



TECHNICAL GUIDE

Exteriors That Last A Lifetime.

Stonetile is committed to create value, investment and pride (V.I.P.) for its employees, customers and partners.



Exteriors That Last A Lifetime.

Stonetile Canada Ltd. 4055 - 96 Avenue SE Calgary, AB T2C 4T7 Phone: 403 723 2249 Fax: 403 723 2250 Toll Free: 800 266 9320 Email: foralifetime@stonetile.com



Enjoy this guide! Only Stonetile can provide these unique and exquisite exteriors at affordable prices.



Why Stonetile?

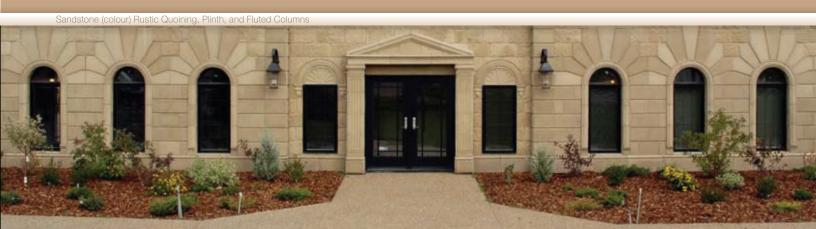
Stonetile's product line offers never ending dramatic design possibilities. See Pages 50-57

Stonetile is the only manufactured stone exterior with a rainscreen system. See Page 29

Stonetile has the longest list of unique features of any exterior product. See Pages 29-35

Table of Contents:

3	
7	
37	
40	
41	
50	
	7 37 40 41



Motarless Installation means Stonetile can be installed in all temperature conditions



STONETILE

Stonetile's founder and president, Peter Kuelker knew there had to be alternative to costly natural stone masonary. Peter began to explore and engineer a unique all weather solution that was reasonably priced, highly durable and available in a wide variety of colours, textures and styles.

From its humble beginnings, Stonetile has grown into a state of the art, North American patented company based in Calgary, Alberta. With impeccable quality control and production from the 30,000 sq. ft. plant, Stonetile continues to deliver customers a product with an enduring style all its own.

Installed to exacting standards by our highly trained craftsmen, each Stonetile project carries a 25 year guarantee providing, long term investment benefits to new or renovated buildings.

Stonetile is a sophisticated, comprehensive, architectural cladding

product line that replicates the look of real stone work. Stonetile uses a unique mechanical fastening system without using mortar which means it can be installed year-round in all weather conditions.

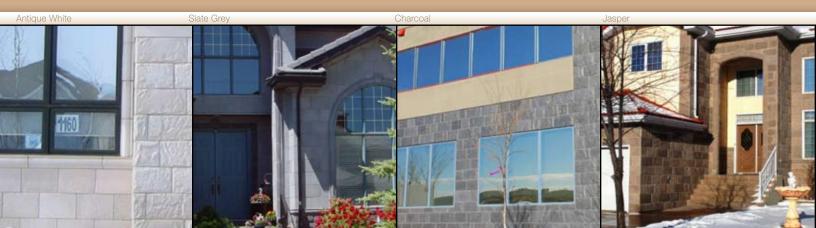
Stonetile's innovative "Rain Screen system" ensures a continuous airspace between the stone cladding and the building allowing ventilation of trapped moisture to escape, virtually eliminating any possibility of wood rot or mould formation. Stonetile Canada Ltd. Is the originator of this revolutionary cladding system and holds patents for product design in both the U.S. and in Canada.

Stonetile offers many advantages over traditional masonry products, yet is a cost effective solution. Using only the highest quality engineered and tested precast, and installed by certified craftsman, Stonetile is an enduring permanent exterior solution. To back this up, certified Stonetile installations are covered by a 25 year warranty!



