



NANTAHALA MOUNTAIN CABIN

WOOD-BURNING MANUFACTURED FIREPLACE APPLICATIONS



HEAT & GLO®

No one builds a better fire

**PROJECT TYPE**

Seasonal residence

LOCATION

Topton, North Carolina

ARCHITECT AND DESIGNER

Magdalena Bach, Bach Design Studio

CONTRACTOR

JD Prince Builder

SQUARE FOOTAGE

2,500

FLOORS

1

BEDROOMS

3

BATHROOMS

2.5

MODEL

Pier-40 wood fireplace

THE PROJECT

Perched high atop the Great Smoky Mountains in North Carolina, this breathtaking vacation retreat represents American craftsmanship fused with a desire for simple living. Magdalena Bach, of Bach Design Studio, explained how this seasonal residence was brought to life.

“My approach was to create a simple, yet elegant and well-proportioned residence, one that could accommodate the leisure and luxury of vacation-living, while fitting perfectly into the surrounding nature,” she said. The three structures that comprise the cabin incorporate seamlessly into the environment, creating a variety of interconnected spaces. The mix of minimalistic detailing juxtaposing raw wood against white walls, tall glass panes and simple furnishings gives this rustic contemporary home its character.

All woodwork was done in either yellow or white pine. Large glass panes provide passive solar heating during winter, and in the summer tall trees shade the house and keep it cool. Terraces surrounding the perimeter create multiple outdoor leisure spaces sheltered from the weather, while delivering gorgeous views. The spaces weave in and out, framing panoramic views of the mountains and lake, blurring the boundaries between inside and outside.

The common area of the house is open and inviting – a flowing kitchen, dining and living room combination blends the interior space naturally with the outdoor terraces. For an open floor plan such as this, the multi-sided Pier-40 wood fireplace by Heat & Glo was selected for both function and ambiance. “We needed a focal point to connect those spaces and the three-sided Pier-40 fireplace was a perfect choice for us,” Bach detailed. “The fireplace connected the surrounding spaces into one, made the fire enjoyable from all sides, and created a warm and cozy atmosphere.”



The Pier-40 (active 2004-2014) from Heat & Glo was selected both as a functional room divider and as a vibrant focal point providing supplemental heat. For a project seeking unity between built environment and nature, a wood-burning model was desired. To see Heat & Glo's current portfolio of wood-burning fireplaces visit www.heatnglo.com.

WOOD-BURNING FIREPLACES

Big statements, bold flames and beautiful finishes. Heat & Glo wood-burning fireplaces enhance the tradition of fire. Whether a crackle or a blaze, relax with upgraded safety, style and performance.

WHEN TO DESIGN IN MANUFACTURED WOOD-BURNING UNITS

1. Where local codes permit wood-burning appliances
2. When the residence and fireplace is used seasonally
3. When the project style calls for top to bottom rustic finishes and appliances
4. When clients seeks a natural fire and have ready access to wood fuel

WOOD-BURNING FIREPLACE TYPES

EPA APPROVED



EPA approved wood-burning fireplaces must be certified to not discharge any gases

that contain particulate matter in excess of a weighted average of 4.5 grams per hour. EPA certified fireplaces can lend themselves to green building programs including LEED (1 point) and NAHB National Green Building Standard (6 points). Certain regions only allow wood-burning types that are EPA approved.

WOOD EXEMPT



Wood-burning fireplaces are wood exempt if they have an air-to-fuel ratio of 35 to 1, are non-airtight, burn 5 kilograms per hour and weigh less than 800 kilograms. The firebox volume also needs to be 20 cubic feet or less. The use of wood exempt fireplaces is restricted or forbidden in certain regions.

FIREPLACE STYLES

MULTI-SIDED



Multi-sided units allow for versatile design placements of wood models. Stretch your vision and consider using a see-through model to add warmth and ambiance to two spaces. Unique venting systems allow these models to be placed on an interior or exterior wall.

