



# Polycrete<sup>®</sup> FLEX 850

Installation Manual

**Polycrete<sup>®</sup>**

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## **About this manual**

This manual is intended to assist the contractor, or installer of the Polycrete® Flex 850 in the proper techniques of construction. This manual assumes that generally accepted construction practices (i.e. level, plumb and square) have been employed when building with the Polycrete® Flex 850. Structures built with the Polycrete® Flex 850 should be designed, engineered, and constructed in accordance with all applicable building codes and regulations.

## **Disclaimer**

In keeping with Polycrete® policy of continuing research and development, we reserve the right to change or modify the contents of this manual at any time. It is the responsibility of the end user to obtain the most recent information available. Since Polycrete® has no control over installation or workmanship, no responsibility for results is expressed or implied.

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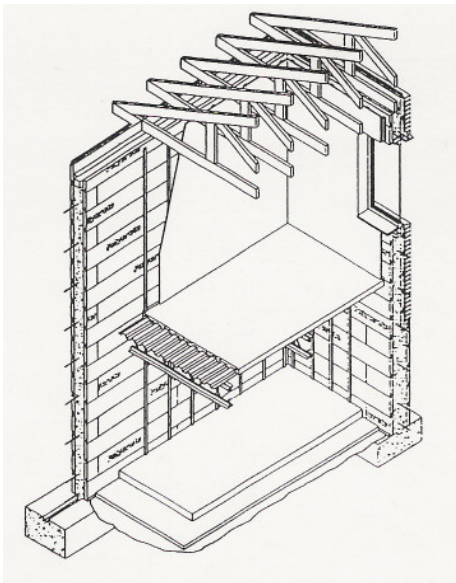
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# 1 POLYCRETE® CONSTRUCTION SYSTEM

The Polycrete® insulating form is composed of type 3 expanded polystyrene panels, fastened together by T-shaped polymer fixtures that are inserted into end grooves on adjoining panels.

Once poured, the concrete adheres perfectly to the surface of the forms creating a concrete and expanded Polystyrene sandwich completely free of air pockets. The result: a load-bearing wall with far greater strength than conventional structures.

The Polycrete® system is perfect for any type of building design, and can be easily adapted to suite the construction of columns, beams or polygonal curves. In addition to more common types of facing materials, Polycrete® also lends itself to the application of highly resistant exterior finishes that can be fixed directly to the expanded polystyrene.



**Figure 1.a General view of the system**

## 2 TECHNICAL SPECIFICATIONS

### 2.1 Components of Polycrete® formwork

Each panel measure 96 inches (2438 mm) in length, by 12 inches (305 mm) in height, by 2,5 inches (63 mm) thick. In addition to ensuring a virtually seamless fit between panels, the T-shaped polymer fixture also serves as a solid base for screws. The rods ensure precise, continuous spaces of 6, 8, 10 inches or more (150, 200, 250 mm) between parallel panels. See Drawing 2.1.a.

Despite these innovative designs and assembly features, Polycrete® remains a conventional formwork. Walls built with the Polycrete® system conform to the prescriptions of the CAN 3-A23.3-M84 norms related to the "Calculation of Concrete Structures in Buildings".

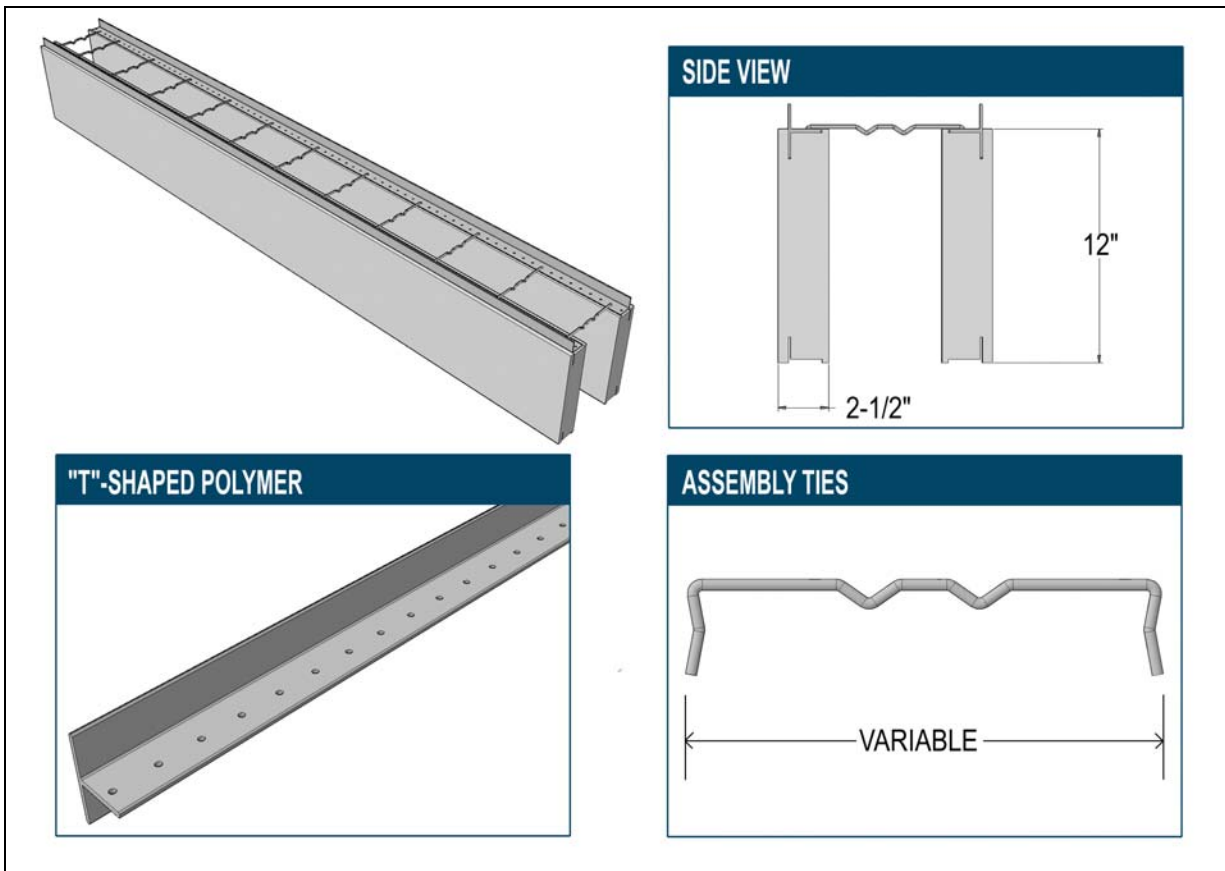


Figure 2.1.a Polycrete® formwork elements

## 2.2 Thermal Insulation

The properties of Polycrete® wall offer a level of insulation far greater than building prescriptions required by the CAN/COGS-51.20-M.

This high energy-saving characteristic is explained by the fact that walls, from the foundation to the roof, are completely insulated from the interior and exterior. Therefore, walls are completely free of air pockets and thermal bridges. Heat loss and air exchange are kept to an absolute minimum, provided of course that contour openings are properly sealed. In addition, the expanded polystyrene envelope prevents the concrete from acting as a transfer point for humidity.

Following is a chart including a group of analyses of the different series thermal composites of the Polycrete® wall (See annex B for more details)

Interior finish	Ext: nil	Ext: Brick	Ext: aluminum	Ext: aggregates	Ext: wood
Thickness	Int: nil	Int: Gyps	Int: Gyps	Int: Gyps	Int: Gyps
6 in.	4,094 (23,25)	4,833 (27,45)	5,003 (28,42)	4,51 (25,61)	4,923 (27,96)

**Chart 1 – Thermal resistance RSI (R)**

## 2.3 Phonic Insulation

Thanks to its high density, a Polycrete® concrete wall is also an excellent sound barrier because the walls are completely insulated from the interior and exterior so free of air pockets.

## 2.4 Durability

Safe within a coat of expanded polystyrene, the concrete ages under ideal conditions, thereby preventing cracks and fissures caused by cold temperatures in winter and dehydration in summer. The concrete is also shielded against acid rain, ground freeze and thaw, and other potentially destructive forces.

## 2.5 Resistance to fire and seismic activity

Buildings constructed with the Polycrete® system are far more resistant than the other types of construction. As a matter of fact, the Polycrete® system uses primarily non-combustible materials and concrete can resist to very high temperature degrees, only a small surface deterioration might be observed after an intense heat.

Buildings constructed with the Polycrete® system are also resistant to the effects of earthquakes and tremors. However, as with any concrete building, structural engineers must ensure the adequate design and testing of this feature.



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## 2.6 Environment Safety

Type 3 expanded polystyrene contains none of the chlorofluorocarbons (CFCs) responsible, in part, for the destruction of the ozone layer. Furthermore, because the system incorporates building forms into the actual finished structure, construction site waste is significantly reduced. Also the rare polystyrene remaining can be recycled at 100%.

By uniting a stable, man-made material with a time-honored natural material, the Polycrete® construction system displays a commendable degree of environmental respect.



### **3 TOOLS AND MATERIAL REQUIRED FOR THE INSTALLATION**

<b>TOOLS</b>	<b>UTILITIES</b>
Metal corners (90° and 135°)	To maintain right corners
Watertight membrane	To protect the formwork against humidity
Polycrete® scaffolding	To form a working platform and stabilize formwork
Cutting table	To cut polystyrene panels
Screws	To fix different materials to T-shaped polymer
Anchor bolts	To fix different pieces in concrete serving as a support for floors, roofs, etc.

# 4 BUILDING FOUNDATION

## 4.1 Footing

The footing must be conforming to the national building code and the following items:

- Installed following plans and specifications.
- Leveled on a soil resisting compactness verified by an engineer.
- Contained a key or any other mechanical device.

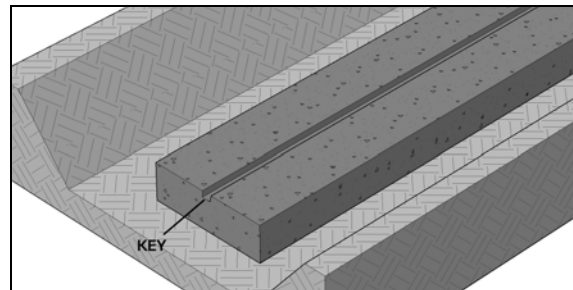


Figure 4.1.a Footing

## 4.2 Protection of the Foundation Walls

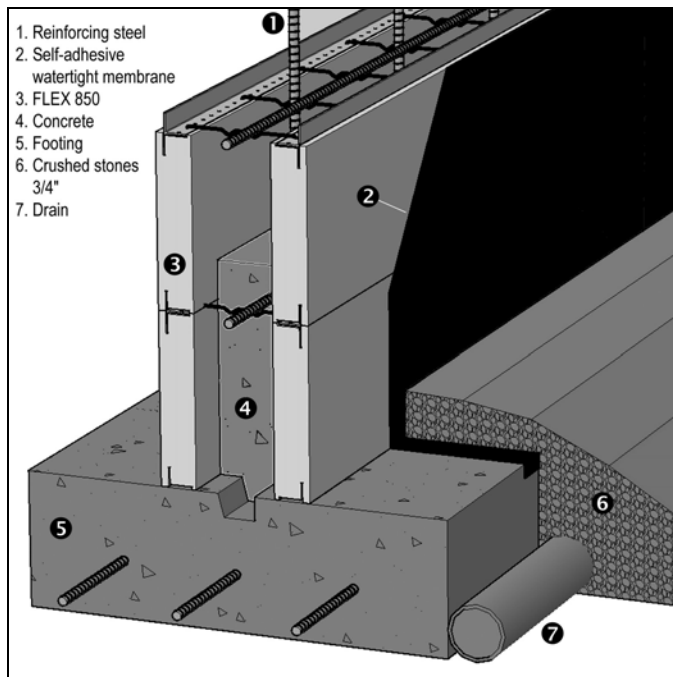


Figure 4.2.a Wall foundation

The wall part below the grade level must be protected against humidity and water infiltration. This protection must be assured by a self-adhesive membrane specified by Polycrete®.

# 5 INSTALLATION OF THE POLYCRETE® FORMWORK

## 5.1 Starting bases

The installation of the starting bases must be made as follows:

- Mark the exterior perimeter using a "Chalk line".
- Install the starting bases according to the desired wall thickness.
- Fix the starting bases with concrete nails to obtain a perfect stability.

