

FLOODPLAIN CONSTRUCTION – FEMA SUBSTANTIAL IMPROVEMENT

Public Works

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How to determine whether a building project is a FEMA substantial improvement

The following guidelines will assist owners and developers when they are improving homes or commercial or industrial buildings located in the floodplain (Federal Emergency Management Agency Special Flood Hazard Area).

When planning construction projects for a building in the floodplain a determination needs to be made as to whether the project is a substantial improvement as defined by FEMA. If the value of the project is 50% or more than the value of the existing structure, then the project is considered to be a FEMA substantial improvement.

To determine and compare values of the project and the structure, please follow the instructions below. First, open the City's worksheet which will assist you with calculating and comparing the values. An [interactive web version](#) is available on the City's website. If the improvement is being made to a commercial building, the City has a separate worksheet. Call the Engineering Division at 650-330-6740.

Value of the structure

Owners who are attempting to determine the value of a structure before submittal of their building or planning application should use \$275 per square foot as a preliminary estimate. Depreciation should also be taken into account. It represents the building's loss of value due to its age, physical deterioration and functional obsolescence. Depending upon when the building was constructed, subtract 20% to 30% for depreciation. If you know the decade when the building was constructed, call the Engineering Division for typical depreciation rates.

Include the value of site improvements that are directly associated with the structure's operation (e.g., utility connections, HVAC units). [Click here](#) for a list of items to include and exclude from the value of the existing structure.

Each structure should be appraised separately and compared to the cost of the improvements proposed for that structure. The City or its consultant will review the structure's value for reasonableness and whether the square foot value is consistent with recent project costs within the City.

In some cases, the City may require that an appraiser who is licensed in the State of California determine the value of the structure. The appraiser shall use the cost analysis (replacement in kind, in new condition), not the comparable sales method. The depreciation factor used by the appraiser should conform to recognized appraisal industry standards.

Value of the project

In the case of small home improvement projects under \$75,000, the City will accept the estimated project value submitted on the building permit application, or \$275 per square foot, whichever is greater. If the project will cost more than \$75,000, the applicant should use the City's worksheet to calculate the value of the project.

The value of projects completed within the previous 36-month period before submittal of a building permit application shall be included in the cost of the current project. In other words, project phasing shall not be used as a means to avoid compliance with FEMA regulations.

Even if the owner plans to do the work, or if volunteer labor will be used, prevailing wages for the particular type of construction proposed is to be used in calculating the project value. For donated or discounted materials, use the value, as if purchased today, in a normal market transaction.

[Click here](#) for a list of items to include and exclude from the value of the project. The following items may be excluded:

- Plans, specifications, survey costs and permit fees;
- Debris removal, including dumpster rental, transport fees to landfill and site cleanup;
- Items not considered real property such as appliances and furniture not built-in, (e.g., stoves, throw rugs);
- Outside projects including landscaping, sidewalks, fences, yard lights, swimming pools, screened pool enclosures, sheds, gazebos, detached structures (including garages) and irrigation systems.

- Improvements that were required to correct unsafe conditions may be excluded from the project cost. However, to qualify, the owner must submit a copy of the notice received from the County Health Department, Fire Department or City Building Department that required the improvement.

Compare the two values

If the value of the project is 50% or more of the value of the structure, then the project is a FEMA Substantial Improvement.

As the ratio of project to structure value approaches 50%, greater levels of accuracy in establishing these values are required. If the project cost is more than 40% of the value of the structure, the City may require:

1. A [certification and detailed estimate](#) from a California licensed general contractor. The contractor must state, under penalty of perjury, that the project cost provided is correct and accurate. The contractor should include all items shown on the plans, even if others will do part of the work. The certification is subject to review and approval by the City or its consultant.
2. An [owner's declaration](#) verifying that the project is not a FEMA substantial improvement and holding the City harmless for claims of liability (such as for flood damage) arising out of the City's reliance on the substantial improvement calculation.

Before applying for a permit, an owner or developer may present the City with preliminary calculations as to whether the project is substantial. However, the City cannot make a final decision on this issue until after review of the building permit application, plans, appraisal and cost estimate. The completed worksheet should be submitted with the Planning or Building permit application.