



BUILDBLOCK BUILDING SYSTEMS
BUILDBLOCK HARDWALL
PRODUCT & INSTALLATION MANUAL

REVISED JANUARY 2016

This page left intentionally blank.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL



Table of Contents

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

BuildBlock HardWall Product Design	1
<i>Product Overview</i>	<i>1</i>
<i>Block Construction</i>	<i>1</i>
<i>Wall Finish.....</i>	<i>2</i>
BuildBlock HardWall Assembly	3
<i>HardWall Wall Assembly Components</i>	<i>3</i>
<i>HardWall Finished Wall Assembly</i>	<i>4</i>
BuildBlock HardWall Installation	6
<i>Preparation.....</i>	<i>6</i>
<i>Preferred Installation method</i>	<i>6</i>
<i>Alternate method.....</i>	<i>6</i>
<i>HardWall Finish Options.....</i>	<i>7</i>
BuildBlock HardWall CAD Details.....	8

This page left intentionally blank.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

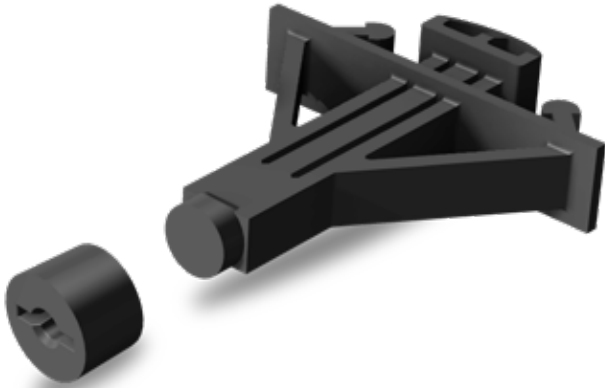


Figure 1.1 BuildBlock HardWall Connector showing removeable cap

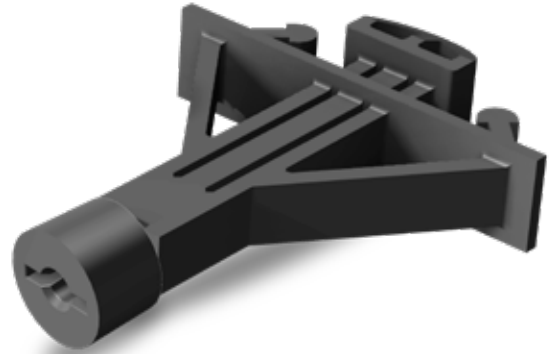


Figure 1.2 BuildBlock HardWall Connector assembled with cap.

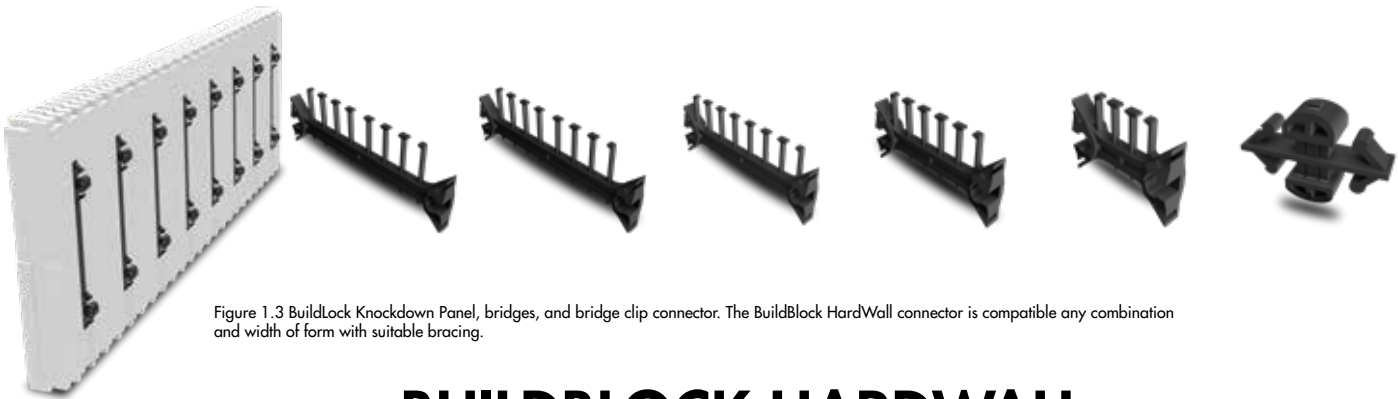


Figure 1.3 BuildBlock Knockdown Panel, bridges, and bridge clip connector. The BuildBlock HardWall connector is compatible any combination and width of form with suitable bracing.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

BUILDBLOCK HARDWALL PRODUCT DESIGN

PRODUCT OVERVIEW

BuildBlock HardWall uses BuildLock Knockdown ICFs to create an insulated ICF wall on one side and a bare concrete wall on the other. This system offers the same or greater insulation value when used with ThermalSert Insulation Inserts on the outside of the wall. The inside wall provides exposed attachment points if needed. The exposed attachment points may also be removed for filling with a cement based filler or stucco.

This product is perfect for areas that required a bare concrete finish such as elevator shafts, basement parking, manufacturing and warehouse space or other commercial areas where impact resistance, durability, or removal of all flammable material is desired or required.

BuildBlock HardWall will finish flush with an ICF face if employed as part of a composite wall with ICF above an expected impact area, and eliminates the need to strip foam and webs from inside stairwells, elevator shafts, or in warehousing, where the durability of a solid concrete wall as the finish surface is more desirable provide the benefits of ICF exterior insulation.

The concrete wall formed with BuildBlock HardWall will be

2-1/2" thicker than the web bridge nominal size. For instance, a 4 inch web bridge will net a 6-1/2" thick concrete wall, which will result in an overall wall thickness of 9 inches to match a standard 4 inch ICF form.

BLOCK CONSTRUCTION

BuildBlock HardWall uses the existing BuildBlock Knockdown blocks and web bridges in conjunction with a dedicated BuildBlock HardWall Connector. The BuildLock Knockdown blocks are assembled normally. A template is used to cut the wood forming material to size, then the HardWall connectors are attached using a pan head screw.

Once poured, the HardWall connector cap may be removed and filled with a suitable patch for a finished concrete wall or left in place for attachment points every 6-inches horizontally and 8 inches vertically.

Additionally, ThermalSert KD panels may be used with this product to add insulation value back into the wall assembly. ThermalSert panels are inserted against the outside wall panel inside the block, secured and left in place when concrete is poured. Be mindful that ThermalSert reduces the concrete core thickness. Use appropriate engineering.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL**WALL FINISH**

When stacking BuildBlock HardWall, it is important to maintain the alignment of the plywood faces, as this will affect the final finish of the wall. This is best accomplished by strapping along or across seams, which will prevent them from buckling from water absorption. The use of CD-X or treated plywood can assist with this as well. Special form Plywood is also available, and is designed for multiple uses as formwork.

Cutting the plywood accurately, taking care to ensure it is both square and correctly sized, is critical to a high quality install. All ICF forms will settle with the weight of the concrete. The plywood portion of the walls will be less subject to this settling. Out of square or mis-sized plywood can exacerbate this condition leading to, uneven or out of plumb walls.

Finishing the walls after the concrete has cured begins with removal of the plywood. The crews are backed out of the plywood and connector below.

Once the plywood is removed the washer caps will be visible in the face of the concrete. If this is the desired finish the caps may be left in place to indicate attachment points in the wall. Attach other finishes as desired.

To remove washer caps, use a large flat blade screwdriver to twist and pull the washer cap out of the cavity. The washer cap is beveled and will release from the concrete. If necessary the

washer caps may be removed by hand, with a small pick, or pliers. The HardWall body will remain embedded in the wall.

To finish the entire wall with stucco, plaster, or other finish, remove washer caps and fill remaining cavity with patch, or a suitable concrete filler and trowel smooth prior to applying the wall finish according to manufacturer specifications. Attachment to the wall will be the same as with any standard poured concrete wall, and can be done with tapcon fasteners, or other anchoring systems.

