



S 0 a **REVISIONS:** 

**FLOOR PLAN** JOB No: 0732

DATE: 10/26/07

VERIFY SCALES
BAR IS DNE INCH
DN DRIGINAL DWG. IF NOT ONE INCH
ON THIS SHEET
ADJUST SCALE
ACCORDINGLY

07270.B —— (SEALANT TO

EQUAL WALL RATING)

09260.B —

REFER TO — PARTITION TYPES

TYP. RATED PARTITION TO DECK

OPTIONAL TOP OF METAL STUD WALL DETAIL

--- 05360.A

— 09260.A3 (SECURE TO STRUCTURE ABOVE)

—— CEILING WHERE APPLICABLE. SEE REFLECTED CEILING PLAN

A100

- 1. PLUMBING CONTRACTOR SHALL COMPLY WITH INTERNATIONAL PLUMBING CODE (MOST RECENTLY ADOPTED BY AUTHORITY HAVING JURISDICTION), NFPA, STATE AND LOCAL CODES.
- 2. PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION CERTIFICATES.
- 3. OMISSIONS OR MISDESCRIPTION OF DETAILS OF WORK WHICH ARE EVIDENTLY NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMISSIONS AND DETAILS OF WORK, BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH & DESCRIBED.
- 4. PORTIONS OF WALLS AND ARCHITECTURAL FEATURES MAY HAVE BEEN OMITTED FROM THIS PLAN FOR CLARITY OF MECHANICAL FEATURES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIXTURES, AND
- 5. VERIFY FIELD DIMENSIONS. COORDINATE WORK WITH OTHER TRADES TO AVOID INTERFERENCES.
- 6. LAY OUT PIPING BASICALLY AS SHOWN. MAJOR CHANGES IN LAYOUT MAY BE MADE ONLY WITH WRITTEN CONSENT OF ARCHITECT OR ENGINEER.
- 7. ALL COMPONENTS USED IN PLENUM SPACES MUST BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL.
- 8, COLOR OF FIXTURES AND TRIM SHALL BE AS SELECTED BY OWNER.
- 9. FIXTURES INDICATED AS BARRIER FREE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
- 10. WATER PIPES SHALL HAVE STOPS AT EACH FIXTURE CONNECTION.
- 11. PROVIDE ELECTRICAL CONTRACTOR WITH EXACT WIRING REQUIREMENTS. IF ELECTRICAL REQUIREMENTS VARY FROM THOSE INDICATED ON PLANS, PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSOCIATED ADDITIONAL COSTS.
- 12. PLUMBING FIXTURES SHALL BE EQUAL TO FIXTURES SCHEDULED.
- 13, ALL WATER LINES SHALL BE AS FOLLOWS: A. LINES BELOW GRADE SHALL BE TYPE "K" SOFT COPPER (UNLESS
- OTHERWISE SPECIFIED.) B. LINES ABOVE GRADE SHALL BE TYPE "L" HARD COPPER (UNLESS OTHERWISE SPECIFIED)
- C. FITTINGS SHALL BE OF HARD DRAWN COPPER OF ASTM SPEC B-88. D. ALL JOINTING SHALL BE WITH LEAD-FREE SILVER SOLDER.
- 14. ALL VENT PIPING WITHIN PLENUM OR AIR-HANDLING SPACES SHALL BE COPPER OR CAST IRON AND SHALL BE LABELED AS "VENT".
- 15. ALL WATER PIPING ABOVE GRADE SMALLER THAN 1 1/2" SHALL BE INSULATED WITH 1/2" THICK FIBERGALSS WITH AN "R" VALUE OF 3.6. ALL WATER PIPING ABOVE GRADE LARGER THAT 1 1/2" SHALL BE INSULATED WITH 1" THICK FEBERGLASS WITH AN "R" VALUE OF 3.6.
- 16. ALL WATER LINES SHALL BE CAPPED AND TESTED AT 100 PSI FOR 24 HOURS. ALL WASTE PIPING SHALL BE TESTED WITH A 10' WATER COLUMN FOR A 2 HR PERIOD WITH NO CHANGE IN LEVEL.
- 17. VENT PIPING SHALL BE LAID OUT SUCH THAT ALL ROOF PENETRATIONS SHALL BE ON BACK SIDE OF ROOF. PAINT EXPOSED VENT PIPING TO MATCH ROOF.
- 18. COORDINATE ROOF PENETRATIONS WITH ROOFING CONTRACTOR. INSURE THAT WARRANTY REQUIREMENTS OF ROOFING MANUFACTURER ARE SATISFIED.
- 19. MATERIALS, EQUIPMENT, AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THIS PERIOD SHALL BE CORRECTED AT THE MECHANICAL CONTRACTOR'S EXPENSE. DISINFECTION OF POTABLE WATER SYSTEM - NEW OR REPAIRED WATER SYSTEM SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR WATER PURVEYOR HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652, OR AS DESCRIBED IN SECTION 610 OF INTERNATIONAL PLUMBING CODE 2003.
- 20. SITE UTILITIES SHALL BE FIELD LOCATED FOR EXACT LOCATION AND ELEVATION BEFORE CONSTRUCTION.
- 21. ALL SANITARY PIPING BELOW GRADE WITH LESS THAN 2 FEET OF EARTH COVER SHALL BE DUCTILE IRON MATERIAL.
- 22. WALL HYDRANTS SHALL BE MOUNTED 18" ABOVE FINISHED GRADE.
- 23. CONTRACTOR WHEN MAKING FINAL CONNECTIONS TO EQUIPMENT AND PLUMBING FIXTURES SHALL FURNISH CUTOFFS, TRAPS, STOPS, FAUCETS, ELBOWS, VACUUM BREAKERS, INSULATION, ETC.
- 24. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO AVOID ANY SPACING OR ROUTING PROBLEMS.
- 25, ALL FIXTURES, EQUIPMENT AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS.
- 26. ALL PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE SLEEVED AND/OR PATCHED AS DIRECTED BY THE SPECIFICATIONS. PATCHING SHALL MATCH FINISH. (SEE ARCH. DRAWINGS). ENSURE THAT ALL PENETRATIONS OF FIRE WALLS ARE PROPERLLY FIRESTOPPED.
- 27. ALL PLUMBING VENTS SHALL BE MINIMUM OF 10'-0" AWAY FROM A/C AIR INTAKES AND WINDOWS.

# | PLUMBING GENERAL NOTES

# **PLUMBING**

## ACCEPTABLE MANUFACTURERS

Fixtures: Kohler, American Standard, Crane, Eljer, Toto.

Brass Trim: McGuire Engineered Brass Company, Brasscraft.

Floor Drains: Mifab, Jay R. Smith, Zurn, Wade, Josam, Watts. Faucets: T & S Brass and Bronze Works, Delta Commercail, Chicago Faucet Co., Kohler, Zurn, Symmons.

Shower Stalls: Aqua Bath, Aquarius, Lasco.

Shower Valves: Symmons, Leonard, Powers.

Provide fixtures and trim as a complete unit as required in the individual "P" numbers listed below.

## MATERIALS

Faucets: Provide either integral or attached supply stops with nipples.

Caulking: General electric silicon sanitary sealant or equal.

Provide treated wood, polystyrene pipe holder, or metal backing at wall fixtures and fixture trim connecting faucets and valves are rigid to wall.

## PLUMBING FIXTURES

- P-1 WATER CLOSET TANK TYPE BARRIER FREE
- Fixture: Toto #CST744SL Drake tank type closet, 1.6 gallon flush.
- Seat: Toto #SC534 elongated open front seat less lid.
- LAVATORY WALL HUNG-IN BARRIER-FREE
- Fixture: Toto #LT307.4 wall hung lavatory with 4" centers.
- Faucet: Chicago #802-317CP. Trim: McGuire #155 WC grid drain with 1-1/4" tailpiece, off set for wheelchair
- use. #8872 -" 1-1/4" P-trap. #H-2165 supply stops. Carrier: Mifab #MC-41 fixture carrier.
- Thermostatic mixing valve: Powers #e480 tempering valve to be located beneath sink.
- DRINKING FOUNTAIN (BARRIER-FREE WALL HUNG) Fixture: Elkay # EZSTL8C, 8.0 GPH at 90 degrees room temperature, all exposed surfaces to be stainless steel,
- Trim: McGuire #8872 1—1/4" p—trap, #HST—2 supply stop. Provide insulation wrap on p—trap.
- SERVICE SINK SINGLE COMP. MOLDED STONE
- Fixture: Fiat #FL—1 with aluminum legs.
- Faucet: Chicago #895—317 with 4" wristblades, and swing spout. Trim: McGuire #8912, 1—1/2" p—trap, McGuire #151 drain with 1 1/2" tailpiece, #H—2165 supply stops.
- P-5 WALL HYDRANT (COLD WATER) NON-FREEZE
- Fixture: Mifab #MHY-20, non-freeze, with vacuum breaker mount 18" A.F.G. Coordinate finish of box face with architect.

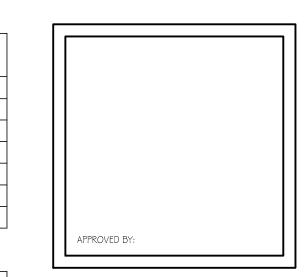
## EXECUTION

### FIXTURE CONNECTIONS

- A. Connect to plumbing fixtures and equipment provided under this fixture specification, architectural drawings, and manufacturer's shop drawings. Provide rough—in connections as shown on drawings.
- B. Use schedule and details on drawings or manufacturer's shop drawings for connection sizes to fixtures.
- C. Mount fixtures rigid to walls as shown on drawings or details.
- D. Provide separate p—trap for each fixture, floor drain, and piece of equipment.
- E. Provide outlet devices which limit the flow of hot water to lavatories and sinks to a minimum of 0.5 GPM, sized as recommended by the manufacturer and as required under ASHRAE Standard 90—75, paragraph 7.7.2 or local or state energy codes.
- F. Install water closets with a minimum of 15" clearance from the centerline of the bowl to each side, from a wall, partition, divider, or another fixture. Barrier free water closets to have 18" clearance.
- G. Water closets shall have a minimum of 21" clearance in front of bowl.
- H. Coordinate dimensions required for minimum fixture clearances with other Divisions.
- I. Caulk around joints at fixtures mounted on wall or floor, or backed up to walls.

