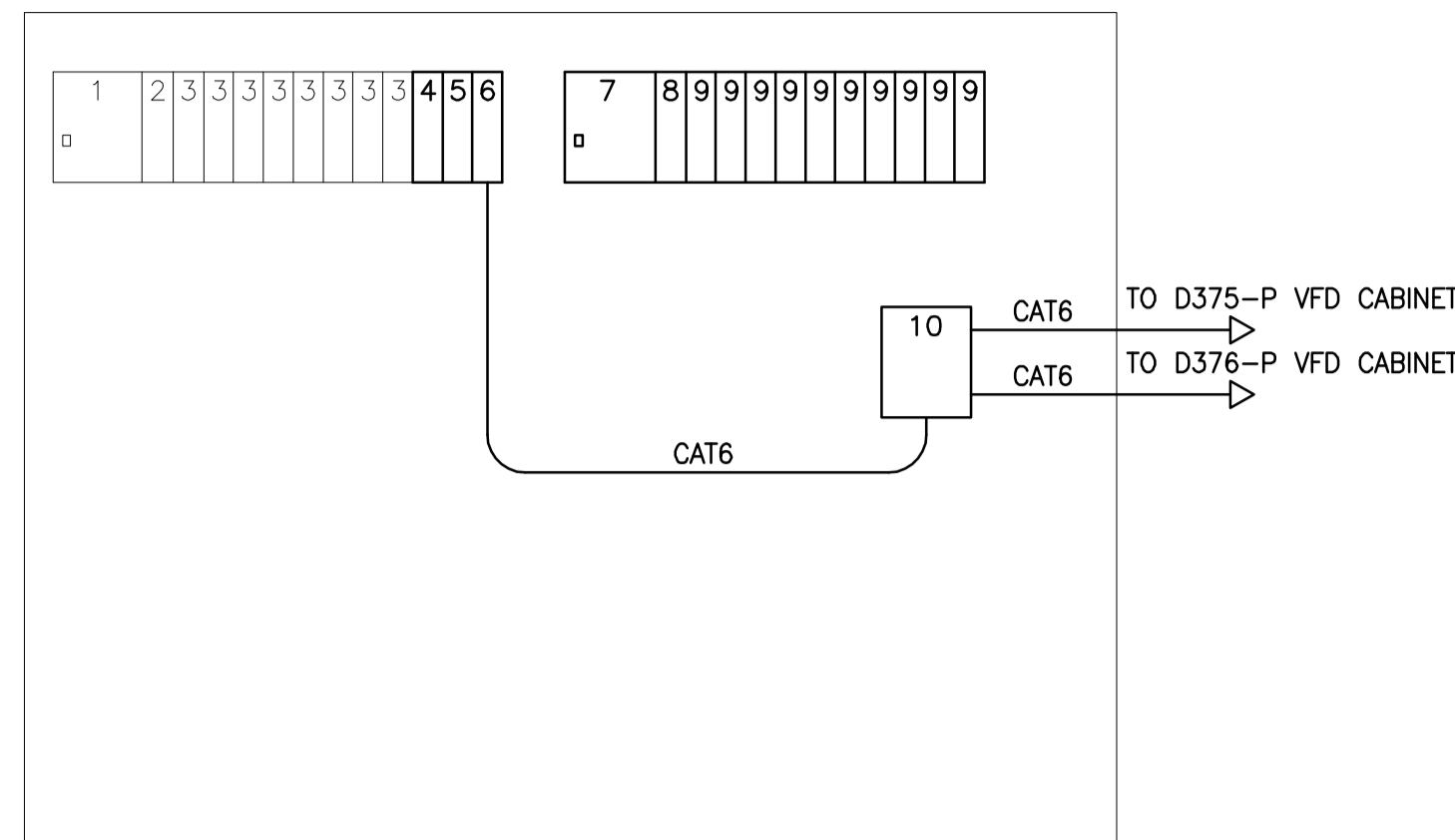


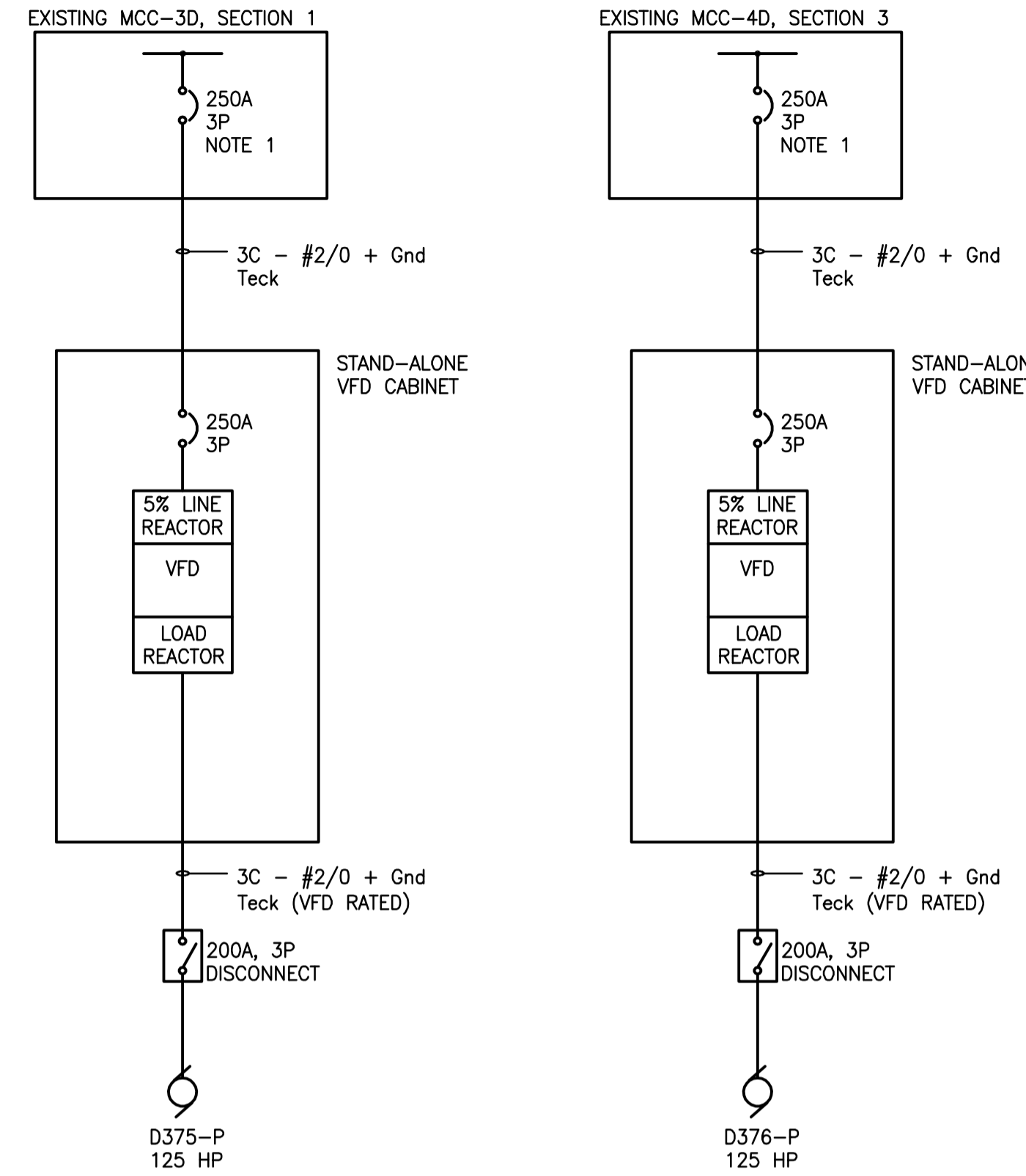
NOTES:
1. SUPPLY AND INSTALL NEW FEEDER BREAKER, MCC BUCKET, DOOR AND ALL REQUIRED HARDWARE INTO EXISTING CUTLER-HAMMER MCC.



