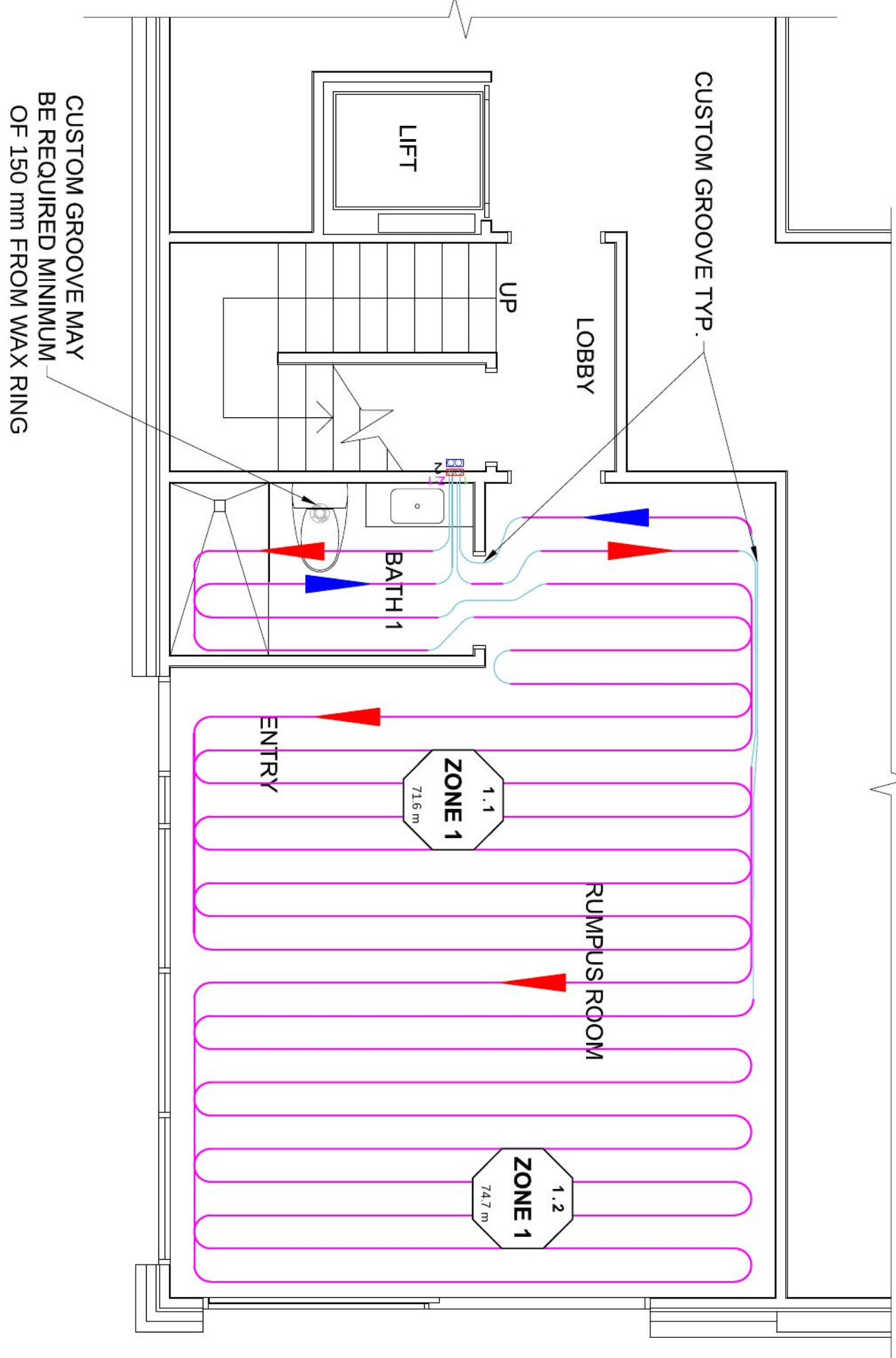