- A. Inspect and test work to insure that it is installed in accordance with drawings and is functioning as designed. Test procedures and pressure as required by other sections.
- B. Correct all deficiencies found and retest.

PLUMBING	LEGEND		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	COLD WATER	<del></del>	BALL VALVE
<del></del>	HOT WATER		CHECK VALVE
	WASTE LINE		UNION IN PIPE
	VENT PIPE		EXTERIOR CLEANOUT
	PIPE TURNED UP	P-1,ETC	FIXTURE INDENTIFICATION
<del></del> ə	PIPE TURNED DOWN		



PLUMBING	ABBREVIATIONS		
C.W	COLD WATER	E.C.O.	EXTERIOR CLEANOUT
H.W.	HOT WATER	A.F.F.	ABOVE FINISHED FLOOR
V.T.R.	VENT THRU ROOF	A.F.G.	ABOVE FINISHED GRADE
W	WASTE	S.S.	SANITARY SEWER

	ELE	CT	RIC	: WA	TER HEA	TE	ER	SCH	IEDU	LE	
S	SYSTEM	TYPE	NO. REQ'D	MFGR.	MODEL NO.	EWT	LWT	STORAGE CAPACITY	FLOW RECOVERY	Tank Size	REMARKS
	OMESTIC EWH-1)	ELEC	1	RHEEM	EGSP10	40	120	10	10.0 @ 80° RISE	16" X 23"	2.0 KW @ 208/1

FIXTURE C	ONNECTION SCI	HEDULE			
IDENTITY		FIXTURE	C.W.	H.W.	WASTE
P-1	WATER CLOSET	TANK TYPE – BARRIER FREE	1/2"		4"
P-2	LAVATORY	WALL HUNG — BARRIER FREE	1/2 "	1/2 "	1 1/4 "
P-3	DRINKING FOUNTAIN	HI-LO BARRIER FREE	1/2 "		1 1/4 "
P-4	SERVICE SINK		1/2 "	1/2 "	2"
P-5	WALL HYDRANT	(COLD WATER) NON-FREEZE	3/4 "		

ΥC	DRANT	(C(	OLD WATER) N	ON-FREE	ZE		3/4	"   -	_			
			PUI	MP SC	HEC	UL	E					
	SYSTEM	TYPE	MANUFACTURER	MODEL NO.	G.P.M.	HEAD FT.	PUMP SUCTION FT.	PUMP DISCHARGE FT.	H.P.	VOLTAGE	REMARKS	_
	GRINDER PUMP (GP-1)	SUBMERSIBLE	ZOELLER	840	10	20			2	208/3	(1), (2)	
	GRINDER PUMP (GP-2)	SUBMERSIBLE	ZOELLER	840	20	20			2	208/3	(1), (2)	

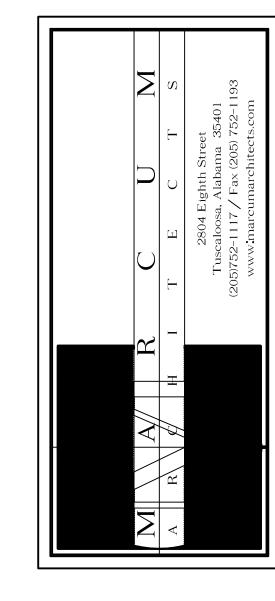
(1) MOUNT NEMA 4X CONTROL PANEL ON EXTERIOR WALL OF BUILDING, ADJACENT TO EXTERIOR DOOR OF EACH TENANT.

> VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DWG.

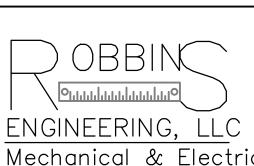
IF NOT ONE INCH

ON THIS SHEET ADJUST SCALE ACCORDINGLY

(2) PRE-PACKAGED DUPLEX SYSTEM, OUTDOOR, WITH GUIDE RAIL SYSTEM, FOUR FLOATS, 8' STAINLESS STEEL LIFTING CORDS, 1' LIFT RODS, BASIN 36" DIA. x 60" DEEP. FIELD VERIFY EXACT LOCATION AND INSTALL TRAFFIC RATED ACCESS COVER OVER BASIN IF REQUIRED.



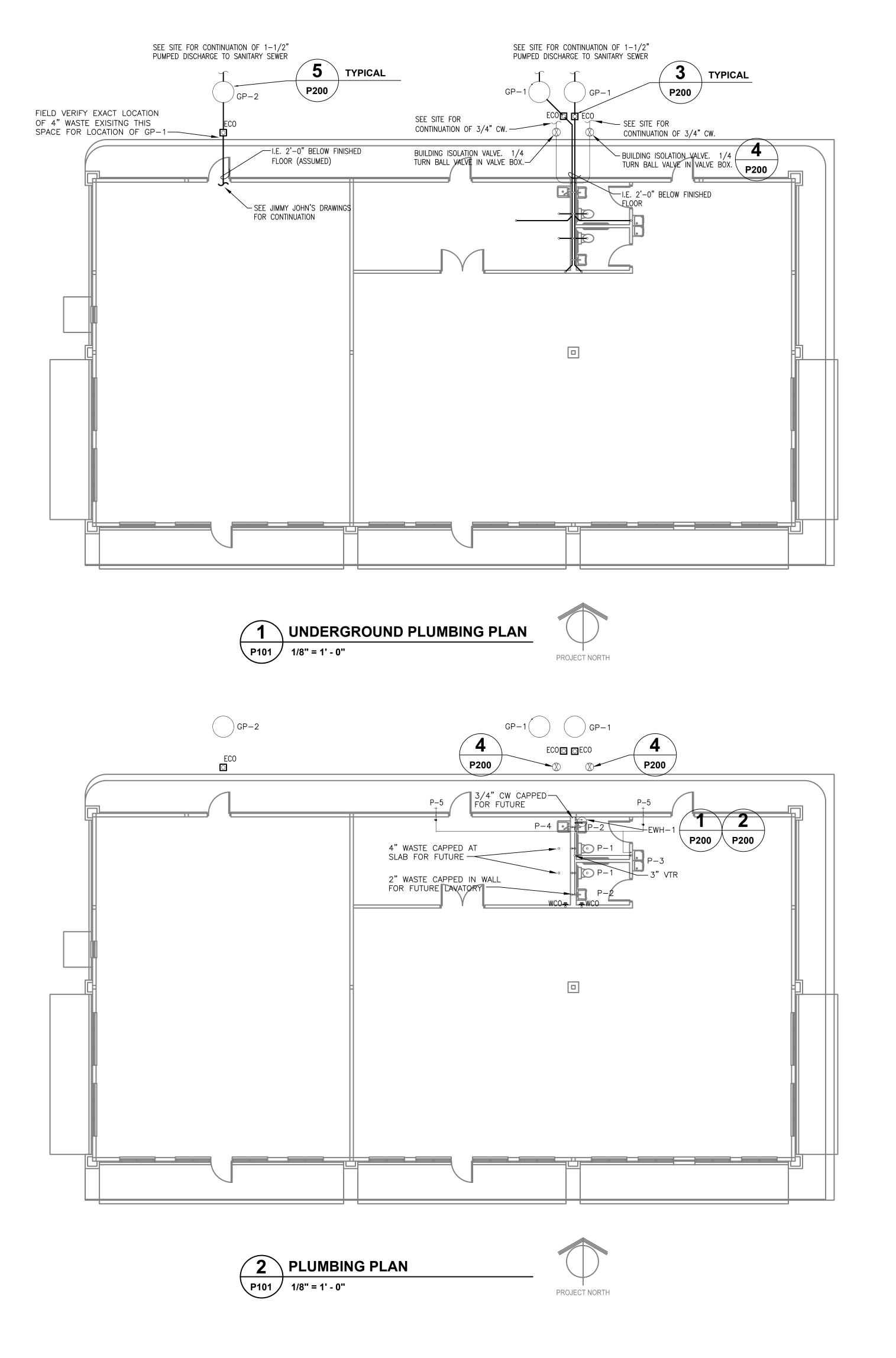




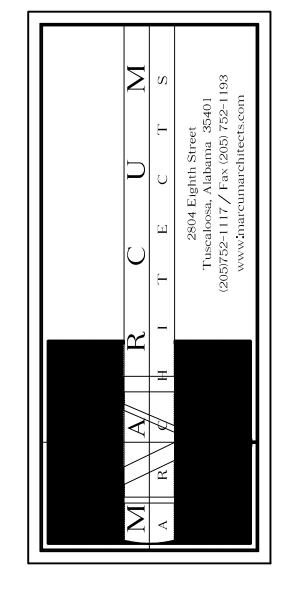
ENGINEERING, LLC Mechanical & Electriффі<sub>знеет:</sub> 432 65th Street, Suite B Tuscaloosa, Alabama

PLUMBING LEGEND & SCHEDULES JOB No: 0732 DATE: 03/25/08

Phone: (205) 758-9909 Fax: (205) 758-98 **2 1 0 0** nttp://www.re-engine&RE.&amaject#07108



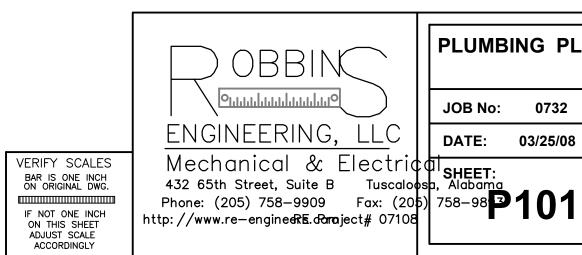
APPROVED BY:



SEE SHEET P200 FOR WASTE & VENT RISER AND DETAILED SIZING. SEE SHEET P200 FOR DOMESTIC WATER RISER AND DETAILED SIZING.

