HISTORIC PRESERVATION COMMISSION
SUMMER 2025

ALTERNATIVE PORCH FLOORING DESIGN GUIDELINES

POLICY #24-01

HISTORIC PRESERVATION IN MONTGOMERY COUNTY

Montgomery County has a rich and complex history. Our historic places are important links to the past and contribute to the county's present character. Historic preservation recognizes and protects site of cultural, architectural, or archaeological value so we can explore, understand, and appreciate our heritage.

The Montgomery County Historic Preservation Commission (HPC), a body established by the County Council and County Executive, implements the design review process (as outlined in Chapter 24A of the County Code) for sites listed in the Locational Atlas & Index of Historic Sites or the Master Plan for Historic Preservation. The Historic Area Work Permit (HAWP) process manages change through the repair, alteration, or addition to historic resources while preserving their character defining features.

PURPOSE OF THE POLICY

The HPC created this policy to assist in the review of Historic Area Work Permit (HAWP) applications for the replacement of porch flooring and decks on historically designated buildings in Montgomery County. The two objectives of the policy are to preserve the historic character of historic resources and to provide flexibility, where warranted, for the use of synthetic and manufactured materials on porches and decks.

Property owners should use this guidance to assist them, as well as architects and contractors, in planning porch and deck projects within Master Plan Sites and historic districts. The HPC and Historic Preservation staff will use the guidance as a baseline for review to articulate their findings. The policy was approved and adopted on June 12, 2024.

OVERALL GUIDANCE

1. This policy guidance applies to all Master Plan Historic Sites and Historic Districts.

2. Property owners should have a professional evaluate the condition of the existing porch to determine if there is an underlying issue causing the porch flooring to fail.

3. Changing the material of porch flooring requires a Historic Area Work Permit (HAWP) from the Historic Preservation Commission (HPC) whether the proposal is consistent with this policy or not.

The approved and adopted language for Policy No. 24-01 is available online.

CONTACT

To request additional information, contact the Historic Preservation Office with any questions or additional information at mcp-historic@mncppc-mc.org or at (301) 563-3400.

We encourage applicants to consult with our office early in the planning project stage to ensure the project's success.

All photos are courtesy of Montgomery County Planning Staff unless otherwise noted.

APPLICABLE GUIDELINES

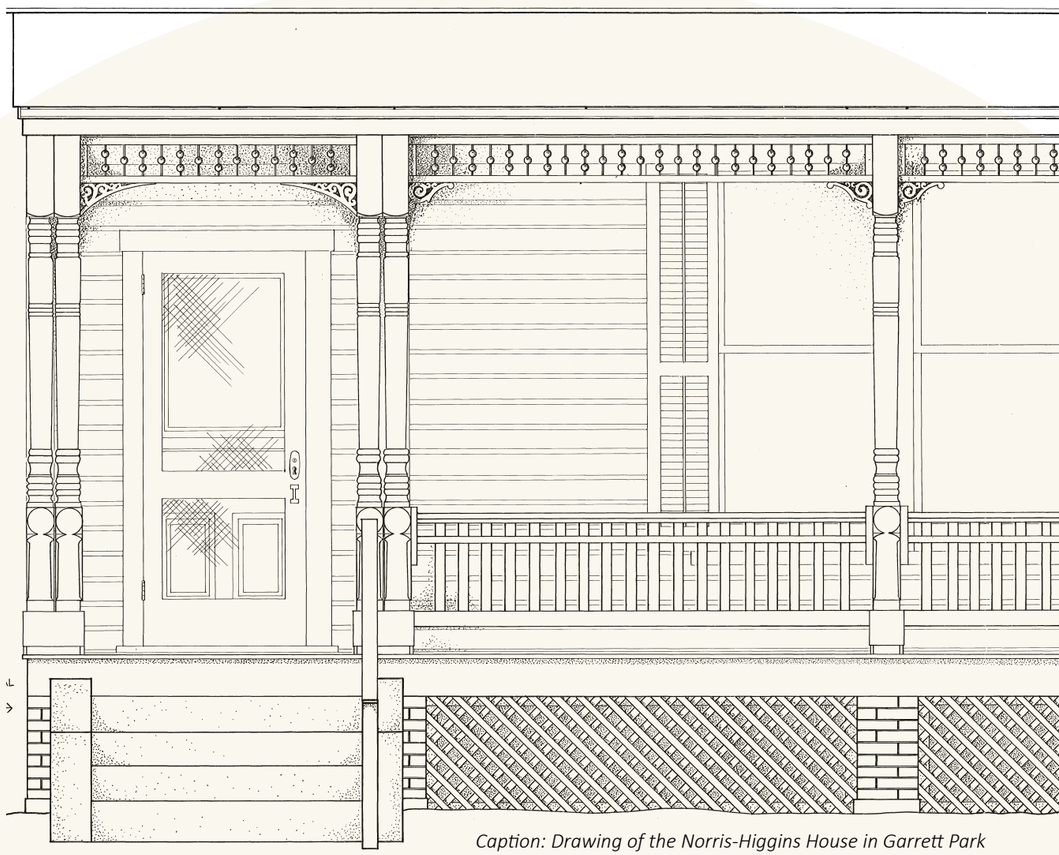
Relevant Secretary of the Interior's Standards for Rehabilitation:

