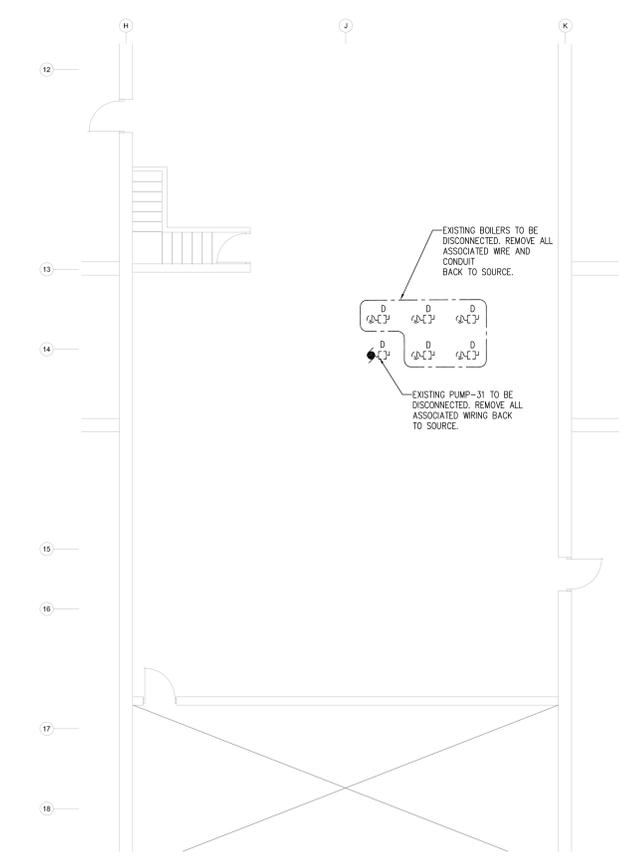
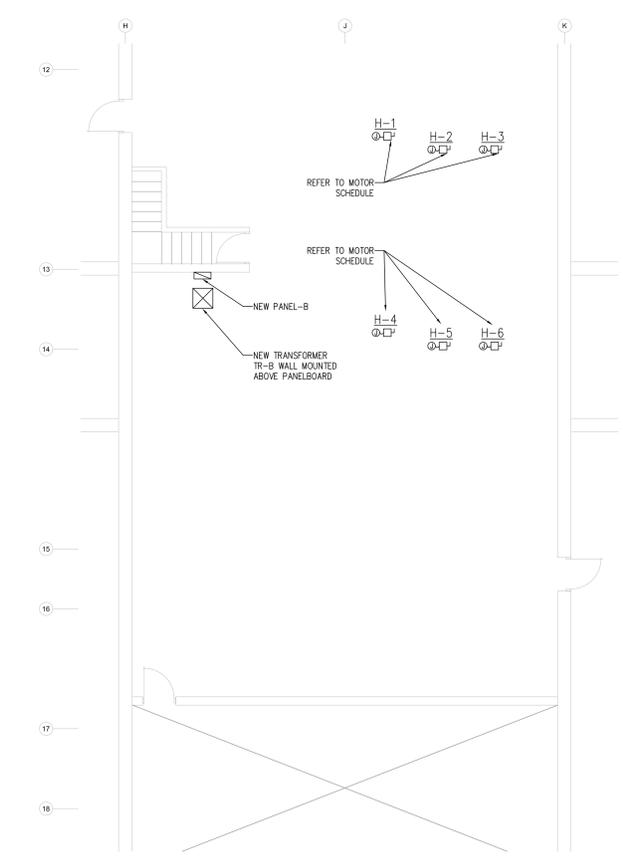


