alternate material (i.e., vinyl or composite) that resembles the historic material and allows the other aspects of compatibility to be met (see example at top right).

11. If the new windows must have a different method of operation, **DO** install new windows with sashes that are the same size as those on the historic windows (i.e., paired casements may be replaced by sliders if the sash size is the same; see example at middle right).

<u>*Not Recommended*</u>

12. **DON'T** replace windows without providing the necessary documentation which demonstrates that replacement is necessary due to either the condition of the windows or the cost of repair.
13. **DON'T** replace windows solely because of peeling paint, broken glass, stuck sash, missing hardware, or high air infiltration. These conditions, in themselves, are no indication that windows are beyond repair.
14. **DON'T** install new windows that don't fit precisely into the historic openings. Avoid removing or modifying the historic sills, lintels, surrounds, and trim. Also avoid installing stuccoed "popouts" or similar features around the window openings if they didn't exist on the building historically.
15. If the historic windows were recessed within the openings, **DON'T** install new windows that are flush with the exterior wall. Conversely, if the historic windows were flush with the exterior wall, the new windows should not be recessed.
16. **DON'T** install windows that have an overall visible light transmittance rating of less than 0.5. Avoid the use of reflective, obscure, colored, or other nonoriginal glazing.
17. **DON'T** install new windows with rails, stiles, and jambs that don't match those of the historic windows.
18. **DON'T** install new windows with muntins that don't match those of the historic

In this example, new vinyl sliders were installed in place of original steel casements. Although an alternate material was used, the work was deemed acceptable because the new windows were specially made to fit the openings. The window contractor carefully ensured that the new muntin patterns matched the originals and that the rails, stiles, and jambs of the new windows matched those of the historic windows.

In this example, an original steel casement window (left) was replaced with an aluminum slider (right). Although the method of operation was different, the work was deemed acceptable because the material was highly compatible and the new sashes were the same size as the originals. The new muntin pattern matched that of the historic window, and the rails, stiles, and jambs also matched.

Even though this steel casement window is painted shut, the paint could be removed and the window repaired.

windows or don't follow the same pattern. Avoid using "snap-on" muntins, internal muntins only, or other muntins that are significantly thinner or thicker than the historic muntins.

19. **DON'T** install windows that utilize a material that is incompatible with or does not resemble the historic windows (i.e. mill finish aluminum for wood).
20. **DON'T** replace historic windows with new windows that have a different method of operation and have sashes that are not the same size as the originals.

Tier 2 Windows

All windows that are not classified as Tier 1 windows will be classified as Tier 2 windows. While not as critical to the historic character of the building, Tier 2 windows should also be preserved, where possible.

It should be noted that some Tier 2 windows will have high visibility from the street while others will not be visible at all. Tier 2 windows with no street visibility may be exempted from the requirements below.

Tier 2 windows with street visibility should meet the following requirements:

<u>*Recommended*</u>

21. **DO** install new windows that fit precisely into the historic window openings (i.e., within ½" on each side).
22. If the historic windows were recessed within the openings, **DO** install new windows that are recessed to match. If the historic windows were not recessed, then the new windows should not be recessed.
23. **DO** install new windows with an overall visible light transmittance rating of 0.5 or higher.
24. **DO** install new windows with rails, stiles, and jambs that match those of the historic

Not Recommended: In this case, the historic Tier 1 windows were replaced by "new construction windows" that were not recessed within the openings. Stuccoed surrounds (or "popouts") were added to hide the nailing fins. The small window next to the chimney was infilled.

The original wood windows on this house had been replaced with incompatible aluminum sliders, with the openings reduced in size. Fortunately, there was sufficient documentation to replicate the original windows and restore the house back to its historic appearance.

windows in profile and dimensions. The rails, stiles, and jambs should generally be within 1/2" of the originals.

