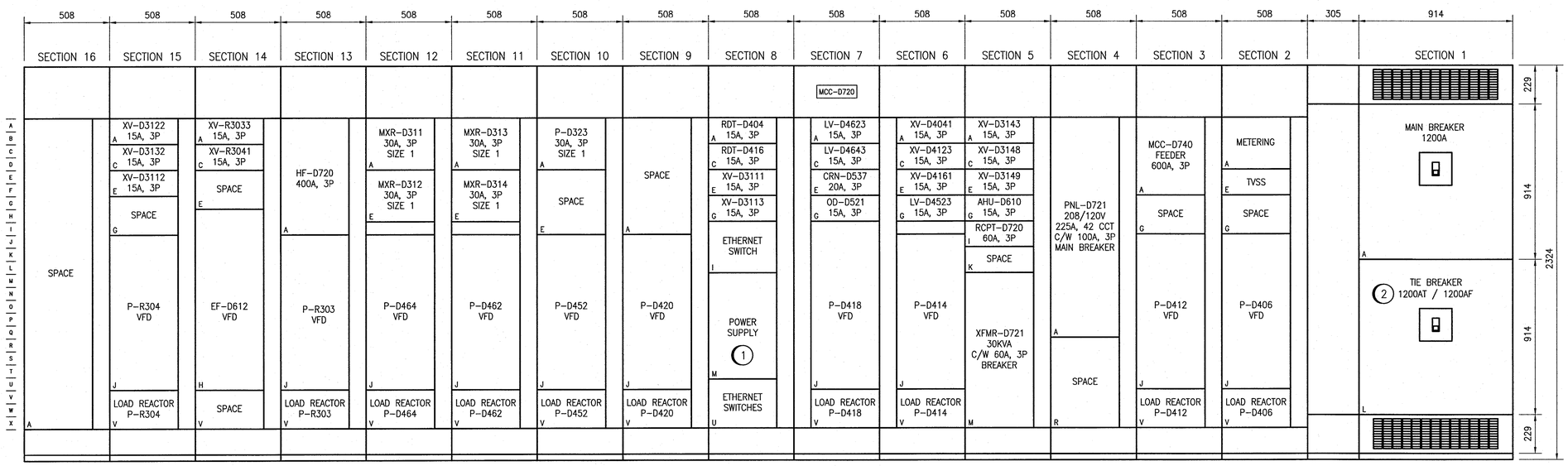
A1 SIZE – 594mm x 841mm

600 VOLT MOTOR CONTROL CENTRE – MCC–D720 (MCC NUMBER CONTINUED TO RIGHT)

MCC NUMBER	EQUIP. NUMBER	LOAD		MOTOR			STARTER			CIRCUIT PROTECTION	
		DESCRIPTION	LOCATION	HP	kW	FULL LOAD AMPS	EEMAC SIZE	TYPE	OVERLOAD	CONT. RATING (AMPS)	REMARKS
1A		MAIN BREAKER								1200AT/1200AF	LSIG
1L		TIE BREAKER								1200AT/1200AF	LSIG
2A		METERING									PM5500
2E		TVSS SURGE PROTECTION DEVICE								60	
2G		SPACE									
2J	P–D406	TWAS PUMP 2		20	14.9			VFD		35	CONSTANT TORQUE VFD
2V		P–D406 LOAD REACTOR									
3A		MCC–D740 FEEDER								600AT/600AF	LSIG
3G		SPACE								30	
3J	P–D412	FSL RDT FEED PUMP 1		15	11.2			VFD		30	CONSTANT TORQUE VFD
3V		P–D412 LOAD REACTOR									
4A	PNL–D721	208/120V 225A PANELBOARD C/W 100A MAIN BREAKER									
4R		SPACE									
5A	XV–D3143	FERMENTER TRAIN 2 CELL 4 PRIMARY SLUDGE VALVE		1	0.75					15	
5C	XV–D3148	FERMENTER TRAIN 2 CELL 4 FLUSHING WATER VALVE		1	0.75					15	
5E	XV–D3149	FERMENTER TRAIN 2 CELL 4 FLUSHING WATER VALVE		1	0.75					15	
5G	AHU–D610	RDT AIR HANDLING UNIT 1			4 x 2.24					15	
5I	RCPT–D720	WELDING RECEPTACLE WITH INTEGRAL 60A DISCONNECT								60	LSIG
5K		SPACE									
5M	XFMR–D721	PNL–D721 30kVA TRANSFORMER								60	LSIG
6A	XV–D4041	RDT–D404 WAS INLET VALVE		1	0.75					15	
6C	XV–D4123	FSL RDT PUMPS CROSS CONNECTION VALVE		1	0.75					15	
6E	XV–D4161	FSL RDT–D416 INLET VALVE		1	0.75					15	
6G	LV–D4523	WAS FILTRATE P–D462 OUTLET VALVE		1	0.75					15	
6J	P–D414	FSL RDT FEED PUMP 4		15	11.2			VFD		30	CONSTANT TORQUE VFD
6V		P–D414 LOAD REACTOR									
7A	LV–D4623	FSL FILTRATE P–D462 OUTLET VALVE		1	0.75					15	
7C	LV–D4643	FSL FILTRATE P–D464 OUTLET VALVE		1	0.75					15	
7E	CRN–D537	FSL RDT GANTRY CRAINE			5					20	
7G	OD–D521	RDT ROOM OVERHEAD DOOR		1	0.75					15	
7J	P–D418	TFS PUMP 1		20	14.9			VFD		35	CONSTANT TORQUE VFD
7V		P–D418 LOAD REACTOR									
8A	RDT–D404	WAS ROTARY DRUM THICKENER AND MIXER			2.7					15	
8C	RDT–D416	WAS ROTARY DRUM THICKENER AND MIXER			2.7					15	
8E	XV–D3111	FERMENTER TRAIN 1 CELL 1 PRIMARY SLUDGE VALVE		1	0.75					15	
8G	XV–D3113	FERMENTER TRAIN 2 CELL 1 FLUSHING WATER VALVE		1	0.75					15	