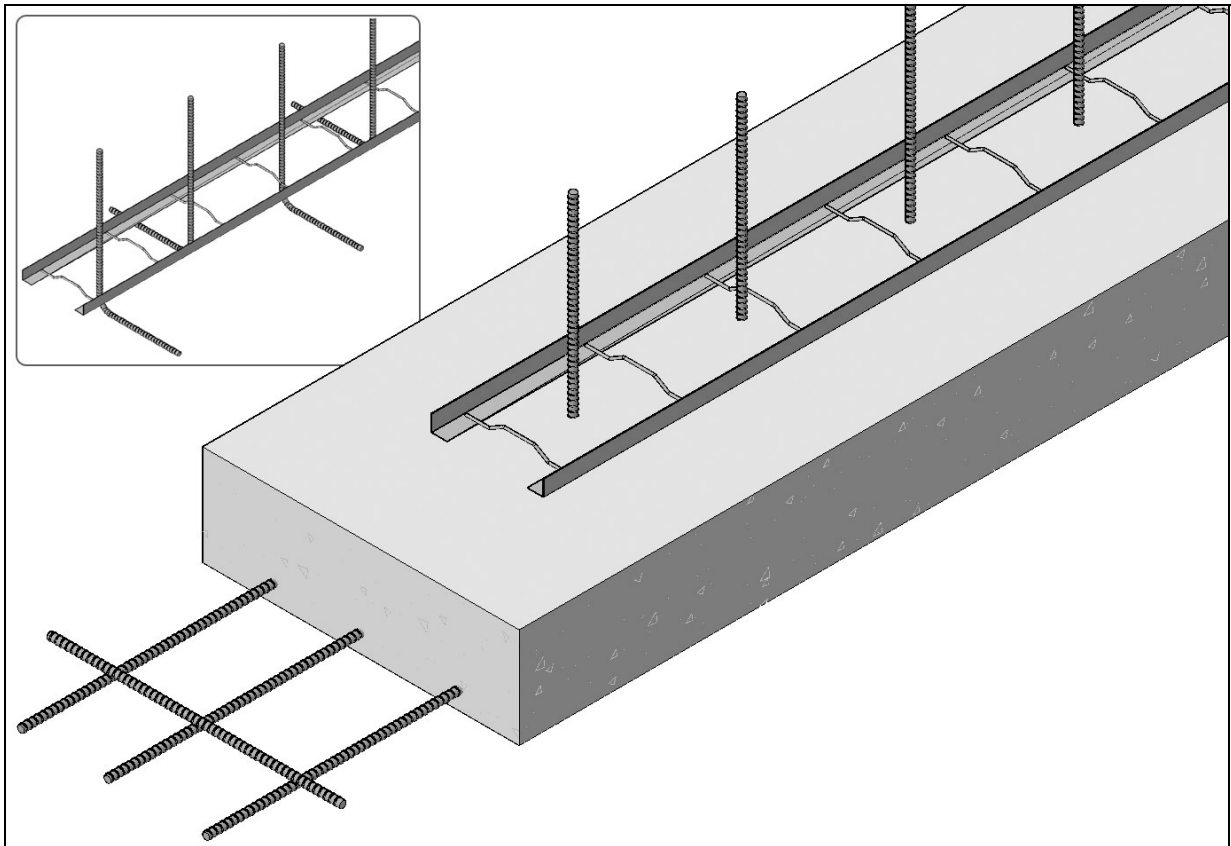


Figure 5.1.a Starting base

### 5.2 Installation of exterior corners guide

- An exterior corner guide system must be installed immediately after the starting base. The vertical angle of the exterior cornered guide should be checked and adjusted using a level or a plumb.
- Hold the corner guide with the help of the Polycrete® (Fixation members) screwed in the starting base.

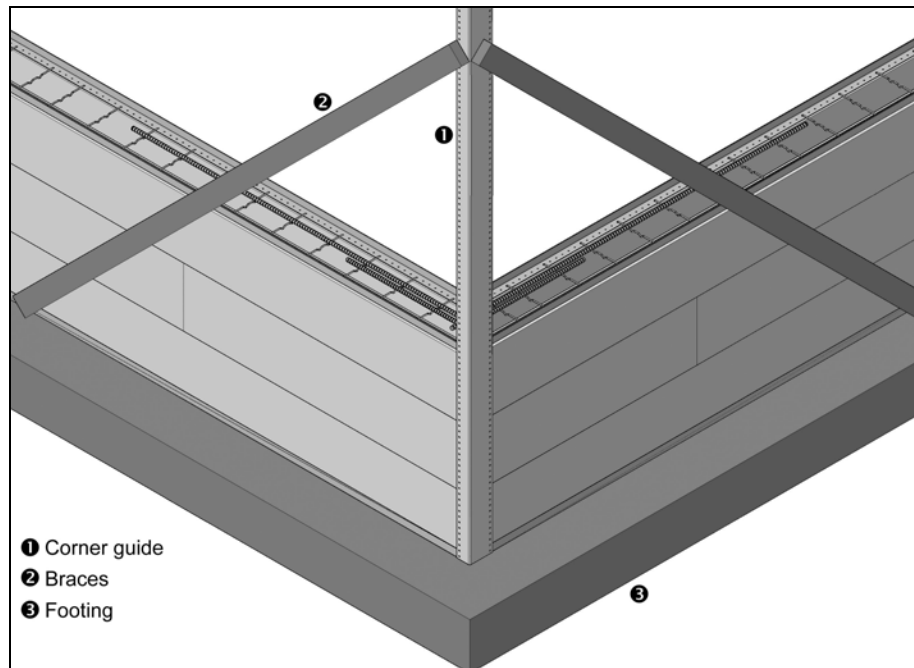


Figure 5.2.a Corners guide

### 5.3 Installation of Polycrete® panels

- Install the panels starting by the exterior side.
- The panels of the interior side of the wall must be positioned in a way that all joints (A) are between those of the exterior wall (Figure 5.3a)
- The wall erection must be done by steps to facilitate the reinforcing steel installation.

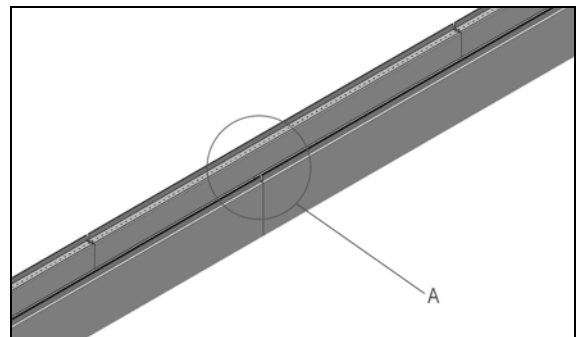
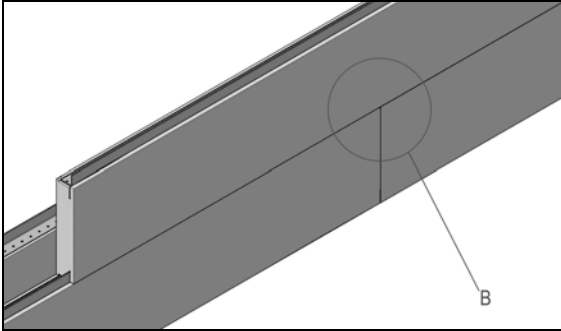


Figure 5.3.a Crossing of joints facing each other



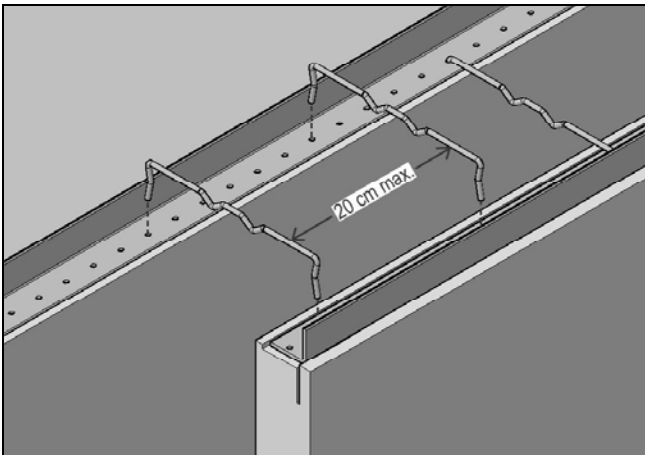
**Figure 5.3.b Crossing of superposed joints**

- Each line must be fixed in the same way respecting the location of joints (B) on the same line between superposed panels and those on the opposite line (Figure 5.3b)
- Do not force corners while placing the panels.

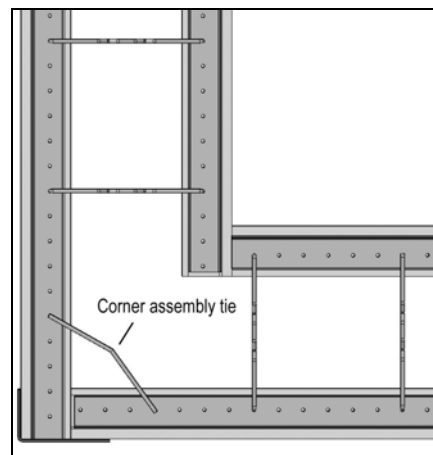
## 5.4 Installation of assembly ties

Assembly ties are installed to maintain the distance between Polycrete® panels in a parallel way.

- The ties must be installed at every 8 inches (200 mm) maximum, perpendicularly to the other two panels (Figure 5.4.a)
- The stabilization of the wall corner is done by an assembly tie at 45 degrees (Figure 5.4.b)



**Figure 5.4.a Distance between the assemble ties**



**Figure 5.4.b Corner tie**

- In the event that the tie is not exactly at the hole, bend slightly this one and establish the alignment (Figure 5.4.c)
- Do not use the holes near the joints (Figure 5.4.d)

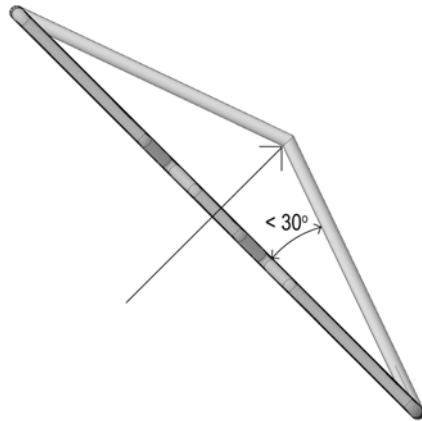


Figure 5.4.c Correction of the corner assembly ties

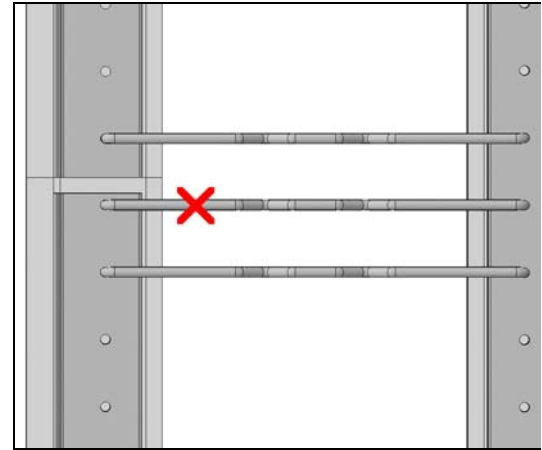


Figure 5.4.d Closeness of the edges

## 5.5 Stabilization of the walls

Before the concrete is poured into the formwork, it must be stabilized by using the Polycrete® scaffolds system conceived for it.

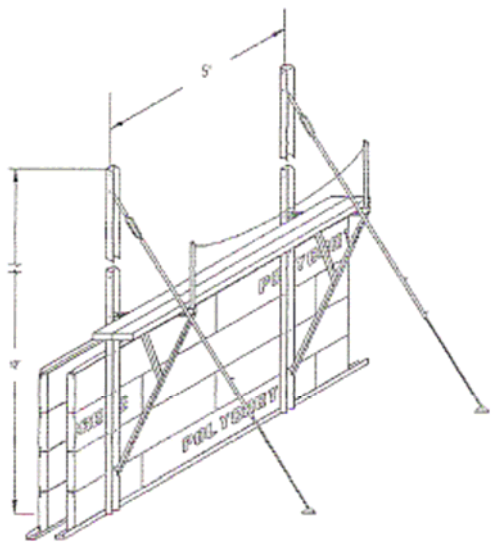


Figure 5.5.a Polycrete® scaffolds system

- The stabilization must start from the 4<sup>th</sup> layer.
- Install the scaffolds at 5 feet (1524 mm) on center and two feet (609 mm) from the intersecting and inside corner walls.
- The scaffolds system is used to stabilize and to align the walls vertically and horizontally and to maintain them in this position during the concrete pouring and/or pumping.

