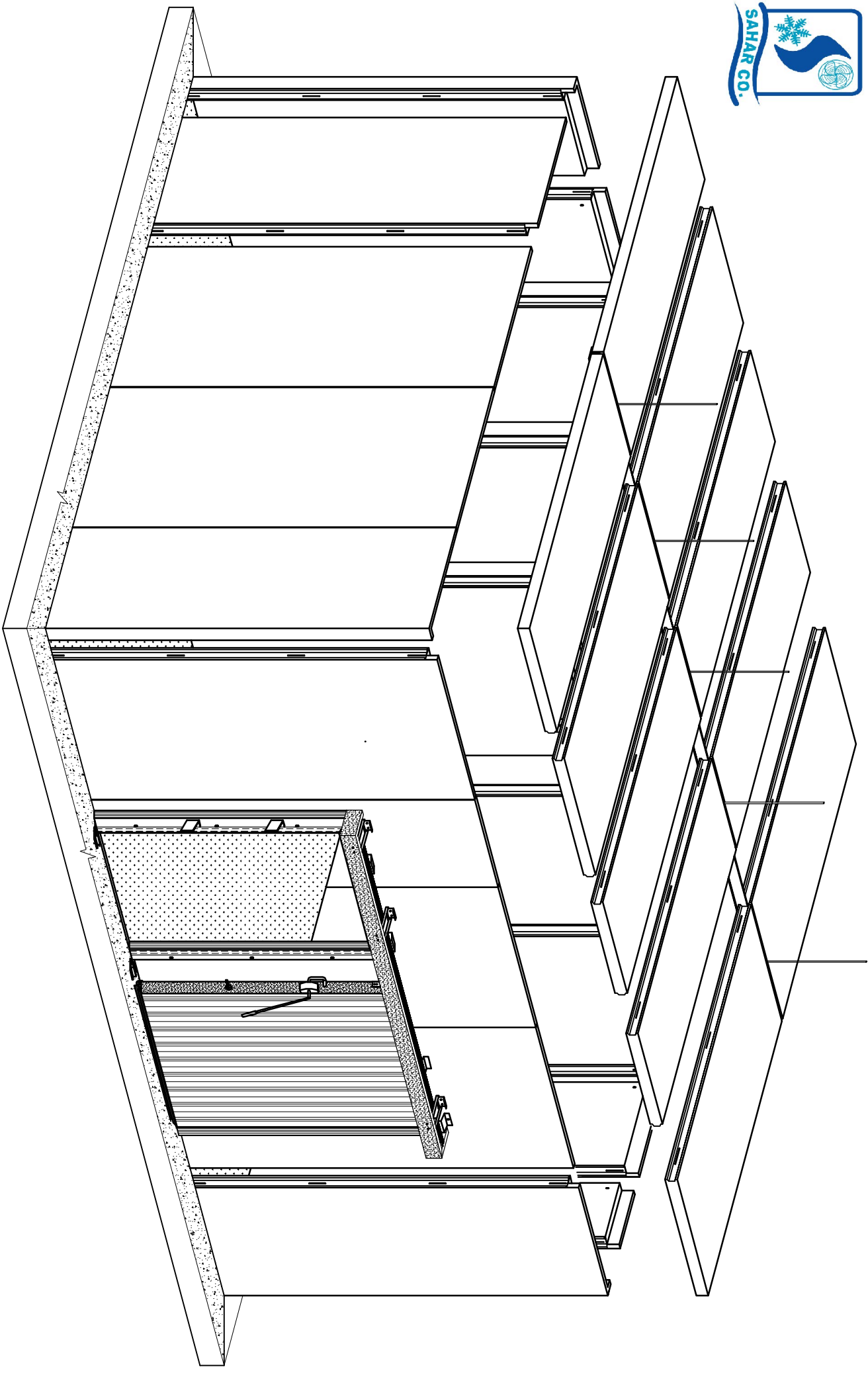




**WARE HOUSE COLDSTORE
ERECTION INSTRUCTIONS**

INTRODUCTION

warehouse coldstore is constructed on site from precision formed insulated panels. These are provided with camlocks for positive locking and long term stability. Suspension system shall be provided when span exceeds the following:

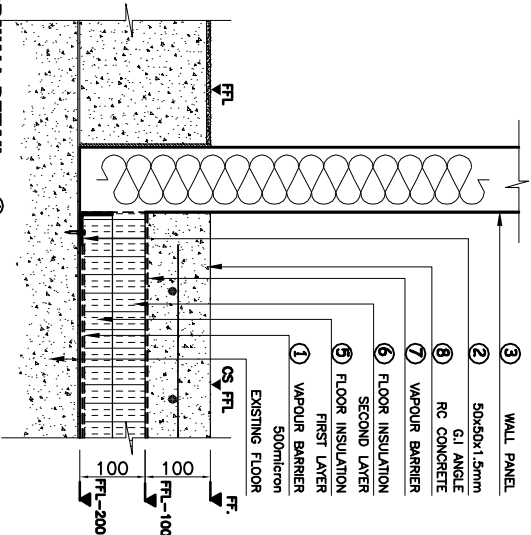
- 6.5m for 150mm thk panels.
- 5.0m for 100mm thk panels.
- 4.0m for 80mm thk panels.
- 3.5m for 50mm thk panels.

PREPARATION

Prior to the commencement of works, familiarise yourself with joining methods and seals.