600 VOLT MOTOR CONTROL CENTRE – MCC–D720 (MCC NUMBER CONTINUED FROM LEFT)

MCC NUMBER	EQUIP. NUMBER	LOAD		MOTOR			STARTER			CIRCUIT PROTECTION	
		DESCRIPTION	LOCATION	HP	kW	FULL LOAD AMPS	EEMAC SIZE	TYPE	OVERLOAD	CONT. RATING (AMPS)	REMARKS
8I		16 PORT ETHERNET SWITCH									PRODUCT NO. TCSESM163F23F0
8M		POWER SUPPLY FOR ETHERNET SWITCHES									
8U		2x 16 PORT ETHERNET SWITCHES									PRODUCT NO. TCSESM163F23F0
9A		SPACE									
9J	P–D420	TFSL PUMP 3		20	14.9			VFD		35	CONSTANT TORQUE VFD
9V		P–D420 LOAD REACTOR									
10A	P–D323	FERMENTER RECIRCULATION PUMP 3		7.5	5.6		SIZE 1		MMC	30	
10E		SPACE									
10J	P–D452	WAS FILTRATE PUMP 2		10	7.5			VFD		20	
10V		P–D452 LOAD REACTOR									
11A	MXR–D313	FERMENTER TRAIN 2 CELL 3 MIXER		7.5	5.6		SIZE 1		MMC	30	
11E	MXR–D314	FERMENTER TRAIN 2 CELL 4 MIXER		7.5	5.6		SIZE 1		MMC	30	
11J	P–D462	FSL FILTRATE PUMP 2		5	3.7			VFD		10	
11V		P–D462 LOAD REACTOR									
12A	MXR–D311	FERMENTER TRAIN 2 CELL 1 MIXER		7.5	5.6		SIZE 1		MMC	30	
12E	MXR–D312	FERMENTER TRAIN 2 CELL 2 MIXER		7.5	5.6		SIZE 1		MMC	30	
12J	P–D464	FSL FILTRATE PUMP 4		5	3.7			VFD		10	
12V		P–D464 LOAD REACTOR									
13A	HF–D720	ACTIVE HARMONIC FILTER & POWER FACTOR CORRECTION				235				400AT/600AF	LSIG
13J	P–R303	WAS RDT FEED PUMP		15	11.2			VFD		30	
13V		P–D303 LOAD REACTOR									
14A	XV–R3033	WAS RDT CONTROL VALVE		1	0.75					15	
14C	XV–R3041	WAS MIXING OUTLET CONTROL VALVE		1	0.75					15	
14E		SPACE									
14H	EF–D612	RDT PUMP ROOM EXHAUST FAN			5.5			VFD		15	
14V		SPACE									
15A	XV–D3122	FERMENTER TRAIN 2 CELL 2 FLUSHING WATER VALVE		1	0.75					15	
15C	XV–D3132	FERMENTER TRAIN 2 CELL 3 FLUSHING WATER VALVE		1	0.75					15	
15E	XV–D3112	FERMENTER TRAIN 2 CELL 1 FLUSHING WATER VALVE		1	0.75					15	
15G		SPACE									
15J	P–R304	WAS MIXING PUMP		15	11.2			VFD		30	
15V		P–R304 LOAD REACTOR									
16A		SPACE									



SPECIFIC NOTES

1. MCC–D720 TO BE FABRICATED COMPLETE WITH DUAL (REDUNDANT) POWER SUPPLIES FOR ETHERNET SWITCHES. REFER TO SPECIFICATIONS. PROVIDE UPS POWER TO ETHERNET SWITCHES FROM PNL–6S, CCT. 20. REFER TO DWG AGAD–S001 FOR LOCATION OF PNL–6S.
2. TIE BREAKER ADJUSTABLE 1200AT UNIT TO BE SET TO 0.7 (OR 840A) FOR COORDINATION PURPOSES.

REFERENCE DRAWINGS	DESCRIPTION
1–0102–ESLD–D002	ELECTRICAL, SINGLE LINE DIAGRAM, MCC–D720

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: 2016/06/07	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
FERMENTERS/THICKENERS
MCC–D720 LAYOUT AND SCHEDULE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ECBD–D002	001	00	A1

PLOT DATE: Mar 24, 2017 – 2:20pm
FILE NAME: 1–0102–ECBD–D002.dwg
LAST SAVE: 2017/03/24 – 2:20pm
PATH: C:\Users\persm2\DWG\1–0102–ECBD–D002.dwg