Stonetile Color Selections







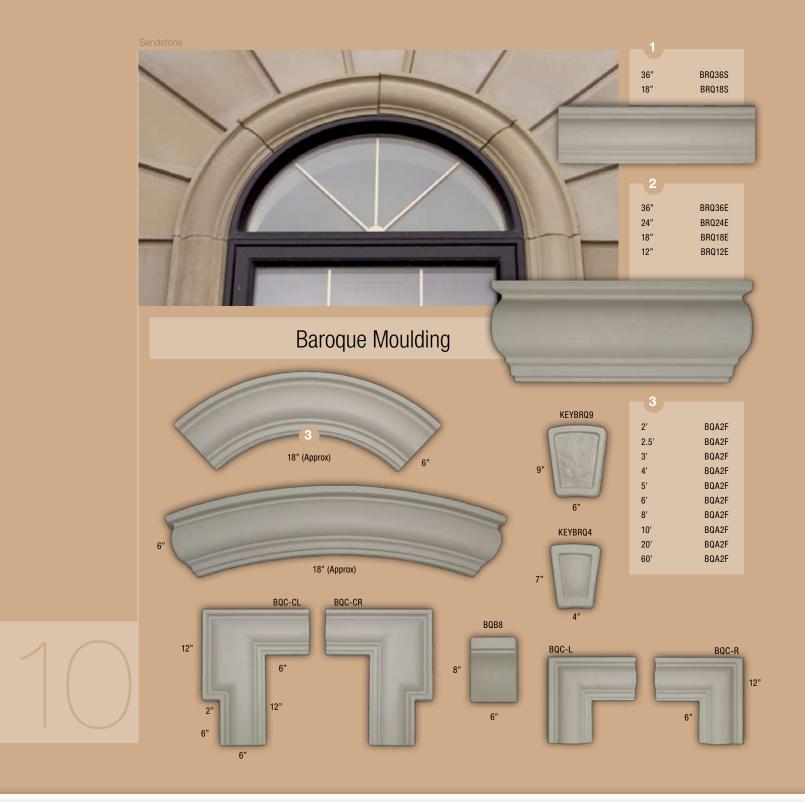








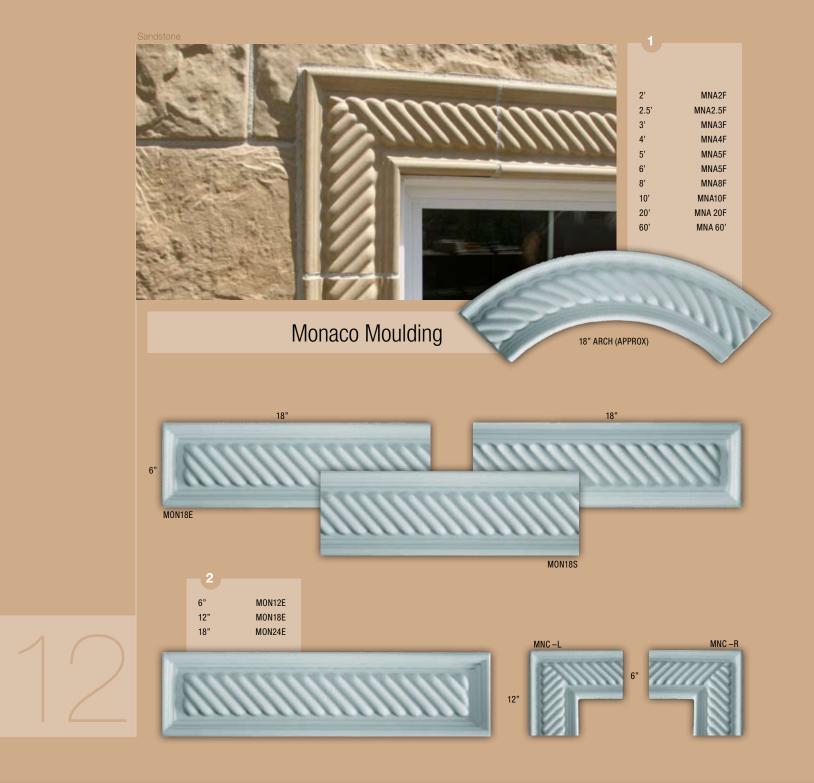








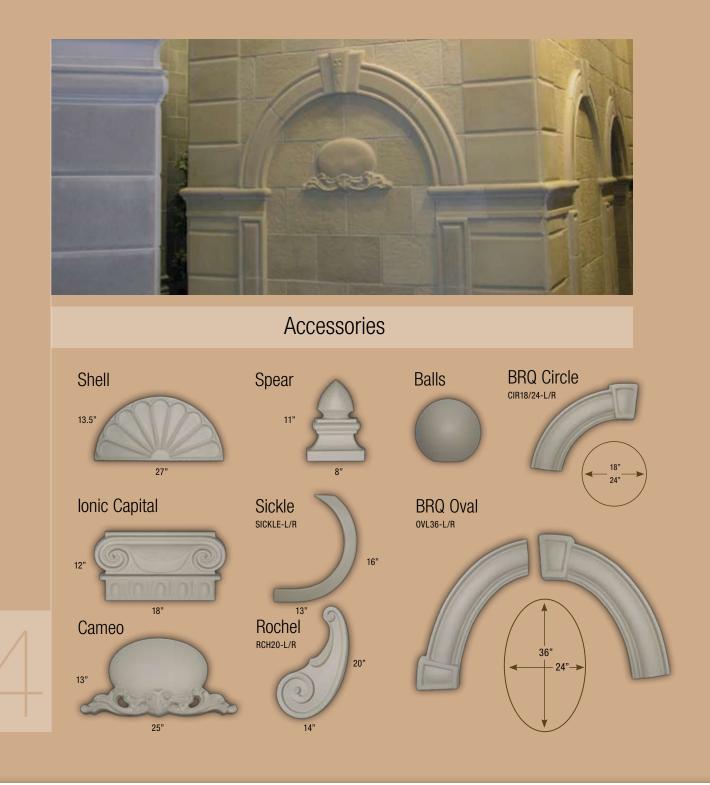








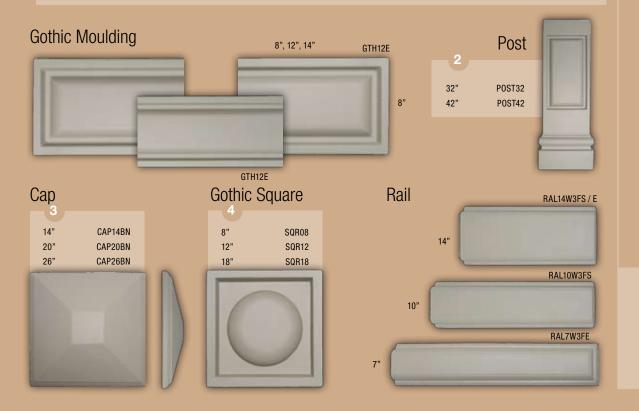
T



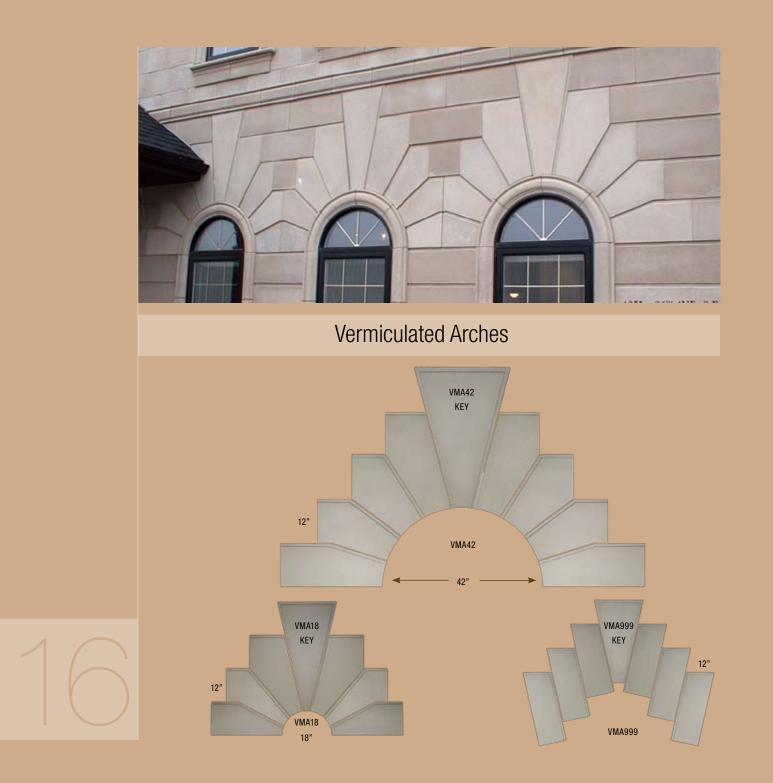


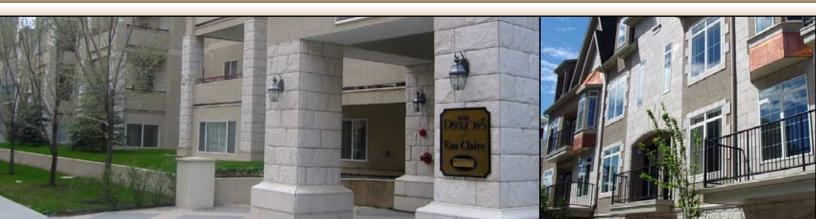


Accessories





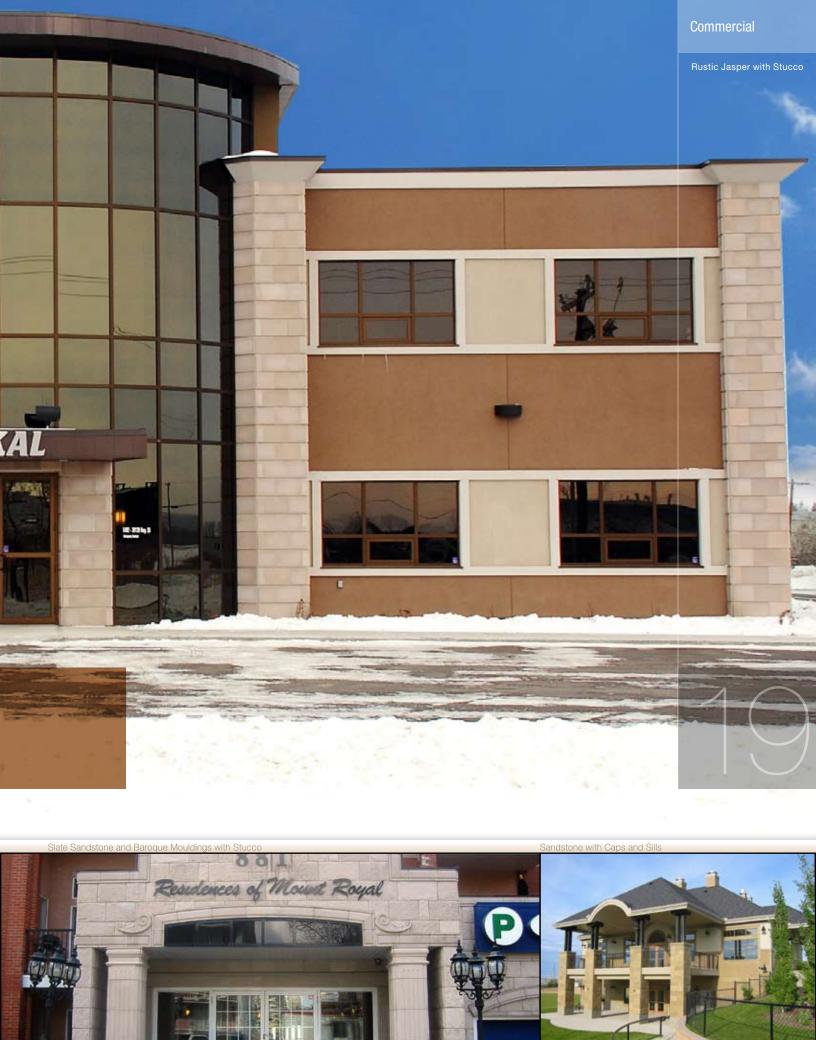








LYK **Commercial Applications** Standing out is more affordable than you think VERGREEN E SPRING HAVEN STRATHCONA



