Contec Board
Installation Guide
Before installation of Contec Board

1. Check the foundation:

Make sure that slab foundation has a brick ledge minimum:

– 2” deep and 3 7/8” wide (4 1/2” wide when using 2”x4” wood beam instead of furring channel) for 3” Contec Board.
– 2” deep and 2 7/8” wide (3 1/2” wide when using 2”x4” wood beam instead of furring channel) for 2” Contec Board.
– In case the foundation doesn’t have a brick ledge, you must install a steel angle 3” X 3” X 1/4”.

2. Check the structure:

– Verify the complete and proper installation of all studs, trusses, lintels, bracing, reinforcing elements and connectors.
– Consider steel lintels (steel angle 3” X 3” X 1/4”) in gables for metal and wood frame.

3. Check the utilities installation:

– Make sure that water pipes have been installed with all vertical runs located between the studs and not on the external face of the frame.
– Check for electrical conduits, phone lines, T.V. antenna, Cable, etc.

4. Check Contec Board pallets:

– Check Contec Boards quantity.
– Place Contec Board pallets close to their final position around the building.

Installation of the Contec Board

1. Installation of furring channels

Once the framing and trusses are installed in accordance with local and national building codes and specifications, the furring channels should be attached to the frame (see table 4: Furring channels per Contec Board).


Fig. 7: Furring channel installation. Lifting Contec Board.


Fig. 8: Once furring channels and asphalt felt are placed, fix Contec Board using proper screws (see screws specifications tables).

Fig. 9: Two people are required to handle the Contec Board.

Furring channel: It will be attached to the studs with at least two screws per stud. For screws specifications, see Table 3. The furring channel should always be installed 6" from the floor and from the top of the Contec Board. The rest of the required furring channels should be installed between these two top and bottom channels.

Aditional furring channels will be required above and below openings. These should be installed:
– 4" below all window openings.
– 4" above all openings.

For specific projects, additional furring channels may be required. Be sure to confirm spacing and positioning requirements to ensure proper installation.

2. Asphalt felt installation

Asphalt felt is extremely important in preventing the build-up of moisture in the wall. Install it as a flashing under the Contec Board, extending it to the top of the entire height of the board. After the furring channel has been attached, an asphalt felt should be installed on all wall areas.

Attach the Asphalt felt with cramp-irons over wood or with self-drilling screws over metal studs.

3. Contec Board installation (corner boards)

The first and most important step in Contec Board installation is placing the corner boards. Two people are required to handle the board using panel carriers. The Contec Board should be lifted using panel lifters to place it.

The Contec Board should be installed with a 2" or 3" overhang (depending on panel thickness), so it may remain flush with the other corner board. It is important to check the level and alignment using a mason's level. To correct small alignment differences, use rubber mallet.

For fastening Contec Board, use a screw gun with the appropiate adapter to fasten it to the furring channels (see screws specifications, Table 1 and 2). Predrilling of holes is not required. Excessive tightening can cause damage to Contec Board, resulting in an improper placement.

Installation minimum requirements			
Stories	**Contec Board Length**	**Furring channels per Contec Board(1)**	
One- Story	8 ft	4	
	10 ft	5	
Two-Story	8 ft	4 (First Story)	5 (Second Story)
	10 ft	5 (First Story)	6 (Second Story)
(1)Maximum spacing is 30" and maximum spacing for corner boards for high wind zones (> 100 mph wind speed) is 24".			

Table 4: Furring channels per Contec Board.

Fig. 10: It is recommended to install whole Contec boards first, and after window adjustments, etc.

Fig. 11: Gable dormer using Contec Board.

Contec Thin Bed Mortar is prepared in a plastic bucket, adding water and mortar from the bag (see instructions on the bag) and mixed with a stirrer in a power drill. Remix before application. Use brush to clean the vertical joint surface before mortar application.

Thin bed mortar is applied using a notched trowel over the vertical joints before the next board installation.

4. Subsequent Contec Boards

Using the panel lifters, the Contec board should be placed 1” apart from the first Contec Board so that the lifters can be removed, and so that subsequent placing of boards next to each other is easier.

The second Contec Board should be mortared and fastened with the appropriate screws to ensure best results. Use Contec thin bed mortar to joint board edges. Then, screws boards firmly into place.

It is important to check the level and alignment when installing each Contec Board to ensure good results.

5. Control joints

Control joints may be vertical and horizontal and are placed to prevent random cracking due to thermal expansion and contraction.

Vertical control joints are spaced at 20 ft maximum from each other and in all corners. Width of the control joint should be 3/8” and should be sealed with backer rod and caulking.

Horizontal control joints should be placed for two-story construction between the upper and the lower Contec Boards. The width of the horizontal control joints will depend on the frame type:

– For metal framing the width of control joint should be 5/8” and should be sealed with backer rod and caulking.
– For wood framing the width of the control joint should be 1” and sealed with backer rod and caulking.

