Federal Emergency Management Agency

FEMA GUIDANCE FOR PHOTOGRAPHING HISTORIC PROPERTIES

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SCOPE OF GUIDANCE

After a natural disaster in which there is a presidential disaster declaration, FEMA must assess the damage to properties in order to begin assisting communities in their recovery efforts. As part of this effort and in accordance with the National Historic Preservation Act, FEMA must assess how many "historic properties" in the disaster area (which may be affected by FEMA funding) are potentially eligible for the National Register of Historic Places (Register).

To be eligible for the Register, an historic property must meet one of four criteria of significance and have retained physical integrity; that is, it must retain the physical appearance it had during the time period for which it is considered historically significant.

As part of your FEMA job responsibilities, you will be taking photographs or digital images of properties for which FEMA funding may be used to repair or mitigate disaster damage. In many cases the photos you will be taking will also be used by Historic Preservation Specialists in FEMA to determine eligibility of properties for the National Register of Historic Places,
and to assess damage. FEMA staff will make these determinations almost exclusively on the basis of these photographs and digital images. This document gives guidelines that will allow anyone with a camera and the interest to take photographs that can be used by FEMA to characterize the physical nature of a structure, in terms of whether it retains integrity, and whether it is potentially eligible for the National Register.

This photographic guidance does three things:

1. Outlines how to look at a historic property including buildings, structures, objects, sites and districts and the sequence in which it should be described and photographed.

2. Recommends three levels of documentation with photographs or digital images (called views) to appropriately record the exterior of a building or structure and its key interior features (and when to use each of these levels).
   - The minimum level of two or three photographs is suited for survey.
   - The basic level of five exterior views and three interior views provides the information necessary to describe a property.
   - The expanded level of documentation when more comprehensive coverage of a property is needed.

3. Recommends what pictorial content is useful to make the determination of whether historic properties are potentially eligible for the National Register and whether they retain integrity.

How the National Register of Historic Places Evaluates Historic Significance and Integrity

The National Register is the nation's inventory of historic places (called "properties" which include districts, buildings, structures, objects and sites) that reflect "the quality of significance in American architecture, archeology, engineering and culture" and that possess integrity.

To be eligible for the Register, a property must meet one of four criteria of historical significance stated below. The criteria are that a property must:

1) Be associated with an historically significant event or trend (Criterion A); or
2) Be associated with an historically significant person (Criterion B); or
3) Be significant for their physical design or construction (Criterion C); or
4) Be significant because it has yielded, or maybe likely to yield, information important in history of prehistory (Criterion D).

Significance can be in terms of national, state, or local history.

In addition to meeting one of these criteria, a property must have retained integrity. The National Register defines integrity as "the ability of a property to convey it significance." "Integrity" refers to the physical

1 Unless otherwise noted, the source of all references to and definitions of National Register criteria for evaluation is *How to Apply National Register Criteria for Evaluation: National Register Bulletin*, (Washington, D.C.: National Park Service U.S. Department of the Interior)
characteristics of a property. Basically, it means that a property should look much the same as it did when it was built or during the period for which it is historically significant. Your role as a photographer in the response phase is not to make judgments about whether a property retains integrity; but rather your task is to take a series of photographs that will allow a FEMA historic preservation (hp) specialist to do so.

The Register defines integrity in terms of seven aspects: 1) location; 2) design; 3) setting; 4) materials; 5) workmanship; 6) feeling; and 7) association. A property must have retained at least three of the seven aspects of integrity to be considered eligible for the National Register.

Why FEMA Relies on Criterion C: Design/Construction for Response Activities

In the response phase of a natural disaster when there is little or no time for historic research, FEMA must determine eligibility by evaluating the physical appearance of the properties. In short, this means determining whether they meet Criterion C: Design/Construction. To be eligible under the Design/Construction criteria, a property must embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

FEMA concentrates primarily on the Design/Construction criteria and integrity because a property cannot be eligible for the Register, regardless of what other criteria it might meet, if it does not retain its physical form and integrity. For FEMA, the quality of photographic documentation is extremely important because, in many cases, the visual information in the photographs is the sole basis on which eligibility and integrity is determined.

Remember, that although there may be more time for research and applying other National Register criteria in the later recovery phase of a disaster, the determination of whether a building retains integrity and is therefore potentially eligible for the Register is the required first step; it is the gate that must be opened to allow the process to continue. Without good exterior photographs, that gate cannot be opened.

SEQUENCE FOR APPROACHING AND LOOKING AT AN HISTORIC PROPERTY

You do not have to have any knowledge of historic properties to take useful photographs of them. Think of your pictures/images as collecting visual data from which architectural historians and historic preservationists can understand the physical character of a property, evaluate its significance, and determine whether it retains integrity. Therefore, this protocol is a method for systematically collecting visual information about historic properties.
This guidance is organized around the sequence in which one looks at a property to describe and photograph it. This method is based on 1) how one writes an architectural description of a property for the Register, and 2) the sequence in which the Historic American Building Survey and Historic American Engineering Record (HABS/HAER) requires that a property be photographed. The sequence is to first photograph the exterior, starting with the front, and move around the building counterclockwise. The interior is documented next moving from first floor to upper floors and then to the basement.

But before photographing the building you should familiarize yourself with it, in order to get to know it. In learning the visual aspects of a property, you should do a “walk around” starting with the exterior and then moving to the interior. Most FEMA photography will be of exteriors. On the exterior, you should begin with a general overall view of the property in its environment, then consider the overall form and shape of the property, then look at its component parts, and then finally its details. In effect, you should act like a zoom lens, first getting a wide-angle view of the property in its surroundings, then zoom in to view of the building isolated from its surroundings, then zoom in further to look at specific features, and then finally to details such as materials. In doing this, you should walk around the building two or three times, getting closer in each walk-around.

On the interior, you should start at the entrance and move through the building from the first to upper floors and then to the basement. In this tour, one should try to understand how the spaces functioned and if there is a progression from major spaces to minor spaces. In a residential building the progression might be from important formal spaces, such as parlors, to informal private spaces such as bedrooms, and to working spaces like a kitchen. Look at the details of finish to see how that hierarchy might be physically manifested in such things as moldings and levels of finish. In short, regardless of the function of the building, use common sense to observe how the building worked and what the most important rooms or areas are so that you photograph those first.

A building is meant to be seen at different distances, so in looking at a building you should also walk toward each side of the building and see what comes to your attention as important visually as you get closer. How is your impression of a building different from a distance than close up? What do you see close up that is lost at a distance? (See Figure 3.)

Figure 3: When familiarizing yourself with an historic property before photographing it, it is useful to get a visual sense of the entire property and then to walk toward it to see what architectural elements come into focus as you get closer and how your perception of the building and what is important to photograph changes. (First Methodist Episcopal Church, Altoona, PA, HABS)
The Photographic Essentials

Perspective and Elevation Photographs

Architectural photographs are of two general types: perspective photographs and elevation photographs. A perspective photograph is one that shows two sides of a structure taken at a 45-degree angle thereby documenting its characteristics as a three-dimensional form including size and volume. (In a perspective photograph, the structure should fill about 75 percent of the frame, thereby including some environmental context.)

An elevation photograph approximates an elevation architectural drawing and is a photograph of one side of a structure taken head on. An elevation is a drawing to scale of the side, front, or rear of a building in which projecting features such as window and door moldings, windowsills, steps, and eaves are all rendered as if they were totally flat. The emphasis on one side of a building as two-dimensional surface makes an elevation photograph more axiomatically correct. This means that distances on the photograph are proportional to distances on the building, and approximate measurements can be taken from the photograph. (In elevation photographs, the structure should fill the frame, isolating it from its surroundings.)

Required Camera Type

The minimum camera requirements for this photographic protocol are a 35 mm camera or digital camera. The camera should have a wide-angle lens of 28 or 35 mm focal length for a 35-mm camera. The lens on digital cameras is similar to those on 35 mm cameras except the focal length is much shorter. Dividing the focal length of a 35 mm lens by seven will equal the focal length of a digital camera. The digital camera should be at least a medium-resolution camera, which constitutes the majority of consumer digital cameras. We assume that you as the photographer will be using your own or FEMA-provided cameras with which you are familiar.

