birse design inc + architecture + interior design + planning

5300 woodland lakes drive palm beach gardens, fl 33418

phone 561-249-4001 fax 772-409-8684 AA26001615

MECHANICAL ENGINEER / ELECTRICAL / PLUMBING



129 N. FEDERAL HWY. SUITE 211 LAKE WORTH, FL 33460 (561) 582-0210 P.E. 37933

PROJECT DATA:

* SUITE #1,202 = 4,630 SF

* SUITE #1212 = 2,633 SF

PROJECT NOTES:

* PROJECT ADDRESS: CENTURION TOWER

* EXISTING BUILDING IS A 14 STORY BUILDING

* 12TH FLOOR IS A MULTI TENANT FLOOR

* SUITE #1202 = 4,630 SF/100 = 47 OCCUPANTS * DESIGN OCCUPANT LOAD = 47 OCCUPANTS

* SUITE #1212 = 2,633 SF/100 = 27 OCCUPANTS

* DESIGN OCCUPANT LOAD = 27 OCCUPANTS

* EXISTING BUILDING CLASSIFICATION IS GROUP "B"

* LEVEL 2 ALTERATION PER "EXISTING BUILDING CODE 2007"

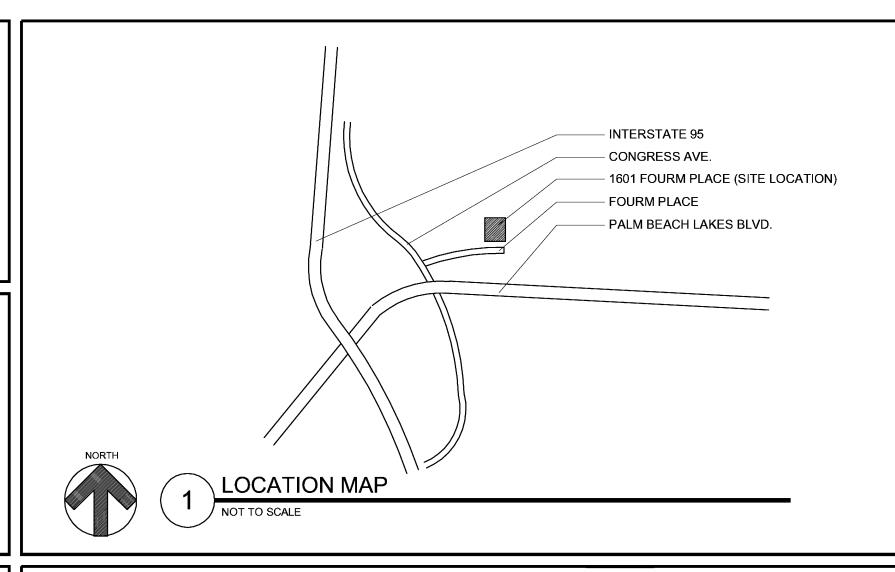
* NEW COMBINED DESIGN OCCUPANT LOAD = 69 OCCUPANTS

* EXISTING BUILDING IS TYPE I "A"

1601 FORUM PLACE #1202

* SUITE #1202 WILL COMBINE WITH SUITE #1212 TO CREATE ONE TENANT SPACE

WEST PALM BEACH, FL



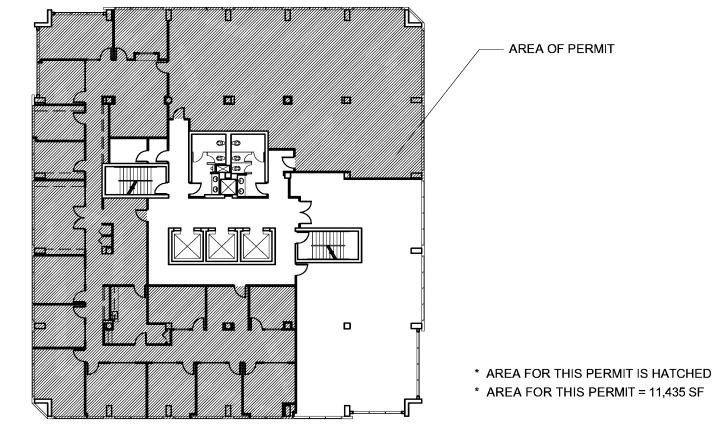
INDEX OF SHEETS: TITLE SHEET ARCHITECTURAL SHEETS

- AREA OF PERMIT

EXISTING PLANS PROPOSED PLANS LIFE SAFETY PLANS DETAILS / ELEVATIONS MECHANICAL/ELECTRICAL/PLUMBING SHEETS

MECHANICAL PLANS MECHANICAL NOTES PLUMBING

ELECTRICAL PLANS ELECTRICAL NOTES



* AREA FOR THIS PERMIT = 11,435 SF

REFERENCE STANDARDS:

- THIS PROJECT IS DESIGNED IN ACCORDANCE WITHE FOLLOWING CODES:
- . THE FLORIDA BUILDING CODE (FBC), 2007 EDITION WITH 2009 SUPPLEMENTS (BUILDING, MECHANICAL, PLUMBING, FUEL GAS,
- 2. NATIONAL ELECTRIC CODE (NEC), 2008 EDITION.
- 3. FLORIDA FIRE PREVENTION CODE, 2007 EDITION.
- 4. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101, LIFE SAFETY CODE, 2006 EDITION.
- 5. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1, UNIFORM FIRE CODE, 2006 EDITION

GENERAL NOTES:

- THE CONTRACTOR SHALL AS A PART OF THIS CONTRACT FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRANSPORTATION, AND INSURANCE NECESSARY TO PROPERLY EXECUTE AND COMPLETE THE WORK ACCORDING TO THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR IN THE WORK OF ALL TRADES SHALL PROTECT ALL EXISTING BUILDING AND PROPERTY FROM DAMAGE CAUSED BY THE ACTIVITIES OF THE CONTRACTOR AND SUBCONTRACTORS. THE CONTRACTOR SHALL REPAIR AND RESTORE THE JOB SITE AND SURROUNDING AREAS TO IT'S ORIGINAL CONDITION. OWNER TO VERIFY SATISFACTION.
- . THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES, INCONSISTENCIES OR OMISSIONS BEFORE PROCEEDING WITH ANY WORK.
- f i . THE CONTRACTOR SHALL MAKE NO CHANGES TO THE CONSTRUCTION DRAWINGS WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT.
- 5. ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST CODES AND ORDINANCES.
- 3. THESE CONSTRUCTION DOCUMENTS ARE DIAGRAMATIC AND ARE TO CONVEY DESIGN INTENT. IT IS NOT THE INTENT OF THESE CONSTRUCTION DRAWINGS TO SHOW ALL DETAILS OF THE EXISTING CONDITIONS. THE CONTRACTOR SHALL VISIT THE SITE TI VERIFY DIMENSIONS PRIOR
- 7. EACH CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH THE APPROPRIATE TRADES.
- 8. ALL INDICATED UTILITY AND STUB-IN LOCATIONS ARE FOR REFERENCE ONLY. THE EXACT LOCATIONS SHALL BE VERIFIED ON THE JOB SITE.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ENGINEERING AND THE ARCHITECTURAL DRAWINGS FOR THE ACTUAL PLACEMENT OF THE WORK RELATIVE TO FIELD CONDITIONS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING INSTALLATION REQUIREMENTS FOR ALL BUILT-IN APPLIANCES, FIXTURES, AND EQUIPMENT. VERIFY EXACT ROUGH-IN DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ROUGH-IN FRAME.
- 11. THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMMISIONS IN CONSTRUCTION SHALL BE BORNE BY THE RESPECTIVE
- 10. DETAILS ON THE STRUCTURAL DRAWINGS (IF PROVIDED) ARE TYPICAL. VERIFY ALL DIMENSIONS WITH THE STRUCTURAL DRAWINGS.
- 12. CONTRACTOR TO BE RESPONSIBLE FOR CHECKING STRUCTURAL CALCULATIONS FOR SPECIFIC REQUIREMENTS OF STRUCTURAL CONNECTIONS. SUBMIT STEEL TRUSS CALCULATIONS AND SHOP DRAWINGS OF ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL FABRICATION BEFORE COMMENCING FABRICATION.
- 13. BIRSE DESIGN, INC. SHALL IN NO WAY BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNOLOGIGES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. (THESE ARE SOLELY THE CONTRACTORS RESPONSIBILITY UNDER THE CONTRACT FOR CONSTRUCTION.
- 14. EACH CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY BRACING, SHORING, GUYING, OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS ASSOCIATED WITH WORK IN PLACE DURING CONSTRUCTION.
- 15. PROVIDE PORTABLE FIRE EXTINGUISHERS DURING CONSTRUCTION AS REQUIRED BY LOCAL CODES.
- 16. SPRINKLER SYSTEM: INSTALL FULL BUILDING SPRINKLER SYSTEM IN COMPLIANCE WITH THE REQUIREMENTS OF NFPA 13. SHOP DRAWINGS MUST BE APPROVED BEFORE INSTALLATIONS. PROVIDE OWNER WITH 2 COPIES OF PERMIT SETS.
- 7. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL CURRENT APPLICABLE BUILDING CODES AND ENFORCEMENT AGENCIES, FIRE MARSHALL, OR ANY OTHER BUILDING CODE ENFORCEMENT OFFICER AT NO EXTRA COST TO THE OWNER. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPHANCIES PRIOR TO SUBMITTING A BID FOR THE PROJECT.
- 18. BASE BID SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- A. ALL PERMITS AND FEES FOR ALL 1. BUILDING AND TRADE PERMITS.
- 2. ALL ACCESSORY AND SITE IMPROIVEMENT PERMITS.
- B. ALL FILL REQUIRED TO MEET MINIMUM FINISHED FLOOR SLAB ELEVATION AND COMPACTION.
- C. WATER METER HOOK-UP AND METER DEPOSITS. OWNER RESPONSIBILITY
- D. HOOK-UP AND FEES FOR UNDERGROUND SERVICE FROM FPL
- LOCAL PHONE & CABLE T.V. OWNER RESPONSIBILITY E. SOIL, CONCRETE AND ANY OTHER NECESSARY TESTING.
- F. ENGINEERING STAKE OUTS AND SURVEYS INCLUDING FINAL TIE IN SURVEY.
- G. CLEARING, GRUB, AND SITE PREPARATION, INCLUDING GRADING. H. ALL BIDDERS AND THEIR SUBCONTRACTORS SHALL BE CURRENTLY LICENSED
- IN THE STATE OF FLORIDA.
- I. THE OWNER RESERVES THE RIGHT TO REJECT ANY BIDS. J. THE G.C. SHALL PROVIDE AN ESTIMATE OF TIME FOR COMPLETION.
- K. THE GENERAL CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE FOR WORKMANS' COMPENSATION AND ANY OTHER INSURANCES REQUIRED BY THE OWNER FOR ALL EMPLOYEES EITHER DIRECTLY EMPLOYED BY THE GENERAL CONTRACTOR OR BY HIS SUBCONTRACTORS.
- . THE CONTRACTOR SHALL CLEARLY LIST ANY WORK NOT INCLUDED IN HIS BID.
- M. PROVIDE FIRE DEPARTMENT KNOX BOX ADJACENT TO FRONT DOOR OF BLDG.
- N. CONTRACTOR TO PROVIDE AS BUILT DRAWINGS. PROVIDE TWO COPIES OF PERMIT SET TO OWNER