6. Cutting Contec Board

All Contec Boards can be cut to length to fit window openings or frame heights.

The width of the Contec Board can be cut to a minimum width of 8” along its length, to avoid breaks and waste.

Cutting procedures:

a) Prepare a flat surface for cutting site.
b) To support Contec Board, wood pieces must be placed at the edges of the Contec Board and:
   – For transversal cuts, add wood pieces along the sides of the cut.
   – For longitudinal cuts, add wood pieces to avoid cracking in the panel (at every 2’ 6” maximum).

Fig. 12: Vertical control joint placed at window location.

Fig. 13: Cutting Contec Board using a circular saw.

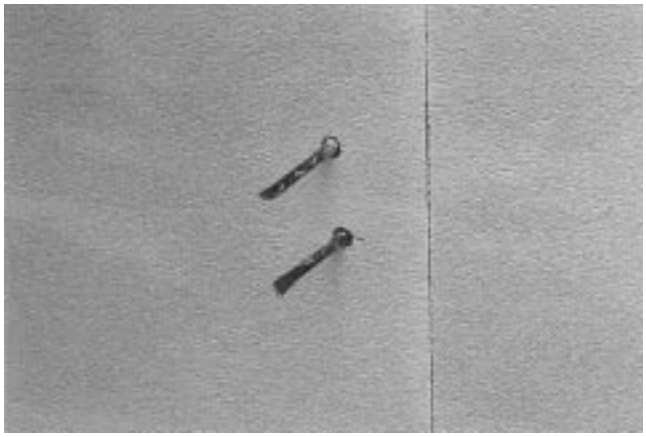

Fig. 14: Typical pipe installation in Contec Board construction.

c) Check for full contact between wood pieces and Contec Board. Wedge if necessary.
d) Trace the cut dimensions and place a rule as guide.
e) Cut the Contec Board using a circular saw with a metal blade (see application requirements).

Note: Contec Board reinforcement exposed during the cutting process must be coated with any anticorrosive paint.

7. Two Story Building

In metal and wood frame construction, the upper Contec Board must not rest on the lower board row. It is necessary to place a horizontal control joint between the upper and lower Contec Board (see Control Joints).

8. Windows

The panel installed below the window should have a sloping sill site cut in the panel. The sill should have a slope of at least 15 °.

9. Surface patching

Use Contec Repair Mortar to patch chips, breaks and other imperfections on the external surface of the Contec Board.

Contec Repair Mortar is prepared in a plastic bucket, adding water and mortar from the bag (see instructions on the bag) and mixed with a stirrer in a power drill or by manual means (depending of quantity to be used). It is applied using a spatula.

10. Fiber glass mesh

Fiber glass mesh, 4” minimum width should be installed directly over one layer of render (without nails) in the following locations:
– All vertical and horizontal joints between panels.
– All control joints.
– Corners with 45° and 90° angles.

Once the fiber glass mesh is installed, the wall is ready for rendering or finish application.

Note: Fiber glass mesh is not required if the coating includes a high build acrylic texture coat or high flexible acrylic membrane.

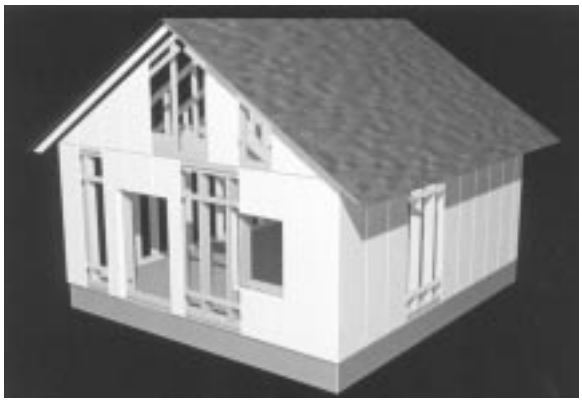

Fig. 14: Contec Board typical construction.

Fig. 15: Completed installation of an exterior wall using Contec Board.

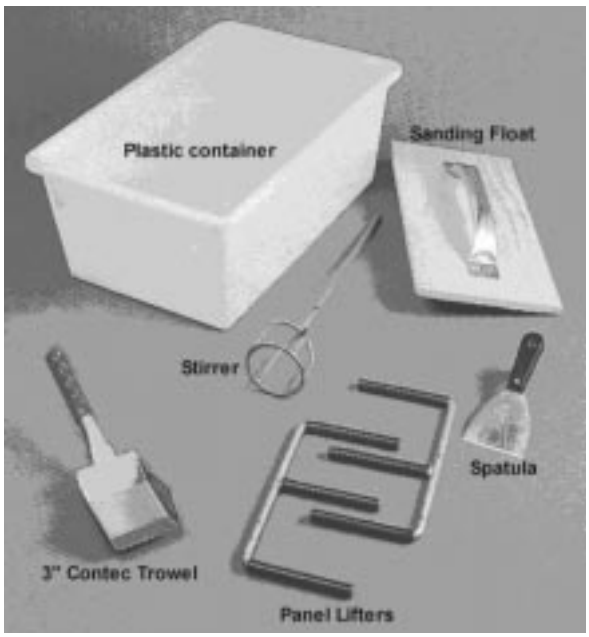

Fig. 16: Tools required for Contec Board installation.

