

design associates ling.

space planning and architecture

MB DESIGN ASSOCIATES, INC. FLORIDA LICENSE #: AA26000521

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D. WILLIAM BEEBE, #AR0004073

QUALIFIER FOR MB DESIGN ASSOCIATES, INC.

2007 FLORIDA BUILDING CODE -(INCLUDING 2009 AMENDMENTS) EXISTING BUILDING, BUILDING, PLUMBING, FUEL GAS, MECHANICAL AND TEST PROTOCOLS

2005 NATIONAL ELECTRICAL CODE NFPA 70

2004 FLORIDA FIRE PREVENTION CODE (INCLUDING NFPA 1 AND 101 2003 EDITIONS)

PROJECT NAME/LOCATION:

RSM McGladrey

555 Palm Beach Lakes Blvd. SUITE 700 West Palm Beach, FL 33401

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DATE: 05-17-2010 SCALE: AS SHOWN

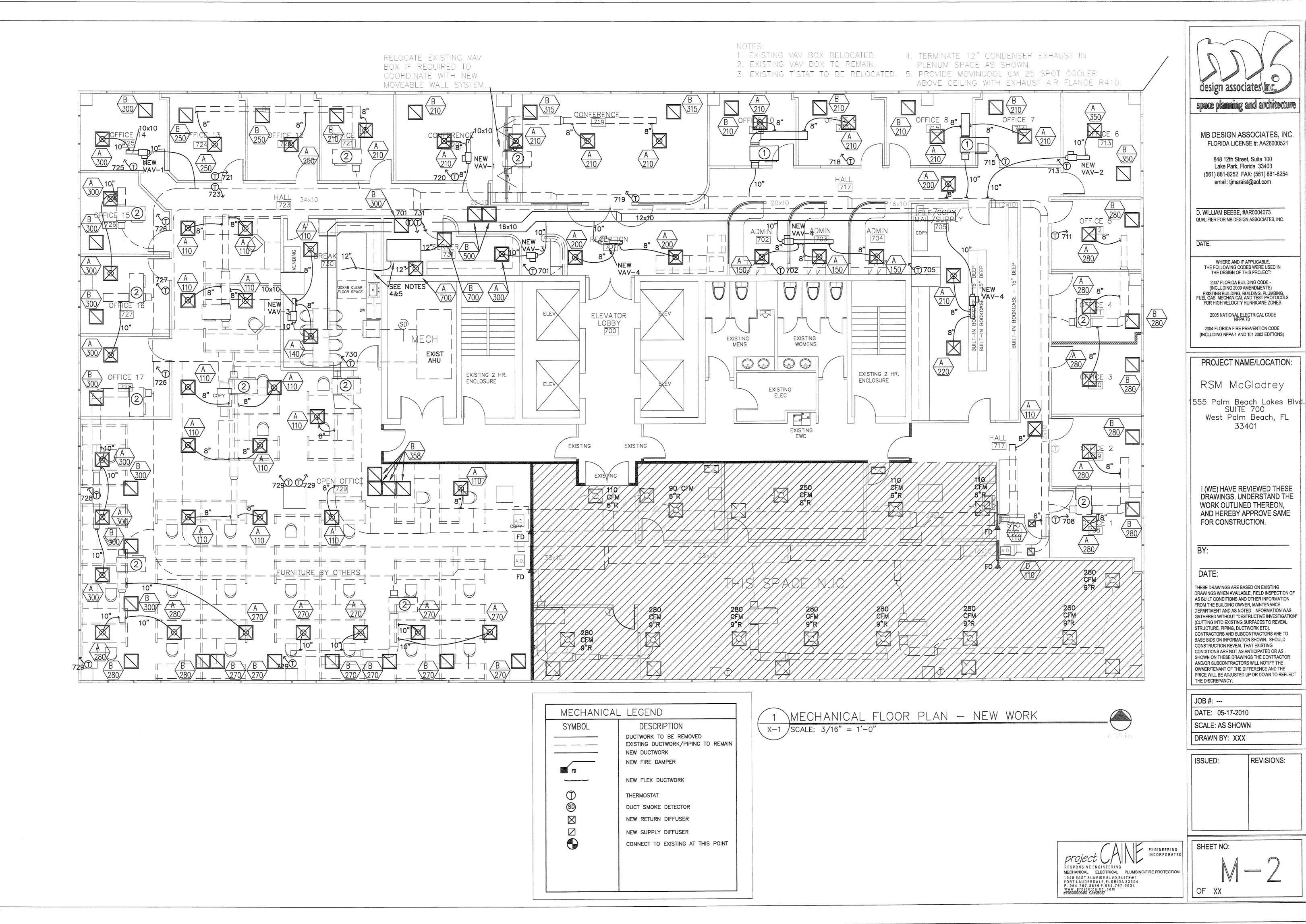
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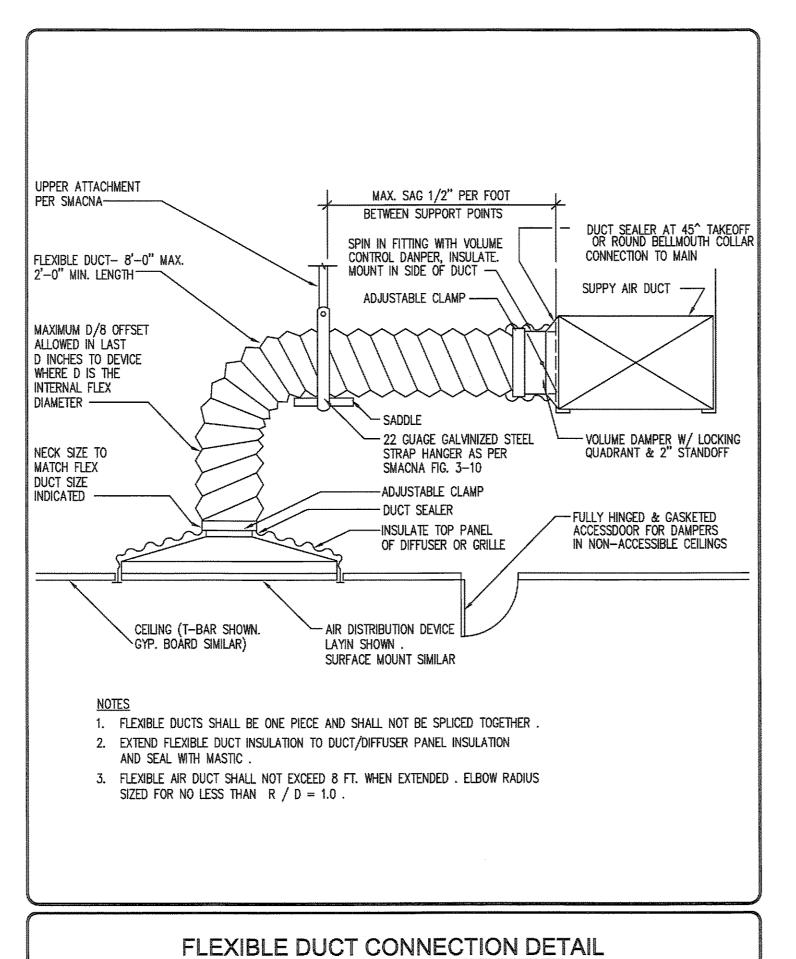
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RESPONSIVE ENGINEERING

1948 EAST SUNRISE BLVD, SUITE#1 FORT LAUDERDALE, FLORIDA 33304 P. 954.767.8886 F. 954.767.9934 www.projectcaine.com #P0500009451, CA#28087

