
EARTHQUAKE PERFORMANCE RATING SYSTEM ASCE 41-13 TRANSLATION PROCEDURE

Prepared by
The Building Ratings Committee
A sub-committee of the Existing Buildings Committee of
The Structural Engineers Association of Northern California

March 2017

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Acknowledgments

This User's Guide was written by members of SEAONC's Building Ratings Committee (BRC), as a subcommittee of the SEAONC Existing Buildings Committee.

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1. Introduction and General Instructions

This publication provides a procedure for translating the findings of an “ASCE 41” (ASCE, 2013) seismic evaluation into a three-part rating using the Earthquake Performance Rating System (EPRS). The EPRS is described in a User’s Guide developed by the Building Ratings Committee and published by SEAONC (SEAONC BRC, 2015).

Before applying the procedure, the rating engineer should be familiar with the EPRS, the rating process, and the rating presentation guidelines, all of which are described in the EPRS User’s Guide. The intent and background of certain instructions and judgments inherent in this procedure are further described in the EPRS User’s Guide.

The translation procedure consists of general instructions given in this section together with specific instructions given in worksheet form below. In addition to the instructions, tips and commentary are given in *italic* text.

The translation procedure reflects some judgment by the BRC, as discussed in Section 1.2.

1.1 Sequence

The procedure worksheet has four main parts, each divided into several “lines,” plus a summary. In general, the four parts should be completed in sequence, as later parts rely on earlier results.

Tip: The Repair Cost and Recovery Ratings rely on the Safety Rating, which can be limited by unknown geologic site hazards (line 2.2) or by an incomplete nonstructural evaluation (line 2.3). Along with overall eligibility (Part 1), check these sections first.

1.2 ASCE 41 Basis.

This translation procedure is based on the results of a seismic evaluation completed with the ASCE/SEI 41-13 standard (ASCE, 2013), cited herein as “ASCE 41”. In general, the evaluation should be completed before applying the translation procedure and should be completed following the provisions of ASCE 41 itself. This procedure presumes knowledge of ASCE 41, as well as a proper application of its provisions. The following instructions either clarify the intent of ASCE 41 or make distinctions necessary for characterization of ASCE 41 deficiencies in EPRS terms.

Commentary: This procedure was not developed for, and should not be used with, ASCE 41’s predecessors, ASCE 31, FEMA 310 and FEMA 178, except where they are cited for benchmarking by ASCE 41 Section 4.3.

This procedure reflects some judgment by the BRC in order to make distinctions that ASCE 41 does not make itself. Examples:

- ASCE 41 does not distinguish Life Safety deficiencies related to global collapse from those related to local collapse or falling hazards; this procedure makes that judgmental distinction in order to assign 1-star, 2-star, and 3-star Safety Ratings.
- The procedure makes further judgmental distinctions between conditions assigned 4-star and 5-star Safety Ratings.

- The procedure makes generally conservative assignments of Repair Cost Ratings, recognizing that ASCE 41 does not explicitly address repair cost. See Worksheet line 3.2.
- The procedure makes broad judgments regarding the assignment of Recovery Ratings, recognizing that ASCE 41's use of "Immediate Occupancy" differs from the EPRS definitions of Recovery rating levels. See Worksheet lines 4.1 through 4.3.
- The procedure includes substantial judgment in the assignment of Recovery Ratings based on nonstructural performance and engages the rating engineer's judgment in adjusting those ratings. See Worksheet line 4.3.

1.2.1 Deficiency List

This procedure is based on the deficiency list resulting from an ASCE 41 evaluation. If only ASCE 41 Tier 1 is completed, the deficiency list is the list of checklist items marked Noncompliant (NC). If ASCE 41 Tier 2 or Tier 3 is used, the deficiency list is the list of Tier 1 checklist items marked NC, ignoring those items for which the corresponding Tier 2 or Tier 3 procedure is satisfied.

Tip: If Tier 2 procedures have resolved certain Tier 1 NC conditions, annotate the completed Tier 1 checklist itself to indicate the resolution. This will make the completed checklist easier to review and the procedure Worksheet easier to apply.

1.2.2 Unknown Conditions

For purposes of deriving an EPRS rating, Unknown (U) conditions should be considered equivalent to NC.

Tip: If unknown conditions are driving the rating, consider reporting the rating as "No Rating," as discussed in the EPRS User's Guide. "No Rating" is the required outcome where the ASCE 41 evaluation is substantially incomplete (see Part 1).

