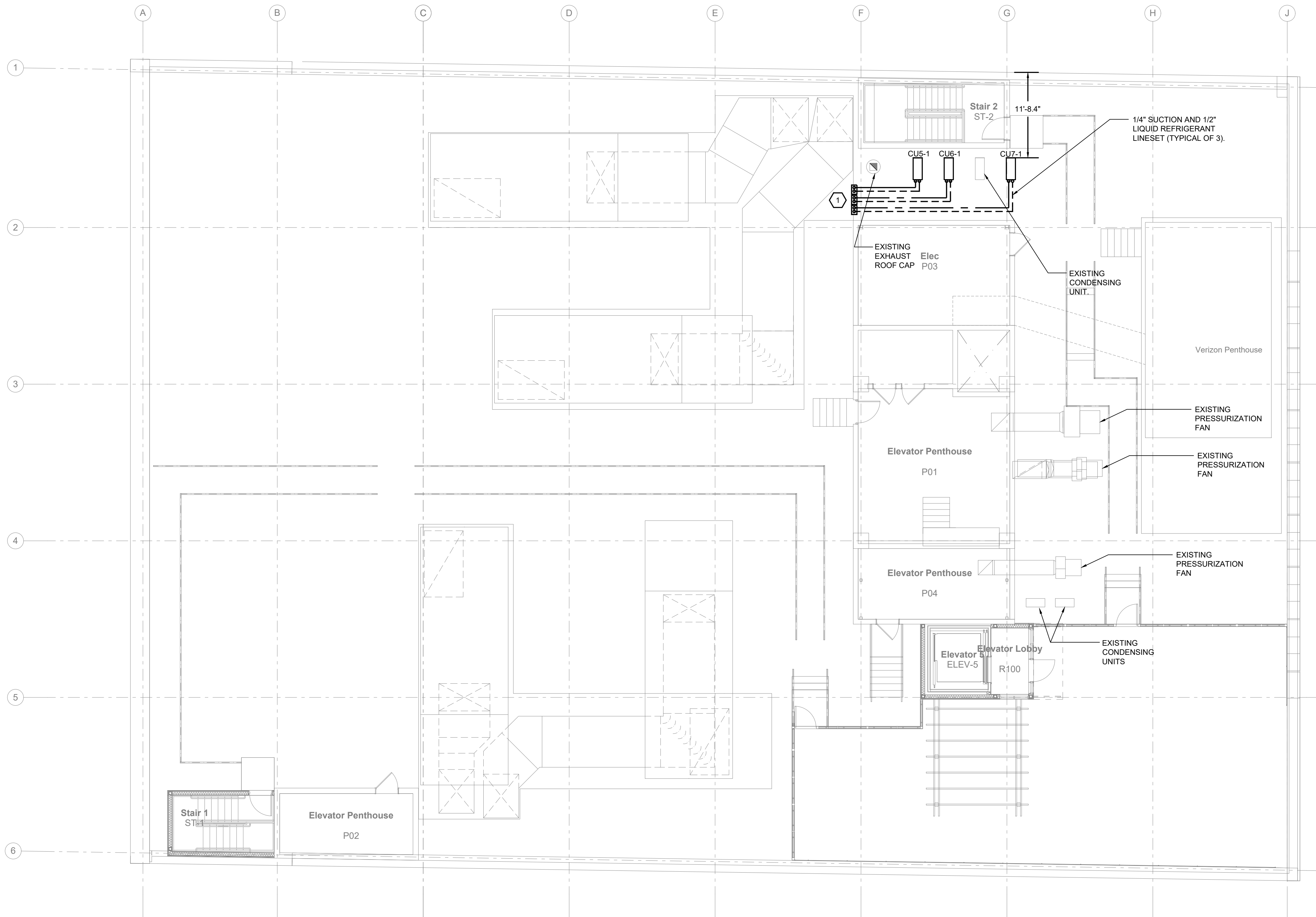




CONSULTANT:  
**Allen & Shariff**  
 DESIGN | BUILD | MANAGE  
 Allen & Shariff Engineering, LLC  
 700 River Avenue, Suite 600  
 Pittsburgh, PA 15212  
 Tel: 412.322.9280

CLIENT:  
**Housing Authority**  
 of the City of Pittsburgh  
 200 Ross St. Pittsburgh, PA 15219  
 (412) 456-5000  
 hacp.org

**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219



**MECHANICAL GENERAL NOTES:**

1. VERIFY LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, AND PIPING ON ROOF PRIOR TO BID. COORDINATE LOCATION OF NEW EQUIPMENT WITH EXISTING CONDITIONS.
2. NEW MECHANICAL EQUIPMENT SHALL BE INSTALLED NO LESS THAN 10 FEET FROM THE ROOF EDGE OR PARAPET. ANY MECHANICAL EQUIPMENT INSTALLED WITHIN 10 FEET OF ROOF EDGE SHALL BE PROVIDED WITH PROTECTIVE SERVICE RAILING FOR PROPER SERVICE AND MAINTENANCE OF EQUIPMENT.
3. MC TO PROVIDE INSULATED PIPE PORTAL FOR EACH NEW REFRIGERANT LINESET. COORDINATE FINAL LOCATION OF PIPE PORTAL WITH EXISTING EQUIPMENT ON ROOF AND STRUCTURE BELOW.
4. MC TO PROVIDE PIPE SUPPORT STANDS ON ROOF FOR REFRIGERANT LINESETS. PIPE SUPPORTS SHALL BE PROVIDED EVERY 5'-0" OF HORIZONTAL RUN.
5. NEW SPLIT SYSTEM CONDENSING UNITS SHALL BE MOUNTED ON THE MANUFACTURER'S 18" UNIT STANDS WITH VIBRATION ISOLATION PADS.

**MECHANICAL KEY NOTES:** #

1. 1/4" SUCTION AND 1/2" LIQUID REFRIGERANT LINESET DN IN INSULATED PIPE PORTAL TO CHASE BELOW. COORDINATE FINAL LOCATION OF PIPE PORTAL WITH EXISTING DUCTWORK, PIPES, AND STRUCTURE WITHIN CHASE. (TYPICAL OF 3)

**1** ROOF MECHANICAL PLAN  
 M-205 1/8" = 1'-0"

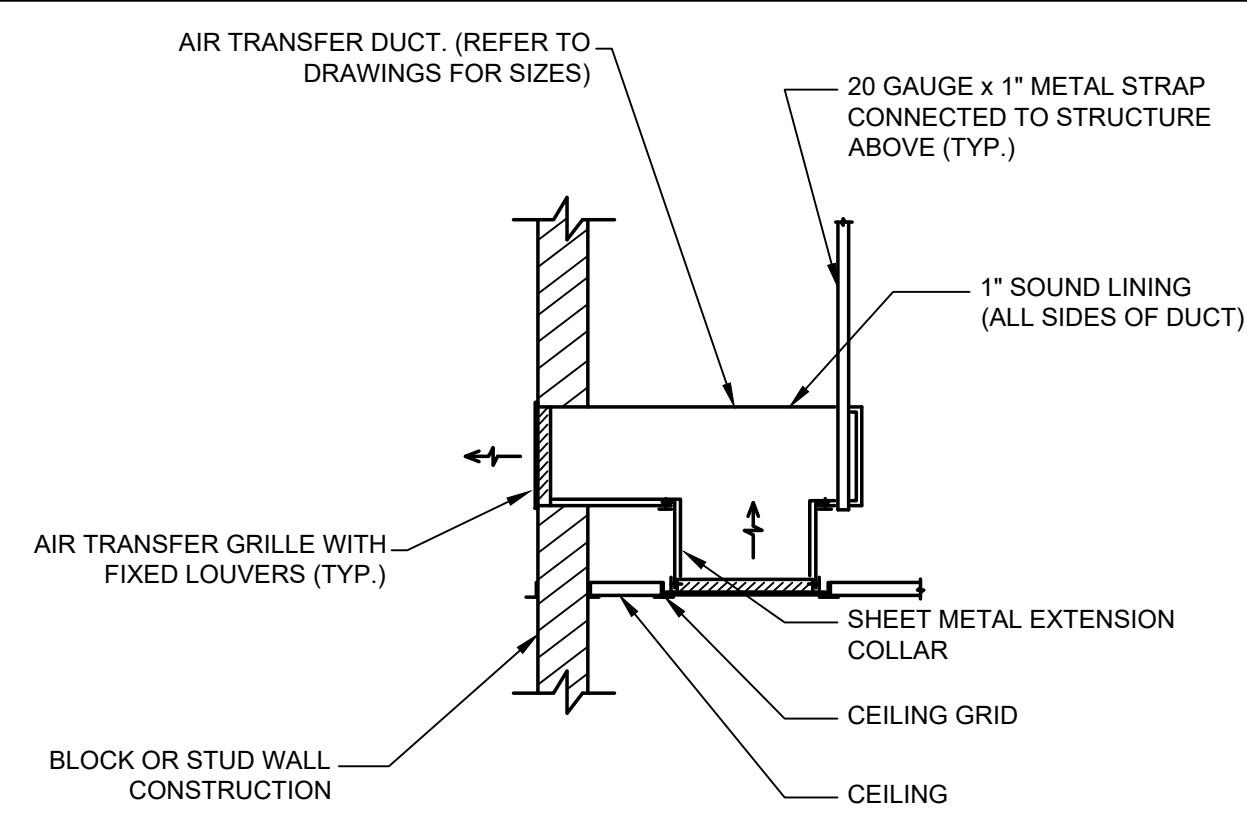
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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	KAS & AGR	DCP

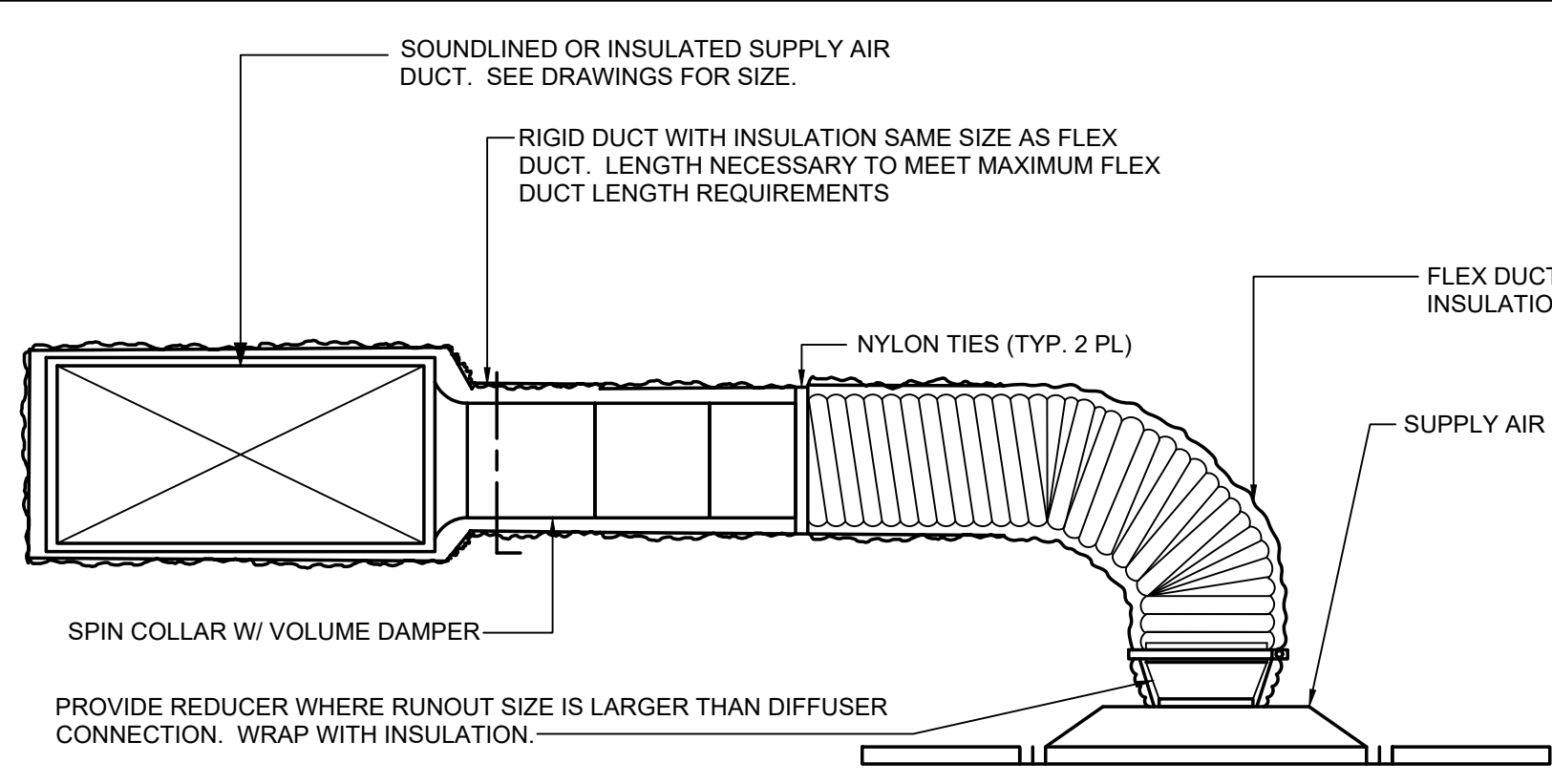
SHEET NO. **M-205**

ROOF MECHANICAL PLAN

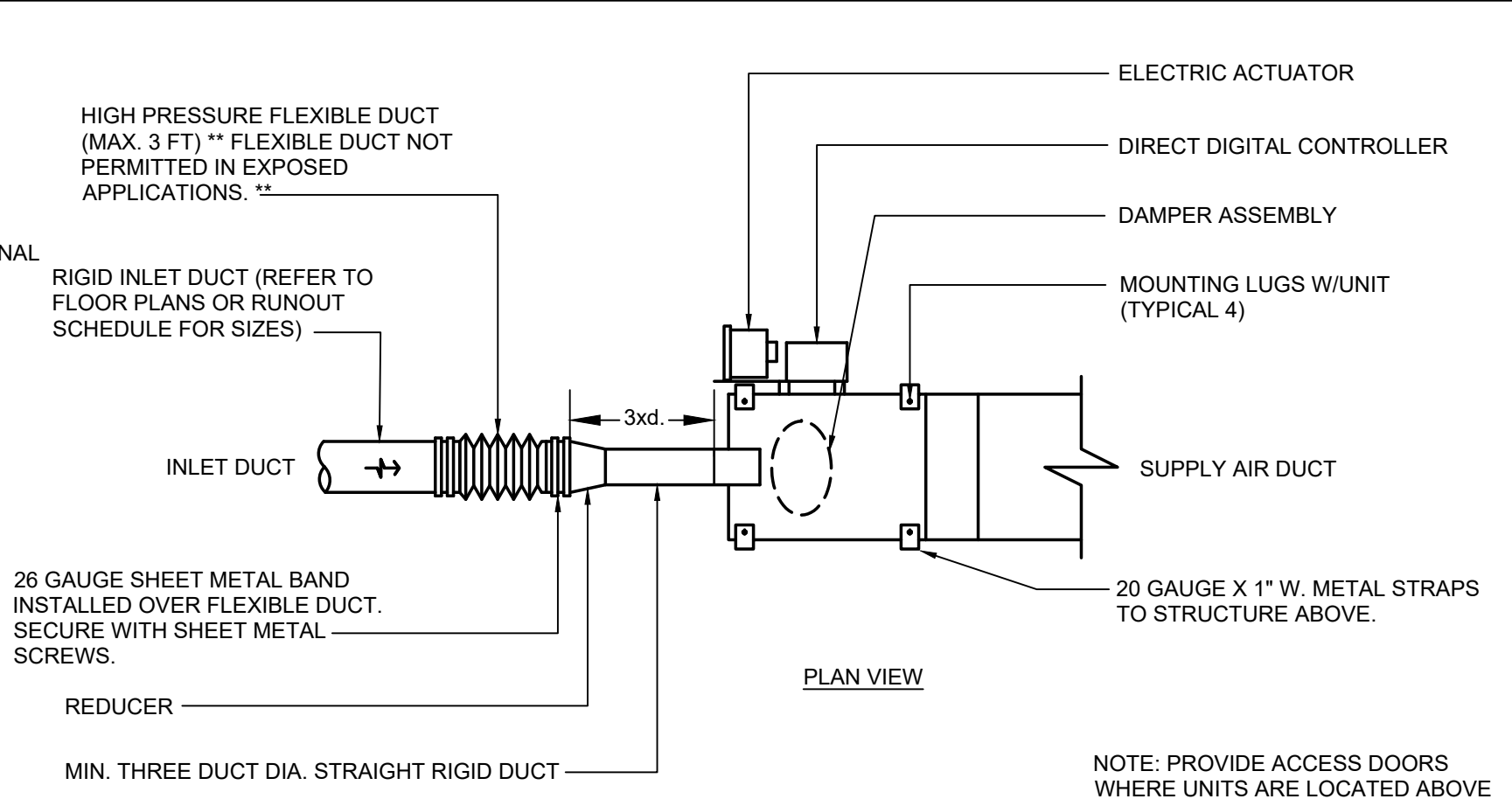
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 PLAN NORTH



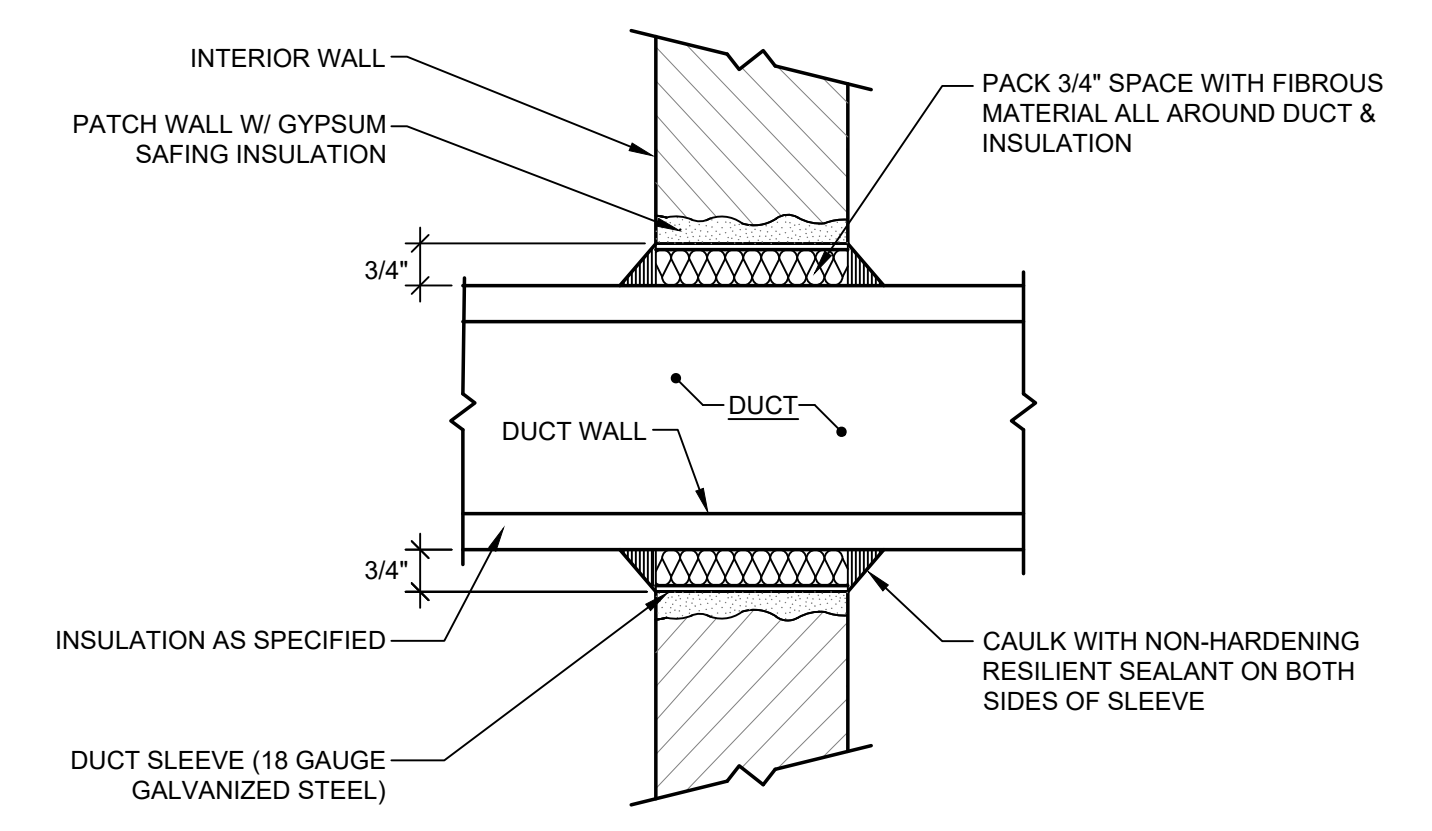
**1 AIR TRANSFER DUCT WITH FIXED LOUVER GRILLES DETAIL**  
M301 NO SCALE



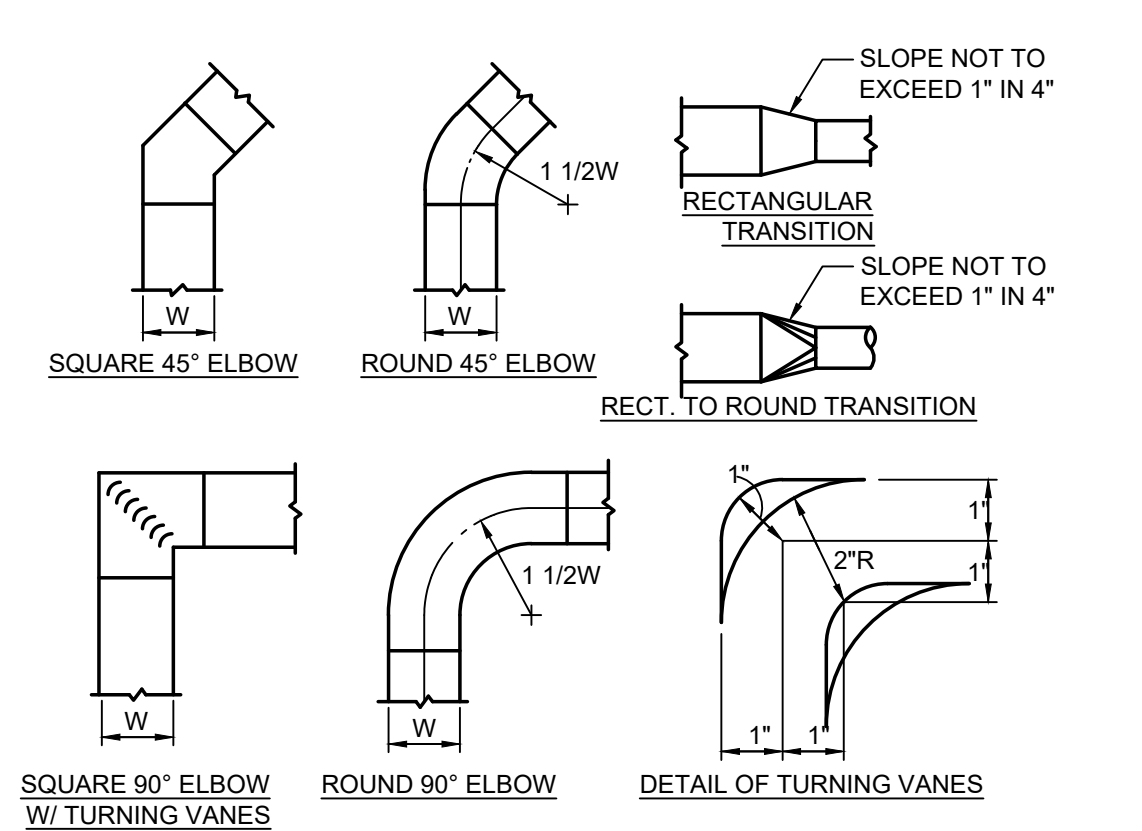
**2 SUPPLY AIR DIFFUSER CONNECTION DETAIL**  
M301 NOT TO SCALE



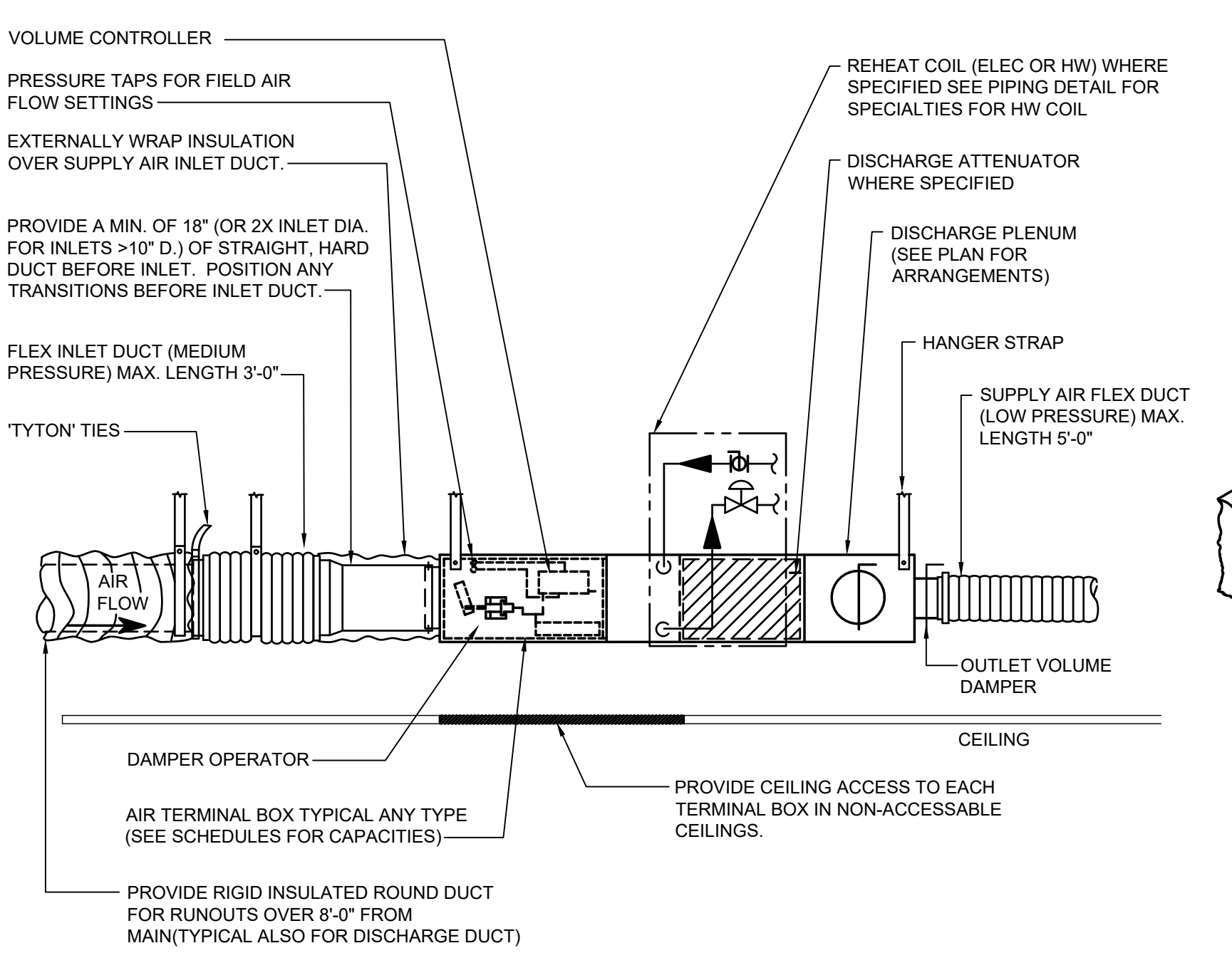
**3 COOLING ONLY VARIABLE VOLUME TERMINAL DETAIL**  
M301 NOT TO SCALE



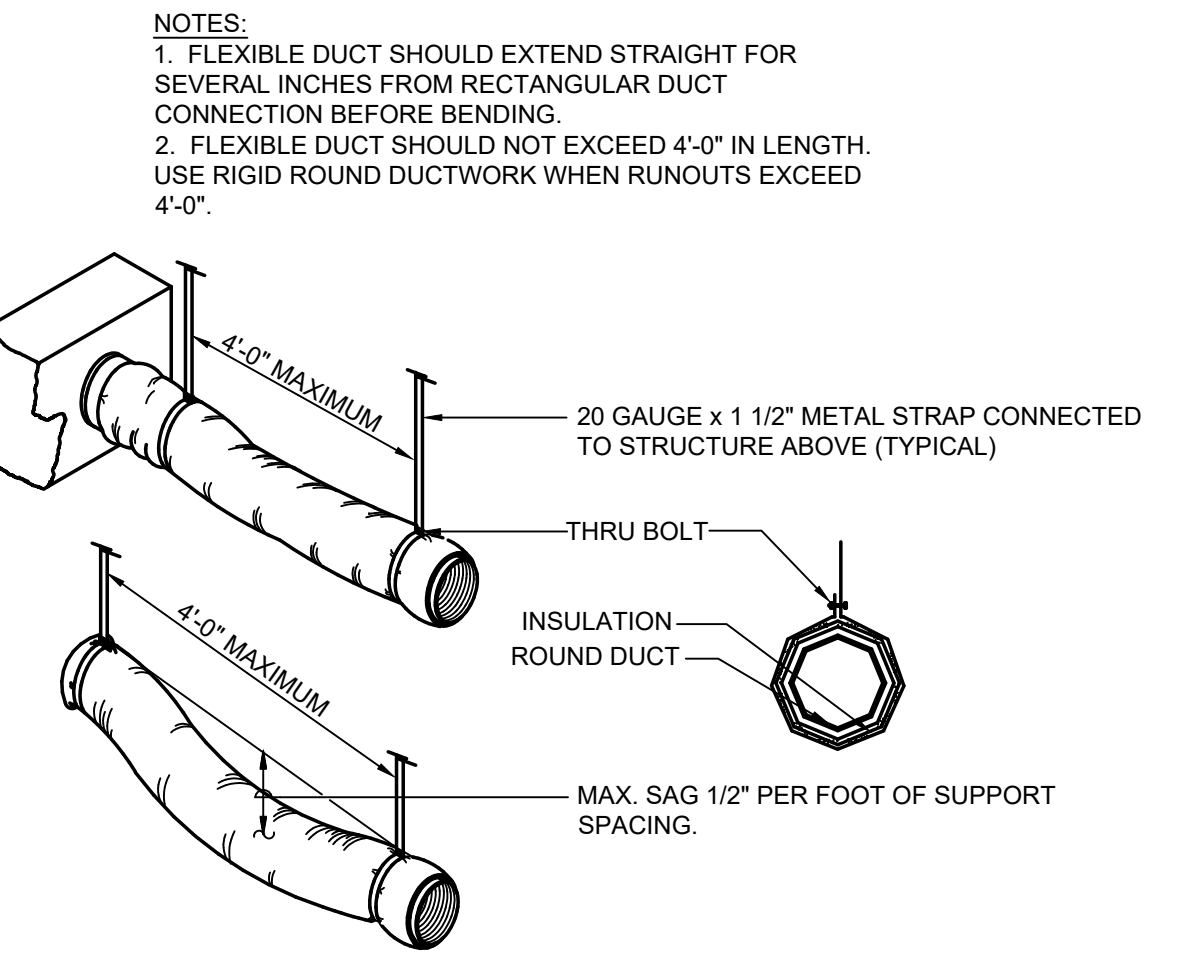
**4 INSULATED DUCT AND DUCT SLEEVE THRU NON-RATED WALL DETAIL**  
M301 NO SCALE



**5 LOW VELOCITY DUCTWORK DIAGRAMS**  
M301 NO SCALE



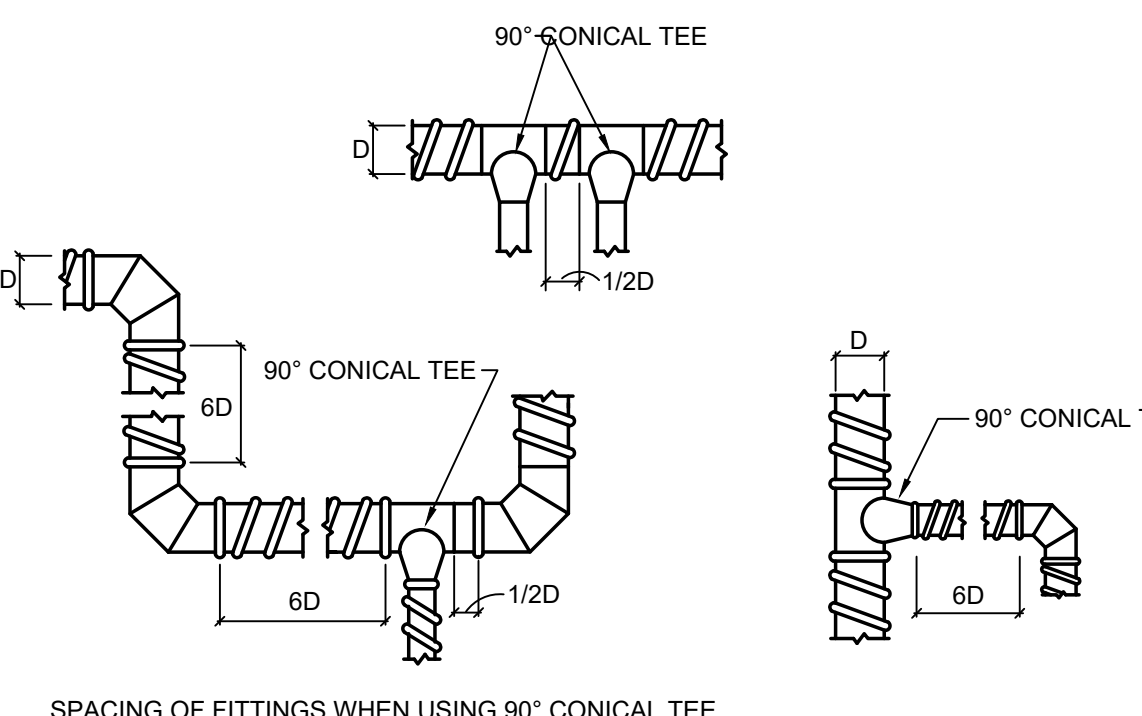
**6 VAV BOX W/ HEAT DETAIL**  
M301 NO SCALE



**7 FLEXIBLE DUCT RUN-OUT SUPPORT DETAIL**  
M301 NO SCALE

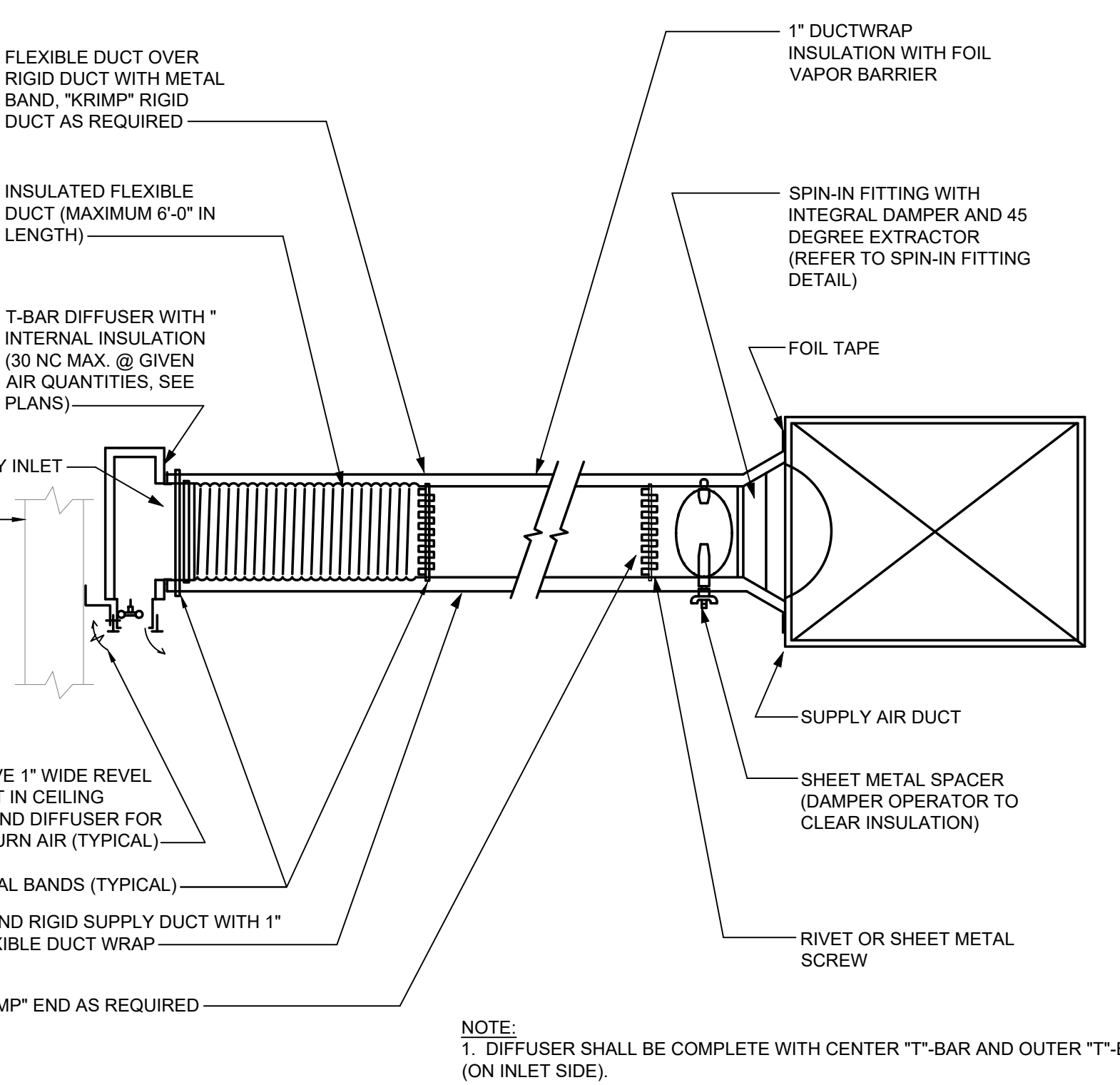
NOTES:  
1. FOR INSTALLATION IN 2 HOUR RATED FIRE WALL CONSTRUCTION, SEE FIRE DAMPER DIAGRAM.  
2. FOR INFORMATION ON DUCT SLEEVES THRU RATED WALLS AND FLOORS SEE SPECIFICATIONS SECTION 15055.  
3. 3/4\"/>

NOTE:  
PROVIDE RADIUS ELBOWS, 18\"/>

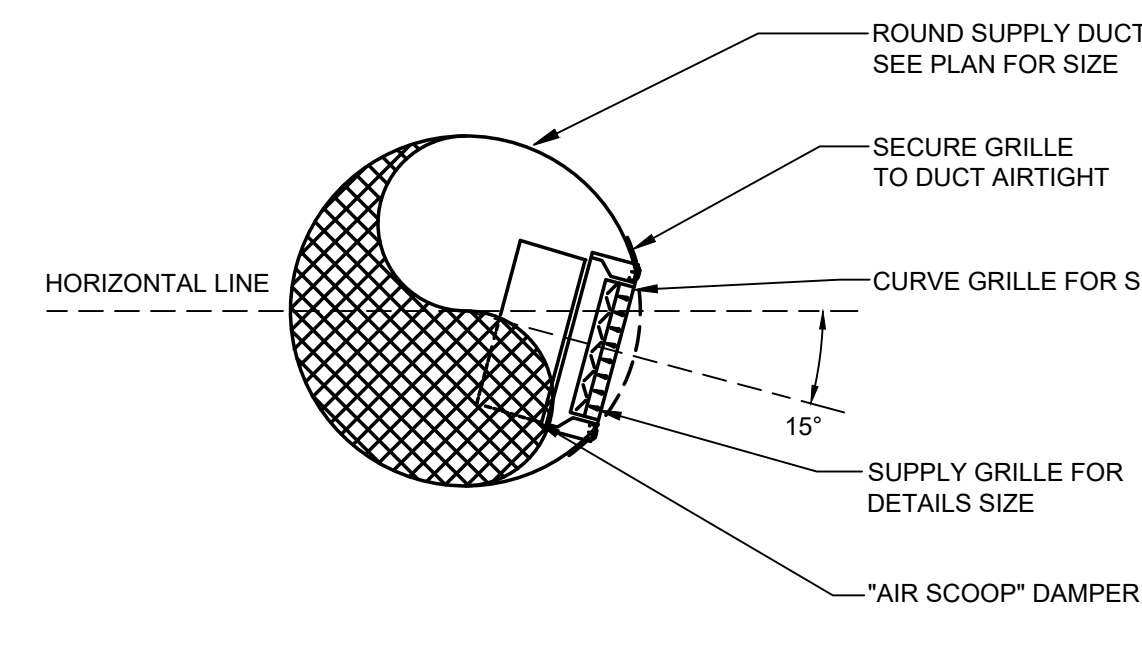


**9 MEDIUM AND HIGH VELOCITY DUCTWORK**  
M301 NO SCALE

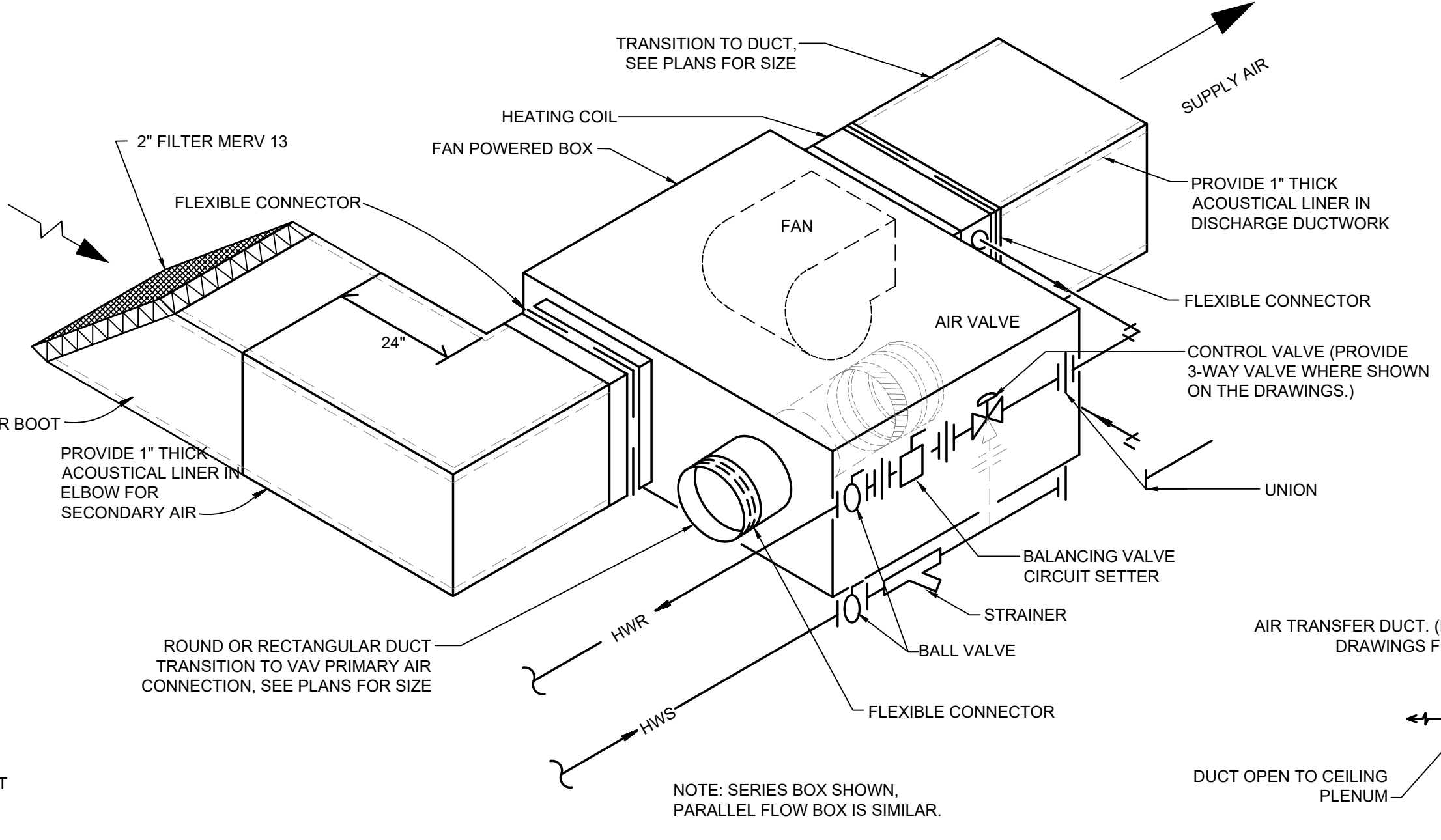
NOTE:  
TURNING VANES IN HIGH AND MEDIUM PRESSURE DUCTWORK SHALL BE DOUBLE WIDTH. (SEE SECTION 15840 OF MECHANICAL SPECIFICATION FOR ADDITIONAL DUCT CONSTRUCTION INFORMATION AND RESTRICTIONS.)



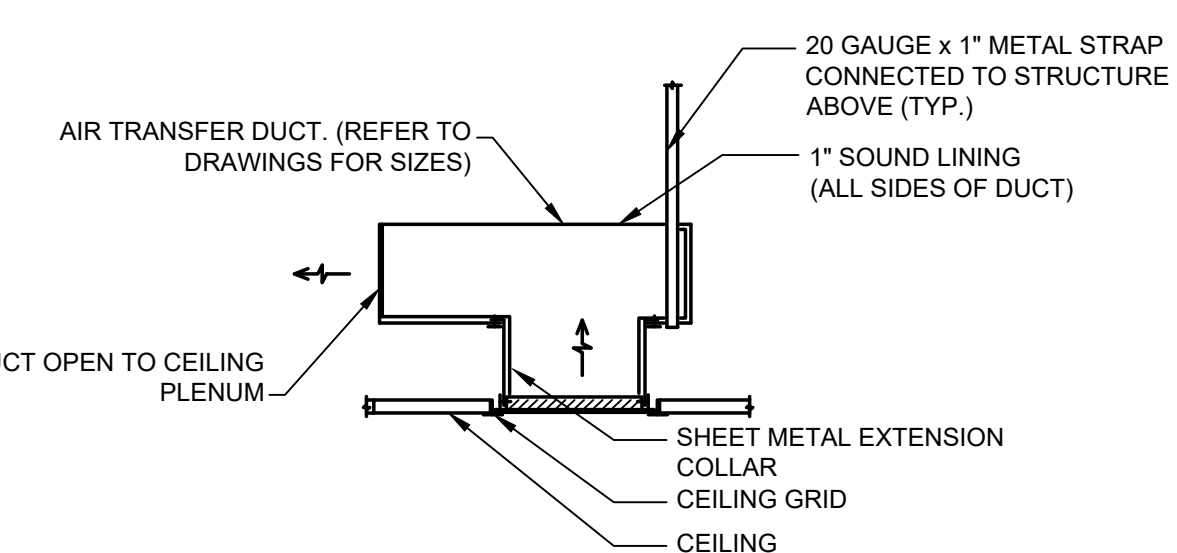
**8 FLEXIBLE DUCT WITH LINEAR SUPPLY AIR DIFFUSER DETAIL**  
M301 NOT TO SCALE



**10 DUCT MOUNTED SUPPLY AIR GRILLE**  
M301 NO SCALE



**11 FAN POWERED BOX W/ HOT WATER REHEAT DETAIL**  
M301 NOT TO SCALE



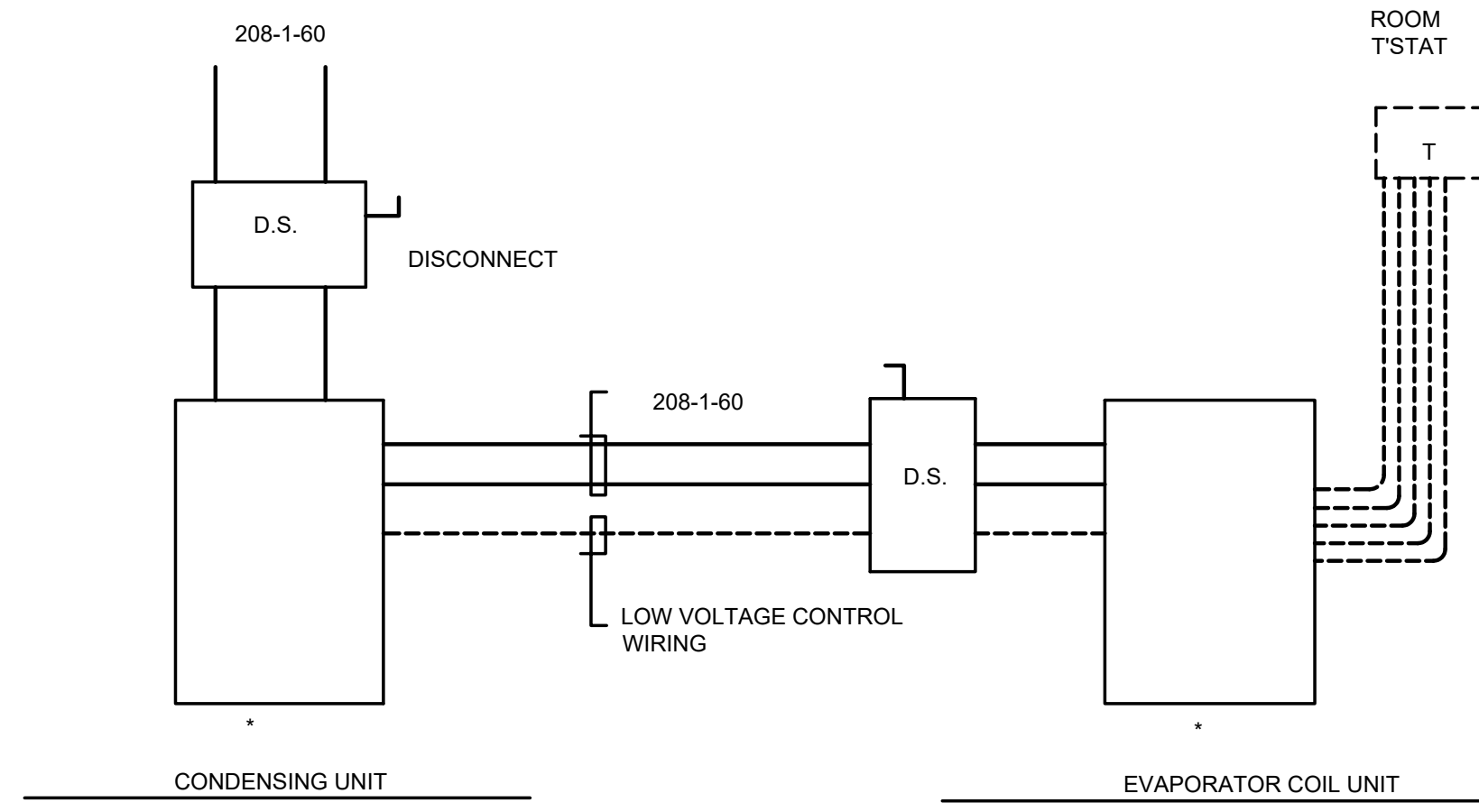
**12 AIR TRANSFER DUCT WITH FIXED LOUVER GRILLE & OPEN STUB DETAIL**  
M301 NO SCALE

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #4	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #3	07/09/2020
2	100% CONSTRUCTION DOCUMENTS REVISION #2	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

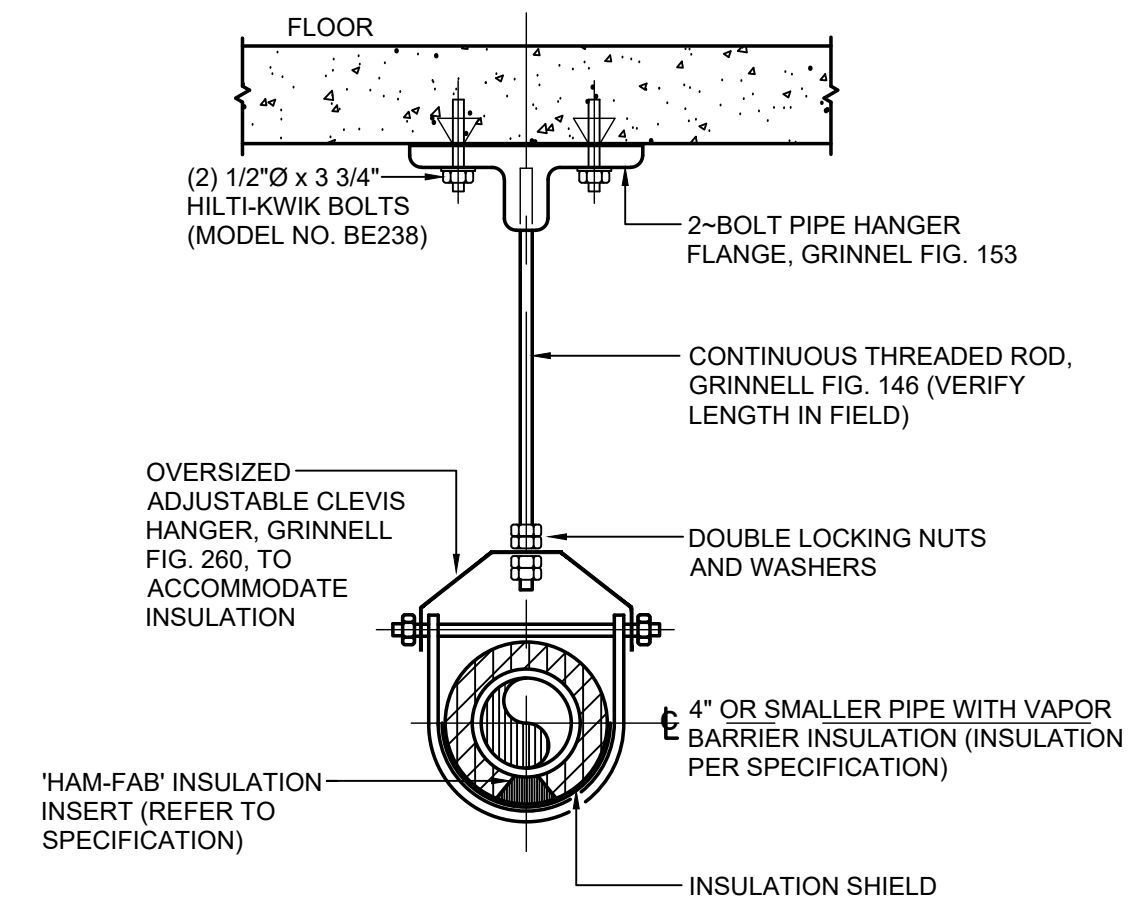
PROJECT NO. 190427.00	DRAWN BY KAS & AGR	REVIEWED BY DCP
SHEET NAME:		
<b>MECHANICAL DETAILS</b>		
<b>M-301</b>		

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

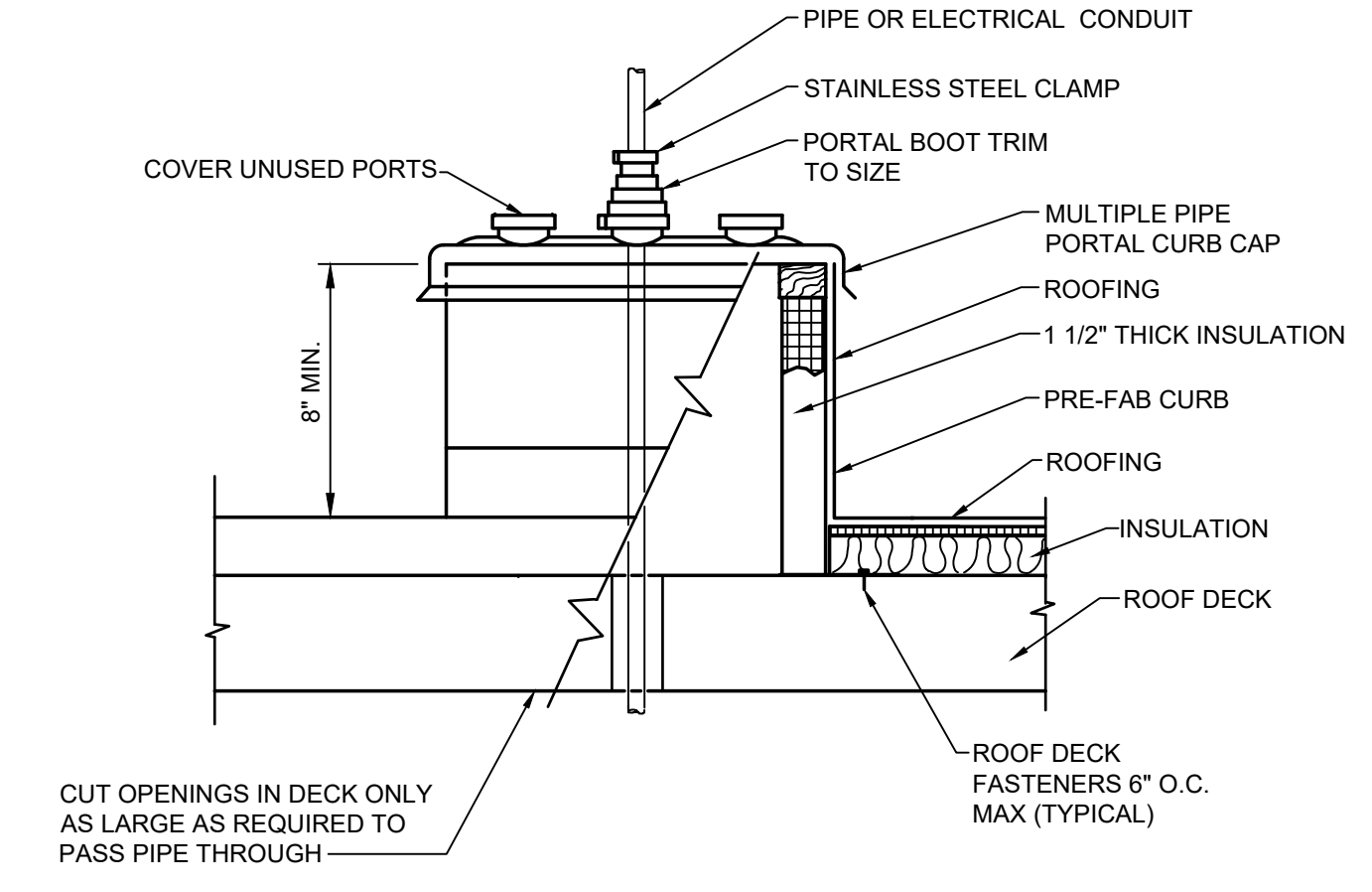
PROJECT NO. 190427.00	DRAWN BY KAS & AGR	REVIEWED BY DCP
SHEET NAME:		



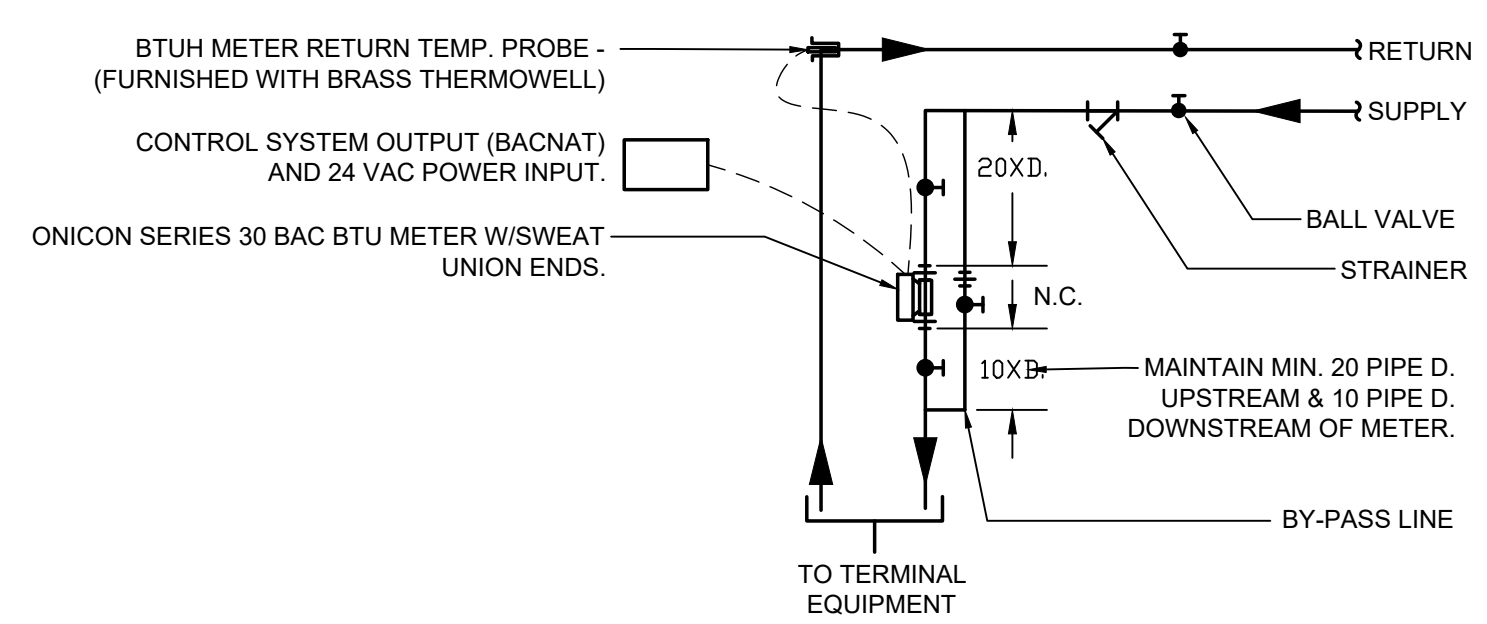
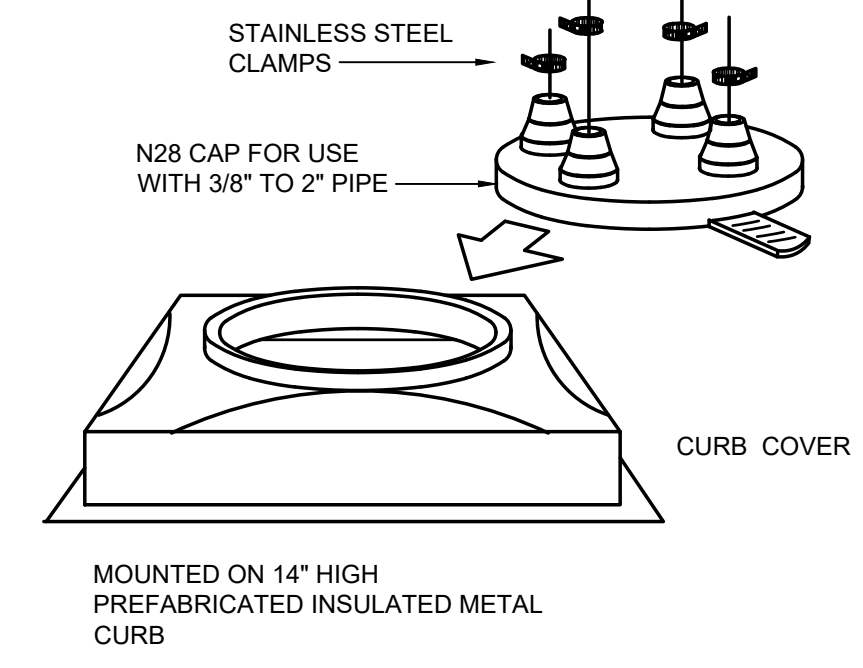
**1 DUCTLESS SPLIT SYSTEM UNIT WIRING DIAGRAM**  
 M-302 NO SCALE



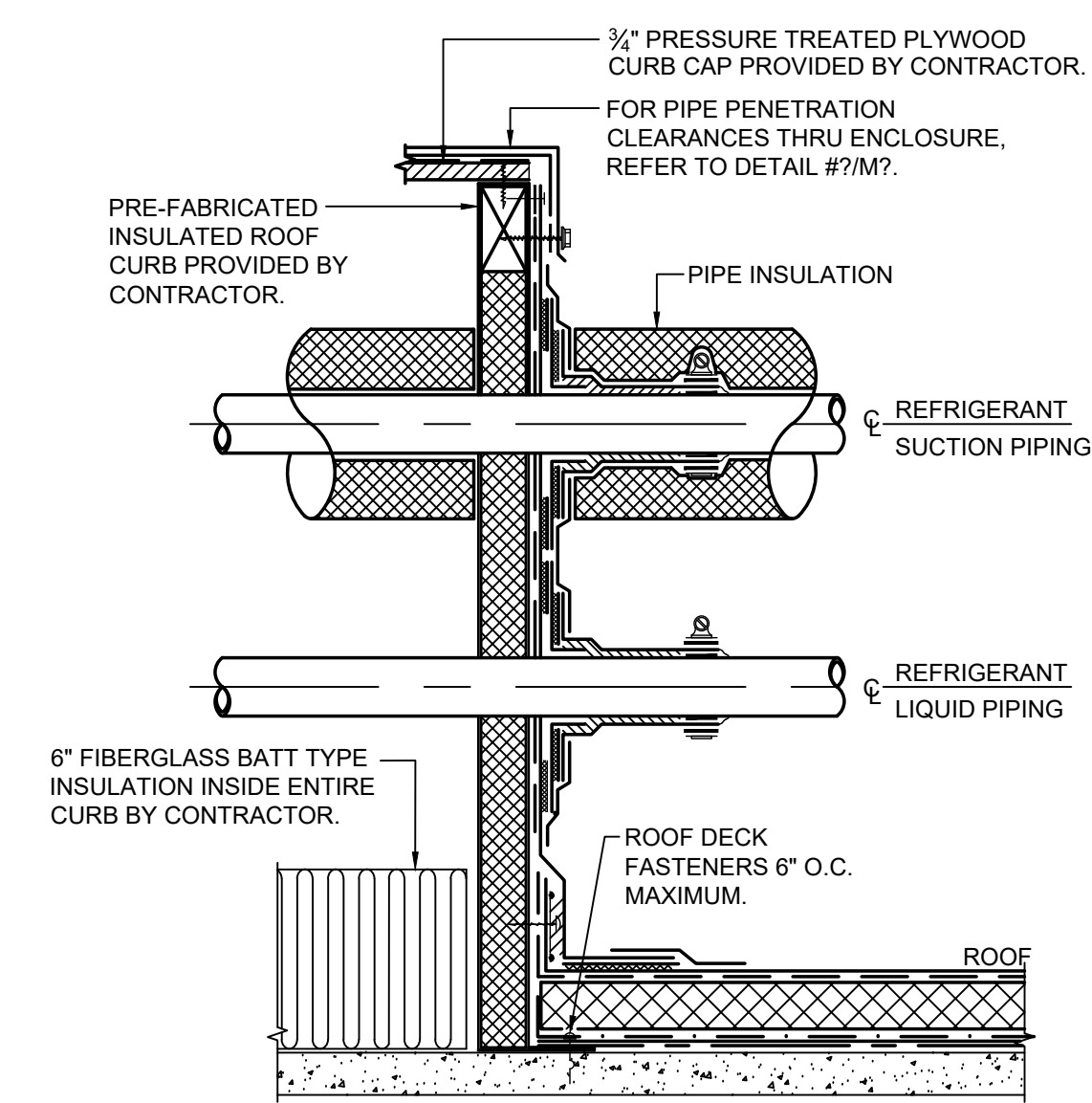
**3 PIPE HANGER DETAIL**  
 M-302 NO SCALE



**4 PIPE PORTAL DETAIL**  
 M-302 NOT TO SCALE

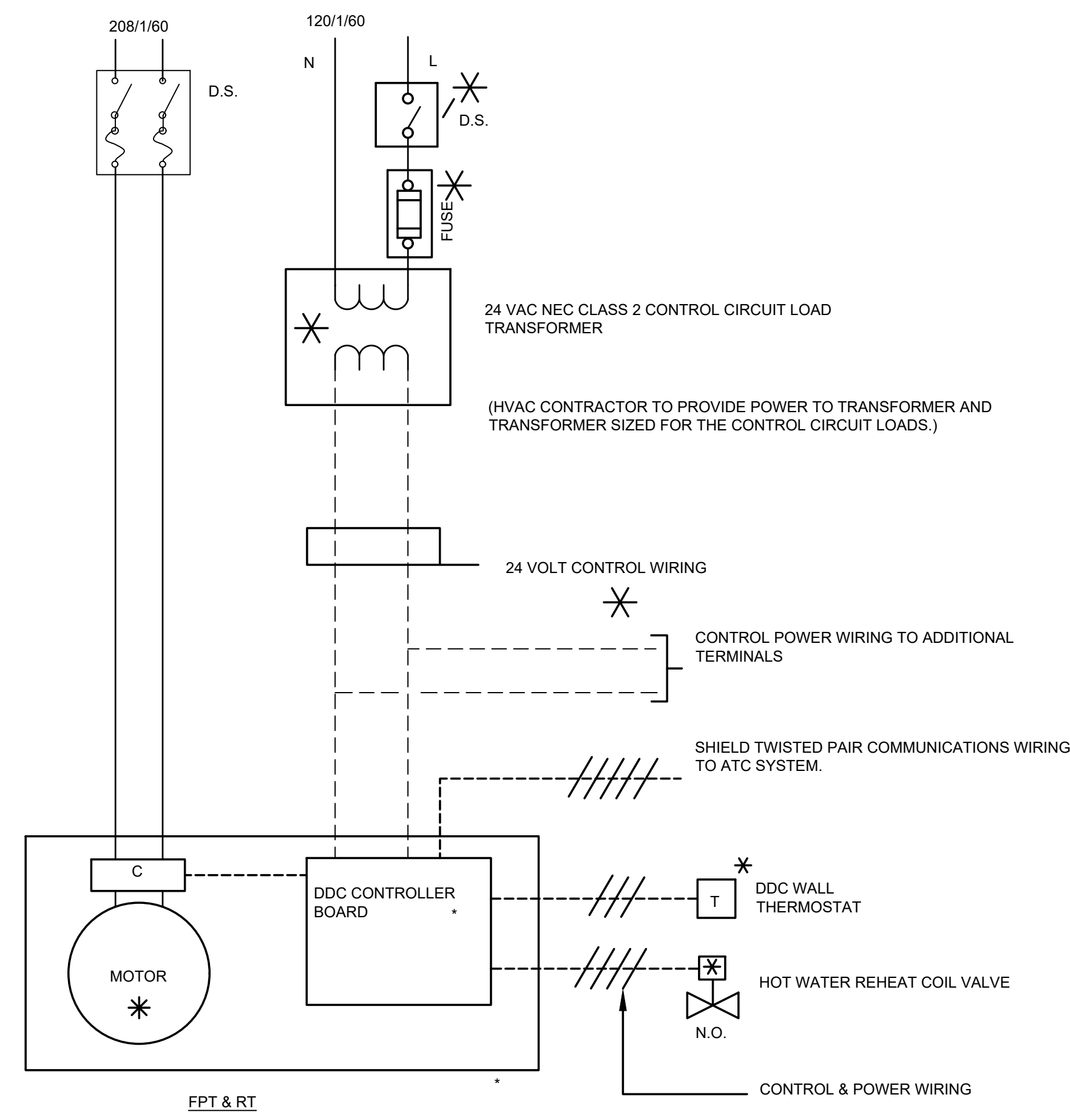


**2 BTU METER INSTALLATION DETAIL**  
 M-302 NO SCALE

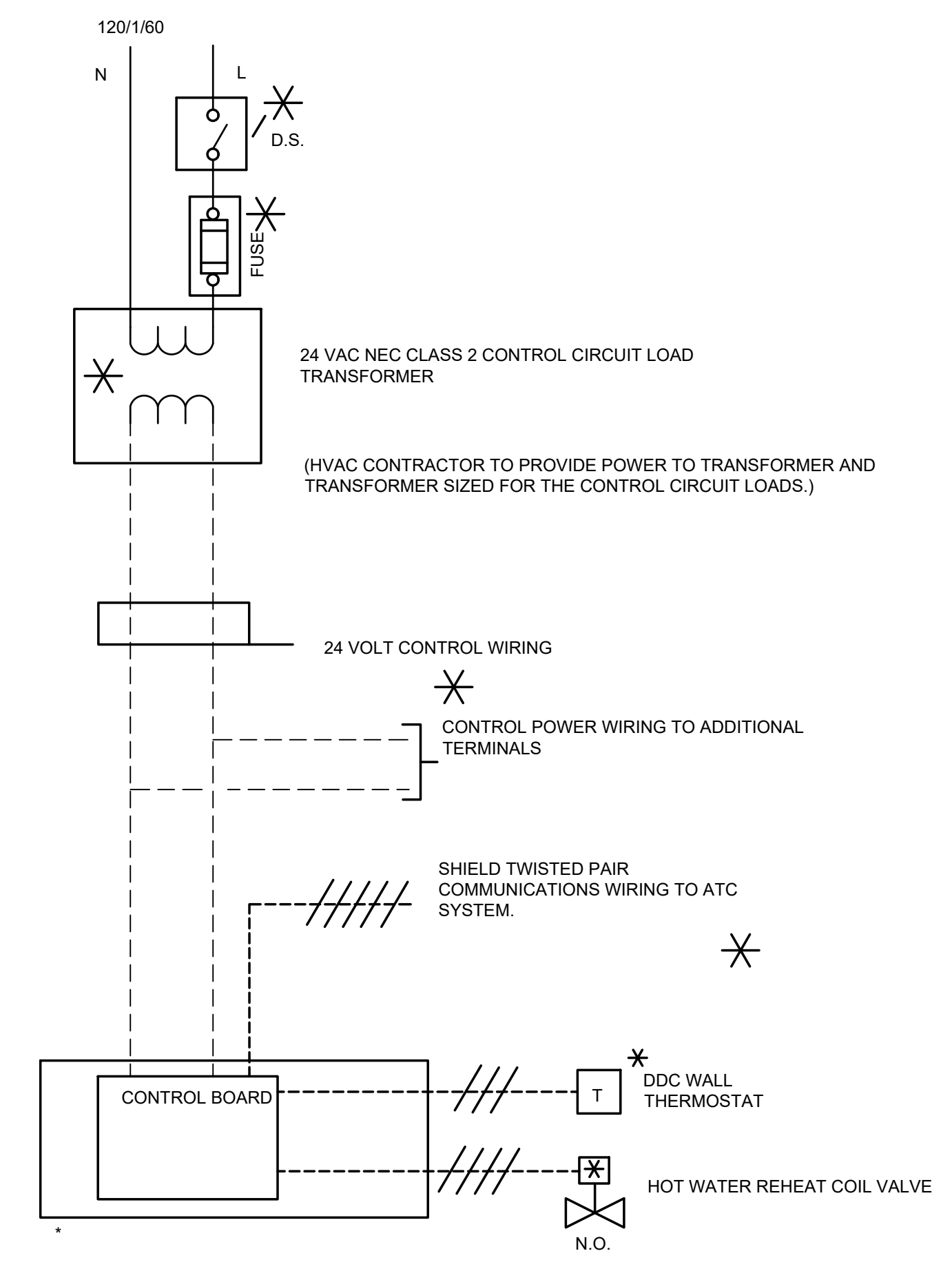


- NOTES:**
- REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL ROOFING AND FLASHING REQUIREMENTS.
  - ALL ROOFING WORK INCLUDING FLASHING AND COUNTER FLASHING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
  - ROOF OPENINGS FOR PIPE/CONDUIT PENETRATIONS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

**5 ROOF CURB/PIPE PORTAL DETAIL**  
 M-302 NO SCALE



**6 FAN POWERED BOX WITH HOT WATER REHEAT WIRING DIAGRAM**  
 M-302 NO SCALE



**7 VAV BOX WITH HOT WATER REHEAT WIRING DIAGRAM**  
 M-302 NO SCALE

PARALLEL FAN POWERED VAV- BOX W/ HOT WATER REHEAT COIL SCHEDULE

TAG	SERVES	PRIMARY AIR			FAN			HOT WATER HEATING COIL DATA							BASIS OF DESIGN		ELECTRICAL		REMARKS	
		MAX. CFM	MIN. CFM	INLET DIA.	CFM	EXT. S.P. IN. W.C.	HP	HEATING CFM	MBH	GPM	ROWS	COIL CAPACITY	EWT (°F)	EAT/LAT (°F)	MAX. WTR. P.D. (FT. HD)	MFR.	MODEL - UNIT SIZE	MCA/MOCP		VOLS/PH
FPB-1.1	CONSULTATION 103	750	225	8"Ø	375	0.50"	1/2	600	24.0	3.0	2	STD	140	60/97	1.90	PRICE	FDVLP 30	6.2 / 15	208 / 1	1 THRU 8
FPB-5.1	DIRECTOR'S OFFICE 510C	325	98	6"Ø	163	0.50"	1/3	260	11.8	2.0	1	STD	140	60/97	2.53	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.2	MANAGER'S OFFICES 510D & 510E	300	90	6"Ø	150	0.50"	1/3	250	9.9	1.0	1	STD	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.3	LARGE CONFERENCE 511	625	188	8"Ø	313	0.50"	1/2	500	19.9	2.0	2	STD	140	60/97	0.94	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 8
FPB-5.4	MID SIZE CONFERENCE 512	250	75	6"Ø	125	0.50"	1/3	250	9.9	1.0	1	STD	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.5	MID SIZE CONF. 513	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	2.53	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.6	HCV CONTROL OFFICE 515	600	180	8"Ø	300	0.50"	1/2	480	19.2	2.0	2	STD	140	60/97	0.94	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-5.7	MANAGER'S OFFICES 514B & 514C	350	105	6"Ø	175	0.50"	1/3	280	11.2	1.0	1	HIGH	140	60/97	0.99	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.8	HCV CONTROL OFFICE 515	700	210	8"Ø	350	0.50"	1/3	560	22.4	3.0	2	STD	140	60/97	0.94	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-5.9	PARALEGAL 526	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	2.53	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.10	MANAGER'S OFFICE 524 & STORAGE 519	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	2.53	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.11	DIRECTOR'S OFFICE 523	250	75	6"Ø	125	0.50"	1/3	250	9.9	1.0	1	HIGH	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.12	CHIEF'S OFFICE 518A & DIRECTOR'S OFFICE 519A	545	164	8"Ø	273	0.50"	1/3	436	17.4	2.0	1	HIGH	140	60/97	2.53	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-5.13	PUBLIC SAFETY OFFICE 519	1060	318	10"Ø	530	0.50"	1/2	848	33.9	4.0	2	STD	140	60/97	1.76	PRICE	FDV 4010	6.2 / 15	208 / 1	1 THRU 7
FPB-5.14	VIEWING ROOM 519C	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	2.53	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-5.15	HCV WORKSTATIONS 510	1000	300	10"Ø	500	0.50"	1/2	800	31.2	4.0	2	STD	140	60/97	1.76	PRICE	FDV 4010	6.2 / 15	208 / 1	1 THRU 7
FPB-6.1	DIRECTOR'S OFFICE 620C	250	75	6"Ø	125	0.50"	1/3	250	8.0	1.0	1	STD	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.2	MID-SIZE CONFERENCE 622	495	149	8"Ø	248	0.50"	1/2	396	16.0	2.0	1	HIGH	140	60/97	3.43	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-6.3	LARGE CONFERENCE 623	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	3.43	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.4	CHIEF OFFICE 624	250	75	6"Ø	125	0.50"	1/3	250	8.0	1.0	1	STD	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.5	DEV/MOD OFFICE 625	300	90	6"Ø	150	0.50"	1/3	240	9.6	1.0	1	STD	140	60/97	0.99	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.6	DEV/MOD OFFICE 625	1750	525	12"Ø	875	0.50"	1.0	1550	61.9	3.0	2	HIGH	140	60/97	0.98	PRICE	FDV 5012	9.2 / 20	208 / 1	1 THRU 7
FPB-6.7	TRAINING 626A	960	288	10"Ø	480	0.50"	1/3	768	30.7	2.0	2	STD	140	60/97	0.94	PRICE	FDV 2010	3.2 / 15	208 / 1	1 THRU 7
FPB-6.8	HR OPEN WORKSTATIONS 626	600	180	8"Ø	300	0.50"	1/3	480	19.2	2.0	2	HIGH	140	60/97	0.76	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-6.9	MANAGER'S OFFICE 626G & HUDDLE 633	420	126	8"Ø	210	0.50"	1/3	336	13.4	2.0	1	STD	140	60/97	3.43	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-6.10	MAN OFFICES 626E, 626F & DIR. OFFICE 627A	670	201	8"Ø	335	0.50"	1/3	536	21.4	2.0	2	STD	140	60/97	0.94	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-6.11	COPY/PRINT 627D	250	75	6"Ø	125	0.50"	1/3	250	8.0	1.0	1	STD	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.12	MANAGER'S OFFICE 627E	290	87	6"Ø	145	0.50"	1/3	250	9.6	1.0	1	STD	140	60/97	0.99	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-6.13	COPY/PRINT 627D	550	165	8"Ø	275	0.50"	1/3	440	17.6	2.0	1	STD	140	60/97	0.50	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.1	COPY/PRINT 710D	700	210	8"Ø	350	0.50"	1/2	560	22.4	3.0	2	STD	140	60/97	0.60	PRICE	FDV 3008	6.2 / 15	208 / 1	1 THRU 7
FPB-7.2	EXECUTIVE WORKSTATION 717G	500	150	8"Ø	250	0.50"	1/3	400	15.9	2.0	1	HIGH	140	60/97	0.60	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.3	OFFICE 709F & 710A	475	143	8"Ø	238	0.50"	1/2	380	15.1	2.0	1	HIGH	140	60/97	3.43	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.4	OFFICE 709 C, D & E	450	135	8"Ø	225	0.50"	1/2	360	15.1	2.0	1	HIGH	140	60/97	3.43	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.5	COPY/PRINT 709B	900	270	8"Ø	450	0.50"	1/2	720	28.7	2.0	2	STD	140	60/97	0.50	PRICE	FDV 3010	6.2 / 15	208 / 1	1 THRU 7
FPB-7.6	IT OPEN OFFICE 718	620	186	8"Ø	310	0.50"	1/3	496	19.8	2.0	2	HIGH	140	60/97	0.76	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.7	OFFICE 718B, 718C & STORAGE 718D	586	176	8"Ø	293	0.50"	1/3	469	18.7	2.0	2	HIGH	140	60/97	0.76	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.8	OFFICE 717D & 717E	500	150	8"Ø	250	0.50"	1/3	400	15.9	2.0	1	HIGH	140	60/97	0.60	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.9	OFFICE 717C	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	3.43	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7
FPB-7.10	CONFERENCE ROOM 717A	400	120	6"Ø	200	0.50"	1/3	320	12.8	2.0	1	STD	140	60/97	3.43	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7

FPB-7.11	BOARD ROOM 716	800	240	8"Ø	400	0.60"	1/2	640	25.6	2.0	2	STD	140	60/97	0.94	PRICE	FDV 3008	6.2 / 15	208 / 1	1 THRU 7
FPB-7.12	OFFICE 711C & 712B	550	165	8"Ø	275	0.55"	1/3	440	17.6	2.0	1	STD	140	60/97	0.50	PRICE	FDV 2008	3.2 / 15	208 / 1	1 THRU 7
FPB-7.13	RECEPTION 717	250	75	6"Ø	125	0.50"	1/3	250	9.9	1.0	1	HIGH	140	60/97	0.73	PRICE	FDV 2006	3.2 / 15	208 / 1	1 THRU 7

REMARKS:  
 1. DDC CONTROLS COMPATIBLE WITH BUILDING CONTROL SYSTEM.  
 2. 1/2" THICK FIBRE FREE LINER.  
 3. SINGLE POINT POWER CONNECTION AND DOOR INTERLOCK DISCONNECT SWITCH.  
 4. FAN MOTOR SHALL BE ECM TYPE WITH MANUAL AND REMOTE PWM CONTROL.  
 5. SPRING HANGER BRACKETS.  
 6. 2" THICK PLEATED MERV 13 FILTERS WITH SLANTED FILTER BOOT.  
 7. HOT WATER COIL - 10 FINS PER INCH WITH SLIP AND DRIVE CONNECTION. COILS INDICATED AS 'HIGH' CAPACITY SHALL BE 12 FINS PER INCH.  
 8. LOW PROFILE FAN POWERED VAV BOX.

