



Minimum Qualifications for Special Inspectors and Material Testing Laboratories

The following lists minimum qualifications for Special Inspectors and Material Testing Laboratories assigned to work on DFCM projects. All references provided refer to the 2021 International Building Code (IBC). Acronyms for certification organizations are provided at the end of this document. All special inspectors must be licensed by the State of Utah in accordance with Section 58-56 of the Utah Code. For a list of all approved DFCM Special Inspection Firms or for the current DFCM rates for inspections and material testing please visit the [DFCM - Utah State Building Official webpage](#).

A. Fabricators (IBC 1704.2.5)

A.1. Un-approved Fabricators

The designated Special Inspector and/or Special Inspection Firm inspecting the Fabricator Shop for compliance with Chapter 17 of the IBC shall be pre-approved by DFCM for the specified category of fabrication (i.e. Steel Construction, Concrete Construction, etc.) A.2. Approved Fabricators Special Inspections are not required for work done on the premises of a fabricator listed on DFCM's approved fabricator list which can be found on the [DFCM - Utah State Building Official webpage](#).

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B. Steel Construction (IBC 1705.2)

B.1. Steel Erection and High Strength Bolting

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training and one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:



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1. Current ICC Certification as a Structural Steel and Bolting Special Inspector (S1).
2. Current AWS Certification as a Certified Welding Inspector (CWI).
3. Current AWS Certification as a Certified Associate Welding Inspector (CAWI).

B.2. Welding

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. High school graduate, or equivalent, *and* two years of relevant work experience.
2. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Structural Welding Special Inspector (S2).
2. Current AWS Certification as a Certified Welding Inspector (CWI).
3. Current AWS Certification as a Certified Associate Welding Inspector (CAWI).

B.3. Nondestructive Testing (NDT)

The Special Inspector shall comply with at least one of the Certification Requirements noted below:

Minimum Certification Requirements:

1. Current ASNT Certification as an NDT Level II.
2. Current AWS Certification as a Certified Radiographic Interpreter.

B.4. Structural Cold-Formed Steel

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Structural Steel and Bolting Special Inspector (S1).



2. Current ICC Certification as a Commercial Building Inspector (B2).
3. Current ICC Certification as a Residential Building Inspector (B1).

C. Concrete Construction (IBC 1705.3)

C.1. Cast-in-Place and Precast

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Reinforced Concrete Special Inspector (47).
2. Current ACI Certification as a Concrete Construction Special Inspector.
3. Current ACI Certification as a Concrete Field-testing Technician, Grade 1.
4. Current WAQTC Certification as a Concrete Testing Technician (CTT).
5. Current NICET Certification in Concrete Testing and Inspection, Level II.

C.2. Pre-stressed

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Prestressed Concrete Special Inspector (92).
2. Current PTI Certification as a Level 2 Unbonded PT Inspector.
3. Current ACI Certification as a Concrete Construction Special Inspector.



C.3. Post-Installed Anchors in Concrete

The Special Inspector shall comply with at least one of the Education and Experience Requirements **and** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Reinforced Concrete Special Inspector (47).
2. Current ICC Certification as a Commercial Building Inspector (B2).
3. Current ICC Certification as a Residential Building Inspector (B1).
4. Current ACI Certification for Adhesive Anchor Installation.
5. Current ACI Certification as a Concrete Construction Special Inspector.
6. Current ACI Certification as a Concrete Field-testing Technician, Grade 1.

D. Masonry Construction (IBC 1705.4)

The Special Inspector shall comply with at least one of the Education and Experience Requirements **and** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Structural Masonry Special Inspector (84).
2. Current ACI Certification as a Masonry Field Testing Technician.

E. Wood Construction (IBC 1705.5)

The Special Inspector shall comply with at least one of the Education and Experience Requirements **and** at least one of the Certification Requirements noted below:



Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Commercial Building Inspector (B2).
2. Current ICC Certification as a Residential Building Inspector (B1).

F. Soils and Deep Foundation Elements (IBC 1705.6 – IBC 1705.10)

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. Utah Registered Professional Engineer *and* a minimum of three months of relevant work State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Soils Special Inspector (EC).
2. Current NICET Certification as Geotechnical Construction Level II.
3. Current NICET Certification as Soils Level II.
4. Current WAQTC Certification as an Embankment and Base/Density Testing Technician.