25. **DO** install new windows with muntins that match those of the historic windows in profile and dimensions. The muntins should generally be within 1/4" of the originals and should follow the same pattern (i.e., 1/1 replacing 1/1, 6/1 replacing 6/1). True divided lights are preferred, with simulated divided lights utilizing interior and exterior grids and spacer bars between the glass as a second choice, and other types of simulated divided lights as a third choice. As an alternative, the new windows may utilize a pattern that is simplified (i.e., single-light windows may be used as replacements for divided-light windows).
26. **DO** install new windows that utilize the same material as the historic windows (i.e., wood for wood, steel for steel, aluminum for aluminum) or a highly compatible material (defined as either fiberglass or aluminum with a painted or coated finish for either steel or wood). If this is not possible, then the new windows may use an alternate material (i.e., vinyl or composite) that resembles the historic material and allows the other aspects of compatibility to be met.
27. **DO** install new windows that have the same method of operation as the historic windows (i.e., casement for casement, double-hung for double-hung). If this is not possible, then the windows should at least have sashes that are the same size as those on the historic windows (i.e., paired casements may be replaced by sliders if the sash size is the same). Note: Single-hung windows may be substituted for double-hung windows and vice versa.

<u>*Not Recommended*</u>

28. **DON'T** install new windows that don't fit precisely into the historic openings. Avoid removing or modifying the historic sills,

In the example above, the historic Tier 1 windows on the front of the house and on either side of the chimney were retained and repaired. The street-visible Tier 2 windows on the side of the house adjacent to the driveway were replaced with new windows with simulated divided lights, utilizing muntins with internal grids only. While these muntins are not recommended for Tier 1 windows, they may be allowed on Tier 2 windows, even if the windows are street-visible.

lintels, surrounds, and trim. Also avoid installing stuccoed "popouts" or similar features around the window openings if they didn't exist on the building historically.

29. If the historic windows were recessed within the openings, **DON'T** install new windows that are flush with the exterior wall. Conversely, if the historic windows were flush with the exterior wall, the new windows should not be recessed.
30. **DON'T** install windows that have an overall visible light transmittance rating of less than 0.5. Avoid the use of reflective, obscure, colored, or other nonoriginal glazing.
31. **DON'T** install new windows with rails, stiles, and jambs that don't match those of the historic windows.
32. **DON'T** install new windows with muntin patterns that are overly elaborate.
33. **DON'T** install windows that utilize a material that is incompatible with or does not resemble the historic windows.
34. **DON'T** replace historic windows with new windows that have a different method of operation and have sashes that are not the same size as the originals.

REVIEW FOR CERTIFICATE OF NO EFFECT OR CERTIFICATE OF APPROPRIATENESS

Per Sections 811-812 of the Historic Preservation Ordinance, all exterior alterations—including window changes—must be reviewed and approved by the City of Phoenix Historic Preservation Office prior to the commencement of work. Applications for window replacement may be reviewed as either a Certificate of No Effect or a Certificate of Appropriateness.

Certificates of No Effect may be issued for work that is "minor and clearly within adopted design guidelines" and will not "diminish, eliminate, or adversely affect" the historic character

Windows in historic masonry buildings are typically recessed within the openings (see example above left). Any new replacement windows installed in these buildings should be recessed to match the historic windows. Many masonry buildings also have projecting sills at the bottom of the openings and decorative lintels at the top of the openings; these features should not be altered. Windows in wood frame buildings, on the other hand, are often flush with the exterior wall, with ornamental trim or surrounds around the outside of the openings (see example above right). New replacement windows in these buildings should be installed in the same manner, preserving the historic surrounds or trim, where possible.

Noncontributing Buildings in Historic Districts

Certain properties in historic districts are classified as ***"noncontributing"*** *either because of their age or because of extensive alterations. If Historic Preservation staff determines that a property is a noncontributor and has no possibility of ever becoming a contributor, the guidelines establishing the need for replacement (1, 2, 12 & 13) may be waived. However, the property will still need to meet the relevant guidelines for compatibility (3-11, 14-34). The new windows may be compatible either with the windows that were on the building originally or with other windows that are generally present in the historic district.*

of the subject property or the historic district. Certificates of No Effect may be reviewed and approved by Historic Preservation staff. The review may be completed within a few minutes or, at most, within a few days.

In order to qualify as a Certificate of No Effect, a window replacement project must meet the "Recommended" guidelines in the "Replacement Options" section above. If any aspect of the proposed work is "Not Recommended," then the project will not be approved as a Certificate of No Effect. The checklist on page 18 may be used to determine if a project qualifies for approval as a Certificate of No Effect.