Camera Handling

A primary requirement of an architectural photograph is that vertical lines that are parallel in the building should be parallel in the photograph. In other words, the outside walls of a structure should not appear to converge toward the top of the photograph making the building look like it is falling over. This is especially important in elevation photographs.

Convergence occurs when the photographer tilts the camera backward to get the top of the building in the photograph. To overcome convergence, you should hold the camera so that the back of the camera is oriented toward the front of the building.

Elevation photographs provide the best documentation of shape and proportion of a building while perspective photographs best depict the three-dimensional form of a structure.

Figure 4. Comparison of perspective and elevation photographs where perspective view emphasizes the three-dimensional form and the elevation photograph emphasizes shape and design across the front of the building. Altoona, PA

2 This group is made up of cameras with resolutions ranging from 640x480 pixels (known as VGA – Video Graphics Array cameras) to 800x600 pixels (SVGA – Super VGA cameras).
vertical, at a 90-degree angle to the ground. This insures that the plane of the film, in the back of the camera, is parallel to the plane of the building.

**Film**

When operating under tight time restrictions, you should use Kodak Royal Gold color negative film of ASA 200 or ASA 400. Although this film can be processed quickly and easily, it is not archivally stable. If you believe your photographs may be the only ones taken of the property before demolition, try to use black and white film.

**Light**

Although FEMA photographers -- working to document as many resources as possible as quickly as possible -- have to use the light that is available, there are guides to good lighting. Most FEMA photography will use natural light. There are three types of light for exteriors; front light, sidelight, and backlight. The best lighting is front light when the sun is approximately 45 degrees between the axis of the lens and the most important façade being photographed. (See Figure 4) Acutely angled raking light is "sidelight" which is excellent for revealing texture and detailed three-dimensional form. Of these, you should avoid BACK LIGHT where the sun is coming from the rear putting the side being photographed in shadow. When an important feature is in the shade or a façade is backlit, you can be partially correct this by filling the frame with the feature being photographed to reduce the contrast in the scene.

In situations of direct sunlight on a cloudless day, you should be aware of shadows cast on buildings by surrounding trees and try to pick times of the day when the angle of the sun minimizes these shadows. Also, the time from late morning to early afternoon, when the sun is directly overhead, can cause "eaves" or "cornice" shadows that will cover half of a wall. In other words, when the sun is directly overhead, the projection of the roof over the walls can create a shadow far down the wall. The best lighting for survey photography is a bright overcast day.

**THE THREE FEMA LEVELS OF PHOTOGRAPHIC DOCUMENTATION OF HISTORIC RESOURCES**

There are three levels of FEMA photographic documentation. The minimum level is the minimum number of photographs needed to record a three-dimensional built form. The basic level is the type and number of photographs needed to record as much information in as few images as possible. (This is also the basic sequence for HABS/HAER documentation) and the expanded level is the type and number of photographs needed to make a complete evaluation of integrity.

The Minimum Level of Photographic Documentation

At a minimum, two perspective photographs are required to document a building or structure. These include 1) a photograph showing the front and one side of the building and 2) a second photograph showing...
the rear and the other side of the building. These two photographs document all four sides of a building.

When framing the building in the viewfinder, ensure that the entire building is visible including the point where the building meets the ground and the peak of the roof or chimney. Although this sounds obvious, beginning photographers are often seduced by buildings and attracted by interesting details such as carpenter-cut jigsaw porches, pointed Gothic windows, and Greek revival columns. Unfortunately, the resulting pictures sometimes fail to record a view showing the entire structure. To avoid this problem, include the surroundings of the building, its site, and landscape context. As the subject of the photograph, the building should occupy about 75 percent of the picture area, leaving the surrounding 25 percent of the frame for visual information about the context of the building. A third photograph showing a detail of materials, craftsmanship or design is also useful.

Figure 7. The second photo should be a perspective of the rear and other side. Together, these two perspective shots document the building comprehensively.

However, many photographs will be taken in cities and towns where the buildings are at high densities along streets and it is not possible to get a rear perspective. In this situation, the second photograph should be an elevation and a third might be an important architectural detail.

The Basic Level of Photographic Documentation

The most widely recognized guidelines for photographically documenting historic resources are those of the Historic American Building Survey and the Historic American Engineering Record (HABS/HAER) of the National Park Service. We are using the list of views recommended by HABS/HAER as the basic level of photographic documentation for FEMA purposes.

Both exteriors and interiors are photographed for complete documentation. For FEMA, however, the

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determination of potential eligibility for the National Register will be made primarily on the basis of the integrity of the exterior of the resources so that photography for the initial survey will probably concentrate on the exterior. Integrity decisions are made of the basis of the exterior for two reasons. The first is because the exterior of an historic resource conveys the most information about the aspects of its integrity.

Secondly, and very practically, because in a response phase you will only have time to document the exterior of a structure and will be taking photographs before interiors have been certified as safe to enter. The exterior is also important because a resource cannot have lost its integrity on the exterior and still retain overall integrity. In terms of the “design” aspect of integrity, for example, the exterior conveys large-scale characteristics such as overall form and shape as well as small-scale architectural elements like porches and decorative details such as fan windows.

Based on HABS guidelines, FEMA considers the following views of the exterior essential for architectural structures:

1. General view at a distance sufficient to show environmental setting and landscaping
2. Elevation of front façade
3. Perspective view of the front façade and one side;
4. Perspective view of the rear and one side
5. Close up view of the main entrance

Other aspects of integrity such as “location” and “setting” are exclusively exterior characteristics. “Feeling,” although manifested throughout a building, is primarily an exterior characteristic. The remaining aspects of integrity of “materials,” “workmanship,” and “association,” are essential aspects of the exterior. Consequently, although interior photographs are needed for a thorough evaluation of integrity, a set of good exterior photographs will provide enough information to make an initial evaluation of integrity.
Damage to the structure caused by the natural disaster should be evident as part of these views. If you do move in to shoot details of damaged areas, be sure to show how the damage relates to the overall building.

If the interior is documented, the following views should be taken:

1. A view from the main entrance looking to the interior of the building.
2. Views of major spaces/rooms including important features such fireplace or mantle (for large spaces such as sanctuaries, factories or barns take diagonal views from opposite corners)
3. Other significant rooms or features as considered relevant to documenting the structure.

Since you will be working under intense time pressure with FEMA—to document as many buildings as quickly as possible—you should approach each structure with this checklist in your mind (of the five basic exterior views and three basic interior views) and be sure to photograph them. Later, if you have time, you can take additional photographs of architectural elements or damage. You should also discuss with the survey director or Historic Preservation Specialist the types of additional photographs that may be useful.

When to Expand the Basic Level of Documentation

You should determine whether to expand this basic level of documentation depending on the nature of the structure being photographed and what needs to be documented. For example, two perspective photographs work best on square or rectangular structures with four outside walls. A structure of more complex shape, with more outside walls, such as C-shaped building, will require more perspectives to insure that all of the walls are included in at least one photograph. In the following sections on eligibility and integrity recommendations will be made for additional photographs. The expanded schedule of photographs outlined next is a guideline for how to increase the number of photographs beyond the FEMA Basic Documentation, as needed.

The Expanded Level of Photographic Documentation

In doing the walk-around to become familiar with the physical characteristics of a historic property, you also need to evaluate the physical damage—where it is and how extensive it is. You should plan your photography to include both the most damaged part of the building and the part that remains most intact. In order to accomplish this you may need to expand the number of photographs in the FEMA basic level of documentation. For example, the circular motion of hurricane damage can be so tight that it will take off one corner of a building while leaving the rest intact. You should try to photograph important features of a building if they have been blown off from wind damage, but still remain partially intact.