JOINING METHODS AND SEALS

FLOOR/WALL



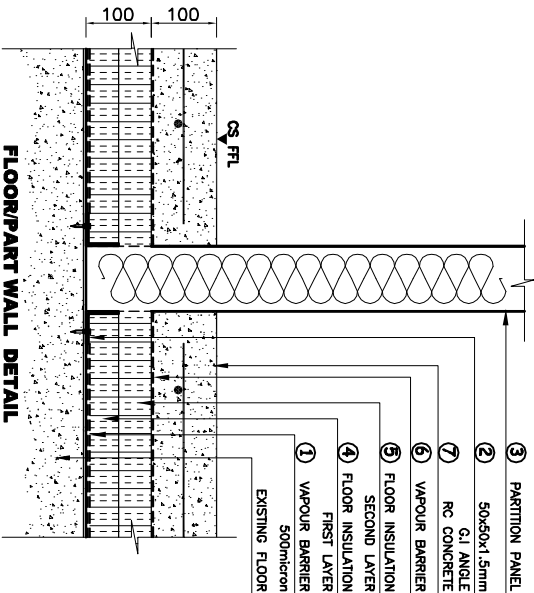
FLOOR/WALL DETAIL

④ PLACING CEILING PANELS AS PER THE CEILING LAYOUT

1. Make sure that the concrete floor is smooth and levelled. It is advisable to pour Bitumen and spread it uniformly on the concrete floor using brush.
2. Put the Poly Ethelene sheet on top of this levelled concrete floor. Then fix the 50x50x1.5mm G.I. Angle on the conc floor around the inner perimeter of the required coldroom. It can be fixed either be Fischer plug & screw or by Hilti Nail.
3. Then place the wall panel around the perimeter of the coldroom. Ensure that the wall panel is rigid and stable in it's position. G.I. Angle should be fixed in such a way to hold the wall panel tightly.

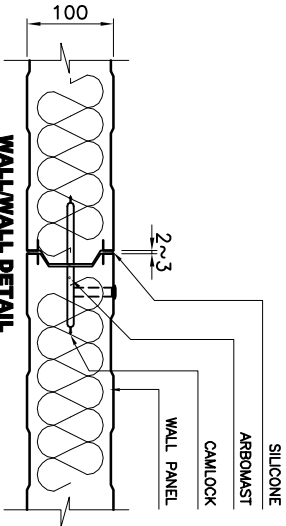
4. Start lying the ceiling panels as per the ceiling panel layout and start lock them together.
5. Then put the first layer of 50mm Thk floor insulation. For best performance, it should be laid staggered in different directions.
6. Then put the second layer of 50mm Thk floor insulation.
7. Then spread the Poly Ethelene sheet on top of the Floor Insulation layer. Make sure that there is no way for the penetration of moisture.
8. Then pour the final concrete. Maximum thickness of the concrete recommended is 100mm since our door openings are designed based on 100mm thk final concrete.
9. Final coldroom floor finish may be either tiles or others depends on the Client's requirement.

FLOOR/PARTITION



FLOOR/PART WALL DETAIL

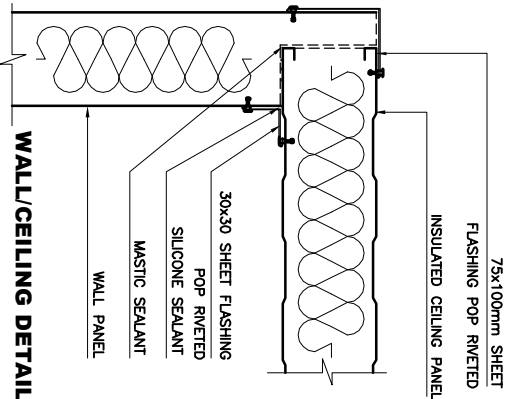
WALL/WALL



WALL/WALL DETAIL

1. Arbomast shall be applied between the tongue & groove as shown in fig.
2. Position and lock wall panels.

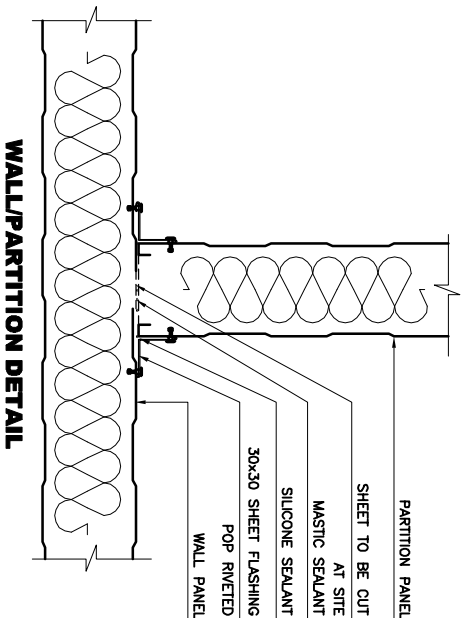
WALL/CEILING



WALL/CEILING DETAIL

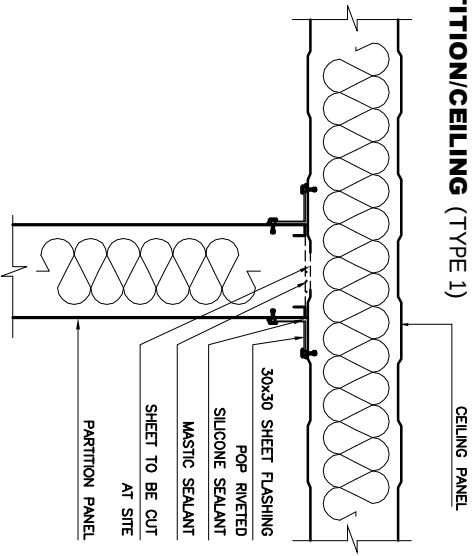
1. Apply Arbomast sealant on the top perimeter of the wall panels.
2. Position the ceiling panel.
3. Proceed with camlock the ceiling panel together.

