The invention is a lightweight, strong wall form made of a plurality of support tubes behind a sheet having side attachment means and an upper adjustable engagement with the structure. A plurality of prefabricated wall forms may be connected together in a design and shape desired by the user for use as foundations, concrete forms, or skirting.
FIG 1 FRONT VIEW

#1 #2 #3 #4 #5 #6 #7 #8 #9
FIG 2 TOP VIEW
FIG 5 BOLT HEAD ASSEMBLY
PREFABRICATION WALL FORM

CROSS REFERENCES TO RELATED APPLICATIONS

[0001] This application follows provisional application No. 60/120,713, filed Mar. 16, 2006.

BACKGROUND OF THE INVENTION

[0002] a. Field of the Invention

[0003] The present invention relates to prefabricated elements which can be used to manufacture structures, or which can be used as a base/foundation for mobile homes. The present invention can also be used for full length walls for structures, basements or concrete forms.

[0004] b. Description of the Prior Art

[0005] Prefabricated construction elements are well known. In U.S. Pat. No. 4,512,126 to Walston discloses a panel module means formed of concrete and insulation block providing the endurance, fire protection, etc., of those materials in contrast to wood, yet avoiding the disadvantage of other ceraminic facing or panel material such as brick or blocks. Walston also discloses a process by which such panels are formed into modules for erection of a building by prefabrication procedures. U.S. Pat. No. 3,818,658 to Slaven, discloses a building block module constructed of vertical panels. The block disclosed is a tall, free-standing, hollow core block that reduces the number of horizontal courses to construct a vertical wall. Both Slaven and Walston envision construction of their panel modules substantially of concrete or similar materials. This construction material has the disadvantage of being brittle, difficult to cut, and heavy.

[0006] U.S. Pat. No. 4,680,904 to Steecker, discloses a mobile home skirting system. A plurality of supports are provided, manufactured from steel, which are disposed below the mobile home. These supports form a network holding up the mobile home over which a sheet of plywood, or galvanized metal materials are attached to support and isolate the underside of a mobile home. An alternative skirt system is disclosed in U.S. Pat. No. 4,656,797 to Marquart, which envisions a concrete skirting system for a prefabricated home. Marquart discloses a plurality of rectangular precast concrete skirt modules. Each module consists of a rectangular panel extended upward from an integral footing. The Marquart device is much stronger and more durable than the Steecker device. However, heavy concrete panels must be transported to a site and set up. It may require special equipment such as a forklift or a crane to move the panels into place. The type of equipment is often not available at locations where mobile homes are being set up.

[0007] It is therefore an object of the present invention to overcome the disadvantages inherent in the prior art. In particular, it is the object of the present invention to create a load bearing foundation that permanently affixes dwellings to the concrete footing. The polymer material is lightweight, termite and water-resistant. Thus greatly increasing the stability of the home in adverse conditions of flooding or high winds. In prefab form it could be retrofit for existing homes. Conforming to HUD, FHA, and local State and City regulations. For use as foundations, skirting, or concrete forms. Thus, the present prefabricated wall or form can meet a variety of needs in the construction and mobile home industries.

[0008] There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

[0009] In this respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in the application to the details of construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting. As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based; may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. Additional benefits and advantages of the present invention will become apparent in those skilled in the art of which the present invention relates from the subsequent description to the preferred embodiment and the appended claims, taken in conjunction with the accompanying drawings. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

[0010] Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientist, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application which is measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The invention will be better understood and the objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the drawings wherein:

[0012] FIG. 1 is a front cutaway view of the invention.

[0013] FIG. 2 is a top view of the invention.

[0014] FIG. 3 is a side cutaway of the invention.

[0015] FIG. 4 is a rear view of the invention.

[0016] FIG. 5 is a view of the bolt assembly.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0017] The invention, as shown in FIGS. 1-5 of the drawings, is a prefabricated wall or form. Each wall or form has a top, a bottom, a first end, a second end, one flat outer face, support tubes, all made of polymer material. Also steel plates and adjustable bolts. FIG. 5 are used in the load bearing application. Each wall or form is defined by one sheet #1. The sheet can be affixed to the tubes with any number of fastening technologies such as screwing, riveting, gluing, or welding. The method of attaching the tubes #2 to the sheet #1 is
irrelevant to the invention, so long as it firmly holds them to the sheet. The support tubes can be filled with cement for added strength.

[0018] A top and bottom attachment means of galvanized metal #4 which extends below and above the wall will be incorporated into the panel on a load bearing application. The top can be screwed, bolted or nailed to the floor joist, attached to the frame of a mobile home, or attached to the side of the structure. Rebar could be passed through the bottom loop of the strap #4 while being laid horizontally in the concrete footer.

[0019] A top supporting means FIG. 5 consisting of a metal washer #6 atop each of the support tubes, a threaded bolt #8, nut #9 and a top plate #7 for tightening, adjusting and transferring the load of the structure to the wall.

