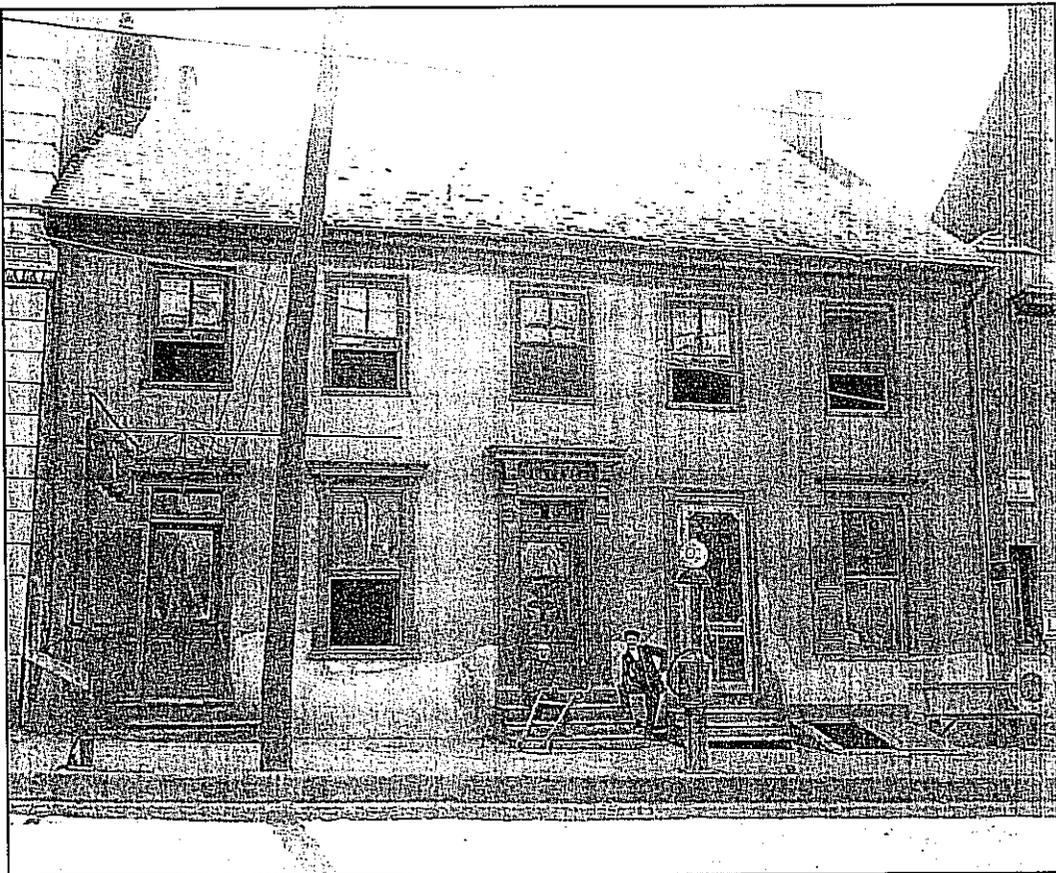


# BUILDING MAINTENANCE



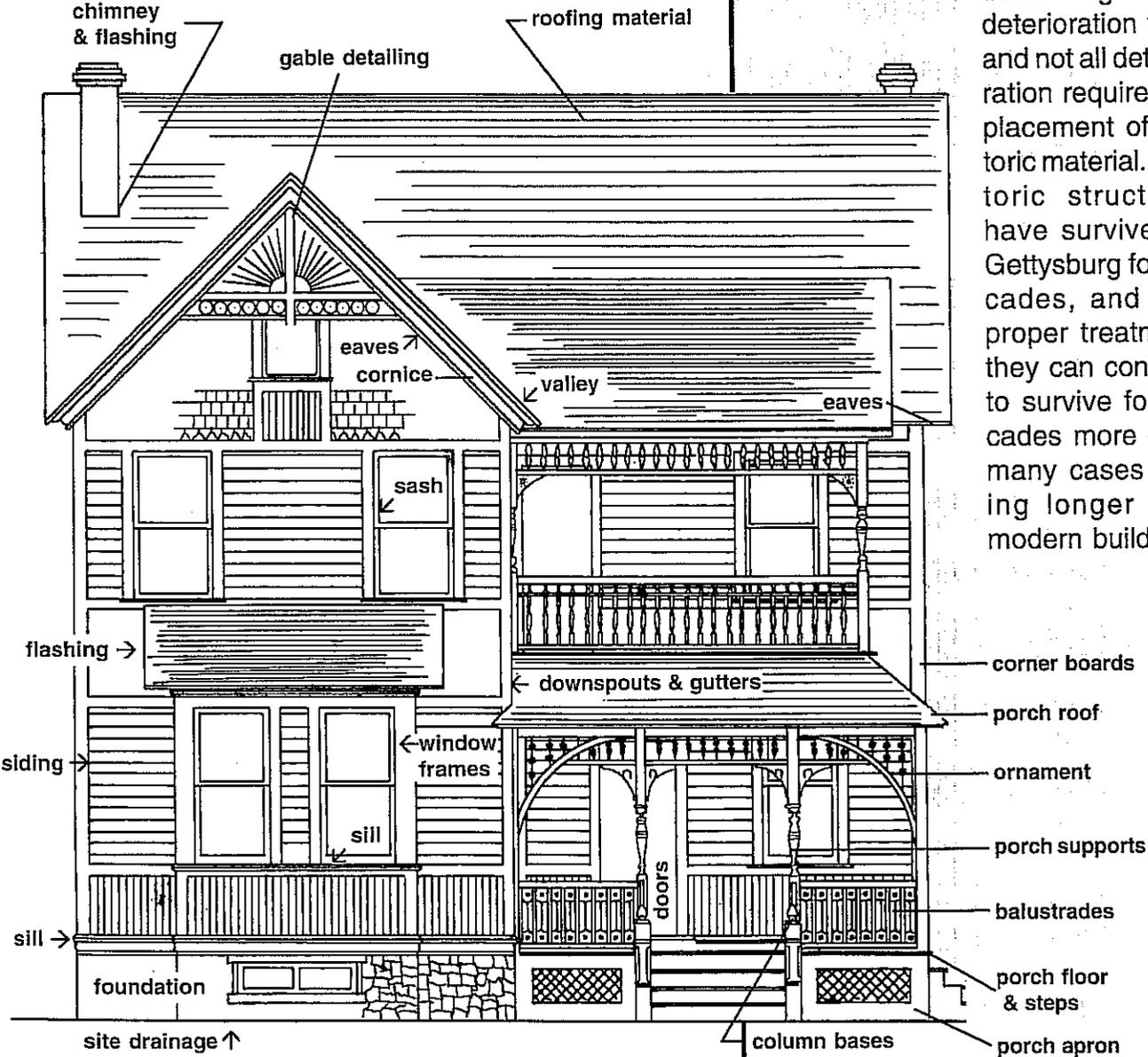
1915 view of the ca. 1797 stone building that previously stood on the site of the addition to the Adams County National Bank. Photo courtesy of Gettysburg National Military Park.

# MAINTAINING YOUR BUILDING

## TYPICAL AREAS THAT REQUIRE MAINTENANCE IN A WOOD FRAME HOUSE

All Gettysburg structures are made of building materials that deteriorate over time — a long-term process caused by the effects of rain, wind, sunlight, and temperature changes, by chemicals in the atmosphere, and by insects, birds, rodents, and vegetation.

Degrees of deterioration vary, and not all deterioration requires replacement of historic material. Historic structures have survived in Gettysburg for decades, and with proper treatment, they can continue to survive for decades more — in many cases lasting longer than modern buildings.



A nineteenth century drawing by M.E. Stallsmith. Courtesy of the Adams County Historical Society.