H Multi-Family Applications Year-round installation available

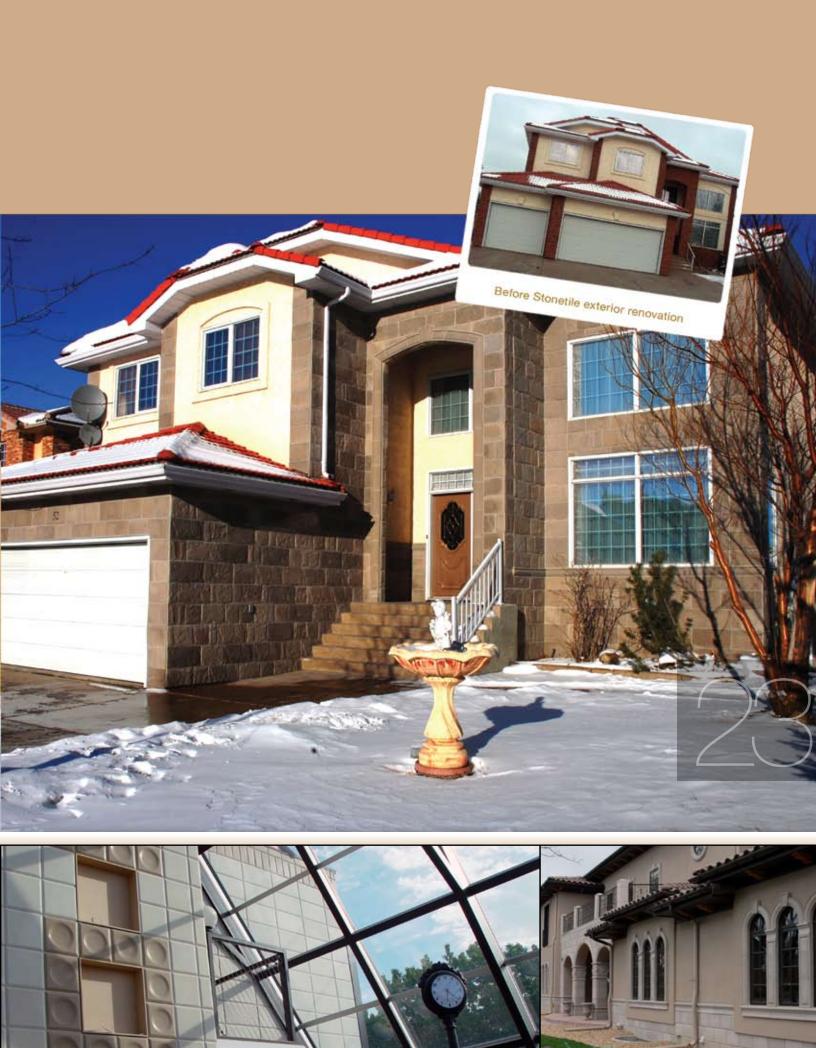




Before Stonetile exterior renovation

Exterior Renovations Come home to a new look





Intersection Applications How Stonetile interacts with other exterior applications

BRAN

1.74



Intersections

Heritage Sandstone with Baroque and Gothic Moulding



4E 🔚



The ideal choice for Architects and Designers alike.

Stonetile is made from a cured, high-density architectural pre-cast that is set to create a wide variety of textures and trim applications. We use our advanced technology procedures to produce quality and consistency with every project.

To ensure the highest level of quality and appearance, a Stonetile exterior is subject to these six phases:

- 1. Design
- 2. Pre-Inspection
- 3. Material-Labor Confirmation
- 4. Production
- 5. Installation
- 6. Post-Inspection

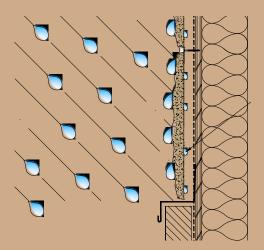




Stonetile's Approved Rain Screen System maintains obvious beauty while providing many unseen values.

Stonetile itself can shed typical rain-falls, and our Rain Screen system will manage the rest. Stonetile Rain Screen prevents moisture intrusion and the resulting premature decay in homes.

WATER BEHIND A RAIN SCREEEN WALL WILL DRAIN OUT



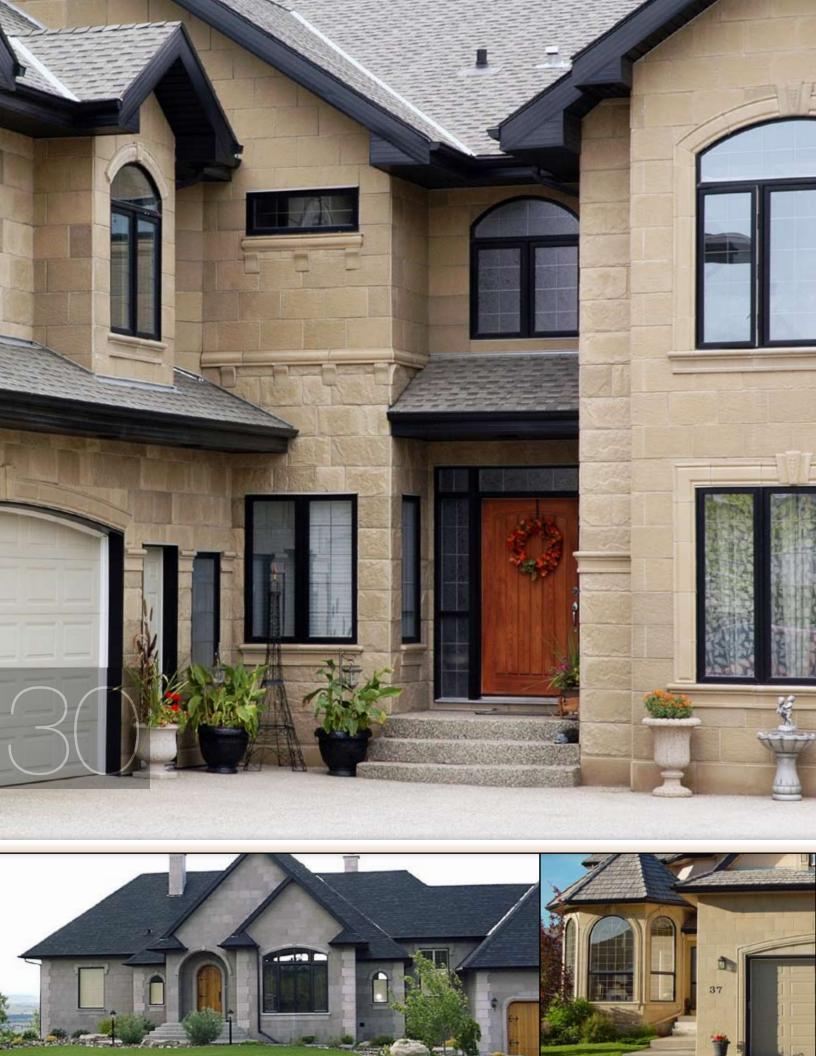
Rather than attacking the symptoms of moisture intrusion, Stonetile Rain Screen addresses the problem right at the source: the forces that drive water into the building shell. By neutralizing these forces, the Stonetile's Rain Screen can withstand extreme environments. This system is effective in any climate and can handle nearly any weather condition.

