



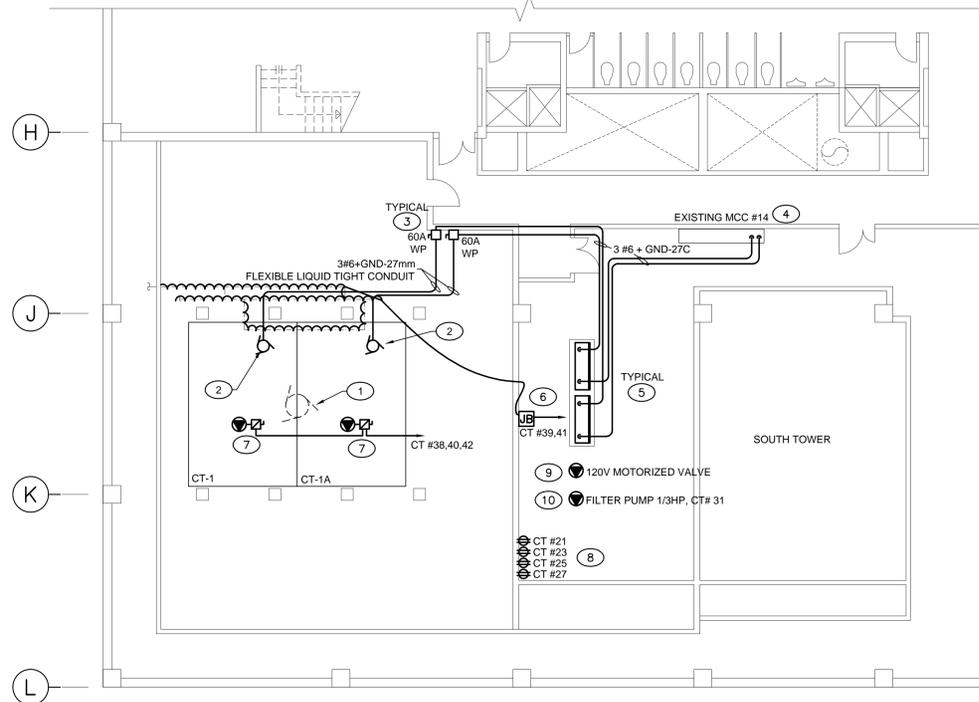
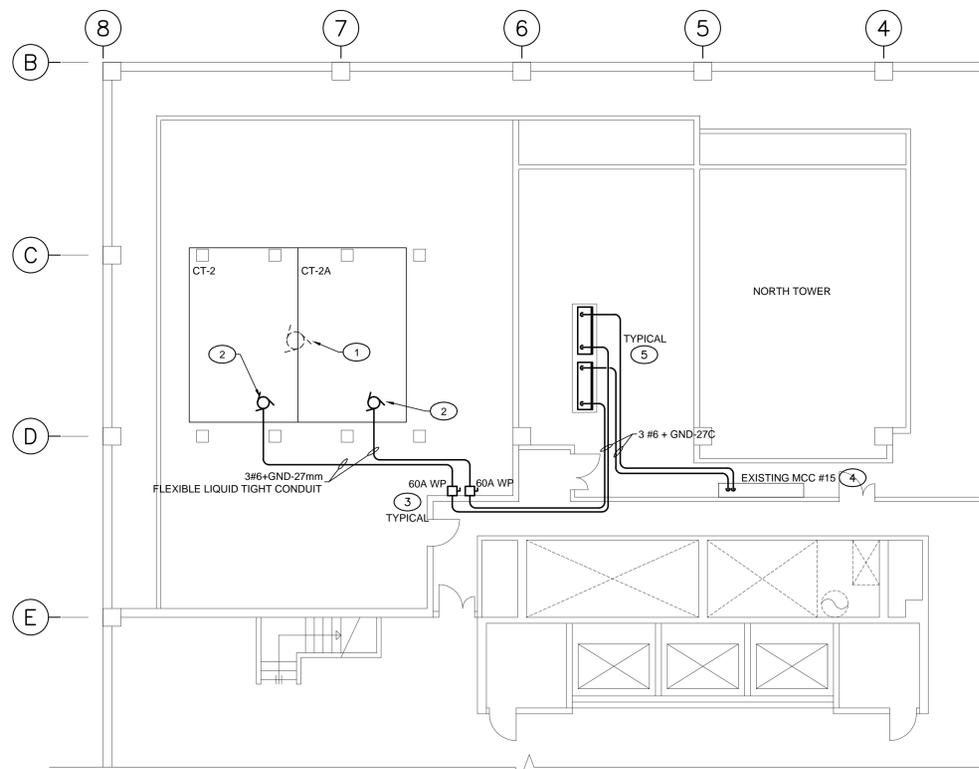
ELECTRICAL LEGEND	
ITEM	DESCRIPTION
	THREE PHASE MOTOR
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	JUNCTION BOX
	15A/1/120V HARDWIRE CONNECTION
	DUPLEX RECEPTACLE
	HEAT TRACE PATH
	DESIGNATES EXISTING DEVICE TO BE REMOVED
	DESIGNATES NEW DEVICE TO BE PROVIDED
PROVIDE	SUPPLY, INSTALL AND CONNECT

GENERAL NOTES

- REFER TO MECHANICAL DRAWING FOR EXACT DETAILS AND RATING OF THE MECHANICAL EQUIPMENT AND CONTROLS.
- PROVIDE LIQUID TIGHT AND FLEXIBLE CONDUIT FOR FINAL CONNECTION TO MECHANICAL EQUIPMENT.
- PROVIDE WEATHERPROOF FITTINGS FOR EXTERIOR INSTALLATIONS.

