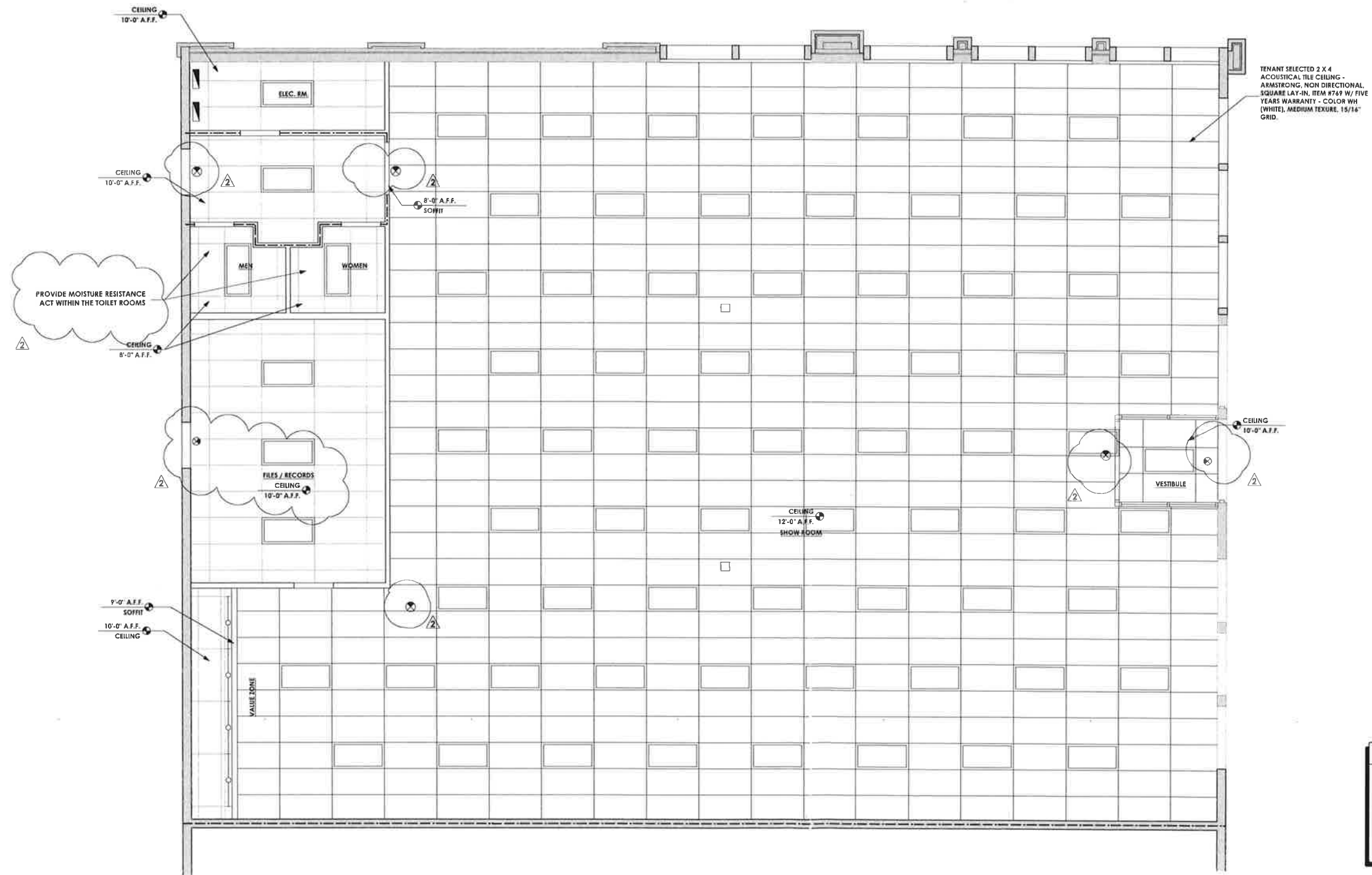




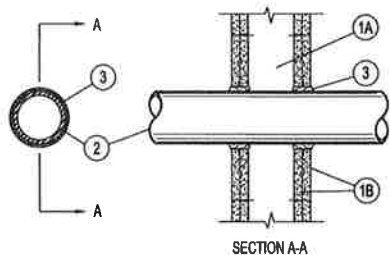
01 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"



THROUGH-PENETRATION FIRESTOP SYSTEMS

System No. W-L-1001

(Formerly System No. 147)
F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient - less than 1 CFM/sq ft
L Rating At 400 F - less than 1 CFM/sq ft



- Wall Assembly** - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the U.L. Fire Resistance Directory and shall include the following construction features:
 - Stud-Wall** framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
 - Wallboard**, Gypsum - Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and steel attachment shall be as specified in the individual U300 or U400 Series Design in the U.L. Fire Resistance Directory. Max diam of opening is 28 in.
- Through Penetration** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types of metallic pipes, conduits or tubing may be used:
 - Steel Pipe** - Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe** - Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, min 12 in. diam (or smaller) of Class 50 (or heavier) ductile iron pressure pipe.
 - Conduit** - Nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel electrical metallic tubing.
 - Copper Tubing** - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - Copper Pipe** - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
- Through Penetration Products** - Flexible Metal Piping. The following types of steel flexible metal gas piping may be used:
 - Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
 - Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.
 - Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may not be removed on both sides of floor or wall assembly.