1.2.3 Life Safety (LS) Only Evaluation

For purposes of deriving an EPRS rating, ASCE 41 scope items that are not evaluated, including those not evaluated because ASCE 41 requires them only for Immediate Occupancy (IO) evaluation, should be considered NC or U.

Commentary: With a few exceptions, compliance with ASCE 41 LS criteria is sufficient to merit a 4-star structural safety sub-rating and a 3-star nonstructural safety sub-rating. Repair Cost and Recovery Ratings are more sensitive to the issues addressed by the IO evaluation criteria.

Tip: To achieve a higher Safety Rating, consider supplementing an LS-only evaluation with evaluation of nonstructural items not normally required for Life Safety.

1.2.4 Hazard Level Adjustment

Since ASCE 41 uses a hazard level similar to that presumed by the EPRS, no adjustment of evaluation results for seismic hazard level is needed.

Commentary: ASCE 41 uses the same hazard as the code for new construction, but it builds a 75 percent factor into its acceptance criteria.

1.2.5 Tier 1 LOAD PATH Item

The Tier 1 LOAD PATH item should be considered NC only due to an actual gap in the lateral load path, not due to an inadequacy of strength, stiffness, or ductility in existing load path components. Adequacy is considered in separate checklist items.

1.2.6 Nonstructural Checklist Items

Nonstructural checklist items should be considered C only when their attachments (braces, supports, and connections) are suitable to the application and have complete load paths to supporting structural members.

1.3 Applying Judgment to ASCE 41 Findings

The EPRS accommodates some judgment on the part of the rating engineer, as follows:

1.3.1 Applied to Findings, Not to Ratings

Where applied, judgment is to be applied to specific ASCE 41 evaluation findings, not to the resulting EPRS rating or sub-rating.

1.3.2 Annotation

Where applied, the ASCE 41 checklists, deficiency list, and supporting materials should be annotated to show where and on what basis judgment has been applied.

1.3.3 Applied with building-specific knowledge

Judgment should only be applied by an engineer with building-specific knowledge.

Commentary: This procedure acknowledges that even though ASCE 41 is a standard written in enforceable language, judgment is inherent in its application as it is in all engineering. The procedure embodies judgment by the BRC to make distinctions that ASCE 41 does not make itself, as discussed in Section 1.2. In addition, it acknowledges the role of judgment by the evaluating engineer, even explicitly engaging the rating engineer's judgment in some cases (see Worksheet line 4.3.2). This commentary section offers some guidelines for the application of that judgment. Cases where judgment is expected to apply include:

- *Buildings in which rating-controlling deficiencies occur in just one or two places, as opposed to buildings in which those deficiencies occur throughout the structure.*
- *Buildings in which rating-controlling deficiencies represent only minor non-compliance (for example, a demand-capacity ratio just above 1.0), as opposed to buildings in which the deficiencies are clearer and more severe.*

The engineer is encouraged to perform a Tier 2 check before, or as a guide to, the application of judgment.

Where judgment affects the Safety Rating, Repair Cost and Recovery Ratings can be affected as well, since the latter two ratings rely in part on the Safety Rating.

Instruction 1.3.1 means that judgment should be applied during the ASCE 41 evaluation process or to specific ASCE 41 deficiencies. It is not the intent that the engineer might derive, say, a 2-star Safety Rating and then decide that a 3-star Safety Rating is more appropriate. Rather, the engineer should identify the specific ASCE 41 deficiencies or unknown conditions that are leading to the 2-star rating and then consider whether, for the particular building, those deficiencies are commensurate with the definition of the derived rating. In other words, any adjustment to a rating or sub-rating should be justified in terms of judgment regarding one or more specific deficiencies.