ALLEN S BIRSE AR94279

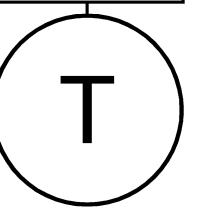
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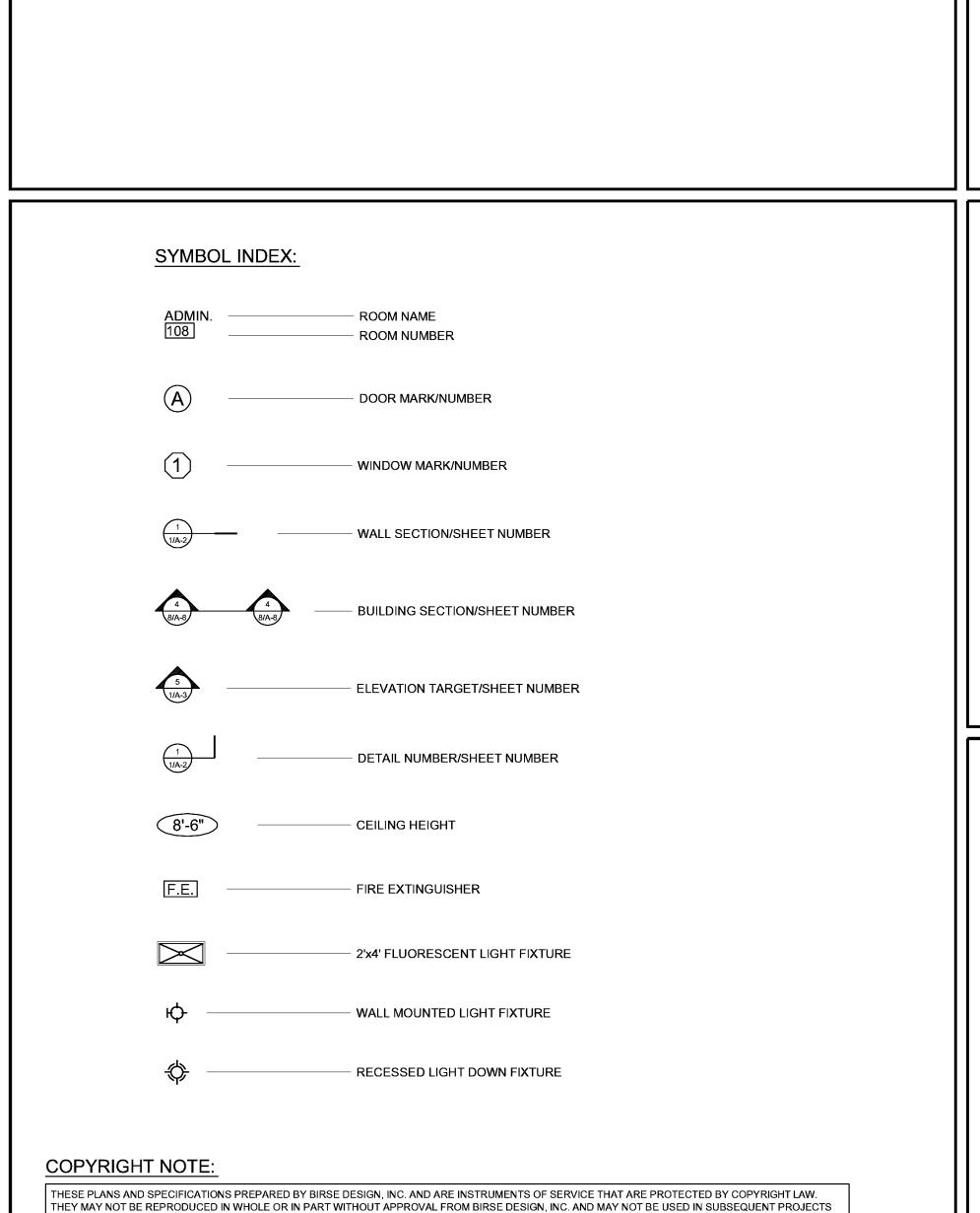
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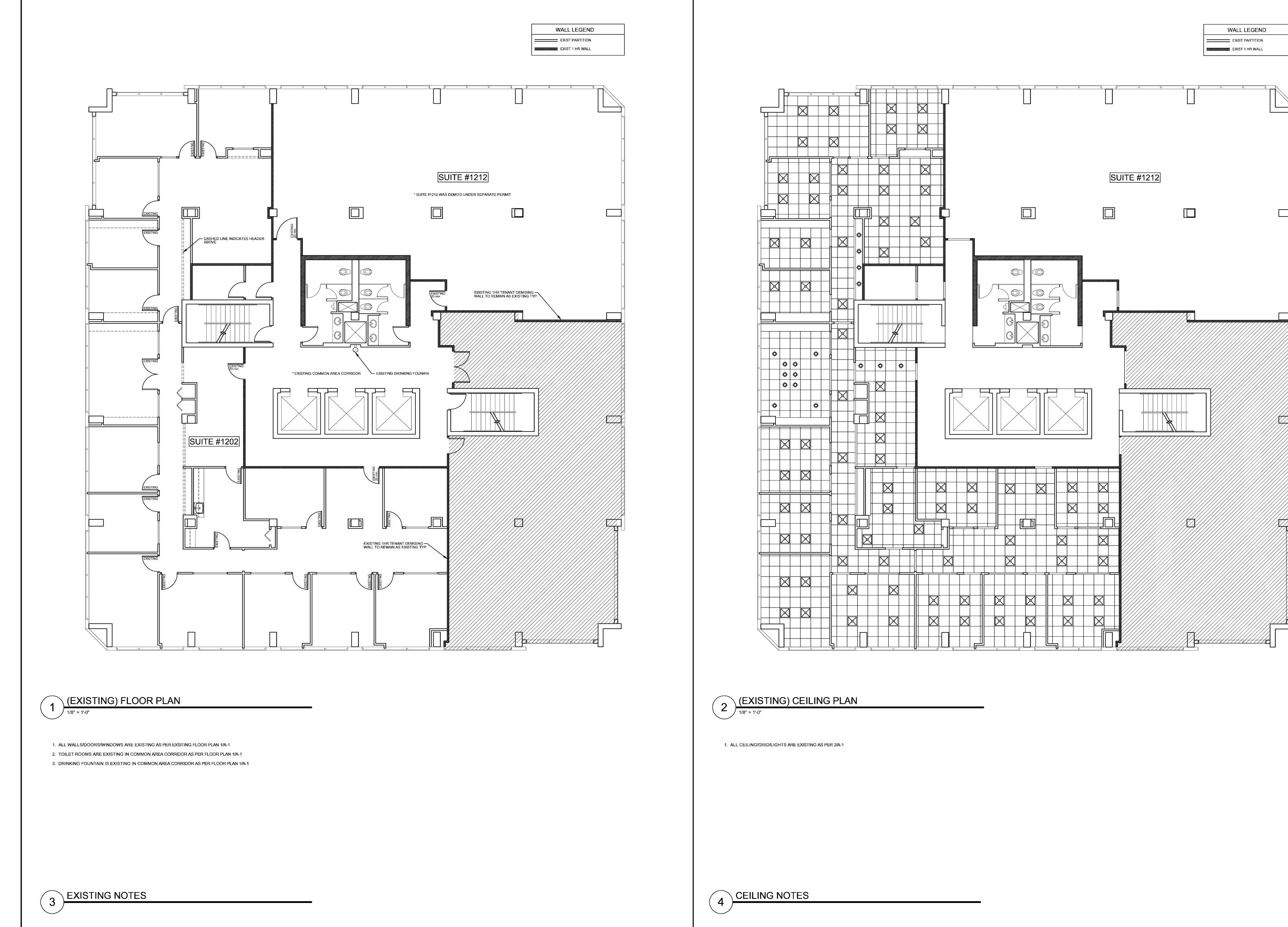
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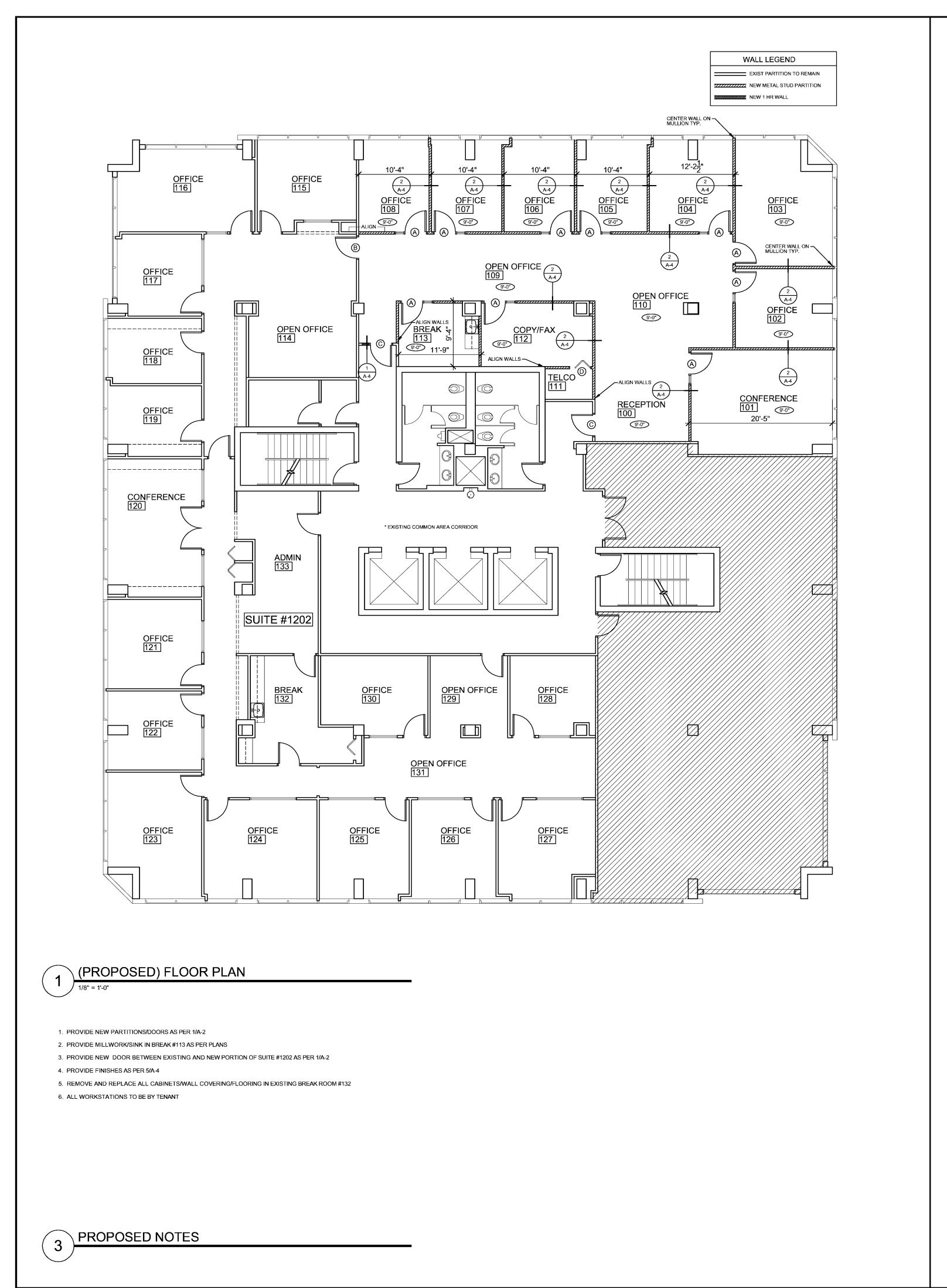


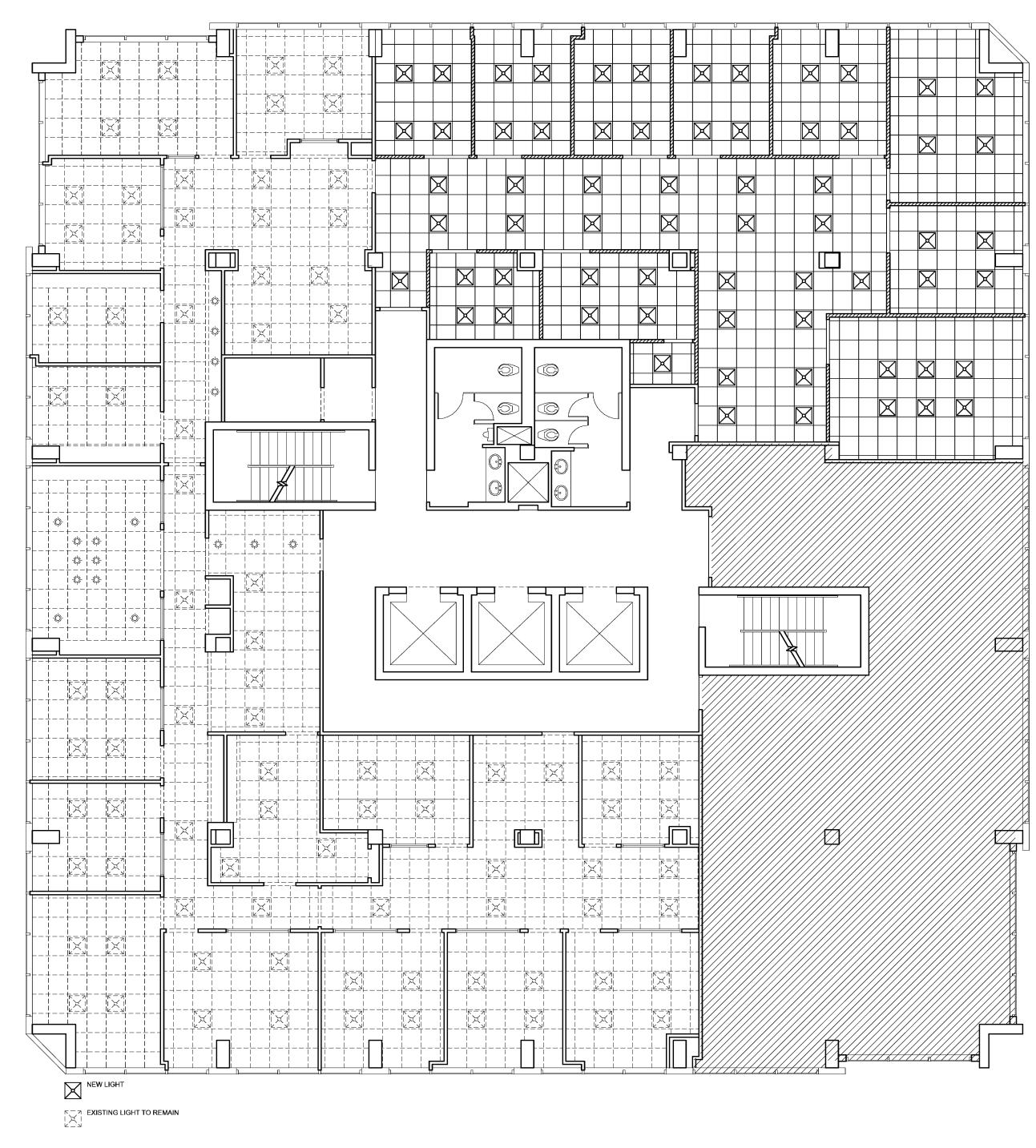


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design ALLEN S BIRSE AR94279 OXBOW EXPANSION REVISIONS THIS DESIGN AND THESE DRAWINGS ARE THE PROPERT OF BIRSE DESIGN INC. NO PART OF THIS WORK MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM BIRSE DESIGN INC. DRAWN BY ASB CD 01/03/10





(PROPOSED) CEILING PLAN

1. PROVIDE NEW CEILING GRID/LIGHTS AS PER PROPOSED CEILING PLAN 2/A-2

2. NEW CEILING TILES TO MATCH EXISTING (ACT1)

4 CEILING NOTES

Bo

WALL LEGEND

EXIST PARTITION TO REMAIN

NEW METAL STUD PARTITION

MINIMUM NEW 1 HR WALL

irse dive of the second and lakes drive no beach gardens, fl 33418 no 561-249-4001

