



2701 Shorefair Drive, P.O. Box 11044
Winston-Salem, NC 27116-1044
800-334-8689

\$1.00
Per Issue

THE BRICK COLUMN

VOLUME 1, ISSUE 1

WINSTON-SALEM, NORTH CAROLINA

SPRING 1999

SPECIAL BUYERS GUIDE

At Pine Hall Brick we make many styles of brick including face brick, pavers, and special shapes. Each brick is carefully crafted and then fired to almost 2000 degrees to give it enduring color and strength.

As you select your brick, keep in mind that several factors will influence your perception of a brick's color. House style, roof color, trim color, shutters, brick size, mortar color and mortar joint tooling can make the same brick look different in side by side comparisons. Your Pine Hall Brick Professional is prepared to discuss these factors with you and direct you to houses in your area featuring your favorite Pine Hall Brick style.

**"Easy To Do Business
WILL"**

*"The Mark
of Enduring Quality"*



America's Premier Paver Producer



*Brick Makers
Since 1922*

*The
Tidewater Series*

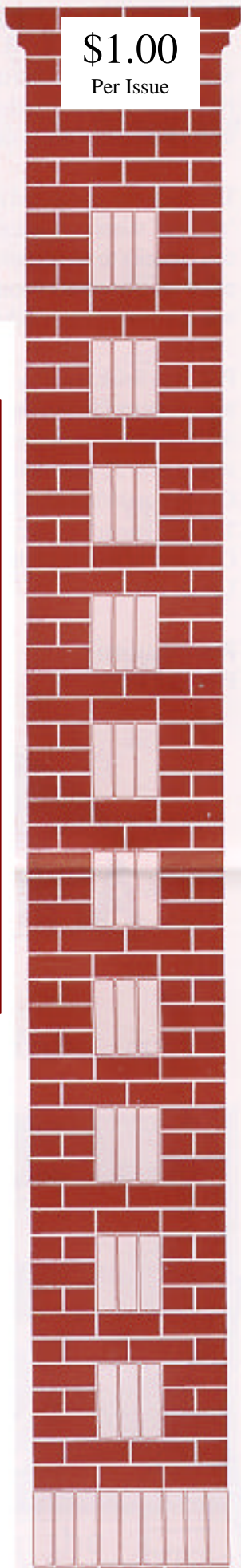
English Edge®

THE ADVANTAGE OF A BRICK HOME

Brick offers the best value in exterior siding over time, period. Although initially more expensive than some alternative siding materials, consider the following long term benefits. Brick never needs painting or cleaning. It doesn't rot, fade, peel or dent. Brick is a proven insulator. It is slow to lose or absorb heat, reducing your heating and cooling bill. Brick endures rain, hail, ice, snow and high winds. Clay brick has been used as far back as 1330 BC. It is man's oldest manufactured building material and has been found in the ruins of ancient civilizations including parts of the Great Wall of China. Brick lasts a long time and not surprisingly, it is the single most preferred building material across the southeast and used in homes from Maine to California.

Like many high quality products that last a long time, homes made from brick command higher resale prices than comparable homes built with other siding materials. Since many homeowners do not stay in their home for the life of the mortgage, you should consider the resale value when investing in your new home.

How much extra will brick cost? Research indicates that the premium should be less than 6% of the dwelling cost excluding land. On average per month (assume 8.5% interest rate), the premium is \$31 a month for a \$125,000 home and \$49 for a \$200,000 home. So, add it up: no maintenance, lower fuel bills, higher resale value. No question, Brick is number 1.



WHAT IS BRICK?

