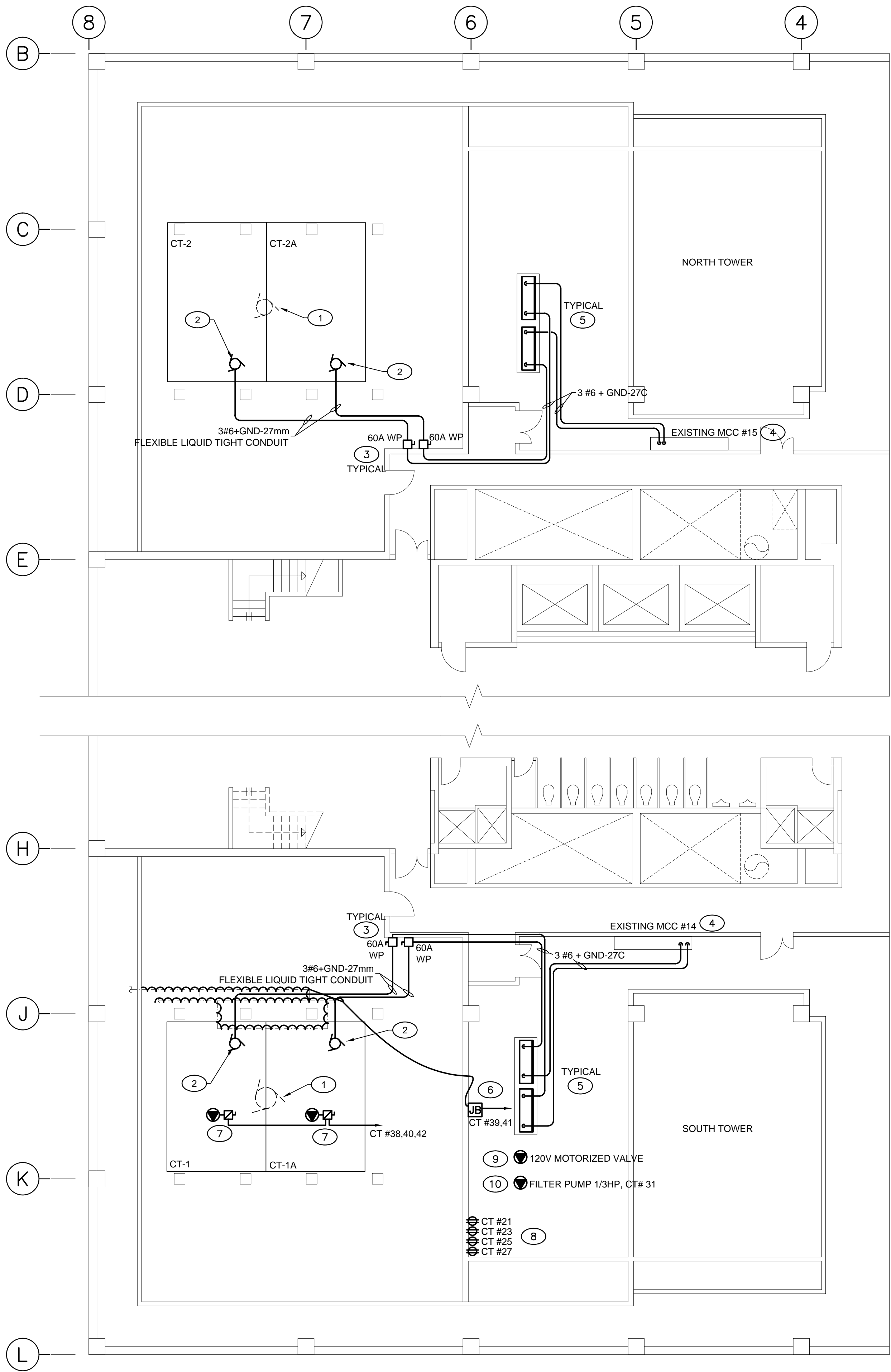


Drawing name: K:\A\A000135 - L'Esplanade Laurier Cooling Tower Replacement\A000135 - E01.dwg Jul 20, 2013 - 4:34pm