WALL/PARTITION



WALL/PARTITION DETAIL

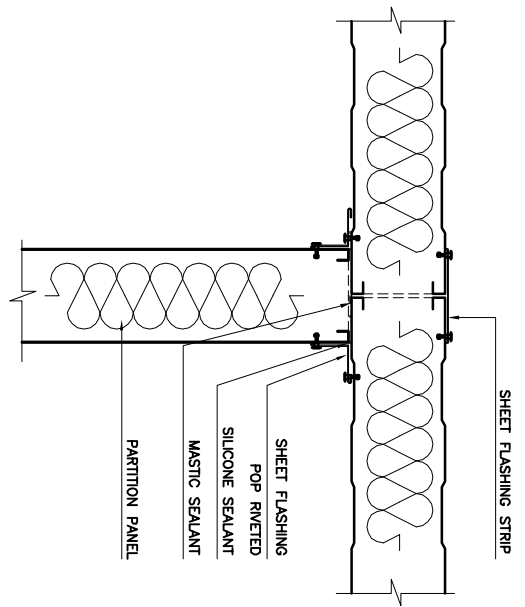
PARTITION/CEILING (TYPE 1)



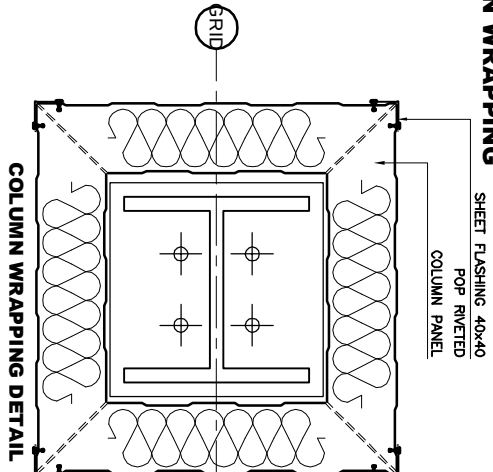
CEILING/PARTITION DETAIL

1. Apply Arbomast sealant on the top perimeter of the partition panels.
2. Position the ceiling panel.
3. Sheet in the ceiling panel above the partition wall panel to be cut at site to avoid thermal conductivity.

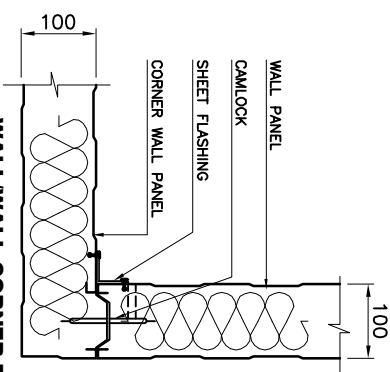
PARTITION/CEILING (TYPE 2)



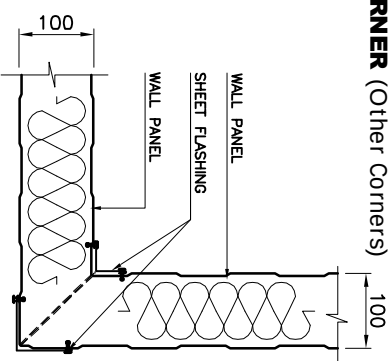
COLUMN WRAPPING



WALL/CORNER (Starting Point)



**WALL/WALL CORNER DETAIL
[AT THE STARTING POINT]**



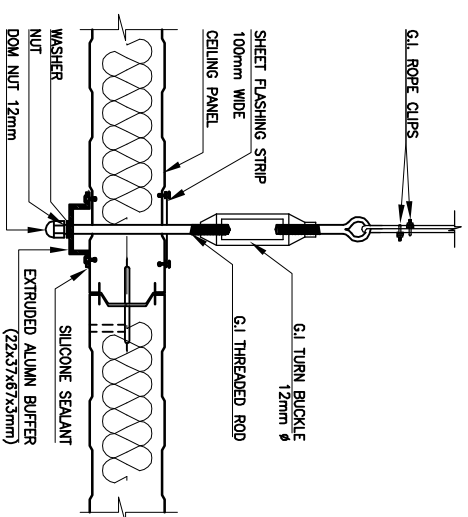
**WALL/WALL CORNER DETAIL
[REST OF THE CORNERS]**

CEILING SUSPENSION ASSEMBLY

Suspension system shall be provided when span exceeds the following:

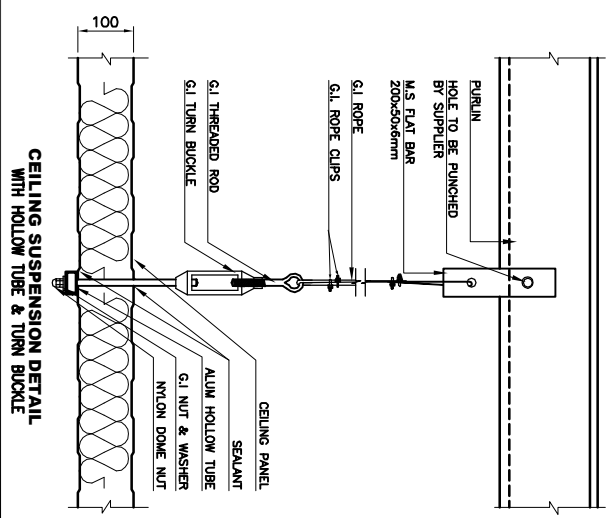
- 6.5m for 150mm thk panels.
- 5.0m for 100mm thk panels.
- 4.0m for 80mm thk panels.
- 3.5m for 50mm thk panels.