ALLEN S BIRSE AR94279

OXBOW EXPANSION
CENTURION TOWER
1601 FORUM PLACE #1202
WEST PALM BEACH, FL

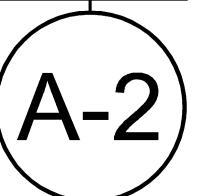
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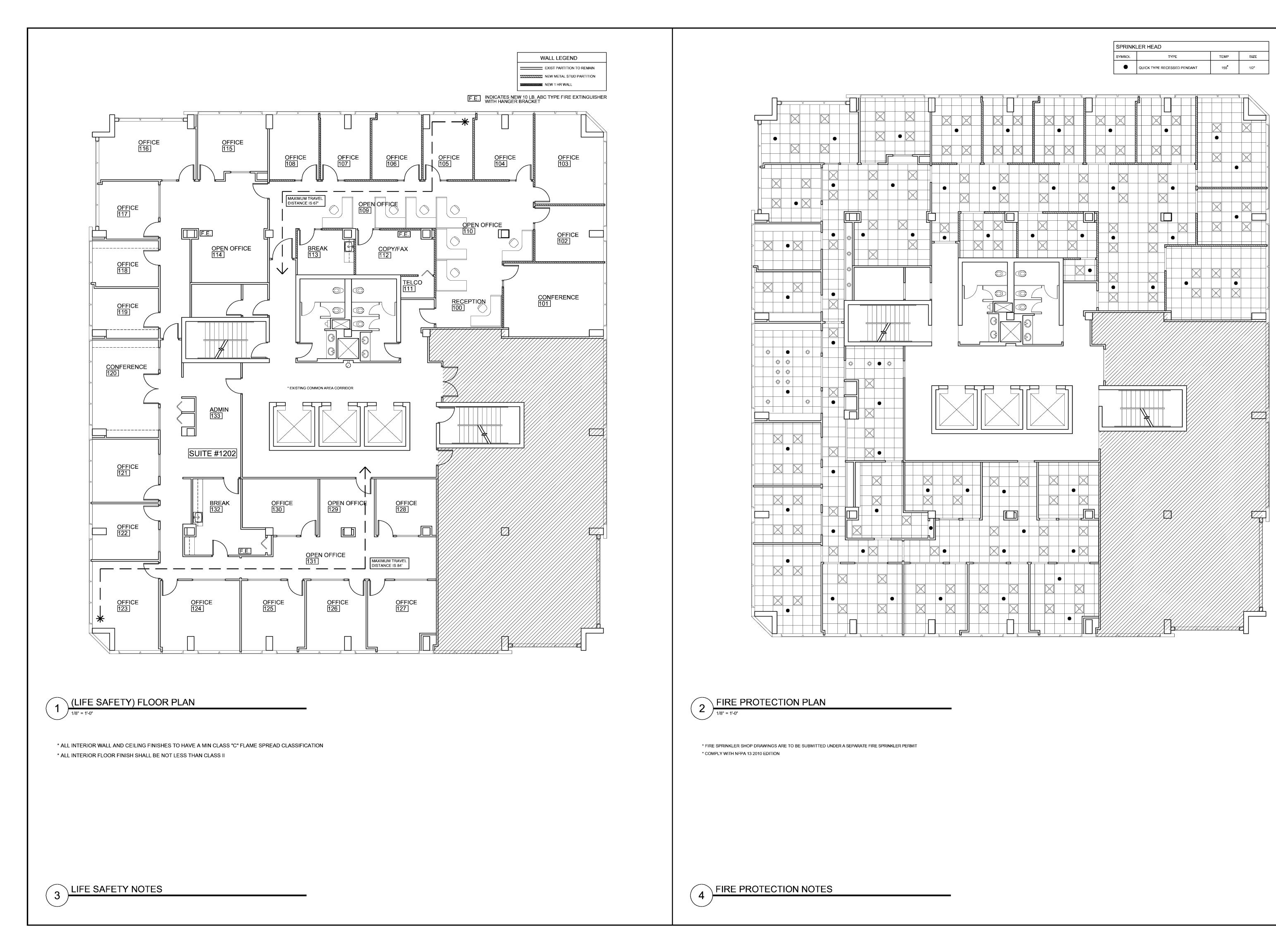
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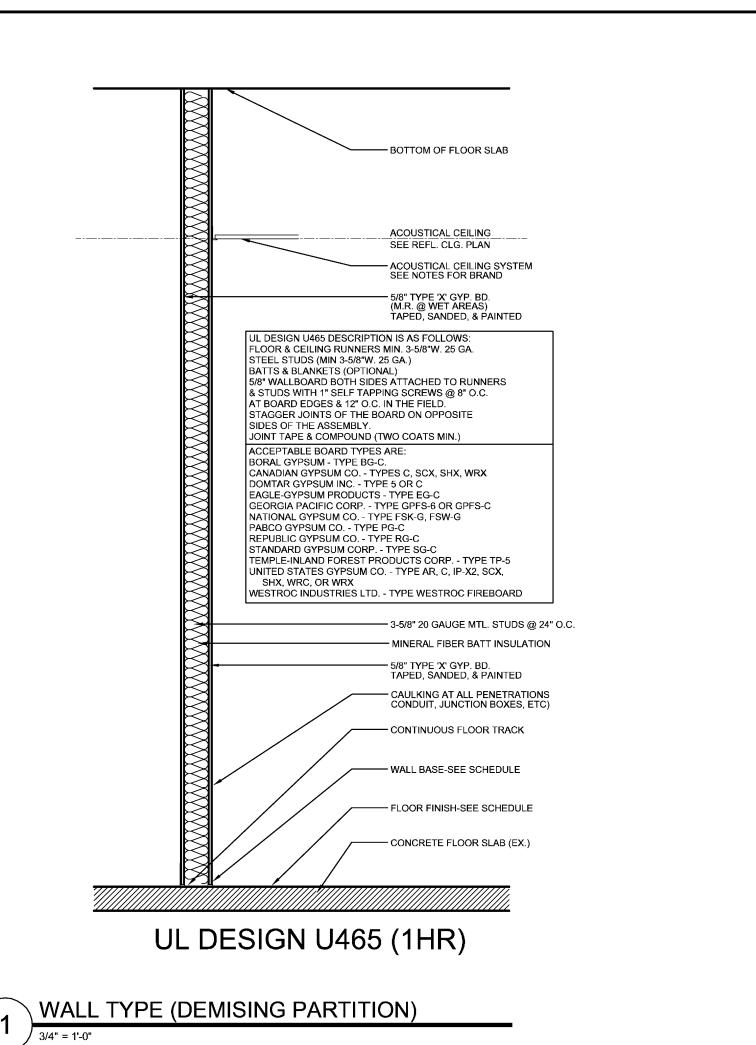
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design ALLEN S BIRSE AR94279 OXBOW EXPANSION CENTURION TOWER 1601 FORUM PLACE #1202 WEST PALM BEACH, FL REVISIONS THIS DESIGN AND THESE DRAWINGS ARE THE PROPERT OF BIRSE DESIGN INC. NO PART OF THIS WORK MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM BIRSE DESIGN INC. DRAWN BY ASB CD 01/03/11

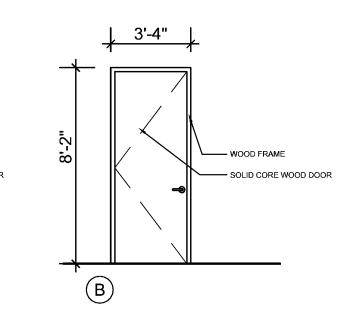


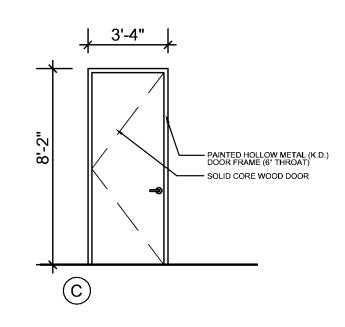
— CONTINUOUS TOP TRACK ACOUSTICAL CEILING SEE REFL. CLG. PLAN — ACOUSTICAL CEILING SYSTEM SEE NOTES FOR BRAND 3 5/8" 25 GA. MTL. STUD @ 24" O.C. (6" WHERE INDICATED ON PLANS) MINERAL FIBER BATT INSULATION (SEE ADD-ALTERNATES FOR INSULATED WALLS) — 5/8" GYP. BD. (M.R. @ WET AREAS) TAPED, SANDED, & PAINTED — 5/8" GYP. BD. (M.R. @ WET AREAS) TAPED, SANDED, & PAINTED - BASE - SEE SCHEDULE ---- CONC. FLOOR SLAB - FLOOR FINISH-SEE SCHEDULE

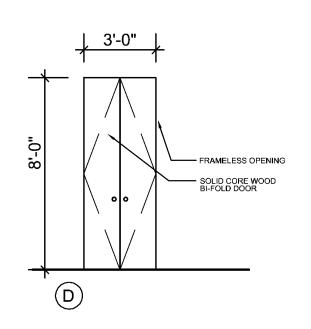
WALL TYPE (INT. PARTITION)

A

4'-8"







DOOR SCHEDULE

NAA DIK				DOOR		FRAME		
MARK	LABEL	NAAT	TVDE		SIZE		SIZE/MAT.	REMARKS
		MAT	TYPE	W	Н	Т		
Α		WD	FLUSH	3'0"	8'0"	1-3/4"	2 " W D	GLASS SIDE LIGHT
В		WD	FLUSH	3'0"	8'0"	1-3/4"	2" WD	
С	20 MINUTE RATED	WD	FLUSH	3'0"	8'0"	1-3/4"	2" WD	TENANT ENTRY DOOR
D		WD	FLUSH	3'0"	8'0"	1-3/4"		BI-FOLD DOOR

* NEW TENANT ENTRY DOOR TO MATCH EXISTING BUILDING STANDARD * ALL CLOSERS TO BE ON THE INSIDE OF TENANT SPACE

* NEW DOORS TO MATCH EXISTING SUITE #1202 DOORS (CASINIG AND STAIN) * NEW TENANT INTERIOR DOOR HARDWARE TO MATCH SUITE #1202 EXISTING HARDWARE * ALL EXTERIOR TENANT DOORS TO HAVE 5" SOLID TOP RAIL (NO THROUGH BOLTING)

* ALL DOOR STOPS ARE TO BE FLOOR MOUNTED (NOT WALL MOUNTED) * DOOR HARDWARE IS REQUIRED TO COMPLY WITH FBC 11-4.13.9 FOR ACCESSIBILITY

3 DOORS

2'-10" 2'-0" 2'-6"	W36 W	REF. N.I.C.	P. LAM . WALL CABINETS W/ ADJUSTABLE SHELVES P. LAM . COUNTERTOP W/ 4" P. LAM. BACKSPLASH SINGLE BOWL SS SINK OPEN SPACE UNDERNEATH SINK BASE CABS W/ DRAWER AND ADJUSTABLE SHELVES
------------------------	-------	-------------	---

 * SINKS SHALL BE MOUNTED WITH THE COUNTER TOP OR RIM N0 HIGHER THAN 34" ABOVE THE FINISH FLOOR

* KNEE CLEARANCE OF AT LEAST 27" HIGH, 30" WIDE, AND 19" DEEP IS PROVIDED UNDERNEATH

* EACH SINK SHALL BE A MAXIMUM OF 6-1/2" DEEP

* HOT WATER AND DRAIN PIPES UNDER SINK SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK

* A CLEAR FLOOR SPACE OF AT LEAST 30" BY 48" SHALL BE PROVIDED IN FRONT OF A SINK TO ALLOW FORWARD APPROACH. THE CLEAR FLOOR SPACE SHALL BE ON AN ACCESSABLE ROUT AND SHALL EXTEND A MAXIMUM OF 19 INCHES UNDERNEATH THE SINK

* 19" MAX CLEAR AREA SHALL BE PROVIDED UNDERNEATH SINK * ALL FAUCETS SHALL BE LEVER OPERATED

MK	ROOM NAME	FLOOR	BAS	SE	WAI	LLS	CE	LIN	G	DEMARKS
IVIT	ROOM NAME	MAT	MAT	H	MAT	FIN	MAT	FIN	ΤН	REMARKS
SUITE #50	05 W	•								
100	RECEPTION	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
101	CONFERENCE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
102	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
103	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
104	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
105	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
106	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
107	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
108	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
109	OPEN OFFICE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
110	OPEN OFFICE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
111	TELCO	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
112	COPY/FAX	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
113	BREAK	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
114	OPEN OFFICE	EXISTING -							\longrightarrow	
115	OFFICE	EXISTING -							\longrightarrow	
116	OFFICE	EXISTING -							\longrightarrow	
117	OFFICE	EXISTING -							\longrightarrow	
118	OFFICE	EXISTING -							\longrightarrow	
119	OFFICE	EXISTING -							\longrightarrow	
120	CONFERENCE	EXISTING -							\longrightarrow	
121	OFFICE	EXISTING -							\longrightarrow	
122	OFFICE	EXISTING -							\longrightarrow	
123	OFFICE	EXISTING -							\rightarrow	
124	OFFICE	EXISTING -							\longrightarrow	
125	OFFICE	EXISTING -							\longrightarrow	
126	OFFICE	EXISTING -							\rightarrow	
127	OFFICE	EXISTING -							\longrightarrow	
128	OFFICE	EXISTING -							\longrightarrow	
129	OPEN OFFICE	EXISTING -							\longrightarrow	
130	OFFICE	EXISTING -							\rightarrow	
131	OPEN OFFICE	EXISTING -							\longrightarrow	
132	BREAK	VCT	VL	4"	GWB	PT	EXISTING		\longrightarrow	
133	ADMIN	EXISTING -							\longrightarrow	

* ALL INTERIOR FLOOR FINISH SHALL BE NOT LESS THAN CLASS II

N ALC	DOOM NAME	FLOOR	BAS	SE	WAI	LLS	CE	LIN	G	DEMARKO
MK	ROOM NAME	MAT	МАТ	НТ	MAT	FIN	MAT	FIN	нт	REMARKS
SUITE #50)5W	•								
100	RECEPTION	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
101	CONFERENCE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
102	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
103	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
104	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
105	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
106	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
107	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
108	OFFICE	CPT1	VL	4"	GWB	PT	ACT1		9'-0"	
109	OPEN OFFICE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
110	OPEN OFFICE	CPT1	WD	4"	GWB	PT	ACT1		9'-0"	
111	TELCO	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
112	COPY/FAX	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
113	BREAK	VCT	VL	4"	GWB	PT	ACT1		9'-0"	
114	OPEN OFFICE	EXISTING -							\rightarrow	
115	OFFICE	EXISTING -							\rightarrow	
116	OFFICE	EXISTING -							\rightarrow	
117	OFFICE	EXISTING -							\rightarrow	
118	OFFICE	EXISTING -							\rightarrow	
119	OFFICE	EXISTING -							\rightarrow	
120	CONFERENCE	EXISTING -							\rightarrow	
121	OFFICE	EXISTING -							\rightarrow	
122	OFFICE	EXISTING -							\rightarrow	
123	OFFICE	EXISTING -							\rightarrow	
124	OFFICE	EXISTING -							\rightarrow	
125	OFFICE	EXISTING -							$\qquad \qquad \longrightarrow$	
126	OFFICE	EXISTING -							$\overline{\hspace{1cm}}$	
127	OFFICE	EXISTING -							$\qquad \qquad \longrightarrow$	
128	OFFICE	EXISTING -							$\overline{}$	
129	OPEN OFFICE	EXISTING -							\rightarrow	
130	OFFICE	EXISTING -							\rightarrow	
131	OPEN OFFICE	EXISTING -							\rightarrow	
132	BREAK	VCT	VL	4"	GWB	PT	EXISTING		$\qquad \qquad \longrightarrow$	
133	ADMIN	EXISTING -							\rightarrow	

