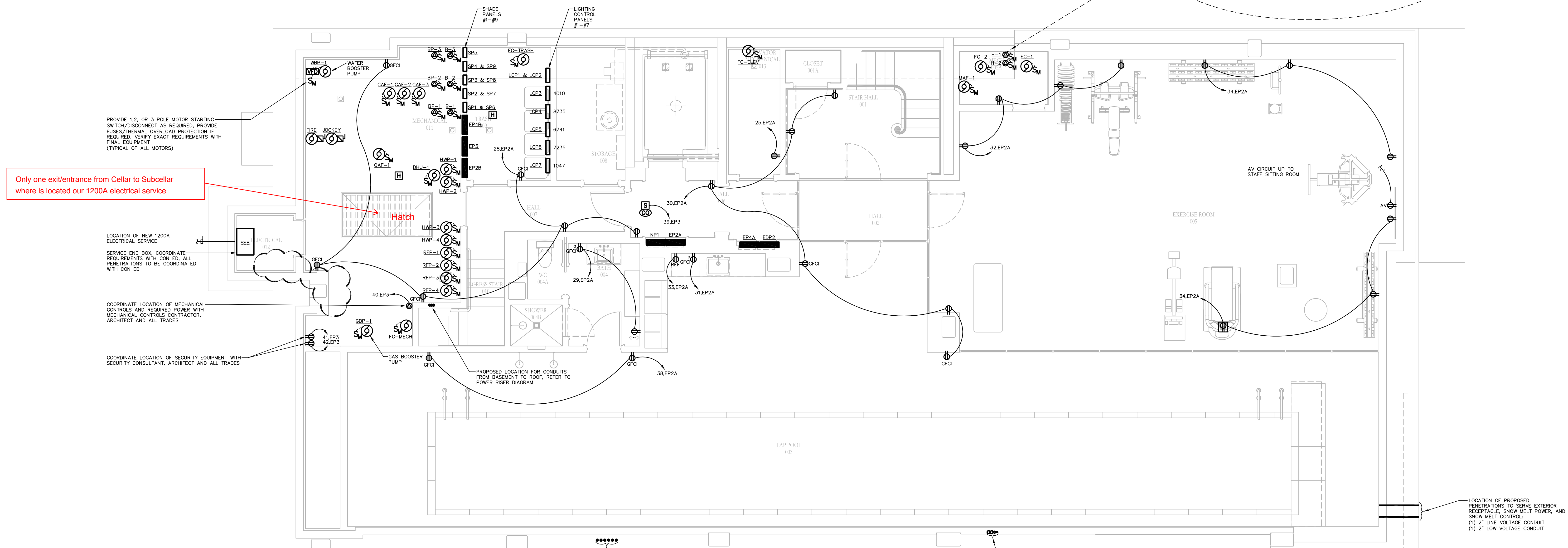


2 FIRST FLOOR ELECTRICAL PLAN
 SCALE: 1/4"=1'0"



Hatch - only one exit/entrance from Cellar to Subcellar
Our 1200A service should be located under stairs as shown
in Subcellar

LOCATION OF PROPOSED PENETRATIONS TO SERVE
EXTERIOR RECEPTACLE, SNOW MELT POWER, AND
SNOW MELT CONTROL:
(1) 2" LINE VOLTAGE CONDUIT &
(1) 2" LOW VOLTAGE CONDUIT
NOTE: PROVIDE LINK SEAL OR EQUIVALENT FOR
WATER TIGHT PENETRATIONS (TYPICAL OF ALL
PENETRATIONS)