# MAINTAINING YOUR BUILDING

## Safety First

Maintaining and rehabilitating buildings can be enjoyable and rewarding. But safety precautions should always be taken with all tools, materials, and processes used. It is always wise to carefully read all manufacturers' directions and to consult a professional on work that is unfamiliar. In addition, work on old buildings can bring asbestos and lead to the surface. Because these materials can cause health problems, it is a good idea to be familiar with them before beginning your maintenance or rehabilitation projects.

### For More Information on Asbestos

Call 800-368-5888.

### For More Information on Lead

Call the National Lead Information  
Center Clearinghouse at  
800-424-LEAD  
or call your doctor.

### For More Information on Radon

Call 1-800-23-RADON.

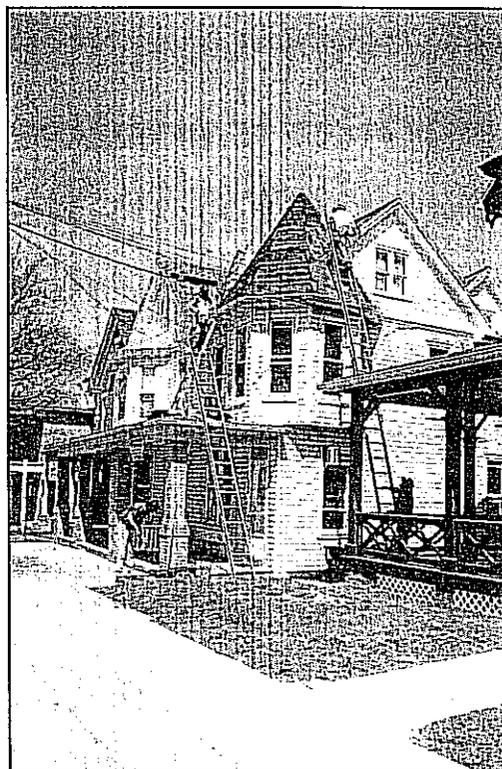
OR

Call the Borough of Gettysburg at  
717-334-1160.

## PREVENTIVE MAINTENANCE

The key to the survival of the buildings of Gettysburg — old or new — is PERIODIC INSPECTION followed by REGULAR MAINTENANCE.

Many property owners in Gettysburg perform maintenance only after something fails. This approach offers little protection for the building. Periodic inspection is designed to identify problems before they cause significant damage. This is followed by scheduled regular maintenance that will stop minor deterioration that has already begun and, in the long run, will provide the easiest and least expensive way to maintain the appearance and overall physical condition of your building.



Building maintenance at 147 Carlisle Street.

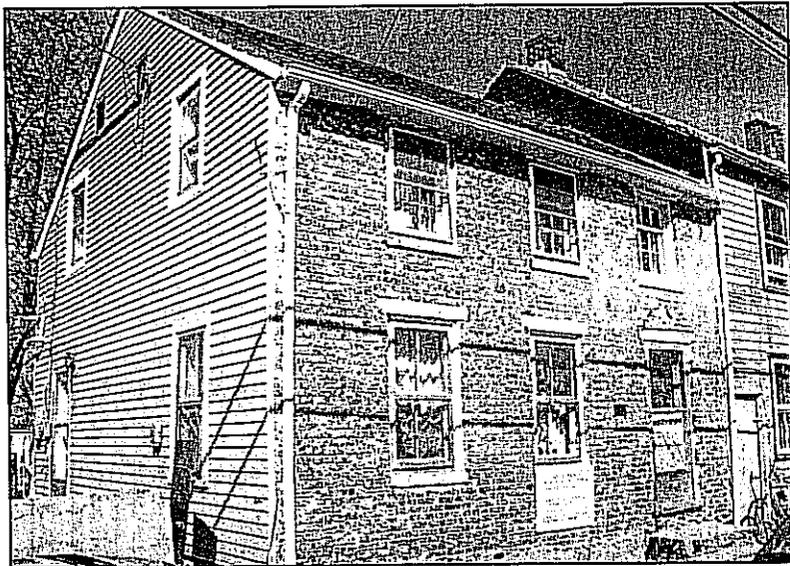
The checklist in this section can help record the condition of your building and keep track of maintenance tasks as they are performed. This checklist is only meant as an example — you may develop one more appropriate for your property.

