

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

Please Read Application And Notes, If Any, Attached

PERMIT ISSUED
AUG 26 2005
CITY OF PORTLAND

CITY OF PORTLAND

SECTION

PERMIT

CITY OF PORTLAND
PERMIT ISSUED
AUG 26 2005
Permit Number 500059149 90V

This is to certify that City of Portland has permission to Amendment to permit # 0408 Change from a 8" concrete foundation to ICF insulated 6" Foundation

AT 55 Malilly Rd 171 A028001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification inspection must begin and work in progress before this building or part thereof is closed or closed-in. HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

DepartmentName

Jamie Bouke 8/23/05
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 05-1140	Issue Date: AUG 26 2005	CBL: 171 A028001
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Location of Construction: 55 Malilly Rd	Owner Name: City Of Portland	Owner Address: 389 Congress St Portland	Phone:
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Amendment to Single Family	Zone: R3

Fast Use: Single Family Home	Proposed Use: Single Family Home/ Amendment to permit # 040879 Change from a 8" concrete foundation to ICF insulated 6" Foundation	Permit Fee: \$30.00	Cost of Work: \$30.00	CEO District: 4
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Proposed Project Description: Amendment to permit # 040879 Change from a 8" concrete foundation to ICF insulated 6" Foundation	FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: R3 Type: SB ERC-2003
	Signature:	Signature: <i>JMB 8/23/05</i>

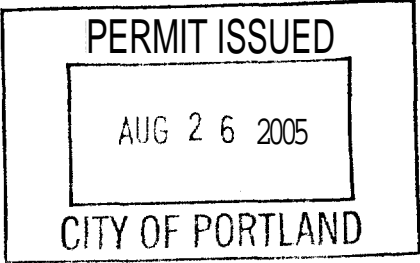
Permit Taken By: Idobson	Date Applied For: 08/02/2005	Zoning Approval
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Special Zone or Reviews
<input checked="" type="checkbox"/> Shoreland <i>W/In Stream protection</i>
<input type="checkbox"/> Wetland
<input type="checkbox"/> Flood Zone <i>para 17 zone X</i>
<input type="checkbox"/> Subdivision
<input checked="" type="checkbox"/> Site Plan <i>2004-0136</i>
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>
Date: <i>previous conditions apply</i>

Zoning Appeal
<input type="checkbox"/> Variance
<input type="checkbox"/> Miscellaneous
<input type="checkbox"/> Conditional Use
<input type="checkbox"/> Interpretation
<input type="checkbox"/> Approved
<input type="checkbox"/> Denied
Date:

Historic Preservation
<input checked="" type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Requires Review
<input type="checkbox"/> Approved
<input type="checkbox"/> Approved w/Conditions
<input type="checkbox"/> Denied
Date: <i>JMB</i>



JMB 8/23/05

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property Within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>55 Malibu Rd.</u>		
Total Square Footage of Proposed Structure	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# <u>171</u> Block# <u>A</u> Lot# <u>28</u>	Owner: <u>HABITAT FOR HUMANS OF GORHAM PORTLAND.</u>	Telephone: <u>772-2151</u>
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: <u>P.O. Box 10505 Portland, ME 04103</u>	cost Of Work: \$ <u>No charge</u> Fee: \$ <u>50.00</u>
Approximately how long has it been vacant: _____		
Proposed use: <u>Amendment # 040879</u>		
Project description: <u>Change from 8" Conc. foundation to I.C.F. Insulated 6" Foundation</u>		
Contractor's name, address & telephone:		
Who should we contact when the permit is ready: <u>Steve Boltan</u>		
Mailing address:		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: <u>772-2151</u>		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: <u>Steve Boltan</u>	Date: <u>7/29/05</u>
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 05-1140	Date Applied For: 08/02/2005	CBL: 171 A028001
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Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Jeanine Bourke **Approval Date:** 08/23/2005

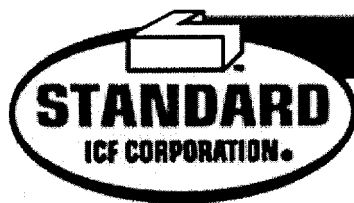
Note: **Ok to Issue:**

1) All previous conditions apply

Dept: Building **Status:** Approved with Conditions **Reviewer:** Jeanine Bourke **Approval Date:** 08/23/2005

Note: **Ok to Issue:**

1) All previous conditions apply


[HOME](#)
[Products](#)
[STANDARD ICFs™](#)
[Trailer Kit](#)
[Tools & Accessories](#)
[Product Info](#)
[Installation Instructions](#)
[Features & Benefits](#)
[Technical Data](#)
[Photos](#)
[Compare Us](#)
[Download PDFs](#)
[Testimonials](#)
[Professional Services](#)
[Architects](#)
[Designers](#)
[Engineers](#)
[HVAC Consultants](#)
[Installation Contractors](#)
[Building Contractors](#)
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Driving Down the Cost of ICF Constr

Product Features and Benefits

STANDARD™ Insulating Concrete Forms

STANDARD ICFs™ have a unique Modified Flat Wall™ interior design that combine the 2 3/8-inch thick MEPS foam panels to provide exceptional form strength and superior overall thermal resistance.

STANDARD ICFs™ are very strong. With a 2 1/2 inch thick uniform wall thickness and wall-tie brackets embedded in 3 7/8 inches of 1.5 net cured weight foam, STANDARD ICFs™ are among the strongest forms on the market. The manufacturing quality control procedures test every 28th form to make sure they will withstand 80 psi. of internal pressure on all three cavities simultaneously.

STANDARD ICFs™ have excellent quality controls during manufacturing to ensure that MEPS foam panels have a uniform density of 1.5 lbs. (net cured weight) and smooth, exterior surfaces. Additionally, every 28th form is tested to withstand 80 psi. of internal pressure in all three cavities simultaneously.

STANDARD ICFs™ have a thermal resistance R-value of R-26+ by calculation and up to 50 in performance.

STANDARD ICFs™ have strong tongue and groove edge jointing with interlocking studs and notches that ensure stability, strength, and alignment of the wall assembly during installation and concrete placement.

STANDARD ICFs™ have a 11 1/4-inch overall form width that conforms to the width of 12 dimensional lumber. No need to rip or add material to make window and door bucks.

STANDARD ICFs™ have 1 5/8-inch x 16-inch stud flanges that align to form an uninterrupted and continuous wall stud, from footing to rafters, every 12-inch on center. They provide an excellent fastening surface for installing dry wall and exterior siding materials.

STANDARD ICFs™ have wall tie stud brackets and larger (3-inch wide x 16-inch high) corner brackets that are recessed 1/2-inch below the foam surface creating a stronger and a more substantial and durable substrate.

STANDARD ICFs™ have wall tie brackets designed and laid out to improve concrete placement and minimize material waste.

