DESIGN GUIDELINES FOR UTILITY METERS

D.C. HISTORIC PRESERVATION REVIEW BOARD

Introduction

Utility meters are a necessary component for any building. When older buildings were originally provided with utility service, meters were installed inside or on a building's façade in small unobtrusive cabinets. However, with modern utility requirements, the size of the meter housing can dramatically increase.

Determining how and where to locate new or expanded meters without negatively impacting the character of a building can be a challenge for many owners of historic property. Meter placement can be especially difficult for rowhouses with narrow façades and shallow front yards. Without advance consideration and planning, meters could be installed unsympathetically, obscuring windows or architectural details, or resulting in a bulky box on the façade or in a property's front yard.

This guideline is intended to provide property owners with information on the aesthetic and technical considerations for utility meter placement, and to make owners aware of their options. It outlines the design principles applied in the review of this type of work to ensure that changes are compatible with the character of historic property.

Preservation Goals and Considerations

The city's preservation law establishes the fundamental purposes for the review of work affecting historic properties. These include ***retaining and enhancing*** historic properties, ***ensuring that changes are compatible***, and ***encouraging adaptation*** for current use.

Design guidelines establish the principles for achieving these purposes. In giving more specific advice, these guidelines also reflect several considerations applied in the evaluation of work and its impact in affecting historic property. These considerations include:

Visibility or prominence from the street: Alterations that are visible to the public are more likely to affect a property's character. As a general rule, alterations on primary elevations prominently visible from a street should be more carefully considered, while greater flexibility is warranted for changes that are minimally or not visible.

Level of property significance: Historic properties may merit different levels of treatment depending on their relative significance. Buildings of greater architectural or historical character may warrant more careful treatment. Changes to properties in historic districts are reviewed in the context of their relative significance to the district.

Temporary and additive change vs. permanent and destructive change: Alterations that are temporary or easily reversible have less of a lasting impact on the character of historic property than changes that permanently change, damage, or remove important features.

Contextual and compatible design: The design of features for historic property should display an awareness of and response to the specific qualities of the property or district.

Quality of design and materials: Historic buildings typically display a high quality of design and materials that should be retained. Special features that are custom designed or crafted, or that represent an unusual degree of styling or detailing warrant particular care and all reasonable efforts should be made to preserve them. A more flexible standard may be applied to elements that were mass-produced or that do not have distinguishing characteristics.

Achieving a reasonable balance: Adapting old buildings requires a thoughtful consideration of practical needs along with the civic benefits of protecting architectural and historical characteristics valued by the community.

Electric Meters

Electric service in Washington is most typically provided from the street to the front of a property. Meter replacement occurs when a property owner requests an upgrade in electrical service, known as a "heavy-up." This could be because the owner needs to run more electrical equipment, such as central air-conditioning, when the electrical service throughout the house is being replaced during a renovation, or when the property is being converted to multiple separately metered units, such as when a basement is converted to an apartment.

Electric meters are housed inside metal cabinets that are manufactured in various sizes and are purchased by the electrical contractor. New and upgraded meters are required to have a separate manual shut-off, housed in an additional cabinet installed on the side of the meter cabinet. When planning and evaluating electric meter installations, property owners need to consider the size of both the meter and shut-off cabinets.