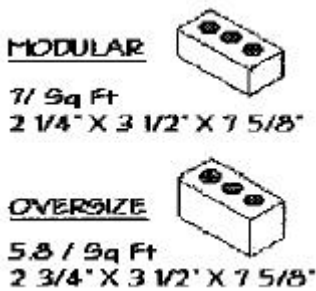
One of man's oldest building materials, brick is made by firing clay to approximately 2000 degrees. The molecular structure is changed by the heating process and the clay is 'vitrified' much like a clay pot that has gone through the firing process. The color of brick is determined by the raw materials it contains, the special additives and coatings applied to the surface, and the variance of firing atmosphere known as "flashing". Flashing brick adds color range and highlights to many of our styles of brick and is designated as "FR" (full range). Although Pine Hall Brick uses a "master sample" of each style to grade brick production to maintain our high quality standards, each run of brick will vary somewhat from previous runs and standard samples due to the inherent variations in the raw materials.

There are many different "types" of face brick. • Pine Hall's **Classic Series** is a straight edge brick offering rich blended colors at affordable prices. • Our **Textured Series** adds dimension and beauty through the casting of subtle shadows. Scoring the brick with a variety of patterns and textures creates a soft, elegant "textured" appearance. • Our most popular series of face brick is the **Tidewater Series**, Pine Hall Brick's authentic oversized tumbled brick line that captures the warmth of early American handmade brick. • If you are looking for the 'tumbled' look at a more attractive price try our **Vintage Collection**, a simulated tumbled brick.

Pine Hall is also "America's Premier Paver Producer". **English Edge®** is a Pine Hall favorite with its spacer nibs and bevels on both bed surfaces. The **"Old" Paver Series** features antique edges and color to offer a rustic appearance to any walkway or patio. Other popular pavers are: **Pathway, Cocoa, Brookstown, and Harbourtown.**

BRICK SIZES

Most face brick have holes to help the units fire properly, promote bonding with mortar, reduce overall weight, and make them easier to handle. Solid brick are used where holes may be unsightly, for example, in steps or window sills



Brick are available in several sizes. Modular or oversize brick are most popular with residential construction. There are 7 modular brick per square foot of wall surface. Modular size brick are designed to coordinate with materials and help to reduce design and installation costs. There are 5.8 oversize brick per square foot of wall surface. Oversize brick are most often used in two-story residential construction.

TEXTURE

The surface texture of brick is very important to its overall appearance. Identically colored brick can look dramatically different simply by adding texture. There are a variety of textures available including wirecut and torn face (rough texture). Texture can also be created by applying coatings, machine made impressions, or other mechanical treatments.

The distressed and uneven textures frequently seen in handmade and wood mold brick can be simulated at a less expensive price by mechanical treatments. Mechanically treated extruded brick sometimes known as "tumbled brick" may have superior structural properties when compared to handmade and wood mold brick.

COLOR

The color of brick is determined by the raw materials it contains and the method used to fire it. Additives blended into the clay mixture can create color completely through the brick body. Sand coatings, ceramic slurries and other additives can be applied to the face of the brick to create different surface colors. Changing the firing temperature will also produce different shades of color from the same raw materials. Flashing is one method of firing brick which burns some of the brick darker. These flashed brick add color range and highlights to many styles of brick.

QUALITY BRICK STANDARDS

Brick have standard specifications established by the ASTM (American Society for Testing and Materials). These specifications provide guidance in choosing the type of brick for specific building conditions. ASTM standards cover compressive strength, absorption, saturation coefficients, and other technical requirements. These standards are used to predict the durability and performance of the brick in a variety of applications. Quality Control at Pine Hall begins at the grass roots level with the raw materials. Samples of the material are collected daily and put through a combination of tests. Automatic controls are utilized to proportion the proper amount of water to shale mix to get good extrusion properties. The data is fed into a computer that sets off alarms when the variables deviate from the control set points. Unfired brick are examined for quality and measured for size and hardness throughout the day. Fired brick are collected daily from strategic locations on the kiln cars as they exit the kiln and are tested for size and absorption properties. Samples of fired brick are collected at random from the packaging stations at each plant on a weekly basis. Samples are submitted to an independent laboratory for testing purposes on an intermittent basis as needed. Samples of packaged brick are laid up several times a day and are evaluated for appearance including color, color range, and texture. These brick are compared to master samples to assure that the brick are as they should be prior to shipping. **All Pine Hall brick far exceed ASTM standards.**

