



**DRAWING NOTES**

- ① FEEDER FROM SPARE BREAKER LOCATED IN EXISTING MAIN 600V DISTRIBUTION WILL BE UTILIZED TO FEED NEW MCC-1SB AND MCC-2SB LOCATED IN NEW BIOREACTOR ELECTRICAL ROOM. CONTRACTOR TO ALLOW EXTRA 15m LENGTH OF FEEDER CABLES IN AREA BELOW EXISTING SWITCHGEAR FOR FUTURE USE.
- ② REMOVE EXISTING CABLE LUGS FOR MCC-1H AND MCC-2H. PROVIDE A NEW 400A MOLDED CASE SWITCH AT EXISTING LUG LOCATIONS. PROVIDE KEY INTERLOCK BETWEEN THE 2 MAIN SWITCHES AND TIE SWITCH.
- ③ PROVIDE 400A MOLDED CASE TIE SWITCH IN MCC-1H. CONNECT FROM TIE SWITCH TO MCC-2H BUS TO PROVIDE REDUNDANCY BETWEEN MCC-1H AND MCC-2H. PROVIDE KEYED INTERLOCKS FOR MAIN MCC MOLDED CASE SWITCHES AND TIE MOLDED CASE SWITCH.
- ④ MCC-1HA SHALL BE RELOCATED TO NEW LOCATION AS INDICATED ON DRAWING HE1.01. EXTEND WIRING FROM SHUNT BREAKER IN MCC-1H TO MCC-HA NEW LOCATION AND CONNECT TO MCC-1HA BUS.
- ⑤ PROVIDE NEW 200A-3P, 600V BREAKER IN EXISTING MCC-1H TO FEED NEW MCC-1T AND IN MCC-2H TO FEED NEW MCC-2T.
- ⑥ PROVIDE 200A-3P, 600V MAIN MOLDED CASE SWITCHES FOR MCC-1T AND MCC-2T AS INDICATED ON DRAWING TE2.01. PROVIDE 200A-3P, 600V MOLDED CASE TIE SWITCH IN MCC-1T. PROVIDE CABLE CONNECTION FROM TIE SWITCH IN MCC-1T TO BUS IN MCC-2T. PROVIDE KEY INTERLOCK BETWEEN THE MCC MAIN SWITCHES AND THE TIE SWITCH.
- ⑦ PROVIDE 250A-3P, 600V MAIN MOLDED CASE SWITCHES FOR MCC-1SB AND MCC-2SB AS INDICATED ON DRAWING SE2.03. PROVIDE 250A-3P, 600V MOLDED CASE TIE SWITCH IN MCC-1SB. PROVIDE CABLE CONNECTION FROM TIE SWITCH IN MCC-1SB TO BUS IN MCC-2SB. PROVIDE KEY INTERLOCK BETWEEN THE MCC MAIN SWITCHES AND THE TIE SWITCH. REMOVE EXISTING CABLE LUGS AT NEW MAIN SWITCH.
- ⑧ PROVIDE 400A-3P, 600V MAIN MOLDED CASE SWITCHES FOR MCC-1S AND MCC-2S AS INDICATED ON DRAWING SE4.01. PROVIDE 400A-3P, 600V MOLDED CASE TIE SWITCH IN MCC-1S. PROVIDE CABLE CONNECTION FROM TIE SWITCH IN MCC-1S TO BUS IN MCC-2S. PROVIDE KEY INTERLOCK BETWEEN THE MCC MAIN SWITCHES AND THE TIE SWITCH. REMOVE EXISTING CABLE LUGS AT NEW MAIN SWITCH LOCATION.
- ⑨ PROVIDE TWO NEW VERTICAL CELLS AND PROVIDE BUS CONNECTION TO EXISTING MCC-1H. REFER TO DRAWING HE1.01 AND HE2.01.
- ⑩ PROVIDE ONE VERTICAL CELL AT END OF MCC-1S. PROVIDE ONE VERTICAL CELL AT END OF MCC-2S. PROVIDE BUS CONNECTIONS FOR EACH NEW VERTICAL CELL TO RESPECTIVE MCC'S
- ⑪ WORK ON EXISTING MCC'S IS TO BE COMPLETED BY J.R. STEPHENSEN,

**SINGLE LINE DIAGRAM**

SCALE: NTS



B.M. ELEV.		 A Tyco International Ltd. Company		ENGINEER'S SEAL	
				DESIGNED BY: GSN	CHECKED BY: PS
		DRAWN BY: ERC	APPROVED BY: JEH	DATE: 2006/04/26	
		HOR. SCALE: NTS		RELEASED FOR CONSTRUCTION BY: J. VEILLEUX	
		VERTICAL SCALE:		DATE: 2005/11/22	
NO. REVISIONS		DATE	BY	DATE	2006/04/26

**THE CITY OF WINNIPEG**  
 WATER AND WASTE DEPARTMENT  
 ENGINEERING DIVISION

**WEWPC**  
 BIOLOGICAL NUTRIENT REMOVAL UPGRADE  
 CONTRACT 3

CITY FILE NUMBER  
 SHEET OF  
 CITY DRAWING NUMBER

CONSULTANT DRAWING NO. LE1.03  
 ELECTRICAL  
 AREA L - GENERAL AND SITWORKS  
 MODIFIED SINGLE LINE DIAGRAM