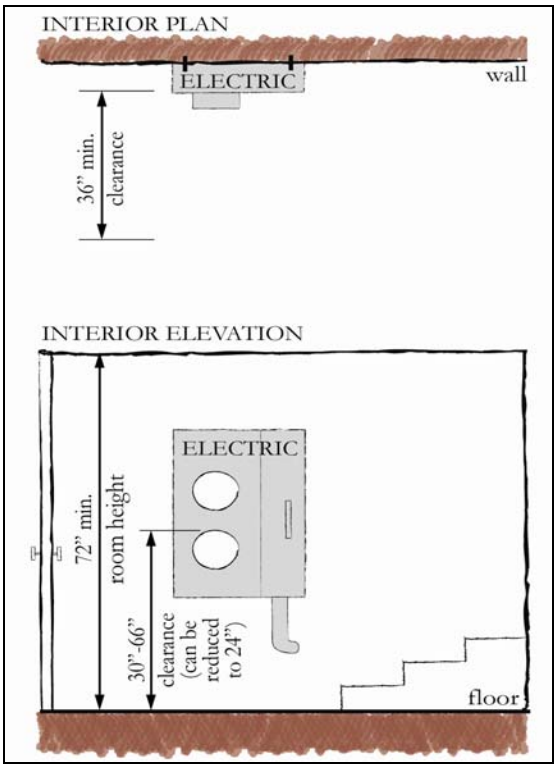
A single electric meter, as is still found on many Washington houses, is typically not obtrusive or difficult to accommodate on the exterior of the property.

When increasing electric service or converting a property to multiple units, it is important to plan ahead for placement of the larger meter cabinet so that it doesn't detract from the property's appearance.

Interior Installation

While exterior location is the utility company's preferred option for electric meters, owners may request to retain an existing meter or place a new meter on the interior. Particularly for narrow rowhouses with little exterior wall surface or front yard space, an interior meter may be the best option for historic properties when larger meter cabinets are required.

Interior meters are provided with an emitter that allows for remote automatic reading. The meter must be located in a space that is accessible by the utility company for occasional servicing or to confirm the accuracy of the remote readings. Interior meters can be housed in a basement, hallway, or dedicated closet; if located in a room that is below grade, it must be accessible by a stair rather than a ladder. As shown in the following illustration, the accessible space needs to have at least six feet of headroom and 36 inches of clearance in front of the meter. The meters must be mounted between 30 and 66 inches from the floor to the bottom of the meter glass.



New construction projects in historic districts, particularly those resulting in multiple units with separate electric meters, should be planned and designed to include interior installation. Placing meters in a shared vestibule, interior hall or dedicated meter room eliminates bulky meters on the exterior.

These new houses in LeDroit Park were designed with interior meters so as to not detract from the facades.

Whether for a heavy-up of an existing interior meter, relocation of an exterior meter to the interior, or a new construction project, any proposed interior meter installation should be reviewed and approved in advance by the utility company. If electric lines require significant rerouting, interior meter installation may require reimbursement to the utility company for additional costs.

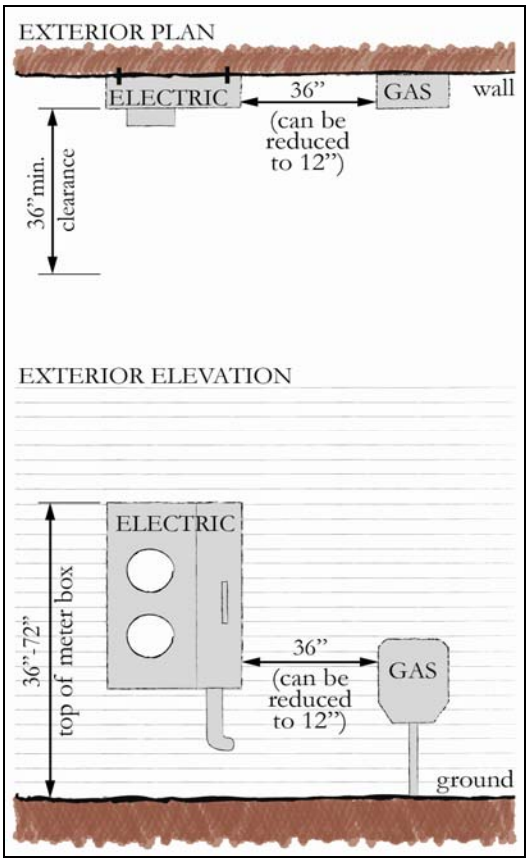
Exterior Installation

If interior installation is not feasible, exterior meters should be installed so that they do not visually dominate the building façade or front yard, result in alterations to the building, or obscure the building's architectural features. Exterior installation requires careful consideration of existing building and site conditions and may require discussion with the electrical contractor about possible alternatives. The guidelines in this document provide more specific advice in ensuring respectful exterior installations.