Standard 2: The historic character of the property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Standard 6: Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

For Additional Guidance, see:

Preservation Brief #16: The Use of Substitute Materials on Historic Building Exteriors
Preservation Brief #45: Preserving Historic Wooden Porches



Caption: Drawing of the Norris-Higgins House in Garrett Park (Historic American Buildings Survey).

THE POLICY

The HPC determined that the appropriate use of substitute materials should be based on the significance of the historic resource. For example, buildings in historic districts that contribute to the overall character of the district are given a less rigorous review than individually listed Master Plan Sites that are designated for their own significance. If you are uncertain about the classification of your property, reach out to Montgomery County Historic Preservation Staff.

INDIVIDUAL MASTER PLAN SITES

These resources have been individually placed on the Master Plan for Historic Preservation for their historical, cultural, or architectural significance. Wood is the appropriate material to maintain the historic site's integrity, appearance, materials, and construction methods.

Caption: Contributing resource in the Hawkins Lane Historic District.

RESOURCES IN HISTORIC DISTRICTS

Outstanding/Primary Resources

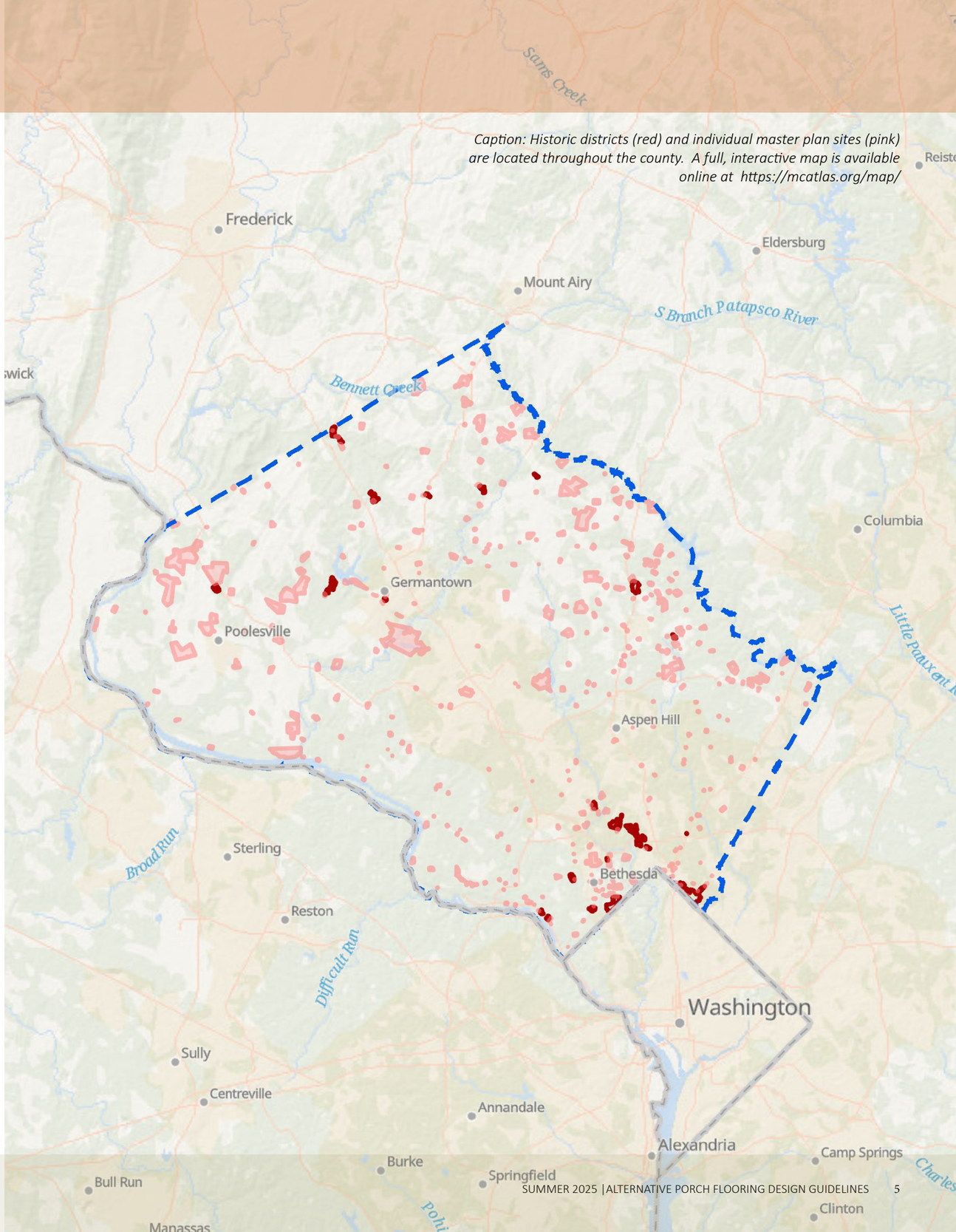
These resources are the most significant or have been found to have the highest level of integrity within a historic district. Wood should be used on all porches and decks and installed with an appropriate method. For most of these historic resources, the porches should be constructed with relatively narrow, painted tongue-and-groove wood flooring.