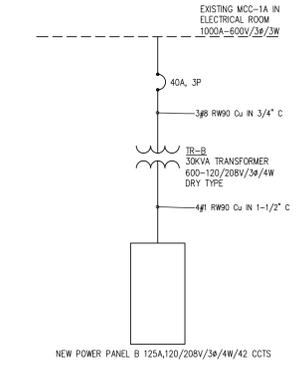
LEGEND



1 FAN ROOM 2670 - ELECTRICAL DEMOLITION
E2 1/75



2 FAN ROOM 2670 - NEW ELECTRICAL LAYOUT
E2 1/75



3 FAN ROOM - PARTIAL ELECTRICAL DISTRIBUTION DIAGRAM
E2 NTS

PANELBOARD DIRECTORY B									
ITEM	LOAD (kW)	OCP	C	C	ITEM	LOAD	OCP	C	C
HUMIDIFIER H-1	0.84	15A	1	2	HUMIDIFIER H-2	0.84	15A		
HUMIDIFIER H-3	0.84	15A	3	4	HUMIDIFIER H-4	0.612	15A		
HUMIDIFIER H-5	0.612	15A	5	6	HUMIDIFIER H-6	0.24	15A		
SPARE		15A	7	8	SPARE		15A		
SPARE		15A	9	10	SPARE		15A		
SPARE		15A	11	12	SPARE		15A		
SPACE			13	14	SPACE				
SPACE			15	16	SPACE				
SPACE			17	18	SPACE				
SPACE			19	20	SPACE				
SPACE			21	22	SPACE				
SPACE			23	24	SPACE				
SPACE			25	26	SPACE				
SPACE			27	28	SPACE				
SPACE			29	30	SPACE				
SPACE			31	32	SPACE				
SPACE			33	34	SPACE				
SPACE			35	36	SPACE				
SPACE			37	38	SPACE				
SPACE			39	40	SPACE				
SPACE			41	42	SPACE				

NOTES: CONFIRM PANEL NAMING DESIGNATION WITH DEPARTMENTAL REPRESENTATIVE.

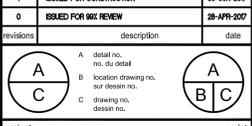
MOUNTING: SURFACE
 RATING: 125A, 120V, 208V/3ø/4W

MECHANICAL EQUIPMENT SCHEDULE																				
ITEM	EQUIPMENT DESCRIPTION	LOCATION	ELECTRICAL CHARACTERISTICS			PACKAGED UNIT	STARTERS				CONTROLS				DRIVE ISOLATION TRANSFORMER	CIRCUITRY INFORMATION			NOTES	
			HP/kW	AMPS	VOLTS/ø		TYPE	HOA	PILOT LIGHT	PUSH BUTTON	SUPPLIED BY	TYPE	SUPPLIED BY	INSTALLED BY		WIRED BY	PANEL-CCT #	O.C.P.		WIRE
B-1	GAS FIRED BOILER	MECHANICAL ROOM		8.0A	600V/3ø	X										EXISTING MCC-1A	15A-3P	3 #12 AWG RW90 Cu + GRD.	21mm	EMERGENCY POWER/PROVIDE NEW ELECTRICAL
B-2	GAS FIRED BOILER	MECHANICAL ROOM		8.0A	600V/3ø	X										EXISTING MCC-1A	15A-3P	3 #12 AWG RW90 Cu + GRD.	21mm	EMERGENCY POWER/PROVIDE NEW ELECTRICAL
B-3	GAS FIRED BOILER	MECHANICAL ROOM		8.0A	600V/3ø	X										EXISTING MCC-1A	15A-3P	3 #12 AWG RW90 Cu + GRD.	21mm	EMERGENCY POWER/PROVIDE NEW ELECTRICAL
H-1	HUMIDIFIER	FAN ROOM		7.0 A	120V/1ø	X										B-1	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
H-2	HUMIDIFIER	FAN ROOM		7.0 A	120V/1ø	X										B-2	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
H-3	HUMIDIFIER	FAN ROOM		7.0 A	120V/1ø	X										B-3	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
H-4	HUMIDIFIER	FAN ROOM		5.1 A	120V/1ø	X										B-4	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
H-5	HUMIDIFIER	FAN ROOM		5.1 A	120V/1ø	X										B-5	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
H-6	HUMIDIFIER	FAN ROOM		2.0 A	120V/1ø	X										B-6	15A-1P	2 #12 AWG RW90 Cu + GRD.	21mm	
P-1	BOILER RECIRCULATION PUMP	MECHANICAL ROOM	10 HP	11.0 A	600V/3ø				VFD						14kVA	EXISTING MCC-1A	20A-3P	3 #12 AWG RWRx VFD CABLE Cu + GRD.	21mm	PROVIDE NEW ELECTRICAL/LEAD/LAG/REFER TO NOTE #6
P-2	BOILER RECIRCULATION PUMP	MECHANICAL ROOM	10 HP	11.0 A	600V/3ø				VFD						14kVA	EXISTING MCC-1A	20A-3P	3 #12 AWG RWRx VFD CABLE Cu + GRD.	21mm	PROVIDE NEW ELECTRICAL/LEAD/LAG/REFER TO NOTE #6
P-23	BOILER RADIATION PUMP	MECHANICAL ROOM	3 HP	3.9 A	600V/3ø				VFD						7.5kVA	EXISTING MCC-1A	15A-3P	3 #12 AWG RWRx VFD CABLE Cu + GRD.	21mm	PROVIDE NEW ELECTRICAL/LEAD/LAG/REFER TO NOTE #6
P-24	BOILER RADIATION PUMP	MECHANICAL ROOM	3 HP	3.9 A	600V/3ø				VFD						7.5kVA	REFER TO NOTE #5	15A-3P	3 #12 AWG RWRx VFD CABLE Cu + GRD.	21mm	PROVIDE NEW ELECTRICAL/LEAD/LAG/REFER TO NOTE #5