These meters were unobtrusively inserted between a projecting bay and the stairs to the adjacent property.

It is generally recommended that the smallest possible cabinet be selected to minimize its visual impact. Property owners should consult with their electrical contractor for the smallest cabinet appropriate for their needs.

As shown in the illustration below, the standard exterior electric meter installation should be located at least 36 inches above grade, with the top of the cabinet no higher than 72 inches. However, if site conditions require, the utility company may grant flexibility to allow the bottom of the cabinet to be lowered to 18 inches above grade. Electric meters should also be provided with 36 inches of clearance in front of the meter to allow for access and maintenance. The standard distance required between electric and gas meters is 36 inches; however, this can be reduced to 12 inches at the discretion of the utility companies if conditions provide for no feasible alternative.



Meter installations can often be made less obtrusive with relatively minor adjustments – such as by lowering this new meter to the area below the window sill and painting it to match the building.

Advance Planning

As with any construction or home improvement project, the installation of new exterior electric meters should be carefully planned in advance. Property owners should remind their contractor that the property is in an historic district and discuss the project with them and the utility company prior to the commencing. If necessary, ask if adjustments can be made or flexibility applied to standard dimensions to minimize the visual appearance, and contact the HPO if you need assistance in exploring alternatives. Ensure that the electrical contractor applies for the proper construction and public space permits and accurately shows proposed meters on building plans, as failure to obtain building permit approval prior to installation may result in the need to reconfigure the work and additional contractor charges.

Gas Meters

As with electrical lines, gas service is typically provided to the front of a property. Gas service connections consist of a meter with an attached regulator. Upgraded gas meter installations are not appreciably larger in size from what they replace unless the property is being renovated to increase the number of separately metered units. Because individual gas meters are small (relative to electric meters) and installed close to the ground, they are usually not difficult to incorporate on the front of historic properties in a compatible manner. Nevertheless, property owners should consider the location when a new or replacement gas meter is being installed to ensure that it will not be visually obtrusive.

Gas meters should be spaced 36 inches from new or existing electric meters, however, this may be reduced to 12 inches at the discretion of the utility companies if conditions provide for no alternative. Meters must be maintained separate from any source of ignition, and cannot obstruct window or door openings.

New construction projects in historic districts resulting in multiple units with separate gas meters should be planned and designed to include an interior meter room or installation of gas meters on a secondary elevation.

A single gas meter is typically not visually intrusive or difficult to accommodate on historic property.

Other Appurtenances

Appurtenances other than utility meters, such as telecommunications antennae, satellite dishes, and heating and cooling mechanical equipment, should not be placed in front yards or on primary elevations of historic property. Unlike utility meters, which often must be located at or close to the front of the property where service is provided, these types of equipment can be accommodated elsewhere on the property, such as on a non-visible portion of the roof or a secondary elevation. Public space regulations prohibit the placement of telecommunications and mechanical equipment in public space and require that they be located behind a property's building line.

Satellite equipment should not be placed on primary elevations of historic property.