SINGLE DUCT VAV BOX SCHEDULE

TAG	SERVES	BASIS OF DESIGN MANU./ MODEL#	PRIMARY AIR			HEATING COIL DATA							MAX. WTR. P.D. (FT. HD)	ELECTRICAL VOLTS/ PHASE	REMARKS
			DESIGN CFM	MIN. CFM	INLET DIA.	CAPACITY MBH	GPM	ROWS	COIL CAPACITY	EWT/LWT	EAT/LAT				
VAV-1.1	CONSULTATION 104	PRICE - SDV 04	200	125	4"Ø	5.5	0.5	1	STD	140 / 115	60 / 95	0.14	120 / 1	1 THRU 5	
VAV-1.2	KID'S AREA 105	PRICE - SDV 04	200	125	4"Ø	5.5	0.5	1	STD	140 / 115	60 / 95	0.14	120 / 1	1 THRU 5	
VAV-1.3	CONSULTATION 106	PRICE - SDV 04	200	125	4"Ø	5.5	0.5	1	STD	140 / 115	60 / 95	0.14	120 / 1	1 THRU 5	
VAV-1.4	CONSULTATION 107	PRICE - SDV 04	200	125	4"Ø	5.5	0.5	1	STD	140 / 115	60 / 95	0.14	120 / 1	1 THRU 5	
VAV-1.5	CONSULTATION 108	PRICE - SDV 05	350	175	6"Ø	7.5	1.0	1	STD	140 / 115	60 / 95	0.46	120 / 1	1 THRU 5	
VAV-1.6	STAFF 121	PRICE - SDV 04	200	125	4"Ø	5.5	0.5	1	STD	140 / 115	60 / 95	0.14	120 / 1	1 THRU 5	
VAV-1.7	RECEPTION 102	PRICE - SDV 08	700	350	6"Ø	13.2	2.0	1	HIGH	140 / 115	60 / 95	2.34	120 / 1	1 THRU 5	
VAV-5.1	BREAK ROOM 505	PRICE - SDV 08	640	192	8"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.2	MID SIZE CONFERENCE 506	PRICE - SDV 04	175	53	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.3	MID SIZE CONFERENCE 504	PRICE - SDV 04	175	53	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.4	MAIL ROOM 503 & STORAGE 502	PRICE - SDV 05	300	90	5"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-5.5	ELEVATOR LOBBY 501	PRICE - SDV 04	250	75	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.6	MANAGER'S OFFICE 510A & 510B	PRICE - SDV 04	250	75	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-5.7	HCV CONTROL OPEN OFFICE 515	PRICE - SDV 09	1000	300	9"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.8	HCV WORKSTATIONS 510	PRICE - SDV 09	1000	300	9"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-5.9	COPY/PRINT 527	PRICE - SDV 04	175	53	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-6.1	PHONE 608, 609 & HEADS DOWN 607, 610	PRICE - SDV 04	120	36	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-6.2	HUDDLE 606, COPY/STORAGE 605 & MOTHER'S ROOM 604	PRICE - SDV 04	225	68	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-6.3	MINDFULNESS 603 & MID CONFERENCE 602	PRICE - SDV 04	235	71	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-6.4	OPEN COLLAB 612	PRICE - SDV 12	1300	390	12"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-6.5	OFFICES 625A, 625B, 625C, 625D	PRICE - SDV 06	320	96	6"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-6.6	OFFICES 625E, 625F	PRICE - SDV 04	160	48	4"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4, 6	
VAV-6.7	ELEVATOR LOBBY 601	PRICE - SDV 05	250	75	5"Ø	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120 / 1	1 THRU 4	
VAV-6.8	6TH FLOOR CORRIDOR	PRICE - SDV 04													

**THERMAL INSULATION SCHEDULE**

SYSTEM	SYSTEM- LOCATION	OPERATING TEMPERATURE	MATERIAL	SMACNA CLASS					REMARKS
				TYPE	THICKNESS IN.S	DENSITY LB./CU. FT.	INSTALLED "R" VALUE/ CONDUCTIVITY	JACKET	
DUCT	SUPPLY AIR DUCT - INDOOR CONCEALED, ACCESSIBLE	40-120	MINERAL-FIBER	BLANKET	2.0"	0.75	5.0	FSK	1.5
DUCT	SUPPLY AIR DUCT - INDOOR CONCEALED, INACCESSIBLE	40-120	MINERAL-FIBER	BOARD	1.5"	2.25	6.5	FSK	2
DUCT	SUPPLY AIR DUCT - INDOOR EXPOSED	40-120	MINERAL-FIBER	BOARD	1.0	2.25	5.0	ASJ	1.5
DUCT	SUPPLY, RETURN, RELIEF, EXHAUST DUCT - OUTDOORS AND UNCONDITIONED	40-120	*	*	*	*	12	FSK	7
DUCT	EXHAUST DUCT WITHIN 10 FEET OF EXTERIOR OPENING - INDOOR	40-120	MINERAL-FIBER	BOARD	1.0"	2.25	4.3	FSK	
PIPING	HEATING WATER SUPPLY AND RETURN	120-200	MINERAL-FIBER	PRE-MOLDED	REFER TO PIPING INSULATION THICKNESS SCHEDULE			ASJ+SSL	6
PIPING	CHILLED WATER/REFRIGERANT/ GLYCOL - CONDITIONED SPACE	40-60	MINERAL-FIBER	PRE-MOLDED				ASJ+SSL	6
PIPING	CHILLED WATER/REFRIGERANT/ GLYCOL - UNCONDITIONED SPACE	40-60	MINERAL-FIBER WICKING	PRE-MOLDED				ASJ+SSL	6
PIPING	COLD CONDENSATE DRAIN - INDOOR, ONLY ON METAL PIPE	40-60	MINERAL-FIBER	PRE-MOLDED				ASJ+SSL	7
PIPING	OUTDOOR PIPING EXPOSED TO FREEZING (HEAT TRACED PIPE)	40-100	MINERAL-FIBER	PRE-MOLDED				ALUM.	

- NOTES:
- CONCEALED, ACCESSIBLE LOCATIONS - ABOVE LAY-IN OR ACCESSIBLE CEILINGS, ACCESSIBLE MECHANICAL SHAFTS.
  - CONCEALED, INACCESSIBLE LOCATIONS - ABOVE HARD CEILINGS, (DRY WALL, PLASTER), MECHANICAL SHAFTS, BEHIND WALLS.
  - FOR DUCTS LOCATED OUTDOORS PROVIDE WATERPROOF CONSTRUCTION WITH WATER & UV RESISTANT MASTIC ON ALL JOINTS. INTERNALLY LINE WITH ACOUSTICAL DUCT LINER. CROSS-BREAK TOP TO SHED WATER.
  - CONSTRUCT PER NFPA 96 STANDARDS FOR KITCHEN EXHAUST. WHERE LOCATED WITH 3" OF COMBUSTIBLE PROTECT COMBUSTIBLE MATERIALS. WRAP EXTERIOR WITH FIRE RESISTANT INSULATION.
  - DO NOT INSULATE:
    - MAKE-UP AIR DUCTWORK OPERATING AT SURROUNDING AMBIENT CONDITIONS
    - RETURN AND EXHAUST AIR DUCTWORK LOCATED INDOORS.
    - TRANSFER AIR DUCTWORK (ACOUSTICALLY LINE DUCT)
    - EXPOSED SUPPLY DUCTWORK LOCATED IN CONDITIONED SPACE. (DOES NOT INCLUDE RETURN AIR PLENUM)
  - COVER ALL EXPOSED PIPING LOCATED BELOW 7' 0" ABOVE FINISHED FLOOR WITH PVC JACKET.
  - MULTIPLE INSULATION METHODS MAY BE USED TO ACHIEVE THE TOTAL REQUIRED R-VALUE.
  - DUCTWORK SHALL BE PAINTED WHERE EXPOSED OR VISIBLE TO OCCUPANTS. COLOR TO BE SELECTED BY ARCHITECT.

**SPLIT SYSTEM AIR-COOLED A/C UNIT SCHEDULE**

TAG	NOMINAL TONS	TOTAL CAPACITY MBH	EVAPORATOR					CONDENSER							REMARKS
			SENS CAPACITY MBH	CFM (DRY COIL)	MCA/MFS	ELECTRICAL VOLTS/PH.	MANUF / EVAPORATOR MODEL	TAG	EAT COOL/ HTG	SEER	MCA/MOCP	ELECTRICAL VOLTS/PH.	MANUF / CONDENSER MODEL	WEIGHT	
AC 1-1	2.0	24.0	18.0	635-775	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A24HA7	CU 1-1	95.0 / 5.0	21.4	19.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A24NKA7	151 LBS.	1,2,3,4,5,6,7,8,9,10
AC 5-1	1.0	12.0	9.0	320-425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 5-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10
AC 6-1	1.0	12.0	9.0	320-425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 6-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10
AC 7-1	1.0	12.0	9.0	320-425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 7-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10

- NOTES:
- CAPACITY BASED ON 80 DEG. F. DB/67 DEG. F. WB EAT ON EVAPORATOR
  - UNIT SHALL BE EQUIPPED WITH A WIND BAFFLE FOR OPERATION DOWN TO 0 DEG.S F.
  - PROVIDE DISCONNECT AT EACH OUTDOOR AND INDOOR UNITS.
  - PROVIDE INTEGRAL UNIT CONTROLS AND A WALL MOUNTED THERMOSTAT/CONTROLLER MODEL.
  - PROVIDE LOW AMBIENT KIT ACCESSORY.
  - PROVIDE CONDENSATE PUMP WITH RESERVOIR AND SENSOR THAT SHALL SHUT UNIT DOWN UPON ALARM OF SENSOR.
  - DDC CONTROLS COMPATIBLE WITH BUILDING CONTROL SYSTEM.
  - PROVIDE 18" UNIT STANDS FOR CONDENSING UNIT WITH VIBRATION ISOLATION PADS.
  - RATED VERTICAL HEIGHT DIFFERENCE BETWEEN EVAPORATOR AND CONDENSER SHALL BE 100 FEET. PROVIDE LONG LINE APPLICATIONS FOR ALL LINESETS EXCEEDING 80 FEET IN LENGTH.
  - POWER FROM CONDENSER TO INDOOR FAN COIL UNIT SHALL BE PROVIDED AND COORDINATED WITH EC.

**PIPE INSULATION THICKNESS SCHEDULE**

FLUID OPERATING TEMPERATURE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (IN)				
	CONDUCTIVITY BTU-IN.(h.ft <sup>2</sup> .°F)	MEAN RATING TEMPERATURE (°F)	< 1	1 to < 1 1/2	1 1/2 < 4	4 to < 8	≥ 8
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
40	0.20 - 0.26	50	0.5	1.0	1.0	1.0	1.5

- REMARKS:
- PIPING SERVING AS PART OF A HEATING OR COOLING SYSTEM SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH TABLE ABOVE (IECC 2015 TABLE C403.2.10) WITH THE FOLLOWING EXCEPTIONS:
- FACTORY-INSTALLED PIPING WITHIN HVAC EQUIPMENT TESTED AND RATED IN ACCORDANCE WITH A TEST PROCEDURE REFERENCED BY THIS CODE.
  - FACTORY-INSTALLED PIPING WITHIN ROOM FAN-COILS AND UNIT VENTILATORS TESTED AND RATED ACCORDING TO AHRI 330 (EXCEPT THAT THE SAMPLING AND VARIATION PROVISIONS OF SECTION 6.5 SHALL NOT APPLY) AND AHRI 840, RESPECTIVELY.
  - PIPING THAT CONVEYS FLUIDS THAT HAVE A DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60°F AND 105°F.
  - PIPING THAT CONVEYS FLUIDS THAT HAVE NOT BEEN HEATED OR COOLED THROUGH THE USE OF FOSSIL FUELS OR ELECTRIC POWER.
  - STRAINERS, CONTROL VALVES, AND BALANCE VALVES ASSOCIATED WITH PIPING 1 INCH OR LESS IN DIAMETER.
  - DIRECT BURIED PIPING THAT CONVEYS FLUIDS AT OR BELOW 60°F.

**TRANSFER AIR DUCT SCHEDULE**

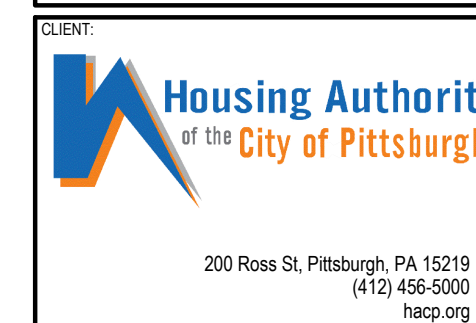
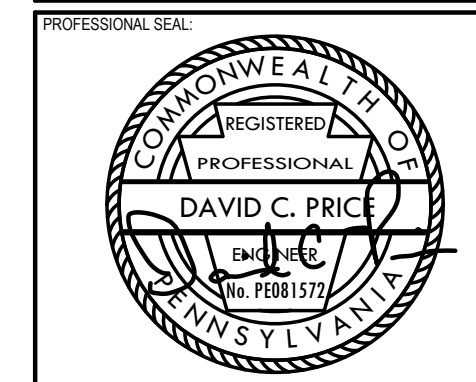
DESIGNATION	DUCT SIZE	CFM RANGE	DETAIL
T1	24 x 12	0-1200	#1/M301
T2	24 x 12	0-1200	#12/M301
T3	24 x 12	0-1200	-
T4	36 x 12	1201-2400	-
T5	48 x 12	2401-3600	-

- NOTES:
- SIZING BASED ON 0.057/100 FT. P.D. - 700 FPM
  - REFER TO DETAIL FOR DUCT CONFIGURATION.
  - PROVIDE 1" THICK ACOUSTICAL LINER.

**EXHAUST FAN SCHEDULE**

MARK	SERVES	TYPE	BASIS OF DESIGN (GREENHECK)	CFM	SP IN WC	RPM	MAX SONES (INLET)	WALL/ ROOF OPENING SIZE	MOTOR		REMARKS
									HP (WATT)	VOLTS/ PH	
EF 6-1	205 RESTROOM	CABINET	QTXE080	75	0.3	950	0.3	6"Ø	(23.3)	120/1	1,2,3,4

- REMARKS:
- PROVIDE INTEGRAL BACKDRAFT DAMPER.
  - PROVIDE DISCONNECT SWITCH.
  - FAN SHALL BE CONTROLLED VIA WALL MOUNTED THERMOSTAT SET TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF NO GREATER THAN 80 DEGREES FAHRENHEIT.
  - PROVIDE SPRING VIBRATION ISOLATION HANGERS.



**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00 DRAWN BY: KAS & AGR REVIEWED BY: DCP  
 SHEET NAME: MECHANICAL SCHEDULES  
 SHEET NO: M-402  
 TRUE NORTH  
 PLAN NORTH

GRILLE, REGISTER & DIFFUSER SCHEDULE

TAG	FACE SIZE (SLOT WIDTH)	# SLOTS/ BAR, GRID SPACE	DEFLECTION/ THROW	CONN. SIZE	MAX CFM	P.D. IN. W.C.	MAX. NC	BASIS OF DESIGN	MODEL	REMARKS
S-1	24/24	N/A	4W	6"Ø	160	0.06	27	PRICE	SPD	1,2,5
S-2	24/24	N/A	4W	8"Ø	280	0.08	27	PRICE	SPD	1,2,5
S-3	18"Ø	N/A	N/A	8"Ø	280	0.20	27	PRICE	RCD	1,2,5
S-4	14X8	N/A	2W	12X6	273	0.03	19	PRICE	SDGE	1,2,4,5
S-5	3/4" SLOT	2 SLOT 48" LENGTH	35"	7"Ø	190	0.13	27	PRICE	SDA075	1,2,3,5
S-6	1" SLOT	2 SLOT 48" LENGTH	35"	7"Ø	250	0.15	27	PRICE	SDA100	1,2,3,5
S-7	18"Ø	N/A	N/A	8"Ø	280	0.20	27	PRICE	RCD	1,2,5,6
S-8	3/4" SLOT	2 SLOT 24" LENGTH	35"	6"Ø	95	0.13	27	PRICE	SDB075	1,2,3,5
R-1	56/20	1/2"	45"	54/18	4400	0.14	29	PRICE	530D	1,2,5
R-2	70/22	1/2"	45"	68/20	6000	0.14	29	PRICE	530D	1,2,5

REMARKS:  
 1. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING TYPES AND MOUNTING REQUIREMENTS.  
 2. COLOR SELECTED BY ARCHITECT.  
 3. LINEAR SLOT DIFFUSER WITH INSULATED ENGINEERED PLENUM. PROVIDE PATTERN CONTROLLERS AND CABLE OPERATED DAMPER FOR SLOT DIFFUSERS INSTALLED IN HARD CEILINGS.  
 4. SPIRAL DUCT MOUNTED SUPPLY DIFFUSER WITH AIR SCOOP DAMPER AND DOUBLE DEFLECTION GRILLE.  
 5. PROVIDE OPPOSED BLADE DAMPERS AT DIFFUSERS, GRILLES, OR REGISTERS IF INSTALLED IN HARD CEILING.  
 6. PROVIDE 45 DEGREE SECTORIZING BAFFLE FOR BLANK-OFF OF ONE QUARTER OF DIFFUSER.

THERMAL VAV DIFFUSER SCHEDULE

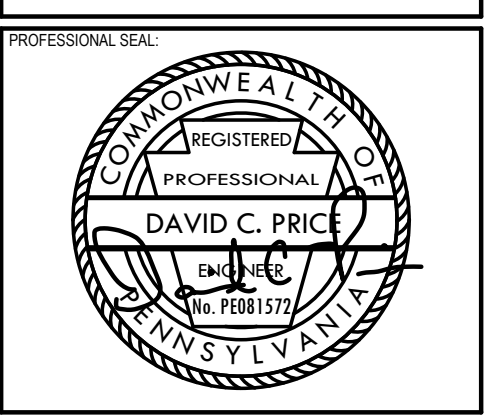
TAG	FACE SIZE (SLOT WIDTH)	NECK SIZE (SLOT WIDTH)	# SLOTS/ BAR, GRID SPACE	DEFLECTION/ THROW	CONN. SIZE	MAX CFM	P.D. IN. W.C.	MAX. NC	BASIS OF DESIGN	MODEL	REMARKS
SV-1	24/24	6"Ø	N/A	4W	PER SCH.	120	0.20	29	PRICE	PRODIGY VAV	1,2,3,4,5,6
SV-2	24/24	8"Ø	N/A	4W	PER SCH.	240	0.14	29	PRICE	PRODIGY VAV	1,2,3,4,5,6

REMARKS:  
 1. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING TYPES AND MOUNTING REQUIREMENTS.  
 2. PROVIDE PRESSURE RELIEF COLLAR (ONLY TO BE USED IN PLENUM RETURN APPLICATION)  
 3. COLOR SELECTED BY ARCHITECT.  
 4. THERMAL DIFFUSER TO BE POWERED BY PRODIGY POWER MODULE.  
 5. THERMAL DIFFUSER AND POWER MODULE SHALL BE PROVIDED WITH BACNET INTERFACE OPTION.  
 6. SEE MECHANICAL FLOOR PLANS FOR WIRING SCHEME FOR MASTER/SLAVE CONTROL OF DIFFUSERS.

VENTILATION SCHEDULE (1)

AIR HANDLING UNIT	AREA SERVED	SPACE DESIGNATION	AREA RATE			PEOPLE RATE				TOTAL REQ'D VENT @ ROOM (CFM)	VENT EFFECTIVENESS (%)	TOTAL REQ'D VENT @ AHU INLET (CFM)	REMARKS
			AREA (SQFT)	REQ'D VENT (CFM/SQFT)	REQ'D VENT (CFM)	PEOPLE	REQ'D VENT (CFM/PERSON)	DIVERSITY	REQ'D VENT (CFM)				
RTU-2	100 CORRIDOR	CORRIDOR	319	0.06	19	0	5.0	1.0	0	19	0.8	23.9	
RTU-2	101 APPLICATION AREA	OFFICE - RECEPTION AREA	1,231	0.06	74	37	5.0	1.0	185	259	0.8	323.1	
RTU-2	102 RECEPTION AREA	OFFICE - RECEPTION AREA	591	0.06	35	18	5.0	1.0	89	124	0.8	155.1	
RTU-2	103 LARGE CONSULTATION	CONFERENCE/MEETING	379	0.06	23	10	5.0	1.0	50	73	0.8	90.9	
RTU-2	104 SMALL CONSULTATION	CONFERENCE/MEETING	153	0.06	9	4	5.0	1.0	20	29	0.8	36.5	
RTU-2	105 KID'S AREA	DAYCARE	159	0.18	29	4	10.0	1.0	40	68	0.8	85.5	
RTU-2	106 SMALL CONSULTATION	CONFERENCE/MEETING	155	0.06	9	4	5.0	1.0	20	29	0.8	36.6	
RTU-2	107 SMALL CONSULTATION	CONFERENCE/MEETING	146	0.06	9	4	5.0	1.0	20	29	0.8	36.0	
RTU-2	108 MEDIUM CONSULTATION	CONFERENCE/MEETING	214	0.06	13	6	5.0	1.0	30	43	0.8	53.6	
RTU-2	121 STAFF AREA	BREAK ROOM	196	0.06	12	5	5.0	1.0	25	36	0.8	45.3	
												887.000	TOTAL FOR FIRST FLOOR
RTU-3	501 ELEVATOR LOBBY	MAIN ENTRY LOBBIES	230	0.06	14	2	5.0	1.0	12	25	0.8	31.6	
RTU-3	502 STORAGE ROOM	STORAGE ROOM - DRY MATERIALS	216	0.06	13	1	5.0	1.0	5	18	0.8	22.5	
RTU-3	503 MAIL ROOM	SORTING, PACKING, LIGHT ASSEMBLY	266	0.12	32	2	7.5	1.0	14	46	0.8	57.4	
RTU-3	504 MID SIZE CONFERENCE	CONFERENCE/MEETING	202	0.06	12	8	5.0	1.0	40	52	0.8	65.1	
RTU-3	505 BREAK ROOM	BREAK ROOM	771	0.06	46	27	5.0	1.0	135	181	0.8	226.6	
RTU-3	506 MID SIZE CONFERENCE	CONFERENCE/MEETING	213	0.06	13	8	5.0	1.0	40	53	0.8	66.0	
RTU-1	510 HCV WORKSTATIONS	OFFICE	2,939	0.06	176	28	5.0	1.0	140	316	0.8	395.4	
RTU-1	510A MANAGER'S OFFICE	OFFICE	122	0.06	7	1	5.0	1.0	5	12	0.8	15.4	
RTU-1	510B MANAGER'S OFFICE	OFFICE	127	0.06	8	1	5.0	1.0	5	13	0.8	15.8	
RTU-1	510C DIRECTOR'S OFFICE	OFFICE	220	0.06	13	1	5.0	1.0	5	18	0.8	22.8	
RTU-1	510D MANAGER'S OFFICE	OFFICE	134	0.06	8	1	5.0	1.0	5	13	0.8	16.3	
RTU-1	510E MANAGER'S OFFICE	OFFICE	128	0.06	8	1	5.0	1.0	5	13	0.8	15.9	
RTU-1	510F COPY/PRINT	OFFICE	151	0.06	9	1	5.0	1.0	5	14	0.8	17.6	
RTU-1	511 LARGE CONFERENCE	CONFERENCE/MEETING	376	0.06	23	10	5.0	1.0	50	73	0.8	90.7	
RTU-1	512 MID-SIZE CONFERENCE	CONFERENCE/MEETING	205	0.06	12	8	5.0	1.0	40	52	0.8	65.4	
RTU-1	513 MID-SIZE CONFERENCE	CONFERENCE/MEETING	210	0.06	13	8	5.0	1.0	40	53	0.8	65.8	
RTU-3	514B MANAGER'S OFFICE	OFFICE	147	0.06	9	1	5.0	1.0	5	14	0.8	17.3	
RTU-3	514C MANAGER'S OFFICE	OFFICE	147	0.06	9	1	5.0	1.0	5	14	0.8	17.3	
RTU-3	515 HCV OPEN OFFICE	OFFICE	377	0.06	23	25	5.0	1.0	125	148	0.8	184.5	
RTU-3	517 REFERENCE LIBRARY	OFFICE	295	0.06	18	4	5.0	1.0	20	38	0.8	47.1	
RTU-3	518 CHIEF'S OFFICE	OFFICE	236	0.06	14	1	5.0	1.0	5	19	0.8	24.0	
RTU-1	519 PUBLIC SAFETY OPEN OFFICE	OFFICE	660	0.06	40	6	5.0	1.0	30	70	0.8	87.0	
RTU-3	519A DIRECTOR'S OFFICE	OFFICE	186	0.06	11	1	5.0	1.0	5	16	0.8	20.2	
RTU-1	519B COPY/PRINT	OFFICE	256	0.06	15	6	5.0	1.0	30	45	0.8	56.7	
RTU-1	519C VIEWING ROOM	CONFERENCE/MEETING	323	0.06	19	16	5.0	1.0	80	99	0.8	124.2	
RTU-3	523 DIRECTOR'S OFFICE	OFFICE	174	0.06	10	1	5.0	1.0	5	15	0.8	19.3	
RTU-3	524 MANAGER'S OFFICE	OFFICE	146	0.06	9	1	5.0	1.0	5	14	0.8	17.2	
RTU-3	526 PARALEGAL	OFFICE	437	0.06	26	3	5.0	1.0	15	41	0.8	51.5	
RTU-3	527 COPY/PRINT	OFFICE	426	0.06	26	3	5.0	1.0	15	41	0.8	50.7	
												1907.000	TOTAL FOR FIFTH FLOOR

REMARKS:  
 1. CALCULATIONS WERE PERFORMED BASED ON IMC-2015 SECTIONS 402 & 403. MINIMUM OA FOR EXISTING ROOFTOP UNITS HAVE BEEN SET FOR 10,000 CFM EACH (QTY. 4).



HACP - Housing Authority of the City of Pittsburgh  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

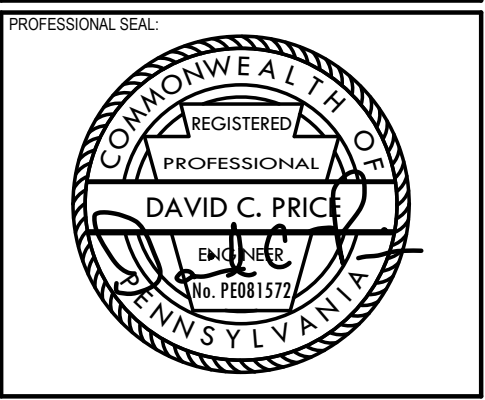
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/22/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	KAS & AGR	DCP

SHEET NAME: MECHANICAL SCHEDULES  
 SHEET NO: M-403  
 TRUE NORTH  
 PLAN NORTH

VENTILATION SCHEDULE (CONTINUED)													
AIR HANDLING UNIT	AREA SERVED	SPACE DESIGNATION	AREA RATE			PEOPLE RATE				TOTAL REQ'D VENT @ ROOM (CFM)	VENT EFFECTIVENESS (%)	TOTAL REQ'D VENT @ AHU INLET (CFM)	REMARKS
			AREA (SQFT)	REQ'D VENT (CFM/SQFT)	REQ'D VENT (CFM)	PEOPLE	REQ'D VENT (CFM/PERSON)	DIVERSITY	REQ'D VENT (CFM)				
RTU-3	601 ELEVATOR LOBBY	MAIN ENTRY LOBBIES	230	0.06	14	2	5.0	1.0	12	25	0.8	31.6	
RTU-1	602 MID SIZE CONFERENCE	CONFERENCE/MEETING	184	0.06	11	8	5.0	1.0	40	51	0.8	63.8	
RTU-1	603 MINDFULNESS ROOM	OFFICE	122	0.06	7	1	5.0	1.0	5	12	0.8	15.4	
RTU-1	604 WELLNESS / MOTHER'S ROOM	OFFICE	92	0.06	6	2	5.0	1.0	10	16	0.8	19.4	
RTU-1	605 SHARED COPY/PRINT STORAGE	STORAGE - DRY MATERIALS	147	0.12	18	1	5.0	1.0	5	23	0.8	28.3	
RTU-1	606 HUDDLE	CONFERENCE/MEETING	163	0.06	10	4	5.0	1.0	20	30	0.8	37.2	
RTU-1	607 HEAD'S DOWN	OFFICE	52	0.06	3	1	5.0	1.0	5	8	0.8	10.2	
RTU-1	608 PHONE ROOM	OFFICE	46	0.06	3	1	5.0	1.0	5	8	0.8	9.7	
RTU-1	609 PHONE ROOM	OFFICE	46	0.06	3	1	5.0	1.0	5	8	0.8	9.7	
RTU-1	610 HEAD'S DOWN	OFFICE	52	0.06	3	1	5.0	1.0	5	8	0.8	10.2	
RTU-3	612 OPEN COLLAB/GROWTH	OFFICE	2,056	0.06	123	42	5.0	1.0	210	333	0.8	416.7	
RTU-1	620 PROC WORKSTATIONS	OFFICE	2,022	0.06	121	15	5.0	1.0	75	196	0.8	245.4	
RTU-1	620A MANAGER'S OFFICE	OFFICE	140	0.06	8	1	5.0	1.0	5	13	0.8	16.8	
RTU-1	620B MANAGER'S OFFICE	OFFICE	146	0.06	9	1	5.0	1.0	5	14	0.8	17.2	
RTU-1	620C MANAGER'S OFFICE	OFFICE	156	0.06	9	1	5.0	1.0	5	14	0.8	18.0	
RTU-1	622 MID-SIZE CONFERENCE	CONFERENCE/MEETING	235	0.06	14	8	5.0	1.0	40	54	0.8	67.6	
RTU-1	623 LARGE CONFERENCE	CONFERENCE/MEETING	402	0.06	24	10	5.0	1.0	50	74	0.8	92.7	
RTU-1	624 CHIEF'S OFFICE	OFFICE	265	0.06	16	1	5.0	1.0	5	21	0.8	26.1	
RTU-3	625 DEV/MOD OPEN OFFICE	OFFICE	2,666	0.06	160	28	5.0	1.0	140	300	0.8	375.0	
RTU-1	625A DIRECTOR'S OFFICE	OFFICE	154	0.06	9	4	5.0	1.0	20	29	0.8	36.6	
RTU-1	625B MANAGER'S OFFICE	OFFICE	123	0.06	7	1	5.0	1.0	5	12	0.8	15.5	
RTU-1	625C MANAGER'S OFFICE	OFFICE	130	0.06	8	1	5.0	1.0	5	13	0.8	16.0	
RTU-1	625D MANAGER'S OFFICE	OFFICE	133	0.06	8	1	5.0	1.0	5	13	0.8	16.2	
RTU-3	625E DIRECTOR'S OFFICE	OFFICE	148	0.06	9	1	5.0	1.0	5	14	0.8	17.4	
RTU-3	625F MANAGER'S OFFICE	OFFICE	122	0.06	7	1	5.0	1.0	5	12	0.8	15.4	
RTU-3	626 HR OPEN WORKSTATIONS	OFFICE	1,086	0.06	65	10	5.0	1.0	50	115	0.8	144.0	
RTU-3	626A TRAINING	LECTURE CLASSROOM	826	0.06	50	54	7.5	1.0	403	452	0.8	565.3	
RTU-3	626D HUDDLE	CONFERENCE/MEETING	155	0.06	9	5	5.0	1.0	25	34	0.8	42.9	
RTU-3	626E MANAGER'S OFFICE	OFFICE	146	0.06	9	1	5.0	1.0	5	14	0.8	17.2	
RTU-3	626F MANAGER'S OFFICE	OFFICE	149	0.06	9	1	5.0	1.0	5	14	0.8	17.4	
RTU-3	626G MANAGER'S OFFICE	OFFICE	160	0.06	10	1	5.0	1.0	5	15	0.8	18.3	
RTU-3	627A CHIEF'S OFFICE	OFFICE	245	0.06	15	1	5.0	1.0	5	20	0.8	24.6	
RTU-3	627F COPY/PRINT OFFICE	OFFICE	1,065	0.06	64	10	5.0	1.0	50	114	0.8	142.4	
RTU-3	627E MANAGER'S OFFICE	OFFICE	177	0.06	11	10	5.0	1.0	50	61	0.8	75.8	
												2676.000	TOTAL FOR SIXTH FLOOR
RTU-1	701 ELEVATOR LOBBY	MAIN ENTRY LOBBIES	230	0.06	14	2	5.0	1.0	12	25	0.8	31.6	
RTU-1	703 HUDDLE	CONFERENCE/MEETING	96	0.06	6	2	5.0	1.0	10	16	0.8	19.7	
RTU-1	704 MID-SIZE CONFERENCE	CONFERENCE/MEETING	204	0.06	12	8	5.0	1.0	40	52	0.8	65.3	
RTU-1	706 MID-SIZE CONFERENCE	CONFERENCE/MEETING	201	0.06	12	8	5.0	1.0	40	52	0.8	65.1	
RTU-1	707 HUDDLE	CONFERENCE/MEETING	98	0.06	6	2	5.0	1.0	10	16	0.8	19.9	

REMARKS:  
1. CALCULATIONS WERE PERFORMED BASED ON IMC-2015 SECTIONS 402 & 403. MINIMUM OA FOR EXISTING ROOFTOP UNITS HAVE BEEN SET FOR 10,000 CFM EACH (QTY. 4).



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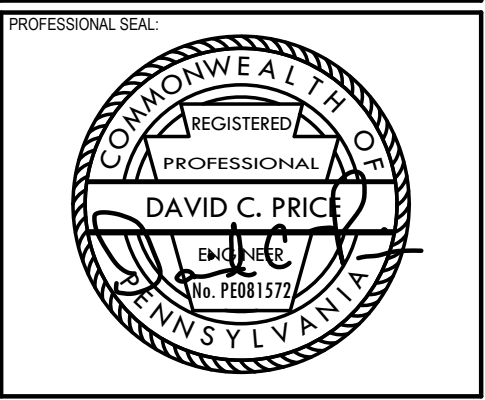
#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00	DRAWN BY: KAS & AGR	REVIEWED BY: DCP
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MECHANICAL SCHEDULES  
SHEET NO. **M-404**

VENTILATION SCHEDULE (CONTINUED)													
AIR HANDLING UNIT	AREA SERVED	SPACE DESIGNATION	AREA RATE			PEOPLE RATE				TOTAL REQ'D VENT @ ROOM (CFM)	VENT EFFECTIVENESS (%)	TOTAL REQ'D VENT @ AHU INLET (CFM)	REMARKS
			AREA (SQFT)	REQ'D VENT (CFM/SQFT)	REQ'D VENT (CFM)	PEOPLE	REQ'D VENT (CFM/PERSON)	DIVERSITY	REQ'D VENT (CFM)				
RTU-1	708 LARGE CONFERENCE	CONFERENCE/MEETING	407	0.06	24	10	5.0	1.0	50	74	0.8	93.0	
RTU-1	709 FINANCE OPEN OFFICE	OFFICE	2,333	0.06	140	14	5.0	1.0	70	210	0.8	262.5	
RTU-1	709B COPY/PRINT	OFFICE	383	0.06	23	6	5.0	1.0	30	53	0.8	66.2	
RTU-1	709C MANAGER'S OFFICE	OFFICE	134	0.06	8	1	5.0	1.0	5	13	0.8	16.3	
RTU-1	709D MANAGER'S OFFICE	OFFICE	140	0.06	8	1	5.0	1.0	5	13	0.8	16.8	
RTU-1	709E MANAGER'S OFFICE	OFFICE	136	0.06	8	1	5.0	1.0	5	13	0.8	16.5	
RTU-1	709F CHIEF'S OFFICE	OFFICE	243	0.06	15	1	5.0	1.0	5	20	0.8	24.5	
RTU-1	710 COMM AFFAIRS OPEN OFFICE	OFFICE	514	0.06	31	6	5.0	1.0	30	61	0.8	76.1	
RTU-1	710A DIRECTOR'S OFFICE	OFFICE	161	0.06	10	1	5.0	1.0	5	15	0.8	18.3	
RTU-1	710B CHIEF'S OFFICE	OFFICE	214	0.06	13	1	5.0	1.0	5	18	0.8	22.3	
RTU-1	710C MANAGER'S OFFICE	OFFICE	144	0.06	9	1	5.0	1.0	5	14	0.8	17.1	
RTU-3	711 OPERATIONS OPEN OFFICE	OFFICE	1,554	0.06	93	12	5.0	1.0	60	153	0.8	191.6	
RTU-3	711A COPY/PRINT	OFFICE	300	0.06	18	6	5.0	1.0	30	48	0.8	60.0	
RTU-3	711B CHIEF'S OFFICE	OFFICE	211	0.06	13	1	5.0	1.0	5	18	0.8	22.1	
RTU-3	712A MANAGER'S OFFICE	OFFICE	131	0.06	8	1	5.0	1.0	5	13	0.8	16.1	
RTU-3	712B MANAGER'S OFFICE	OFFICE	124	0.06	7	1	5.0	1.0	5	12	0.8	15.6	
RTU-3	712C DIRECTOR'S OFFICE	OFFICE	161	0.06	10	1	5.0	1.0	5	15	0.8	18.3	
RTU-1	713 PHONE	OFFICE	54	0.06	3	1	5.0	1.0	5	8	0.8	10.3	
RTU-1	714 PHONE	OFFICE	54	0.06	3	1	5.0	1.0	5	8	0.8	10.3	
RTU-1	715 PHONE	OFFICE	54	0.06	3	1	5.0	1.0	5	8	0.8	10.3	
RTU-3	716 BOARD ROOM	CONFERENCE/MEETING	679	0.06	41	14	5.0	1.0	70	111	0.8	138.4	
RTU-3	717 RECEPTION AREA	OFFICE - RECEPTION AREA	340	0.06	20	9	5.0	1.0	43	63	0.8	78.6	
RTU-3	717A CONFERENCE	CONFERENCE/MEETING	271	0.06	16	8	5.0	1.0	40	56	0.8	70.3	
RTU-3	717B COPY/PRINT	OFFICE	337	0.06	20	5	5.0	1.0	25	45	0.8	56.5	
RTU-3	717C EXECUTIVE DIRECTOR'S OFFICE	OFFICE	370	0.06	22	1	5.0	1.0	5	27	0.8	34.0	
RTU-3	717D MANAGER'S OFFICE	OFFICE	167	0.06	10	1	5.0	1.0	5	15	0.8	18.8	
RTU-3	717E MANAGER'S OFFICE	OFFICE	161	0.06	10	1	5.0	1.0	5	15	0.8	18.3	
RTU-3	717G EXECUTIVE WORKSTATIONS	OFFICE	877	0.06	53	6	5.0	1.0	30	83	0.8	103.3	
RTU-3	718 IT OPEN OFFICE	OFFICE	1,055	0.06	63	8	5.0	1.0	40	103	0.8	129.1	
RTU-3	718B DIRECTOR'S OFFICE	OFFICE	178	0.06	11	1	5.0	1.0	5	16	0.8	19.6	
RTU-3	718C DIRECTOR'S OFFICE	OFFICE	126	0.06	8	1	5.0	1.0	5	13	0.8	15.7	
RTU-3	718D EQUIPMENT STORAGE	OFFICE	225	0.12	27	0	5.0	1.0	0	27	0.8	33.7	
												1902.000	TOTAL FOR SEVENTH FLOOR

REMARKS:  
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PROJECT NO: 190427.00    DRAWN BY: KAS & AGR    REVIEWED BY: DCP

SHEET NAME: MECHANICAL SCHEDULES

SHEET NO: M-405

TRUE NORTH  
PLAN NORTH



## GENERAL ELECTRICAL NOTES:

GENERAL: UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS IS NEW WORK TO BE PROVIDED UNDER THIS CONTRACT.

DEMOLITION: SEE "ELECTRICAL GENERAL DEMOLITION NOTES" THIS SHEET .

COORDINATION: COORDINATE AND COOPERATE WITH ALL TRADES ON THE PROJECT.

RECORD DRAWINGS: SECURE AN EXTRA SET OF ELECTRICAL DRAWINGS TO BE KEPT ON SITE AND MARK, DAILY, THE DRAWINGS IN RED AS THE PROJECT PROGRESSES IN ORDER TO KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK SHOWN ON THE DRAWINGS AND THE WORK WHICH IS ACTUALLY INSTALLED. THESE MARKED DRAWINGS SHALL REFLECT ANY AND ALL CHANGES AND REVISIONS TO THE ORIGINAL DESIGN WHICH EXISTS IN THE COMPLETED WORK. DELIVER THE MARKED DRAWINGS TO THE <ARCHITECT/ENGINEER> AT PROJECT CLOSE-OUT.

TESTS: TEST ALL WIRING FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR DEVICES. PERFORM INSULATION RESISTANCE TESTS ON ALL WIRING #8 OR LARGER TO ENSURE THAT ALL PORTIONS ARE FREE FROM SHORT-CIRCUITS AND GROUNDS.

INSPECTIONS: ARRANGE ALL NECESSARY INSPECTIONS. DELIVER ALL REQUIRED INSPECTION CERTIFICATES TO THE OWNER.

GROUNDING: PROVIDE GROUNDING IN ACCORDANCE WITH THE NEC FOR THE ELECTRICAL SYSTEM INCLUDING EQUIPMENT FRAMES CONDUITS, SWITCHES, CONTROLLERS, WIRE-WAYS, NEUTRAL CONDUCTORS, AND OTHER EQUIPMENT. PROVIDE A GROUNDING CONDUCTOR IN ALL POWER CIRCUITS.

LABELS: PROVIDE LABELS FOR ALL PANELBOARDS, CABINETS, SAFETY SWITCHES, MOTOR-DISCONNECT SWITCHES, AND MOTOR CONTROLLERS. LABELS SHALL BE MACHINE ENGRAVED, LAMINATED PLASTIC, PERMANENTLY ATTACHED WITH SELF-TAPPING SCREWS OR RIVETS. DO NOT USE SELF-ADHESIVE LABELS.

J-BOX LABELING: LABEL ALL JUNCTION BOXES WITH PERMANENT MARKER IDENTIFYING CIRCUIT NUMBER AND PANELBOARD OF CIRCUITS WITHIN.

PANEL DIRECTORY: PROVIDE TYPEWRITTEN PANELBOARD DIRECTORY CARD IN EACH PANELBOARD INCLUDING EXISTING PANELBOARDS MODIFIED FOR THIS PROJECT WITH CIRCUIT LOAD INFORMATION AND ROOM NUMBER CLEARLY IDENTIFIED. USE ACTUAL ROOM NUMBERS IN THE BUILDING, NOT THE ROOM NUMBERS SHOWN ON THE CONTRACT DRAWINGS, AS THEY ARE OFTEN DIFFERENT.

MOTOR COORDINATION: MOTORS, MOTOR STARTERS, CONTROLLERS, INTEGRAL DISCONNECT SWITCHES, AND CONTACTORS SHALL BE PROVIDED WITH THEIR RESPECTIVE PIECES OF EQUIPMENT BY THE EQUIPMENT SUPPLIER. COMMUNICATE WITH THE TRADES PROVIDING THE EQUIPMENT, VERIFYING ALL REQUIREMENTS, PROVIDE ALL ELECTRICAL CONNECTIONS REQUIRED THEREIN, AND INSTALL MOTOR STARTERS.

MOTOR DISCONNECTS: ALL MOTORS SHALL HAVE DISCONNECTING MEANS.

MOTOR FUSE PROTECTION: WHERE FUSE PROTECTION IS SPECIFICALLY REQUIRED BY THE EQUIPMENT MANUFACTURER, PROVIDE FUSE SWITCHES IN LIEU OF NON-FUSE SWITCHES OR IN LIEU OF ENCLOSED CIRCUIT BREAKERS, OR OTHER DEVICES INDICATED.

CONNECTION DETAILS: SECURE APPROVED SHOP DRAWINGS SHOWING WIRING DIAGRAMS, ROUGH-IN AND HOOK UP DETAILS FROM OTHER INVOLVED CONTRACTORS FOR EQUIPMENT WHICH MUST BE CONNECTED ELECTRICALLY.

EQUIPMENT DETAILS: MECHANICAL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THE LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE. COORDINATE WITH THE MECHANICAL CONTRACTOR TO DETERMINE THE EXACT LOCATION OF EACH PIECE OF EQUIPMENT AND DETERMINE THE EXACT ROUGH-IN AND CONNECTION REQUIREMENTS.

STARTER MOUNTING: WHERE AN INDIVIDUALLY MOUNTED SAFETY SWITCH, STARTER OR CIRCUIT BREAKER IS SHOWN ADJACENT TO ITS RESPECTIVE LOAD AND NOT MOUNTED ON A WALL, PROVIDE ALL SUPPORTS, BRACKETS, ANCHORING, ETC. NECESSARY TO PROPERLY SUPPORT THE DEVICE.

LIGHTING ARRANGEMENT: ARRANGE LIGHTING FIXTURES IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

LIGHTING COORDINATION: COORDINATE LIGHTING FIXTURES WITH GRILLES, DIFFUSERS, SPRINKLER HEADS, AND ACCESS PANELS, ETC.

MATERIAL COORDINATION: VERIFY CEILING AND WALL CONSTRUCTION AND MATERIAL PRIOR TO ORDERING LIGHT FIXTURES OR OTHER DEVICES TO ENSURE PROPER FIXTURES OR DEVICE IS FURNISHED TO MATCH CONSTRUCTION.

MOUNTING HEIGHTS: MOUNTING HEIGHTS INDICATED ARE FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE WIRING DEVICE UNLESS OTHERWISE NOTED. MOUNTING HEIGHTS OF LIGHTING FIXTURES AND FIRE ALARM DEVICES ARE TO THE BOTTOM OF THE FIXTURE OR DEVICE UNLESS OTHERWISE NOTED.

DEVICE LOCATIONS: COORDINATE LOCATIONS OF SWITCHES, RECEPTACLES, AND TELE/DATA OUTLETS WITH OTHER WALL MOUNTED DEVICES SUCH AS THERMOSTATS AND CONTROL STATIONS. DO NOT MOUNT WIRING DEVICES BACK TO BACK. PROVIDE MINIMUM OF ONE STUD SEPARATION.

EWC RECEPTACLES: RECEPTACLES FOR ELECTRIC WATER COOLERS (EWC) SHALL BE INSTALLED OUT OF VIEW AND BEHIND THE EWC ENCLOSURE. VERIFY THE MOUNTING HEIGHT WITH THE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

DEVICE COORDINATION: THOROUGHLY REVIEW AND COORDINATE ALL CASEWORK, DOOR SWINGS, AND CABINET DRAWINGS AND ARCHITECTURAL ELEVATIONS WITH DEVICE LOCATIONS PRIOR TO ROUGH-IN OF OUTLET BOXES.

BARRIERS: WHERE A MULTIPLE GANG BOX HAS CIRCUITS OF DIFFERENT VOLTAGES OR SYSTEMS WHICH ARE REQUIRED TO BE SEPARATED, PROVIDE THE CODE-REQUIRED SEPARATION USING A FULL HEIGHT AND DEPTH BARRIER PLATE.

FIRE PROOFING: FOR ANY WALL OR FLOOR PENETRATIONS THROUGH FIRE RATED STRUCTURES PROVIDE FIRE-PROOFING TO SEAL ALL THE PENETRATIONS AFTER THE CONDUIT HAS BEEN INSTALLED. FIRE PROOFING FOR PENETRATIONS SHALL BE UL APPROVED PER THE THE PENETRATION MADE IN ORDER TO MAINTAIN FIRE RATED INTEGRITY OF THE STRUCTURE.

CLEAN UP: ON PROJECT CLOSE-OUT, CLEAN ALL ELECTRICAL DEVICES, LIGHTING FIXTURES, LAMPS AND LENSES, AND REMOVE ALL PAINT SPATTERS FROM DEVICES, FIXTURES, AND PLATES. REPLACE ALL INOPERATIVE LAMPS.

OWNER FURNISHED EQUIPMENT: CONTRACTOR SHALL OBTAIN CUT SHEETS, INSTALLATION DATA, AND ROUGH-IN REQUIREMENTS FOR OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT AND COORDINATE ROUGH-IN AND POWER REQUIREMENTS WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY ASSOCIATED WORK.

CONDUIT ROUTING: ALL CONDUIT RUN OVERHEAD SHALL BE RUN AT THE BOTTOM OF THE FLOOR, ROOF STRUCTURE, OR LOWEST CHORD OF JOIST SPACE (AS APPLICABLE) ABOVE IN ORDER TO AVOID CONFLICTS WITH OTHER TRADES.

WIRING DEVICES: ALL RECEPTACLES AND SWITCHES SHALL BE LABELED WITH PLASTIC LAMINATED LABEL WITH THE PANELBOARD DESIGNATION AND CIRCUIT NUMBER FROM WHICH IT IS FED.

EQUIPMENT DEMONSTRATION: PROVIDE A DEMONSTRATION OF THE OPERATION OF ALL ELECTRICAL COMPONENTS UPON REQUEST OF THE OWNER.

CEILING PLENUM: ALL WIRING THAT WILL NOT BE RUN IN CONDUIT SHALL BE PLENUM RATED.

## GENERAL SPECIAL SYSTEM NOTES:

### FIRE ALARM SYSTEM

ALL FIRE ALARM NOTIFICATION DEVICES SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND NFPA 72.

ALL WIRING SHALL BE RUN IN CONDUIT (3/4" MINIMUM) OR FIRE ALARM MC CABLE WITH RED STRIPING. MAKE ALL WIRE CONNECTIONS TO DEVICES PER MANUFACTURER'S RECOMMENDATION AND NFPA 72.

MANUFACTURER, IN CONJUNCTION WITH THE CONTRACTOR, SHALL DETERMINE CONDUIT AND WIRING REQUIREMENTS AND DOCUMENT ALL ADDITIONS AND CHANGES ON AS-BUILT RECORD DRAWINGS.

## ELECTRICAL GENERAL DEMOLITION NOTES:

GENERAL: DEMOLITION DRAWINGS ARE BASED ON EXISTING PLANS AND FIELD INVESTIGATION PRIOR TO DEMOLITION. VISIT THE EXISTING BUILDING PRIOR TO BID IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND IN ORDER TO AVOID CONFLICTS.

DASHED ITEMS: ALL ITEMS SHOWN DASHED ON DEMOLITION PLANS ARE EXISTING AND SHALL BE REMOVED COMPLETE INCLUDING BOXES, CONDUIT, WIRE, FASTENERS, AND ASSOCIATED APPURTENANCES UON.

SOLID ITEMS: ALL ITEMS SHOWN SOLID ON DEMOLITION PLANS ARE EXISTING TO REMAIN.

CIRCUITING TO REMAIN: EXISTING CIRCUITING TO REMAIN SHALL BE REROUTED OR RECONNECTED, AS REQUIRED, WHERE AFFECTED BY NEW WORK IN ORDER TO MAINTAIN CONTINUITY OF CIRCUIT.

REUSE OF EXISTING CIRCUITRY: EXISTING CIRCUITRY SERVING LIGHTING FIXTURES AND/OR RECEPTACLES FOR A GIVEN AREA SHALL BE REUSED WHERE CONVENIENT TO SERVE THE NEW LAYOUT. PROVIDE CIRCUIT MODIFICATIONS INDICATED OR AS OTHERWISE REQUIRED TO MAINTAIN THE CONTINUITY OF THE EXISTING CIRCUITS THAT REMAIN.

EXISTING CONDUIT: ALL EXISTING CONDUITS AND WIRING THAT WILL NOT BE REUSED SHALL BE REMOVED WHERE THEY WILL BE EXPOSED UPON COMPLETION OF NEW WORK. EXISTING CONDUIT TO REMAIN CONCEALED IN WALLS SHALL BE ABANDONED. EXISTING CONDUIT TO REMAIN BELOW FLOOR SLAB SHALL BE CUT OFF ONE INCH BELOW ROUGH FLOOR AND GROUDED FLUSH. ALL EXISTING WIRING IN CONDUITS TO BE ABANDONED SHALL BE DISCONNECTED FROM POWER SOURCE AND REMOVED.

REPAIR DAMAGE: EXERCISE CARE IN REMOVAL OF DEMOLITION ITEMS. REPAIR, AT NO ADDITIONAL COST TO OWNER, ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND/OR EQUIPMENT TO REMAIN.

ASSOCIATED APPURTENANCES: REMOVE ALL ELECTRICAL APPURTENANCES (DISCONNECTS, STARTERS, WIRING, CONDUIT, ETC.) ASSOCIATED WITH EQUIPMENT TO BE REMOVED BY OTHERS.

KNOCKOUT PLUGS AND COVERS: ALL CONDUIT REMOVED SHALL BE REMOVED IN ITS ENTIRETY, INCLUDING FITTINGS, MOUNTING DEVICES, MOUNTING HARDWARE, ETC. PROVIDE CONDUIT PLUGS AND BLANKS FOR ALL OPENINGS CREATED BY THE REMOVAL OF CONDUIT. PROVIDE BLANK COVER PLATES FOR ALL OPENED OUTLET BOXES CREATED BY THE REMOVAL OF THE EQUIPMENT AND/OR DEVICES.

DEMOLISHED MATERIALS: ALL MATERIALS REMOVED UNDER DEMOLITION, NOT TO BE RELOCATED OR DESIGNATED TO BE TURNED OVER TO THE OWNER, SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE.

SCHEDULE OUTAGES: ALL WORK AND ALL POWER OUTAGES IN THE EXISTING BUILDING SHALL BE SCHEDULED AT TIMES CONVENIENT TO THE OWNER.

NOTIFICATION: NOTIFY THE OWNER PRIOR TO TURNING OFF ANY CIRCUITS.

EXISTING CIRCUITS: IF DURING THE COURSE OF CONSTRUCTION, IT IS DETERMINED BY THE CONTRACTOR THAT AN EXISTING CIRCUIT BECOMES SPARE, THE CONTRACTOR SHALL UPDATE THE PANELBOARD DIRECTORY TO INDICATE SUCH, EVEN IF IT IS NOT EXPLICITLY MARKED ON THE ELECTRICAL PLANS.

## COMMUNICATIONS

TELE/DATA BOX, 4"x4"x2 1/4"D BOX WITH SINGLE GANG PLASTER RING 18" AFF. UON, WITH 1 1/4"C WITH PULL STRING STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH PLASTIC BUSHING.

TELEPHONE PLYWOOD BACKBOARD 3/4"x8"x4", FIRE RETARDANT. BOTTOM AT 0'-4" AFF.

CABLE TELEVISION OUTLET JUNCTION BOX, 4"x4"x2 1/4"D BOX WITH SINGLE GANG PLASTER RING, WITH A 1"C WITH PULL STRING STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH BUSHING. MOUNT 18" AFF UON.

PROVIDE SINGLE GANG JUNCTION BOX AT 44" AFF, WITH 1" CONDUIT STUBBED UP AT 10'-6". PROVIDE PULLWIRE.

AV JUNCTION BOX, PROVIDE A DOUBLE GANG LOW VOLTAGE BRACKET WITH SINGLE GANG PLASTER RING. PROVIDE A 1 1/2"C WITH PULL STRING FROM BRACKET UP TO ABOVE ACCESSIBLE CEILING. PROVIDE BUSHING AT EACH END OF CONDUIT. PROVIDE PULLWIRE. VERIFY LOCATION WITH AV CONSULTANT PRIOR TO ROUGH-IN.

## GENERAL HVAC ELECTRICAL NOTES:

ELECTRICAL CONTRACTOR SHALL INSTALL DISCONNECT SWITCHES PROVIDED BY MECHANICAL CONTRACTOR AND WIRE PER MANUFACTURER'S REQUIREMENTS.

## LIGHTING

LIGHTING FIXTURE.

LIGHTING FIXTURE ON EMERGENCY CIRCUIT. SUBSCRIPT "NL" WHERE USED, INDICATES NIGHT LIGHT CONNECTED AHEAD OF LIGHTING CONTROLS.

DOWNLIGHT FIXTURE.

DOWNLIGHT OR PENDANT LIGHT FIXTURE ON NORMAL/EMERGENCY CIRCUIT. SUBSCRIPT "NL" WHERE USED, INDICATES NIGHT LIGHT CONNECTED AHEAD OF LIGHTING CONTROLS.

EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. CONNECT TO DEDICATED EMERGENCY BRANCH CIRCUIT. SHADED AREA DENOTES LIGHTED FACE.

SINGLE POLE SWITCH, 20A, 120/277V, 44" AFF UON. SUBSCRIPT "a" INDICATES ASSOCIATED FIXTURES TO BE CONTROLLED.

DIGITAL TIMED OFF SWITCH UP TO 6 HOURS, 20A, 120/277V, 44" AFF UON.

LOW VOLTAGE SWITCH, 44" AFF UON. SUBSCRIPT "1" INDICATES LOW VOLTAGE SWITCH DESIGNATION. SUBSCRIPT "a" INDICATES LOW VOLTAGE BUTTON DESIGNATION. REFER TO LIGHTING RELAY PANEL SCHEDULES FOR TOTAL NUMBER OF BUTTONS PER SWITCH AND ADDITIONAL INFORMATION.

WALL SWITCH MANUFACTURER NLIGHT CAT. #nPODM-2P-DX, 44" AFF UON. WHERE WALL SWITCH IS LOCATED IN 'DEMOUNTABLE' PARTITION, THE DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE A SINGLE GANG JUNCTION BOX AND A 3/4" CONDUIT WITH PULLWIRE, STUBBED UP TO ABOVE ACCESSIBLE CEILING SYSTEM. ELECTRICAL CONTRACTOR SHALL PROVIDE SWITCH, CONTROL CABLING, INSTALLATION AND MAKE ALL FINAL TERMINATIONS.

MULTI-BUTTON LOW VOLTAGE SWITCH, 44" AFF UON WITH RAISE LOWER FUNCTION.

VACANCY SENSOR WALL SWITCH WITH MANUAL ON/AUTO OFF AND RAISE/LOWER BUTTONS, 44" AFF UON. MANUFACTURER SENSOR SWITCH CAT. #WSX DT VA XX. WHERE VACANCY SENSOR SWITCH IS LOCATED IN 'DEMOUNTABLE' PARTITION, THE DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE A SINGLE GANG JUNCTION BOX AND A 3/4" CONDUIT WITH PULLWIRE, STUBBED UP TO ABOVE ACCESSIBLE CEILING SYSTEM. ELECTRICAL CONTRACTOR SHALL PROVIDE SWITCH, CONTROL CABLING, INSTALLATION AND MAKE ALL FINAL TERMINATIONS.

VACANCY SENSOR WALL SWITCH WITH MANUAL ON/AUTO OFF BUTTONS, 44" AFF UON. WHERE VACANCY SENSOR SWITCH IS LOCATED IN 'DEMOUNTABLE' PARTITION, THE DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE A SINGLE GANG JUNCTION BOX AND A 3/4" CONDUIT WITH PULLWIRE, STUBBED UP TO ABOVE ACCESSIBLE CEILING SYSTEM. ELECTRICAL CONTRACTOR SHALL PROVIDE SWITCH, CONTROL CABLING, INSTALLATION AND MAKE ALL FINAL TERMINATIONS.

DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNTED. "#" DENOTES OCCUPANCY SENSOR TYPE. SUBSCRIPT "a", WHERE USED, INDICATES ASSOCIATED FIXTURES TO BE CONTROLLED.

OS1: SENSOR SWITCH MODEL # CM-PDT-9  
OS2: SENSOR SWITCH MODEL # CM-PDT-10  
OS3: SENSOR SWITCH MODEL # WV-PDT-19

DUAL TECHNOLOGY VACANCY SENSOR, CEILING MOUNTED. "#" DENOTES OCCUPANCY SENSOR TYPE. SUBSCRIPT "a", WHERE USED, INDICATES ASSOCIATED FIXTURES TO BE CONTROLLED.

VS1: SENSOR SWITCH MODEL # CM-PDT-9-R  
VS2: SENSOR SWITCH MODEL # CM-PDT-10-R

DAYLIGHT PHOTOSENSOR - NLIGHT CAT. #

LIGHTING RELAY POWER PACK WITH 0-10V DIMMING. PROVIDE NLIGHT MODEL NPP16-D OR APPROVED EQUAL.

UL 924 LISTED EMERGENCY LIGHTING RELAY POWER PACK FOR ON/OFF CONTROL. PROVIDE NLIGHT MODEL NPP16-ER OR APPROVED EQUAL.

UL 924 LISTED EMERGENCY LIGHTING RELAY POWER PACK WITH 0-10V DIMMING. PROVIDE NLIGHT MODEL NPP16-D-ER OR APPROVED EQUAL.

LIGHTING RELAY POWER PACK WITH 2-WIRE DIMMING. PROVIDE NLIGHT MODEL NSP5-PCD-ELV OR APPROVED EQUAL.

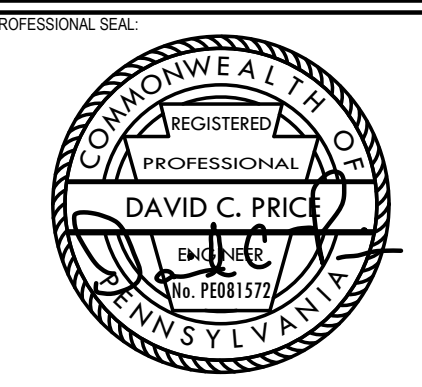
LIGHTING RELAY POWER PACK. PROVIDE NLIGHT MODEL NPP16 OR APPROVED EQUAL.

NLIGHT NETWORK BRIDGE MODEL NBRG8 OR EQUIVALENT.

NLIGHT NETWORK GATEWAY MODEL NGWY2 OR EQUIVALENT.

## GENERAL

KEYED WORK NOTE.



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1	100% DESIGN DEVELOPMENT	01/23/2020
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PROJECT NO.	DRAWN BY	REVIEWED BY
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SHEET NAME:

ELECTRICAL DATA SHEET

SHEET NO.

E-001



## POWER

- Ⓛ** DUPLEX RECEPTACLE, 20A, 120V
- Ⓛ** DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING TYPE, 20A, 120V, 18" AFF, UON.
- Ⓛ** DUPLEX RECEPTACLE WITH ADDITIONAL ISOLATED GROUND WIRE, 20A, 120V, 18" AFF, UON.
- AC Ⓛ** DUPLEX RECEPTACLE, 20A, 120V, 40" AFF OR 4" ABOVE COUNTER TOP OR IN CASEWORK (AS APPLICABLE), OR IN CASEWORK, AS APPLICABLE, UON.
- Ⓛ** 20A, 120V, 18" AFF, UON.
- Ⓛ** DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING TYPE, 20A, 120V, 44" AFF OR 4" ABOVE COUNTER TOP OR BACKSPLASH (WHICHEVER IS HIGHER), OR IN CASEWORK, AS APPLICABLE, UON.
- TR Ⓛ** DUPLEX RECEPTACLE, TAMPER RESISTANT TYPE, 20A, 120V, 18" AFF, UON.
  