WITH BUFFER & TURN BUCKLE

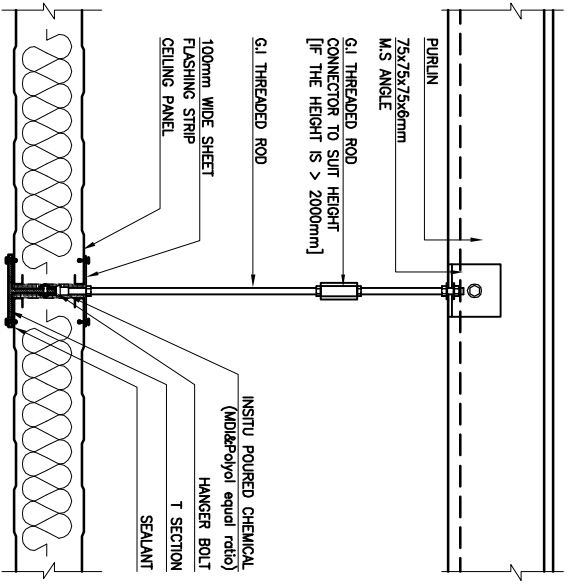


**CEILING SUSPENSION DETAIL
WITH ALUMINUM BUFFER**

WITH HOLLOW TUBE & TURN BUCKLE



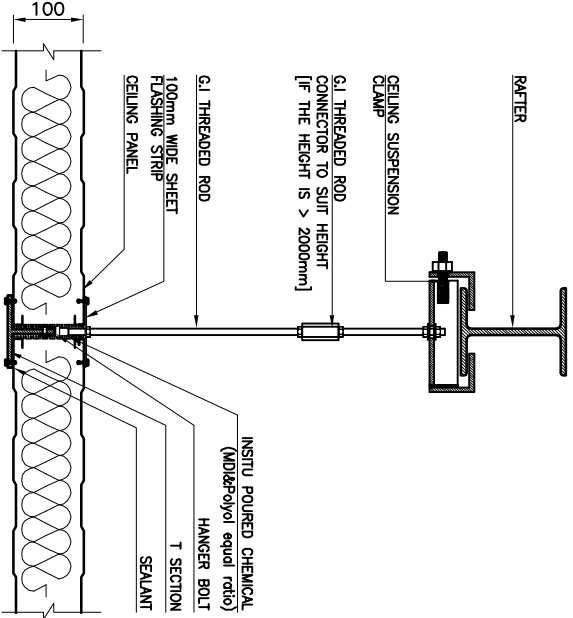
WITH T SECTION (FROM PURLIN)



CEILING SUSPENSION DETAIL

WITH T SECTION [FROM PURLIN]

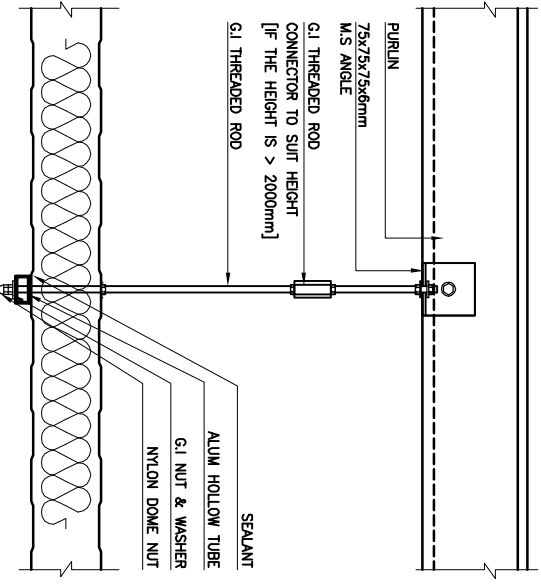
WITH T SECTION (FROM RAFTER)



CEILING SUSPENSION DETAIL

WITH T SECTION [FROM RAFTER]

WITH HOLLOW TUBE (FROM PURLIN)