- NOTES:
- DIVISION 26 TO CONFIRM FINAL LOCATION OF ALL EQUIPMENT WITH MECHANICAL DRAWINGS PRIOR TO ROUGHING IN OF CONDUIT. CONFIRM FINAL EQUIPMENT RATINGS WITH MECHANICAL PRIOR TO ROUGHING-IN OF CONDUIT, WIRING AND CIRCUIT BREAKERS. SIZE OVERLOADS ACCORDINGLY. CONFIRM FINAL RATINGS WITH EQUIPMENT NAMEPLATES. INFORM DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES AND OR DEVIATIONS PRIOR TO ROUGHING IN OF EQUIPMENT.
 - ALL CONTROL WIRING TO BE BY DIVISION 23 UNLESS OTHERWISE NOTED. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS. ALL CONDUIT REQUIRED FOR CONTROLS TO BE SUPPLIED AND INSTALLED BY DIVISION 26. COORDINATE ALL WORK WITH DIVISION 23.
 - PROVIDE DISCONNECTS FOR ALL EQUIPMENT AS REQUIRED.
 - PROVIDE CONTROL TRANSFORMERS FOR ALL VAV'S. CONFIRM LOCATIONS AND QUANTITIES WITH MECHANICAL. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
 - P-24 TO BE FED FROM EXISTING MCC-1A. REMOVE EXISTING B-4 CELL AND REPLACE WITH NEW CIRCUIT BREAKER CELL.
 - REPLACE EXISTING STARTER CELLS FOR P-1, P-2 AND P-23 WITH NEW CIRCUIT BREAKER CELLS.
 - REPLACE COMBINATION STARTERS FOR ALL PUMPS EQUIPPED WITH VFD'S.



NO.	REVISIONS	DATE
1	ISSUED FOR CONSTRUCTION	30-JUN-2017
0	ISSUED FOR REVIEW	28-APR-2017



NHRC MECHANICAL UPGRADES BOILERS REPLACEMENT
 NATIONAL HYDROLOGY RESEARCH CENTRE
 11 INNOVATION BOULEVARD
 SASKATOON, SASKATCHEWAN

FAN ROOM 2670-DEMO & NEW ELEC'L LAYOUT SCHEDULE & DETAIL

Designed By PL 2017/04/28	Conçu par no. du détail (yyyy/mm/dd)
Drawn By RD 2017/04/28	Dessiné par (yyyy/mm/dd)
Reviewed By HCC 2017/06/19	Examiné par (yyyy/mm/dd)
Approved By HCC 2017/06/23	Approuvé par (yyyy/mm/dd)

Tender NIKOLAS FEHR Project Manager	Administrateur de projet
EC Proj no. NHRC-010	Consultant Proj no. 16131

Drawing no. **E2** No. du dessin