VENTING CONSIDERATIONS

When specifying a wood-burning fireplace model, it's important to factor in the proper clearance to combustibles for finishing material surrounding the unit itself, and also for venting, chimney and termination components. Typically, venting systems require a minimum air clearance of two inches (55 millimeters) around the pipe. Failure to factor in these clearances may cause overhead heating and/or fire.

Additionally, designers should understand the minimum and maximum lengths needed for chimney runs, and the requirements for using offsets/returns to bypass overhead obstructions. An offset and return can be used as a single entity or separated by chimney sections. See Figure A for details on typical chimney requirements.

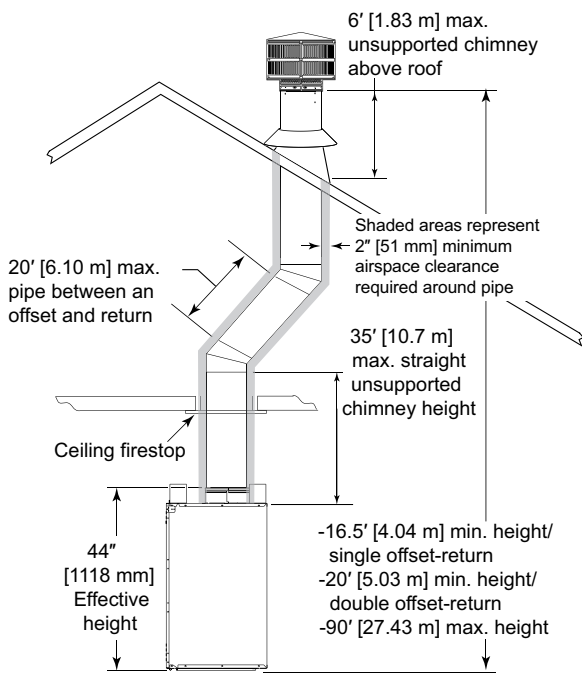


Figure A



TIPS FOR SPECIFYING WOOD-BURNING FIREPLACES

- Install within the warm airspace enclosed by the building envelope – this helps to produce more draft, especially during lighting and die-down of the fire
- Installing the fireplace in a basement is not recommended
- Penetrate the highest part of the roof – this minimizes the effects of wind loading
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions
- Minimize the use of chimney offsets
- Consider the fireplace location relative to floor and ceiling and attic joists
- Ensure adequate outdoor air for all combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the fireplace
- Avoid installing the fireplace near doors, walkways or small isolated spaces