Design Guidelines

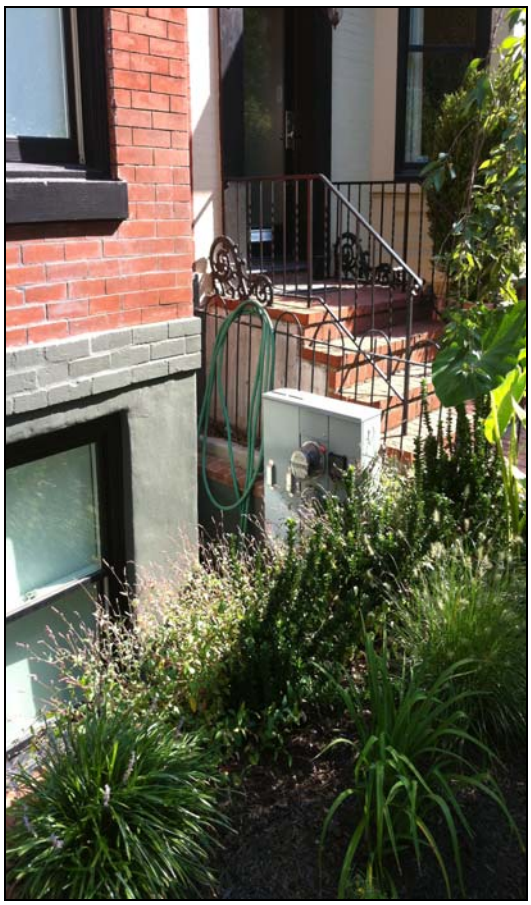
1. Utility meters should be visually unobtrusive and not dominate a property's setting or site

The most visually unobtrusive location for utility meters is inside the building. Utility companies require that interior installations be located in an easily accessible space such as a basement or vestibule, or in the case of a multi-unit building, in a common utility room. If located on the exterior, meters should be installed so that they are unobtrusive from public view.

1.1 Where feasible, utility meters should be located inside the property.

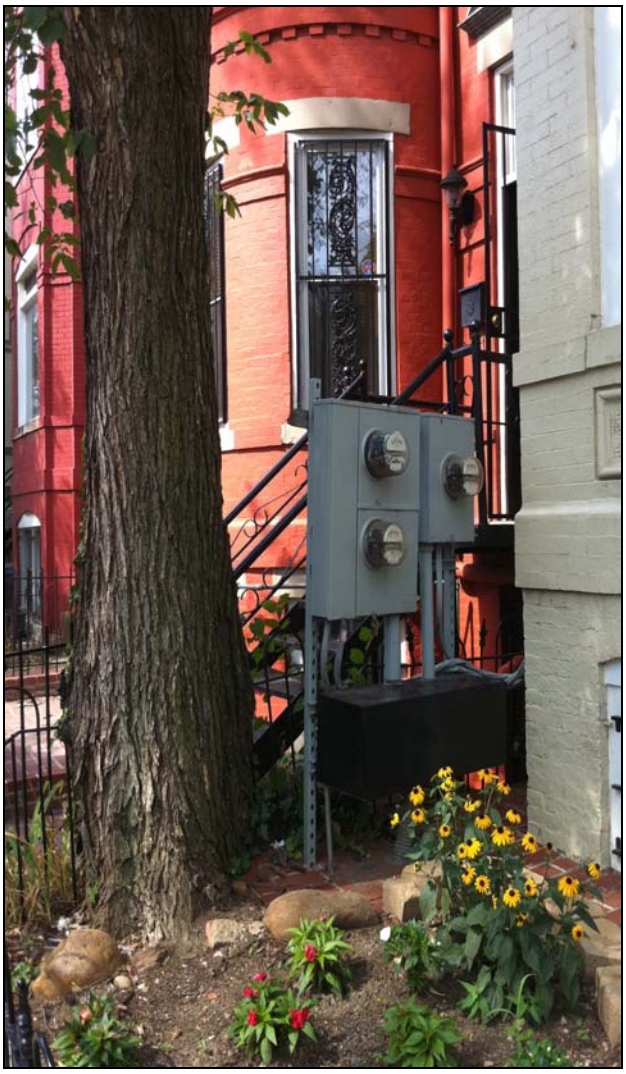
This interior electric meter is concealed in a narrow cabinet in the front hall.