Contributing Resources

These resources are significant for their contribution to the district as a whole and prioritize retaining the architectural style, overall volume, and size. Porch floors on Contributing resources may be a compatible substitute material, provided the material matches the building's historic character and construction methods. Historic rear porches for Contributing resources may be constructed using a compatible substitute material. Non-historic porches and decks on Contributing resources that are not visible from the public right-of-way may be constructed using substitute materials.

Non-contributing/Secondary/Spatial Resources

These resources were constructed outside the period of significance of the district or have been so heavily modified they no longer contribute to the district's historic character. Front and rear porches and decks may be constructed using substitute materials.



Caption: Historic districts (red) and individual master plan sites (pink) are located throughout the county. A full, interactive map is available online at https://mcatlas.org/map/

HISTORIC AREA WORK PERMIT REQUIREMENTS

The Historic Area Work Permit (HAWP) application is required to alter or change existing porch flooring.

Each HAWP application is evaluated on a case-by-case basis. Because of the nature of the work proposed, it is important that the application includes the following:

- Photographs showing the appearance and conditions of the porch with detailed photographs of the material that show any deterioration; and,

- A narrative identifying the proposed material and its installation method (i.e. tongue and groove flooring installed perpendicular to the front wall).

Historic Preservation Staff may require a material sample to evaluate and present to the HPC.

BENEFITS

The county offers a tax credit for in-kind repair or restoration of exterior features on historic properties.

Replacing a wood porch with wood, regardless of the resource's level of significance, qualifies for a 25% County Historic Preservation Tax Credit applied to a homeowner's property tax bill.

More information about the Montgomery County Historic Preservation Tax Credit is available here: https://montgomeryplanning.org/planning/historic/tax-credit-program/.

Caption: The Sandy Spring Friends Meetinghouse is a Master Plan site.

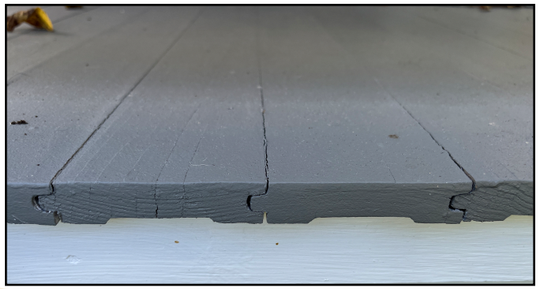
WOOD PORCH FLOORING

UNTREATED WOOD

Historically, wood porches were constructed using milled boards with tongue and groove joinery. This created a strong, nearly seamless flooring surface. Porch flooring boards from the nineteenth and twentieth centuries typically measured between 2¼" to 3¼" wide, depending on the age and type of the historic resource. These boards were then painted to provide an additional layer of protection. The old-growth lumber used for these porches had tight growth rings and could be expected to last several decades with proper maintenance.

