

# RFI Recommendations

The 2005 AISC *Code of Standard Practice for Structural Steel Buildings* is the first to address RFIs and how they should be used.

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The design and construction of structural steel buildings is a complex and challenging process, and its success depends greatly upon good communication between members of the design and construction teams.

No set of construction documents is perfect; likewise, there are no perfect contractors and subcontractors. It is inevitable that the construction team will have questions regarding the interpretation and implementation of the construction documents, fit-up problems on site, and corrections to fabrication and erection errors.

The standard form of communication between the design team and the construction team to resolve these questions is the Request for Information (RFI). While the RFI process has been a common communication tool for developing written records of inquiries and responses related to interpretation and implementation of construction documents, previous editions of the AISC *Code of Standard Practice for Structural Steel Buildings* (COSP) were silent on how they should be used. The 2005 COSP is the first to bring coverage of RFIs into the code.

## New RFI Provisions

Recognizing that RFIs are a critical component of the communication process of nearly every construction project and that no other well-defined, balanced standard of practice appeared to be available for reference, the AISC COSP committee began discussions in 2003 on the RFI process to explore developing appropriate provisions for the 2005 code within the following framework:

- Defining RFIs in terms similar to those adopted by the Council of American Structural Engineers (CASE)
- Recognizing the current, standard use of RFIs as a communication tool
- Advising participants in the industry of the potential impact created when RFIs are used to communicate revisions to design documents

- Suggesting a standardized protocol for responses to RFIs, absent project-specific requirements to the contrary

There was near unanimity among committee members from all industry backgrounds (engineers, architects, detailers, fabricators, and erectors) that the misuse of RFIs is a major thorn in the side of all members of the design and construction teams. This motivation drove the committee's discussions and the initial proposal developed by a subcommittee. In seeking to define a standard of practice for RFIs and maintain balance and fairness among the sometimes competing interests of the design team and construction team members, the initial proposal contained a detailed and lengthy commentary on RFI requirements together with examples. Subsequent revisions yielded a condensed version that became

the new code Section 4.6 and associated commentary on RFIs.

The following revisions and additions to the code bring the first coverage of RFIs into the code and attempt to describe their proper use.

## New and Revised Definitions

The glossary defines the term RFI for the first time. It also adds a definition for "Clarification."

**RFI:** A written request for information or clarification generated during the construction phase of the project.

**Clarification:** An interpretation of the design drawings or specifications that have been released for construction made in response to an RFI or a note on an approval drawing, and providing an explanation that neither revises the information that has been released for construction nor alters the cost or schedule

## When are RFIs typically used?

- ✓ Where necessary information appears to be missing from the design drawings or specifications, or where the information contained on the design drawings or specifications appears to be incomplete.
- ✓ Where the fabricator or erector seeks clarification of the design drawings or specifications.
- ✓ Where there appear to be discrepancies within the design drawings or specifications, such as conflicting information between plans and details or between the drawings and the specifications.
- ✓ Where the fabricator or erector requests permission to use alternate materials or products. Depending on the nature of the request, this could be interpreted as a request for substitution and could be subject to other provisions of the contract documents.
- ✓ Where the fabricator or erector requests permission to revise details for ease of fabrication or erection. Depending on the nature of the request, this could be interpreted as being a request for substitution.
- ✓ Where the fabricator or erector seeks to verify the approved method for correction of fabrication or erection errors. When an RFI is issued for the resolution of a fabricator or erector error, it must be recognized that there may be associated design costs or other costs incurred by the A/E for review. Resolution of the error will be at the fabricator or erector's expense.
- ✓ Where the erector seeks an approved method to resolve field conflicts or constructability issues.
- ✓ Where the fabricator or erector seeks to clarify the treatment of existing or "as built" conditions that differ from the conditions shown in the design drawings or specifications.
- ✓ To confirm prior verbal understandings between the architect or engineer and the fabricator or erector related to any of the foregoing.

of performance of the work.

**Revision:** An instruction or directive providing information that differs from information that has been released for construction. A revision may, but does not always, impact the cost or schedule of performance of the work.

### Revisions to the Design Drawings and Specifications

Section 3.5—Revisions to the Design Drawings and Specifications now states that revisions to the contract documents that are communicated through RFIs are to be indicated in the contract documents.