Stonetile's Rain Screen System includes the following elements:

- Vented Exterior
 Cladding (perforated J channel)
- Air Cavity
 created by Stonetile's hanger system
 (a few millimetres of depth is sufficient)
- Drainage layer
 on support wall (building paper)
- Air movement to ensure any moisture behind the cladding is able to dry







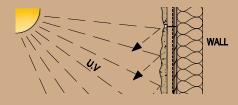
The Environment is extremely important to Stonetile



Stonetile is certified by Leadership in Energy and Environmental Design (LEED) (www.cagbc.org) and Green Alberta (www.greenalberta.ca). It is also U.V. resistant, fade resistant and fire resistant.

U.V. Resistant

The high-density architectural pre-cast used by Stonetile is virtually indestructible by ultraviolet radiation. This is unlike commonly used cladding products such as vinyl, plastics, and wood.



Fire and Fade Resistant

Stonetile is manufactured with noncombustible materials. Since it is made from architectural pre-cast, it is resistant to sunlight (fading), heat and fire. Even the urethane joint sealer is rated noncombustible by WHMIS criteria. If however, a firewall must contain no combustable materials. Therefore, a different fastening system must be used since the product is not installed over plywood or O.S.B.

Size and Weight

Stonetile is typically 12" x 18", although some components are 36" long. This relatively small size combined with very little expansion makes it ideal as a building panel.

A 12" x 18" Stonetile panel weighs as little as 4.5 kg, or 3 kg per square foot. Stonetile is approximately equal to the weight of stucco, and no additional wall reinforcement is required.





Stonetile is a permanent, all-climate exterior cladding solution. Flexible, rubberized joint caulking and thermal crush zone technology eliminates expansion and contraction concerns.

Flexible Caulking

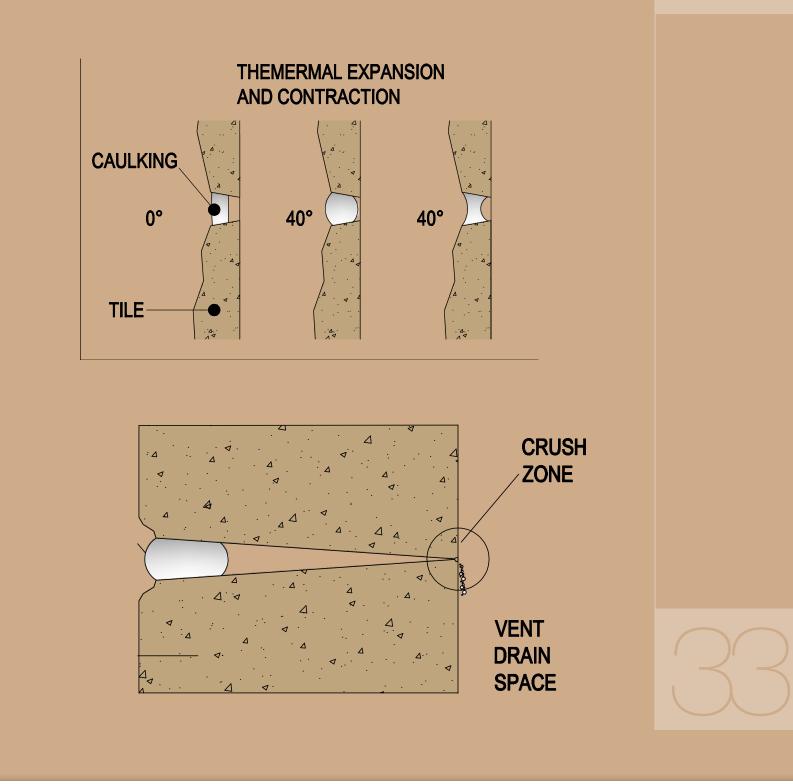
Stonetile exterior products are designed to last a lifetime, offering complete protection in all weather conditions while withstanding significant seasonal expansion and contraction. Designed to remain flexible for decades, the highest quality U.V. resistant urethane caulking – made exclusively by Tremco Dymonic – is applied to tile joints. Silica sand is also applied for added joint surface protection and aesthetic appeal.

Caulking can be applied in temperatures as low as -10 Celsius to all frost-free surfaces. Engineering tests have shown that a standard 12" joint can withstand 90 lbs of force; a similar mortar joint fails at less than 5 lbs. Thermal cycle testing – which measures the impact of expansion and contraction movement. – was conducted using a 1mm stretch and 1mm squeeze test. The results indicated that over 60,000 cycles were completed before the joint failed. Put into context, in Calgary, Alberta where rapid rising and falling temperatures are common, there are typically about 75 thermal cycles per year.

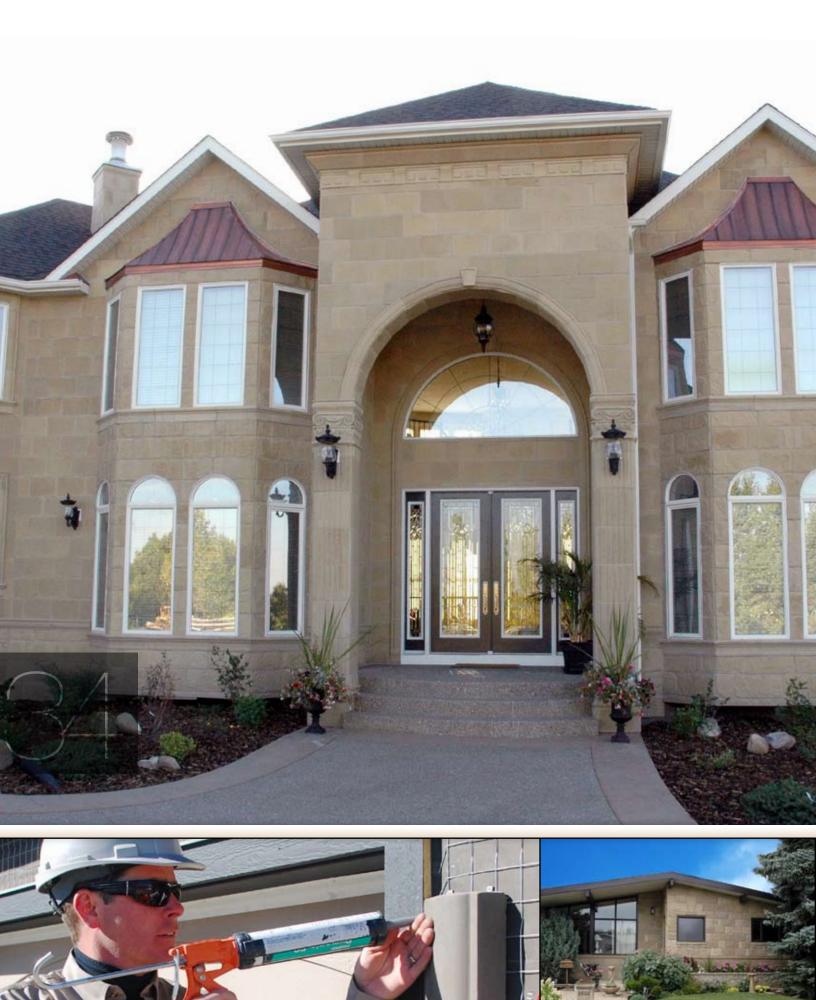
While Stonetile's unique caulking process is impressive, it works in tandem with the Stonetile Rain Screen System to provide 100% moisture control, virtually eliminating the possibility of water entering the building envelope. As an added measure of protection, the 10mm ventilation and drainage space ensures there is no direct surface contact with the exterior wall substrate.