THE PRODUCTION PROCESS



Brick are a mixture of clay and shale ground to a fine consistency. This raw material is conveyed to the pug mill where it is mixed with water and blended. It then passes through the vacuum chamber of the brick machine where air is removed and the clay particles are more closely aligned. A strong column of clay is extruded through the head of the brick machine. Dies in the machine head leave holes in the column which allow the brick to be burned more efficiently. Some columns receive sand or liquid coating which alters the color of the finished brick. The column is then cut into individual brick units and they are loaded onto kiln cars. After spending 25 hours in a dryer, the brick enter a natural gas or sawdust fired tunnel kiln for about 30 hours. Finished brick are then unloaded simultaneously from several kiln cars by hand or machine. This helps to assure a blend of subtle shade differences that gives brick its warmth and character. After packaging, the brick are ready for delivery.

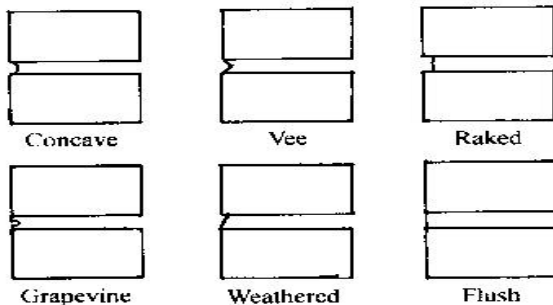
BRICK VENEER WALL

The most common type of brick wall is the veneer wall. It is non-load bearing and allows for moisture to drain from behind the wall. The air space between the brick and the house sheathing allows penetrating water to drain down the wall and exit through weepholes and flashing. Contrary to popular belief, a barrier or waterproof wall is very difficult to construct due to the details of housing construction. Therefore, a brick veneer wall will provide today's homeowner with the best weather protection available. A well constructed wall will consist of fully mortared head and bed joints, proper joint tooling and appropriate flashing and weepholes. This durable wall will resist the harshest of elements and be virtually maintenance free for decades.

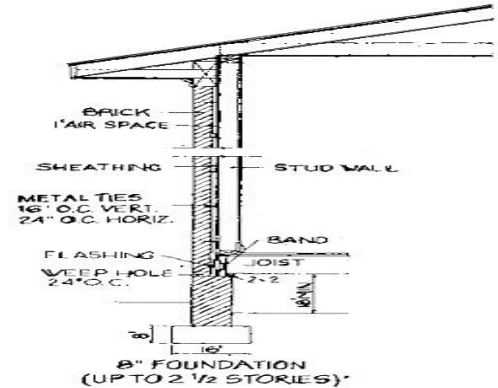
MORTAR

Mortar represents 20 percent of the total surface of a wall, so picking the right mortar color is very important to the overall look of your home.

Different mortar types and specifications are required for various applications and climates. The most common is called type S and is naturally gray in color. Mortar can be tinted to blend or to contrast with the brick color. It is important to keep mortar mixing and tooling practices uniform, especially when using colored mortar. A slight variation in mortar color can have a dramatic effect on the appearance of a finished wall as it represents 20% of the wall area. Pine Hall Brick stocks a variety of colored mortars for you to choose from. Your salesperson can discuss the mortar colors that look best with your brick color. Also, sand color will affect the finished look of your mortar color. Lighter color sands are generally recommended for lighter colored mortars. Inquire about the common sand colors in your area.



The mortar joint is also an important factor in the appearance and functionality of the wall. "Tooling" the joints help seal the wall surface against moisture penetration. The concave, vee, and grapevine joints are best for exterior construction. These joint types compress the mortar at the surface and are the most weatherproof. Other joints are acceptable for interior use.