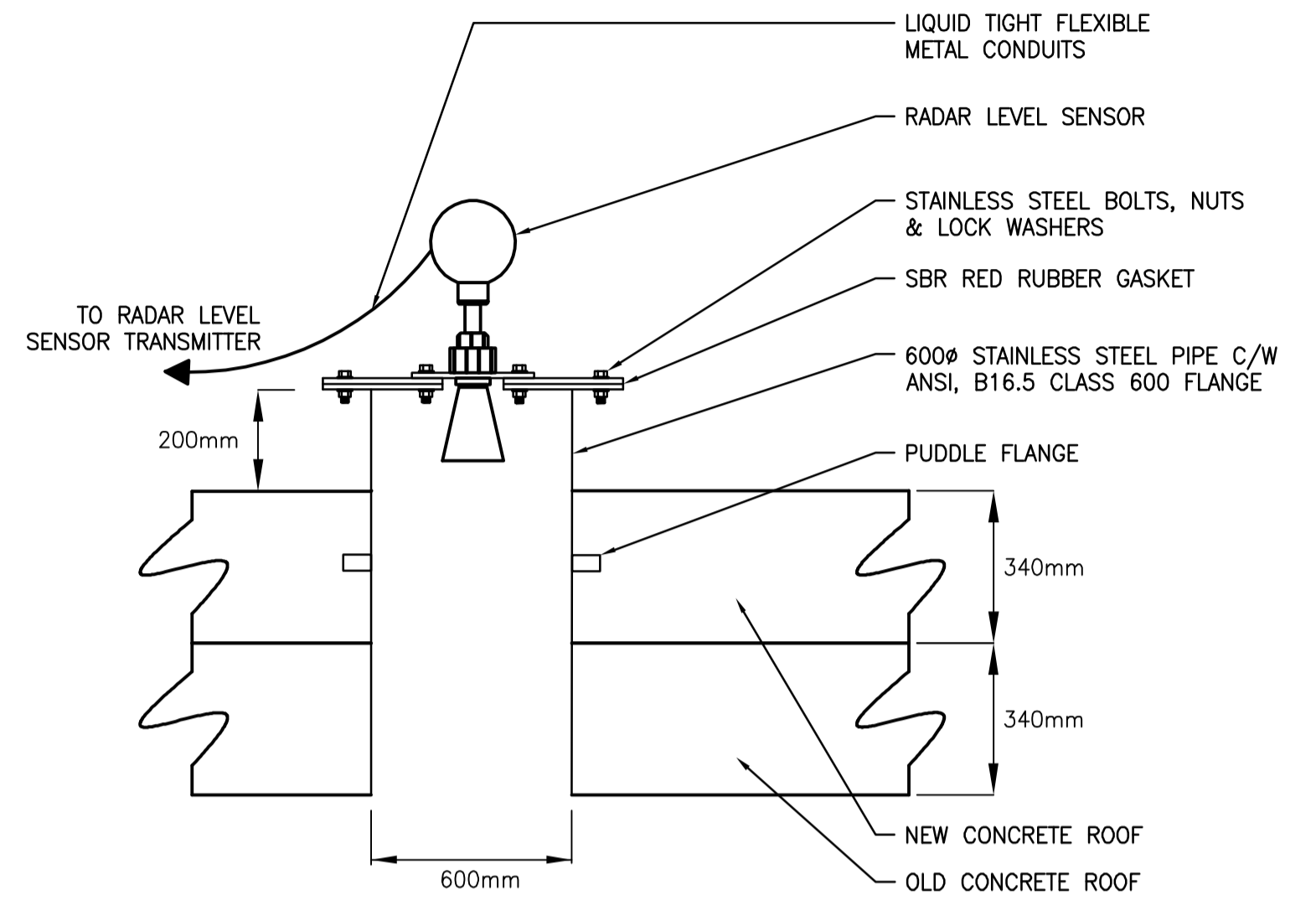
EXISTING CONTROL PANEL MODIFICATIONS
N.T.S.

PANEL LEGEND

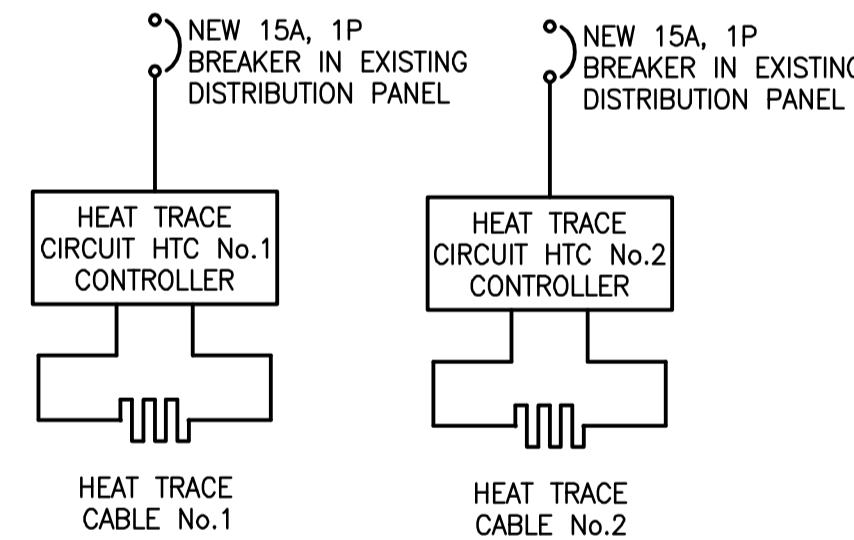
1. EXISTING M340 POWER SUPPLY AND 12 SLOT CHASSIS
2. EXISTING M340 PLC
3. EXISTING PLC I/O CARDS
4. NEW 24VDC DI CARD
5. NEW AI CARD
6. NEW ETHERNET CARD
7. NEW M340 POWER SUPPLY AND 12 SLOT CHASSIS c/w BACKPLANE EXTENDER AND CABLES
8. NEW RELAY OUTPUT CARD
9. SPARE SLOTS
10. NEW MOXA 8 PORT ETHERNET SWITCH



