MOTOR FEEDER SCHEDULE

MOTOR HP	SYSTEM VOLTAGE	MAXIMUM CB/FUSE	PHASE CONDUCTOR	GROUNDING CONDUCTOR	CONDUIT SIZE
THRU 3	208	20/20	3#12	#12	1/2"
5	208	35/30	3#10	#10	1/2"
7-1/2	208	50/40	3#8	#10	3/4"
10	208	60/50	3#8	#10	3/4"
15	208	90/80	3#4	#8	1"
20	208	110/100	3#3	#6	1-1/4"
25	208	150/125	3#1	#6	1-1/4"
30	208	175/150	3#1/0	#6	1-1/2"
40	208	225/200	3#1/0	#4	1-1/2"
50	208	250/250	3#3/0	#4	2"
60	208	350/300	3#4/0	#3	2"
75	208	400/350	3#300KCMIL	#3	2-1/2"

MOTOR FEEDER SCHEDULE NOTES:

1. BASED ON THWN/THHN COPPER CONDUCTORS.
2. 1/2" MINIMUM CONDUIT SIZE.
3. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN EVERY FEEDER AND BRANCH CIRCUIT RACEWAY.
4. GROUNDING CONDUCTOR SIZE BASED ON MAXIMUM OVERCURRENT PROTECTION.

WIRE AND CONDUIT SCHEDULE

FEEDER AMPS	NOMINAL OCP AMPS	PHASE CONDUCTORS	NEUTRAL CONDUCTOR	GROUNDING CONDUCTOR	CONDUIT SIZE
20	20	3#12	#12	#12	3/4"
30	30	3#10	#10	#10	3/4"
40	40	3#8	#8	#10	3/4"
55	60	3#6	#6	#10	1"
70	70	3#4	#4	#8	1-1/4"
95	100	3#2	#2	#8	1-1/4"
130	125	3#1	#1	#6	1-1/2"
150	150	3#1/0	#1/0	#6	1-1/2"
175	175	3#2/0	#2/0	#6	2"
200	200	3#3/0	#3/0	#6	2"
230	225	3#4/0	#4/0	#4	2-1/2"
255	250	3#250KCMIL	#250KCMIL	#4	2-1/2"
310	300	3#350KCMIL	#350KCMIL	#4	3"
380	400	3#500KCMIL	#500KCMIL	#3	3-1/2"
620	600	(2) 3#350KCMIL	(2) #350KCMIL	(2) #1	(2) 3"
760	800	(2) 3#500KCMIL	(2) #500KCMIL	(2) #1/0	(2) 3-1/2"
1140	1000	(3) 3#500KCMIL	(3) #500KCMIL	(3) #2/0	(3) 3-1/2"
1240	1200	(4) 3#350KCMIL	(4) #350KCMIL	(4) #3/0	(4) 3"
1900	1600	(5) 3#500KCMIL	(5) #500KCMIL	(5) #4/0	(5) 3-1/2"
2280	2000	(6) 3#500KCMIL	(6) #500KCMIL	(6) #250KCMIL	(6) 3-1/2"

FEEDER SCHEDULE NOTES:

1. BASED ON THWN/THHN COPPER CONDUCTORS.
2. 3/4" MINIMUM CONDUIT SIZE. #12 MINIMUM WIRE SIZE.
3. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN EVERY FEEDER AND BRANCH CIRCUIT RACEWAY.

GENERAL NOTES:

1. SEE WIRE AND CONDUIT SCHEDULE FOR FEEDER SIZES.

ELECTRICAL RISER NOTES:

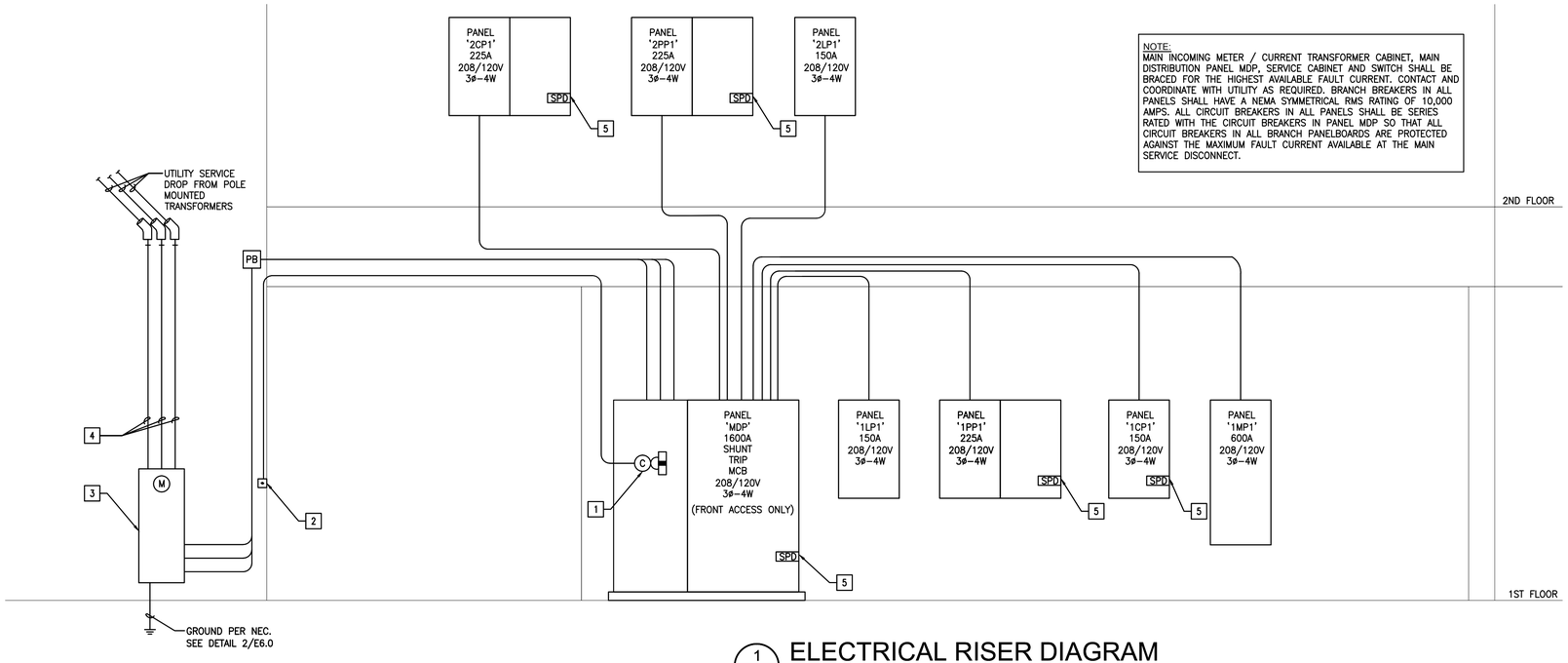
1. PROVIDE CONDUIT, WIRE AND INTEGRAL SHUNT TRIP MECHANISM AS REQUIRED.
2. MAIN SERVICE SHUNT TRIP EMERGENCY POWER STOP ON EXTERIOR OF BUILDING. COORDINATE LOCATION WITH AHJ.
3. PROVIDE METER/CURRENT TRANSFORMER BASE/ENCLOSURE ON EXTERIOR OF BUILDING PER. N.E.C. AND UTILITY COMPANY REQUIREMENTS. COORDINATE EXACT LOCATION WITH UTILITY COMPANY AND OWNER.
4. PROVIDE SECONDARY FEEDER, CONDUIT AND WEATHERHEAD AS REQUIRED BY UTILITY COMPANY.
5. SURGE PROTECTIVE DEVICE (SPD) SHALL BE AN INTEGRAL UNIT PROVIDED AND INSTALLED BY SWITCHBOARD MANUFACTURER.

Service Entrance Load summary

Lighting	56.33 x	125%		=	70.41 KVA
Receptacles	10.00	+ ##### x	50%	=	81.77 KVA
Motor	32.25	+ 51.2 x	100%	=	83.45 KVA
Heating	153.70			=	0.00 KVA
AC	172.5			=	172.50 KVA
Miscellaneous	57.50			=	57.50 KVA
					465.63 KVA

Main Service Entrance Ampere Requiremets **1292.46 Amps**

Main Service Fuse size ***OK***



1 / E4.0 ELECTRICAL RISER DIAGRAM
SCALE: NTS

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No.	Date	Revision	By
1	05.02.14	ADDENDUM #2	RST
2	05.30.14	PERMIT SET	MAT
3	06.02.14	PERMIT SET	DLM
4	06.09.14	PERMIT SET	DLM
5	06.12.14	PERMIT SET	DLM
6	06.16.14	PERMIT SET	DLM
7	06.20.14	PERMIT SET	DLM
8	06.23.14	PERMIT SET	DLM

Designed by: RST
Drawn by: MAT
Checked by: DLM
Approved by: DLM
Scale: AS NOTED
Date: 05.02.14
Job No.: L12802.1
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ELECTRICAL RISER DIAGRAMS

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