MECHANICAL ELECTRICAL PLUMBING/FIRE PROTECTION





AIR TERMINAL SCHEDULE						
TYPE	SERVICE	CFM RA	NGE	SIZE	NECK	MANUFACTURER/MODEL
***		MIN	MAX			
A	SUPPLY	0 251	250 320	24x24 24x24	8" 10"	TITUS PAS TITUS PAS
		321	400	24x24 24x24	12"	TITUS PAS
		401	500	24x24	14"	TITUS PAS
***************************************		501	630	24x24	16"	TITUS PAS
В	RETURN/EXHAUST	0	150	24x24	8"	TITUS 50F
		151	225	24x24	10"	TITUS 50F
		226	400	24x24	12"	TITUS 50F
		401	600	24x24	14"	TITUS 50F
		601	710	24x24	16"	TITUS 50F
		711	1000	24x24	18"	TITUS 50F
c	SUPPLY	0	240	12x12	8"	TITUS PAS
		221	330	12x12	10"	TITUS PAS
D	RETURN/EXHAUST	0	150	12"x12"	6x6	TITUS 50F
************		151	265	12"x12"	10x8	TITUS 50F
***************************************		266	400	24"x12"	12"x8"	TITUS 50F
E	SIDEWALL SUPPLY	0	150	6x6	6x6	TITUS 1700
***************************************		151	300	8x8	8x8	TITUS 1700
***************************************		301	500	10x12	10x12	TITUS 1700
and the second s		501	800	16x12	16x12	TITUS 1700
		801	1350	20x16	20x16	TITUS 1700
		1351	1550	24x16 24x20	24x16 24x20	TITUS 1700 TITUS 1700
		1551 1901	1900 2200	24x20 24x24	24x20 24x24	TITUS 1700
		2201	2500	30x24	30x24	TITUS 1700
F	SIDEWALL RETURN/	0	150	6x6	6x6	TITUS 1700
,	EXHAUST	151	300	8x8	8x8	TITUS 1700
		301	500	12x10	12x10	TITUS 1700
Beneficiens		501	800	16x12	16x12	TITUS 1700
and the state of t		801	1350	30x12	30x12	TITUS 1700
1		1351	1550	32x12	32x12	TITUS 1700
		1551	1900	40x12 36x16	40x12 36x16	TITUS 1700 TITUS 1700
İ		1901	2200	JUXIU	JUXIU	11103 1700

SEE DETAIL SHEET(S) FOR ADDITIONAL INFORMATION

PROVIDE ALL UNITS WITH OPPOSED BLADE DAMPERS

DIFFUSER RUNOUT SIZE SHALL BE DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED

ALL SUPPLY AIR DIFFUSER AIR THROW PATTERNS ARE 4-WAY UNLESS OTHERWISE

INDICATED ON MECHANICAL PLANS PROVIDE SURFACE MOUNT HARDWARE IN ALL INACCESSABLE CEILING SYSTEMS

PROVIDE LAY-IN MOUNT HARDWARE IN ALL SUSPENDED CEILING SYSTEMS

PROVIDE FULL LENGTH PLENUM FOR SIDEWALL AND LINEAR SLOTS REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF DIFFUSERS

PROVIDE SELECTION BASED ON A MAXIMUM RADIATED NOISE OF NC-30

		V	ENTILATION 62-20	001 CONFORMANO	E (2007) TABLE	FBC MECHANICAL 403.3)
UNIT NO.	NO. OF PEOPLE	OUTSIDE AIR RATE (CFM/PERSON)	MINIMUM REQUIRED OUTSIDE AIR (CFM)	SUPPLIED OUTSIDE AIR (CFM)	EXCESS OUTSIDE AIR (CFM)	REMARKS
EXIST AHU-1	55	20	1100	1500	0	

TOTAL	55	-		1500 CFM		

A. ALL DUCTWORK SHALL BE KEPT SEALED TO PREVENT CONTAMINATION BY DUST OR OTHER DEBRIS DURING CONSTRUCTION. SEAL THE END OF DUCTWORK WITH PLASTIC SHEETING AND DUCT TAPE, PROTECT ALL DUCTWORK STORED ON—SITE PRIOR TO FABRICATION AND INSTALLATION IN A SIMILAR FASHION. B. ALL EQUIPMENT SHALL BE SUPPLIED AND INSTALLED WITH PROVISIONS FOR IN-PLACE CLEANING AND MAINTAINENCE TASKS IN ACCORDANCE WITH THE REQUIREMENTS OF ASHRAE STANDARD 62-89R.