- PT10** PROVIDE A 8" FIRE RATED FLOOR POKE-THRU WITH PROVISIONS FOR DATA AND (2) DUPLEX RECEPTACLES. PROVIDE (1) 1" FOR POWER AND (1) 1 1/2" EMT CONDUIT FROM POKE-THRU OVER TO NEAREST ACCESSIBLE WALL AND/OR DEMOUNTABLE PARTITION SYSTEM AND STUBBED UP WALL AND STUBBED OUT TO OPEN OFFICE/CORRIDOR CEILING FOR DATA CABLING. PROVIDE DOUBLE GANG PLATE THAT ACCEPTS INSTITUTIONS AV CONTRACTOR'S MANUFACTURER'S CABLING. PROVIDE BOTTOM HOUSING ASSEMBLIES FOR CONDUITS. PROVIDE GROMMETS AT END OF CONDUIT TO BE STUBBED UP ABOVE ACCESSIBLE CEILING. PROVIDE PULLWIRE IN EMPTY CONDUIT. PROVIDE 120 VOLT BRANCH CIRCUITING FOR RECEPTACLES. PROVIDE A METALLIC COVERPLATE WITH SCRUB SHIELD. ELECTRICAL CONTRACTOR SHALL COORDINATE DEVICE PLATES WITH THE AV CONTRACTOR.
- Ⓛ** SPECIAL RECEPTACLE. NEMA CONFIGURATION AS NOTED. MOUNT 18" AFF UON.
- Z1, Z2, Z3** JUNCTION BOX ABOVE ACCESSIBLE CEILING SYSTEM UTILIZED FOR 'IN-FEED' ELECTRICAL POWER CONNECTION. Z1, Z2, ETC INDICATES ZONE DISTRIBUTION BOX. ELECTRICAL CONTRACTOR SHALL PROVIDE BRANCH CIRCUITS AS INDICATED. ZONE DISTRIBUTION BOX SHALL BE PROVIDED BY DEMOUNTABLE PARTITION MANUFACTURER AND ELECTRICAL CONTRACTOR SHALL INSTALL. DASHED LINES FROM ZONE DISTRIBUTION BOX TO DUPLEX RECEPTACLES WITH A 'D' ADJACENT TO THE DEVICES, INDICATES INDICATES WHIPS TO THE DEMOUNTABLE PARTITION EXTENDER CABLES. DEMOUNTABLE PARTITION MANUFACTURER SHALL MAKE FINAL CONNECTIONS BETWEEN WHIPS AND EXTENDER CABLES.
- Ⓛ** EQUIPMENT CONNECTION.
- Ⓛ** DISCONNECT SWITCH - SIZE AS INDICATED ON PLANS 30/2/20/3R- NEMA RATING (IF OTHER THAN 1) FUSE SIZE (AMPS), N.F. INDICATES NON-FUSED No. OF POLES SIZE (AMPS)
- Ⓛ** MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD
- Ⓛ** MOTOR CONNECTION.
- Ⓛ** ELECTRICAL PANELBOARD
- Ⓛ** ELECTRICAL CIRCUIT RUN IN CONDUIT AND CIRCUIT HOMERUN TO PANELBOARD (PANEL AND CIRCUIT DESIGNATION AS INDICATED). AS A MINIMUM CONDITION, EACH SINGLE PHASE CIRCUIT SHALL HAVE 1 #12 PHASE CONDUCTOR, 1 #12 NEUTRAL CONDUCTOR, AND 1 #12 GROUNDING CONDUCTOR IN 3/4" CONDUIT. PROVIDE ADDITIONAL PHASE CONDUCTORS AS REQUIRED FOR "MULTIPLE PHASED" ELECTRICAL LOADS. PROVIDE ADDITIONAL "SWITCH LEG" CONDUCTORS TO PROVIDE THE LIGHT FIXTURE CONTROL INDICATED. MULTIPLE SINGLE PHASE CONDUCTORS SHALL BE GROUPED TOGETHER IN A COMMON CONDUIT IN ACCORDANCE WITH THE NEC AND AT THE CONTRACTOR'S DISCRETION. NEUTRAL AND GROUNDING CONDUCTORS SHALL BE SHARED AS ALLOWED BY THE NEC. CONDUIT LARGER THAN 3/4" AND CONDUCTORS LARGER THAN #12 SHALL BE AS INDICATED.
- USB Ⓛ** RECEPTACLE, 20A, 120V WITH (2) USB PORTS
- D Ⓛ** DUPLEX RECEPTACLE, 20A, 120V. 'D' ADJACENT TO DEVICE INDICATES THAT THE 20 AMP DUPLEX SHALL BE PROVIDED AND INSTALLED PER THE DEMOUNTABLE PARTITION MANUFACTURER. COLOR SHALL BE SELECTED BY ARCHITECT.
- D Ⓛ** DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE A TELE/DATA BOX, 4"x4"x2 1/4" BOX WITH SINGLE GANG PLASTER RING 18" AFF, UON, WITH 1" C WITH PULL STRING STUBBED OUT TO OPEN OFFICE AREA/CORRIDOR WHERE NO CEILING SYSTEM EXISTS AND TERMINATE WITH PLASTIC BUSHING.

- DTV** DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE A CABLE TELEVISION OUTLET JUNCTION BOX, 4"x4"x2 1/4" BOX WITH SINGLE GANG PLASTER RING, A 1 1/4" C. WITH PULL STRING STUBBED OUT TO OPEN OFFICE AREA/CORRIDOR WHERE NO CEILING SYSTEM EXISTS AND TERMINATE WITH PLASTIC BUSHING. MOUNT 66" AFF UON.
- Ⓛ** PROVIDE A DOUBLE GANG JUNCTION BOX AT 9" AFF AND FROM THE DOUBLE GANG JUNCTION BOX PROVIDE (1) 1" SURFACE MOUNTED CONDUIT UP TO 10'-0" ALONG COLUMN TO SERVE POWER FOR PRE-WIRED FURNITURE SYSTEM. PROVIDE 2-GANG COVERPLATE AND 90° ELBOW FOR FURNITURE POWER WHIP. TERMINATE FURNITURE POWER CONNECTIONS INSIDE JUNCTION BOX. PROVIDE A 1 1/2" CONDUIT SURFACE MOUNTED TO COLUMN AND STARTING AT 9" AFF AND RAN UP TO 10'-0" ALONG COLUMN. PROVIDE GROMMETS ON BOTH ENDS OF 2" CONDUIT. PROVIDE PULLWIRE FOR EACH CONDUIT.

- Ⓛ** FLEXIBLE FURNITURE CONNECTION WALL/COLUMN FEED, 12" AFF, UON. PROVIDE (1) JUNCTION BOX FOR CONNECTION OF POWER CIRCUITRY (CIRCUITS AS INDICATED ON DRAWINGS) AND PROVIDE A JUNCTION BOX WITH A 1 1/2" CONDUIT WITH PULL STRING STUBBED OUT TO OPEN OFFICE AREA/CORRIDOR WHERE NO CEILING SYSTEM EXISTS FOR LOW VOLTAGE CABLING. PROVIDE FLEXIBLE POWER AND LOW VOLTAGE WHIPS TO FURNITURE. VERIFY FURNITURE WIRING REQUIREMENTS AND CONNECTIONS WITH FURNITURE EQUIPMENT PROVIDER. REFER TO DETAIL 1/E5.01. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING INTO EXISTING DRYWALL AND PATCHING AND REPAIRING IN PREPARATION OF PRIMER AND PAINT.

- Ⓛ** FLEXIBLE FURNITURE CONNECTION DEMOUNTABLE PARTITION FEED, 12" AFF, UON. PROVIDE (1) JUNCTION BOX FOR CONNECTION OF POWER CIRCUITRY (CIRCUITS AS INDICATED ON DRAWINGS) AND PROVIDE A JUNCTION BOX WITH A 1 1/2" CONDUIT WITH PULL STRING STUBBED OUT TO OPEN OFFICE AREA/CORRIDOR WHERE NO CEILING SYSTEM EXISTS FOR LOW VOLTAGE CABLING. PROVIDE FLEXIBLE POWER AND LOW VOLTAGE WHIPS TO FURNITURE. VERIFY FURNITURE WIRING REQUIREMENTS AND CONNECTIONS WITH FURNITURE EQUIPMENT PROVIDER. DEMOUNTABLE PARTITION MANUFACTURER SHALL PROVIDE RACEWAYS AND JUNCTION BOXES IN DEMOUNTABLE PARTITION.

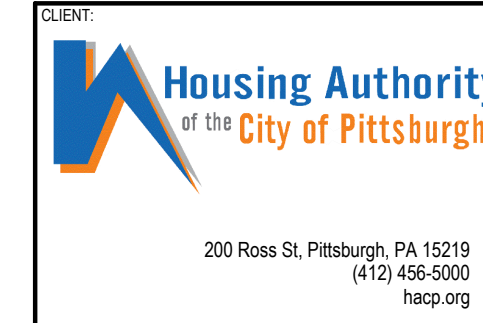
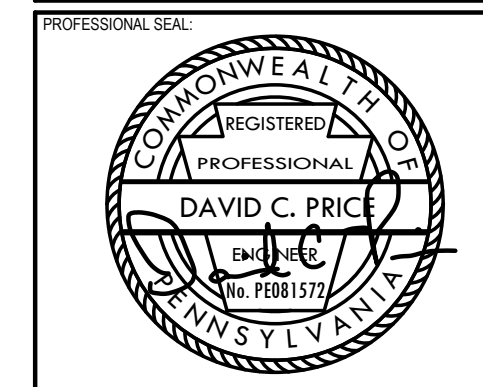
- Ⓛ** FLEXIBLE FURNITURE CONNECTION, 6" AFF UON. PROVIDE (1) JUNCTION BOX FOR CONNECTION OF POWER CIRCUITRY (CIRCUITS AS INDICATED ON DRAWINGS) AND PROVIDE (1) JUNCTION BOX WITH 1" C STUBBED ABOVE ACCESSIBLE CEILING FOR TELEPHONE AND DATA CONNECTIONS. PROVIDE POWER AND CONDUIT CONNECTIONS TO FURNITURE. COORDINATE FURNITURE WIRING REQUIREMENTS AND CONNECTIONS WITH FURNITURE EQUIPMENT PROVIDER. PROVIDE LIQUID-TIGHT RACEWAY CONNECTION FROM JUNCTION BOX TO FURNITURE PARTITION.

## FIRE ALARM

- FACP** FIRE ALARM CONTROL PANEL, SURFACE MOUNTED, TOP 5'-9" AFF.
- FAAP** FIRE ALARM ANNUNCIATOR PANEL, RECESSED, TOP 5'-0" AFF.
- NACP** FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL, SURFACE MOUNTED, TOP, 5'-9" AFF.
- FATP** FIRE ALARM TRANSPONDER PANEL, SURFACE MOUNTED, TOP 5'-9" AFF.
- F** FIRE ALARM MANUAL PULL STATION, 44" AFF TO ACTUATING ARM, UON.
- SD** ADDRESSABLE FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR, CEILING MOUNTED.
- ERSD** ADDRESSABLE FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR FOR ELEVATOR RECALL
- PSD** ADDRESSABLE FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR FOR STAIRWELL PRESSURIZATION
- DD** DUCT MOUNTED ADDRESSABLE FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR.
- HD** ADDRESSABLE FIRE ALARM SYSTEM HEAT DETECTOR, FIXED TEMPERATURE/RATE OF RISE TYPE. CEILING MOUNTED.
- IM** FIRE ALARM SYSTEM ADDRESSABLE INPUT MONITOR MODULE.
- C<sub>15</sub>V** FIRE ALARM VISUAL (STROBE) APPLIANCE. 'C' SUBSCRIPT DENOTES CEILING MOUNTED.
- W<sub>15</sub>V** FIRE ALARM VISUAL (STROBE) APPLIANCE, MOUNT 80" AFF TO THE BOTTOM OF THE FLASHING ACRYLIC LENS WITH A MAXIMUM HEIGHT OF 96" TO TOP OF LENS. SUBSCRIPT INDICATES MINIMUM CANDELA RATING. 'W' SUBSCRIPT DENOTES WALL MOUNTED.
- CA<sub>15</sub>V** CEILING MOUNTED FIRE ALARM VOICE EVAC/VISUAL NOTIFICATION APPLIANCE. 'C' SUBSCRIPT DENOTES CEILING MOUNTED.
- WA<sub>15</sub>V** FIRE ALARM VOICE EVAC/VISUAL NOTIFICATION APPLIANCE. MOUNT 80" AFF TO THE BOTTOM OF THE FLASHING ACRYLIC LENS WITH A MAXIMUM HEIGHT OF 96" TO TOP OF LENS. SUBSCRIPT INDICATES MINIMUM CANDELA RATING. 'W' SUBSCRIPT DENOTES WALL MOUNTED.
- CA** FIRE ALARM VOICE EVAC SPEAKER NOTIFICATION APPLIANCE. SUBSCRIPT INDICATES MINIMUM CANDELA RATING. 'C' SUBSCRIPT DENOTES CEILING MOUNTED.
- WA** FIRE ALARM VOICE EVAC SPEAKER NOTIFICATION APPLIANCE. SUBSCRIPT INDICATES MINIMUM CANDELA RATING. 'W' SUBSCRIPT DENOTES WALL MOUNTED.
- TS** SPRINKLER SYSTEM SUPERVISORY VALVE TAMPER SWITCH CONNECTION.
- WFS** SPRINKLER SYSTEM SUPERVISORY FLOW SWITCH CONNECTION.
- PS** SPRINKLER SYSTEM PRESSURE SWITCH CONNECTION.
- FS** SMOKE DAMPER CONNECTION, 120V.

## ABBREVIATIONS

- A AMPERE
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- AHU AIR HANDLING UNIT
- AIC AMPERE INTERRUPTING CURRENT
- AC ABOVE COUNTER TOP. REFER TO ARCH. DWGS
- AV AUDIO/VISUAL
- BFG BELOW FINISHED GRADE
- C CONDUIT
- CATV CABLE ANTENNA TELEVISION CIRCUIT BREAKER
- CCTV CLOSED CIRCUIT TELEVISION
- CFL COMPACT FLUORESCENT
- CKT CIRCUIT
- EBU EMERGENCY BATTERY UNIT
- EC EMPTY CONDUIT
- EC ELECTRICAL CONTRACTOR
- ECB ENCLOSED CIRCUIT BREAKER
- EF EXHAUST FAN
- ERU ENERGY RECOVERY UNIT
- EQUIP EQUIPMENT
- ETR EXISTING TO REMAIN
- EWK ELECTRIC WATER COOLER
- EWH ELECTRIC WATER HEATER
- EXIST EXISTING
- FHP FRACTIONAL HORSE POWER
- FLA FULL LOAD AMPS
- FPC FIRE PROTECTION CONTRACTOR
- GC GENERAL CONTRACTOR
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- GND GROUND
- HID HIGH INTENSITY DISCHARGE
- HP HORSE POWER/HEAT PUMP
- HVAC HEATING, VENTILATING, AND AIR CONDITIONING
- IG ISOLATED GROUND
- JB JUNCTION BOX
- KVA KILO-VOLT AMPERE
- KW KILO-WATT
- LC LIGHTING CONTACTOR
- LTG LIGHTING
- MAU MAKE UP AIR UNIT
- MCA MINIMUM CIRCUIT AMPS
- MC MECHANICAL CONTACTOR
- MC METAL CLAD
- MCB MAIN CIRCUIT BREAKER
- MFR MANUFACTURER
- MLO MAIN LUGS ONLY
- MTD MOUNTED
- NEC NATIONAL ELECTRICAL CODE
- NF NON-FUSED
- NIC NOT IN CONTRACT
- NL NIGHT LIGHT CCT. ON 24/7
- NTS NOT TO SCALE
- OC ON CENTER
- OFCI OWNER FURNISHED CONTRACTOR INSTALLED
- P POLE
- PC PLUMBING CONTRACTOR
- PCP PUMP CONTROL PANEL
- PF POWER FACTOR
- PL PROPERTY LINE
- PNL PANEL
- PNLBD PANELBOARD
- Ø PHASE
- PRI PRIMARY
- RECP RECEPTACLE
- RTU ROOF TOP UNIT
- SE SERVICE ENTRANCE
- SEC SECONDARY
- TBB TELEPHONE BACKBOARD
- TR TAMPER RESISTANT
- TRT TRIPLE TUBE FLUORESCENT
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSER
- TYP TYPICAL
- UON UNLESS OTHERWISE NOTED
- V VOLTS
- VAC VOLTS ALTERNATING CURRENT
- VAV VARIABLE AIR VOLUME
- VDC VOLTS DIRECT CURRENT
- VFD VARIABLE FREQUENCY DRIVE
- W WATTS/WIRE
- WG WIRE GUARD
- WP WEATHERPROOF
- XFMR TRANSFORMER
- EX EXISTING TO REMAIN
- EXR EXISTING TO BE DISCONNECTED AND REMOVED
- EXIST EXISTING



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1	100% DESIGN DEVELOPMENT	01/23/2020

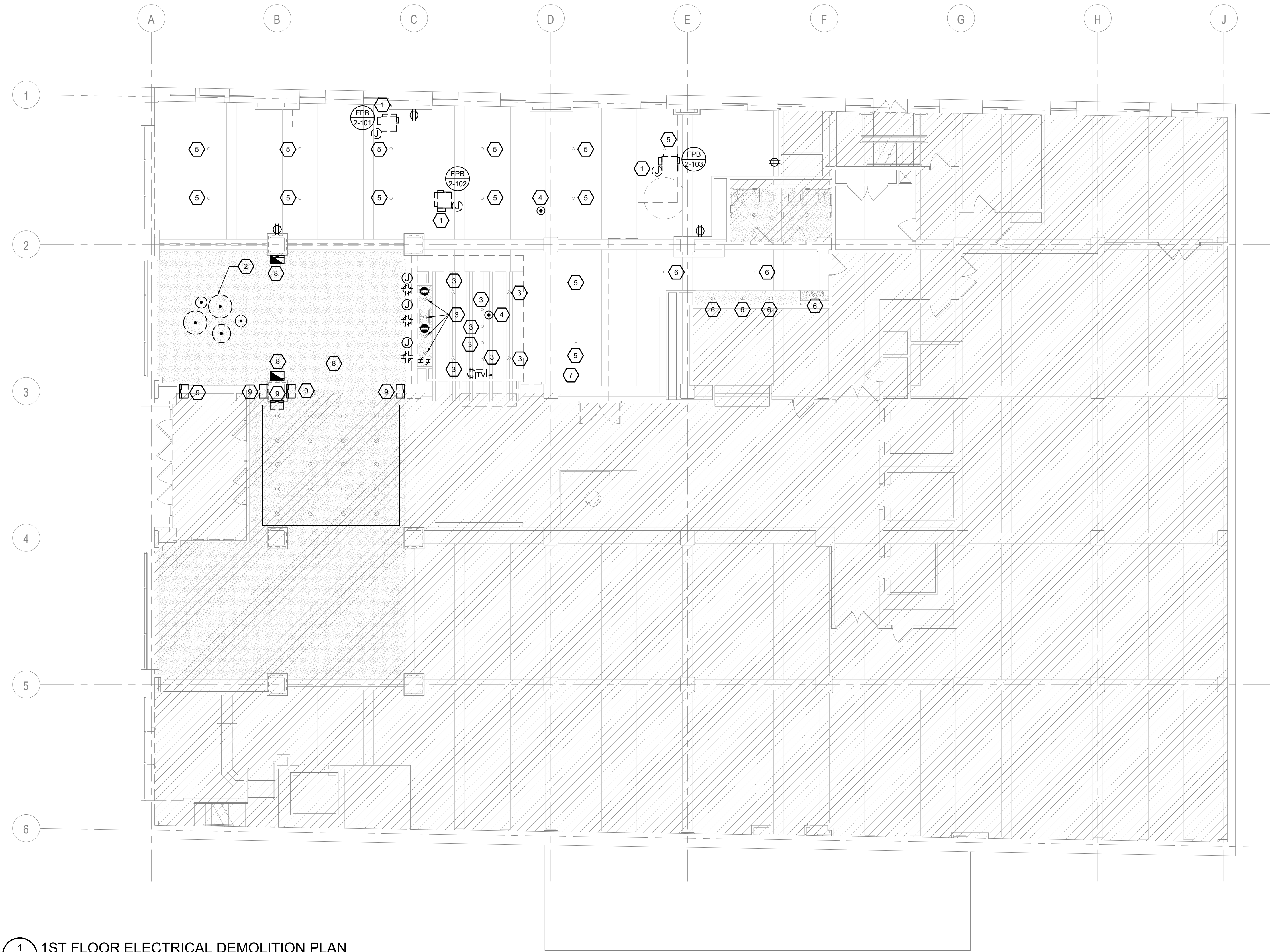
PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
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ELECTRICAL DATA SHEET  
SHEET NO. **E-001A**









1 1ST FLOOR ELECTRICAL DEMOLITION PLAN  
E-101 1/8" = 1'-0"

**ELECTRICAL DEMOLITION KEY NOTES:** ⬡

1. EXISTING MECHANICAL UNITS SHALL BE DISCONNECTED AND ALL BRANCH CIRCUITING SHALL BE REMOVED BACK TO PANEL.
2. ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING DECORATIVE GLOBE STYLE PENDANT LIGHTING FIXTURES AND TURN OVER TO OWNER FOR FIRST RIGHT OF REFUSAL.
3. EXISTING LIGHTING FIXTURES TO BE DISCONNECTED AND REMOVED. LIGHTING FIXTURES SHALL BE TURNED OVER TO OWNER FOR FIRST RIGHT OF REFUSAL.
4. EXISTING FLOOR POKE-THRU TO BE DISCONNECTED AND RELOCATED PER POWER PLANS. REMOVE EXISTING BRANCH CIRCUIT BACK TO PANEL.
5. EXISTING LIGHTING FIXTURE TO BE DISCONNECTED AND REMOVED AND SAVED FOR REUSE UNDER LIGHTING PLAN. THIS FIXTURE SHALL BE TYPE 'Z' ON THE FLOOR PLANS. REMAINING LIGHTING FIXTURES SHALL BE TURNED OVER TO OWNER FOR FIRST RIGHT OF REFUSAL.
6. EXISTING LIGHTING FIXTURES SHALL BE DISCONNECTED AND REMOVED. (10) LIGHTING FIXTURES SHALL BE UTILIZED FOR THE APPLICATION AREA 101. PROVIDE NEW SUSPENSION CABLES PER LIGHTING FIXTURE SCHEDULE. THE REMAINING (10) SHALL BE TURNED OVER TO FUTURE 'COP' TENANT WHICH SHARES '1ST FLOOR'. COORDINATE WITH ARCHITECT CONTACTS FOR THE 'COP' TENANT.
7. DISCONNECT AND REMOVE EXISTING TV OUTLETS AND BRANCH CIRCUITING.
8. EXISTING LIGHTING FIXTURES SHALL REMAIN.
9. DISCONNECT AND REMOVE EXISTING WALL SCONCE UPLIGHT FIXTURES AND TURN OVER TO BUILDING OWNER. MAINTAIN CONTINUITY OF EXISTING CIRCUITING AND CONTROLS THAT CONTINUE TO SERVE EXISTING LIGHTING FIXTURES TO REMAIN.

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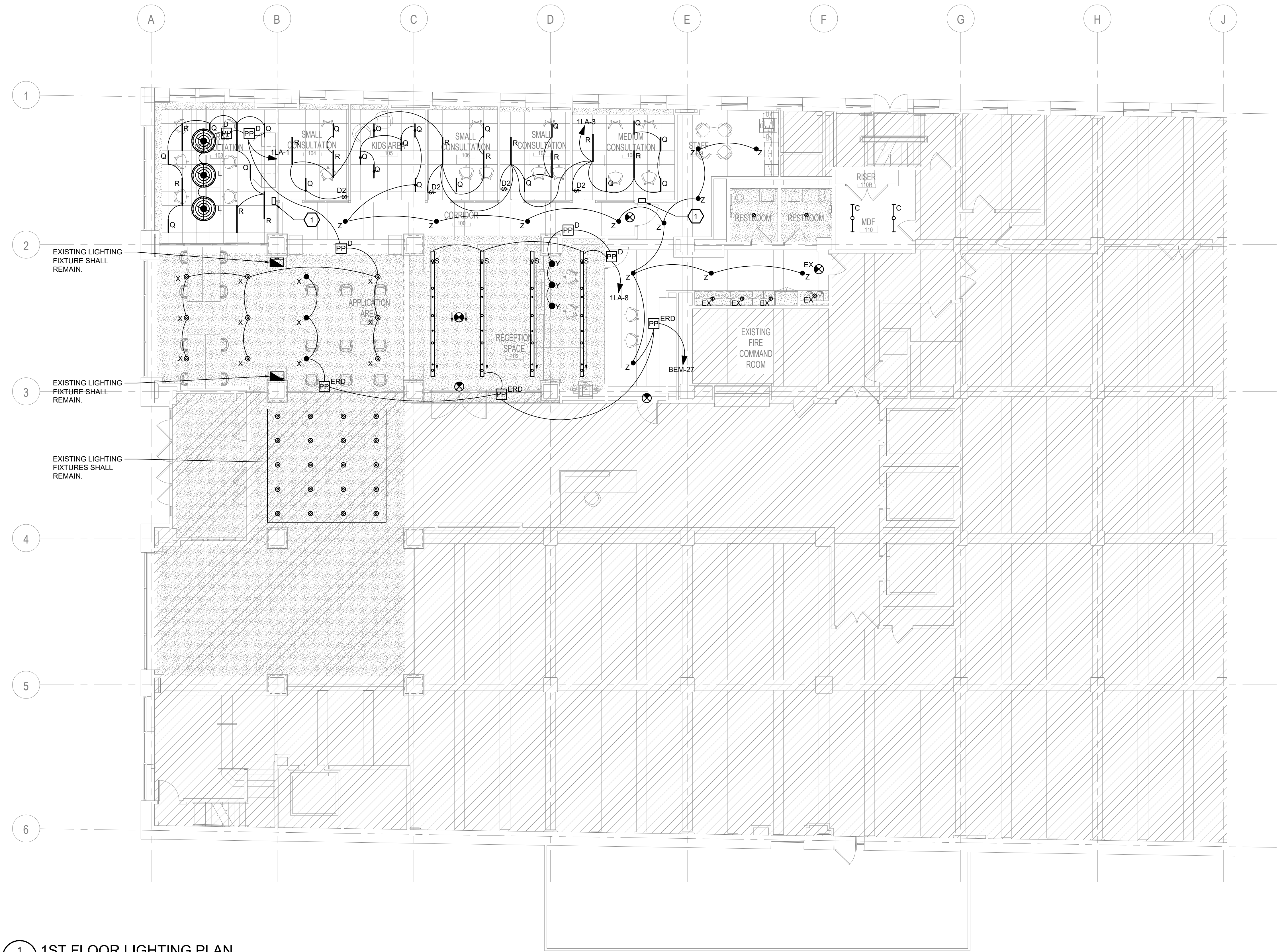
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1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO. 190427.00  
DRAWN BY: MWM  
REVIEWED BY: DEB

SHEET NAME:  
1ST FLOOR  
ELECTRICAL DEMOLITION  
PLAN

SHEET NO.:  
**E-101**

TRUE NORTH  
PLAN NORTH



**LIGHTING GENERAL NOTES:**

1. PROVIDE (2) #18 PURPLE/GRAY WIRES FOR 0-10V FOR ALL LIGHTING FIXTURES BEING DIMMED IN TENANT SPACE.
2. PROVIDE A 20A, 1P, 120 V. NORMAL/EMERGENCY UNSWITCHED BRANCH LIGHTING CIRCUIT TO SERVE ALL EXIT SIGNS IN TENANT SPACE.

**LIGHTING KEY NOTES:** (#)

1. PROVIDE AN ACUITY NP0D-GFX ROOM CONTROLLER. VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

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 COMMONWEALTH OF PENNSYLVANIA  
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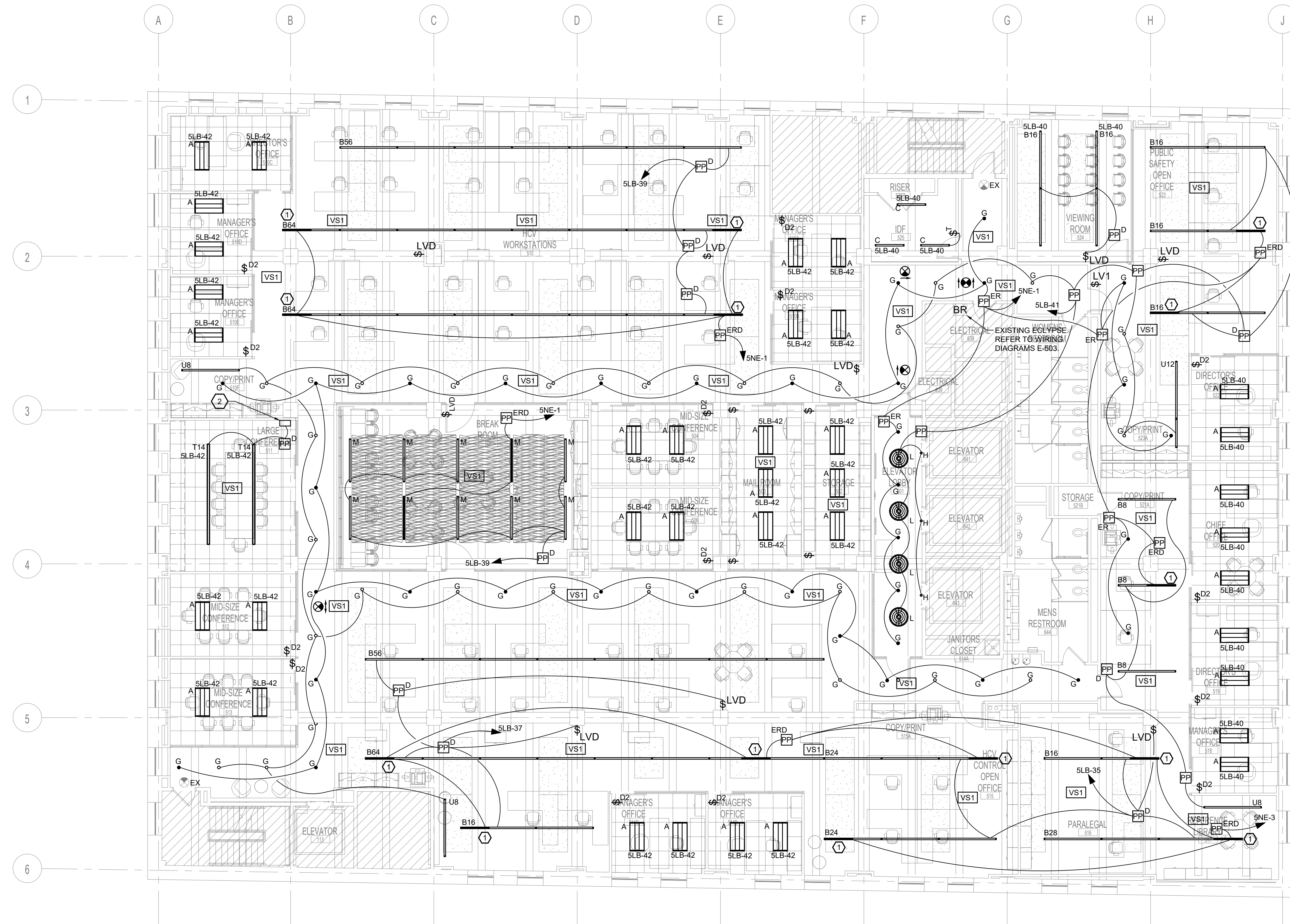
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**1 1ST FLOOR LIGHTING PLAN**  
 E-201 1/8" = 1'-0"

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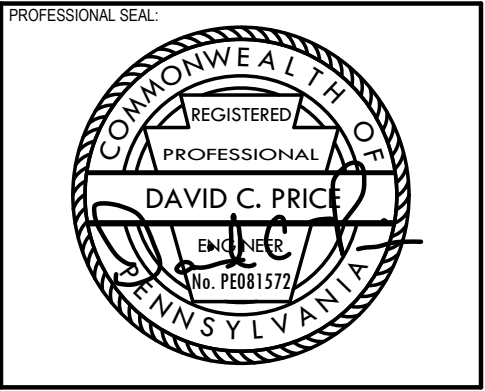
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SHEET NAME:  
**1ST FLOOR LIGHTING PLAN**  
 SHEET NO.:  
**E-201**



- LIGHTING GENERAL NOTES:**
1. PROVIDE (2) #18 PURPLE/GRAY WIRES FOR 0-10V FOR ALL LIGHTING FIXTURES BEING DIMMED IN TENANT SPACE.
  2. PROVIDE A 20A, 1P, 120 V. NORMAL/EMERGENCY UNSWITCHED BRANCH LIGHTING CIRCUIT TO SERVE ALL EXIT SIGNS IN TENANT SPACE.

- LIGHTING KEY NOTES:**
1. LIGHTING MANUFACTURER SHALL PROVIDE SEPARATE 4" SECTION AT END OF LINEAR RUN THAT IS SEPARATELY WIRED FOR NORMAL EMERGENCY CIRCUITING. TYPICAL FOR LINEAR LIGHTING FIXTURES WITH HALF SHADING.
  2. PROVIDE AN ACUITY NP0D-GFX ROOM CONTROLLER. VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.



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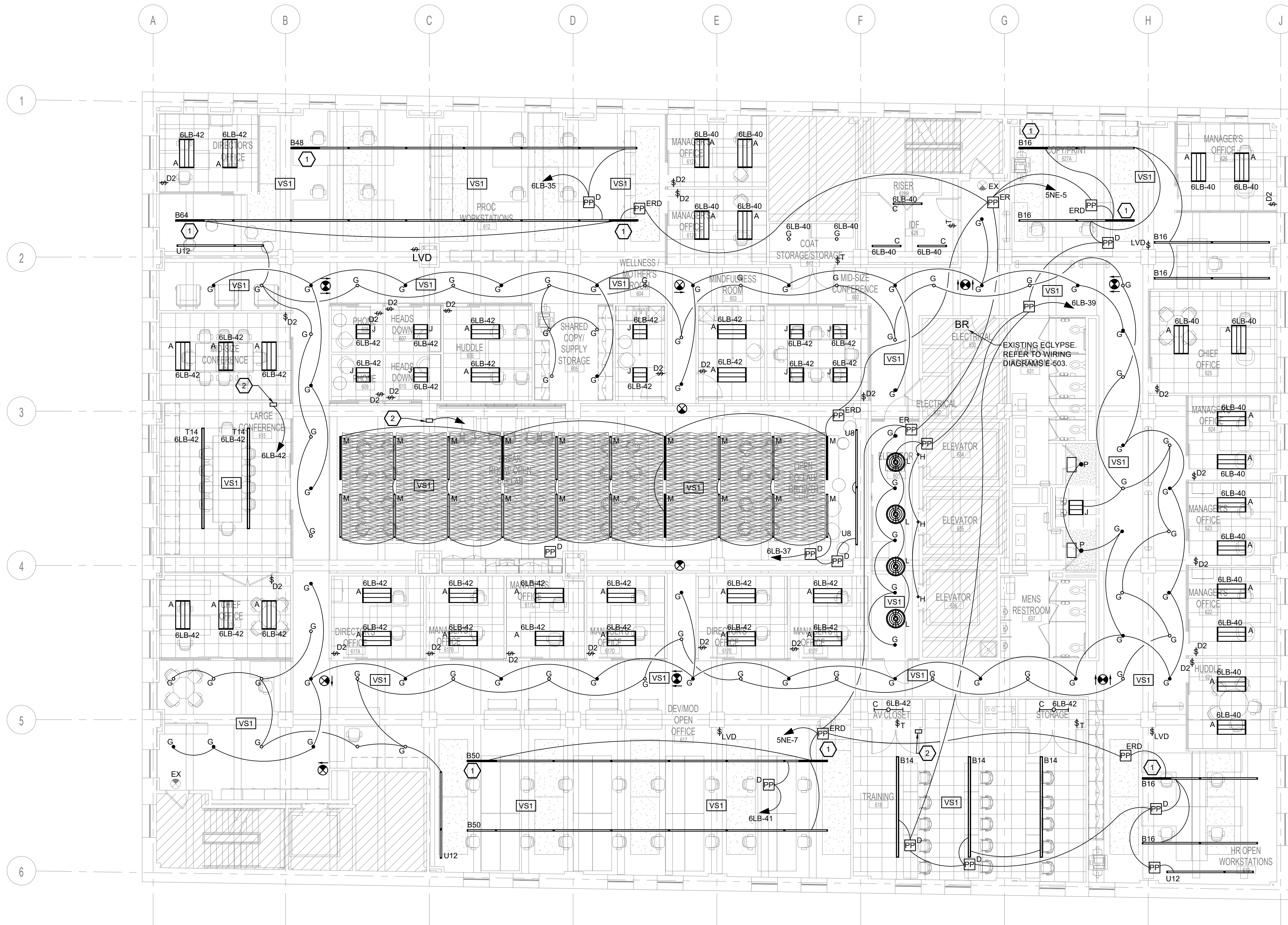
1 5TH FLOOR LIGHTING PLAN  
 E-202 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

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5TH FLOOR LIGHTING PLAN		
SHEET NO:		
E-202		



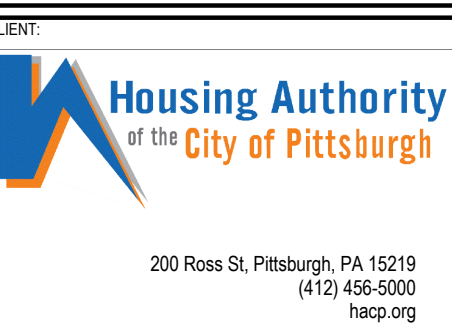
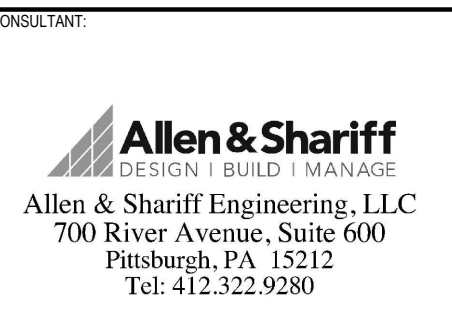
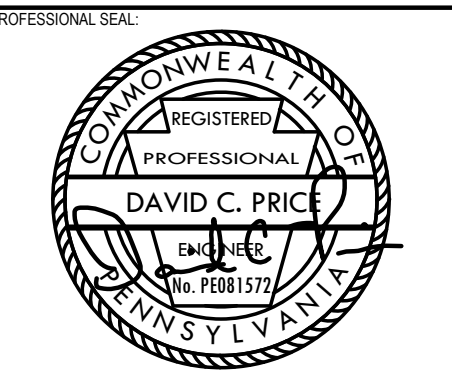


**LIGHTING GENERAL NOTES:**

1. PROVIDE (2) #18 PURPLE/GRAY WIRES FOR 0-10V FOR ALL LIGHTING FIXTURES BEING DIMMED IN TENANT SPACE.
2. PROVIDE A 20A 1P, 120 V. NORMAL/EMERGENCY UNSWITCHED BRANCH LIGHTING CIRCUIT TO SERVE ALL EXIT SIGNS IN TENANT SPACE.

**LIGHTING KEY NOTES: #**

1. LIGHTING MANUFACTURER SHALL PROVIDE SEPARATE 4' SECTION AT END OF LINEAR RUN THAT IS SEPARATELY WIRED FOR NORMAL EMERGENCY CIRCUITING, TYPICAL FOR LINEAR LIGHTING FIXTURES WITH HALF SHADING.
2. PROVIDE AN ACUTY NP0D-GFX ROOM CONTROLLER. VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE 120 VOLT POWER.



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1 6TH FLOOR LIGHTING PLAN  
 E-203 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

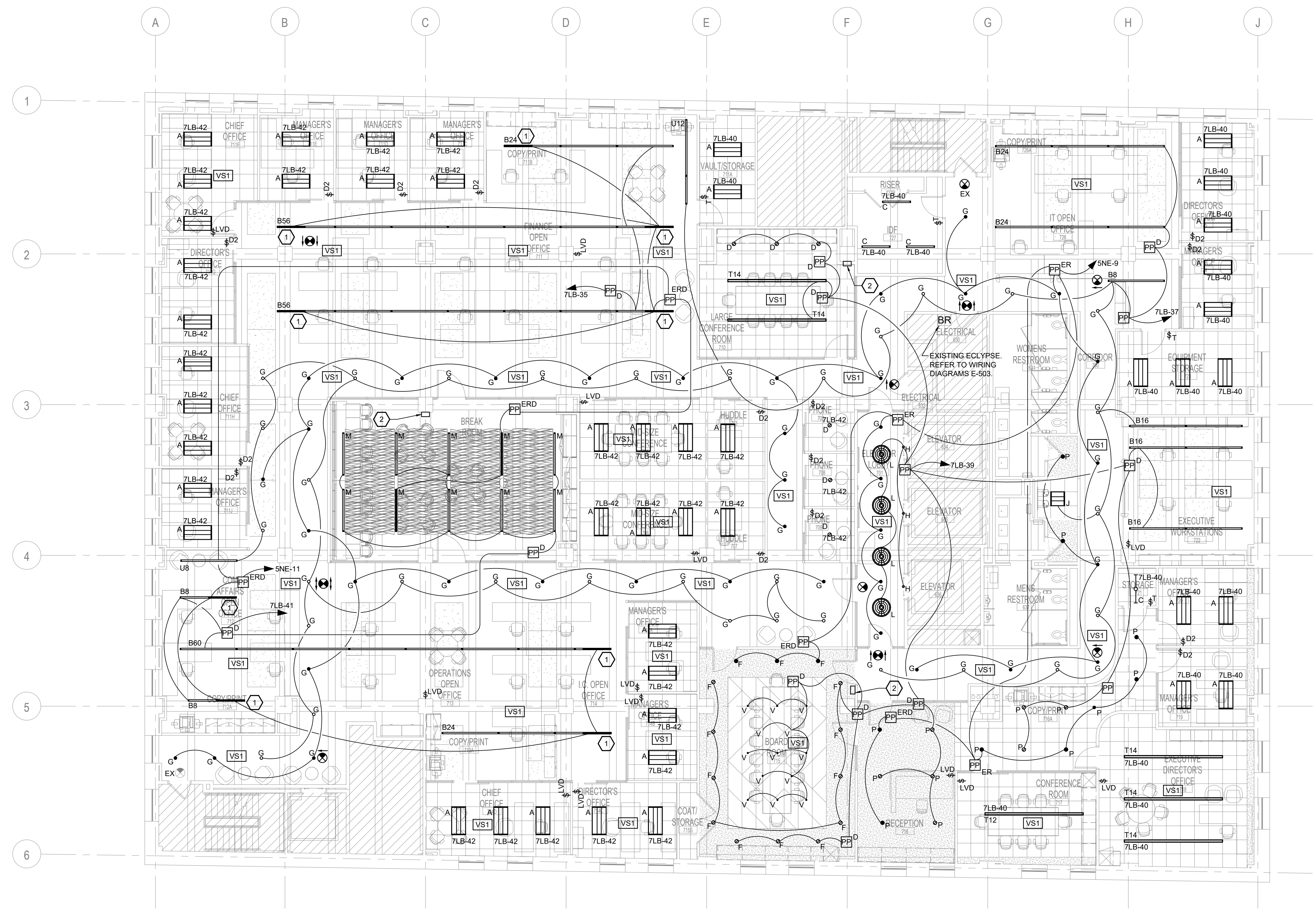
PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
SHEET NAME 6TH FLOOR LIGHTING PLAN		
SHEET NO. E-203		

**LIGHTING GENERAL NOTES:**

- PROVIDE (2) #18 PURPLE/GRAY WIRES FOR 0-10V FOR ALL LIGHTING FIXTURES BEING DIMMED IN TENANT SPACE.
- PROVIDE A 20A, 1P, 120 V, NORMAL/EMERGENCY UNSWITCHED BRANCH LIGHTING CIRCUIT TO SERVE ALL EXIT SIGNS IN TENANT SPACE.

**LIGHTING KEY NOTES:**

- LIGHTING MANUFACTURER SHALL PROVIDE SEPARATE 4" SECTION AT END OF LINEAR RUN THAT IS SEPARATELY WIRED FOR NORMAL EMERGENCY CIRCUITING. TYPICAL FOR LINEAR LIGHTING FIXTURES WITH HALF SHADING.
- PROVIDE AN ACUITY NP0D-GFX ROOM CONTROLLER. VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE 120 VOLT POWER.

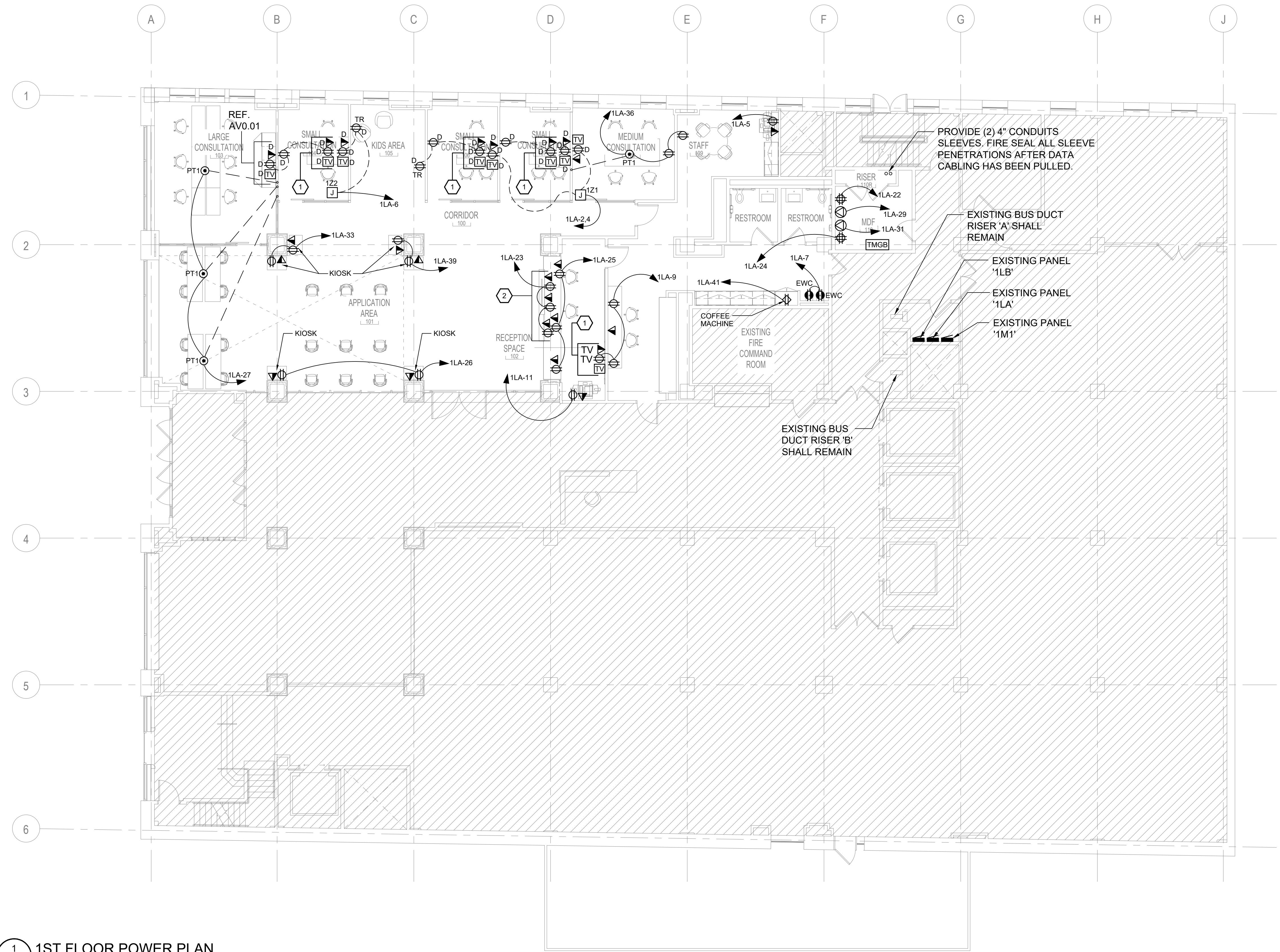


**1** 7TH FLOOR LIGHTING PLAN  
 E-204 1/8" = 1'-0"

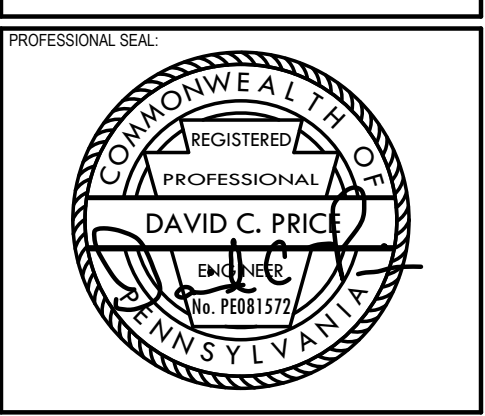
ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
SHEET NAME 7TH FLOOR LIGHTING PLAN		
SHEET NO. E-204		



- POWER KEY NOTES:** #
- THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG. AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.
  - MOUNT DEVICES HORIZONTALLY AT 37" AFF TO CENTER OF JUNCTION BOX. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.



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 of the City of Pittsburgh  
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**1 1ST FLOOR POWER PLAN**  
 E-301 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

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5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
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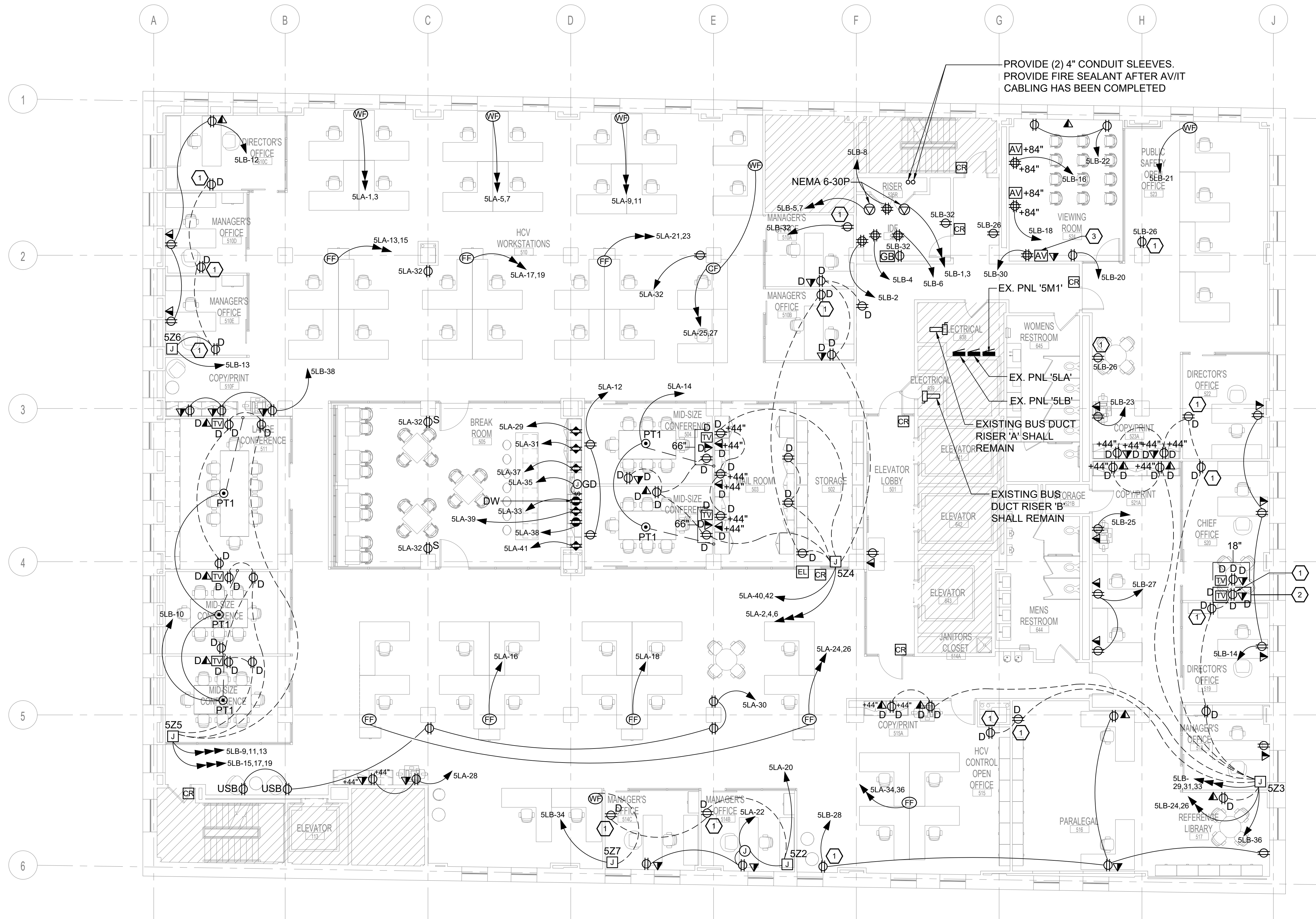


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**POWER KEY NOTES:** #

1. ELECTRICAL CONTRACTOR SHALL PROVIDE NIGHT MPP20 PL PLUG LOAD CONTROL PACK FOR THIS RECEPTACLE.
2. THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.
3. PROVIDE A (3) GANG LOW VOLTAGE OPEN ROUGH-IN WITH (2) 2" CONDUITS UP TIGHT TO ABOVE CLOUD CEILING. PROVIDE PULL STRING.



1 5TH FLOOR POWER PLAN  
E-302 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

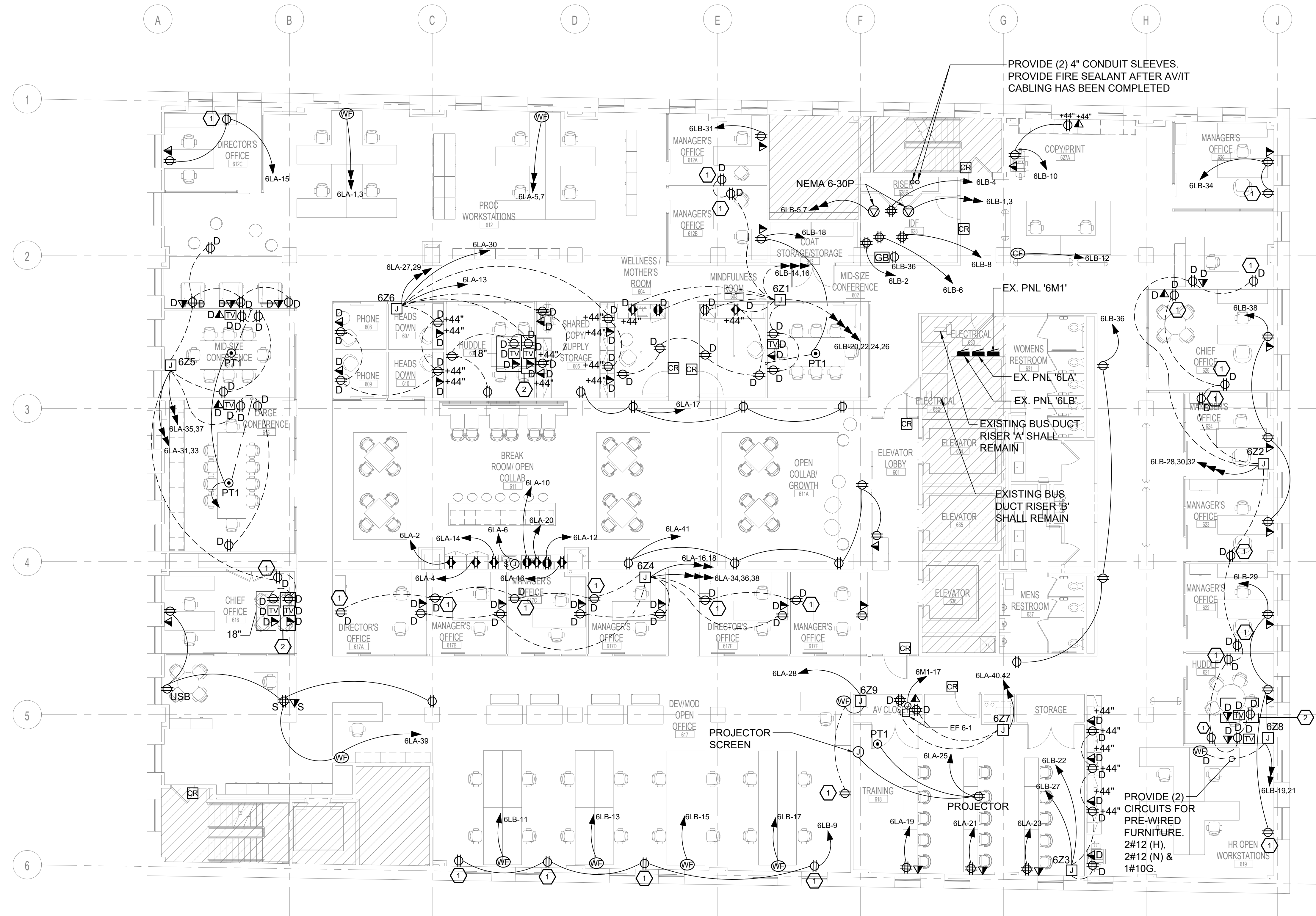
PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
SHEET NAME:		

5TH FLOOR POWER PLAN

SHEET NO.  
**E-302**

**POWER KEY NOTES:** #

1. ELECTRICAL CONTRACTOR SHALL PROVIDE NIGHT MPP20 PLUG LOAD CONTROL PACK FOR THIS RECEPTACLE.
2. THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG. AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.



**1** 6TH FLOOR POWER PLAN  
 E-303 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

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1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
SHEET NAME:		

#	DESCRIPTION	DATE
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

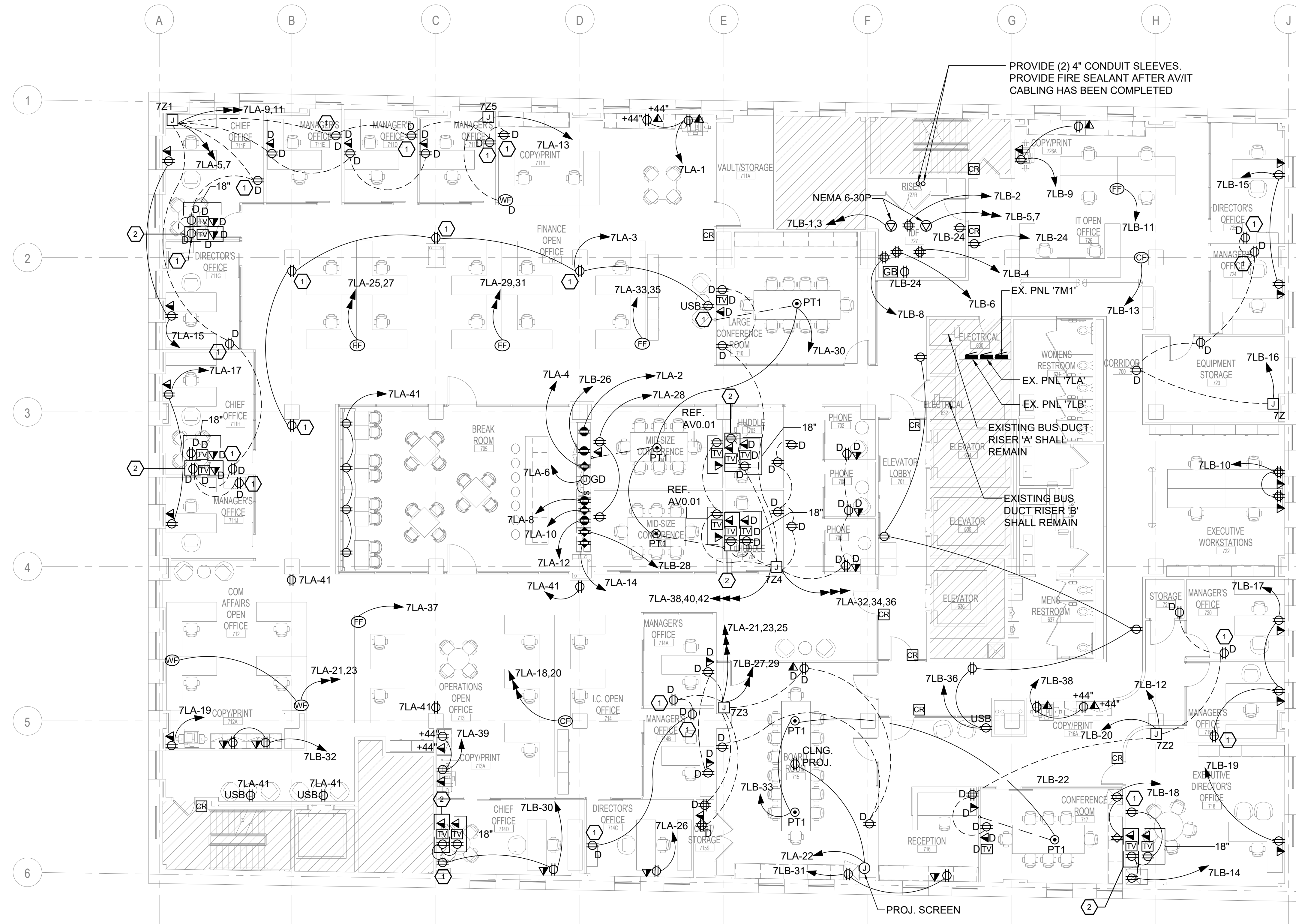
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
 7TH FLOOR POWER PLAN

SHEET NO.  
**E-304**  
 TRUE NORTH  
 PLAN NORTH

**POWER KEY NOTES:** #

1. ELECTRICAL CONTRACTOR SHALL PROVIDE NIGHT MPP20 PLUG LOAD CONTROL PACK FOR THIS RECEPTACLE.
2. THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG. AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.



**1** 7TH FLOOR POWER PLAN  
 E-304 1/8" = 1'-0"

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.



1 1ST FLOOR FIRE ALARM PLAN  
E-401 1/8" = 1'-0"

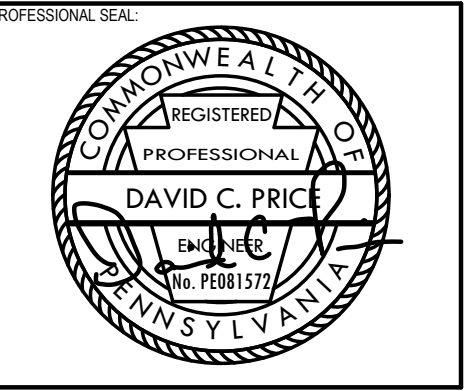
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3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

**FIRE ALARM KEY NOTES:** #

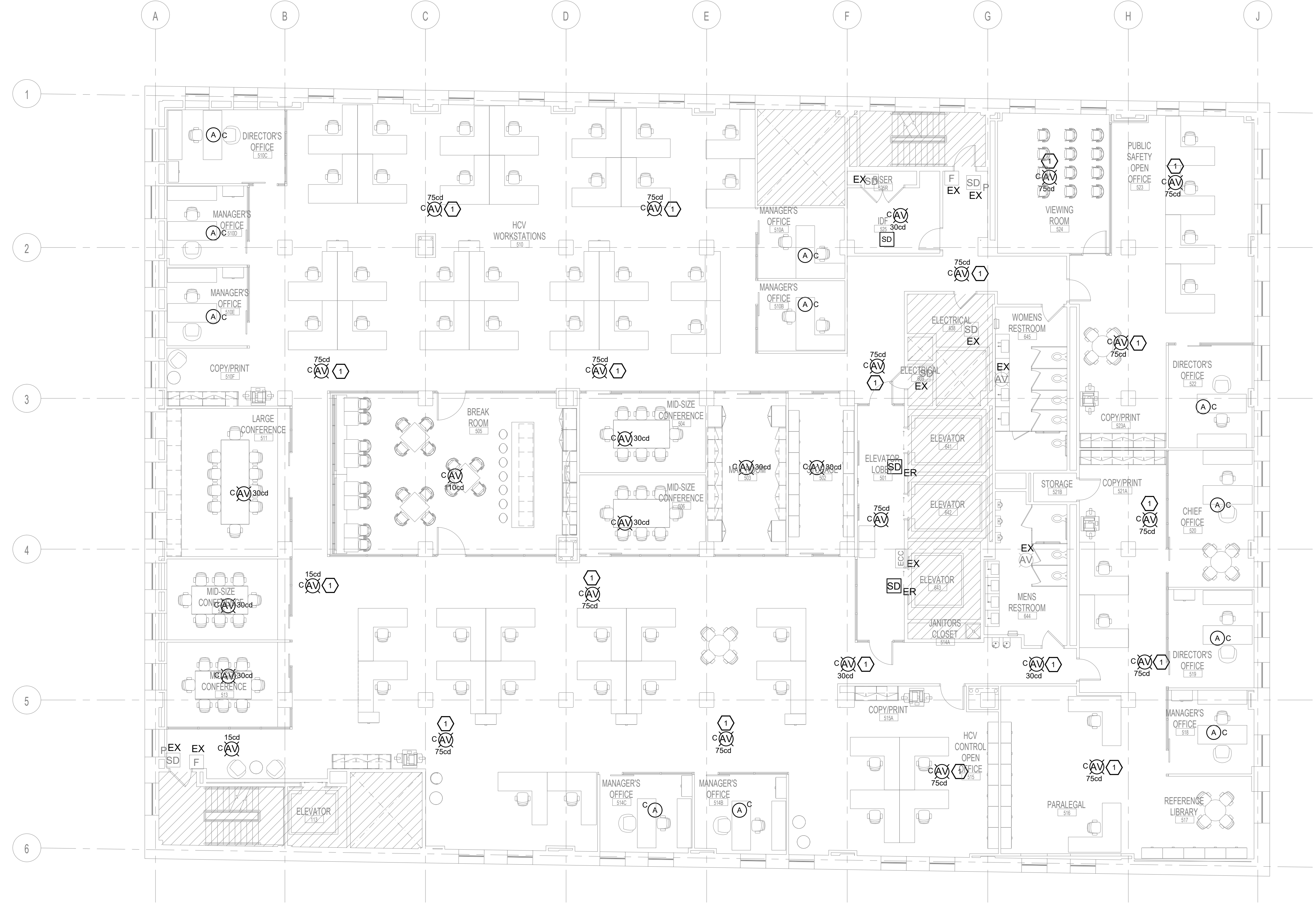
1. PROVIDE CONDUIT STEM TO MOUNT CEILING FIRE ALARM DEVICE TO BE AT THE SAME HEIGHT AS ADJACENT CEILING SYSTEMS. COORDINATE HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.



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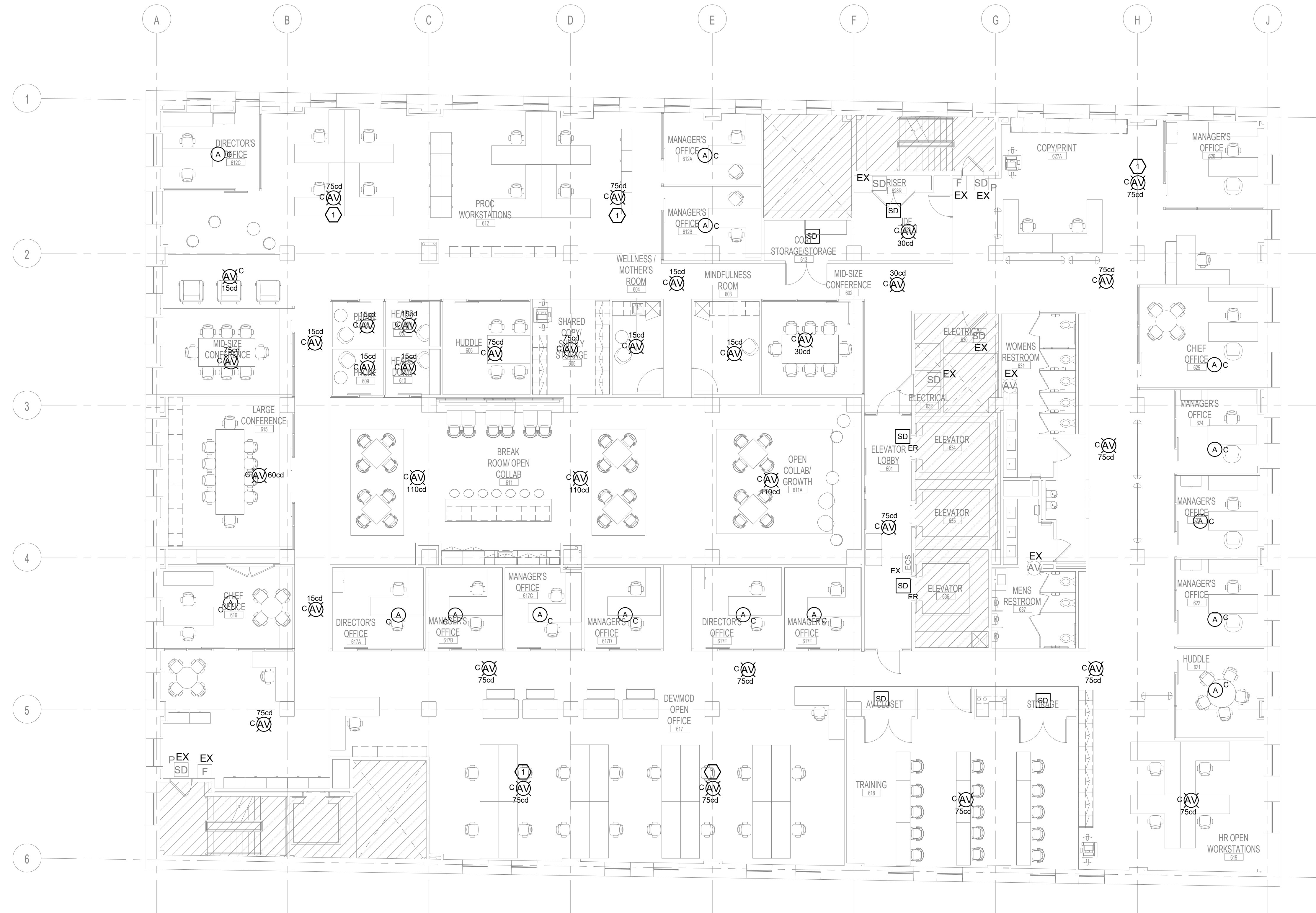


**1** 5TH FLOOR FIRE ALARM PLAN  
 E-402 1/8" = 1'-0"

#	DESCRIPTION	DATE
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4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
SHEET NAME 5TH FLOOR FIRE ALARM PLAN		
SHEET NO. <b>E-402</b>		





**FIRE ALARM KEY NOTES:** #

1. PROVIDE CONDUIT STEM TO MOUNT CEILING FIRE ALARM DEVICE TO BE AT THE SAME HEIGHT AS ADJACENT CEILING SYSTEMS. COORDINATE HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.

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PROFESSIONAL SEAL  
  
 DAVID C. PRICE  
 REGISTERED PROFESSIONAL ENGINEER  
 No. PE081577  
 STATE OF PENNSYLVANIA

CONSULTANT:  
  
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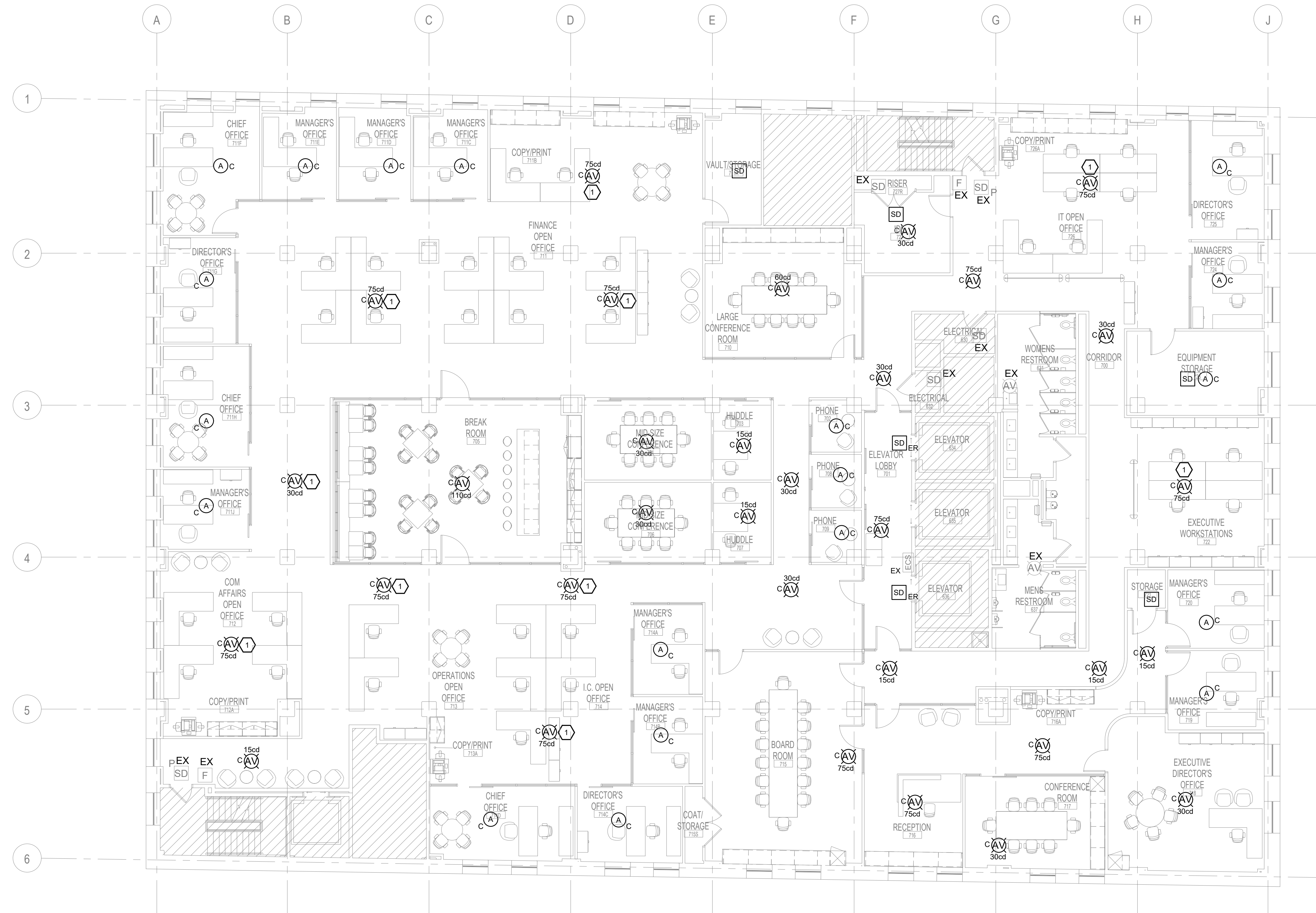
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**1** 6TH FLOOR FIRE ALARM PLAN  
 E-403 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

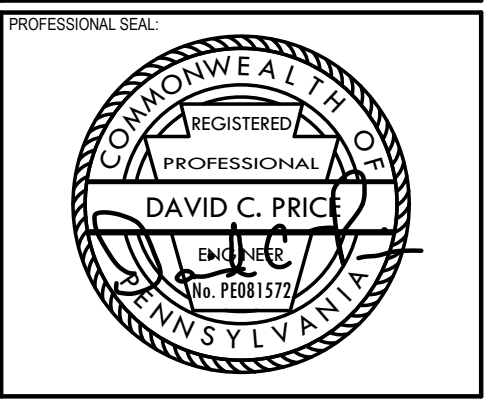
PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
 6TH FLOOR  
 FIRE ALARM PLAN  
 SHEET NO.:  
**E-403**



**FIRE ALARM KEY NOTES:** #

1. PROVIDE CONDUIT STEM TO MOUNT CEILING FIRE ALARM DEVICE TO BE AT THE SAME HEIGHT AS ADJACENT CEILING SYSTEMS. COORDINATE HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.



