(R)ET-3
EXPANSION TANK

(N)HX-3
HEAT EXCHANGER
MFR: B&G
MDL: P20
CAP: 133 814.56 BTU/Hr
HOT TEMP: 54.4°C
COLD TEMP: 53.3°C
ΔT: 22.2°C

(N)SP-1 & SP-2
SYSTEM CIRCULATION PUMP
MFR: TACO
MDL: SKS3009-1760-3
FLOW: 7.9L/s @ 14M

(N)P-102A & B
CIRCULATION PUMP
MFR: TACO
MDL: VR3452-FC1A01
FLOW: 0.631L/s @ 9.144M

(N)SC-1
HEAT CAPTURE COIL
MFR: DAIKIN
MDL: 1-(5Wx1006C 33.00x58.00)
AIR EDB: 25°C EWB: 19.4°C
AIR LDB/LWB: 3.4°C
AIR FLOW: 1345 L/s

(N)P-101A & B
CIRCULATION PUMP
MFR: TACO
MDL: CI1207
FLOW: 3.785L/s @ 15.24M

(N)HX-2
HEAT EXCHANGER
MFR: TACO
MDL: PF 205-19-4-WH
CAP: 108 565 BTU/Hr
HOT TEMP: 54.4°C
COLD TEMP: 3.6°C
COLD ΔT: +2.14°C

(N)HC-1
PREHEAT COIL
MFR: DAIKIN
MDL: 5WS1006833X58
CAP: 600 000 BTU/Hr
FLUID FLOW: 3425 L/s
ENTERING FLUID TEMP: 15.4°C
LEAVING FLUID TEMP: -0.67°C

(N)AHU-1
NORTH WING AIR UNIT
MFR: DAIKIN
MDL: CAH014GMAC
HEAT OUTPUT: 397 022 BTU/Hr
AIR FLOW: 3425 L/s
AIR OUTLET TEMP: 32.4°C

(N)HC-2
HEAT COIL
MFR: TRANE
MDL: DW0B18
TOTAL CAP: 700.41 MBH
FLUID FLOW: 2.215 L/s
ENTERING FLUID: 54.4°C
LEAVING FLUID: 32.2°C
AIR FLOW: 6773.4 L/s

(E)AHU-2
SOUTH WING AIR UNIT
MFR: TRANE
MDL: DW0B18
TOTAL CAP: 700.41 MBH
FLUID FLOW: 2.215 L/s
ENTERING FLUID: 54.4°C
LEAVING FLUID: 32.2°C
AIR FLOW: 6773.4 L/s

(N)ET-4
EXPANSION TANK
MFR: AMTROL
MDL: AX-40V
ACCEPTANCE VALUE: 42.8L

(N)AS-4
AIR SEPARATOR
MFR: TACO
MDL: AC03F-125
FLOW: 3.79 L/s

(N)AS-3
AIR SEPARATOR
W/ HYVENT
MFR: TACO
MDL: 431
FLOW: 0.631 L/s

(N)GMU-1 & GMU-2
GLYCOL SYSTEM FEEDER
MFR: AXIOM
MDL: MF200
CAPACITY: 25L
PRESSURE RANGE: 70-170kPa

TYPICAL PRESSURE INSTRUMENT

(N)GMU-1
(R)ET-3
(N)HX-3
(N)P-102B
(N)P-102A
(N)AS-3
BV-10
.448 L/S
AIR VENT
FROM ANIMAL AUTOPSY AIR OUTLET THERMOSTAT
4.416 L/S
1.135 L/S
100ø
0.568 L/S
2.215 L/S
1.255 L/S + (0.35-1.9)L/S = 1.605-TO-3.155 L/S
NORTH WING
SOUTH WING
100ø HEADER
BV-6
BV-1
BV-8
BV-9
(N)HX-2
(N)AS-4
(N)SC-1
FUME HOOD EXHAUST
LAB EXHAUST
(N)GMU-2
(N)ET-4
(N)SP-1
(N)SP-2
(N)P-101B
(N)P-101A
(N)AHU-1
(E)AHU-2
HC-1
(N) HC-2
STEAM
BY VENDOR

GLYCOL
FROM ANIMAL AUTOPSY GLYCOL
TO ANIMAL AUTOPSY GLYCOL
TO UH LOOP GLYCOL
TO SOUTH WING RADIATORS WEST GLYCOL
TO SOUTH WING RADIATORS EAST GLYCOL
TO CRAWL SPACE UH
WATER RETURN
FROM NORTH WING RADIATORS/UH
WATER SUPPLY
TO NORTH WING RADIATORS/UH
FROM #17 RAD/L GLYCOL
FROM 2ND WEST RADIATOR GLYCOL
FROM UH LOOP GLYCOL
FROM SOUTH WING RADIATORS WEST GLYCOL
FROM SOUTH WING RADIATORS EAST GLYCOL
FROM CRAWL SPACE UH REFRIDGERATION SUPPLY
REFRIDGERATION SUPPLY
REFRIDGERATION RETURN

SIGNAL PID01 TO UIT-001
WATER RETURN PID01 TO B-3 & B-4
WATER SUPPLY PID01 FROM B-3 & B-4
SIGNAL PID01 FROM B-3
SIGNAL PID01 FROM B-4

TP 03 TP 04 TP 07 TP 17 TP 05 TP 09 TP 13 TP 14 TP 12 TP 11 TP 08 TP 18 TP 06 TP 10 TP 15 TP 16

Environment Canada
Environnement Canada

Real Property Management Division Technical Services
Division Gestion des biens immobilier Services Techniques

NORTH WING "1965 BUILDING"
NORTH WING MECHANICAL ROOM
MAIN ENTRANCE
FREEZER
SOUTH WING MECHANICAL ROOM
SOUTH WING "1972 BUILDING"

BUILDING KEY PLAN

LEGEND

(N) NEW
(E) EXISTING
EXISTING PIPING
NEW PIPING
* SUPPLIED BY VENDOR

REV	Description	Date
0	ISSUED FOR TENDER	23-JUN-2017

A detail no. no. du detail
B location drawing no. sur dessin no.
C drawing no. dessin no.

project / projet
MECHANICAL UPGRADE
115 PERIMETER ROAD
SASKATOON, SASK.
ENVIRONMENT CANADA
335 River Rd
Ottawa ON. K1V 1C7

drawing / dessin
MECHANICAL
PIPING & INSTRUMENTATION
DIAGRAM (SHT 2 OF 3)

Designed By	GDK	Conçu par
Date	2017/05/21	(yyyy/mm/dd)
Drawn By	BJB	Dessiné par
Date	2017/04/21	(yyyy/mm/dd)
Reviewed By	ADR	Examiné par
Date	2017/06/23	(yyyy/mm/dd)
Approved By	AMB	Approuvé par
Date	2017/06/23	(yyyy/mm/dd)
Tender		Soumission
Project Manager		Administrateur de projets
EC PMDI Proj no.		Consultant Proj no. 17-0006-001
Drawing no.	PID02	No. du dessin

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
KGS Group
Number C0620
Permission to Consult held by:

Discipline	SK. Reg. No.	Signature
MECHANICAL	20402	

PROFESSIONAL ENGINEER G.D. KELL MEMBER 25161 SASKATCHEWAN

Plotted by: coorley Jun 23, 2017 - 5:29pm
PWGSC A1 (841x594)