It is best to perform your inspection during a moderate rainfall; this allows for the best assessment of your roof and overall drainage systems. Binoculars can assist in evaluating parts of your house that are out of reach. A thorough inspection of the interior is also recommended. This is particularly true of the roof, where a leak identified in the attic can help pinpoint the location of failing exterior roof materials.

Throughout your house, visible damage in one area can be caused by a problem originating somewhere else — so look carefully. And REMEMBER: Although repairing problems yourself may be less expensive, it is usually best to seek professional assistance for major maintenance and rehabilitation work.

## MAINTENANCE CODES AND DEMOLITION BY NEGLECT

Sometimes, a property owner abandons a building or allows a building to be occupied, but without the benefit of maintenance. This deliberate lack of maintenance, which leads to the eventual destruction of the building, is called *demolition by neglect*. Demolition by neglect is not only wasteful, it is in violation of the Borough's codes. In 1985 the Borough of Gettysburg adopted the *Building Officials and Code Administrators (BOCA) National Property Maintenance Code* to protect the public health, safety, and welfare by regulating the maintenance of structures and exterior properties in the Borough. For more information on the Property Maintenance Code, contact the Borough's Code Enforcement Officer at 334-1160.



A building undergoing maintenance at 233 South Washington Street.

### Remember:

There are **NO** miracle treatments or products that will ensure the preservation of a structure — new or old — without maintenance and repair.

## MAINTAINING YOUR BUILDING

**The Borough Maintenance Code  
Regulates the Condition  
and Maintenance  
of these Lot Components:**

- grading and drainage
- sidewalks and driveways
- weeds
- exhaust vents
- accessory structures
- motor vehicles

**The Code also addresses:**

- sanitation
- rodents

**The Code requires  
that the exteriors of structures  
be kept sound and sanitary.  
It regulates:**

- street numbers
- structural members
- foundation walls
- exterior walls
- roofs and drainage
- decorative features
- overhang extensions
- chimneys and towers
- handrails and guardrails
- window and door frames
- insect screens and doors
- basement hatchways
- window guards

# PREVENTIVE AND CYCLICAL MAINTENANCE CHECKLIST

## WHAT TO LOOK FOR

### ROOF

**Materials:**

Warping, severe wear, cracking, lumps, curling, decay, splitting, rusting, loose pieces, missing pieces, broken pieces, thin material.

**Structure:**

Is the roof level, or does it sag?

**Roof flashing, gutters, downspouts:**

Rusting, paint loss, sagging, missing, or torn pieces, blockages, poor drainage.

**Decorative elements (finials, cresting, etc.):**

Loose pieces, rust, missing pieces, deteriorated cornice.

**Chimney and parapet:**

Is the chimney sagging, leaning, or bowing? Are the mortar joints tight? Is the chimney cap rusting or missing? Are bricks loose or missing?

### EXTERIOR WALLS

**Structure:**

Are the walls leaning, bowing, or bulging? Are cracks evident? Are the door and window openings square?

**Materials:**

Is the surface of masonry or stucco flaking, crumbling, or are units missing?

Is the mortar loose, crumbling?

Is the wood siding cracked, loose, rotted, or split? Do courses of siding appear straight or wavy?

Is cast iron or pressed metal rusting, pitted, or missing?

Are the walls stained?

Is paint peeling, cracking, blistering, or chalking?

**Porch floors:**

Cracks, splits, loose boards, missing boards, rot.

**Decorative elements:**

Peeling paint, cracks, loose pieces.

