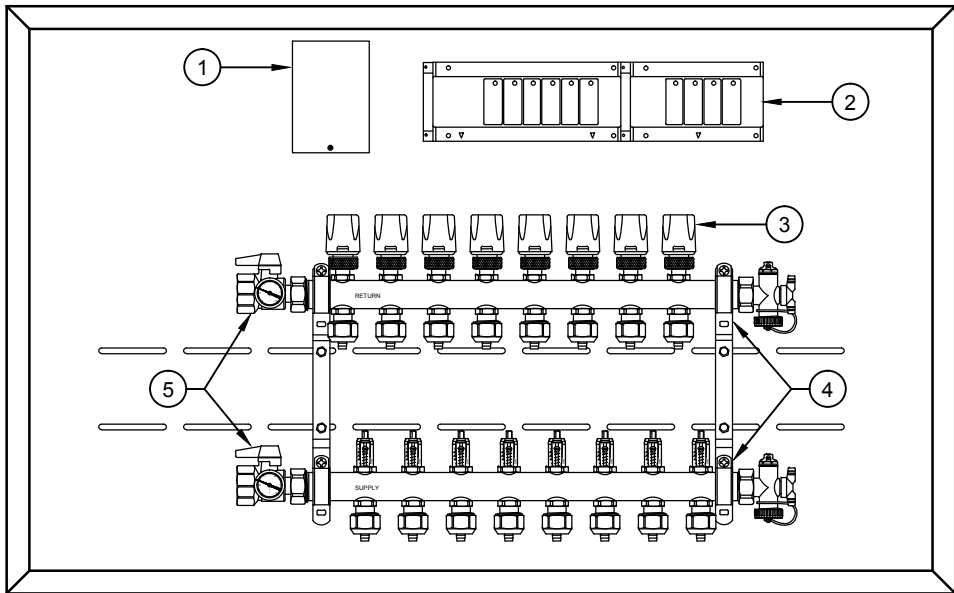
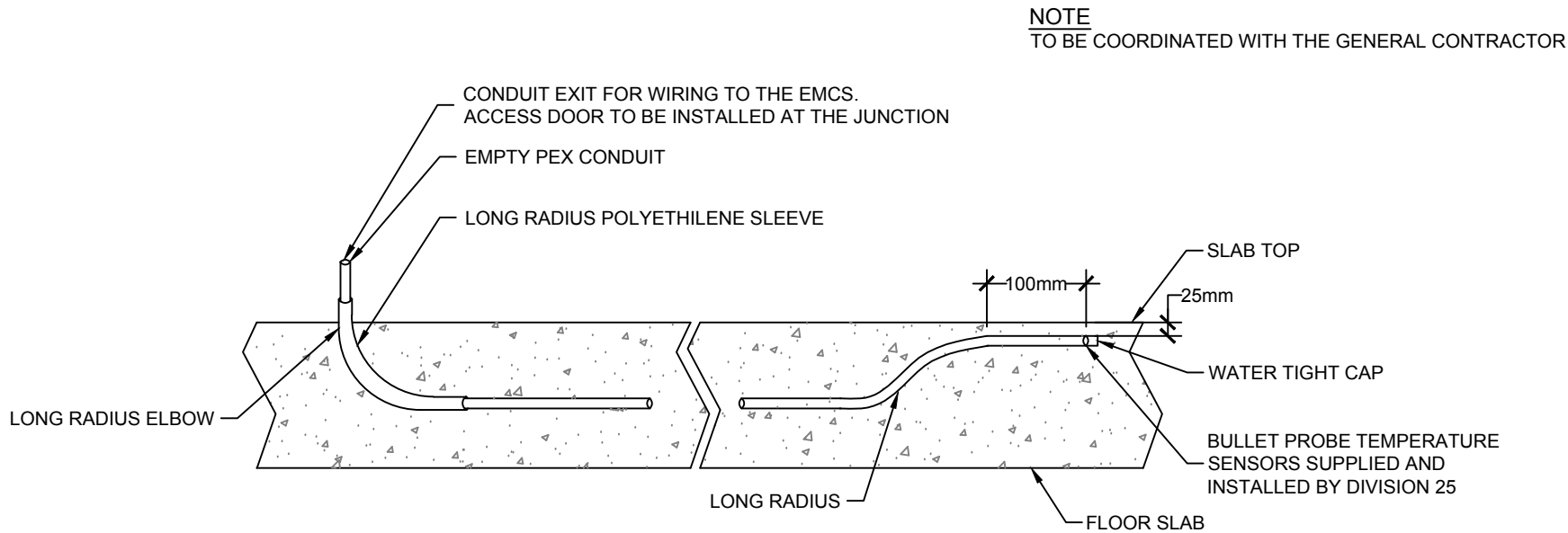