Although we will discuss the documentation of aspects of integrity by type of view below, the organization of views at this expanded level are from views of the overall building to the closer views of architectural elements and details moving in a counterclockwise fashion. (As indicated, this is the sequence for detailed HABS/HAER coverage). Each side of the property is photographed from the overall view, such as elevation, to detailed views in the zoom lens manner of looking at a property as discussed above. For documenting integrity, this sequence specifies an approach that can be varied depending on the complexity of the building.
Environmental View

1. Environmental view of the front and right side (looking at property from front) (FEMA Basic)
2. Environmental view of the rear and right side (FEMA Basic)
3. Perspective view of front and right side (FEMA Basic)
4. Perspective view of rear and left side (FEMA Basic)

Front Side
5. Elevation of front façade
6. Elevation or perspective of front entrance (FEMA Basic)
7. Perspective or elevation views of architectural elements such as porches or windows
8. Details of materials and/or decoration

Right Side
9. Elevation of front façade (FEMA Basic)
10. Perspective or elevation views of architectural elements such as porches or windows
11. Details of materials and/or decoration

Rear
12. Elevation of rear
13. Perspective or elevation views of architectural elements such as porches or windows
14. Details of materials, hardware and/or decoration

Left Side
15. Elevation of left side
16. Perspective or elevation views of architectural elements such as porches or windows
17. Details of materials, hardware, and/or decoration

Remember, however, that these are guidelines to be modified depending on the building, or structure, and its environment.

"Working a property:" Organizing Documentation with a "Shoot List"

It is essential to organize your documentation according to the FEMA protocol levels and maintain a list of captions of your photographic or digital images. HABS/HAER requires a photo index in which exterior photographs should be listed in the same sequence in which the photographs were taken.

Since the final photo index will be organized this way, it makes sense to organize your preliminary "shoot" list in this same manner. A "shoot list" is the list of photographs you plan to take after you have surveyed the building making the circular walk on the outside and walking through it. When doing more than the minimum two-shot documentation, it critical to plan your photographs for three reasons: after you start you can easily forget what you have photographed; once you start shooting you will see views you had not anticipated; and it is the basis for your index and description of views.

HOW THE NATIONAL REGISTER LOOKS AT A HISTORIC PROPERTY AND EVALUATES INTEGRITY

National Register Guidelines for Describing a Property as a Guide to Photography

A National Register description of a property -- the heart of a National Register nomination -- is a "word picture" of a property that is used to evaluate the significance of a property. Since your photographs of the property should include the information needed to write a
description of the property, you should be familiar with the National Register guidelines for describing properties. It makes a useful checklist for insuring that you have documented the features of a building that constitute its important features and basis for determining integrity.

The guidelines for a National Register description of buildings, structures, and objects begin by describing the type of building such as dwelling, church, or commercial block. The description is organized to go from the general to the specific starting with the setting of the property, which is the larger environmental context of the property. This may include an agricultural landscape, small town, or city neighborhood. The description then focuses on the building as a whole, its general characteristics, and then architectural features, and finally decorative elements.

In addressing the building as a whole, the guidelines describe the overall shape and plan of the building and then move on to describe details such as the roof shape, the number of stories, and the number of bays or vertical divisions. They also describe construction materials such as brick, including the type of coursing. Finally, they describe the structural system, such a balloon frame, or post and beam construction.

Under normal circumstances for an undamaged building, attributes such as the underlying construction system would not be visible. Ironically, post-disaster documentation of damaged structures may provide you with opportunities to see and document aspects of construction not otherwise visible. It is important to photograph damage not only for purposes of damage assessment but also to understand the historic fabric of the building.

At the next level of detail, the National Register Guidelines ask that the property description detail specific architectural features. These include porches, verandas, porticos, stoops, and attached sheds. (Verandas and porticos are types of porches and a stoop is the front steps of an urban row house.) They also include such items as windows, doors, chimneys and dormers. At the smallest scale, the guidelines request the description of important decorative elements, such as finials, pilasters, bargeboards, brackets, half timbering, sculptural relief, balustrades, corbelling, cartouches, and murals or mosaics.

(But do not worry if you do not know the names of architectural features and details. Decorative elements are used to emphasize certain aspects of the design of a building. Bargeboard, for example, are decorated boards, often with a jigsaw pattern, attached to the roof eaves of Victorian buildings to emphasize the steep pitch of the roof. Corbelling is fancy brickwork in which the bricks are laid to form shapes. The rule of thumb would be that if something attracts your attention as an significant decorative aspect of a building, photograph it and let the historical preservation specialists evaluate it.)

At one level, all of these exterior features are visible in the overall photographs. But they need to be photographed in more detail when they are major elements of the structure or contain important details that cannot be read from a distance and convey important information about materials or craftsmanship. For example, while it could be determined from a general perspective photograph that a building was constructed of brick, it might require a close-up, detail photograph to determine the brick patterning as well as the nature of the bricks themselves.

In evaluating a building for photographic documentation, you should first define the overall distinguishing features, and then the major architectural
features, drawing on the outline used by the National Register.

**Defining, Photographing and Assessing Integrity**

As we have said, “integrity” simply means that a building should look much like it did when it was built or during the period for which it is considered historically significant. The National Register defines integrity as “the ability of a property to convey its significance.”

And again, you will be looking to record the quality of physical integrity of a building as reflected in seven aspects: 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association. A resource must have retained at least three of the seven aspects to have integrity. From your photographs, a qualified historic preservationist or architectural historian will determine whether the essential physical features of an historic property are present and visible enough to convey its significance, determine whether the property needs to be compared to other properties, and determine which aspects of integrity are particularly vital to the property’s significance.

An HP Specialist determines integrity in three steps:

1. Defines the essential physical features that must be present for a property to present its significance;
2. Determines whether the essential physical features are visible, and
3. Determines which three aspects of integrity are strong enough to meet the criteria of integrity.

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If the purpose of architectural photographic documentation is to preserve as much visual information about an historic resource as possible in as few photographs as possible, when you plan your photographs you want to try to include several aspects of integrity in each photograph. An overall environmental photograph, for example, will show aspects of integrity like location, setting, and feeling as the building relates to its site and larger landscape. In the environmental photograph you see the overall design of the building and how it is part of the landscape; it is the closer photographs, such as an elevation, that more clearly portray the detailed design of the structure, its architectural elements, and begin to capture materials. As you move in closer, views document details of design, materials and especially craftsmanship.

When FEMA assesses the integrity of damaged buildings, the central question is often whether or not there is enough of the building left to retain integrity. In the aftermath of natural disaster, damage to a property’s integrity ranges from total damage to minimal damage.

**Objective and Experiential Architectural Photographs**

Good architectural photography not only records the objective aspects of a building, but also how people experience the building. Photographs that do the former are called objective photographs and those that accomplish the latter are called experiential photographs. The experience of a historic property is also an aspect of integrity called “feeling” -- how people experience it emotionally, and what feelings it evokes in them. Feeling can be a response to aesthetic qualities such as...
as the colors and textures in a Victorian house or a sense of delight from the intricate whimsy of a Carpenter Gothic porch. Conversely, you can be awed by the size and dignity of a monumental Classical building. In the landscape, it can also be the sense of history one gets in the early morning on a Civil War battlefield, feeling the place as the soldiers did as they waited for battle.

A perspective photograph, for example, can be considered experiential because it is "an oblique view that brings textured surfaces close to the camera and draws the viewer into the experience of the buildings..." The head-on elevation offers a more factual, objective view. The point is that when you, as a FEMA photographer, approach a building or go into it for the first time, you need to be aware of how you experience the building, and ask yourself what are the physical aspects of the structure that causes emotion. These are the views that will convey the integrity aspects of feeling and association.

Other aspects of integrity such as design, materials and workmanship are best documented in more objective photographs. The elevation photograph is a more objective presentation of the design of a structure than a perspective photograph. So as you plan your photographic consider what aspects require more objective photographs and which call for a more experiential approach.

Photographing the Seven Aspects of Integrity

**Setting** is the actual physical environment of an historic property and includes such things as topographic features, vegetation, man-made features, and relationships between buildings and other features. Photographs best document setting with wide-angle views showing the historic property as a small part of the larger landscape. If there are groups of buildings, such as a farm complex, or a residential neighborhood, the photographer should find a perspective that shows how the buildings are related. It is useful to take environmental photographs from at least three compass directions. The best setting photographs are taken from a high angle if possible.