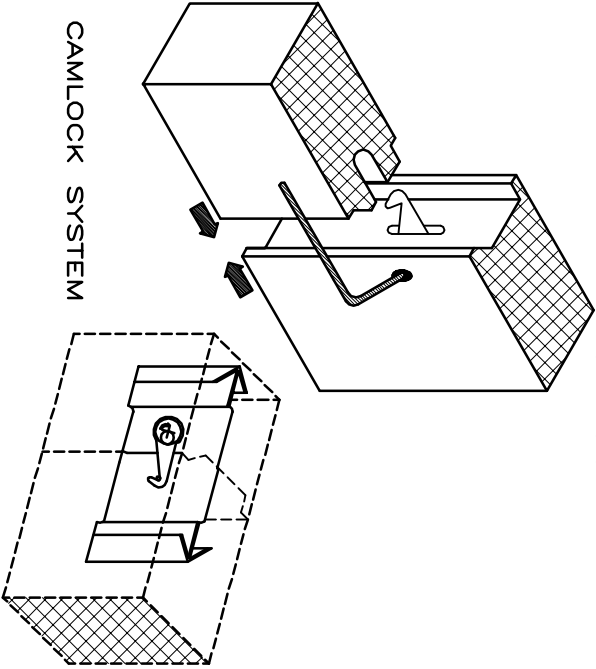
CEILING SUSPENSION DETAIL

WITH HOLLOW TUBE FROM PURLIN

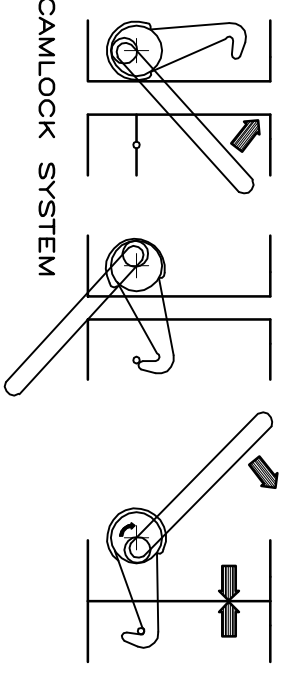
CAMLOCK SYSTEM

SCO's coldstore panels are locked together using 'KASON' G.I. Camlocks. It's tongue & groove mechanism ensures air tight joints.

1. Insert the hexagonal locking wrench in it's lock hole making sure it is fully engaged.
2. Turn the wrench as shown in fig. to engage cam action.



CAMLOCK SYSTEM

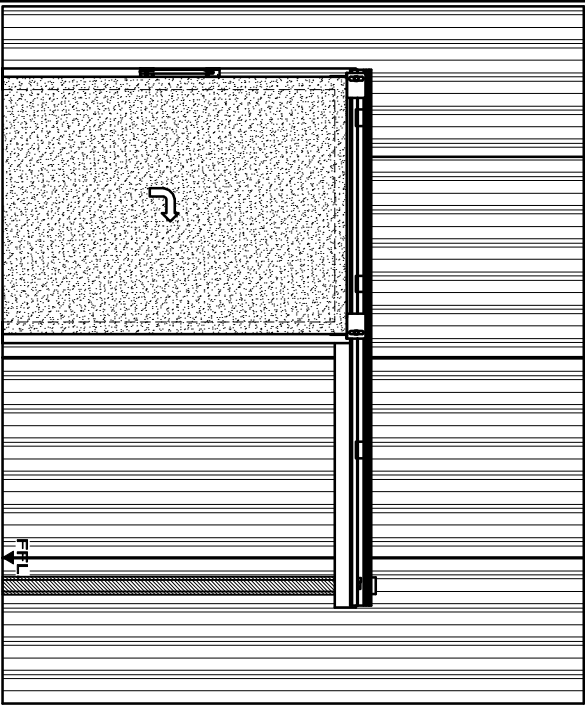


CAMLOCK SYSTEM

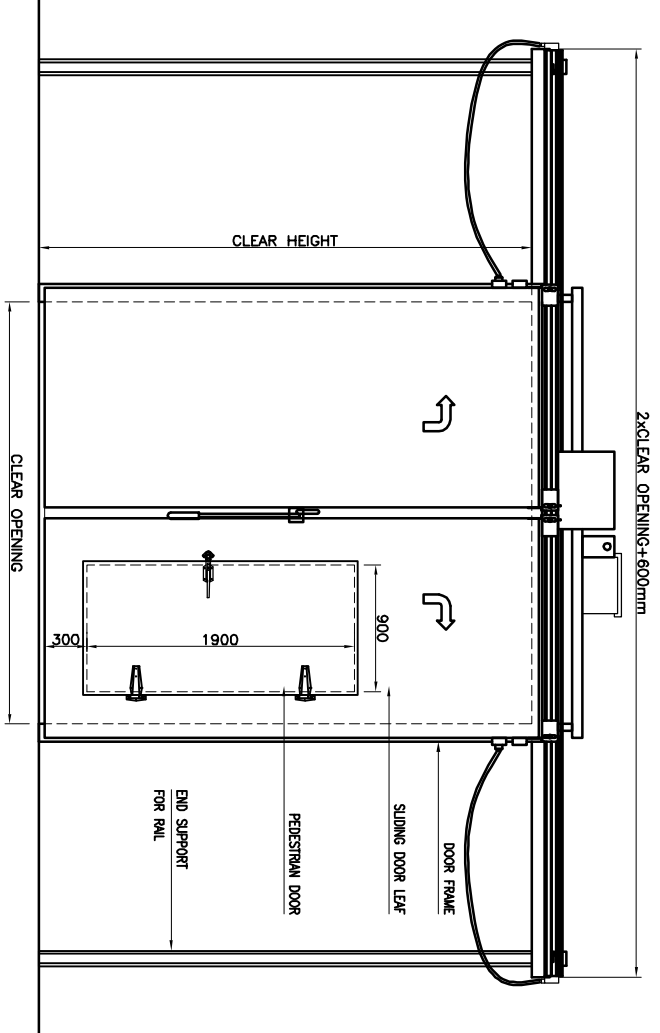
SLIDING DOORS

SCO can provide all sorts of doors ie. manual, electric, single leaf & double leaf doors, according to the client's requirements. Doors are supplied with complete accessories ie. door lock with safety release handle, gasket, heater wire and ready for mounting on their brackets. They have been pre-hung and adjusted in the factory. Freezer application doors are provided with heater on the door leaf also. Pressure relief valves have to be fixed at the site only. Door accessories will be mainly of Dan-doors, Denmark.

