

Bexas Chapter Professional Engineers in Private Practice (PEPP), San Antonio Chapter AIA and San Antonio Chapter Structural Engineers Association of Texas (SEAOt) recommend the City of San Antonio amend Chapter 17 of the 2003 International Building Code (IBC) as follows:

SECTION 1704 SPECIAL INSPECTIONS

1704.1 General. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1704. The special inspector shall be qualified individuals, approved agencies or firms who shall demonstrate competence, to the satisfaction of the registered design professional in responsible charge and the building official, for inspection of the particular type of construction or operation requiring special inspection. These inspections are in addition to the inspections specified in Section 109.

Exceptions:

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. Unless otherwise required by the building official, special inspections are not required for occupancies in Group R-3 as applicable in Section 101.2 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

1704.1.1 Building permit requirement. The permit applicant shall submit a list of special inspections indicated on the permit documents prepared by the registered design professional in responsible charge in accordance with Section 106.1 as a condition for permit issuance. This list shall include a complete list of materials and work requiring special inspections by this section, the inspections to be performed and required qualifications of the special inspectors intended to be retained for conducting such inspections.

1704.1.2 Report requirement. Special inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the building official, upon request, and to the registered design professional in responsible charge. Individual special inspection reports shall indicate that work inspected was done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report written by the registered design professional in responsible charge documenting all of the required special inspections, the special inspectors and correction of any discrepancies-brought to the attention of the

building official and the registered design professional in responsible charge shall be submitted to the building official prior to the building official issuing the certificate of occupancy.

1704.2 Inspection of fabricators. Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator's shop, special inspection of the fabricated items shall be required by this section and as required elsewhere in this code.

1704.2.1 Fabrication and implementation procedures. The special inspector shall verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to approved construction documents and referenced standards. The special inspector shall review the procedures for completeness and adequacy relative to the code requirements for the fabricator's scope of work.

Exception: Special inspections as required by Section 1704.2 shall not be required where the fabricator is approved in accordance with Section 1704.2.2.

1704.2.2 Fabricator approval. Special inspections required by this code are not required where the work is done on the premises of a fabricator that is enrolled in a nationally accepted inspections program acceptable to the registered design professional in responsible charge. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to building official upon request and to the registered design professional in responsible charge stating that the work was performed in accordance with the approved construction documents.

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Registered Design Professional in Responsible Charge Letterhead

[Date]

[Owner]
[Owner address 1]
[Owner address 2]
[CSZ]

Final Report of Required Special Inspections

Project: [Project Name]
[Project Address]
San Antonio, Texas

The appropriate design professionals prepared and submitted a list of required special inspections (as required by the International Building Code Section 1704.1) on the permit set of drawings submitted for a building permit for this project.

City of San Antonio Permit Number []

As your registered design professional in responsible charge for all required inspections for this project during construction, to the best of my information, knowledge and belief, the listed required inspections and tests for this project have been performed and all discovered discrepancies have been resolved.

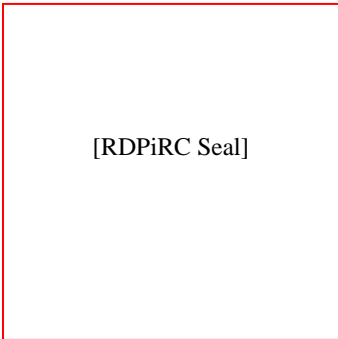
Inspections and tests performed, either periodically or continuously, represent all the work for the item inspected.

Respectfully,

[RDPIRC Firm Name]

[Signature of RDPIRC]

[Name of Registered Design Professional in Responsible Charge]



cc: General Contractor
All Special Inspectors listed below

The following is a complete list of all of the required inspections listed on the permitted construction documents along with the names of each of the inspectors that inspected this project:

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<u>Inspection Required</u>		<u>Special Inspector Name / Firm Name</u>
Geotechnical / Structural Related Inspections		
1)	Chapter 1704.7 Soils	_____
2)	Chapter 1704.8-9 Pile / Pier Foundations	_____
3)	Chapter 1704.13 []	_____
4)	[Non Compliant Item] []	_____
Structural Related Inspections		
5)	Chapter 1704.4 Concrete Construction	_____
6)	Chapter 1704.3 Structural Steel	_____
7)	Chapter 1704.2 Inspection of Fabricators	_____
8)	Chapter 1704.5/1708.1 Masonry Construction	_____
9)	Chapter 1704.6 Structural Wood	_____
10)	Chapter 1704.13 []	_____
11)	[Non Compliant Item] []	_____
Architectural Related Inspections		
12)	Chapter 1704.12 Ext Insulation & Finish Systems (EIFS)	_____
13)	Chapter 1704.11 Sprayed Fire-Resistive Materials	_____
14)	Chapter 1704.13 []	_____
15)	[Non Compliant Item] []	_____
Mechanical Related Inspections		
16)	Chapter 1704.14 Smoke Control Systems	_____
17)	Chapter 1704.13 []	_____
18)	[Non Compliant Item] []	_____

* Blank inspections are special case inspections according to Chapter 1704.13.

* Inspectors for inspections not required for this project are listed as “not required”. Inspections not required remain on the list in order to inform the building official that this project does not require the specific inspections.

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Check List of IBC Section 109 Building Official Inspections

COMMENTS:

- 1) All Section 109 inspections listed below must be included in the list submitted with the permit documents. If one of the listed inspections is not required for a project, it should be noted on the list as "Not applicable for this project".
- 2) The general contractor must notify the building official in order to perform inspections.

DRAWINGS	CODE SECTION
CIVIL DRAWINGS:	
1. Lowest Floor Elevation (in flood hazard areas)	109.3.3
STRUCTURAL DRAWINGS:	
2. Footings and Foundation	109.3.1
3. Concrete Slab and Underfloor	109.3.2
4. Frame Inspection	109.3.4
ARCHITECTURAL DRAWINGS:	
5. Lath & Gypsum Board (fire resistive construction)	109.3.5
6. Fire Resistance Penetrations	109.3.6
7. Energy Efficiency Inspections	109.3.7

MATERIAL / ACTIVITY
1704.2 Inspection of Fabricators
1704.3 Steel Construction
1707.2 Structural Steel
1708.4 Structural Steel
1704.4 Concrete Construction
1708.3 Reinforcing and Prestressing Steel
1704.5 Masonry Construction
1708.1 Masonry
1704.7 Soils
1704.8 Pile Foundations

Bexas Chapter Professional Engineers in Private Practice (PEPP), San Antonio Chapter AIA and San Antonio Chapter Structural Engineers Association of Texas (SEAOt) recommend the City of San Antonio amend Chapter 17 of the 2003 International Building Code (IBC) as follows:

1707.3 Structural Wood
1707.4 Cold-formed Steel Framing
1704.10 Wall Panels/Veneers
1704.11 Sprayed Fire-resistant Materials
1704.12 Exterior Insulation and Finish Systems (EIFS)
1704.14 Smoke Control Systems
1704.13 Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. Attach 8 1/2x11 if needed).
1707.5 Storage Racks and Access Floors
1707.6 Architectural Components
1707.7 Mechanical and Electrical Components
1708.5 Mechanical and Electrical Equipment
1707.8 Seismic Isolation System

MATERIAL / ACTIVITY
1704.2 Inspection of Fabricators
1704.3 Steel Construction
1704.4 Concrete Construction
1704.5 Masonry Construction
1704.7 Soils
1704.9 Pier Foundations
1704.10 Wall Panels/Veneers
1704.11 Sprayed Fire-resistant Materials
1704.12 Exterior Insulation and Finish Systems (EIFS)
1704.14 Smoke Control Systems
1704.13 Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. Attach 8 1/2x11 if needed).

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Check List of IBC Chapter 17 Special Inspections

Instructions to Building Official Plan Checker

- 1) All special inspection items listed below must be included in the list submitted with the permit documents. If one of the listed inspections is not required for a project, it should be noted on the list as "Not applicable for this project".
- 2) Special inspector qualifications must be included with the information listed on the permit documents.
- 3) Frequency of inspections is determined by the Design Professional and must be included with the information listed on the permit documents. The special inspector should not be the person determining frequency of testing.
- 4) Before issuing a certificate of occupancy at the end of the project construction, compare with the listed items on the Final Statement of Required Inspections prepared by the Registered Design Professional in Responsible Charge.