**Location** is the place where the historic property was constructed or the place where the historic event occurred. Location, however, is a more abstract aspect of integrity than setting since in order to retain integrity of location the historic property must be in the same site in which it was constructed. Since this is determined through archival research and not in the field, it is not something that can be documented photographically. If there is question whether an historic property has been moved, preservationists may be able to determine the original location by comparing a contemporary photograph of the setting to an historic one.

For photographic purposes, **design, materials**, and **workmanship** can be considered together because they are the aspects of integrity that are integrated to create the physical property. **Design** encompasses the property itself and is the combination of elements that create the form, plan, space, structure, and style of a property. **Materials** are the physical elements that were combined

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Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Workmanship is the evidence of the crafts of a particular culture or people who created the historic property. Applied to the both the property as a whole or its individual components, it is the evidence of the artisans' labor and skill in constructing or altering a building, structure, object, or site. It can reflect vernacular traditions or innovative techniques of the period. Examples of workmanship in historic buildings include tooling, carving, painting, graining, turning and joinery.

Design reflects the historic functions and technologies of an historic property as well as its aesthetics. These historic functions refer to how a building was designed to perform or fulfill its historic function. A humble corncrib, for example, was designed with slated walls to provide ventilation to fulfill its function to dry corn. Design also includes the structural system of the building; the shape and massing of the form of the building, arrangement of interior spaces; pattern of windows and doors. It also includes on both the exterior and interiors that textures and colors of surface materials; the type, amount, and style of ornamental detailing; and the arrangement and type of plantings.

Design also applies to districts and landscapes as well as to buildings, structures, and objects. In districts, design applies to the way in which buildings, sites, or structures are related in the geographical relationships between major features, how a designed landscape is laid out, visual rhythms in a streetscape, such as the intervals between houses or the length of blocks, or landscape plantings, and the layout of walkways and roads.

The choice and combinations of materials with which the design was executed reveal the preferences of those who created the property and indicate the availability of particular types of materials and technologies. To retain integrity of materials, a property must retain the key exterior materials dating from the period of historic significance.

Figure 13: Photo documents design as form, plan, space, structure and style of a property. (1754 Ion Street, Sullivan's Island, SC)

Feeling is a property's feeling of the aesthetic or historic sense of a particular period of time. Feeling is the culmination of the several aspects of integrity; the feeling of rationality and order of a neoclassical building is reflected in all aspects of a building and site from the rectilinear bricks to symmetrical façade and floor plan to the studied precision of the woodwork and decoration. Feeling is best captured in experiential photographs. You will get you best sense of the feeling of a property.

Figure 14: Workmanship and materials. (Berry Hill Plantation, Spotsylvania County, Virginia)
after you are well into photographing it and then you need to trust your instincts and photograph what evokes your feelings about a property.

**Association** is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

**What to Look for When Photographing Integrity**

**Environmental Views**

Environmental views document location, setting, and design and can convey important aspects of feeling and association. Although one environmental view showing the front of the property can be adequate, two or three are much better. When taking environmental views it is good to get as high a vantage point as possible. This may be a nearby hill, the upper floors in nearby buildings – especially in a town or city setting – or even standing on top of a truck bed or van. The high perspective can show the layout and design of surrounding site.

The environmental view should show topographic features, vegetation, manmade features, and the relationship between other features and open spaces. An environmental view that shows how a property is approached can convey feeling and design as it shows the relationship between the building and the landscape.

If you take more than one environmental view, however, justify each in terms of what it shows about the property and record it in your caption notes.

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**Overall Views of Property**

**Perspective views.** - Perspective views are the most important views for determining integrity because they contain the most information since they show the building as a three-dimensional object. Although two perspective photographs are adequate, four perspective photographs -- one from each corner -- should be taken if time allows. The test for the number of perspective photographs needed is that all outside walls should be visible in at least one photograph.

**Elevation views.** - Since elevation photographs show true proportion they are very valuable for evaluating some design aspects of a building or structure. In addition to the required elevation of the front façade, additional elevations should be taken of other sides that contain significant design features or architectural decoration. Elevations are especially important in documenting symmetrical and asymmetrical designs such as Federal or Italianate respectively.

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*Figure 15. Perspective and elevation views in disaster situation. While the perspective view documents design of a damage to property, the head-one view of the elevation shows the relation of the house to its floor and the distance it was displaced. (901 Middle Street, Sullivan's Island damage from Hurricane Hugo, 1989)*
Views of Architectural Features and Details of the Property

This level documents the important features, or subcomponents, of a building or structure and the most detailed elements such as materials and workmanship. These views are important in documenting the materials and workmanship aspects of integrity in addition to smaller scale design features. Photographically, one emphasizes a feature of property by taking a photograph of that element and isolating it. However, it is important to show some surrounding area to demonstrate the feature to which it relates. For example, by showing only a window, one can see the window in detail but cannot relate it to the rest of the structure — in short the window “floats” out of context. To correct this you should expand the area being photographed to include the recognizable edge of an adjacent feature such as a door, another window or a belt course.

Major projecting features of buildings should be photographed and usually with a perspective view since that shows their three dimensional form. Door and window surrounds, as well as materials can be well documented with the head-on elevation approach. Examples of workmanship include tooling, carving, painting, graining, turning, and joinery. They are also evident in framing and how a structure is put together.

Figure 16. You should try to capture as many aspects of integrity as possible. This slight perspective is close enough to evaluate the design aspect and damage to the building, yet just wide enough to document its urban setting. (Tornado damage, Petersburg, VA)

OPERATING IN POST-DISASTER SITUATION

As a photographer for FEMA, you need to be prepared to operate in a post-disaster situation which may range from immediately following a disaster before any cleanup has occurred to disaster recovery activities many months later. In an immediate post-disaster situation, owners and other residents are trying to absorb the impact of damage to their property, which often holds the possessions and memories of a lifetime, and their lives. If some time has passed since the disaster, the properties may be abandoned. Abandoned properties often have excessive vegetative growth or are used for illegal purposes, such as domiciles for the homeless or illegal drug activity. Regardless of the post-disaster situation, you must be able to clearly convey information about who you are, and your role in the disaster response and recovery effort while being sympathetic to the victims’ situation and feelings.

Checklist for Operating in Post-Disaster Situation

A checklist for operating in a post-disaster situation include:

1. Get there: Once contacted by FEMA, you need to get into the disaster area as quickly as possible because your photographs are essential information needed for FEMA to grant assistance to disaster victims. It may be difficult to get into a disaster area, as transportation may be disrupted and it may take some ingenuity and time to get there. If possible, get a good road or street map of the disaster area before you leave.

2. Check in to the Disaster Field Office (DFO): You will be working as part of a team that has a lot to do in little time. Not only do you need to complete administrative information in the DFO, but also you must find your FEMA project leader to get your assignment. You should also take
responsibility for getting the names of local
government contacts (including the preservation
planner, if applicable), local preservation
organizations and historical society contacts, the
State Historic Preservation Office contact,
applicant contact information, and others that
will be operating in the disaster area that will
help you do your work. Most of this information
will be available through the Environmental Liaison Officer at the DFO.

3. Get oriented to the geography of the disaster
area: Although you will be given your shooting
assignments shortly after you arrive, you should
get oriented to the geography of the disaster
area upon arrival. Get a good street map
covering the area, or use the one you brought
from home, and start learning the street pattern
and major place names in the area. Working in a
disaster area can be very disorienting because
of the damage and blocked roads, and it’s easy
to get lost. (Note: there are usually staff in the
DFO who will provide this information) In an
immediate post-disaster situation, where normal
services are not available, find out:

- Where to get drinkable water;
- Where the first aid stations are;
- What the sources of food are and when
meals are served. Right after a disaster
the Red Cross kitchens are often the
only source of food so you want to know
if that is the case, where they are, and
when they serve.

4. Be sensitive and ethical to residents: You
need to be aware that an immediate post-
disaster situation is usually chaotic, confusing,
and can be emotionally very difficult – for you as
well as for the victims. Be extremely sensitive
and respectful to everyone you meet and their
property. If you encounter hostility, leave the
situation immediately.

5. Let the DFO know you are there and where
you will be shooting: The FEMA project leader
will normally do this but check to be sure it has
been done. Also confirm with the DFO the
routes and schedule of police patrols operating
in the area and the status of any disaster-related
illegal activity. When possible be accompanied
by a local official or representative of the
property owner.