PROPOSED LOCATION
FOR SNOW MELT
PANELS/CONTROLLER

LOCATION OF MAIN SWITCH AND
CTCAB TO BE APPROVED BY AHJ
AND CON ED

72" HEADROOM
REQUIRED

75.5" HEADROOM
REQUIRED

WORKING CLEARANCE

MDP

BU-1

CHL-2

SP-1

SP-2

SP-3

SP-4

SP-5

SP-6

SP-7

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SP-9

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THREE PHASE FEEDER SCHEDULE							
CIRCUIT SYMBOL	CONDUCTORS (3 PH, 3W) WITH GROUND	CONDUIT SIZE	CONDUCTORS (3 PH, 4W) WITH GROUND	CONDUIT SIZE	OVERCURRENT RATING	MAX DISTANCE @ 250V	MAX DISTANCE @ 100% LOAD
(1)	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"	15A	-	-
(2)	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"	20A	-	-
(2.5)	3#12 & 1#12G	3/4"	4#12 & 1#12G	3/4"	25A	-	-
(3)	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"	30A	-	-
(3.5)	3#10 & 1#10G	3/4"	4#10 & 1#10G	3/4"	35A	-	-
(4)	3#8 & 1#10G	3/4"	4#8 & 1#10G	3/4"	40A	-	-
(4.5)	3#8 & 1#10G	3/4"	4#8 & 1#10G	3/4"	45A	-	-
(5)	3#8 & 1#10G	3/4"	4#8 & 1#10G	3/4"	50A	-	-
(6)	3#6 & 1#10G	3/4"	4#6 & 1#10G	3/4"	60A	-	-
(7)	3#4 & 1#8G	1"	4#4 & 1#8G	1 1/4"	70A	-	-
(8)	3#4 & 1#8G	1"	4#4 & 1#8G	1 1/4"	80A	-	-
(9)	3#3 & 1#8G	1 1/4"	4#3 & 1#8G	1 1/4"	90A	-	-
(10)	3#3 & 1#8G	1 1/4"	4#3 & 1#8G	1 1/4"	100A	-	-
(11)	3#2 & 1#8G	1 1/4"	4#2 & 1#8G	1 1/4"	110A	-	-
(12)	3#1 & 1#8G	1 1/2"	4#1 & 1#6G	1 1/2"	125A	-	-
(15)	3#1/0 & 1#6G	1 1/2"	4#1/0 & 1#6G	2"	150A	-	-
(17)	3#2/0 & 1#6G	2"	4#2/0 & 1#6G	2"	175A	-	-
(20)	3#3/0 & 1#6G	2"	4#3/0 & 1#6G	2"	200A	-	-
(22)	3#4/0 & 1#4G	2"	4#4/0 & 1#4G	2 1/2"	225A	-	-
(25)	3#250KCMIL & 1#4G	2 1/2"	4#250KCMIL & 1#4G	3"	250A	-	-
(30)	3#350KCMIL & 1#4G	3"	4#350KCMIL & 1#4G	3"	300A	-	-
(35)	3#500KCMIL & 1#3G	3"	4#500KCMIL & 1#3G	4"	350A	-	-
(40)	3#500KCMIL & 1#3G	3"	4#500KCMIL & 1#3G	4"	400A*	-	-
(45)	(2)3#4/0 & 1#2G	3"	2 SETS OF 4#4/0 & 1#2G	(2) 3"	450A	-	-
(50)	(2)3#250KCMIL & 1#2G	4"	2 SETS OF 4#250KCMIL & 1#2G	(2) 3"	500A	-	-
(60)	(2)3#350KCMIL & 1#1G	4"	2 SETS OF 4#350KCMIL & 1#1G	(2) 3"	600A	-	-
(70)	(2)3#500KCMIL & 1#1/OG	(2) 3"	2 SETS OF 4#500KCMIL & 1#1/OG	(2) 4"	700A	-	-
(80)	(2)3#500KCMIL & 1#1/OG	(2) 3"	2 SETS OF 4#500KCMIL & 1#1/OG	(2) 4"	800A*	-	-
(90)	(3)3#350KCMIL & 1#2/OG	(3) 3"	3 SETS OF 4#350KCMIL & 1#2/OG	(3) 3"	900A	-	-
(100)	(3)3#500KCMIL & 1#2/OG	(3) 3"	3 SETS OF 4#500KCMIL & 1#2/OG	(3) 4"	1000A	-	-
(120)	(4)3#350KCMIL & 1#3/OG	(4) 3"	4 SETS OF 4#350KCMIL & 1#3/OG	(4) 4"	1200A	-	-
NOTES:							
1. UNLESS OTHERWISE INDICATED, CONDUCTOR SIZING SHALL MATCH THE SIZE INDICATED ABOVE FOR THE APPLICABLE OVER CURRENT DEVICE. PROVIDE LARGER CIRCUIT WHERE INDICATED.							
2. PROVIDE MINIMUM SIZE CONDUIT INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.							
3. PROVIDE A 4--WIRE CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL.							
4. MINIMUM SIZE CONDUIT UNDERGROUND IS 4 INCH EXCEPT FOR SITE BRANCH CIRCUITS SUCH AS LIGHTING AND MISCELLANEOUS POWER AND SYSTEMS WHICH SHALL BE A MINIMUM OF 1 INCH.							
5. PROVIDE TYPE OF RACEWAY OR CABLE AS INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS.							
6. REFER TO PANELBOARD SCHEDULES & ONE--LINE RISER DIAGRAM FOR CONDUCTOR & CONDUIT SIZE REQUIREMENTS FOR MOTOR LOADS.							
7. ALL CONDUCTOR SIZES ARE BASED ON 75°C (167°F), ALL EQUIPMENT CONNECTED TO WIRES SHALL BE RATED FOR 75°C (167°F).							
8. TOTAL MAXIMUM VOLTAGE DROP NOT TO EXCEED 5% MAXIMUM VOLTAGE DROP FOR ALL SERVICE FEEDERS NOT TO EXCEED 2%.							
* 500KCMIL CONDUCTORS ARE ONLY RATED FOR 380AMPS EACH							