[0020] A top plate of polymer material #3 is used on the top of the wall with drilled holes at the support tubes. This gives the wall additional strength and added support for the bolt assembly FIG. 5. For use as basement walls or concrete forms the bolt assembly FIG. 5 would not be used.

[0021] Structural tubes FIG. 2 extend downwardly below the bottom of the prefabricated wall for anchoring engagement to the ground or concrete footers.

Operation of Apparatus

[0022] A plurality of prefabricated wall panels are attached, one to another, to the shape, size and design desired by the user. If needed, the prefabricated wall may be customized to particular lengths or heights to accommodate the user's needs. For example, where building codes call for certain height requirements, properties that are not level, homes that are not level, building a basement, or using as a form only.

[0023] Assembly one wall panel at a time with structural tubes #2 placed in the footer to be poured with concrete while allowing for the bolt head assembly FIG. 5 with at least 6 inches of clearance from the top of the panel to the bottom of the structure. It would be desirable at this time to place a brace on the face of the wall panel #1 and the side of the structure with screws to ensure that the wall panel is flush and level with the structure. This bracing is temporary and would be used to secure the entire length of the wall. After bracing one panel use the side attachment means #5 glued, screwed or welded onto the next panel to be braced. Corners are made of wall panels cut to length and glued, screwed or welded at a 90 degree angle with side attachment means #5 on both ends.

[0024] With load bearing applications the components of FIG. 5 would be added by placing the steel plate #6 on top of the polymer plate #3 above the structural tubes #2. The threaded bolt with steel head #8 and the adjustable nut #9 would be placed inside the steel plate #6 atop the structural tubes #2. To transfer the weight of the structure to the wall you would adjust the bolt #8 and the nut #9 to the height desired with the head of the threaded bolt #7 meeting the bottom of the floor joist. After the footing is poured and cured tighten the nut #9. Some adjustment may be made in the level of the structure with this method.

[0025] With all components of FIG. 5 in place and the wall plumb and level it may be desirable to use the bottom attachment means #4 to anchor the wall into place. Rebar could be passed through the strap loop at the bottom of the panel #4 then lay in the footer to be poured with concrete. The upper part of the metal strap #4 would be attached to the floor joist or to the frame of a mobile home. For added strength the structural tubes may be filled with concrete. For ventilation purposes trim the upper portion of the wall with perforated trim board around the perimeter of the structure.

[0026] For use as retaining walls, concrete forms or skirting you would not use the bolt assembly FIG. 5. Assemble as with load bearing with or without footings. Adjusting the height of the panels to desired trim space.

[0027] Having described the field of the Invention, the prior art, the attached drawings, the summary of the Invention, and the detailed description of the preferred embodiments, 1 claim:

Parts List

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0028</td>
<td>#1 Plastic Sheet—1/4&quot; thick</td>
</tr>
<tr>
<td>0029</td>
<td>#2 Support Tubes—Coex ABS Schedule 40 Pipe</td>
</tr>
<tr>
<td>0030</td>
<td>#3 Plastic Top Plate 1/4&quot; thick</td>
</tr>
<tr>
<td>0031</td>
<td>#4 Top Attachment Means—galvanized strap</td>
</tr>
<tr>
<td>0032</td>
<td>#5 Side Attachment Means</td>
</tr>
<tr>
<td>0033</td>
<td>#6 Flat Steel Washer Plate</td>
</tr>
<tr>
<td>0034</td>
<td>#7 Bolt Head Assembly—threaded bolt, nut, and top head plate</td>
</tr>
</tbody>
</table>

1. A prefabricated form for use as a foundation and support in construction, the form comprising:
   a. A sheet of plastic polymer. The sheet having a top, a bottom, a first end, and a second end. The sheet defining a face of the wall.
   b. At least two support tubes made of Coex ABS Schedule 40 pipe disposed behind the sheet, each tube being affixed to the back wall of each sheet; and
   c. A side attachment means, at one end of the sheet, for attachment to an adjoining sheet, whereby a construction element is defined having support tubes on one side and means for attachment to other sheets of this type for preparing a prefabricated construction unit.

2. The prefabricated wall form of claim 1, having an upper attachment means.

3. The prefabricated wall form of claim 2, having a lower attachment means.

4. The prefabricated wall form of claim 3, having provided therewith support tubes.

5. The prefabricated wall form of claim 4, having a bolt head assembly for support.

6. A method for building a foundation comprising the following steps:
   a. Providing a plurality of prefabricated wall forms for attachment one to another.
   b. Engaging the side attachment means of the respective prefabricated wall forms to create a desired size and shape of structure; and
   c. Installing the bolt head assembly where by a structure can be quickly and easily assembled on site using a light weight form to create a structure which has strength and stability.

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