11. Renders and Finishes

The Contec Board exterior walls can be finished with Contec Stucco, acrylic texture coat, elastomeric finishes, cement based finishes, laminated stone, ceramic or clay tiles, concrete pieces and ornamentals. For more information call Contec for technical assistance.

12. Application Requirements:

Tools:

– Plastic bucket
– Rubber mallet
– Stirrer for power drill
– Scissors for unpacking
– Panel lifters
– Panel carriers
– 3” notched trowel
– Sanding float
– Brush
– Spatula
– Mason’s level

Equipment:

– Circular saw with 8 1/4” metal or diamond blade for Contec Board 3” thick and 7 1/4” metal or diamond blade for Contec Board 2” thick
– Socket for screws
– 1/2” Power drill
– Drill bits: 2 1/2” and 3 1/8”
– Screw gun
– Safety gear (goggles, dust mask, gloves, apron, hard hat)

Additional materials needed, available through Texas Contec, Inc.:

– Galvanized furring channels (top hat) 20-Gauge (minimum G60)
– Screws for attaching Contec Board to furring channels (see screws specifications, Table 1 and 2 and Fig 17, Photo 3)
– Contec Thin Bed Mortar and Repair Mortar
– Fiber glass mesh

Photo 1: Screw to fix furring channel to wood frame.

Photo 2: Screw to fix furring channel to metal frame.

Photo 3: Screw to fix Contec Board to furring channel.

Fig. 17: Screws required for Contec Board installation (see screws specifications, Tables 1, 2 and 3).

Additional materials needed, not available through Texas Contec, Inc.:

– Asphalt felt
– Asphalt felt anchors
– Screws for attaching furring channels to stud frame (see screws specifications, Table 3 and Fig. 17, Photos 1 and 2)
– Backer rod
– Caulking
– Anticorrosive paint

Note: Technical support is available for builders and architects. Contact your local Texas Contec Inc. sales office for more information.

Caution: Use safety gear: Hard hat, gloves, dust mask and goggles to avoid excessive inhalation of dust and protection of the eyes when handling Contec Board.

Contec Board
Material Estimation

1. Contec Board

Quantity required for a project can be easily estimated as follows:

Effective exterior wall area = Total exterior wall area - openings

Number of Contec Boards = Effective exterior wall area / Area covered per piece (Contec Board)

Note: Add 5% for cuts and waste, depending of the dimensions and quantity of openings.

2. Furring channels

For estimating purposes, consider one furring channel piece (10 ft length) per Contec Board. This will allow for overlaps, openings and waste. The 10 ft length furring channel can be cut in pieces as per the installation details and project drawings.

3. Screws for attaching Contec Board to furring channels

Typical construction with Contec Board requires screws shown on screws specifications, Table 1 and 2. Add 5% for unexpected needs.

4. Screws for attaching furring channels to stud frame

Wood or metal frames use different types of fasteners (see screws specifications, Table 3), and the amount of fasteners will depend on the degree of strength required. Typical construction with Contec Board requires two screws per stud for fastening each furring channel to stud frame.

*Screws quantity = (2 **X** Number of furring channels per stud **X** Number of studs) + 5% for unexpected needs*

5. Contec thin bed mortar

If **n** = number of vertical joints of Contec Board per mortar bag, where:

n (average values)	**Contec Board dimensions**
35	2' X 8' X 2"
27	2' X 8' X 3"
21	2' X 10' X 3"

and considering one vertical joint per each Contec Board, then:

Contec Thin Bed Mortar required (bags) = Number of Contec Boards (including waste) / n

6. Asphalt felt

Asphalt felt quantity can be calculated as follows:

Asphalt felt = Effective exterior wall area + 5% waste and overlaps

7. Asphalt felt anchors

Wood frames require your choice of cramp irons, fine point screws or nails. Metal frames require self drilling point screws. Calculate one anchor per square foot of exterior wall.

8. Fiber glass mesh

Number of horizontal joints:
0 : one-story construction,
1 : two-story construction,
2 : three-story construction.

Number of vertical joints: Number of Contec Boards + 1

Fiber glass mesh (in^2) = (Length of Contec Board (in) ***X*** *Number of vertical joints* ***X*** *4”)* ***+***
(Length of walls (in) ***X*** *Number of horizontal joints* ***X*** *4”)*