The HPC does not regulate specific wood species on replacement decking for porches, but does review proposals for compatibility with the historic resource. When replacing porch flooring, property owners should match the overall thickness, width, profile, and texture of the historic wood flooring. Factors such as cost, availability, and sustainability of wood species are outside of the purview of the Commission and are not considered in regulatory review.

Caption: Wood porch boards installed on a historic property.



Caption: Tongue and groove wood joinery creates a seamless flooring surface.

Caption: Reclaimed wood flooring (Relics Architectural Salvage).

RECLAIMED WOOD

Reclaimed wood is salvaged timber that has been re-purposed for new use, often from barns or demolished buildings. The quality of the wood is extremely variable, depending on its age and the source. Reclaimed wood sourced from old growth trees may be denser and more durable than the new growth wood that is available at traditional retailers.

The HPC supports the use of reclaimed wood, provided that it is milled to the proper dimensions and installed correctly on the resource.

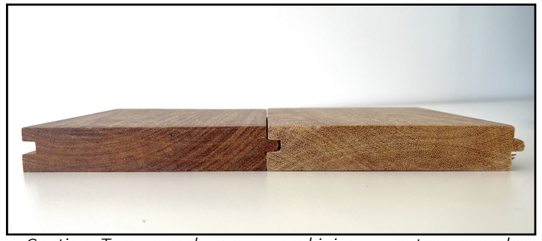
WOOD SPECIES

Property owners seeking to replace porch flooring may consider several factors in determining the best wood species to use. Many native wood species are relatively inexpensive and have natural rot and insect resistance. However, the loss of old-growth forests and prioritization of quick-growing trees has resulted in the degradation of lumber quality for some species. In response, many property owners have turned to exotic hardwoods that generally outperform local lumber in strength and longevity. These woods have their own drawbacks, including high cost and limited availability due to trade restrictions. The HPC does not regulate or recommend specific wood species.

Property owners should conduct their own research, as the quality, durability, and cost of specific wood species continue to evolve. While not an exhaustive list, here are some frequently used woods for decking and porch flooring:

Species	Cost	Janka Rating*	Estimated Lifespan
Yellow Pine	$	870	5-15 years
Douglas Fir	$$	660	10-20 years
Cypress	$$	510	10-30 years
Eastern Red Cedar	$$$	900	15-30 years
Western Red Cedar	$$$	350	15-30 years
White Oak	$$$	1350	15-30 years
African Mahogany	$$$$	1100	25-40 years
Cumaru (Brazilian Teak)	$$$$	3330	25-50 years

*The Janka hardness rating measures the resistance of a sample of wood to denting and wear. A higher rating often correlates to a stronger wood. Note that wood strength is not the only factor in durability.



Caption: Tongue and groove wood joinery creates a seamless flooring surface. Cumaru is an exotic wood species with a tight grain.

Caption: Douglas Fir porch boards installed.

Caption: Mahogany flooring on an historic resource in the Kensington Historic District.

PRESSURE AND HEAT TREATED WOOD

For the purpose of this policy, the HPC has determined that pressure-treated and heat-treated wood are “wood” and are **not** considered to be alternative materials. These materials have undergone an additional step to change some of their chemical and physical properties. They should be milled and installed like any other wood. Homeowners seeking to use modified wood for porch deck flooring are encouraged to conduct their own product research. Each company has a proprietary alteration process, and the products and processes continue to emerge and improve.

Thermally Treated Wood

The process of heat treating (thermal modification) uses high temperatures and low oxygen to alter the wood’s cellular structure and make it more resistant to moisture infiltration. Many manufacturers assert that these modifications extend the lifespan of wood and improve its strength; however, research on the long-term field performance is limited. Early studies show this process is more effective on certain wood species than others.

Caption: Thermally modified wood on a deck, two years after installation.

Caption: Pressure treated wood on a deck in Capitol View Park.

Caption: The appearance and installation of this thermally treated wood is visually indistinguishable from stained lumber. Thermally modified Radiata Pine, Spruce, Scots Pine, and Ash.