STANDARD ICFs™ have unique 48-inch (18 + 30) corner forms that provide excellent corner stability and alignment during assembly and concrete placement with little or no bracing.

STANDARD ICFs™ have a tongue and groove alignment system such that all of the plastic brackets line up when stacking, and they tend to "bottom out" when put-in-place. Corner and wall-tie stud brackets stack directly on top of each other and are a full 16 inches in height (hard plastic brackets resting directly on top of each other).

We recommend using minimum expanding polyurethane foam adhesive to glue the forms together as a measure to insure a quality installation, and to avoid problems, including compression.

The STANDARD ICF™ Wall Tie Stud Brackets

STANDARD ICF™ Wall Tie Stud Brackets are made of durable HDPE virgin plastic with excellent pullout strength for coarse thread screw fasteners when installing interior wall and exterior siding materials.

STANDARD ICF™ Wall Tie Stud Brackets are easy to cut through when it is necessary to do so, and are especially easy to cut in half horizontally when an 8-inch height is needed without compromising form strength.

STANDARD ICF™ Wall Tie Stud Brackets eliminate problems caused by thermal bridging.

STANDARD ICF™ Wall Tie Stud Brackets are strong and rigid to prevent forms from racking.

STANDARD ICF™ Wall Tie Stud Brackets have a tandem re-bar saddle with a tie-down hole to make installation of re-bar quick and easy.

STANDARD ICF™ Wall Tie Stud Brackets have a designated electrical device box space and a designated electrical wire and conduit chase that can assist with electrical installations.

STANDARD ICF™ Wall Tie Stud Brackets rest directly on top of each other to prevent forms from settling during placement of concrete.

The Unique STANDARD ICF™ Corner Bracket

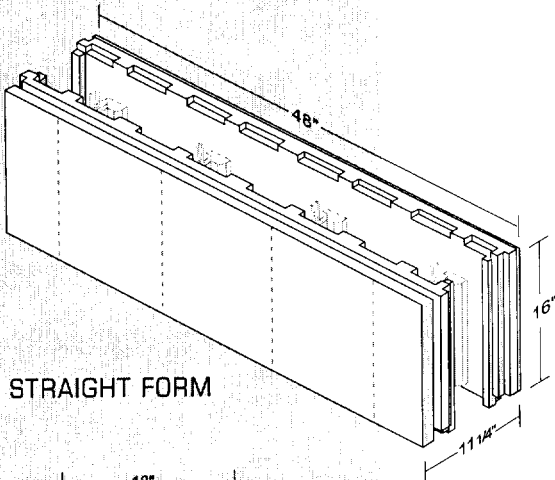
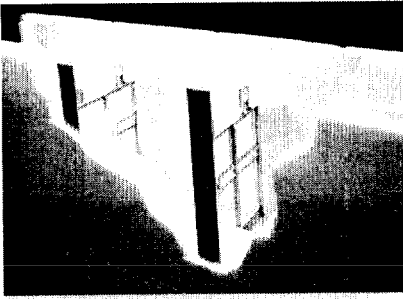
STANDARD ICF™ Corner Brackets are made of strong PVC plastic with excellent pull strength for coarse thread screw fasteners when securing exterior siding materials.

STANDARD ICF™ Corner Brackets (3-inch wide x 16-inch high) stack on top of each other to provide an uninterrupted and continuous attachment surface on each leg of the outer corner forms for securing exterior siding materials.

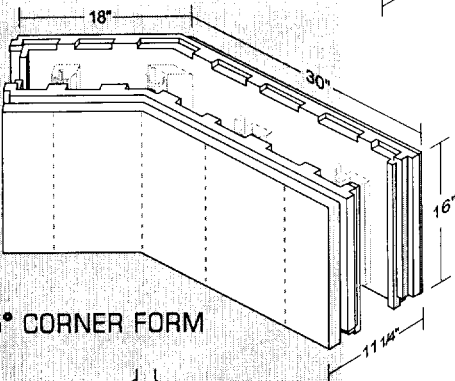
Build with Confidence...

BUILD with STANDARD ICFs™ ... The Contractor's Choice.

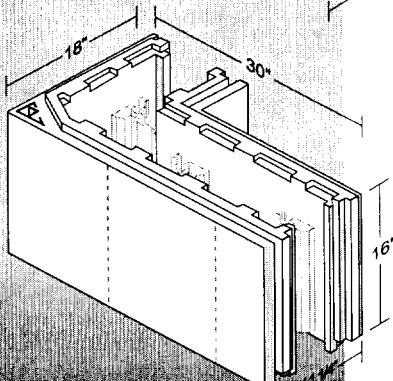
The *Exclusive Modified Flat Wall System*™



STRAIGHT FORM



45° CORNER FORM



90° CORNER FORM

- The Exclusive Standard ICF™ Modified Flat Wall System™ is flexible and conforms to a wide variety of standard design and building practices.
- The strong modified flat wall form design prevents racking, withstands concrete pressure, and minimizes bracing requirements.
- The continuous full height 1 5/8-inch wide x 12-inch on-center studs combined with the exclusive 3-inch wide full height corner brackets provide an excellent structure for attaching interior and exterior wall covering and finish materials.
- The unique modified flat wall design of the quality molded EPS foam panels with a density of 1.5 lbs net cured weight have a combined R-26 thermal resistance.
- The durable tongue and groove joints and exclusive interlocking alignment system simplifies installations and withstands the lateral pressure of concrete.
- The exclusive modified flat wall interior cavity allows for easy concrete flow while using 25% less concrete than 8-inch flat wall systems.
- The uniformly marked recessed stud system and exclusive convenient electrical chase provide for easy installations by electricians and other sub-contractors.
- The Exclusive Modified Flat Wall System™ can be easily cut-in-half horizontally, without compromising form strength, to accommodate wall heights; and 4-inch can be cut-off the top to meet structural and design requirements.