### 5.6 Assembly of the Polycrete® scaffolds system

- Once the four layers of Polycrete® panels are in place, attach the scaffolds channels to each Polycrete® panels at T-shaped sections using 1 ½ in. screws (1)
- To ensure the verticality of scaffolds channels, use the tubular member and fix it at the point (A) to the floor (2)
- Install the platform support to the scaffold channel (3)

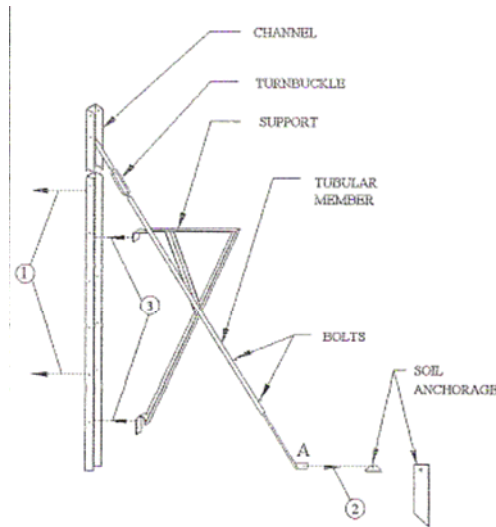


Figure 5.6.a Assembly of the scaffolds system

### 5.7 Walls alignment

Before and after the pouring of the concrete in the Polycrete® formwork, it is necessary to establish the alignment and the verticality of the wall and to maintain it in this position during the pouring of concrete.

- Fix a rope to each end of the wall, from a certain distance of this one.
- Before and after the pouring of concrete, use the turnbuckles (1) and bolts (2) at tubular members to align the Polycrete® panels.

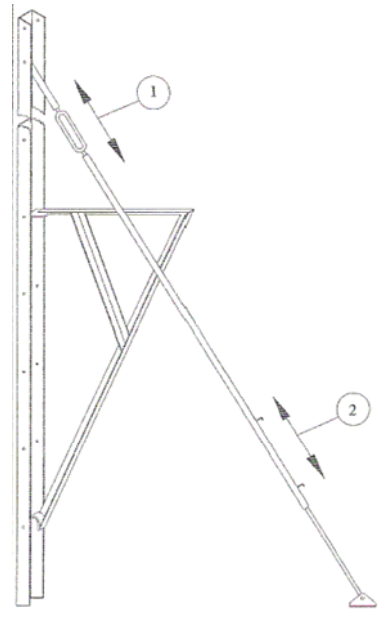


Figure 5.7.a Adjustment of the scaffolds



**6**

# REINFORCING STEEL BAR IN POLYCRETE® FORMWORKS

## 6.1 Quantity and type of reinforcing steel

Polycrete® ICF walls for residential, commercial or industrial buildings are reinforced concrete walls. Steel reinforcement structure shall be defined by a certified engineer and be in conformance to local building codes and regulations.

All walls of residential, institutional, industrial or commercial structures employing the Polycrete® system are made of reinforced concrete. Reinforcement levels are determined according to requirements of the Canadian National Building Code (CNBC)-Supplement No 4, Art. 10 and CSA Standard A 23.3-1990, Clause 5.2.7, Formula (1).

Reinforcing steel calculated in accordance with NBC, Art. 5.2.7, Formula (1) is the minimum required. Relation between the required area for horizontal reinforcing steel and the gross concrete area crossed by this reinforcing steel is  $A_h/A_b = 0.002$  ..... (1)

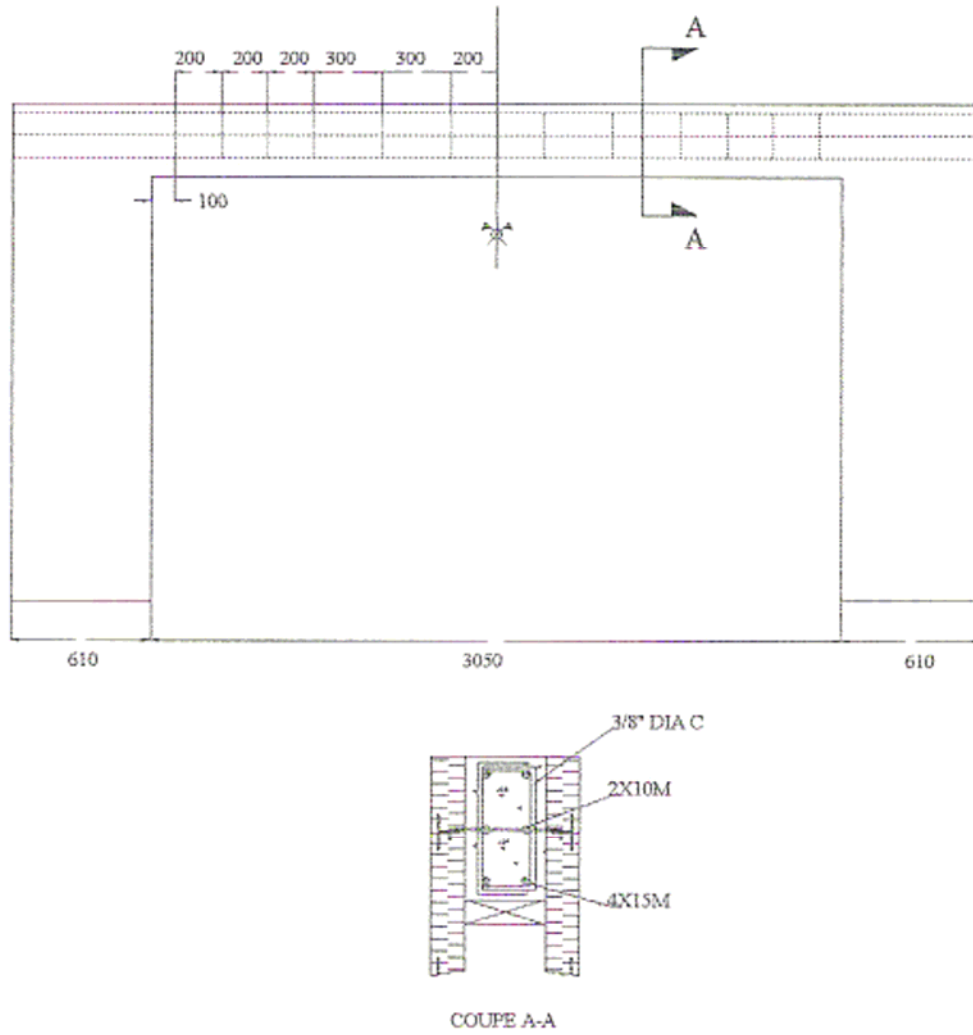
The following table indicates the diameter and distance of the reinforcing steel bars depending on the thickness of the walls. As stipulated in Article 10.6.1, the section of vertical reinforcement is at least 60% that of the horizontal bars.

**Table 2**

Thickness of concrete wall	Horizontal reinforcement	Vertical reinforcement
145 mm	10 M @ 305 mm c/c	10 M @ 450 mm c/c
195 mm	15 M @ 305 mm c/c	10 M @ 450 mm c/c
245 mm	15 M @ 305 mm c/c	10 M @ 305 mm c/c

## 6.2 Reinforcing bar in the lintels

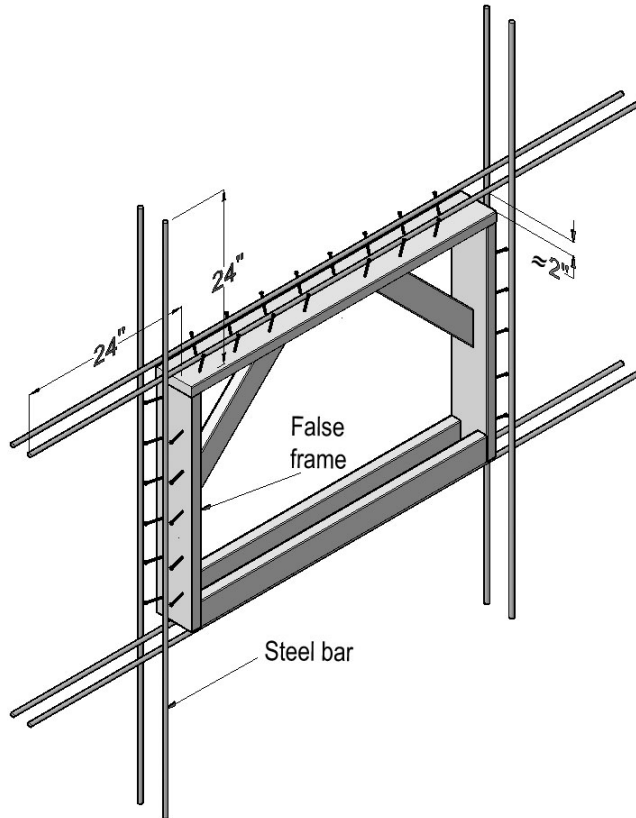
The reinforcing bar in the lintels exceeding a range of 10 ft (3m) must meet structural engineer standards. The figure below shows a typical cut of a lintel with a range less than 10 ft (3 m) and conceived for a uniform distributed charge.



**Figure 6.2.a Reinforcing bar of a lintel with a range less than 10ft. (3 m)**

## 6.3 Steel bar around openings

An opening in a concrete wall shows a weakness area which might cause the beginning of some fissures. This is the reason why the openings must be surrounded with steel bars as follows:



**Figure 6.3.a Steel bar around the openings**

- The frame of the window must be surrounded with two steel bars 5M.
- These steel bars must exceed the frame of approximately 24 in. (610 mm)
- The steel bars must be installed from a distance of 1 in. (25 mm) of the frame.

## 6.4 Installation of reinforcing steel in concrete walls

The installation and the type of reinforcing steel bars must meet the requirements of the Canadian National Building Code or those of the structural engineer.

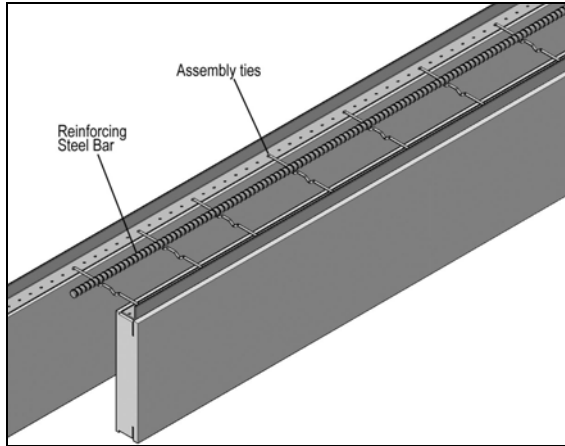


Figure 6.4.a Disposition of the reinforcing steel bar

- Place the horizontal reinforcing steel bars on the notch of the assembly ties (Figure 6.4.a)
- The reinforcing steel bars must be attached to form a rigid vertical mesh.