Revisions to the design drawings and specifications shall be made either by issuing new design drawings and specifications or by reissuing the existing design drawings and specifications. In either case, all revisions, including revisions that are communicated through responses to RFIs or the annotation of shop and/or erection drawings (see Section 4.4.2—Fabricator Responsibility), shall be clearly and individually indicated in the contract documents. The contract documents shall be dated and identified by revision number. Each design drawing shall be identified by the same drawing number throughout the duration of the project, regardless of the revision. (See also Section 9.3—Revisions to the Contract Documents.)

### Fabricator Responsibility

One notable change to Section 4.4.2—Fabricator Responsibility states that RFI responses that indicate revisions to the contract documents shall constitute a release for construction of the revisions, unless otherwise noted by the A/E (such as “released for construction pending building department approval”). There is also a requirement of the fabricator/erector to promptly notify the owner’s construction representative if the RFI response will result in additional cost or delay.

Unless otherwise noted, any additions, deletions, or revisions that are indicated in responses to RFIs or on the approved shop and erection drawings shall constitute authorization by the owner that the additions, deletions, or revisions are released for construction. The fabricator and the erector shall promptly notify the owner’s designated representative for construction when any direction or notation in responses to RFIs or on the shop or erection drawings or other information will result in an additional cost and/

or a delay. (See Sections 3.5 and 9.3.)

**Commentary:** When the fabricator notifies the owner’s designated representative for construction that a direction or notation in responses to RFIs or on the shop or erection drawings will result in an additional cost or a delay, it is then normally the responsibility of the owner’s designated representative for construction to subsequently notify the owner’s designated representative for design.

### The RFI Process

Section 4.6—The RFI Process is a new section that defines the RFI process and how it is intended to be used. The commentary describes the process in greater detail, including supplemental discussions between the fabricator and erector and A/E on possible solutions, returning responses in a timely fashion, preparation of RFIs and responses, and the need for clarity in both questions and responses. A successful RFI process is truly a team effort.

When RFIs are used, the process shall include the maintenance of a written record of inquiries and responses related to interpretation and implementation of the contract documents, including the clarifications and/or revisions to the contract documents that result, if any. RFIs shall not be used for the incremental release of construction or design drawings. When RFIs involve discrepancies or revisions, see Sections 3.5, 4.4.2, and 3.3—Discrepancies.

**Commentary:** When used, the RFI process is most common during detailing. It can also be used to forward inquiries by the erector or to inform the owner’s designated representative for design in the event of a fabricator or erector error and to develop corrective measures to resolve such errors.

The RFI process is intended to provide a written record of inquiries and associated responses but not to replace all verbal communication between the parties on a project. RFIs should be prepared and responded to in a timely fashion so as not to delay the work of the detailer, fabricator, and erector. Discussion of the RFI issues and possible solutions between the fabricator, erector, and owner’s designated representatives for design and construction often can facilitate timely and practical resolution. Unlike shop and erection drawing submittals in Section 4.2, RFI response time can vary depending on the urgency of the issue, the

amount of work required by the owner’s designated representative for design or the owner’s designated representative for construction to develop a complete response, and other circumstances such as building official approval.

RFIs should be prepared in a standardized format, including RFI number and date, identity of the author, reference to a specific design drawing number (and specific detail as applicable) or specification section, the needed response date, a description of a suggested solution (graphic depictions are recommended for more complex issues), and an indication of possible schedule and cost impacts. RFIs should be limited to one question each (unless multiple questions are interrelated to the same issue) to facilitate the resolution and minimize response time. Questions and proposed solutions presented in RFIs should be clear and complete. RFI responses should be equally clear and complete in the depictions of the solutions and should be signed and dated by the responding party.

Unless otherwise noted, the fabricator/erector can assume that a response to an RFI constitutes a release for construction. However, if the response will result in an increase in cost or a delay in schedule, Section 4.4.2 requires that the fabricator/erector promptly inform the owner’s designated representative for design/owner’s designated representative for construction.

### Recommended Standard of Practice

The goal of the RFI process is to facilitate communication between the design team and construction team to reach a timely resolution of conflicts and errors and to enable the construction to be completed in conformance with the approved construction documents and on schedule.

The RFI process is NOT intended:

- To be a tool for the incremental release of design drawings for construction. Drawings that are not complete and ready for construction, except as agreed to under the provisions of fast track construction, should not be issued for construction.
- To replace all verbal communication between parties on the project. It is generally good practice for the author of the RFI to discuss the issue and possible solutions with the reviewer (such as the fabricator speaking directly to the structural engineer), as long as the leaders of the design and

construction teams are kept informed of these discussions. This can lead to a more timely and practical resolution of the RFI. This is especially true where the fabricator or erector seeks the approval of a method of correction by the structural engineer for fabrication and erection errors.