MATCHING

Mother Nature did not make soil and clay consistently one color. When manufacturers mine raw materials, the clay and shale composition will change slightly as the mining location shifts. This subtle change creates a color variation each time the clay is fired and helps give brick its warmth and character. So, every run of brick (any color) varies somewhat from the last run and over time. Plus, brick will weather in the wall and as a result it is impossible to accomplish a perfect match when adding on to an existing building. Your Pine Hall Brick professional can help you minimize matching problems by offering you simple tips to follow.

BONDS

The term bond can have three different meanings. There are mortar bonds, structural bonds, and pattern bonds.

Mortar Bond refers to the adhesion of the mortar to the brick.

Structural Bond is how brick and mortar interlock to act as a single unit.

Pattern Bond is the designs made by the placement of brick in the wall.

Pattern bonds may be the result of structural bonding or they may be completely decorative in nature. Creative use of unique bond variations can add to the elegance of any home or building. Through the use of bonds, brick texture, variations in color, and joint type, an almost unlimited number of patterns can be developed.

Coursing (horizontal rows of brick) also play a part in structural and pattern bonds. Coursing is created by the way the brick are placed in the wall. Many designs can be achieved through coursing. Generally, running bond is the most economic.

THE PINE HALL PROFESSIONAL

Pine Hall Brick has many experienced and helpful professionals to assist you in choosing the right brick for you. They will assist with shapes you may need like arches and keys. When you have questions about mortar or color selection they have the answer. They will provide brick samples for your approval. If you would like to see the brick you have chosen on an existing home your Pine Hall Professional can direct you to a home nearby. Also, Pine Hall has a vast selection of photos of brick homes for you to see.



HISTORY OF PINE HALL BRICK

Pine Hall Brick Co., Inc. is a 77-year-old family owned company that manufactures face brick, pavers and special-shape brick. Founded in 1922 by Flake Steele, Sr., Pine Hall Brick enjoys a rich heritage of quality manufactured products and satisfied customers. While the company has always been headquartered in Winston-Salem, the manufacturing facilities were originally located in Pine Hall, NC. Pine Hall was the home of the dormant Consolidated Brick Company that Flake Steele bought to form the nucleus of the company. With the help of J. C. Steele & Sons, maker of automated brick making equipment since 1889 (and yes his father's company), Flake formed a new brick company determined to be one of the top quality producers in the State of North Carolina.

In the beginning there were seven round "beehive" kilns at Pine Hall, NC. Several years later in 1936, the company purchased the Madison Brick Company and eventually consolidated all their operations to Madison, NC.

During those early years, the company maintained fifty company-owned houses and two grocery stores for its employees. The original headquarters in Salem (of Winston-Salem) was just two doors from the Firehouse and the Old Salem Café. "In those days, each man was responsible for producing 1,000 bricks per day and most of the product was sent to Winston", said Flake Steele, Jr., son of the founder. The brick were sent by rail car to the public dock and unloaded by hand via conveyers. Then, brick would be hand loaded onto a truck, between layers of straw to prevent chippage, and shipped to the job site. Most of these brick went on new houses located on Lover's Lane, now Stratford Road in Winston-Salem.

Today, Pine Hall Brick operates three plants in Madison, NC employing over 300 people with a 250 million brick capacity per year. Our products are distributed to over 35 states through about 150 distributors. In our local NC and VA markets, we sell to builders, masons and dealers. To service these customers, we operate 23 delivery trucks. All of our trucks feature a fork lift that rides on the back of the truck to improve the unloading process at the job site.

In addition to making face brick, we specialize in making paver brick. In 1996, we constructed a state-of-the-art manufacturing plant dedicated to pavers and expanded the plant in 1999 due to overwhelming demand. With superior pavers like English Edge and Old Towne, Pine Hall Brick is the largest supplier of clay pavers in the United States.