- Leave dowels at least 18" (457 mm) long on top of the wall at the floor level (Figure 6.4.b)

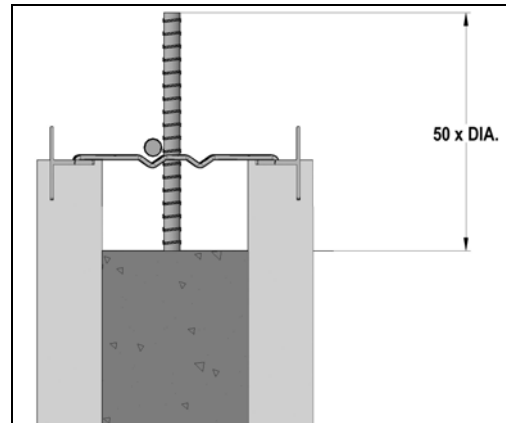


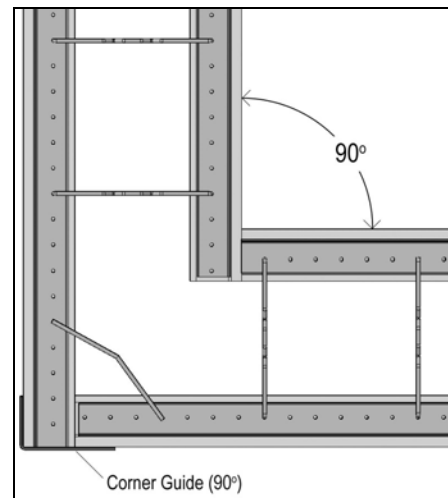
Figure 6.4.b Transfer of the charges into the steel bars

**7**

# VERSATILITY OF THE POLYCRETE® SYSTEM

## 7.1 90 degrees angle wall

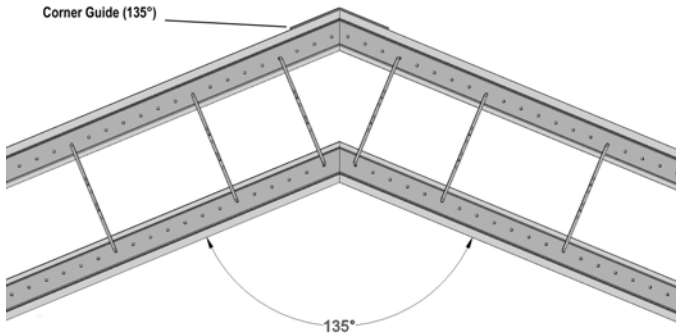
- First insert panels of the exterior wall in the corner guide.
- Then start the laying of the interior wall panels.
- Continue the laying of panels.



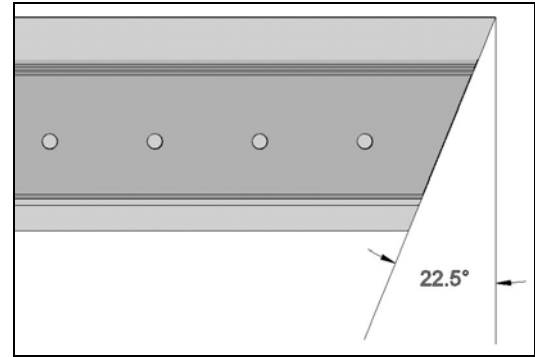
**Figure 7.1.a Wall at 90°**

## 7.2 135 degrees angle wall

- Cut the edge of the panel at an angle of 22,5° (Figure 7.2.b)
- Insert the panels of the exterior wall into the corner guide specially made at 135 degrees.
- The start the laying of the interior wall panels



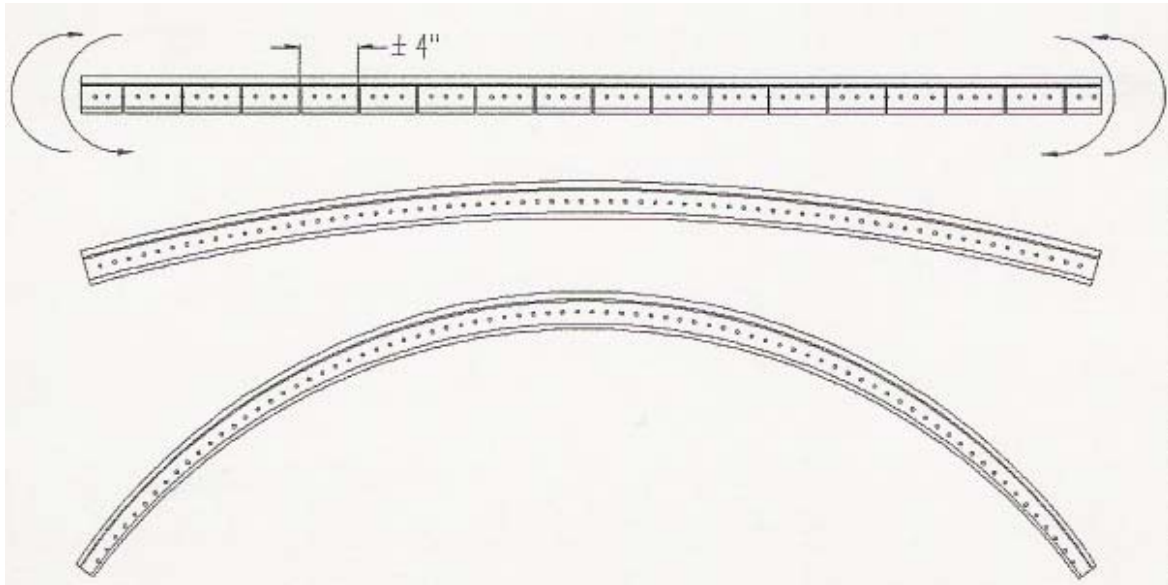
**Figure 7.2.a Wall at 135°**



**Figure 7.2.b Cutting angle**

### 7.3 Circular wall

- First, cut partially a polystyrene panel in depth of 1 ¾ inches max.
- Repeat this operation at intervals of approximately 4 inches c/c/ (Figure 7.3.a)

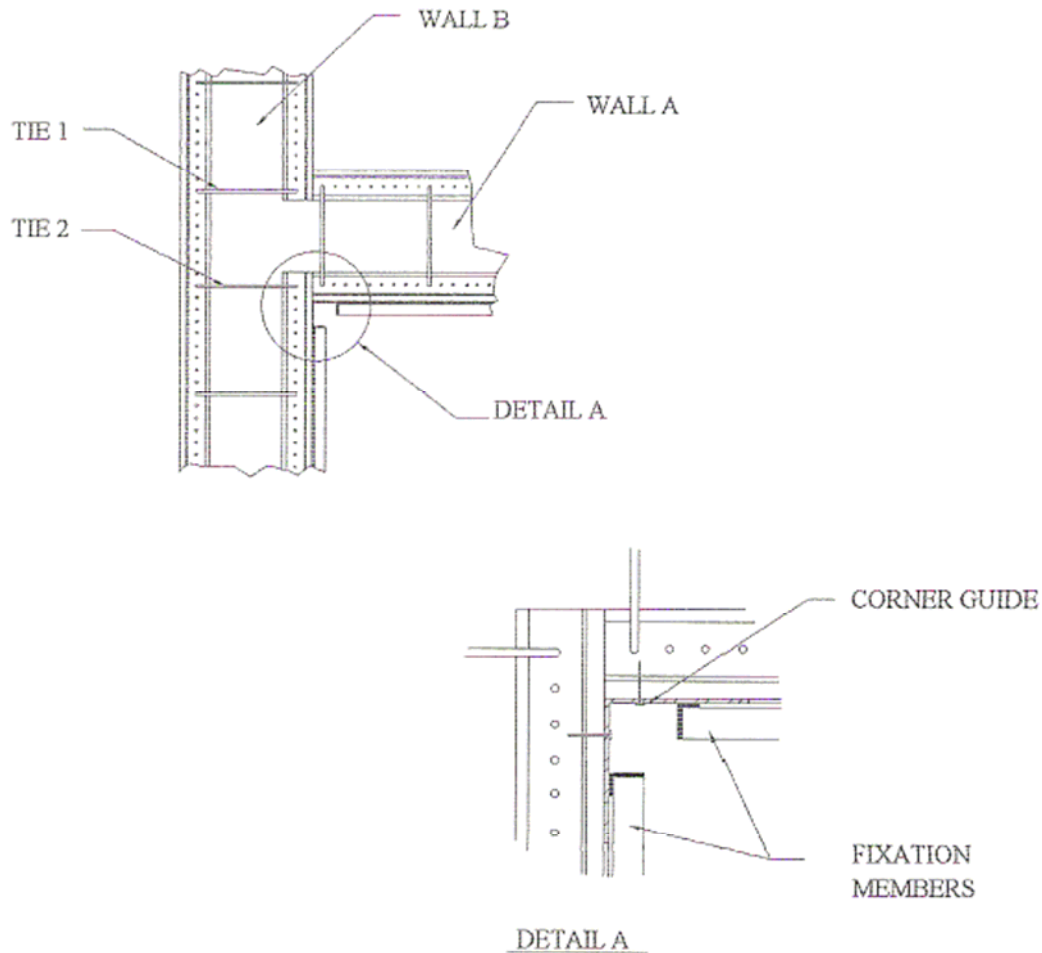


**Figure 7.3.a Curve of the panels**

- It is very important to have the grooves outside of the holes.
- Once this operation is completed, make a template to keep the shape of the wall.
- Then continue the installation of the wall following the normal procedure.

## 7.4 Connection at the walls intersection

- Place the starting base of the wall (A) using the starting base of the wall (B) as its support.
- Screw the corner guide metal at every foot of the Polycrete® wall.
- Place the assembly ties at the first hole of each wall (1) and (2) at intersection (Figure 7.4.a)
- Then follow the normal procedure.



**Figure 7.4.a Connection at the walls intersection**



**8**

# POURING OF CONCRETE IN THE POLYCRETE® FORMWORK

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## 8.1 Characteristics of the used concrete

The concrete must respect certain parameters to facilitate its placing in the formwork.

- The concrete characteristics must respect the requirements of the structural engineer. The concrete used in the construction of residential building has a compression resistance of 25Mpa and does not have entrained air.
- The mixture must be adapted for concrete pumps.
- It is recommended to add to the concrete a superplasticizer.
- Slump must be between 4 & 5 inches (100 and 127 mm)

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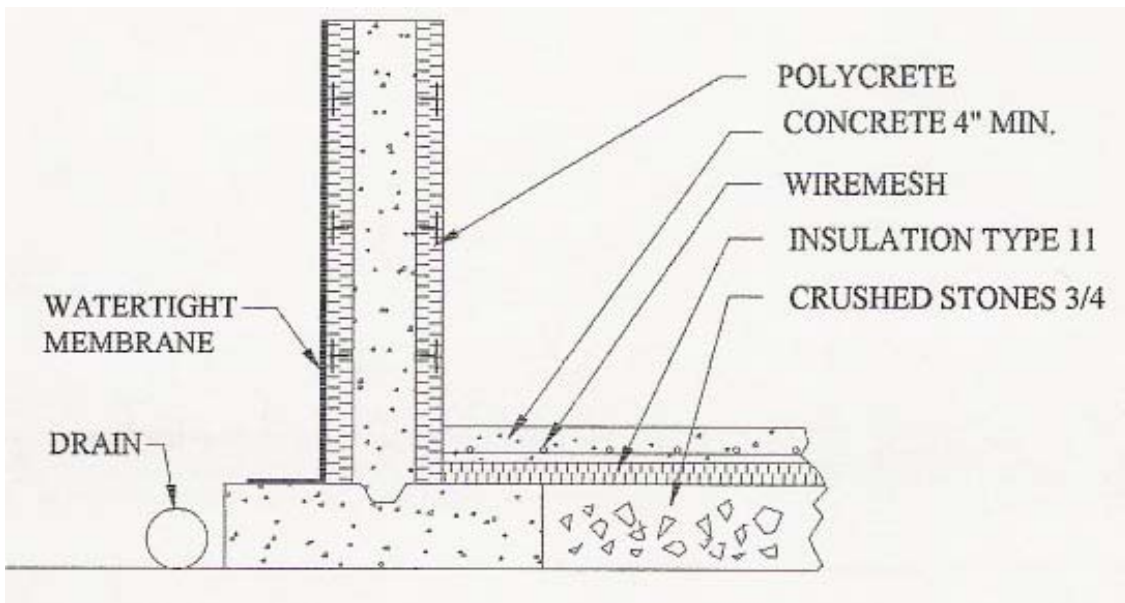
## 8.2 Pouring of concrete

The pouring of concrete could be done at the temperature of minus 22 degrees F (-30 degrees C) because the insulation properties of the polystyrene expanded of type 3, which assure a perfect curing of concrete. The procedure of concrete pouring into the Polycrete® formwork must respect the following elements:

- The pouring of concrete must be done by concrete pump because the concrete inserted in polystyrene forms required a high control of the flow and a flexible pouring.
- The pouring of concrete in formwork must not exceed 8 ft. (2,5 m). (See norm ACNOR CAN3-A438-M84 annex A).
- The pouring of concrete must be in raises of 4 feet (1,2 m) maximum. (See norm ACNOR CAN3-A438-M84 annex A).
- It is also possible to use a vibrator in the Polycrete® formwork with raises approximately of 2 ft. (0,6 m) maximum.
- It is also very important to accentuate the quality control when pouring the concrete in the formworks.