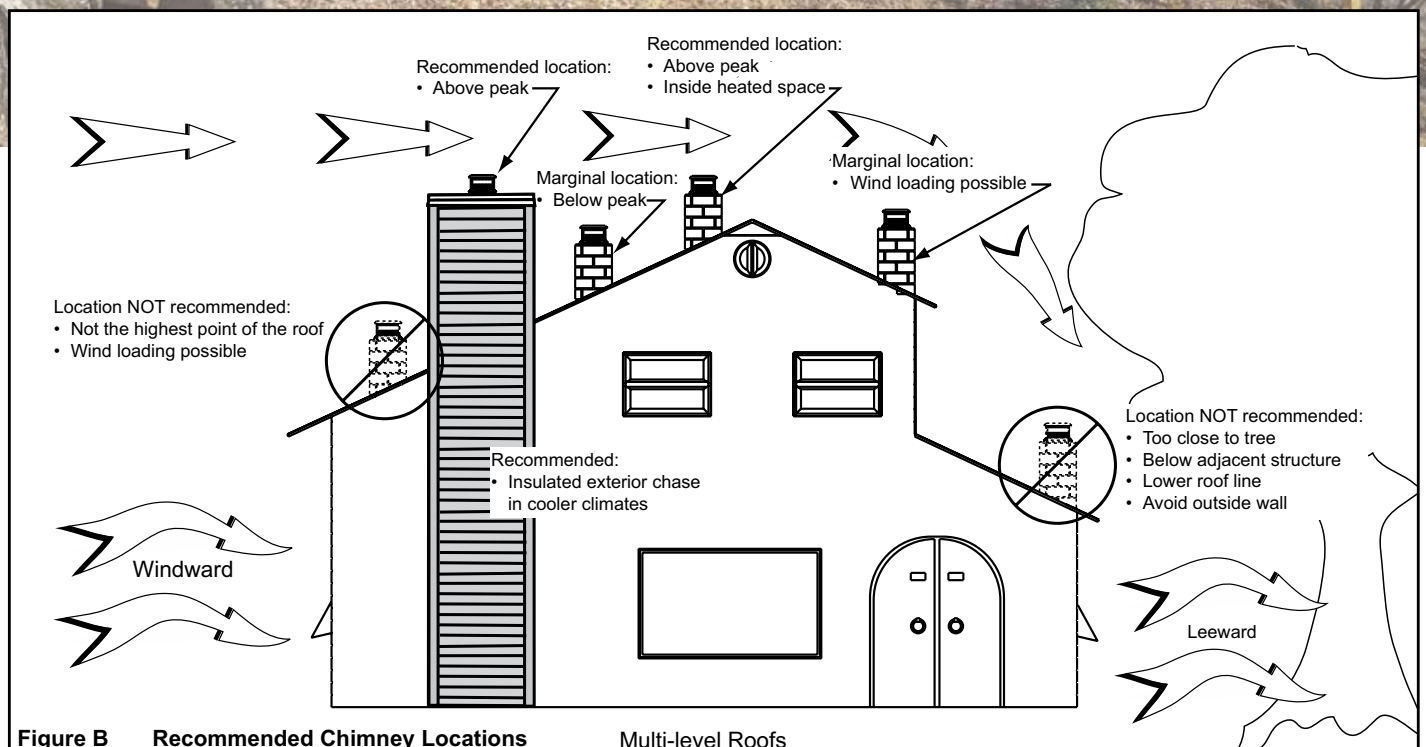