6. Find out from the local DFO about any areas
where access has been restricted. Follow the
local rules pertaining to access to those areas.
Find out from the DFO about curfews and other
restrictions on activities.

7. Be clear about who you are: Residents are
often extremely sensitive about photographers in
a post-disaster situation. Most disaster area
residents, in addition to not wanting to be
photographed normally, may jump to the
conclusion that you are exploiting their
distressed situation for your own benefit. FEMA
will provide you with shirts, windbreakers, and
shirts prominently marked with "FEMA." Also
have a letter of introduction on FEMA letterhead.
Get on the neighborhood grapevine: talk to the
residents that are around about what you are
doing and ask them to tell others.

8. Carry less photographic equipment than you
think you will need and protect it. The
minimum equipment that you need is a good-
quality 35-mm camera with a medium wide-
angle lens (28 to 35 mm fixed or zoom) or
equivalent digital camera and a tripod.
disaster environments are very hazardous to photographic equipment. The biggest threats are dust/grit, water, and dropping or banging. Dust and grit can get into the focusing mechanism and immobilize it, if not destroy it. Be sure you have a camera bag that is water and dust proof, carry Ziploc bags large enough to hold your camera if you need to shoot in rain or dust. Carry small towels to wipe things off.

9. Talk to everybody and learn as much as possible about the properties you are to photograph before and while in the field. Although it is important to get into the field as quickly as possible, it is more important to know the survey procedures, what you are expected to photograph, and the disaster situation. Specifically, you should know:

- The survey area and properties to be photographed
- The nature and type of damage to the properties
- The area’s stage of recovery, especially in terms of whether residents have returned to their homes
- The basic historic significance of the properties and what locally distinctive characteristics they might have. The fastest way to learn this is to talk to local preservationists and members of local historical societies. Don’t be shy, just explain that you just got there and need to know what you are documenting.

Photographic and Other Needed Equipment

The following recommendations range from the minimum 35 mm photographic equipment needed to document historic resources to the “ideal” equipment which choices in between.

35 mm Photographic Kit:

Minimum 35 mm kit: The minimum equipment includes:

- Camera: One (1) and preferably two (2) good quality 35 mm single-lens-reflex or rangefinder cameras with medium wide-angle lenses of 28 mm to 35 mm, or a zoom lens in that range.
- A tripod
- Flash: A separate off-the-camera flash with a movable head.

Ideal 35 mm kit: The ideal equipment includes:

- Cameras: Two (2) good quality 35 mm single lens-reflex-bodies. The second body serves as a backup in case the first body is damaged. Two bodies can also be used at the same time with different lenses or with different films if you are shooting both slide and print film.
- Lenses: Fixed focal length lenses are preferable to zoom lenses because they have depth of field scales that zooms do not. Battery powered zoom lenses are also great drain on batteries that can be difficult to replace in disaster areas. Also with more than one fixed

Although a perspective control lens is the best lens to use for architectural photography with a 35 mm camera under general conditions, it is not well suited for rushed survey photography in post disaster situation because it is not automatic and requires at least two adjustments for each shot.

Batteries can be the bane of a photographer’s existence. You don’t how long they have been on the shelf when you by them; they go out at the wrong time;
focal length lens if one lens is lost or broken the other lenses can still be used. Some photographers who use zooms carry two with overlapping focal lengths in case one is damaged. Zoom lenses are also "slower," meaning that they cannot take pictures in as low light as a "faster" fixed focal length lens. This means that they are less useful in low-light situations such as interiors and late afternoon exteriors.

Whether using interchangeable fixed-focal-length prime or zoom lenses on an SLR or a fixed zoom lens on a viewfinder camera, we would recommend a range of 28 mm to 80 mm. In terms of the number of lenses:

- For one lens use a 28 mm. Although one might be able to use only a 35 mm lens if only photographing exteriors, interiors require a 28 mm, as do many exterior streetscapes. Many architectural photographers and historians use a 24 mm lens as their standard architectural lens for interiors.

- For two lenses use a 24 mm or 28 mm and 35 mm. Although 28 and 35 mm lenses are somewhat close in angle of view, the angle of 35 mm has an accurate and visually pleasing perspective and is very good for rural or small town buildings and structures. With two lenses, it is useful if one is a 35 mm or 28 mm perspective control lens.

- For three lenses add a short telephoto of 70 to 110 mm.

- For four lenses use a 24 mm, 28 mm, 35 mm, and short telephoto. Four lenses allow the photographer to choose the longest lens that encompasses the scene being photographed.

- For zoom lenses for SLR camera: Most quality SLRs now come equipped with an interchangeable zoom lens as standard equipment often in the 35 mm to 80 mm range. A 28 mm to short telephoto would be the preferred telephoto. The ideal zoom lens for architectural work, available from Nikon and a range of other manufacturers, is a wide-angle with a range of 24 mm to 50 mm.

- Tripod. In architectural photography, a strong tripod is a necessity. It allows a more careful composition of the photograph, helps to ensure that as many elements as possible are included, allows the camera to be used in lower light levels (important in interiors), and it allows slower shutter speeds that are often required at small aperture when depth of field is needed.

- Flash and lighting in low light situations. In photographing architecture, normal flashguns are of greatest use in photographing small spaces and architectural detail. They are of little use in large spaces because they are not powerful enough to illuminate such areas. The best source of light is a tripod because there is nearly always an enough ambient light in a low light situation to get a good photograph with a long exposure that requires a tripod to hold the camera steady. The light meters built into
cameras can very accurately measure long exposures of up to four or five seconds. Ambient light is much more even that the harsh light from a flash.

- **Cable releases.** Cable releases are necessary for time exposures to avoid camera shake and a fuzzy picture. If you do not have a cable release, use the self-timer.

**Example photography kit.** You need to decide how much weight you are comfortable carrying for ten hours and then reduce the photographic and other equipment you will be carrying to that weight. They best way to carry equipment in the field is in a backpack especially designed for photography. Carrying three bags and a tripod into the field will equip you for both 35 mm and 4x5 photography. This includes:

1. A back pack that has 35 mm equipment (one body and three lens) and 4x5 equipment (one body and four lenses), filters, dark cloth, two meters, tools for field repairs, ten 4x5 film holders, and 35 mm film, a pair of small pruning sheers and small first aid kit. Belt holder for film holders.
2. A rectangular camera bag that holds 25 4x5 film holders, large electronic flash with battery pack; a second 35 mm body	extsuperscript{9}, 4x5 Polaroid back and Polaroid film and a small pry bar and roll of duct tape.
3. An aluminum case (that stays in the car) that carries a backup 4x5 field body and what is needed to change 4x5 film at night in a motel room, including boxes of 4x5 film, changing bag, wide black tape to make bathroom light tight, and small tool kit to make any equipment repairs.

Someone shooting only 35 mm should be able to operate easily out of one backpack.

**Other needed materials and tools**

The following are materials and tools that you will find a need for but will probably get from the car, as you need them. They include:

- **Pruning shears and saws:** Under normal circumstances vegetation needs to be cut back but even more so in post-disaster situations. Often trees and branches are down immediately after a disaster and have become overgrown in a late post-disaster situation. Use the shears and saws to cut away vegetation obscuring a view.

As part of getting oriented, find out where the clean up crews are working. If you need vegetation removed from around buildings where you are photographing, ask them to do it.

- **Crowbars, hammers, and other small wrecking tools:** Often storm damage exposes interior construction details that should be documented. Crow and pry bars are useful to pull away material or pull off wall plaster. You also may need to get into a house that has been boarded up. Always seek permission of the owner or appropriate official before entering.

\textsuperscript{9} This should be a mechanical body so you can be battery-free if need be.
• Duck (Duct) Tape: A necessity of life.

• 25 or 50 Foot steel tape: Useful when you need dimensions of rooms for making notes about photographs.

• 100 Feet of Light Nylon Clothesline or Rope. Very often tree limbs or vegetation can more easily be tied back than cut. In damaged interiors, often things that obscure a view can also be tied back.