# 9 CONCRETE SLAB ON SOIL

- Concrete slab on soil in the building must respect requirements of the NBC.
- Backfield interior of the building to the top of the footing with ¾ " (200 mm) of crushed stones.



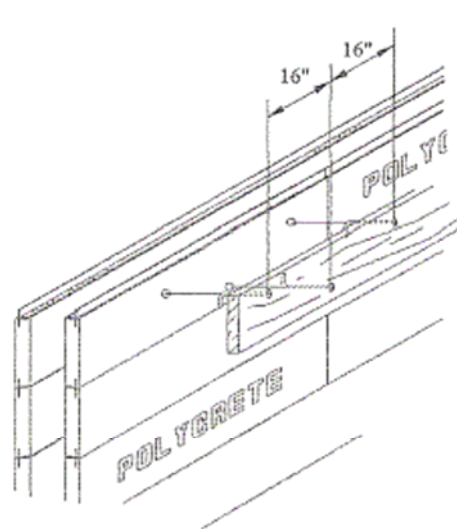
**Figure 9.a Junction of the concrete slab on soil**

- Place 2 in. (51 mm) of Polycrete® type II insulation on the total area of the floor.
- Place the wiremesh supported by small blocks of concrete on the whole floor area then pour in the concrete slab.

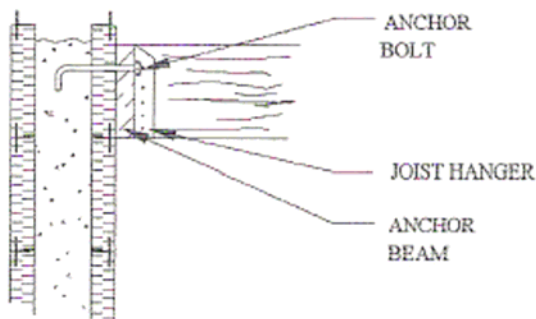
# 10 JOIST INSTALLATION

## 10.1 Wooden joists type "I" and wooden beams

- Prepare an anchoring beam (2" X 10").
- Establish the floor level.
- Install the anchoring beam on the circumference of the wall and attach it with screws to the T-shaped polymer.
- Drill holes in staggered rows for the anchoring bolts at 16 in. (406 mm) maximum.
- Insert the anchoring bolts in the holes without tightening, passing them by the interior of the polystyrene formwork.

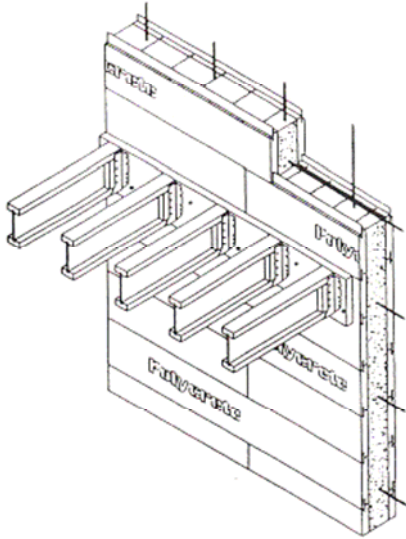


**Figure 10.1.a Installation of the end joist**

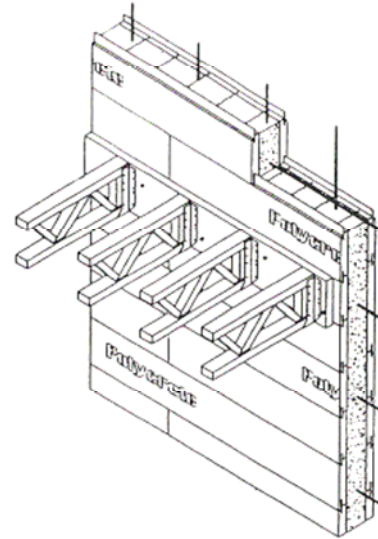


**Figure 10.1.b Junction of the wooden floor to the Polycrete® wall**

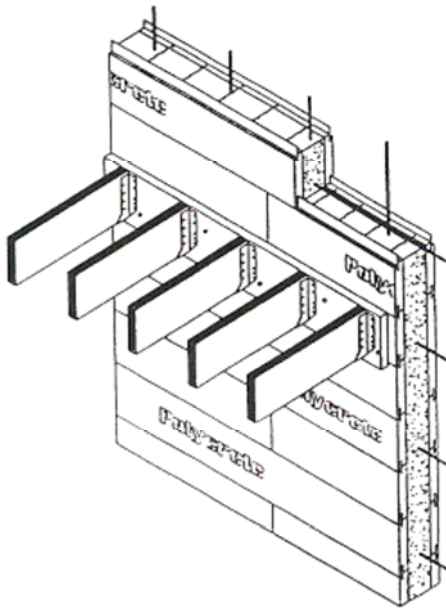
- Then pour the concrete inside the polystyrene formwork.
- 72 hours after the pouring of concrete, tighten the anchoring bolts and install stirrups on the wooden anchoring beams.
- To be noted that the scaffolds must be fixed at the places where the end joists are on wooden beams 2" X 4".



**Figure 10.1.c Floor of wooden joists type « I »**



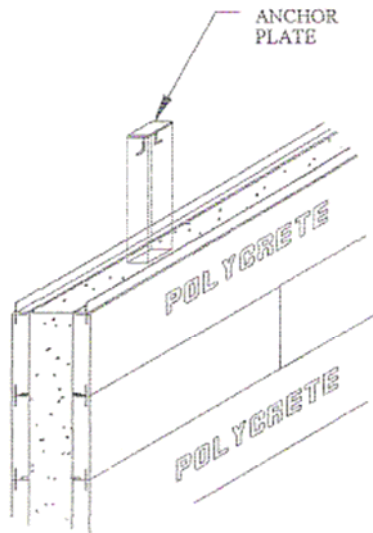
**Figure 10.1.d Floor of wooden joists**



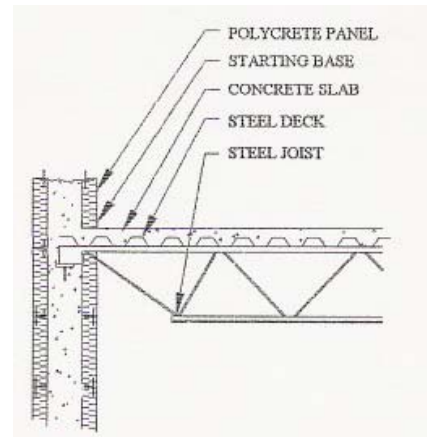
**Figure 10.1.e Floor of wooden beams**

## 10.2 Steel joists and steel deck

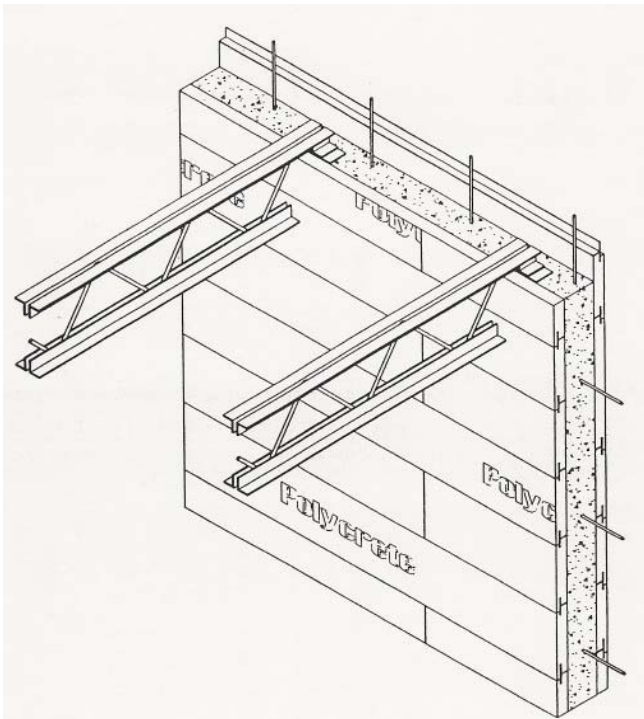
- Insert the anchoring plates at the fixed places in the concrete before its hardening.
- Place the steel joists on these anchoring plates.
- Then weld the joist plate to the anchoring plate.



**Figure 10.2.a** Insertion of the anchoring plate



**Figure 10.2.b** Junction of a concrete floor with a Polycrete® wall

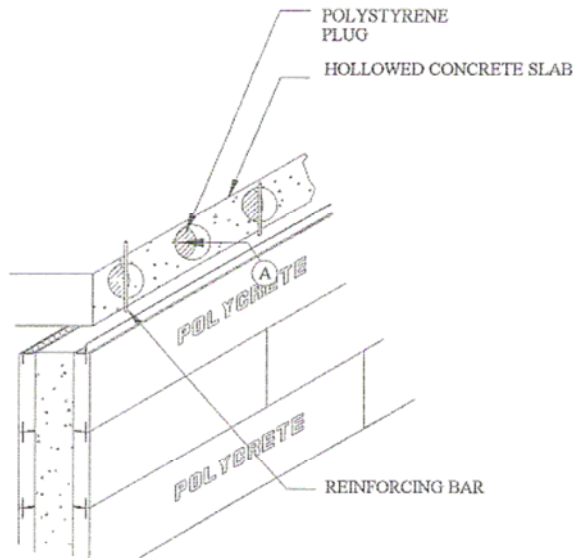


**Figure 10.2.c** Floor made with steel joists and steel deck

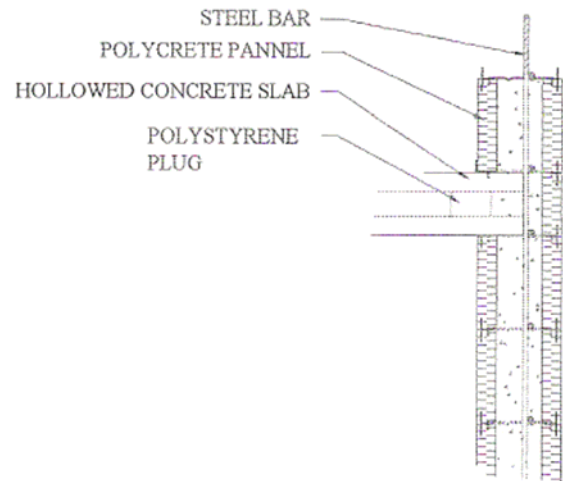
### 10.3 Hollowed concrete slabs

- Place the concrete slabs on top of the Polycrete® wall with a minimum contact of 4 in. (102 mm) from the area of the concrete (Follow the manufacturer specs).
- Place the polystyrene plugs 4 in. (102 mm) inside the cells (A) of the slab.

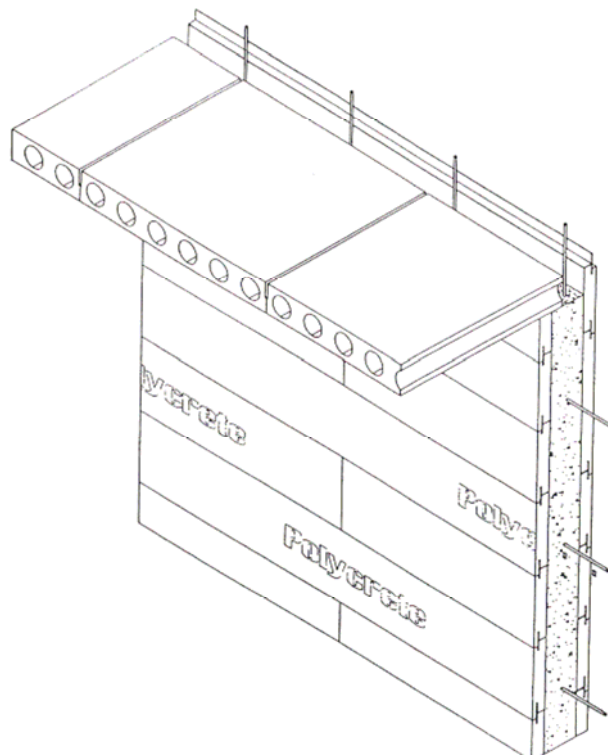
- Continue the upper portion of the concrete wall leaving a space for the prefab slab. To realize this, cut the panel of the interior polystyrene wall to permit its adjustment in the space occupied by the slab.
- Pour in the concrete and be sure of its penetration into the cells of the concrete slab.