Through such constant improvements and modernization, Pine Hall Brick remains one of the leaders in the field of brick making. "Not many companies can say that virtually all of the products sold over our entire company history are still in service today", said Fletcher Steele, President. "We, the employees and management, are very proud of our long term service to our customers by providing a quality product." In fact, during our 75th anniversary year, we held a contest to find the oldest Pine Hall Brick home. Two homeowners came forward with documentation showing their Pine Hall Brick homes were built in 1924 and they still look as good today as they did in 1924.

The legacy of Flake Steele lives on in our operating policies and is the key to successfully serving our customers. Let us know your comments at info@pinehallbrick.com.

DON'T FORGET THE DETAILS

Pricing - Brick are usually priced per thousand units. Most manufacturers publish a detailed price list. Consult your brick supplier for prices, terms and conditions of sales. Pavers are usually priced per square foot or per thousand. Most builders give an "allowance" which is the amount you can spend on your brick. Make sure your sales professional is aware of your allowance amount. We adjust brick prices to allow for some breakage in the package as well as some inherent imperfections that are natural to the product. If all brick were perfect and delivered with no breakage, the price would be at least twice as much.

Order & Delivery - When you place an order for brick, scheduling takes place immediately. Actual delivery to your job site depends on the availability of the brick and of the delivery equipment. During peak construction periods schedule backlogs may be extensive so you should get in your order as early as possible. Normally when a brick is in stock, delivery to your job site should be within three to five working days.

Returns - Pine Hall does not pick up or accept brick/pavers for return once they have been delivered. When exceptions are made, any products returned will be subject to a pallet/cube restocking charge. No brick/pavers can be returned in less than full pallet/cube packages.

Samples - Samples are supplied as a general representation of the brick to be furnished. The wide variety of colors & texture inherent in the manufacturing of this product cannot be fully represented in the size of the sample. This sample is not an acceptable standard for comparison against the finished wall. Specification compliance is listed on the back of the sample.

Houses - In order to help you with your brick selection ask your sales representative for directions to brick homes in your area featuring your favorite brick colors. Seeing houses is the best way to make a final selection.

How To Figure - You will need to break the area down to common geometric shapes like rectangles and triangles. Rectangle area=base x height; Triangle area=1/2 base x height. Using square foot areas, multiply by the coverage for your brick size to calculate total of bricks. Most brick professionals ignore subtracting out door and window openings as this amount generally equals to the waste factor of installation.

For The Chimney - Take the (W x H x D) x 20 x .67 (includes interior brick not fire brick or flue lining)

Testimonials

“The performance of the product is wonderful and the service is great, no matter if it’s a small or large project.”

– Adam Lewin, Hamilton-Parker Company, Inc., Columbus, OH

“Pine Hall has good brick, excellent service and Pine Hall stands behind their product.”

– John Daniel, John W. Daniel & Co., Danville, VA

“Besides great service, Pine Hall has a better brick and range of colors. This means a lot.”

– Lee Mills, Lee Mills Construction, Mount Airy, NC

“I can’t say enough about Pine Hall! They gave me prompt, dedicated service, on time delivery and always returned my phone calls. What more could you ask for?” – Homeowner Vickie Ziglar, Yadkinville, NC

MISSION STATEMENT

We are a team dedicated to helping our customers fulfill their dreams by providing quality brick products and unmatched service to make it easy for them to build beautiful homes and buildings.

Our service will be the best in the region. We will be known as a company that is “easy to do business with”.

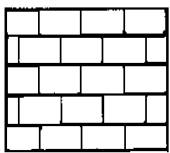
ADDING PURE SIZZLE

Create an “outdoor room” at your home with a brick patio, brick sidewalk, entryway, brick crosswalk, or brick driveway. These features add pure sizzle to a new or existing home translating into curb appeal, better enjoyment and higher resale values.