DWELLING UNIT ELECTRICAL SERVICE CALCULATION SHEET

RESIDENCE 11-13 East 67th Street
PROJECT NUMBER 2012098
STATE NY
CON ED CASE # 1317884
Note: This Calculation sheet has been based on the 2008 NEC and Section 220-B and Annex D and has been designed for very limited user input.

DWELLING SYSTEM VOLTAGE 208
SYSTEM PHASE 3

UNIT TYPES	QTY	SQFT	W/SF	SUBTOTAL	SM APPL	LAUNDRY	METHOD 1 TOTAL VA
Main House	1	26500	3	79500	7500	4500	91500

INDIVIDUAL UNIT CALCULATION

NFPA 70 220-B - METHOD 1

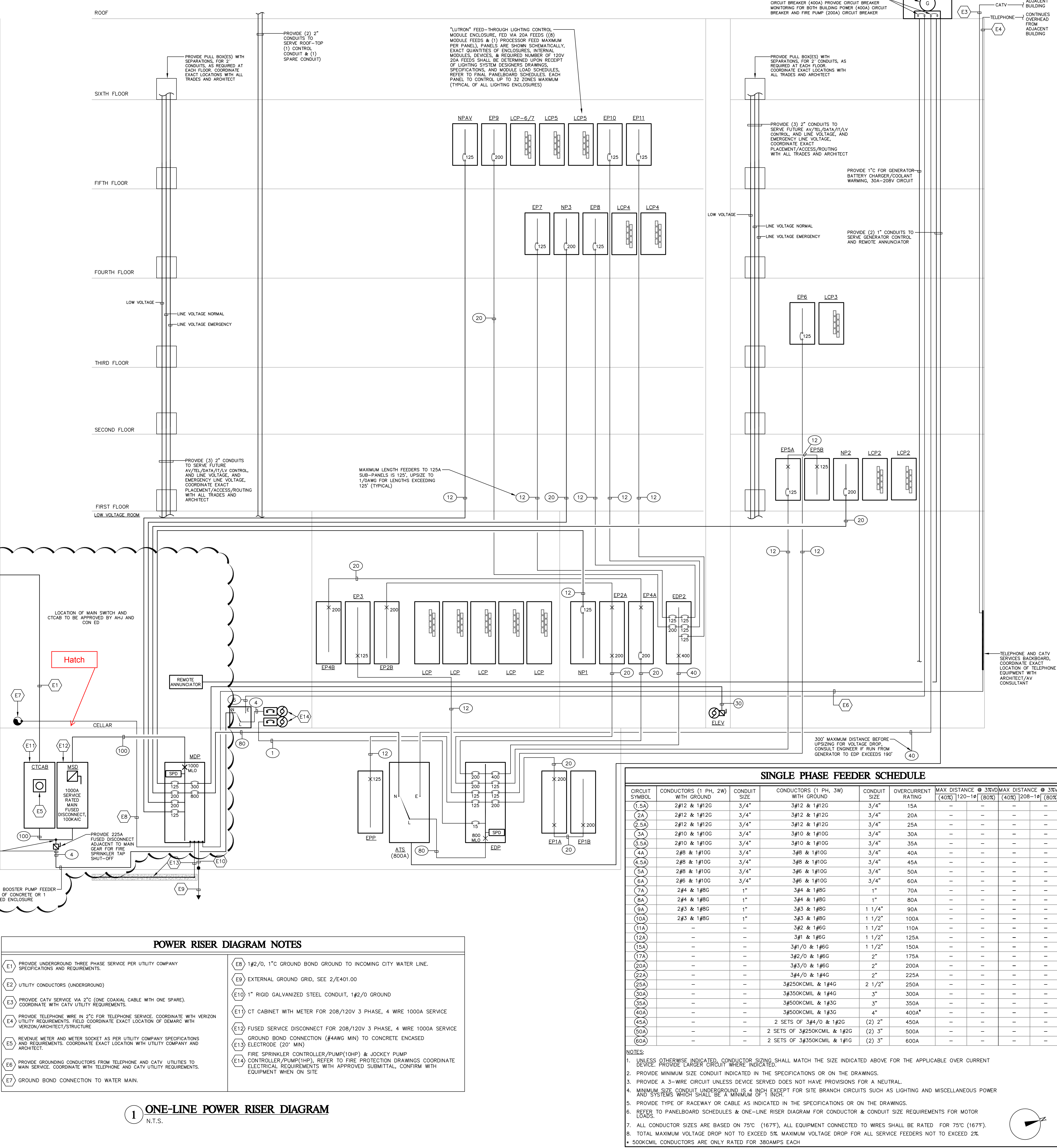
DESCRIPTION	LOAD	FACTORS	VA	VA
First 3000 VA	up to 3000	1	3000	
3001-120000VA	up to 117k	0	0	
120001VA and up		0	0	
Heating	1.00	89697		
Air Conditioning	1.00	141101		
A.C. Heat Load		141101		

Main House Appliance Loads (sum=4-75% else 100%)

	LOAD	FACTORS	VA	VA
Booster Pump	3328	100%	3328	3328
Storm/Sewer Sumps (2)	2880	100%	2880	2880
Recirc Pump (1)	240	100%	240	240
Ranges/Ovens (3)	11400	100%	11400	8000
Dryers (3)	15000	100%	15000	5000
