Date: 03/05/15
Inspectional Services Division
Approved with Conditions

POWER RISER DIAGRAM
NTS

LOAD BREAKDOWN

LOAD	KVA	FACTOR	KVA
RESIDENTIAL	372	0.41	152
RETAIL	48	1.00	48
HOUSE	30	1.00	30
SPARE	50	1.00	50
TOTAL	500		280

GENERAL POWER DISTRIBUTION NOTES

-BEFORE ORDERING ANY EQUIPMENT AND/OR START ANY CONSTRUCTION OR EXCAVATION ELECTRICAL CONTRACTOR AND/OR GENERAL CONTRACTOR SHALL CONTACT ELECTRIC/TELEPHONE/CATV COMPANIES FOR SERVICE POINT AND ROUTING, SERVICE AVAILABILITY.
THIS ENGINEER HAS MADE APPLICATION TO UTILITY COMPANY BUT YET NO CONFIRMATION HAS BEEN MADE BY THE UTILITY COMPANY. CONTRACTOR SHALL NOT PROCEED WITHOUT SUCH CONFIRMATION.

-FEEDERS ARE SIZED BASED ON %3 VD.
CONTRACTOR SHALL FOLLOW THE FOLLOWING CRITERIA.

50A, UP TO 100FT #6, INCREASE BY ONE SIZE FOR EVERY 30FT.
100A, UP TO 100FT #3, INCREASE BY ONE SIZE FOR EVERY 30FT.
200A, UP TO 150FT #3/0, INCREASE BY ONE SIZE FOR EVERY 50 FT.
400A, UP TO 200FT #500, INCREASE BY ONE SIZE FOR EVERY 50FT.

-FOR SWITCHGEAR SHORT CIRCUIT RATINGS, SEE NOTES UNDER PANEL SCHEDULES.

-PRIOR TO ORDERING ANY SWITCHGEAR ELECTRICAL CONTRACTOR SHALL CONFIRM CIRCUIT BREAKER SIZES WITH HVAC AND OTHER MECHANICAL EQUIPMENT SHOP DRAWINGS. DUE TO SUBMITTAL TIMING FROM VARIOUS CONTRACTORS, ENGINEERS APPROVAL IS GIVEN FOR QUALITY ONLY.

-CONTRACTOR SHALL COORDINATE WITH OTHER TRADES SO THAT NO OTHER TRADE SHALL PASS THROUGH ELECTRIC ROOM OR ABOVE DEDICATES SPACES. INFORM ARCHITECT/ENGINEER ABOUT ANY INFRINGEMENTS PRIOR SUCH INSTALLATIONS OCCUR.

-ELECTRIC ROOM DIMENSIONS ARE BASED ON CERTAIN MANUFACTURER EQUIPMENT DIMENSIONS, CONTRACTOR SHALL CONFIRM ROOM DIMENSIONS PRIOR TO ORDERING EQUIPMENT

GENERAL NOTES :

1- EXACT LOCATION OF ALL LIGHTING FIXTURES AND INSTALLATION DETAILS SHALL BE AS SHOWN ON THE LATEST ARCHITECTURAL REFLECTED CEILING PLAN AND ELEVATION/INSTALLATION DETAILS.

2- UNLESS NOTED OTHERWISE ALL WIRING SHALL BE FED FROM PANEL HP VIA #12 AWG-CU, 20A/1P CB. HOMERUNS LONGER THAN 100 FEET SHALL BE #10CU.

3- MOUNTING HEIGHTS SHALL BE AS FOLLOWS :
WALL SCONCES : 7'-0" TO CENTER LINE
PULL STATIONS : 4'-0" TO CENTER LINE
HORN/STROBES : 6'-8" TO CENTER LINE
RECEPTACLES : 18" TO CENTER LINE
ALL CONTROL SWITCHES : 4'-0" TO CENTER LINE
EMERGENCY LIGHTS : 6'-8" TO BOTTOM OF FIXTURE.
HC UNIT PANELS : 4'-0" TO TOP BREAKER
ALL CONTROL DEVICES SHALL BE MIN 18" AWAY FROM CORNER
REMOTE EMERGENCY LIGHTS AND EMERGENCY BATTERIES TO BE MOUNTED 6'-8" AFF TO THE BOTTOM.

ELECTRICAL SPECIFICATIONS

1.1 General

A. The General Conditions and Drawings issued for this Project shall be considered as part of the Electrical Specifications.
B. The term "This Contractor" as used under this Section and wherever used on the Drawings shall mean the Electrical Contractor.

1.2 Scope of Work

A. The work under this Specification includes the furnishing of all labor and material as specified herein and as shown on the Drawings necessary to install a complete and ready for operation. Manufacturer's catalogue numbers are shown for reference purposes only. They are meant to provide a general description of the design and quality of materials required. Equivalent products by other manufacturers will be considered.

1.3 Codes and Specifications

A. The work shall be conducted in accordance with the latest rules and regulations of the State of MASSACHUSETTS and the local codes as most recently issued, OSHA codes, National Electrical Codes and NFPA.
B. All exposed wiring shall be in electric metallic tubing. All concealed wiring shall be in accordance with local codes.
C. All branch circuit conductors shall be copper, minimum #12 AWG size THHN or THWH as required, 600V rated.
D. All feeder conductors shall be copper, AWG size as noted XHHW insulation, 600V.

1.4 Coordination of Work

A. The Contractor shall schedule and coordinate his work with all trades involved to insure proper installation and operation.
B. The Contract Drawings are diagrammatic only and indicate the extent, general locations and arrangement of the piping and wiring of equipment. The exact locations shall be coordinated with Architectural Drawings and Documents of other trades.
C. This Contractor shall verify fixture mounting and location against plans, elevations and detail drawings. Exact location of all fixtures shall be confirmed with owner's representative prior to rough-in.
D. Submit Shop Drawings and product data within thirty (30) days after award of the Contract. Check, stamp and mark with project name submittals before transmitting to Architect. Indicate deviations from Contract Documents.
E. This Contractor shall give notices, file plans, obtain permits and licenses, pay fees and back charges, and obtain the necessary approvals from authorities that have jurisdiction.
F. Material and equipment shall be UL, ASME and AGA approved for intended service.
G. Guarantee work in writing for one year from date of final acceptance. Repair or replace defective materials or installation at no cost to Owner. Correct damage caused in making necessary repairs and replacements under guarantee at no cost to the Owner.
H. Submit guarantee to Architect before final payment.

PANEL SCHEDULE

ITEM	VOLT/PHS/W	MLO	MCB	CIRC	F:Flush S:Surf.	P:Plug B:Bolt	BRANCH BREAKERS SPR=SPARE SPC=SPACE
PANEL HP	120-208/3/4	200	-	42	S	B	(1)100/3, (4)30/2, (24)20/1
PANEL LC	120-208/1/3	125	-	30	F	P	(1)50/2, (2)30/2, (6)20/1, (8)20/1 AFI, (8)15/1 AFI
PANEL TP-1	120-208/1/3	200	-	42	S	B	(2)50/2, (2)30/2, (30)20/1
PANEL TP-2	120-208/1/3	200	-	42	S	B	(2)50/2, (2)30/2, (30)20/1

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SHWARTZ BUILDING RENOVATIONS

ELECTRICAL
RISER DIAGRAM AND DETAILS
scale: NTS

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