DRAWING NOTES

- DISCONNECT AND REMOVE ELECTRICAL CONNECTION TO EXISTING COOLING TOWER FAN MOTOR AND ASSOCIATED AUXILIARY EQUIPMENT COMPLETE WITH JUNCTION BOX, CONDUITS AND WIRING BACK TO SOURCE.
- PROVIDE ELECTRICAL CONNECTION TO NEW COOLING TOWER FAN MOTORS WITH 3 #6 + GROUND IN 27mm CONDUIT VIA 'VFD' CONTROLLER.
- PROVIDE 60A-3P WEATHERPROOF DISCONNECT SWITCH TO ISOLATE THE COOLING TOWER FANS FOR SERVICING.
- EXISTING MOTOR CONTROL CENTRE. DISCONNECT AND REMOVE THE STARTER FOR EXISTING COOLING TOWER. PROVIDE 2x 60A-3P BREAKER AND CONNECT THE EXISTING FEEDER TO THE NEW VFD CONTROLLER. PROVIDE BLANK PLATE AS REQUIRED.
- VARIABLE FREQUENCY DRIVE 'VFD' CONTROLLER SUPPLIED AS PART OF PRE-PURCHASED COOLING TOWER EQUIPMENT. INSTALLATION AND CONNECTION BY DIVISION 26. PROVIDE 100mm CONCRETE BASE WITH 150mm BUFFER.
- PROVIDE THE FOLLOWING ELECTRICAL CONNECTION TO THE HEAT TRACE CABLE FROM EMERGENCY ELECTRICAL PANEL 23 ELA, LOCATED IN THE MACHINE ROOM ON THE 23rd LEVEL (NORTH - APPROXIMATE LENGTH FROM JUNCTION BOX IS 50 METERS). PROVIDE 5x 15A-1P BREAKER IN THE PANEL. REFER TO MECHANICAL DRAWINGS FOR EXACT LENGTH OF HEATING CABLE. ALL CCWS, CCWR AND CCWE ABOVE ROOF LEVEL SHALL BE HEAT TRACED.
- 15A-1P, CIRCUIT #38 CONNECTION 3#12 + GROUND IN 21mm CONDUIT TO HEAT TRACING CABLE (SOUTH).
- PROVIDE 30A-3P CIRCUIT FROM EMERGENCY 120V/208V PANEL '23 ELA' (APPROXIMATELY 50M) TO THE WATER HEATER (SOUTH TOWER) AND CONNECT WITH 4 #10 + GROUND IN 21mm CONDUIT. PROVIDE NEW 30A-3P BREAKER. PROVIDE 30A-3P WEATHERPROOF DISCONNECT SWITCH COMPLETE WITH 15A FUSE.
- PROVIDE RECEPTACLE AND CONNECT FROM SPARE CIRCUITS IN PANEL 'EAA'.
- PROVIDE ELECTRICAL CONNECTION FOR 120V MOTORIZED VALVE FROM SPARE CIRCUIT IN PANEL 'EAA'. CONTROL PROVIDED BY MECHANICAL.
- PROVIDE ELECTRICAL CONNECTION TO FILTER PUMP FROM SPARE CIRCUITS IN PANEL 'EAA'. CONTROL PROVIDED BY MECHANICAL.



1 E1 ELECTRICAL CONNECTION FOR NORTH & SOUTH TOWERS - WELLS 22nd FLOOR
SCALE 1:100



2 E1 EXISTING MCC #15 (SAME AS #14)
SCALE N.T.S.



3 E1 EXISTING COOLING TOWER MOTOR STARTER (40+10 hp)
SCALE N.T.S.

- EXISTING STARTER FOR COOLING TOWER TO BE REPLACED.
- NEW 60A-3P BREAKER
- NEW 60A-3P BREAKER
- NEW BLANK PLATE



4 E1 EXISTING COOLING POWER WIRING TO REMOVE
SCALE N.T.S.



Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

revisions	description	date
01	ISSUED FOR TENDER	30-07-13

A	detail no. n° du détail	A
B	location drawing no. sur dessin n°	B
C	drawing no. dessin n°	C

project / projet
L'ESPLANADE LAURIER COOLING TOWERS REPLACEMENT

140 O'CONNOR ST., OTTAWA (ONTARIO)
drawing / dessin

COOLING TOWER POWER CONNECTION

Designed By / Conçu par K. SELLATHURAI	Date / (yyyy/mm/dd) 2012/12/12
Drawn By / Dessiné par Y. FARMER	Date / (yyyy/mm/dd) 2012/12/12
Reviewed By / Examiné par K. SELLATHURAI	Date / (yyyy/mm/dd) 2013/01/30
Approved By / Approuvé par C. FOX	Date / (yyyy/mm/dd) 2013/01/30
Tender / Soumission DAVID RUETER	
Project Manager / Administrateur de projets	Project no. / No. du projet R.049987.003
Drawing no. / No. du dessin E1	