1.2 If located on the exterior of property, utility meters should be located where they are not prominently visible from public view. Appropriate exterior locations may include a basement areaway or window well, under stairs, on the side of solid masonry stairs, on a flat unadorned wall surface located on or behind the building line, or at the side or rear of the property.



Installing utility meters in an areaway below a pedestrian's line of sight is often one of the least obtrusive locations for exterior meters. Landscaping helps screen it from public view.

1.3 Meters mounted on historic property should be installed below a pedestrian's line of sight as seen from the public sidewalk to minimize their visual impact. Installation within basement areaways and below a building's water table or belt course is encouraged.



These meters are substantially higher than the neighboring stairs and fence lines and obstruct open views of adjoining public space front yards.

1.4 Utility meters should not be installed in front yards unless they are located substantially below a pedestrian's line of sight and established fence lines, and don't obstruct views across adjoining front yards. Utility meters installed in a public space front or side yard require approval from the DC Department of Transportation (DDOT).

1.5 Installations resulting in three or more utility meters can rarely be compatibly accommodated on primary elevations of historic property. Where alternative exterior locations are not feasible, installations of three or more utility meters may be required to be located inside.

1.6 Sustainable, evergreen landscaping should be used to screen exterior meter installations. Installing new architectural features to screen utility meters, such a decorative cabinet or trellis structure, should be avoided.

1.7 Utility meter boxes should be painted to match or blend with the color of the building or surroundings. Valves, hinges, connections and display monitors should not be painted.

Installations resulting in three or more meters should be within an interior meter room or on a secondary elevation not prominently visible from the street.

1.8 Appurtenances other than utility meters, such as telecommunications equipment, satellite dishes, and heating and cooling equipment, should not be located on primary elevations or in front yards of historic property.

Landscaping and painting a meter cabinet the same color as the building (above and below) can greatly reduce its visual impact.

2. Utility meters should be installed with respect for the architectural characteristics of historic property

Historic properties typically have distinguishing architectural features on front elevations, such as projecting bays, porches, window openings, decorative stone or brick detailing, or distinctive masonry or cast iron stairs. An appropriate location for utility meters respects and does not alter or obscure these character-defining features.

2.1 Utility meters should be installed without altering distinguishing exterior features of historic property. Installations should not result in alterations to window openings, lintels, sills, window surrounds, decorative stone or patterned brick work.

2.2 Utility meters should be installed without obscuring or covering distinguishing exterior features of historic property. Meters should not obscure or cover window openings, lintels, sills, window surrounds, water tables, belt courses, decorative stone or patterned brick work.

Utility meters should not obscure or cover windows or other distinguishing architectural features.

A meter cabinet installed and painted to blend with an inconspicuous unadorned wall surface.

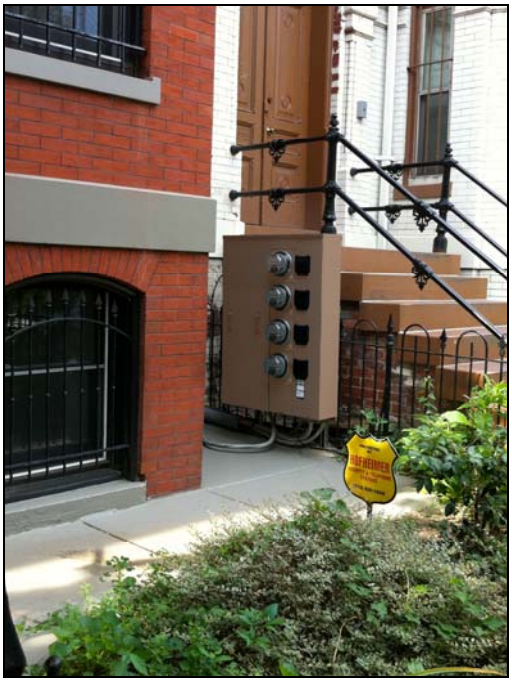
2.3 If appropriate to install on a visible front elevation, utility meters should be installed on a flat, unadorned wall surface.