Expansion and Contraction







Winter installation? Absolutely. Stonetile can be installed year-round in all weather conditions.

Mortar Free Installation

One of the most unique features of the Stonetile installation system, is that it requires no mortar for installation. Therefore it can be installed year-round in all weather conditions, even below freezing.

Installation requirements include:

- Building paper (tar paper or Tyvac®)
- Standard approved flashing materials
- Wooden substrate base (3/8" plywood or O.S.B.)
- Stonetile can be installed over concrete, ICF or other surfaces, additional labour is required

Galvanized Hangars

Each piece of Stonetile, whether tiles or moldings, features at least two hangars. These hangars are shaped in such a way that parts of the hangers (gang nails) are embedded in the concrete.

Cleaning

Under normal circumstances Stonetile's smooth surface requires no cleaning. Dirt entrapment that generally occurs with other masonry products such as stucco or brick is eliminated with Stonetile.

Tile Replacement

In the event that a piece of Stonetile is broken, it is easily replaced *regardless of its position on the wall.*

In comparison to other types of cladding systems, Stonetile is relatively cheap to repair. This is because fading of other exterior finishes occurs over time, resulting in the need to replace entire wall sections when a repair is required. With Stonetile, fading or color changes are unnoticeable.





Our objective? Craft a stunning work-of-art that showcases your home and our product at it's best

H

元王で



At Stonetile, we consider the architechtural requirements, the design vision, customer preferences and overall budget to ensure the success of every unique project.

Less is More.

Using many different products on one home can hurt the overall look. Simplicity often achieves a more historic look. In most cases, a single type of tile, molding and color is sufficient. If a water table or quoining is included, however, two types of tile may work.

Grand historic stone buildings were built using stone from a single quarry, so keeping the color consistent throughout the building will emulate the look, which is usually the goal.

Intersections

It is especially important to allow room for moldings around windows. Take note of the width between windows and if you're unable to install a full surround, headers and sills work well. If the home is designed properly, moldings will fit together nicely and must never be so close that they need to be forced together. Molding intersections may occur with water tables or belly bands. Be mindful of the water table or band height so that it doesn't intersect at the same level as the window sill. To achieve the best look, the Belly band should intersect with the window molding approximately half way up the molding, as apposed to the top or bottom.

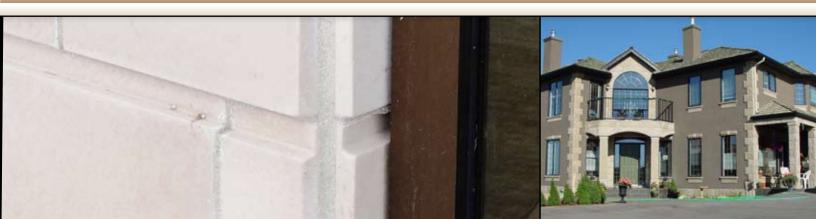
Entrance

Many well designed front entrance ways use a transom above the door in addition to the molding surround. This sense of grandeur influences the entire look of the home.

Columns

Columns can be a great design feature for the home - When you design with columns be mindful of the look you are trying to achieve for the entire home. A fluted column or stacked tile may seem appealing, just make sure it achieves the look that compliments the rest of the design.





Maximize on the areas that are most visible.





Lot Layout

Maximize the areas that are most visible and relax on the areas that are not. In a typical neighborhood, the sides of the home may not be as visible as the front or back. Use the most attractive elements where they can be showcased. A full window surround with sill may work well on the front of the house and a simple header and sill may suffice on the sides. This is a great way to maximize the home's look while staying within the budget.

Landscaping

A Plinth or a band of unique tile at the base of the home can enhance the stately look of the home. However, if the home is heavily landscaped with shrubs and other base-level greenery, it may not be the best choice to have the accent molding at the base of the home. Instead, you may want to continue with the majority tile right to the bottom. The money that would have been spent on this feature would be better used elsewhere.





Stonetile Engineering Reports available online.

Stonetile products have been extensively tested by independent agencies and approved by UBC (Uniform Building Code). The following Engineering Reports are available online at www.stonetile.com:

Available at www.stonetile.com (PDF)

