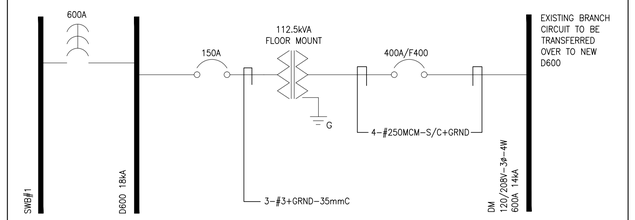


NOTE: PROVIDE NEW 150A BREAKER FOR NEW 112.5kVA STEP-UP

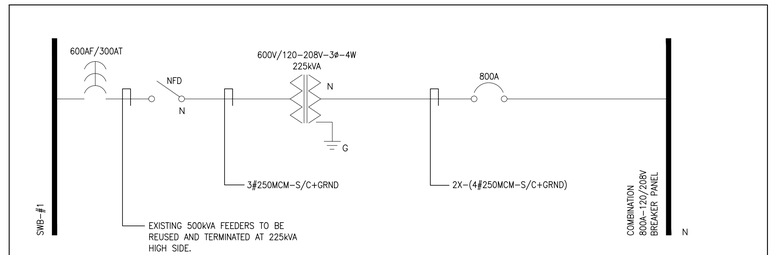
1 E16 600V/120-208V-3P-4W, 8th FLOOR KITCHEN
N.T.S.

SUPPLY FAN – 50A H/O/A	SPARE	INCOMING FEED FROM FDP-SA 200A-3ø-3W TOP FED
RETURN FAN – 50A H/O/A	SPARE	
AIR COMPRESSOR – 20A H/O/A	600V DISCONNECT SPLITTER 100A	18kA BUS BAR RATED 400A NEMA1
CHILLER – 80A H/O/A	FAN SHUT-DOWN RELAYS FIRE ALARM	
SPRAY DOWN – 15A H/O/A	CONTROL TRANSFER	
SPARE	SPARE	

* CONTROLS BY DIV. 25
* STARTER RATED AS PER FLA LISTED
* STARTER TYPE ELECTRO MAGNETIC C/W HAND OFF SWITCH

FIRE ALARM BY CONTRACTOR – REINSTATE FA SHUTDOWN.

2 E16 MCC#1-600V-3P-3W-600A, 18kA (EXISTING LOADS)
N.T.S.



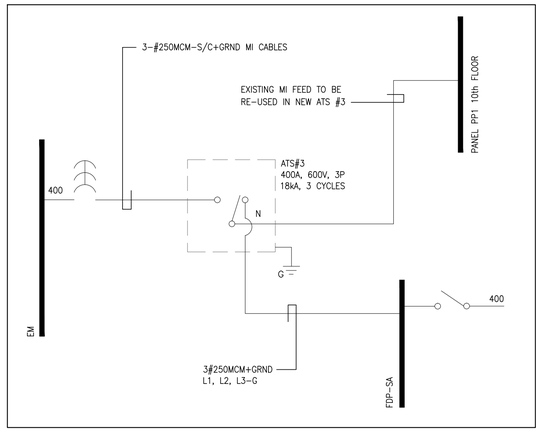
NOTE: EXISTING GROUNDING SHALL BE CONNECTED TO 225kVA TRANSFORMER BETWEEN MAIN BUILDING SERVICE GROUND AND TRANSFORMER.