This meter installation obscures the profile of the adjoining property's stairs. The owner worked with the contractor and HPO to adjust it (right) in order to make it less visually obtrusive.

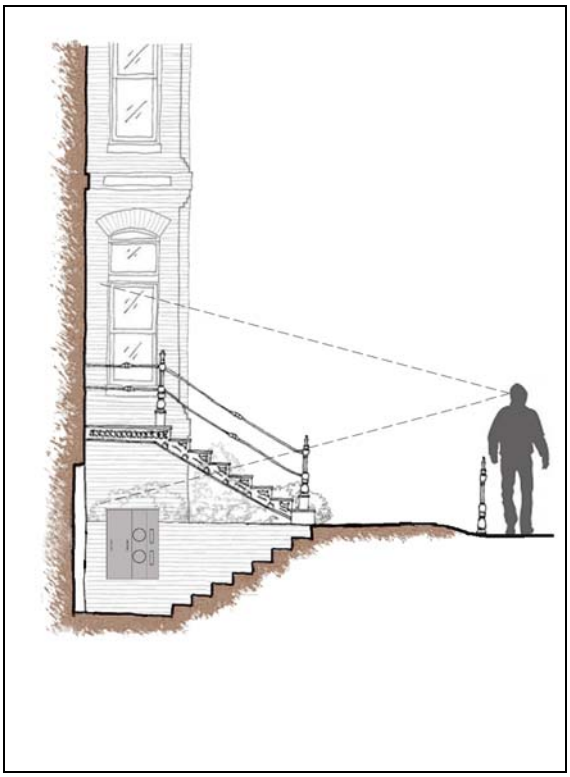
A utility meter installed below the top of a masonry stair and partially screened from the sidewalk by landscaping.

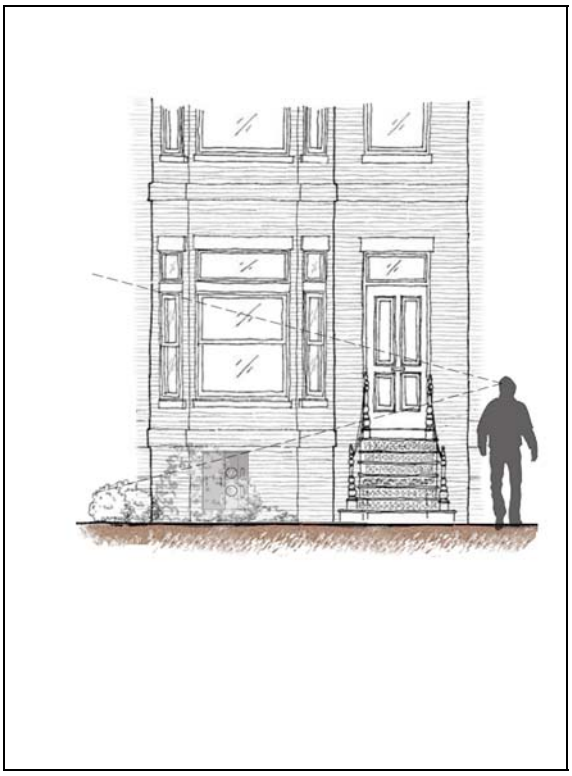
2.4 Utility meters should not obscure or alter the profile of a primary stair. Meters should not protrude above the stringer of an open metal stair or above the top of a solid masonry stair.

2.5 Adjusting the height or location of a proposed meter may be necessary to achieve a visually compatible solution. Property owners are encouraged to contact the HPO if they need assistance in exploring solutions or working with a utility company or contractor.