. CHANGE IN SPACE USE, CONTAMINANTS, OR OPERATION MAY REQUIRE A RE-EVALUATION OF THE DESIGN AND IMPLEMENTATION OF NEEDED CHANGES.

OFFICE: 7859 SF / 7 PEOPLE/ 1000 SF = 55 PEOPLEX 20 CFM/PERSON = 1,100 CFM O/A

TEST & BALANCE NOTES

PRIOR TO COMMENCEMENT OF ANY HVAC WORK AN INDEPENDENT AABC OR NEBB CERTIFIED T&B CONTRACTOR SHALL MEASURE AND DOCUMENT, IN A TYPED REPORT THE AIRFLOW QUANTITIES PROVIDED OR EXHAUSTED BY ALL EXISTING EQUIPMENT AND DUCTS TO REMAIN THAT SERVE OR ARE SERVED FROM THE RENOVATED AREA. SUBMIT DATA TO ENGINEER FOR REVIEW.

THE FOLLOWING INFORMATION IS REQUIRED:

AIR FLOW OF ALL AIR DEVICES IN RENOVATED AREA(S).
AIR FLOW (TRAVERSE) AT MAINS AND BRANCH DUCTS SERVING THE RENOVATED AREA(S).
AIR FLOW AT UNITS (TRAVERSE) AT MAINS AND BRANCH DUCTS SERVING THE RENOVATED AREA(S).
SUCTION AND DISCHARGE STATIC AT UNITS SERVING THE RENOVATED AREA(S).
MEASURED FAN RPM, MOTOR AMPERAGE FOR ALL UNITS SERVING THE RENOVATED AREA(S).

- PROVIDE EXISTING UNIT AND MOTOR NAME PLATE DATE.

- CHILLED WATER SUPPLY AND RETURN TEMPERATURES AT COIL.

2. FINAL CONSTRUCTION: UPON COMPLETION OF THE HVAC RENOVATION WORK, THE SAME CONTRACTOR SHALL REBALANCE THE NEW AND EXISTING EQUIPMENT AND DUCTS TO PROVIDE INDICATED AIR QUANTITIES TO THE RENOVATED SPACE. ANY ADDITION OF DAMPERS, ADJUSTMENTS, (FAN SPEED, CHANGE OUT OF PULLEYS, ETC.) REQUIRED FOR THIS SHALL BE INCLUDED IN THIS CONTRACTORS PROPOSAL.

3. FINAL REPORT:

SUBMIT FINAL TEST AND BALANCE REPORT TO ENGINEER FOR REVIEW AND ACCEPTANCE. ONE WEEK PRIOR TO FINAL AHCA INSPECTION FOR EACH PHASE.

3. SCOPE OF WORK:

T&B CONTRACTOR SHALL T&B THE ENTIRE FLOOR TO MAKE SURE THE BALANCE TO THE REMAINING AREAS WILL REMAIN UNEFFECTED BY THE CONSTRUCTION.

VARIABLE AIR VOLUME BOX SCHEDULE								
UNIT NO.	MFG.	MODEL NO.	MIN CFM	MAX CFM	VEL MAX	KW HEAT	MAX AIR PD	ACCESSORIES
VAV-1	WARREN	STE05L	200	350	330	3KW 277/1	.15	1,2,3
VAV-2	WARREN	STE06L	350	600	330	3KW 277/1	.15	1,2,3
VAV-3	WARREN	STN05L	200	350	330	NOTE 6	.15	1,2,3
VAV-4	WARREN	STN06L	350	600	330	NOTE 6	.15	1,2,3

NOT TO SCALE

HUMIDITY / TEMPERATURE THERMOSTAT.