SINGLE LINE DIAGRAM



RADAR LEVEL SENSOR MOUNTING DETAIL
N.T.S.



HEAT TRACE CONTROLLER
SINGLE LINE DIAGRAMS

MCC 3D					MCC 4D						
SECTION	SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION	SECTION	
D333-P VFD 40HP	FAN D608-3DF32 2HP	SLUDGE PUMP D313-3DP7 NOT USED	FAN D620-3DF40 3HP	INCOMING SUPPLY	INCOMING SUPPLY	FAN D610-4DF33 2HP	FAN D600-4DF41 3HP	FAN D604-4DF43 0.5HP			
	ACR SRUBER DF35A 1HP	FAN D606-3DF34 5HP	FAN D602-3DF42 0.5HP	347-600V LIGHTING PANEL M	POWER SUPPLY 120-208 75kW	FAN D616-4DF35 1.5HP	VFD BLOWER D332-P	VFD BLOWER D331-P 40HP			
	VFD D333-P BREAKER	FAN D614-3DF36 2HP	RECIRC PUMP D116-3DP19 15HP	WELD. UNIT D616- 60A 3DUC1	COND. UNIT D616- 60A	WELD. UNIT D616- 60A	FAN D612-4DF37 2HP	HOT W. PUMP D115-4DP6 10HP	15 KVAR	D332-P VFD 40HP	D331-P VFD 40HP
	FOAM PUMP D-198 DP-21	20 KVAR	RECIRC PUMP D116-3DP13 15HP	LIGHTING PANEL R	AIR SCRUB H.COIL 1HP	NOT USED	FAN D618-4DF39 3HP	SLUDGE PUMP D115-4DP12 15HP	GAS BOOSTER		
	FOAM PUMP D-375-P 250A, 3P BREAKER NOTE 1.	BLANK	GAS COMP. D450-3DR5 30kW	SUMP PUMP D948-3DP45 5HP	SUMP PUMP D948-4DP46 5HP	GAS COMP. D460-4DR6 30kW	FOAM PUMP D-376-P 250A, 3P BREAKER NOTE 1.	COMP. D400-4DP10 30kW			
		BLANK	BLANK	SUMP PUMP D949-3DP43 2HP	SUMP PUMP D949-4DP44 2HP	BLANK		BLANK			

EXISTING MOTOR CONTROL CENTRES LAYOUT
N.T.S.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.			
2. ISSUED FOR TENDER	12.11.01	D.K.G.	
1. ISSUED FOR 60% REVIEW	12.07.25	D.K.G.	
NO. REVISIONS	DATE	BY	

Stantec Consulting Ltd.
905 Waverley Street, Winnipeg, Manitoba
Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	B.S.J.	CHECKED BY	S.T.
DRAWN BY	D.K.G.	APPROVED BY	S.K.B.
HOR. SCALE:	-	RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	2012.01.23

ENGINEER'S SEAL
ORIGINAL SEALED BY B.S. JANZ P. ENG. 12/10/31

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT
Winnipeg
NORTH END WATER POLLUTION CONTROL CENTRE REHABILITATION OF DIGESTER No. II, SLUDGE HOLDING TANKS No. 5 AND No. 7
SINGLE LINE DIAGRAM, MCC LAYOUT AND CONTROL PANEL DETAILS
BID OPPORTUNITY NO. CITY DRAWING NUMBER I-OIOID-E00II-00I SHEET OF 26 29