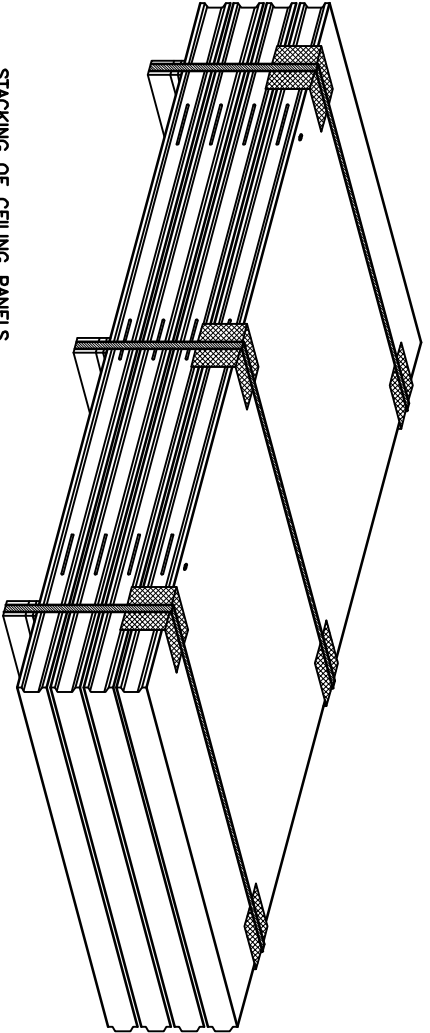
SINGLE LEAF MANUAL SLIDING DOOR ELEVATION