RADIANT DISTRIBUTION PANEL	
①	120 / 24 VAC TRANSFORMER
②	CONTROL MODULE
③	CONTROL VALVES c/w TWO-POSITIONS 24VAC ACTUATORS, PRE-WIRED TO THE CONTROL MODULE
④	STAINLESS-STEEL MANIFOLD
⑤	MANUAL BALL VALVE c/w THERMOMETER



RADIANT FLOOR DISTRIBUTION PANEL DETAIL

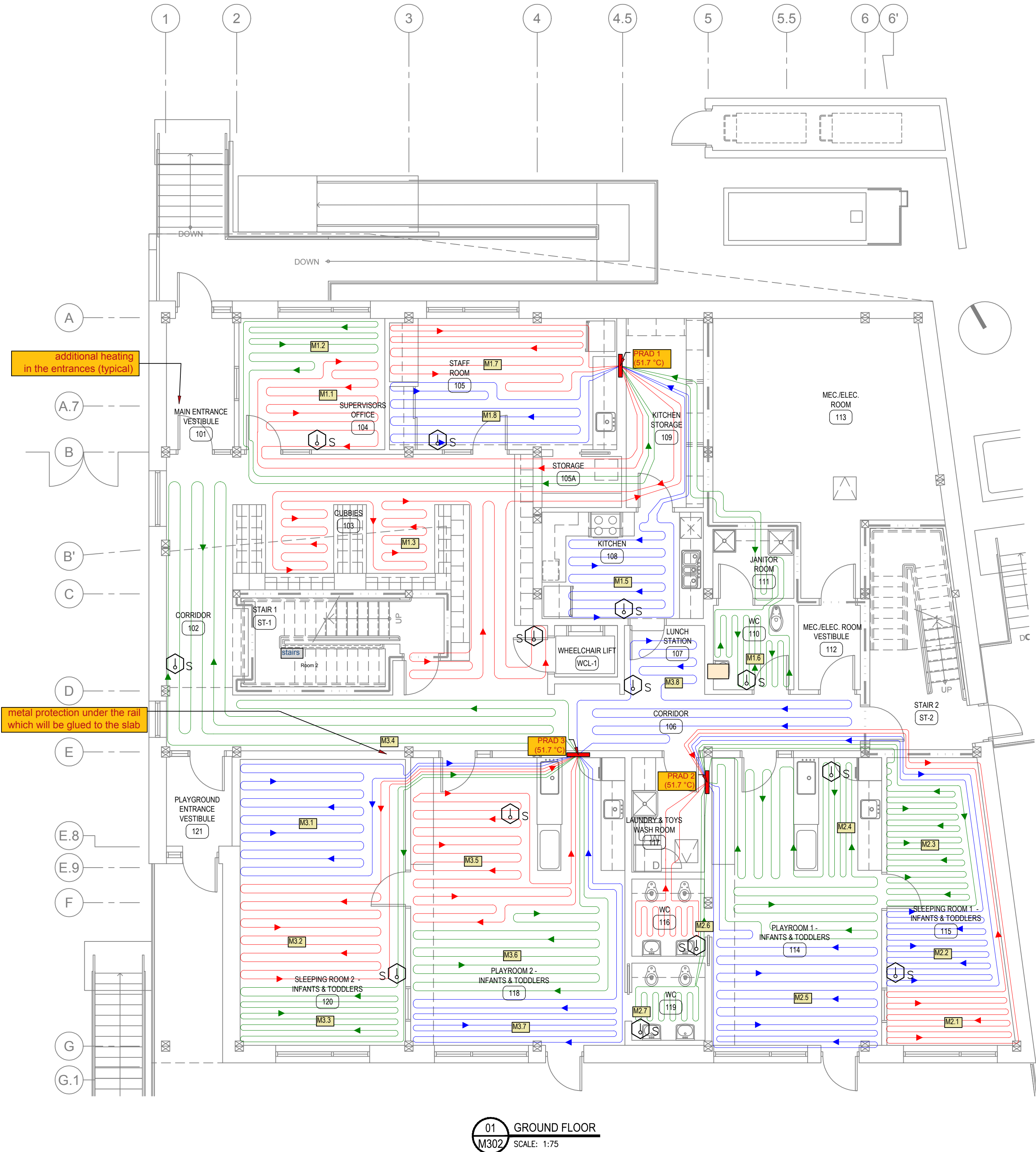


EMPTY "PEX" CONDUIT DETAIL FOR TEMPERATURE SENSOR FLOOR SURFACE

Zones			
Name	Area (m²)	# Circuit	Total load (kW)
Zone 101	51.6	1	5.99
Zone 103	40.3	1	2.20
Zone 104	14.1	2	2.43
Zone 105	25.6	2	3.56
Zone 108	12.4	1	0.58
Zone 109	11.4	0	1.13
Zone 102	16.4	1	0.77
Zone 110	12.1	1	0.58
Zone 112	3.7	0	0.13
Zone 113	36.9	0	3.18
Zone 114	35.4	2	3.58
Zone 115	36.0	3	3.85
Zone 116	4.2	1	0.20
Zone 117	6.4	0	0.31
Zone 118	44.6	3	4.18
Zone 119	4.7	1	0.48
Zone 120	35.0	3	3.76
Zone 121	4.9	0	1.12

