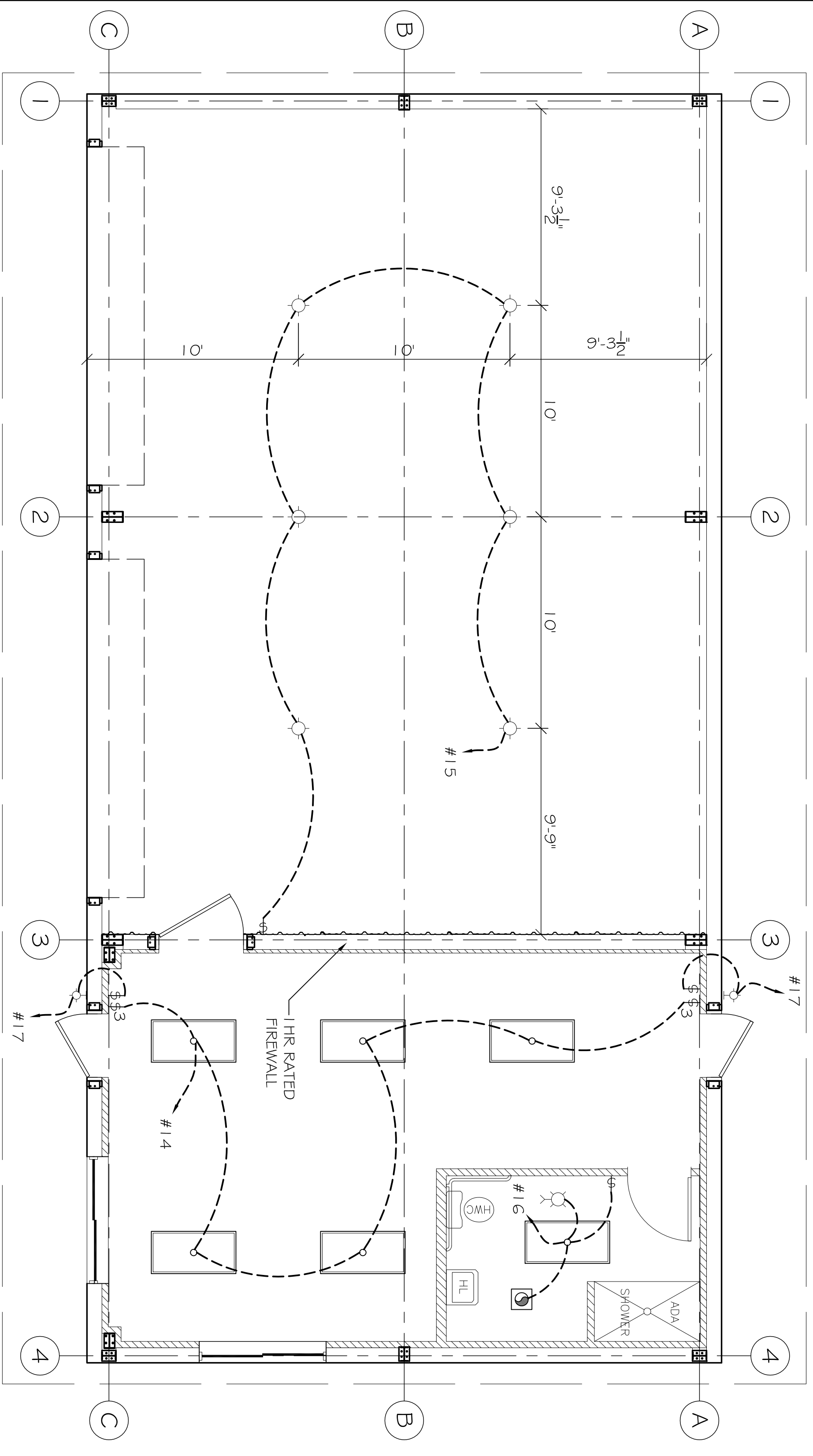


**POWER PLAN**  
SCALE: 1/4" = 1'-0"



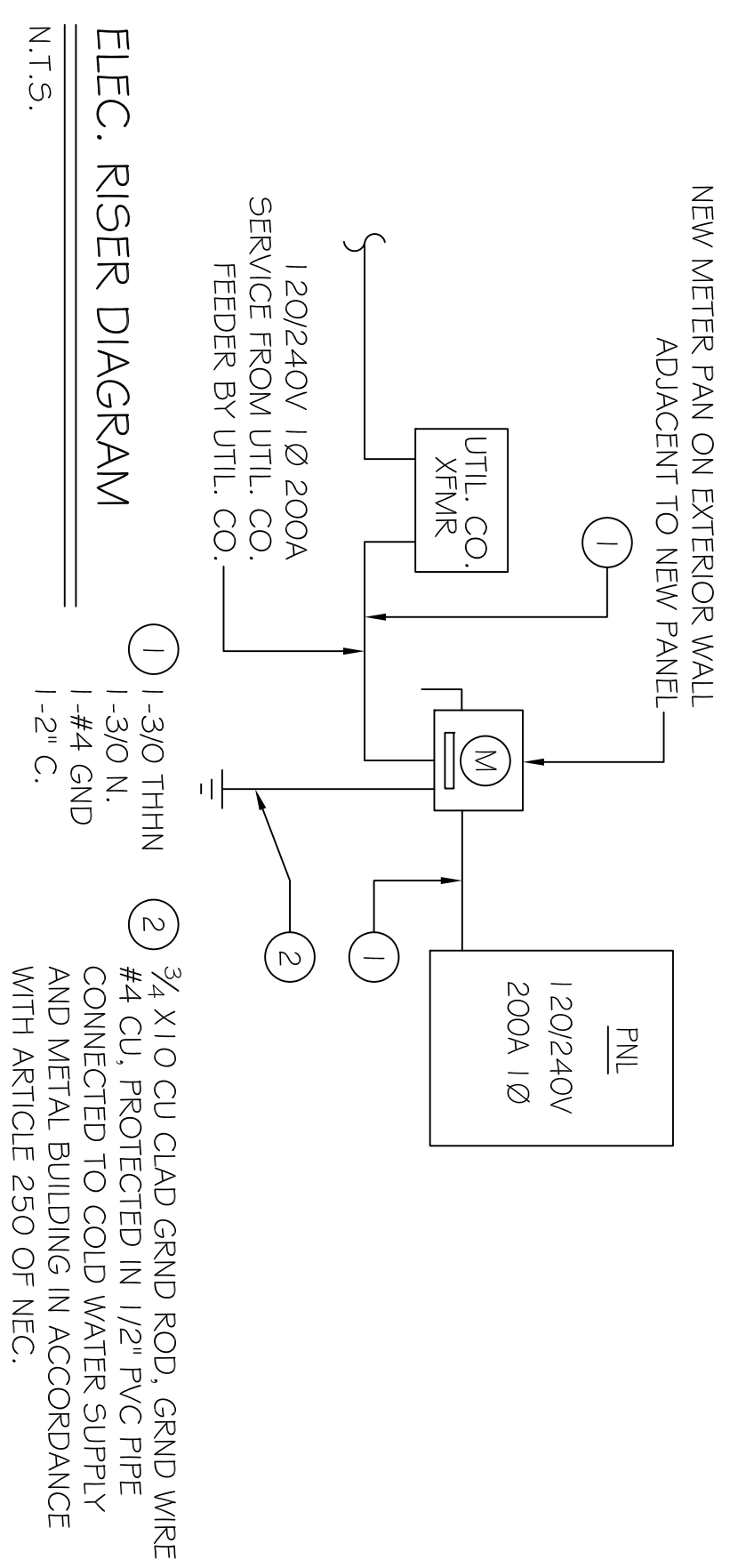
**LIGHTING PLAN**  
SCALE: 1/4" = 1'-0"

- LIGHTING PLAN SYMBOL LEGEND**
- - 2x4 FLOURESCENT, LAY-IN, PRISMATIC LENSE, 4x 32W T8 LAMPS
  - - EXTERIOR WALL MTD. FIXTURE, 1x 100W INCANDESCENT LAMP
  - - 16" ALUMINUM LOW BAY LIGHT, PULSE START, 1x 250W METAL HALIDE LAMP
  - - PULL CHAIN LIGHT FIXTURE IN ATTIC, 1x 75W INCANDESCENT LAMP
- NOTE: ALL LIGHTING FIXTURES TO BE SELECTED BY OWNER.