Elevator (Commercial)	44000	100%	44000	
Elevator Sump Pump	1000	100%	1000	1000
Sewage Ejection Pump	1250	100%	1250	1250
Gas Booster Pump	700	100%	700	700
Steam Generator	15000	75%	11250	
Refrigerator/Freezers (3)	3600	75%	2700	2700
Undercab. Refrigerators (8)	3840	75%	2880	3840
Wine Refrigerator	216	75%	162	162
Ice Makers (3)	1440	75%	1080	720
Dishwasher (4)	4800	75%	3600	1200
Microwave Drawer (2)	1900	75%	1425	713
Warm Drawer	850	75%	638	
Rotary Iron	1500	75%	1125	
Towel Warmer	175	75%	131	
Garbage Disposals (2)	2448	75%	1836	
Insta-Hot (2)	1920	75%	1440	1500
Shades	5000	75%	3750	
Kitchen Exhaust	750	75%	563	
Audio/Video	8000	75%	6000	
Gym	2000	75%	1500	
Pool Equipment	15000	100%	15000	15000
Site Lighting	3000	100%	3000	
Snow melt (650 sq ft)	40500	100%	40500	
Fire & Security Systems	1500	100%	1500	1500

TOTAL VOLT-AMPERES	323978	109833
MIN SERVICE REQUIRED	899	305

DWELLING SERVICE BREAKER (AMPS) 100Q 85 KW Generator
CES ENGINEERING, LLC



ONE-LINE POWER RISER DIAGRAM

N.T.S.