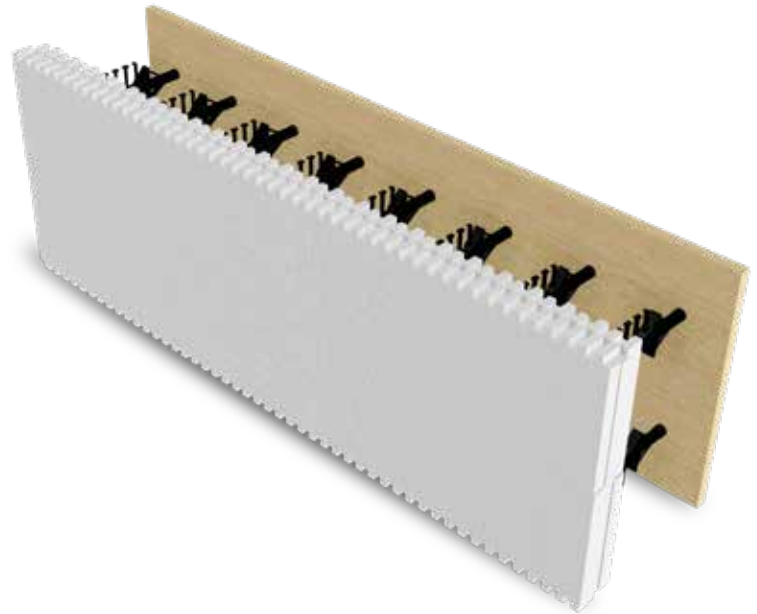


Figure 1.4 BuildBlock HardWall Connector components assembled into a single block ready to stack.

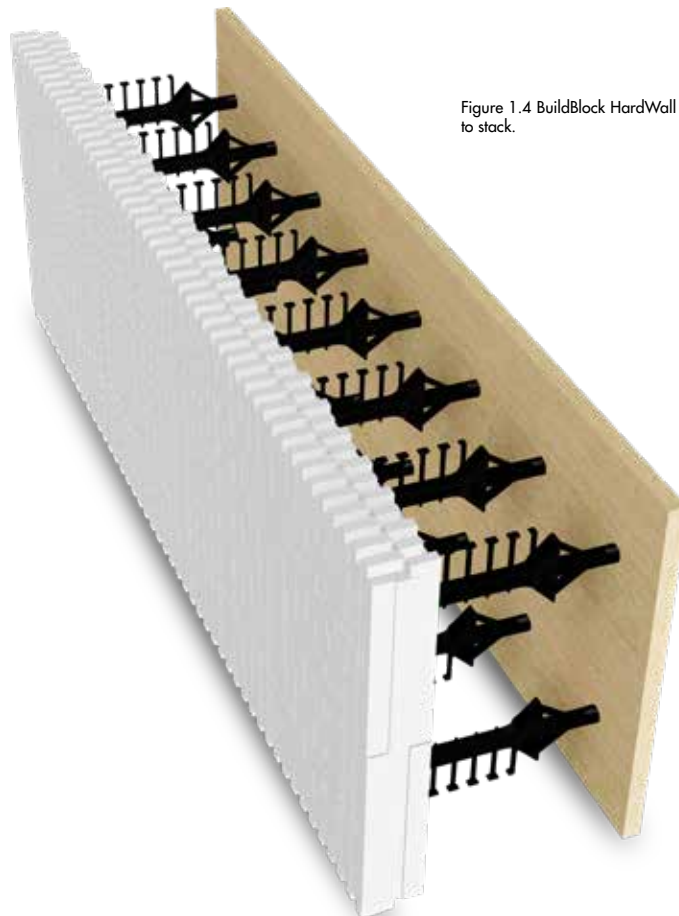
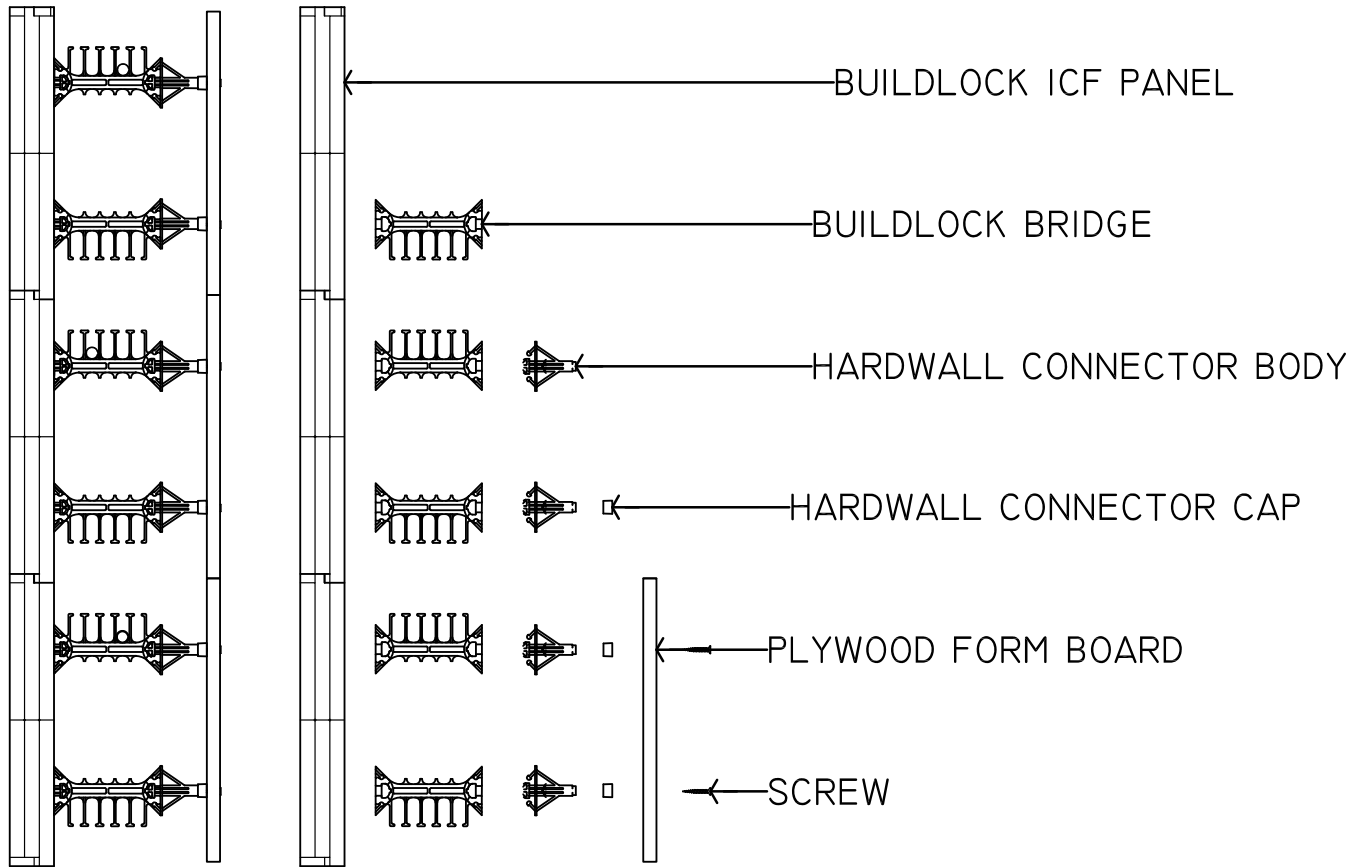


Figure 1.5 BuildBlock HardWall showing plywood attached to connectors.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