SYM.	DESCRIPTION	COMMENTS
⊕	STANDARD 110V DUPLEX RECEPTACLE @ 18" AFF (UNLESS NOTED)	ALL RECEPTACLES SHALL BE GFCI WITH NEMA 3R BASE. COORDINATE FACEPLATE COLOR WITH OWNER
⊕	STANDARD 220V DUPLEX RECEPTACLE @ 18" AFF (UNLESS NOTED)	COORDINATE LOCATION WITH OWNER
⊕	EXTERIOR 120V DUPLEX RECEPTACLE @ 24" AFF (UNLESS NOTED)	COORDINATE LOCATION WITH OWNER
⊕	220V GASETTED WATERPROOF HOUSING	
⊕	POWER DISCONNECT	
⊕	AIR CONDITIONING COND. UNIT SEE MECH SHEETS FOR UNIT DETAILS	
⊕	DUPLEX CMT 5 JACK WITH FACEPLATE NETWORKING CONNECTION AND T.V. COAXIAL CONNECTION WHERE REQUIRED	COORDINATE LOCATION WITH OWNER

**POWER PLAN LEGEND**

- ELECTRICAL NOTES**
- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC 2008 EDITION), THE GOVERNING ELECTRICAL CODE AND ALL OTHER INSPECTION DEPARTMENTS HAVING JURISDICTION. OBTAIN CERTIFICATES OR APPROVAL WHERE REQUIRED.
  - ALL MATERIALS FURNISHED SHALL BE NEW AND SHALL BE U.L. LISTED
  - THE DRAWINGS INDICATE SIZE AND GENERAL LOCATION OF WORK. SCALE DIMENSIONS SHALL NOT BE USED. THE EXACT LOCATION AND LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES AND TELEPHONE OUTLETS, ETC. SHALL BE DETERMINED BY ACTUAL CONDITIONS IN THE FIELD.
  - PRIOR TO BIDDING, CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AND WITH OTHER CONTRACTORS WHOSE WORK MAY AFFECT THIS INSTALLATION.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE INCOMING ELECTRICAL SERVICE WITH UTILITY COMPANY AND INCLUDE IN HIS BID ALL CHARGES AND FEES INCURRED IN MODIFICATIONS.
  - WHERE WORK THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN A GANG TYPE BOX UNDER ONE COVER PLATE.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE THE TELEPHONE INSTALLATION WITH THE TELEPHONE COMPANY AND THE GENERAL CONTRACTOR.
  - ELECTRICAL CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC. AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT, AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
  - PERFORM TEST REQUIRED BY THE OWNER OR THE ENGINEER IN CONNECTION WITH THE OPERATION OF THE ELECTRICAL SYSTEM IN THE BUILDING.
  - ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARD OF THE IEEE AND THE NATIONAL ELECTRICAL CODE.
  - MINIMUM CONDUCTOR SIZE SHALL BE #2, 600V INSULATION. MINIMUM SIZE CONDUIT SHALL BE 3/4" EMT FOR INTERIOR USE AND 3/4" RIGID ALUMINUM FOR EXTERIOR USE. USE TYPE NMC CABLE COPPER. FOR LIGHTS AND RECEPTACLE CIRCUITS. EXTERIOR FITTINGS SHALL BE CAST BOXES AND COVERS. INTERIOR FITTINGS SHALL BE CAST WHERE EXPOSED ON WALLS. STAMPED BOXES MAY BE USED ABOVE CEILINGS IN AIR CONDITIONED SPACES, WHERE LAY IN FIXTURES ARE IN USE. USE 1/4" 2 ALLOWED FOR 6" WIDTH.
  - CONTRACTOR SHALL INSTALL WIRING AND OTHER CIRCUIT COMPONENTS TO MATCH EQUIPMENT ACTUALLY INSTALLED.
  - INSTALL GROUND FAULT RECEPTACLES AT RECEPTACLE LOCATIONS WITHIN 5' OF SINKS OR LAVATORIES, AND AT EXTERIOR LOCATIONS. EXTERIOR RECEPTACLES SHALL ALSO BE WATERPROOF.
  - BONDING AND GROUNDING SHALL BE IN ACCORDANCE WITH NFPA 70:230-63, NFPA 250-23, 250-71 & 250-72.
  - GROUND NEUTRAL IN ACCORDANCE WITH NFPA 70:250-23b.
  - FUSES SHALL BE ITC CLASS K5, 250 VOLT, 200,000 AMP INTERRUPTING CAP.
  - PROVIDE SERVICES OF A FIRE/SMOKE DETECTION AND ALARM COMPANY TO DESIGN AND INSTALL ALARM SYSTEM TO MEET REQUIREMENTS OF THE STATE FIRE MARSHAL.
  - EXTERIOR LIGHTING SHALL BE SHADED OR INWARDLY DIRECTED IN SUCH A MANNER SO THAT NO DIRECT LIGHTING OR GLARE IS CAST BEYOND THE PROPERTY LINE. THE INTENSITY OF SUCH LIGHTING SHALL NOT EXCEED ONE FOOT CANDLE AS MEASURED AT THE ADJUTING PROPERTY LINE.
  - ALL ELECTRICAL, MECHANICAL AND PLUMBING PENETRATING FIRE PARTITIONS SHALL BE FIRE RATED. PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.)