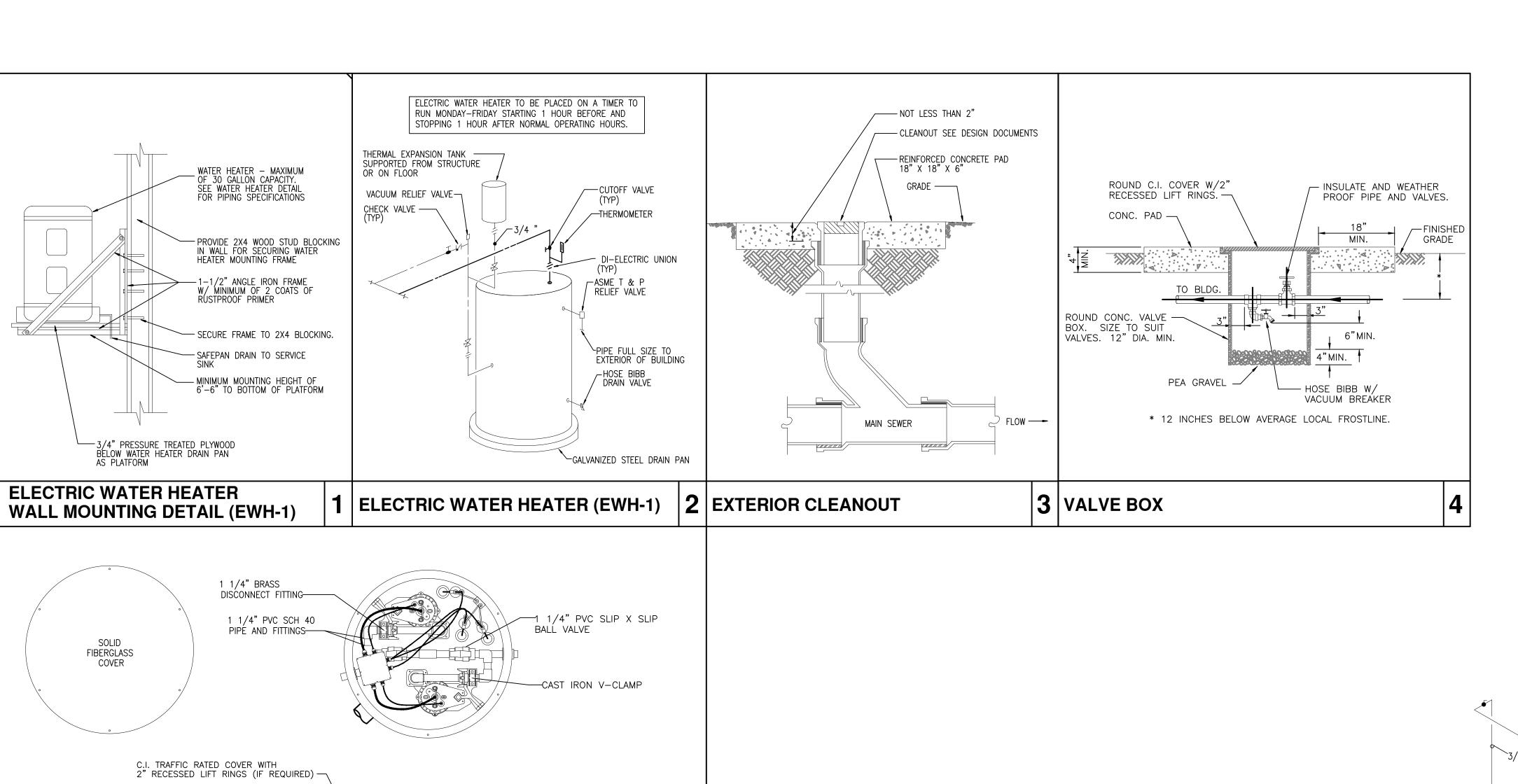
> amps Shopping REVISIONS:

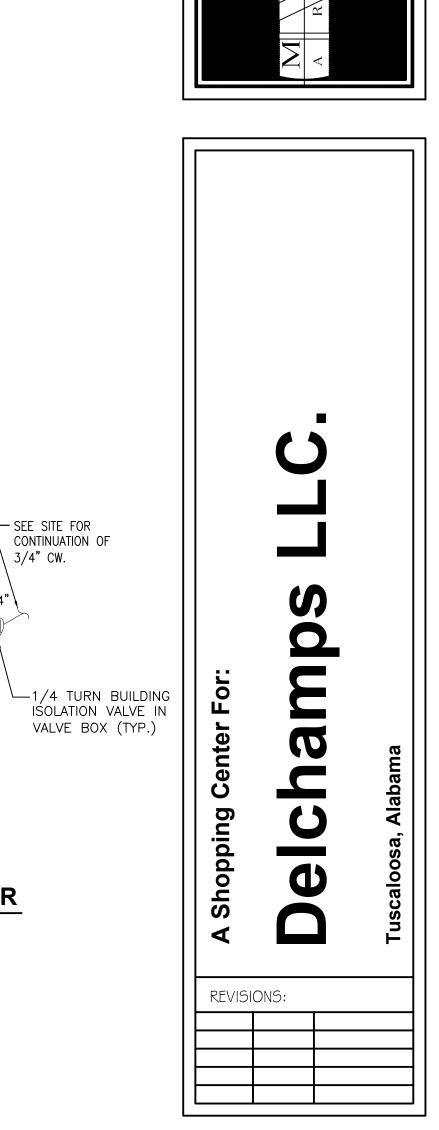
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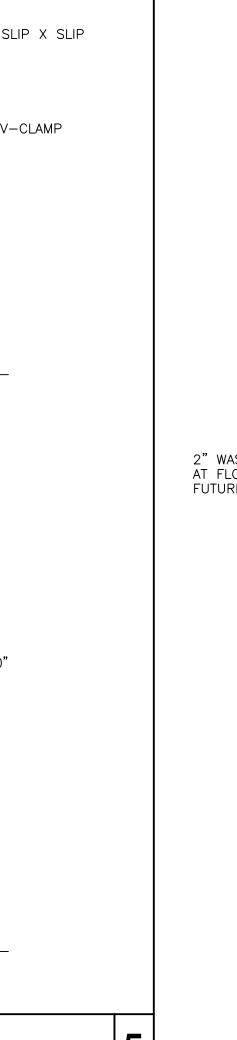
PLUMBING PLANS

JOB No: 0732 DATE: 03/25/08





APPROVED BY:



GRADE

-1/8" 302 STAINLESS

STEEL LIFTING CABLE

STEEL PULL ROD

BRACKET

-1 1/2" SQ. GUIDE RAIL

304 STAINLESS STEEL 16 GA.

-STAINLESS STEEL FLOAT HOOK

-3/8" X 1' 416 STAINLESS

-CAST IRON ANGLE ARM

1 1/4" BULK HEAD DISĆHARGE FITTING. UPSIZE

TO 1-1/2" OUTSIDE PIT.

FIBERGLASS BASIN

-CAST IRON MOUNT BRACKET

— PUMP CONTROL "ON" FLOAT

- CAST IRON LOWER

- PUMP CONTROL "OFF" FLOAT

- ALARM FLOAT FIBERGLASS ANTI-FLOTATION

RING

CONC. PAD —

18" MIN. OR PER STATE

AND LOCAL CODES

TO CONTROL PANEL -

WATER TIGHT NEMA 4X J-BOX-

1 1/2" GROMMET SEAL —

WEIGHTED VARIABLE -

LEVEL FLOAT SWITCH

1 1/4" FEMALE NPT —— CAST IRON CHECK VALVE

CAST IRON RAIL — BASE PLATE

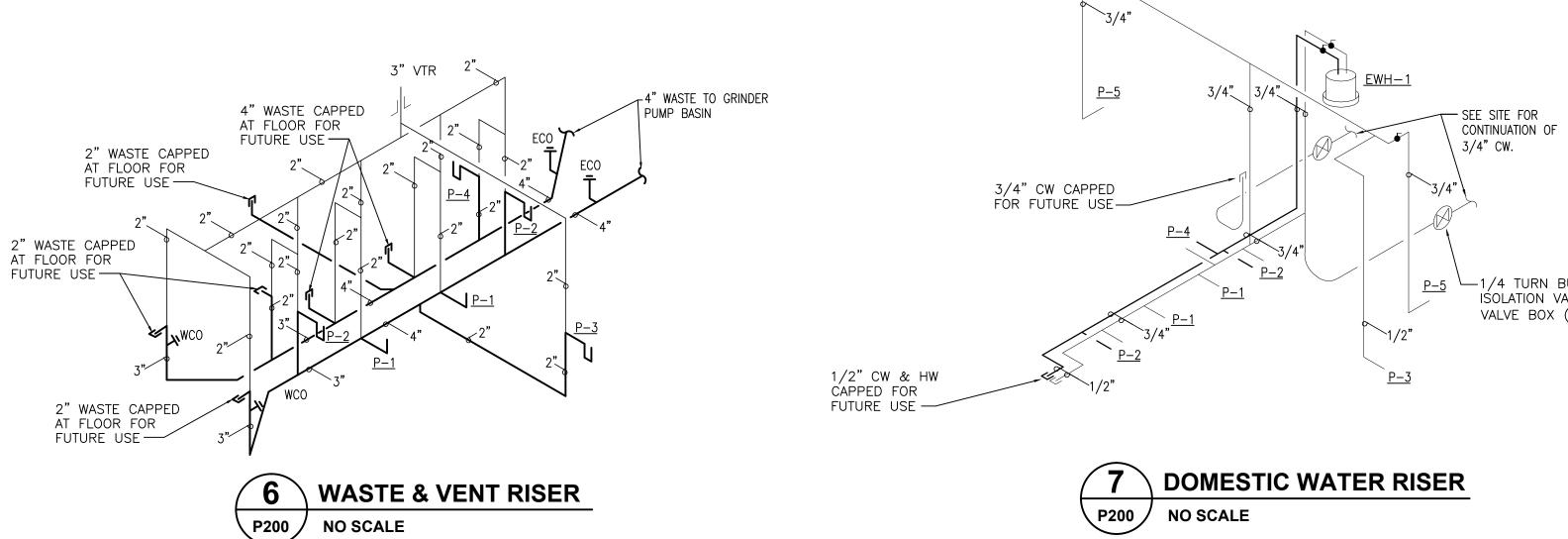
1 1/4" GALVANIZED — DISCHARGE PIPE

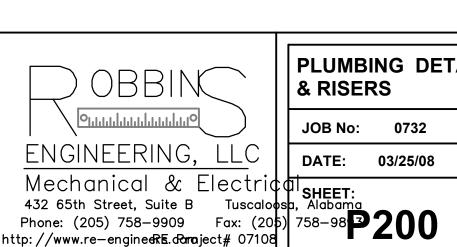
**DUPLEX GRINDER PUMP SYSTEM** 

ALARM FLOAT ----

4" RUBBER INLET PIPE SEAL

(FIELD INSTALLED)