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

### GENERAL NOTES

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

### DRAWING NOTES

- 1 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.
- 2 PROVIDE ELECTRICAL CONNECTION TO NEW COOLING TOWER FAN MOTORS WITH 3 #6 + GROUND IN 27mm CONDUIT VIA 'VFD' CONTROLLER.
- 3 PROVIDE 60A-3P WEATHERPROOF DISCONNECT SWITCH TO ISOLATE THE COOLING TOWER FANS FOR SERVICING.
- 4 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.
- 5 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.
- 6 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 COWE ABOVE ROOF LEVEL SHALL BE HEAT TRACED.
  - 15A-1P, CIRCUIT #38 CONNECTION 3#12 + GROUND IN 21mm CONDUIT TO HEAT TRACING CABLE (SOUTH).
- 7 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.
- 8 PROVIDE RECEPTACLE AND CONNECT FROM SPARE CIRCUITS IN PANEL 'EAA'.
- 9 PROVIDE ELECTRICAL CONNECTION FOR 120V MOTORIZED VALVE FROM SPARE CIRCUIT IN PANEL 'EAA'. CONTROL PROVIDED BY MECHANICAL.
- 10 PROVIDE ELECTRICAL CONNECTION TO FILTER PUMP FROM SPARE CIRCUITS IN PANEL 'EAA'. CONTROL PROVIDED BY MECHANICAL.

### 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



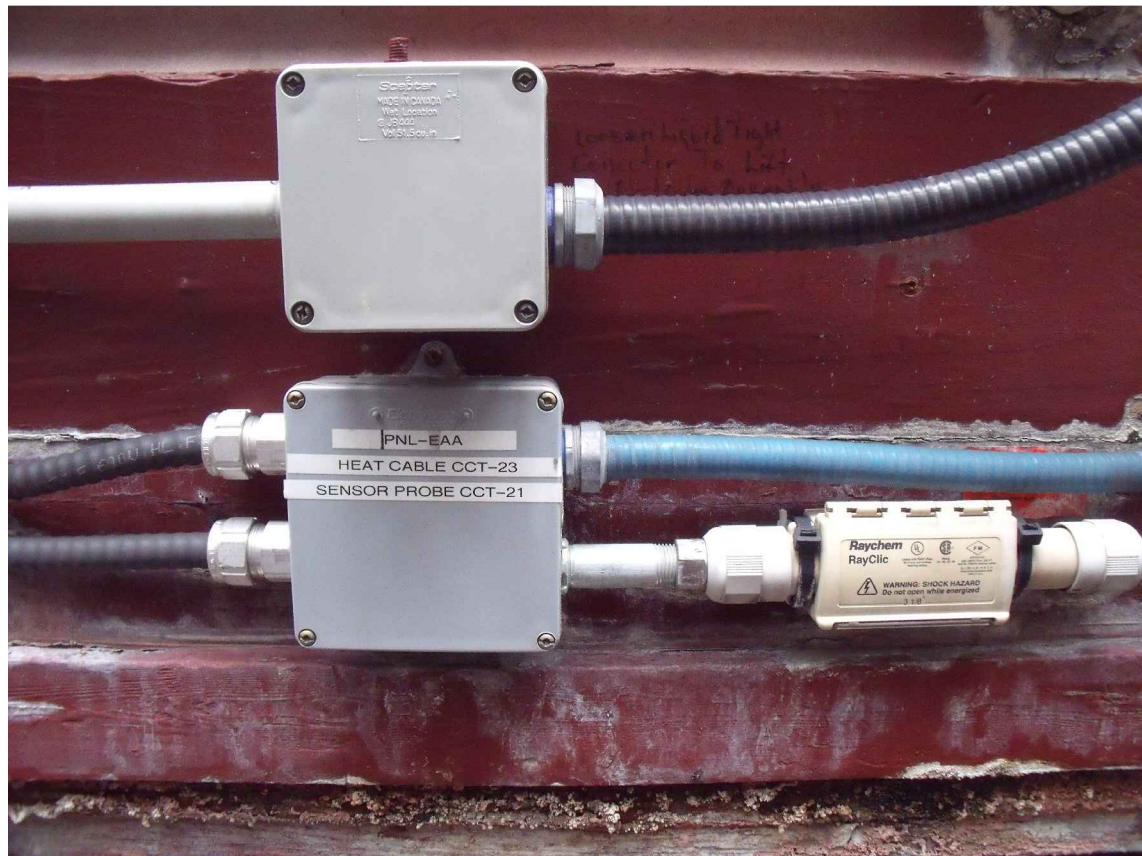
**2**  
**E1** EXISTING MCC #15 (SAME AS #14)  
SCALE N.T.S.



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



**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.

01	ISSUED FOR TENDER	30-07-13
revisions	description	date
<b>A</b> <b>C</b>	A detail no. n° du détail B location drawing no. sur dessin n° C drawing no. dessin n°	<b>A</b> <b>B</b> <b>C</b>
project		projet

### L'ESPLANADE LAURIER COOLING TOWERS REPLACEMENT

140 O'CONNOR ST., OTTAWA (ONTARIO)

drawing

dessin

### COOLING TOWER POWER CONNECTION

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