Pressure Treated Wood

The process of pressure treating wood uses chemical preservatives infused under pressure to protect it from decay, insects, and the elements. Pressure treatment is affordable and widely available. It must cure for a period of time before paint will adhere to the boards. Due to the presence of chemicals in the wood, it should be handled correctly.

PVC AND COMPOSITE DECKING

Products made of substitute materials such as PVC and composite decking are often used in place of wood porch and deck flooring. These products are made of a plastic compound or a composite of plastic and organic materials. PVC and composite materials may require less maintenance than wood and can outlast many of the domestic wood species on the market today. However, they also come with their own drawbacks, including visual and material incompatibility; higher upfront cost for installation; sustainability concerns; and increased heat retention. Most PVC and composite boards cannot be refinished.

Caption: Composite decking with a heavily embossed wood texture. This installation is not considered appropriate for historic porches.

The material characteristics of these products vary widely, and material samples are often necessary for Historic Preservation Staff and the HPC to fully evaluate the compatibility of the material. These products are extruded in molds, often in the form of an embossed wood grain pattern. Materials can be a single color or can be mottled to provide color variation in the product. Many of these products cannot be painted or stained without voiding the product’s warranty.

The HPC does not consider PVC and composite decking boards to be an in-kind replacement for wood. However, the HPC does permit installation of substitute materials that conform to Policy No. 24-01 on Non-contributing resources, on new construction, and on Contributing resources on a case-by-case basis. These materials are never permitted as replacements for wood decking on Individually-listed Master Plan Historic Sites or on Outstanding resources within historic districts.

Caption: PVC and composite decking can be produced with a tongue-and-groove profile.

Caption: PVC and composite decking often have a manufactured edge that does not replicate the look of wood. These edges should be covered.

RECOMMENDATIONS TO IMPROVE WOOD PORCH DURABILITY

All wood porches require correct preparation, installation, and routine maintenance in order to prolong their lifespan. All porches require regular cleaning. Many species of wood benefit from annual or periodic painting and staining to maintain a water barrier. A few additional installation tips include:

Before installing a new wood porch floor, all six sides of each board should be primed to provide additional layer of protection from the elements.

Porches should be inspected for evidence of surface damage, worn paint, and/or areas of rot. Damaged areas should be replaced as necessary.

Trees and shrubs immediately adjacent to porches should be trimmed to allow air to circulate around the wood porch elements for optimal drying. The underside of porches should be kept clear so as to not attract additional moisture. Raised porches should be installed with sheathing underneath to assist with waterproofing.

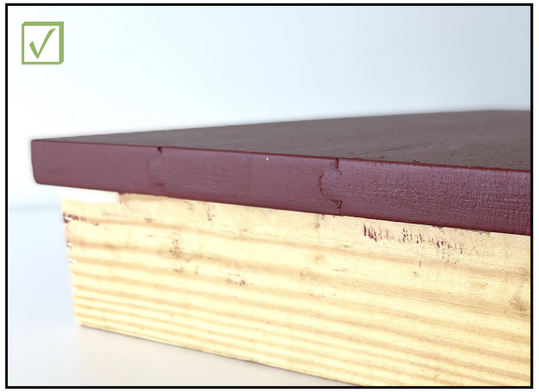
COMPATIBLE MATERIAL GUIDANCE

On buildings where a substitute material is acceptable under this policy, the material must satisfy the following criteria:

- It must match the dimensions and installation method (i.e.) of the existing material or a historically appropriate porch flooring, (e.g., boards must run perpendicular to the house for porches);
- It must be millable;
- It can be painted without voiding the product warranty; or,
    - Has a uniform appearance consistent with painted wood;
- It has a minimal (or no) stamped or embossed texture on the surface; and,
- It has a finished edge that appears as a cut solid board.

Recommended: Boards must be millable. (Pixlebay)

Not recommended: Many PVC boards are not millable due to their materiality.



Recommended: Composite decking with paintable edges that mimic the look of wood.

Not recommended: The edge does not have the same texture as a solid wood board and is both exposed and unpainted.

Recommended: Boards with edges that do not replicate the appearance of wood should be finished with a board to conceal the ends.

Not recommended: The edge does not have the same texture as a solid wood board and is not finished with a concealing board.

Recommended: Boards feature a minimally embossed texture and are paintable.

Not recommended: Boards feature a heavily embossed or stamped texture to replicate wood.

Recommended: Boards are installed perpendicular to the historic house.

Not recommended: Boards are installed parallel to the historic house.