STANDARD
ICF CORPORATION®

standardicf.com
800-925-FORM (3676)

Industry Leader Since 1989



Contact:

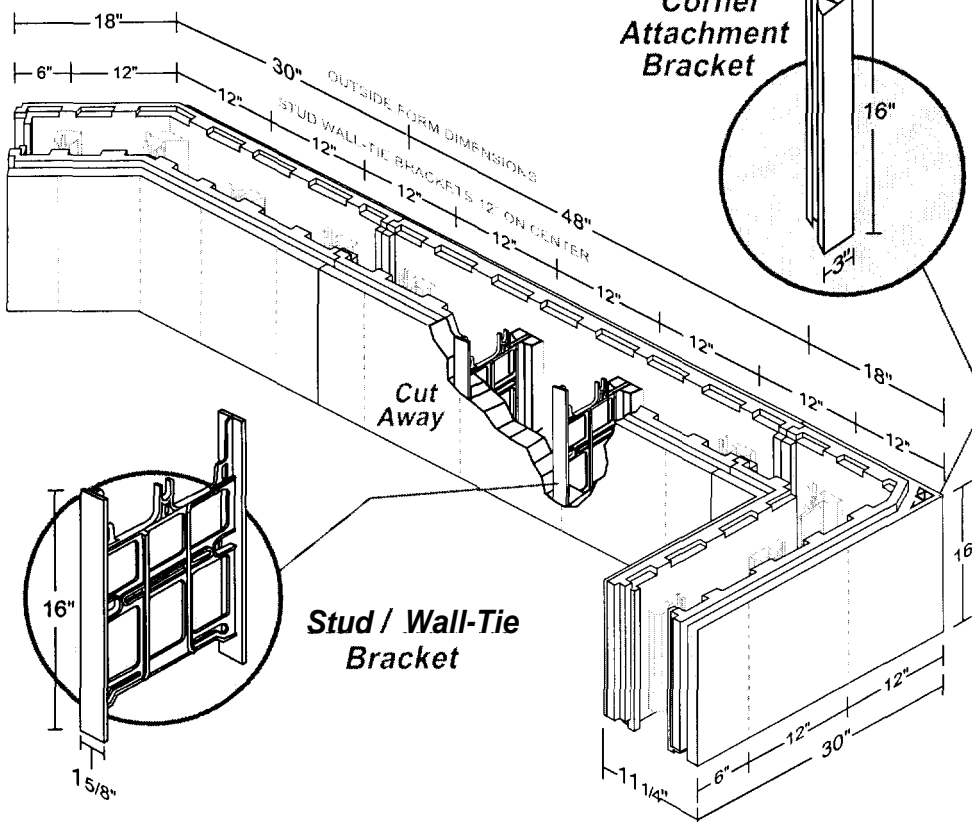
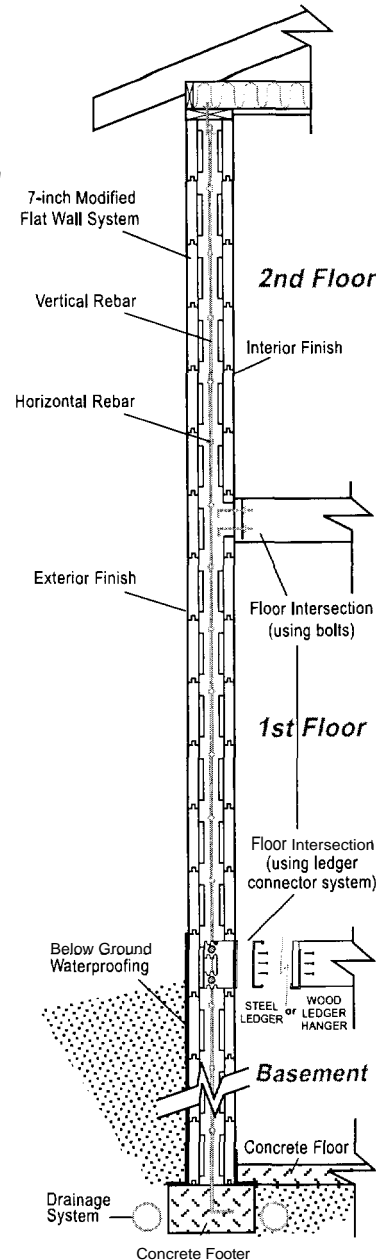
How STANDARD Insulating Concrete Forms™ Work:

- Install a level footing with a 1/4" plus or minus tolerance.
- Attach a temporary 2" x 4" guide board along wall perimeter.
- Door and window bucks are assembled and ready for installation.
- First course of STANDARD ICFs™ are glued in place on footing.
- Horizontal Re-bar is installed at regular intervals as required.
- Additional courses are stacked and glued in place as needed.
- Reinforce cut forms with wood strapping.
- Exterior bracing is installed and plumbed as needed.
- Scaffolding and bracing bucks are installed plumb and straight.
- Vertical Re-bar is installed at regular intervals as required.
- Concrete is pumped into the wall cavity and finished at the top.
- Braces and scaffolding are removed after concrete cures.
- Install waterproofing and drainage systems below grade.
- Backfill should not take place until walls are supported laterally.
- The STANDARD ICF™ wall system is ready for wall coverings.



The Exclusive 7-inch Modified Flat Wall Insulating Concrete Form System™

Typical Wall Section



Technical Information:

- Straight Forms**..... 48" length x 16" height x 1 1/4" wdth. • Weight 6 lbs. each.
- 90° Angle Forms**..... 48" length (18" + 30") x 16" height x 1 1/4" width. • Weight 5 lbs. each.
- 45° Corner Forms**..... 48" length (18" + 30") x 16" height x 1 1/4" wdth. • Weight 5.5 lbs. each.

Joint Design..... Tongue and groove edges with interlocking block and notch system for complete stud alignment and added strength to withstand concrete pressures.

Concrete Wall Design..... Solid monolithic Modified 7" Flat Wall configuration
 9" x 6 1/2" vertical columns - 12" on center
 6" x 6 1/2" horizontal beams - 16" on center
 3" thick connecting webs

Form Panels..... Surface area 5.33 Sq. ft. per side; Two panels of molded expanded polystyrene (MEPS) 2 3/8" - 2 1/2" thick.