*Perform this maintenance check once each year, preferably during a moderate rainfall.*

## ESTIMATED LIFE SPAN & REPAIRS REQUIRED

- Metal roofing: repair and paint every 5-10 years. Others: 20-50 years.
- Re-secure, reattach, replace loose or missing pieces.
  
- Check rafters for deterioration, moisture penetration.
- A dry, properly maintained roof structure should last indefinitely.
  
- Re-nail and/or add gutter hangers as necessary.
- Clean gutters in the spring and fall.
- Check elbows for packed material. Caulk cracks. Remove rust and repaint. Repair holes with roofing cement, solder, caulk, etc.
  
- Repair and repaint elements every 5-10 years.
- Check for moisture infiltration.
  
- Pointing should last 50 years or more.
- Repointing required periodically in limited areas.
  
  
- Dry, properly maintained wall structure should last indefinitely.
- Check foundation for settling.
  
  
- Masonry units can last for centuries with proper maintenance.
- Address moisture problems promptly.
  
  
- Pointing should last 50 years or more.
- Masonry may require periodic repointing in limited areas.
- Check for moisture infiltration.
  
- Replace clapboards every 150 years.
- May require periodic reattachment, partial replacement.
- Work to limit moisture infiltration.
  
  
- Painted surfaces may require repainting every 5-10 years.
  
  
- Clean masonry only when necessary as part of stabilization work.
  
  
- Paint previously painted masonry surfaces approximately every 10 years.
- Repaint wood surfaces every 5-8 years.
  
  
- Wood floor boards should last 50 years or more.
  
  
- Paint every 5-8 years.

*The primary objective of building maintenance is the elimination of openings that allow water to penetrate the building. Proper ventilation is also required.*

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## ESTIMATED LIFE SPAN & REPAIRS REQUIRED

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- Windows should last 100 years or more.
- Doors, properly treated, should last indefinitely.
- Check for settlement.
- Repaint every 5-8 years, as necessary depending on weathering.
- Excessive paint buildup can cause windows and doors to "stick."

- Window glass should last indefinitely.
- Repair broken glass immediately to guard against water infiltration.

- Check for water infiltration.
- Paint every 5-8 years, depending on weathering.
- Perform periodic repairs and limited parts replacement as required.
- The sill may require repair/replacement before other frame members.

- Check for water penetration.
- Threshold may require repair/replacement before other elements.

- Check for settlement.
- Caulk as necessary.

- Hardware, properly treated, should last indefinitely.
- Sash cords may require replacement.

- Putty should last 10-15 years.
- Caulking should last 15-20 years.
- Periodic repairs to weatherstripping, caulking, and putty may be necessary.

- Clean and mend screens and storm windows annually.

- 
- Guard against water infiltration.

- Repaint every 5-10 years, depending on surface and conditions.

- 
- Properly maintained masonry should last indefinitely.
  - Guard against water infiltration.
  - Pointing should last 50 years or more.
  - Repointing may be required periodically in limited areas, or following water-related repairs.

- Check for settlement.

- Remove vegetation as required and sources of excess moisture.

- Check for movement; replace as necessary.
- Check that drainage is away from building.

## PREVENTIVE AND CYCLICAL MAINTENANCE CHECKLIST

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### WHAT TO LOOK FOR

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#### WINDOWS AND DOORS

**Operation:**

Do windows and doors open and close smoothly?

**Glass:**

Is the glass broken? Is the glazing secure? Do the glass panes fit securely? Are the stops and putty secure?

**Frames, etc.:**

Do the frame, muntins, sash, and door show signs of rust, rot, or insect damage?

Is the threshold rotted?

Are there open joints around the frames/trim?

**Hardware:**

Is the hardware operational and in good repair?

**Weatherization:**

Is the weatherstripping in good repair? Do storm windows fit tightly? Are the screens damaged?

#### EXTERIOR FEATURES

**Exterior Elements:**

Are porches, stairs, railings, cornices, brackets, and other exterior features in good repair? Are elements missing?