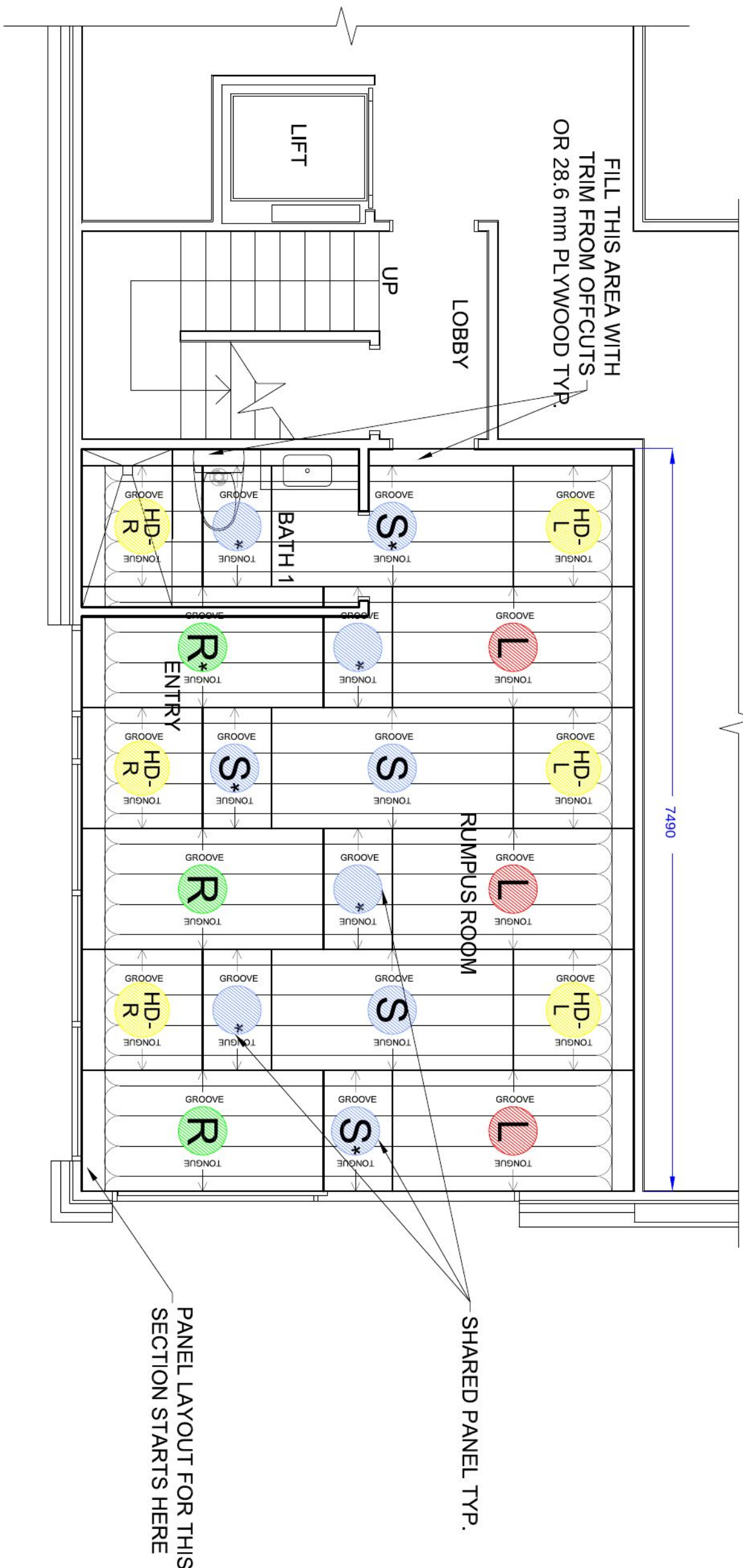