Clothes

Clothes are an important form of protection from vegetation, insects, and the variety of projections from damaged buildings. Since you may be in the field ten to twelve hours at a time, dress in layers so you can adjust to changing temperatures.

You should wear long sleeve shirts and heavy pants, such as jeans, that will protect you and not snag easily. Cargo or photographer’s vests are very helpful to carry small photographic equipment such as lenses and film.

Heavy high-top boots are critical. The boots protect your feet against nails and other projections. The high tops can protect you against the bites of small animals.

You should also carry lightweight rain gear. Ponchos are best as they protect cameras and camera bags in rain and serve other purposes as well – something to sit on, table cloth, etc.

HEALTH AND SAFETY

Your Personal Environmental Hazard Assessment

You will be working in an environment that is not only hazardous but also unfamiliar to you. In addition you will be preoccupied with photographing historic resources and may not be as aware of your surroundings as usual. These surrounding can range from cities, to lower density suburbs and small towns to rural areas. You need to assess hazards both in terms of the overall environment as well as the specific resources you will be photographing. When entering a new area such as a street, industrial site or farm complex, it is useful to do your own environmental hazard assessment, which is basically to stop and look around to systematically inventory potential hazards. First, check out the ground level where you will be walking for hazards such as debris from structure or trees, for downed wires, for water that may be deeper than it appears. Then look up and study the surrounding trees and buildings for things that might be ready to fall off or collapse.

Assessing the safety of an area also includes determining both whether there are any individuals or animals around that may be a threat to you.

Assessing the Exterior of a Property

In approaching a property in an immediate post-disaster situation, stand away from the property and first look down and then look up. Look down to check for any downed utility wires. Check for debris surrounding the property, especially wood with nails. In a post-disaster situation with vegetative growth, get a “poking stick” that you can use to probe in front of you for obstacles. Do not assume anything is solid by its appearance – poke and prod and test it before putting any weight on boards, brick, cinder block or other debris laying on the ground.
Observe whether any persons are around. Announce yourself and approach any persons on the property. Introduce yourself with your appropriate identification and learn if they are the property owners. If they are, get their permission to take photographs. You should have permission for any photographs if the owner is present, but it is legal to take photographs of properties from a public street. Regardless, the courtesy of asking reflects well on both you and FEMA.

If nobody is outside and you decide to approach the property, first yell from the street "Is anybody there?" and then again when you are halfway to the building. If the building is severely damaged, don't move any closer. If there is no response, circle the building from a distance to assess its architectural character and damage to find the best photographic perspective. At the same time continue announcing yourself from time to time.

If the building appears to have been abandoned for some time and nobody responds, throw rocks at each wall to attract the attention of anyone who may be inside. Never go into such a building without a partner. Also look for evidence of recent habitation. Is there evidence of a trail to some entry in the building? Is there evidence of recent activity outside, such as beer or soda cans, candy wrappers etc.?

Assessing Interiors of Structures

As a rule, you should not enter a building that has not been declared safe by a building inspector. Remember that "safe" is a relative term and that the inspector made a judgment call and has not examined every aspect of the building. You need to assume that anywhere you might be in a building may be unsafe. If you are working with a view camera and carrying a camera bag with you, remember that you may be 40 to 50 pounds heavier than usual. Be alert to the possibility of collapse from two perspectives—collapse of the ceiling on you and the other is collapse of the floors as you put weight on them. Also keep in mind that, in a larger building or structure, perhaps with additions, not all rooms may have been used recently and parts of it may be disrepair.

HARD HATS REQUIRED. Buy your own and keep it in your kit. When you enter any new space, scan the ceiling for projections or anything with nails in it on which you could bump your head. Remember that when you start photographing you will become preoccupied and need to be sure you are shooting from a safe place.

Remember that for documenting historic significance you need only to photograph the entryway and the main spaces. This can sometimes be done from the outside through a doorway or window opening. So first determine with a damaged building whether interior photographs are necessary.

If you enter the building, you should leave your equipment outside and first check it out for safety. In doing this you should be a "joist-walking, wall-hugger." Floors remain strongest on top of joists and near walls where the joists are in wall-pockets. If there is any question about the safety of floors in a damaged or deteriorated building, walk around the outside of a room and place your feet where the joists are. Especially dangerous are older buildings that have suffered heavy wind and water damage that may have stressed the structural system. Be especially leery of stairs and stairwells. Again, walk on the outside of treads. Do not lean on any stair or porch railing even after testing it.

Be very careful of industrial and agricultural outbuildings since they may have been vacant longer than the adjacent residential structures. Wooden agricultural buildings are especially dangerous since most have been obsolete for years and farmers use
them only for shelter for storage. A wooden agricultural building that looks solid can be rotten to the core. Since the key interior photographs are of interior structural systems you can very often shoot these from the safety of the entrance.

Animals as Hazards

A site can contain a number of threats from animals, most commonly from dogs. When confronting an animal that appears threatening, be very calm and move slowly. Do not run or turn your back; back away slowly and talk in soothing tones. If you have nothing with which to defend yourself, use your camera or your tripod as a club. Report threatening animals to the survey supervisor and spread the word about them to others.

Dogs are often scared away during a storm and will return later after the owners and other residents have left and may want to protect a property. Some areas such a rural areas and working class or poor urban neighborhoods have a high number of watchdogs. Never approach a property with a dog on it unless it is under the control of the owner; do not trust dogs that appear to be chained or on a rope because in a frenzy they can break the chain or the chain may be longer that it appears. Never, never step inside a fenced yard with a dog in it. Be extremely careful of stepping into any fenced yard because dogs often hide or may be sleeping where you cannot see them. In areas that have been abandoned, dogs may move in packs. Stay away from them.

Cats can also be a danger. Wild cats often live in abandoned areas in cities and in rural areas and will colonize abandoned buildings. They are frequently found on farms. Keep an eye out for cats. Usually, you get into trouble by surprising a cat or group of cats, which may cause an attack.

Small wild animals rarely pose a danger unless they are rabid or you get near a burrow or nest. You will run across animals such as opossum, ground hogs, raccoons, and rats on most any abandoned site. If these normally shy animals show any sign of aggression, it can be a sign of rabies or that you have approached a nest. Walk away immediately.

Toxic Substances

Although you cannot know what is toxic and what is not, there are a couple of signs that should alert you. In many rural areas when toxic pesticides and herbicides were outlawed, they were not disposed of but just moved to the back of the barn or shed. If you see old bags stacked around, read the labels and leave if they are not clearly safe. Although short-term exposure has not proven to be harmful, be aware that older buildings may contain asbestos, used mostly for insulating pipes and floors. The presence of asbestos is most evident if you see white wrapping coming off pipes or old insulation exposed.

Getting Around

Use your [rental] car to do a windshield survey of the area you and your partner have been assigned so you can get a sense of what condition the buildings are in and the environment around them and devise a walking route for documenting them. Park your car at a location that makes it convenient as a base of operations.

When you are walking, it is very easy to get disoriented or even lost in a post-disaster environment -- even with maps. One effect of disaster damage is to reduce landmarks and make everything look much the same. This is made worse because you are working in place with which you are unfamiliar. Even though you will be writing down street addresses as captions for the
photographs, be very systematic in working with a map and trace your route on the map.

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Federal Emergency Management Agency

APPENDIX

VISUAL SUPPLEMENT TO FEMA PHOTOGRAPHIC GUIDANCE FOR DOCUMENTING HISTORIC PROPERTIES

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The goal of the FEMA Photographic Guidance is to show you how to take photographs or digital images from which Historic Preservation Specialists in FEMA can determine the eligibility of historic properties for the National Register of Historic Places and to assess damage. Defining a historic property as a "physically concrete and tangible property with a relatively fixed location," the National Register recognizes five types of properties: buildings, structures, objects, sites, and districts. To accomplish this, the Guidance, to which this is an supplement:

1. Outlines how to look at a historic property (including buildings, structures, objects, sites and districts) and the sequence in which it should be described and photographed.
2. Recommends three levels of documentation with photographs or digital images (called views) to appropriately record the exterior of a building or structure and its key interior features (and when to use each of these levels).
   - The minimum level of two or three photographs is suited for survey.
   - The basic level of five exterior views and three interior views provides the information necessary to describe a property.
   - The expanded level of documentation when more comprehensive coverage of a property is needed.
3. Recommends what pictorial content is useful to make the determination of whether historic properties are potentially eligible for the National Register and whether they retain integrity.