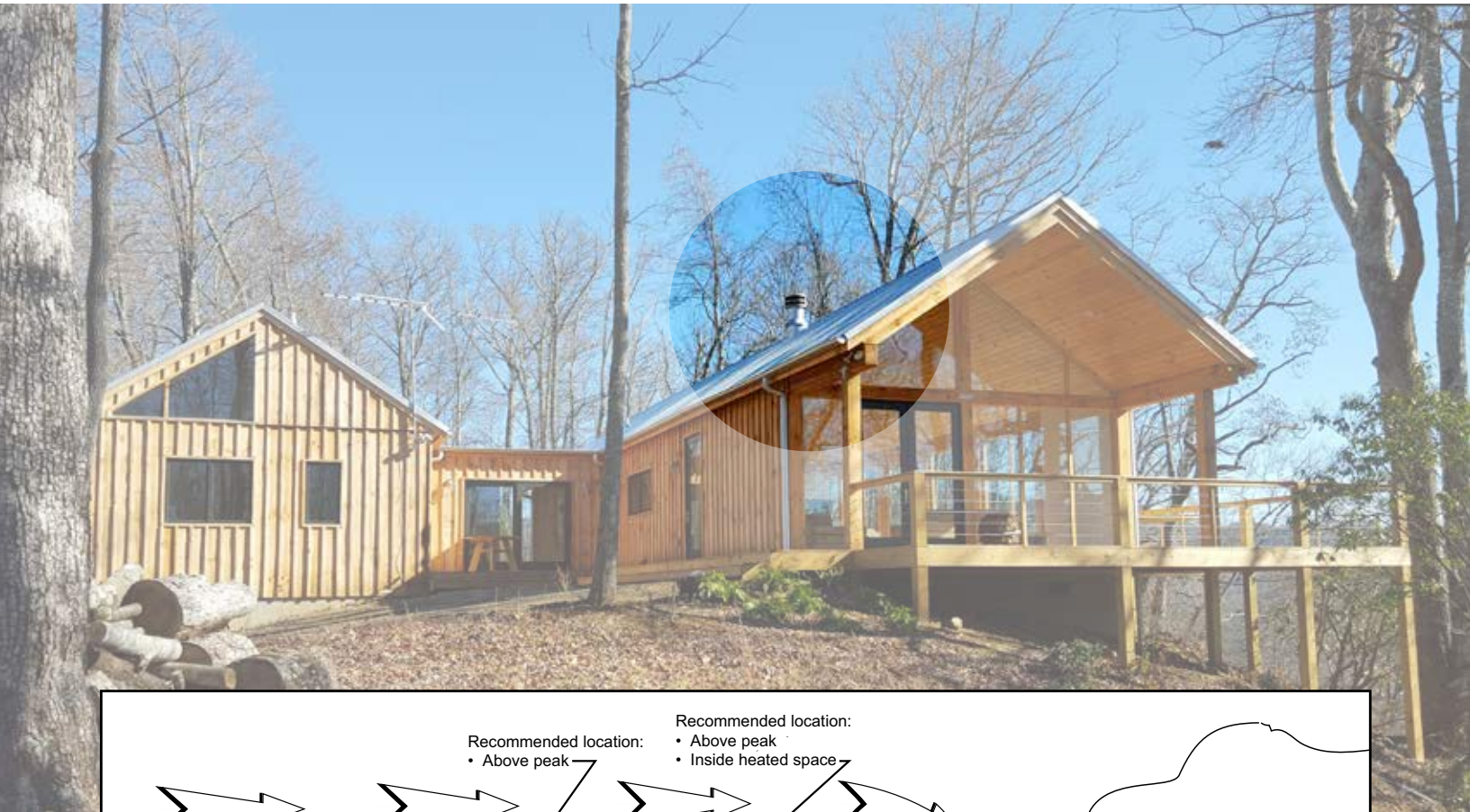