NOTE: CONFIRM PHASING ON SITE

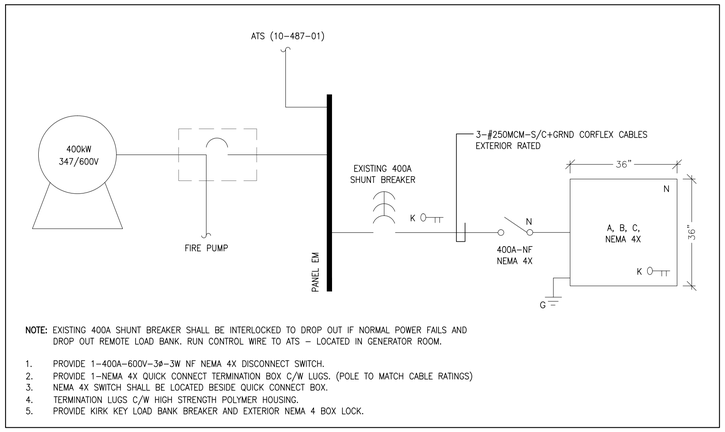
PANEL – FDP-W, FDP-T, FDP-C

TRANSFORMER – T-10, T-05, T-04

3 E16 TYPICAL TRANSFORMER AND PANEL DETAILS – T10, T05 AND T04
N.T.S.



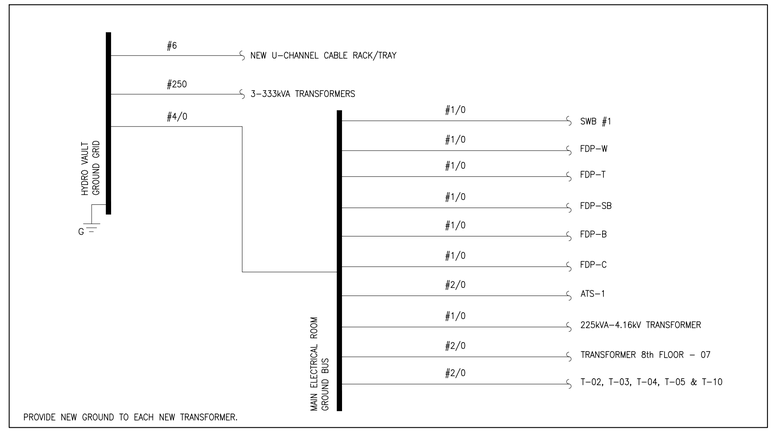
4 E16 NEW ATS #3 LAYOUT – 400A
N.T.S.



NOTE: EXISTING 400A SHUNT BREAKER SHALL BE INTERLOCKED TO DROP OUT IF NORMAL POWER FAILS AND DROP OUT REMOTE LOAD BANK. RUN CONTROL WIRE TO ATS – LOCATED IN GENERATOR ROOM.

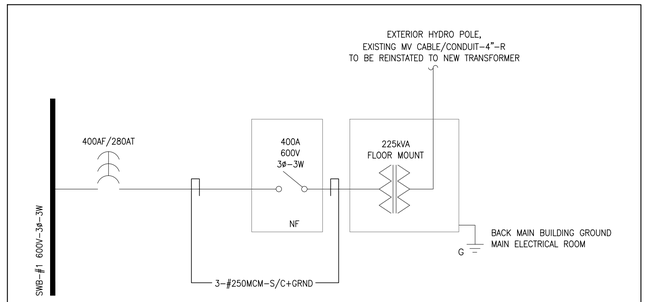
1. PROVIDE 1-400A-600V-3ø-3W NF NEMA 4X DISCONNECT SWITCH.
2. PROVIDE 1-NEMA 4X QUICK CONNECT TERMINATION BOX C/W LUGS. (POLE TO MATCH CABLE RATINGS)
3. NEMA 4X SWITCH SHALL BE LOCATED BESIDE QUICK CONNECT BOX.
4. TERMINATION LUGS C/W HIGH STRENGTH POLYMER HOUSING.
5. PROVIDE KIRK KEY LOAD BANK BREAKER AND EXTERIOR NEMA 4 BOX LOCK.

5 E16 EXTERIOR LOAD BANK QUICK CONNECT
N.T.S.



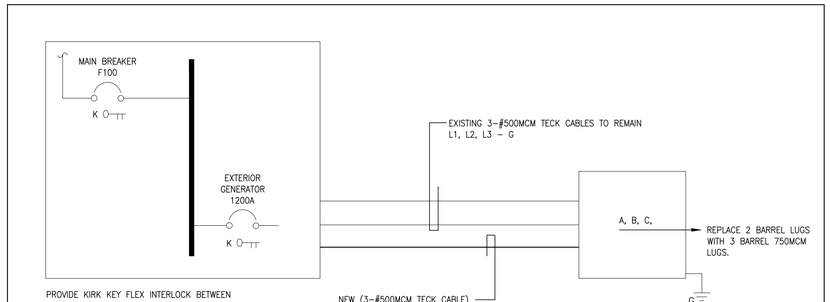
PROVIDE NEW GROUND TO EACH NEW TRANSFORMER.