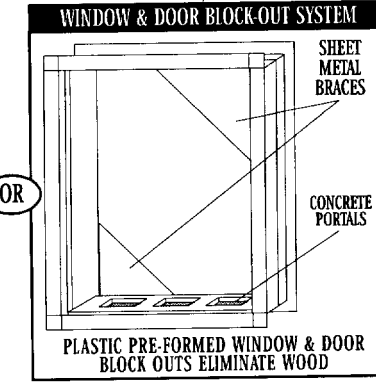
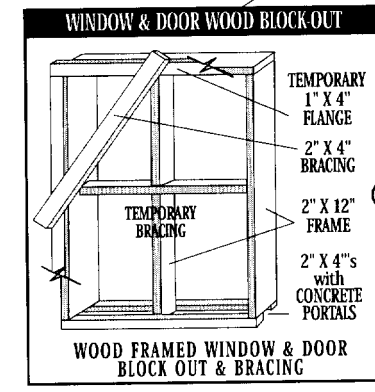
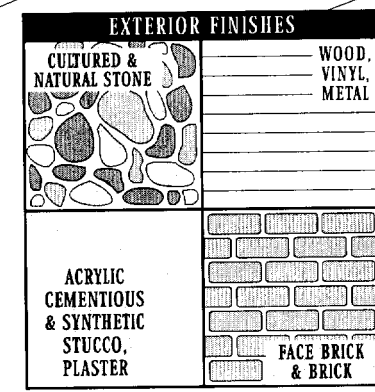
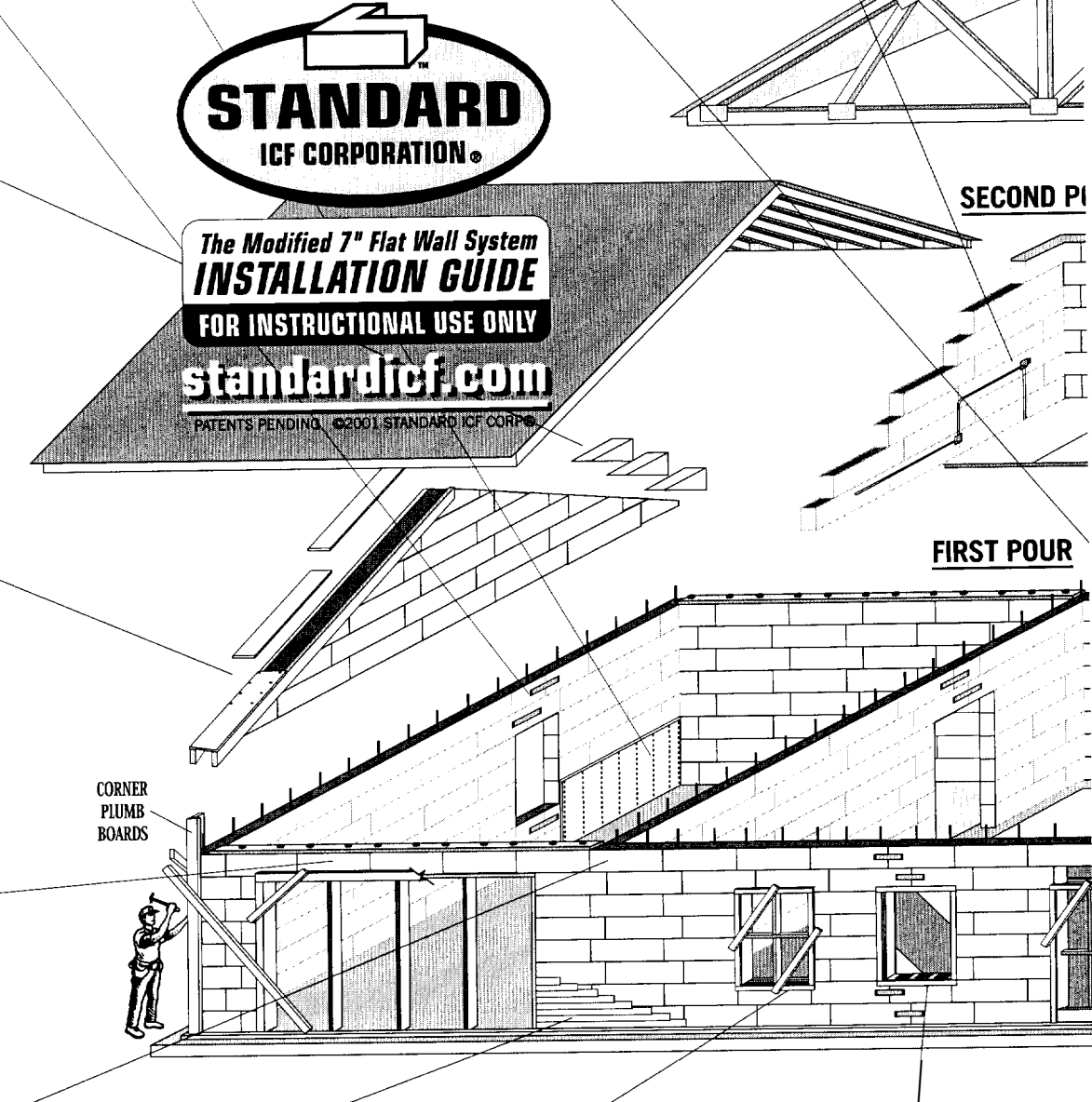
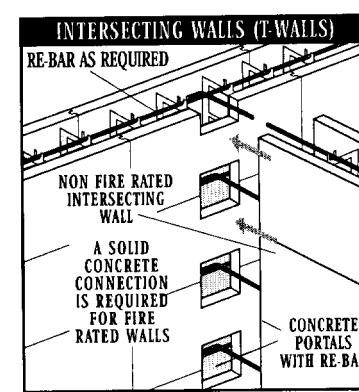
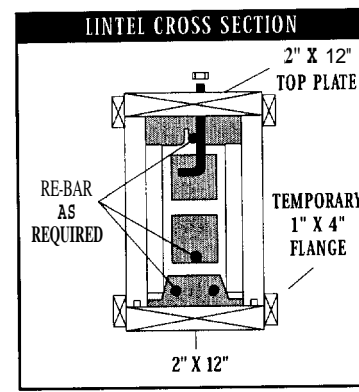
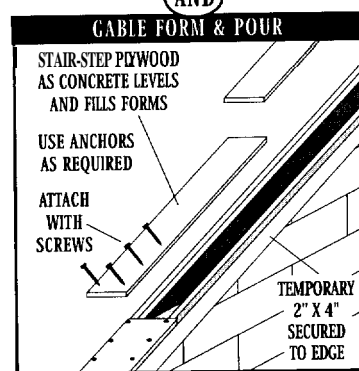
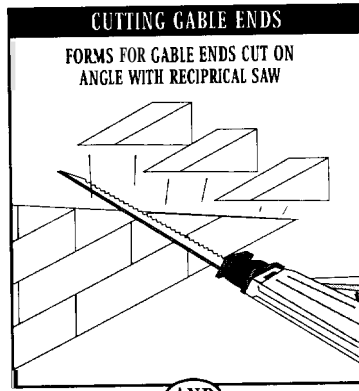
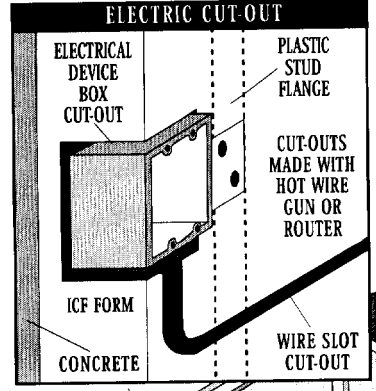
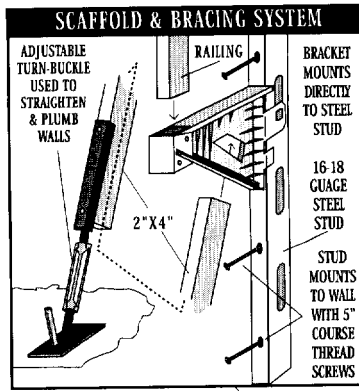
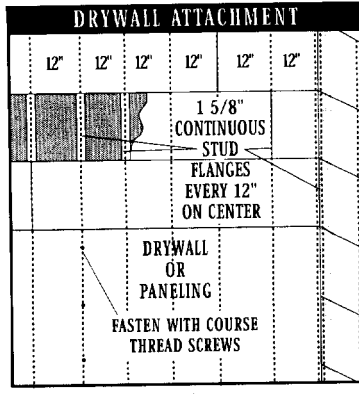
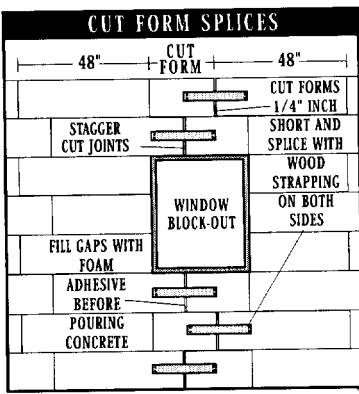
Concrete Capacity..... 1 yard fills: 10.50 Straight Forms; 13.75 90° Corner Forms; 12 45° Corner Forms.