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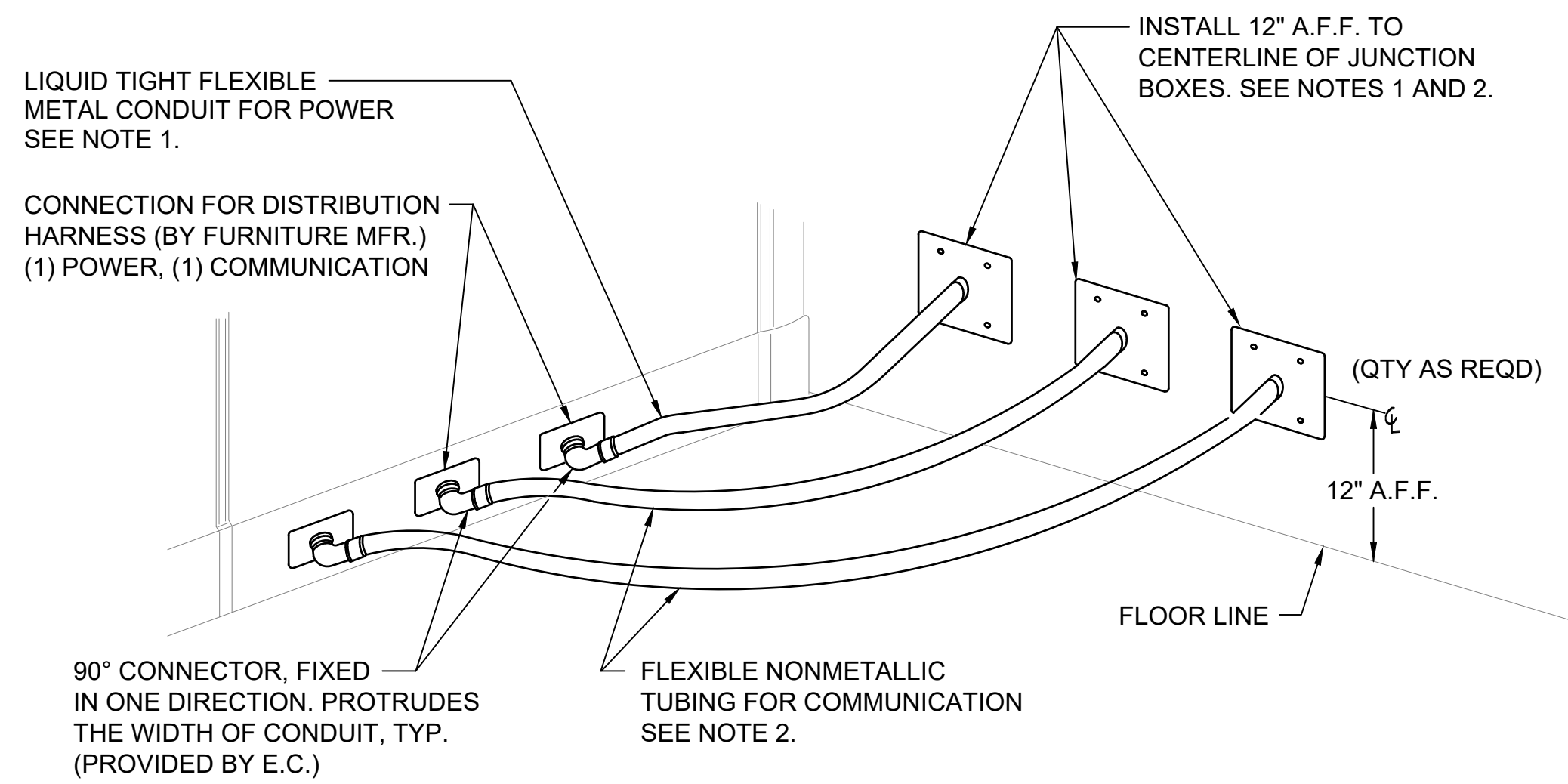
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**1** 7TH FLOOR FIRE ALARM PLAN  
 E-404 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NO.  
**E-404**  
 TRUE NORTH  
 PLAN NORTH



**GENERAL NOTES:**

1. PROVIDE A 2-GANG DEEP JUNCTION BOX WITH SINGLE GANG TRIM RING, BLANK COVER AND KNOCKOUT FOR POWER TO FURNITURE SYSTEM. BRANCH TO PARTITION VIA LIQUID-TIGHT FLEXIBLE METALLIC RACEWAY FOR POWER. VERIFY CONNECTION REQUIREMENTS AND ROUGH-IN LOCATION WITH FURNITURE SYSTEM CONTRACTOR.
2. PROVIDE A 2-GANG DEEP JUNCTION BOX WITH SINGLE GANG TRIM RING, BLANK COVER AND KNOCKOUT FOR COMMUNICATION WIRING TO FURNITURE SYSTEM. PROVIDE LENGTH(S) OF YELLOW FLEXIBLE NONMETALLIC TUBING (AS MANUFACTURED BY CARLON) FOR COMMUNICATION CABLING. COORDINATE SIZE AND QUANTITY OF TUBING WITH COMMUNICATION SYSTEM WIRING REQUIREMENTS. VERIFY CONNECTION REQUIREMENTS AND ROUGH-IN LOCATION WITH FURNITURE SYSTEM CONTRACTOR. REFER TO ELECTRICAL DATA PLAN E001 FOR QUANTITY AND SIZE OF CONDUITS WITH PULL WIRES INTO ACCESSIBLE CEILING SPACE.

1 FURNITURE SYSTEM CONNECTION DETAIL - WALL/COLUMN FEED (WF)  
E5.01 NOT TO SCALE

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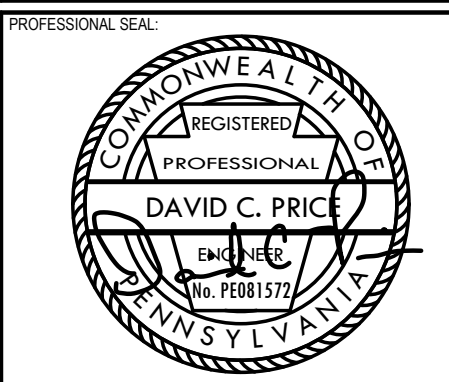
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1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO. 190427.00	DRAWN BY MWM	REVIEWED BY DEB
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SHEET NAME:  
**ELECTRICAL DETAILS**  
SHEET NO.:  
**E-501**



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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**ELECTRICAL FIRE ALARM RISER DIAGRAM**

SHEET NO.:  
**E-502**

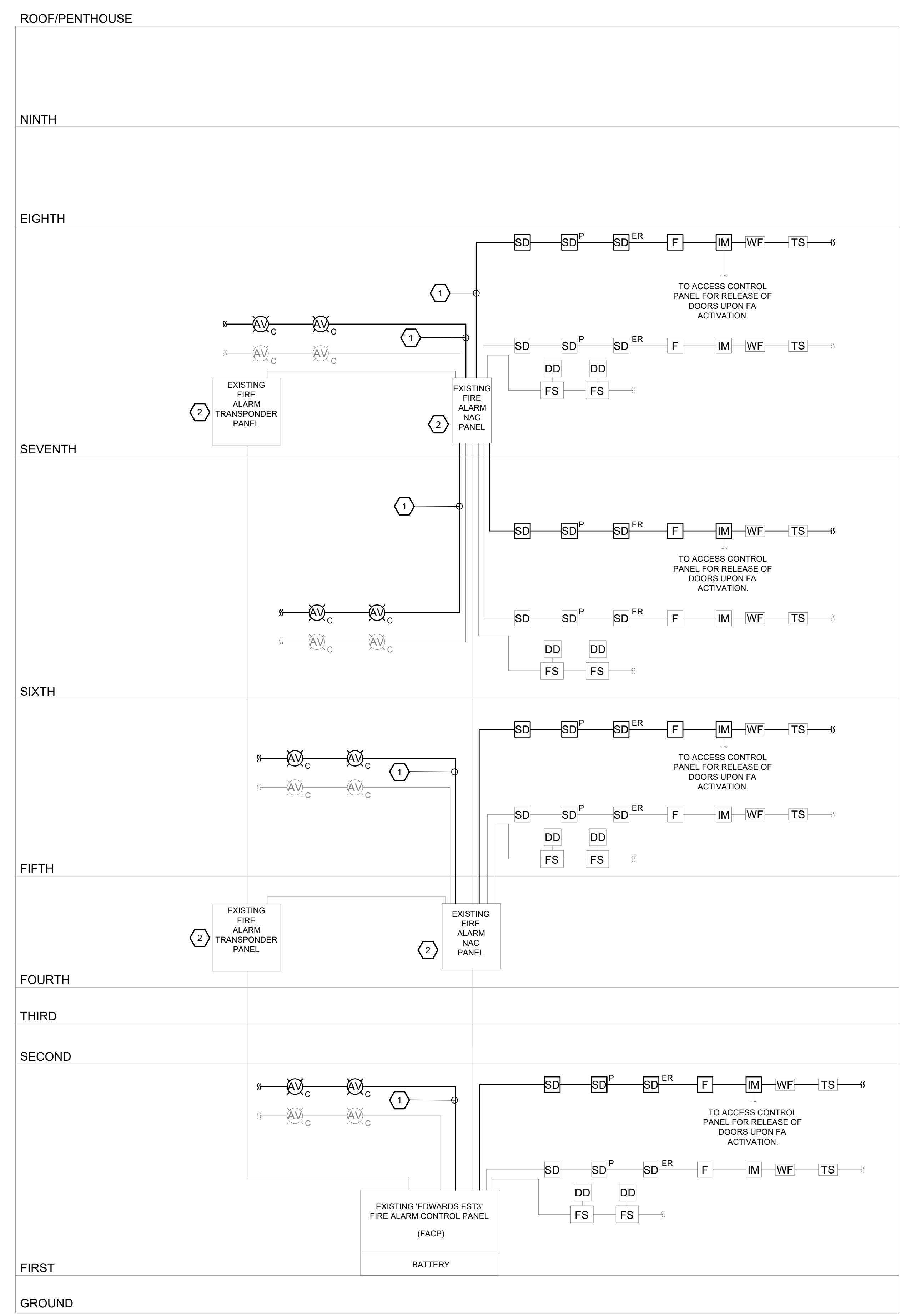
TRUE NORTH  
 PLAN NORTH

**FIRE ALARM GENERAL NOTE FOR PERMIT - CITY OF PITTSBURGH:**

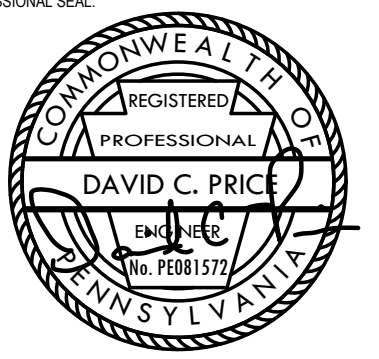
THE E.C. SHALL INCLUDE IN HIS BID, THE COST FOR AN INDEPENDENT THIRD PARTY PROFESSIONAL ENGINEER TO SIGN, DATE, AND SEAL ALL FIRE ALARM DOCUMENTS REQUIRED FOR A BUILDING PERMIT. THE FIRE ALARM DOCUMENTS INCLUDED WITH THE E-SERIES DRAWINGS ARE PROVIDED FOR FIRE ALARM DESIGN INTENT. CITY OF PITTSBURGH MAY REQUIRE SIGNED/SEALED MANUFACTURER SHOP DRAWINGS (BY THE INDEPENDENT THIRD PARTY) FOR PERMIT APPROVAL BEYOND THE DOCUMENTS CONTAINED IN THE E-SERIES DRAWINGS.

THE FIRE ALARM SHOP DRAWINGS SHALL INCLUDE AT A MINIMUM BOTH FIRE ALARM FLOOR PLANS AND RISER DIAGRAM. EACH PLAN OR RISER SHALL INDICATE THE NUMBER AND TYPES OF FIRE ALARM DEVICES INSTALLED ON EACH CIRCUIT, DEVICE ADDRESSES, CONDUCTOR TYPES AND SIZES, FIRE ALARM ZONES, PRIMARY AND SECONDARY POWER SUPPLIES (AS NECESSARY), AND ALL NEW FIRE ALARM DEVICES AS ADDED TO EXISTING CIRCUITS. DOCUMENTS SHALL ALSO CONTAIN BATTERY AND VOLTAGE DROP CALCULATIONS.

- FIRE ALARM KEYED NOTES:** #
1. PROVIDE NEW CIRCUIT TO SERVE NEW FIRE ALARM DEVICES ON THIS FLOOR. WHERE EC DESIRES TO EXTEND EXISTING CIRCUIT SERVING FLOOR, ALL CALCULATIONS FOR VOLTAGE DROP, BATTERY, ETC. SHALL BE REQUIRED TO SUBSTANTIATE THE ADDITION TO THE EXISTING CIRCUIT.
  2. CONFIRM EXACT LOCATION OF ALL EXISTING FIRE ALARM TRANSPONDER AND NAC PANELS IN THE FIELD. SHOWN HERE FOR SCHEMATIC REFERENCE. EC SHALL BE RESPONSIBLE FOR TYING NEW FIRE ALARM CIRCUITS INTO EXISTING SYSTEM.
- FIRE ALARM GENERAL NOTES:**
1. REFER TO FLOOR PLAN FOR QUANTITY AND LOCATION OF SYSTEM COMPONENTS. EXACT ARRANGEMENT AND QUANTITY OF DEVICES SHALL BE INDICATED ON THE SHOP DRAWINGS. PROVIDE COMPLETE RISER DIAGRAM AS PART OF SHOP DRAWINGS.
  2. PROVIDE WIRING PER SIEMENS RECOMMENDATION.
  3. CANDELA RATING SHALL BE PER NFPA 72 REQUIREMENTS.
  4. ALL FIRE ALARM WIRING SHALL BE IN 3/4" C (MINIMUM). RED FIRE ALARM MC CABLE IS ACCEPTABLE.
  5. DO NOT LOAD ANY CIRCUIT BEYOND 80% OF RATED CAPACITY. SUBMIT CALCULATIONS TO SUBSTANTIATE. ADD ADDITIONAL CIRCUITS AS NECESSARY.
  6. PROVIDE CONDUIT SLEEVES WITH ESCUTCHEON PLATES WHERE WIRING PASSES THROUGH WALLS, FLOORS, OR CEILINGS.
  7. PROVIDE UL APPROVED FIRESTOPPING AT LOCATIONS WHERE RACEWAY(S) PASSES THROUGH RATED WALLS OR SHAFTS.
  8. CONTROL MODULE AND DUCT DETECTORS FOR ALL FIRE SMOKE DAMPERS PER DETAIL.



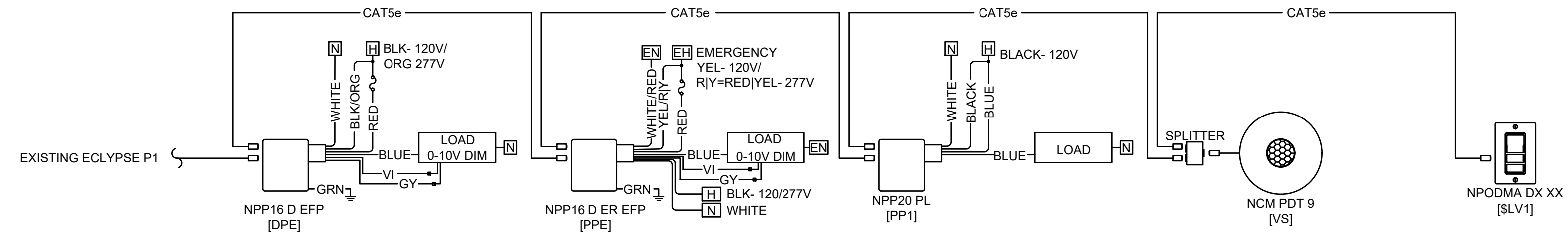
**1 FIRE ALARM RISER DIAGRAM**  
 E5.03 NOT TO SCALE



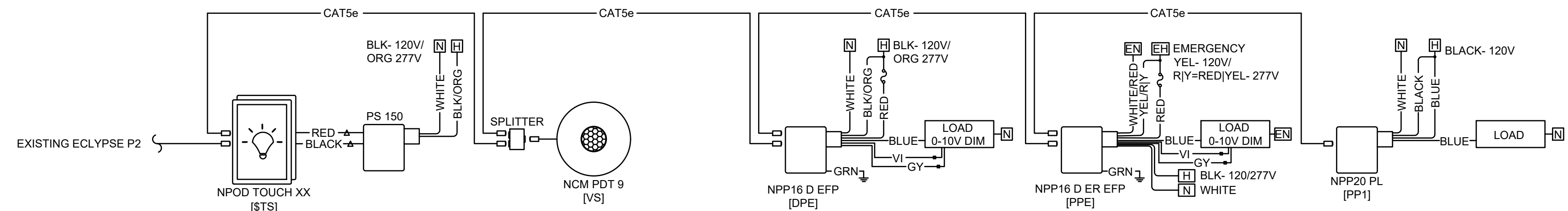
CONSULTANT:  
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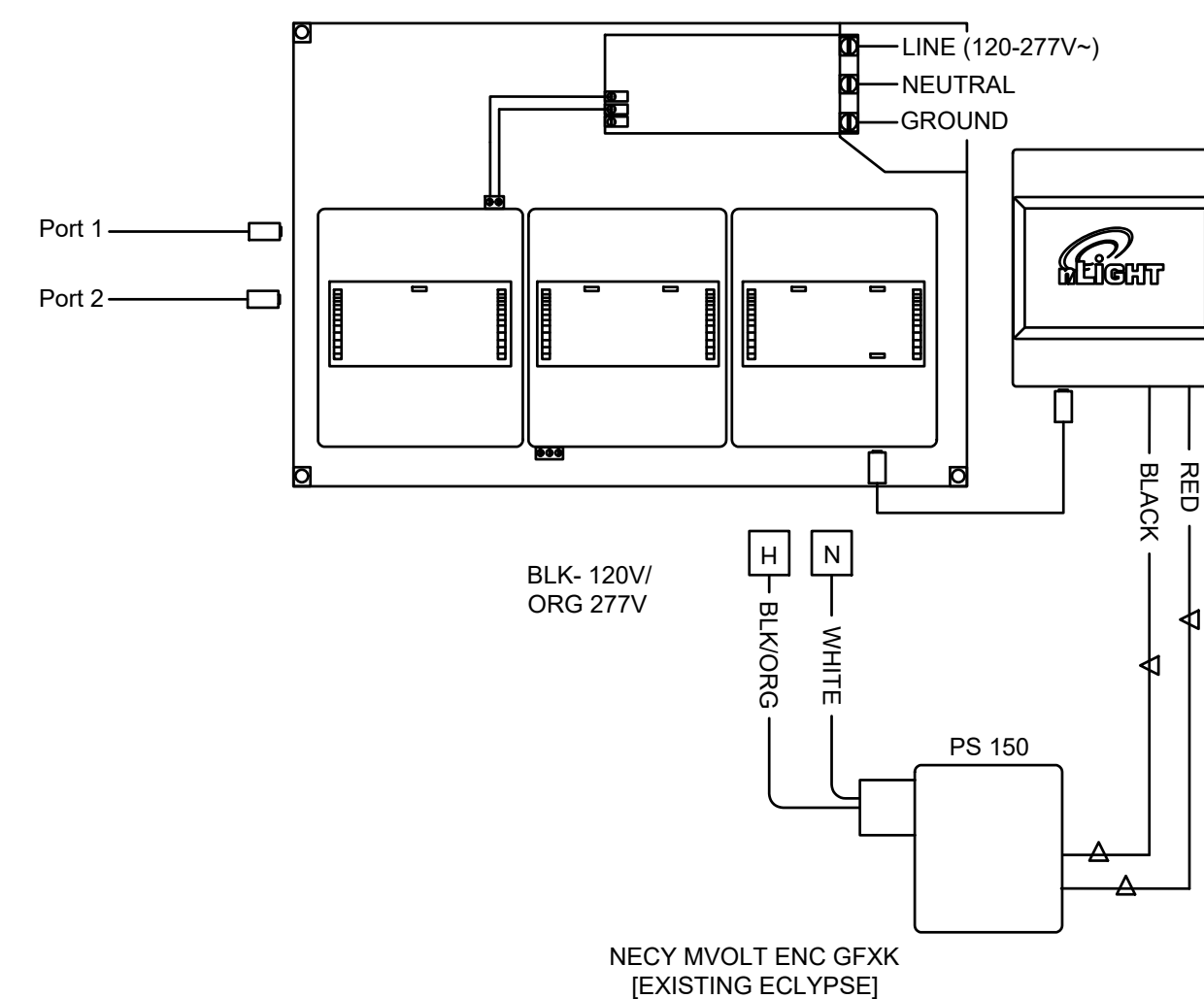
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1 HOUSING AUTHORITY  
 E-503 NOT TO SCALE



2 CONFERENCE ROOM  
 E-503 NOT TO SCALE



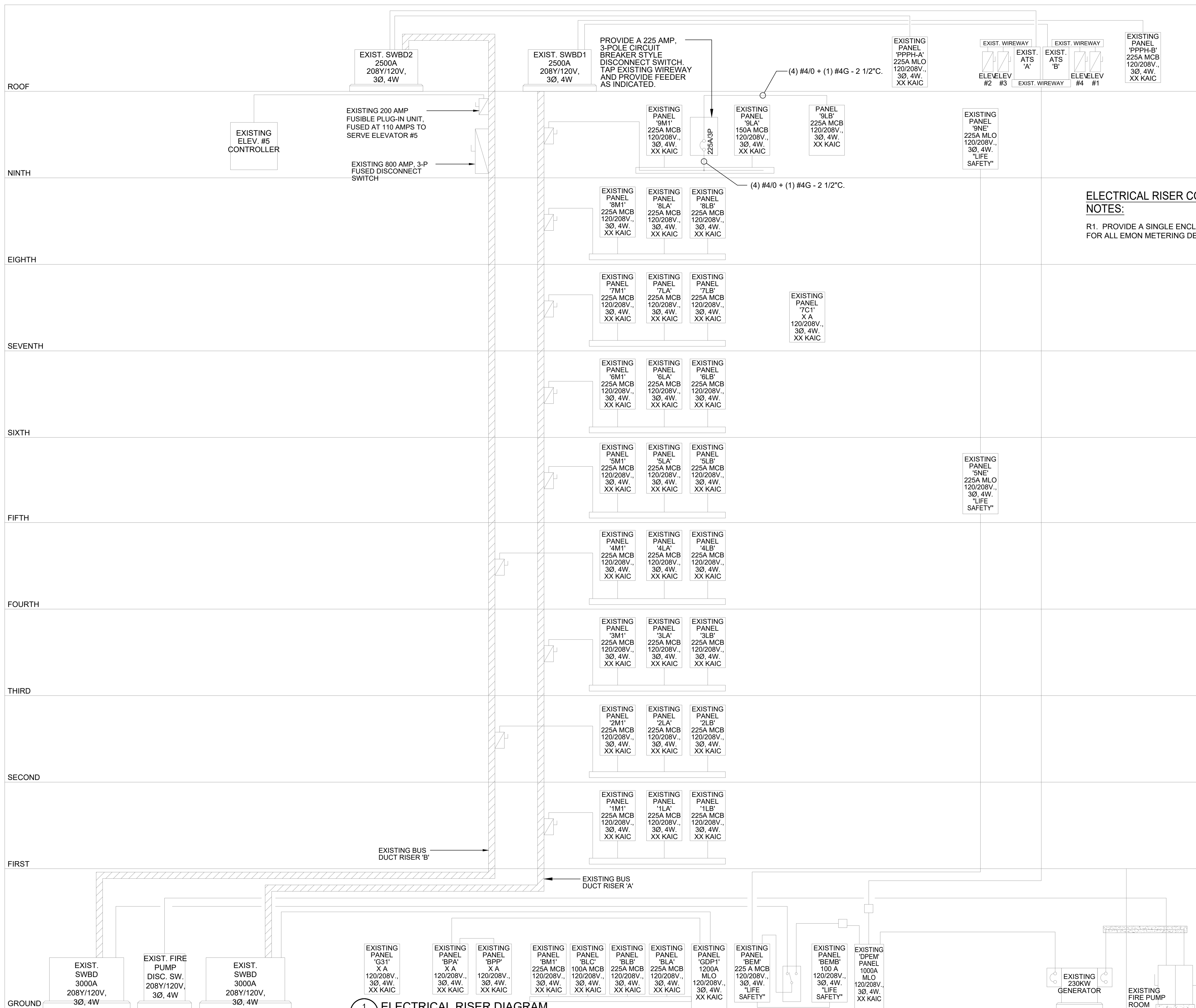
3 EXISTING ECLYPSE  
 E-503 NOT TO SCALE

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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
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PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**ELECTRICAL DETAILS**

SHEET NO.:  
**E-503**



1 ELECTRICAL RISER DIAGRAM  
E6-01

ELECTRICAL RISER CODED R1  
NOTES:  
R1. PROVIDE A SINGLE ENCLOSURE FOR ALL EMON METERING DEVICES.

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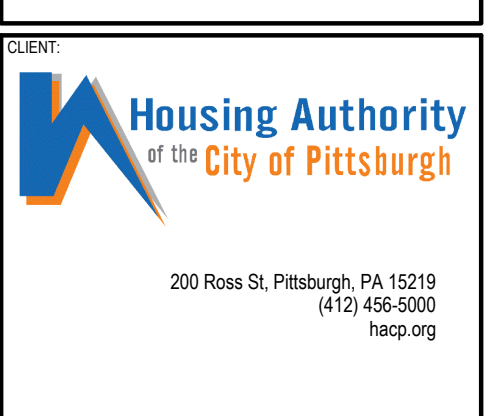
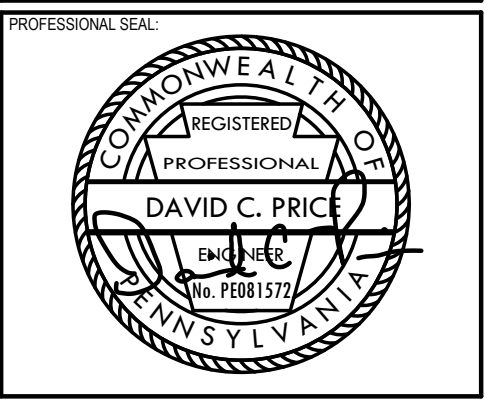
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	REVISION #1	
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
ELECTRICAL  
RISER DIAGRAMS

LIGHTING FIXTURE SCHEDULE										
TYPE	DESCRIPTION	MANUFACTURER	MODEL	LAMP(S)		BALLAST	INPUT WATTS	VOLTS	MOUNTING	REMARKS
				LAMP #	LAMP TYPE					
A	2' X 4' LED RECESSED LIGHTING FIXTURE.	LITHONIA	2BLT4 4BL AD5M 120 E21 LP835	1	LED		31	120	RECESSED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B14	14'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 14' 500 350 SD BW 35K XX ACW05 U	1	LED		88	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B8	8'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 8' 500 350 SD BW 35K XX ACW05 U	1	LED		50	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B54	54'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 54' 500 350 SD BW 35K XX ACW05 U	1	LED		338	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B16	16'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 16' 500 350 SD BW 35K XX ACW05 U	1	LED		100	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B60	60'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 60' 500 350 SD BW 35K XX ACW05 U	1	LED		375	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B24	24'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 24' 500 350 SD BW 35K XX ACW05 U	1	LED		150	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B48	48'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 48' 500 350 SD BW 35K XX ACW05 U	1	LED		300	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B56	56'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 56' 500 350 SD BW 35K XX ACW05 U	1	LED		350	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
B64	64'-0" LED LINEAR SUSPENDED LIGHTING FIXTURE.	STARTEK	SUMDI 64' 500 350 SD BW 35K XX ACW05 U	1	LED		400	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. MOUNT LIGHT FIXTURE AT 8'-0" TO BOTTOM OF FIXTURE.
C	4'-0" LED STRIP LIGHTING FIXTURE	LITHONIA	ZL1D L48 SMR 5000LM FST 120 35K 80CR	1	LED		41	120	CABLE SUSPENDED	
D	4.5" RECESSED LED DOWNLIGHT.	FOCAL POINT	FLC4D RO 2000L 120 L11 T B LC4 RD 2000L 35K DN CD WP	1	LED		26	120	RECESSED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
F	LED CYLINDER LIGHTING FIXTURE. COLOR TO BE SELECTED BY ARCHITECT.	LUMENPULSE	LADM A 120 L20 35K CR80 W RD WH DA1 NC	1	LED		23	120		
G	4" AIRCRAFT CABLE SUSPENDED CYLINDER IN BLACK FINISH	GOHAM LIGHTING	ICO CYL 35' 15.4AR LD 850 120 E21 ACC DBL	1	LED		17	120	CABLE SUSPENDED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
H	SHORT ARM LED SIGN LIGHTER MOUNTED VERTICALLY	JUNO	SLT SA FLOOD 48K MVOLT WH	1	LED		10	120	RECESSED	PROVIDE STEM MOUNT TO JUNCTION BOX TO SUPPORT FIXTURE ABOVE ELEVATOR DOOR.
J	RECESSED LED 2X2	LITHONIA	2BLT2 33L AD5M 120 E21 LP835	1	LED		26	120	RECESSED	PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
K	DECORATIVE PENDANT			1	LED		43	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
L	36" DECORATIVE PENDANT	PABLO	BOLA FELT 36	1			35	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
M	12'-0" DECORATIVE LINEAR LED PENDANT MOUNTED HORIZONTALLY.	SPI LIGHTING	PAVO 2' 12FTL97W 120 DF PSC 3500K DF MA01	1	LED		97	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
N	RECESSED 2' LED DOWNLIGHT			1	LED		23	120		
P	4.5" RECESSED LED DOWNLIGHT WITH 1500 LUMENS	LITHONIA	FLC4D RO 1500L 120 L11 T B LC4 RD 1500L 35K DN CD WP	1	LED 3500K		19	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
Q	2 FOOT T8 BAR LED CLEAR DIFFUSING LENS FIXTURE	JLC-TECH LLC	TB5L MW 2 XX B X X	1	LED 3500K		13	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
R	4 FOOT T8 BAR LED CLEAR DIFFUSING LENS FIXTURE	JLC-TECH LLC	TB5L MW 4 XX B X X	1	LED 3500K		17	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE.
S	18'-4" RECESSED MODULAR LIGHTING SYSTEM	LF ILLUMINATION LLC	EF48N S XXX 18'-4" WW EF488 19C 8035 W DMU WW		LED 3500K		114	120		PROVIDE 2#18 PURPLE/GRAY WIRES FROM POWER PACK TO LIGHTING FIXTURE AND TERMINATE. PROVIDE 8# DIE CAST CYLINDRICAL LIGHTING UNITS PER SECTION.
T14	14'-0" RECESSED LINEAR LED SLOT FIXTURE	FINEUTE	HP4 RD 14' H 835 F 96LG 120 SC FC-1% XX	1	LED 3500K		100	120		PROVIDE 2#18 PURPLE/GRAY WIRES FOR 0-10V CONTROL.
U8	8'-0" LINEAR LED WALL WASHER	VODE LIGHTING	107-WG 01 8'-0" CC66 4R AE 1 SO 359 XX 0 XX	1	LED 3500K		60	120		
U12	12'-0" LINEAR LED WALL WASHER	VODE LIGHTING	107-WG 01 12'-0" CC66 4R AE 1 SO 359 XX 0 XX	1	LED 3500K		74	120		
V	3" RECESSED LED DOWNLIGHT	LUMENPULSE	LADN 120 L20 35K CR80 W RD WH DA1 NC	1	LED 3500K		25	120		PROVIDE 2#18 PURPLE/GRAY WIRES FOR 0-10V CONTROL.
X	36" LONG DECORATIVE STICK LED PENDANT FIXTURE WITH CABLE SUSPENSION FOR A TOTAL LENGTH OF 14'	OCL	GS1 P1CA 36 CR XXX LED1 35K UNV OAH 144 DMO	1	LED 3500K		11	120		PROVIDE 2#18 PURPLE/GRAY WIRES FOR 0-10V CONTROL.
Z	EXISTING ACRYLIC LENS PENDANT FIXTURE.				LED		50	120		EXISTING FIXTURE SHALL BE DISCONNECTED AND RECONNECTED AS SHOWN.
Y	DECORATIVE 8" GLOBE STYLE PENDANT WITH CHROME SUSPENSION STEM	PABLO DESIGNS	BOLA SPH 8 CRM	1	LED 3500K		20	120		
⊗	UNIVERSAL MOUNTED EDGE LIT LED EXIT SIGN WITH RED LETTERS	LITHONIA	EDG-2-R-EL	-	LED		4	120	UNIVERSAL	PROVIDE NUMBER OF FACES AND ARROW INDICATORS PER FLOOR PLAN. PROVIDE CONDUITS STEM SUSPENSION TO LOWER EXIT SIGN'S MOUNTING HEIGHTS.

LIGHTING FIXTURE SCHEDULE NOTES:  
1. ALL LAMPS SHALL HAVE A CRI MINIMUM OF 82 AND A COLOR TEMPERATURE OF 3500K.



**HACP - Housing Authority of the City of Pittsburgh**  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**ELECTRICAL SCHEDULES**  
**E-701**  
TRUE NORTH  
PLAN NORTH

**Existing Branch Panel: 5M1**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	CUS-1 (NOTE 1)	2#12, 1#12G - 3/4"C	30	2	775			2	20	3#12, 1#12G - 3/4"C	FPB-5-1, 5-2, 5-3 (NOTE 1)	2		
3						775						4		
5	FPB-5-15 (NOTE 1)	3#12, 1#12G-3/4"C	20	2			650		2	20	3#12, 1#12G-3/4"C	FPB-5-13 (NOTE 1)	6	
7					650							8		
9	FPB-5-7, 5-8, 5-9 (NOTE 1)	3#12, 1#12G-3/4"C	20	2			775		2	20	3#12, 1#12G-3/4"C	FPB-5-14 (NOTE 1)	10	
11												12		
13	FPB-5-10, 5-11, 5-12 (NOTE 1)	3#12, 1#12G-3/4"C	20	2	775	800			1	20	2#12, 1#12G - 3/4"C	VAV BOXES	14	
15							800		1	20	2#12, 1#12G - 3/4"C	VAV BOXES	16	
17	SPARE		20	1				500	400	1	20	2#12, 1#12G - 3/4"C	VAV BOXES	18
19	SPARE		50	2		500				1	20	2#12, 1#12G - 3/4"C	CONTROL BOXES	20
21										1	20		22	
23										1	20		24	
25	AC5-1 (NOTE 1)	2#12, 1#12G - 3/4"C	20	2						1	20		26	
27	WH-1 (NOTE 1)	2#8, 1#10G - 3/4"C	35	2						1	20		28	
29										1	20		30	
31	CP-1	2#12, 1#12G - 3/4"C	20	1	1000					1	20		EXIST BRIDGE LTG CNTLS	32
33	SPARE		20	1		500				1	20		EXIST HVAC CONTROLS	34
35	SPARE		20	1					590	1	20		EXIST MENS/WMNS BATH LTG	36
37	SPARE		20	1		600				1	20		EXIST EWC	38
39	EXIST UH-1		20	1		500	600			1	20		EXIST EWC	40
41	EXIST UH-1 (2)		20	1			1000	1500		1	20		EXIST MENS/WOMENS RECPTS	42
<b>Total Load:</b>					5100	2975	5415							
<b>Panel Amps:</b>					42.5	24.8	45.1							

NOTES:  
 1. PROVIDE BREAKER AS INDICATED. TURN OVER EXISTING BREAKER TO OWNER FOR FUTURE USE.  
 2. BREAKERS INDICATED IN BOLD SHALL BE "HACR" RATED.

**Existing Branch Panel: 5LA**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1	800	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	2		
3	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1		800	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	4	
5	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1			800	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	6
7	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1	800	800			1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	8	
9	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1			800	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	10
11	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1				800	1000	1	20	2#12, 1#12G - 3/4"C	CONF. RM. RECEPTACLES	12
13	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1	800	800			1	20	2#12, 1#12G - 3/4"C	CONF. RM. FLR. BOXES	14	
15	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1			800	600		1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	16
17	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1				800	800	1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	18
19	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1	800	800				1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	20
21	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1			800	1000		1	20	2#12, 1#12G - 3/4"C	OFFICE RECEPTACLES	22
23	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1				800	800	1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	24
25	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1	800	800				1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	26
27	PRE-WRED FURNITURE	2#12, 1#12G - 3/4"C	20	1			800	1200		1	20	2#10, 1#10G - 3/4"C	COPIER	28
29	REFRIGERATOR	2#12, 1#12G - 3/4"C	20	1				1500	1000	1	20	2#12, 1#12G - 3/4"C	GENERAL RECEPTACLES	30
31	REFRIGERATOR	2#12, 1#12G - 3/4"C	20	1	1500	800				1	20	2#12, 1#12G - 3/4"C	RECEPTS	32
33	DISHWASHER	2#12, 1#12G - 3/4"C	20	1		1500	800			1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	34
35	GARBAGE DISPOSAL	2#12, 1#12G - 3/4"C	20	1				1500	800	1	20	2#12, 1#12G - 3/4"C	PRE-WRED FURNITURE	36
37	DEDICATED RECEPTACLE	2#12, 1#12G - 3/4"C	20	1	1500	1000				1	20	2#12, 1#12G - 3/4"C	DISHWASHER	38
39	DEDICATED RECEPTACLE	2#12, 1#12G - 3/4"C	20	1			1500	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	40
41	DEDICATED RECEPTACLE	2#12, 1#12G - 3/4"C	20	1				1500		1	20	2#12, 1#12G - 3/4"C	turn via demountable system	42
<b>Total Load:</b>					12800	13000	12900							
<b>Panel Amps:</b>					106.6	108.3	107.4							

NOTES:

**Existing Branch Panel: 5LB**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	SPECIAL PURP. RECEPTACLE	2#10, 1#10G - 3/4"C	30	2	1000	800		1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	2		
3						1000	800		1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	4	
5	SPECIAL PURP. RECEPTACLE	2#10, 1#10G - 3/4"C	30	2			1000	800		1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	6
7					1000	800				1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	8
9	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1		800	800		1	20	2#12, 1#12G - 3/4"C	POKE-THRUS	10	
11	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1				800	1000	1	20	2#12, 1#12G - 3/4"C	OFFICE RECEPTACLES	12
13	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1	800	1000				1	20	2#12, 1#12G - 3/4"C	OFFICE RECEPTACLES	14
15	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1		800	600			1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD OUTLET	16
17	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1				800	600	1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD OUTLET	18
19	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1	800	400				1	20	2#12, 1#12G - 3/4"C	RECEPTS VIEWING RM	20
21	PRE-WRED FURN.	2#12, 1#12G - 3/4"C	20	1		1600	800			1	20	2#12, 1#12G - 3/4"C	RECEPTS VIEWING RM	22
23	COPIER	2#12, 1#12G - 3/4"C	20	1				1200	800	1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEPTACLES	24
25	COPIER	2#12, 1#12G - 3/4"C	20	1	1200	1500				1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	26
27	OFFICE FURNITURE	2#12, 1#12G - 3/4"C	20	1		1000	1000			1	20	2#12, 1#12G - 3/4"C	GENERAL RECEPTACLES	28
29	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1				800	1500	1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	30
31	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1	800	1000				1	20	2#12, 1#12G - 3/4"C	RECEPTACLES	32
33	DEMOUNTABLE RECEPTACLES	2#12, 1#12G - 3/4"C	20	1		800				1	20	2#12, 1#12G - 3/4"C	turn via demountable system	34
35	LIGHTING	2#10, 1#10G - 3/4"C	20	1				750		1	20	2#12, 1#12G - 3/4"C	COPIER RECEPTS	36
37	LIGHTING	2#10, 1#10G - 3/4"C	20	1	1100					1	20	2#12, 1#12G - 3/4"C	COPIER RECEPTS	38
39	LIGHTING	2#10, 1#10G - 3/4"C	20	1		1000				1	20	2#10, 1#10G - 3/4"C	SPARE	40
41	LIGHTING	2#10, 1#10G - 3/4"C	20	1			1000			1	20	2#10, 1#10G - 3/4"C	OFFICE LIGHTING	42
<b>Total Load:</b>					12200	11000	11050							
<b>Panel Amps:</b>					101.6	91.6	92.0							

NOTES:

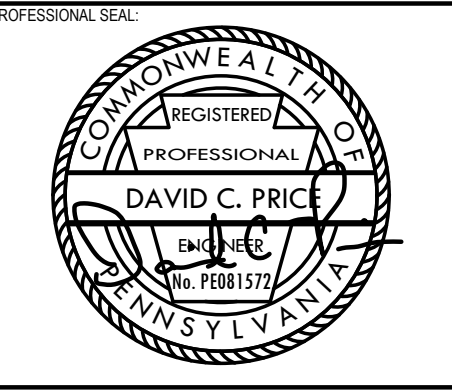
**Existing Branch Panel: 5NE**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MLO  
 Mains Rating: 225  
 MCB Rating: -

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT	
					A	B	C						
1	5TH FLR. N/E LIGHTING	2#10, 1#10G - 3/4"C	20	2	750			1	20		EXIST 4TH FLOOR LIGHTING	2	
3										1	20	4TH FLOOR LIGHTING (SPARE)	4
5	6TH FLR. N/E LIGHTING	2#10, 1#10G - 3/4"C	20	2			750		1	20		EXIST 5TH FLOOR LIGHTING	6
7										1	20	5TH FLOOR LIGHTING (SPARE)	8
9	7TH FLR. N/E LIGHTING	2#10, 1#10G - 3/4"C	20	2			750		1	20		EXIST 6TH FLOOR LIGHTING	10
11										1	20	6TH FLOOR LIGHTING (SPARE)	12
13	SPARE		20	1						1	20	EXIST 7TH FLOOR LIGHTING	14
15	SPARE		20	1						1	20	7TH FLOOR LIGHTING (SPARE)	16
17	SPARE		20	1				1000		1	20	EXIST 7TH FLR SMOKE DMPRS	18
19	SPARE		20	1	1000					1	20	EXIST 6TH FLR SMOKE DMPRS	20
21	SPARE		20	1			1000			1	20	EXIST 5TH FLR SMOKE DMPRS	22
23	SPARE		20	1				1000		1	20	EXIST 4TH FLR SMOKE DMPRS	24
25	SPARE		20	1									







CONSULTANT:  
**Allen & Shariff**  
 DESIGN | BUILD | MANAGE  
 Allen & Shariff Engineering, LLC  
 700 River Avenue, Suite 600  
 Pittsburgh, PA 15212  
 Tel: 412.322.9280

CLIENT:  
**Housing Authority**  
 of the City of Pittsburgh  
 200 Ross St. Pittsburgh, PA 15219  
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 hcap.org

HACP - Housing Authority of the City of Pittsburgh  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

**Existing Branch Panel: 7M1**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT
					A	B	C					
1	CUT-1 (NOTE 1)	3#10, 1#10G - 3/4"C	20	2				2	20	2#12, 1#12G - 3/4"C	FPB-7-11, 7-12 (NOTE 1)	2
3												4
5	AC-7-1 (NOTE 1)	3#10, 1#10G - 3/4"C	20	2			900	2	20	2#12, 1#12G - 3/4"C	FPB-7-10, 7-13 (NOTE 1)	6
7					900							8
9	FPB-7-5 (NOTE 1)	2#12, 1#12G - 3/4"C	20	2		900		2	20	2#12, 1#12G - 3/4"C	FPB-7-2, 7-8, 7-9 (NOTE 1)	10
11							900					12
13	FPB-7-3, 7-4 (NOTE 1)	2#12, 1#12G - 3/4"C	20	2				2	20	2#12, 1#12G - 3/4"C	FPB-7-6, 7-7 (NOTE 1)	14
15												16
17	FPB-7-1 (NOTE 1)	2#12, 1#12G - 3/4"C	20	2				1	20	2#12, 1#12G - 3/4"C	CONTROL BOXES	18
19												20
21	VAV BOXES	2#12, 1#12G - 3/4"C	20	1				1	20		SPARE	22
23	VAV BOXES	2#12, 1#12G - 3/4"C	20	1				1	20		SPARE	24
25	VAV BOXES	2#12, 1#12G - 3/4"C	20	1				1	20		SPARE	26
27	WH-3 (NOTE 1)	2#8, 1#10G - 3/4"C	35	2				1	20		SPARE	28
29								1	20		SPARE	30
31	CP-1	2#12, 1#12G - 3/4"C	20	1				1	20		SPARE	32
33	SPARE		20	1				1	20		SPARE	34
35	SPARE		20	1				1	20		SPARE	36
37	SPARE		20	1				1	20		SPARE	38
39	EXIST. UH-1		20	1		500	1000	1	20		EXIST BRIDGE LTG CNTLS	40
41	EXIST. UH-1 (2)		20	1				1	20		EXIST HVAC CONTROLS	42
					<b>Total Load:</b>	900	2400	3300				
					<b>Panel Amps:</b>	7.5	20.0	27.5				

NOTES:  
 1. PROVIDE BREAKER AS INDICATED. TURN OVER EXISTING BREAKER TO OWNER FOR FUTURE USE.  
 2. BREAKERS INDICATED IN BOLD SHALL BE "HACR" RATED.

**Existing Branch Panel: 7LA**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	COPPER	2#12, 1#12G - 3/4"C	20	1	1200	1000		1	20	2#12, 1#12G - 3/4"C	REFRIGERATOR	2		
3	GENERAL RECEP.TS	2#12, 1#12G - 3/4"C	20	1			800	1000	1	20	2#12, 1#12G - 3/4"C	REFRIGERATOR	4	
5	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1				800	900	1	20	2#12, 1#12G - 3/4"C	GARBAGE DISPOSAL	6
7	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1	600	1500				1	20	2#12, 1#12G - 3/4"C	DEDICATED RECEPTACLE	8
9	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1			600	1500		1	20	2#12, 1#12G - 3/4"C	DEDICATED RECEPTACLE	10
11	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1				600	1500	1	20	2#12, 1#12G - 3/4"C	DEDICATED RECEPTACLE	12
13	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1	600	1500				1	20	2#12, 1#12G - 3/4"C	DEDICATED RECEPTACLE	14
15	OFFICE RECEP.TS	2#12, 1#12G - 3/4"C	20	1			400	600		1	20	2#12, 1#12G - 3/4"C	EXISTING EWC	16
17	OFFICE RECEP.TS	2#12, 1#12G - 3/4"C	20	1				400	1500	1	20	2#12, 1#12G - 3/4"C	PRE-WIRED FURN.	18
19	COPPER	2#12, 1#12G - 3/4"C	20	1	1200	1000				1	20	2#12, 1#12G - 3/4"C	PRE-WIRED FURN.	20
21	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1			1600	1000		1	20	2#12, 1#12G - 3/4"C	CLNG PROJ & PROJ. SCREEN	22
23	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1				1600	800	1	20	2#12, 1#12G - 3/4"C	OFFICE RECEP.TS.	24
25	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1	1800	800				1	20	2#12, 1#12G - 3/4"C	OFFICE RECEP.TS.	26
27	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1			1600	800		1	20	2#12, 1#12G - 3/4"C	CONF. RM. TV RECEP.TS	28
29	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1				1600	800	1	20	2#12, 1#12G - 3/4"C	CONF. RM. POKE-THRU'S	30
31	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1	1600	800				1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	32
33	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1			1600	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	34
35	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1				1600	800	1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	36
37	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1	1600	800				1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	38
39	COPPER	2#12, 1#12G - 3/4"C	20	1			1200	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	40
41	RECEPTACLES	2#12, 1#12G - 3/4"C	20	1				800	800	1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	42
					<b>Total Load:</b>	15800	14300	14500						
					<b>Panel Amps:</b>	131.6	119.1	120.7						

NOTES:

**Existing Branch Panel: 7LB**

Location: Volts: 208/120V  
 Supply From: Phases: 3  
 Mounting: SURFACE Wires: 4  
 Enclosure: TYPE 1  
 A.I.C. Rating: KAIC  
 Mains Type: MCB  
 Mains Rating: 225  
 MCB Rating: 225

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	SPECIAL PURP. RECEPTACLE	2#10, 1#10G - 3/4"C	30	2	1000	1000		1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	2		
3												4		
5	SPECIAL PURP. RECEPTACLE	2#10, 1#10G - 3/4"C	30	2			1000	1000	1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	6	
7					1000	1000				1	20	2#12, 1#12G - 3/4"C	DEDICATED QUAD	8
9	COPPER	2#12, 1#12G - 3/4"C	20	1		1200	1000		1	20	2#12, 1#12G - 3/4"C	QUAD RECEP.TS	10	
11	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1				1600	800	1	20	2#12, 1#12G - 3/4"C	RECEP.TS	12
13	PRE-WIRED FURN.	2#12, 1#12G - 3/4"C	20	1	1600	800				1	20	2#12, 1#12G - 3/4"C	RECEP.TS	14
15	OFFICE RECEP.TS.	2#12, 1#12G - 3/4"C	20	1		400	800		1	20	2#12, 1#12G - 3/4"C	DEMOUNTABLE RECEP.TS	16	
17	OFFICE RECEP.TS.	2#12, 1#12G - 3/4"C	20	1			400	800		1	20	2#12, 1#12G - 3/4"C	RECEP.TS	18
19	OFFICE RECEP.TS.	2#12, 1#12G - 3/4"C	20	1	400	800				1	20	2#12, 1#12G - 3/4"C	RECEP.TS	20
21	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1		600	800		1	20	2#12, 1#12G - 3/4"C	RECEP.TS	22	
23	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1			400	800	1	20	2#12, 1#12G - 3/4"C	GENERAL RECEP.TS	24	
25	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1	1500	1200				1	20	2#12, 1#12G - 3/4"C	REFRIGERATOR	26
27	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1		1500	1500		1	20	2#12, 1#12G - 3/4"C	DEDICATED RECEPT. BRKRM	28	
29	DEMOUNTABLE RECEP.TS	2#12, 1#12G - 3/4"C	20	1				600	1000	1	20	2#12, 1#12G - 3/4"C	OFFICE RECEP.TS.	30
31	REFRIG.	2#12, 1#12G - 3/4"C	20	1	600					1	20	2#12, 1#12G - 3/4"C	PRINTER RECEP.TS	32
33	POKE-THRU'S	2#12, 1#12G - 3/4"C	20	1		800				1	20		SPARE	34
35	LIGHTING	2#10, 1#10G - 3/4"C	20	1				1000		1	20		SPARE	36
37	LIGHTING	2#10, 1#10G - 3/4"C	20	1	1000					1	20		SPARE	38
39	LIGHTING	2#10, 1#10G - 3/4"C	20	1		1000				1	20	2#10, 1#10G - 3/4"C	SPARE	40
41	LIGHTING	2#10, 1#10G - 3/4"C	20	1				1100		1	20	2#10, 1#10G - 3/4"C	SPARE	42
					<b>Total Load:</b>	11900	11600	10500						
					<b>Panel Amps:</b>	99.1	96.6	87.4						

NOTES:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00  
 DRAWN BY: MWM  
 REVIEWED BY: DEB  
 SHEET NAME:  
**ELECTRICAL PANEL SCHEDULES**  
 SHEET NO:  
**E-704**  
 TRUE NORTH  
 PLAN NORTH

### Existing Branch Panel: 1M1

Location: **Volts: 208/120V** **A.I.C. Rating: KAIC**  
 Supply From: **Phases: 3** **Mains Type: MCB**  
 Mounting: SURFACE **Wires: 4** **Mains Rating: 225**  
 Enclosure: TYPE 1 **MCB Rating: 225**

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT
					A	B	C					
1	SPARE		20	1	450			1	20		EXIST. LTG RETAIL SPACE	2
3	VAV-BOXES	2#12 + 1#12G - 3/4"C	20	1				1	20		EXIST. 1ST FLOOR LIGHTING	4
5	VAV-BOXES	2#12 + 1#12G - 3/4"C	20	1				1	20		EXIST. 1ST FLOOR LIGHTING	6
7	CU-1-1	3#10, 1#10G - 3/4"C	30	2				2	20	3#12, 1#12G - 3/4"C	AC1-1 (NOTE 1)	8
9	(NOTE 1)											10
11	FPB-1-1	3#10, 1#10G - 3/4"C	25	2				2	20		EXIST.FPB-4-101	12
13					450	450						14
15	SPARE		20	2		450	450		2	20	EXIST.FPB-4-102	16
17												18
19	EXIST GARAGE DOOR #1		3	20	1000	1000			3	20	EXIST GARAGE DOOR #2	20
21						1000	1000					22
23							1000	1000				24
25	UNIT HEATER UH-1	2#12 + 1#12G - 3/4"C	20	1	500	1000			3	30	EXIST TRASH COMPACTOR	26
27	UNIT HEATER UH-2	2#12 + 1#12G - 3/4"C	20	1		500	1000					28
29	UNIT HEATER UH-3	2#12 + 1#12G - 3/4"C	20	1			500	1000				30
31	SPARE		20	2	450				1	20	SPARE	32
33							2000		2	25	EXIST. EWH-1	34
35	SPARE		20	1				2000				36
37	EXISTING EXHAUST FAN EF-2		3	20		2000			2	25	EXIST. EWH-1	38
39							2000					40
41								500	1	20	EXIST.HVAC CONTROLS	42

<b>Total Load:</b>	7300	8400	7800
<b>Panel Amps:</b>	60.8	69.9	65.0

NOTES:  
 1. PROVIDE BREAKER AS INDICATED  
 2. BREAKERS INDICATED IN BOLD SHALL BE "HACR" RATED.

### Existing Branch Panel: 1LA

Location: **Volts: 208/120V** **A.I.C. Rating: KAIC**  
 Supply From: **Phases: 3** **Mains Type: MCB**  
 Mounting: SURFACE **Wires: 4** **Mains Rating: 225**  
 Enclosure: TYPE 1 **MCB Rating: 225**

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	LIGHTING	2#12 + 1#12G-3/4"C	20	1	900	1200			1	20	2#12 + 1#12G-3/4"C	DEMOUNTABLE RECEP.TS.	2	
3	LIGHTING	2#12 + 1#12G-3/4"C	20	1			700			1	20	2#12 + 1#12G-3/4"C	DEMOUNTABLE RECEP.TS.	4
5	COPIER	2#12 + 1#12G-3/4"C	20	1				1000		1	20	2#12 + 1#12G-3/4"C	DEMOUNTABLE RECEP.TS.	6
7	EWC	2#12 + 1#12G-3/4"C	20	1	400	1500				1	20	2#12 + 1#12G-3/4"C	LIGHTING	8
9	GENERAL RECEPTACLES	2#12 + 1#12G-3/4"C	20	1			1200	1000		1	20		EXIST. RECEPT. DSK FLR BOX	10
11	COPIER	2#12 + 1#12G-3/4"C	20	1				1000	1000	1	20		EXIST. RECEPT. DSK FLR BOX	12
13	EXISTING		20	1	900	800				1	20		EXISTING GENERAL RECEP.TS	14
15		2#12 + 1#12G-3/4"C	20	1			600	1000		1	20	2#12 + 1#12G-3/4"C		16
17	EXISTING		20	1				600	600	1	20		EXISTING POKE-THRU'S	18
19	EXISTING	2#12 + 1#12G-3/4"C	20	1	1000	500				1	20		EXISTING BOTTLE FILLER	20
21	EXISTING AVIIT EQUIPMENT		20	1			1000	1500		1	20	2#12 + 1#12G-3/4"C	DEDICATED QUAD RECEPT.	22
23	GENERAL RECEPTACLES	2#12 + 1#12G-3/4"C	20	1				400	1500	1	20	2#12 + 1#12G-3/4"C	DEDICATED QUAD RECEPT.	24
25	GENERAL RECEPTACLES	2#12 + 1#12G-3/4"C	20	1	900	1200				1	20	2#12 + 1#12G-3/4"C	KIOSK RECEP.TS.	26
27	FLOOR POKE-THRU'S	2#12 + 1#12G-3/4"C	20	1			1200	1100		1	20		EXISTING LOBBY LTG	28
29	SPECIAL PURP. REC. (NOTE 1)	2#10 + 1#10G-3/4"C	30	1				1800		1	20		EXISTING LOBBY LTG	30
31	SPECIAL PURP. REC. (NOTE 1)	2#10 + 1#10G-3/4"C	30	1	1800					1	20		EXISTING LOBBY LTG	32
33	KIOSK RECEP.TS.	2#12 + 1#12G-3/4"C	20	1			1200			1	20		EXISTING LOBBY LTG	34
35	SPARE		20	2					800	1	20	2#12 + 1#12G-3/4"C	POKE-THRU & RECEP.TS	36
37										1	20		SPARE	38
39	KIOSK RECEP.TS.	2#12 + 1#12G-3/4"C	20	1			1200			1	20		SPARE	40
41	COFFEE MACHINE	2#12 + 1#12G-3/4"C	30	1				1500		1	20		SPARE	42

<b>Total Load:</b>	11100	11700	10200
<b>Panel Amps:</b>	92.4	97.4	84.9

NOTES:  
 1. PROVIDE BREAKER AS INDICATED.

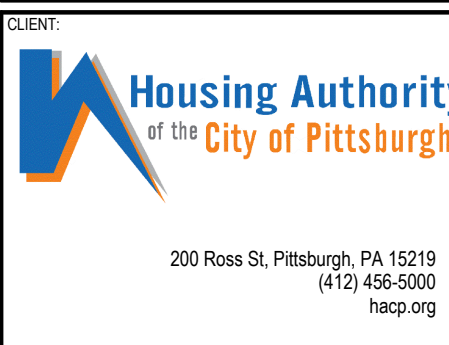
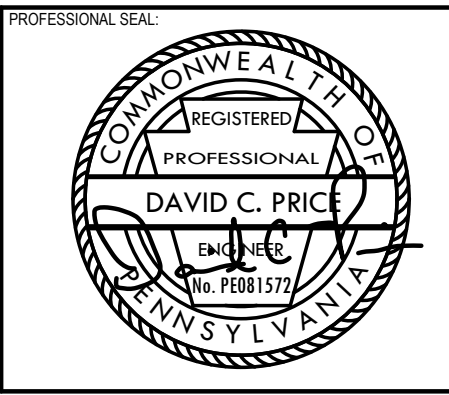
### Existing Branch Panel: BEM

Location: **Volts: 208/120V** **A.I.C. Rating: KAIC**  
 Supply From: **Phases: 0** **Mains Type: 0**  
 Mounting: SURFACE **Wires: 0** **Mains Rating: 0**  
 Enclosure: TYPE 1 **MCB Rating: -**

CKT	Circuit Description	Wire Size	Trip	Pole	LOAD (VA)			Pole	Trip	Wire Size	Circuit Description	CKT		
					A	B	C							
1	EX.FIRE ALARM CNTRL PNL		20	1	1500				1	20	SPARE	2		
3	EX. FIRE COMM. CTR RECEP.TS		20	1		1500	500			1	20	EX. ECM 2-WAY COMM	4	
5	EX. FIRE COMM. CTR RECEP.TS		20	1				1500	1000	1	20	2#12 + 1#12G - 3/4"C	1ST FLR LIGHTING	6
7	EX. FIRE COMM. CTR RECEP.TS		20	1	1500	1000				1	20		EX. FIRE SMOKE DMPRS LWR	8
9	EX. FIRE COMM. CTR RECEP.TS		20	1			1500	275		1	20		EX. 2ND FLR LIGHTING	10
11	EX. FIRE COMM. CTR RECEP.TS		20	1				1500	800	1	20		EX. 2ND FLR LIGHTING	12
13	EX. FIRE COMM. CTR RECEP.TS		20	1	1500	800				1	20		EX. 3RD FLR LIGHTING	14
15	EX. FIRE COMM. CTR RECEP.TS		20	1			1500			1	20		SPARE	16
17	EX. LOWER LEVEL EM LIGHTING		20	1					600	1	20		EX. EXTERIOR LIGHTS	18
19	EX. LWR LVL CORR & BATH LTG		20	1	1000	1000				1	20		EX. FIRE SMOKE DAMPERS 1ST	20
21	EX. LOWER LEVEL EM LIGHTING		20	1			700	1000		1	20		EX. FIRE SMOKE DAMPERS 2ND	22
23	1ST FLR LIGHTING	2#12 + 1#12G - 3/4"C	20	1				900	1000	1	20		EX. FIRE SMOKE DAMPERS 3RD	24
25	EX. LWR LVL FIRE SMOKE DMPR	2#12 + 1#12G - 3/4"C	20	1	600	1000				1	20	2#12 + 1#12G - 3/4"C	LOBBY LIGHTING	26
27	SPARE		20	1			750			1	20	2#12 + 1#12G - 3/4"C	LOBBY LIGHTING	28
29	EX. FIRE SMOKE DAMPERS 1ST		20	1				900	500	1	20		EX. 2-WAY COMMUNICATION	30
31	SPARE		20	1						3			EXISTING JOCKEY PUMP	32
33	SPARE		20	1										34
35	SPARE		20	1										36
37	EXISTING SURGE ARRESTOR		20	3									SPARE	38
39													SPARE	40
41													EXTERIOR LIGHTS	42

<b>Total Load:</b>	9900	7725	8700
<b>Panel Amps:</b>	#DIV/0!	#DIV/0!	#DIV/0!

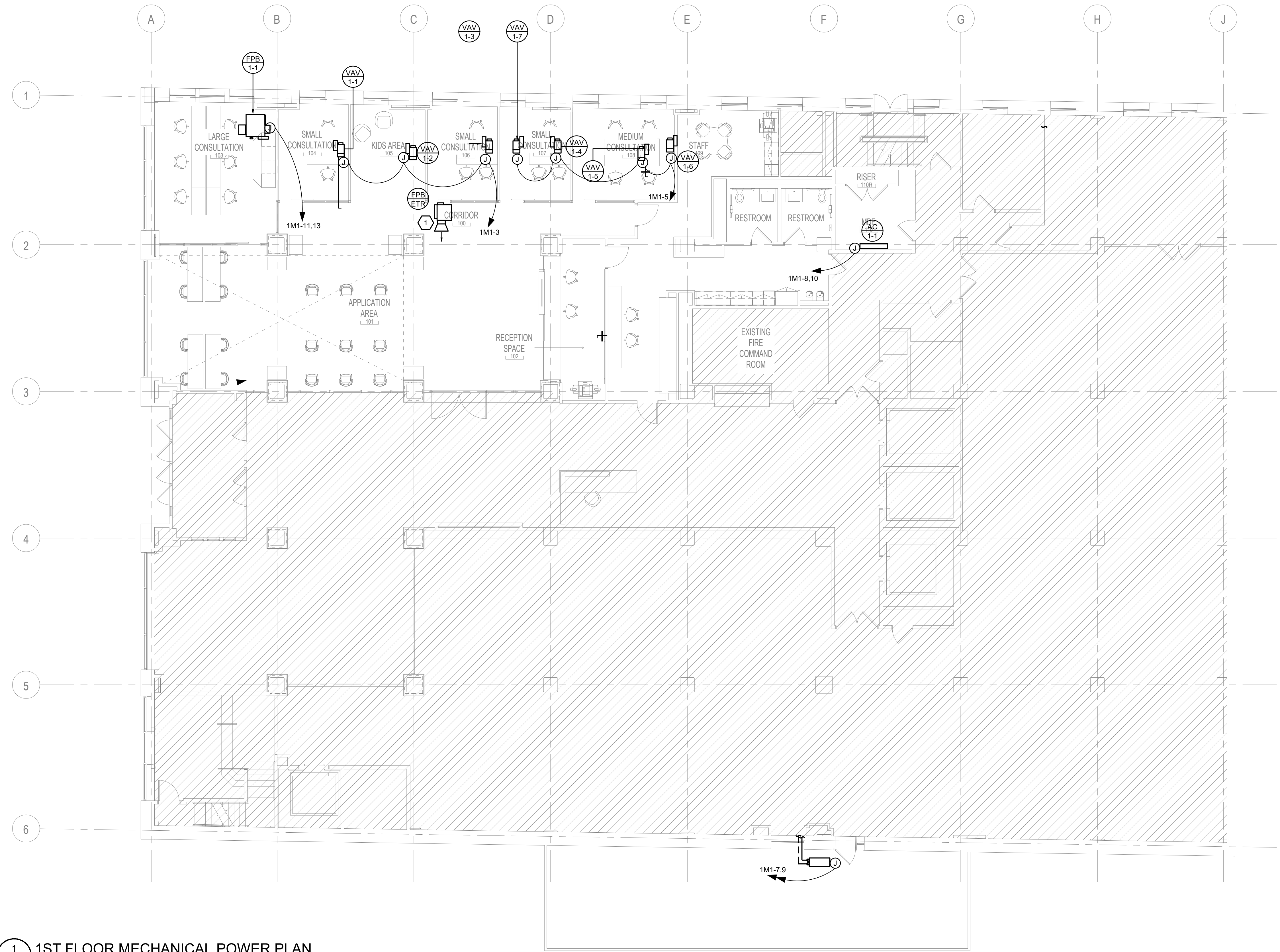
NOTES:



HACP - Housing Authority of the City of Pittsburgh  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION #5	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION #1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

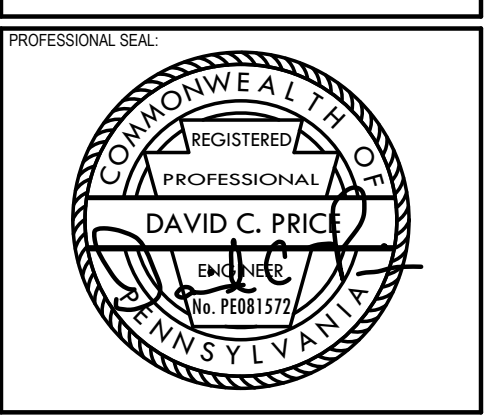
PROJECT NO: 190427.00  
 DRAWN BY: MWM  
 REVIEWED BY: DEB  
 SHEET NAME: ELECTRICAL PANEL SCHEDULES  
 SHEET NO: E-704  
 TRUE NORTH  
 PLAN NORTH



**MECHANICAL POWER KEY NOTES:** #

1. EXISTING FAN POWERED BOX TO REMAIN.

**1 1ST FLOOR MECHANICAL POWER PLAN**  
EM-301 1/8" = 1'-0"



**Allen & Shariff**  
DESIGN | BUILD | MANAGE  
Allen & Shariff Engineering, LLC  
700 River Avenue, Suite 600  
Pittsburgh, PA 15212  
Tel: 412.322.9280

**Housing Authority**  
of the City of Pittsburgh  
200 Ross St, Pittsburgh, PA 15219  
(412) 458-5000  
hacp.org

**HACP - Housing Authority of the City of Pittsburgh**  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00  
DRAWN BY: MWM  
REVIEWED BY: DEB

**1ST FLOOR MECHANICAL POWER PLAN**

**EM-301**



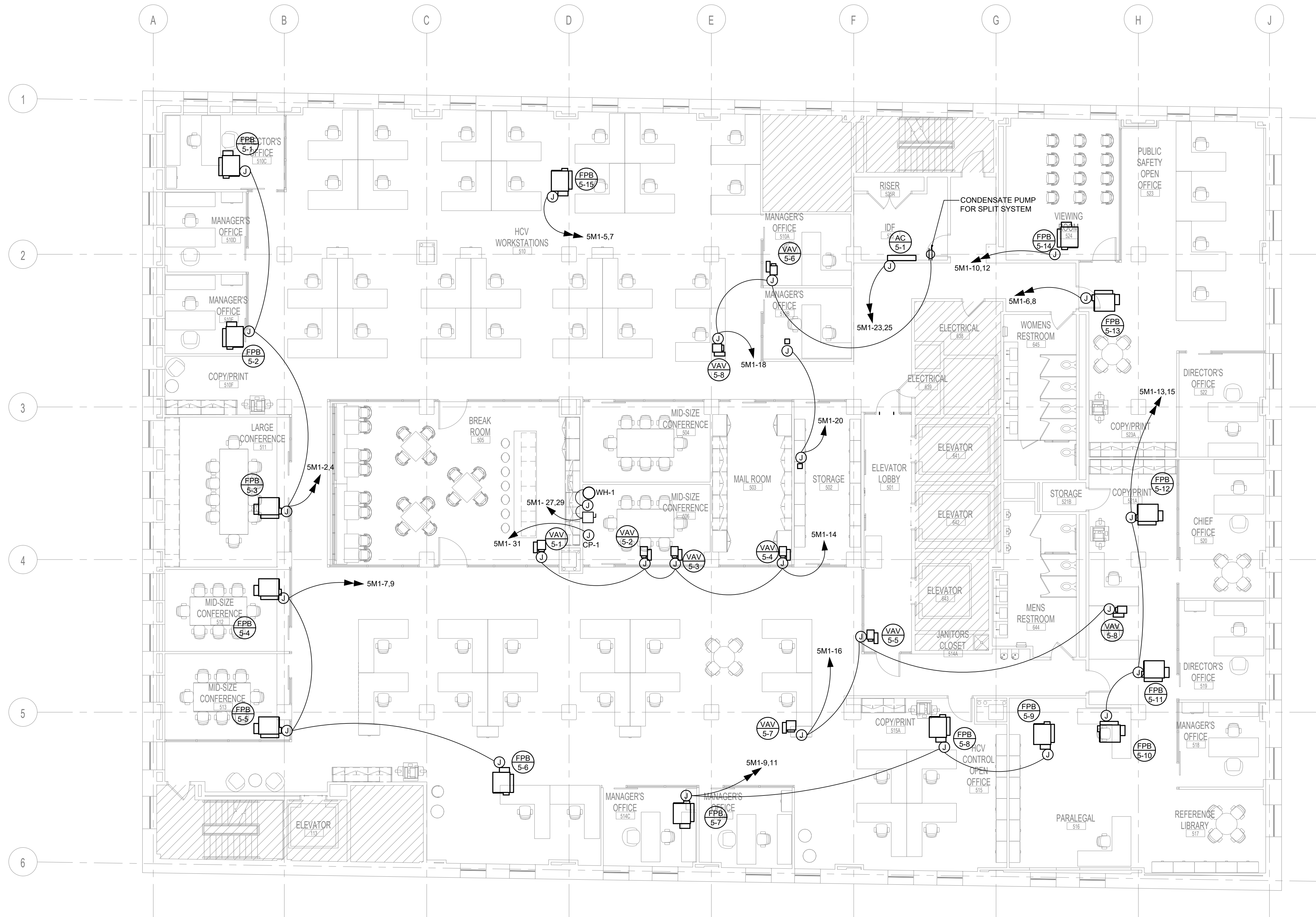
CONSULTANT:

**Allen & Shariff**  
 DESIGN | BUILD | MANAGE  
 Allen & Shariff Engineering, LLC  
 700 River Avenue, Suite 600  
 Pittsburgh, PA 15212  
 Tel: 412.322.9280



CLIENT:  
 200 Ross St. Pittsburgh, PA 15219  
 (412) 456-5000  
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 412 Boulevard of the Allies, Pittsburgh, PA 15219