**Figure 10.3.a Support of a hollowed concrete slab on a Polycrete® wall**



**Figure 10.3.b Junction of a hollowed concrete slab with a Polycrete® wall**



**Figure 10.3.c Floor made with hollowed concrete slabs**

# 11 ATTACHING THE ROOF TRUSSES

- Once the concrete wall is poured to the top, place the anchoring bolts in the concrete.
- Then install the base (2" X 6") leveled to the top of the concrete wall.
- Tighten with the anchoring bolts.

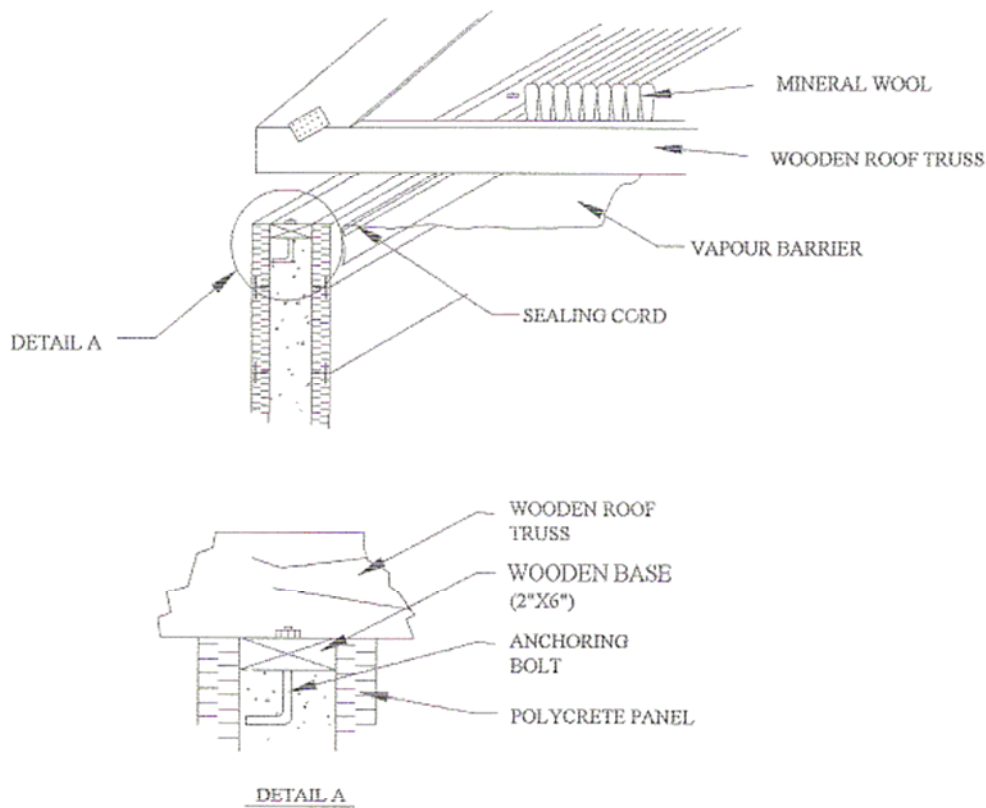


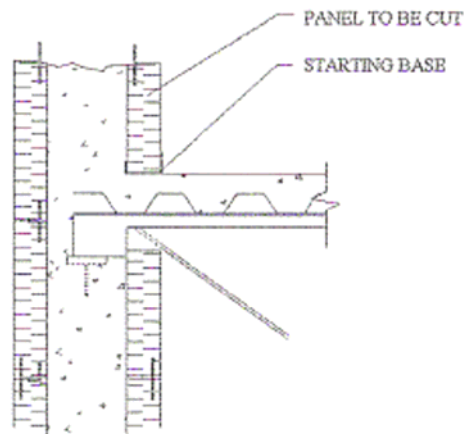
Figure 11.a Junction of the roof trusses to a Polycrete® wall



# 12 POURING OF UPPER FLOORS

## 12.1 Steel joists and steel deck

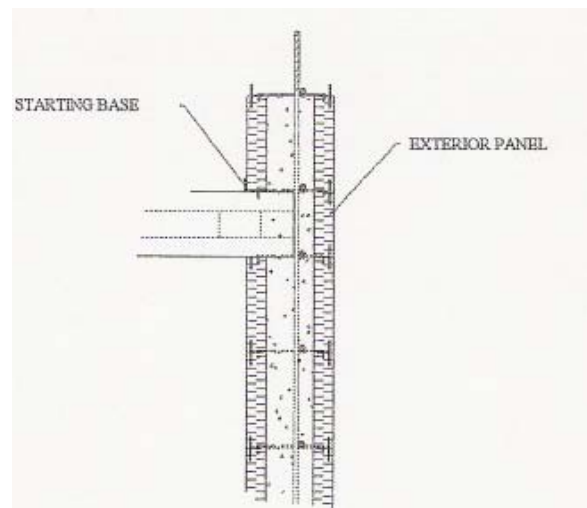
- Cut the interior panel and leave a space to support the floor on the top of the wall (Figure 12.1.a).
- Place one starting base on the floor.
- Continue the normal procedure of installation.



**Figure 12.1.a Adjustment of the starting bases of the upper floors**

## 12.2 Hollowed concrete slabs

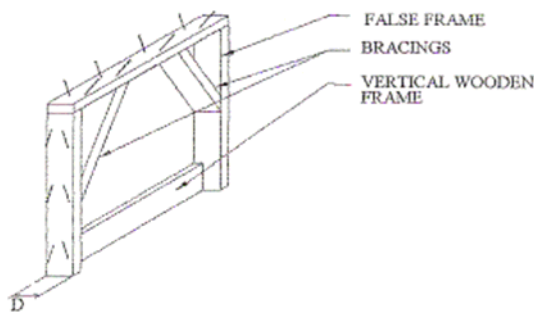
- Use the exterior panel of the same height as the thickness of the concrete slab 8,10 or 12 in. (Figure 12.2.a).
- Place the starting base on the floor.
- Continue the normal procedure of installation.



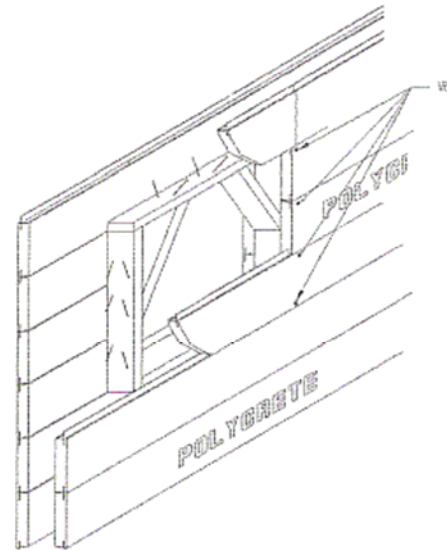
**Figure 12.2.a Adjustment of the exterior panels with a hollowed concrete slab**

# 13 WINDOWS AND OPENINGS

- Prefab wooden frames for the openings and thickness of the wall "D".
- A space of ¾ in. (19mm) must be left between the interior perimeter of the false frame and the real window frame.
- These wooden frames must have a wooden base in the vertical position to allow the pouring of concrete below.
- The wooden frames must have been braced and the nails located toward the concrete sides an anchoring device (Figure 13.a).
- Place the wooden frame in the wall following the direction of the Polycrete® panels (Figure 13.b)
- Once the wooden frame is in place, continue the laying of the Polycrete® panels, cutting them at the frames face flush with the opening.



**Figure 13.a Wooden frame for the openings**



**Figure 13.b Insertion of the false wooden frames**

- Once the creation of the wall is completed, attach with fasteners the frame, only on the inside part of the wall at each base (Figure 13.c).
- Do not forget to keep the panels of the formwork with the assembly ties even in the interior of the wooden frame (Figure 13.c).

- Use the starting bases to temporarily keep in place the lower portion of the panels during the pouring of the concrete (Figure 13.c)
- Once the hardening of the concrete is completed cut the panels obstructing the opening (Figure 13.c).

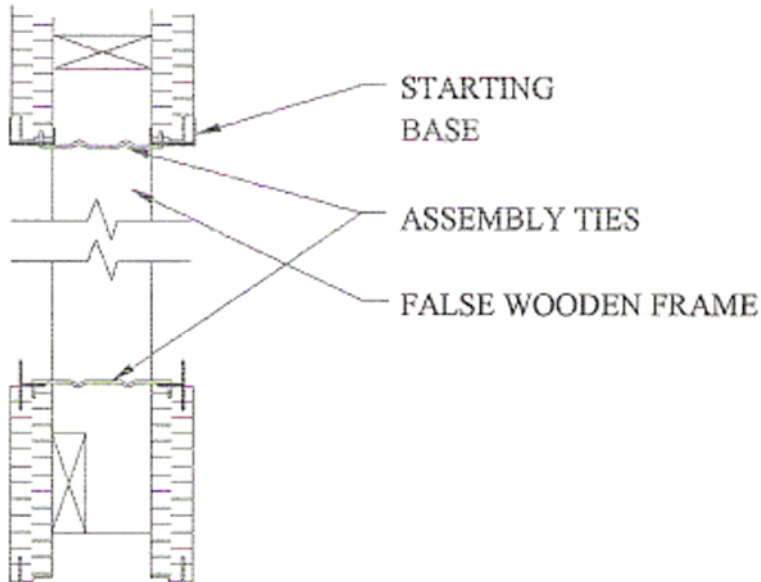
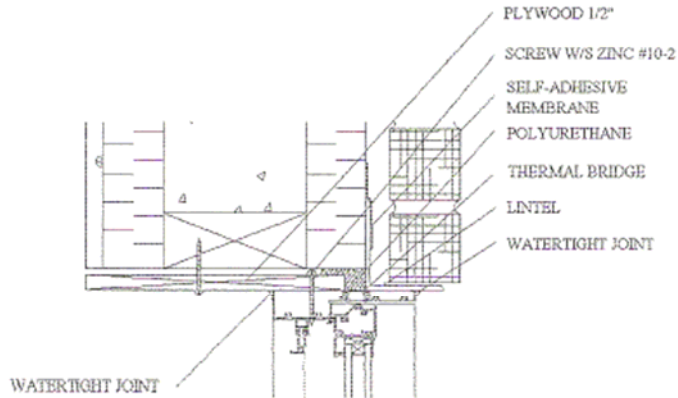


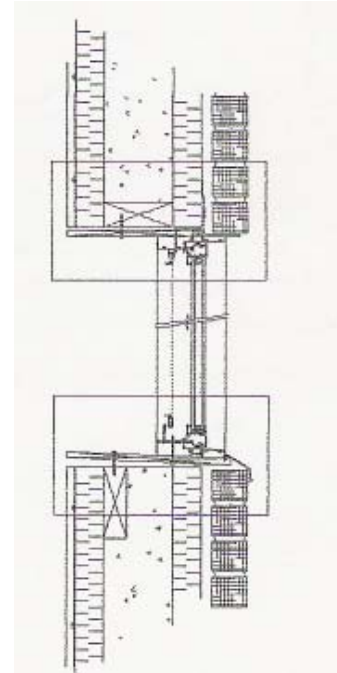
Figure 13.c Support of the Polycrete® panels before the pouring

### 13.1 Windows joining

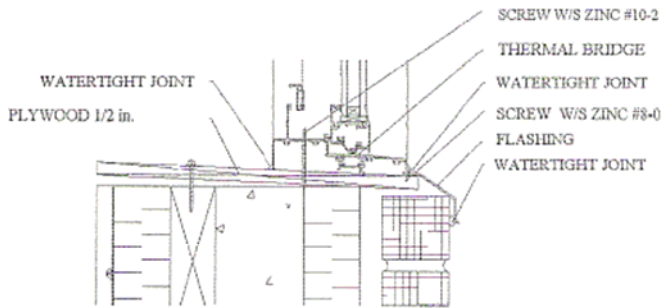
- Attach to the wooden frame another one made of plywood ½ " thick (optional step)
- In regard to the integrity of the airtight membrane and vapor barrier, fix the window frame assuring the alignment of these barriers with the exterior face of the Polycrete® panels.
- Once these operations are completed, proceed with the insulation material around the opening (appropriate urethane is recommended for insulating, when used as specified by the manufacturer)