BASEMENT FLOOR PANEL LAYOUT

Scale: 1:48

BASEMENT FLOOR TUBE LAYOUT

Scale: 1:48

MANDATORY STRUCTURAL NOTES

1. TO ENSURE OPTIMAL PANEL INSTALLATION, FOLLOW PANEL LAYOUT PLANS. ALL WARMBOARD INSTALLATION INSTRUCTIONS.
2. WARMBOARD PLANS ARE CONCEPTUAL AND DO NOT SUPERSEDE STRUCTURAL PLANS WHICH MAY BE PART OF THE ARCHITECTURAL PLAN SET. SHOULD THERE BE A CONFLICT BETWEEN WARMBOARD PLANS AND THE STRUCTURAL PLANS, CONSULT IMMEDIATELY WITH WARMBOARD CUSTOMER SERVICE BEFORE PROCEEDING.
3. INSTALLING CONTRACTOR IS RESPONSIBLE TO VERIFYING ALL MEASUREMENTS PRIOR TO THE INSTALLATION OF WARMBOARD PANELS.

QUESTIONS? FOR IMMEDIATE ASSISTANCE

CALL: 1300 137 407

PANEL SCHEDULE

TYPE	QUANTITY	COMMENTS
S	5	①
L	3	①
R	3	①
D	3	① ②
P	0	③

- ANY DIMENSIONS NOTING THAT ARE MARKED WITH AN ASTERISK (*) INDICATE A PANEL THAT IS TO BE TRIMMED. A CORRECT INSTALLATION SHOULD BE MADE TO GUARANTEE A CORRECT INSTALLATION.
- ① DOUBLE PANELS WILL CONSIST OF A PAIR DOUBLE-LEFT OR DOUBLE-RIGHT PANELS. YOU MAY SEE A PANEL MARKED AS "HD-L" OR "HD-R". THIS MEANS THAT YOU CUT ONE OF THESE PANELS TO FIT THE OTHER. YOU MAY SEE A PANEL MARKED AS "HD-L" OR "HD-R". THIS MEANS THAT YOU CUT ONE OF THESE PANELS TO FIT THE OTHER. YOU MAY SEE A PANEL MARKED AS "HD-L" OR "HD-R". THIS MEANS THAT YOU CUT ONE OF THESE PANELS TO FIT THE OTHER.
- ② CONVENTIONAL TONGUE AND GROOVE PLYWOOD PANELS USED TO FILL IN EMPTY SPACES WHERE WARMBOARD MAY NOT BE APPROPRIATE.
- ③ WARMBOARD MAY NOT BE APPROPRIATE.