Instruction 1.3.2 means that wherever judgment is applied, the engineer should provide clear explanation and thorough documentation within the ASCE 41 report that underlies the rating. Consider two cases:

- *Judgment might be applied, independent of the EPRS, to show that a NC condition should not be considered a deficiency within the intent of ASCE 41 itself, and should be removed from the deficiency list. In this case, the Tier 1 checklist should show C, not NC or U, and the rating should proceed assuming a compliant condition.*
- *Because the EPRS makes more distinctions among deficiencies than ASCE 41 does itself, judgment might be applied in a way that does not change the deficiency list but does affect the rating. For example, consider a deficiency that would normally result in a 1-star Safety Rating. If the engineer judges that the NC condition, in this particular building, could not lead to “death in multiple or widespread locations” per the definition of 1-star Safety, the engineer should still mark the checklist item NC (following ASCE 41 provisions) but may annotate the checklist and deficiency list to say “local only; acceptable for 2-star Safety” or similar.*

Instruction 1.3.3 means that if the rating engineer is different from the evaluating engineer, the rating engineer should not use his own judgment to revise the evaluation. The rating engineer may accept judgments by a qualified evaluating engineer and may replicate the evaluation as needed to support his own judgment, but the rating engineer should not adjust another engineer’s evaluation results without sufficient building-specific knowledge.

1.4 Presentation of Results.

The minimum presentation of an EPRS rating is described in Section 3 of the EPRS User’s guide. For ratings based on ASCE 41, a full presentation of the rating (see User’s Guide Section 3.2) should also include:

- The Worksheet provided with this publication, completed, showing how the rating was derived from the ASCE 41 evaluation.
- The applicable ASCE 41 deficiency list and Tier 1 checklists, annotated as needed to explain any conditions assumed, judgment applied, or revisions made based on Tier 2 or Tier 3 evaluation.
- The balance of any report describing the ASCE 41 evaluation underlying the rating.

Commentary: A full presentation might also include other materials required by a program using the rating, or materials agreed to by the engineer and the client. See User’s Guide Section 3.

References

ASCE, 2013. *Seismic Evaluation and Retrofit of Existing Buildings (ASCE/SEI 41-13)*, American Society of Civil Engineers

ASCE, 2003. *Seismic Evaluation of Existing Buildings (ASCE/SEI 31-03)*, American Society of Civil Engineers.

ASCE, 2012. *Seismic Evaluation and Retrofit of Existing Buildings: Pre-publication Edition for Public Comment and Final Review (ASCE/SEI 41-13)*, American Society of Civil Engineers.

Bonowitz, D., 2011. "Resilience Criteria for Seismic Evaluation of Existing Buildings," Report to Structural Engineers Association of Northern California, August 5.

SEAONC BRC, 2015. "Earthquake Performance Rating System: User's Guide," Structural Engineers Association of California, February 2.

SEAONC Existing Buildings Committee, Building Ratings Subcommittee, 2012. "SEAONC Earthquake Performance Rating System: Translating ASCE 31-03," SEAOC 2012 Convention Proceedings, Structural Engineers Association of California.

Building: _____

Part 1. Eligibility and Due Diligence

	Yes/No/NA
1.1. Site Visit: Was a site visit conducted in accordance with ASCE 41 Section 3.2?	_____
1.2. Investigation: Was document review and visual and/or destructive investigation performed as required by ASCE 41 Section 3.2?	_____
<p>Note: ASCE 41 Section 5.2 requirements for Tier 2 evaluation and/or for Immediate Occupancy evaluation need not have been performed if the rating does not rely on such evaluation.</p>	
1.3. Condition Assessment: Were existing components investigated for significant deterioration, damage, or defects, in general conformance with ASCE 41 Sections 3.3.3 and 5.2.3, with structural capacities adjusted accordingly?	_____
1.4. Tier 2 Requirements: If a full-building analysis was required by ASCE 41 Table 3-2, was such an analysis performed? If no such analysis was required, enter NA.	_____

CHECK: If any of the responses in lines 1.1 through 1.4 is No, each part of the rating is No Rating; skip to Section 5. If each of the responses in lines 1.1 through 1.4 is Yes or NA, proceed to Section 2.

Part 2. Safety Rating

Safety Rating instructions and notes:

- The Safety Rating is taken as the lowest of three sub-ratings: Structural, Geologic Site Hazards, and Nonstructural.

Commentary: In the predecessor EPRS ASCE 31 Translation, the three sub-ratings corresponded to the three separate checklists in ASCE 31 - Geologic Site Hazards/Foundations, Structural, and Non-Structural. In ASCE 41, there is not a separate checklist for Geologic Site Hazards/Foundations – instead those items are included in the Basic Configuration checklist which also includes global checks of structural performance (e.g. weak story, vertical irregularities, etc.) thus, the structural items are not distinctly separated by checklists. In this EPRS ASCE 41 Translation, the compliance tables for the Basic and Structural Checklists are combined for each building type but the Geologic Site Hazard items are still identified under the column “system” in these tables and should be used to determine the Geologic sub-rating in Section 2.2.

