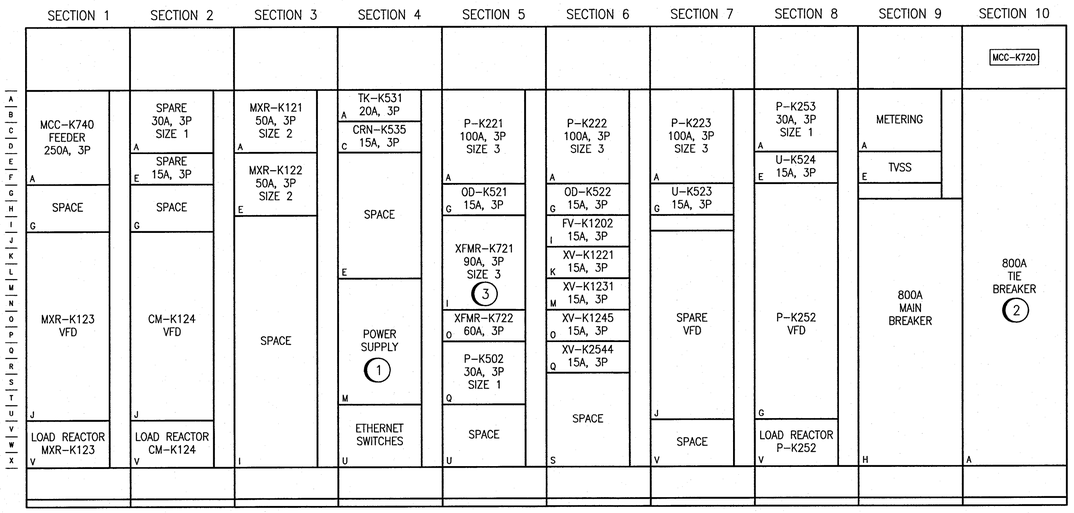
A1 SIZE – 594mm x 841mm

600 VOLT MOTOR CONTROL CENTRE – MCC–K720

MCC NUMBER	EQUIP. NUMBER	LOAD		MOTOR			STARTER			CIRCUIT PROTECTION		
		DESCRIPTION	LOCATION	HP	kW	FULL LOAD AMPS	NEMA SIZE	TYPE	OVERLOAD	CONT. RATING (AMPS)	FRAME TYPE	REMARKS
1A		MCC–K740 FEEDER								250		
1G		SPACE										
1J	MXR–K123	HRC 2 MATURATION TANK		20	14.9	19.3		VFD		35		
1V		MXR–K123 LOAD REACTOR										
2A		SPARE					SIZE 1	MMC	MMC	30		SPARE STARTER
2E		SPARE								15		SPARE FEEDER BREAKER
2G		SPACE										
2J	CM–K124	HRC 2 DECANTATION TANK		2	1.5	2.5		VFD		6		
2V		CM–K124 LOAD REACTOR										
3A	MXR–K121	HRC 2 COAGULATION MIXER		20	14.9	19.3	SIZE 2		MMC	50		
3E	MXR–K122	HRC 2 INJECTION MIXER		20	14.9	19.3	SIZE 2		MMC	50		
3I		SPACE										
4A	TK–K531	HOT WATER TANK			12					20		
4C	CRN–K535	LOADING AREA MONORAIL LIFTING UNIT			5.5					15		EXTERNAL OPERATOR PANEL
4E		SPACE										
4M		POWER SUPPLY FOR ETHERNET SWITCH										
4U		3x 16 PORT ETHERNET SWITCHES										PRODUCT NO. TCSESM163F23F0 (4)
5A	P–K221	HRC 2 MICROSAND RECYCLE PUMP 1		40	30	38.6	SIZE 3		MMC	100		
5G	OD–K521	LOADING AREA OVERHEAD DOOR			0.5					15		
5I	XFMR–K721	XFMR–K721 AND PNL–K721 FEEDER					SIZE 3			90		NORMALLY OPEN CONTACTOR (3)
5O	XFMR–K722	XFMR–K722 AND PNL–K722 FEEDER								60		
5Q	P–K502	SUMP PUMP		2	1.5		SIZE 1		MMC	30		
5U		SPACE										
6A	P–K222	HRC 2 MICROSAND RECYCLE PUMP 2		40	30	38.6	SIZE 3		MMC	100		
6G	OD–K522	BALLAST ROOM OVERHEAD DOOR			0.5					15		
6I	FV–K1202	HRC TRAIN 2 INLET INLET FLOW CONTROL VALVE		1	0.75					15		
6K	XV–K1221	SAND SLURRY TO HRC TRAIN 2 INJECTION ZONE INLET VALVE			0.43					15		
6M	XV–K1231	HRC TRAIN 2 MATURATION TANK DRAIN		1	0.75					15		
6O	XV–K1245	HRC TRAIN 2 LAMELLA DRAIN		1	0.75					15		
6Q	XV–K2544	FERMENTERS CELL NO. 4 INLET VALVE		1	0.75					15		