**Paint:**

Is the paint cracked, faded, or peeling?

#### FOUNDATION

**Masonry:**

Does water drain away from the foundation? Is masonry flaking, crumbling, spalling, cracking? Is masonry loose or missing? Is the mortar secure?

**Structure:**

Is the wall bulging or bowing?

**Vegetation:**

Are algae, moss, vines growing on the foundation?

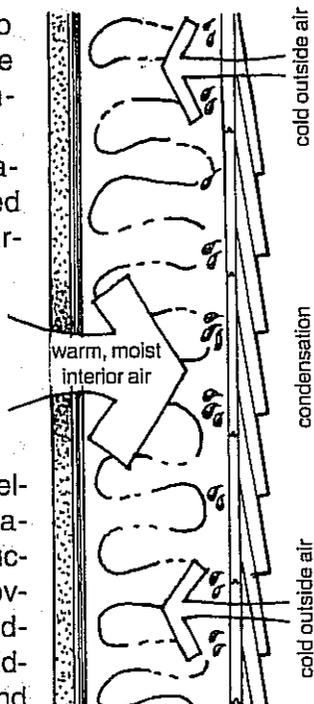
**Water Control:**

Do downspouts have splash blocks?

# WATER AND YOUR BUILDING

## How Insulation Can Add Moisture to Your Building:

- In cold weather, the air inside your home is warm and moist. It tends to travel through the exterior walls of your house, to the cold outside. As it travels to the cold air, it turns to water in the form of condensation.
- When insulation is installed without a barrier, condensation remains in the cavity of the wall where it can deteriorate cellulose insulation, wall structure, & wall coverings, including exterior siding & paint, and interior paint & plaster.
- If you install insulation, you can prevent condensation and deterioration by installing a vapor barrier. Install the vapor barrier on the exterior side of the inside (heated) wall.
- The same principle holds true for the floors of unheated attics, where the vapor barrier should be placed **down** (closest to the heated ceiling below).
- The same holds true for unheated basement or crawl space ceilings, where the vapor barrier should be placed **up** (closest to the heated floor above).



## THE MOST POWERFUL FORCE OF DETERIORATION AGAINST YOUR BUILDING IS *WATER*.

Water can cause wood to rot, bricks and stones to crumble and fall, and paint to blister and peel. The information below can help identify some of the causes of moisture problems in buildings, which is the first step to reducing moisture-related damage. (See the Wood Walls, Masonry Walls, and Exterior Color and Paint chapters for more information.)

### You Probably Have a Moisture Problem If You See:

- Bricks or stones with surface layers falling off
- Bricks or stones falling from the wall
- A masonry wall that is covered with plant growth
- A spotty white haze on brick or stone (efflorescence)
- A painted surface that is peeling down to bare wood
- Paint that is blistering
- Paint that is covered with mildew
- Damage to interior floors, plaster, drywall, or paint
- Increased interior relative humidity
- Moss or plant growth on shingle roofs

### Where Does Excess Moisture Come From?

- Leaking or inadequate gutters, downspouts, flashing
- Missing or damaged shingles or other roof materials
- Defective caulking, sealants, and/or expansion joints
- Damaged masonry, for example, from sandblasting
- Missing or damaged wall material (like cracks in siding)
- Inadequately treated walls (like unpainted siding)
- Faulty mortar joints
- The growth of ivy or other vegetation
- Poor drainage at the foundation
- Rising damp (suction pulls groundwater up through a masonry wall)
- Insufficient ventilation of interior moisture

### Possible Treatments to Guard Against Moisture:

- Treat new and replacement wood with a preservative that kills fungi before painting.
- Use marine epoxy products for minor deterioration. They saturate the wood, arrest the rot, and fill all damaged areas.
- Consider damp proof courses and below grade waterproofing with the assistance of a professional.

### For Additional Ways to Reduce Moisture:

- See the information on excess moisture in the Exterior Color and Paint chapter of this guide.