WARMBOARD LEGEND

- S** STRAIGHT PANEL
- L** LEFT TURN PANEL
- R** RIGHT TURN PANEL
- D** DOUBLE TURN PANEL
- HD-L** HALF DOUBLE PANEL-LEFT TURN
- HD-R** HALF DOUBLE PANEL-RIGHT TURN
- P** CONVENTIONAL PLYWOOD PANEL
- *** ASTERISK DENOTES A TRIMMED PANEL

- JOIST TUBING
- CUSTOM GROOVE BURIED TUBING
- BURIED POINT

- SUPPLY
- RETURN

- MANIFOLD
- LOOP
- ZONE 1
- LENGTH
- ZONE

- MANIFOLD
- PORTS
- LENGTH
- ZONE

ESTIMATED CUSTOM ROUTES

TURNS	16
TOTAL LINEAR LENGTH OF STRAIGHT ROUTES	10.4 m

LOOP SCHEDULE

ZONE	MANIFOLD	LOOP	LENGTH
1	1	1	71.6 m
1	1	2	74.7 m
Total			146.3 m

NOTE: TUBING IS REQUIRED TO BE INSTALLED AFTER WALLS ARE FRAMED

MANDATORY TUBING NOTES

1. USE ONLY WARMBOARD APPROVED TUBING. SEE INSTALLATION MANUAL.
2. USE AN APPROPRIATELY WEIGHTED ROLLER TO PRESS TUBING INTO CHANNELS.
3. MINOR FIELD MODIFICATION OF TUBING PLAN IS WELCOME AND TYPICAL. WHEN IN DOUBT CALL WARMBOARD CUSTOMER SERVICE.

QUESTIONS? FOR IMMEDIATE ASSISTANCE

CALL: 1300 137 407

REVISIONS: BY:

WARMBOARD AUSTRALIA

PHONE: 1300 137 407
WWW.WARMBOARD.COM.AU
PLANS@WARMBOARD.COM.AU



SAMPLE PROJECT
VICTORIA

PANEL-TUBE
LAYOUT

DATE: 1:48
DRAWN: 1:48
REVIEWED: 1:48

1 OF 4

REVISIONS:	BY:
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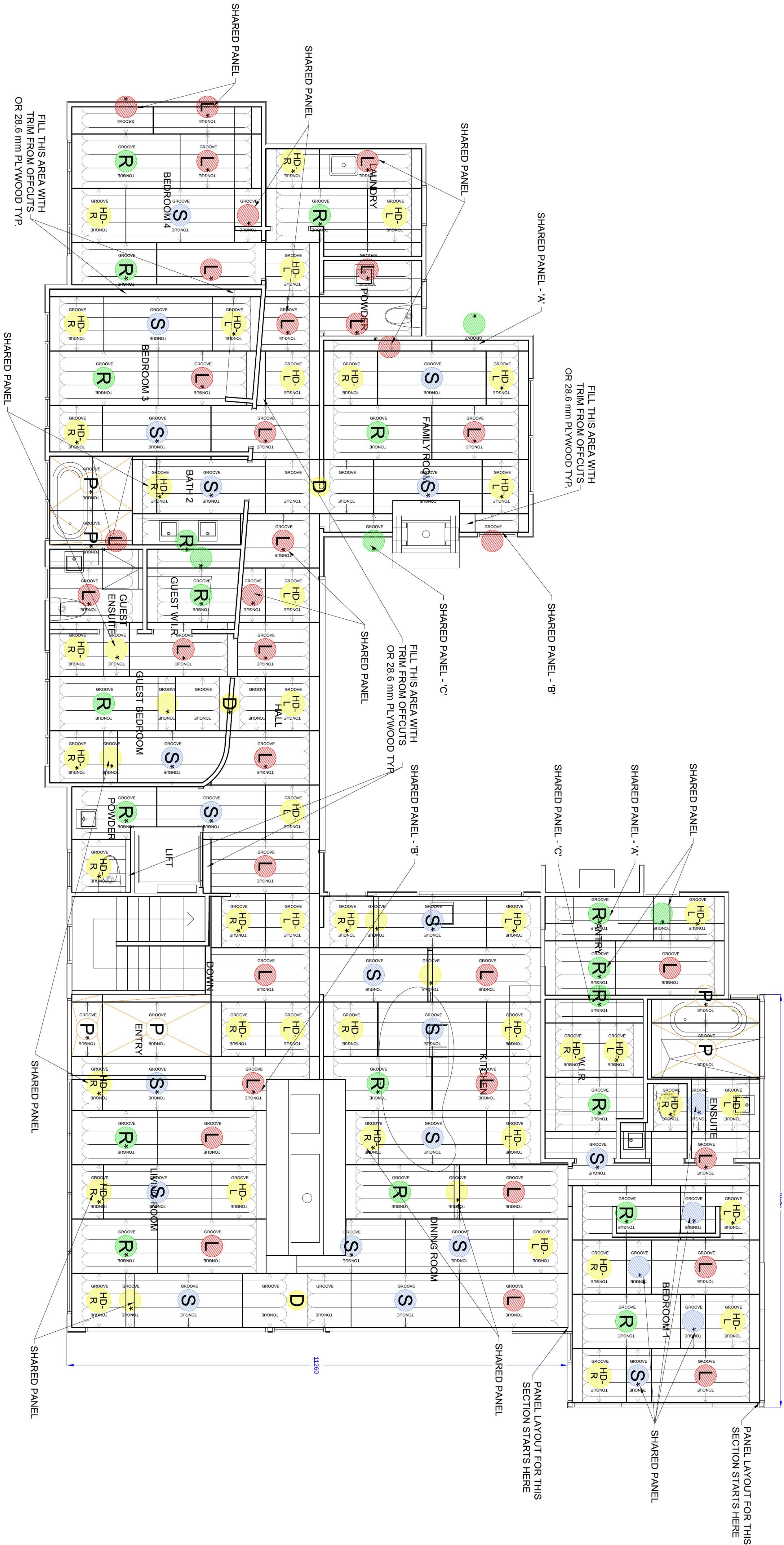
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VICTORIA