- To be a measure of the completeness of the contract documents as determined by the number of RFIs on the project.
- To be a measure of the abilities of the detailer, fabricator, or erector.
- To be used for the review of submittals.
- To be used for the review of substitutions.
- To be used for change orders, notices of non-complying work, and owner-initiated revisions.
- To be used for the approval of means and methods of construction, unless specifically requested by the structural engineer for unique conditions.
- To be used for commentary and posturing.

Unless contrary or additional RFI requirements are established by the contract documents, RFIs related to structural steel design drawings and specifications should typically contain the following information:

- The date when the RFI was generated, a chronological number for each RFI, and the identity of the individual who prepared the RFI.
- Specific reference to a design drawing number or specification section and not just the shop piece mark number. Where necessary to fully develop or clarify the inquiry, a copy of the relevant portion(s) of the design drawing(s) should be attached with the area of concern clouded or otherwise identified. For problem field conditions, the use of digital photographs has become especially helpful to the erector or contractor in describing the problem to the A/E. The ability of the A/E to respond promptly depends greatly on the clarity and completeness of the question and supporting information.
- Where alternative resolutions to the RFI inquiry are apparent to the individual preparing the RFI, the inquiry should include a suggested resolution that is favored by the party preparing the RFI. Graphic and written descriptions of suggested resolutions often aid in timely responses to RFIs.

→ Responses to RFIs must include references to design drawing numbers and specification sections and, where necessary, graphic depictions of the resolution.

→ Where it appears that a resolution or suggested resolution of the RFI may adversely impact the schedule of performance or the cost of the work for any party, that fact must be included as part of the RFI communication process.

→ Where the receipt of a response to the RFI is time dependent or schedule driven, the RFI must indicate a specific date (as opposed to a designation such as "ASAP") by which the requested information is required.

→ Responses such as "See Architectural Drawings" are not helpful to the fabricator or erector.

→ Identification of the specific architectural drawing detail or location on-plan that contains the relevant information.

Unless contrary or additional RFI requirements are established by the project specifications, the following protocol should apply to RFIs related to structural steel design drawings and specifications:

→ The typical response time for an RFI is one to five working days, depending upon the urgency and complexity of the issue and the amount of work required to develop a full and complete response. There may be circumstances in which more than five working days are required for a response.

→ Each RFI should be limited to a single subject of inquiry, unless multiple questions are interrelated to the same design drawing detail or specification section.

→ RFIs should be generated as soon as the generating party recognizes the need for the information requested. Avoid "batching" RFIs for submittal to the A/E. Where batching of RFIs cannot be avoided, the RFIs will be clearly prioritized by their individual degree of urgency.

→ Where it is necessary for the reviewing authority party to return the RFI for additional information, the RFI is re-issued by the generating party with a revision number and revised return date.

→ Unless otherwise noted, the fabricator or erector can assume that a response to an RFI constitutes a release for construction (for example, "Pending Approval of the Building Official"). However, if the response will result in an increase in cost or a delay in schedule, the generating party must imme-

## Tips for Better RFIs

- ✓ The responding party should consider attaching to every RFI response an "RFI Response Transmittal" that documents the reviewer's understanding of the type of RFI and alerts the author to any special conditions.
- ✓ The architect or engineer should incorporate RFI responses into their design drawings concurrent with processing the RFI. The A/E then has the benefit of having complete, up-to-date information on their drawings for reviewing submittals.
- ✓ Send the RFI to the party who is responsible for the drawing or specification in question. For example, an RFI on a steel handrail detail shown on the architectural drawings should be sent to the architect, not the structural engineer.
- ✓ Where RFI responses require new details or detail revisions, the engineer should consider whether good hand drawn sketches will expedite the RFI response time over CAD drafting. See the article "Scared to Sketch: The Lost Art of Drawing" by Carrato and Kellogg in the November 2004 issue of *Structural Engineer* magazine for an excellent discussion on the lost art of hand sketching by engineers.

diately inform the reviewing party of this condition.

→ Responses to RFIs that require revisions to the design drawings or specifications should be incorporated into the construction documents.

→ Use one system of numbering RFIs consistently throughout the project.

Adherence to a good standard of practice for RFIs as part of a formal communication process during construction will lead to a timely resolution of issues that will benefit everyone. ★

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## REFERENCES

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