Figure B Recommended Chimney Locations Multi-level Roofs



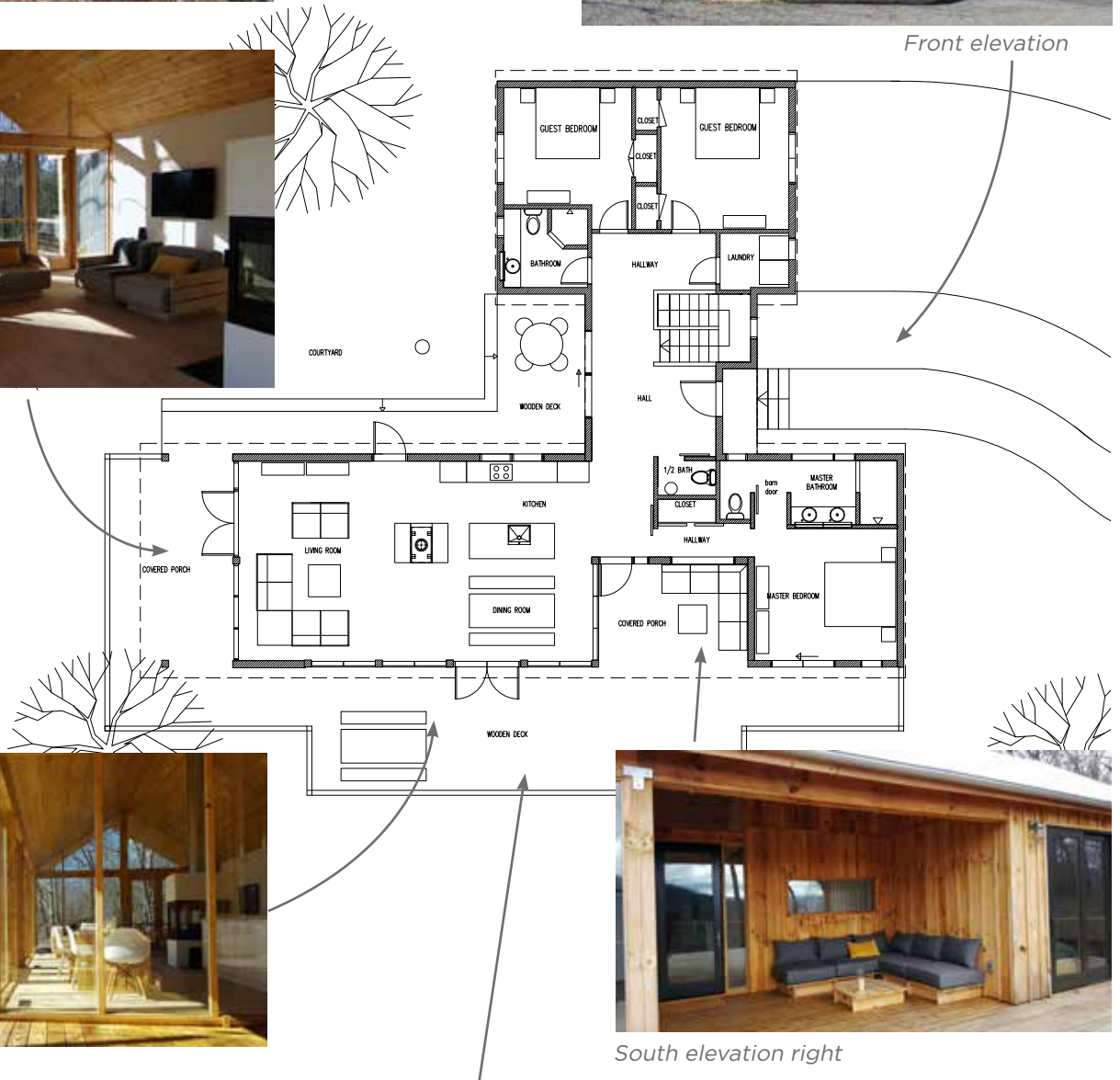
West elevation



Front elevation



Living room view



Terrace



South elevation right



South elevation

DESIGNERS *on fire*

MAGDALENA BACH, BACH DESIGN STUDIO - ARCHITECT/DESIGNER, NANTAHALA MOUNTAIN CABIN

Magdalena Bach is a designer with passion and talent for elegant, contemporary architecture and interior design. Magdalena studied architecture and urban design in Poland and Denmark, and worked for many years as an architect in Denmark.

Since 2005 she has been based in Atlanta. It was there in 2009 that she founded Bach Design Studio, where she has produced a range of works encompassing architecture, interior design and industrial design. She has been involved with the Modern Atlanta movement, organizing festivals and bringing Scandinavian architects and artists to Atlanta. She has also been a part of the architecture faculty at Southern Polytechnic State University, School of Architecture.

Her projects are characterized by harmony, natural light, seamless flow between outdoor and indoor spaces, use of sustainable materials and careful attention to detail.

For the Nantahala Mountain Cabin project, Bach explained, “My inspiration was the surrounding nature, the wish to build a house which would harmonize with the place. I researched traditional architecture of the Great Smoky Mountains, but I also looked to where my heart still is – to Scandinavia, for the best traits of its design: simplicity, importance of light and use of natural materials.”

LEARN MORE ABOUT MAGDALENA AND BACH DESIGN STUDIO

- Company Website: www.bachdesignstudio.com
- Houzz: www.houzz.com/pro/magdabach2012/bach-design-studio
- Twitter: <https://twitter.com/studiobach>



WOOD-BURNING FIREPLACES

Featuring an approach that's more rugged, Heat & Glo wood fireplaces combine the most innovative technology with the traditional appeal you've come to know and love. Our exclusive styling brings a one-of-a-kind look and feel to any space, indoor or outdoor. Create the majestic, inviting living space you've always wanted with our beautiful, rustic wood fireplaces.



*Northstar single-sided wood fireplace
29" viewing area*



*Rutherford single-sided wood fireplace
36", 42" or 50" viewing area*



*HST see-through wood fireplace
36" or 42" viewing area*



*Royal Hearth single-sided wood fireplace
36" or 42" viewing area*



*Energy Master single-sided wood fireplace
36" or 42" viewing area*



*Exclaim single-sided wood fireplace
36", 42" or 50" viewing area*