DRAWINGS	Code Section	Qualifications	Frequency
STRUCTURAL DRAWINGS:			
1. Soils	1704.7		
2. Pile/Pier Foundations	1704.8/1704.9		
3. Concrete Construction	1704.4		
4. Structural Steel	1704.3		
5. Inspection of Fabricators	1704.2		
6. Masonry Construction	1704.5/1708.1		
7. Structural Wood	1704.6		
ARCHITECTURAL DRAWINGS:			
8. Exterior Insulation and Finish Systems (EIFS)	1704.12		
9. Sprayed Fire-resistant Materials	1704.11		
MECHANICAL DRAWINGS:			
10. Smoke Control Systems	1704.14		
11. Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. These inspections can be listed for any of the above drawings (Civil Drawings, Structural Drawings, Architectural Drawings or Mechanical	1704.13		

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Drawings) as Special Cases.

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IBC 2003 SPECIAL INSPECTIONS NOT NECESSARY FOR SAN ANTONIO AREA

CODE SECTION

- 1704.10- Wall Panels & Veneers
(Seismic Design NOT in CAT, E, or F)..... Not Applicable for San Antonio
- 1705- Q.A. for Seismic Resistance
(Seismic Design Cat.- A)
- 1706- Q.A. for Wind Requirements..... Not Applicable for San Antonio
(3 sec Gust Wind Speed = 90mph for Bexar Co.)
- 1707- Special Inspections for Seismic Resistance..... Not Applicable for San Antonio
(Seismic Design Cat.- A)
- 1708.2 thru 1708.6 - Structural Testing for Seismic Not Applicable for San Antonio
Resistance....N/A
(Seismic Design Cat.- A)
- 1709- Structural Observations..... Not Applicable for San Antonio

1709.1- Seismic Design NOT in CAT D, E, F &
Wind Speed LESS than 110 mph

Section 109 inspections are to be handled by City Building
Officials

MATERIAL / ACTIVITY
1704.2 Inspection of Fabricators
1704.3 Steel Construction
1707.2 Structural Steel
1708.4 Structural Steel
1704.4 Concrete Construction
1708.3 Reinforcing and Prestressing Steel
1704.5 Masonry Construction
1708.1 Masonry
1704.7 Soils
1704.8 Pile Foundations
1707.3 Structural Wood
1707.4 Cold-formed Steel Framing
1704.10 Wall Panels/Veneers

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1704.11 Sprayed Fire-resistant Materials
1704.12 Exterior Insulation and Finish Systems (EIFS)
1704.14 Smoke Control Systems
1704.13 Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. Attach 8 1/2x11 if needed).
1707.5 Storage Racks and Access Floors
1707.6 Architectural Components
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MATERIAL / ACTIVITY
1704.2 Inspection of Fabricators
1704.3 Steel Construction
1704.4 Concrete Construction
1704.5 Masonry Construction
1704.7 Soils
1704.9 Pier Foundations
1704.10 Wall Panels/Veneers
1704.11 Sprayed Fire-resistant Materials
1704.12 Exterior Insulation and Finish Systems (EIFS)
1704.14 Smoke Control Systems
1704.13 Special Cases (work unusual in nature, including but not limited to alternative construction materials, unusual design applications, systems or materials with special manufacturer requirements. Attach 8 1/2x11 if needed).

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Special Inspections

The registered design professional in responsible charge for this project is the Architect.

The general contractor is responsible for coordinating all testing, inspections and notifying the Architect/Engineer and special inspectors of work ready for inspection. The general contractor must provide access to and means for safe and proper inspection of such work.

Special inspectors are responsible for verification shall inspect the work for compliance with the City of San Antonio approved plans plan revisions and supporting documents. Special inspectors shall bring noncompliant items to the immediate attention of the general contractor and the Architect/Engineer. Special inspector shall submit a field report to the Architect/Engineer and to the general contractor for each inspection / test made.

Each special inspector is responsible to prepare, sign and submit to the RDPIRC his Report of Required Special Inspections. This report shall be prepared on the Report of Required Special Inspections form approved by the building official.

List of Special Inspections:

1) Soils (IBC Chapter 1704.7)

Determine that the subgrade below the select fill pad has been prepared according to the geotechnical engineer recommendations (IBC Chapter 1704.7.1).

- a) Witness the proof rolling operations (IBC Chapter 1704.7.1).
- b) Conduct one field test for each _____ sf of subgrade below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total) (IBC Chapter 1704.7.2-3).
- c) Conduct one field test for each _____ sf of select fill below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total per lift) (IBC Chapter 1704.7.2-3)

Special Inspector Qualifications:

The project geotechnical engineer is the special inspector for all soils work requiring special inspections. As the special inspector, he shall review all testing and special inspections for all soil work.