10 E16 GROUNDING SINGLE LINE – NEW SYSTEM GROUND CONNECTIONS
N.T.S.

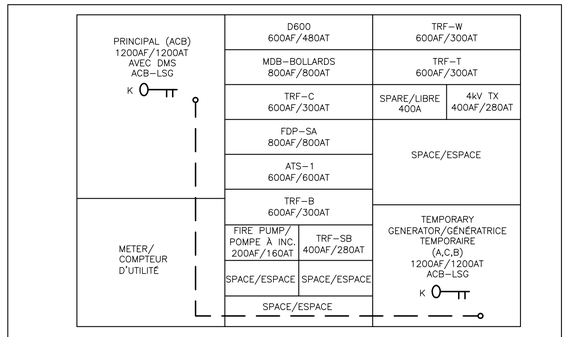


NOTE: CONFIRM PHASING ON SITE

6 E16 STEP-UP-TRANSFORMER 600V-3P-3W/4.16kV 3P
N.T.S.

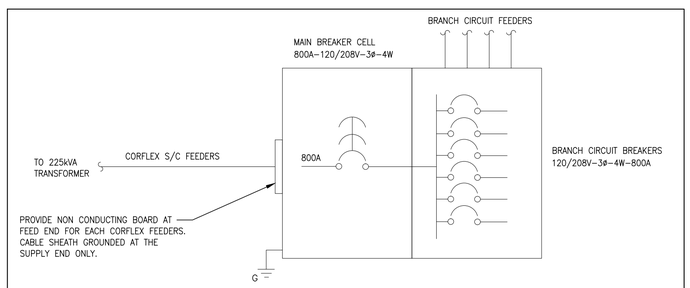


7 E16 REMOTE GENERATOR CONNECTION – FULL LOAD
N.T.S.



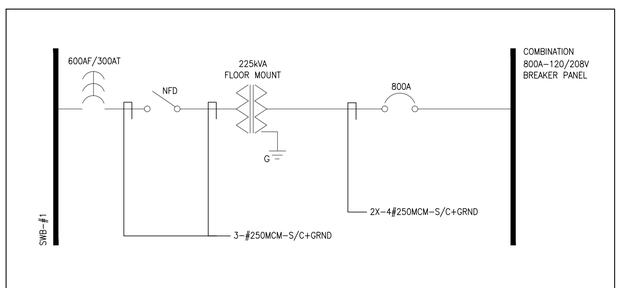
- 1200A MAIN BREAKER – ACB – LSG TRIP.
- BRANCH BREAKES MCCBS – LSIG TRIP.

11 E16 NEW SWITCHBOARD SWB#1 DETAIL 1200A, 600V, 3ø, 4W, 25kA
SCALE 1 : 20



NOTE: CONFIRM PHASING ON SITE

8 E16 TYPICAL DETAIL FOR FDP-W, FDP-T, FDP-B, FDP-C, FDP-SB RATE 120/208V-3P-4W, 800A, 18KAIC
N.T.S.



NOTE: CONFIRM PHASING ON SITE

9 E16 T-02, T-03 / FDP-SB, FDP-B TYPICAL TRANSFORMER 600V-3P/120-208V-3P-4W
N.T.S.

INTERLOCK SEQUENCE FOR REMOTE GENERATOR CONNECTION.

TRANSFERRING SWB#1 FROM THE NORMAL HYDRO POWER OVER TO REMOTE GENERATOR POWER:

1. OPEN MAIN SWB#1 MAIN BREAKER TO OPEN POSITION.
2. TURN INTERLOCK KEY ON MAIN BREAKER TO LOCK OPEN MAIN BREAKER.
3. TRANSFER INTERLOCK KEY TO REMOTE GENERATOR BREAKER.
4. INSERT INTERLOCK KEY IN THE REMOTE GENERATOR BREAKER AND TURN TO LOCK.
5. TURN REMOTE GENERATOR BREAKER TO LOCK IN THE CLOSE POSITION.
6. REVERSE THE INTERLOCK SEQUENCE TO MOVE FOR REMOTE GENERATOR POWER TO THE HYDRO POWER. CONTRACTOR SHALL POST SEQUENCE OF OPERATIONS AT THE MAIN BOARD BREAKER AND THE REMOTE GENERATOR BREAKER.
7. PROVIDE LAMACOID PLATES WITH OPERATION SEQUENCES AT EACH BREAKER KEY LOCATION.

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Direction générale des services immobiliers

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North/Nord

LICENSED PROFESSIONAL ENGINEER A.K.W. FUNG 100125320 2015-09-15 PROVINCE OF ONTARIO

G	ISSUED FOR REV.1 ÉMIS POUR RÉV.1	09/FEB/15
F	ISSUED FOR TENDER ÉMIS POUR SOUMISSION	03/FEB/15
E	ISSUED FOR 100% REVIEW ÉMIS POUR RÉVISION 100%	15/JAN/15
D	ISSUED FOR 100% REVIEW ÉMIS POUR RÉVISION 100%	15/DEC/14
C	ISSUED FOR 99% REVIEW ÉMIS POUR RÉVISION 99%	19/NOV/14
B	ISSUED FOR 66% REVIEW ÉMIS POUR RÉVISION 66%	07/OCT/14
A	ISSUED FOR 33% REVIEW ÉMIS POUR RÉVISION 33%	13/AUG/14
revisions		date

A detail no. no. de détail
B location drawing no. sur dessin no.
C drawing no. dessin no.

project / projet

HIGH AND LOW VOLTAGE – ELECTRICAL UPGRADES

AMÉLIORATIONS ÉLECTRIQUES – HAUTE ET BASSE TENSION

229 WELLINGTON STREET
OTTAWA, ONTARIO

drawing / dessin

NEW ELECTRICAL DETAILS

scale	AS SHOWN
designed / conçu	C. McGUIRE
date	20/06/2014
drawn / dessiné	M.A. DUFOUR
date	20/06/2014
reviewed / examiné	K. BOCHERT
date	20/06/2014
approved / approuvé	K. BOCHERT/C. McGUIRE
date	20/06/2014
Tender / Soumission	.....
PWC Project Manager / Administrateur de projets TPC	
project number / no. du projet	R.069893.001
drawing no. / no. du dessin	E16

WSP PROJECT No.: 141-18313-00

PWGSC A1