BUILDBLOCK HARDWALL ASSEMBLY

HARDWALL WALL ASSEMBLY COMPONENTS

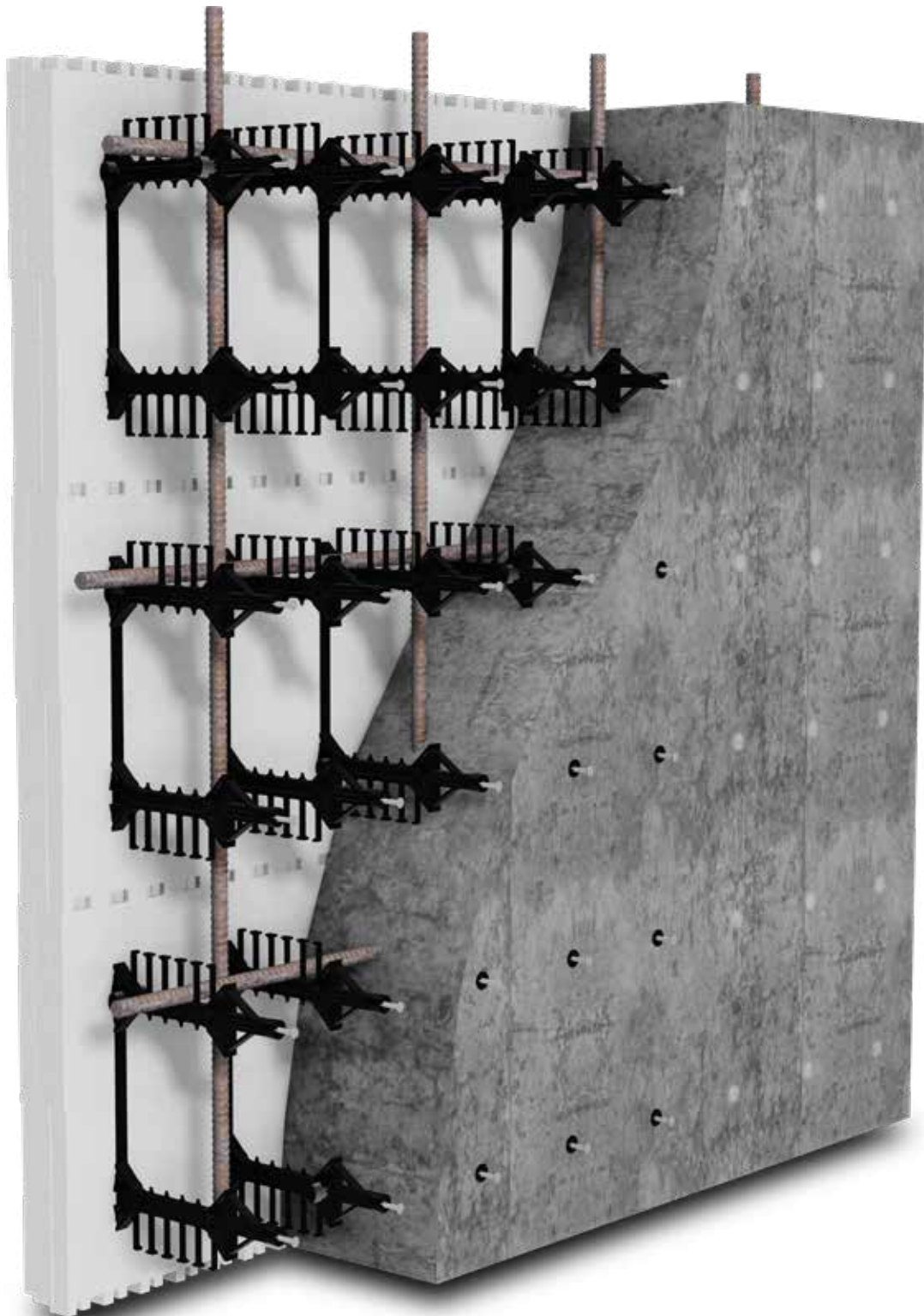


HARDWALL AS
INSTALLED

HARDWALL EXPLODED
VIEW

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

HARDWALL FINISHED WALL ASSEMBLY



BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

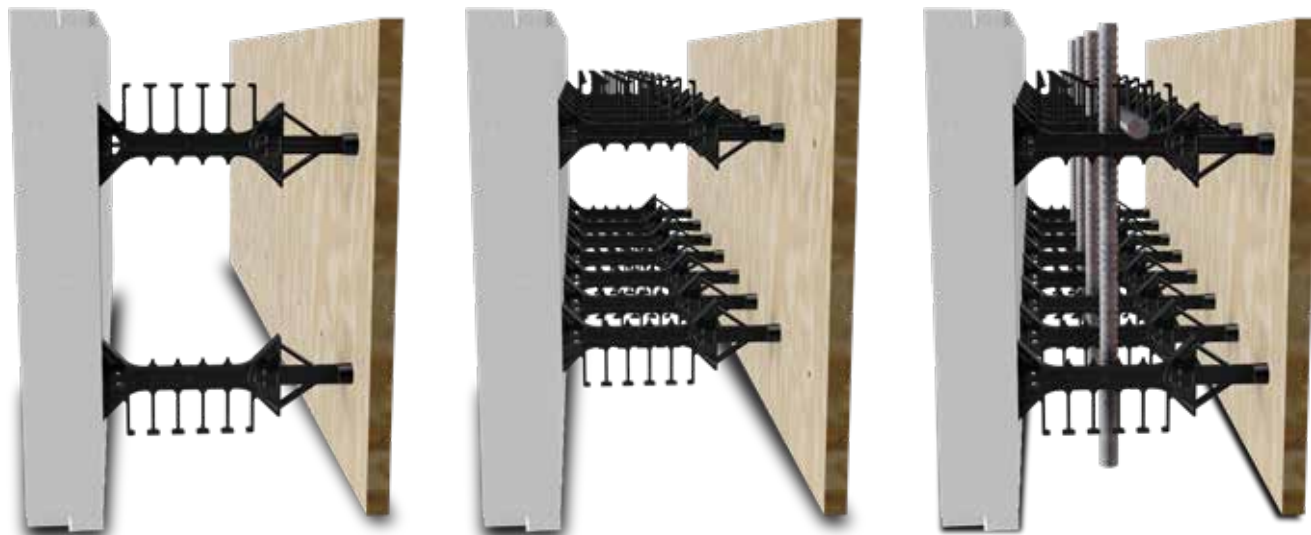


Figure 1.6 Poured BuildBlock HardWall wall with formboard removed.



Figure 1.7 Poured BuildBlock HardWall wall with formboard removed and ready for finishes.

BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL



BUILDBLOCK HARDWALL INSTALLATION

PREPARATION

1. Separate the washer cap from the HardWall connector by removing the small tab connecting the 2 parts.
2. Press the cup of the washer cap onto the end of the HardWall connector fully.
3. To fully embed the connector into the washer it may be necessary to press it firmly against a hard surface.
4. Make sure to orient bridges correctly.
5. Attach the web bridges to the BuildLock panel by positioning them over the locking tabs on the inner face of the panel. A sharp blow may be required to fully seat them.
6. Attach the HardWall connector with the washer cap in place to the web bridges, opposite the foam panel.
7. A paper template is downloadable from the BuildBlock website and may be printed to scale to create a suitable template from wood, sheet metal, or other durable material.
8. Templates should be drilled with a 1/8" - 3/16" drill bit. Use same size drill for drilling Plywood. Holes should be perpendicular to the face of the plywood. It is highly recommended to pre-drill all holes in the HardWall panel material to make installation uniform and assembly accurate.
9. All plywood for forms should be cut 1/8" short in length to account for the natural shrinkage of the forms. Height may be reduced 1/16" to account for shrinkage and compression as well. (Template matches these dimensions).

PREFERRED INSTALLATION METHOD

1. When the foam, bridge, and HardWall connector are assembled, place a pre-cut and drilled sheet of plywood or other forming material against the washer cap faces, and fasten together using 1-5/8" coarse thread pan head screws.
2. The holes in the washer cap are easily aligned with the drilled screw holes. The self-aligning washer cap positions the screw in the center of the connector.