Tip: The Safety Rating can be limited by unknown geologic site hazards (line 2.2) and by an incomplete nonstructural evaluation (line 2.3). It can save effort to check these sections first.

Building: _____

2.1 Structural

Yes/No/NA

2.1.1. Is the seismic force-resisting system (SFRS) benchmarked for Life Safety, but not for Immediate Occupancy, in accordance with ASCE 41 Table 4-6 and ASCE 41 Section 4.3?

CHECK: If Yes, the structural safety sub-rating is 4-star.

2.1.2. Is the seismic force-resisting system (SFRS) benchmarked for Immediate Occupancy using FEMA 310 (but not CBC) in accordance with ASCE 41 Table 4-6 and ASCE 41 Section 4.3?

Commentary: The EPRS does not acknowledge benchmarking to the CBC.

CHECK: If Yes, the structural safety sub-rating is 5-star.

2.1.3. Compare the ASCE 41 deficiency list with the structural items in Table 2.1 and answer the following questions.

Notes:

- Table 2.1 has one page for each ASCE 41 building type. If the building’s seismic force-resisting system involves more than one type, complete line 2.1.3 separately for each type. The structural safety sub-rating is the lowest of the structural safety sub-ratings for any type considered.
- The four right-most columns in Table 2.1 provide a place to record ASCE 41 findings for each checklist item. The next four columns to the left are shaded and marked with a “C” to indicate which checklist items must be Compliant to merit each structural safety sub-rating.
- Geologic Site Hazard, though shown in Table 2.1, are not considered in line 2.1.3. See line 2.2.

Yes/No/NA

2.1.3.1. Is each structural item required for a “5-star” rating marked either C or NA?

CHECK: If Yes, and the SFRS or building type is W1, W1A, W2, S1, S1A, S2, S2A, S3, C1, or PC2A, the structural safety sub-rating is 4-star. Proceed to line 2.2

CHECK: If Yes, and the SFRS or building type is not one of those listed above, the structural safety sub-rating is 5-star. Proceed to line 2.2.

2.1.3.2. Is each structural item required for a “4-star” rating marked either C or NA?

CHECK: If Yes, the structural safety sub-rating is 4-star. Proceed to line 2.2

2.1.3.3. Is each structural item required for a “2-star” rating marked either C or NA?

CHECK: If Yes, the structural safety sub-rating is 2-star. If No, the structural safety sub-rating is 1-star. Skip to line 2.4 or, optionally, continue with line 2.2 or 2.3.

Commentary: In line 2.1.3, there is no need to check the “3-star rating” column of Table 2.1, because the 3-star and 4-star compliance requirements are identical. Any structural deficiency in the 4-star rating

Building: _____

column will reduce the structural safety sub-rating to 2-star. Deficient nonstructural components, however, can result in a 3-star Safety rating.

2.2 Geologic Site Hazards

Compare the geologic site hazard items in the ASCE 41 Basic deficiency list with the geologic items in Table 2.1.

Notes:

- Regarding the ASCE 41 checklist item on LIQUEFACTION: If the building site and nearby topography is sloped or otherwise graded such that lateral spreading would be likely to lead to structural collapse, then in Table 2.1, compliance with the LIQUEFACTION item should be considered necessary for a 2-star rating.

		Yes/No/NA
2.2.1	Is each geologic item required for a “5-star” rating marked either C or NA? CHECK: If Yes, the geologic safety sub-rating is 5-star. Proceed to line 2.3.	_____
2.2.2.	Is each geologic item required for a “4-star” rating marked either C or NA? CHECK: If Yes, the geologic safety sub-rating is 4-star. Proceed to line 2.3.	_____
2.2.3.	Is each geologic item required for a “2-star” rating marked either C or NA? CHECK: If Yes, the geologic safety sub-rating is 2-star. If No, the geologic/foundation safety sub-rating is 1-star. Skip to line 2.4 or, optionally, continue with line 2.3.	_____

Commentary: In line 2.2 (similar to line 2.1.3), there is no need to check the “3-star rating” column of Table 2.1, because the 3-star and 4-star compliance requirements are identical.