PLUMBING DETAILS & RISERS JOB No: 0732 DATE: 03/25/08

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DWG. IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

# PACKAGE HEAT PUMP EQUIPMENT SCHEDULE

6 CDA4 12"Ø 370

	AREA		NOMINAL	TOTAL	O.A.	E.S.P.	WEIGHT		COOLING		HE	ATING						ELECTR	ICAL					
MARK	SERVED	MFR/MOD#	TONS	CFM	CFM	(IN.)	(LBS.)	TOTAL	SENSIBLE	ENTERING	REVERSE CYCLE	AUXI	LIARY (KW)	VOLTIG	INDOOR	FAN	OUTDOOR	FAN	COMPRESSOR	EFFIC	IENCY	MCA	MCOD	NOTES
						` ,		(MBH)	(MBH)	(DB/WB)	@ ARI HIGH TEMP	MIN.	SCHEDULED	VOLT/Ø	HP/SPEEDS	FLA	HP/SPEEDS	FLA	RLA	EER	COP	WICA	MCOP	
RTU-1	RETAIL/STORAGE	TRANE WSC090	7.5	3000	450	0.5	1056	89.5	68.8	80/67	93.7	27	27	208/3	1.0/BELT	5.0	0.70/1	3.85	26.0	10.1	3.39	122.7	125	1,2,3,4,5,6,7,8
RTU-2	RETAIL	TRANE WSC090	7.5	3000	450	0.5	1056	89.5	68.8	80/67	93.7	27	27	208/3	1.0/BELT	5.0	0.70/1	3.85	26.0	10.1	3.39	122.7	125	1,2,3,4,5,6,7,8

. UNIT SHALL BE SINGLE POINT ELECTRICAL CONNECTION.

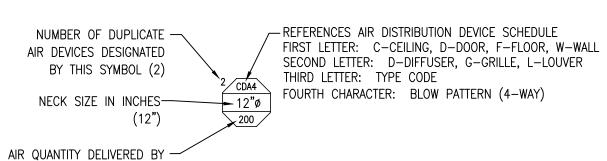
- . UNIT'S SMOKE DETECTOR PROVIDED BY ELECTRICAL. MOUNT IN RETURN DUCT PRIOR TO OUTSIDE AIR MIXING FOR AUTOMATIC UNIT SHUT DOWN.
- . PROVIDE AND INSTALL MFR.'S VIBRATION ISOLATION ROOF CURB.
- 4. ARI STANDARDS ARE BASIS OF EQUIPMENT SELECTION. . PROVIDE SEVEN DAY PROGRAMMABLE THERMOSTAT.
- . CONTRACTOR TO SELECT ELECTRIC HEAT TO PROVIDE MIN. VALUES AS INDICATED ON SCHEDULE, ELECTRIC HEAT SIZED FOR 90° LAT ON A 20° F OUTSIDE TEMP. DAY.
- TRANE EQUIPMENT NUMBERS SHOWN FOR REFERENCE PURPOSE. EQUAL MANUFACTURERS WILL BE ACCEPTED PER SPECIFICATIONS.
- B. PROVIDE LOW AMBIENT CONTROL.

3 8"Ø 50 EF-1 UC	EXH	IAUST FA	N SCH	EDULE						] ,	ak De	COMME
340	MARK	MFR./MOD#	SERVES	TYPE/DRIVE	CFM	VOLTS/	НР	APPROX	SONES	ME	ick With	FANG
	EF-1	COOK GC-140	TOILET	CEIL MTD. CENT./DIRECT	75	120/1	31W	3/8"	3.0	X	X	X
<b>⊣</b>	EF-2	C00K GC-140	TOILET	CEIL MTD. CENT./DIRECT	75	120/1	31W	3/8"	3.0	X	X	X
U-2 ⊕				,	•		•	•	1			



2 RETURN DUCT UP TO ROOF TOP UNIT. SEE 2/M101 FOR CONTINUATION. MOUNT WALL CAP AS HIGH AS POSSIBLE. COORDINATE LOCATION WITH ARCHITECT.

# **DIFFUSERS/GRILLES/LOUVERS**



DEVICE IN CFM (200 CFM)



ALL ABBREVIATIONS SHOWN MAY NOT APPEAR IN DRAWINGS.

AFF	ABOVE FINISHED FLOOR
AUX	AUXILIARY
BDD	BACK DRAFT DAMPER
BRD	BAROMETRIC RELIEF DAMPE
CEIL	CEILING
CONE	) CONDENSATE
DIA	DIAMETER
EAT	ENTERING AIR TEMPERATURE
EF	ROOM EXHAUST FAN
EQUII	P EQUIPMENT
FD	FIRE DAMPER
GA	GAUGE
HP	HEAT PUMP
HR	HOUR
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MD	MOTORIZED DAMPER

ROOM REGISTER ROUND ROOFTOP UNIT SUPPLY AIR SURFACE SYSTEM TEMPERATURE THERMOSTAT

## HVAC SYMBOL LEGEND

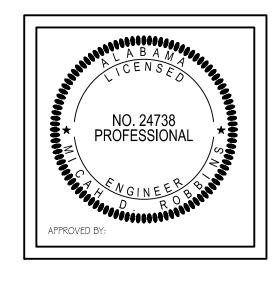
1. COMPLY WITH THE NFPA, ICC, AND ALL LOCAL AND STATE CODES.

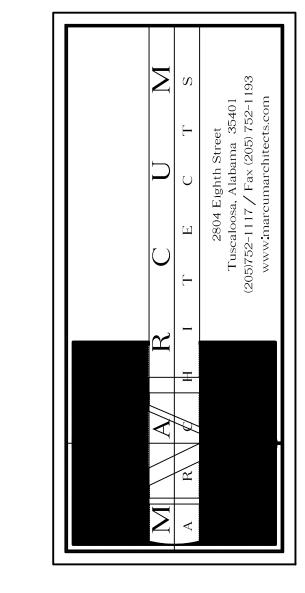
**GENERAL HVAC NOTES** 

- 2. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER. WHAT IS CALLED FOR BY ONE SHALL BE BINDING AS IF CALLED FOR BY BOTH.
- 3. PORTIONS OF WALLS AND ARCHITECTURAL FEATURES MAY HAVE BEEN OMITTED FROM THIS PLAN FOR CLARITY OF MECHANICAL FEATURES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF WALLS AND FIXTURES, AND DIMENSIONS.
- 4. VERIFY FIELD DIMENSIONS. COORDINATE WORK WITH OTHER TRADES TO AVOID INTERFERENCES.
- 5. PROVIDE ELECTRICAL CONTRACTOR WITH EXACT WIRING REQUIREMENTS. IF ELECTRICAL REQUIREMENTS VARY FROM THOSE INDICATED ON PLANS, HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ASSOCIATED ADDITIONAL COSTS.
- 6. INSURE THAT ALL HVAC EQUIPMENT IS INSTALLED SUCH THAT ACCESS PANELS AND POINTS OF SERVICE ARE ACCESSIBLE.
- 7. PAINT THE INSIDE OF ALL DUCTWORK WHERE BARE METAL OR OTHER THAN BLACK INSULATION IS VISIBLE THROUGH GRILLES AND REGISTERS WITH FLAT BLACK ENAMEL.
- 8. COORDINATE ROOF PENETRATIONS WITH ROOFING CONTRACTOR. INSURE THAT ROOFING MANUFACTURER'S WARRANTY REQUIREMENTS ARE SATISFIED.
- 9. ALL THERMOSTATS SHALL HAVE LOCKING PLASTIC COVERS.
- 10. INSURE THAT ALL PENETRATIONS OF FIRE WALLS ARE PROPERLY SEALED PER ICC, ANY APPLICABLE UL ASSEMBLIES, AND THE SPECIFICATIONS.
- 11. REFER CAREFULLY TO THE SPECIFICATIONS FOR CONDENSATE DRAINAGE REQUIREMENTS.
- 12. DUCTWORK LOCATED OUTSIDE BUILDING INSULATION SHALL HAVE EXTERIOR WRAP INSULATION ALONG WITH INSIDE LINER PER SPECIFICATIONS.

BAR IS ONE INCH ON ORIGINAL DWG.

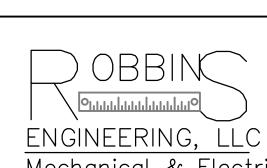
IF NOT ONE INCH ON THIS SHEET ADJUST SCALE





# 0 a

REVISI	ONS:		
$\triangle$	4-1-08	□WNER	CHANGES



VERIFY SCALES

HVAC PLANS JOB No: 0732 DATE: 03/25/08

**HVAC ROOF PLAN** 1/8" = 1' - 0"

6 CDA4 12"Ø 400

 $\setminus$  M101 / 1/8" = 1' - 0"