DOUBLE LEAF SLIDING DOOR (ELECTRICALLY OPERATED) ELEVATION

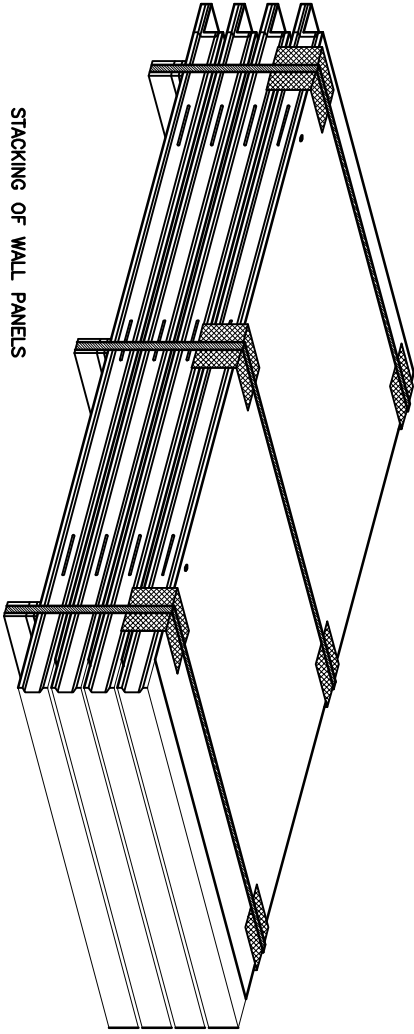


STACKING OF CEILING PANELS

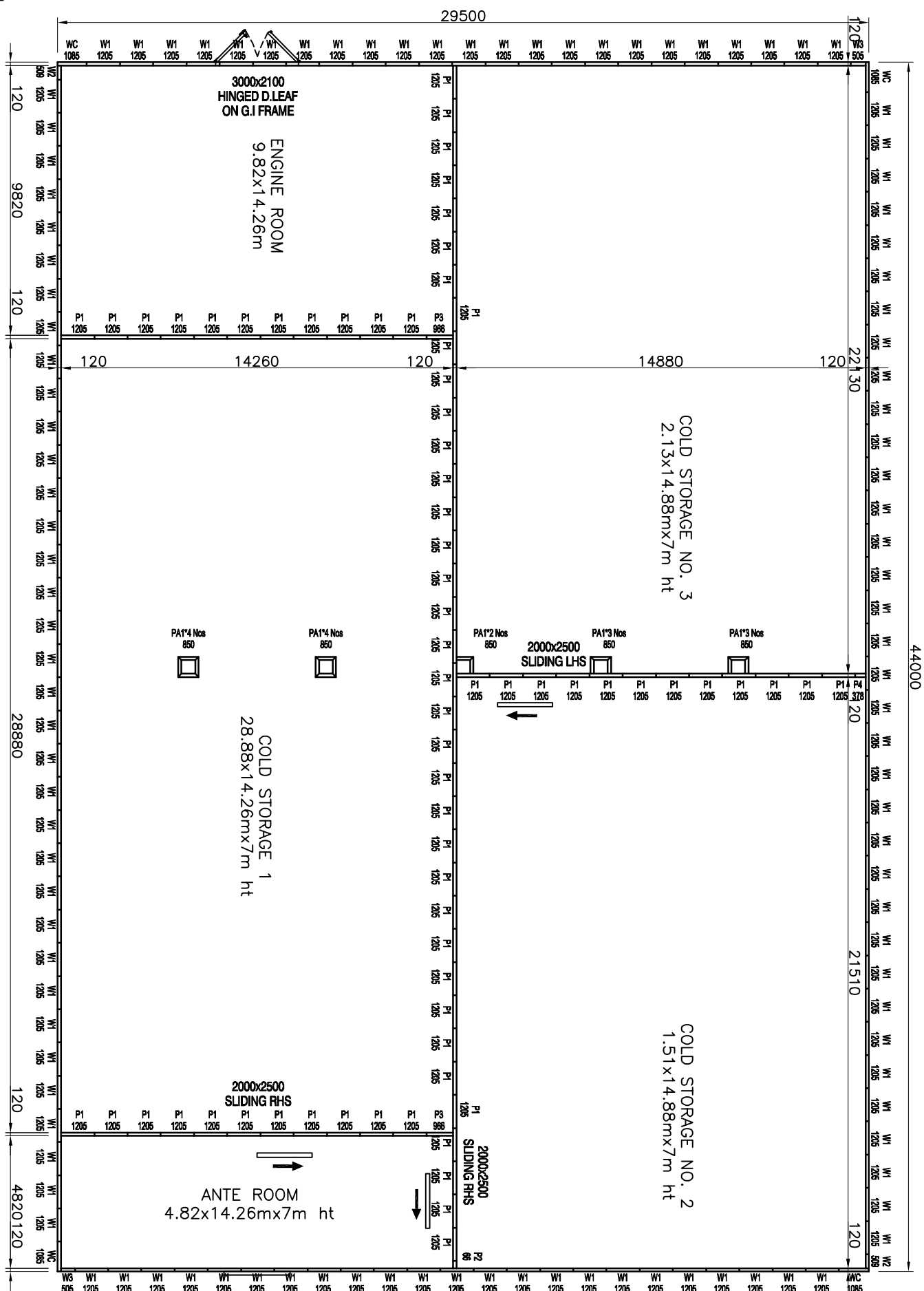


Study the panel layout drawing supplied. Working from the panel layout drawing, stack similar panels together (ie. wall, ceiling) as near to the erection area as possible.

STACKING OF PANELS



STACKING OF WALL PANELS



CEILING PANEL LAYOUT

[illegible]

FLOOR CONSTRUCTION & WALL PANELS

Make sure that the concrete floor is smooth and levelled. It is advisable to pour bitumen and spread it uniformly on the concrete floor using brush.

Put the Poly Ethylene sheet on top of this levelled concrete floor. Then fix the 50x50x1.5mm G.I angle on the conc floor around the inner perimeter of the required coldroom. It can be fixed either by Fischer plug or by Hilti Nail.

Then place the wall panel around the perimeter of the coldroom. To begin with place the corner wall panel CW in position and then place the wall panel W1 next to CW and start lock them together. Ensure that the wall panel is rigid and stable in it's position. G.I Angle should be fixed in such a way to hold the wall panel tightly.

Continue laying wall panels and lock together. Except the first corner, all the other corners to be cut & suit at site according to the space available.

Start laying the ceiling panels as per the ceiling panel layout and start lock them together.

Then put the first layer of 50mm thk floor insulation. For best performance, it should be laid staggered in different directions.

Then put the second layer of 50mm thk floor insulation.

Then spread the Poly ethylene sheet on top of the Floor insulation layer. Make sure that there is no way for the penetration of moisture.

Then pour the final concrete. Maximum thickness of the concrete recommended is 100mm since our door openings are based on 100mm thk final concrete.

Final room floor finish may be either tiles or others depends on the Client's requirement.

For a complete detail, please refer to the following drawings.

CEILING ASSEMBLY

Working from the panel layout drawing, fix the Ceiling Suspension line at the required locations as shown in the drawing. Then select the ceiling panel C1. Lay in it's exact position.

Place panel C2 in position. Lock the panels together assuring that the top and bottom edges are flush.

Continue until the whole ceiling is in position. Closing ceiling panels to be cut & suit at site.

CAPPING LOCK HOLES

Insert the plastic caps provided in the camlock holes and in with the shaft of a hammer.

Ensure tight and flush fitting

CLEANING

The finished coldstore should be cleaned thoroughly before loading. We recommend thinner or petrol applied with a soft cloth.

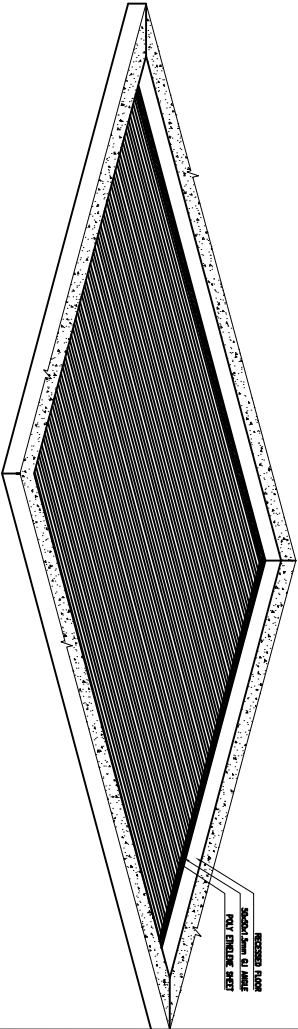
FLASHINGS

External and Internal joints are covered by flashings to improve the appearance of the coldstore. The joint between the panel and flashing shall be sealed by special white silicone.