2.3 Nonstructural

Compare the ASCE 41 deficiency list with Table 2.3, and determine the highest nonstructural safety sub-rating justified by the evaluation.

Notes:

- In Table 2.3, for purposes of deriving the Safety rating only, items in the 3-star and 4-star columns need not be considered NC if the non-compliance occurs only in locations where related damage would not cause severe injury or death. Findings from ASCE 41 evaluations performed at the Life Safety level only might need to be revised for purposes of deriving Repair Cost and Recovery ratings if the ASCE 41 findings assumed unoccupied spaces.

Building: _____

Table 2.3. ASCE 41 compliance required for nonstructural safety sub-rating

Nonstructural checklist section	For a 2-star nonstructural safety sub-rating, comply with:	For a 3-star nonstructural safety sub-rating, comply with 2-star requirements and:	For a 4-star nonstructural safety sub-rating, comply with 3-star requirements and:	For a 5-star nonstructural safety sub-rating, comply with 4-star requirements and:
Life Safety Systems		FIRE SUPPRESSION PIPING FLEXIBLE COUPLING (FIRE SUPPRESSION) STAIR AND SMOKE DUCTS SPRINKLER CEILING CLEARANCE	EMERGENCY LIGHTING	
Hazardous materials (HM)	HM EQUIPMENT HM STORAGE HM DISTRIBUTION FLEXIBLE COUPLING PIPING OR DUCTS CROSSING SEISMIC JOINTS	SHUT-OFF VALVES	–	–
Partitions	–	UNREINFORCED MASONRY HEAVY PARTITIONS SUPPORTED BY CEILINGS	LIGHT PARTITIONS SUPPORTED BY CEILINGS	STRUCTURAL SEPARATIONS TOPS
Ceilings	–	SUSPENDED LATH AND PLASTER SUSPENDED GYPSUM BOARD		INTEGRATED CEILINGS EDGE CLEARANCE CONTINUITY ACROSS STRUCTURE EDGE SUPPORT SEISMIC JOINT
Light fixtures	–	INDEPENDENT SUPPORT		PENDANT SUPPORTS LENS COVERS
Cladding & glazing	–	CLADDING ANCHORS CLADDING ISOLATION MULTI-STORY PANELS PANEL CONNECTIONS BEARING CONNECTIONS INSERTS OVERHEAD GLAZING		–

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Nonstructural checklist section	For a 2-star nonstructural safety sub-rating, comply with:	For a 3-star nonstructural safety sub-rating, comply with 2-star requirements and:	For a 4-star nonstructural safety sub-rating, comply with 3-star requirements and:	For a 5-star nonstructural safety sub-rating, comply with 4-star requirements and:
Masonry veneer	–	TIES SHELF ANGLES WEAKENED PLANES	URM BACK-UP STUD TRACKS ANCHORAGE	WEEP HOLES OPENINGS
Appendages	–	URM PARAPETS CANOPIES CONCRETE PARAPETS APPENDAGES	–	
Chimneys	–	URM CHIMNEYS ANCHORAGE	–	–
Stairs	–	STAIR ENCLOSURES STAIR DETAILS	–	–
Contents	–	INDUSTRIAL STORAGE RACKS TALL NARROW CONTENTS	EQUIPMENT ON ACCESS FLOORS SUSPENDED CONTENTS	
Mechanical & electrical equipment	–	FALL-PRONE EQUIPMENT IN-LINE EQUIPMENT	HEAVY EQUIPMENT SUSPENDED EQUIPMENT	MECHANICAL DOORS VIBRATION ISOLATORS ELECTRICAL EQUIPMENT CONDUIT COUPLINGS
Piping	FLEXIBLE COUPLINGS		FLUID AND GAS PIPING	C-CLAMPS FLEXIBLE COUPLING (NON-FIRE SUPP.) PIPING (NON-FIRE SUPP.) CROSSING SEISMIC JOINTS
Ducts	–		DUCT BRACING DUCT SUPPORT	DUCTS CROSSING SEISMIC JOINTS
Elevators	–	RETAINER GUARDS RETAINER PLATE SHAFT WALLS COUNTERWEIGHT RAILS	–	ELEVATOR EQUIPMENT SEISMIC SWITCH BRACKETS SPREADER BRACKET GO-SLOW ELEVATORS