Hardy BBT Ltd Evaluation Report

Galvanization Specifications - Hangers

AGRA Testing & Evaluation Report

TREMCO Dymonic Sealant Testing on Stonetile

AGRA Rain Penetration Resistance

AGRA Wind Load Resistance Test

AGRA Freeze / Thaw Durability

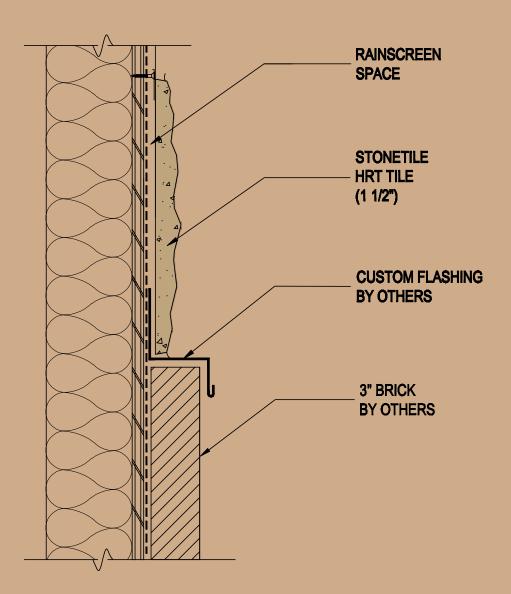
AGRA Impact Resistance

Evaluation of Stonetile System for Steel Stud Wall



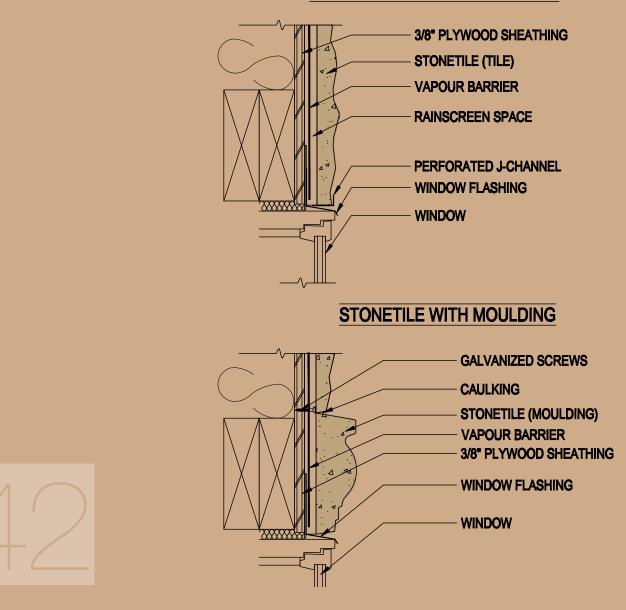
Product Tools: Metal Strapping

Stonetile Watertable with Brick wall

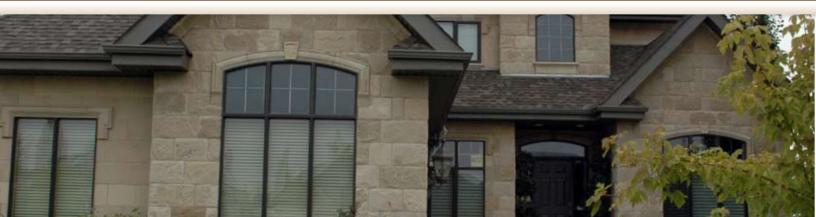




Stonetile Over Window / Door Section Detail

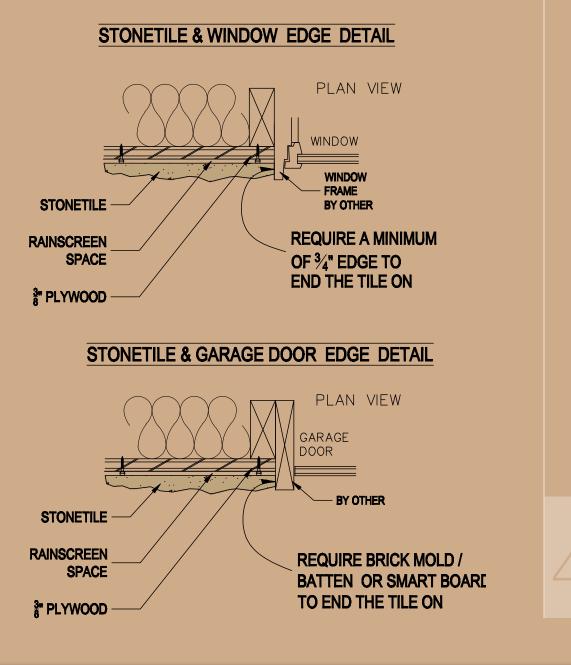






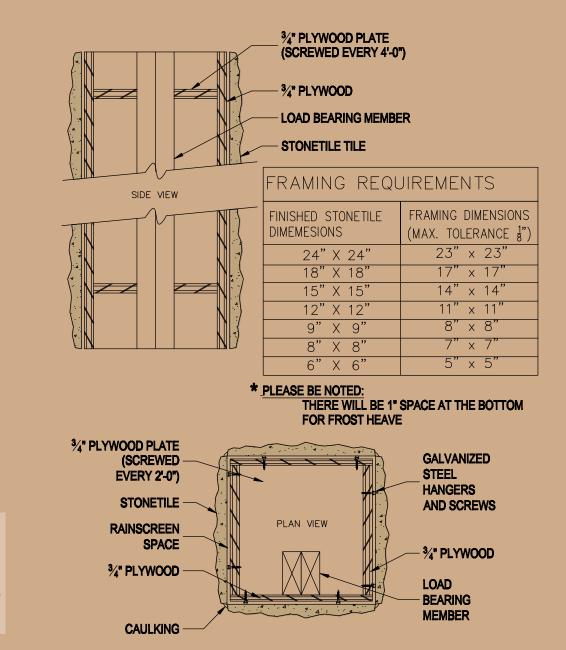
Over Window / Door Section Detail

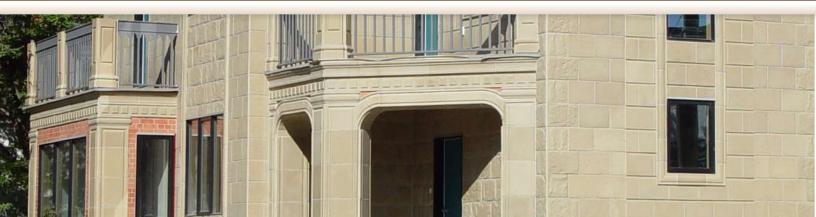
Stonetile Over Window / Door Section Detail