This Visual Supplement provides you with examples of photographs of buildings and structures documented at the Minimum and Basic Levels.

Buildings are intended to shelter human activities and range from residences to factories. Structures are constructions made for other than human shelter.

At the minimum level two perspective photographs are usually the best way to document a building or structure. These include: a) a photograph showing the front and one side of the building or structure and b) a second photograph showing the rear and the other side of the building. These two photographs document all four sides of a building. Some historic properties will be found in situations where it is not possible to get a rear perspective view of a building. In that case, the second photograph could be an elevation and a third might be an important architectural or structural detail.

In moving to the basic level one would add elevations of the front façade and important architectural or structural elements or details -- porches, front entrance, details of materials. Interior views would be of major spaces and some details of finish and materials. The examples in this Visual Appendix are:

1. Minimum Level for Building
   a. 1200 3rd Street, Altoona, PA
   b. Mansion Farm Tenement, New Castle County, DE
2. Minimum and Basic Level for Building
   a. Chas. I duPont Tenant House, Kent County, DE
3. Minimum and Basic Level for Structures
   a. Nine-Foot Road, New Castle County, DE
   b. Fair Hill Covered Bridge, Fair Hill, MD
   c. Wilmington Waterworks, Wilmington, DE
FEMA PHOTOGRAPHIC GUIDANCE: MINIMUM LEVEL OF DOCUMENTATION OF BUILDING/RESIDENCE
1200 3rd Street, Altoona, Pennsylvania (1881)

FEMA Minimum Level: Two or three photographs suited for survey

The goal of survey photographs is to capture as much information in as few photographs as possible. In this situation took a perspective view of front and one side and an elevation view of one side. At this location in Altoona the situation was:

- One side exposed in dense urban situation provided opportunity to photograph details not possible on other buildings.
- Hill side location made rear view difficult because would be looking up

Figure 1: Perspective View of East Front and North Side: took tight perspective view to show front almost as elevation view while including bay window on the side. Included enough of next door building to get a sense of bulk and density of neighborhood but placed building in left of frame to show the setting and location in its larger urban and hilly environment. Can also get a sense of feeling of working class neighborhood. The design of the modest three-bay, side-gable worker's house is clear from the larger scale of proportion and size to details of Victorian trim and materials

Figure 2: Elevation of North Side documents the overall design of the side of the house and its architectural elements. Raking light hitting side at oblique angle emphasizes the texture of contrasting materials, detail of decoration in windows and two-story bay.

Comparison of photograph to description

As the HABS description is a word picture of the house, study the photos as you read the description to see how much can be determined from the photograph. This is the kind of information the FEMA historic preservation specialist will need to glean from the photograph to make a determination of integrity.

“The location of the Westley House on a corner lot allows for the use of ornamental detail on both the front and side facades. This wood-sided frame house is in many ways the prototype of the two-and-a-half story house ... found in the Fourth Ward Survey. There is an enclosed off-center chimney rising from the roof ridge, and an entrance door on one side of the house. The projecting two-story bay window on the side of the house is an unusual feature. A flat-roofed, two-story, rear addition is unornamented but of the same fabric [material]. Although the porch has been replaced, the remaining exterior wood work, appears to be original, intact, and complete. The ridges of horizontal novelty-wood siding provide contrast for the smooth surface of the roof cornice and the curved lines of cornice brackets and pedimented window surrounds.

Four sets of double cornice brackets, ornamented with molded and incised decoration are evenly spaced across the front of the house . . . Shaped wood window surrounds make use of projecting and incised decoration having flat inward curving verticals . . . ." ¹

¹ Susan Garfinkel, “Fourth Ward,” in Kim E. Wallace, editor, Railroad City: Four Historic Neighborhoods in
description goes from the general to the specific which is the sequence that you should analyze the building visually.


FEMA PHOTOGRAPHIC GUIDANCE: MINIMUM LEVEL OF DOCUMENTATION
Mansion Farm Tenement, New Castle County, DE Ca. 1850 with modern two-story addition

Situation: Building to be demolished for a subdivision with little time to document

FEMA Minimum Level: Two or more photographs suited for survey

For this building, Figures 1 and 2 would normally comprise minimum documentation. However, the highly directional morning light produced great contrast and shadows of trees and branches on façade made architectural features difficult to read and deep shadows obscured other features. Therefore added elevation for more detail and perspective from east side to document newer addition. Depending on the situation, sometimes more than two photographs are necessary to capture basic information about a building.

Figure 1. Environmental perspective of south front and west side. Since details of building difficult to read because of deep shadows and tree shadows on front, took environmental perspective to document the setting and relationship of building to site and vegetation and the overall design of building in terms of proportion, scale and symmetry of fenestration.
Figure 2. Perspective of rear and west side. Because both walls were in shadow, I moved in close and took advantage of what is called "local contrast" in which where everything is in shadow the scene is rendered with low overall contrast, making details of materials such as brick walls and rubble stone foundation readable.

Figure 3. Elevation of south front. (right) Took close elevation to record details of design, materials, and workmanship of facade through the shadows. Being so close, however, made the slope of the roof appear shallower than it actually is.

Figure 4. Perspective of south front and east side of addition. (right) Since the later addition was almost an attached building and was not seen in other views a separate view of addition documenting its setting, design, and materials and relationship to the original block was taken.

FEMA PHOTOGRAPHIC GUIDANCE: BASIC LEVEL OF DOCUMENTATION EXPANDED
Charles I duPont Tenant House (ca. 1780), Kent County, Delaware

The FEMA Basic Level of Photographic Documentation consists of five exterior photographs and three or four interior views.

Minimum level would include Figures 1 and 5. Basic level would add Figures 3 and 4.

Front and Side Exterior Situation: Normally the photographer would shoot overall perspective views, an elevation of the front and then move in to document architectural elements and details. However, since this house appeared to have been built in three or four stages, (subsequent research found four) as reflected in the separate blocks, I decided to take mostly perspectives and elevations so that the stages of the building, their design and relationship to the whole, would be clear to those evaluating the building.

Minimum level would include Figures 1 and 5. Basic level would add Figures 3 and 4.

Front and Side Exterior Situation: Normally the photographer would shoot overall perspective views, an elevation of the front and then move in to document architectural elements and details. However, since this house appeared to have been built in three or four stages, (subsequent research found four) as reflected in the separate blocks, I decided to take mostly perspectives and elevations so that the stages of the building, their design and relationship to the whole, would be clear to those evaluating the building.
Figure 2. Environmental elevation of north front. This view is what might be called an environmental elevation, showing how design of the two blocks and how they make up the composition of the house. The siting, size, the age of the trees, and their relationship to the house says much about the setting and communicates a feeling of permanence, serenity, and the agrarian quality of the site. But the trees obscure details of the building such as windows.

Figure 3. Elevation of east front. To solve this, Figure 3 moves in to document the architecture of the building in an elevation view that isolates the building from its surroundings and emphasizes the design of the structure along with details of materials and even workmanship. However, the pitch or slope of the roof is flattened (compare Figure 3 to 1 or 2) by having to use a wide-angle lens close to the building to avoid the trees. Please note that the front of the house is back lit and in shade but photographs with normal contrast because the house is tightly framed excluding bright areas such as the sky.

Rear and Side Exterior Situation:

Because of the trees obscuring the the front of the farmstead and house, the most informative environmental view was from the rear. The rear view also includes environmental features related to the integrity aspects of location, setting, design, and feeling. The first three photographs illustrated the how different aspects of a property become apparent as you approach the building.

Figure 4. Environmental view of south rear and west side. This environmental perspective documents a range of information from the form of the house and immediate outbuildings, the spatial relationship of the buildings to each other and the site. The field in the foreground tells us that it is still an actively farmed site. This photograph with a perspective from the front is adequate to establish integrity. But together with the other two or three photographs from the rear demonstrates different aspect of integrity come into view as one moves closer.