PANEL LAYOUT

2 OF 4



PANEL SCHEDULE		
TYPE	QUANTITY	COMMENTS
S	20	①
L	29	①
R	19	①
D	24	① ②
P	6	③

- ANY PANELS IN THE DRAWING THAT ARE MARKED WITH AN CIRCLED MEASUREMENT SHOULD BE MADE TO GUARANTEE A CORRECT INSTALLATION.
- DOUBLE PANELS WILL CONSIST OF "HALF DOUBLE-LEFT" AND "HALF DOUBLE-RIGHT" PANELS. LAYOUT YOU WILL SEE A PANEL MARKED AS "HD-L" OR "HD-R." THIS MEANS THAT YOU OUL ONE OF THESE PANELS REQUIRED FOR THE INSTALLATION.
- CONVENTIONAL, TONGUE AND GROOVE PLYWOOD PANELS USED TO FILL IN EMPTY SPACES WHERE WORKBENCH MAY NOT BE APPROPRIATE.

Scale: 1:48

STRAIGHT PANEL

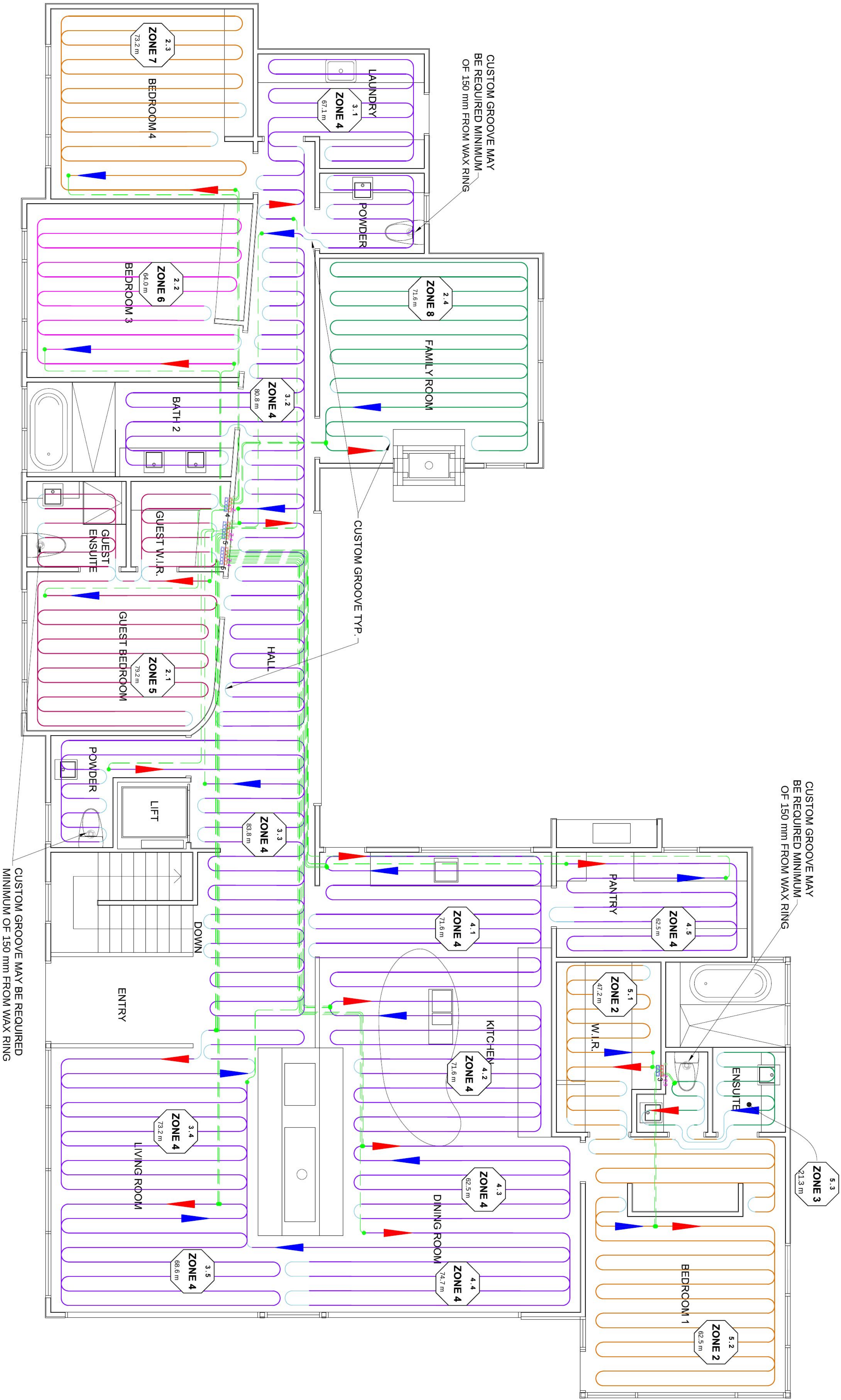
- | | |
|-----------------------|------------------------------|
| S | STRAIGHT PANEL |
| L | LEFT TURN PANEL |
| R | RIGHT TURN PANEL |
| D | DOUBLE TURN PANEL |
| HD_R | HALF DOUBLE PANEL-RIGHT TURN |
| HL_L | HALF DOUBLE PANEL-LEFT TURN |
| P | CONVENTIONAL PLYWOOD PANEL |
| * | DENOTES A TRIMMED PANEL |

JOIST

INSULATION BELOW WARMBOARD IS MANDATORY FOR PROPER PERFORMANCE.

1. TO ENSURE OPTIMAL PANEL INSTALLATION, FOLLOW PANEL LAYOUT PLANS, ALL WARMBOARD INSTALLATION INSTRUCTIONS.
2. FAILURE TO DO SO COULD CAUSE PANEL WASTE.
3. WARMBOARD PLANS ARE CONCEPTUAL AND DO NOT SUPERSEDE STRUCTURAL PLANS WHICH MAY BE PART OF THE ARCHITECTURAL PLAN SET. SHOULD THERE BE A CONFLICT BETWEEN WARMBOARD PLANS AND THE STRUCTURAL PLANS, CONSULT IMMEDIATELY WITH WARMBOARD CUSTOMER SERVICE BEFORE PROCEEDING.