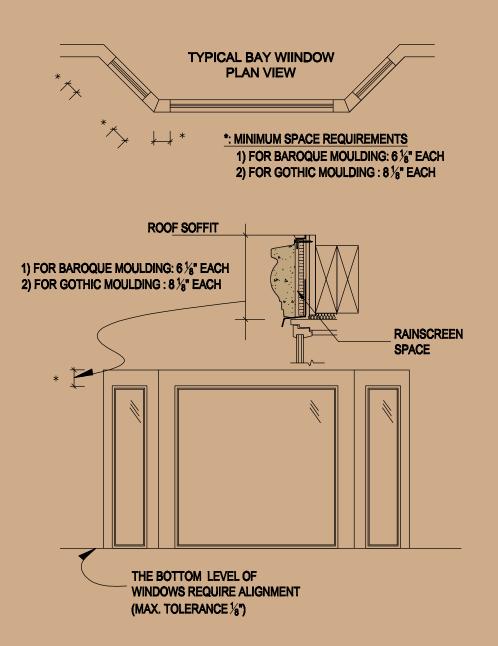
Stonetile Column Detail

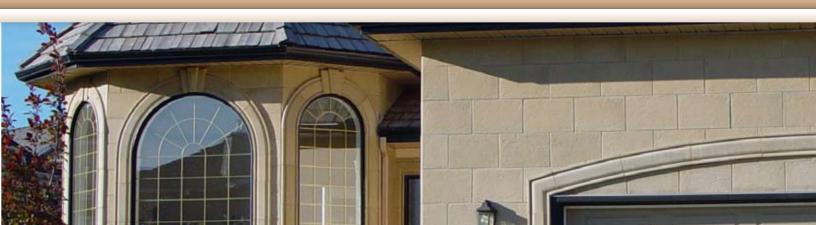




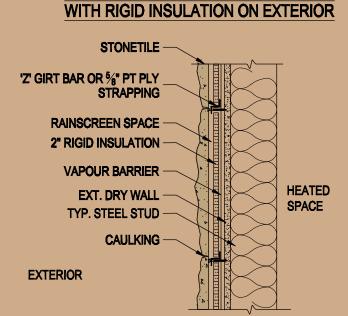
Bay Window and Column Detail

Stonetile Bay Window Detail

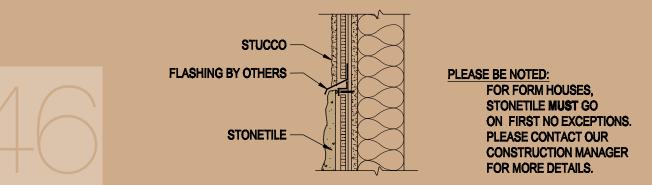




Stonetile Rigid Foam Detail



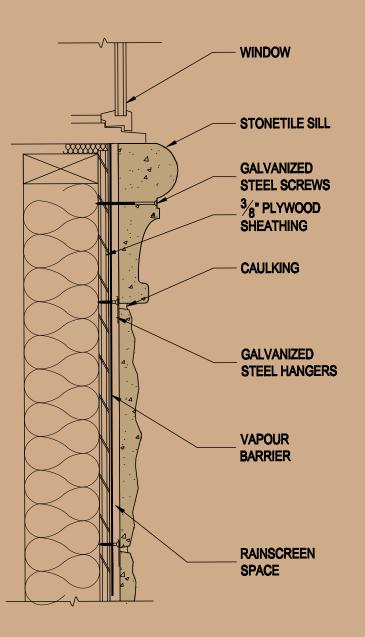
STONETILE TO STUCCO DETAIL





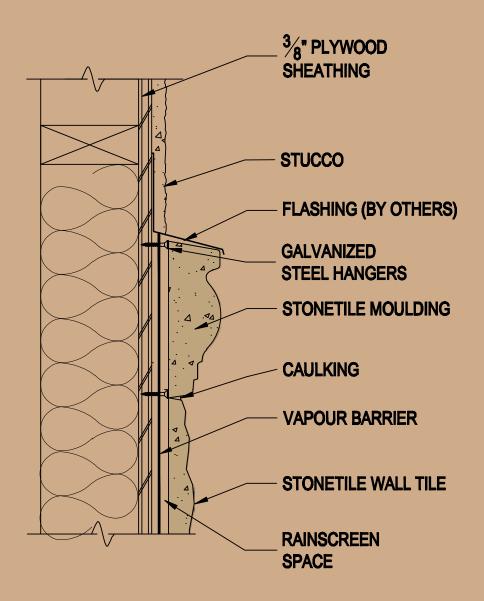
Bay Window and Column Detail

Stonetile Wood Base Detail





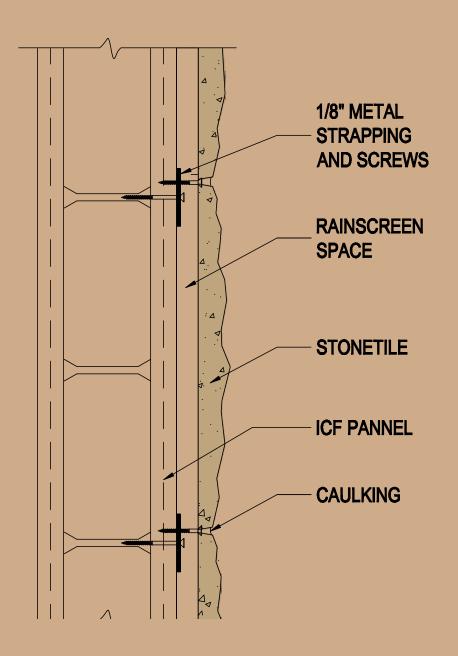