ALTERNATE METHOD

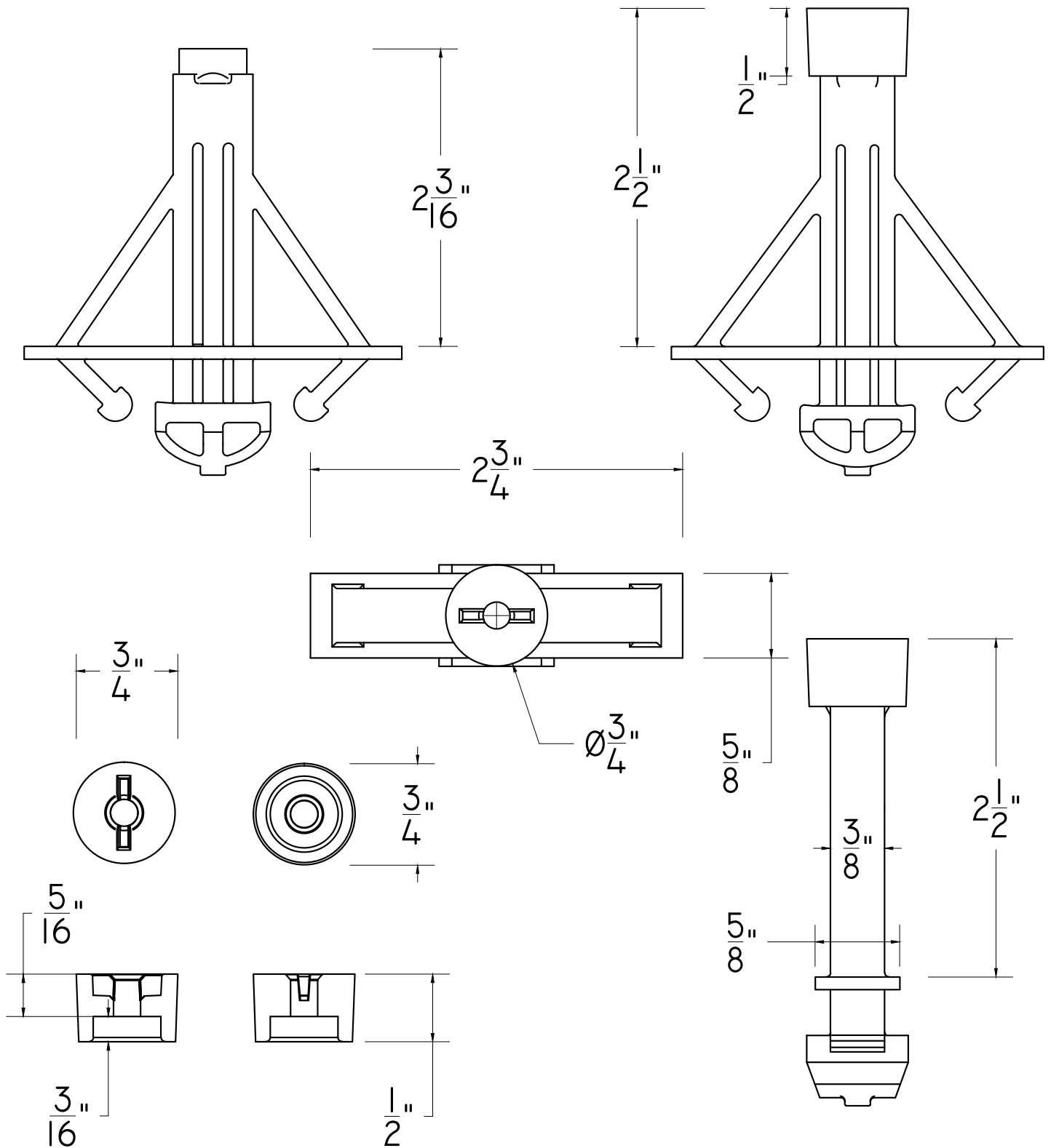
1. Assemble the HardWall connector and washer cap to the plywood panel with 1-5/8" coarse thread pan head screws.
2. Lock the assembled panel to the foam panel with the web bridges. When using this method, it is imperative to avoid bending or breaking the screws while moving the plywood panel once assembled. It may also be necessary to re-orient the HardWall connector body to align with the web bridges, as it may turn when tightening the screws.
3. A coarse thread, pan head screw should be used to assemble the forms. Countersink screws should be avoided as they can pull through the plywood when concrete pressure is applied.
4. Drive the screw fully to the face of the plywood. Do not over tighten the screw, or sink the screw into the form.
5. Stack the forms normally, aligning the outside faces. It is recommended to attach 1x4 strapping on the plywood side of the forms to ensure a smooth finish. The 1x4s should bridge the vertical or horizontal seams, to maintain a smooth finish, and prevent the plywood from warping along seams.


BUILDBLOCK HARDWALL PRODUCT & INSTALLATION MANUAL

6. Once the walls are stacked, poured, and concrete set, the plywood or OSB can be easily removed from the webs, and a smooth concrete wall is ready for stucco, or other finishes.

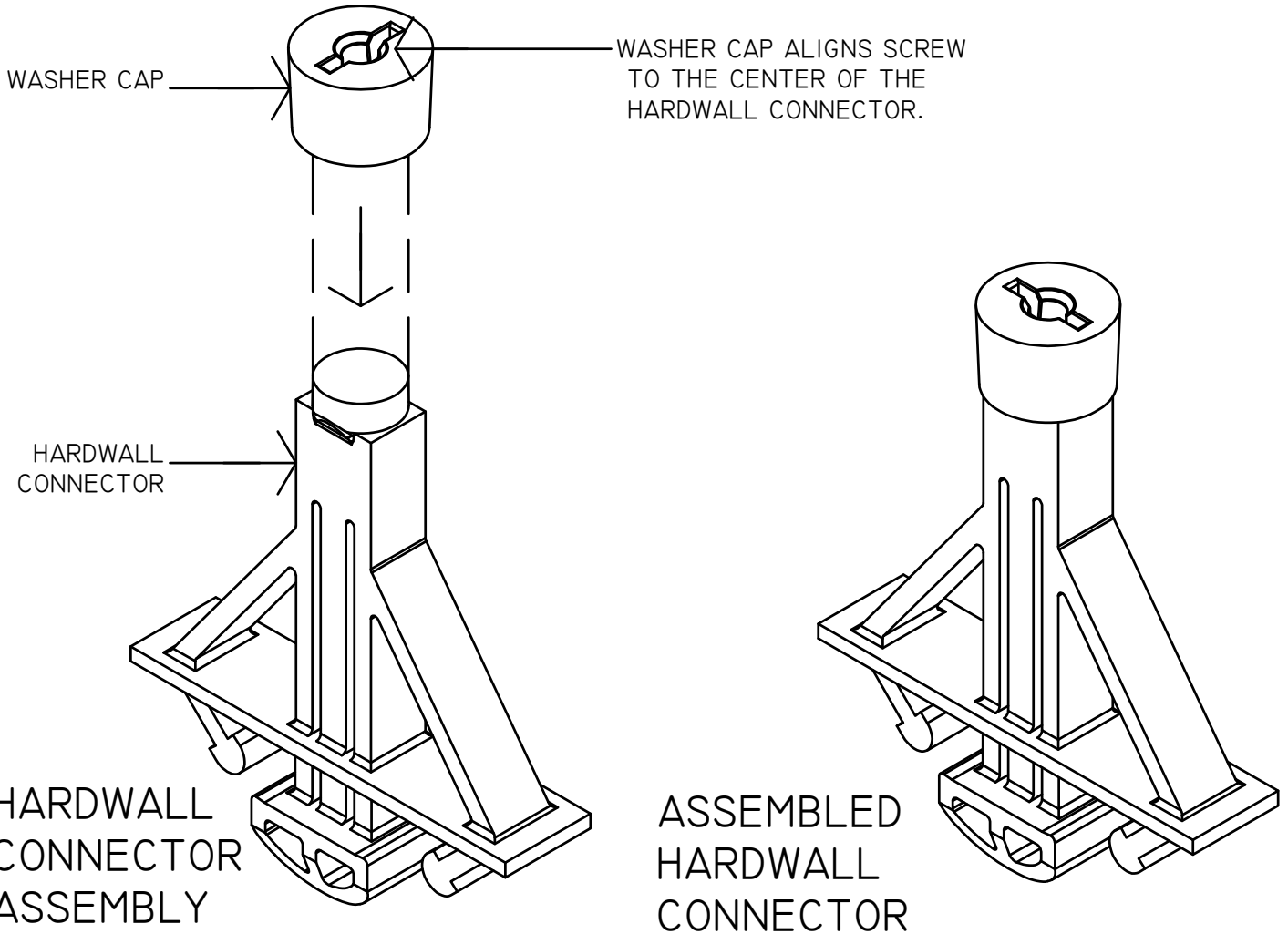
HARDWALL FINISH OPTIONS

1. Once the plywood is removed the washer caps will be visible in the face of the concrete.
2. If this is the desired finish, caps may be left in place to indicate attachment points in the wall. Attach other finishes as desired.
3. To remove washer caps, use a large flat blade screwdriver to twist and pull the washer cap out of the cavity. The washer cap is beveled and will release from the concrete. If necessary the washer caps may be removed by hand, with a small pick, or pliers. The hardwall body will remain embedded in the wall.
4. To finish the entire wall with stucco, plaster, or other finish, remove caps and fill remaining cavity with patch, or a suitable concrete filler and trowel smooth prior to applying the wall finish according to manufacturer specifications.