Building: _____

2.4 Safety Rating Summary

Structural safety sub-rating from line 2.1: _____

Geologic safety sub-rating from line 2.2: _____

Nonstructural safety sub-rating from line 2.3: _____

The overall Safety Rating is the lowest of the three sub-ratings: _____

Part 3. Repair Cost Rating

Repair Cost Rating instructions and notes:

1. The Repair Cost Rating is taken as the lowest of two sub-ratings: Geologic, and Structural/nonstructural.

3.1 Geologic

Are any of the following Tier 1 checklist items on the ASCE 41 deficiency list? _____

- LIQUEFACTION
- SLOPE FAILURE
- SURFACE FAULT RUPTURE

CHECK: If Yes, the geologic repair cost sub-rating is 1-star. If No, the geologic repair cost sub-rating is 5-star.

3.2 Structural/Nonstructural

Determine the structural/nonstructural repair cost sub-rating as a function of the ASCE 41 building type and the overall building Safety Rating (line 2.4) from Table 3.2.

Note: Table 3.2 generally relies on the Safety rating, determined above. Where the nonstructural safety sub-rating relies on assumptions that potential damage need not be considered NC because it would occur in unoccupied areas or otherwise would not result in severe injury or death, such assumptions must be set aside for purposes of deriving Repair Cost and Recovery ratings.

Table 3.2. Structural/nonstructural repair cost sub-rating as a function of ASCE 41 building type and overall Safety Rating

ASCE 41 building type	Safety Rating				
	5-star	4-star	3-star	2-star	1-star
W1, W1A, W2	4-star	3-star	3-star	2-star	1-star
Other	3-star	2-star	2-star	1-star	1-star

Building: _____

Commentary: Assignment of the structural/nonstructural repair cost sub-rating is intentionally conservative. This reflects the understanding that ASCE 41 was not intended to predict costs. For more discussion, see SEAONC EBC BRS (2012).

3.3 Repair Cost Rating summary

Geologic repair cost sub-rating from line 3.1: _____

Structural/nonstructural repair cost sub-rating from line 3.2: _____

The overall Repair Cost Rating is the lower of the two sub-ratings: _____

Building: _____

Part 4. Recovery Rating

Recovery Rating instructions and notes:

1. The Recovery Rating is taken as the lowest of three sub-ratings: Geologic, Structural, and Nonstructural.

Commentary: The EPRS Recovery Rating reflects functional recovery time, as opposed to the time needed for either safe re-occupancy or for full recovery, but excludes the effects of externalities. See the EPRS User's Guide.

4.1 Geologic

Are any of the following Tier 1 checklist items on the ASCE 41 deficiency list? _____

- LIQUEFACTION
- SLOPE FAILURE
- SURFACE FAULT RUPTURE

CHECK: If Yes, the geologic recovery sub-rating is 1-star; skip to line 4.4 or, optionally, continue with line 4.2 or 4.3. If No, the geologic recovery sub-rating is 5-star.

4.2 Structural

Is the structural safety sub-rating (line 2.1) either 1-star or 2-star? _____

CHECK: If Yes, the structural recovery sub-rating is 1-star. Skip to line 4.4 or, optionally, continue with line 4.3. If No, continue.

Is the structural safety sub-rating (line 2.1) either 3-star or 4-star? _____

CHECK: If Yes, the structural recovery sub-rating is 3-star. If No (that is, if the structural safety sub-rating is 5-star), the structural recovery sub-rating is 5-star.

4.3 Nonstructural

4.3.1. Initial nonstructural recovery sub-rating:

Compare the ASCE 41 deficiency list with Table 4.3.1 and determine the highest nonstructural recovery sub-rating justified by the evaluation.

Notes:

-
- Table 4.3.1 generally relies on the Safety rating, determined above. Where the nonstructural safety sub-rating relies on assumptions that potential damage need not be considered NC

Building: _____

because it would occur in unoccupied areas or otherwise would not result in severe injury or death, such assumptions must be set aside for purposes of deriving Repair Cost and Recovery ratings.

Commentary: Assignment of the nonstructural recovery sub-rating is based on SEAONC BRS judgment, recognizing that ASCE 41 was not intended to predict recovery time. For more discussion, see SEAONC EBC BRS (2012) and Bonowitz (2011) in the EPRS User's Guide list of References.