If the proposed work does not qualify as a Certificate of No Effect, then it will be reviewed as a Certificate of Appropriateness. Certificates of Appropriateness require a pre-application meeting with Historic Preservation staff, followed by a public hearing to review the proposed work. The Historic Preservation Ordinance requires that the hearing take place within 20 days of the date the application is submitted. A sign will be posted on the property at least 10 days prior to the hearing to meet public notification requirements.

To be approved as a Certificate of Appropriateness, window replacement projects should meet either the "Recommended" or "Acceptable" guidelines in the "Replacement Options" section above. If any aspect of the proposed work is "Not Recommended," the hearing officer will determine whether the project substantially meets the guidelines or whether there are any unique circumstances which make the non-recommended item permissible. If so, the application may be approved. If not, the application may still be approved subject to stipulations that will make it consistent with the guidelines, or it may be denied.

Missing Windows

The intent of the "Replacement Options" guidelines is to ensure that any new windows will be similar in appearance to the historic windows they are replacing. However, in some cases, the historic windows may be missing, making it difficult to meet compatibility requirements.

If your building its missing its historic windows, consult with Historic Preservation staff to see if they have any documentation on the historic windows, such as photographs or historic property inventory forms. If this information doesn't exist, staff can still provide guidance based on the size of the window openings and the age, location, construction materials, and architectural style of the building.

It is generally best to keep designs for missing windows traditional and simple. Avoid installing new windows with muntin patterns that are overly elaborate. The new windows should have traditional rails, stiles, and jambs, resembling those found on other historic windows. A traditional method of operation is also recommended (typically double-hung or casement). Materials may be traditional (such as wood or steel) or may be a highly compatible replacement material (such as fiberglass or finished aluminum). However, avoid installing wood windows when it is likely that the originals would have been steel (or vice versa), so as not to create a false sense of history.

The replacement windows shown above illustrate the type of work that would qualify for approval as a Certificate of No Effect, meeting the "Recommended" requirements for both Tier 1 and Tier 2 windows.

City of Phoenix

PLANNING AND DEVELOPMENT DEPARTMENT
HISTORIC PRESERVATION OFFICE

Certificate of No Effect Checklist for Window Replacements

According to the *Guide to Window Repair & Replacement for Historic Properties,* in order to be approved as a Certificate of No Effect, a window replacement project must meet the criteria outlined below. (Bullet numbers in the tables below correspond to bullets on pages 10-16 of the *Guide*.)

Tier 1 Windows

Need for Replacement – Must meet <u>one</u> of the following:	✓
1. Historic windows are missing – photos provided	
2. Historic windows are damaged/deteriorated or repair cost is too high – contractor report provided	
Compatibility – Must meet <u>all</u> of the following:	
3. New windows fit precisely into historic openings	
4. New windows recessed (or not recessed) to match historic windows	
5. New windows have overall visible light transmittance rating of 0.5 or higher	
6. New windows have matching rails, stiles, and jambs	
7. New windows have matching muntins with same pattern as historic windows and true divided lights or simulated divided lights with interior and exterior grids with spacer bars between the glass	
8. New windows use same material as historic windows or a highly compatible material	
9. New windows have same method of operation	

Tier 2 Windows

Compatibility – Must meet <u>all</u> of the following:	✓
21. New windows fit precisely into historic openings	
22. New windows recessed (or not recessed) to match historic windows	
23. New windows have overall visible light transmittance rating of 0.5 or higher	
24. New windows have matching rails, stiles, and jambs	
25. New windows have matching muntins with same pattern as historic windows or a simplified pattern (single lights, true divided lights, simulated divided lights with interior and exterior grids with spacer bars between the glass, or other simulated divided lights are OK)	
26. New windows use same material as historic windows, a highly compatible material, or an alternate material that resembles the historic material and allows the other aspects of compatibility to be met	
27. New windows have same method of operation or a new method of operation that allows the new sash size to be the same as it was historically	

Additionally, if any aspect of the proposed work is "Not Recommended," then the project will not be approved as a Certificate of No Effect and will require a Certificate of Appropriateness hearing.

Note: Tier 2 windows with no street visibility may be exempted from the requirements above. Noncontributing buildings may also be subject to different requirements, per page 16 of the *Guide.*