The testing laboratory office performing the testing and special inspections shall meet the qualifications of ASTM-E329 and subscribe to an independent audit by a national agency such as *American Association of State Highway and Transportation Officials (AASHTO)* and/or *American Association for Laboratory Accreditation (AALA)* that routinely monitors, assesses, and certifies the professional and technical activities of testing laboratories.

Inspectors testing soils working under the supervision of the project geotechnical engineer shall have appropriate certification from *The National Institute for the Certification of Engineering Technologists (NICET)* and an accredited radiation safety training class if using nuclear density gage equipment.

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OR –

1) Soils (IBC Chapter 1704.7)

Determine that the subgrade below the select fill pad has been prepared according to the geotechnical engineer recommendations (IBC Chapter 1704.7.1).

- a) Witness the proof rolling operations (IBC Chapter 1704.7.1).
- b) Conduct one field test for each _____ sf of subgrade below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total) (IBC Chapter 1704.7.2-3).
- c) Conduct one field test for each _____ sf of select fill below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total per lift) (IBC Chapter 1704.7.2-3)

Special Inspector Qualifications:

The special inspector shall review all testing and special inspections for all soil work. The testing laboratory office performing the testing and special inspections shall meet the qualifications of ASTM-329 and subscribe to an independent audit by a national agency such as *American Association of State Highway and Transportation Officials (AASHTO)* and/or *American Association for Laboratory Accreditation (AALA)* that routinely monitors, assesses, and certifies the professional and technical activities of testing laboratories.

Inspectors testing soils working under the supervision of the special inspector shall have appropriate certification from *The National Institute for the Certification of Engineering Technologists (NICET)* and an accredited radiation safety training class if using nuclear density gage equipment.

OR –

1) Soils (IBC Chapter 1704.7)

Determine that the subgrade below the select fill pad has been prepared according to the geotechnical engineer recommendations (IBC Chapter 1704.7.1).

- a) Witness the proof rolling operations (IBC Chapter 1704.7.1).
- b) Conduct one field test for each _____ sf of subgrade below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total) (IBC Chapter 1704.7.2-3).
- c) Conduct one field test for each _____ sf of select fill below the building(s) for "Density Control of Compaction" according to the latest ASTM D-2922 and ASTM D-3017. (Minimum of ___ tests total per lift) (IBC Chapter 1704.7.2-3)

Special Inspector Qualifications:

The special inspector shall review all testing and special inspections for all soil work. The testing laboratory office performing the testing and special inspections shall meet the qualifications of ASTM-E329.

Inspectors testing soils shall work under the supervision of the special inspector.

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OR –

1) Soils (IBC Chapter 1704.7)

Determine that the subgrade below the select fill pad has been prepared according to the geotechnical engineer recommendations (IBC Chapter 1704.7.1) as specified in Section _____ of the project manual.

2) Pile Foundations (IBC Chapter 1704.8)

A special inspector shall be present when pile foundations are being installed and during tests. The special inspector shall inspect cutoff and tip elevations of each pile relative to a permanent reference.

The testing laboratory office associated with the special inspector performing the testing and special inspections shall meet the qualifications of ASTM-E329.

OR –

2) Pile Foundations (IBC Chapter 1704.8)

No pile foundations exist for this project; therefore, special inspections are not required.

3) Pier Foundations (IBC Chapter 1704.9)

Monitor all pier-drilling operations according to ACI 336.3R. Test concrete as noted.

The project geotechnical engineer shall be the special inspector. As the special inspector, he shall witness that the piers are founded at the bearing strata required.

The testing laboratory office associated with the special inspector performing the testing and special inspections shall meet the qualifications of ASTM-329.

4) Concrete Construction (IBC Chapter 1704.4)

Inspect reinforcing steel before concrete placement (IBC Table 1704.4, Verification and Inspection Item 1).

- 1) Verify reinforcement and welding of reinforcement indicated on the plan documents (IBC Chapter 1903.5).
- 2) Verify proper concrete protection for reinforcement (IBC Chapter 1907).

Etc ...

List of IBC Section 109 Building Official Inspections

2) Footings and Foundation (IBC Chapter 109.3.1)

Inspect after excavating for footings and placement of all reinforcing steel, with formwork in place.

The Building Official shall inspect footings and foundations. The Building Official may accept a review by a licensed professional engineer in place of the Building Official conducting the review.

Etc ...