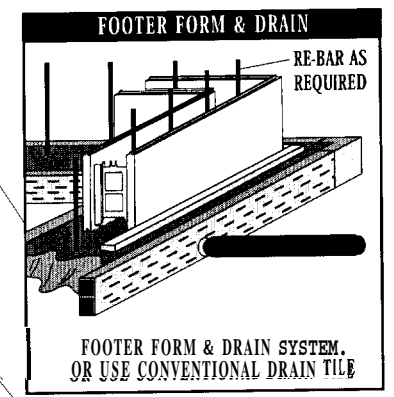
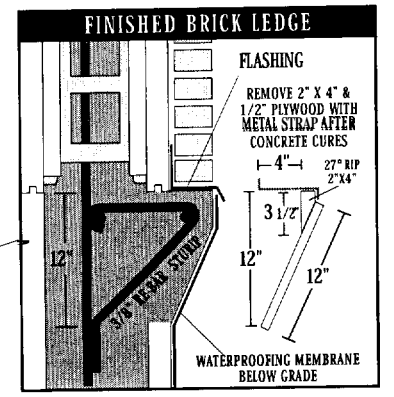
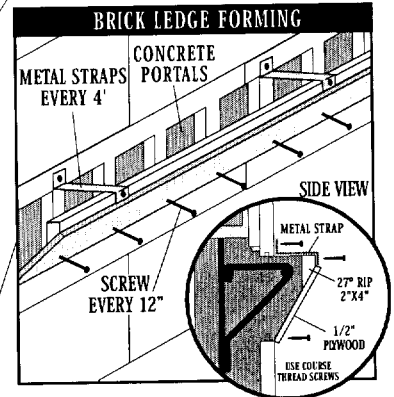
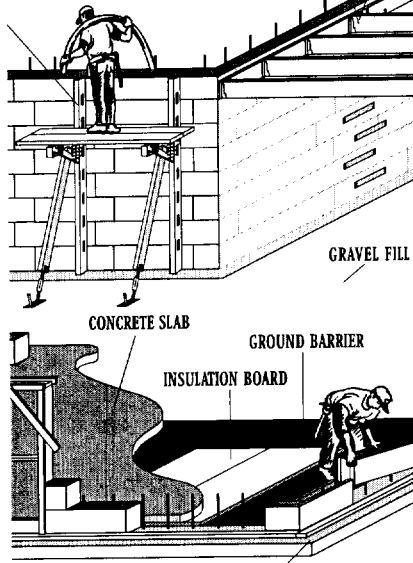
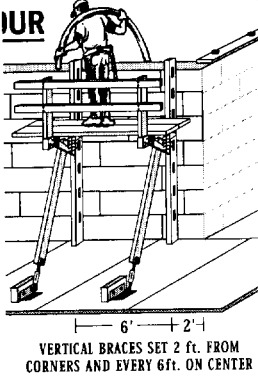
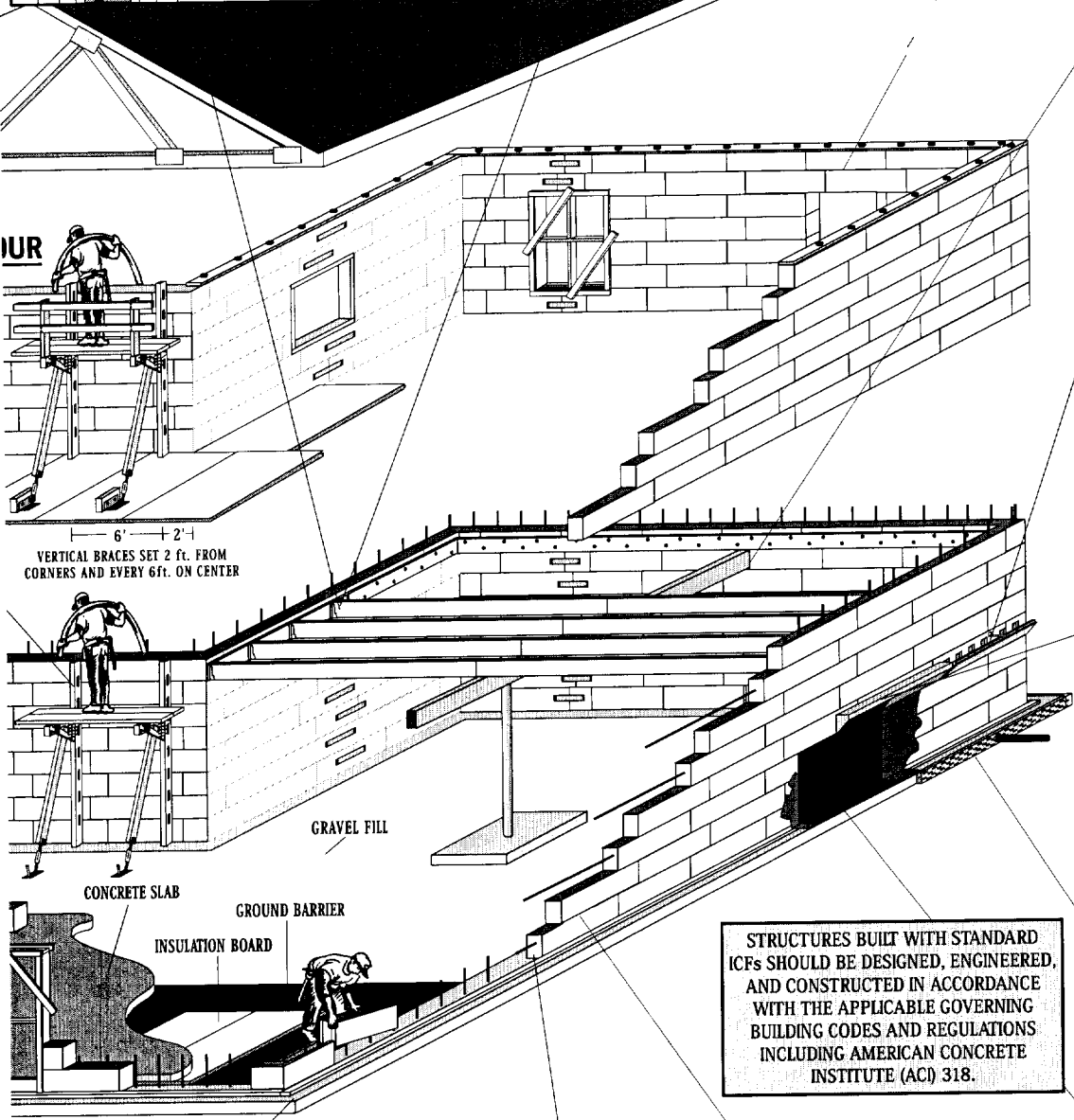
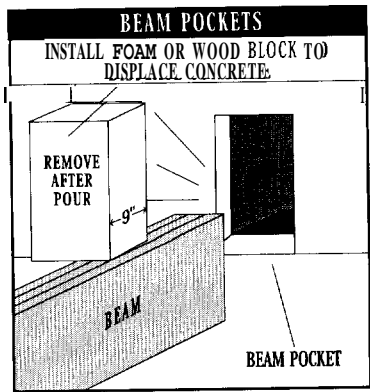
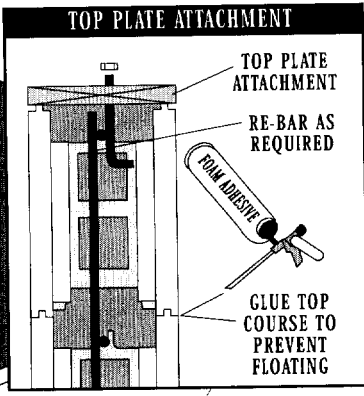
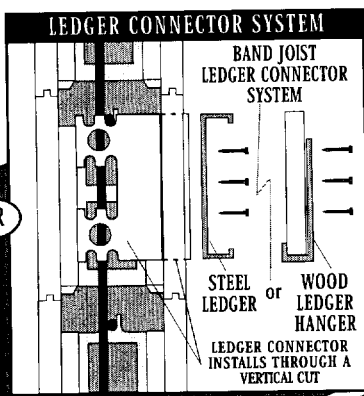
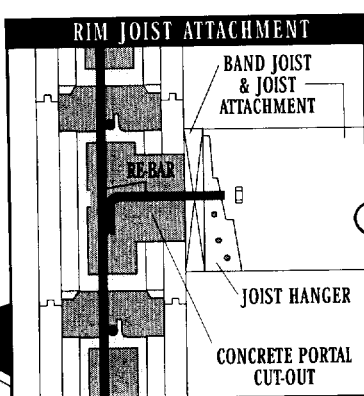
Stud Wall-Tie Bracket..... 1 5/8" wide x 16" height stud flanges form a continuous uninterrupted clearly marked fastening surface every 12" on center measured from both inside and outside corners and recessed 112" below foam surface. Bracket flanges form a fully aligned stud system from floor to ceiling with no double studs, no gaps and no spaces. ♻️ Made with recycled HOPE.