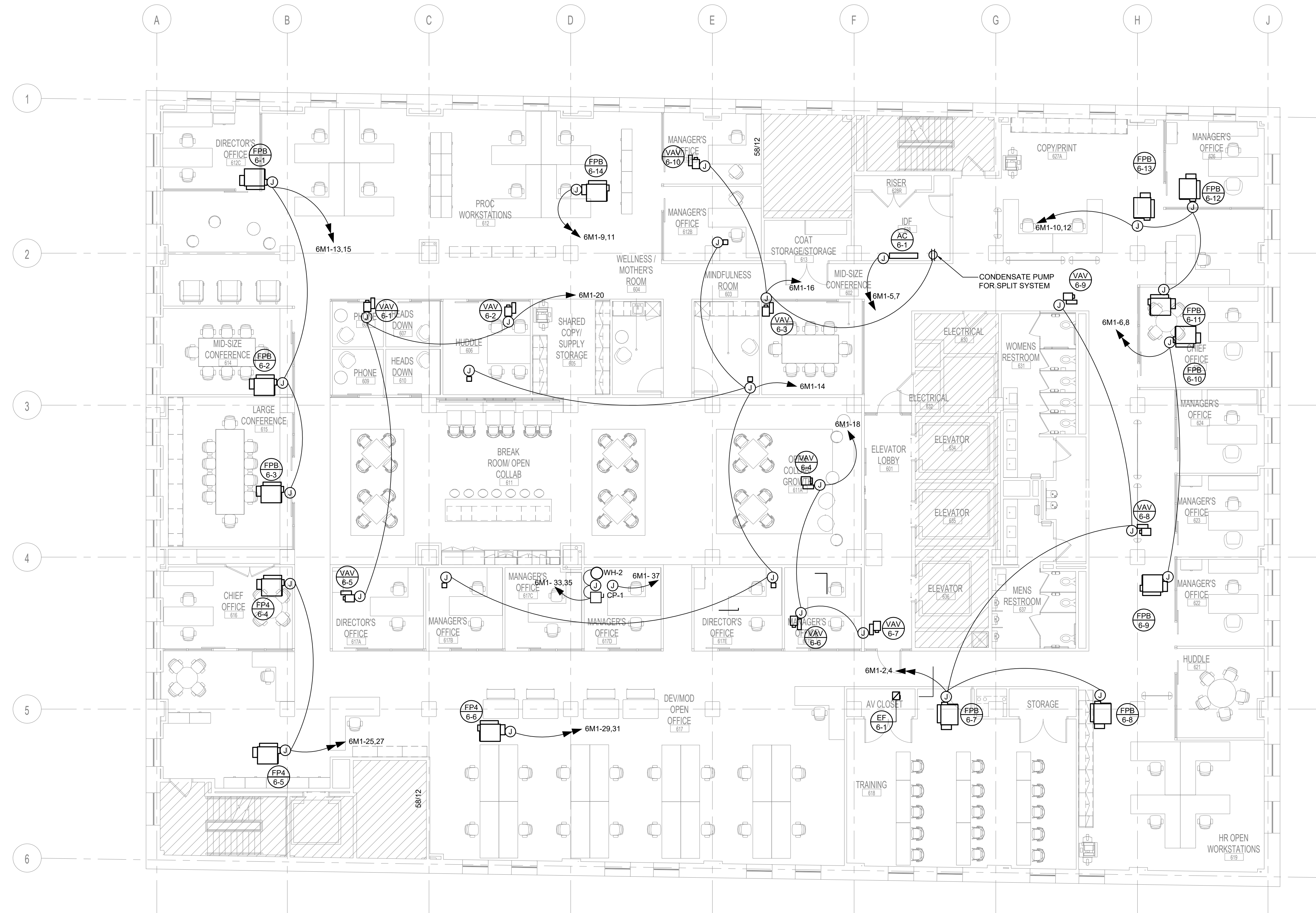
**1** 5TH FLOOR MECHANICAL POWER PLAN  
 EM-302 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**5TH FLOOR MECHANICAL POWER PLAN**

SHEET NO.:  
**EM-302**



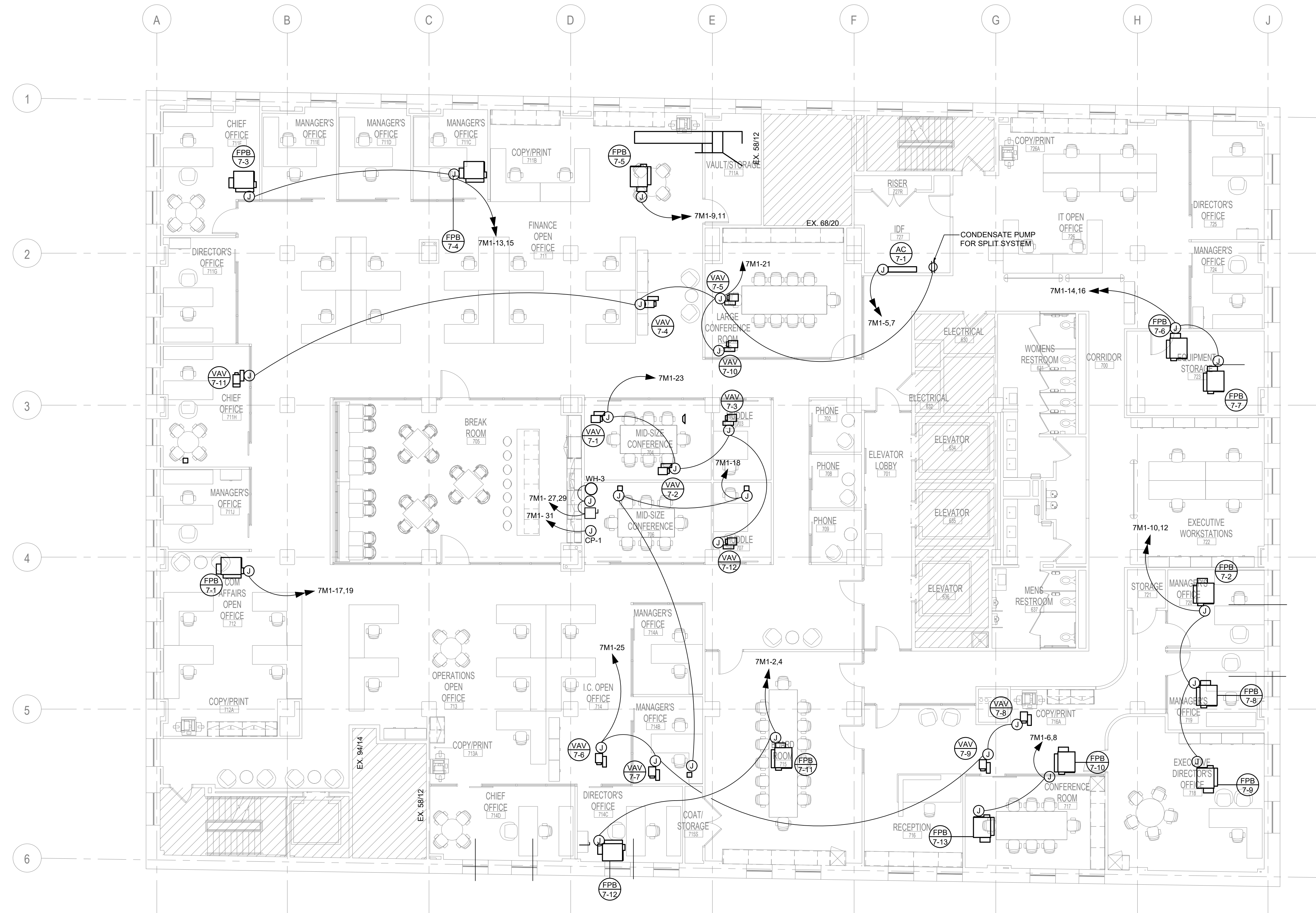
**1 6TH FLOOR MECHANICAL POWER PLAN**  
 EM-303 1/8" = 1'-0"

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
4	100% CONSTRUCTION DOCUMENTS	07/30/2020
3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**6TH FLOOR MECHANICAL POWER PLAN**

SHEET NO.:  
**EM-303**



1 7TH FLOOR MECHANICAL POWER PLAN  
EM-304 1/8" = 1'-0"



CONSULTANT:

**Allen & Shariff**  
DESIGN | BUILD | MANAGE  
Allen & Shariff Engineering, LLC  
700 River Avenue, Suite 600  
Pittsburgh, PA 15212  
Tel: 412.322.9280



200 Ross St. Pittsburgh, PA 15219  
(412) 456-5000  
hacp.org

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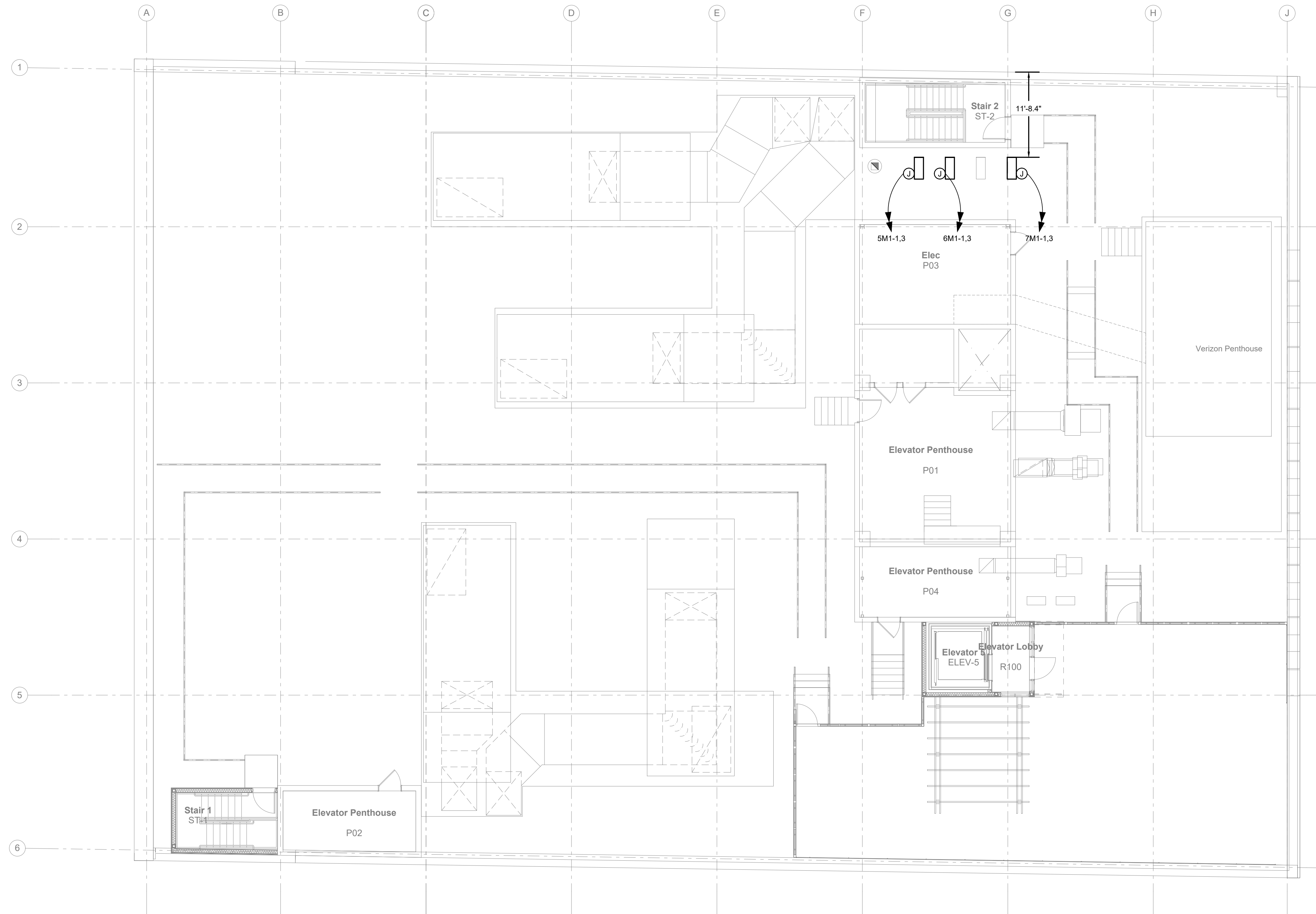
412 Boulevard of the Allies, Pittsburgh, PA 15219

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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
7TH FLOOR MECHANICAL  
POWER PLAN

SHEET NO.:  
**EM-304**



1 ROOF MECHANICAL POWER PLAN  
EM-305 1/8" = 1'-0"

HACP - Housing Authority of the City of Pittsburgh  
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#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS	09/03/2020
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3	100% CONSTRUCTION DOCUMENTS	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY	REVIEWED BY
190427.00	MWM	DEB

SHEET NAME:  
**ROOF MECHANICAL POWER PLAN**

SHEET NO.:  
**EM-305**

TRUE NORTH  
PLAN NORTH

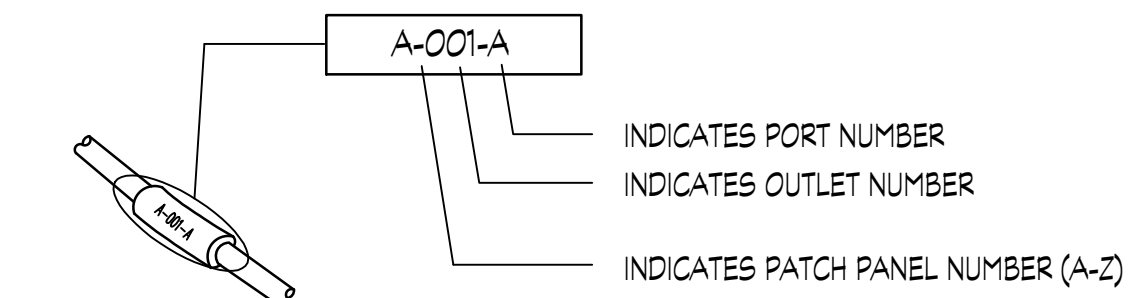


TELECOMMUNICATIONS LEGEND			
SYMBOL	DESCRIPTION	MOUNT	REMARKS
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		MODULAR FURNITURE WALL OR FURNITURE MOUNTED DATA OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		WALL MOUNTED DATA OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		WALL MOUNTED PHONE OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	25' CABLE WITH RJ45 8 POSITION MODULAR JACK TERMINATED ON END COILED ABOVE CEILING OR IN OPEN SPACE AND PROTECTED FOR FUTURE WIRELESS ACCESS POINT. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. COILED SECTION OF CABLE SHALL BE SUPPORTED VIA APPROPRIATELY SIZED J-HOOK. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		CEILING MOUNTED WIRELESS TELECOMMUNICATIONS OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	SEE POWER PLANS FOR TELEVISION COMBINATION BOX AND CONDUIT REQUIREMENTS. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		DIGITAL SIGNAGE/TELEVISION OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	SEE POWER PLANS FOR POKE THRU AND CONDUIT REQUIREMENTS. ROUTE CABLING FROM POKE-THRU THROUGH CONDUIT. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		FLOOR MOUNTED POKE THRU OUTLET. # - NUMBER IDENTIFIES QUANTITY OF DATA CABLES.
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. ROUTE CABLING FOR WORKSTATIONS THROUGH CONDUIT AND ROUGH-IN TO FURNITURE SYSTEM. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		WALL MOUNTED FURNITURE FEED
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. ROUTE CABLING FOR WORKSTATIONS THROUGH CONDUIT AND ROUGH-IN TO FURNITURE SYSTEM. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		COLUMN MOUNTED FURNITURE FEED
	SEE POWER PLANS FOR ROUGH-IN AND CONDUIT REQUIREMENTS. ROUTE CABLING FOR WORKSTATIONS THROUGH CONDUIT AND ROUGH-IN TO FURNITURE SYSTEM. PROVIDE CABLING AND CONNECTIVITY. PROVIDE CABLE QUANTITY AS IDENTIFIED ON PLAN DRAWING. TELECOMMUNICATION INSTALLATION AND MATERIALS SHALL CONFORM TO INFORMATION PROVIDED IN TELECOMMUNICATIONS DRAWING AND SPECIFICATIONS.		FLOOR MOUNTED FURNITURE FEED
	PROVIDE WIRE MESH BASKET TRAY AS PER SPECIFICATIONS. PROVIDE ALL HARDWARE PER MANUFACTURER'S REQUIREMENTS. COORDINATE FINAL ROUTING WITH ALL OTHER TRADES TO AVOID INTERFERENCES. SEE PLAN DRAWINGS FOR CABLE TRAY SIZE.		BASKET TRAY
	SECTION/ELEVATION DETAIL. TOP NUMBER INDICATES DETAIL/BOTTOM NUMBER INDICATES DRAWING SHEET		

TELECOM SYSTEM (CABLING AND CONNECTIVITY) INSTALLATION MATRIX				
DESCRIPTION	ELECTRICAL CONTRACTOR	TELECOM CONTRACTOR	GENERAL CONTRACTOR	OWNER
ROUGH-INS, CONDUITS, PULLSTRING AND POWER FOR SECURITY EQUIPMENT	FURNISH & INSTALL			
SWITCHES, SERVERS, COMPUTERS, PHONE SYSTEM AND WIRELESS EQUIPMENT				FURNISH & INSTALL
TELECOM CABLING AND CONNECTIVITY		FURNISH & INSTALL		
INCOMING PHONE, CABLE AND INTERNET SERVICE				FURNISH & INSTALL

**TELECOMMUNICATIONS GENERAL NOTES**

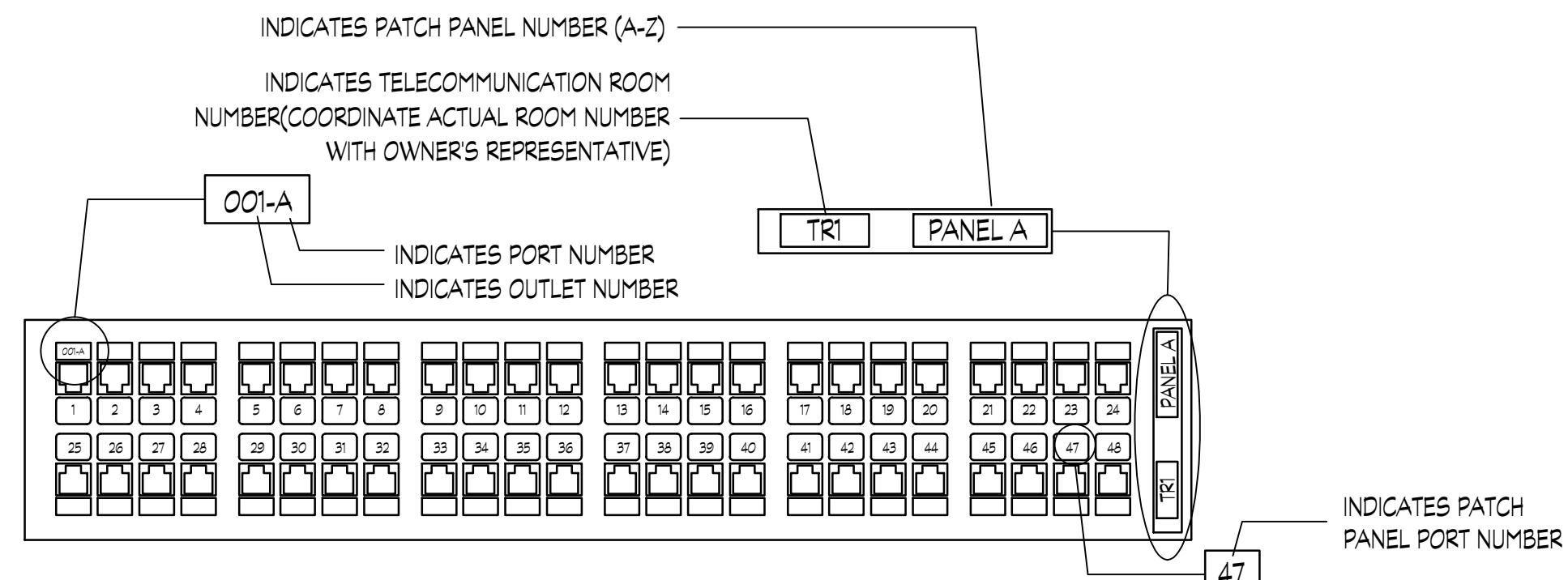
- ALL HORIZONTAL CABLING AND CONNECTIVITY SOLUTIONS SHALL BE CATEGORY 6 FOR DATA AND CATEGORY 6A FOR WIRELESS. FOR CERTIFICATION AND WARRANTY THE CABLING AND CONNECTIVITY SOLUTION SHALL BE AND END TO END SOLUTION. PROVIDE MATERIALS LISTED BELOW OR APPROVED EQUALS:
  - CONNECTIVITY
    - UNIPRISE
    - SYSTEMAX
    - PANDUIT-MINICOM
  - CABLE:
    - UNIPRISE
    - SYSTEMAX
    - PANDUIT
- ALL NATIONAL (NEC, NFPA), STATE AND LOCAL CODES SHALL BE STRICTLY ADHERED TO. WHERE MORE THAN ONE CODE APPLIES, THE MOST STRINGENT SHALL BE ADHERED TO. ALL CONDUIT SLEEVES AND PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE FIRESTOPPED.
- ALL PENETRATIONS SHALL BE FIRE STOPPED WITH NFPA APPROVED INTUMESCENT MATERIAL. LARGE OPENINGS SHALL BE FIRE STOPPED WITH NFPA APPROVED CEMENTITIOUS MATERIAL.
- ALL EIA/TIA STANDARDS FOR CABLES, PATHWAYS, SPACES, GROUNDING, AND BONDING WILL BE STRICTLY ADHERED TO:
  - TIA/EIA-568A COMMERCIAL BUILDING TELECOMMUNICATIONS CABLE STANDARDS.
  - TIA/EIA-569 COMMERCIAL BUILDING STANDARDS FOR TELECOMMUNICATIONS PATHWAYS AND SPACES.
  - TIA/EIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS.
- CATEGORY 6 DROP LENGTHS SHALL NOT EXCEED 90 METERS (295 FT.) FROM PATCH PANEL TO FACEPLATE AND SHALL BE RUN IN A CONTINUOUS MANNER WITH NO SPLICES.
- A MINIMUM 1' BEND RADIUS IS TO BE MAINTAINED IN ALL CATEGORY 5E CABLES AND PATHWAYS.
- ALL CABLE PATHWAYS SHALL MAINTAIN THE FOLLOWING CLEARANCES FROM SOURCES OF EMI:
  - FORTY SIX (46 IN.) FROM MOTORS AND TRANSFORMERS.
  - ONE FOOT (1 FT.) FROM CONDUITS AND CABLES USED FOR ELECTRICAL POWER.
  - THREE INCHES (3 IN.) FROM FLUORESCENT LIGHTING.



**2 TELECOMMUNICATION CABLE LABELING DETAIL**  
SCALE: NTS

**GENERAL NOTES**

- THIS CONTRACTOR SHALL PROVIDE ALL TYPE WRITTEN LABELS TO MEET EIA/TIA-606 LABELING ADMINISTRATIVE STANDARDS.
- LABEL CABLING AT BOTH ENDS.
- ACTUAL LABELING SHALL BE OWNER'S IT REPRESENTATIVE STANDARD LABELING REQUIREMENTS. COORDINATE LABELING STANDARDS WITH OWNER'S IT REPRESENTATIVE.



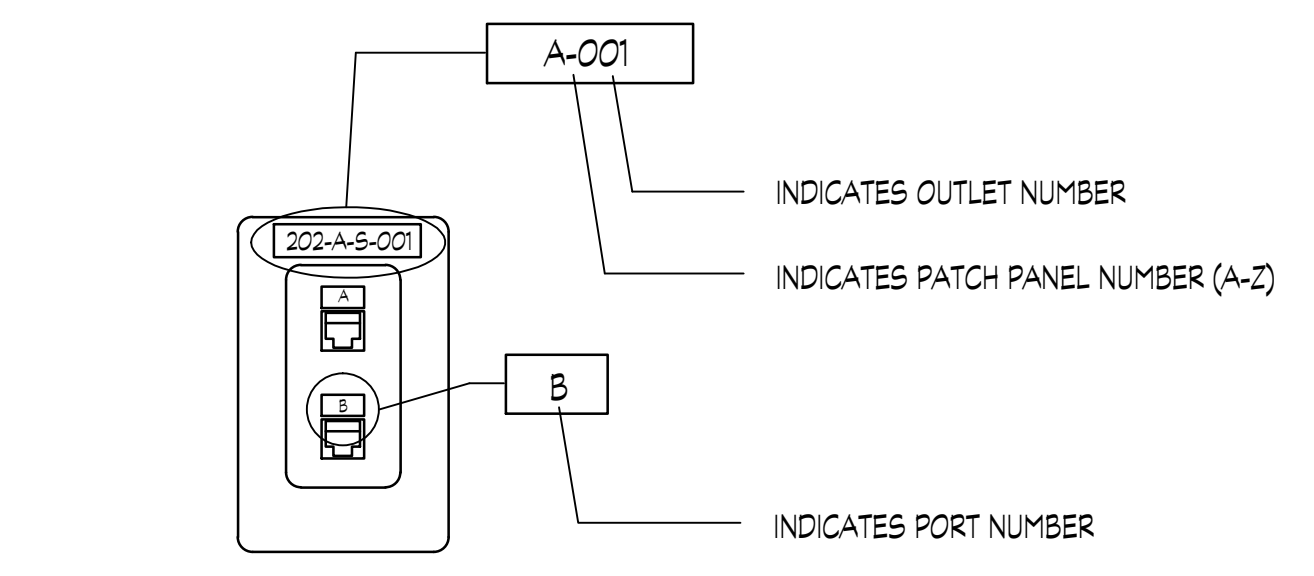
**1 PATCH PANEL LABELING DETAIL**  
SCALE: NTS

**GENERAL NOTES**

- THIS CONTRACTOR SHALL PROVIDE ALL TYPE WRITTEN LABELS TO MEET EIA/TIA-606 LABELING ADMINISTRATIVE STANDARDS
- REFER TO RACK ELEVATIONS AND SPECIFICATIONS FOR PATCH PANEL SIZE, TYPE, MANUFACTURER AND ADDITIONAL REQUIREMENTS.
- ACTUAL LABELING SHALL BE OWNER'S IT REPRESENTATIVE STANDARD LABELING REQUIREMENTS. COORDINATE LABELING STANDARDS WITH OWNER'S IT REPRESENTATIVE.

**TELECOMMUNICATIONS GENERAL NOTES (CONTINUED)**

- ALL PATCH PANELS, TERMINATIONS SHELVES AND LIU ENCLOSURES WILL BE LABELED WITH THEIR IDENTIFIER.
- ALL FACEPLATES WILL BE LABELED WITH THEIR IDENTIFIER WITH PREPRINTED LABELS.
- CABLES WILL BE LABELED WITH THEIR IDENTIFIER WITH PREPRINTED LABELS.
- STANDARD TRADE MEANS AND METHODS SHALL BE USED AND THE INSTALLATION WILL BE ACCOMPLISHED IN A NEAT AND PROFESSIONAL MANNER.
- THE INSTALLATION OF COMPONENTS, ETC. WILL CONFORM TO THE MANUFACTURERS RECOMMENDED METHOD OF INSTALLATION.
- CATEGORY 6 CABLE SHALL NOT BE PULLED IN EXCESS OF 25LBS. OF FORCE.
- MAKE ALL BONDING CONNECTIONS WITH LISTED BOLTS; CRIMP PRESSURE CONNECTORS, CLAMPS OR LUGS. EXOTHERMIC WELDING MAY BE USED. CONDUCTORS SHOULD BE WITHOUT SPLICES. BONDING CONDUCTORS SHALL BE ROUTED WITH A MINIMUM NUMBER OF BENDS. THE BENDS PLACED IN THE CONDUCTOR SHOULD BE SWEEPING.
- MAINTAIN A MINIMUM OF UNTWIST AND SHEATH REMOVAL ON ALL CATEGORY 5E CABLES. A MAXIMUM OF 1/2" OF UNTWIST IS ALLOWED BY THE STANDARDS.
- SUPPORT CAT 6 CABLES W/ APPROPRIATELY SIZED J-HOOKS. LOCATE THEM ON 48" CENTERS, MIN. SUPPORT NO MORE THAN 50 CABLES EACH.
- VERIFY FACEPLATE AND JACK COLORS WITH OWNER PRIOR TO PURCHASE.
- ALL CABLING SHALL BE PLENUM RATED.
- DO NOT ATTACH CABLING TO SUSPENDED CEILING SYSTEM IN ANY MANNER.
- VERIFY PIN/PAIR CONFIGURATION FOR VOICE OUTLET W/ EQUIPMENT MANUFACTURER AND ENGINEER.
- COORDINATE FINAL LABELING SCHEME FOR ALL TELECOMMUNICATION DEVICES WITH OWNER'S REPRESENTATIVE.
- TELECOMMUNICATIONS CONTRACTOR SHALL BE CERTIFIED IN CABLING SYSTEM SPECIFIED AND SHALL PROVIDE OWNER'S REPRESENTATIVE WITH COMPLETE TEST RESULTS AND 20 YEAR CABLE WARRANTY.
- CABLING SHALL BE INSTALLED IN J-HOOKS UTILIZING AVENUE AND STREET LAYOUTS AND SHALL BE PRIMARILY ROUTED OVER CORRIDOR AREAS. DIRECT (DIAGONAL RUNS) ARE NOT ACCEPTABLE.
- CONTRACTOR SHALL LIST THE CABLING SOLUTION (MANUFACTURER OF CABLING AND CONNECTIVITY) THAT THEY ARE USING ON THE PROJECT UNDER THE BID SHEET.



**3 TELECOMMUNICATION OUTLET LABELING DETAIL**  
SCALE: NTS

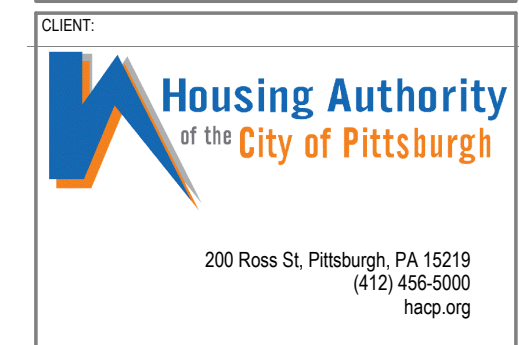
**GENERAL NOTES**

- THIS CONTRACTOR SHALL PROVIDE ALL TYPE WRITTEN LABELS TO MEET EIA/TIA-606 LABELING ADMINISTRATIVE STANDARDS.
- ACTUAL LABELING SHALL BE OWNER'S IT REPRESENTATIVE STANDARD LABELING REQUIREMENTS. COORDINATE LABELING STANDARDS WITH OWNER'S IT REPRESENTATIVE.



PROFESSIONAL SEAL:

CONSULTANT:



**HACP - Housing Authority of the City of Pittsburgh**  
 412 Boulevard of the Allies, Pittsburgh, PA 15219

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1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

**TELECOM DATA SHEET**

SHEET NO. **T0.01**

PROFESSIONAL SEAL:

CONSULTANT:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
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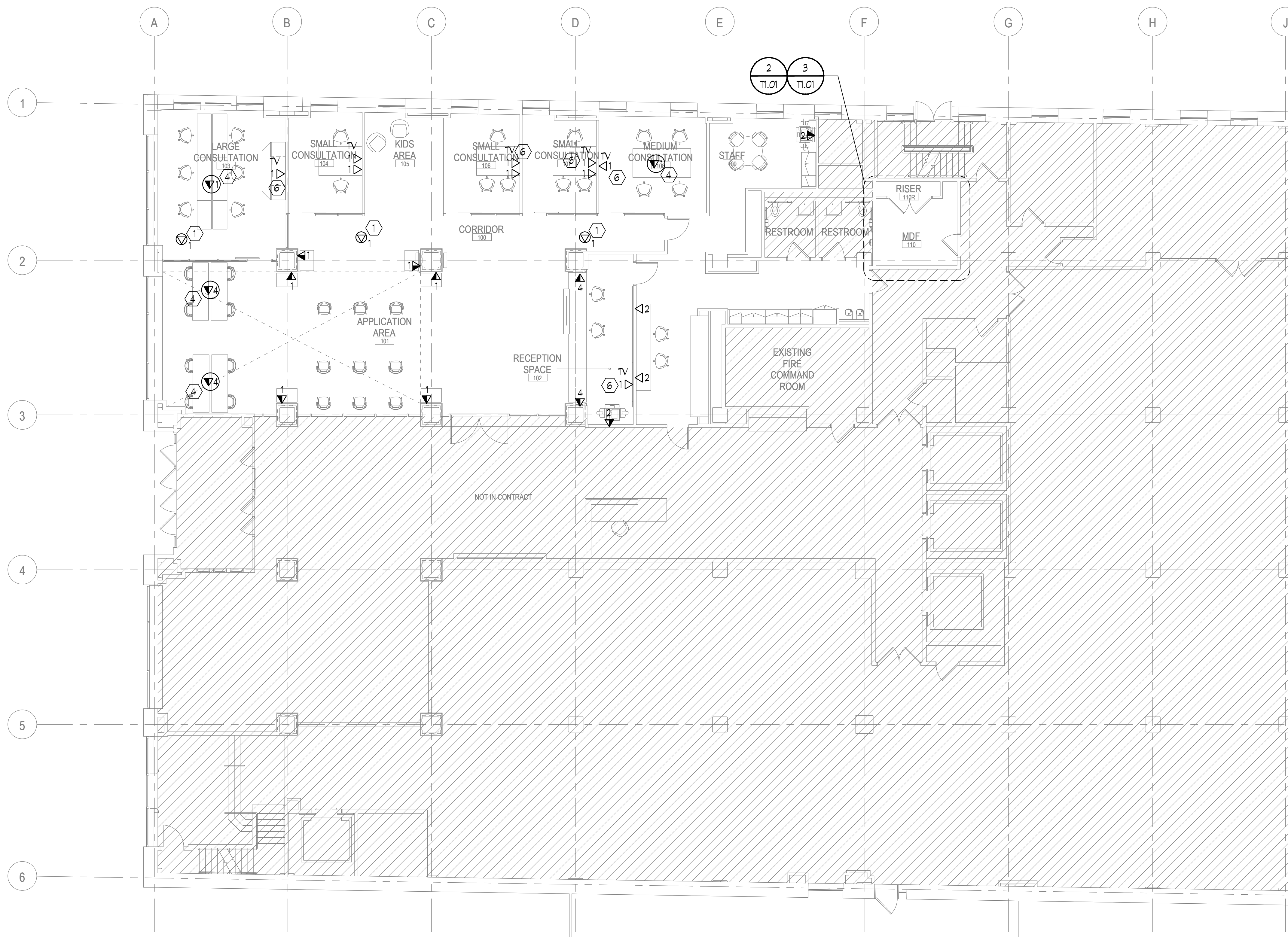
SHEET NAME:  
**TELECOM PLAN - LEVEL 1**

**GENERAL NOTES**

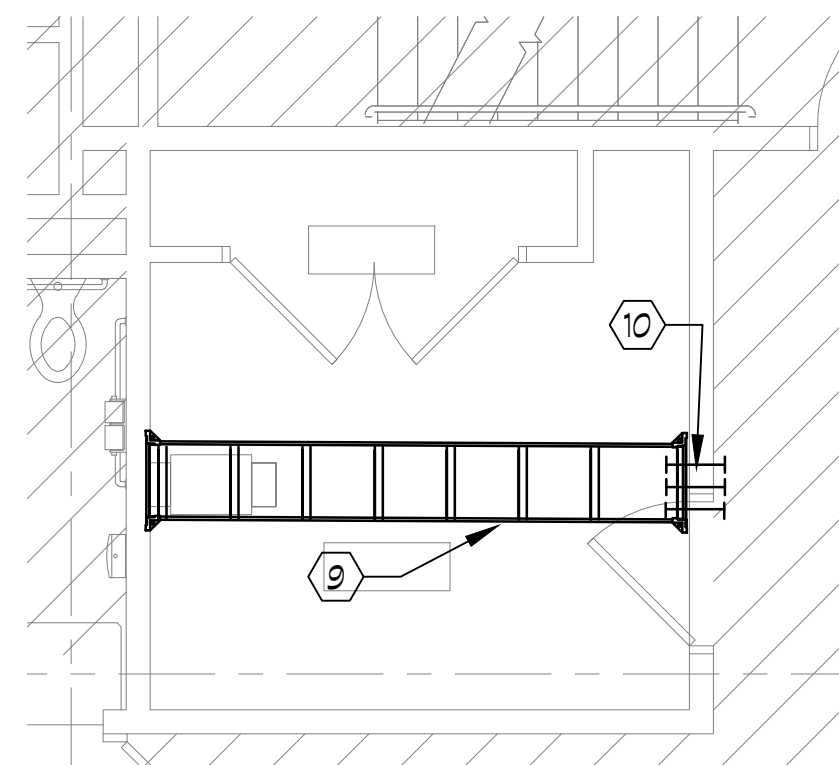
- SEE DRAWING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
- ALL CABLING IN OPEN CEILINGS SHALL BE COLOR PER SPECIFICATIONS AND SHALL BE INSTALLED IN EITHER CABLE TRAY OR J-HOOKS AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE TO CONCEAL CABLING UNTIL IT GETS BACK TO BASKET TRAY.
- ALL BASKET TRAY, J-HOOKS, ALL THREAD, BEAM CLAMPS, ETC. IN OPEN CEILING AREAS SHALL BE PAINTED COLOR WHITE TO MATCH COLOR OPEN CEILING AREA IS BEING PAINTED. COORDINATE ADDITIONAL REQUIREMENTS WITH ARCHITECT.
- INSTALL ALL WIRE BASKET TRAY AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE OR HEIGHT PER ARCHITECT UNLESS NOTED OTHERWISE. COORDINATE FINAL LOCATION OF WIRE MESH BASKET TRAY WITH LIGHT FIXTURES, DUCTWORK AND SPRINKLER LINES.

**CODED NOTES: (#)**

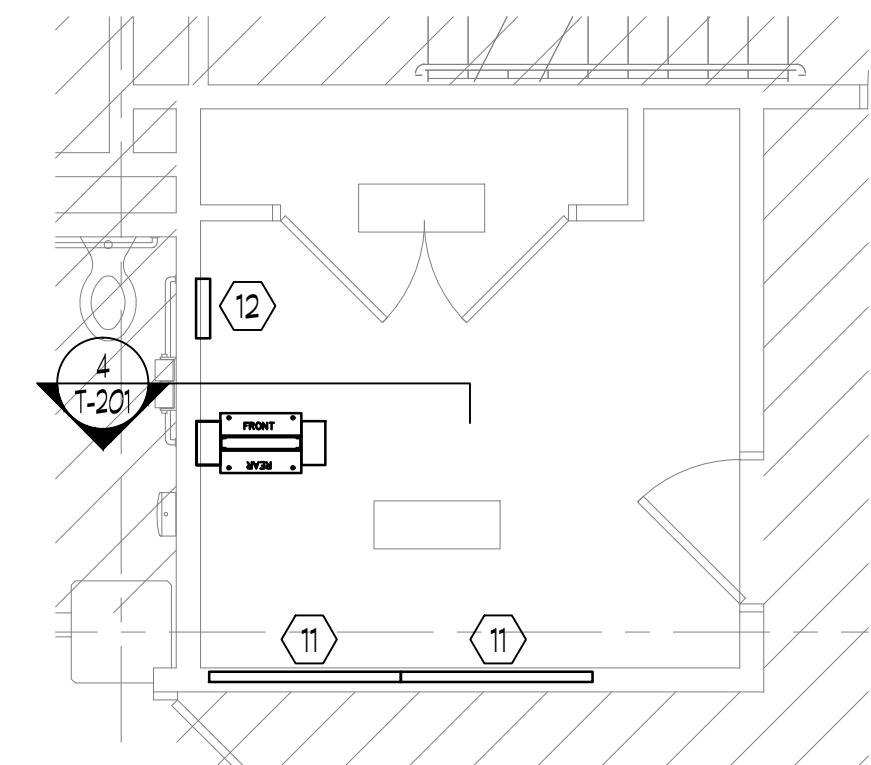
- PROVIDE 25' CABLE COIL WITH RJ45 8 POSITION MODULAR JACK TERMINATED ON END OF EACH CABLE.
- COMMUNICATIONS FURNITURE FEED (FLOOR FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT BELOW TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- COMMUNICATIONS FURNITURE FEED (WALL FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- POKE THRU AND ASSOCIATED CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THRU CONDUIT TO POKE THRU AND TERMINATE ON 8 PIN MODULAR JACKS. JACKS AND FACEPLATE SHALL BE PROVIDED BY THIS CONTRACTOR. COORDINATE POKE THRU TYPE WITH ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS OUTLET TO BE MOUNTED ON WORKSTATION FURNITURE. COORDINATE FINAL LOCATION OF OUTLET AND ROUTING OF WIRING THROUGH FURNITURE WITH FURNITURE CONTRACTOR.
- TELEVISION CABLING SHALL BE ROUTED TO OUTLETS IN TELEVISION ROUGH-IN. SEE POWER DRAWING FOR OUTLET BOX INFORMATION. PROVIDE DATA CABLING AS INDICATED.
- PROVIDE 12" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 6" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 18" CABLE RUNWAY AS SHOWN AND ASSOCIATED MOUNTING HARDWARE. MOUNT RUNWAY ON TOP OF 2 POST RACK. PROVIDE COMPONENTS REQUIRED FOR A COMPLETE SYSTEM AS FOLLOWS:  
 WALL SUPPORT  
 CEILING SUPPORT KIT  
 RADIUS DROP KITS  
 PROVIDE RADIUS DROP KIT OVER EACH VERTICAL WIRE MANAGER.
- PROVIDE (3) 4" CONDUITS FOR ROUTING HORIZONTAL CABLING. INSTALL AT HEIGHT 90 CONDUIT SITS DIRECTLY ON EDGE OF WIRE MESH BASKET TRAY. ROUTE HORIZONTAL AND BACKBONE CABLING THROUGH AND FIRESTOP AS REQUIRED.
- PLYWOOD PROVIDED BY ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS GROUND BAR PROVIDED BY ELECTRICAL CONTRACTOR.
- EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL BACKBONE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO TELECOM PATCH PANEL ON THIS FLOOR UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED.



**1**  
 T1.01  
**TELECOM PLAN - LEVEL 1**  
 1/8" = 1'-0"



**2**  
 T1.01  
**MDF ROOM 122 - RUNWAY PLAN**  
 1/8" = 1'-0"



**3**  
 T1.01  
**MDF ROOM 122 - EQUIPMENT PLAN**  
 1/8" = 1'-0"

PROFESSIONAL SEAL:

CONSULTANT:

CLIENT:

200 Ross St. Pittsburgh, PA 15219  
(412) 456-5000  
hacp.org

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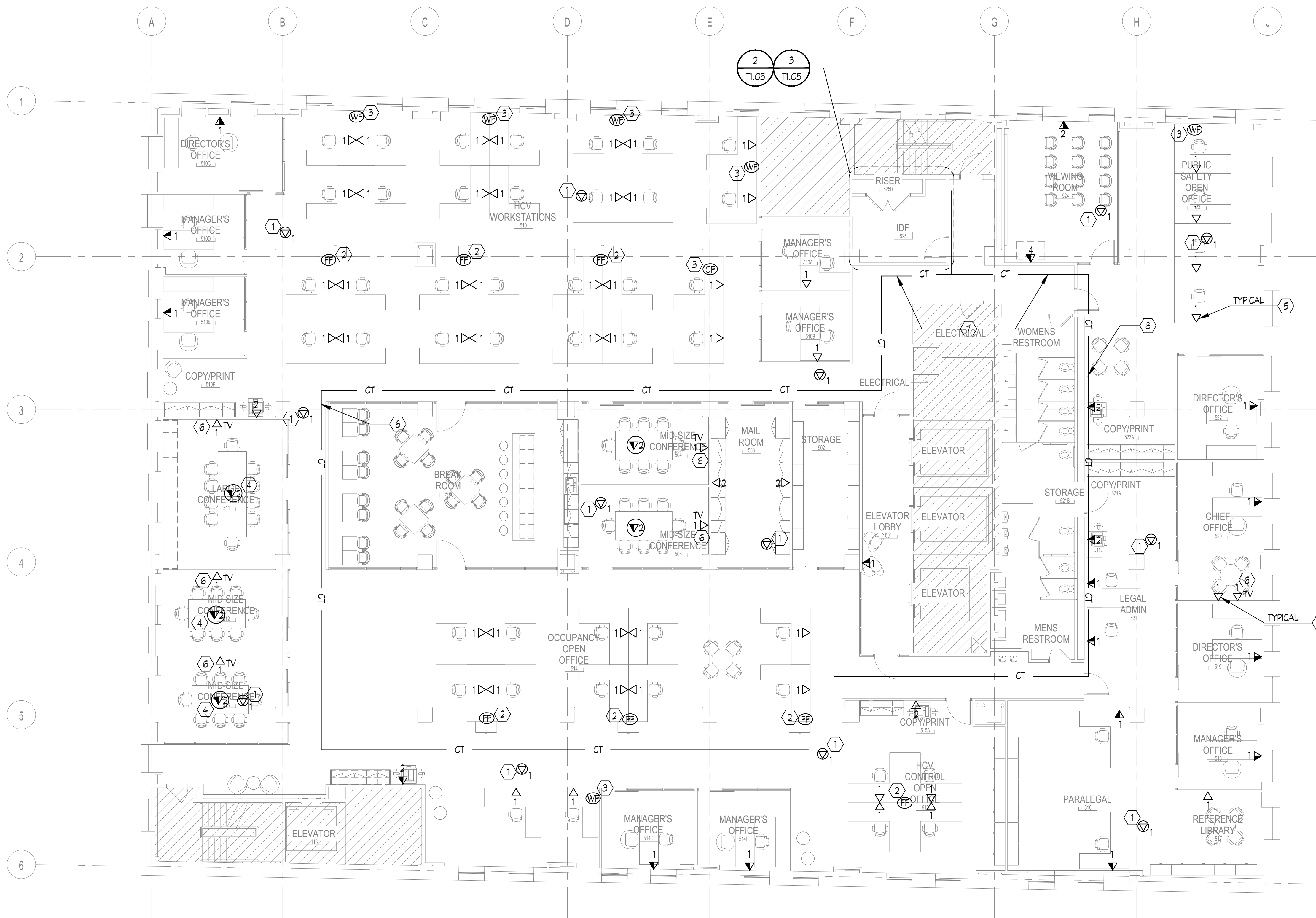
TELECOM PLAN - LEVEL 5

**GENERAL NOTES**

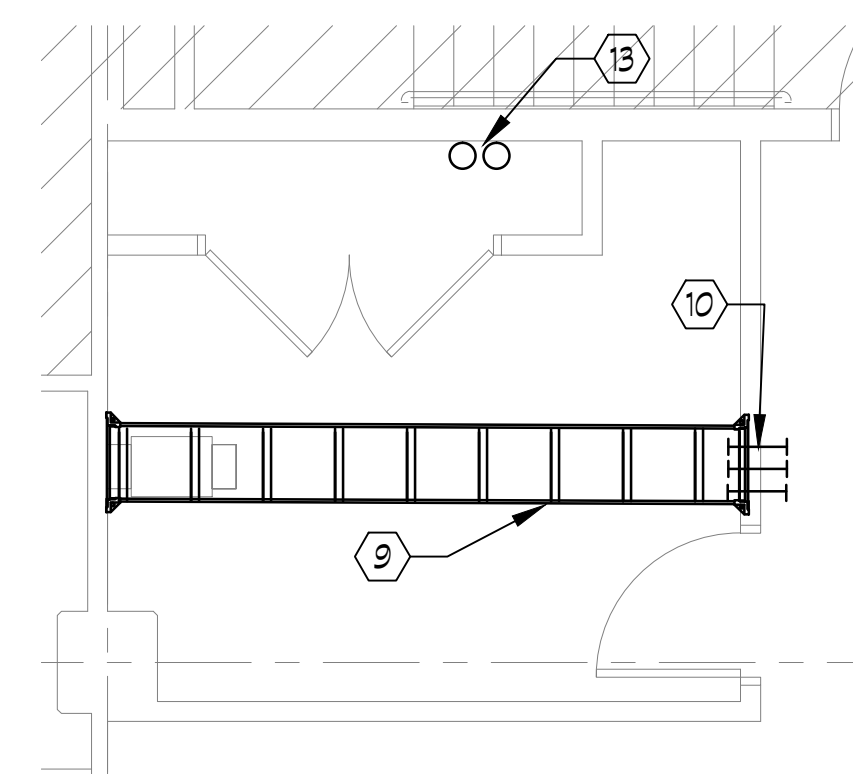
- SEE DRAWING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
- ALL CABLING IN OPEN CEILINGS SHALL BE COLOR PER SPECIFICATIONS AND SHALL BE INSTALLED IN EITHER CABLE TRAY OR J-HOOKS AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE TO CONCEAL CABLING UNTIL IT GETS BACK TO BASKET TRAY.
- ALL BASKET TRAY, J-HOOKS, ALL THREAD, BEAM CLAMPS, ETC. IN OPEN CEILING AREAS SHALL BE PAINTED COLOR WHITE TO MATCH COLOR OPEN CEILING AREA IS BEING PAINTED. COORDINATE ADDITIONAL REQUIREMENTS WITH ARCHITECT.
- INSTALL ALL WIRE BASKET TRAY AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE OR HEIGHT PER ARCHITECT UNLESS NOTED OTHERWISE. COORDINATE FINAL LOCATION OF WIRE MESH BASKET TRAY WITH LIGHT FIXTURES, DUCTWORK AND SPRINKLER LINES.

**CODED NOTES:**

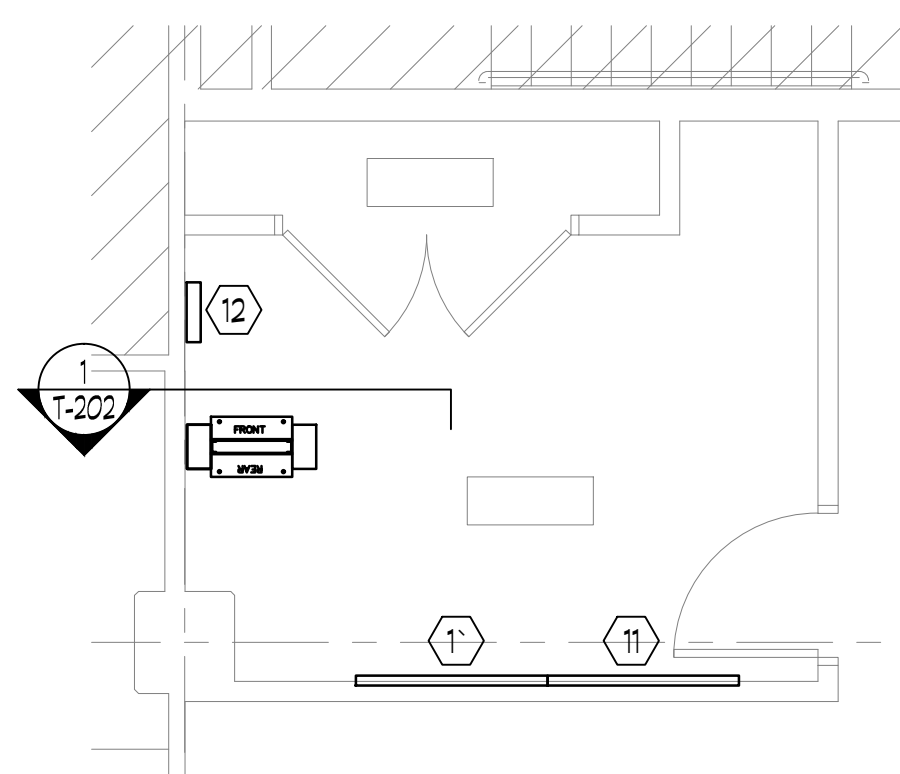
- PROVIDE 25' CABLE COIL WITH RJ45 & POSITION MODULAR JACK TERMINATED ON END OF EACH CABLE.
- COMMUNICATIONS FURNITURE FEED (FLOOR FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT BELOW TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- COMMUNICATIONS FURNITURE FEED (WALL FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- POKE THRU AND ASSOCIATED CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THRU CONDUIT TO POKE THRU AND TERMINATE ON 8 PIN MODULAR JACKS. JACKS AND FACEPLATE SHALL BE PROVIDED BY THIS CONTRACTOR. COORDINATE POKE THRU TYPE WITH ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS OUTLET TO BE MOUNTED ON WORKSTATION FURNITURE. COORDINATE FINAL LOCATION OF OUTLET AND ROUTING OF WIRING THROUGH FURNITURE WITH FURNITURE CONTRACTOR.
- TELEVISION CABLING SHALL BE ROUTED TO OUTLETS IN TELEVISION ROUGH-IN. SEE POWER DRAWING FOR OUTLET BOX INFORMATION. PROVIDE DATA CABLING AS INDICATED.
- PROVIDE 12" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 6" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 18" CABLE RUNWAY AS SHOWN AND ASSOCIATED MOUNTING HARDWARE. MOUNT RUNWAY ON TOP OF 2 POST RACK. PROVIDE COMPONENTS REQUIRED FOR A COMPLETE SYSTEM AS FOLLOWS:  
  
WALL SUPPORT  
CEILING SUPPORT KIT  
RADIUS DROP KITS  
  
PROVIDE RADIUS DROP KIT OVER EACH VERTICAL WIRE MANAGER.
- PROVIDE (3) 4" CONDUITS FOR ROUTING HORIZONTAL CABLING. INSTALL AT HEIGHT SO CONDUIT SITS DIRECTLY ON EDGE OF WIRE MESH BASKET TRAY. ROUTE HORIZONTAL AND BACKBONE CABLING THROUGH AND FIRESTOP AS REQUIRED.
- PLYWOOD PROVIDED BY ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS GROUND BAR PROVIDED BY ELECTRICAL CONTRACTOR.
- EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL BACKBONE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO TELECOM PATCH PANEL ON THIS FLOOR UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED.



**1** TELECOM PLAN - LEVEL 5  
T1.05 1/8" = 1'-0"



**2** IDF ROOM 520 - RUNWAY PLAN  
T1.05 1/8" = 1'-0"



**3** IDF ROOM 520 - EQUIPMENT PLAN  
T1.05 1/8" = 1'-0"

PROFESSIONAL SEAL:

CONSULTANT:

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
**TELECOM PLAN - LEVEL 6**

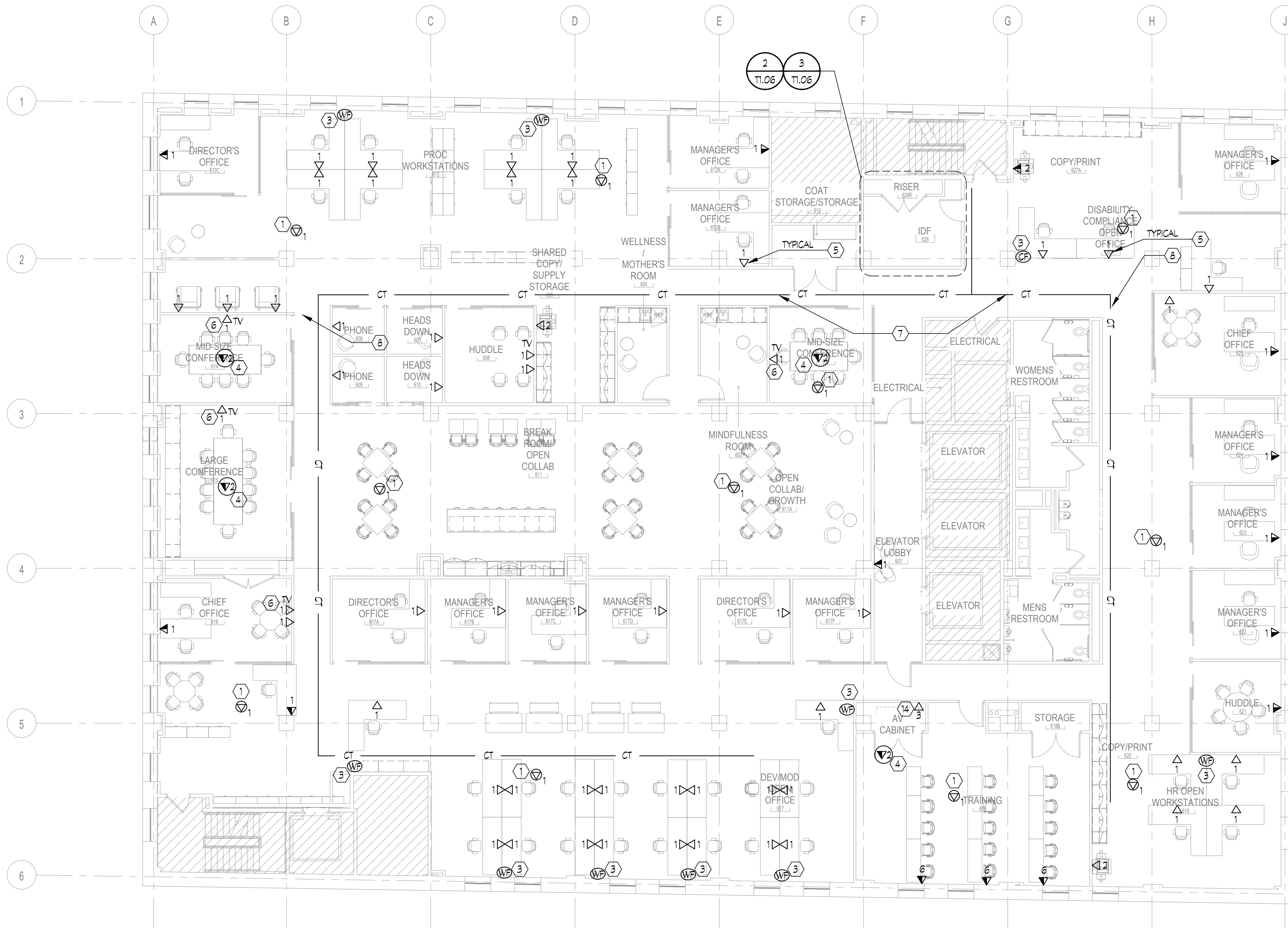
SHEET NO:  
**T1.06**  
 TRUE NORTH  
 PLAN NORTH

**GENERAL NOTES**

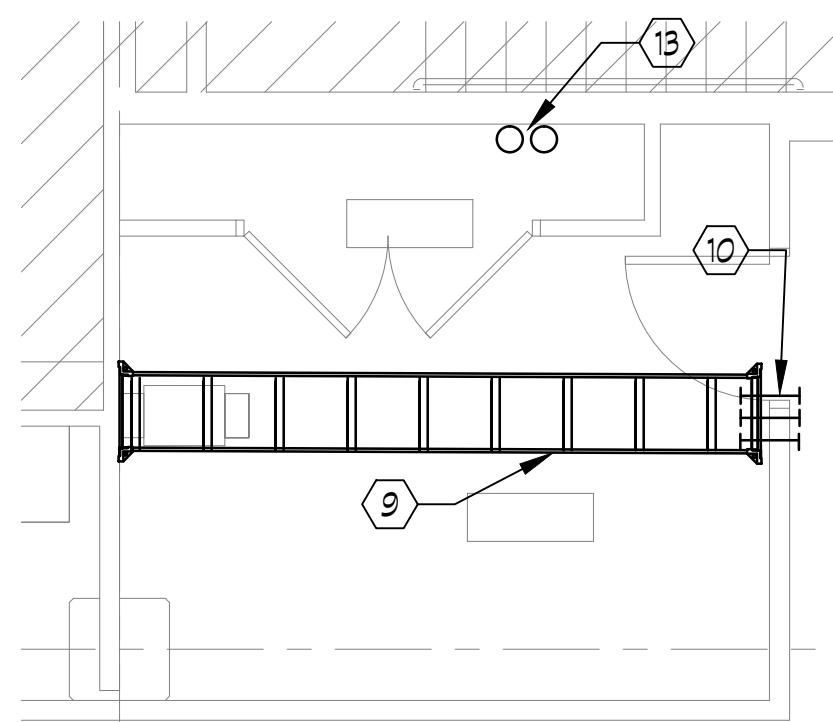
- SEE DRAWING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
- ALL CABLING IN OPEN CEILINGS SHALL BE COLOR PER SPECIFICATIONS AND SHALL BE INSTALLED IN EITHER CABLE TRAY OR J-HOOKS AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE TO CONCEAL CABLING UNTIL IT GETS BACK TO BASKET TRAY.
- ALL BASKET TRAY, J-HOOKS, ALL THREAD, BEAM CLAMPS, ETC. IN OPEN CEILING AREAS SHALL BE PAINTED COLOR WHITE TO MATCH COLOR OPEN CEILING AREA IS BEING PAINTED. COORDINATE ADDITIONAL REQUIREMENTS WITH ARCHITECT.
- INSTALL ALL WIRE BASKET TRAY AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE OR HEIGHT PER ARCHITECT UNLESS NOTED OTHERWISE. COORDINATE FINAL LOCATION OF WIRE MESH BASKET TRAY WITH LIGHT FIXTURES, DUCTWORK AND SPRINKLER LINES.

**CODED NOTES:**

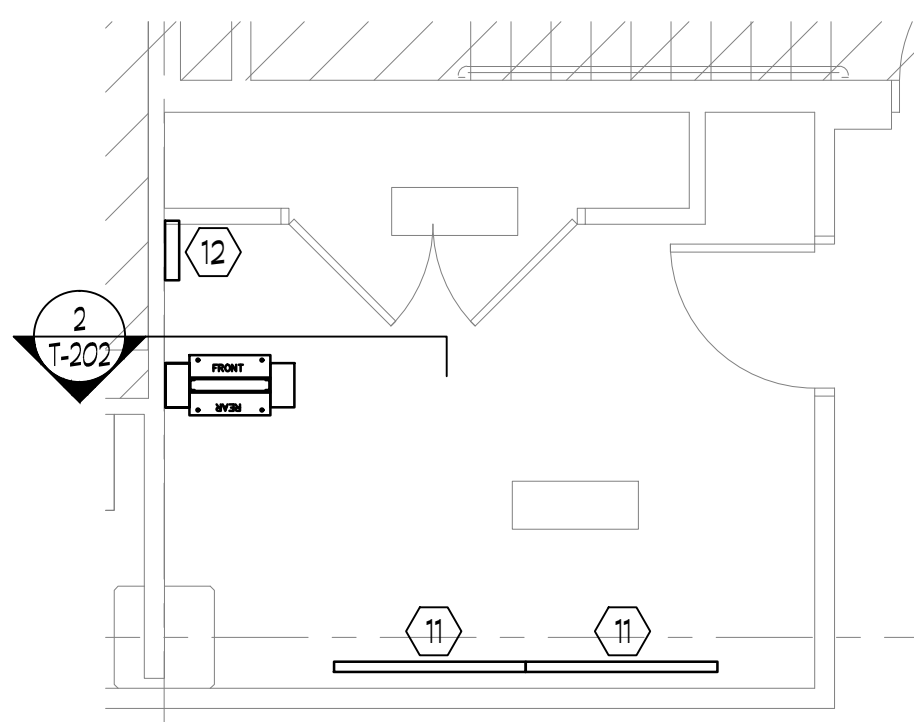
- PROVIDE 25' CABLE COIL WITH RJ45 8 POSITION MODULAR JACK TERMINATED ON END OF EACH CABLE.
- COMMUNICATIONS FURNITURE FEED (FLOOR FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT BELOW TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- COMMUNICATIONS FURNITURE FEED (WALL FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- POKE THRU AND ASSOCIATED CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THRU CONDUIT TO POKE THRU AND TERMINATE ON 8 PIN MODULAR JACKS. JACKS AND FACEPLATE SHALL BE PROVIDED BY THIS CONTRACTOR. COORDINATE POKE THRU TYPE WITH ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS OUTLET TO BE MOUNTED ON WORKSTATION FURNITURE. COORDINATE FINAL LOCATION OF OUTLET AND ROUTING OF WIRING THROUGH FURNITURE WITH FURNITURE CONTRACTOR.
- TELEVISION CABLING SHALL BE ROUTED TO OUTLETS IN TELEVISION ROUGH-IN. SEE POWER DRAWING FOR OUTLET BOX INFORMATION. PROVIDE DATA CABLING AS INDICATED.
- PROVIDE 12" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 6" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 18" CABLE RUNWAY AS SHOWN AND ASSOCIATED MOUNTING HARDWARE. MOUNT RUNWAY ON TOP OF 2 POST RACK. PROVIDE COMPONENTS REQUIRED FOR A COMPLETE SYSTEM AS FOLLOWS:  
 WALL SUPPORT  
 CEILING SUPPORT KIT  
 RADIUS DROP KITS  
 PROVIDE RADIUS DROP KIT OVER EACH VERTICAL WIRE MANAGER.
- PROVIDE (3) 4" CONDUITS FOR ROUTING HORIZONTAL CABLING. INSTALL AT HEIGHT SO CONDUIT SITS DIRECTLY ON EDGE OF WIRE MESH BASKET TRAY. ROUTE HORIZONTAL AND BACKBONE CABLING THROUGH AND FIRESTOP AS REQUIRED.
- PLYWOOD PROVIDED BY ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS GROUND BAR PROVIDED BY ELECTRICAL CONTRACTOR.
- EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL BACKBONE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO TELECOM PATCH PANEL ON THIS FLOOR UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED.
- DATA CABLING FOR AV EQUIPMENT FOR TRAINING ROOM. COORDINATE WITH AV CONTRACTOR.



**1 TELECOM PLAN - LEVEL 6**  
 T1.06 1/8" = 1'-0"



**2 IDF ROOM 628 - RUNWAY PLAN**  
 T1.06 1/8" = 1'-0"



**3 IDF ROOM 628 - EQUIPMENT PLAN**  
 T1.06 1/8" = 1'-0"

PROFESSIONAL SEAL:

CONSULTANT:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

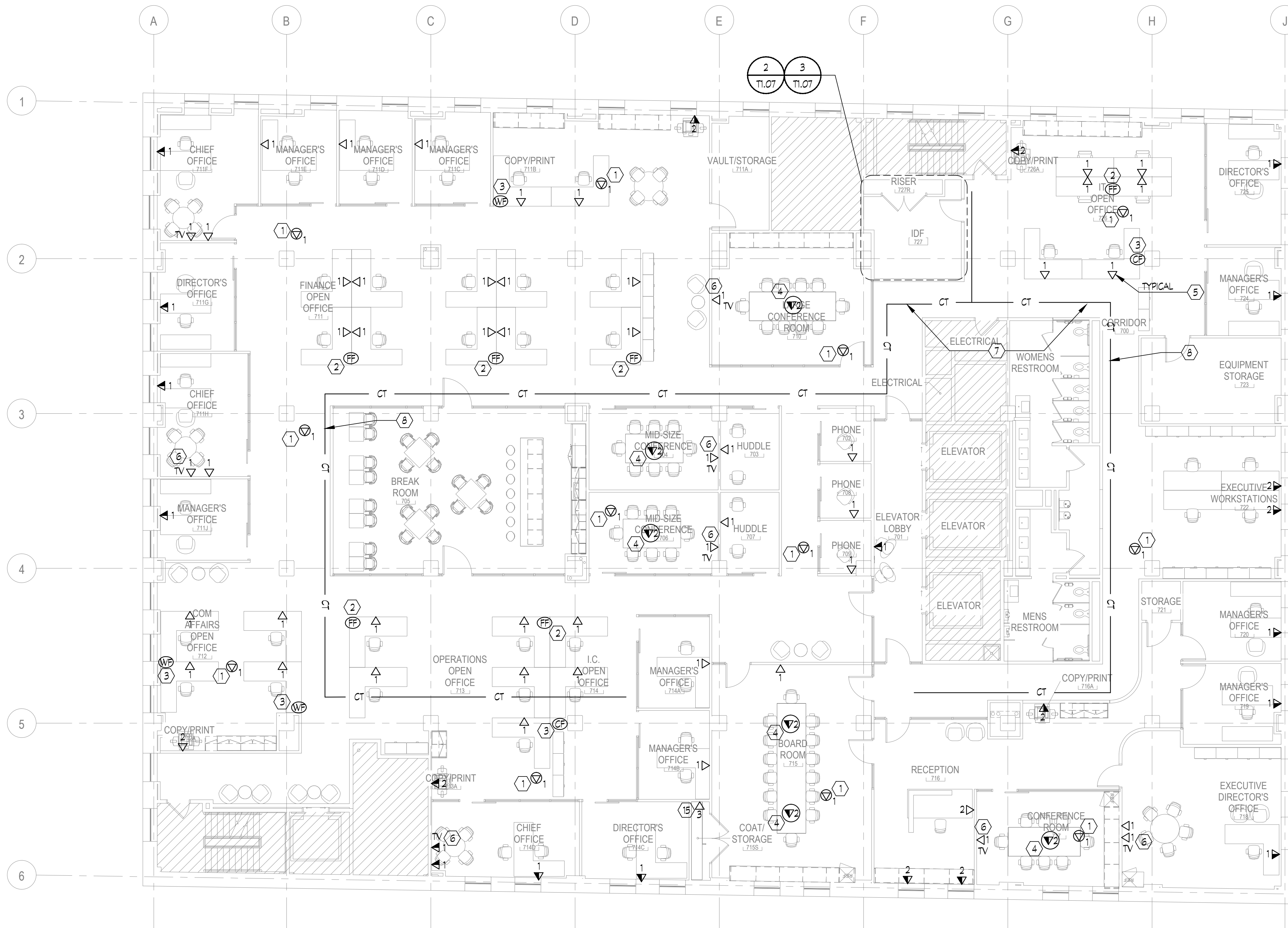
TELECOM PLAN - LEVEL 7

**GENERAL NOTES**

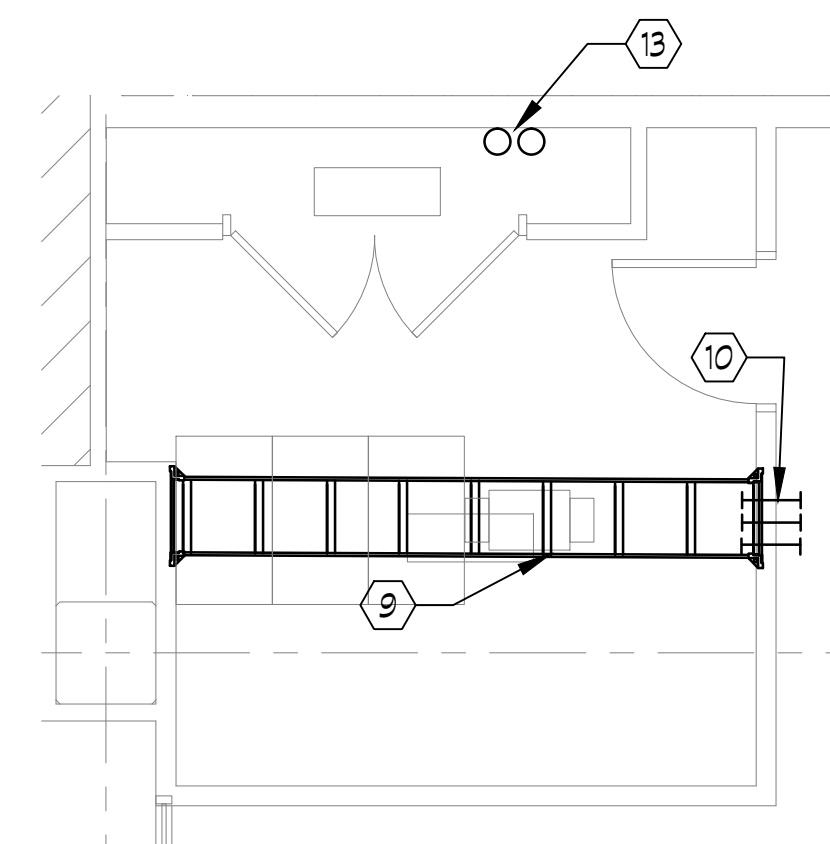
- SEE DRAWING SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
- ALL CABLING IN OPEN CEILINGS SHALL BE COLOR PER SPECIFICATIONS AND SHALL BE INSTALLED IN EITHER CABLE TRAY OR J-HOOKS AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE TO CONCEAL CABLING UNTIL IT GETS BACK TO BASKET TRAY.
- ALL BASKET TRAY, J-HOOKS, ALL THREAD, BEAM CLAMPS, ETC. IN OPEN CEILING AREAS SHALL BE PAINTED COLOR WHITE TO MATCH COLOR OPEN CEILING AREA IS BEING PAINTED. COORDINATE ADDITIONAL REQUIREMENTS WITH ARCHITECT.
- INSTALL ALL WIRE BASKET TRAY AS TIGHT TO BEAM/STRUCTURAL STEEL AS POSSIBLE OR HEIGHT PER ARCHITECT UNLESS NOTED OTHERWISE. COORDINATE FINAL LOCATION OF WIRE MESH BASKET TRAY WITH LIGHT FIXTURES, DUCTWORK AND SPRINKLER LINES.

**CODED NOTES:**

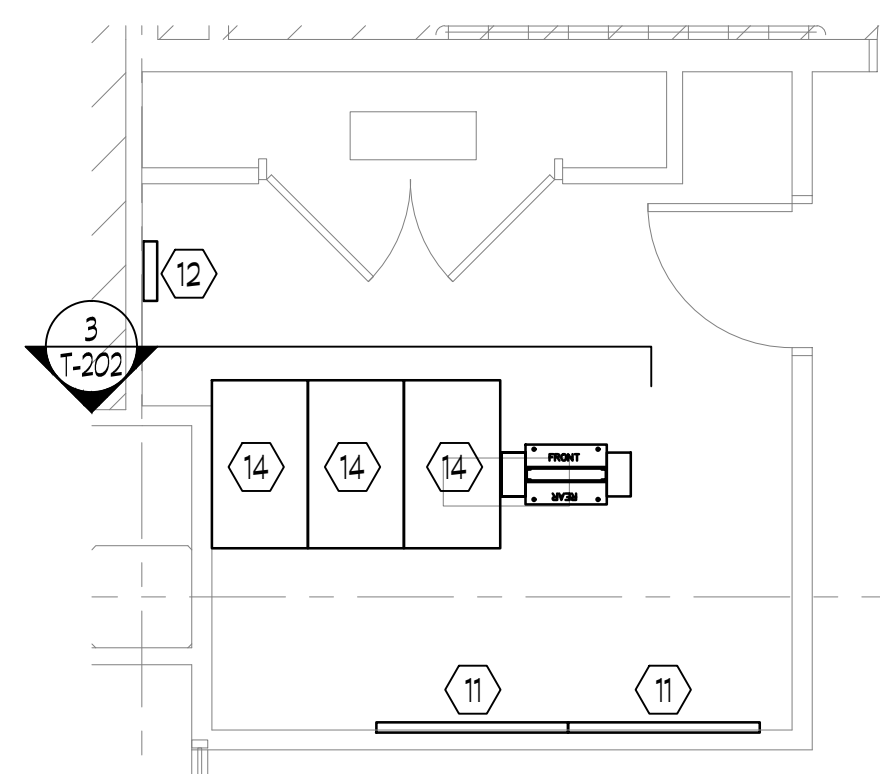
- PROVIDE 25' CABLE COIL WITH RJ45 8 POSITION MODULAR JACK TERMINATED ON END OF EACH CABLE.
- COMMUNICATIONS FURNITURE FEED (FLOOR FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT BELOW TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- COMMUNICATIONS FURNITURE FEED (WALL FEED) PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THROUGH FURNITURE VIA CONDUIT TO BASKET TRAY ABOVE ACCESSIBLE CEILING ON THIS FLOOR. COORDINATE FINAL CONNECTION AND PULLING THROUGH FURNITURE WITH FURNITURE VENDOR.
- POKE THRU AND ASSOCIATED CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PULL TELECOMMUNICATIONS CABLING THRU CONDUIT TO POKE THRU AND TERMINATE ON 8 PIN MODULAR JACKS. JACKS AND FACEPLATE SHALL BE PROVIDED BY THIS CONTRACTOR. COORDINATE POKE THRU TYPE WITH ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS OUTLET TO BE MOUNTED ON WORKSTATION FURNITURE. COORDINATE FINAL LOCATION OF OUTLET AND ROUTING OF WIRING THROUGH FURNITURE WITH FURNITURE CONTRACTOR.
- TELEVISION CABLING SHALL BE ROUTED TO OUTLETS IN TELEVISION ROUGH-IN. SEE POWER DRAWING FOR OUTLET BOX INFORMATION. PROVIDE DATA CABLING AS INDICATED.
- PROVIDE 12" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 6" WIDE X 2" DEEP WIRE MESH BASKET TRAY AND ALL ASSOCIATED SUPPORTS AS REQUIRED BY MANUFACTURER. COLOR SHALL BE WHITE. COORDINATE FINAL COLOR WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE FINAL ROUTING WITH DUCTWORK, SPRINKLER LINES AND LIGHTING PRIOR TO INSTALLATION.
- PROVIDE 18" CABLE RUNWAY AS SHOWN AND ASSOCIATED MOUNTING HARDWARE. MOUNT RUNWAY ON TOP OF 2 POST RACK. PROVIDE COMPONENTS REQUIRED FOR A COMPLETE SYSTEM AS FOLLOWS:  
 WALL SUPPORT  
 CEILING SUPPORT KIT  
 RADIUS DROP KITS  
 PROVIDE RADIUS DROP KIT OVER EACH VERTICAL WIRE MANAGER.
- PROVIDE (3) 4" CONDUITS FOR ROUTING HORIZONTAL CABLING. INSTALL AT HEIGHT SO CONDUIT SITS DIRECTLY ON EDGE OF WIRE MESH BASKET TRAY. ROUTE HORIZONTAL AND BACKBONE CABLING THROUGH AND FIRESTOP AS REQUIRED.
- PLYWOOD PROVIDED BY ELECTRICAL CONTRACTOR.
- TELECOMMUNICATIONS GROUND BAR PROVIDED BY ELECTRICAL CONTRACTOR.
- EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL BACKBONE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO TELECOM PATCH PANEL ON THIS FLOOR UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED.
- CABINET FURNISHED AND INSTALLED BY HACP.
- DATA CABLING FOR A/V EQUIPMENT FOR BOARDROOM. COORDINATE WITH A/V CONTRACTOR.