	BUILDBLOCK HARDWALL PRODUCT DETAIL			64A	
	DATE/REV	12/2015	SCALE NTS		DETAIL SHEET
	NOTES				
OFFICE: 405-840-3386 TOLL FREE: 866-222-2575 FAX: 831-597-0792 BUILDBLOCK.COM	CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.				

BUILDBLOCK HARDWALL IS A TWO PART ASSEMBLY ALLOWING CONNECTION OF PLYWOOD FORMING MATERIAL TO A BUILDLOCK KNOCKDOWN PANEL. THIS CREATES A CONCRETE FACED WALL WITH A BUILT IN INSULATION LAYER. THIS SOLUTION IS APPROPRIATE FOR STAIRWELLS, ELEVATOR SHAFTS, BASEMENT PARKING, AND LOWER WALL SECTIONS IN MANUFACTURING AND WAREHOUSE FACILITIES WHERE IMPACT RESISTANCE, DURABILITY OR REMOVAL OF ALL FLAMMABLE MATERIAL IS DESIRED OR REQUIRED.



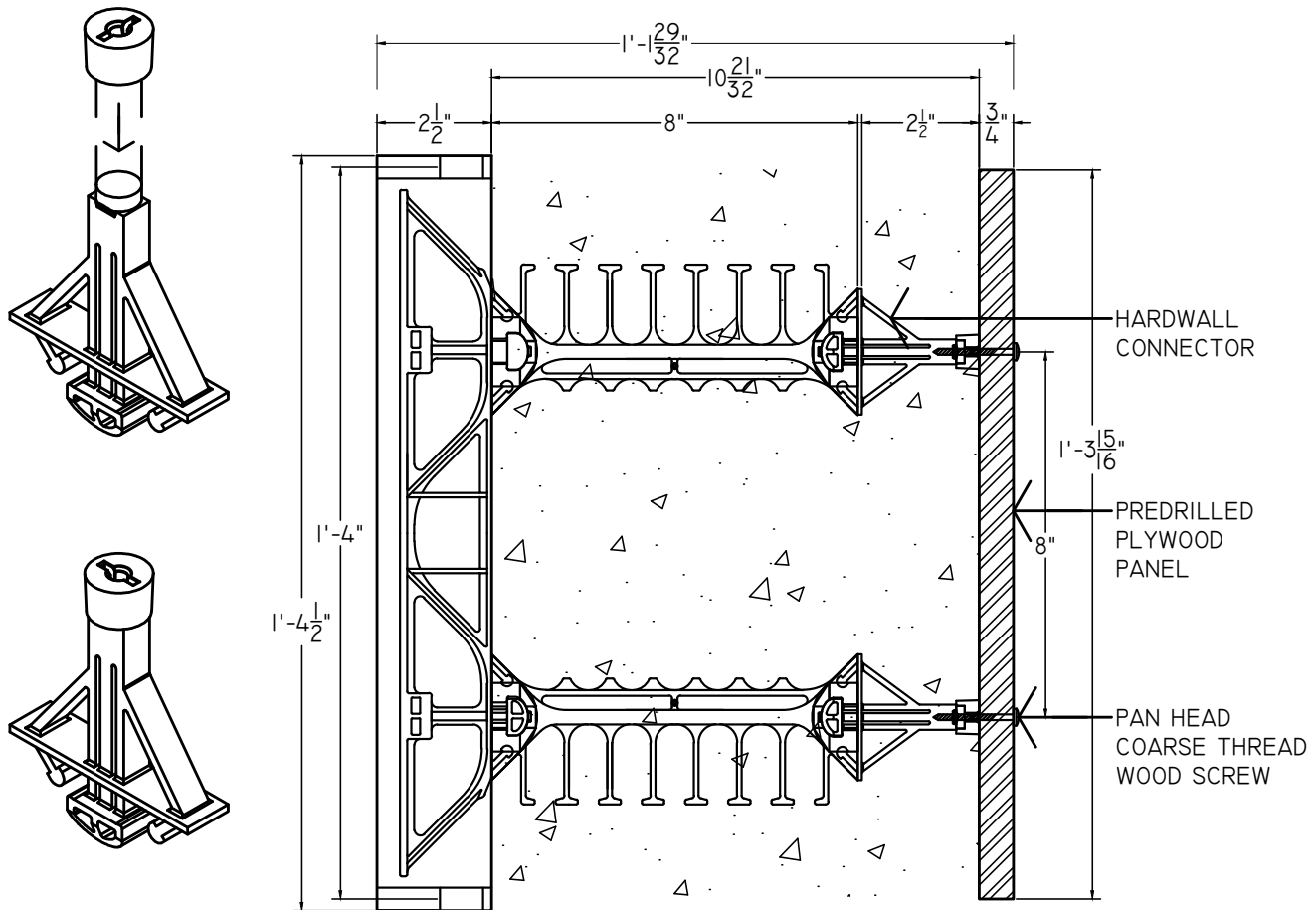
HARDWALL CONNECTOR ASSEMBLY:

1. SEPARATE THE WASHER CAP FROM THE HARDWALL CONNECTOR BY REMOVING THE SMALL TAB CONNECTING THE 2 PARTS.
2. PRESS THE CUP OF THE WASHER CAP ONTO THE END OF THE HARDWALL CONNECTOR FULLY.
3. TO FULLY EMBED THE CONNECTOR INTO THE WASHER IT MAY BE NECESSARY TO PRESS IT FIRMLY AGAINST A HARD SURFACE.


	BUILDBLOCK HARDWALL CONNECTOR DETAIL			
	DATE/REV	12/2015	SCALE NTS	DETAIL SHEET
	NOTES			<h1 style="margin: 0;">64B</h1>
OFFICE: 405-840-3386 TOLL FREE: 866-222-2575 FAX: 831-597-0792 BUILDBLOCK.COM		CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.		

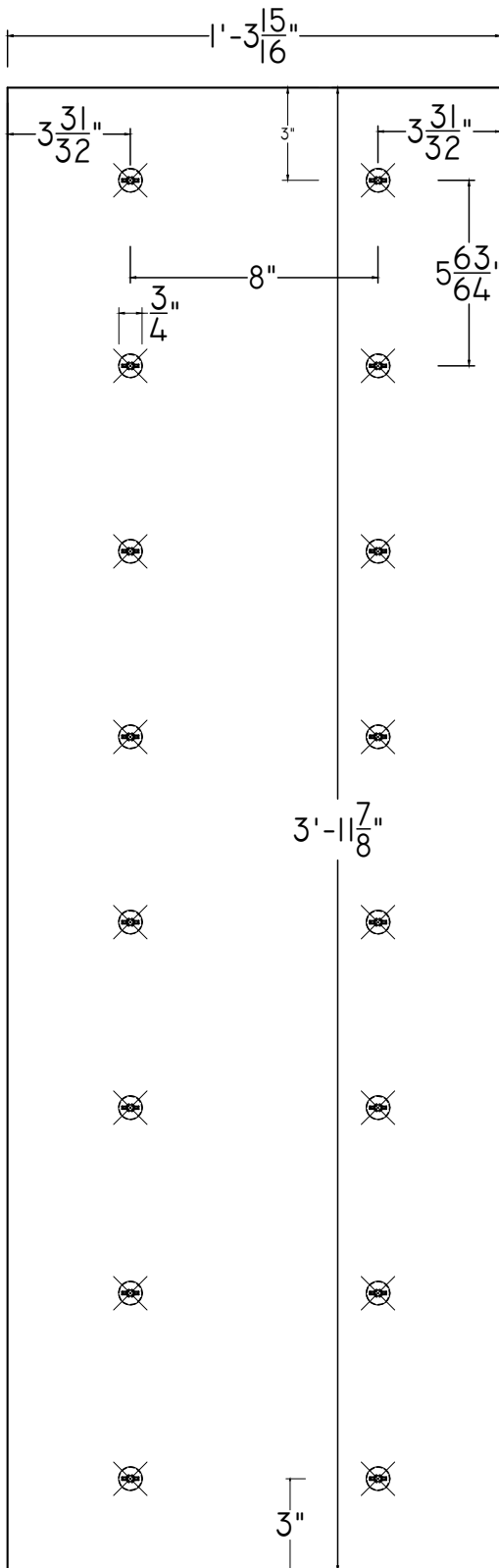
HARDWALL CONNECTOR ASSEMBLY:

1. SEPARATE THE WASHER CAP FROM THE HARDWALL CONNECTOR BY REMOVING THE SMALL TAB CONNECTING THE 2 PARTS.
2. PRESS THE CUP OF THE WASHER CAP ONTO THE END OF THE HARDWALL CONNECTOR FULLY.
3. TO FULLY EMBED THE CONNECTOR INTO THE WASHER IT MAY BE NECESSARY TO PRESS IT FIRMLY AGAINST A HARD SURFACE.
4. MAKE SURE TO ORIENT BRIDGES CORRECTLY BEFORE CONNECTING TO BUILDLOCK PANELS.
5. ATTACH THE WEB BRIDGES TO THE BUILDLOCK PANEL BY POSITIONING THEM OVER THE LOCKING TABS ON THE INNER FACE OF THE PANEL. A SHARP BLOW MAY BE REQUIRED TO FULLY SEAT THEM.
6. ATTACH THE HARDWALL CONNECTOR WITH THE WASHER CAP IN PLACE TO THE WEB BRIDGES, OPPOSITE THE FOAM PANEL.
7. PREFERRED METHOD: WHEN THE FOAM, BRIDGE, AND HARDWALL CONNECTOR ARE ASSEMBLED, PLACE A PRE-CUT AND DRILLED SHEET OF PLYWOOD OR OTHER FORMING MATERIAL AGAINST THE WASHER CAP FACES. BEGIN FASTENING THEM TOGETHER USING 1-5/8" COARSE THREAD PAN HEAD SCREWS. THE HOLES IN THE WASHER CAP ARE EASILY ALIGNED WITH THE DRILLED SCREW HOLES. THE SELF ALIGNING WASHER CAP POSITIONS THE SCREW IN THE CENTER OF THE CONNECTOR.
8. ALTERNATE METHOD: ASSEMBLE THE HARDWALL CONNECTOR AND WASHER CAP AND ATTACH TO THE PLYWOOD PANEL WITH 1-5/8" COARSE THREAD PAN HEAD SCREWS. LOCK THE ASSEMBLED PANEL TO THE FOAM PANEL WITH THE WEB BRIDGES. WHEN USING THIS METHOD, IT IS IMPERATIVE TO AVOID BENDING OR BREAKING THE SCREWS WHILE MOVING THE PLYWOOD PANEL ONCE ASSEMBLED. IT MAY ALSO BE NECESSARY TO RE-ORIENT THE HARDWALL CONNECTOR BODY TO ALIGN WITH THE WEB BRIDGES, AS IT MAY TURN WHEN TIGHTENING THE SCREWS.



ALL PLYWOOD FOR FORMS SHOULD BE CUT 1/8" SHORT IN LENGTH TO ACCOUNT FOR THE NATURAL ICF FORM SHRINKAGE. HEIGHT MAY BE REDUCED 1/16" TO ACCOUNT FOR SHRINKAGE AND COMPRESSION. STANDARD ICF BRACING AND ALIGNMENT SHOULD BE INSTALLED ON THE WOOD SIDE. FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR INSTALLATION OF ICF BRACING.

	BUILDBLOCK HARDWALL ASSEMBLY				
	DATE/REV	12/2015	SCALE	NTS	DETAIL SHEET
	NOTES				64C
OFFICE: 405-840-3386 TOLL FREE: 866-222-2575 FAX: 831-597-0792 BUILDBLOCK.COM		CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.			



HARDWALL TEMPLATE

A PAPER TEMPLATE IS DOWNLOADABLE FROM THE BUILDBLOCK WEBSITE AND MAY BE PRINTED TO SCALE TO CREATE A SUITABLE TEMPLATE FROM WOOD, SHEET METAL, OR OTHER DURABLE MATERIAL.

TEMPLATES SHOULD BE DRILLED WITH A 1/8" - 3/16" DRILL BIT. HOLES SHOULD BE PERPENDICULAR TO THE FACE OF THE PLYWOOD.

ALL PLYWOOD FOR FORMS SHOULD BE CUT 1/8" SHORT IN LENGTH TO ACCOUNT FOR THE NATURAL ICF FORM SHRINKAGE. HEIGHT MAY BE REDUCED 1/16" TO ACCOUNT FOR SHRINKAGE AND COMPRESSION. STANDARD ICF BRACING AND ALIGNMENT SHOULD BE INSTALLED ON THE WOOD SIDE. FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR INSTALLATION OF ICF BRACING.

IT IS HIGHLY RECOMMENDED TO PRE-DRILL ALL HOLES IN THE HARDWALL PANEL MATERIAL TO MAKE INSTALLATION UNIFORM AND ASSEMBLY ACCURATE.

A COARSE THREAD, PAN HEAD SCREW SHOULD BE USED TO ASSEMBLE THE FORMS. COUNTERSINK SCREWS SHOULD BE AVOIDED AS THEY CAN PULL THROUGH THE PLYWOOD WHEN CONCRETE PRESSURE IS APPLIED.

TO ASSEMBLE THE FORMS, ALIGN HOLES AND CONNECTORS BY STARTING THE SCREW THROUGH THE PLYWOOD. POSITION THE SCREW IN THE CENTER OF THE CAP.

DRIVE THE SCREW FULLY TO THE FACE OF THE PLYWOOD. DO NOT OVER TIGHTEN THE SCREW, OR SINK THE SCREW INTO THE FORM.