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- Fill, Void Or Core Material** - Cast-in-place concrete, 1-1/4, 1-7/8 and 2-1/2 in. thickness of cast for 1, 2, 3, and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. diam bead of caulk applied to gypsum board/penetration interface at point of contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and hourly fire rating of the wall assembly in which it is installed, as tabulated below.

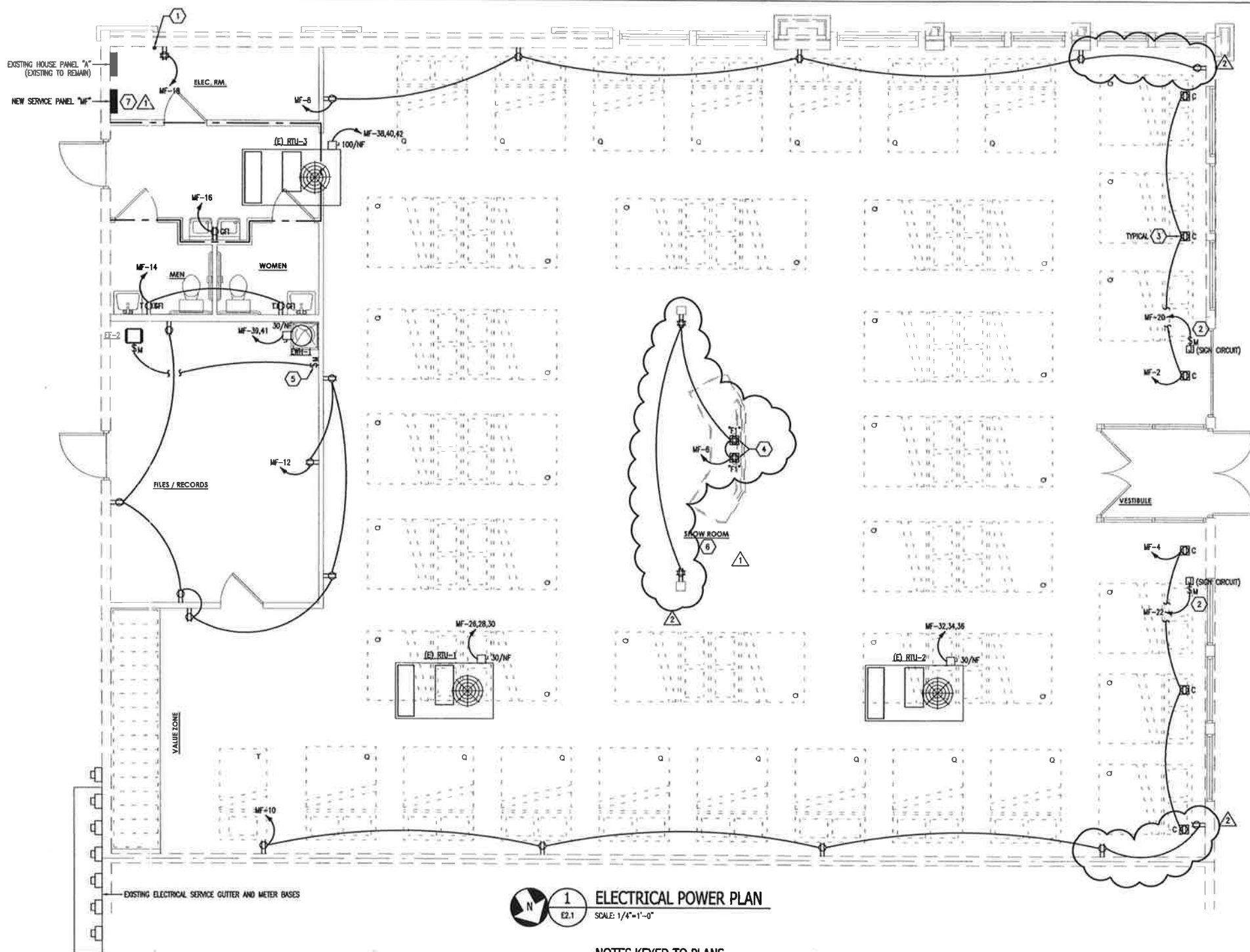
Max Pipe or Conduit Diam, in	F Rating Hr	T Rating Hr
1	1 or 2	0, 1 or 2
2	3 or 4	3 or 4
3	1 or 2	0
4	3 or 4	0
6	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 hr.

3M COMPANY - CP 2510G.