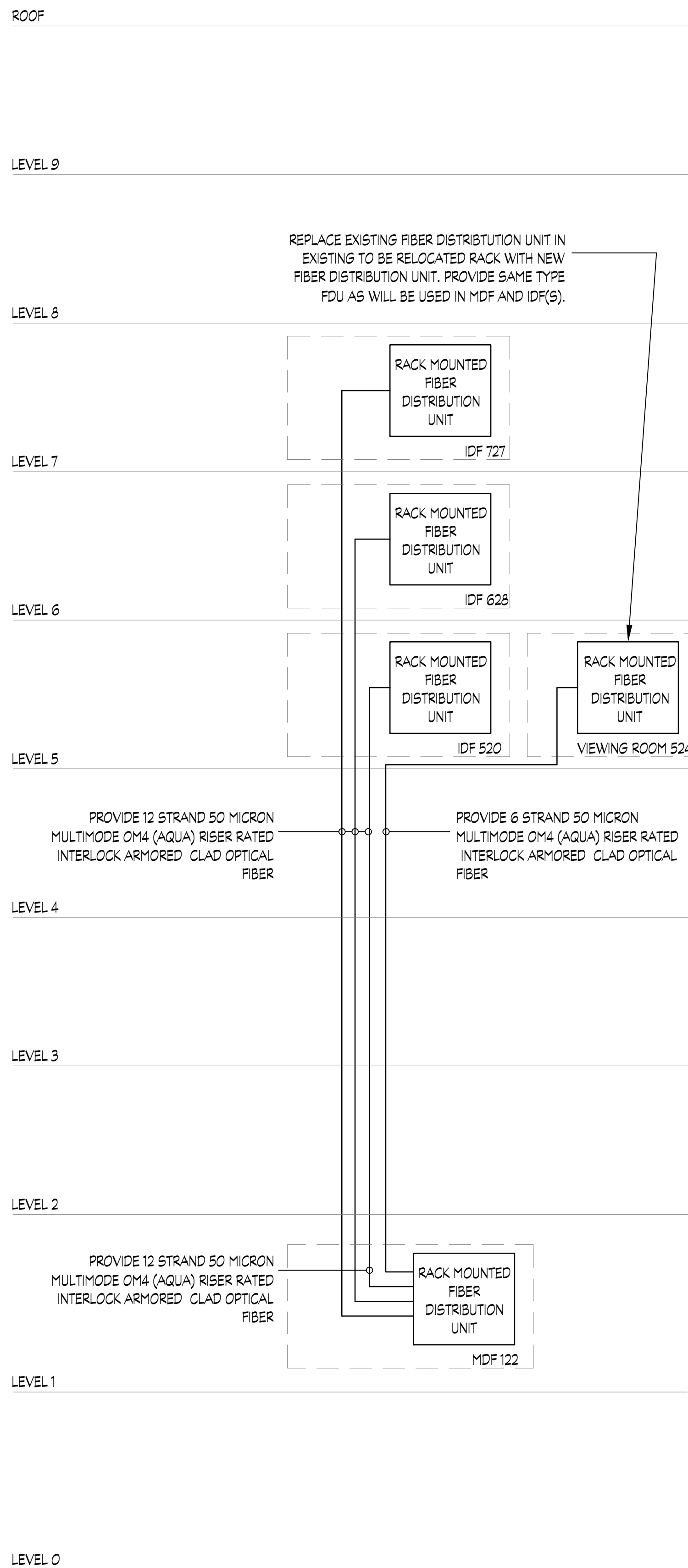
1 TELECOM PLAN - LEVEL 7  
 T1.07 1/8" = 1'-0"



2 IDF ROOM 727 - RUNWAY PLAN  
 T1.07 1/8" = 1'-0"

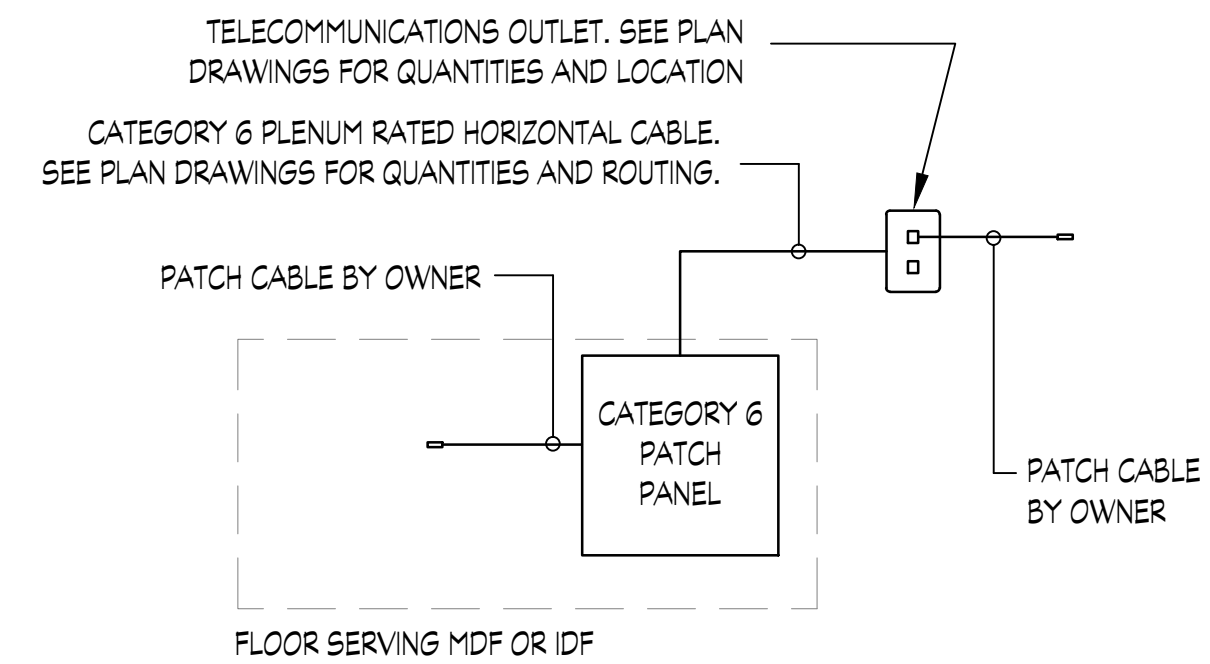


3 IDF ROOM 727 - EQUIPMENT PLAN  
 T1.07 1/8" = 1'-0"



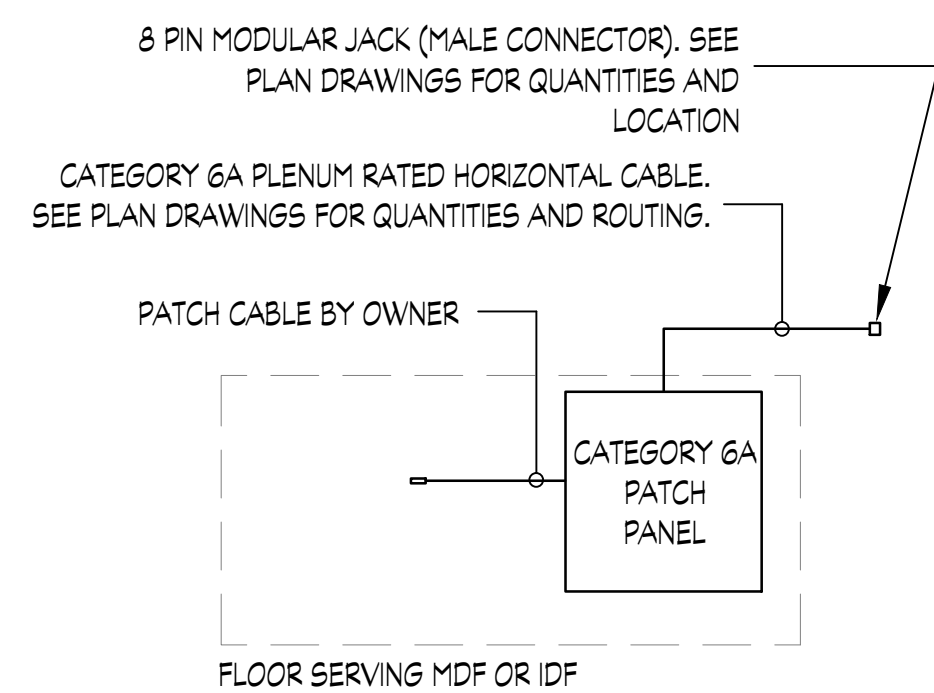
**1 FIBER BACKBONE WIRING DIAGRAM**  
T2.01 SCALE: NTS

1. SEE TELECOMMUNICATIONS SPECIFICATIONS FOR APPROVED MANUFACTURERS.



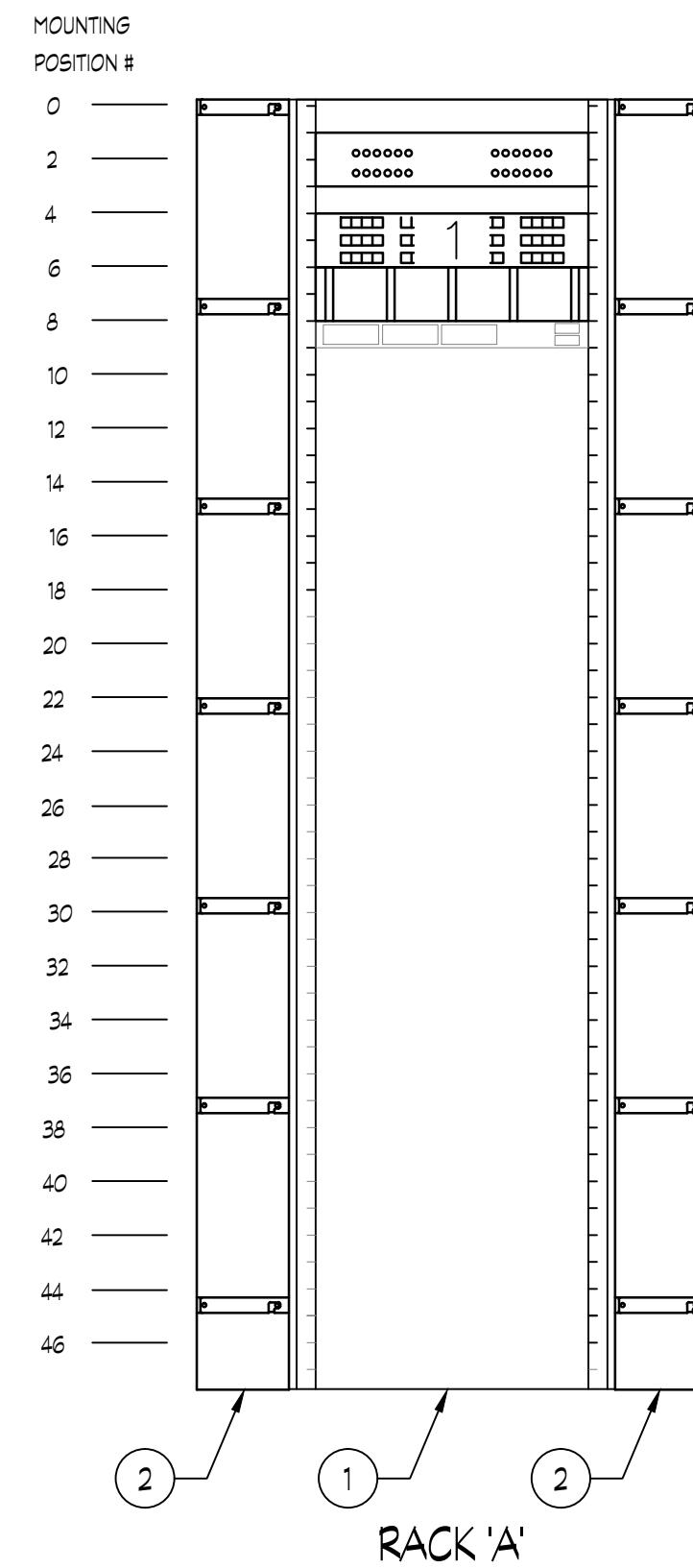
**2 TYPICAL HORIZONTAL CABLING SYSTEM WIRING DIAGRAM**  
T2.01 SCALE: NTS DATA CABLING

- HORIZONTAL CABLING WIRING DIAGRAM IS FOR DIAGRAMMATIC PURPOSES "ONLY". SEE PLAN DRAWINGS FOR ACTUAL DEVICE LOCATIONS AND QUANTITIES.
- DATA JACKS SHALL BE COLOR WHITE.
- DATA CABLE SHALL BE COLOR WHITE.
- SEE TELECOM GENERAL NOTES ON DRAWING T0.01 FOR APPROVED MANUFACTURERS.
- SEE TELECOMMUNICATIONS LEGEND ON DRAWING T0.01 FOR DESCRIPTION OF CABLE QUANTITY IDENTIFIER.



**3 TYPICAL HORIZONTAL CABLING SYSTEM WIRING DIAGRAM**  
T2.01 SCALE: NTS WIRELESS CABLING

- HORIZONTAL CABLING WIRING DIAGRAM IS FOR DIAGRAMMATIC PURPOSES "ONLY". SEE PLAN DRAWINGS FOR ACTUAL DEVICE LOCATIONS AND QUANTITIES.
- WIRELESS JACKS SHALL BE COLOR WHITE.
- WIRELESS CABLE SHALL BE COLOR WHITE.
- SEE TELECOM GENERAL NOTES ON DRAWING T0.01 FOR APPROVED MANUFACTURERS.
- SEE TELECOMMUNICATIONS LEGEND ON DRAWING T-001 FOR DESCRIPTION OF CABLE QUANTITY IDENTIFIER OF FIRST AND SECOND NUMBER.



**4 MDF 122 - RACK ELEVATION**  
T2.01 SCALE: 1" = 1'-0"

**RACK 'A' LINE-UP EQUIPMENT SCHEDULE - MDF 122**

MTG. POSITION #	EQUIPMENT TYPE	EQUIPMENT DESCRIPTION	STATUS
1	UNIPRISE 760-210-740	FIBER DISTRIBUTION ENCLOSURE (2U HIGH) WITH LC ADAPTERS AND CONNECTORS	PROVIDE AND INSTALL. PROVIDE ADAPTERS AS REQUIRED TO TERMINATE FIBER FROM LEVEL 5, LEVEL 6 AND LEVEL 7 IDF(S). SEE FIBER BACKBONE DIAGRAM THIS DRAWING T2.01 ADDITIONAL REQUIREMENTS
4	REFER TO SPECIFICATIONS	48 PORT CATEGORY 6A PATCH PANEL (2U HIGH). PROVIDE BLUE JACKS FOR (DATA) AND GREEN JACKS FOR (WIRELESS DATA)	PROVIDE AND INSTALL. WIRELESS IS CAT6A JACK AND DATA IS CAT6 JACKS
6	CHATSWORTH 30130-719	HORIZONTAL CABLE MANAGEMENT PANEL (2U HIGH)	PROVIDE AND INSTALL
8	-	48 PORT POE SWITCH BY OWNER	-
10 THRU 46	-	SPACE FOR FUTURE CABLING AND OWNERS NETWORK EQUIPMENT	-

GENERAL NOTE:  
MANUFACTURER AND MODEL NUMBERS ARE FOR DESCRIPTION PURPOSE ONLY. SEE TELECOMMUNICATIONS GENERAL NOTES ON DRAWING T002 FOR APPROVED MANUFACTURERS.

**GENERAL NOTES**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OWNER'S REPRESENTATIVE PROCEDURES.

**GENERAL MATERIALS NOTES:**

- THE SYMBOL -(1), ETC. ON THIS DRAWING ARE IN REFERENCE TO THE "LIST OF MATERIALS" SCHEDULE ON THIS DRAWING. REFER TO SCHEDULE FOR MANUFACTURER, MODEL NUMBER AND ADDITIONAL REQUIREMENTS.
- PROVIDE A #6 AWG INSULATED GROUND FROM TMBB TO EACH OF THE FOLLOWING: EQUIPMENT RACKS, CABINETS, CABLE RUNWAY. PROVIDE PANDUIT EQUIPMENT JUMPER KIT #RGEJ624PHY, PANDUIT ESD PORT KIT #RGEED2-1 AND PANDUIT COMMON BONDING NETWORK KIT #RGCBNJ660PY OR APPROVED EQUAL. GROUND AND BOND AS PER IATIA 606 "GROUNDING AND BONDING REQUIREMENTS".

**LIST OF MATERIALS MDF 122**

ITEM NO.	PART NO.	MANUF.	DESCRIPTION	REMARKS
1	55053-703	CHATSWORTH	7 HIGH X 19" WIDE FLOOR MOUNTED 2 POST RACK	
2	13912-703	CHATSWORTH	7 HIGH X 6" WIDE DOUBLE SIDED VERTICAL WIRE MANAGER	

PROFESSIONAL SEAL:

CONSULTANT:

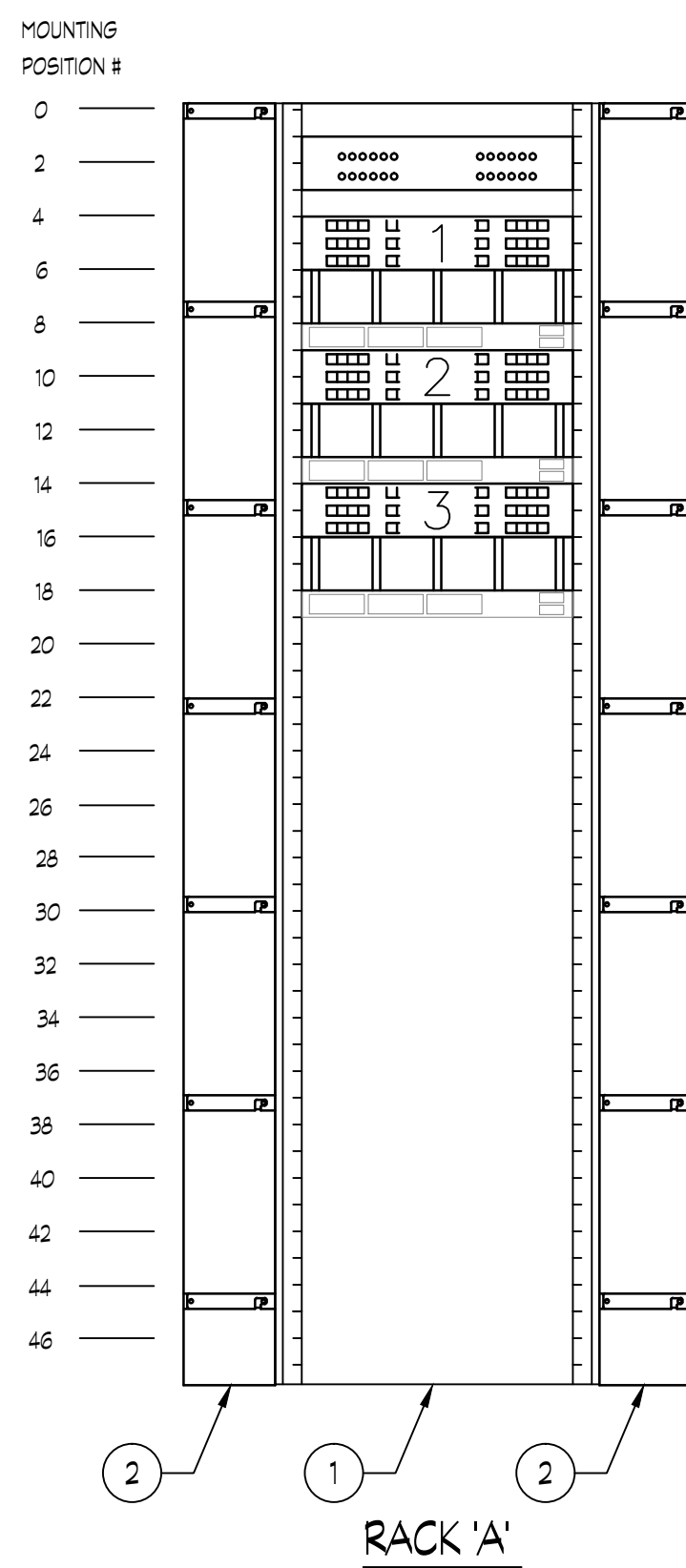
NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

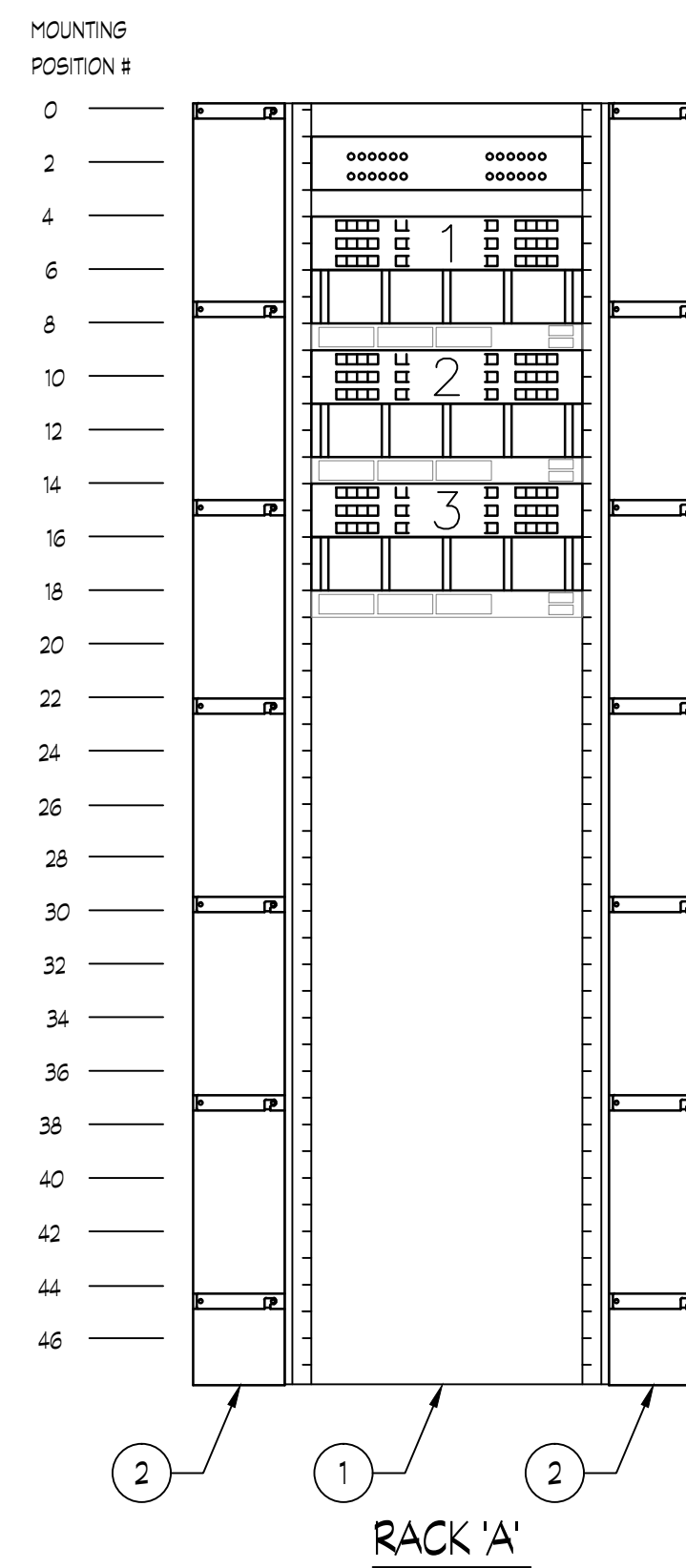
TELECOM RISERS, DETAILS AND ELEVATIONS

PROFESSIONAL SEAL:

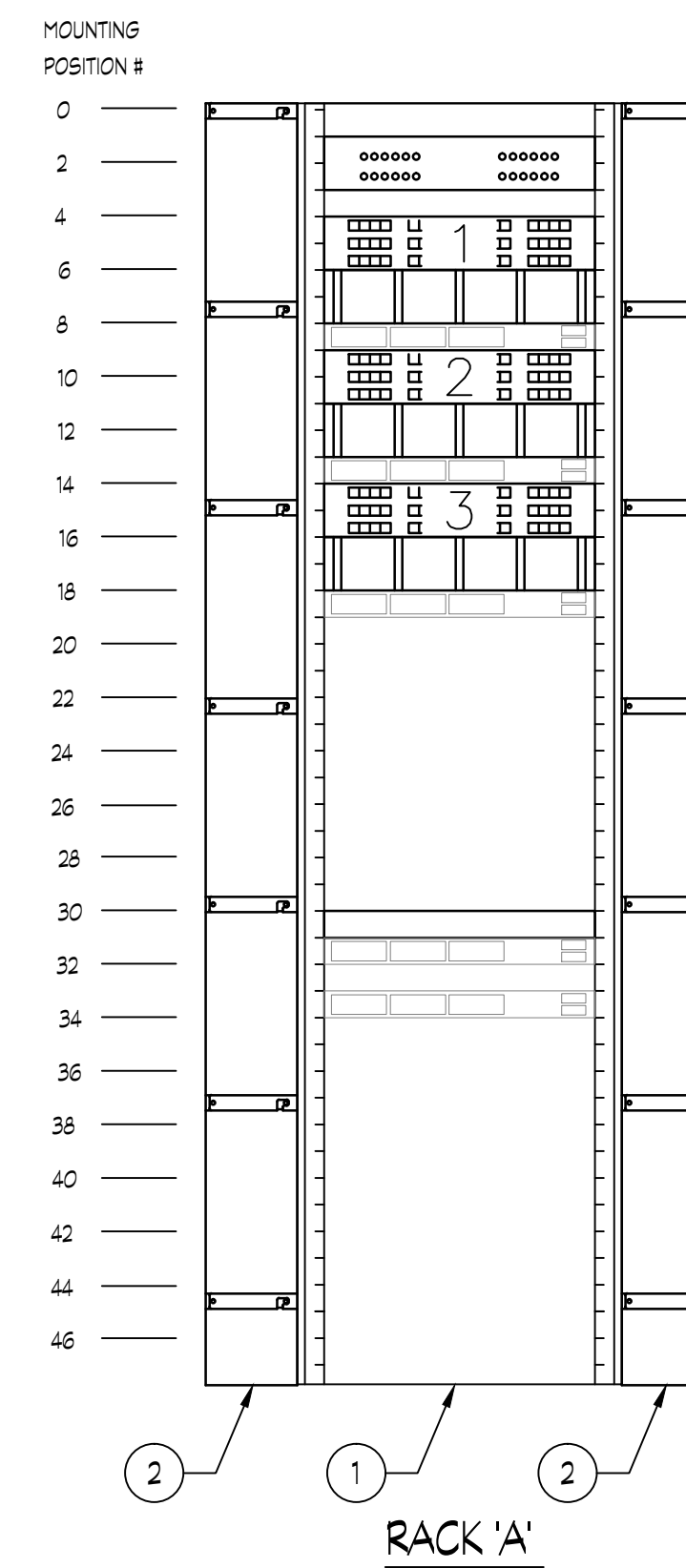
CONSULTANT:



**1 IDF 520 - RACK ELEVATION**  
 T2.02 SCALE: 1" = 1'-0"



**2 IDF 628 - RACK ELEVATION**  
 T2.02 SCALE: 1" = 1'-0"



**3 IDF 727 - RACK ELEVATION**  
 T2.02 SCALE: 1" = 1'-0"

RACK 'A' LINE-UP EQUIPMENT SCHEDULE - IDF 520			
MTG. POSITION #	EQUIPMENT TYPE	EQUIPMENT DESCRIPTION	STATUS
1	UNIPRISE 760-210-740	FIBER DISTRIBUTION ENCLOSURE (2U HIGH) WITH LC ADAPTERS AND CONNECTORS	PROVIDE AND INSTALL. PROVIDE ADAPTERS AS REQUIRED TO TERMINATE FIBER FROM LEVEL 5, LEVEL 6 AND LEVEL 7 IDF(S). SEE FIBER BACKBON DIAGRAM ON DRAWING T2.01 FOR ADDITIONAL REQUIREMENTS
4, 9 & 14	REFER TO SPECIFICATIONS	48 PORT CATEGORY 6A PATCH PANEL (2U HIGH). PROVIDE BLUE JACKS FOR (DATA) AND GREEN JACKS FOR (WIRELESS DATA)	PROVIDE AND INSTALL. WIRELESS IS CAT6A JACK AND DATA IS CAT6 JACKS
6, 11 & 16	CHATSWORTH 30130-719	HORIZONTAL CABLE MANAGEMENT PANEL (2U HIGH)	PROVIDE AND INSTALL
8, 13 & 18	-	48 PORT POE SWITCH BY OWNER	-
19 THRU 46	-	SPACE FOR FUTURE CABLING AND OWNERS NETWORK EQUIPMENT	-
GENERAL NOTE: MANUFACTURER AND MODEL NUMBERS ARE FOR DESCRIPTION PURPOSE ONLY. SEE TELECOMMUNICATIONS GENERAL NOTES ON DRAWING T002 FOR APPROVED MANUFACTURERS.			

RACK 'A' LINE-UP EQUIPMENT SCHEDULE - IDF 628			
MTG. POSITION #	EQUIPMENT TYPE	EQUIPMENT DESCRIPTION	STATUS
1	UNIPRISE 760-210-740	FIBER DISTRIBUTION ENCLOSURE (2U HIGH) WITH LC ADAPTERS AND CONNECTORS	PROVIDE AND INSTALL. PROVIDE ADAPTERS AS REQUIRED TO TERMINATE FIBER FROM LEVEL 5, LEVEL 6 AND LEVEL 7 IDF(S). SEE FIBER BACKBON DIAGRAM ON DRAWING T2.01 FOR ADDITIONAL REQUIREMENTS
4, 9 & 14	REFER TO SPECIFICATIONS	48 PORT CATEGORY 6A PATCH PANEL (2U HIGH). PROVIDE BLUE JACKS FOR (DATA) AND GREEN JACKS FOR (WIRELESS DATA)	PROVIDE AND INSTALL. WIRELESS IS CAT6A JACK AND DATA IS CAT6 JACKS
6, 11 & 16	CHATSWORTH 30130-719	HORIZONTAL CABLE MANAGEMENT PANEL (2U HIGH)	PROVIDE AND INSTALL
8, 13 & 18	-	48 PORT POE SWITCH BY OWNER	-
19 THRU 46	-	SPACE FOR FUTURE CABLING AND OWNERS NETWORK EQUIPMENT	-
GENERAL NOTE: MANUFACTURER AND MODEL NUMBERS ARE FOR DESCRIPTION PURPOSE ONLY. SEE TELECOMMUNICATIONS GENERAL NOTES ON DRAWING T002 FOR APPROVED MANUFACTURERS.			

RACK 'A' LINE-UP EQUIPMENT SCHEDULE - IDF 727			
MTG. POSITION #	EQUIPMENT TYPE	EQUIPMENT DESCRIPTION	STATUS
1	UNIPRISE 760-210-740	FIBER DISTRIBUTION ENCLOSURE (2U HIGH) WITH LC ADAPTERS AND CONNECTORS	PROVIDE AND INSTALL. PROVIDE ADAPTERS AS REQUIRED TO TERMINATE FIBER FROM LEVEL 5, LEVEL 6 AND LEVEL 7 IDF(S). SEE FIBER BACKBON DIAGRAM ON DRAWING T2.01 FOR ADDITIONAL REQUIREMENTS
4, 9 & 14	REFER TO SPECIFICATIONS	48 PORT CATEGORY 6A PATCH PANEL (2U HIGH). PROVIDE BLUE JACKS FOR (DATA) AND GREEN JACKS FOR (WIRELESS DATA)	PROVIDE AND INSTALL. WIRELESS IS CAT6A JACK AND DATA IS CAT6 JACKS
6, 11 & 16	CHATSWORTH 30130-719	HORIZONTAL CABLE MANAGEMENT PANEL (2U HIGH)	PROVIDE AND INSTALL
8, 13 & 18	-	48 PORT POE SWITCH BY OWNER	-
30	-	24 PORT CATEGORY 6 PATCH FOR SECURITY CAMERAS	PROVIDED AND INSTALLED BY SECURITY CONTRACTOR
31	-	POE SWITCH FOR SECURITY CAMERAS	PROVIDED AND INSTALLED BY SECURITY CONTRACTOR
33	-	NETWORK VIDEO RECORDER FOR CAMERAS	PROVIDED AND INSTALLED BY SECURITY CONTRACTOR
35 THRU 46	-	SPACE FOR FUTURE CABLING AND OWNERS NETWORK EQUIPMENT	-
GENERAL NOTE: MANUFACTURER AND MODEL NUMBERS ARE FOR DESCRIPTION PURPOSE ONLY. SEE TELECOMMUNICATIONS GENERAL NOTES ON DRAWING T002 FOR APPROVED MANUFACTURERS.			

**GENERAL NOTES**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OWNERS IT REPRESENTATIVES PROCEDURES.

**GENERAL MATERIALS NOTES:**

1. THE SYMBOL - (1) , ETC. ON THIS DRAWING ARE IN REFERENCE TO THE 'LIST OF MATERIALS' SCHEDULE ON THIS DRAWING. REFER TO SCHEDULE FOR MANUFACTURER, MODEL NUMBER AND ADDITIONAL REQUIREMENTS.

2. PROVIDE A #6 AWG INSULATED GROUND FROM TMGB TO EACH OF THE FOLLOWING: EQUIPMENT RACKS, CABINETS, CABLE RUNWAY. PROVIDE PANDUIT EQUIPMENT JUMPER KIT #RGE1624PHY, PANDUIT ESD PORT KIT #RGE502-1 AND PANDUIT COMMON BONDING NETWORK KIT #6RCBUN660PY OR APPROVED EQUAL. GROUND AND BOND AS PER EIA/TIA 606 'G' GROUNDING AND BONDING REQUIREMENTS.

**LIST OF MATERIALS IDF 520, 628 & 727**

ITEM NO.	PART NO.	MANUF.	DESCRIPTION	REMARKS
(1)	55053-703	CHATSWORTH	7 HIGH X 19" WIDE FLOOR MOUNTED 2 POST RACK	
(2)	13912-703	CHATSWORTH	7 HIGH X 6" WIDE DOUBLE SIDED VERTICAL WIRE MANAGER	

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

**TELECOM ELEVATIONS**

AUDIO/VISUAL LEGEND			
SYMBOL	DESCRIPTION	MOUNT	REMARKS
AV	AV OUTLET IN WALL BOX. WALL BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE JACKS, FACEPLATE, CABLING, ETC. COORDINATE COLOR OF FACEPLATES WITH ARCHITECT.	18" AFF	
AV	AV CONNECTION BEHIND TELEVISION. OUTLET BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE JACKS, FACEPLATE, CABLING, ETC.		
AV	THREE GANG AV WALL OUTLET FOR AV EQUIPMENT RACK OR CREDENZA. LOW VOLTAGE ROUGH-IN, CONDUIT AND PULLSTRINGS PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE JACKS, FACEPLATE, CABLING, ETC.	18" AFF	
AV	AV OUTLET IN TABLETOP BOX. FLOOR BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. TABLETOP BOX PROVIDED BY FURNITURE CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE JACKS, FACEPLATE, CABLING, ETC.		
TC	TABLE TOP MOUNTED VIDEO CONFERENCE EQUIPMENT. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC. COORDINATE ALL CORING AND HIDING OF CABLES IN TABLE WITH FURNITURE CONTRACTOR.		
VC	VIDEO CONFERENCE CAMERA MOUNTED ON FLAT SCREEN TV. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC.		
DS	DIGITAL SIGNAGE COMPUTER. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC.		
	FLAT SCREEN LOCATION. OUTLET BOX, CONDUIT, POWER RECEPTACLE AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. TELEVISIONS FURNISHED BY OWNER. AUDIO/VISUAL CONTRACTOR SHALL INSTALL AND PROVIDE MOUNTS CABLES TO CONNECT TO AV JACKS.		
	CEILING MOUNTED PROJECTOR LOCATION. POWER RECEPTACLE PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE MOUNTING BRACKET, EQUIPMENT, CABLING, ETC.		
	MOTORIZED PROJECTION SCREEN LOCATION. POWER RECEPTACLE PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE MOTORIZED SCREEN, CABLES AND CONTROL WIRING TO CONNECT TO AV JACKS AND CONTROL PANEL.		
HC	WALL MOUNTED VIDEO CONFERENCING CAMERA. OUTLET BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC.	84" AFF	
M <sup>C</sup>	CEILING MOUNTED MICROPHONE LOCATION. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE MOUNTING BRACKET, EQUIPMENT, CABLING, ETC.		
TP	WALL MOUNTED TOUCH PANEL CONTROL LOCATION. OUTLET BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC.	48" AFF	
SC	WALL MOUNTED PROJECTOR SCREEN CONTROL. OUTLET BOX, CONDUIT AND PULLSTRING PROVIDED BY ELECTRICAL CONTRACTOR. AUDIO/VISUAL CONTRACTOR SHALL PROVIDE EQUIPMENT, CABLING, ETC.	48" AFF	

**GENERAL NOTES**

1. ALL ROUGH-INS, LOW VOLTAGE MOUNTING BOXES AND CONDUIT PROVIDED BY ELECTRICAL CONTRACTORS AND/OR FURNITURE CONTRACTOR. TELECOM CONTRACTOR AND AUDIO/VISUAL CONTRACTOR SHALL COORDINATE FINAL LOCATIONS AND MOUNTING HEIGHTS WITH ELECTRICAL CONTRACTOR.

2. SEE AUDIO/VISUAL EQUIPMENT LIST ON PLAN DRAWINGS FOR ADDITIONAL REQUIREMENTS

**AUDIO/VISUAL GENERAL NOTES**

1. SEE DRAWING AV1.01, AV1.05, AV1.06 AND AV1.07 FOR EQUIPMENT LIST AND LOCATIONS ON FLOOR PLANS.

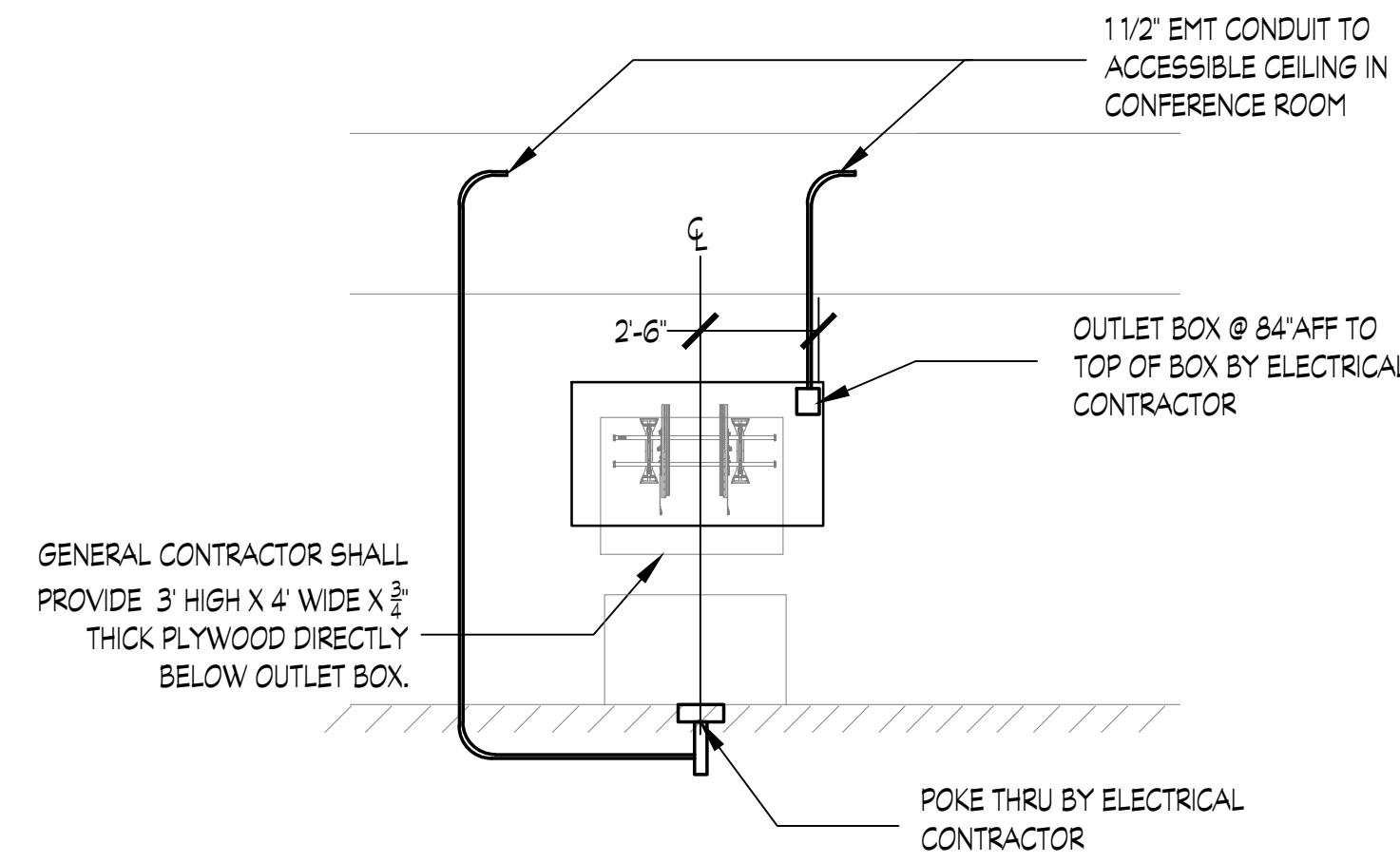
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACPS REQUIREMENTS.

3. AV CONTRACTOR WILL ASSIST WITH THE COORDINATION OF ALL POWER REQUIREMENTS UPON FINAL EQUIPMENT SELECTION. ELECTRICAL CONTRACTOR WILL PROVIDE ALL POWER AT ALL OF THE NECESSARY LOCATIONS.

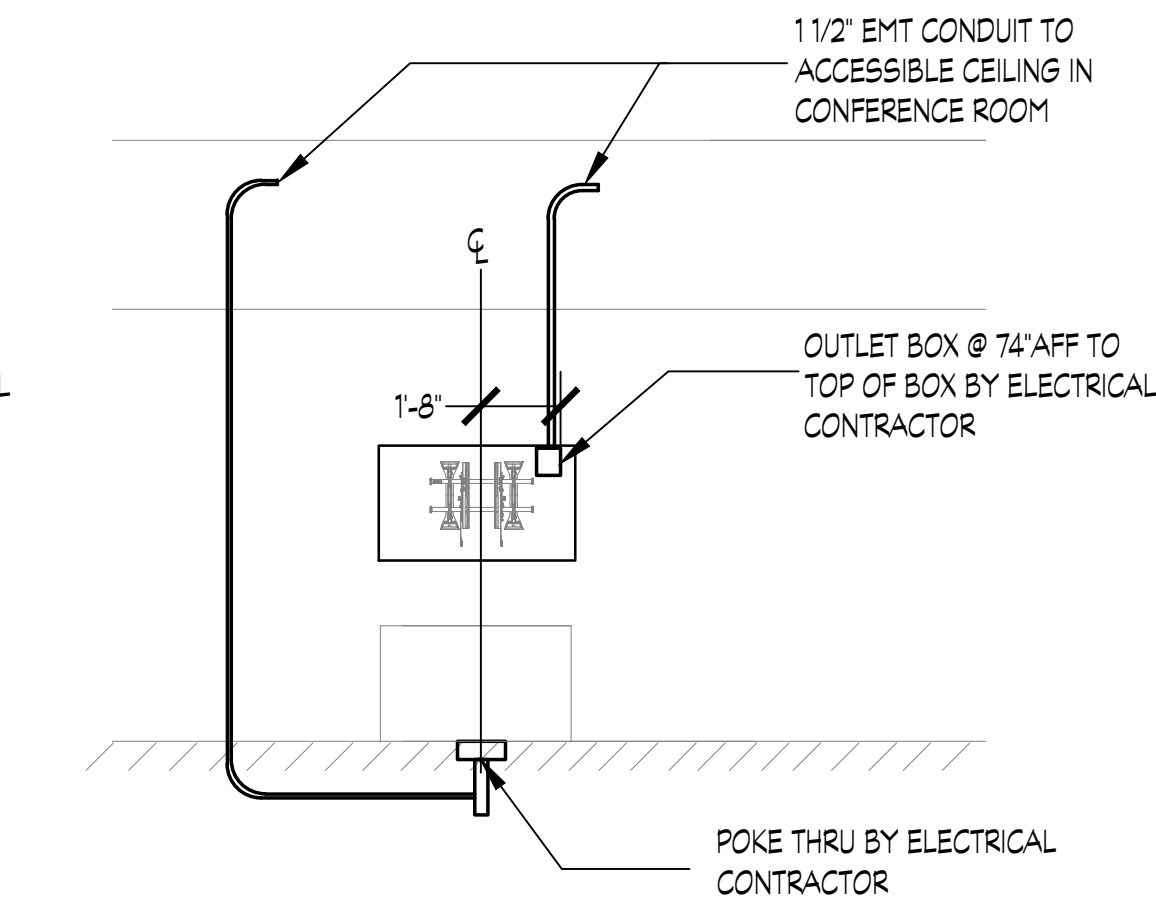
4. AV CONTRACTOR WILL ASSIST WITH THE COORDINATION OF ALL LOW VOLTAGE BOXES, CONDUITS AND PULL STRINGS UPON FINAL EQUIPMENT SELECTION. ELECTRICAL CONTRACTOR WILL PROVIDE ALL POWER AT ALL OF THE NECESSARY LOCATIONS.

5. AV CONTRACTOR WILL ASSIST WITH THE COORDINATION OF ALL DATA REQUIREMENTS UPON FINAL EQUIPMENT SELECTION.

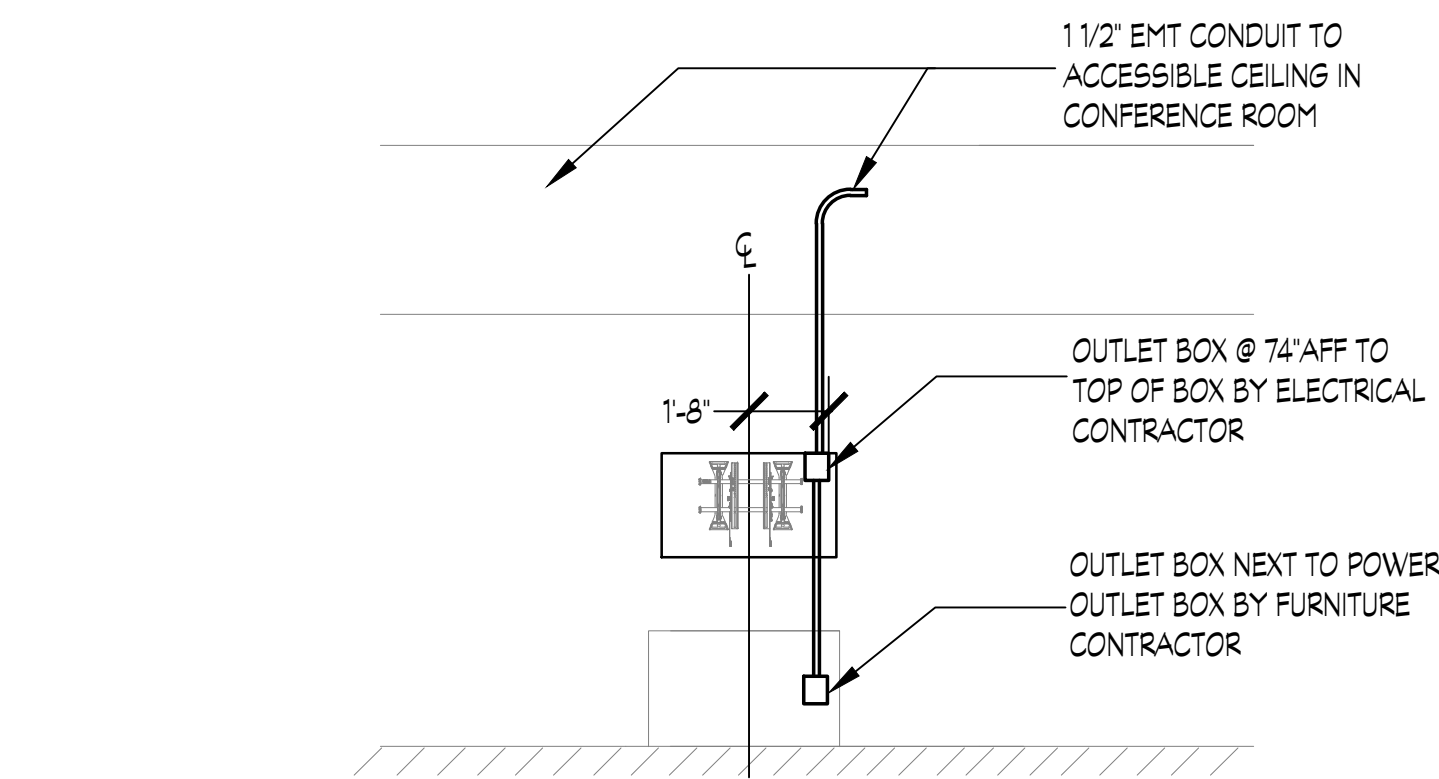
AUDIO/VISUAL SYSTEM INSTALLATION MATRIX				
DESCRIPTION	ELECTRICAL CONTRACTOR	AUDIO/VISUAL CONTRACTOR	GENERAL CONTRACTOR	OWNER
ROUGH-INS, CONDUITS, PULLSTRING AND POWER FOR AUDIO/VISUAL EQUIPMENT	FURNISH & INSTALL			
PLYWOOD BACKBOARD FOR FLATSCREENS			FURNISH & INSTALL	
AUDIO/VISUAL CABLING TO AV EQUIPMENT		FURNISH & INSTALL		
AUDIO/VISUAL EQUIPMENT (PROJECTORS, PROJECTION SCREENS FLATSCREENS, MOUNTS, SPEAKERS, RACKS, HEAD END EQUIPMENT, ETC.)		FURNISH & INSTALL		



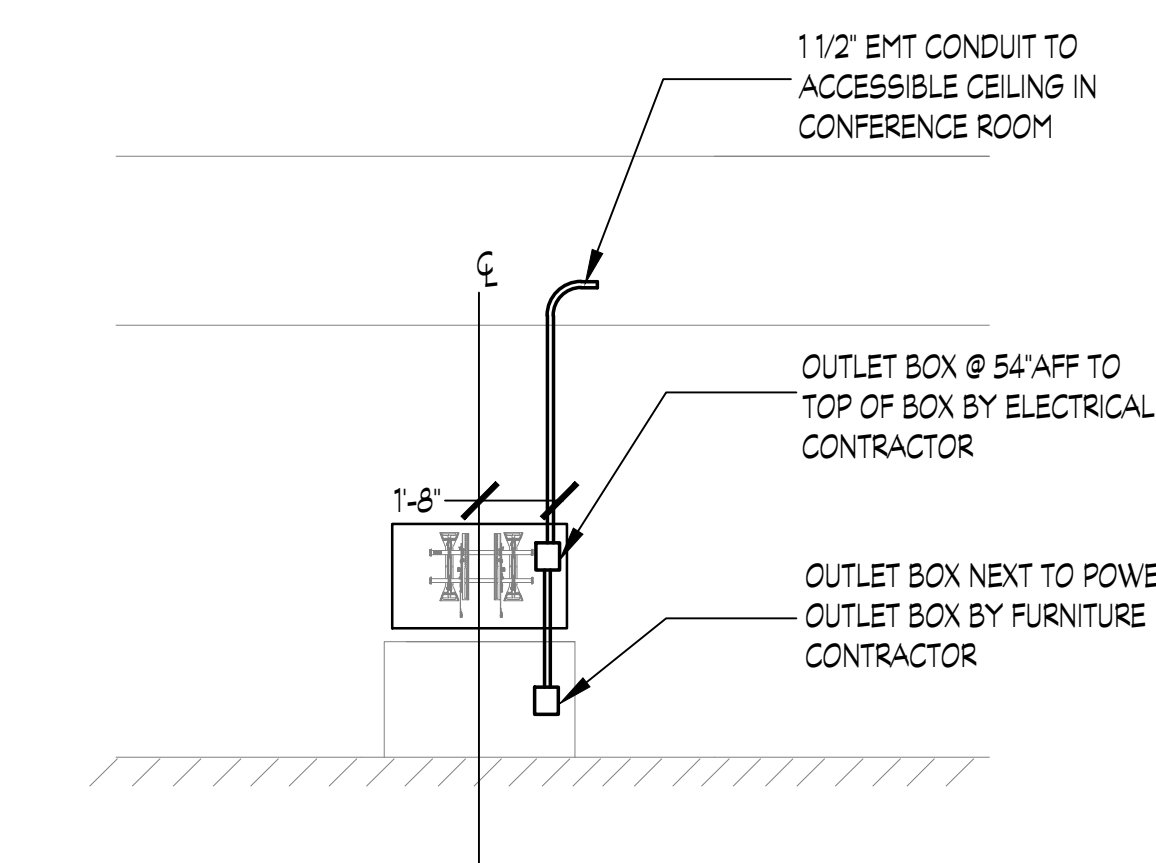
1 LARGE CONFERENCE ROOM - AV ELEVATION  
AVO.01 1/4" = 1'-0"



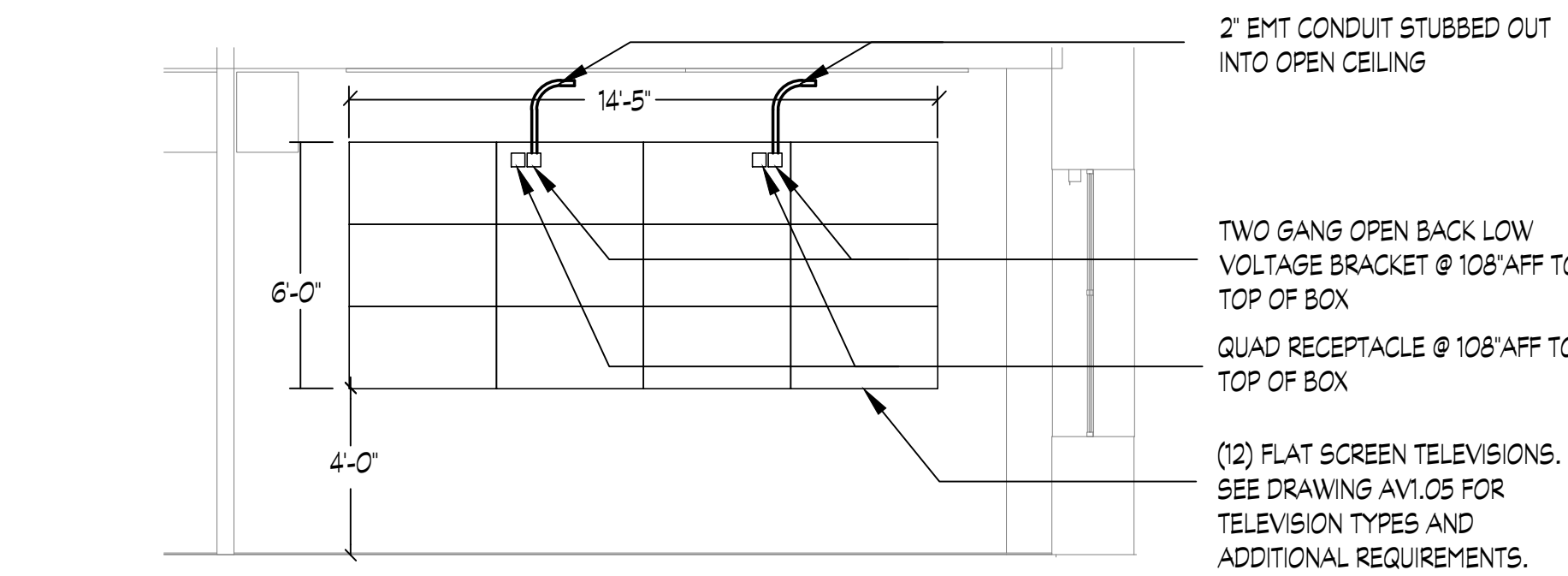
2 MID SIZE CONFERENCE ROOM - AV ELEVATION  
AVO.01 1/4" = 1'-0"



3 TYPICAL OFFICE - AV ELEVATION  
AVO.01 1/4" = 1'-0"



4 HUDDLE ROOM - AV ELEVATION  
AVO.01 1/4" = 1'-0"



5 VIEWING ROOM 524 - SECURITY VIDEO WALL ELEVATION  
AVO.01 1/4" = 1'-0"

PROFESSIONAL SEAL:

CONSULTANT:

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1	100% DESIGN DEVELOPMENT	01/23/2020

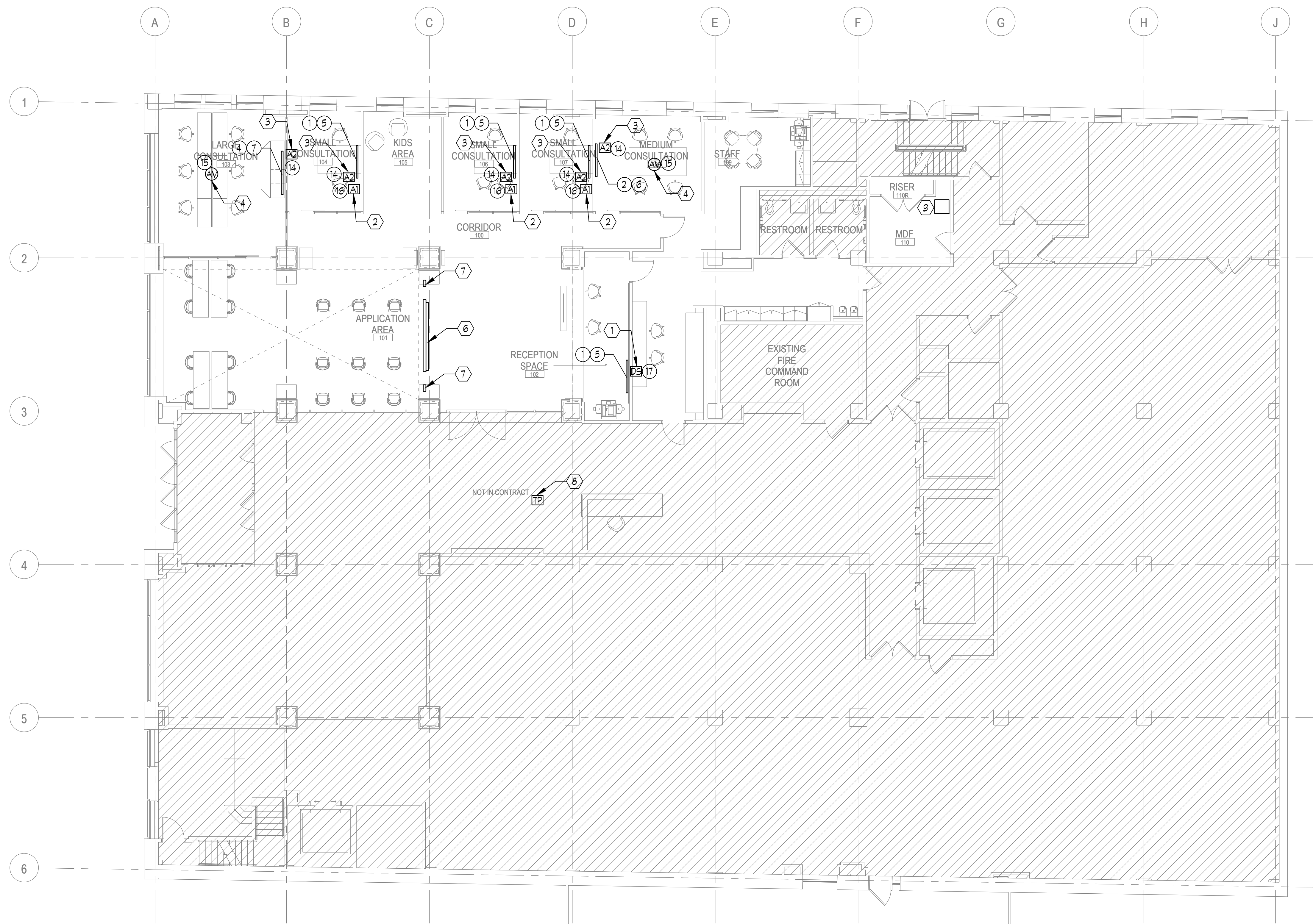
PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:

AUDIO/VISUAL DATA SHEET

SHEET NO:





1 AUDIO/VISUAL PLAN - LEVEL 1  
AV1.01 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE AUDIO/VISUAL MATERIAL LIST ON THIS DRAWING FOR PRODUCT INFORMATION.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
3. MOUNTING HEIGHTS OF OUTLET BOXES ARE SHOWN FOR REFERENCE PURPOSES ONLY. FIELD COORDINATE FINAL MOUNTING HEIGHTS OF OUTLET BOXES FOR A/V DEVICES WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
4. ALL ROUGH-INS, CONDUIT AND POWER PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
5. ALL DATA/NETWORK DROPS AND COAXIAL CABLE TELEVISION DROPS PROVIDED BY TELECOM CONTRACTOR. COORDINATE JACK SPACE IN COMBINATION TELEVISION BOX WITH TELECOM CONTRACTOR.
6. A/V CONTRACTOR SHALL PROVIDE ALL CABLES AND INTERCONNECTS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
7. COORDINATE MOUNTING AND LOCATION OF MICROPHONES ON TABLES WITH OWNERS FURNITURE CONTRACTOR.
8. COORDINATE MOUNTING AND LOCATION OF SPEAKERS IN CEILING WITH LIGHTS' DIFFUSERS, SPRINKLERS, ETC.

**CODED NOTES:**

1. WALL MOUNTED ROUGH-IN PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
2. MODULAR WALL MOUNTED ROUGH-IN AT 18" AFF PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
3. MODULAR WALL MOUNTED ROUGH-IN BEHIND TELEVISION PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. SEE AV ELEVATIONS ON AVO.01 FOR ADDITIONAL INFORMATION.
4. POKE THRU PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
5. TABLETOP BOX PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. ROUTE CABLING DOWN THROUGH FURNITURE FEED AND ASSOCIATED CONDUIT. TELECOM CONDUIT AND JUNCTION BOXES PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO 3 ELECTRICAL DRAWINGS FOR CONDUIT ROUTING. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
6. EXISTING 3X3 VIDEO WALL - (9) 46" TVS AND ASSOCIATED ACCORDIAN MOUNTS SHALL BE DISCONNECTED REMOVED AND TURNED OVER TO OWNER FOR STORAGE FOR FUTURE INSTALLATION. PULL CABLING BACK TO HEAD END MDF 110 AND COIL FOR FUTURE USE.
7. EXISTING RECESSED SPEAKER SHALL BE DISCONNECTED REMOVED AND TURNED OVER TO OWNER FOR STORAGE FOR FUTURE INSTALLATION. PULL CABLING BACK TO HEAD END MDF 110 AND COIL FOR FUTURE USE.
8. EXISTING TOUCH PANEL AND CRESTRON WALL PLATES SHALL BE DISCONNECTED REMOVED FROM DESK LOCATION AND TURNED OVER TO OWNER FOR STORAGE FOR FUTURE INSTALLATION. PULL CABLING BACK TO HEAD END MDF 110 AND COIL FOR FUTURE USE.
9. EXISTING VIDEO WALL HEAD END RACK AND VIDEO WALL EQUIPMENT SHALL BE REMAIN FOR FUTURE CONNECTION TO VIDEO WALL. ALL CABLING SHALL BE COILED IN THIS ROOM ABOVE THIS RACK.

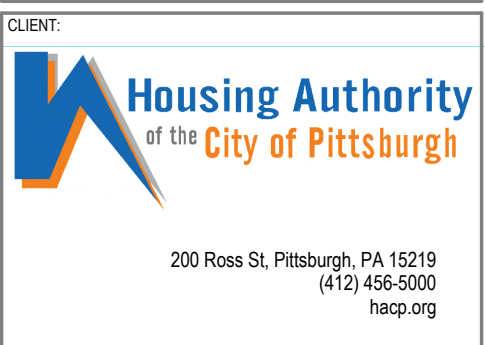
**EQUIPMENT LIST:**

- |   |  |  |
|---|--|--|
| <ol style="list-style-type: none"> <li>1. PROVIDE 55" LG 55UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>2. PROVIDE 65" LG 65UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>3. PROVIDE 75" LG 75UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>4. PROVIDE 86" LG 86UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>5. CHIEF MTMIU MEDIUM HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>6. CHIEF LTMU LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>7. CHIEF XTMU X-LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>8. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT BACK TO POKE THRU UNDER TABLE. PROVIDE 6" HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.</li> <li>9. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FOR USB FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12" HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP.</li> </ol> | <ol style="list-style-type: none"> <li>10. PROVIDE LOGITECH C930E FIXED LENS WEB CAM MOUNTED ON FLAT SCREEN.</li> <li>11. CRESTRON USB-EXT-DM-REMOTE. MOUNT BEHIND TV. (CONNECT FROM USB CAMERA IN ROOM TO HOST UNDER TABLE IN ROOM).</li> <li>12. CRESTRON USB-EXT-DM-LOCAL MOUNT UNDER TABLE (FOR USB CAMERA IN ROOM).</li> <li>13. CRESTRON MERCURY TABLETOP CONFERENCE SYSTEM VIDEO PACKAGE. COORDINATE LOCATION ON TABLE WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.</li> <li>14. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL. PROVIDE 6" HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.</li> <li>15. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12" HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP. USB FOR FUTURE VIDEO CONFERENCE CAMERA.</li> <li>16. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN AUDIO/VISUAL OUTLET BOX. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL.</li> </ol> | <ol style="list-style-type: none"> <li>17. BRIGHTSIGN XTM143 NETWORKED MULTI-CONTROL INTERACTIVE AND LIVE HDTV.</li> </ol> |
|---|--|--|



PROFESSIONAL SEAL:

CONSULTANT:

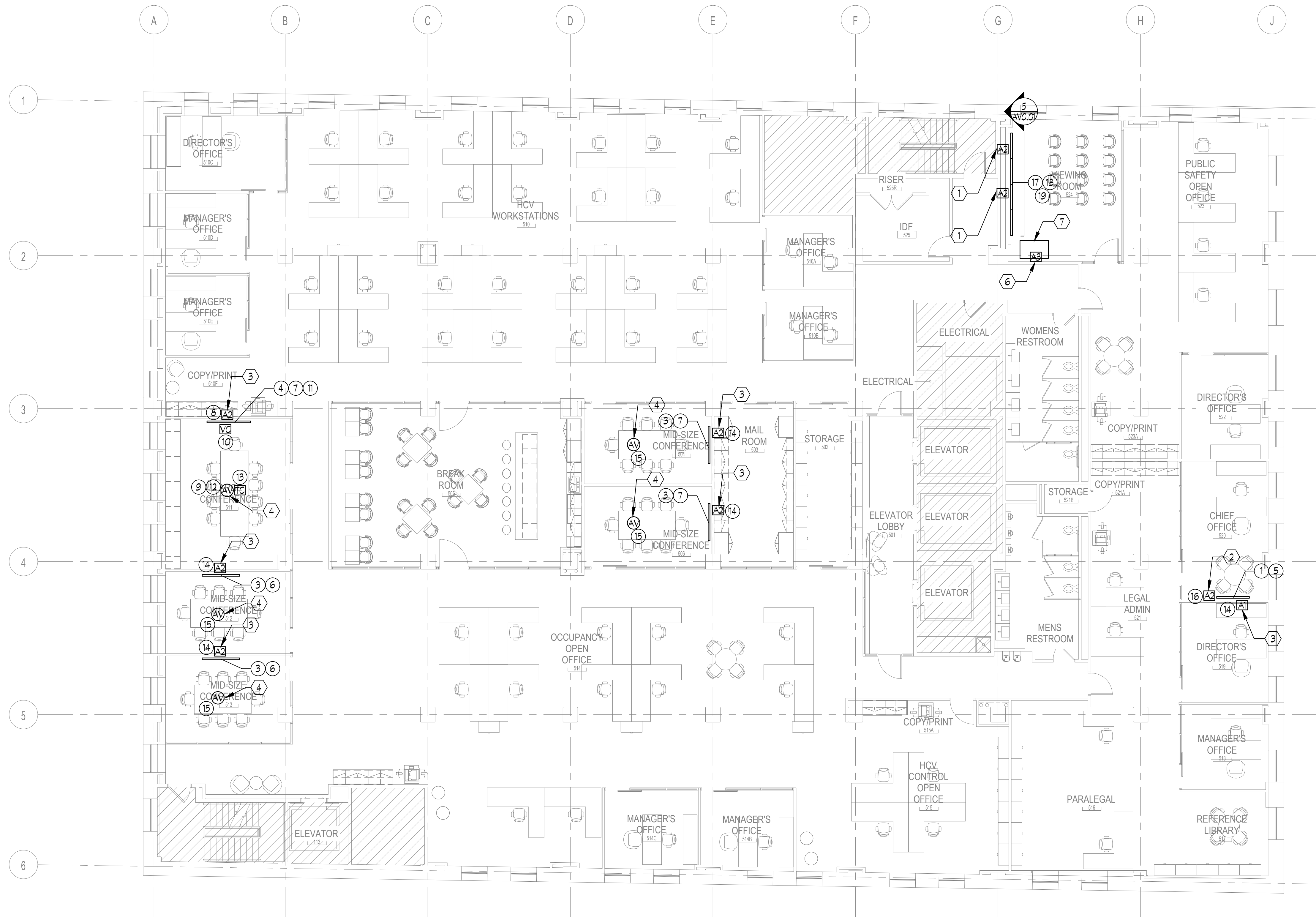


HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00	DRAWN BY: JDW	REVIEWED BY: JDW
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SHEET NO:  
**AUDIO/VISUAL PLAN - LEVEL 1**  
AV1.01



1 AUDIO/VISUAL PLAN - LEVEL 5  
AV1.05 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE AUDIO/VISUAL MATERIAL LIST ON THIS DRAWING FOR PRODUCT INFORMATION.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
3. MOUNTING HEIGHTS OF OUTLET BOXES ARE SHOWN FOR REFERENCE PURPOSES ONLY. FIELD COORDINATE FINAL MOUNTING HEIGHTS OF OUTLET BOXES FOR A/V DEVICES WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
4. ALL ROUGH-INS, CONDUIT AND POWER PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
5. ALL DATA/NETWORK DROPS AND COAXIAL CABLE TELEVISION DROPS PROVIDED BY TELECOM CONTRACTOR. COORDINATE JACK SPACE IN COMBINATION TELEVISION BOX WITH TELECOM CONTRACTOR.
6. A/V CONTRACTOR SHALL PROVIDE ALL CABLES AND INTERCONNECTS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
7. COORDINATE MOUNTING AND LOCATION OF MICROPHONES ON TABLES WITH OWNERS FURNITURE CONTRACTOR.
8. COORDINATE MOUNTING AND LOCATION OF SPEAKERS IN CEILING WITH LIGHTS' DIFFUSERS, SPRINKLERS, ETC.