OFFICE: 405-840-3386 | TOLL FREE: 866-222-2575 | FAX: 831-597-0792
 BUILDBLOCK.COM

BUILDBLOCK HARDWALL FORM TEMPLATE

DATE/REV	12/2015	SCALE	NTS	DETAIL SHEET
----------	---------	-------	-----	--------------

NOTES	
-------	--

CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

64D

BUILDBLOCK HARDWALL FINISH OPTIONS

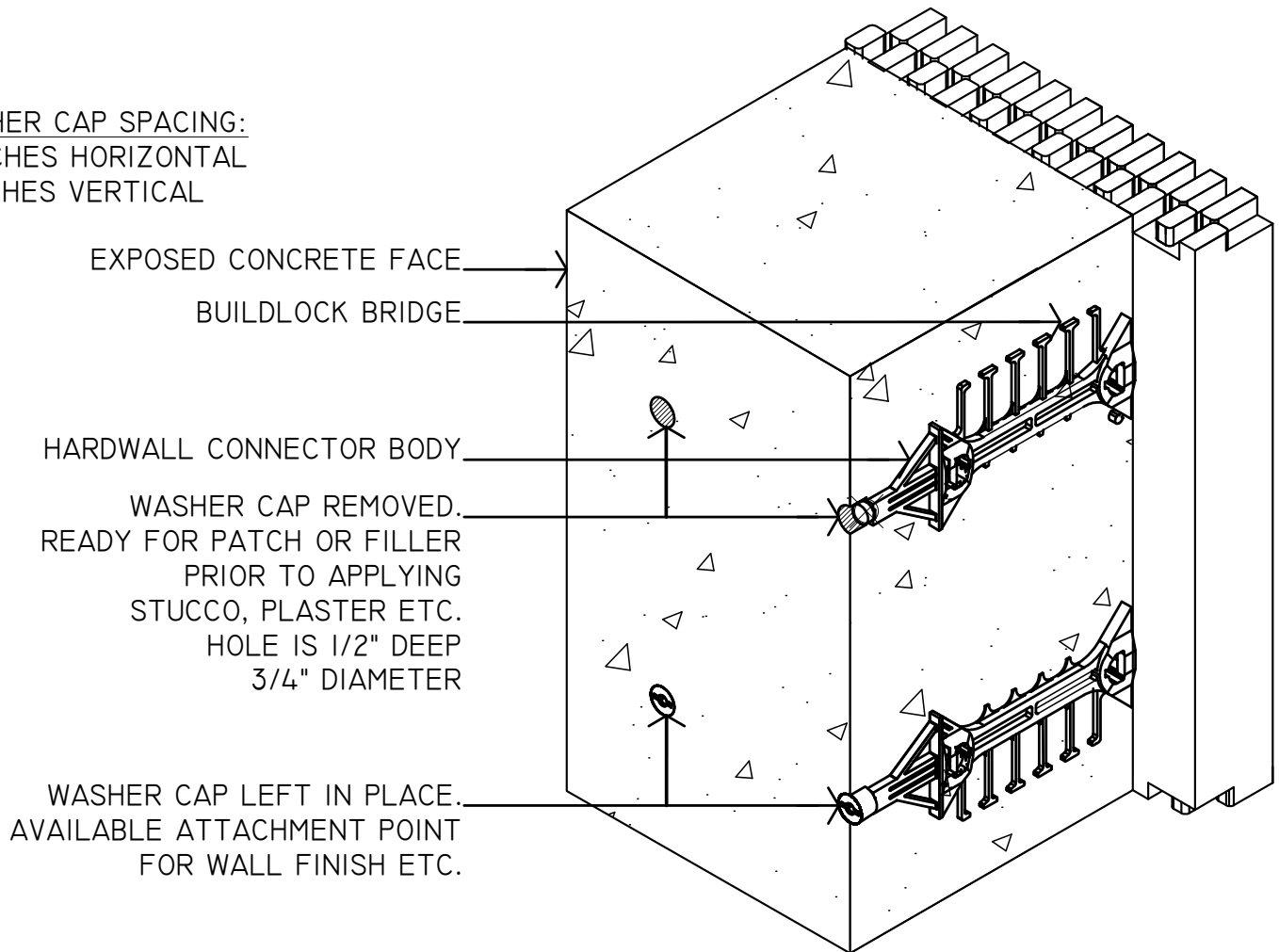
ONCE THE PLYWOOD IS REMOVED THE WASHER CAPS WILL BE VISIBLE IN THE FACE OF THE CONCRETE.


IF THIS IS THE DESIRED FINISH THE CAPS MAY BE LEFT IN PLACE TO INDICATE ATTACHMENT POINTS IN THE WALL. ATTACH OTHER FINISHES AS DESIRED.

TO REMOVE WASHER CAPS, USE A LARGE FLAT BLADE SCREWDRIVER TO TWIST AND PULL THE WASHER CAP OUT OF THE CAVITY. THE WASHER CAP IS BEVELED AND WILL RELEASE FROM THE CONCRETE. IF NECESSARY THE WASHER CAPS MAY BE REMOVED BY HAND, WITH A SMALL PICK, OR PLIERS. THE HARDWALL BODY WILL REMAIN EMBEDDED IN THE WALL.

TO FINISH THE ENTIRE WALL WITH STUCCO, PLASTER, OR OTHER FINISH, REMOVE CAPS AND FILL REMAINING CAVITY WITH PATCH, OR A SUITABLE CONCRETE FILLER AND TROWEL SMOOTH PRIOR TO APPLYING THE WALL FINISH ACCORDING TO MANUFACTURER SPECIFICATIONS.

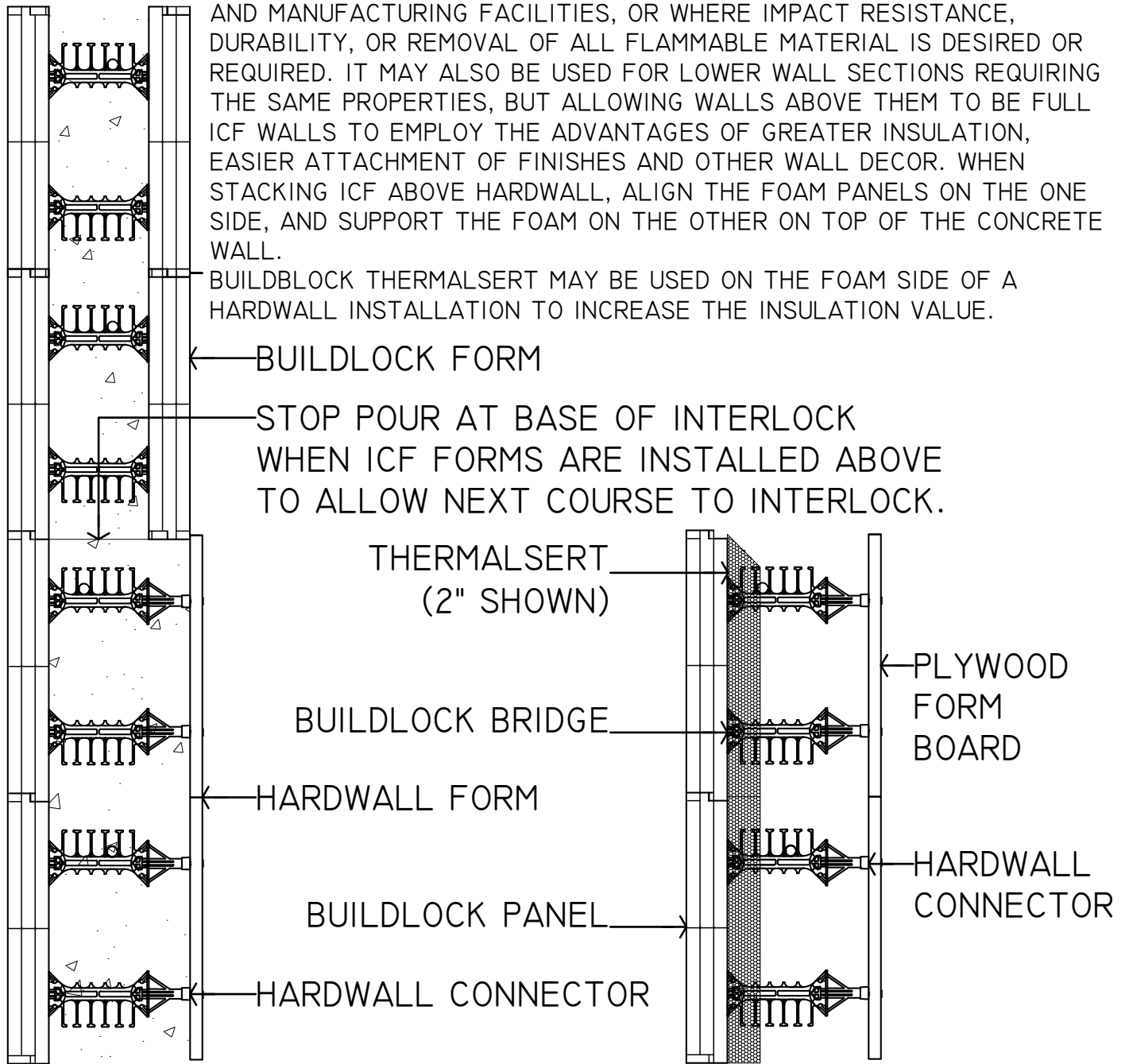
WASHER CAP SPACING:
6 INCHES HORIZONTAL
8 INCHES VERTICAL



	BUILDBLOCK HARDWALL FINISHING			
	DATE/REV	12/2015	SCALE NTS	DETAIL SHEET
	NOTES			64E
<small>CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.</small>				
<small>OFFICE: 405-840-3386 TOLL FREE: 866-222-2575 FAX: 831-597-0792 BUILDBLOCK.COM</small>				

BUILDBLOCK HARDWALL MAY BE USED AS A STANDALONE SYSTEM IN STAIRWELLS, ELEVATOR SHAFTS, BASEMENT PARKING, AND IN WAREHOUSE AND MANUFACTURING FACILITIES, OR WHERE IMPACT RESISTANCE, DURABILITY, OR REMOVAL OF ALL FLAMMABLE MATERIAL IS DESIRED OR REQUIRED. IT MAY ALSO BE USED FOR LOWER WALL SECTIONS REQUIRING THE SAME PROPERTIES, BUT ALLOWING WALLS ABOVE THEM TO BE FULL ICF WALLS TO EMPLOY THE ADVANTAGES OF GREATER INSULATION, EASIER ATTACHMENT OF FINISHES AND OTHER WALL DECOR. WHEN STACKING ICF ABOVE HARDWALL, ALIGN THE FOAM PANELS ON THE ONE SIDE, AND SUPPORT THE FOAM ON THE OTHER ON TOP OF THE CONCRETE WALL.