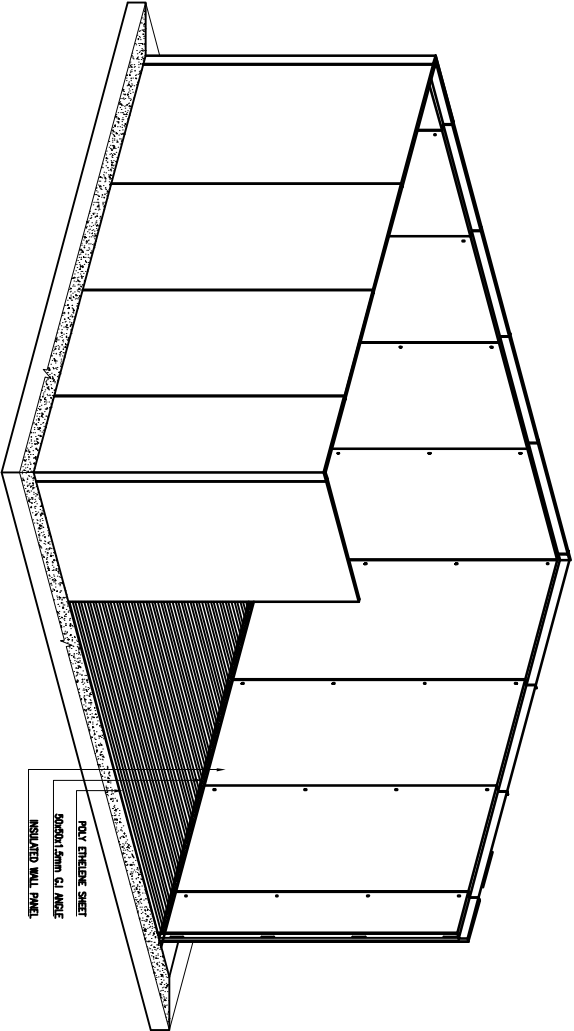
External joints at the ceiling suspension line shall be covered with a 100mm wide flat strip made of the same cladding material. This to be riveted with the ceiling panel and the joints to be properly sealed.

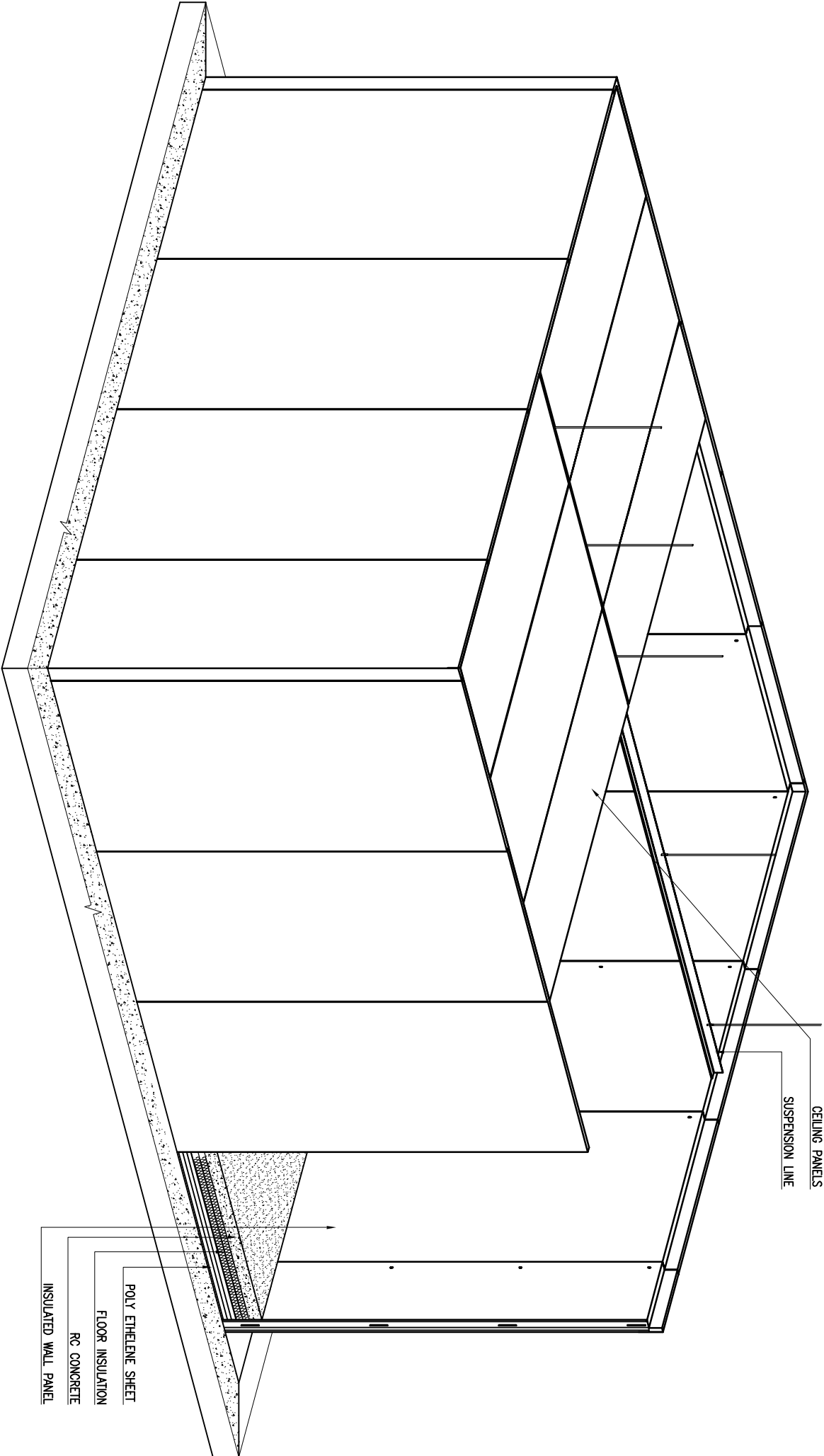
Some of the drawings showing the erection sequence are shown below for your reference.

LAYING POLY ETHYLENE SHEET & G.I ANGLE



LAYING WALL PANELS





CEILING PANELS
SUSPENSION LINE

POLY ETHYLENE SHEET
FLOOR INSULATION
RC CONCRETE
INSULATED WALL PANEL