**CODED NOTES:**

1. WALL MOUNTED ROUGH-IN PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
2. MODULAR WALL MOUNTED ROUGH-IN AT 18" AFF PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
3. MODULAR WALL MOUNTED ROUGH-IN BEHIND TELEVISION PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. SEE AV ELEVATIONS ON AVO.01 FOR ADDITIONAL INFORMATION.
4. POKE THRU PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
5. TABLETOP BOX PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. ROUTE CABLING DOWN THROUGH FURNITURE FEED AND ASSOCIATED CONDUIT. TELECOM CONDUIT AND JUNCTION BOXES PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO 3 ELECTRICAL DRAWINGS FOR CONDUIT ROUTING. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
6. WALL MOUNTED 3 GANG ROUGH-IN AT 18" AFF FOR WIRING TO SECURITY WALL PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURERS REQUIREMENTS.
7. PUBLIC SAFETY EXISTING RACK AND SERVER EQUIPMENT HOUSING EQUIPMENT FOR VIDEO STORAGE AND INPUTS/OUTPUTS TO DISPLAY WALL. HDMI CABLE FROM EACH OF (2) TV'S SHALL BE ROUTED FROM TV BACK TO THIS CABINET AND TERMINATED ON OWNER PROVIDED COMPUTERS. SEE SECURITY DRAWING ES1.05 FOR ADDITIONAL INFORMATION.

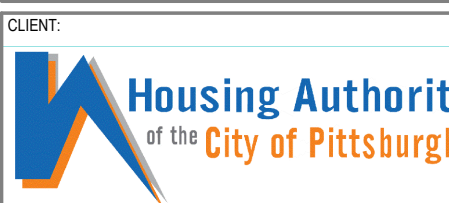
**EQUIPMENT LIST:**

1. PROVIDE 55" LG 55UT640S 4K ULTRA LED FLAT SCREEN.
2. PROVIDE 65" LG 65UT640S 4K ULTRA LED FLAT SCREEN.
3. PROVIDE 75" LG 75UT640S 4K ULTRA LED FLAT SCREEN.
4. PROVIDE 86" LG 86UT640S 4K ULTRA LED FLAT SCREEN.
5. CHIEF MTMIU MEDIUM HEIGHT ADJUSTABLE TILTING WALL MOUNT.
6. CHIEF LTMU LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.
7. CHIEF XTMU X-LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.
8. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT BACK TO POKE THRU UNDER TABLE. PROVIDE 6" HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.
9. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12" HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP.
10. PROVIDE LOGITECH C930E FIXED LENS WEB CAM MOUNTED ON FLAT SCREEN.
11. CRESTRON USB-EXT-DM-REMOTE. MOUNT BEHIND TV. (CONNECT FROM USB CAMERA IN ROOM TO HOST UNDER TABLE IN ROOM).
12. CRESTRON USB-EXT-DM-LOCAL MOUNT UNDER TABLE (FOR USB CAMERA IN ROOM).
13. CRESTRON MERCURY TABLETOP CONFERENCE SYSTEM VIDEO PACKAGE. COORDINATE LOCATION ON TABLE WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
14. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL. PROVIDE 6" HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.
15. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12" HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP. USB FOR FUTURE VIDEO CONFERENCE CAMERA.
16. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN AUDIO/VISUAL OUTLET BOX. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL.
17. PROVIDE (12) NEC UNV492VS 49" ULTRA NARROW 1080P LED VIDEO WALL DISPLAY PANELS. SEE VIDEO WALL ELEVATION ON DRAWING AVO.01 FOR ADDITIONAL INFORMATION. PROVIDE 50' HDMI CABLE TO EACH FLATSCREEN. TERMINATE ON BACK OF FLAT SCREEN AND RUN CABLE BACK TO SECURITY CABINET. FINAL CONNECTION TO OWNERS SECURITY EQUIPMENT BY OWNER.
18. (12) CHIEF LV51U CONNENSYS VIDEO WALL SYSTEM PORT WITH RAILS.
19. PROVIDE (12) LG UT640S SERIES 49" 1080P UHD COMMERCIAL SIGNAGE TV AS AN DEDUCT ALTERNATE TO ITEM 17. TV BEZELS SHALL BE INSTALLED AS CLOSE TO EACH OTHER AS POSSIBLE. SEE VIDEO WALL ELEVATION ON DRAWING AVO.01 FOR ADDITIONAL INFORMATION. PROVIDE 50' HDMI CABLE TO EACH FLATSCREEN. TERMINATE ON BACK OF FLAT SCREEN AND RUN CABLE BACK TO SECURITY CABINET. FINAL CONNECTION TO OWNERS SECURITY EQUIPMENT BY OWNER.



PROFESSIONAL SEAL:

CONSULTANT:



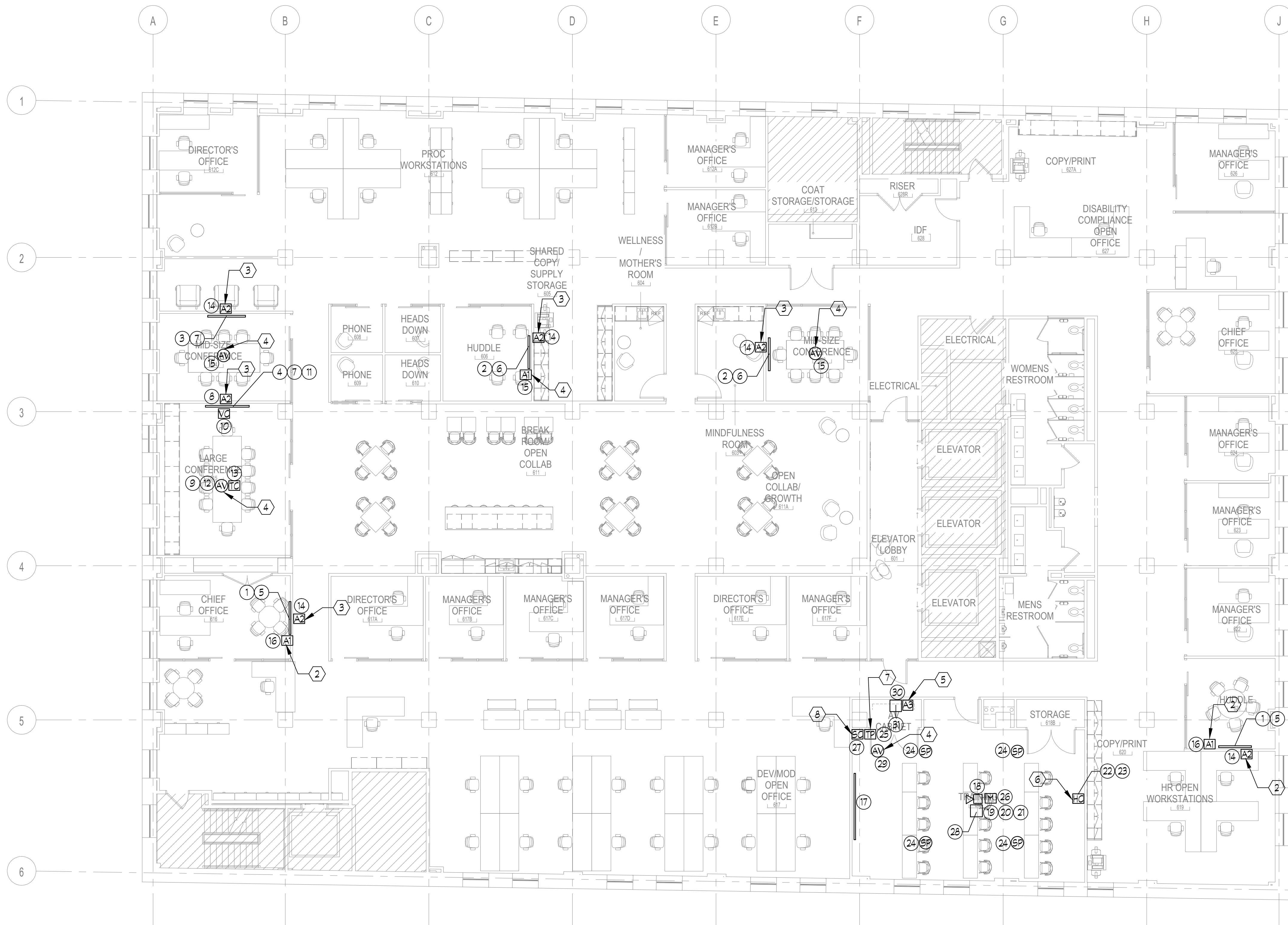
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1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
**AUDIO/VISUAL PLAN - LEVEL 5**

SHEET NO.:  
**AV1.05**



1 AUDIO/VISUAL PLAN - LEVEL 6  
AV1.06/ 1/8" = 1'-0"

**GENERAL NOTES**

- SEE AUDIO/VISUAL MATERIAL LIST ON THIS DRAWING FOR PRODUCT INFORMATION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
- MOUNTING HEIGHTS OF OUTLET BOXES ARE SHOWN FOR REFERENCE PURPOSES ONLY. FIELD COORDINATE FINAL MOUNTING HEIGHTS OF OUTLET BOXES FOR A/V DEVICES WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
- ALL ROUGH-INS, CONDUIT AND POWER PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL DATA/NETWORK DROPS AND COAXIAL CABLE TELEVISION DROPS PROVIDED BY TELECOM CONTRACTOR. COORDINATE JACK SPACE IN COMBINATION TELEVISION BOX WITH TELECOM CONTRACTOR.
- A/V CONTRACTOR SHALL PROVIDE ALL CABLES AND INTERCONNECTS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- COORDINATE MOUNTING AND LOCATION OF MICROPHONES ON TABLES WITH OWNERS FURNITURE CONTRACTOR.
- COORDINATE MOUNTING AND LOCATION OF SPEAKERS IN CEILING WITH LIGHTS' DIFFUSERS, SPRINKLERS, ETC.

**CODED NOTES:**

- WALL MOUNTED ROUGH-IN PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
- MODULAR WALL MOUNTED ROUGH-IN PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
- POKE THRU PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
- TABLETOP BOX PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. ROUTE CABLING DOWN THROUGH FURNITURE FEED AND ASSOCIATED CONDUIT. TELECOM CONDUIT AND JUNCTION BOXES PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO 3 ELECTRICAL DRAWINGS FOR CONDUIT ROUTING. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
- MODULAR WALL MOUNTED 3 GANG ROUGH-IN AT 18" AFF FOR WIRING TO A/V CREDENZA PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
- MODULAR WALL SINGLE GANG WALL ROUGH-IN AT 84" FOR WIRING TO VIDEO CONFERENCE CAMERA PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE VIDEO CONFERENCE CAMERA, WALL PLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
- MODULAR WALL 2 GANG WALL ROUGH-IN AT 48" AFF FOR TOUCH PANEL PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
- MODULAR WALL SINGLE GANG ROUGH-IN AT 48" AFF FOR MOTORIZED PROJECTION SCREEN CONTROL PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.

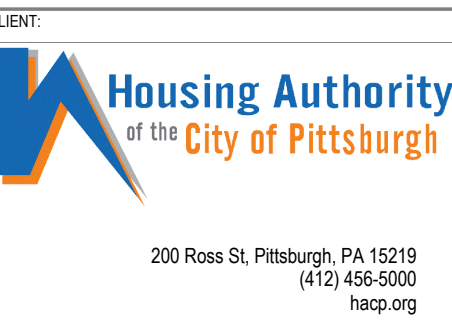
**EQUIPMENT LIST:**

- |  |  |  |  |
|--|--|--|--|
| <ol style="list-style-type: none"> <li>PROVIDE 55" LG 55UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>PROVIDE 65" LG 65UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>PROVIDE 75" LG 75UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>PROVIDE 86" LG 86UT640S 4K ULTRA LED FLAT SCREEN.</li> <li>CHIEF MTMIU MEDIUM HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>CHIEF LTMU LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>CHIEF XTMU X-LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</li> <li>PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCE CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT BACK TO POKE THRU UNDER TABLE. PROVIDE 6' HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.</li> <li>PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCE CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FOR USB FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12' HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP.</li> </ol> | <ol style="list-style-type: none"> <li>PROVIDE LOGITECH C930E FIXED LENS WEB CAM MOUNTED ON FLAT SCREEN.</li> <li>CRESTRON USB-EXT-DM-REMOTE. MOUNT BEHIND TV. (CONNECT FROM USB CAMERA IN ROOM TO HOST UNDER TABLE IN ROOM).</li> <li>CRESTRON USB-EXT-DM-LOCAL MOUNT UNDER TABLE (FOR USB CAMERA IN ROOM).</li> <li>CRESTRON MERCURY TABLETOP CONFERENCE SYSTEM VIDEO PACKAGE. COORDINATE LOCATION ON TABLE WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.</li> <li>PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCE CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12' HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP. USB FOR FUTURE VIDEO CONFERENCE CAMERA.</li> <li>PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCE CAMERA) CONNECTION IN AUDIO/VISUAL OUTLET BOX. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL.</li> </ol> | <ol style="list-style-type: none"> <li>PROVIDE DA-LITE 34548LS 130" DIAGONAL, 16:10 RECESSED, TENSIONED ELECTRIC SCREEN MOUNTED IN LAY-IN CEILING.</li> <li>PROVIDE NEC NP-PE05UL 6000 LUMEN WXGA PROJECTOR WITH STANDARD LENS.</li> <li>PROVIDE CHIEF CMS492X 2X2 PLENUM RATED STORAGE BOX WITH COLUMN DROP.</li> <li>PROVIDE CHIEF CMS00603W 6-8" ADJUSTABLE POLE (WHITE).</li> <li>PROVIDE CHIEF RPAUW UNIVERSAL RPYA MOUNTING BRACKET (WHITE).</li> <li>PROVIDE POLYCOM EAGLE EYE IV 12X CAMERA - CONNECT TO POLYCOM REAL PRESENCE GROUP 500.</li> <li>PROVIDE POLYCOM 2215-66675-001 UNIVERSAL CAMERA MOUNTING FOR EAGLE EYE IV.</li> <li>PROVIDE CRESTRON SAROS ICI6T-W-T SAROS INTEGRATOR 6.5" IN CEILING SPEAKER, WHITE. MOUNT IN DRYWALL CEILING. COORDINATE INSTALLATION IN CEILING WITH OTHER TRADES (DUCTWORK, LIGHTING AND SPRINKLER HEADS) FOR CONFLICTS PRIOR TO FINAL INSTALLATION.</li> <li>PROVIDE CRESTRON T9W-1060-B-S 10.1" SURFACE MOUNT TOUCH SCREEN WITH CORE 3UI - BLACK.</li> <li>PROVIDE SHURE MXA910W 2X2 BEAMFORMING IN CEILING MICROPHONE ARRAY (WHITE). COORDINATE INSTALLATION IN CEILING WITH OTHER TRADES (DUCTWORK, LIGHTING AND SPRINKLER HEADS) FOR CONFLICTS PRIOR TO FINAL INSTALLATION.</li> </ol> | <ol style="list-style-type: none"> <li>MOTORIZED PROJECTION SCREEN CONTROL BUTTON. WIRE TO PROJECTOR SCREEN PER MANUFACTURER'S REQUIREMENTS.</li> <li>PROVIDE CRESTRON DM-RMC-4K-SCALER-C 4K DIGITAL/MEDIA 86-RECEIVER AND ROOM CONTROLLER WITH SCALER. MOUNT INSIDE CEILING STORAGE BOX.</li> <li>PROVIDE CRESTRON DM-TV-200-C -26-W-T DIGITAL 86+ TRANSMITTER INSIDE FLOOR BOX. ROUTE DATA CABLE(S) FROM DEVICE TO RECEIVER IN RACK AS REQUIRED BY MANUFACTURER. COORDINATE CABLING ROUTING AND TERMINATION IN POKE FLOOR BOX WITH ELECTRICAL CONTRACTOR.</li> <li>PROVIDE MIDDLE ATLANTIC RCS1824 18U 3U.5' PRECONFIGURED RACK ON CASTER + ACCESSORIES.</li> <li>PROVIDE TRAINING ROOM 109 EQUIPMENT CORE. THE FOLLOWING IS EQUIPMENT LOCATED IN RACK: <ul style="list-style-type: none"> <li>(1) CRESTRON DMP53-4K-350-C 3 SERIES 4K DIGITAL/MEDIA PRESENTATION SYSTEM 350</li> <li>(1) CRESTRON AMP-1200-70 SINGLE CHANNEL MODULAR POWER AMPLIFIER -200W,70V</li> <li>(1) BI-AMP TESIRAPORTE DANVT 8 CHANNEL DANTE DSP WITH AEC, USB, VOIP &amp; ANALOG</li> <li>(1) SHURE QLXD1485650 WIRELESS LAVALIER MIC SYSTEM</li> <li>(1) PAKEDGE SX-8P8 PORT MANAGED SWITCH</li> <li>(1) APC 8MX1500RM2U SMART UPS 1500VA 2U RACK MOUNT 120V</li> <li>(1) MIDDLE ATLANTIC PD-915RC-20 RACK MOUNT 9 OUTLET, SINGLE 15 AMP CIRCUIT</li> </ul> </li> </ol> |
|--|--|--|--|



PROFESSIONAL SEAL:

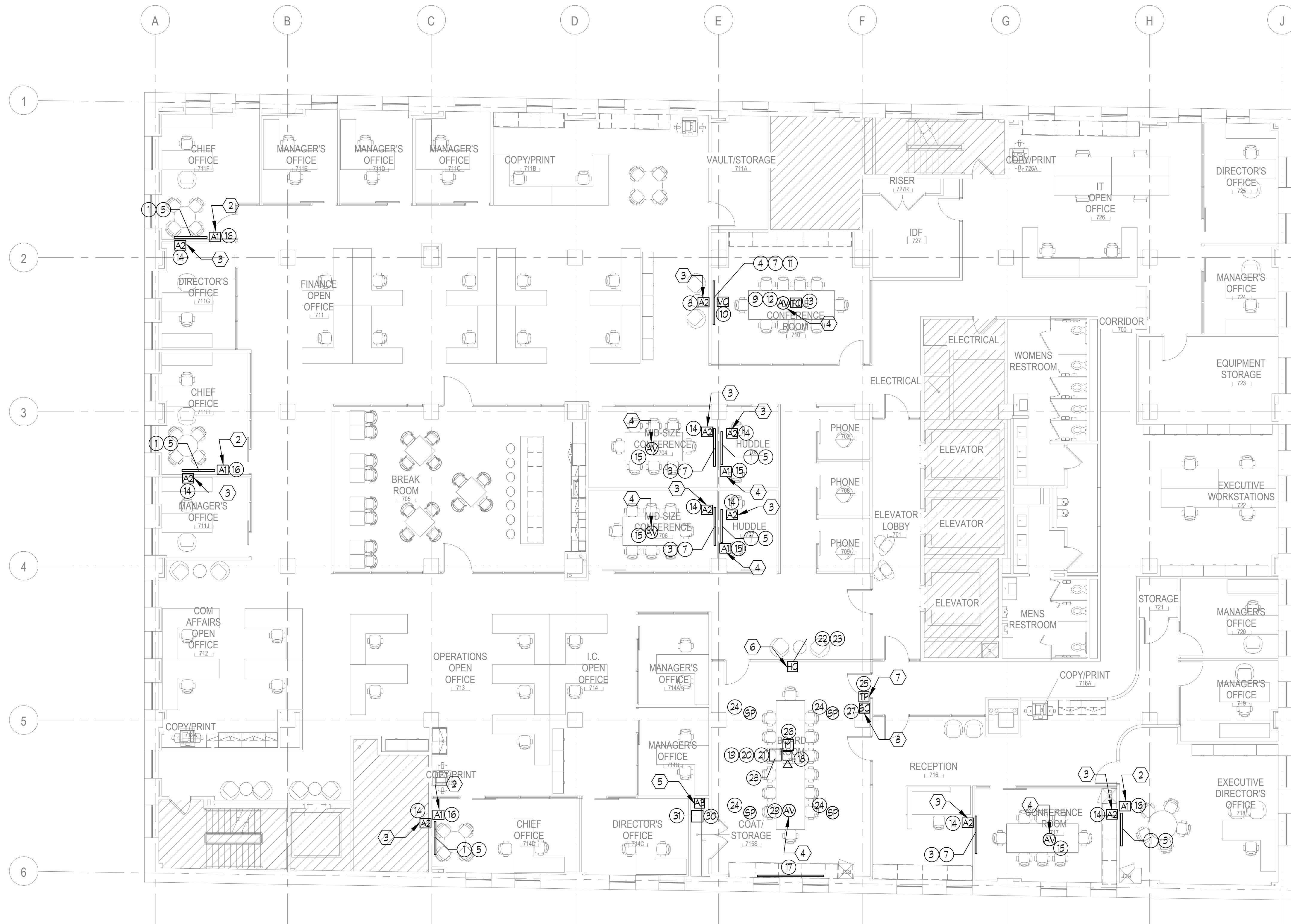
CONSULTANT:



HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW
SHEET NAME:		
AUDIO/VISUAL PLAN - LEVEL 6		
SHEET NO.		





1 AUDIO/VISUAL PLAN - LEVEL 7  
AV1.07 1/8" = 1'-0"

**EQUIPMENT LIST:** (1)

- |  |  |   |   |
|--|--|---|---|
| <p>1. PROVIDE 55" LG 55UT640S 4K ULTRA LED FLAT SCREEN.</p> <p>2. PROVIDE 65" LG 65UT640S 4K ULTRA LED FLAT SCREEN.</p> <p>3. PROVIDE 75" LG 75UT640S 4K ULTRA LED FLAT SCREEN.</p> <p>4. PROVIDE 86" LG 86UT640S 4K ULTRA LED FLAT SCREEN.</p> <p>5. CHIEF MT1MU MEDIUM HEIGHT ADJUSTABLE TILTING WALL MOUNT.</p> <p>6. CHIEF LTM1U LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</p> <p>7. CHIEF XTM1U X-LARGE HEIGHT ADJUSTABLE TILTING WALL MOUNT.</p> <p>8. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX BEHIND TV. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT BACK TO POKE THRU UNDER TABLE. PROVIDE 6' HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.</p> <p>9. PROVIDE HDMI AND DATA (FOR USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FOR USB FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12' HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP.</p> | <p>10. PROVIDE LOGITECH C930E FIXED LENS WEB CAM MOUNTED ON FLAT SCREEN.</p> <p>11. CRESTRON USB-EXT-DM-REMOTE. MOUNT BEHIND TV. (CONNECT FROM USB CAMERA IN ROOM TO HOST UNDER TABLE IN ROOM).</p> <p>12. CRESTRON USB-EXT-DM-LOCAL MOUNT UNDER TABLE (FOR USB CAMERA IN ROOM).</p> <p>13. CRESTRON MERCURY TABLETOP CONFERENCE SYSTEM VIDEO PACKAGE. COORDINATE LOCATION ON TABLE WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.</p> <p>14. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL. PROVIDE 6' HDMI CABLE FOR CONNECTION FROM TELEVISION BOX JACK TO TELEVISION.</p> <p>15. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN POKE THRU. COORDINATE FINAL CONNECTION IN POKE THRU WITH ELECTRICAL CONTRACTOR. ROUTE HDMI AND DATA CABLING FROM POKE THRU TO TELEVISION BOX AS REQUIRED. PROVIDE HDMI CABLE LENGTH AS NEEDED. PROVIDE 12' HDMI CABLE FOR CONNECTION FROM POKE THRU JACK TO OWNERS LAPTOP. USB FOR FUTURE VIDEO CONFERENCE CAMERA.</p> <p>16. PROVIDE HDMI AND DATA (FOR FUTURE USB VIDEO CONFERENCING CAMERA) CONNECTION IN AUDIO/VISUAL OUTLET BOX. ROUTE HDMI AND DATA CABLING FROM COMBINATION TELEVISION BOX THRU CONDUIT TO AUDIO/VISUAL OUTLET ON WALL.</p> | <p>17. PROVIDE DA-LITE 34548LS 130" DIAGONAL, 16:10 RECESSED, TENSIONED ELECTRIC SCREEN MOUNTED IN LAY-IN CEILING.</p> <p>18. PROVIDE NEC NP-PE05UL 6000 LUMEN WXGA PROJECTOR WITH STANDARD LENS.</p> <p>19. PROVIDE CHIEF CMS492X 2X2 PLENUM RATED STORAGE BOX WITH COLUMN DROP.</p> <p>20. PROVIDE CHIEF CMS00603W 6-8" ADJUSTABLE POLE (WHITE).</p> <p>21. PROVIDE CHIEF RPM4UW UNIVERSAL RPM4 MOUNTING BRACKET (WHITE).</p> <p>22. PROVIDE POLYCOM EAGLE EYE IV 12X CAMERA - CONNECT TO POLYCOM REAL PRESENCE GROUP 500.</p> <p>23. PROVIDE POLYCOM 2215-68675-001 UNIVERSAL CAMERA MOUNTINGS FOR EAGLE EYE IV.</p> <p>24. PROVIDE CRESTRON SAROS ICI6T-W-T SAROS INTEGRATOR 6.5" IN CEILING SPEAKER, WHITE. MOUNT IN DRYWALL CEILING. COORDINATE INSTALLATION IN CEILING WITH OTHER TRADES (DUCTWORK, LIGHTING AND SPRINKLER HEADS) FOR CONFLICTS PRIOR TO FINAL INSTALLATION.</p> <p>25. PROVIDE CRESTRON TSW-1060-B-S 10.1" SURFACE MOUNT TOUCH SCREEN WITH CORE 3UI - BLACK.</p> <p>26. PROVIDE SHURE MXA910W 2X2 BEAMFORMING IN CEILING MICROPHONE ARRAY (WHITE). COORDINATE INSTALLATION IN CEILING WITH OTHER TRADES (DUCTWORK, LIGHTING AND SPRINKLER HEADS) FOR CONFLICTS PRIOR TO FINAL INSTALLATION.</p> | <p>27. MOTORIZED PROJECTION SCREEN CONTROL BUTTON. WIRE TO PROJECTOR SCREEN PER MANUFACTURER'S REQUIREMENTS.</p> <p>28. PROVIDE CRESTRON DM-RMC-4K-SCALER-C 4K DIGITAL MEDIA 86" RECEIVER AND ROOM CONTROLLER WITH SCALER. MOUNT INSIDE CEILING STORAGE BOX.</p> <p>29. PROVIDE CRESTRON DM-TV-200-C -26-W-T DIGITAL 86" TRANSMITTER INSIDE FLOOR BOX. ROUTE DATA CABLE(S) FROM DEVICE TO RECEIVER IN RACK AS REQUIRED BY MANUFACTURER. COORDINATE CABLING ROUTING AND TERMINATION IN POKE FLOOR BOX WITH ELECTRICAL CONTRACTOR.</p> <p>30. PROVIDE MIDDLE ATLANTIC RCS1824 18U 31.5" PRECONFIGURED RACK ON CASTER + ACCESSORIES.</p> <p>31. PROVIDE TRAINING ROOM 109 EQUIPMENT CORE. THE FOLLOWING IS EQUIPMENT LOCATED IN RACK:</p> <ul style="list-style-type: none"> <li>• (1) CRESTRON DMP53-4K-350-C 3 SERIES 4K DIGITAL MEDIA PRESENTATION SYSTEM 350</li> <li>• (1) CRESTRON AMP-1200-70 SINGLE CHANNEL MODULAR POWER AMPLIFIER -200W,70V</li> <li>• (1) BI-AMP TESIRAFORTE DANVT 8 CHANNEL DANTE DSP WITH AEC, USB, VOIP &amp; ANALOG</li> <li>• (1) PAKEDGE 5X-24P 24 PORT MANAGED SWITCH WITH 24 POE OR 12 POE+ PORTS</li> <li>• (1) APC 5MX1500RM2U SMART UPS 1500VA 2U RACK MOUNT 120V</li> <li>• (1) MIDDLE ATLANTIC PD-915RC-20 RACK MOUNT 9 OUTLET, SINGLE 15 AMP CIRCUIT</li> </ul> |
|--|--|---|---|

**GENERAL NOTES**

1. SEE AUDIO/VISUAL MATERIAL LIST ON THIS DRAWING FOR PRODUCT INFORMATION.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HACP DEPARTMENT STANDARDS AND REQUIREMENTS.
3. MOUNTING HEIGHTS OF OUTLET BOXES ARE SHOWN FOR REFERENCE PURPOSES ONLY. FIELD COORDINATE FINAL MOUNTING HEIGHTS OF OUTLET BOXES FOR A/V DEVICES WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
4. ALL ROUGH-INS, CONDUIT AND POWER PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
5. ALL DATA/NETWORK DROPS AND COAXIAL CABLE TELEVISION DROPS PROVIDED BY TELECOM CONTRACTOR. COORDINATE JACK SPACE IN COMBINATION TELEVISION BOX WITH TELECOM CONTRACTOR.
6. A/V CONTRACTOR SHALL PROVIDE ALL CABLES AND INTERCONNECTS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
7. COORDINATE MOUNTING AND LOCATION OF MICROPHONES ON TABLES WITH OWNERS FURNITURE CONTRACTOR.
8. COORDINATE MOUNTING AND LOCATION OF SPEAKERS IN CEILING WITH LIGHTS' DIFFUSERS, SPRINKLERS, ETC.

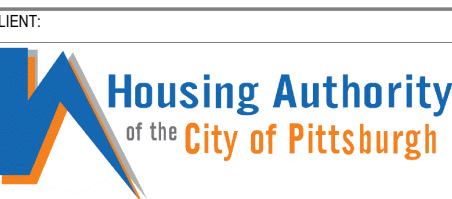
**CODED NOTES:** (1)

1. WALL MOUNTED ROUGH-IN PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
2. MODULAR WALL MOUNTED ROUGH-IN PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI, VGA/AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
3. POKE THRU PROVIDED BY ELECTRICAL CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS, FACEPLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS.
4. TABLETOP BOX PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE HDMI AND AUDIO JACKS AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING ON JACKS. ROUTE CABLING DOWN THROUGH FURNITURE FEED AND ASSOCIATED CONDUIT. TELECOM CONDUIT AND JUNCTION BOXES PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO 3 ELECTRICAL DRAWINGS FOR CONDUIT ROUTING. COORDINATE FINAL CONDUIT SIZES AND ROUTING WITH ELECTRICAL CONTRACTOR.
5. MODULAR WALL MOUNTED 3 GANG ROUGH-IN AT 18" AFF FOR WIRING TO A/V CREDENZA PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
6. MODULAR WALL SINGLE GANG WALL ROUGH-IN AT 84" FOR WIRING TO VIDEO CONFERENCE CAMERA PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE VIDEO CONFERENCE CAMERA, WALL PLATE AND ASSOCIATED CABLING IN ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
7. MODULAR WALL 2 GANG WALL ROUGH-IN AT 48" AFF FOR TOUCH PANEL PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.
8. MODULAR WALL SINGLE GANG ROUGH-IN AT 48" AFF FOR MOTORIZED PROJECTION SCREEN CONTROL PROVIDED BY FURNITURE CONTRACTOR. A/V CONTRACTOR SHALL PROVIDE ALL CABLING THROUGH ROUGH-IN AS INDICATED IN A/V EQUIPMENT LIST AND TERMINATE CABLING AS PER MANUFACTURER'S REQUIREMENTS.



PROFESSIONAL SEAL:

CONSULTANT:



HACP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

NO.	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	DESCRIPTION	DATE

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
**AUDIO/VISUAL PLAN - LEVEL 7**

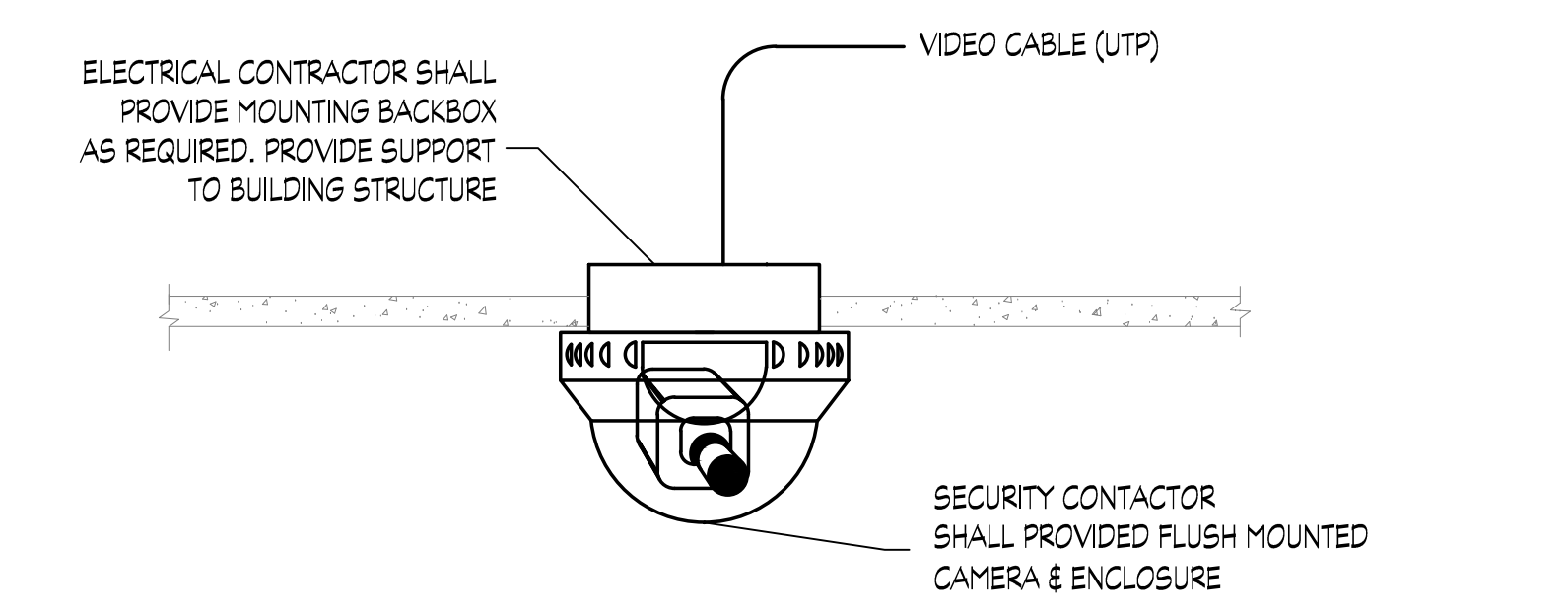
SHEET NO.  
**AV1.07**

SECURITY LEGEND				
SYMBOL	ABRV.	DESCRIPTION	MOUNT	REMARKS
		PROVIDE CEILING/PENDANT MOUNTED FIXED CAMERA IN DOME.		SEE CAMERA SCHEDULE ON DRAWING ES2.02 AND DETAILS ON THIS DRAWING FOR ADDITIONAL REQUIREMENTS
		PROVIDE WALL MOUNTED FIXED CAMERA IN DOME.		SEE CAMERA SCHEDULE ON DRAWING ES2.02 AND DETAILS ON THIS DRAWING FOR ADDITIONAL REQUIREMENTS
		CAMERA TYPE DETAIL - TOP LETTER INDICATES CAMERA TYPE, BOTTOM NUMBER INDICATES CAMERA NUMBER		SEE CAMERA SCHEDULE ON DRAWING ES2.02 AND DETAILS ON THIS DRAWING FOR ADDITIONAL REQUIREMENTS
		PROVIDE CCTV HEAD END EQUIPMENT INCLUDING BUT NOT LIMITED TO POWER OVER ETHERNET SWITCHES PATCH PANELS AND ASSOCIATED POWER SUPPLIES		SEE DETAIL 1 ON DRAWING ES2.03 FOR ADDITIONAL REQUIREMENTS
		PROVIDE CARD ACCESS PANELS/CONTROLLERS AND INTRUSION/BURGLAR ALARM PANEL INCLUDING ALL POWER SUPPLIES FOR A COMPLETE AND OPERATIONAL SYSTEM		SEE DETAIL 1 ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS
		PROVIDE COMPUTER STATION FOR INSTALLING OF CARD ACCESS SYSTEM AND SECURITY CAMERA SYSTEM INCLUDING MONITOR, SOFTWARE, LICENSES AND ALL OTHER EQUIPMENT FOR A COMPLETE AND OPERATIONAL SYSTEM		SEE DETAIL 1 ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS
		PROVIDE PROXIMITY TYPE CARD READER (COLOR BY ARCHITECT)	48" AFF	SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		PROVIDE MULLION MOUNTED PROXIMITY TYPE CARD READER (COLOR BY ARCHITECT)	48" AFF	SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		DOOR HARDWARE CONTRACTOR SHALL PROVIDE ELECTRIC LOCK		
		DOOR HARDWARE CONTRACTOR SHALL PROVIDE MAGNETIC LOCK		
		PROVIDE DOOR CONTACTS.		SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		REQUEST TO EXIT DEVICE IS TYPICALLY PART OF DOOR. WHERE IDENTIFIED ON PLAN DRAWINGS PROVIDE ABOVE DOOR REQUEST TO EXIT DEVICE	12" ABOVE DOOR	SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		PROVIDE PUSH TO EXIT DEVICE (COLOR BY ARCHITECT)	48" AFF	SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		PROVIDE BLUE EMERGENCY PULL STATION	48" AFF	SEE DETAIL 1 AND 2 ON DRAWING ES2.01 FOR WIRING REQUIREMENTS.
		ADA DOOR OPERATOR. PROVIDED BY DOOR HARDWARE CONTRACTOR		
		DOOR NUMBER IDENTIFIER. THIS CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONNECTIONS TO EQUIPMENT PROVIDED BY DOOR HARDWARE CONTRACTOR PRIOR TO INSTALLING		
		SECTION/ELEVATION DETAIL. TOP NUMBER INDICATES DETAIL/BOTTOM NUMBER INDICATES DRAWING SHEET		

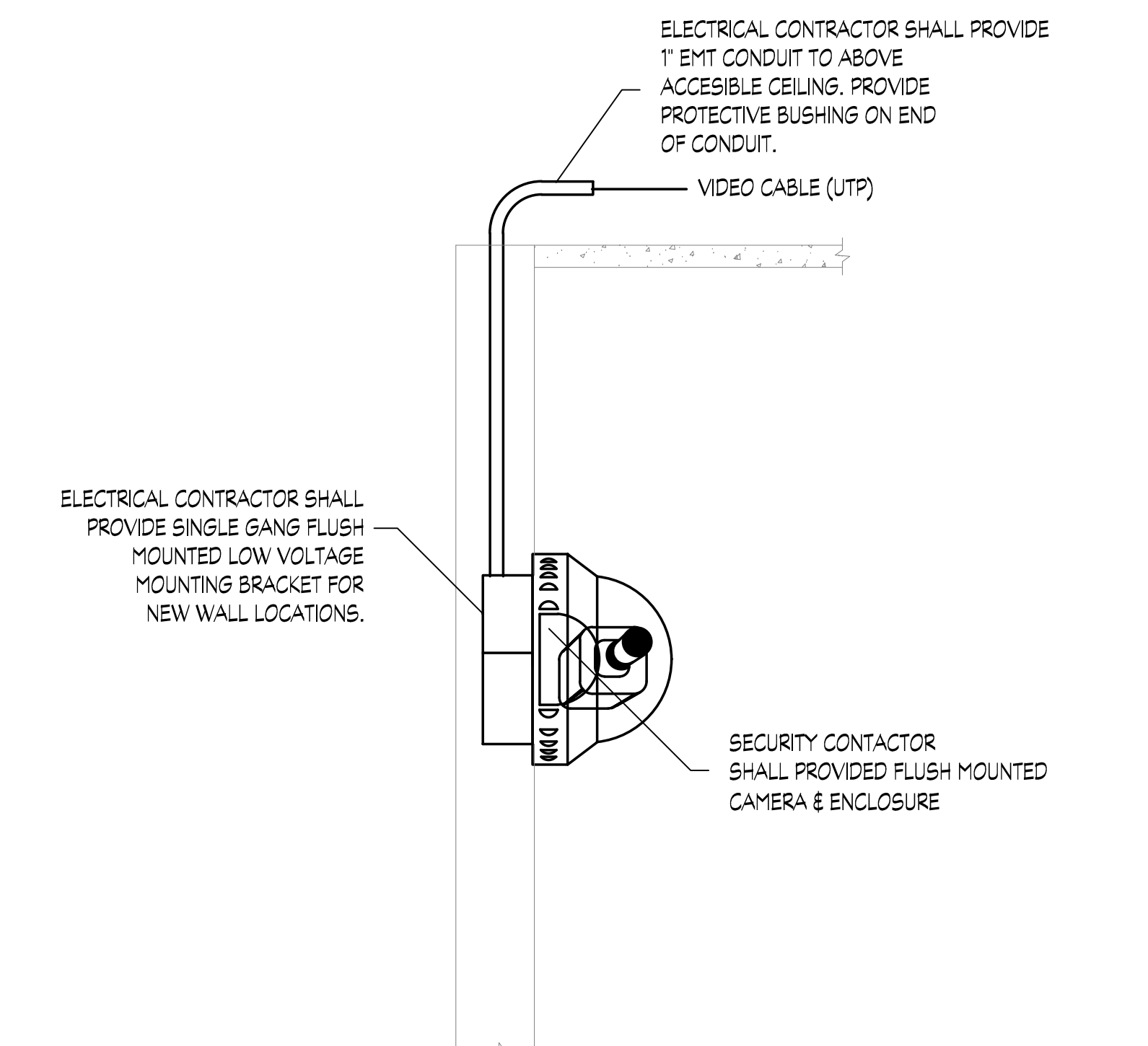
**SECURITY GENERAL NOTES**

- SEE SECURITY FLOOR PLANS AND DETAIL SHEETS FOR PROPOSED SECURITY EQUIPMENT LAYOUTS AND MATERIALS LIST.
- CAMERA LOCATIONS ON DRAWINGS ARE FOR DIAGRAMMATIC PURPOSES ONLY. SECURITY CONTRACTOR SHALL PROVIDED EXACT LOCATIONS AND MOUNTING HEIGHTS BASED ON THE FIELD VIEWING OF ACTUAL INSTALLATION.
- SECURITY CONTRACTOR SHALL PROVIDE COORDINATION WITH OTHER TRADES TO AVOID CONFLICTS WITH LIGHT FIXTURES, DIFFUSERS, SPRINKLER HEADS, ETC.
- SECURITY CONTRACTOR SHALL PROVIDE COORDINATION WITH ELECTRICAL CONTRACTOR TO ASSURE THAT PROPER POWER AND ROUGH-IN REQUIREMENTS ARE PROVIDED FOR SECURITY EQUIPMENT AND CABLING.
- SECURITY CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF EACH PROPOSED PIECE OF SECURITY EQUIPMENT WITH MANUFACTURER AND MODEL NUMBER HIGHLIGHTED FOR FOR OWNER REVIEW.
- SECURITY CONTRACTOR SHALL PROVIDE COMPLETE AS BUILT DOCUMENTS WITH WIRING DIAGRAMS AND RACK ELEVATIONS IN ELECTRONIC FORMAT.

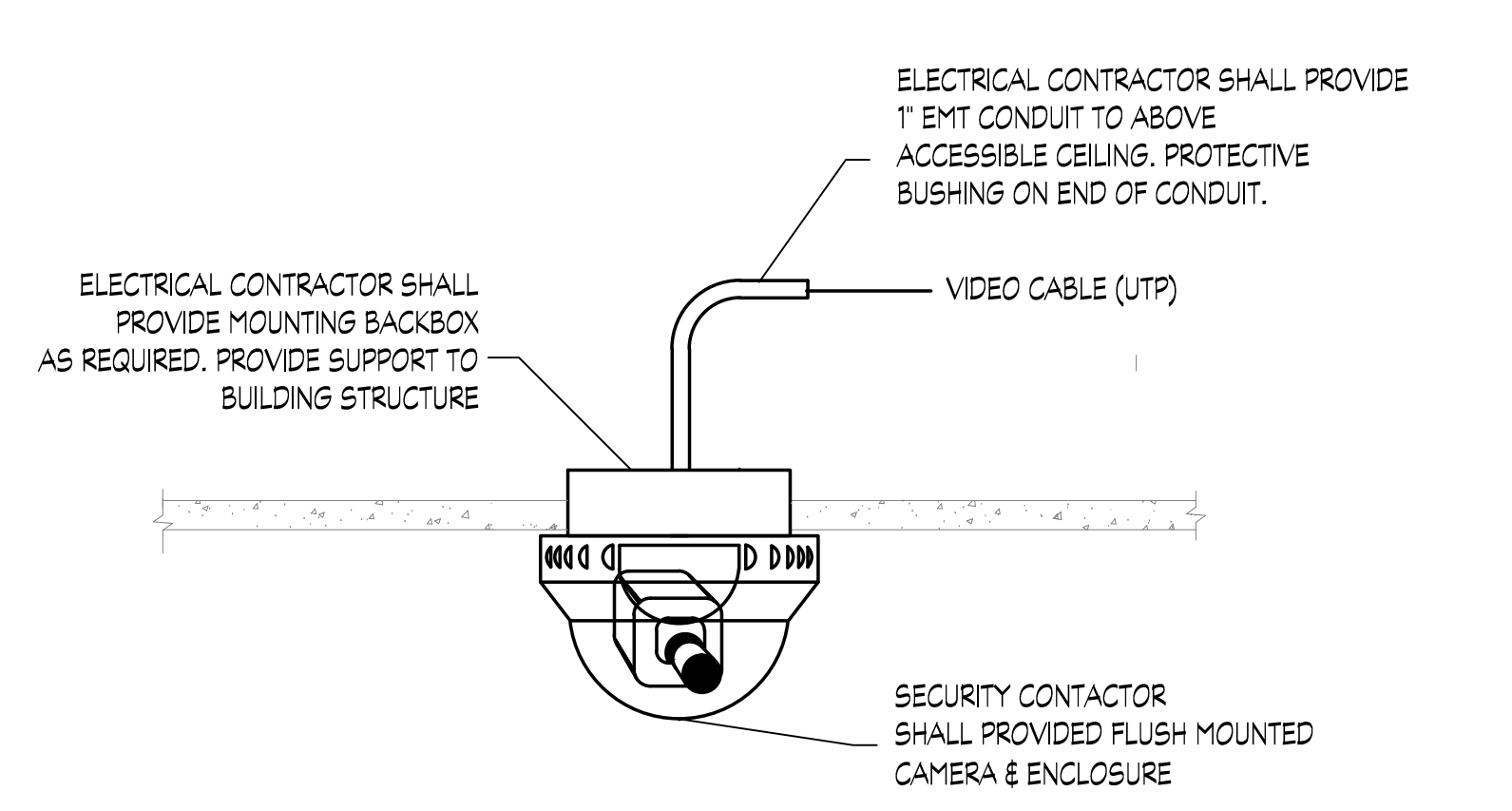
SECURITY SYSTEM (CARD ACCESS AND CAMERA) INSTALLATION MATRIX			
DESCRIPTION	ELECTRICAL CONTRACTOR	SECURITY CONTRACTOR	GENERAL CONTRACTOR
ROUGH-INS, CONDUITS, PULLSTRING AND POWER FOR SECURITY EQUIPMENT	FURNISH & INSTALL		
ELECTRIFIED DOOR HARDWARE			FURNISH & INSTALL
SECURITY CABLING TO SECURITY EQUIPMENT		FURNISH & INSTALL	
SECURITY EQUIPMENT (CARD READERS, DOOR CONTACTS, REX SENSORS, CAMERAS, HEAD END EQUIPMENT, SOFTWARE, POWER SUPPLIES, ETC.)		FURNISH & INSTALL	



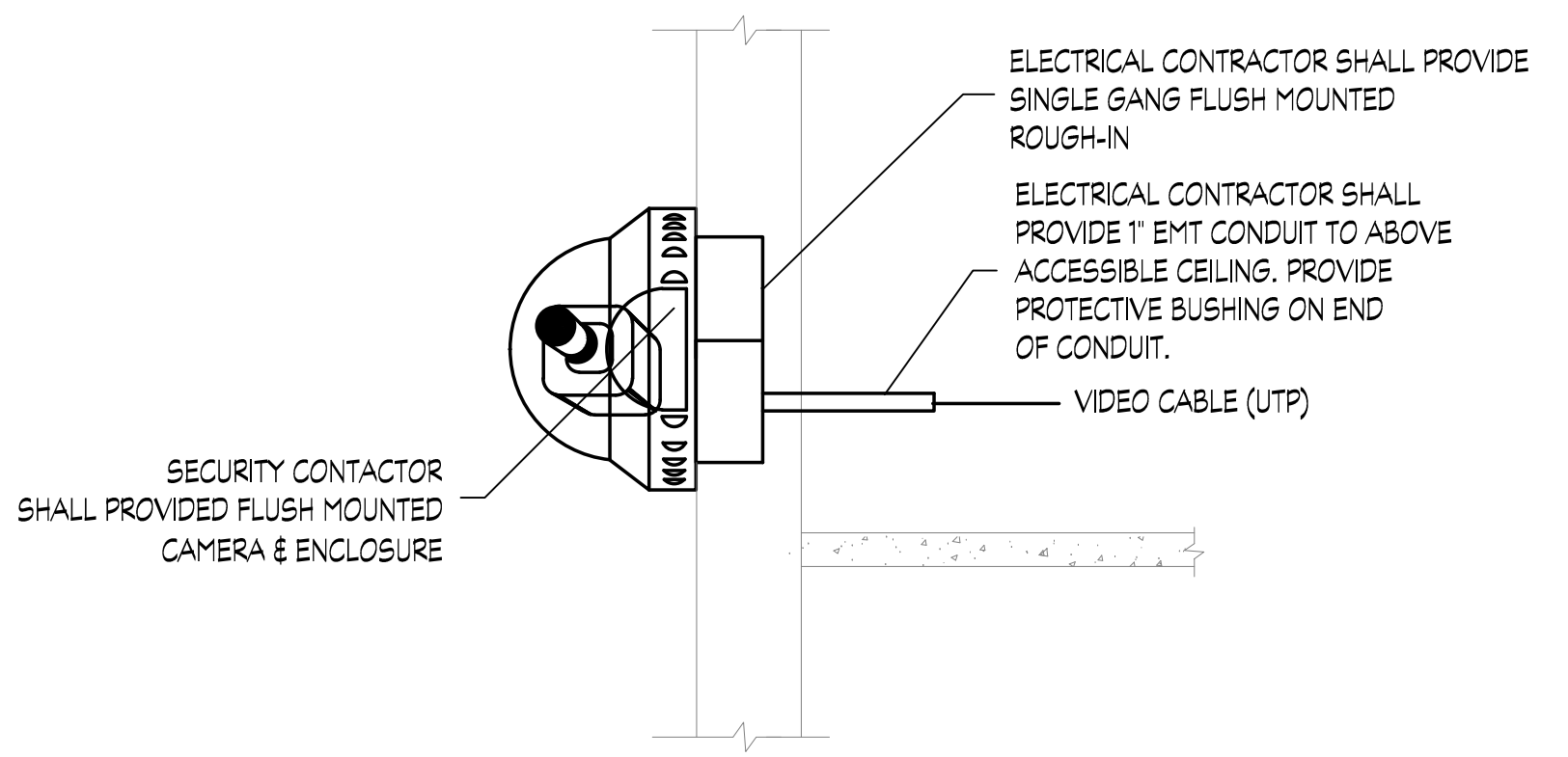
**1** CCTV INTERIOR IP CAMERA - CEILING MOUNTED DETAIL (ACOUSTICAL TILE)  
SCALE: NTS



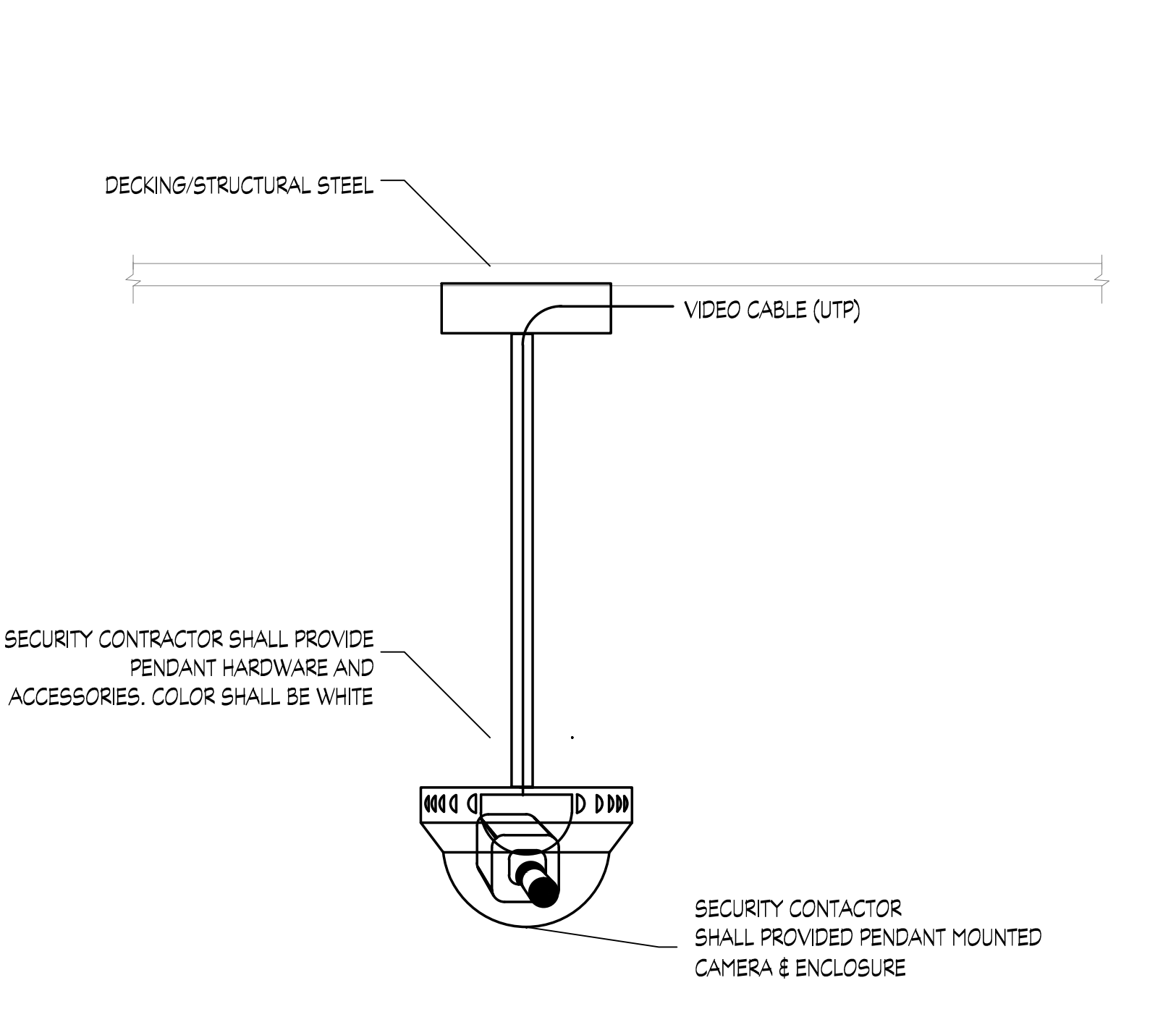
**2** CCTV INTERIOR IP CAMERA - WALL MOUNTED DETAIL  
SCALE: NTS



**3** CCTV INTERIOR IP CAMERA - CEILING MOUNTED DETAIL (DRYWALL CEILING)  
SCALE: NTS



**4** EXTERIOR IP CAMERA - WALL MOUNTED DETAIL  
SCALE: NTS



**5** CCTV INTERIOR IP CAMERA - PENDANT MOUNTED DETAIL  
SCALE: NTS

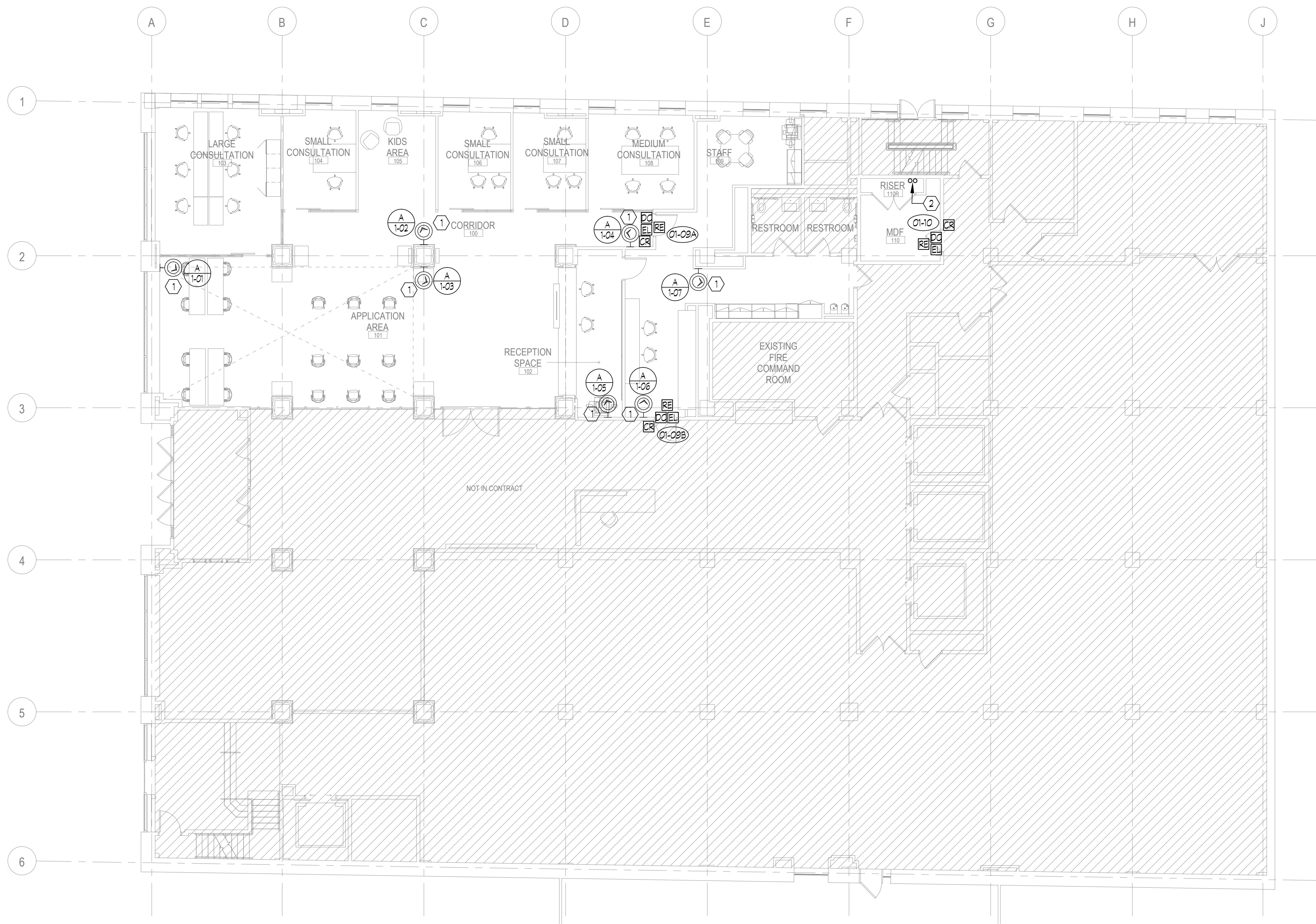
PROFESSIONAL SEAL:

CONSULTANT:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020
#	PROJECT ISSUANCE	

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

**SECURITY DATA SHEET**



1 SECURITY PLAN - LEVEL 1  
 ES1.01 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE DRAWING ES0.01, ES2.01 AND ES2.02 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HACPS SECURITY DEPARTMENT REQUIREMENTS.
3. ALL SECURITY CAMERAS, PANIC BUTTONS, DOOR CONTACTS AND DOOR ACCESS EQUIPMENT SHALL BE WIRED BACK TO HEAD END EQUIPMENT IN IDF 525 ON LEVEL 5. SEE LEVEL 5 SECURITY PLAN FOR ADDITIONAL REQUIREMENTS.
4. ALL CABLE RAN THRU OPEN CEILING MUST BE WHITE CABLING.
5. SEE TELECOM DRAWINGS FOR BASKET TRAY LOCATIONS THAT SECURITY CABLING CAN BE RAN THRU.

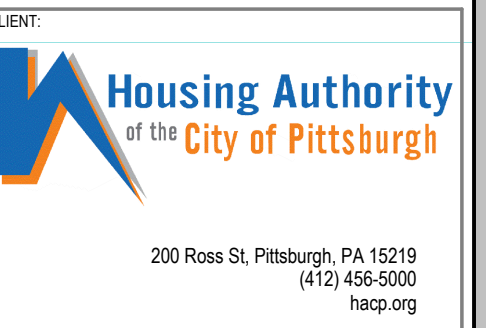
**CODED NOTES:** (A)

1. MOUNTED ON WALL OR COLUMN AT 10'-0" AFF.
2. EXISTING (2) 4" SLEEVES UP TO FLOOR ABOVE. ALL HORIZONTAL SECURITY CABLE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO HEAD END EQUIPMENT IN IDF 525 UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED. SEE CARD ACCESS DETAILS ON DRAWING ES2.01 AND CAMERA DETAILS ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS.



PROFESSIONAL SEAL:

CONSULTANT:



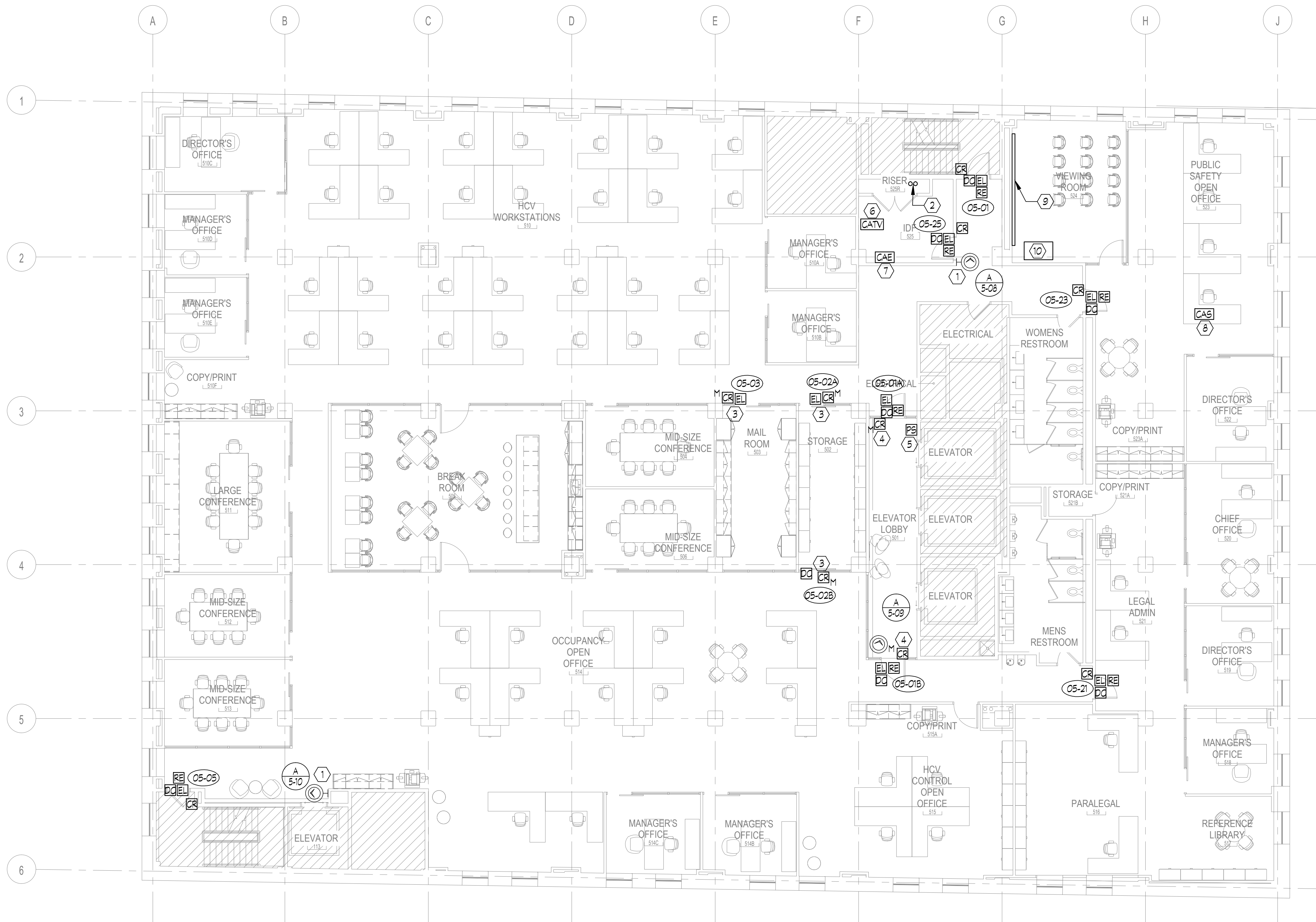
HACP - Housing Authority of the City of Pittsburgh  
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5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00	DRAWN BY: JDW	REVIEWED BY: JDW
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SECURITY PLAN - LEVEL 1

SHEET NO:  
**ES1.01**  
 TRUE NORTH  
 PLAN NORTH



1 SECURITY PLAN - LEVEL 5  
 ES1.05 1/8" = 1'-0"

**GENERAL NOTES**

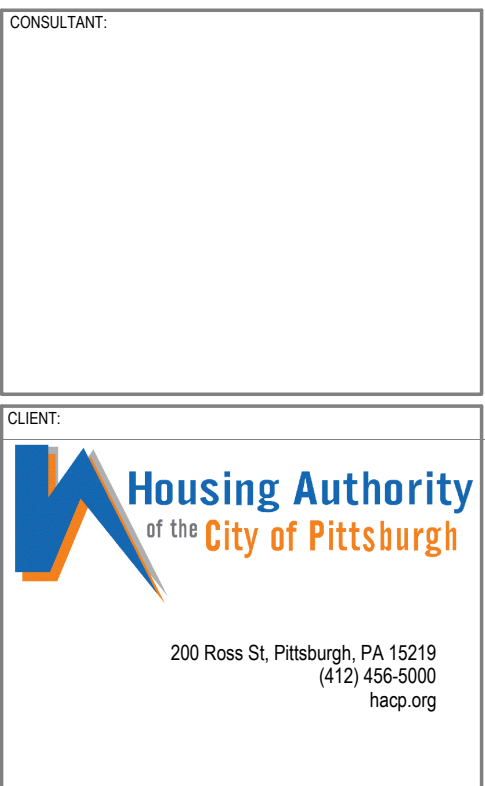
- SEE DRAWING ES0.01, ES2.01 AND ES2.02 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HACPS SECURITY DEPARTMENT REQUIREMENTS.
- ALL SECURITY CAMERAS, PANIC BUTTONS, DOOR CONTACTS AND DOOR ACCESS EQUIPMENT SHALL BE WIRED BACK TO HEAD END EQUIPMENT IN IDF 525 ON LEVEL 5. SEE LEVEL 5 SECURITY PLAN FOR ADDITIONAL REQUIREMENTS.
- ALL CABLE RAN THRU OPEN CEILING MUST BE WHITE CABLING.
- SEE TELECOM DRAWINGS FOR BASKET TRAY LOCATIONS THAT SECURITY CABLING CAN BE RAN THRU.

**CODED NOTES:** (H)

- MOUNTED ON WALL OR COLUMN AT 10'-0" AFF.
- EXISTING (2) 4" SLEEVES UP TO FLOOR ABOVE. ALL HORIZONTAL SECURITY CABLE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO HEAD END EQUIPMENT IN IDF 525 UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED. SEE CARD ACCESS DETAILS ON DRAWING ES2.01 AND CAMERA DETAILS ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS.
- CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
- CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION, DOOR CONTACT MOUNTED TO DOOR AND DOOR FRAME OF DIRTT FURNITURE PARTITION AND REQUEST TO EXIT MOTION SENSOR MOUNTED TO WALL ABOVE DOOR OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS AND CUTTING/MOUNTING TO DIRTT WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
- PROVIDE SDC 492 BLUE EMERGENCY PULL STATION WITH INTEGRAL SOUNDER AS PER AHJ'S REQUIREMENTS. WHEN ACTIVATED THIS DEVICE SHALL SOUND AN ALARM AND SHALL RELEASE POWER SUPPLY TO THE TWO EGRESS DOORS TO STAIRWELL EGRESS PATH. PROVIDE SURFACE MOUNTED BOX AND SURFACE RACEWAY UP TO NEAREST OPEN CEILING. SURFACE RACEWAY AND BOX SHALL BE COLOR WHITE.
- CCTV/SURVEILLANCE IP SYSTEM HEAD END EQUIPMENT TO BE MOUNTED IN TELECOM RACK IN THIS ROOM FOR ALL CAMERAS. SEE DETAIL 1 ON DRAWING ES2.02 FOR EQUIPMENT REQUIREMENTS. COORDINATE WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION. SEE DETAIL 3 ON T2.02 FOR LOCATION OF EQUIPMENT TO BE MOUNTED IN RACK. COORDINATE FINAL LOCATION IN RACK WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION.
- CARD ACCESS CONTROLLER ON WALL IN THIS ROOM IS FOR ALL DOOR ACCESS. SEE DETAIL 1 ON DRAWING ES2.01 FOR EQUIPMENT REQUIREMENTS. COORDINATE WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION.
- PROVIDE CARD ACCESS AND CCTV SOFTWARE ON HACP PROVIDED WORKSTATION FOR A COMPLETE AND OPERATIONAL SYSTEM TO ALLOW BADGING AND VIEWING OF CAMERAS FROM THIS LOCATION. SEE DETAIL 1 ON DRAWING ES2.01 FOR ADDITIONAL INFORMATION. COORDINATE FINAL LOCATION WITH HACPS SECURITY DEPARTMENT PRIOR TO INSTALLATION.
- PUBLIC SAFETY VIEWING ROOM VIDEO WALL. SEE AUDIO/VISUAL PLANS FOR ADDITIONAL REQUIREMENTS.
- PUBLIC SAFETY EXISTING RACK AND SERVER EQUIPMENT HOUSING EQUIPMENT FOR VIDEO STORAGE AND INPUTS/OUTPUTS TO DISPLAY WALL. THIS RACK AND ALL ASSOCIATED EQUIPMENT SHALL BE DISCONNECTED AND RELOCATED OVER A WEEKEND SHIFT. PROVIDE ALL LABOR ASSOCIATED WITH SHUTTING DOWN AND MOVING FROM EXISTING SITE A BLOCK AWAY TO NEW LOCATION. EQUIPMENT SHALL BE PROTECTED TO ENSURE NO DAMAGE OCCURS.



PROFESSIONAL SEAL:  
 CONSULTANT:



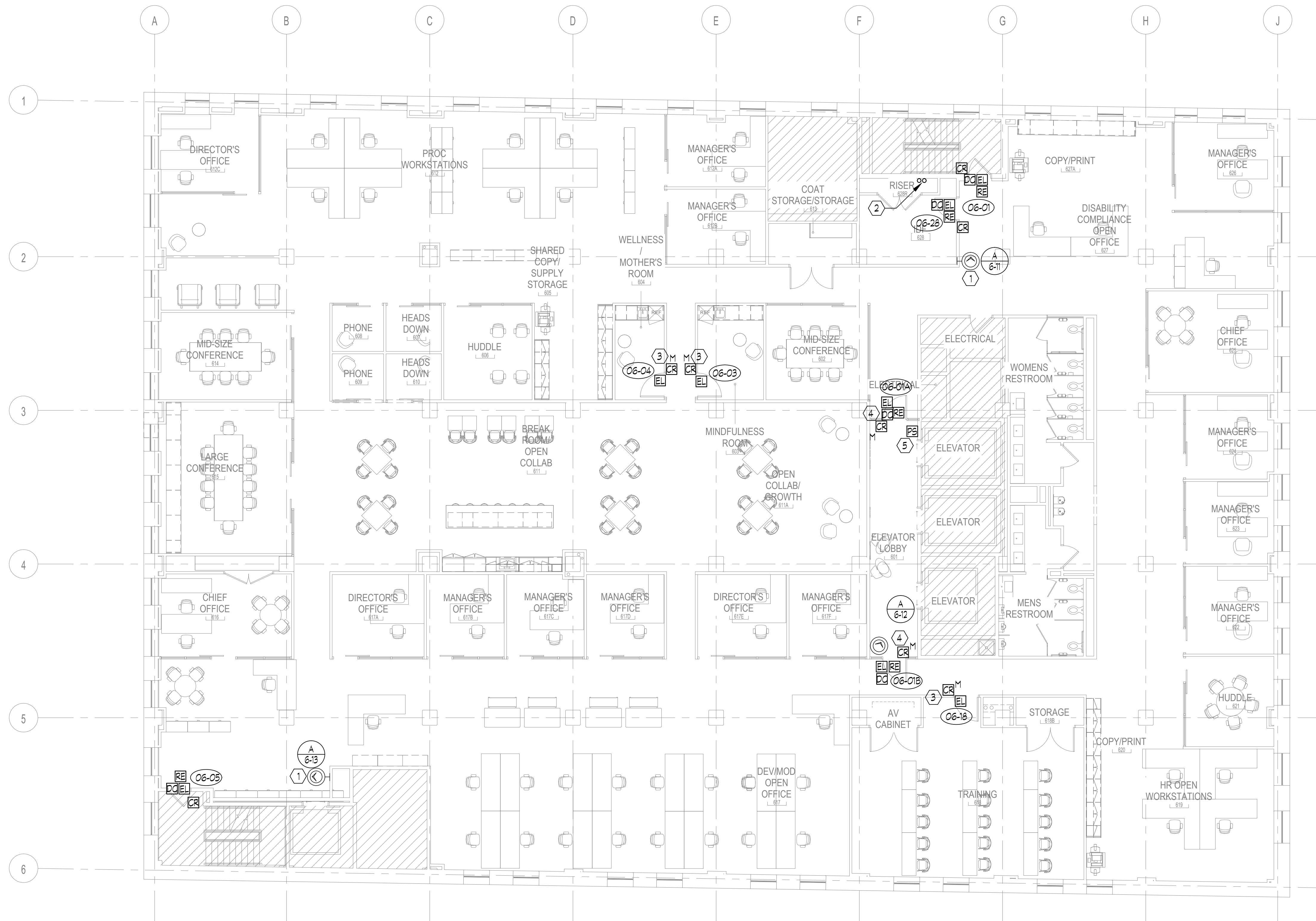
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1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
**SECURITY PLAN - LEVEL 5**

SHEET NO:  
**ES1.05**



1 SECURITY PLAN - LEVEL 6  
 ES1.06 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE DRAWING ES0.01, ES2.01 AND ES2.02 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HACPS SECURITY DEPARTMENT REQUIREMENTS.
3. ALL SECURITY CAMERAS, PANIC BUTTONS, DOOR CONTACTS AND DOOR ACCESS EQUIPMENT SHALL BE WIRED BACK TO HEAD END EQUIPMENT IN IDF 525 ON LEVEL 5. SEE LEVEL 5 SECURITY PLAN FOR ADDITIONAL REQUIREMENTS.
4. ALL CABLE RAN THRU OPEN CEILING MUST BE WHITE CABLING.
5. SEE TELECOM DRAWINGS FOR BASKET TRAY LOCATIONS THAT SECURITY CABLING CAN BE RAN THRU.