Number	Length (m)	Tube size (mm)	Manifold	Circuit information				Fluid
				Flow (L/s)	Head loss (m water)	Total Load (kW)	Velocity (m/s)	
M1.1	58	13	PRAD 1	0.03	0.92	1.22	0.27	50% Propylene Glycol
M1.2	61	13	PRAD 1	0.03	0.76	1.07	0.24	50% Propylene Glycol
M1.3	85	13	PRAD 1	0.05	2.90	2.06	0.40	50% Propylene Glycol
M1.5	45	13	PRAD 1	0.02	0.37	0.72	0.15	50% Propylene Glycol
M1.6	50	13	PRAD 1	0.02	0.49	0.82	0.18	50% Propylene Glycol
M1.7	51	13	PRAD 1	0.02	0.55	0.99	0.21	50% Propylene Glycol
M1.8	43	13	PRAD 1	0.02	0.49	0.99	0.21	50% Propylene Glycol
M2.1	69	13	PRAD 2	0.02	0.76	0.94	0.21	50% Propylene Glycol
M2.2	69	13	PRAD 2	0.02	0.73	0.90	0.18	50% Propylene Glycol
M2.3	66	13	PRAD 2	0.02	0.70	0.88	0.18	50% Propylene Glycol
M2.4	77	13	PRAD 2	0.05	2.29	1.88	0.40	50% Propylene Glycol
M2.5	77	13	PRAD 2	0.03	1.31	1.37	0.27	50% Propylene Glycol
M2.6	23	13	PRAD 2	0.01	0.09	0.37	0.06	50% Propylene Glycol
M2.7	25	13	PRAD 2	0.01	0.12	0.41	0.09	50% Propylene Glycol
M3.1	64	13	PRAD 3	0.03	1.07	1.34	0.27	50% Propylene Glycol
M3.2	67	13	PRAD 3	0.03	1.10	1.32	0.27	50% Propylene Glycol
M3.3	67	13	PRAD 3	0.02	0.76	1.31	0.21	50% Propylene Glycol
M3.4	100	13	PRAD 3	0.06	5.00	0.25	0.52	50% Propylene Glycol
M3.5	64	13	PRAD 3	0.04	1.22	0.15	0.30	50% Propylene Glycol
M3.6	59	13	PRAD 3	0.03	0.79	1.20	0.24	50% Propylene Glycol
M3.7	62	13	PRAD 3	0.02	0.70	1.00	0.21	50% Propylene Glycol
M3.8	47	13	PRAD 3	0.01	0.34	0.61	0.12	50% Propylene Glycol

Manifolds												
Name	Manifold type	# Circuits	Tubing size	Supply Temp (°C)	Total Flow (L/s)	Headloss (m water)	Total Load (kW)	S/R Length (m)	S/R Head Loss (m water)	S/R Type	Required Temp (°C)	# Actuators
PRAD 1	Zone	7	13	51.7	0.19	3.3	7.87	6.1	0.12	Steel, Schedule 40, 1"	51.1	7
PRAD 2	Zone	7	13	51.7	0.17	2.8	6.75	12.2	0.21	Steel, Schedule 40, 1"	51.7	7
PRAD 3	Zone	8	13	51.7	0.25	5.8	10.48	13.7	0.46	Steel, Schedule 40, 1"	51.7	8



SPECIFIC NOTES:

- ALL SIZING OF INFLOOR RADIANT HEATING SHALL BE DESIGNED CALCULATED BY THE MANUFACTURER. THE CALCULATIONS SHALL BE SIGNED BY AN ENGINEER.

PRELIMINARY
NOT FOR CONSTRUCTION

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Architectes

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1	ISSUED FOR ADDENDUM NO 3	2018-04-24
0	ISSUED FOR TENDER	2016-03-16
Revision	Description	Date
Client		client

Indigenous and Northern
Affairs Canada

Public Works and Gouvernment
Services Canada

Project title

Projet

NEW IQALUIT DAYCARE

Designed by
M.B.

Conçu par

Drawn by
J.F.

Dessiné par

Approved by
M.B.

Approuvé par

PWSSC Project Manager
Russell Knister

Administrateur de Projets TPSGC

Drawing title

Titre du dessin

MECHANICAL

INFLOOR RADIANT HEATING
AND CONTROLS

GROUND FLOOR

Project no./No. du projet

Drawing no./No. du dessin

Revision no.

648139

M302

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