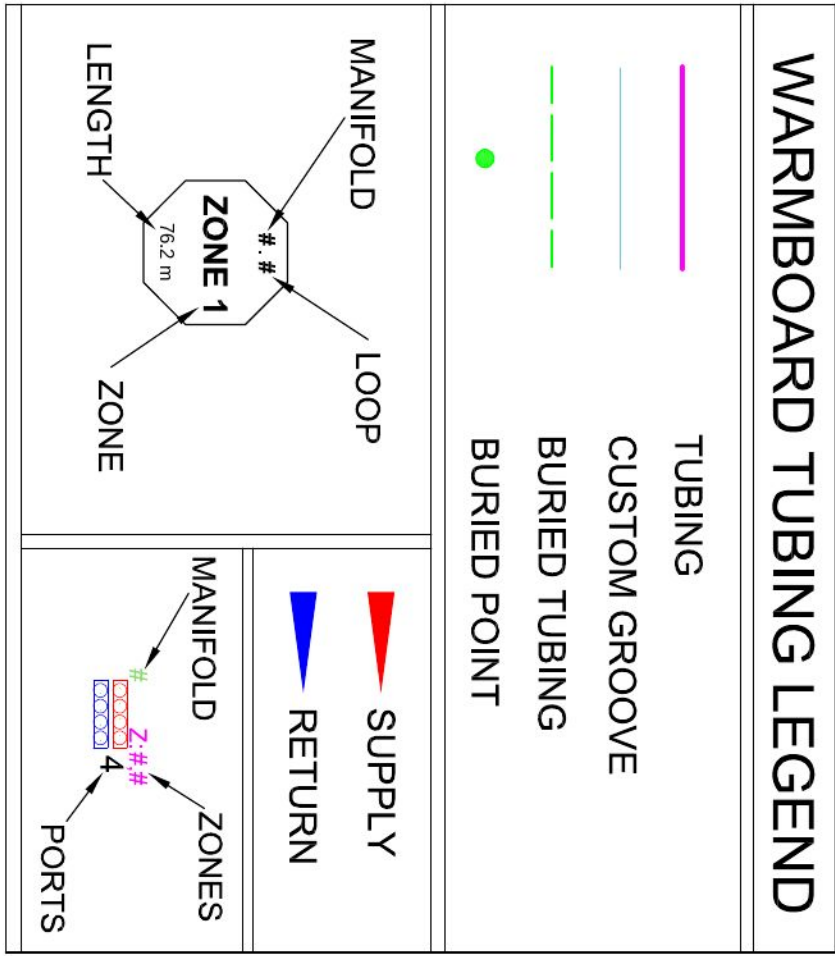
CALL: 1300 137 407



MAIN FLOOR TUBING LAYOUT

Scale: 1:48

- MANDATORY TUBING NOTES**
- 1. USE ONLY WARMBOARD APPROVED TUBING. SEE INSTALLATION MANUAL.
 - 2. USE AN APPROPRIATELY WEIGHTED ROLLER TO PRESS TUBING INTO CHANNELS.
 - 3. MINOR FIELD MODIFICATION OF TUBING PLAN IS WELCOME AND TYPICAL. WHEN IN DOUBT CALL WARMBOARD CUSTOMER SERVICE.
- QUESTIONS?** FOR IMMEDIATE ASSISTANCE CALL: 1300 137 407



LOOP SCHEDULE			
ZONE	MANIFOLD	LOOP	LENGTH
5	2	1	79.2 m
6	2	2	64.0 m
7	2	3	74.7 m
8	2	4	71.6 m
4	3	1	67.1 m
4	3	2	80.8 m
4	3	3	83.8 m
4	3	4	73.2 m
4	3	5	68.6 m
4	4	1	71.6 m
4	4	2	71.6 m

4	4	3	62.5 m
4	4	4	74.7 m
4	4	5	62.5 m
2	5	1	47.2 m
2	5	2	62.5 m
3	5	3	21.3 m
Total			1136.9 m

ESTIMATED CUSTOM ROUTES	
TURNS	88
TOTAL LINEAR LENGTH OF STRAIGHT ROUTES	5.8 m

THIS WARMBOARD DESIGN CONSIST OF: SPECIFYING PANELS, TUBING, AND MANIFOLDS ONLY.

WARMBOARD SHOP DRAWINGS DO NOT INCLUDE THE FOLLOWING:

ROOM BY ROOM HEAT LOSS CALCULATIONS, PROPER DESIGN OF FLOW RATES, REQUIRED WATER TEMPERATURES, SIZING OF CIRCULATION PUMPS, SIZING OF DISTRIBUTION LINES, SIZING OF OTHER COMPONENTS NECESSARY FOR PROPER HYDRONIC SYSTEM OPERATION, SPECIFICATION OF HEAT SOURCE, OR COMPLETE ELECTRONIC CONTROL STRATEGY. SUCH DESIGNS SERVICES RELATED TO THESE COMPONENTS OF A HYDRONIC SYSTEM ARE TYPICALLY PERFORMED BY THOSE RESPONSIBLE FOR SUPPLYING AND/OR INSTALLING THESE COMPONENTS.

WARMBOARD INC. HIGHLY RECOMMENDS CONSULTING WITH A QUALIFIED RADIANT DESIGNER, MECHANICAL ENGINEER OR MECHANICAL CONTRACTOR FOR COMPLETE INTEGRATED SYSTEM DESIGN. DESIGN PROFESSIONALS SHALL RELY ON WARMBOARD TUBING LAYOUTS AND OUTPUT TABLES FOR THEIR DESIGN CALCULATIONS.