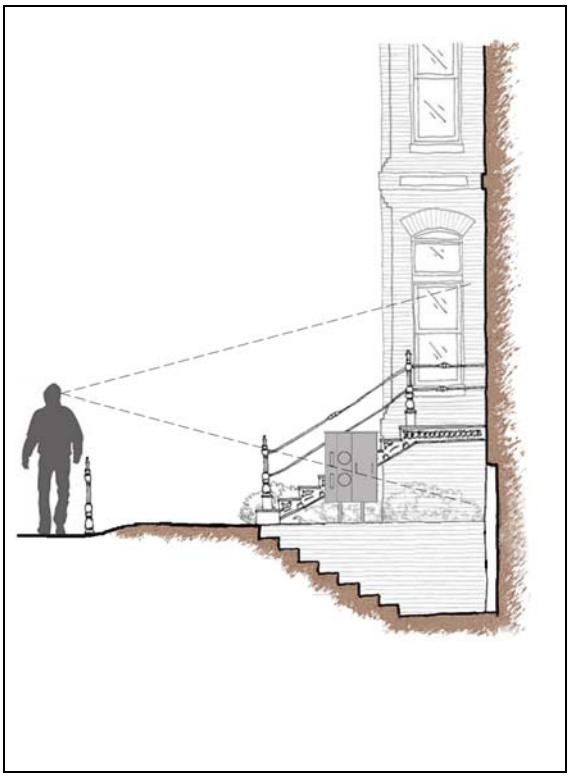
YES

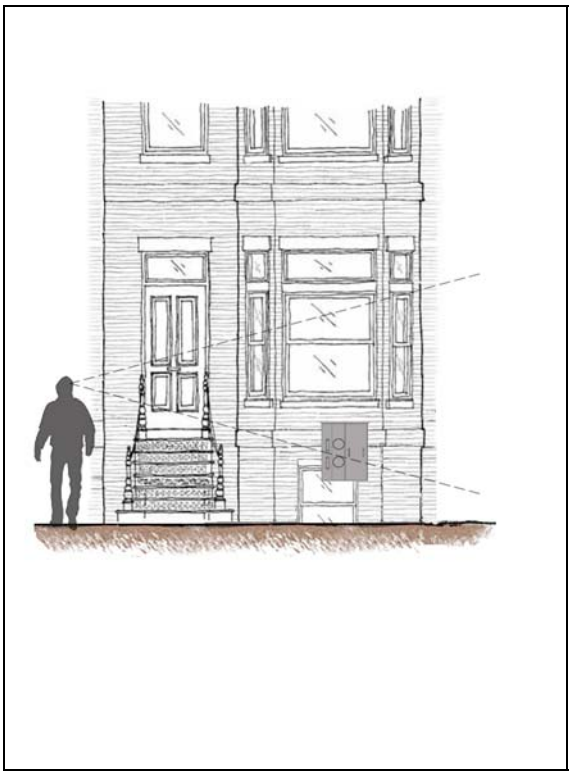




The meter installations above are visually unobtrusive, are located below a pedestrian's line of sight, and do not obscure character-defining features.

NO





These installations obscure character-defining features - the stair above, and the window and water table below - and are sited within the pedestrian's line of sight.

Building Permit Review

Installing utility meters on the exterior of historic property requires a DC building permit and review by the Historic Preservation Office for conformance with these guidelines. Interior meter installations require a DC building permit but do not require Historic Preservation review.

The following is needed for the review of a permit for exterior utility meter installations:

- **Photographs of the building** showing the building, site, and surroundings. Photographs of similar properties that have a condition that an owner seeks to replicate may also be included.
- **A measured elevation drawing** showing the proposed meter installation(s).
- **A measured site plan** with dimensions of the existing conditions of the front façade, yard or area affected by the work. Existing features such as the public sidewalk, walkways, steps, porches, projections, and retaining walls should be included.
- **A measured site plan** with dimensions of the proposed conditions of the front yard or area affected by the work, including existing and proposed features.
- **An application for a DC Building Permit** for Construction on Private Property. Permit applications are provided at the Permit Center, or they can be downloaded at www.dcra.dc.gov.