* ALL NEW FINISHES ARE TO MATCH SUITE #1202 EXISTING FINISHES

* ALL NEW FINISHES T.B.D. BY TENANT

* ALL INTERIOR WALL AND CEILING FINISHES TO HAVE A MIN CLASS "C" FLAME SPREAD CLASSIFICATION

* SAMPLES ARE REQUIRED TO BE APPROVED PRIOR TO ORDERING

BREAK (#118) ELEVATION

inc

design

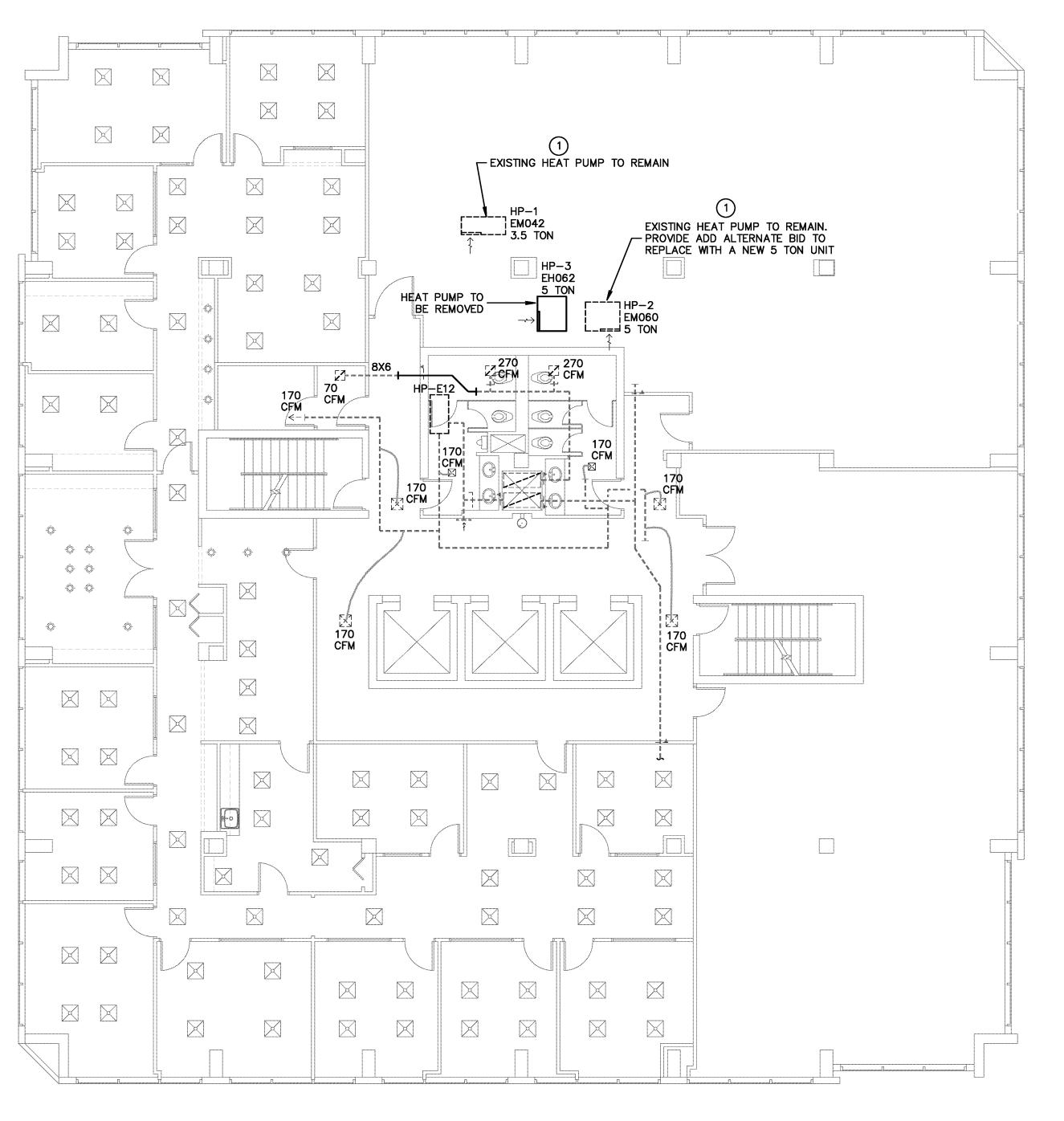
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OXBOW EXPANSION

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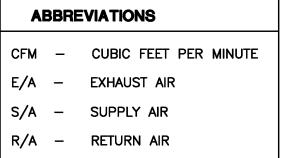
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EXISTING HVAC FLOOR PLAN

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

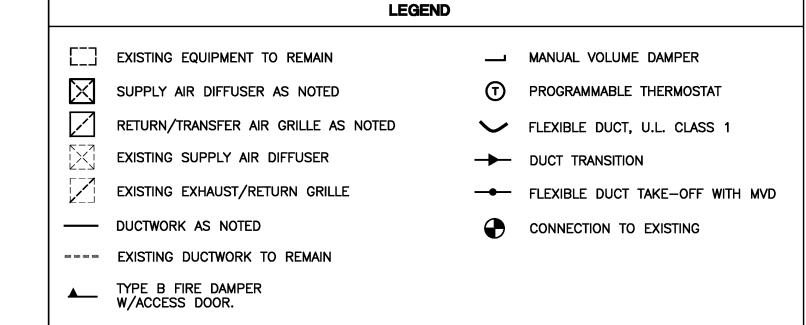


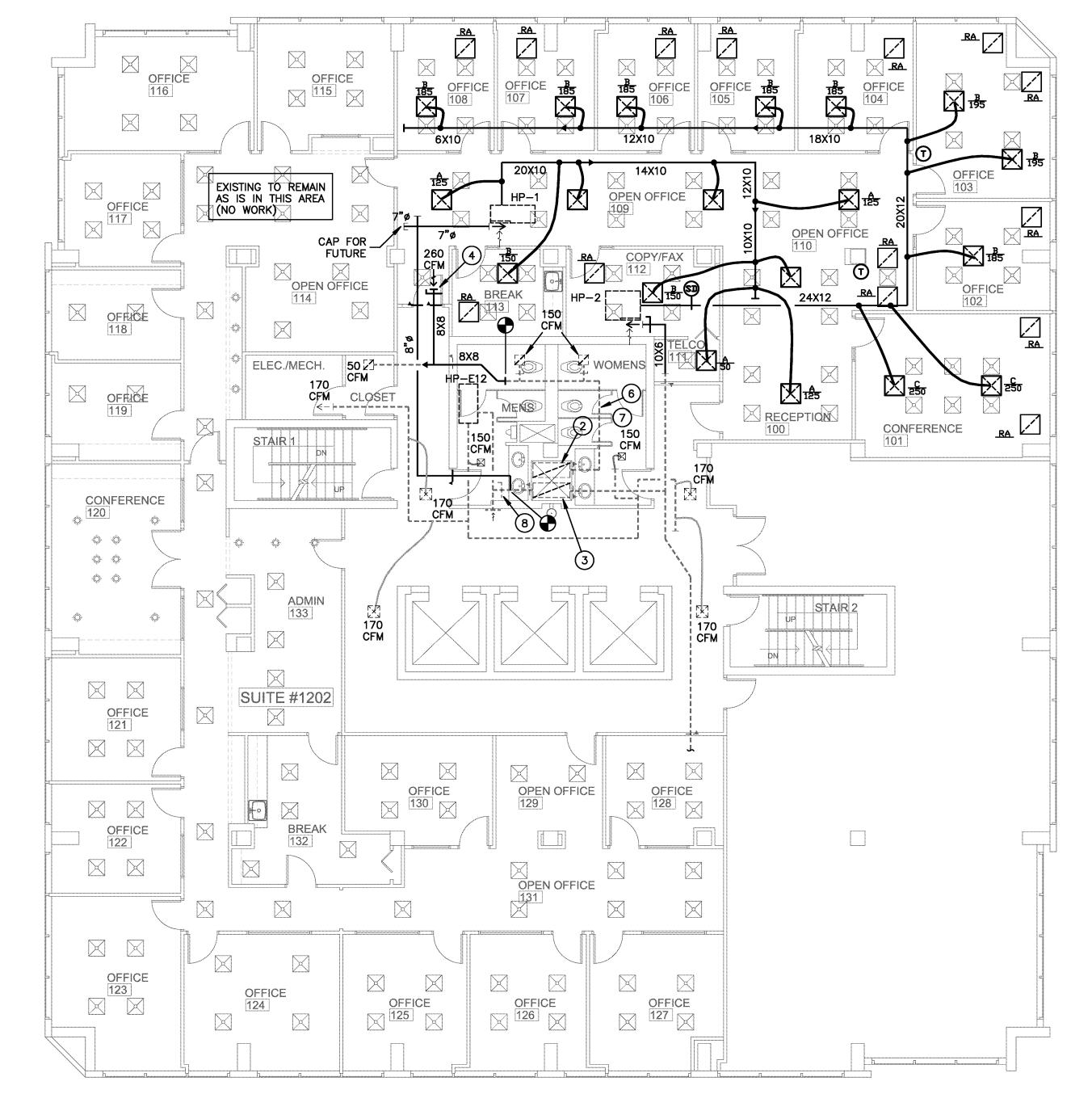
MVD - MANUAL VOLUME DAMPER

HP - HEAT PUMP A/C UNIT

E - EXISTING

R - RELOCATED





PROPOSED HVAC FLOOR PLAN

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

HVAC CONTROLS NOTE

AIR CONDITIONING CONTRACTOR SHALL PROVIDE OR CAUSE TO BE PROVIDED ALL CONTROLS, CONTROL WIRING & CONDUIT, POWER WIRING & CONDUIT, AND ALL OTHER ITEMS NECESSARY FOR INSTALLATION AND CONTROL OF HEAT PUMP AIR CONDITIONING UNITS. IN ADDITION, CONTRACTOR SHALL PROVIDE INTERFACE WITH THE EXISTING EMS SYSTEM COMPUTER GRAPHICALLY DEPICTING MECHANICAL LAYOUT WITH ON SCREEN DISPLAYS THAT ARE CONTROLLED BY THE EXISTING ENERGY MANAGEMENT SYSTEM (EMS). A COMPLETE AND OPERATIONAL CONTROL SYSTEM IS TO BE PROVIDED. VERIFY ALL DETAILS AND REQUIREMENTS WITH THE BUILDING EMS PROVIDER PRIOR TO BID.

THE CEILING SPACE THROUGHOUT THIS PROJECT IS A RETURN AIR PLENUM. NO COMBUSTIBLE OR TOXIC MATERIALS ARE ALLOWED ABOVE THE CEILING.

DRAWING KEYNOTES:

- 1 EXISTING HEAT PUMP A/C UNIT TO REMAIN. PROVIDE ANY REQUIRED MAINTENANCE, THOROUGHLY CLEAN THE UNIT INSIDE AND OUT, INCLUDING THE COILS AND ALL OTHER COMPONENTS, USING A VACUUM AND APPROPRIATE NON—CORROSIVE MATERIALS. STRAIGHTEN ANY BENT COIL FINS AND REPLACE ANY MISSING HARDWARE. PROVIDE NEW FILTER AND VERIFY PROPER OPERATION.
- 2 EXHAUST AIR DUCT UP TO ROOF FAN, TO REMAIN AS IS
- 3 OUTSIDE AIR DUCT UP TO ROOF FAN, TO REMAIN AS IS
- 4) PROVIDE NEW OUTSIDE AIR DUCT FOR HP-1 AS SHOWN.
- 5 OPEN ENDED EXHAUST DUCT STUBBED INTO PLENUM ABOVE CEILING, WITH FIRE DAMPER AND VOLUME DAMPER.
- (6) RE-BALANCE EXISTING EXHAUST AIR SYSTEM AS SHOWN.
- 7 ADJUST EXISTING SUPPLY AIR QUANTITY IN TOILETS AS SHOWN TO MATCH EXHAUST AIR QUANTITY.
- 8 ADJUST EXISTING VOLUME DAMPER TO PROVIDE 350 CFM OUTSIDE AIR TO HP-E12.