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Table 4.3.1. ASCE 41 compliance required for nonstructural recovery sub-rating

Nonstructural checklist section	For a 2-star nonstructural recovery sub-rating, comply with:	For a 3-star nonstructural recovery sub-rating, comply with 2-star requirements and:	For a 4-star nonstructural recovery sub-rating, comply with 3-star requirements and:	For a 5-star nonstructural recovery sub-rating, comply with 4-star requirements and:
Life Safety Systems	FIRE SUPPRESSION PIPING FLEXIBLE COUPLINGS (fire suppression)	STAIR AND SMOKE DUCTS EMERGENCY LIGHTING SPRINKLER CEILING CLEARANCE		
Hazardous materials	HM EQUIPMENT HM STORAGE HM DISTRIBUTION SHUT OFF VALVES FLEXIBLE COUPLINGS PIPING OR DUCTS CROSSING SEISMIC JOINTS	–	–	–
Partitions	–	–	UNREINFORCED MASONRY HEAVY PARTITIONS SUPPORTED BY CEILINGS LIGHT PARTITIONS SUPPORTED BY CEILINGS TOPS	STRUCTURAL SEPARATIONS
Ceilings	–	–	SUSPENDED LATH AND PLASTER SUSPENDED GYPSUM BOARD	INTEGRATED CEILINGS EDGE CLEARANCE CONTINUITY ACROSS STRUCTURE JOINTS EDGE SUPPORT
Light fixtures	–	INDEPENDENT SUPPORT PENDANT SUPPORTS	–	LENS COVERS

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Nonstructural checklist section	For a 2-star nonstructural recovery sub-rating, comply with:	For a 3-star nonstructural recovery sub-rating, comply with 2-star requirements and:	For a 4-star nonstructural recovery sub-rating, comply with 3-star requirements and:	For a 5-star nonstructural recovery sub-rating, comply with 4-star requirements and:
Cladding & glazing	–	–	CLADDING ANCHORS CLADDING ISOLATION MULTI-STORY PANELS BEARING CONNECTIONS INSERTS PANEL CONNECTIONS OVERHEAD GLAZING	–
Masonry veneer	–WEEP HOLES	–	SHELF ANGLES (LS) TIES WEAKENED PLANES STUD TRACKS OPENINGS ANCHORAGE URM BACK-UP	–
Appendages	–	–	URM PARAPETS CANOPIES CONCRETE PARAPETS APPENDAGES	–
Chimneys	–	–	URM CHIMNEYS ANCHORAGE	–
Stairs	–	STAIR DETAILS	STAIR ENCLOSURES	–
Contents	–	EQUIPMENT ON ACCESS FLOORS INDUSTRIAL STORAGE RACKS SUSPENDED CONTENTS	–	TALL NARROW CONTENTS

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Nonstructural checklist section	For a 2-star nonstructural recovery sub-rating, comply with:	For a 3-star nonstructural recovery sub-rating, comply with 2-star requirements and:	For a 4-star nonstructural recovery sub-rating, comply with 3-star requirements and:	For a 5-star nonstructural recovery sub-rating, comply with 4-star requirements and:
Mechanical & electrical equipment	–	FALL-PRONE EQUIPMENT IN-LINE EQUIPMENT MECHANICAL DOORS SUSPENDED EQUIPMENT VIBRATION ISOLATORS ELECTRICAL EQUIPMENT CONDUIT COUPLINGS	–	HEAVY EQUIPMENT
Piping	FLEXIBLE COUPLINGS PIPING CROSSING SEISMIC JOINTS	FLUID PIPING	C-CLAMPS	–
Ducts	–	DUCT BRACING DUCT SUPPORT DUCTS CROSSING SEISMIC JOINTS	–	–
Elevators	–	ELEVATOR EQUIPMENT SEISMIC SWITCH SHAFT WALLS RETAINER GUARDS RETAINER PLATE COUNTERWEIGHT RAILS BRACKETS SPREADER BRACKET GO-SLOW ELEVATORS	–	–

^a These items need not be considered except for purposes of adjusting the nonstructural recovery sub-rating in line 4.3.1.

Building: _____

4.3.2. Adjusting the nonstructural recovery sub-rating:

The initial nonstructural recovery sub-rating based on Table 4.3.1 (line 4.3.1) is: _____.

If the initial sub-rating is 1-star, skip this line and proceed to line 4.4. Otherwise, in the following lines, at the top of column (A), enter the initial nonstructural recovery sub-rating, plus 1 star. At the top of column (B), enter the initial sub-rating plus 2 stars. (For example, if the initial sub-rating from line 4.3.1 is 3-star, enter 4-star at the top of column (A) and 5-star at the top of column (B).)