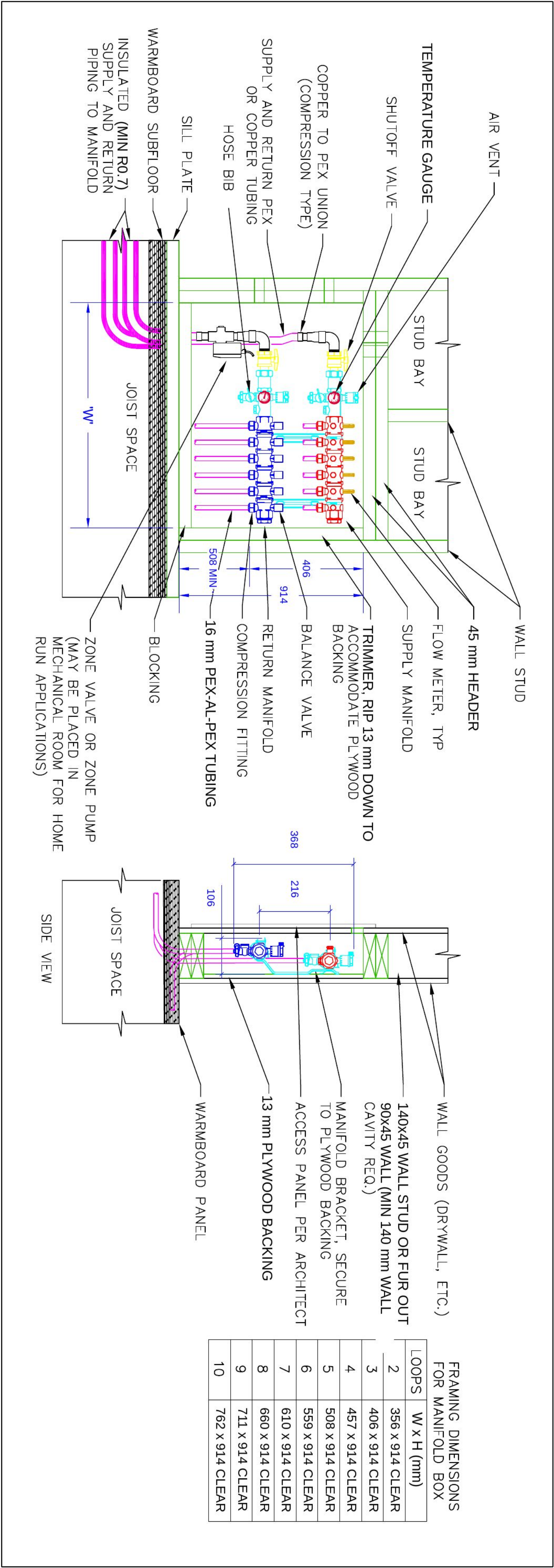
WHEN IN DOUBT, ASK!

Please review all installation instructions. If there are any questions or need for technical assistance call: 1300 137 407

MANIFOLD & TUBING MATERIALS LIST	
QTY	DESCRIPTIONNOTES
4	305 m x 16 mm AL PEX ROLL(1.1,1.2,2.1,2.2) 290 m(2.3,2.4,3.1,3.2) 294 m(3.3,3.4,3.5,4.1) 297 m(4.2,4.3,4.4,4.5,5.3) 293 m(5.1,5.2) 110 m
1	152 m x 16 mm AL PEX ROLL(5.1,5.2) 110 m
	91 m x 16 mm AL PEX ROLL
	SINGLE SUPPLY & RETURN
1	2 PORT SUPPLY & RETURNKITMANIFOLD KITSINGLE ZONE
1	3 PORT SUPPLY & RETURNKITMANIFOLD KITMULTI ZONE
1	4 PORT SUPPLY & RETURNKITMANIFOLD KITMULTI ZONE
2	5 PORT SUPPLY & RETURNKITMANIFOLD KITSINGLE ZONE EA.
	6 PORT SUPPLY & RETURNKITMANIFOLD KIT
	7 PORT SUPPLY & RETURNKITMANIFOLD KIT
	8 PORT SUPPLY & RETURNKITMANIFOLD KIT
	9 PORT SUPPLY & RETURNKITMANIFOLD KIT
	10 PORT SUPPLY & RETURNKITMANIFOLD KIT
38	16 mm COMPRESSION FITTINGS
7	24 VOLT ACTUATORS