**ELEC. RISER DIAGRAM**

CT NO.	THIN WIRE SIZE	LOCATION	BREAKER	AMP	FOUR	LOAD (VA)	LOAD (W)	POLE	AMP	LOCATION	THIN WIRE SIZE	CT NO.
1	#10	A/C COMPRESSOR UNIT	30	2	2300	4200	2	40	40	PHU 3 TON	#6	2
3	#6	4 0HP TANKLESS ELECTRIC WATER HEATER	60	2	6400	1500	2	20	20	220V OUTLET IN BEHIND BAY	#12	6
5	#6	220V OUTLET IN BEHIND BAY	20	2	1500	1500	2	20	20	COORDINATE LOCATION WITH OWNER	#12	8
7	#12	220V OUTLET IN BEHIND BAY	20	2	1500	1500	1	20	20	RECEPTACLES	#12	10
9	#12	220V OUTLET IN BEHIND BAY	20	2	1500	1500	1	20	20	RECEPTACLES	#12	12
11	#12	RECEPTACLES	20	1	1500	1500	1	20	20	OFFICE LIGHTING	#12	14
13	#12	RECEPTACLES	20	1	1500	1500	1	20	20	RESTROOM LIGHTING	#12	16
15	#12	SHOP LOW BAY LIGHTING	20	1	1500	1500	1	20	20	SPRINKLER SYSTEM	#12	18
17	#12	EXTERIOR LIGHTING	20	1	1500	1000	1	20	20	SHANE	#12	20
19	#12	SHOP EXHAUST FAN	20	1	1500	1500	1	20	20	BLANK	#12	22
21	#12	SHOP EXHAUST FAN	20	1	1500	1500	1	20	20	BLANK	#12	24
23	-	BLANK	-	-	-	-	-	-	-	-	-	-
						TOTAL CONNECTED LOAD (VA) = 62620						
						AG=20700						
						GROUND BULK						
						GROUND WIRE (Ø)						

**ELECTRICAL PLAN**

SHEET No: 04 OF 05

**E-1**

#	DESCRIPTION	DATE

**U.S. FISH & WILDLIFE SERVICE**  
NEW EQUIPMENT STORAGE BLDG.  
UPPER OUCHITA NATIONAL WILDLIFE REFUGE  
BASTROP, LA

JOB No: 2151      DATE: 10/02/12

DRAWN BY: BSN      CHECKED BY: BSN

**DAMMON ENGINEERING, INC.**  
Architects & Engineers

CHIEF ENGINEER: EMMETT DAMMON, P.E.  
CHIEF ARCHITECT: ROBERT WILTSE  
554 OLD SPANISH TRAIL  
SUDELL, LA 70458

dammonengineering.com  
dammoneng@bellsouth.net  
PHONE: 985-649-5832  
FAX: 985-641-5950