PROJECT NORTH

PROJECT NORTH

MOTORIZED DAMPER

MECH MECHANICAL MFR MANUFACTURER MINIMUM MAXIMUM OVERCURRENT PROTECTION NOT IN CONTRACT OUTSIDE AIR

PENE PENETRATION RETURN AIR REG RND RTU SA SURF

SYS TEMP TSTAT TYP TYPICAL VEL VELOCITY VF VENTILATION FAN W/ WITH

SUPPLY AIR

RETURN AIR ELBOW W/ TURNING VANES SPLITTER

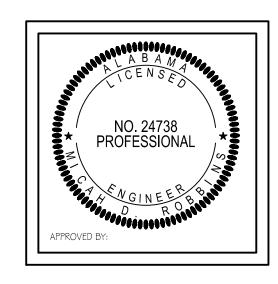
H BALANCING DAMPER

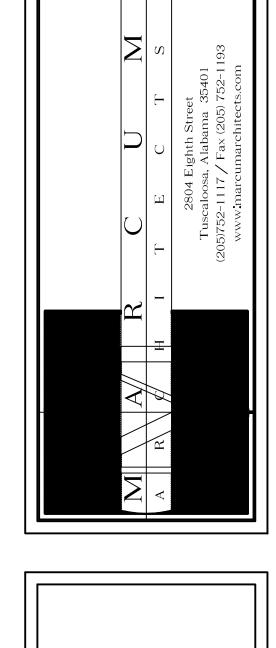
■ MOTORIZED DAMPER 

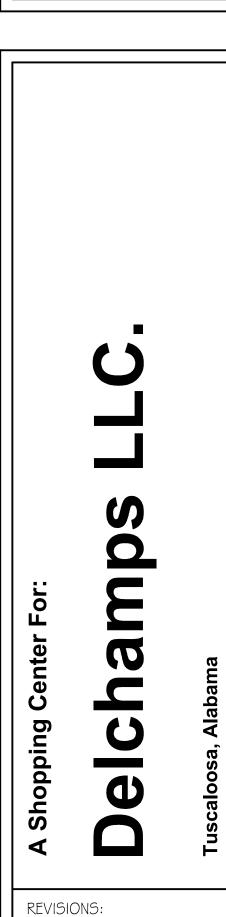
EXHAUST FAN FLEX DUCT DUCT TURNING UP/DOWN

UC UNDERCUT DOOR

Mechanical & Electrical SHEET:
432 65th Street, Suite B Tuscaloosa, Alabama
Phone: (205) 758-9909 Fax: (205)
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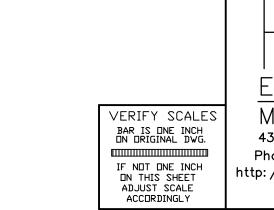
⚠ 4-1-08 OWNER CHANGES

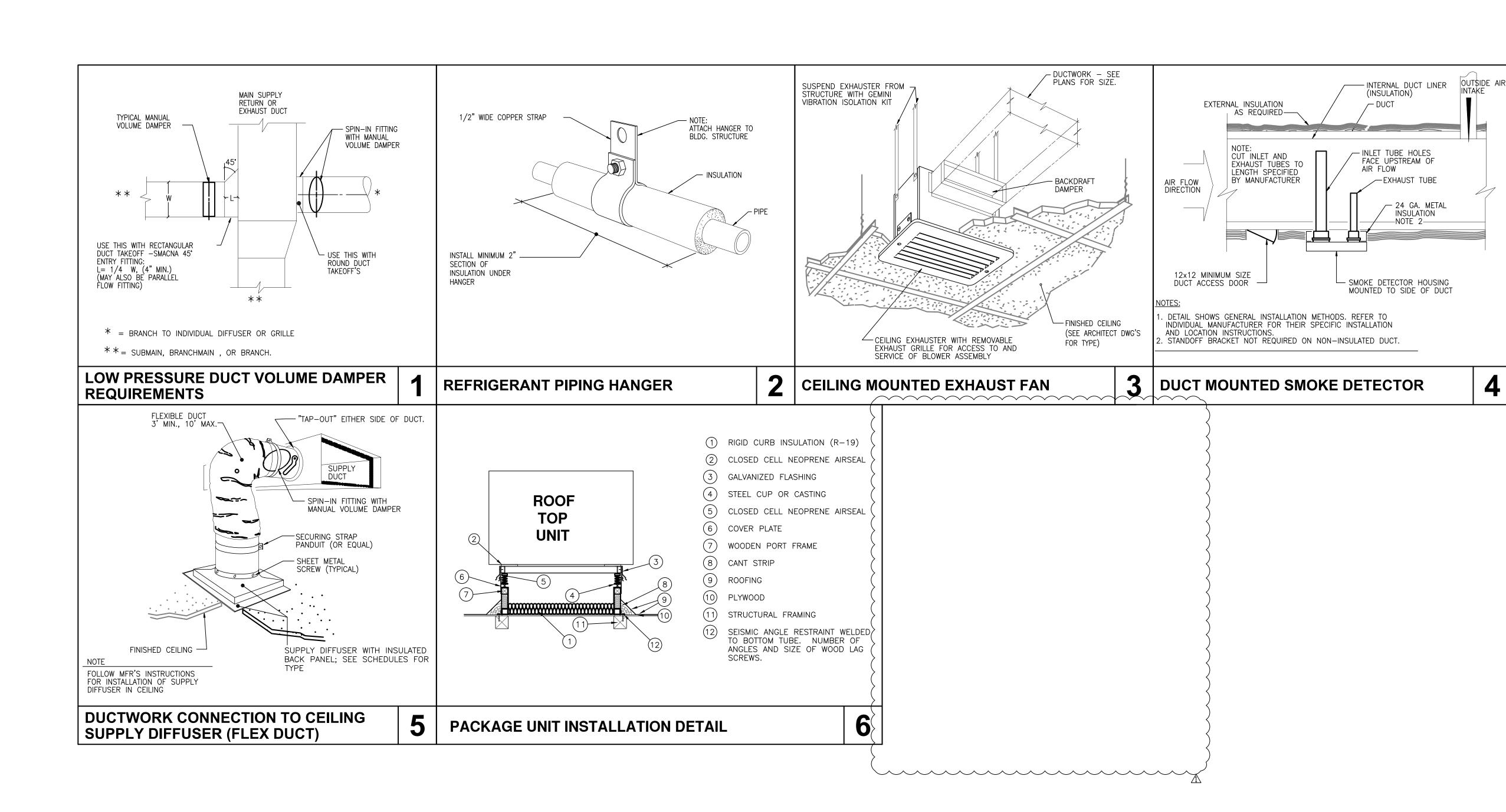


HVAC DETAILS

JOB No: 0732 DATE: 03/25/08

OBBIN ENGINEERING, LLC Mechanical & Electrical SHEET:
432 65th Street, Suite B Tuscaloosa, Alabama
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## **GENERAL ELECTRICAL NOTES**

- 19. MATERIALS, EQUIPMENT, AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THIS PERIOD SHALL BE CORRECTED AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COST.
- GAUGE SIZE. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE OWNER SHALL HAVE THE RIGHT TO

1. COMPLY WITH THE NATIONAL ELECTRIC CODE, STATE AND LOCAL CODES.

2. ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED

3. OMISSIONS OR MISDESCRIPTION OF DETAILS OF WORK WHICH ARE EVIDENTLY NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMISSIONS AND DETAILS OF WORK, BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH & DESCRIBED.

4. ALL RACEWAY EXPOSED ON THE EXTERIOR SHALL BE RIGID GALVANIZED STEEL(RGS).

5. PORTIONS OF WALLS AND ARCHITECTURAL FEATURES MAY HAVE BEEN OMITTED FROM THIS PLAN FOR CLARITY OF ELECTRICAL FEATURES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF WALLS AND FIXTURES,

6. VERIFY FIELD DIMENSIONS. COORDINATE WORK WITH OTHER TRADES TO AVOID

9. ALL ELECTRICAL PANELS SHALL HAVE ENGRAVED LAMINATED (BLACK ON WHITE)

10. ALL COMPONENTS USED IN PLENUM SPACES SHALL BE CONSTRUCTED OF NON-

11. COLOR OF WIRING DEVICES AND PLATES SHALL BE AS SELECTED BY THE ARCHITECT.

12. THE LOCATIONS OF FIXTURES AND EQUIPMENT ON THE DRAWINGS ARE APPROXIMATE

OUTLETS TO ENSURE PROPER ORIENTATION OF OUTLETS WITH COMPONENTS OF

7. ALL EXIT AND EMERGENCY LIGHTS SHALL BE UNSWITCHED AND SHALL BE SERVED FROM

8. INSTALL 6 EMPTY 3/4" CONDUITS WITH PULL WIRES UP FROM EACH RECESSED LIGHTING

COMBUSTIBLE MATERIAL AND SHALL BE RATED FOR INSTALLATION IN PLENUM SPACES.

THE SAME CIRCUIT AS THE GENERAL LIGHTING IN THE SAME AREA. EXHAUST FANS SHALL BE

PERMITS AND INSPECTION CERTIFICATES.

EMT SHALL NOT BE ACCEPTABLE.

AND DIMENSIONS.

INTERFERENCES.

THESE SYSTEMS.

SWITCHED WITH LIGHTS.

PANELBOARD TO ABOVE THE CEILING SPACE.

SHOWN WITHOUT CONSENT OF ENGINEER.

OR AS OTHERWISE INDICATED.

BE EQUAL TO THOSE SCHEDULED ON DRAWINGS.

LABELS IDENTIFYING THEM AS INDICATED ON DRAWINGS.

ONLY. OFFSET AS REQUIRED OR AS REQUESTED BY OWNER.

13. COORDINATE LAYOUT CAREFULLY WITH SYSTEMS FURNITURE AND MILLWORK

SHOP DRAWINGS PRIOR TO ROUGHING IN POWER AND COMMUNICATIONS

14. CONDUCTOR SIZES INDICATED ON THE DRAWINGS HAVE BEEN SELECTED TO PROVIDE FOR ACCEPTABLE VOLTAGE DROP. DO NOT REDUCE WIRE SIZES

15. MATERIALS AND ALL COMPONENTS THEREOF SHALL BE NEW AND SHALL BE UL

APPROVED WHERE A STANDARD HAS BEEN ESTABLISHED. COMPONENTS SHALL

16. CONDUCTORS SHALL BE SINGLE CONDUCTOR COPPER, STRANDED FOR AWG #8 AND

LARGER AND SOLID FOR AWG #10 AND SMALLER, WITH 600 VOLT INSULATION.

SIZE FOR 120V AND GREATER SHALL BE #12. INSTALL A GREEN EQUIPMENT

THHN OR THWN FOR BRANCH CIRCUITS AND RHW FOR FEEDER CIRCUITS. MINIMUM

GROUNDING CONDUCTOR OF SAME SIZE AS CONDUCTORS IN ALL POWER CIRCUITS,

- RIGID OR IMC, ACCORDING TO CODE REQUIREMENTS. 18. OUTLET, JUNCTION, AND PULL BOXES SHALL BE GALVANIZED STEEL. CODE
- MAY BE USED FOR CONCEALED CIRCUITS UP TO 1 1/2". RIGID NONMETALLIC CONDUIT, SCHEDULE 40 PVC, MAY BE INSTALLED BELOW GRADE WITH TRANSITIONS TO RGS MADE IN THE HORIZONTAL RUN BELOW GRADE. ALL OTHER CONDUIT SHALL BE STANDARD STEEL
- 17. ALL CONDUCTORS SHALL BE RUN IN METALLIC CONDUIT (3/4" MINIMUM). EMT CONDUIT

**ELECTRICAL ABBREVIATIONS** 

NEMA 3R WEATHERPROOF ENCLOSURE RATING

ALL ABBREVIATIONS SHOWN MAY NOT BE PRESENT ON DRAWINGS.