BUILDBLOCK THERMALSERT MAY BE USED ON THE FOAM SIDE OF A HARDWALL INSTALLATION TO INCREASE THE INSULATION VALUE.



HARDWALL AS INSTALLED
ICF ABOVE

HARDWALL WITH
THERMALSERT



OFFICE: 405-840-3386 | TOLL FREE: 866-222-2575 | FAX: 831-597-0792
BUILDBLOCK.COM

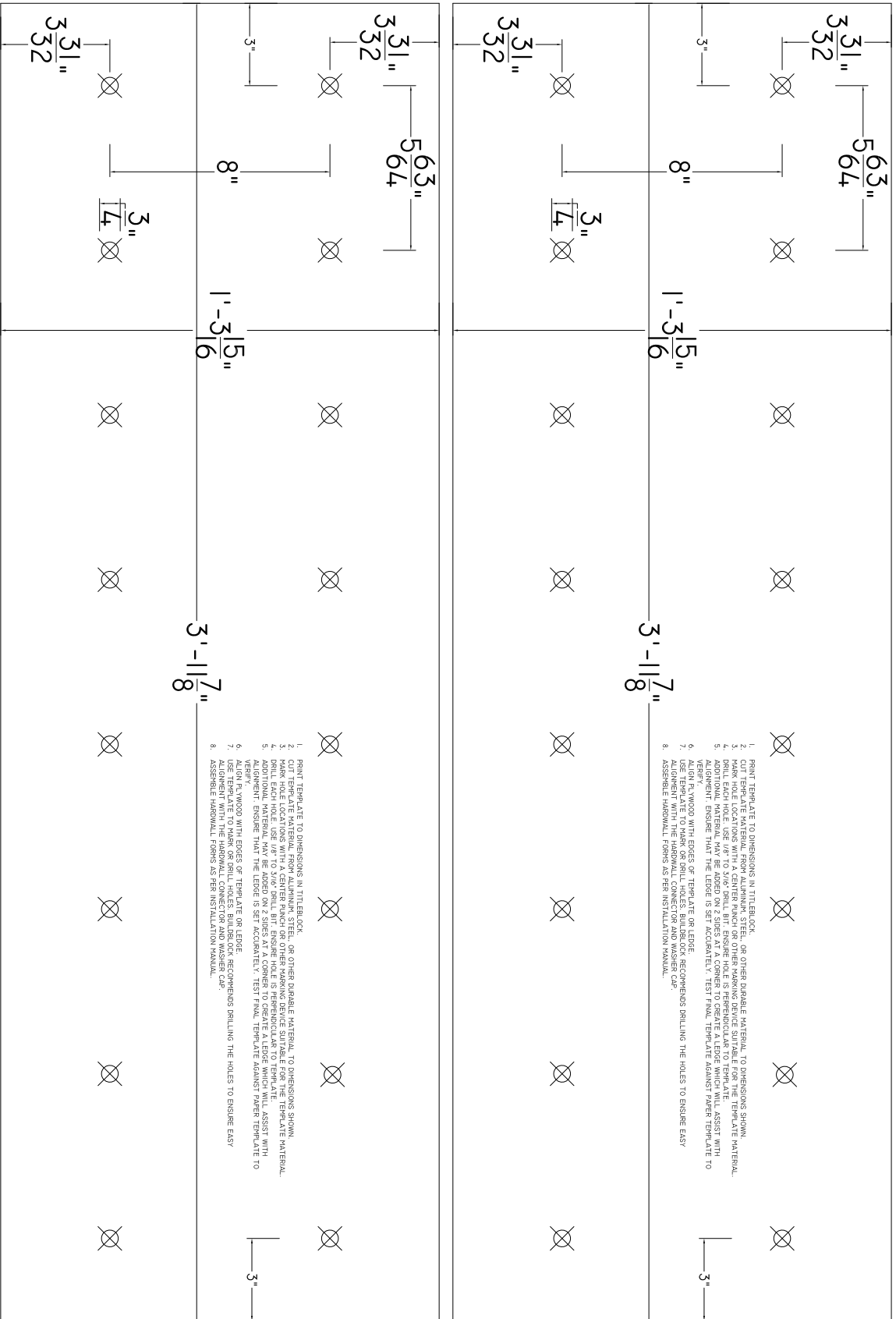
BUILDBLOCK HARDWALL ALTERNATIVE APPLICATION

DATE/REV	12/2015	SCALE	NTS	DETAIL SHEET
----------	---------	-------	-----	--------------

NOTES

CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

64F



PRINT THIS TEMPLATE AT FULL SCALE: OVERSIZE A0 (35.65 X 49.01)



OFFICE: 405-840-3386 | TOLL FREE: 866-222-2575 | FAX: 831-597-0792
 BUILDBLOCK.COM

BUILDBLOCK HARDWALL FORM TEMPLATE FULL SIZE

DATE/REV	12/2015	SCALE	NTS	DETAIL SHEET
----------	---------	-------	-----	--------------

NOTES	
-------	--

CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. ALL DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

64G



NORTH AMERICAN MANUFACTURING FACILITIES

BuildBlock Building Systems has fourteen manufacturing facilities across North America and plans to add locations for the next several years. This means we have the manufacturing capacity to meet your ICF needs now and in the future. Shorter shipping distances mean lower freight costs for you and your customers.

BuildBlock continually develops new products and technologies solving problems and meeting needs in residential, commercial, industrial, and institutional construction. We innovate with the goal of creating cost-effective techniques and products for our customers.

BuildBlock partners have facilities around the world to meet your needs including the Philippines, Cyprus, and Egypt and continue to expand. Choosing BuildBlock isn't just about choosing the best ICF block on the market, it's about finding a partner with a strong commitment to our customers, our business partners, and our industry.

CONTACT BUILDBLOCK

- ☎
866-222-2575 Toll free
🌐
buildblock.com
- ☎
405-840-3386 Office
🛒
store.buildblock.com
- 📠
831-597-0792 Fax
🎓
training.buildblock.com

SOCIAL MEDIA



MISSION

To harmoniously use the extraordinary gifts and talents of our distributors and dealers to fulfill the goals and dreams of millions of people who want to build better structures as reflected by our motto: "Build it once. Build it for life."

To manufacture one of the most affordable and highest quality Insulating Concrete Forms available in the world today.

To build greatness by providing the resources and services needed for building successful ICF businesses and sustainable ICF structures.

To build an enduring, profitable company while conducting business with Godly character, fairness and integrity.

VISION

We envision a world where BuildBlock ICF technology delivers energy-efficient, safe, healthy, comfortable and sustainable ICF homes and buildings to millions of people worldwide through the uncompromising integrity of BuildBlock's team of distributors, dealers and customers.

VALUES

INTEGRITY – We strive to balance the best interests of our distributors, dealers, customers, employees, and investors in an environment of Godly character and honesty.

EDUCATION – We seek to educate the public on the valuable benefits of ICF structures while recognizing that in order to expand the industry, we must educate installers, architects, and engineers in ICF best practices.

CUSTOMER SATISFACTION – We commit to building a team of employees that is inspired, empowered, and driven to meet the ever-changing needs of our distributors, dealers, and customers while we seek to distinguish ourselves in the marketplace by delivering exceptional customer satisfaction.

INNOVATION – We value and invest heavily in innovation while continually expanding our product line through the development of technologically advanced products.

QUALITY – We commit to producing the finest quality products. We stand by the belief that our brand embodies quality, consistency, user satisfaction, and service.

PROFITABILITY – We commit to the strong work ethic and financial prudence necessary to deliver financial results for our business partners and investors and to ensure a long-term profitable relationship.

EMPOWERMENT – We dedicate ourselves to empowering people to improve and enrich their lives and the world around them.



The day for building your walls will come, the day for extending your boundaries.