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MECHANICAL & ELECTRICAL ENGINEERS
129 N. FEDERAL HIGHWAY SUITE 202
Lake Worth, FL 33460 C.A.*009078
(561) 582-0210 Fax (561) 582-8212
RONALD D. GILMAN P.E. *37933

PROJ.# 10-035

30

irse design in

OXBOW EXPANSION
CENTURION TOWER
1601 FORUM PLACE #1202
WEST PALM BEACH, FL

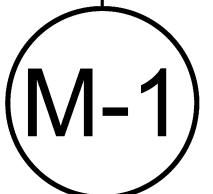
REVISIONS

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CD

12/23/10



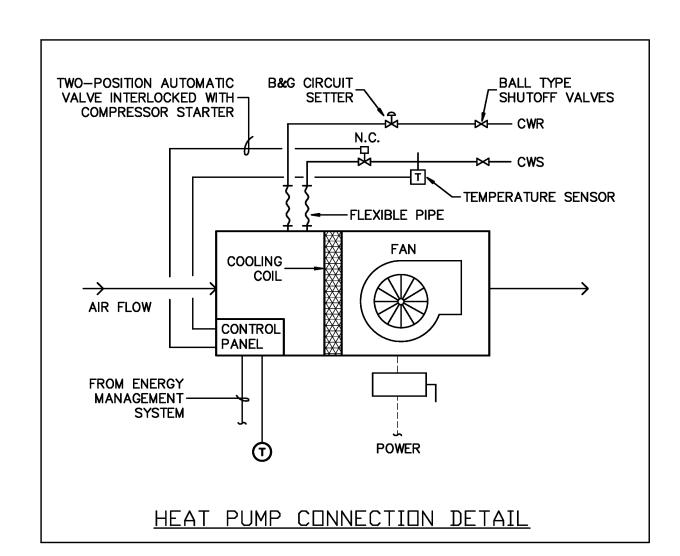
- THESE DRAWINGS ARE DIAGRAMMATIC. ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. DO NOT SCALE DRAWINGS FOR INSTALLATION.
- ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
- THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES PERMITS, AND TESTS.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL BID UNLESS FAMILIAR WITH THESE CODES.
- CORRECTION OF DEFECTS TO THIS WORK SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER. REPAIR AND REPLACEMENT FOR DAMAGE CAUSED BY THIS CONTRACTOR SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER.
- ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB-CONTRACTORS, SUCH AS ELECTRICAL, INSULATING, TEST & BALANCE, ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- EQUIPMENT SHALL BEAR A U.L. OR OTHER RECOGNIZED LABEL, NAMEPLATES, WIRING DIAGRAMS, AND ENERGY RATINGS AS APPLICABLE.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READLY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
- 10. THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE AGAINST DEFECTS IN ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM ACCEPTANCE, WITH FOUR ADDITIONAL YEARS OF WARRANTY ON COMPRESSORS.
- 11. THE CONTRACTOR SHALL PROVIDE THREE COPIES OF SUBMITTAL DATA, SHOP DRAWINGS, AND AT COMPLETION OF THE PROJECT TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL PROJECT ITEMS.
- 12. PROVIDE ALL CONTROLS, STARTERS, CONTROL WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 13. THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A DETAILED AS-BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND TO THE OWNER.
- 14. PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY AN INDEPENDENT NEBB CERTIFIED T&B CONTRACTOR EXPERIENCED WITH THIS SYSTEM, AND CERTIFIED T&B REPORTS SUBMITTED.
- 15. SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
- 16. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- 17. ALL GRILLES TO BE TITUS OR METALLAIRE UNLESS OTHERWISE NOTED, SIZES AS SHOWN ON PLANS, ALUMINUM CONSTRUCTION.
- 18. ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
- 19. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- 20. ALL OUTSIDE AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- 21. ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- 22. FLEXIBLE DUCT, WHERE SHOWN, SHALL BE U.L. CLASS 1, R-6 INSULATION.
- 23. LOW PRESSURE SUPPLY AND RETURN DUCTWORK IS RIGID DUCTBOARD WITH VAPOR BARRIER, 1 IN. THICK, R-4.2 INSULATION, EXCEPT AS NOTED.
- 24. PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
- 25. PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
- 26. VERIFY ALL THERMOSTAT LOCATIONS WITH THE ARCHITECT.

	AIR DISTRIBUTION SCHEDULE												
MARK	MAKE	MODEL	SIZE	NECK	MATERIAL	BORDER TYPE	MOUNTING TYPE	DAMPER	THROW	FINISH			
Α	TITUS	PAS-AA	24X24	6 " ø	ALUMINUM	3	LAY-IN	AG-85	4 WAY	WHITE			
В	TITUS	PAS-AA	24X24	8 " ø	ALUMINUM	3	LAY-IN	AG-85	4 WAY	WHITE			
С	TITUS	PAS-AA	24X24	10 " ø	ALUMINUM	3	LAY-IN	AG-85	4 WAY	WHITE			
RA	TITUS	PAR-AA	24X24	22X22	ALUMINUM	3	LAY-IN	_	_	WHITE			

FOR ROUND NECK GRILLES, PROVIDE ROUND FLEXIBLE DUCT TO MATCH GRILLE NECK, UNLESS SHOWN OTHERWISE. PROVIDE INTEGRAL VOLUME DAMPERS WHERE SHOWN ON PLAN OR WHERE DAMPER IN S/A DUCTWORK IS NOT ACCESSIBLE ABOVE CEILING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING ANY EQUIPMENT PROVIDE SURFACE MOUNT GRILLES WHERE REQUIRED DUE TO FIELD CONDITIONS.

VENTILATION CALCULATIONS											
SYSTEM	HF	P-1	HP	-2							
AREA TYPE	BREAK	OFFICE	CONFERENCE	OFFICE							
SQUARE FEET OF AREA	98	1,040	292	1,100							
CFM/SQ.FT. REQUIRED	0.06	0.06	0.06	0.06							
TOTAL OCCUPANTS	3	5	15	7							
CFM/PERSON REQUIRED	5	5	5	5							
ZONE CFM REQUIRED	21	92	93	101							
TOTAL SYSTEM CFM		113		194							
NOTES											

1. ABOVE CALCULATIONS AND OCCUPANCY RATES PER ASHRAE 62.1, 2007

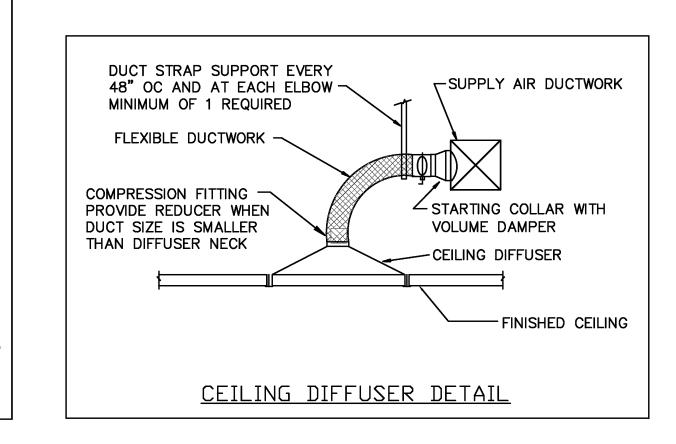


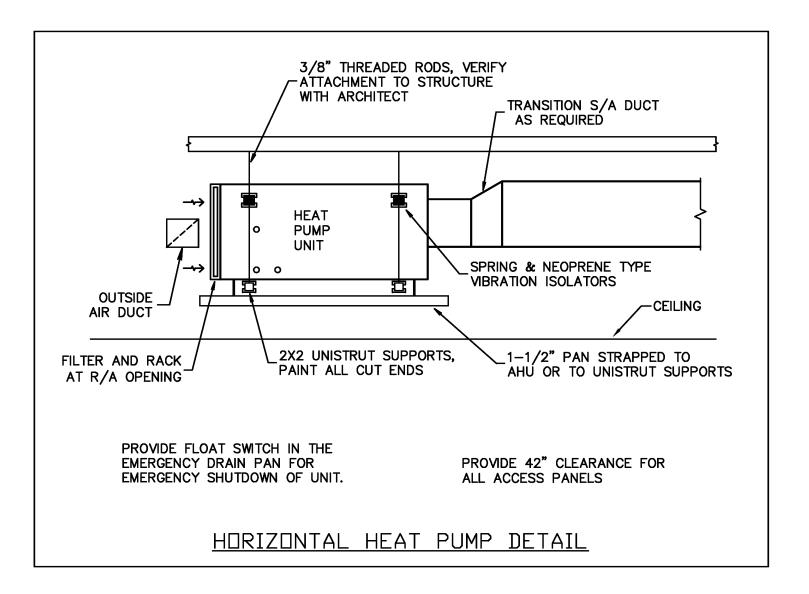
(ADD ALTERNATE BID)

HORIZONTAL HEAT PU A/C UNIT SCHEDULE	
A/C UNIT TAG NO.	HP # 2
MANUFACTURER	FHP
MODEL NO.	ES061
TOTAL SENSIBLE M.B.H.	45.7
TOTAL COOLING M.B.H.	60.1
HEATING CAPACITY	72
ENT AIR TEMP. DB/WB- *F	80/67
SUPPLY AIR CFM @ EXT. S.P.	2000/0.6
OUTSIDE AIR CFM	194
EER	14.2
GPM	15.0
UNIT SIZE (WxLxH)	30X68X22
OPERATING WEIGHT LBS.	390
MCA	18.0
MAX. FUSE SIZE	25
POWER VOLT-PH-HZ	460-3-60
COMPRESSORS:	
NO. OF COMPRESSORS	1
NO. OF STEPS	2
NOMINAL TONS	5.0
R.L.A. EACH	10.0
INDOOR FANS:	
NO. OF FAN(S)	1
NO. OF FAN MOTOR(S)	1
FAN MOTOR H.P. EACH	3/4
FAN MOTOR F.L.A. EACH	5.5
ACCESSORIES AND NOTES: HANGERS TO HAVE SPRING VIBRATION ISOLATORS. HIGH TEMPERATURE & PRESSURE NYLON HOSE KIT WITH BALL VALVES, STAINLESS STEEL CLAMPS AND BRASS FITTINGS	

GENERAL DEMOLITION NOTES

- UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND DUCTWORK IN THE PROJECT AREA WHICH IS NOT INDICATED TO REMAIN, IS TO BE REMOVED. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT AREA PRIOR TO BID TO DETERMINE ALL REQUIRED
- EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS AND FIELD INVESTIGATION. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. FIELD CONDITIONS SHALL GOVERN.
- DEMOLITION WORK IS NOT SPECIFICALLY IDENTIFIED ON THESE PLANS, AND MAY BE DESCRIBED ON THE ARCHITECTS PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
- 4. ALL MECHANICAL SYSTEMS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES.
- . ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE DISPOSED OF OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.
- B. PROPERLY REMOVE AND DISPOSE OF ALL HVAC DUCTWORK AND AIR DISTRIBUTION DEVICES WHICH ARE TO BE REMOVED. CONSULT WITH OWNER AND OBTAIN THE OWNER'S APPROVAL PRIOR TO DISPOSAL OF REMOVED MATERIAL.
- . IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL PIPING AND DUCTS, NEW OR EXISTING, WITHIN THE PROJECT AREA, ARE PROPERLY SUPPORTED.
- . ANY UN-USED DUCT OPENINGS ARE TO BE CLOSED, SEALED AND INSULATED WITH MATERIALS AND METHODS TO MATCH EXISTING INSTALLATIONS.





HVAC DETAILS AND NOTES

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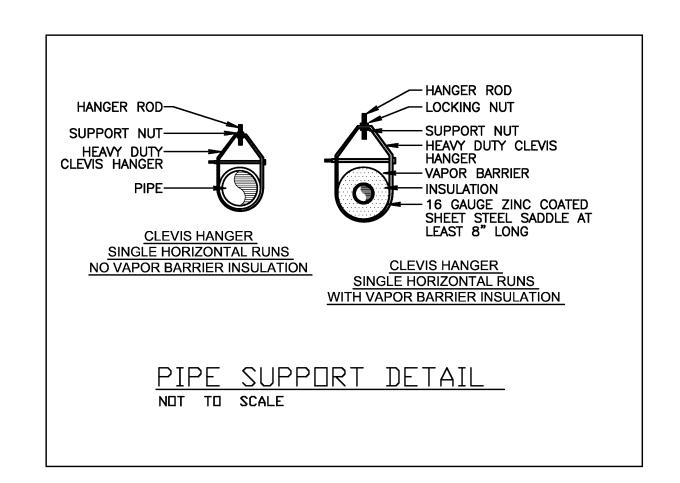
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PROJ.# 10-035

REVISIONS

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PLUMBING GENERAL NOTES:

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. ALL MATERIAL SHALL BE NEW.
- ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE
- 5. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- REQUIRED INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION & TESTS.
- DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC. 9. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/
- ARCHITECT PRIOR TO BEGINNING CONSTRUCTION 10 VERIFY LOCATION, SIZE, INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINING
- CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.

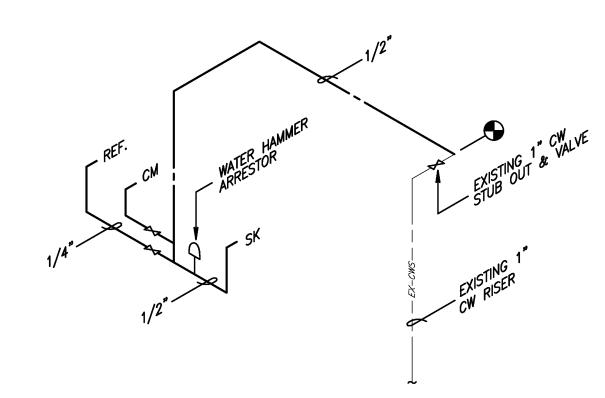
 11. WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" & UNDER & TYPE "K"

 COPPER FOR 2-1/2" AND ABOVE. ALL UNDERGROUND WATER PIPING SHALL BE TYPE "K" COPPER.
- 12 SOIL, WASTE, VENT AND STORM DRAIN PIPING SHALL BE CAST IRON NO HUB 301-72 ABOVE GRADE AND SCH. 40 PVC BELOW GRADE. 13. CONDENSATE DRAIN TO BE COPPER DRAIN, WASTE & VENT FITTINGS. INSULATE ALL
- CONDENSATE EXCEPT UNDERGROUND. 14. INSULATE PER A.D.A. ALL EXPOSED HANDICAP LAVATORIES DRAIN PIPING AND HOT & COLD STOP AND SUPPLIES. COVERS SHALL BE SOFT, REMOVABLE AND UPC APPROVED.
- MANUFACTURE: PLUMBEREX HANDY-SHIELD, TRU-BRO OR PRO-SERIES. 15. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS & APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR
- FURNISH AND INSTALL A SIOUX CHIEF HYDRA-RESTER AT EACH GROUP OF FIXTURES.
- DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS.
- 18. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD. (HAIR FELT LINING).
- 19. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE & WALL/FLOOR SLEEVES WITH U.L. APPROVED FIRE/SMOKE/WATER SEALANT. 20. CONTRACTOR SHALL GUARANTEE ALL MATERIALS & WORKMANSHIP FREE FROM
- DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
- 21. PROVIDE 1/2" TRAP PRIMER LINE FOR ALL FLOOR DRAINS FROM THE NEAREST PLUMBING FIXTURE OR PROVIDE SIOUX CHIEF #695 TRAP PRIMER. 22. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND ALL WATER HAMMER
- ARRESTERS. ACCESS PANELS IN RATED WALLS MUST MAINTAIN THE SAME RATING & MUST MATCH THE FINISH OF THE WALL IN WHICH IT IS INSTALLED. 23. PROVIDE CHROME PLATED COMBINATION COVER PLATE & CLEANOUT PLUG OR
- ACCESS PANEL FOR ALL WALL CLEANOUTS ZURN ZS-1469 SERIES C.O. OR OTHER APPROVED ACCESS PANEL. 24. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING
- SPACES WHERE USED AS RETURN AIR PLENUMS. 25. ALL PLUMBING FIXTURES SHALL MEET STATE AND LOCAL CODES.