Permit applications and support materials should be submitted at the HPO desk at the DCRA Permit Center at 1100 4th Street, SW on the 2nd Floor (Waterfront Metro). For questions, please call HPO at 442-8800 to speak to a preservation specialist.

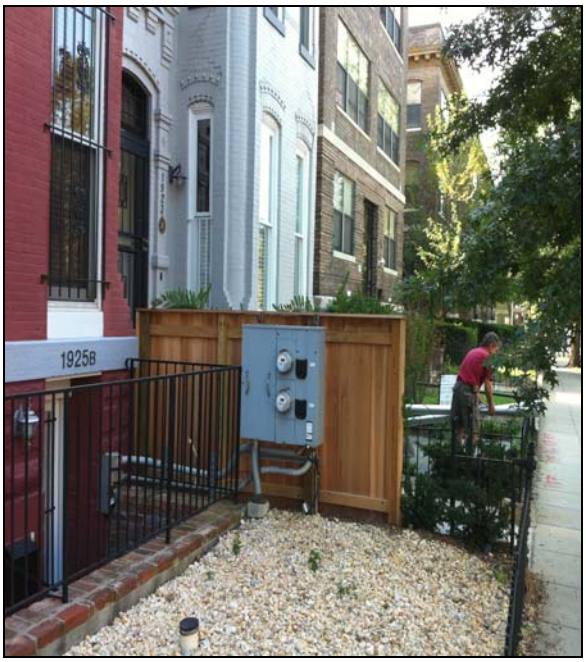
Public Space Review

Washington's neighborhoods are unusual in that the property line most often ends at the front façade of the building. Everything forward of the building's front face — including bay windows, porches, and front yards — is located in public space that is owned and regulated by the District of Columbia. Individually, these public space front yards are for the use and enjoyment of owners whose property abuts them; collectively they form a linear, park-like green space that runs through the city's residential neighborhoods. They are an important component of many of the city's historic districts, providing a distinctive landscaped setting for residential buildings.

Alterations and construction in public space, such as the installation of a utility meter cabinet, requires a public space permit from the DC Department of Transportation (DDOT) in addition to the required mechanical permit from the DC Department of Consumer and Regulatory Affairs (DCRA).

Public space front yards establish the landscape setting for many of the city's historic districts.

For more information on the public space permit review process, please see www.ddot.dc.gov (see "public space permits") or visit DDOT's Public Space permit desk in the Permit Center at 1100 4th Street, SW.



This meter box and solid fence protrude into the open space front yards in this block and are not consistent with the city's public space regulations.

Electric meters within a basement areaway do not protrude into open space front yards and are consistent with the city's public space regulations.

Properties with Easements

Many properties in the District of Columbia have historic preservation conservation easements, typically denoted by a plaque on the façade. A conservation easement is a property interest that has been donated by the current or a previous property owner to an easement-holding organization, which provides an added level of protection and review to those historic properties.

While the standards applied by the HPRB in the review of changes to historic property are generally the same as that applied by easement-holding organizations, there may be circumstances where an easement holder applies a more stringent standard. Owners of properties with easements are required to obtain written approval from the easement holder prior to the submission of a permit application for any exterior work, including new or upgraded utility meter installations.

Further Information

Pepco's Engineering Department for the District of Columbia has senior supervising engineers assigned to each of the city's wards. The engineer assigned to your ward may be able to provide assistance in the case of problematic installations.

Pepco Engineering
Benning Service Center
3400 Benning Road, NE
Building #59
Washington, DC 20019
202-331-6237, Fax: 202-388-2721

Owners of commercial property may want to consult Pepco's online design manual, which has information specific to commercial buildings:
www.pepco.com/_res/documents/customer_design_manual-final.pdf

DC Historic Preservation Review Board
Preservation and Design Guidelines

Roofs on Historic Buildings

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Door Repair and Replacement

Walls and Foundations of Historic Buildings

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Accommodating Persons with Disabilities
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