2. MATCH CONTROLLER TO EXISTING BUILDING MAMAGEMENT SYSTEM.

3. PROVIDE AND INSTALL DUCT CONNECTIONS REQUIRED FOR TIE-IN TO EXISTING DUCTS.

4. N/C RATING OF BOX SHALL BE LESS THAN 50.

5. FOR MANUFACTURERS OTHER THAN BASIS OF DESIGN, ADJUST INLET SIZE TO ACHIEVE SIMILAR PRESSURE DROP AND ACOUSTIC PREFORMANCE.

6. PROVIDE 120 TO 24 VOLTS TRANSFORMER TO POWER VAV BOX

INFECTION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENDEAVOR TO MAINTAIN EXISTING LEVELS OF INDOOR AIR QUALITY IN AREAS SURROUNDING AND ADJACENT TO THE CONSTRUCTION WORK ZONE, AND ELSEWHERE IN THE FACILITY. THE CONTRACTOR SHOULD ERECT OF CONSTRUCTION ZONE BARRIERS AND PROVIDE NEGATIVE AIR PRESSURE IN THE CONSTRUCTION ZONE RELATIVE TO OTHER AREAS OF THE FACILITY.

2. THE CONTRACTOR AT A MINIMUM SHALL PROVIDE 500 CFM SCRUBBER WITH HEPA FILTER TO CONDITION AIR IN THE CONSTRUCTION SITE. PROVIDE ONE SCRUBBER FOR EVERY 4000 SF. EXISTING HVAC SYSTEMS AND COMPONENTS SHALL NOT BE USED FOR THIS FUNCTION.

3. VERIFY ALL EXISTING DUCTWORK WHICH PASSES THROUGH THE CONSTRUCTION ZONE, AND IS TO REMAIN, IS SEALED AND PROTECTED DURING THE CONSTRUCTION DURATION.

4. COORDINATE IN ADVANCE ANY REQUIRED EQUIPMENT SHUTDOWN WITH THE OWNER, AND VERIFY BEFORE SHUTDOWN THAT EXISTING OR DESIRED AIR PRESSURE RELATIONSHIPS WILL NOT BE ADVERSALY AFFECTED.

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WHERE AND IF APPLICABLE, THE FOLLOWING CODES WERE USED IN THE DESIGN OF THIS PROJECT: 2007 FLORIDA BUILDING CODE -(INCLUDING 2009 AMENDMENTS)

FOR HIGH VELOCITY HURRICANE ZONES

EXISTING BUILDING, BUILDING, PLUMBING, FUEL GAS, MECHANICAL AND TEST PROTOCOLS

2005 NATIONAL ELECTRICAL CODE NFPA 70 2004 FLORIDA FIRE PREVENTION CODE

(INCLUDING NFPA 1 AND 101 2003 EDITIONS)