**AMPERES** 

AUXILIARY

CONDUIT

CEILING

CIRCUIT

COPPER

EQUIPMENT

EXISTING

GROUND

HOUR

ISOLATED GROUND

JUNCTION BOX

MAIN BREAKER

MAIN LUGS ONLY

NOT IN CONTRACT

PHASE, POWER HOT

TELEPHONE BACKBOARD

RIGID GALVANIZED STEEL CONDUIT

NIGHT LIGHT

NOT TO SCALE

PENETRATION

ROOM

SURFACE

SYSTEM

TYPICAL

VERIFY LOCATION

WEATHERPROOF

TRANSFORMER

**VOLTS** 

WIRE

WITH

AND

MOTORIZED DAMPER

MAXIMUM

MINIMUM

METER

FLUOR FLUORESCENT

BATTERY CHARGER

ABOVE FINISHED FLOOR ALABAMA POWER COMPANY

COMPUTER BACKBOARD

ROOM EXHAUST FAN

ELECTRIC WATER COOLER

ELECTRICAL METALLIC TUBING

HORSEPOWER, HEAT PUMP

GROUND FAULT CIRCUIT INTERRUPTER

NATIONAL ELECTRICAL MANUFACTURERS ASSOC.

AFF

AUX

BATT

CBB

CEIL

CKT

CU

EMT

EWC

GRND

HP

HR

IG

JB

MAX

MB

MD

MIN

MLO

MTR

NL

N.T.S.

PENE

RGS

SURF

SYS

TBB

TYP

V

VER.

WP

RM

REFER TO MECHANICAL DRAWINGS FOR MECHANICAL EQUIPMENT ABBREVIATIONS.

- NUMBER NEMA 4X WEATHERPROOF/CORROSION RESISTANT ENCLOSURE RATING
- NEMA 12 DUSTPROOF ENCLOSURE RATING

- SIZE OF CIRCUIT CONDUCTORS "AWG"\_\_\_\_\_

CIRCUIT DESIGNATIONS

PPA-5,6,7

FIXTURE NOTE

FIXTURE NOTE

RECPT NOTE

HOME RUN

WIRE DESIGNATION

- # OF CIRCUIT CONDUCTORS ---  $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$   $^{\dagger}$ SIZE OF CONDUIT
- # 8 AWG CIRCUIT #10 GRND NOT EXCEED A FILL OF 40% MAXIMUM, SEE NEC.
- INDICATED: #12 AWG CIRCUIT - #12 GRND #10 AWG CIRCUIT - #10 GRND
- 2. EQUIPMENT GROUND CONDUCTOR SHALL BE AS FOLLOWS UNLESS OTHERWISE
- NOTE: 1. ALL CIRCUITS SHALL CONTAIN A GREEN EQUIPMENT GRND CONDUCTOR.

NEUTRAL & GRND ASSUMED.

MULTI-CONDUCTED RUN MULIT-CONDUCTED RUN (TYP)

EX: 3#12 (PH), 1#12 (N) & 1#12 GRND

EX: 3#12 (PH), 2#12(PH \( \)3-SW), 1#12 (N) & 1#12 GRND

TIC INDICATES NUMBER OF CONDUCTORS, EX. 3 #12AWG (TYP).

- 3 UNLESS OTHERWISE INDICATED, CONDUIT SIZE SHALL BE 3/4" MIN. AND SHALL

TYPE 'A' FIXTURE (SEE FIXTURE SCHEDULE). CIRCUIT NO. 2 (TYP)

TYPE 'A' FIXTURE (SEE FIXTURE SCHEDULE). CIRCUIT NO. 2 (TYP)

WALL OUTLET WITH RECPTACLE NOTED, CONNECT TO CIRCUIT NO. 2 (TYP)

HOMERUN (TYP) TO PANNEL 'PPA', CONNECT TO CIRCUIT NO.'S "5, 6, & 7"

- - ———— SIZE OF GROUNDING CONDUCTOR "AWG"
- **ELECTRICAL SYMBOLS**

WALL LIGHT

CEILING LIGHT

CEILING LIGHT

CEILING LIGHT

CEILING LIGHT

EXIT LIGHT

SWITCH

DISTRIBUTION CENTER

SWITCH SUBSCRIPTS

OUTLET SUBSCRIPTS

WALL OUTLET

WALL OUTLET

SWITCH

 $\boxtimes$ 

	SWITCH	FUSED DISCONNECT, NEMA 3R IN WET LOCATION.
	SWITCH	PHOTOELECTRIC CELL.
<b>(</b>	JUNCTION BOX	FLUSH MOUNTED, WALL OR CEILING AS INDICATED.
<b>(2)</b>	EXHAUST FAN	FURNISHED BY HVAC, INSTALLED BY ELECTRICAL. REFE MECHANICAL DWGS FOR EXACT LOCATION.
$\bigcirc$	CONTROL OUTLET	VERIFY BOX TYPE & LOCATION W/ MECHANICAL CONTR 1/2" C. TO ABOVE CEILING.

COMPACT FLUORESCENT, SURFACE MOUNTED.

FLUORESCENT, RECESS MOUNTED W/ BATTERY BACKUP

FLUORESCENT, RECESS MOUNTED W/ BATTERY BACKUP

WALL MOUNTED UNLESS OTHERWISE INDICATED.

SHADING INDICATES NUMBER OF SIDES.

FLUORESCENT, RECESS MOUNTED.

FLUORESCENT, RECESS MOUNTED.

VERIFY SCALES

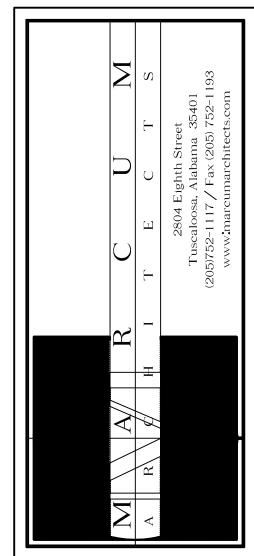
BAR IS ONE INCH ON ORIGINAL DWG. IF NOT ONE INCH

ON THIS SHEET
ADJUST SCALE ACCORDINGLY

AS SCHEDULED.	
LIGHTING OR POWER AS SPECIFIED IN PANEL SCHEDULE.	
SINGLE POLE, 120/277 V.	
D DIMMER 3 THREE-WAY	
DUPLEX RECEPTACLE, 125V.	
SLASH INDICATES OUTLET TO BE MOUNTED 6" ABOVE COUNTER TOP (TYP). CONSULT ARCHITECTURAL DWGS FOR COUNTER HT.	
WP WEATHERPROOF CR CORROSION RESISTANT H HANDRAIL MOUNT	
NON-FUSED DISCONNECT, NEMA 3R IN WET LOCATION.	
FUSED DISCONNECT, NEMA 3R IN WET LOCATION.	
PHOTOELECTRIC CELL.	
FLUSH MOUNTED, WALL OR CEILING AS INDICATED.	
FURNISHED BY HVAC, INSTALLED BY ELECTRICAL. REFER TO MECHANICAL DWGS FOR EXACT LOCATION.	
VERIFY BOX TYPE & LOCATION W/ MECHANICAL CONTRACTOR. 1/2" C. TO ABOVE CEILING.	

