



Spec Topics

Guidelines for Design Professionals Preparing Project Specifications

Spec Topic No. 01-3B - Specifying Product Substitution Requirements (Part 2)

In Part 1 of this Spec Topic we looked at how standard documents offered by the American Institute of Architects (AIA) deal with substitutions, and why we may need to consider substitutions. Now let's see the rest of the story.

Timing of Substitutions: There are three points during the design and construction process that substitutions can be considered:

During Bidding:

Written substitution requests are accepted from qualified bidders, then a list of approved Substitutions is issued by Addendum prior to receipt of bids.

Bidders may include either specified products or approved substitutions in their bid.

The Owner and Design Professional may also accept proposed substitutions and any cost adjustments along with bids. These provisions must be stated in the Bidding Documents.

Prior to Construction:

Bids are received based on the specified products.

Substitutions are considered prior to execution of the Contract along with any cost adjustments.

During Construction:

Substitutions are considered within a defined time period after award of Contract only.

After this time period, substitutions are considered only due to the non-availability of specified products.

How are Substitution Procedures Incorporated into the Project Manual?

If AIA A701 - Instructions to Bidders is utilized, substitution procedures are contained in that document.

When AIA A701 is not utilized, the Design Professional must incorporate substitution procedures into the Project Manual. Potential locations include:

Document 00 21 13 - Instructions to Bidders.

Section 01 20 00 - Price and Payment Procedures.

Section 01 60 00 - Product Requirements.

Product-Related Sections:

Individual specification sections in Divisions 02 through 50 may include statements as to whether substitutions will be allowed for each product.

Typical statements may include:

Substitutions: Refer to Division 01.

Substitutions: Not permitted.

How Products are Specified:

Reference Standard Specification:

Defines product attributes by the inclusion of a third party standard by reference:

“Paint : Meet ASTM C 1111.”

Any product meeting the specified requirements may be used.

Documentation of compliance is required.

Substitution requests are not necessary.

Descriptive Specification:

Defines product attributes by describing the required appearance, performance requirements, etc.

“Paint : Green, shiny, and washable”.

Documentation of conformance is required.

Substitution requests are not necessary.

Performance Specification:

Defines product attributes by describing the required end results. A method for measurement of conformance is required:

“Coat walls with a fluid-applied product providing green appearance and minimum 70% light reflectance when tested to ASTM A111. Allow for normal washing with detergent and water applied by cloth.”

Documentation of conformance is required.

Substitution requests are not necessary.

Proprietary Specification:

Defines product attributes by naming a manufacturer and product name, with or without a substitution clause:



“Paint: Wonder Wall Paint by Acme Paints.”

Substitutions may be considered as stated in the Project Manual.

Open versus Closed Specifications:

Publicly funded projects: Closed specifications are typically not permitted by law, except in instances where exact matching of existing products is required.

Privately funded projects: Closed specifications are permitted but are typically not desirable due to the potential for inflated prices.

Substitutions Terminology:

“Or Equal”:

Worst option; implies that the Contractor’s or supplier’s definition of “equal” is acceptable.

Does not allow for the use of products that are perfectly acceptable but not “equal”.

“Or Approved Equal”:

Better option; implies that review and approval by the Architect/Engineer is required.

Still does not allow for acceptable but non “equal” products.

“Or Approved Substitute”:

Best option; avoids the argument of who decides what is “equal”.

Implies that review and approval by the Architect/Engineer is required.

Allows for the use of non “equal” but acceptable products.

Consideration of Substitutions:

What the Design Professional Should Evaluate:

Was the substitution request received within the allotted time?

Does the substitution request meet the specified requirements, including the use of a standard form if required?

Was adequate backup provided, including test data, certifications, cost data, and samples?

Was the substitution implied on a shop drawing or product data submittal without a formal request?

Is the product truly equivalent?

Product Equivalency Considerations:

Function: Does the submitted product function the same as the specified product?

Appearance: Is the appearance the same as the specified product?

Quality: Is the quality equal or superior to the specified product?

Dimensions: Do the submitted product's dimensions vary from the specified product, requiring revisions to the drawings?

Longevity: Is the life expectancy of the proposed product equal or exceed that of the specified product?

Code compliance: Is the proposed product approved by the applicable code authorities?

History: Does the proposed product have local installations that can be viewed by the Design Professional?

Manufacturer: What is the history and stability of the manufacturer of the proposed product?

Warranty: Does the proposed product's warranty include equivalent terms?

Making it All Work:

Everyone in the construction industry is involved in the product substitution process.

Understanding the reasons behind and concerns about product substitutions makes it easier for everyone involved to manage the process.

Effective management of the product substitution process is necessary to ensure that project requirements are met.

Project specifications must clearly define requirements for product substitutions.

Project Manuals should include the following coverage of substitutions:

Section 01 20 00 - Price and Payment Procedures should cover substitution procedures in general. Being located in Division 01 - General Requirements means that these provisions apply to all other Divisions.

Each section where manufacturers are listed should include the following statement, edited to designate how substitutions are to be handled in each section:

Substitutions: [Refer to Division 01.] [Not permitted.]

SimpleSpecs[™], the master guide specification system distributed by ZeroDocs.com, includes two documents that can assist in specifying product substitutions:

01 20 00 - Price and Payment Procedures: Includes general requirements for product substitutions.

01 25 19 - Substitution Request Form: For incorporation into a Project Manual to provide a format for product substitutions.

For information on the *SimpleSpecs*[™] Master Guide Specification System visit www.zerodocs.com.