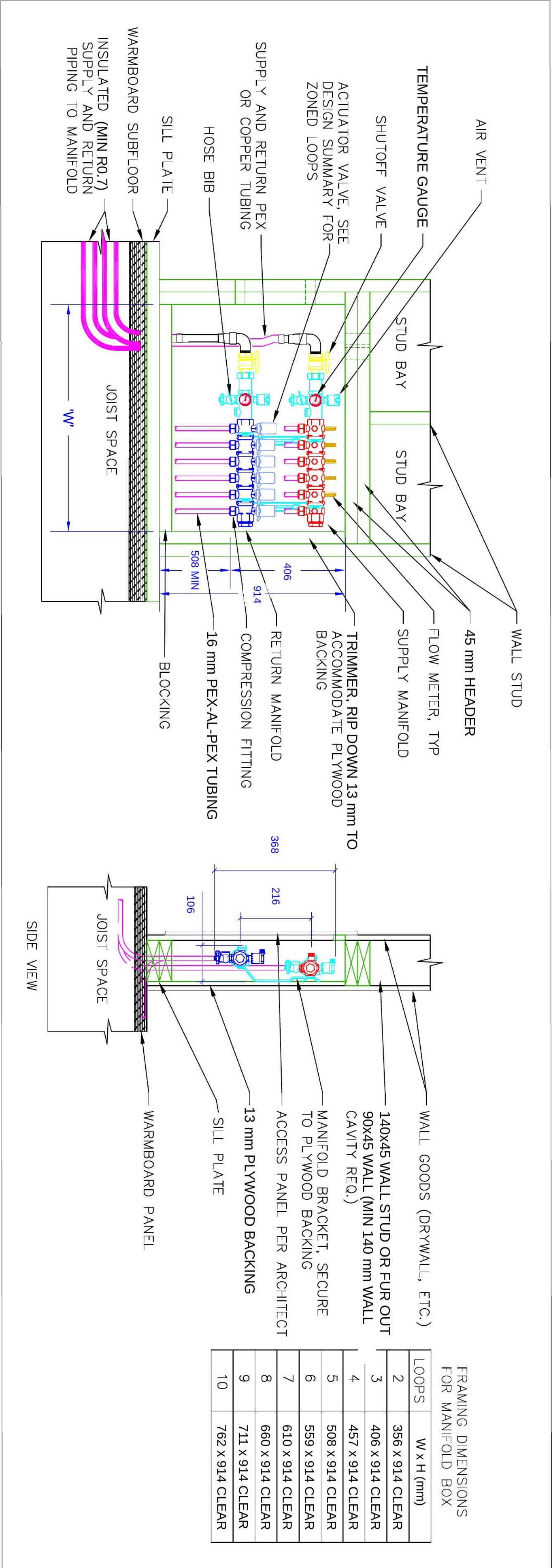
1 SINGLE ZONE MANIFOLD INSTALLATION-NO ACTUATORS REQUIRED

SCALE: NONE



2 MULTI ZONE MANIFOLD INSTALLATION- ACTUATORS REQUIRED

SCALE: NONE



SAMPLE PROJECT
VICTORIA

TUBING & MANIFOLD
LAYOUT



WARMBOARD AUSTRALIA

PHONE: 1300 137 407
WWW.WARMBOARD.COM.AU
PLANS@WARMBOARD.COM.AU

REVISIONS: BY:

DATE:	
SCALE:	NTS
DRAWN:	
REVIEWED:	
SHEET:	4 OF 4

DATE:		SPECIFICATION & INSTALLATION INSTRUCTIONS	SAMPLE PROJECT VICTORIA		WARMBOARD AUSTRALIA PHONE: 1300 137 407 WWW.WARMBOARD.COM.AU PLANS@WARMBOARD.COM.AU
SCALE: NTS					
DRAWN:					
SHEET: WB SPEC		REVIEWED:			



DATE:		SPECIFICATION & INSTALLATION INSTRUCTIONS
SCALE:	NTS	
DRAWN:		
REVIEWED:		
SHEET:		
WB SPEC		

DATE:	
SCALE:	NTS
DRAWN:	
REVIEWED:	
SHEET:	
WB SPEC	

DATE:	
SCALE:	NTS
DRAWN:	
REVIEWED:	
SHEET:	
WB SPEC	

WARMBOARD OVER JOIST/TJI
Scale: N/S

WARMBOARD EXISTING SUBFL

Scale:



SCALE: NONE

Please review all installation instructions. If there are any questions or need for technical assistance call: 1300 137 407

A. GENERAL INFORMATION

2. It is the installer's responsibility to assure the system functions properly and safely

4. Warmboard makes no guarantee for any material to be installed in this hydronic system other than the Warmboard panels.

B. WARMBOARD INSTALLATION

2. All supply and return tubing below subfloor in unconditioned space shall be insulated with R.O. pipe insulation.

4. When applicable, installation contractor shall coordinate with the plumbing contractor so as to have all plumbing stubbed out 300 mm above sub-floor prior to installation.

5. Alignment pins shall be used for proper alignment of panels.

6. Any excess adhesive that may interfere with tubing installation shall be removed.

7. All burrs left by custom routing and on angle holes shall be removed.

8. Refer to manufacturer's installation manual for additional guidelines for this product.

C. TUBING INSTALLATION

2. All grooves shall be inspected and cleaned of any debris prior to tubing installation.

3. Tubing for radiant floor heating shall be 16 mm PEX approved by Warmboard, Inc. (See approved tubing list).

4. Tubing shall be and remain pressurised immediately following installation into the panel diaphragm for the duration of all construction. Caution, do not install silicone or other types of adhesives in tubing channel

5. Installer is responsible for protecting tubing from freezing during construction. Should climatic conditions occur, this would require adding antifreeze and corrosion inhibiting fluids upon completion of work.

6. Installer to record length of every pipe and photograph completed installation.

7. Special note for carpeted areas: Short pieces of PEX tubing (typically offcuts) shall be pressed into any unused groove areas. This provides support for the pad & carpet.