Stonetile Watertable with Stucco wall





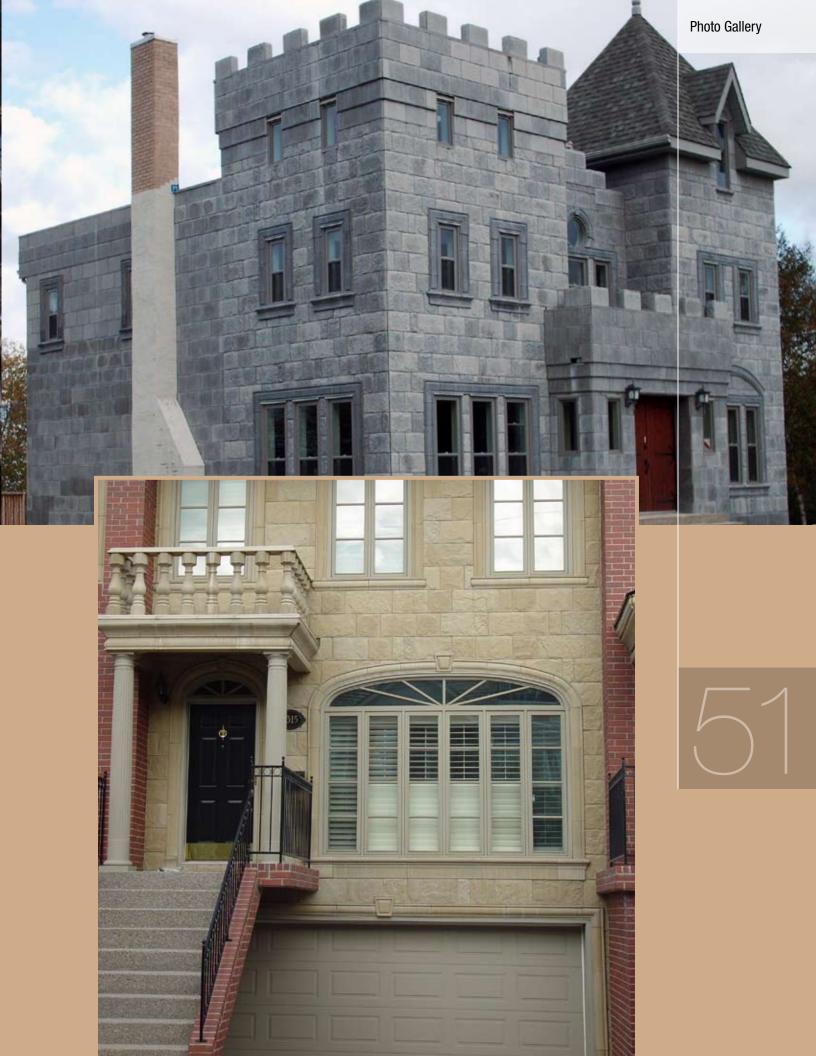
Watertable with Stucco or Brick wall

Stonetile Metal Strapping Detail for ICF

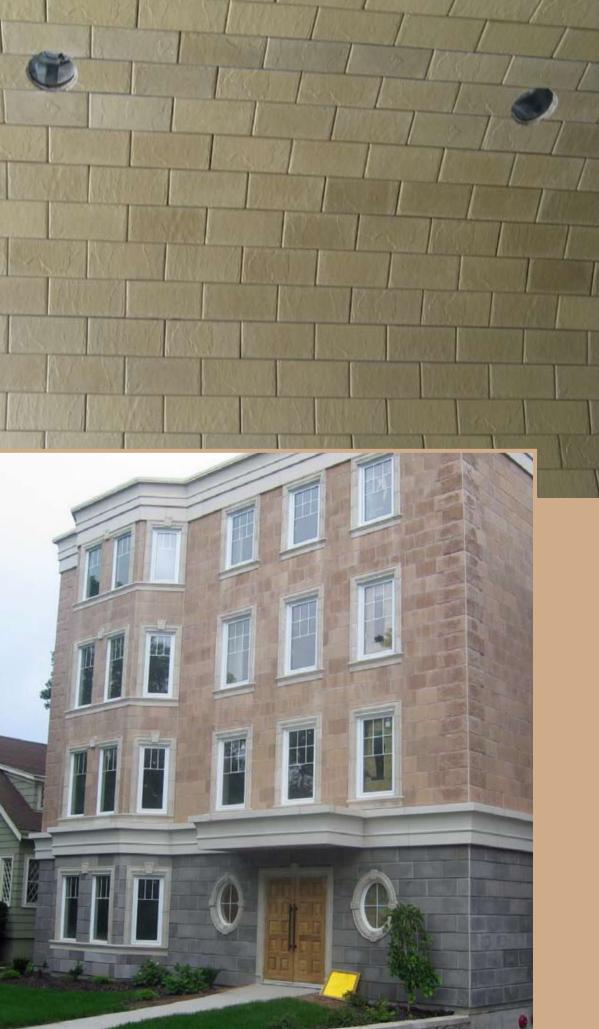


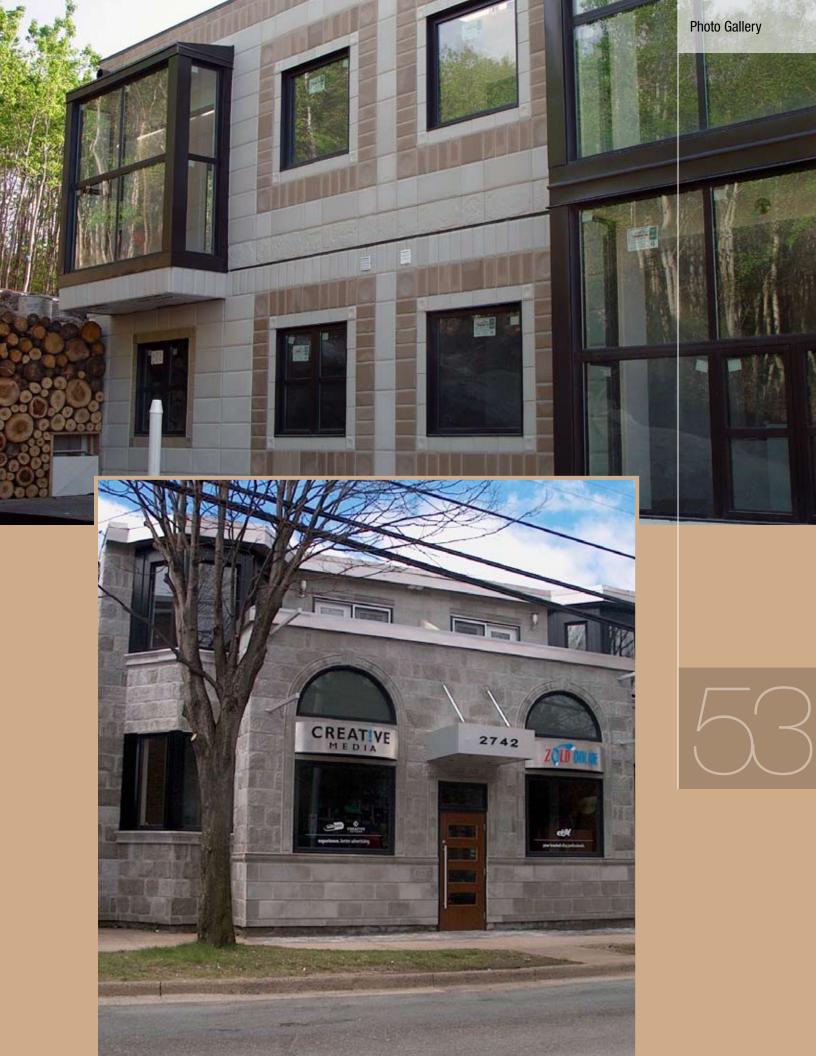








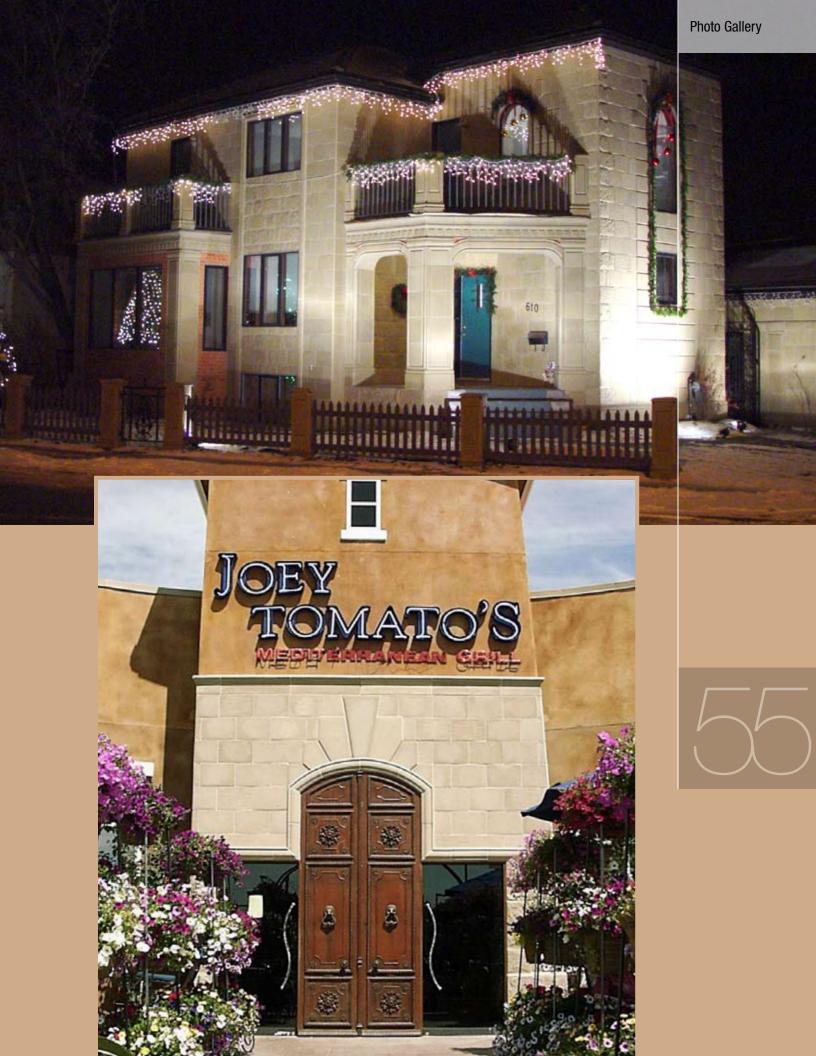


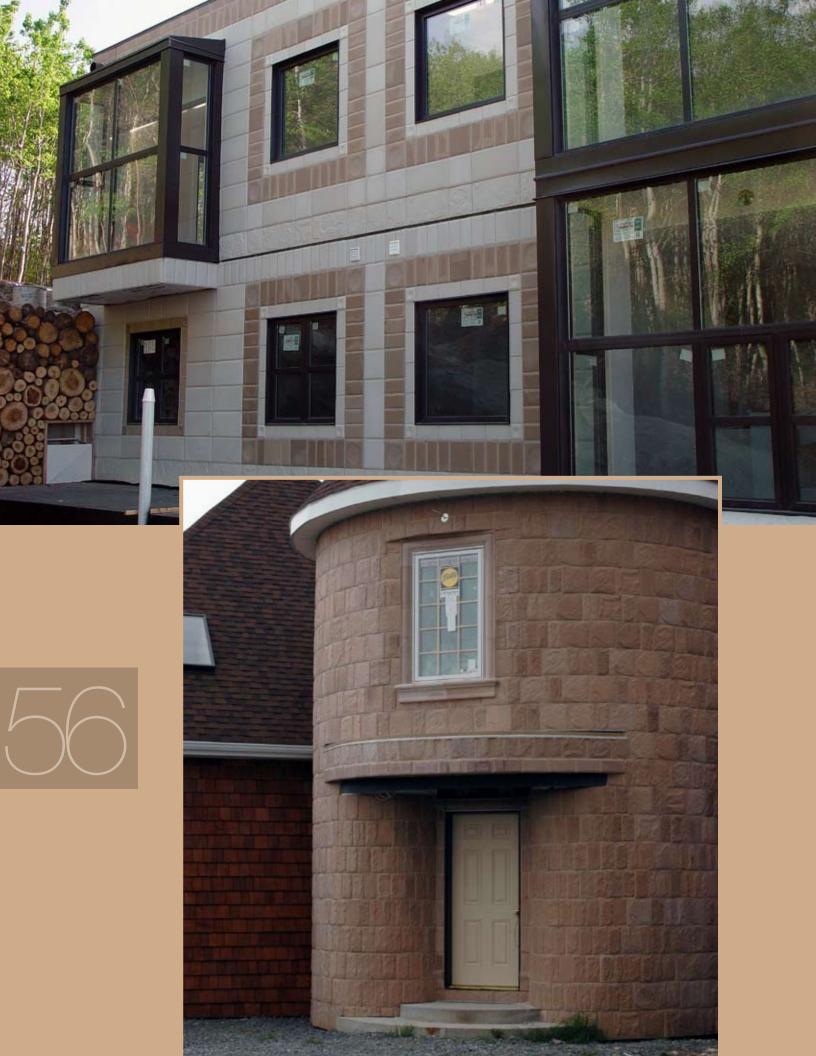


















Stonetile Canada Ltd.

4055 - 96 Avenue SE Calgary, AB T2C 4T7 Phone: 403 723 2249 Toll Free: 800 266 9320 www.stonetile.com