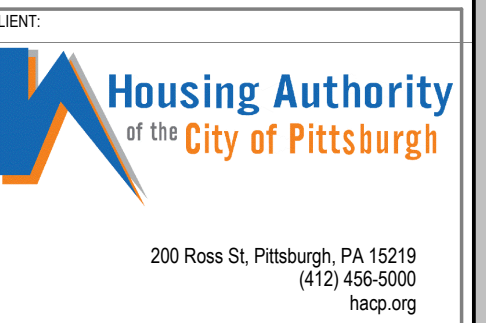
**CODED NOTES:** (B)

1. MOUNTED ON WALL OR COLUMN AT 10'-0" AFF.
2. EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL SECURITY CABLE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO HEAD END EQUIPMENT IN IDF 525 UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED. SEE CARD ACCESS DETAILS ON DRAWING ES2.01 AND CAMERA DETAILS ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS.
3. CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
4. CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION, DOOR CONTACT MOUNTED TO DOOR AND DOOR FRAME OF DIRTT FURNITURE PARTITION AND REQUEST TO EXIT MOTION SENSOR MOUNTED TO WALL ABOVE DOOR OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS AND CUTTING/MOUNTING TO DIRTT WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
5. PROVIDE SDC 492 BLUE EMERGENCY PULL STATION WITH INTEGRAL SOUNDER AS PER AHJS REQUIREMENTS. WHEN ACTIVATED THIS DEVICE SHALL SOUND AN ALARM AND SHALL RELEASE POWER SUPPLY TO THE TWO EGRESS DOORS TO STAIRWELL EGRESS PATH. PROVIDE SURFACE MOUNTED BOX AND SURFACE RACEWAY UP TO NEAREST OPEN CEILING. SURFACE RACEWAY AND BOX SHALL BE COLOR WHITE.



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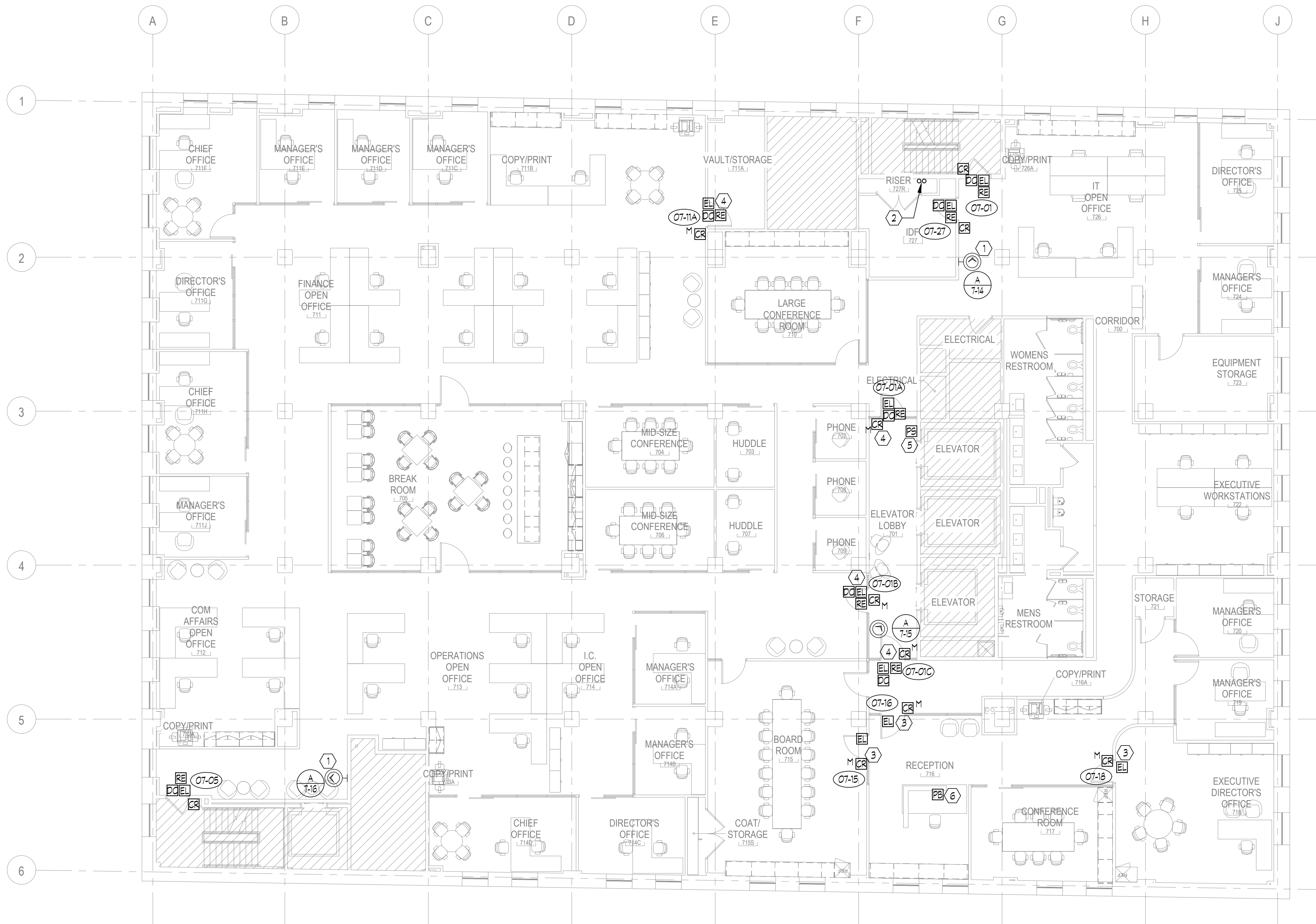
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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SECURITY PLAN - LEVEL 6

SHEET NO. ES1.06  
 TRUE NORTH  
 PLAN NORTH





1 SECURITY PLAN - LEVEL 7  
 ES1.07 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE DRAWING ES0.01, ES2.01 AND ES2.02 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HACPS SECURITY DEPARTMENT REQUIREMENTS.
3. ALL SECURITY CAMERAS, PANIC BUTTONS, DOOR CONTACTS AND DOOR ACCESS EQUIPMENT SHALL BE WIRED BACK TO HEAD END EQUIPMENT IN IDF 525 ON LEVEL 5. SEE LEVEL 5 SECURITY PLAN FOR ADDITIONAL REQUIREMENTS.
4. ALL CABLE RAN THRU OPEN CEILING MUST BE WHITE CABLING.
5. SEE TELECOM DRAWINGS FOR BASKET TRAY LOCATIONS THAT SECURITY CABLING CAN BE RAN THRU.

**CODED NOTES:** (B)

1. MOUNTED ON WALL OR COLUMN AT 10'-0" AFF.
2. EXISTING (2) 4" SLEEVES DOWN TO FLOOR BELOW. ALL HORIZONTAL SECURITY CABLE SHALL BE RAN THROUGH SLEEVES IN STACKED VERTICAL CLOSETS TO HEAD END EQUIPMENT IN IDF 525 UNLESS NOTED OTHERWISE. FIRE STOP SLEEVES AS REQUIRED. SEE CARD ACCESS DETAILS ON DRAWING ES2.01 AND CAMERA DETAILS ON DRAWING ES2.01 FOR ADDITIONAL REQUIREMENTS.
3. CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
4. CARD READER MOUNTED TO MULLION OF DIRTT FURNITURE PARTITION, DOOR CONTACT MOUNTED TO DOOR AND DOOR FRAME OF DIRTT FURNITURE PARTITION AND REQUEST TO EXIT MOTION SENSOR MOUNTED TO WALL ABOVE DOOR OF DIRTT FURNITURE PARTITION. ELECTRIFIED HARDWARE IS PART OF DIRTT FURNITURE PARTITION. COORDINATE FINAL CONNECTION TO ELECTRIFIED HARDWARE AND ROUTING SECURITY WIRING THRU FURNITURE WALLS AND CUTTING/MOUNTING TO DIRTT WALLS WITH FURNITURE CONTRACTOR PRIOR TO INSTALLATION.
5. PROVIDE SDC 492 BLUE EMERGENCY PULL STATION WITH INTEGRAL SOUNDER AS PER AHJ'S REQUIREMENTS. WHEN ACTIVATED THIS DEVICE SHALL SOUND AN ALARM AND SHALL RELEASE POWER SUPPLY TO THE TWO EGRESS DOORS TO STAIRWELL EGRESS PATH. PROVIDE SURFACE MOUNTED BOX AND SURFACE RACEWAY UP TO NEAREST OPEN CEILING. SURFACE RACEWAY AND BOX SHALL BE COLOR WHITE.
6. PROVIDE PANIC BUTTON UNDER DESK AND CONNECT BACK TO CARD ACCESS SYSTEM CONTROLLER INPUT BOARD IN IDF 525 ON 5TH FLOOR. THIS PANIC ALARM SHALL SIGNAL HACPS SECURITY GROUP ON 5TH FLOOR VIA CARD ACCESS SYSTEM ALARM ON SOFTWARE.



PROFESSIONAL SEAL:

CONSULTANT:



200 Ross St. Pittsburgh, PA 15219  
 (412) 456-5000  
 hacp.org

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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SECURITY PLAN - LEVEL 7

SHEET NO. ES1.07  
 TRUE NORTH  
 PLAN NORTH

PROFESSIONAL SEAL:

CONSULTANT:

CLIENT:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

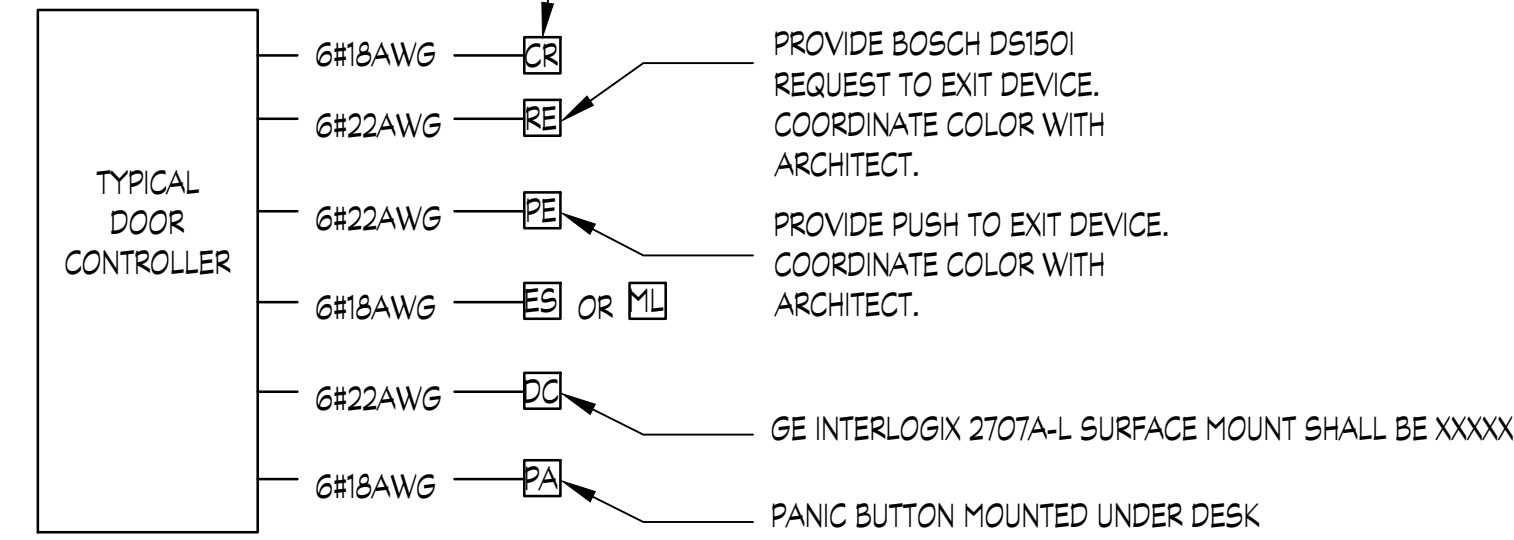
PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:

SECURITY CARD ACCESS DETAILS

SHEET NO:  
**ES2.01**  
 TRUE NORTH  
 PLAN NORTH

PROVIDE HID THIN LINE II 5395CG100 OR APPROVED EQUAL CARD READER DEVICE. MULLION MOUNT DEVICE SHALL BE HID XXXX COORDINATE COLOR WITH ARCHITECT.



**2**  
 ES2.01 TYPICAL SECURITY DEVICE WIRING DIAGRAM  
 SCALE: NONE

**GENERAL NOTES:**

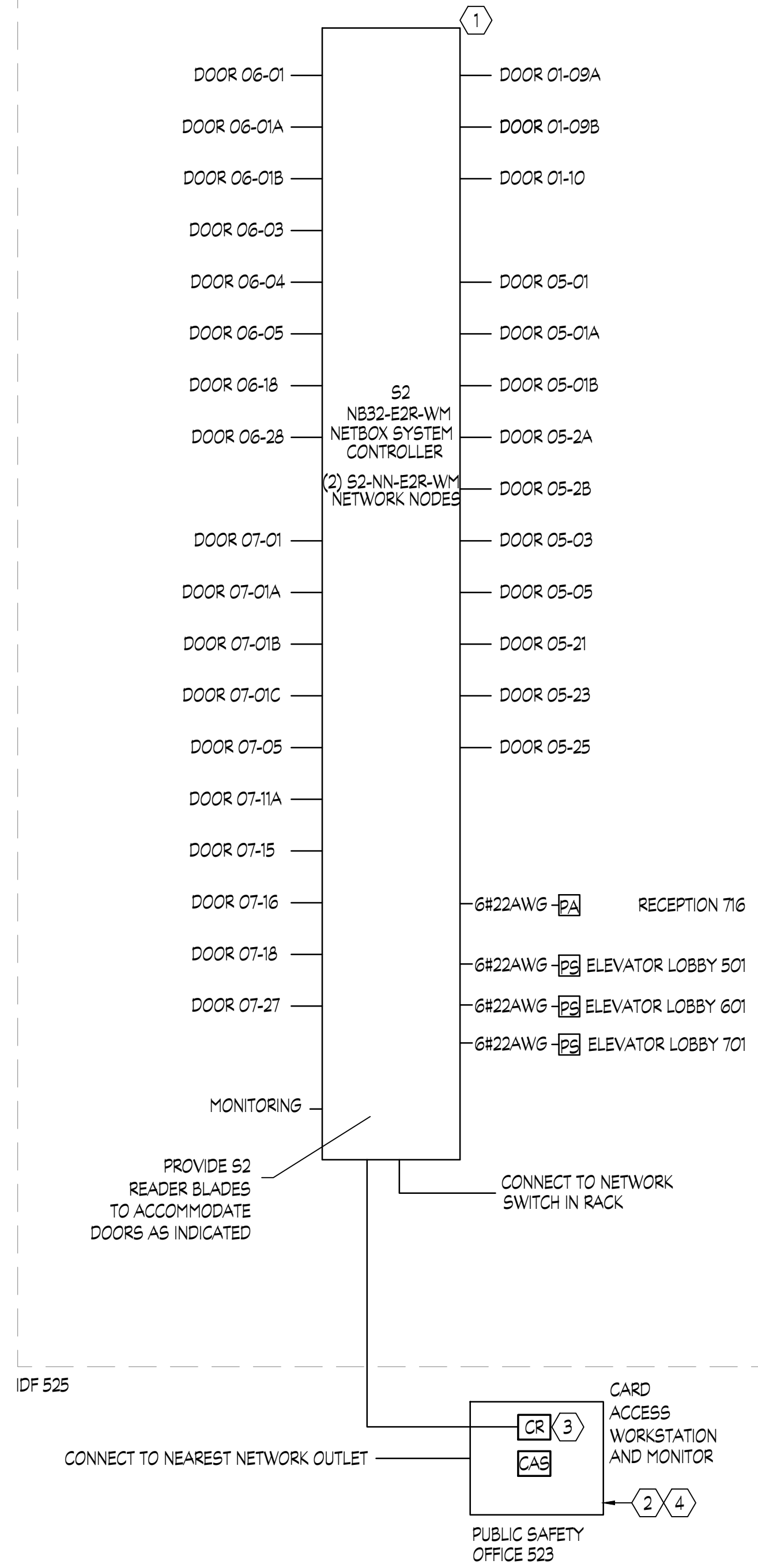
1. WIRING TYPE/SIZE IS SHOWN FOR IDENTIFICATION PURPOSES ONLY. THIS CONTRACTOR SHALL PROVIDE WIRING TYPES AND SIZES ACCORDING TO MANUFACTURER'S REQUIREMENTS.
2. SEE FLOOR PLANS FOR ACTUAL QUANTITIES AND TYPES OF DEVICES AT EACH DOOR.
3. MANUFACTURER AND MODEL NUMBERS ARE FOR DESCRIPTION PURPOSE ONLY. PROVIDE APPROVED EQUALS.
4. COORDINATE WITH DOOR HARDWARE SCHEDULE FOR REQUEST TO EXIT DEVICES BUILT INTO DOOR HARDWARE. ALL OTHER LOCATIONS SHALL BE MOUNTED OVER THE DOOR.

**GENERAL NOTES:**

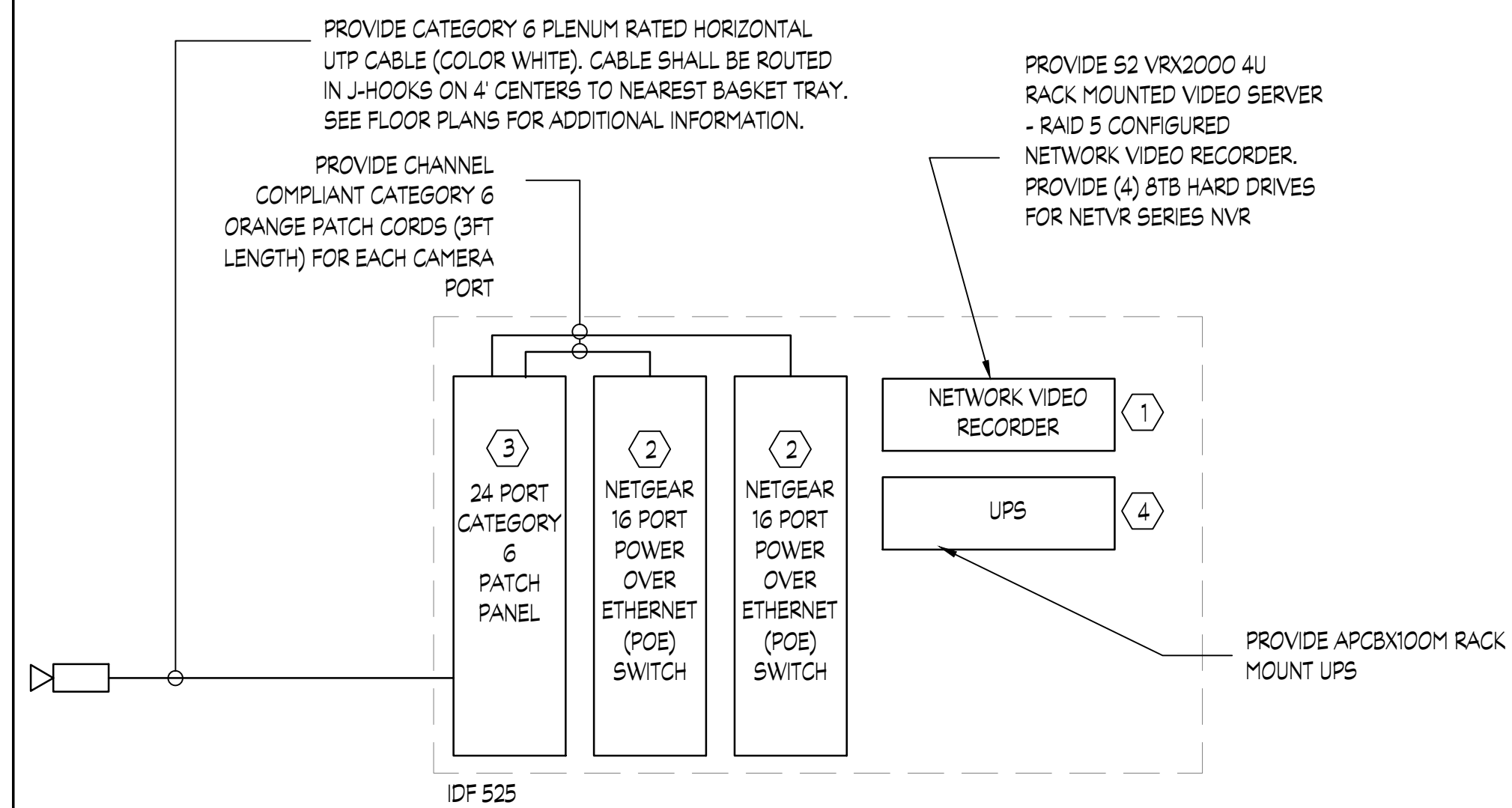
1. THIS DETAIL IS FOR DIAGRAMMATIC PURPOSES ONLY. SEE PLAN DRAWINGS FOR ACTUAL DEVICE LOCATIONS AND QUANTITIES.
2. COORDINATE FINAL ROUGH-IN LOCATIONS AND CONNECTION TO ELECTRIFIED DOOR HARDWARE WITH DOOR HARDWARE CONTRACTOR PRIOR TO INSTALLATION.
3. COORDINATE FINAL ROUGH-IN SIZES WITH EQUIPMENT MANUFACTURER.
4. COORDINATE FINAL CONDUIT SIZES AND ROUTINGS WITH EQUIPMENT MANUFACTURER.
5. WIRING TYPE/SIZE IS SHOWN FOR IDENTIFICATION PURPOSES ONLY. THIS CONTRACTOR SHALL PROVIDE WIRING TYPES AND SIZES ACCORDING TO MANUFACTURER'S REQUIREMENTS.
6. SEE FLOOR PLANS FOR ACTUAL QUANTITIES AND TYPES OF DEVICES AT EACH DOOR.
7. SEE ARCHITECTURAL DRAWINGS AND DOOR HARDWARE SCHEDULE FOR ACTUAL DOOR NUMBERS AND EQUIPMENT INSTALLED ON DOORS.
8. CARD READERS SHALL BE MOUNTED AT HEIGHTS PER ADA REQUIREMENTS.
9. PROVIDE CARD READER NEXT TO CARD ACCESS WORK STATION FOR BADGING PURPOSES.
10. COORDINATE WITH FIRE ALARM CONTRACTOR TO PROVIDE FIRE ALARM CONTROL MODULE LOCAL TO DOOR POWER SUPPLIES AT EGRESS DOORS THAT HAVE CARD ACCESS TO RELEASE UPON FIRE ALARM ACTIVATION.

**CODED NOTES (DETAIL 1):**

1. SECURITY SYSTEM, SOFTWARE AND COMPATIBLE DEVICES SHALL BE S2, NO SUBSTITUTES ARE ALLOWED AS THE EXISTING BUILDING SYSTEM IS S2. PROVIDE CONTROLLER, NODES, ACM BLADES, POWER SUPPLIES AND SOFTWARE FOR A COMPLETE AND OPERATIONAL SYSTEM.
2. INSTALL SOFTWARE ON OWNER PROVIDED COMPATIBLE SERVER/WORKSTATION COMPUTER.
3. PROVIDE MULLION STYLE CARD READER NEXT TO CARD ACCESS WORK STATION FOR BADGING PURPOSES.
4. PROVIDE QUANTITY OF 300 HID 1346 PROXKEY III KEY FOBBS.



**1**  
 ES2.01 SECURITY SYSTEM WIRING DIAGRAM  
 NOT TO SCALE



1 TYPICAL CCTV/SURVEILLANCE IP SYSTEM WIRING DIAGRAM  
ES202 SCALE: NTS

**GENERAL CCTV/SURVEILLANCE IP SYSTEM WIRING DIAGRAM NOTES:**

1. ALL WIRING SHALL BE UNSHIELDED TWISTED PAIR, UNLESS NOTED OTHERWISE AND SHALL BE PER MANUFACTURER'S REQUIREMENTS. CATEGORY 6 CABLE SHALL MATCH TELECOM CABLING. COORDINATE WITH TELECOM CONTRACTOR.
2. ALL CCTV/SURVEILLANCE IP SYSTEM CABLING SHALL BE RAN TO PATCH PANEL IN IDF AS INDICATED.
3. CCTV/SURVEILLANCE IP SYSTEM WIRING DIAGRAM IS FOR DIAGRAMMATIC PURPOSES "ONLY". SEE PLAN DRAWINGS FOR ACTUAL DEVICE LOCATIONS AND QUANTITIES.
4. SEE CAMERA SCHEDULE THIS DRAWING FOR EQUIPMENT REQUIREMENTS.
5. COORDINATE FINAL CONNECTION TO NETWORK WITH OWNERS IT REPRESENTATIVE.
6. PROVIDE MINIMUM 2 YEAR PRODUCT WARRANTY ON CAMERAS.

**CCTV/SURVEILLANCE IP SYSTEM WIRING DIAGRAM CODED NOTES:**

1. DIGITAL VIDEO SERVER SHALL BE INSTALLED IN RACK IDF 525. COORDINATE FINAL LOCATION WITH TELECOMMUNICATIONS EQUIPMENT PRIOR TO INSTALLATION. SEE DETAIL 3 ON T2.02 FOR LOCATION OF EQUIPMENT TO BE MOUNTED IN RACK. COORDINATE FINAL LOCATION IN RACK WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION. COORDINATE FINAL CONNECTION VIA NETWORK WITH OWNERS IT REPRESENTATIVE. PROVIDE QUANTITY AND STORAGE CAPACITY AS INDICATED. NO SUBSTITUTES ACCEPTED.
2. POE NETWORK SWITCH SHALL BE INSTALLED IN RACK IN IDF 525. SEE DETAIL 3 ON T2.02 FOR LOCATION OF EQUIPMENT TO BE MOUNTED IN RACK. COORDINATE FINAL LOCATION IN RACK WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION. NO SUBSTITUTES ACCEPTED. COORDINATE ASSIGNING IP ADDRESSES FOR EACH CAMERA WITH OWNERS IT DEPARTMENT.
3. PATCH PANEL SHALL BE INSTALLED IN RACK IN IDF 525. SEE DETAIL 3 ON T2.02 FOR LOCATION OF EQUIPMENT TO BE MOUNTED IN RACK. COORDINATE FINAL LOCATION IN RACK WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION. COORDINATE FINAL LOCATION WITH OWNERS IT DEPARTMENT PRIOR TO INSTALLATION. CATEGORY 6 PATCH PANELS SHALL MATCH TELECOM.
4. UPS SHALL BE INSTALLED IN TELECOM RACK IN IDF 525. SEE DETAIL 3 ON T2.02 FOR LOCATION OF EQUIPMENT TO BE MOUNTED IN RACK. COORDINATE FINAL LOCATION IN RACK WITH TELECOM CONTRACTOR PRIOR TO INSTALLATION. COORDINATE FINAL LOCATION WITH OWNERS IT DEPARTMENT PRIOR TO INSTALLATION.

**CAMERA SCHEDULE**

CAMERA DESIGNATION	DETAIL#	CAMERA LOCATION	CAMERA MEGAPIXEL	CAMERA LENS	CAMERA HOUSING		FIXED/PTZ		MOUNT	MANUFACTURER	MODEL NUMBER	DEFAULT VIEW	COMMENTS
					HEATER	TINTED DOME	FIXED	PTZ					
A/1-01		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-02		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-03		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-04		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-05		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-06		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/1-07		LEVEL 1 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/5-08		LEVEL 5 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/5-09		LEVEL 5 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		CEILING	HANWHA	GND-7080R		
A/5-10		LEVEL 5 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/6-11		LEVEL 6 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/6-12		LEVEL 6 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		CEILING	HANWHA	GND-7080R		
A/6-13		LEVEL 6 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/7-14		LEVEL 7 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP
A/7-15		LEVEL 7 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		CEILING	HANWHA	GND-7080R		
A/7-16		LEVEL 7 - INTERIOR	4 MP	2.8-12MM VARIFOCAL			X		WALL	HANWHA	GND-7080R		PROVIDE WALL MOUNT W/ JUNCTION BOX AND PENDANT CAP

**GENERAL CAMERA NOTES:**

1. CAMERA MOUNTING HEIGHTS ARE BASED ON HEIGHT FROM INTERIOR FLOOR SLAB.
2. CAMERA MANUFACTURER AND MODEL NUMBERS MAY BE SUBSTITUTED FOR AN EXACT EQUAL. EQUAL MUST BE SUBMITTED BEFORE BIDS ARE TURNED IN OTHERWISE THEY ARE SUBJECT TO REJECTION.
3. PROVIDE CAMERA LICENSE PER EACH CAMERA FOR THE CCTV OPERATING SYSTEM.

PROFESSIONAL SEAL:

CONSULTANT:

CLIENT:

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
**SECURITY CAMERA DETAILS**

SHEET NO:  
**ES2.02**

SOUND MASKING GENERAL NOTES

GENERAL

- A. THE LOUDSPEAKERS SHALL BE DIRECT FIELD, RADIATING DIRECTLY INTO THE SPACE.
B. THE SOUND MASKING AND PAGING/MUSIC SYSTEM SHALL HAVE CONTROLLERS THAT POWER ONE OR MORE INDIVIDUALLY CONTROLLABLE ZONES. THE SYSTEM SHALL PROVIDE:
1. ONE OR MORE RACK OR WALL-MOUNTED CONTROLLERS, EACH WITH ONE OR MORE ZONES AND ONE OR MORE LINE LEVEL AUDIO INPUTS.
2. FOUR UNCORRELATED NOISE SOURCES PER ZONE. THE SIGNALS TO ADJACENT LOUDSPEAKERS SHALL BE UNCORRELATED.
3. DIRECT FIELD LOUDSPEAKERS THAT AUTOMATICALLY SEQUENCE THE FOUR NOISE CHANNELS AND THAT ARE MOUNTED EITHER IN OFFICE CEILING TILES OR OTHER ENCLOSURES.
4. CAT 3/5/6 PRETERMINATED CABLE ASSEMBLIES.

LABELS

- A. EXCEPT WHERE OTHERWISE SPECIFIED, LABEL EACH ITEM OF CONTROL EQUIPMENT AS SHOWN ON DRAWINGS.
1. CONTROLLERS: CONSTRUCTED OF ENGRAVED AND FILLED ANODIZED ALUMINUM PLATES. MINIMUM 1/8" PLATE THICKNESS. DRY TRANSFER OR OTHER TYPES OF ADHESIVE LABELS NOT ACCEPTABLE.
2. IDENTIFICATION PANEL: INSTALL PANEL WITH 1/8"-HIGH ENGRAVED CHARACTERS. CLEARLY IDENTIFY THE PROJECT, SYSTEM INSTALLATION CONTRACTOR, AND PROJECT ARCHITECT.
B. IDENTIFY ALL WIRES AND CABLES AT EVERY CONNECTION POINT TO CONTROLLERS WITH REFERENCE NUMBER KEYED TO THE AS-BUILT WIRING DIAGRAMS.
C. ROOM NUMBERS APPEAR ON THE CONTRACT DOCUMENTS FOR REFERENCE ONLY. ALL LABELS SHALL REFLECT THE OWNER'S FINAL ROOM DESIGNATIONS.
D. CABLE MARKERS:
1. HIGH-GRADE PVC CLIP-ON OR PERMANENT-TYPE CABLE MARKERS WITH PERMANENT MARKINGS, OR PRINTED VINYL TAPE PROTECTED BY CLEAR SHRINK TUBING OR ADHESIVE WRAP.

MANUFACTURERS

ACCEPTABLE MANUFACTURER: CAMBRIDGE SOUND MANAGEMENT OR APPROVED EQUAL

CONTROLLERS

- A. ALL SOUND MASKING LOUDSPEAKERS SHALL BE DIRECTLY POWERED AND MANAGED BY A CONTROLLER.
\*\* NOTE TO SPECIFIER \*\* THIS SPECIFICATION INCLUDES THREE MODELS OF MASKING AND PAGING CONTROLLERS WITHIN THE QT QUIET TECHNOLOGY™ PRODUCT SUITE. THE SECTIONS BELOW PROVIDE SPECIFICATIONS FROM THE MOST GENERAL TO THOSE THAT ARE SPECIFIC FOR EACH CONTROLLER. THE SYSTEM DESIGNER MAY CHOOSE TO SPECIFY ONE OR MORE TYPE OF CONTROLLER BASED UPON END USER'S ZONING REQUIREMENTS AND/OR PAGING AND MUSIC CONFIGURATION. DELETE CONTROLLERS AND ASSOCIATED SPECIFICATIONS THAT ARE NOT REQUIRED.
B. EACH CONTROLLER AND ZONE SHALL:
1. HAVE FOUR BUTTON CONTROL AND LCD READOUT OF SYSTEM SETTINGS ON FRONT PANEL.
2. PROVIDE DSP-BASED SOUND GENERATION WITH FOUR (4) UNCORRELATED MASKING SIGNAL OUTPUTS PER ZONE.
3. HAVE BUILT IN SIGNAL LOGIC FOR SEQUENTIAL CHANNEL OPERATION BY ADJACENT LOUDSPEAKERS.
4. PROVIDE PRE-SET INDUSTRY STANDARD FREQUENCY EQUALIZATION, SPECIFICALLY TAILORED TO THE OPERATING CHARACTERISTICS OF THE LOUDSPEAKER OR SPEAKERS PROVIDED AND REQUIRING NO FREQUENCY EQUALIZATION DURING THE COMMISSIONING PROCESS.
5. PROVIDE SEPARATE LEVEL CONTROLS FOR MASKING AND PAGING/MUSIC ADJUSTABLE IN 1 DB STEPS OVER A MINIMUM RANGE OF 30 DECIBELS, AND OFF.
6. HAVE DEDICATED COMPRESSOR AND PEAK LIMITER FOR PAGING INPUTS.
7. BE WALL AND/OR RACK MOUNTABLE (EXCEPT SINGLE ZONE CONTROLLERS WALL MOUNTABLE ONLY).
8. HAVE UL/CUL/CE LISTED POWER SUPPLY.
9. BE GREEN SPEC-LISTED FOR ENERGY EFFICIENCY.
C. SINGLE-ZONE CONTROLLERS:
1. CAPABLE OF CONTROLLING BACKGROUND SOUND AND PAGING FOR A SINGLE ZONE OF SOUND MASKING WITH PAGING, AND FROM 1 TO 120 SPEAKERS AND 100 TO 12,000 SQUARE FEET.
2. ONE AUDIO INPUT ON REAR PANEL OPERABLE IN BALANCED OR SINGLE ENDED CONFIGURATION FOR DISTRIBUTION OF EXTERNALLY GENERATED SIGNALS VIA 4 TERMINAL COMPRESSION TYPE CONNECTOR.
3. OPTIONAL BLUETOOTH WIRELESS CONTROL CONNECTIVITY FOR AUTOMATED CONTROL OF MASKING LEVEL SETTING DURING SYSTEM COMMISSIONING.
4. WALL MOUNTABLE.
5. MINIMUM PERFORMANCE REQUIREMENTS:
a. SUPPLY POWER: 110 - 240 VAC 0.9 AMPERES.
b. RATED AMBIENT TEMPERATURE RANGE: 40 TO 90 DEGREES F (4 TO 32 DEGREES C).
c. OUTPUT VOLTAGE: 20 VOLTS RMS MINIMUM SINE WAVE AT FULL LOAD, EACH CHANNEL TO MEET NEC CLASS 2 REQUIREMENTS FOR LOW VOLTAGE DISTRIBUTION.
d. AUDIO (PAGING) INPUT: 600 OHM LINE BRIDGING, DIFFERENTIAL OR SINGLE ENDED, 1 VOLT NOMINAL, ADJUSTABLE BETWEEN -10 DBV AND +4 DBV RMS.
6. ACCEPTABLE PRODUCTS:
a. CAMBRIDGE SOUND MANAGEMENT MODEL QT. NO SUBSTITUTES ACCEPTED.

D. THREE-ZONE CONTROLLERS

- 1. NETWORK CAPABLE MANAGEMENT OF SYSTEM ACOUSTIC OUTPUT OF ALL ZONES.
2. CONTROL SOFTWARE THAT IS PRE-INSTALLED AND RESIDENT ON CONTROLLER AND ACCESSIBLE VIA ANY STANDARD BROWSER FROM A COMPUTER RESIDENT ON THE NETWORK.
3. CAPABILITY OF CONTROLLING BACKGROUND SOUND AND PAGING FOR UP TO THREE SEPARATE ZONES OF SOUND MASKING WITH PAGING SELECTABLE BY ZONE, AND FROM ONE TO 120 SPEAKERS PER ZONE COVERING FROM 100 TO 12,000 SQUARE FEET OR FROM 100 TO 36,000 SQUARE FEET TOTAL.
4. CAPABLE OF AUTOMATIC BACKGROUND SOUND LEVEL ADJUSTMENT (RAMPING) BASED ON TIME OF DAY AND DAY OF WEEK.
5. TIME SOURCE PROVIDED BY INTEGRATED REAL TIME CLOCK WITH BATTERY BACKUP OR USER SELECTABLE NTP SERVER. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
6. DEDICATED 1/3 OCTAVE EQUALIZER COVERING 150 BANDS FROM 200 HZ TO 5,000 HZ FOR BACKGROUND SOUND SPECTRUM, PRESET AT FACTORY FOR RECOMMENDED OPERATION. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
7. DEDICATED 1/1 OCTAVE EQUALIZER COVERING 150 BANDS FROM 250 HZ TO 8000 HZ FOR PAGING INPUT. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
8. LOUDSPEAKER NETWORK FAULT DETECTION CAPABILITY.
9. TWO AUDIO INPUTS (A AND B) ON REAR PANEL OPERABLE IN BALANCED OR SINGLE ENDED CONFIGURATION FOR DISTRIBUTION OF EXTERNALLY GENERATED SIGNALS VIA 4 TERMINAL COMPRESSION TYPE CONNECTORS.
10. TWO CONTACT CLOSURE INTERFACES ON REAR PANEL: ONE TURNS OFF MASKING ON CLOSURE; ONE TURNS OFF AUDIO B ON CLOSURE. MAY BE USED TO DUCK MASKING AND/OR AUDIO B DURING EMERGENCY SITUATIONS.
11. MINIMUM PERFORMANCE REQUIREMENTS:
a. SUPPLY POWER: 110 - 240 VAC 0.9 AMPERES.
b. RATED AMBIENT TEMPERATURE RANGE: 40 TO 90 DEGREES F (4 TO 32 DEGREES C).
c. OUTPUT VOLTAGE: 7 VOLTS RMS MINIMUM SINE WAVE AT FULL LOAD, EACH CHANNEL TO MEET NEC CLASS 2 REQUIREMENTS FOR LOW VOLTAGE DISTRIBUTION.
d. AUDIO (PAGING) INPUT: 600 OHM LINE BRIDGING, DIFFERENTIAL OR SINGLE ENDED, 1 VOLT NOMINAL, ADJUSTABLE BETWEEN -10 DBV AND +4 DBV RMS.
12. ACCEPTABLE PRODUCT:
a. CAMBRIDGE SOUND MANAGEMENT MODEL QT 300

E. SIX-ZONE CONTROLLERS

- 1. NETWORK CAPABLE MANAGEMENT OF SYSTEM ACOUSTIC OUTPUT OF ALL ZONES.
2. CONTROL SOFTWARE THAT IS PRE-INSTALLED AND RESIDENT ON CONTROLLER AND ACCESSIBLE VIA ANY STANDARD BROWSER FROM A COMPUTER RESIDENT ON THE NETWORK.
3. CAPABILITY OF CONTROLLING BACKGROUND SOUND AND PAGING FOR UP TO SIX SEPARATE ZONES OF SOUND MASKING WITH PAGING SELECTABLE BY ZONE, AND FROM ONE TO 120 SPEAKERS PER ZONE COVERING FROM 100 TO 12,000 SQUARE FEET PER ZONE OR FROM 100 TO 72,000 SQUARE FEET PER CONTROLLER IN 6 ZONES.
4. CAPABLE OF AUTOMATIC BACKGROUND SOUND LEVEL ADJUSTMENT (RAMPING) BASED ON TIME OF DAY AND DAY OF WEEK.
5. TIME SOURCE PROVIDED BY INTEGRATED REAL TIME CLOCK WITH BATTERY BACKUP OR USER SELECTABLE NTP SERVER. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
6. DEDICATED 1/3 OCTAVE EQUALIZER COVERING 150 BANDS FROM 200 HZ TO 5,000 HZ FOR BACKGROUND SOUND SPECTRUM, PRESET AT FACTORY FOR RECOMMENDED OPERATION. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
7. DEDICATED 1/1 OCTAVE EQUALIZER COVERING 150 BANDS FROM 250 HZ TO 8000 HZ FOR PAGING INPUT. FIELD ADJUSTABLE USING PROVIDED ETHERNETM CONNECTION AND FACTORY INSTALLED SOFTWARE.
8. LOUDSPEAKER NETWORK FAULT DETECTION CAPABILITY.
9. TWO AUDIO INPUTS (A AND B) ON REAR PANEL OPERABLE IN BALANCED OR SINGLE ENDED CONFIGURATION FOR DISTRIBUTION OF EXTERNALLY GENERATED SIGNALS VIA 4 TERMINAL COMPRESSION TYPE CONNECTORS.
10. TWO CONTACT CLOSURE INTERFACES ON REAR PANEL: ONE TURNS OFF MASKING ON CLOSURE; ONE TURNS OFF AUDIO B ON CLOSURE. MAY BE USED TO DUCK MASKING AND/OR AUDIO B DURING EMERGENCY SITUATIONS.
11. MINIMUM PERFORMANCE REQUIREMENTS:
a. SUPPLY POWER: 110 - 240 VAC 0.9 AMPERES.
b. RATED AMBIENT TEMPERATURE RANGE: 40 TO 90 DEGREES F (4 TO 32 DEGREES C).
c. OUTPUT VOLTAGE: 7 VOLTS RMS MINIMUM SINE WAVE AT FULL LOAD, EACH CHANNEL TO MEET NEC CLASS 2 REQUIREMENTS FOR LOW VOLTAGE DISTRIBUTION.
d. AUDIO (PAGING) INPUT: 600 OHM LINE BRIDGING, DIFFERENTIAL OR SINGLE ENDED, 1 VOLT NOMINAL, ADJUSTABLE BETWEEN -10 DBV AND +4 DBV RMS.
12. ACCEPTABLE PRODUCT:
a. CAMBRIDGE SOUND MANAGEMENT MODEL QT 600 OR APPROVED EQUAL.

LOUDSPEAKERS

- A. MINIATURE SELF-CONTAINED CEILING MOUNTED LOUDSPEAKER/ENCLOSURE/BAFFLE SYSTEM.
1. DESIGNED SPECIFICALLY FOR DISTRIBUTING BACKGROUND MASKING, MUSIC, AND PAGING. ULTRA WIDE DISPERSION TO MAXIMIZE SPATIAL UNIFORMITY.
2. TWIST AND LOCK RETAINING RING CONSTRUCTION TO MINIMIZE INSTALLATION TIME IN CEILING TILES AND ENCLOSURES.
3. ALL CONNECTIONS VIA MODULAR RJ45 CONNECTORS FOR PLUG-AND-PLAY INSTALLATION.
4. EYE LOOP FOR SECURING UNIT WITH SAFETY WIRE.
5. UL 2043 CERTIFIED FOR PLENUM INSTALLATION.
6. UL APPROVED. APPROVALS AND CERTIFICATIONS LABELING MUST BE ON SPEAKERS.
7. ACCEPTABLE PRODUCTS: CAMBRIDGE SOUND MANAGEMENT QT LOUDSPEAKER OR APPROVED EQUAL WITH OPTIONAL MOUNTING ENCLOSURES AS FOLLOWS:
a. UB-W(WHITE) OR B(BLACK): UNIVERSAL MOUNTING FOR WOODEN BEAM OR WALL MOUNTING.
b. BB-W(WHITE) OR B(BLACK): 1" BEAM CLAMP MOUNTING FOR SUSPENDED APPLICATIONS.
c. CM: CONDUIT MOUNTING FOR SHEETROCK CEILINGS.
d. DM: MOUNTING FOR SHEETROCK/DRYWALL CEILINGS.
e. PBC: METAL PLENUM BACK CAN FOR USE IN LOCATIONS WHERE REQUIRED BY FIRE CODE OR CONDUIT CONNECTIVITY.

LOUDSPEAKER CABLING

- A. CABLES TERMINATED WITH RJ45 MODULAR CONNECTORS.
1. TYPE: CAT3 PROVIDED WITH SYSTEM; CAT5/5A, CAT6 ARE COMPATIBLE.
2. UNSHIELDED SOLID TWISTED PAIR CONSTRUCTION; STRANDED OPTIONAL.
3. MEET EIA/TIA STANDARD 568B.
4. OPTIONAL AWG #24 STRANDED CONDUCTORS WITH OVERALL PLENUM-RATED JACKET (CMP (UL)/C(UL) 4PR 24 AWG PLENUM).
B. ACCEPTABLE PRODUCTS:
1. CAMBRIDGE SOUND MANAGEMENT PRE-ASSEMBLED 16 FOOT (4.9 M) OR 30 FOOT (9.1M) LOUDSPEAKER CABLE ASSEMBLY OR APPROVED EQUAL.
2. SITE FABRICATED AND TESTED WITH OVERALL PLENUM-RATED JACKET (CMP (UL)/C(UL) 4PR 24 AWG PLENUM).

INSTALLATION PRACTICES

GENERAL

- A. ALL TYPES OF EQUIPMENT INSTALLED BY COMPETENT WORKERS AT LOCATIONS SHOWN ON THE DRAWINGS IN STRICT ACCORDANCE WITH APPROVED SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS.
B. ALL EQUIPMENT EXCEPT PORTABLE EQUIPMENT FIRMLY HELD IN PLACE. THIS SHALL INCLUDE LOUDSPEAKERS, ENCLOSURES, AMPLIFIERS, CABLES, ETC. FASTENINGS AND SUPPORTS ADEQUATE TO SUPPORT THEIR LOADS WITH A SAFETY FACTOR OF AT LEAST THREE UNLESS OTHERWISE STATED.
C. TAKE SUCH PRECAUTIONS AS NECESSARY TO PREVENT AND GUARD AGAINST ELECTRO-MAGNETIC AND ELECTRO-STATIC HUM AND TO INSTALL THE EQUIPMENT SO AS TO PROVIDE SAFETY FOR THE OPERATOR.
GENERATOR/CONTROLLER
A. LOCATE GENERATOR/CONTROLLERS AS SHOWN ON DRAWINGS, AND NEAR AN AVAILABLE DEDICATED 110VAC RECEPTACLE.
B. LOCATE AT A CONVENIENT LOCATION FOR OPERATION FROM FLOOR LEVEL.
C. MOUNT GENERATOR/CONTROLLER AND PROCESSOR SECURELY TO WALL OR OTHER VERTICAL SURFACE WITH SCREWS OR MOUNTING BRACKETS PROVIDED.
D. ATTACH LINE LEVEL AND LOUDSPEAKER CABLES CONNECTING TO CONTROLLERS SECURELY WITH SUITABLE STRAIN-RELIEF CLAMPS.
E. IDENTIFY ALL LOUDSPEAKER HOME RUN WIRES AND CABLES AT TERMINATION AND CONNECTION POINTS WITH APPROVED CABLE MARKERS. LABEL EACH CABLE WITH CABLE MARKER KEYED TO A WIRING SCHEDULE INDICATING THE CORRESPONDING AREA OF BUILDING SERVED. DESIGNATE BUILDING FLOOR LEVEL AND ZONE, AND WHETHER AREA SERVED IS OPEN PLAN, ENCLOSED OFFICES, CIRCULATION OR OTHER.

LOUDSPEAKERS (IN CEILING TILES)

- A. CUT HOLE IN CENTER OF EACH CEILING TILE USING THE HOLE SAW PROVIDED OR SIMILAR.
B. TAKING CARE NOT TO VISIBLY DISTORT TILE, SLIP PROVIDED LOCKING COLLAR ON BACK OF LOUDSPEAKER AND FIRMLY TIGHTEN AGAINST CEILING.
C. IF REQUIRED BY LOCAL AUTHORITY IN CHARGE, SECURE LOUDSPEAKER TO BUILDING OR CEILING SUSPENSION STRUCTURE USING SAFETY WIRE AND EYE LOOP ON LOUDSPEAKER.
D. CONNECT CABLING TO LOUDSPEAKERS WITH SYSTEM LIVE, STARTING AT CONTROLLER END OF DISTRIBUTION LINES. CONNECT LINE FROM OUTPUT OF OPERATING CONTROLLER SET TO MAXIMUM OUTPUT TO SOCKET DESIGNATED AS INPUT ON LOUDSPEAKER. VERIFY OPERATION OF EACH LOUDSPEAKER BY LISTENING BEFORE TILE IS FINALLY INSTALLED IN CEILING. IF LOUDSPEAKER DOES NOT OPERATE, FAULT MAY BE IN LINES OR DEFECTIVE LOUDSPEAKERS UPSTREAM OF INOPERATIVE UNIT; CORRECT BEFORE CONTINUING. NOTE THAT INADVERTENT CONNECTION OF LINE TO OUTPUT OF LOUDSPEAKER RATHER THAN TO INPUT WILL CAUSE SOME DOWNSTREAM LOUDSPEAKERS (UP TO 4 LOUDSPEAKERS AFTER MISCONNECTED UNIT) TO BE RENDERED INOPERATIVE.

LOUDSPEAKER CABLING

- A. CABLING ROUTED WITHIN RETURN AIR PLENUMS SHALL BE PLENUM-RATED UNLESS INSTALLED IN CONDUIT.
B. USING A CAT CABLE TESTER, TEST ALL FIELD FABRICATED CABLES, BEFORE INSTALLATION, FOR OPEN CIRCUITS, SHORTS, CROSSED PAIRS, REVERSED PAIRS, SPLIT PAIRS AND PROPER PIN-OUT.
C. INSTALL SIGNAL CABLES SECURED TO CEILING HANGER SUPPORT OR BUILDING STRUCTURE PER LOCAL CODE AND ELECTRICAL INSPECTOR REQUIREMENTS. CABLING SHALL NOT CONTACT CEILING TILES OR INHIBIT THEIR REMOVAL FOR ACCESS TO THE PLENUM. PROVIDE ADEQUATE SERVICE LOOP FOR CONVENIENT ACCESS TO LOUDSPEAKER.
D. CONNECT NO MORE THAN 60 LOUDSPEAKERS/HOME RUN.
E. INSTALL NO MORE THAN 1000' OF CABLE BETWEEN GENERATOR/CONTROLLER UNIT AND LAST LOUDSPEAKER ON EACH HOME RUN.

SYSTEM TESTS AND ADJUSTMENTS

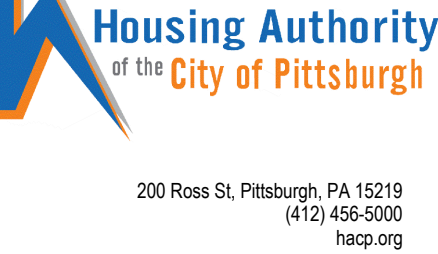
- A. INITIAL TEST AND ADJUSTMENTS: PERFORM AND RECORD RESULTS OF THE FOLLOWING TESTS:
1. LOUDSPEAKER OPERATION: NEAR FIELD OUTPUT OF EACH LOUDSPEAKER SHALL MATCH THE ZONE AVERAGE WITHIN +/- 1.5 DECIBELS. LISTEN DIRECTLY BELOW EACH INSTALLED LOUDSPEAKER TO CONFIRM IT IS OPERATING. FOR ANY LOUDSPEAKERS FOUND TO BE INOPERATIVE, OR POSSIBLY OPERATING AT AN INCORRECT LEVEL, USE A SOUND LEVEL METER SET TO A-WEIGHTING AND SLOW RESPONSE TO CHECK THE OUTPUT. PLACE THE MICROPHONE SO AS TO CONTACT EACH GRILLE.
2. REPLACE ANY DEFECTIVE LOUDSPEAKERS OR CABLING, OR OTHERWISE CORRECT CAUSE FOR ANY LOUDSPEAKERS FOUND TO BE OPERATING OUTSIDE THIS RANGE.
3. BUZZES, RATTLES, AND DISTORTION: WITH SYSTEM OPERATING AT MAXIMUM LEVEL, LISTEN FOR ANY BUZZES, RATTLES, AND OBJECTIONABLE DISTORTION IN ALL AREAS COVERED. CORRECT ALL CAUSES OF THESE DEFECTS.
4. CONTROL SETTINGS: ADJUST ALL SPECTRUM AND LEVEL CONTROLS FOR NORMAL OPERATION. MEASURE THE A-WEIGHTED SOUND PRESSURE LEVEL USING A SOUND LEVEL METER SET TO A-WEIGHTING AND SLOW RESPONSE AT REPRESENTATIVE LOCATIONS WITHIN EACH ZONE. ADJUST AVERAGE INITIAL LEVELS IN OPEN PLAN AREAS TO 45 DBA AT NORMAL OCCUPANTS' LOCATIONS AND IN CLOSED OFFICES OR ROOMS TO 42 DBA.
B. IF REQUESTED, DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT THE SYSTEM IS FULLY OPERABLE AND INSTALLED IN COMPLIANCE WITH THE TERMS OF THE PERFORMANCE SPECIFICATIONS HEREUNDER.
C. TEST THE SYSTEM TO DEMONSTRATE THAT THE DESIGN GOAL OF PRIVACY INDEX (PI) = 80% (NORMAL PRIVACY) OR BETTER IS MET BETWEEN REPRESENTATIVE WORKSTATIONS SEPARATED BY PARTITIONS OF 66" OR GREATER HEIGHT. FOR THIS TEST, SELECT ADJACENT WORKSTATION PAIRS WITHOUT DIRECT LINE OF SIGHT OR SIGNIFICANT SOUND REFLECTING CEILING OR WALL ELEMENTS BETWEEN, AND WITH A CEILING MATERIAL RATED AT NRC OF 0.85 OR HIGHER. TESTS SHALL BE IN ACCORDANCE WITH ASTM STANDARD E1130 EXCEPT THAT THE OCTAVE BAND CALCULATION METHOD OF ANSI STANDARD S3.5 MAY BE USED. LOWER LEVELS OF PI ARE ACCEPTABLE ONLY IF THE CEILING OR PARTITION REQUIREMENTS DESCRIBED HEREIN BEFORE ARE NOT MET.
D. TEST THE SYSTEM IN EACH OPEN PLAN AREA ZONE SERVED TO DEMONSTRATE THAT THE DESIGN GOAL FOR SPATIAL UNIFORMITY IS MET. TESTS SHALL BE CARRIED OUT PER ASTM STANDARD E1133 AS MEASURED IN THE 2,000 HZ OCTAVE BAND. AT EACH LOCATION, THE AVERAGE SOUND PRESSURE LEVELS SHALL BE MEASURED OVER AN INTERVAL OF AT LEAST 4 SECONDS AT FOUR POSITIONS AT 90° INTERVALS AROUND A CIRCLE OF 0.3 M (1 FT) RADIUS CENTERED ON THE LOCATION. THE ARITHMETIC MEAN SOUND PRESSURE LEVEL SHALL BE CALCULATED FROM THE FOUR MEASURED VALUES. FOR AT LEAST 75% OF THE TEST LOCATIONS, THE ARITHMETIC MEAN SOUND PRESSURE LEVEL IN THE 2,000 HZ OCTAVE BAND SHALL NOT VARY BY MORE THAN 1 DB FROM THE AVERAGE OF THE ARITHMETIC MEAN SOUND PRESSURE LEVELS MEASURED AT ALL LOCATIONS.
E. TEST THE SYSTEM TO DEMONSTRATE THAT THE PI IS AT LEAST 95% (CONFIDENTIAL PRIVACY) BETWEEN REPRESENTATIVE PRIVATE (ENCLOSED) OFFICES SERVED BY THE SYSTEM. FOR THIS TEST, SELECT ADJACENT OFFICES WITH CLOSED DOORS. TESTS SHALL BE IN ACCORDANCE WITH ASTM STANDARD E1130 EXCEPT THAT THE OCTAVE BAND CALCULATION METHOD OF ANSI STANDARD S3.5 MAY BE USED. LOWER LEVELS OF PI ARE ACCEPTABLE IF THE COMMON WALLS BETWEEN THE OFFICES DO NOT EXTEND TO THE DECK ABOVE THE ACOUSTICAL CEILING AND THE CEILING MATERIAL IS NOT RATED AT STC 35 OR GREATER. IF THE PI ACHIEVED IS LOWER THAN 95% AND CAUSED BY THESE OR OTHER ARCHITECTURAL FACTORS, BRING THIS TO THE ATTENTION OF THE OWNER OR GENERAL CONTRACTOR.



PROFESSIONAL SEAL:

CONSULTANT:

CLIENT:



HACP - Housing Authority of the City of Pittsburgh
412 Boulevard of the Allies, Pittsburgh, PA 15219

Table with 3 columns: #, DESCRIPTION, DATE. Rows include 100% CONSTRUCTION DOCUMENTS REVISION 3 (09/03/2020), 100% CONSTRUCTION DOCUMENTS REVISION 2 (07/30/2020), 100% CONSTRUCTION DOCUMENTS REVISION 1 (07/09/2020), 100% CONSTRUCTION DOCUMENTS REVISION 0 (05/22/2020), 100% DESIGN DEVELOPMENT (01/23/2020).

Table with 3 columns: PROJECT NO (190427.00), DRAWN BY (JDW), REVIEWED BY (JDW).

SOUND MASKING DATA SHEET
SM0.01
TRUE NORTH
PLAN NORTH

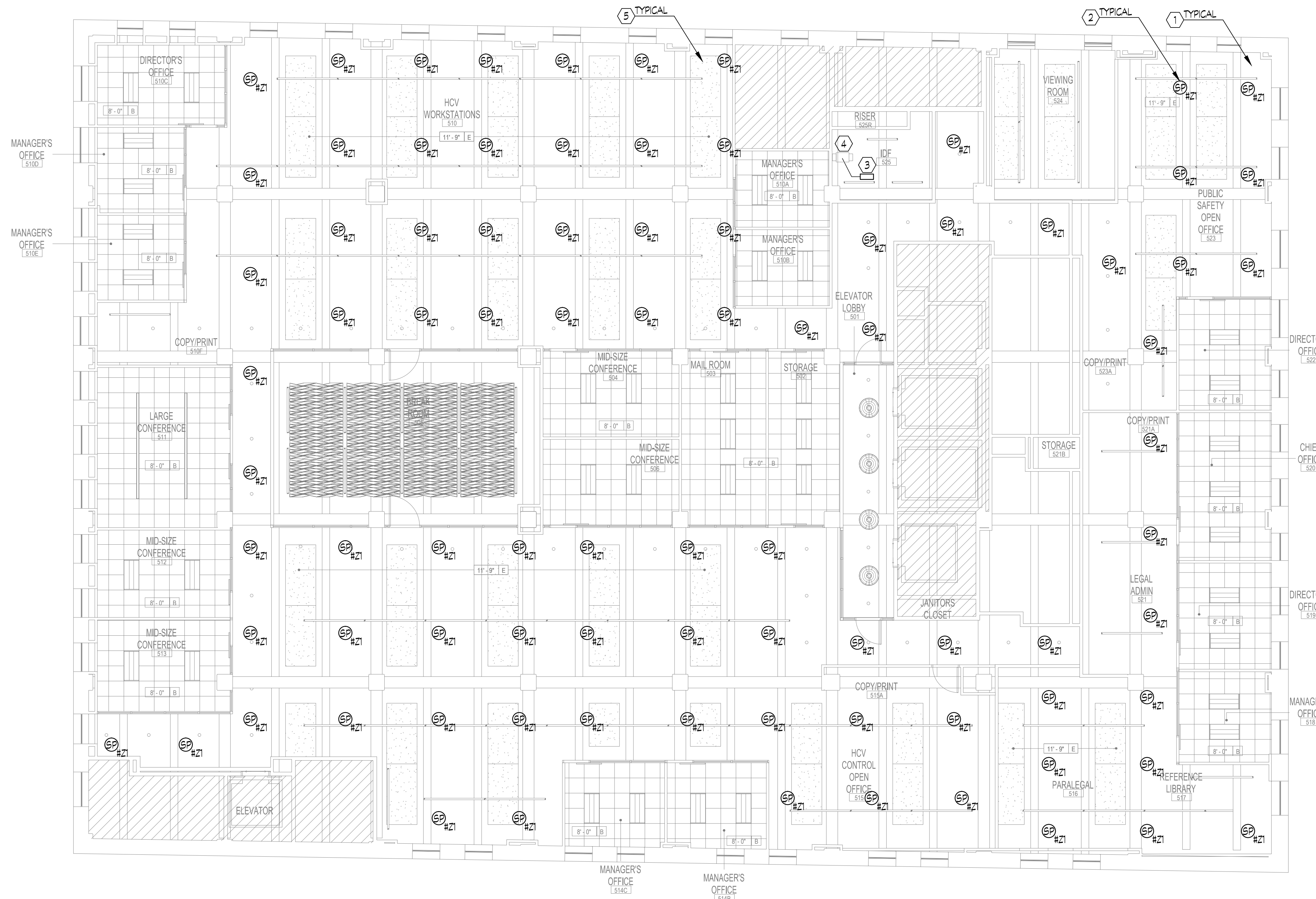
**GENERAL NOTES**

1. SEE DRAWING SMO.01 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. SEE ARCHITECTURAL CEILING PLANS FOR CEILING HEIGHTS AND TYPES. COORDINATE FINAL SOUNDMASKING LOUDSPEAKER LOCATIONS WITH LIGHT FIXTURE, DUCTWORK, SPRINKLER HEADS, ETC.
3. ALL SOUND MASKING CABLING MUST BE WHITE UNLESS NOTED OTHERWISE.

**CODED NOTES: (H)**

1. CEILING OPEN TO DECK. SEE ARCHITECTURAL PLANS FOR DECK HEIGHTS.
2. EMITTERS IN OPEN CEILING SPACE AND MOUNTING HARDWARE SHALL BE COLOR WHITE. ALL CABLING BETWEEN EMITTERS SHALL BE COLOR WHITE AND SHALL BE CONCEALED ALONG CONCRETE BEAMS.
3. PROVIDE (1) 3 ZONE CONTROLLER ON RACK INSIDE IDF ROOM. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL LOCATION OF CONTROLLERS WITH OWNERS IT REPRESENTATIVE, SECURITY CONTRACTOR AND TELECOM CONTRACTOR PRIOR TO INSTALLATION.
4. 2 POST RACK PROVIDED BY TELECOM CONTRACTOR. SEE TELECOM DRAWINGS FOR ADDITIONAL INFORMATION.
5. ACOUSTICAL CEILING PANEL TIGHT TO DECK. CALL CABLING NEEDS TO BE ROUTED AROUND THIS PANEL. PANEL SHALL NOT BE CUT FOR CABLING.

SOUNDMASKING LEGEND	
SYMBOL	DESCRIPTION
EP #Z#	PROVIDE SOUNDMASKING LOUDSPEAKER. PROVIDE HARDWARE AND MOUNTING BRACKETS AS REQUIRED FOR LAY-IN CEILING, OPEN CEILING OR HARD CEILING WHERE INDICATED. Z# - NEXT TO SPEAKER INDICATES ZONE.



1 SOUND MASKING PLAN - LEVEL 5  
SM1.05 1/8" = 1'-0"



PROFESSIONAL SEAL:  
CONSULTANT:

CLIENT:  
Housing Authority of the City of Pittsburgh  
200 Ross St. Pittsburgh, PA 15219 (412) 456-5000 hcap.org

HACAP - Housing Authority of the City of Pittsburgh  
412 Boulevard of the Allies, Pittsburgh, PA 15219

#	DESCRIPTION	DATE
5	100% CONSTRUCTION DOCUMENTS REVISION 3	09/03/2020
4	100% CONSTRUCTION DOCUMENTS REVISION 2	07/30/2020
3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT ISSUANCE

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
SOUND MASKING PLAN - LEVEL 5  
SHEET NO.:

SM1.05  
TRUE NORTH  
PLAN NORTH



1 SOUND MASKING PLAN - LEVEL 6  
SM1.06 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE DRAWING 5M0.01 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. SEE ARCHITECTURAL CEILING PLANS FOR CEILING HEIGHTS AND TYPES. COORDINATE FINAL SOUNDMASKING LOUDSPEAKER LOCATIONS WITH LIGHT FIXTURE, DUCTWORK, SPRINKLER HEADS, ETC.
3. ALL SOUND MASKING CABLING MUST BE WHITE UNLESS NOTED OTHERWISE.

**CODED NOTES:** (H)

1. CEILING OPEN TO DECK. SEE ARCHITECTURAL PLANS FOR DECK HEIGHTS.
2. EMITTERS IN OPEN CEILING SPACE AND MOUNTING HARDWARE SHALL BE COLOR WHITE. ALL CABLING BETWEEN EMITTERS SHALL BE COLOR WHITE AND SHALL BE CONCEALED ALONG CONCRETE BEAMS.
3. PROVIDE (1) 3 ZONE CONTROLLER ON RACK INSIDE IDF ROOM. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL LOCATION OF CONTROLLERS WITH OWNER'S IT REPRESENTATIVE, SECURITY CONTRACTOR AND TELECOM CONTRACTOR PRIOR TO INSTALLATION.
4. 2 POST RACK PROVIDED BY TELECOM CONTRACTOR. SEE TELECOM DRAWINGS FOR ADDITIONAL INFORMATION.
5. ACOUSTICAL CEILING PANEL TIGHT TO DECK. CALL CABLING NEEDS TO BE ROUTED AROUND THIS PANEL. PANEL SHALL NOT BE CUT FOR CABLING.

SOUNDMASKING LEGEND	
SYMBOL	DESCRIPTION
EP #Z1	PROVIDE SOUNDMASKING LOUDSPEAKER. PROVIDE HARDWARE AND MOUNTING BRACKETS AS REQUIRED FOR LAY-IN CEILING, OPEN CEILING OR HARD CEILING WHERE INDICATED. Z# - NEXT TO SPEAKER INDICATES ZONE.



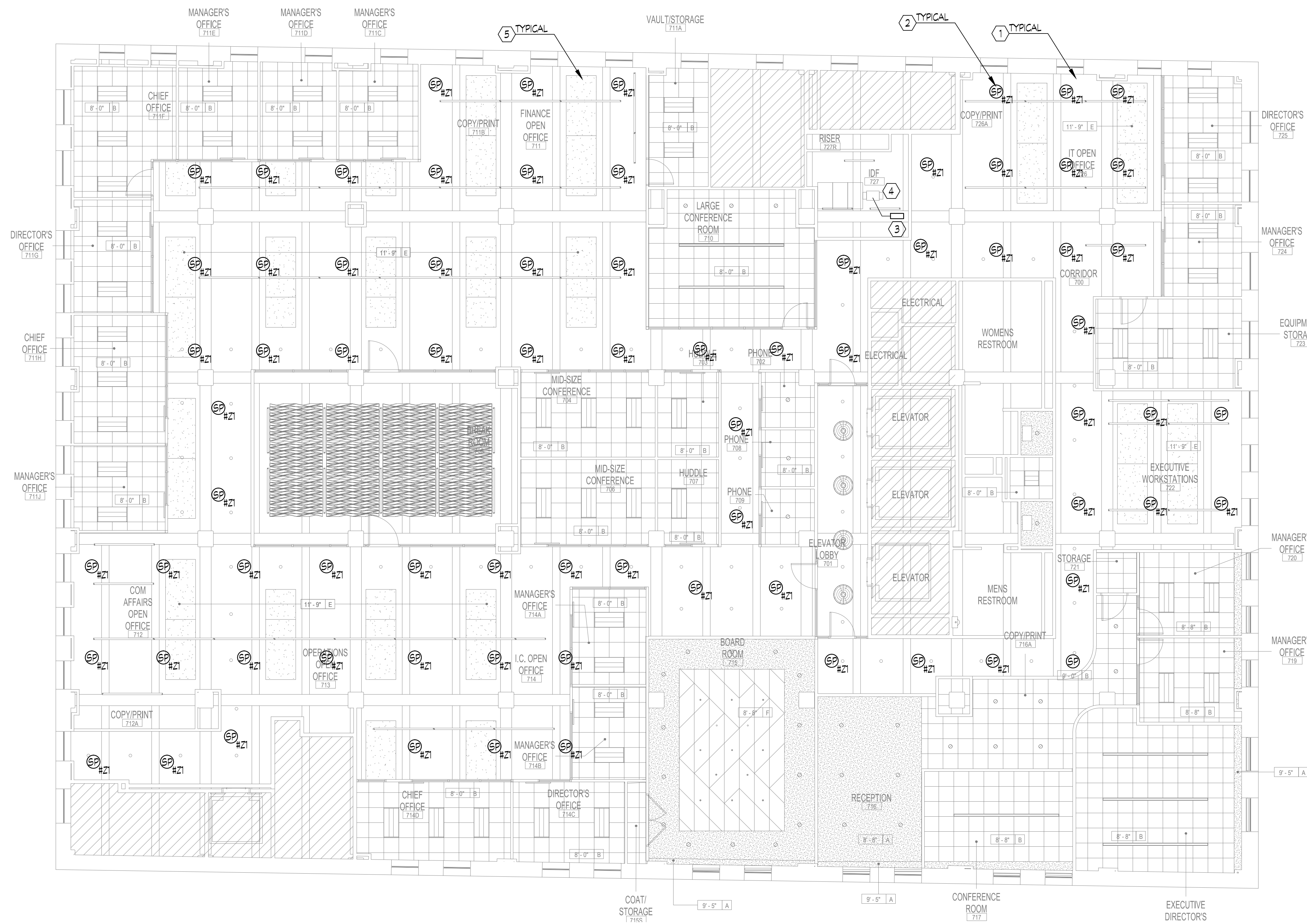
PROFESSIONAL SEAL:  
CONSULTANT:

CLIENT:  
**Housing Authority of the City of Pittsburgh**  
200 Ross St. Pittsburgh, PA 15219 (412) 456-5000 hcap.org

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3	100% CONSTRUCTION DOCUMENTS REVISION 1	07/09/2020
2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO: 190427.00 DRAWN BY: JDW REVIEWED BY: JDW  
SHEET NAME: SOUND MASKING PLAN - LEVEL 6  
SHEET NO: SM1.06



1 SOUND MASKING PLAN - LEVEL 7  
SM1.07 1/8" = 1'-0"

**GENERAL NOTES**

1. SEE DRAWING SMO.01 FOR SPECIFICATIONS, MANUFACTURER AND MODEL NUMBER, INSTALLATION REQUIREMENTS, ETC.
2. SEE ARCHITECTURAL CEILING PLANS FOR CEILING HEIGHTS AND TYPES. COORDINATE FINAL SOUND MASKING LOUDSPEAKER LOCATIONS WITH LIGHT FIXTURE, DUCTWORK, SPRINKLER HEADS, ETC.
3. ALL SOUND MASKING CABLING MUST BE WHITE UNLESS NOTED OTHERWISE.

**CODED NOTES: (H)**

1. CEILING OPEN TO DECK. SEE ARCHITECTURAL PLANS FOR DECK HEIGHTS.
2. EMITTERS IN OPEN CEILING SPACE AND MOUNTING HARDWARE SHALL BE COLOR WHITE. ALL CABLING BETWEEN EMITTERS SHALL BE COLOR WHITE AND SHALL BE CONCEALED ALONG CONCRETE BEAMS.
3. PROVIDE (1) 3 ZONE CONTROLLER ON RACK INSIDE IDF ROOM. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR. COORDINATE FINAL LOCATION OF CONTROLLERS WITH OWNER'S IT REPRESENTATIVE, SECURITY CONTRACTOR AND TELECOM CONTRACTOR PRIOR TO INSTALLATION.
4. 2 POST RACK PROVIDED BY TELECOM CONTRACTOR. SEE TELECOM DRAWINGS FOR ADDITIONAL INFORMATION.
5. ACOUSTICAL CEILING PANEL TIGHT TO DECK. CALL CABLING NEEDS TO BE ROUTED AROUND THIS PANEL. PANEL SHALL NOT BE CUT FOR CABLING.

**SOUND MASKING LEGEND**

SYMBOL	DESCRIPTION
EP #Z1	PROVIDE SOUND MASKING LOUDSPEAKER. PROVIDE HARDWARE AND MOUNTING BRACKETS AS REQUIRED FOR LAY-IN CEILING, OPEN CEILING OR HARD CEILING WHERE INDICATED. Z# - NEXT TO SPEAKER INDICATES ZONE.



PROFESSIONAL SEAL:

CONSULTANT:

CLIENT:



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2	100% CONSTRUCTION DOCUMENTS	05/22/2020
1	100% DESIGN DEVELOPMENT	01/23/2020

PROJECT NO.	DRAWN BY:	REVIEWED BY:
190427.00	JDW	JDW

SHEET NAME:  
SOUND MASKING PLAN - LEVEL 7

SHEET NO.:  
SM1.07  
TRUE NORTH  
PLAN NORTH