



By Rhonda Maas

The Second Hundred Years: Planning for Maintenance

Thoughtfully restoring old masonry buildings connects us with our pasts. Carefully maintaining them continues that connection into the future. Masonry is built to last. A 100-year-old building can easily last another 100 years with proper attention and care.

One reason why masonry buildings are so long lived is that they are largely impervious to attack. However, they do have one insidious enemy: water. Water can infiltrate a building from the roof, parapets, windows, landscaping, basement window wells, and even chimneys. Any connection between the masonry and another material can become an entry point for water. The best line of defense is a one-two punch: Start with quality waterproofing and follow up with regular maintenance, from top to bottom.

Waterproofing: what contractors should do

A good mason contractor will assure finished projects have all the right flashings, adequate drainage and proper joint sealing. Basically, any open joint needs to be filled.

Starting at the top, gaps between the termination bar of rolled roofing material and the parapet wall as well as the parapet caps should be sealed with joint sealant, caulk or mortar, depending on the design and building material.

Many renovation projects include replacing windows. Contractors must be sure new windows have proper flashing that sheds water away from the masonry, instead of channeling it down the face.

Landscaping may seem peripheral, but it can be key to protecting the building. There should be a dry zone around the foundation, and the site should be graded to channel water away from the

building. Putting sprinklers and plants right against the masonry increases the risk of water infiltration. When pavement – for example, a concrete sidewalk – is installed next to the masonry, the joint where the two meet should be sealed using a material with adequate movement characteristics, and installed with proper application techniques to ensure good adhesion.

Finishing at the bottom, take a look at the window wells. Some old buildings have basement windows below grade. Make sure the window wells can drain properly. It may be necessary to dig them out and install a membrane to keep water from seeping into the well and being trapped next to the foundation.

Maintenance: what building owners can do

An annual inspection and maintenance program is the most cost-effective way for building owners to protect investments in older buildings. Most annual maintenance is relatively simple and inexpensive to perform, but can save costly repairs down the line.

The cause of water damage I see most frequently also is the most easily preventable: clogged gutters. These can direct water straight onto the brick or stone face, saturating it and subjecting it to discoloration and freeze-thaw damage. Clogged gutters also create ice dams that threaten roofs and trap moisture. Gutters should be inspected at least once a year to assure they are free of debris.

Not all drainage clogs are as easily visible. An inspection should include a search for stair-step cracks in brick walls. These indicate the ground is saturated and the foundation is shifting. This can happen when a downspout is clogged or missing, dumping water in the wrong spot. If a

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drainage system that discharges underground is plugged, water may be backing up and damaging the foundation.

Another item for annual inspection is the roof. Roofing materials shrink as they age, pulling away from the masonry and opening a gap. These gaps should be sealed and any other roof leaks repaired. Also, check to see that chimney caps are intact and properly attached and sealed.

Sealant joints in which the grade meets the building façade should be inspected every year as well. A long-term maintenance plan should include provision for resealing every few years, as movement and sun exposure will degrade the material over time.

Finally, basements should be inspected for signs of moisture such as odors or mildew. Even if not in use, basements need to be ventilated with outside air.

With proper waterproofing and regular inspections and maintenance, contractors and building owners can ensure that the historic buildings they have worked hard to restore and preserve are ready to face the second 100 years. **IMAS**

Rhonda Maas is the co-founder and president of Building Restoration Specialties Inc. (BRS), which specializes in masonry restoration, preservation and conservation of historic buildings. Founded in 1986, BRS has a bonding capacity of about \$7 million, and is positioned to handle projects ranging from \$2,000 to more than \$2 million. Learn more at www.brstore.com.