Figure 5. Perspective of south rear and west side. This perspective isolates the house and the immediate site documenting the design of the house and relationship to the site and setting. The direct light and modeling of shadows outlines the blocks of the house and the porch-addition. From the rear one can see a side gable block to the house not visible from the front. At this closer distance materials of roofs and walls begin to come into focus.
Figure 6. Closeup perspective of rear and west side. Although his tight perspective with a wide-angle lens yields an exaggerated perspective (called a “prow” effect), the purpose of the photograph was to get close enough to show details and texture of the whitewashed brick walls as materials in the context of the overall design of the house. It also provides details of the windows and their surrounds or entablatures.

Figure 7. Elevation of south side rear. Because of the complicated form of this small house, an elevation of the rear was taken to gain a correct view of the fenestration, proportions of and relationship between the side and cross gable blocks and the rear porch addition (design). Please note the different impressions of the relative sizes of the two blocks one gets when comparing the perspective view in Figure 4 and the elevation in Figure 6. The use of depth of field can be seen in Figure 6 to include the corner of the out buildings to show the spatial relation between it and the house (design, setting and feeling).

Situation: Nine-foot Road is one of the few surviving sections of narrow concrete farm-to-market roads built by the State of Delaware from 1915 to about 1925. It was a two lane road with one lane in concrete and the second dirt lane intended use in dry weather and yielding right-of-way on concrete lane. As a National Register historic property the road is an example of a structure -- as distinguished from a building that is a construction built for purposes other than human shelter. As with buildings, the photographs should move from an overall view of the construction in its environment to details of how it was constructed. Because they are basically two-dimensional structures lying on the ground, roads can be difficult to photograph. (Aspects of integrity documented in photograph are bolded.)

FEMA Minimal Level: Two or three photographs suited for survey.

Figure 1. View of road looking east. This photograph shows a length of the road in context with its topography and vegetation, (location, design, setting and feeling) including the path of the road and its association with agriculture evidenced by the adjacent farmhouse. (association). Please note that the use of wide-angle lens, pointing down slightly, has included a great deal of foreground detail in the road (materials) as well as adding depth to the photograph.
Figure 2. View of road looking east with detail of culvert. shows the same stretch of road further along but includes details of culvert construction and is the better photograph for documenting the engineering aspects of the road (design, materials, workmanship). An important aspect of the photograph is that it shows the relationship between the road and the culvert (overall design). Put your finger over the road and the culvert becomes an isolated feature.

FEMA Basic Level: Three to six photographs adequate to write a description of property. The photographs below would expand the documentation to the Basic Level.

Figure 3 shows the beginning of the road, where it comes off a main road (location) and clear evidence of the two cart lanes in which the one on the left continues as a dirt cartway and the one on the right continues as a concrete cartway. (design). Even if on a survey and you did not know the history of the road, you should record features such as the beginning of the road and how the lanes join. This photograph also gives detail as the length of the road sections and materials. As it gives important information about design and materials, this view might be included in minimum set.

Figure 4 is the view of the surface of the road where spalling of the concrete on the left and a crack and break in the roadbed on the right shows the underlying structure of the original concrete (materials, workmanship). This photograph of detail contributes to the set of photographs but by itself is an isolated detail difficult to evaluate.

Figure 5 is taken from the same location as Figure 1 looking in the opposite direction – the gate on the right is the entrance to the fields from the farmstead seen in Figure 1. Taken together these two photographs show how the road is related to the agricultural landscape (location, setting, feeling and association). Whereas Figure 1 records a wooded landscape, Figure 5 documents the agricultural fields and more complete information about the setting.
A bridge as a structure – a construction not for human habitation – as defined by the National Register of Historic Places. As a guide to documenting “structures,” you should literally look for the structure of the property, how it is built to perform its purpose. Bridges are engineering structures designed to span something and do so with a system of trusses or other supports such as cables. The two most important aspects of this bridge, then, are the wooden trusses and how they are covered to protect them from water and rotting.

The FEMA minimum level of documentation consists of two or three photographs that convey the essential physical character of an historic property. The FEMA Basic Level comprises three to seven photographs from which a fairly complete description can be written. This example of documentation presents six photographs of a covered bridge in Maryland. We will choose the best two or three photographs for a Minimum Level of documentation and then discuss which ones should be added for a the Basic Level. (It should be noted is that these photographs were taken with a automatic, relatively inexpensive point-and shoot camera – a Yashica T4 with a fixed 35 mm lens.)

Figure 1. Environmental view of bridge looking west. This shows the bridge in its environmental context (location, setting, feeling, and association) including the nature of the stream that it spans. But in order of importance Figures 2 and 5 are necessary to document the bridge at the minimum level. The environmental view would be the third photograph.

Figure 2. Perspective of south end and east side. This perspective view show the approaches, the covered exterior and the abutments on either side of the stream (design, setting, feeling, association).

Figure 3. Approach to bridge from south. This view shows the approach to the bridge and the view through the bridge. Although picturesque, is a not a very useful for describing or evaluating the structure because the oblique angle removes most of the surfaces from view and the shadows on the interior conceals the trusses.
Figure 4. To capture more detail in the trusses, while preserving the view through the bridge, you might move closer as in Figure 4. However, because of the range of brightness, the trusses are still in shadows while the foreground is burned out because the light meter in your camera is trying to average the light. With extremes of brightness and shadows in a scene (called overall contrast) the bright areas skew the exposure toward the bright area creating heavy shadows in the photo obscuring the details of the trusses.

Figure 5. Trusses on west side of bridge. You can reduce the contrast and open up the shadows by moving in closer and photographing only the area in shadow. The meter then reads this as an “average” scene and sets the camera to produce a photograph of “average” overall contrast as in Figure 5. This can also work on exteriors of buildings and structures so that when you have important details in the shadows, simply move in closer and exclude the bright areas in your viewfinder. In terms of the aspects of integrity, Figure 5 shows design, materials and workmanship. Please note that although this was taken with an automatic camera in relatively low light, that the depth of field is excellent, meaning everything is sharp focus from the lower right of the photograph to the entrance to the bridge on the left hand side.

Figure 6. View of bridge in relationship to landscape. This view could be part of a Basic Level of Documentation shows three important attributes of the bridge: the bridge abutment, the road approaching the bridge, and the relationship of the bridge to the stream and the surrounding countryside. (location, feeling, and association).
The photographic documentation of structures such as this pumping station should concentrate on the process carried out by the engineering — here pumping water from the Brandywine River into the water supply system of Wilmington, DE.

FEMA Minimum Level of Documentation: Two or three photographs

With very limited time I worked from the inside of the pumping station concentrating first on the turbine and photographing the building last.

limited time I wanted to be the architecture of the buildings to be recorded.

Aspects of integrity documented include design, materials, and feeling. You don’t get a strong sense of urban setting because in

Aspects of integrity include design, materials, workmanship, and feeling.

Figure 3. Detail of Hand Tools and Instrumentation on West End of Pumping Station. This seemed the most important detail as the place where pumps performance is monitored and where tools are kept for its maintenance and repair; a main point of human interaction with the structure. The contrast between the open-ended hand wrenches and the massive size of the pump was striking and especially related to materials, workmanship, and feeling.
FEMA Basic Level: Three to six photographs

This is a complex structure for which photographs adequate to write a complete description would require the FEMA Expanded Level of documentation. To expand to the Basic Level I added photographs of the pump and the space it occupied.

Figure 4. Elevation of North Side of Base of Pumping Station. Holly Pump in Figure 2 is only the top half of the pump so that the addition of Figure 4 provides complete documentation of one side of the pump. (Design, materials, workmanship, and feeling.)

Figure 5: Intake Pipes looking northwest. These intake pipes at the base of the pumping station give a sense of the enormous volume of water that is pumped and the massiveness of the pump. This photograph would be improved with something in it to provide a better sense of its large size—a scale device. (Design, materials, workmanship, feeling)

Figure 6: First floor pumping room looking north. This view looking away from the pump gives a sense of the size and scale of the interior of the pumping station. (Design, materials, workmanship, feeling)

Figure 7: Detail of Manufacturer's Plaque and Instrumentation looking east. This is an example of how a close-up can record details that speak for the entire structure especially feeling, workmanship, and association.