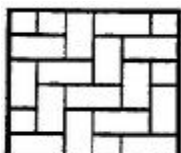
Flexible Base Paving – *Costs Less, More Durable*: A dry laid or flexible base paving system is made up of several layers of materials: crushed stone base, sand setting bed, pavers, and edge restraint. Installed correctly, this paving system features many advantages. First, the system is able to move during freeze/thaw heaving without cracking. Second, costly mortar and concrete are eliminated. “Interlock” keeps the brick in place by wedging sand in the joints (the same process used by the Romans). Third, flexible based paving is less expensive: \$8 to \$9 a sq. ft. versus \$11 to \$14 a sq. ft. for mortared pavers. Fourth, these pavements require very little maintenance.

Types of Clay Pavers – There are many different types of clay pavers, distinguished by material, shape and size. Generally, your paver decision will be dictated by what looks good for your paved area.

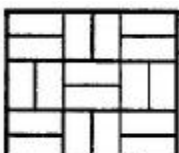
There are some points to keep in mind. Paving brick differs from the brick used on house walls in that they are solid, without holes. Pavers come in two basic types: **bonded** (length equals two widths - 4”x8”) for sand based application and **modular** (3 5/8”x7 5/8”) for mortared applications. A paver that “bonds” is important in order to keep the pattern lines straight creating a professional looking job. A modular paver will bond when combined with a 3/8” mortar joint. These different types generally come in two thicknesses, 2 1/4” & 1 3/8”. The thickness required will depend on height limitations, if any, and traffic load flow. Vehicular applications will require the thicker paver while pedestrian applications can use either thickness.



Runningbond



Herringbone

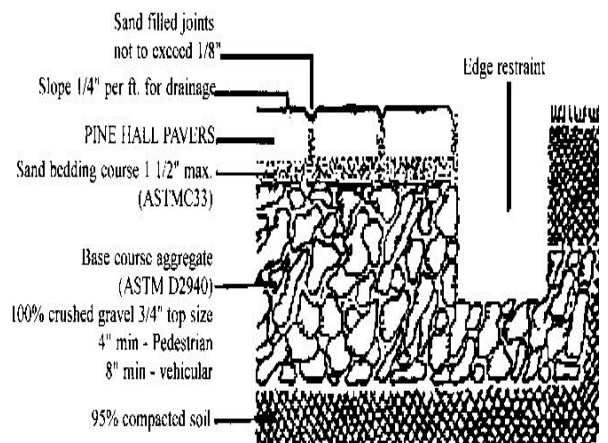


Basketweave

Clay pavers do not fade over time or require color fastening sealers. The red flashed or full range color is the most common. “Flashing” is a firing process that creates a wider range of color from the base color to darker variations. Advances in clay brick technology have produced new pavers specifically designed for sand installations. Beveled edge or textured edge pavers highlight the pattern adding distinctive character while eliminating edge chippage often associated with straight edge pavers.

The Beauty Of Clay Pavers – Nothing is more enchanting than a winding garden path or walkway. While their function is to lead the walker to a particular space, their beauty takes shape from the overall design and the pattern chosen. The simple introduction of curves or slants adds character while a sailor band on the perimeter serves to frame the pavement like a work of art. Running bond, basketweave or herringbone patterns can be used alone or in combination separated by bands to create a dynamic appearance and allows homeowners to personalize their pavement. Herringbone is always recommended for use in vehicular applications such as driveways or entryway “rumble” strips.

Standard Installation (Flexible Base)



THE FINISHING TOUCH

Design professionals enjoy the flexibility of brick as a building material and you will too. Unique structural and aesthetic designs will help you add your personal touch to any home. Almost any look can be achieved through the use of special brick shapes. Pine Hall has a catalog of standard shapes including arches, step treads, corners, and sill brick. Pine Hall can also produce shapes to meet designer specifications.