*Bearing the UL Classification Marking

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ELECTRICAL POWER PLAN
SCALE: 1/4"=1'-0"

NOTES KEYED TO PLANS

- PROMOTE 2" EMPTY CONDUIT WITH PULLSTRING FROM TELEPHONE SERVICE PROVIDER DEMAND LOCATION TO THIS LOCATION INSIDE OF THE ELECTRICAL ROOM. COORDINATE EXACT REQUIRED TERMINATION LOCATION OF THIS CONDUIT WITH OWNER PRIOR TO ROUGH-IN. COORDINATE LOCATION WITH LIGHTING CONTROL PANEL. INSTALLATION ALONG THIS SAME WALL. REFER TO PLAN E1.1 FOR PROPOSED LOCATION OF LIGHTING CONTROL PANEL.
- SIGN CIRCUIT JUNCTION BOX AND DISCONNECT SWITCH SHALL BE INSTALLED AT A HEIGHT THAT WILL BE ABOVE THE FUTURE TENANT FIT-UP FINISHED CEILING. COORDINATE MOUNTING HEIGHT WITH G.C. PRIOR TO ROUGH-IN.
- NEW CEILING MOUNTED RECEPTACLES TO BE INSTALLED IN CEILING TILE. VERIFY EXACT PLACEMENT IN CEILING WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- COORDINATE EXACT LOCATION OF FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLES WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. CUT AND PATCH EXISTING CONCRETE FLOORING AS REQUIRED FOR INSTALLATION. REFER TO "FLOOR BOX DEVICE SCHEDULE" ON SHEET E4.1 FOR MORE INFORMATION.
- PROPOSED LOCATION OF WALL MOUNTED EXHAUST FAN CONTROL SWITCH. VERIFY EXACT LOCATION ON WALL WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- PROVIDE COMPLIANCE WITH ANSI 117.1 FOR ADA REQUIREMENTS.
- PROVIDE A PERMANENT PLAQUE AT SERVICE INDICATING CURRENT ARC RATINGS PER NEC 110.24

PLUMBING/ELECTRICAL EQUIPMENT COORDINATION SCHEDULE

EQUIPMENT DESIGNATION	EQUIPMENT DESCRIPTION	EQUIPMENT FURN. BY	VOLTAGE/PHASE	KW	HP	DISCONNECT FURN. BY	STARTER FURN. BY	CONTROLS	REMARKS
EW-1	ELECTRIC WATER COOLER	PC	120/1	---	---	EC	N/A	W/EQUIP	HIGH/LOW TYPE UNIT
EW-1	ELECTRIC WATER HEATER	PC	208/1	2.50	---	EC	N/A	W/EQUIP	STORAGE TANK TYPE

MECHANICAL / ELECTRICAL EQUIPMENT COORDINATION SCHEDULE

EQUIPMENT DESIGNATION	EQUIPMENT DESCRIPTION	EQUIPMENT FURN. BY	VOLTAGE/PHASE	HP	KW	MCA	MOCP	DISCONNECT FURN. BY	STARTER FURN. BY	CONTROLS	REMARKS
EF-1	IN-LINE EXHAUST FAN	M.C.	120/1	0.25	---	---	---	E.C.	F.W.E.	SWITCH WITH LIGHTS	---
EF-2	IN-LINE EXHAUST FAN	M.C.	120/1	0.25	---	---	---	E.C.	F.W.E.	WALL SWITCH	---
(E)RTU-1	GAS PACKAGED UNIT (EXISTING)	EXISTING	208/3	1.2 **	---	24 **	30 **	E.C. (NEW)	EXISTING	THERMOSTAT (NEW)	SEE BELOW
(E)RTU-2	GAS PACKAGED UNIT (EXISTING)	EXISTING	208/3	1.2 **	---	24 **	30 **	E.C. (NEW)	EXISTING	THERMOSTAT (NEW)	SEE BELOW
(E)RTU-3	A/C PACKAGED UNIT (EXISTING)	EXISTING	208/3	2.4 **	18.9 **	71.9 **	80 **	E.C. (NEW)	EXISTING	THERMOSTAT (NEW)	SEE BELOW

E.C. = ELECTRICAL CONTRACTOR
M.C. = MECHANICAL CONTRACTOR
F.W.E. = FURNISH WITH EQUIPMENT
F.A.C. = FIRE ALARM CONTRACTOR

EXISTING MECHANICAL EQUIPMENT COORDINATION NOTE FOR E.C. & M.C.:
HP, MCA, MOCP & HEATING VALUES ARE ESTIMATES BASED ON INFORMATION
DERIVED FROM EXISTING MODEL & SERIAL NUMBERS. FIELD VERIFY ALL
EXISTING EQUIPMENT ELECTRICAL CONNECTIONS & COMPONENTS PRIOR TO
ORDERING OF ELECTRICAL COMPONENTS & INSTALLATION.

WALL LEGEND

- EXISTING 1 HOUR RATED FIRE BARRIER
- NEW 1 HOUR RATED FIRE BARRIER
- EXISTING WALL TO REMAIN

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**MATTRESS FIRM @
PLANTATION SQUARE**
RALEIGH, NC

REVISIONS

NO.	DATE	REVISION
1	6/9/14	COR. REVIEW COMMENTS
2	7/10/14	TENANT REVIEW COMMENTS

PROJECT: 0380-14
DATE: 06/28/14
DRAWN BY: MMS
CHECKED BY: TMR

**ELECTRICAL
POWER PLAN**

E2.1