Corner Bracket..... 3" wide x 16" height corner bracket forms a 3" wide continuous fastening surface on both sides of corner.

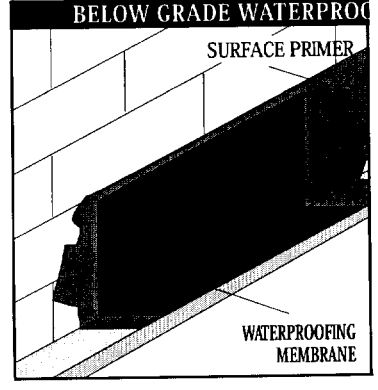
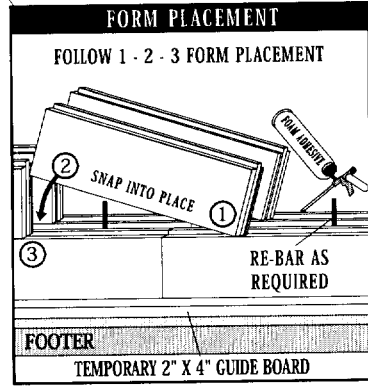
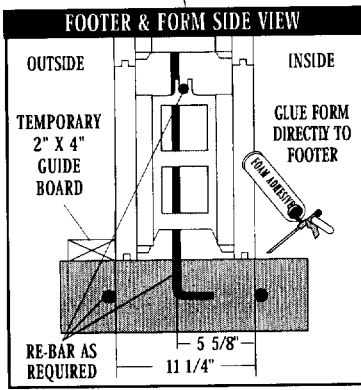
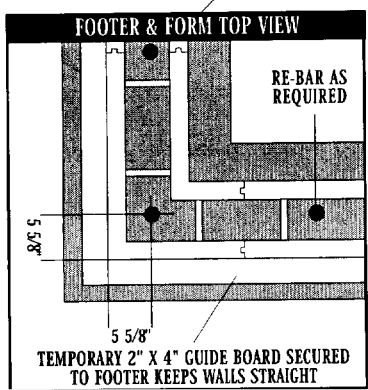
Fasteners..... Use course thread screws and foam compatible adhesive.

Molded EPS Foam..... Density: 1.5 lbs net (cured weight)
 R-value: R-26+ by calculation. System performance comparison up to R-50.
 Fire Resistance: Fire retardant EPS. Wall system - 3hrs. with 5/8" drywall.
 Flame Spread: Less than 10, Smoke Development Less than 300
 Toxicity: 24 (less than half the toxins of burning "pine" wood).
 Environmental Concerns: No off gassing, fumes, odors or toxic residue.
 Sound Resistance: STC 50.



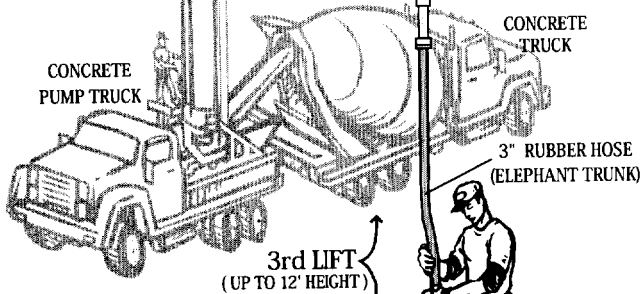


STRUCTURES BUILT WITH STANDARD ICFs SHOULD BE DESIGNED, ENGINEERED, AND CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE GOVERNING BUILDING CODES AND REGULATIONS INCLUDING AMERICAN CONCRETE INSTITUTE (ACI) 318.





CONCRETE PLACEMENT



STRUCTURES BUILT WITH STANDARD ICFs SHOULD BE DESIGNED, ENGINEERED, AND CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE GOVERNING BUILDING CODES AND REGULATIONS INCLUDING AMERICAN CONCRETE INSTITUTE (ACI) 318.