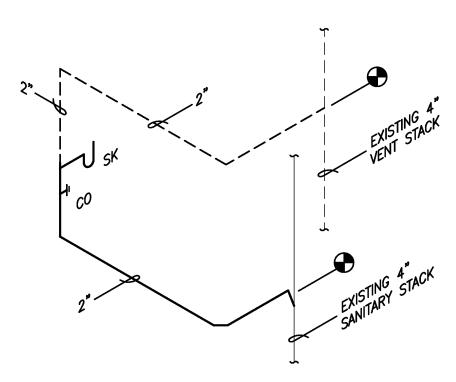
SYMBOLS & ABBREVIATIONS

CONDENSATE LINE HOT WATER PIPE COLD WATER PIPE SOV GATE VALVE (SHUT-OFF VALVE) SANITARY LINE EXISTING SANITARY LINE EXISTING COLD WATER SUPPLY LINE REFRIGERATOR REF CM COFFEE MACHINE WATER HAMMER ARRESTOR WHA

CONNECTION TO EXISTING SYSTEMS



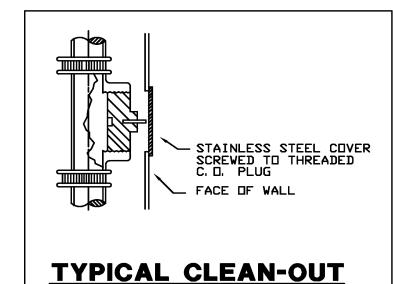
WATER ISOMETRIC



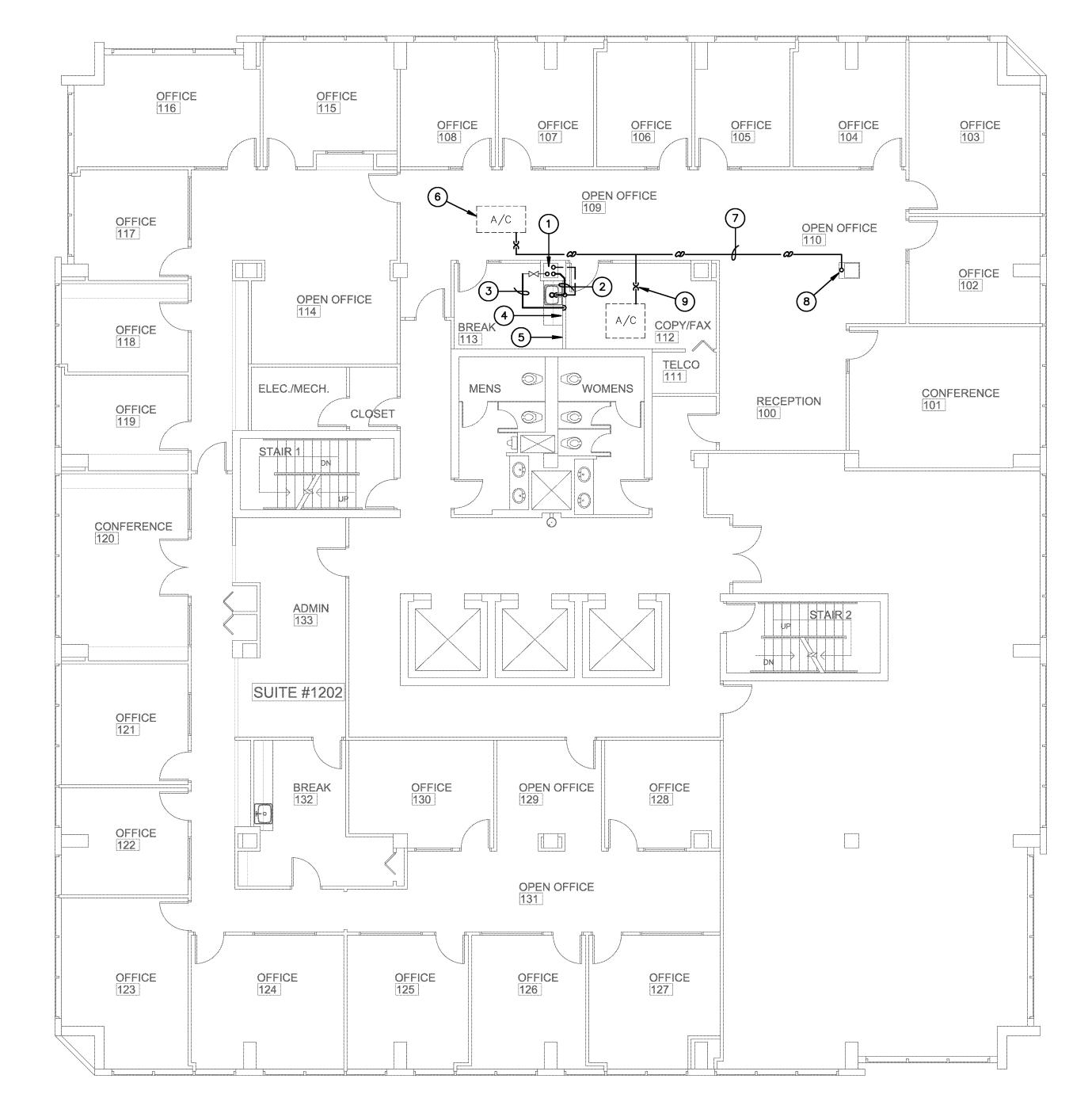
SANITARY ISOMETRIC

DRAWING KEYNOTES:

- 1 EXISTING WET COLUMN WITH STUB-OUTS FOR SANITARY, VENT AND COLD WATER PIPING CONNECTIONS.
- (2) SANITARY PIPING RUNS THROUGH WALL TO EXISTING STACK.
- 3 PIPING RUNS ABOVE DROPPED CEILING, FIELD VERIFY EXACT ROUTE THROUGH EXISTING CONDITIONS.
- (4) PROVIDE 1/4" CW SUPPLY FOR COFFEE MAKER, WITH SOV IN CABINET BELOW SINK. PROVIDE 10' OF SOFT COPPER TUBING COILED INSIDE CABINET AT THIS LOCATION FOR FUTURE CONNECTION BY TENANT.
- 5 PROVIDE 1/4" CW SUPPLY FOR REFRIGERATOR ICE MAKER, WITH SOV IN CABINET BELOW SINK. PROVIDE 10' OF SOFT COPPER TUBING COILED AT REFRIGERATOR LOCATION FOR CONNECTION BY TENANT.
- (6) AIR HANDLING UNIT ABOVE CEILING, COORDINATE WITH HVAC CONTRACTOR. (TYPICAL OF 2)
- CONDENSATE DRAIN PIPING RUNS THROUGH CEILING SPACE. REMOVE EXISTING CONDENSATE PUMPS AND ALL ASSOCIATED PIPING. FIELD VERIFY WITH LANDLORD BASED ON NEW CEILING HEIGHTS.
- (8) CONNECT TO EXISTING CONDENSATE RISER.
- (9) PROVIDE TRAP WITH PERFORATED VENT CAP. (TYPICAL)



PLUMBING FIXTURE SCHEDULE (AMERICAN STANDARD OR EQUAL) <u>FIXTURE</u> <u>ACCESSORIES</u> SINGLE BOWL - JUST JUST #J-1174-KS FAUCET, KITCHEN SINK #J-35-ADA COMPLETE DRAIN #SL-ADA-1921-A-GR ASSEMBLY, SUPPLY PIPES. 6.5" DEEP MCGUIRE ANGLE STOPS & ADJUSTABLE "P" TRAP INSULATE DRAIN AND SUPPLY PIPES BELOW SINK. MAXIMUM FLOW RATES 1 1/2" 2.0 GPM



PROPOSED PLUMBING FLOOR PLAN

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

PROJ.# 10-035

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12/23/10

ELECTRICAL NOTES

- 1. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNERS REPRESENTATIVE.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE NFPA-70 (2008), THE LIFE SAFETY CODE NFPA-101 (2006), THE NATIONAL FIRE ALARM CODE NFPA-72 (2002), AND THE FLORIDA BUILDING CODE (FBC 2007 WITH 2009 SUPPLEMENTS).
- 3. MINIMUM WIRE SIZE SHALL BE #12 A.W.G., EXCLUDING CONTROL WIRING. UNLESS OTHERWISE NOTED ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.
- 4. DUTLET BOXES SHALL BE SHEET STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES AS REQUIRED FOR OTHER CLASSIFIED AREAS.
- 5. DISCONNECT SWITCHES SHALL BE H.P. RATED , HEAVY DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
- 6. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC , WITH OVERLOAD RELAYS IN EACH HOT LEG.
- 7. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECCESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING
- 8. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C.
- 9. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
- 10. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE , AND ACCEPTED BY ENGINEER/ARCHITECT.
- 11. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGESS OF CONSTRUCTION.
- 12. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- 13. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- 14. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILTY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 15. CONTRACTOR SHALL PAY FOR ALL PERMITS , FEES , INSPECTIONS , AND TESTING
- 16. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
- 17. FURNISH AND INSTALL DISCONNECT SWITCHES AND WIRING FOR AIR CONDITIONING SYSTEM AS PER MANUFACTURERS RECOMMENDATIONS. CONTROLS ARE TO BE SUPPLIED BY AIR CONDITIONING CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR.
- 18. ALL RACEWAYS UNDERGROUND SHALL BE A MINIMUM OF 3/4"CONDUIT.
- 19. ALL CIRCUIT BREAKERS , TWO AND THREE POLE , TO BE COMMON TRIP. NO TIE HANDLES , OR TANDEMS WILL BE ACCEPTED.
- 20. ALL FUSES , UNLESS NOTED ON DRAWING , SHALL BE CURRENT LIMITING (C.L.) RATED FOR 200,000 A.I.C.
- 21. ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR THE INTENDED USE, WITH UNDERWRITER'S LABORATORIES, INC. (UL),
- WHERE STANDARDS HAVE BEEN ESTABLISHED BY UL.

 22. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN, ON SITE, A DETAILED AS-BUILT PLAN SHOWING ACTUAL INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND THE OWNER.
- 23. ALL WIRING IS TO BE IN CONDUIT. CABLES ARE NOT ACCEPTABLE EXCEPT WHERE USED FOR FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES IN LENGTHS UP TO SIX FEET MAXIMUM.

