

Building Foundations

Every building sits on a *foundation*, which transfers the weight of the building to the ground. Historically, many 19th-century buildings (regardless of size) were constructed on pier-and-beam foundations. Piers were usually built using bricks or stone blocks, laid together with mortar to create a load-bearing column. Later, piers were built using concrete blocks or poured concrete and sometimes covered in brick or stone veneer. (When wooden posts were used instead of masonry piers, that is a *post-and-beam* foundation.)

To construct a pier-and-beam foundation, piers were placed at the corners of the building, then equally spaced around the perimeter and across the interior of the foundation. Heavy beams were laid across the piers, with floor joists resting on the beams, and the floor atop the joists. The house was then built on that platform. Pier-and-beam foundations have many benefits, including good ventilation and drainage, easy access to plumbing and other utilities within the crawlspace under the building, and the ability to move with Houston's heavy clay soils as they swell and shrink.

The design of a building's foundation, including the materials used, height of the finished floor, and screening details (where present), are character-defining features.

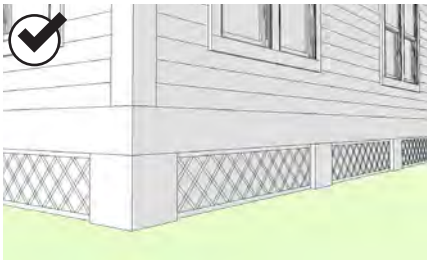
4.48 Maintain the historic height of the finished floor above natural grade, if possible.

HAHC may allow structures to be raised to maintain an appropriate height above the soil, if there is a demonstrated need. Please contact the Historic Preservation Office staff to discuss your individual situation and how best to address the conditions specific to your property.

- Foundation height should not be changed unless required to preserve the integrity of the foundation, such as problems that can occur with insufficient space between the ground and the structure. Changing the height of a foundation may damage porch piers and chimneys, which also must be raised.
- Have piers adjusted or shimmed, if needed, to keep the house level. Consult a qualified foundation professional for more information about this process.



A foundation with masonry piers



Screening panels may be installed between foundation piers. Screening panels should be framed around the lattice pieces.



Examples of inappropriate unframed lattice

4.49 Maintain (or add, if desired) screening between piers.

To keep animals out of the crawlspace area, it was and is common for homeowners to install *skirting* or *screening* between foundation piers, particularly under the porch. Historically, this consisted of framed lattice panels, sawn wood balusters, or horizontal wood siding. Because these materials are in contact with the ground, maintenance is essential, and they may need to be repaired or replaced at regular intervals.

- Repair foundation components that are damaged or deteriorated.
- Keep screening materials painted and secured to the piers.
- Periodically inspect and repair any damage to wooden screening material.
- Re-point any eroded mortar joints, to prevent moisture infiltration and damage.

4.50 New screening panels may be installed between piers.

- Choose a screening design that is consistent with the architectural style of the house. Diagonal or square lattice is a good choice for most houses.
- Create panels by setting wood lattice, siding, or balusters into a frame. Do not use unframed materials. Do not use paneling that gives the appearance of stone or brick, or fill the space between piers with concrete blocks or other masonry.
- If using lattice, choose a pressure-treated wood product rather than plastic "garden" lattice, which has very large holes that are likely to admit animals into the crawlspace. If you build your own lattice, you may wish to use wooden slats that measure 1½ inches wide by ¼ inches thick and are arranged with a 1-inch x 1-inch space between, for a historically authentic appearance that will keep out animals.
- If using square (vertical-horizontal) lattice, install so that the vertical pieces are toward the outside.
- Inset the screening panels from the face of the foundation piers. Do not lean or attach panels against the outside of the house or piers, or cover the lower portion of a wall.
- Secure screening panels in a way that does not damage historic materials; for example, attach to mortar joints, rather than drilling into brick.

Historic Shutters

Wooden shutters are found on many historic buildings, although the number of houses in Houston Heights that may have originally had shutters is unknown. Shutters provide security and protection from weather. In the southern United States, shutters typically were constructed with angled, adjustable louvers to allow ventilation while blocking the sun. Not all historic houses had shutters, however, and while historic shutters should be preserved, shutters should not be added to a building that did not historically have them.

4.51 Preserve a historic shutter.

- Do not remove historic shutters.
- Shutters are meant to be operational; do not nail them to the wall. Use original hardware, if it still exists, or source appropriate replacements.
- Louvered shutters should be installed so that the louvers angle down and back toward the house when the shutters are open.
- Keep shutters painted, particularly on the upper surfaces, which are more prone to weathering. If painting shutters, ensure that they remain operational afterward.

4.52 Repair historic shutters, rather than replacing them.

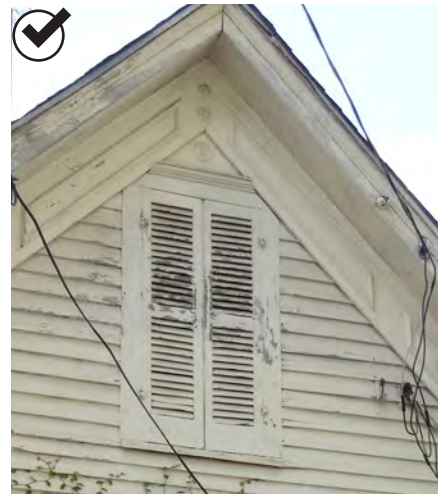
- Small areas of rot or similar damage are most likely to be found at the window sill, where water may pool or splash onto the lower edge of the shutter. Consider using a wood consolidant in these locations to preserve the original wood.
- If a patch or Dutchman repair is appropriate, remove the least amount of material needed to properly execute the repair. Use wood as close to the original material as possible (same species, grain pattern, and color) for a less visible result.

4.53 If repair is not possible, match a replacement shutter to the original.

- Match the size, depth, texture, and scale of the original shutters. The type of material is not regulated, as long as it is visually compatible.
- Shutters should appear to be operable (even if they are not).
- Do not install shutters that are narrower than the associated window or opening.

4.54 Do not add shutters to a building that did not have them historically.

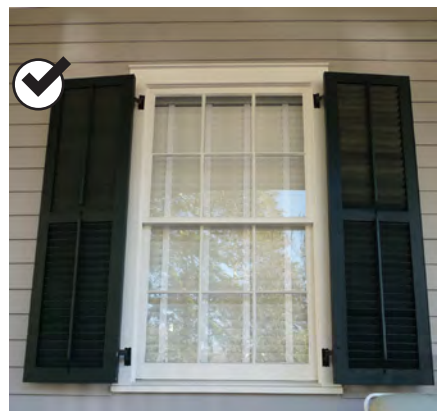
- Document the historic presence of shutters through photographs.
- Match the historic shutters in design, size, and proportion.
- Shutters should appear to be operable.



Preserve a historic wood shutter.



Use a replacement shutter that fits the window opening.



Use operable blinds or shutters hung with hinges.