3rd LIFT
(UP TO 12' HEIGHT)

2nd LIFT

1st LIFT

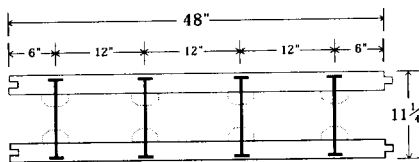
GRADE

INSTALL FRENCH DRAIN SYSTEM AT FOOTERS, WATERPROOF WALL BELOW GRADE AND BACK-FILL WITH CARE USING APPROPRIATE MATERIAL

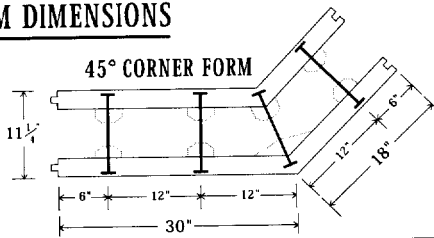
*DO NOT BACK-FILL UNTIL CONCRETE HAS CURED AND THE WALL IS SUPPORTED Laterally BY FLOORS

DRAIN TILE FOOTER RE-BAR

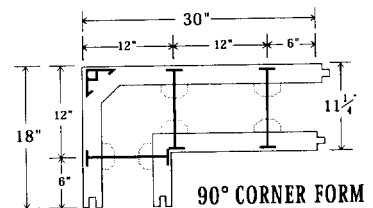
FORM DIMENSIONS



STRAIGHT FORM

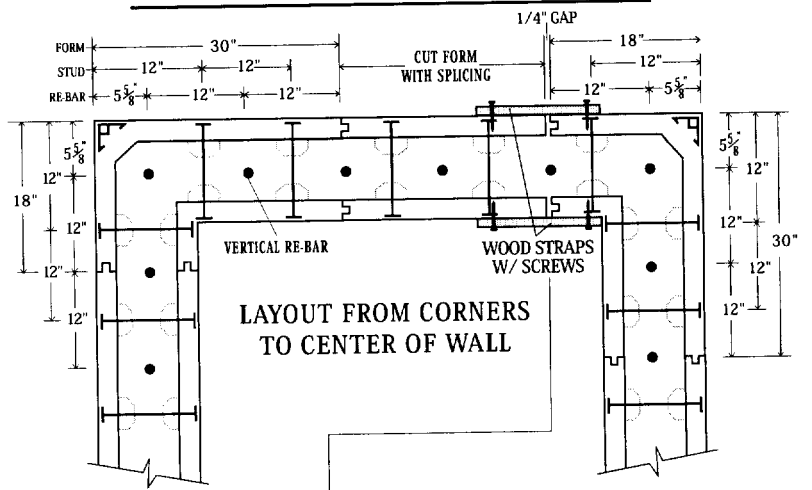


45° CORNER FORM

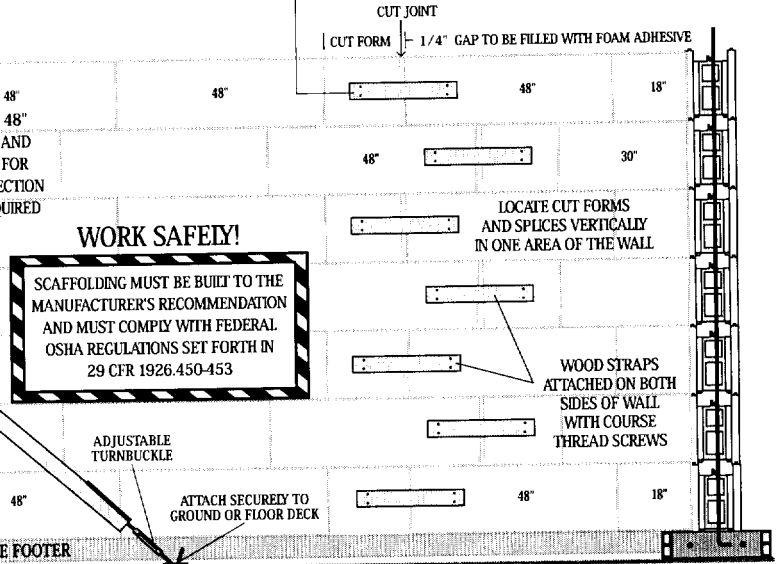


90° CORNER FORM

STANDARD ICF™ WALL LAYOUT WITH SPLICES



LAYOUT FROM CORNERS TO CENTER OF WALL

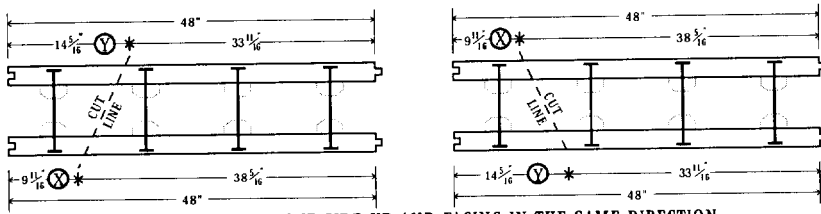


WORK SAFELY!

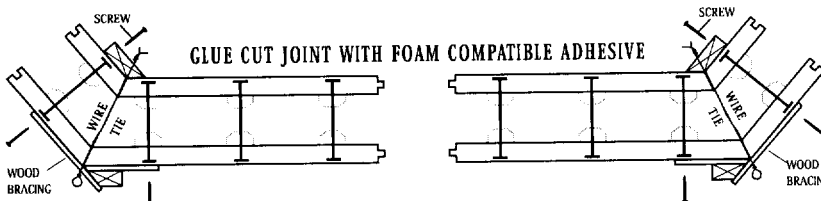
SCAFFOLDING MUST BE BUILT TO THE MANUFACTURER'S RECOMMENDATION AND MUST COMPLY WITH FEDERAL OSHA REGULATIONS SET FORTH IN 29 CFR 1926.450-453

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CUTTING STRAIGHT STANDARD ICFs™ FOR 45° AND OTHER CUSTOM CORNERS



LAYOUT WITH TONGUE SIDE UP AND FACING IN THE SAME DIRECTION



STANDARD ICF™ CUSTOM ANGLE TABLE

To miter straight forms for making custom corners use the following table and diagram, and the text found in the STANDARD ICF Installation Instruction Manual.