ELECTRICAL LEGEND

LIGHTING FIXTURE IDENTIFICATION

RECTANGULAR LIGHTING FIXTURE - AS NOTED

RECTANGULAR LIGHTING FIXTURE - EXISTING AS NOTED

ROUND LIGHTING FIXTURE

DIRECTIONAL LIGHTING FIXTURE

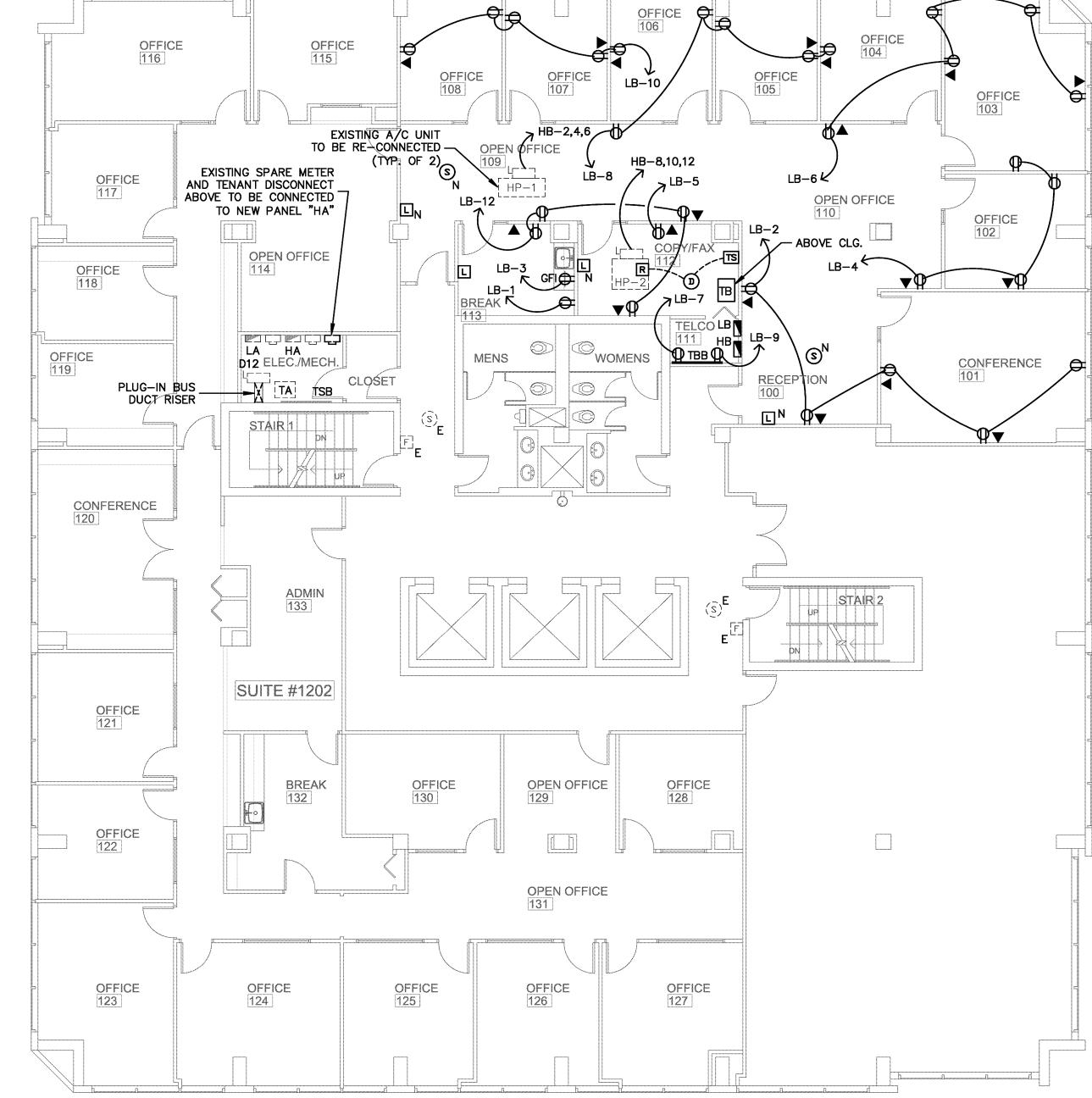
O+ WALL MOUNTED LIGHTING FIXTURE

- € EXIT LIGHT WITH EMERGENCY BATTERY BACKUP
- EMERGENCY LIGHTING FIXTURE WITH BATTERY BACKUP
- RECTANGULAR LIGHTING FIXTURE ON EMERGENCY POWER CIRCUIT
- ROUND LIGHTING FIXTURE ON EMERGENCY POWER CIRCUIT
- DUPLEX RECEPT 20 AMP (18" A.F.F.)
- SINGLE RECEPT 20 AMP (18" A.F.F.)
- DUPLEX RECEPT MOUNTED ABOVE COUNTER 20 AMP (42° A.F.F.)
- O DUPLEX RECEPT FLUSH FLOOR MOUNTED 20 AMP
- SPECIAL PURPOSE RECEPT (18" A.F.F. MATCH EQUIPMENT PROVIDED)
- QUAD-PLEX RECEPT 20 AMP (18" A.F.F.)
- \$ SINGLE POLE TOGGLE SWITCH, 48" AFF
- $\$_3$ 3-WAY TOGGLE SWITCH, 48" AFF
- DIMMER SWITCH TO MATCH LOAD REQUIREMENT, 48" AFF
- JUNCTION BOXES
- 3100 T FUSIBLE DISCONNECT (SWITCH POLES, AMPS/FUSES AS SHOWN)
- \$m MOTOR RATED SWITCH (WITH OVERLOADS)
- DM MOTOR KHIED SMITCH (MITH DAEKEDADS
- ELECTRICAL PANELBUARD

 MUTUR LUAD
- CIRCUIT HOME RUN TO PANELBOARD OR OTHER DEVICE AS INDICATED
- CONDUIT CONCEALED
- EXISTING CIRCUIT AS NOTED
- E--- CAPPED CONDUIT
- TELEVISION OUTLET (18" A.F.F.)
- ▼ TELEPHONE/DATA OUTLET (18" A.F.F.)
- TEL/DATA DUTLET FLUSH FLOOR MOUNTED
- EXISTING DUPLEX RECEPTACLE TO REMAIN.
- EXISTING TELEPHONE/DATA OUTLET TO REMAIN

 EXISTING PENJOR TO DEMAIN LINESS NOTER OTHERWALL
- EXISTING DEVICE TO REMAIN, UNLESS NOTED OTHERWISE
- EXISTING DEVICE TO BE RELOCATED

 EXISTING DEVICE IN NEW LOCATION
- DCCUPANCY SENSOR WITH MANUAL SWITCH, HUBBELL LHMTS1, 48" AFF
-) OCCUPANCY SENSOR, CEILING MOUNT, HUBBELL OMNI DT-2000



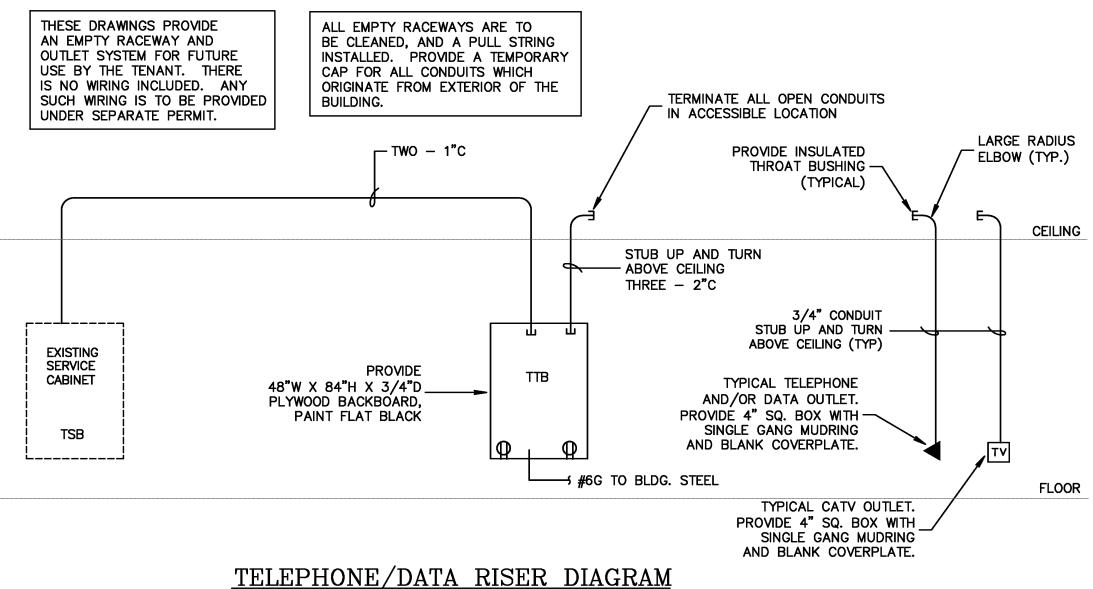
<u>FIRE ALARM LEGEND</u>

- F MANUAL PULL STATION 48" AFF
- WALL MOUNT SPEAKER/STROBE
 80" AFF TO BOTTOM
- ADA COMPLIANT STROBE LIGHT 80" AFF TO BOTTOM
- S CEILING MOUNTED SPEAKER
- D DUCT SMOKE DETECTOR W/O RELAY
- R CONTROL MODULE OUTPUT RELAY
- TS REMOTE TEST & INDICATOR SWITCH FOR DUCT SMOKE DETECTOR

AUDIBLE ALARMS SHALL HAVE A MINIMUM LEVEL OF 15 DBA IN EXCESS OF THE AMBIENT SOUND LEVEL OF THE ROOM, AND SHALL OTHERWISE BE IN ACCORDANCE WITH FBC 11-4.28.2.

VISUAL ALARMS SHALL HAVE A MINIMUM LEVEL OF 75 CANDELA AND SHALL OTHERWISE BE IN ACCORDANCE WITH FBC 11-4.28.3.

PROVIDE A RE—CERTIFICATION OF THE FIRE ALARM SYSTEM UPON COMPLETION OF WORK.



PROPOSED ELECTRICAL FLOOR PLAN

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

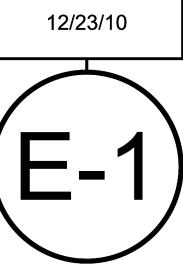
THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL NEW AND EXISTING ELECTRICAL SYSTEMS, FIXTURES, DEVICES, AND OTHER EQUIPMENT RELATED TO THIS TENANT SPACE ARE IN GOOD WORKING ORDER. REPAIR AS NEEDED.

NEW FIRE ALARM DEVICES ARE TO BE COMPATIBLE WITH EXISTING SYSTEM. PROVIDE ADDITIONAL POWER SUPPLIES AS REQUIRED. PROVIDE ADDITIONAL HORNS AND STROBES AS REQUIRED TO MEET AUDIBLE AND VISIBLE REQUIREMENTS OF NFPA 72, ADA, AND NFPA 101. VERIFY EXISTING POINT OF CONNECTION TO EXISTING SYSTEM.

ilman & Associates, Inc.

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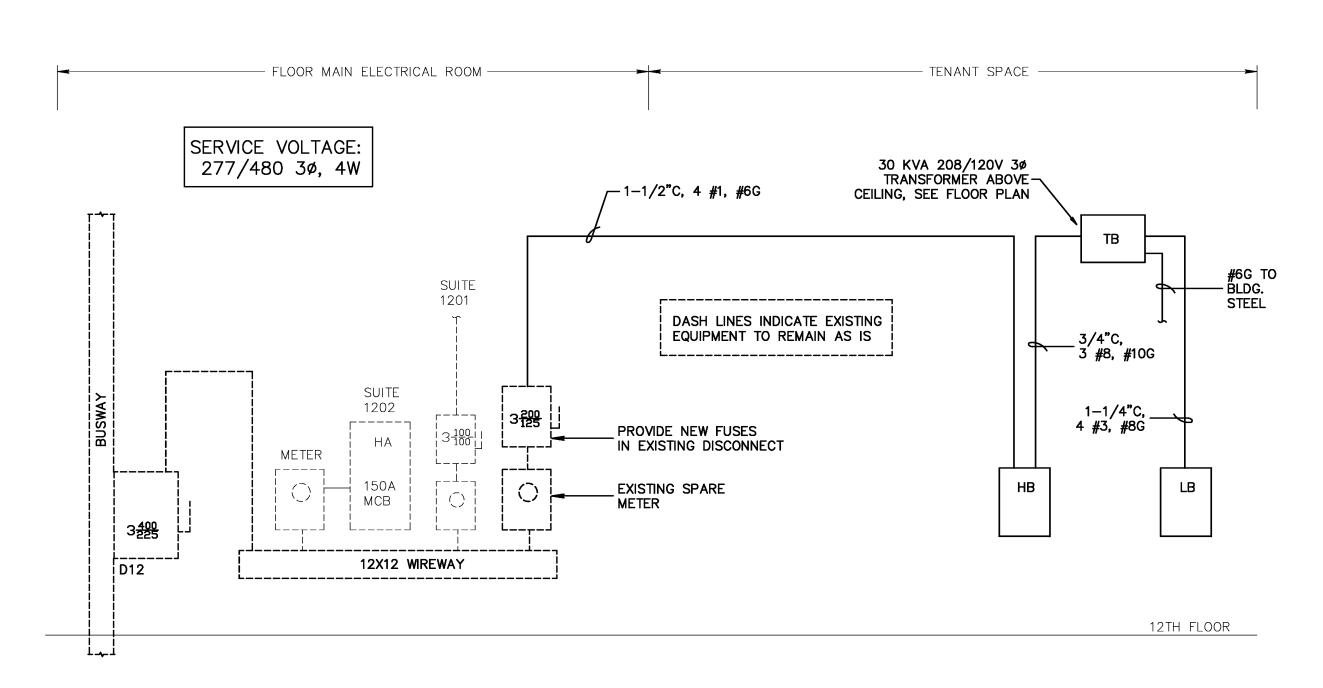
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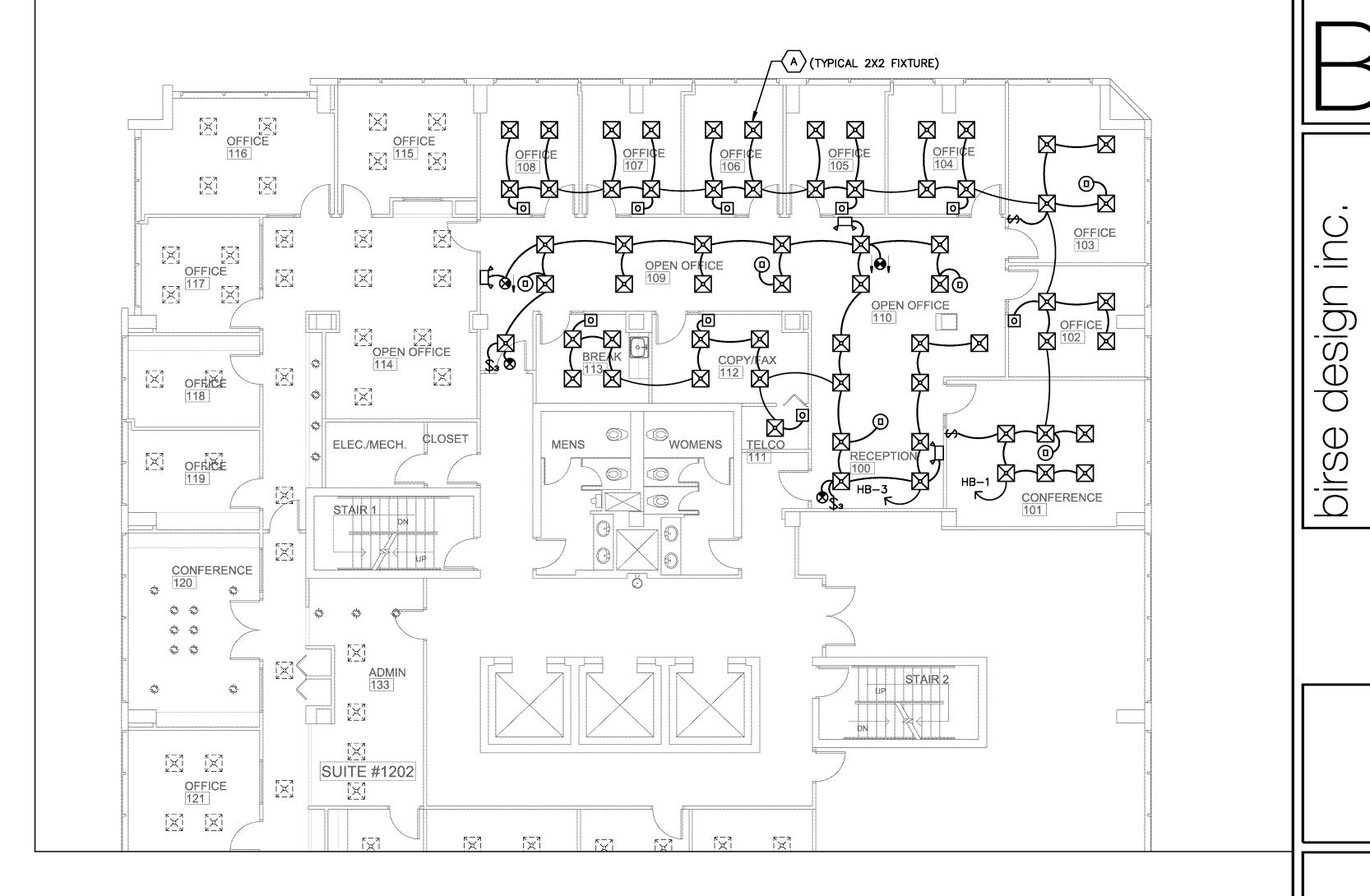
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RISER DIAGRAM