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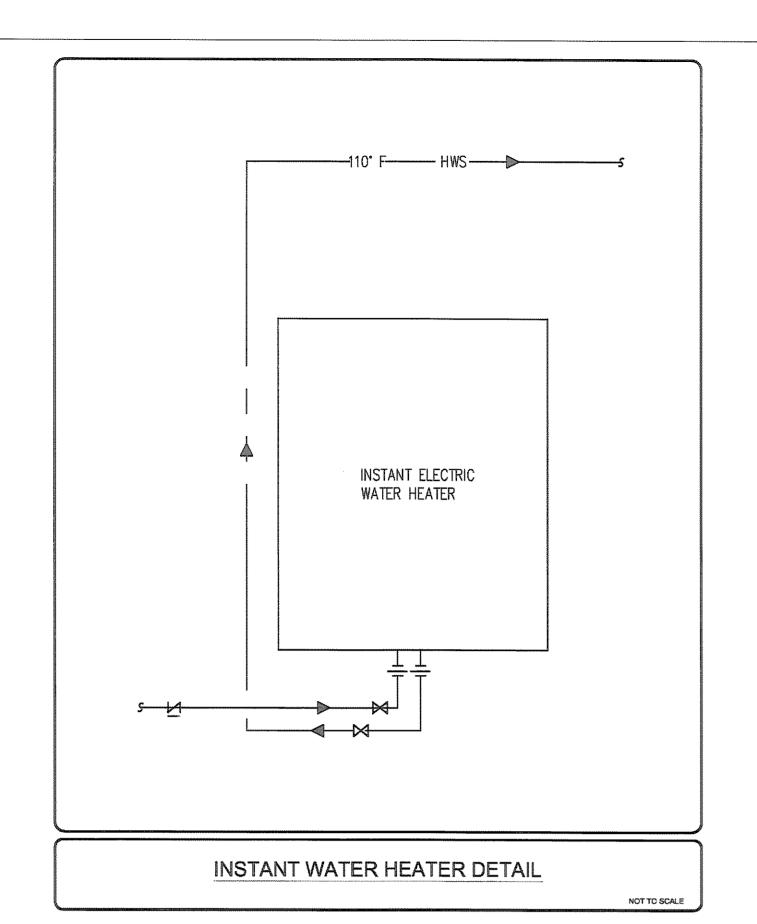
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JOB #: ---DATE: 05-17-2010 SCALE: AS SHOWN DRAWN BY: XXX

> **REVISIONS:** ISSUED:

ENGINEERING INCORPORATED RESPONSIVE ENGINEERING MECHANICAL ELECTRICAL PLUMBING/FIRE PROTECTION 1948 EAST SUNRISE BLVD, SUITE#1 FORT LAUDERDALE, FLORIDA 33304 P. 954, 767, 8886 F. 954, 767, 9934 www.projectcaine.com #P05000009451, CA#28087

OF XX



PLUMBING FIXTURE SCHEDULE

P-1 SINK SINGLE COMP.

<u>FIXTURE</u>

MODEL #

JUST #SL-ADA-1921-A-GR

JUST #J-1174-KS FAUCET, #J-ADA-35
DRAIN SYSTEM, MC GUIRE #158WC
SUPPLYS, #B8912 1 1/2" TRAP,
PROWRAP FOR SANITARY AND WATER
PIPING PROVIDE WATTS #MMV-M1 ASSE 1070
THERMOSTATIC MIXING VALVE BELOW FIXTURE.

ISOMETRIC

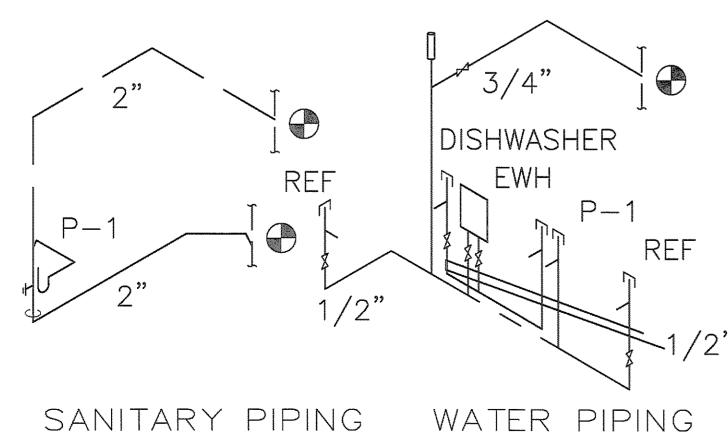
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ACCESSORIES