DBBIN

hopping Center For:	
elchamps LLC.	N A
caloosa, Alabama	



PROFESSIONAL

JOB No: 0732

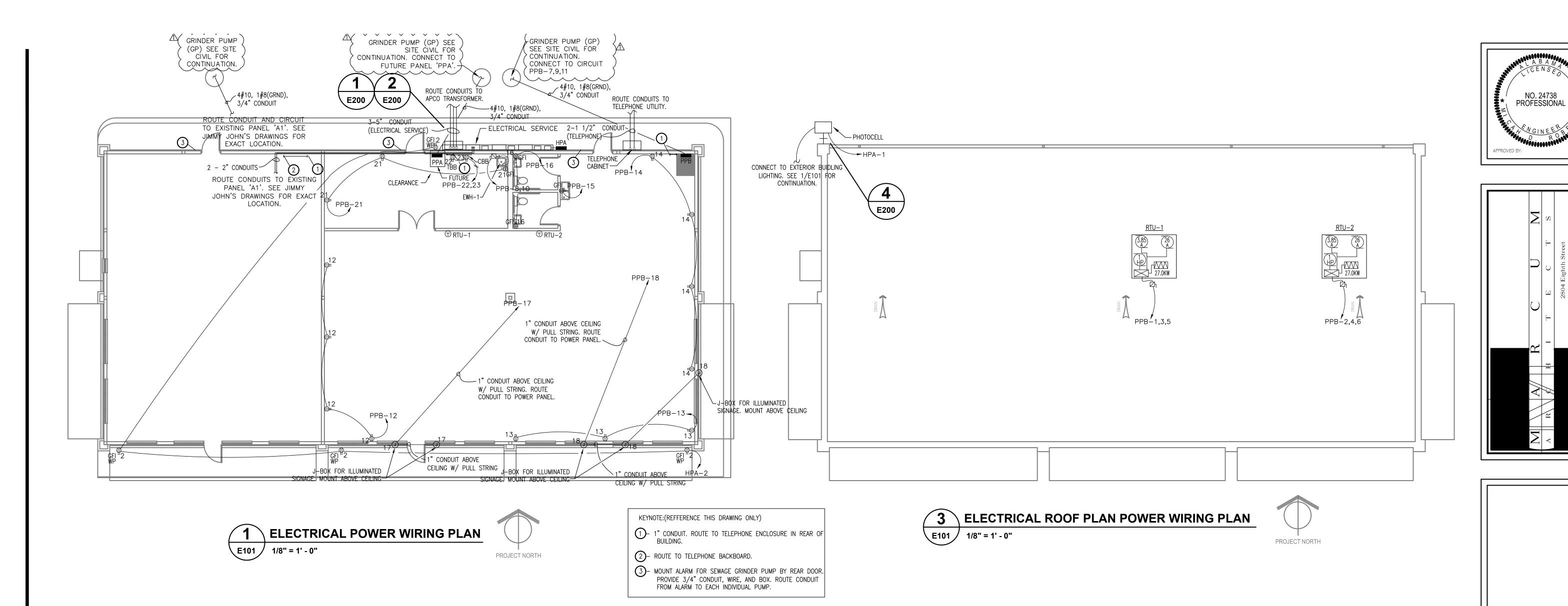
& SCHEDULES

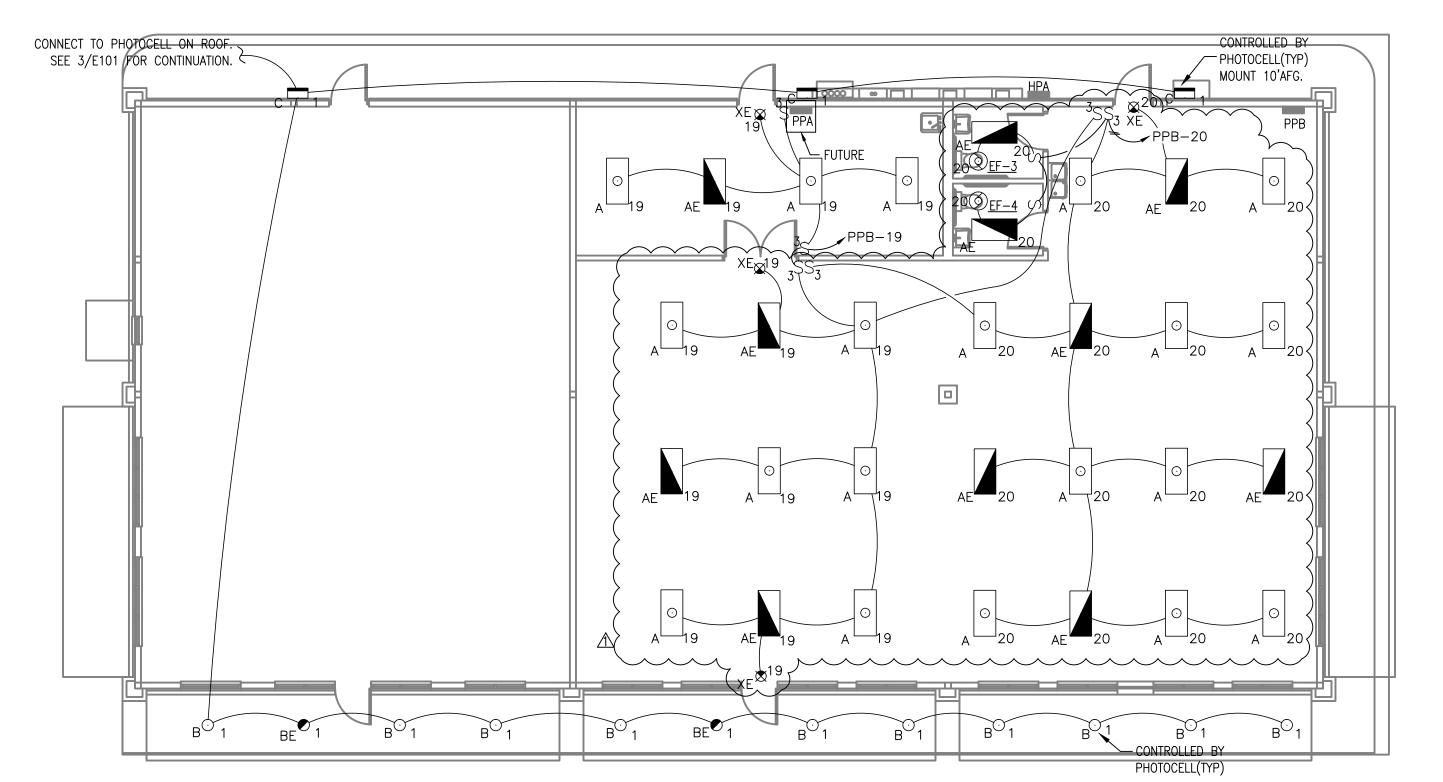
**REVISIONS:** 

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DATE: 03/25/08

**ELECTRICAL LEGEND** 





DISCONNECT SCHEDULE										
ID	AMP	VOLT	PHASE	POLE	NEMA					
RTU-1	200	208	3	3	3R					
RTU-2	200	208	3	3	3R					
EWH-1	30	208	1	2	1					

CONDUCTORS / CON FOLLOWING CHART U	DUITS SHALL BE S NLESS OTHERWISE	SIZED ACCORDIN NOTED.	G TO THE
CIRCUIT BREAKER	CU PHASE WIRE (AWG)	GROUND WIRE (AWG)	3/4" 3/4" 1" 1" 1" 1" 1 1/4" 1 1/4" 1 1/2" 2" 2" 2 1/2" 3"
20	<b>#</b> 12	#12	3/4"
30	#10	#10	
40	#8	#10	1"
50	#8	#10	1"
60	<b>#</b> 6	<b>#</b> 10	1"
70	<b>#</b> 6	#8	1"
80	#4	#8	1 1/4"
90	#4	#8	1 1/4"
100	<b>#</b> 3	#8	1 1/4"
125	<b>#</b> 1	<b>#</b> 6	1 1/2"
150	<b>#</b> 1/0	<b>#</b> 6	2*
175	#2/0	<b>#</b> 6	
200	#3/0	<b>#</b> 6	2"
225	#4/0	#4	2 1/2"
250	#250	#4	
400	<b>#</b> 500	#3	3 1/2"

. NEUTRAL CONDUCTOR (IF REQUIRED) SHALL BE THE SAME SIZE AS PHASE CONDUCTORS. 2. ALL LIGHTING CIRCUITS SHALL UTILIZE #10 AWG WIRE FOR VOLTAGE 3. ALL HVAC OR OTHER CYCLICAL EQUIPMENT SHALL UTILIZE HACR TYPE CIRCUIT BREAKERS. 4. CONTRACTOR TO PROVIDE QUANTITY OF CONDUCTORS AS NECCESSARY TO POWER LOADS. 5. CONDUIT SIZES BASES ON FOUR CONDUCTORS MAXIMUM. CONTRACTOR SHALL FOLLOW NEC GUIDELINES FOR DERATING AMPACITIES AND CONDUIT SIZES FOR ALL COMBINED CIRCUITS/HOMERUNS. 6. CONDUCTORS SHALL BE COPPER. INDICATED SIZES ARE FOR USE WITH COPPER CONDUCTORS.

7. FOR BREAKERS SIZES NOT INDICATED SUCH AS 25A, USE THE CONDUIT AND WIRE SIZE OF THE NEXT HIGHER LISTED BREAKER (30A.)

**REVISIONS:** 4-1-08 OWNER CHANGES **ELECTRICAL PLANS** 

DBBIN

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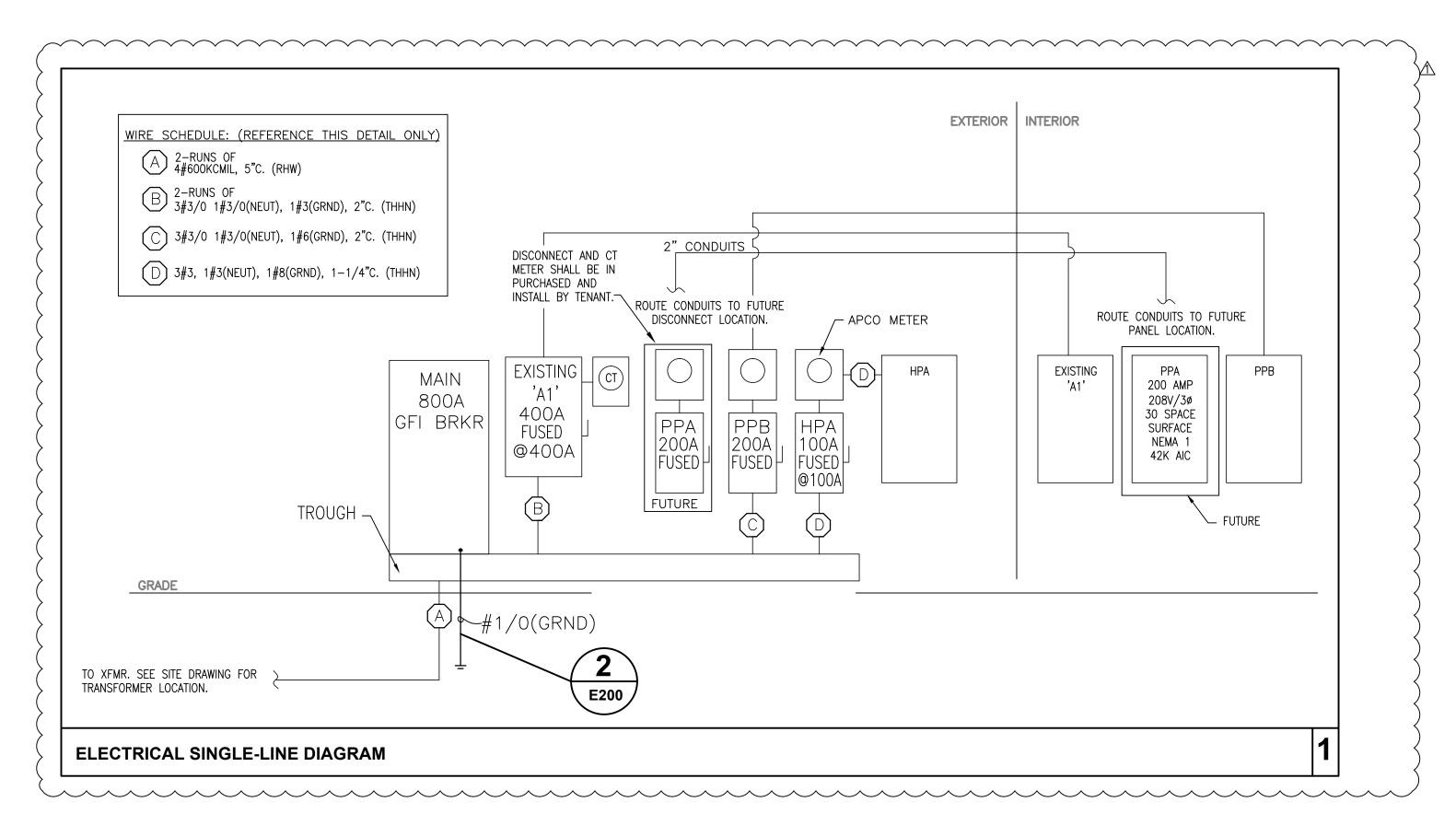
VERIFY SCALES IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