G. Fire-Resistant Materials (IBC 1705.15 and 1705.16)

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.



4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Spray-Applied Fireproofing Special Inspector (86).
2. Current ICC Certification as a Fire Inspector II (67).

H. Exterior Insulation and Finish Systems (IBC 1705.17)

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Commercial Building Inspector (B2).
2. Current ICC Certification as a Residential Building Inspector (B1).
3. Current AWCI Certification as an EIFS Inspector.

I. Smoke Control Systems (IBC 1705.19)

The Special Inspector shall have expertise in Fire Protection Engineering, Mechanical Engineering ***and*** must be certified as Air Balancers.

They shall also comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current AABC Certification as a Test and Balance Engineer (TBE) or Test and Balance Technician (TBT).



2. Current NEBB Certification for Testing, Adjusting and Balancing of Environmental Systems.

J. Miscellaneous (IBC 1705.1.1, 1705.12 and 1705.13)

J.1. Special Cases (IBC 1705.1.1)

DFCM will approve Special Inspectors on a case-by-case basis for special cases that are not covered by the IBC and which may require special inspections. An example of such a scenario could include foundation excavation shoring systems.

J.2. Designated Seismic Systems, Architectural Components, MEP Components, and Racking

The Special Inspector shall comply with at least one of the Education and Experience Requirements ***and*** at least one of the Certification Requirements noted below:

Minimum Education and Experience Requirements:

1. State of Utah Registered Professional Engineer, or Registered Structural Engineer, *and* six months of relevant work experience.
2. Two years of college or technical training *and* one year of relevant work experience.
3. High school graduate, or equivalent, *and* two years of relevant work experience.
4. A minimum of three years of relevant work experience.

Minimum Certification Requirements:

1. Current ICC Certification as a Commercial Building Inspector (B2).
2. Current ICC Certification as a Residential Building Inspector (B1).

K. Testing Laboratory Qualifications

Each designated Testing Lab shall be accredited by at least one of the following accreditation authorities:

1. IAS accreditation with the scope of accreditation covering the disciplines for which the Testing Lab is designated.
2. AASHTO Accreditation Program per either AASHTO R18 or International Organization of Standards/International Electrotechnical Commission (ISO/IEC) 17250.
3. Current accreditation through A2LA.
4. Current accreditation through NVLAP.
5. Current accreditation through CMEC.
6. Other Accreditation Authority Program. The Testing lab shall be accredited by a third party *and* shall meet the requirements of Section 1703.1 of the IBC.



L. Laboratory Technician Qualifications

Each Laboratory Technician shall have certification in the appropriate Category ***and*** one-year minimum experience.

General Notes

1. An Inspector who does not meet the qualifications noted above may be allowed to perform a "Special Inspection" at the discretion of the Special Inspection Firm provided one or more of the following conditions have been met:
 - a. The individual is working under the direct and continuous supervision of a Special Inspector fully qualified for the type of work involved.
 - b. The individual is working under the indirect and periodic supervision of a Special Inspector, *and* the scope is minor and/or routine and within the capabilities of the individual.
2. DFCM will consider equivalent certifications from a Nationally Recognized Organization obtained by written examination when sufficient documentation is provided.
3. DFCM will consider equivalent criteria for the qualifications of any designated party. The Registered Design Professional shall provide sufficient documentation to substantiate the equivalency request.



Acronyms

A2LA – American Association of Laboratory Accreditation

AASHTO – American Association of State Highway and Transportation Officials

ACI – American Concrete Institute

ASNT – American Society of Nondestructive Testing

AWCI – Association of Wall and Ceiling Industry

AWS – American Welding Society

CMEC – Construction Materials Engineering Council

IAS – International Accreditation Service

ICC – International Code Council

NEBB – National Environmental Balancing Bureau

NICET – National Institute for Certification in Engineering Technologies

NVLAP – National Institute of Standards and Technology

PTI – Post-Tensioning Institute

WAQTC – Western Alliance for Quality Transportation Construction