WATER PIPE SIZE	NOMINAL TRAP SIZE	MAXIMUM FLOW RATES
1/2"	1 1/2"	.5 GPM

ALL PLUMBING FIXTURES AND APPLIANCES SHALL COMPLY WITH THE 03-07-08 DADE COUNTY WATER USE EFFICIENCY STANDARDS ORDINANCE 08-14 AND TABLE 604.4 FBC PLUMBING. DISHWASHER -6.5 GALLONS PER CYCLE, WASHING MACHINE - WATER FACTOR OF 8 OR LOWER (ENERGY STAR CERTIFIED)

WATER HEATER SCHEDULE					
MARK	GAL. CAP	HEATING CAP	CONTROL	TEMP.	MANUFACTURER & MODEL:
EWH	-	3.6 KW	120/1, 3.6K 30 AMP BKR	110° F	CHRONOMITE SR-30L



ISOMETRIC

PLUMBING NOTES:

- 1. A. All work shall be preformed in accordance with the Florida Building Code 2007 Edition with 2009 suppliments.
- B. Drawings: Refer to all drawings for coordination of the
- plumbing work.

 C. Arrange and pay for all permits, licenses, inspections and tests. Obtain the required certificates and present to owner.
- D. Guarantee: The completed installation shall be fully guaranteed against defective materials and/or improper workmanship for a minimum of one year for material and labor.
 E. All horizontal sanitary piping shall slope at 1/8 inch

per foot minimum for 3" and larger and at 1/4" slope

- for 2" pipes and smaller.

 2. Shop drawings: Contractor shall submit for approval all specified items. No work shall proceed without the approval.
- specified items. No work shall proceed without the aproval of these submittals.
- Plumbing fixtures:
 Fixtures shall be complete with drains, traps, supplies and any other accessory required.
- Materials:
 A. Piping:
 - a. Soil, waste and vent: Service weight Cast Iron piping.
 - Domestic water:

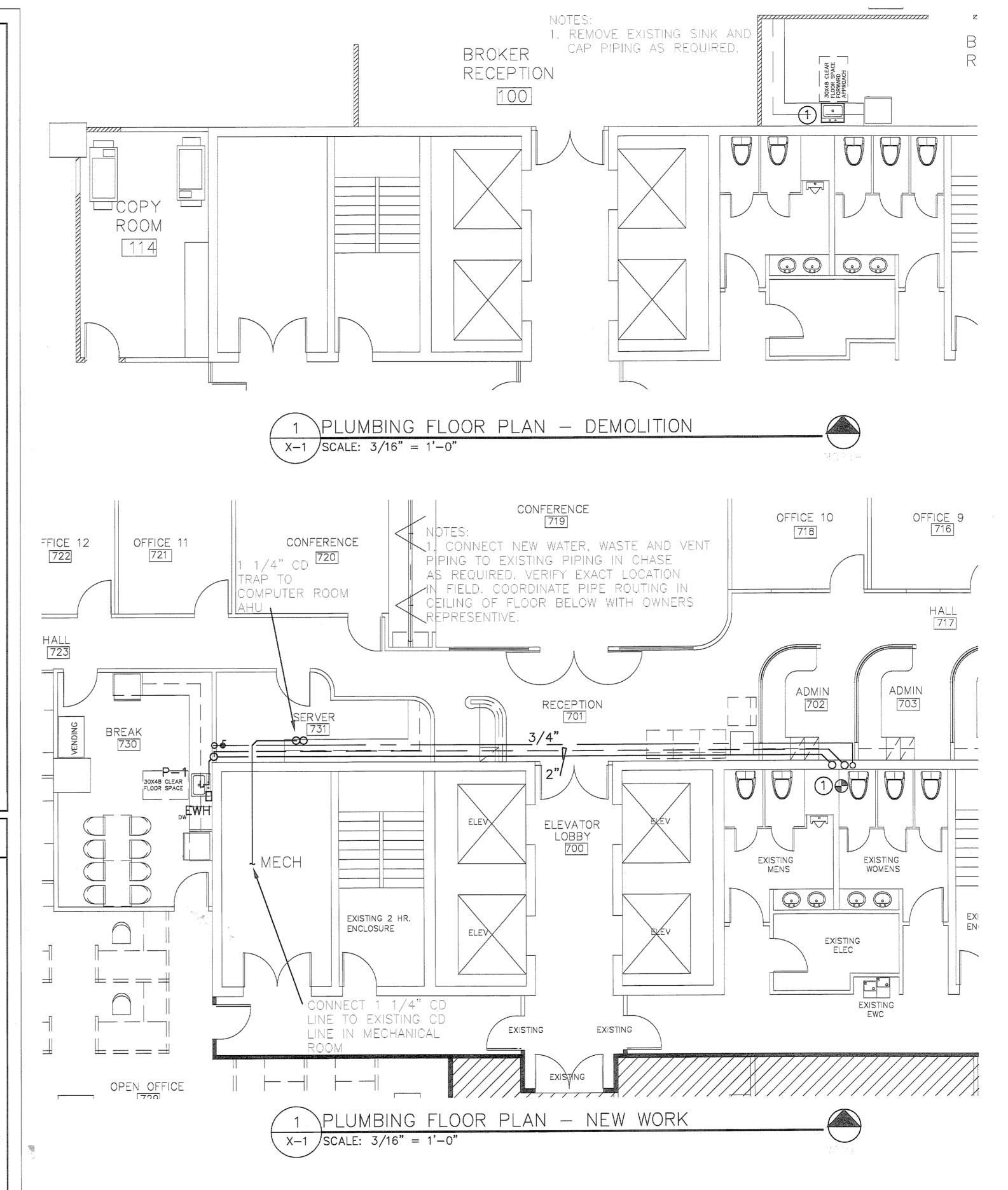
 Copper pipe, Type L with sweat wrought copper fittings.
 Isolate piping from concrete with insulating material.
 - c. Condensate drain: Copper pipe, Type "L" with sweat wrought copper fittings.
 - d. Domestic water supply assembly: Chrome finish tubing with angle shut off valves.
- e. Insulation: Insulate all hot water lines r with 1" thick fiberglass insulation, with self sealing jacket.
- Insulate condensate piping with 1/2" elastomeric insulation.

 5. All water heaters shall meet the
- standards of the latest energy efficiency code.
- Piping testing and cleaning:

 A. Test: All sanitary and domestic water supply piping shall be tested for leaks before piping is concealed or connected to equipment and plumbing fixtures.
- B. Disinfection: All domestic water piping shall be disinfected by introducing a solution of calcium hypochlorite of 50 parts per million of chloride and as per AWWA Standards.
- 7. Valves: Domestic water valves shall be of bronze body, sweat ends.
- 8. All exterior clean outs shall be terminated up to grade and shall be marked.
- Contractor shall coordinate exact location of sanitary, and domestic water piping before starting any work. Notify Architect/Engineer of any deviations from design drawings.
- Contractor shall cut and patch to match existing concrete floor to match existing as required for new work.

PLUMBING SYMBOL LEGEND

SYMBOL 	DESCRIPTION EXISTING PIPING TO REMAIN PIPING TO BE REMOVED SANITARY LINE
	VENT LINE
——————————————————————————————————————	CONDENSATE LINE COLD WATER LINE HOT WATER LINE HOT WATER RECIRC LINE
FCO	FLUSH CLEAN OUT
FD	FLOOR DRAIN
СО	CLEAN OUT
VTR	VENT THRU ROOF
CW	COLD WATER LINE
HW	HOT WATER LINE
HWR	HOT WATER RECIRC LINE
SW	STORM WATER LINE
OD	OVERFLOW DRAIN LINE
S	SANITARY LINE
	CONNECT NEW TO EXISTING



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