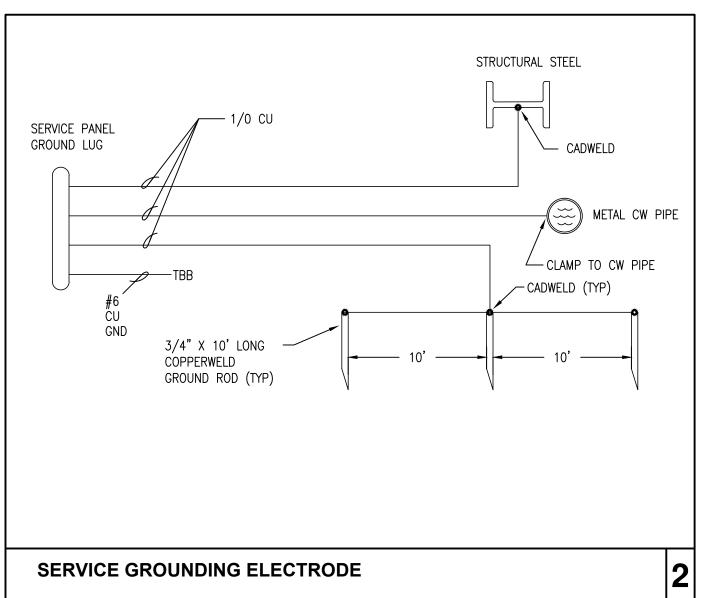
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a

ELECTRICAL LIGHTING WIRING PLAN E101 / 1/8" = 1' - 0"

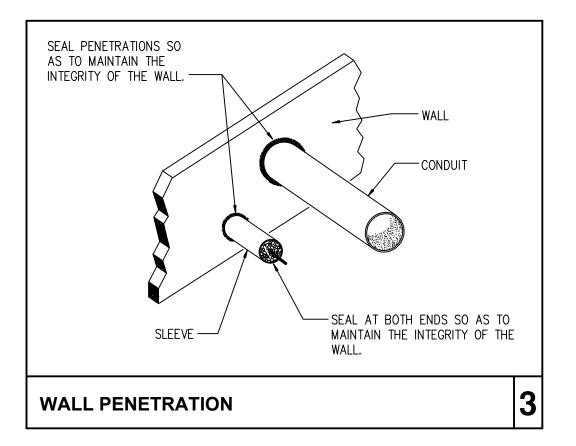
PROJECT NORTH

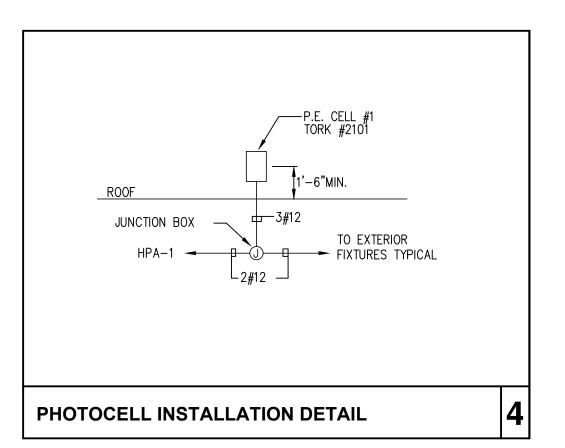




	LIGHTING FIXTURE SCHEDULE												
				REQUIR	ED LAMPS								
ID	MANUFACTURER	MODEL NO.	VOLTAGE	NUM.	TYPE	MOUNTING	NOTES						
Α	Metalux	2GR8-332A-EB81-U	120	3	32W, T8	Recessed Ceiling							
AE	Metalux	2GR8-332A-EM-EB81-U	120	3	32W, T8	Recessed Ceiling							
В	Pds	PD7-H142-E-7HC	120	1	32W, CFL	Recessed Ceiling	v Backup						
BE	Pds	PD7-H142EEM-7HEMC	120	1	32W, CFL	Recessed Ceiling	·						
С	Lumark	PL-IP-C-64-120V-EM	120	2	32W, CFL	Surface Wall	v Backup						
XE	Sure-Lite	AP70R	120	1	LED	Surface Wall	y Backup						

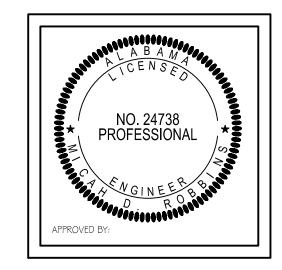
Battery Backup

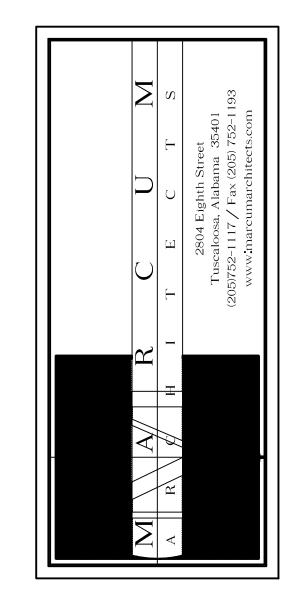


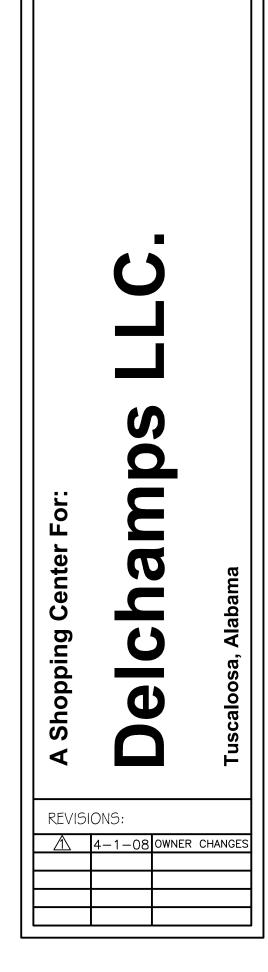


				El	ectr	ical	Н	⊃Д	Sch	redule						
VOLTS/I 208/3/	PHASE/W '4	/IRE	PAN 100	NEL SIZE & TYPE DA	MAIN S MLO	IZE & T	/PE	l	INET IA 3R	MIN SCC 22K AIC		FED FROM SERVICE	И	NO <sup>-</sup> SUF	TES RFACE	
CIRCUIT	TRIP	NO.	.	AREA SERVED	)	PHA	SE I	LOAD	VA	AREA SERVED		NO.		TRIP	CIRCUIT	
NO.	AMPS	POLE	S			А	-	W	С			POL	ES	AMPS	NO	
1	20	1		EXTERIOR LIGHT	ING	616										
						720				EXTERIOR RECPT		1		20	2	
3	20	1		SPARE												
										SPARE		1		20	4	
5	20	1		SPARE												
										EMPTY						
				EMPTY												
										[	EMPTY					
				EMPTY												
										EMPTY		•				
				EMPTY												
										[	EMPTY	•				
				CONNECTED	LOAD	1336	(	)	0	= 1336			•	•		•

VOLTS/I 208/3/		HASE/WIRE PANEL SIZE & TYPE MAIN SIZE & TYPE CABINET MIN SCC FED FROM NOTE 200A MLO NEMA 1 42K AIC SERVICE SURF				OTES JRFACE					
CIRCUIT	TRIP	NO.	AREA SERVED	PHA	ASE LO	DAD VA	AREA S	ERVED	NO.	IO. TRIP C	
NO.	AMPS	POLES		Α	В	С	1		POLES	AMPS	NO
1,3,5	125	3	RTU-1	11995							
				11995			RTU	-2	3	125	2,4,6
	125				1199	95					
					1199	95				125	
	125					11995					
						11995				125	
7,9,11	15	3	GP	899							
. ,				1000			- EWH	<b>-</b> 1	2	15	8,10
	15				899	)					<u> </u>
	-				100		1			15	
	15					899				1	
	, 5					720	-    W. RE	CPT	1	20	12
13	20	1	S. RECPT	540		7.20	.,,		'	+	'-
10	20		S. 1(20)	720			_   E. RE	CPT	1 1	20	14
15	20	1	WATER COOLER	1	750	)			'		' '
.5		'			360		_ RESTRM	RFCPT	1	20	16
17	20	1	SIGNAGE			1000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<del>  '</del>	20	10
17			SIONAGE			1000	- SIGNAGE		1	20	18
19	20	1	N LIGHTS	1324		1000	31014	-10L	<u> </u>	20	10
19	20	'	IN LIGHTS	1709			_ S LIG	т	1	20	20
21	20	1	N. RECPT	1709	540	\	3 Lie	1113	'	20	20
21	20	'	IN. RECFT		650		_ TB	D	1	20	22
23	20	1	CBB		030	650	16	Б	1	20	22
23	20	'	CDB			030	_ SPA	DE	1	20	24
25	20	1	SPARE				J.A.	NE .	'	20	24
23	20	'	SPARE				_ SPA	DE	1	20	26
27	20	1	SPARE				) SPA	I\L	1	20	26
۷/		'	SPARE				-	DE	1	20	20
- 20	20	1	CDADE				SPA	NE.	1	20	28
29	20	1	SPARE					T∨			
			FMDT/				EMF	1.1		-	
			EMPTY					T∨			
			FMDTV				EMF	1 T		1	
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VERIFY SCALES

IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

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**ELECTRICAL PLANS** JOB No: 0732 DATE: 03/25/08