**Figure 13.1.b** Detail of the upper part of the junction between the window and the Polycrete® system



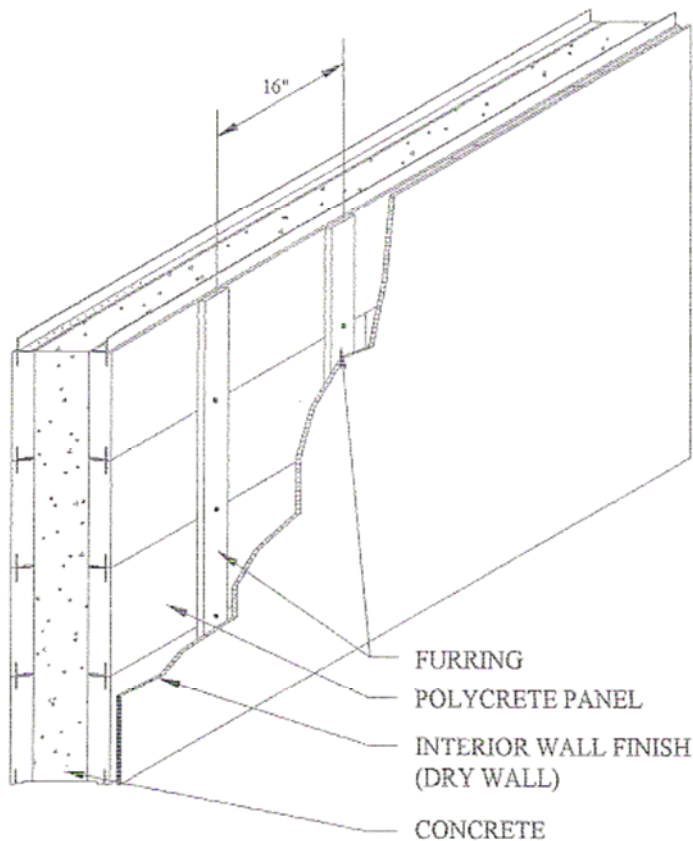
**Figure 13.1.a** Joining of a window to the Polycrete® system



**Figure 13.1.c** Detail of the lower part of the junction between the window and the Polycrete® system

# 14 INTERIOR FINISH

- Once the structure is completed, attach the furring supports to the T-shaped polymer at every 16 in. (406 mm). To be noted that the attachments are at horizontal joints of the Polycrete® panels.
- Then attach the desired interior finish.
- The interior finish could be attached directly to the Polycrete® panels at T-shaped polymer, if the electrical cables are not behind the dry wall. This practice is seldom used.



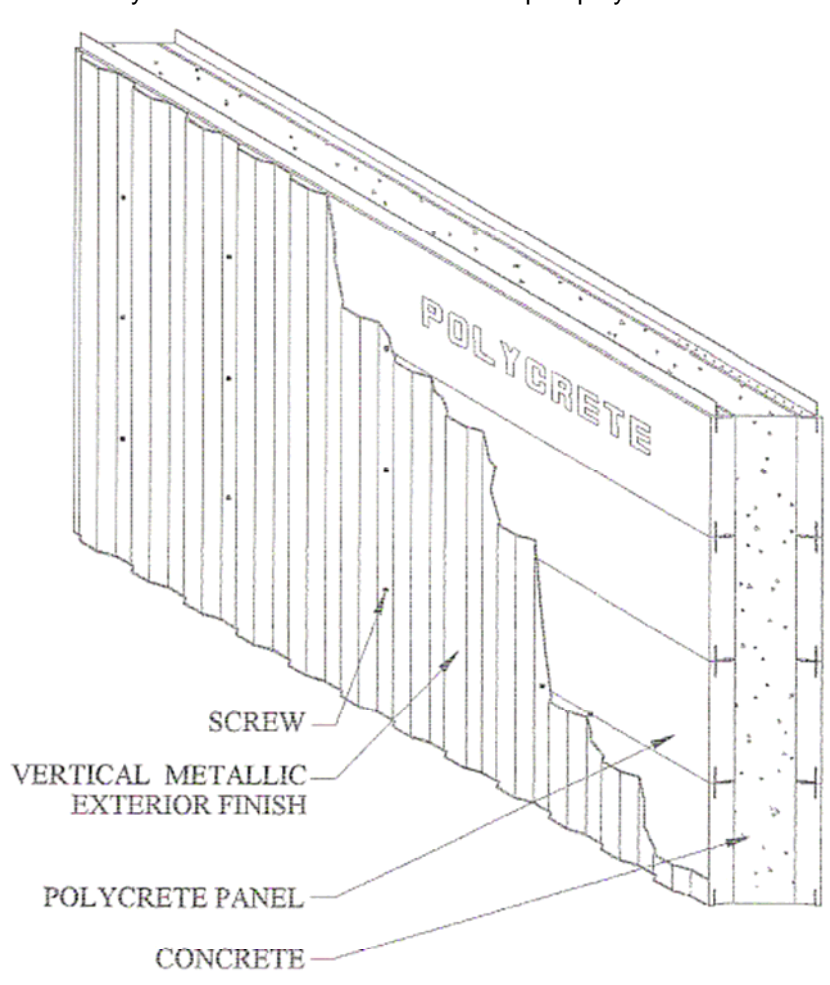
**Figure 14.a Interior finish of a Polycrete® wall**

# 15 EXTERIOR FINISH

The possibilities of the exterior finish are unlimited with the Polycrete® system.

## 15.1 Vertical exterior finish

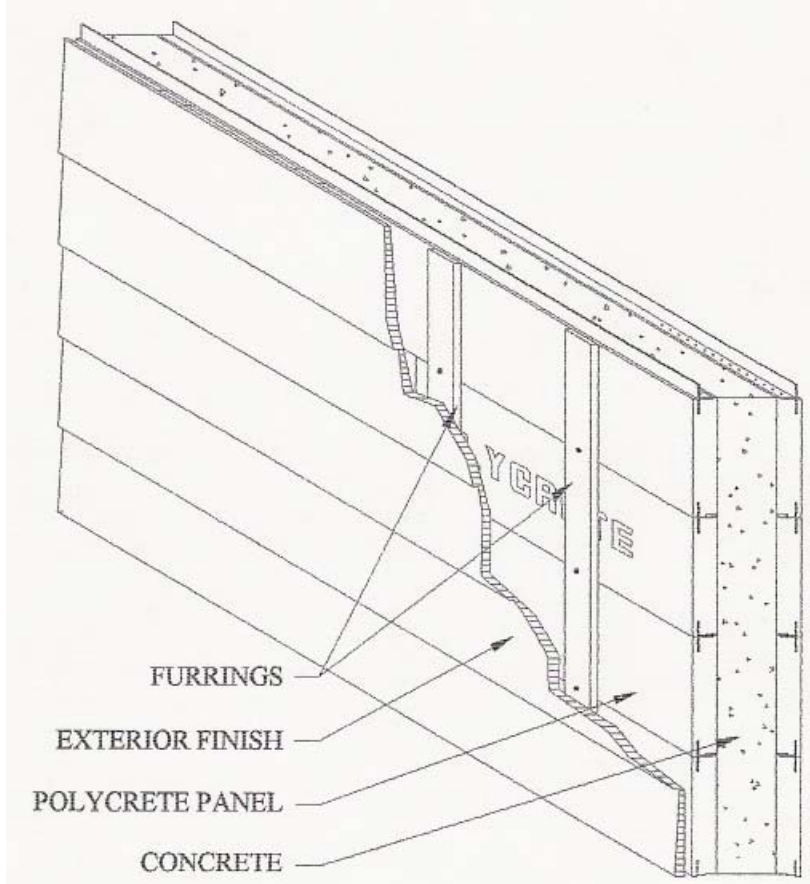
Screw directly the exterior finish into the T-shaped polymer.



**Figure 15.1.a Vertical exterior finish**

## 15.2 Horizontal exterior finish

Screw previously at 16 in. (406 mm), a metal or wooden lining to receive the chosen finish.

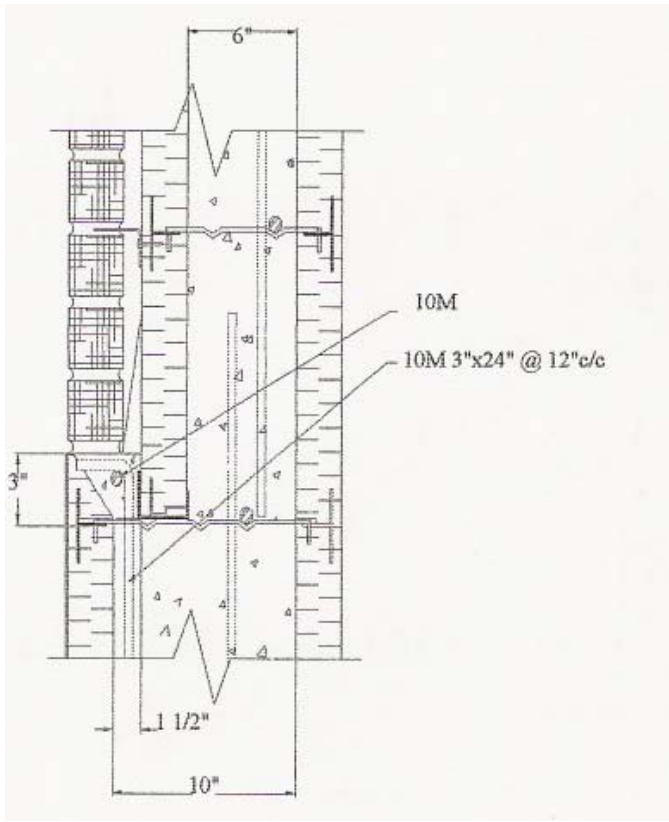


**Figure 15.2.a Horizontal exterior finish**

## 15.3 Exterior masonry finish with a concrete foundation

- The foundation wall must exceed 4 in. (102 mm) to support the masonry.
- During the pouring of the foundation wall, make a concrete base 3 inc. (75 mm) wide to support the masonry. To facilitate this, install a polystyrene bulkhead to hold the concrete.
- Install a self-adhesive membrane between the concrete base and the wall to drain the water behind the facing of the masonry.
- It is highly recommended to install an air barrier on all the exterior Polycrete® wall.
- Place the masonry in accordance with normal procedure.
- The supports between the masonry must be attached to the T-shaped polymer with screws #10- 1 ½ in., Zinc.
- Check with the manufacturer if there is another alternative.