TYPE	_	QUARE			PAN			I D			BUS: : RAL: I	100 AMP	
	TING: F		5, 3W.	4 W	PAN			<u> </u>		MAINS		LOO AMP	C D
													C.B.
POLE		30		T		TI	T			A.I.C.		lok Tabuba T	
DEM. KVA	OTHER KVA	TRIP POLE		WIRE	REMARKS	CKT.	CKT NO.		MIKE	CON- DUIT		□THER KVA	DEM KV#
	0.8	20-1	1/2	12	REFRIGERATOR	1	2	RECEPTACLES ROOM 100,10	12	1/2	20-1	0.9	
	1.5	20-1	1/2	12	APPLIANCE CIRCUIT	3	4	RECEPTACLES 102,103,110	12	1/2	20-1	0.7	
	1.0	20-1	1/2	12	COPIER RECEPT. RM. 112	5	6	RECEPTACLES 103,104,110	12	1/2	20-1	0.9	
	0.3	20-1	1/2	12	TELEPHONE BOARD	7	8	RECEPTACLES 104-106,109	12	1/2	20-1	0.9	
	0.3	20-1	1/2	12	SERVER	9	10	RECEPTACLES 106,107,108	12	1/2	20-1	0.9	
					SPACE	11	12	RECEPTACLES 109,112,113	12	1/2	20-1	0.7	
						13	14	SPARE			20-1		
						15	16	SPARE			20-1		
						17	18	SPARE			20-1		
						19	20	SPACE					
						21	22						
						23	24						
						25	26						
						27	28						
					†	29	30	Y					
						31	35						
						33	34						
						35	36						
						37	38						
						39	40						
						41	42					-	
	3,9											5.0	
					TOTAL DEMAND LO	OAD:	8.9	0 KVA = 25 AMPS					

TYPE	ı S	QUARE				PAN	IF			HR		MAIN NEUTF		.25 AMF	>
	TING: F		·, ·.	,								MAINS		.UGS OI	NLY
POLE	S: 1	8										A.I.C.	1	4K	
DEM. KVA	□THER K∨A	TRIP POLE	CON- DUIT	WIRE	REMARKS		CK1	г.	CKT.	REMARKS	WIRE	CON- DUIT	TRIP POLE	□THER K∨A	DEM. KVA
1.3		20-1	1/2	12	LIGHTING RMS.	101-108	1	Н	2						
1.2		20-1	1/2	12	LIGHTING RMS.		3	+	4	HEAT PUMP #1	12	1/2	15-3	6.3	
		20-1			SPARE		5	\Box	6						
		20-1			SPARE		7	П	8						
					SPACE		9		10	HEAT PUMP #2	12	1/2	20-3	9.6	
					SPACE		11		12						
							13		14	SPACE					
	8.9	50-3			TRANSFORMER/I	PANEL L1	15	oxed	16	SPACE					
							<u> </u>	·Ш	18	SPACE					
2.5	8.9									7.4.1014				15.9	
					NO-DEM	AND LOAD:	2.5	X ·	1.25	= 3.1 KVA 24.8 KVA					
					TOTAL DEM	AND LOAD:				27.9 KVA = 34 AMPS	3				



PROPOSED LIGHTING FLOOR PLAN

		LIGHTING POWER COMPLIANCE (PER TABLE 13-415.2.B, FBC CHAPTER 13)											
SPACE TYPE	TOTAL AREA (SQ.FT.)	ALLOWANCE PER SQ.FT.	SUB-TOTAL ALLOWANCE	DESIGN									
OFFICE	1,984	1.1	2,182	1,632									
RECEPTION	184	1.3	239	204									
ELECT/MECH.	32	1.5	48	34									
CONF./MULTI	422	1.3	549	340									
TOTALS			3,018	2,535									

ALL OCCUPANCY SENSORS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE POWER PACKS, RELAYS, AND ANY OTHER ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERATION SYSTEM AS SHOWN, INCLUDING CONTROL OF MULTIPLE CIRCUITS AND 120 OR 277 VOLT SYSTEMS WHERE INDICATED.

> OCCUPANCY SENSORS SHALL TURN OFF THE SPACE LIGHTING WITHIN 30 MINUTES OF AN OCCUPANT LEAVING THE SPACE, IN ACCORDANCE WITH FBC 13-415.AB.1.1

THE CONTRACTOR IS RESPONSIBLE TO SET ALL OCCUPANCY SENSORS TO THE MAXIMUM ALLOWABLE DURATION

	LIGHTING FIXTURE SCHEDULE												
MARK	TYPE	MOUNT	LAMP	VOLT	MANUFACTURER	CATALOG	NOTES						
A	PARABOLIC TROFFER	RECESSED	(2)17WT8 35K	277	COLUMBIA	P4D22-217G-MA33-S- EU-GLR	39 WATTS						
8	EXIT LIGHT	SURFACE	BY MFGR.	277	DUAL LITE	LXURWE	12						
Image: Control of the	EMERGENCY LIGHTING	SURFACE	BY MFGR.	277	DUAL LITE	LZ2	2						

- 1 PROVIDE SINGLE OR DUAL FACE, WALL OR CEILING MOUNT, AS SHOWN ON PLANS. CONNECT FIXTURES TO UNSWITCHED HOT LEG OF LOCAL LIGHTING CIRCUIT.
- 2 PROVIDE BATTERY/INVERTER BACKUP FOR 90 MINUTES IN ACCORDANCE WITH NFPA REQUIREMENTS. CONNECT FIXTURES TO UNSWITCHED HOT LEG OF LOCAL LIGHTING CIRCUIT.

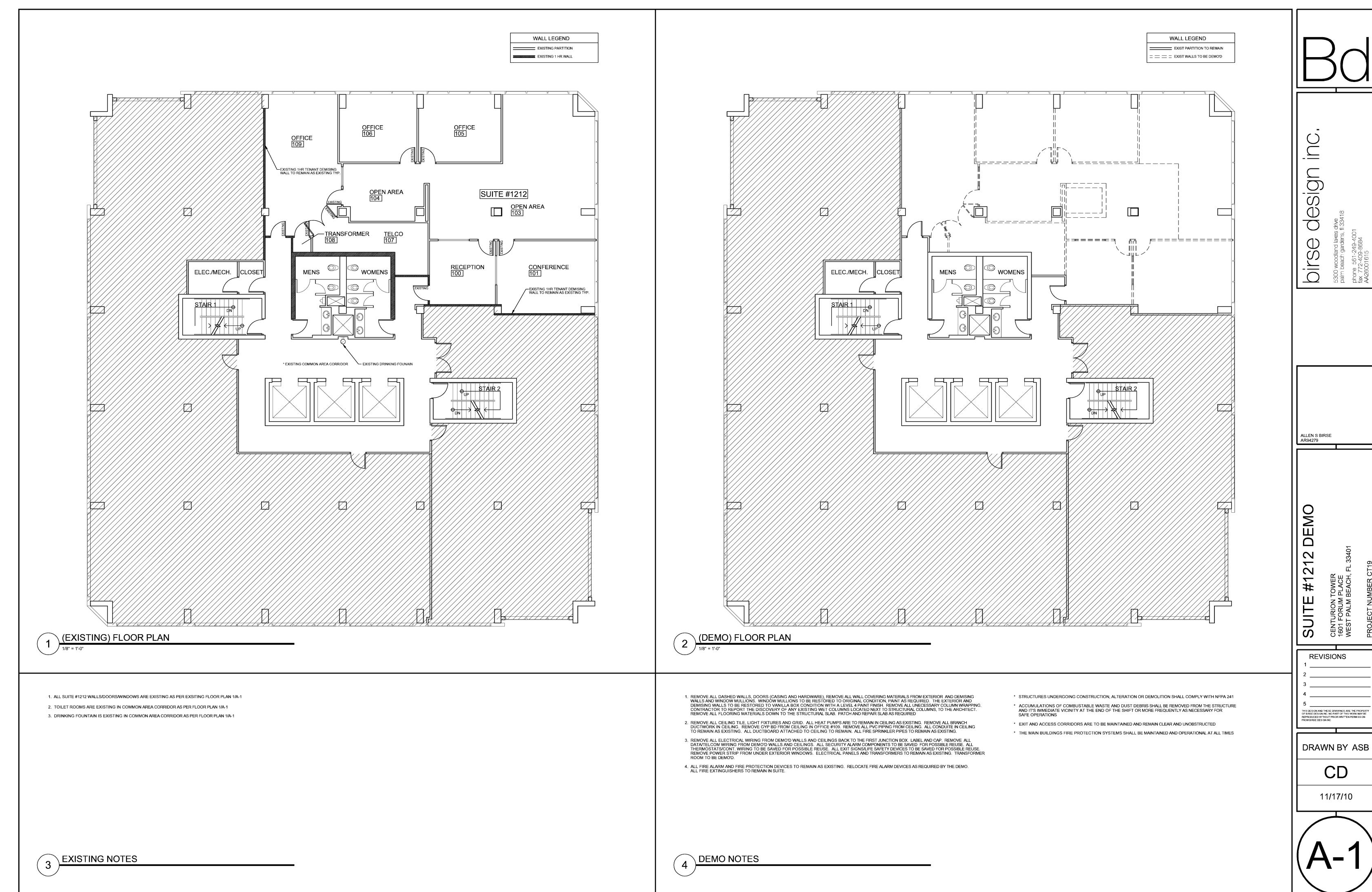
PROJ.# 10-035

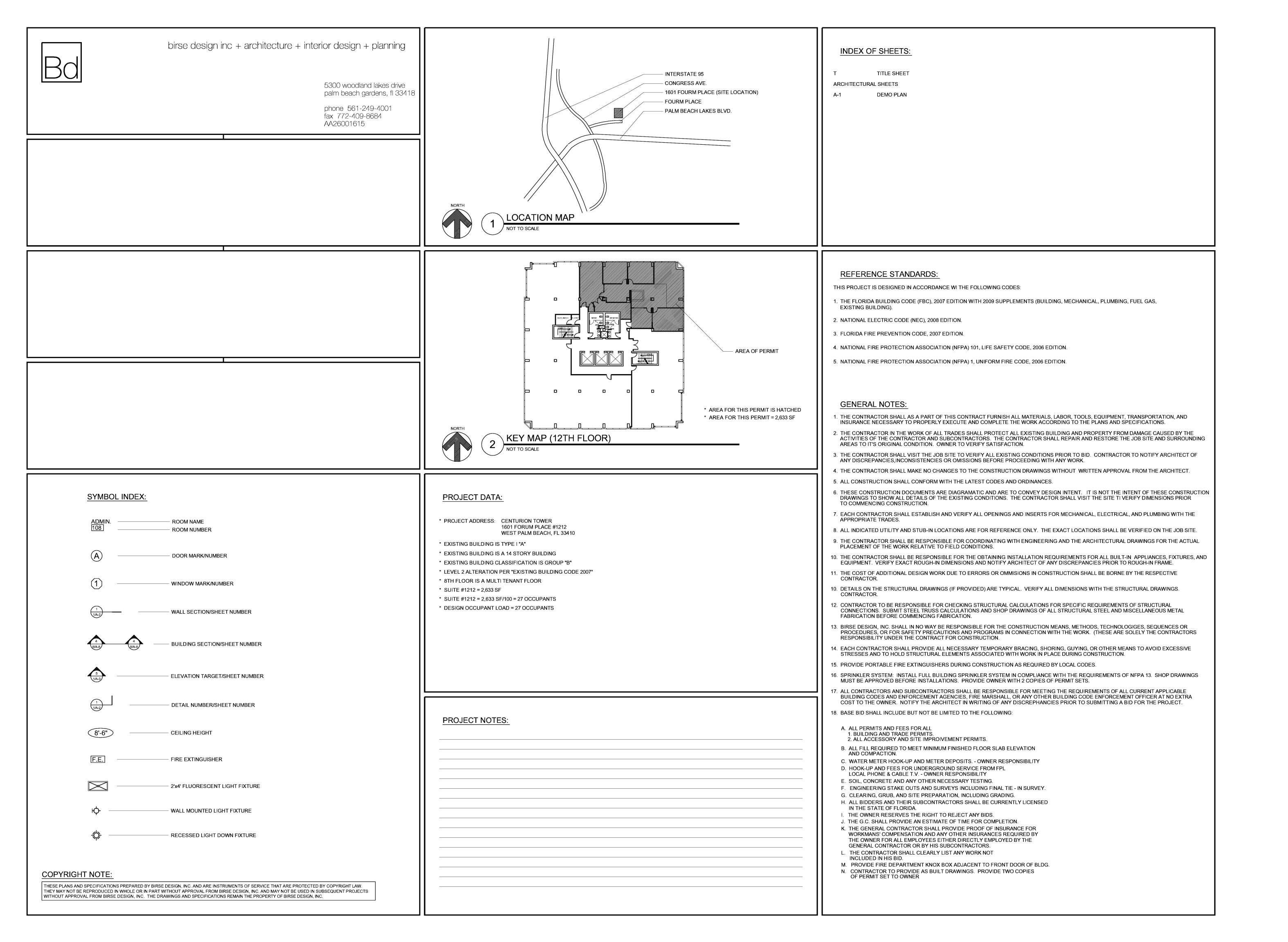
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OXBOW EXPANSION

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