Corner Angle (degrees)	Cut Angle (degrees)	X (inches)	Y (inches)
90°	45°	6 3/8	17 5/8
85°	42.5°	6 13/16	17 3/16
80°	40°	7 1/4	16 3/4
75°	37.5°	7 11/16	16 5/16
70°	35°	8 1/8	15 7/8
65°	32.5°	8 7/16	15 9/16
60°	30°	8 3/4	15 1/4
55°	27.5°	9 1/16	14 15/16
50°	25°	9 3/8	14 5/8
45°	22.5°	9 11/16	14 5/16
40°	20°	9 15/16	14 1/16
35°	17.5°	10 1/4	13 3/4
30°	15°	10 1/2	13 1/2
25°	12.5°	10 3/4	13 1/4
20°	10°	11	13
15°	7.5°	11 1/4	12 3/4
10°	5°	11 1/2	12 1/2
05°	2.5°	11 3/4	12 1/4

Footers

- *Install level footers with a 1/8-inch vertical tolerance and with 16-inch steps as required.
- *Install vertical re-bar dowels in footers.

Layout

- *Locate corners and mark the wall perimeter with a chalk line.
- *Install a 2 x 4 guide board on the footer.

Materials and Tools

- *Locate the work area inside wall perimeter.
- *Specialized tools are not required.

Handling and Storage

- *Proper handling and storage is important.
- Protect from high winds and damage caused by construction site activities.

First Course

- *Begin at the corners with forms tongue side up and facing in one direction.
- Glue forms to footer staying tight against the inside of the guide board.
- *Work from opposing corners toward the center of wall.

Cut Forms and Splices

- Locate splices at window or door openings to minimize cuts, or in the center of wall.
- Locate cut forms and splices in a vertical, staggered, and reacquiring alignment.
- *Splice both sides of the cut form.
- Use 1 x 4 pieces of wood for splices.
- *Splice cut forms when the cut ends are located between stud wall-tie brackets that are more than 10-inches apart.

Cutting Forms

- Use a carpenter's handsaw, Saws-All, drywall saw, or table saw to cut forms.
- *Reinforce forms when a wall-tie is cut.
- Cut forms 1/8-inch smaller than measured opening and fill gap before concrete pour.

Gluing Forms

- Glue forms to the footer with a good size bead of foam adhesive.
- Glue top course to course below to prevent floating with a 1/2-inch bead of adhesive.
- There is no need to glue vertical joints.
- To assure quality, glue all horizontal joints.

Additional Courses

- *Install additional courses by alternating the direction of each course.
- *Install horizontal re-bar as required.

Horizontal Re-bar

- *Place re-bar in tandem re-bar saddles.
- Make all re-bar splices with 36 bar diameter overlaps, including at corners.

Vertical Re-bar

- *Install re-bar full length, or in pieces with splices overlapping 36 bar diameters.

External Bracing

- Not required at pre-molded corners.

- *Required at all miter cut corners, window and door frames, intersecting walls, gable ends, and bulkheads.

Window and Door Openings

- Build frames with pressure treated 2 x 12s for top and sides, and 2 x 4 on bottom.
- *Attach temporary 1 x 4 flanges on all the edges to center the frames in the wall.
- *Install temporary diagonal and cross bracing to withstand concrete pressures.
- *Install fasteners that will protrude into the wall cavity for concrete attachment.

Bulkheads

- Build with pressure treated 2 x 12s and temporary 1 x 4 wood flanges.
- Brace the bulkheads as required.

45-Degree and Other Custom Corners

- *Miter cut straight forms to make 45-degree and other acute or obtuse corners.

Rim Joists and Ledgers

- *Attach joists and ledgers with a series of anchor bolts or ledger connectors.
- Do not install structural framing until concrete has had time to cure properly.

Beam Pockets

- Remove a section of foam panel from the side of the wall assembly as required.
- Block out the opening with pieces of wood or foam inserted into the wall cavity that are easy to remove after concrete is cured.

Brick Ledge

- Establish elevations for a brick ledge form.
- Remove sections of foam from between studs and top and bottom of the brick ledge form to allow for the flow of concrete.
- Install re-bar as required.
- Fabricate a wood or metal brick ledge form and attach it to the side of the wall.

Utility, Mechanical, and Service

Penetrations

- *Install sleeves and chases through the wall for all penetrations.

Scaffolding and Bracing

- *Install to keep wall assembly straight, plumb, square, and protect wall during concrete curing, and high winds.
- *Provide a safe and adequate work platform. Ref: OSHA 29 CFR 1926.450 thru 453.
- *Space 2-feet from corners and at 6-foot intervals throughout the wall assembly.

Before Concrete Check List

- *Check wall for plumb and straight.
- Check splices and fill gaps and spaces with foam adhesive.
- *Check for all required penetrations.
- *Have connecting devices and structural pieces in place, or on hand for installation.
- *Check scaffolding and bracing for safety.
- Check all window and door frames and all required external bracing.

- *Determine the proper ready-mix design.
- Do not order concrete until you are ready.

Concrete Placement

- Place concrete with a concrete pump.
- Reduce hose diameter to 3-inch, add a "dog leg", and an "elephant trunk".
- Have materials on hand to make repairs.
- Place concrete in lifts of 4-feet. Concrete strength should not be less than 3000 psi. with 28 day moist cure.
- Use concrete with a 6-inch slump.

Concrete Consolidation

- *Consolidate concrete by "rodding" with a re-bar, and/or by tapping on the side with a hammer and a wood block as necessary.

After Concrete Placement

- *Check the installation of anchor bolts and structural connectors for alignment.
- *Check the walls for plumb and straight.

Concrete Curing and Removal of Bracing

- Do not remove bracing until the walls have developed adequate strength and/or have been supported laterally.
- Be aware of environmental factors that affect concrete curing.

Waterproofing

- *Apply waterproofing to all below grade walls to keep the water out and protect the integrity of the foam insulation.
- Install a French Drain System at the footer.

Backfilling

- *Wait until the concrete has cured properly and the walls are braced laterally by floors.
- Use backfill materials that will percolate water and reduce hydraulic pressure.

Standard ICF Specifications

- *Manufactured using molded Type II EPS in accordance with ASTM E84.
- Molded to a net cured weight of 1.5 psi.
- *UL tests results with a flame spread of 10, and smoke a development of 300.
- Finished wall has a fire resistance of 3-hours with 5/8-inch drywall.
- Brackets made with recycled HDPE.
- No HCFs or HFCs are emitted during the manufacturing process.
- The finished product does not off-gas and does not produce fumes, odors, or toxins. Calculated R-value of R-26+. System performance comparison of up to R-50.
- *Sound transmission class of STC-50.
- Stud flanges are 1 5/8-inches wide, 12-inches on center measured from corners.
- *Nominal 7-inch modified flat wall with a net 6 1/2-inch concrete core.
- Straight forms: 48-inches long, 16-inches high, 1 1/4-inches wide.
- 90° & 45° Corner forms: 48-inches (18+30) long, 16-inches high, 1 1/4-inches wide.
- *Surface area of 5.33 sq. ft. per form.
- *One cu yd of concrete fills 10.5 straight forms, 13.75 - 90" & 12 - 45° corner forms.