ANATOMY OF A PORCH

a - Pier, penetrates ground, supports floor structural system and columns
b - Fascia covering floor framing
c - Floor (or deck)
d - Bed Molding covering joint between fascia and floor
e - Column supporting entablature above

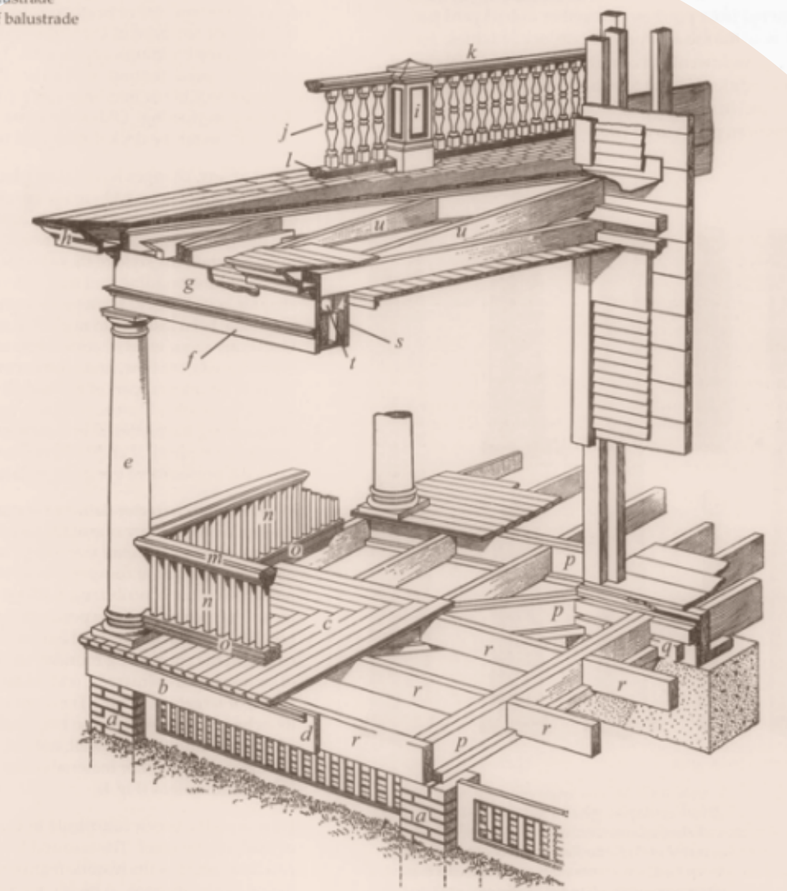
Entablature (f, g, h)
f - Architrave of entablature
g - Frieze of entablature
h - Cornice of entablature

Roof Railing (i, j, k, l)
i - Newel (or Pedestal) of roof railing
j - Balusters of balustrade
k - Top rail of balustrade
l - Bottom rail of balustrade

Balustrade around floor (m, n, o)
m - Top rail of balustrade
n - Balusters of balustrade
o - Bottom rail of balustrade

Structural system of deck (p, q, r)
p - Girder rests on piers and ledgers, support joists
q - Ledger fastened to house sill, supports girder
r - Joist fastened to girder, supports floor

Roof Structural System (s, t, u)
s - Beams inside the entablature span from column to column, support plate
t - Plate of the entablature rests on beams, supports roof rafters and ceiling beams
u - Rafter of the roof structural system



Caption: Porch decking anatomy diagram, courtesy of Thomas Education Direct

INSTALLATION GUIDANCE

PORCHES

Porch floors should be installed with tongue and groove floorboards, with the boards installed perpendicular to the wall plane and have a finished edge. Wrap-around porch corners should be cut so all floorboards are perpendicular to the wall.

Recommended: "Tongue and groove" boards are historically accurate and should be installed on historic houses.

Recommended: Wrap-around porch with boards should be cut to be perpendicular to both sides of the house.

Recommended: Raised porches should be clear underneath.

DECKS

Decks should have gaps between the boards, finished edges, typically perpendicular to the wall plane. The installation of deck flooring is usually less critical for drainage because there are gaps between the boards.

Not recommended: Standard wood boards without a tongue and groove profile are not historically appropriate for porches.

Recommended: Boards installed perpendicular to the wall with a finished edge are historically appropriate.

Recommended: Damaged wood should be replaced as needed.