6S		SPACE										
7A	P–K223	HRC 2 MICROSAND RECYCLE PUMP 2		40	30	38.6	SIZE 3		MMC	100		
7G	U–K523	LOADING DOCK LEVELER		4	3					15		
7J		SPARE VFD						VFD		35		SPARE ALTIVAR 61 VFD (20HP)
7V		SPACE										
8A	P–K253	DRAIN PUMP		10	7.5		SIZE 1		MMC	30		
8E	U–K524	LOADING AREA HORIZONTAL FIRE SHUTTER			1					15		
8G	P–K252	WASTE SLUDGE PUMP 2		30	22.6			VFD		50		
8V		P–K252 LOAD REACTOR										
9A		METERING										PM5500
9E		TVSS SURGE PROTECTION DEVICE								60		
9H		800A MAIN BREAKER								800		
10A		800A TIE BREAKER								800		



SPECIFIC NOTES

1. MCC–K720 TO BE FABRICATED COMPLETE WITH DUAL (REDUNDANT) POWER SUPPLIES FOR ETHERNET SWITCHES. REFER TO SPECIFICATIONS. PROVIDE UPS POWER TO ETHERNET SWITCHES FROM PNL–K713U, CCT. 8.
2. MCC VENDOR TO MAKE TIE BREAKER CONNECTION BETWEEN MCC–K710 AND MCC–K720 INTERNAL TO THE MCCs.
3. PROVIDE CONTACTOR IN BREAKER COMPARTMENT FOR PLC AND MANUAL CONTROL OF THE LOAD.
4. DESIGNATE ONE 16 PORT ETHERNET SWITCH IN MCC–K720 AS A SPARE.

REFERENCE DRAWINGS	DESCRIPTION
0102–ESLD–K002	SINGLE LINE DIAGRAM, MCC–K720

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	WE	DEB

CH2MHILL. SNC·LAVALIN KGS GROUP

DESIGNED BY: V. ELIMBAN	CHECKED BY: E. RYCZKOWSKI
DRAWN BY: MJ. PERSSON	APPROVED BY: D. BECKER
SCALE: NTS	ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2014/12/12	DATE: 2017/04/05
CONSULTANT NO.: 474248	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D.E. BECKER
Member 23646
REGISTERED PROFESSIONAL ENGINEER
April 5 2017

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL – MCC/CABINETS DRAWING
HIGH RATE CLARIFICATION BUILDING
MCC–K720 LAYOUT AND SCHEDULE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ECBD–K002	001	00	A1

PLOT DATE: Mar 24, 2017 – 9:39am
FILE NAME: 1–0102–ECBD–K002.dwg

LAST SAVE: 2017/03/24 – 9:39am
PATH: C:\DWG\1–0102–ECBD–K002.dwg