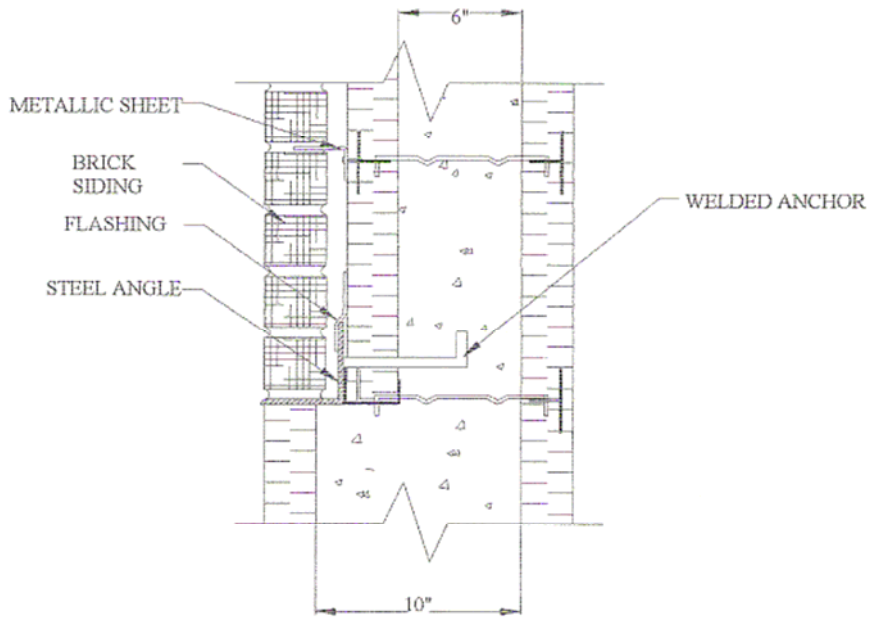




**Figure 15.3.a Facing of the masonry with a concrete foundation**

## 15.4 Exterior masonry finish with a steel angle

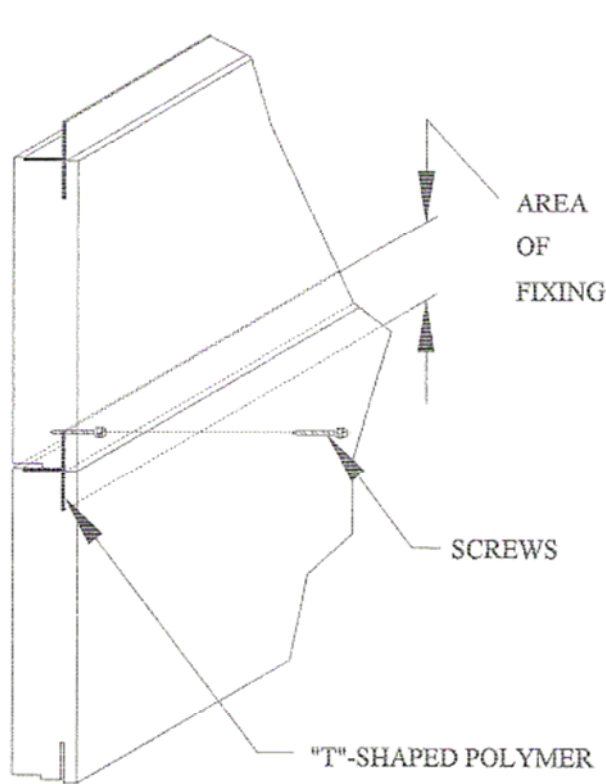
- The foundation wall must exceed 4 in. (102 mm) to support the masonry.
- Install the steel angles by mechanically joining them to the wall interior as specified by the engineer.
- Install a self-adhesive membrane between the angle and the wall to drain the water behind the facing of the masonry.
- It is highly recommended to install an air barrier on all the exterior Polycrete® wall.
- Place the masonry in accordance with normal procedure.
- The supports between the masonry must be attached to the T-shaped polymer with screws #10-1 1/2 in., Zinc.
- Check with the manufacturer if there is another alternative.



**Figure 15.4.a Facing of the brick with an angle**

# 16 FIXINGS OF INTERIOR AND EXTERIOR FINISHES

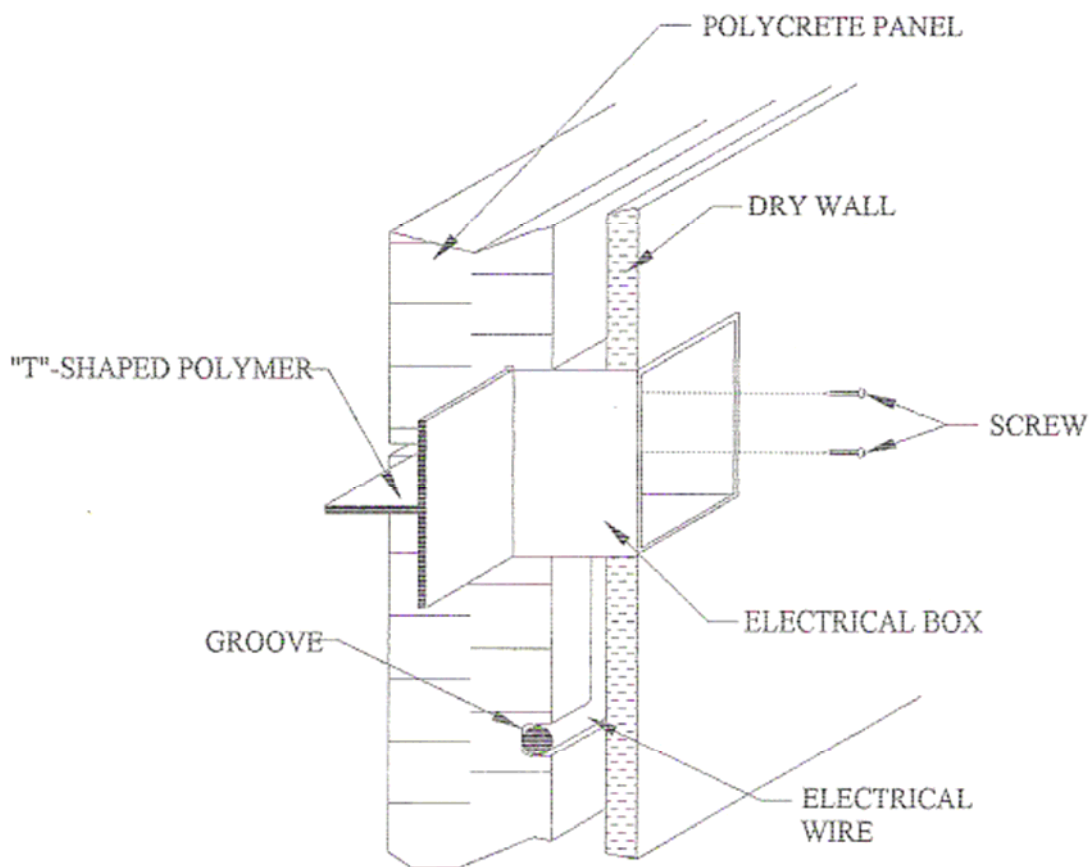
Section "T" in polymer inside polystyrene is used for fixing the finishes. The width of this area is 3 in. (76,2 mm) at the full panel length (Figure 16.a).



**Figure 16.a Area of fixing interior and exterior finishes**

# 17 ELECTRICAL INSTALLATION

- Make a groove in the polystyrene panel to insert electrical wire.



**Figure 17.a Installation of the electrical system**

- Enlarge this cavity in the polystyrene panel to the "T" section in polymer to the size of an electrical box (2 in.).
- Fix this box with screws to the "T" section.
- Place electrical cable between the polystyrene and the interior finish (Dry wall)

# 18 PLUMBING INSTALLATION

Installation of the hydraulic system with the Polycrete® is exactly the same as for the traditional construction because the installation is never inside the Polycrete® walls. It is recommended to consult the national building code for more technical information.

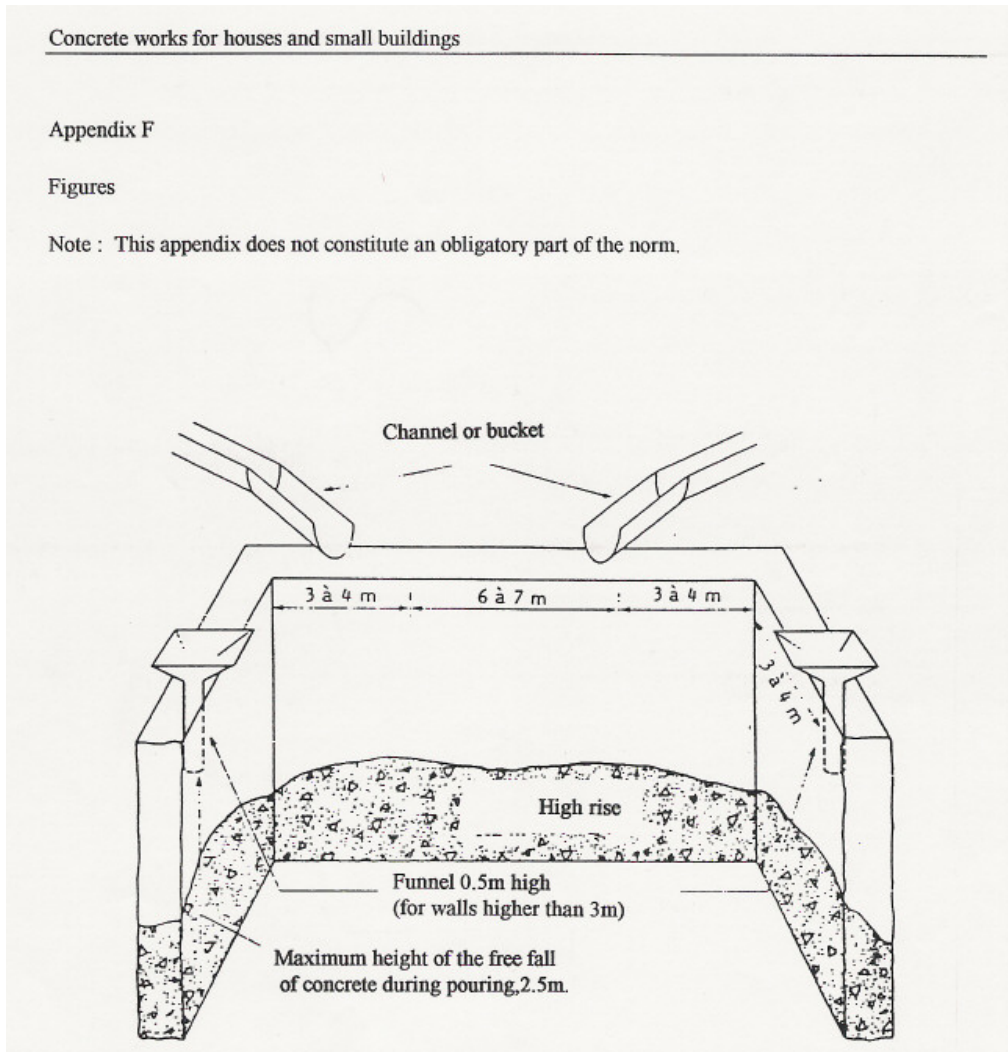
## 19 AIR EXCHANGER

The national building code stipulates that every residential building must be equipped with an air exchanger.

# 20 ANNEXES

## 20.1 Annex A - Pouring of the concrete

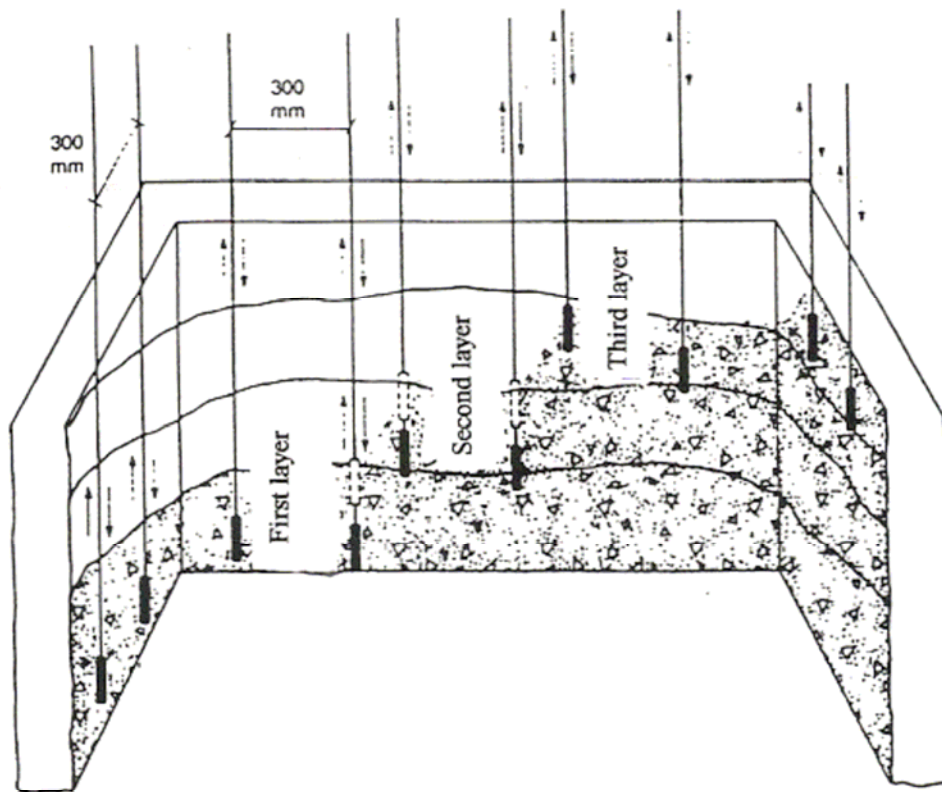
### 20.1.1 Pouring of the concrete for the Polycrete® walls



### 20.1.2 Hardening of the concrete

26 Norm Acnor CAN3-A438-M84

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## FOR SUPPORT

If you have any questions or comments, please contact us:

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**Fax:** +1.450.670.0869