The most common uses of shaped brick are around windows and on steps. The most popular brick shapes are kept in stock and are the most economical. Your Pine Hall sales rep. can go over the variety of options you have to customize your home with brick shapes.

COMMON BRICK

Allowance - \$ Amount per thousand for brick allowed for in house estimate

Bullnose – Brick with one rounded end

Cement – The adhesive ingredient in mortar

Coping – Brick used at the top of a wall

Corbel – Projected brick or courses from the face of the wall

Course – Horizontal row of bricks

Cube – Typical brick package; bricks stacked on one another bound by steel or plastic bands

Full Head & Bed Joint – Mortar joints filled from front to back

Joint – Gap between brick in wall, typically 3/8" wide

Jointing – Process of sealing mortar joints while the mortar is thumb print hard

Mason Sand – Fine granular sand with round particles used in mortar

Quoins – Exterior or projecting brick panels at the corner of a building

Sill Brick – Regular or shaped brick typically used on a window sill

Splits – Half high brick used to balance courses in a wall

Soldier Course – Row of bricks stood on end with its long face perpendicular to wall length

Step Tread – Regular or shaped brick used to create steps

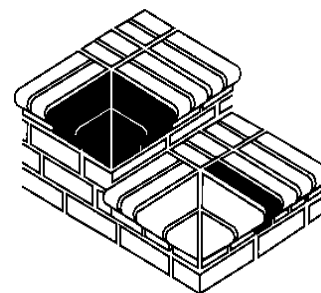
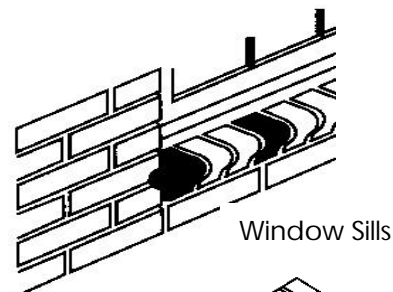
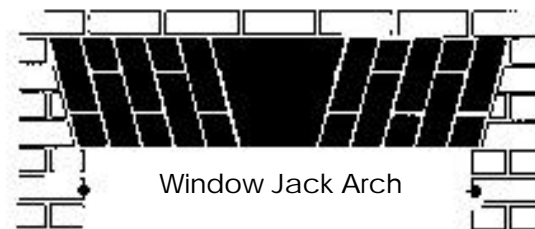
Stretcher – Brick laid with its long face parallel to a wall's length

Wall Flashing – Flexible material used to direct water to weep holes

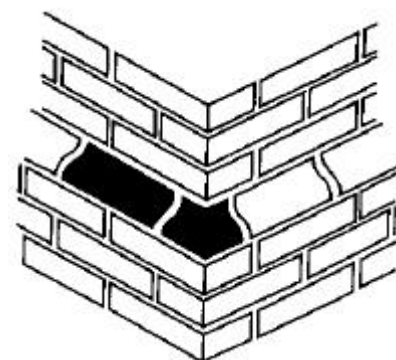
Wall Ties – Metal strips placed into mortar joint and attached to wall

Weep Hole – Open vertical joint between bricks allowing water to drain from behind wall

Wire-cut Bricks – Extruded clay cut into shapes by taut wire



Step Treads & Corner



Watertable

BRICK CLEANING

The Four Basic Steps for Proper Brick Cleaning are:

1. Remove all excess masonry particles with a masonry tool or fiber brush;
2. Use plenty of water and thoroughly soak the wall;
3. Use the recommended cleaning product and carefully follow directions;
4. Rinse the wall thoroughly with water.

Some brick cannot be wet cleaned. Check the brick tag or with the brick manufacturer for any special instructions before you begin cleaning.

AVOID HIGH-PRESSURE WASHERS.



Pine Hall Brick, Inc.
2701 Shorefair Drive
Winston Salem, NC 27116

(336) 721-7500
1-800-334-8689
www.Pinehallbrick.com