Complete column (A): Consider the items from the ASCE 31 deficiency list that appear in Table 4.3.1 in the column corresponding to column A, and answer the following questions (Yes/No). (For example, if column (A) is labeled 4-star, compare the deficiency list with the 4-star column of Table 4.3.1.) Complete column (B) similarly.

	(A)	(B)
	____-star	____-star
4.3.2.1. Size adjustment: Are any of the deficiencies extensive throughout the building, or is the building large enough that the functional recovery time for that item would probably exceed the time implied by the initial sub-rating?	_____	_____
4.3.2.2. Public use adjustment: Do any of the building’s occupancies or functions of interest involve public access or accommodation, so that the functional recovery time for any of the deficiencies must consider issues of habitability or legal compliance?	_____	_____
4.3.2.3. Contents adjustment: Would any of the deficiencies (or expected damage to other contents items not considered explicitly by ASCE 31) have a disproportionate impact on functional recovery time due to specialized use or occupancy, or performance requirements of the building?	_____	_____
Total number of Yes responses from lines 4.3.2.1 through 4.3.2.3:	_____	_____

The initial sub-rating, minus the total number of Yes responses in column (A) is: _____.

The initial sub-rating, plus 1, minus the total number of Yes responses in column (B) is: _____.

The final nonstructural recovery sub-rating is the lower of these two values: _____.

Commentary: The adjustment procedure reflects the following logic: First, consider the deficiencies that are controlling the nonstructural recovery sub-rating; these will be in the Table 4.3.1 columns to the right of the column with which the building complies. Then, ask if any of these deficiencies are extensive or serious enough that they merit a lower sub-rating. If one condition applies, the sub-rating is reduced by one star. If two or more apply, it is reduced by two stars.

Building: _____

4.4 Recovery Rating summary

Geologic recovery sub-rating from line 4.1: _____

Structural recovery sub-rating from line 4.2: _____

Nonstructural recovery sub-rating from line 4.3.2: _____

The overall Recovery Rating is the lowest of the three sub-ratings: _____

Part 5. Summary

Record the three-part rating and the sub-ratings.

	Sub-ratings			Overall rating	Rating to report, or No Rating
	Structural	Geologic/ foundation	Nonstructural		
Safety (line 2.4)					
Repair Cost (line 3.3)			Same as structural		
Recovery (line 4.4)					

Commentary: The EPRS allows the rating engineer to report No Rating for any of the rating dimensions, as discussed in the EPRS User’s Guide.

Tip: If unknown conditions are driving the rating, consider reporting the rating as “No Rating” as an indication that more work might be justified to reach a more reliable conclusion.

Table 2.1 - W1 (Wood Light Frames)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C		
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C		
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C		
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1:	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	STUCCO (EXTERIOR PLASTER) SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	GYPSON WALLBOARD OR PLASTER SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	LS	C	C	C		
5.5.3.6.2	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	WALLS CONNECTED THROUGH FLOORS	LS	C	C	C	C	
5.5.3.6.3	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	LS	C	C	C	C	
5.5.3.6.4	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	CRIPPLE WALLS	LS	C	C	C		
5.5.3.6.5	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	OPENINGS	LS	C	C	C	C	
5.7.3.3	16.2LS	Low and Moderate Seismicity	Connections	WOOD POSTS	LS	C	C	C		
5.7.3.3	16.2LS	Low and Moderate Seismicity	Connections	WOOD SILLS	LS	C	C	C		
5.7.4.1	16.2LS	Low and Moderate Seismicity	Connections	GIRDER/COLUMN CONNECTION	LS	C	C	C		
5.7.3.3	16.2LS	High Seismicity	Connections	WOOD SILL BOLTS	LS	C	C	C		
5.6.1.1	16.2LS	High Seismicity	Diaphragms	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.1	16.2LS	High Seismicity	Diaphragms	ROOF CHORD CONTINUITY	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	STRAIGHT SHEATHING	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	SPANS	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C		
5.6.5	16.2LS	High Seismicity	Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C		
5.5.3.6.3	16.2IO	Very Low Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	IO	C	C			
-	16.2IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C				
-	16.2IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.3.6.6	16.2IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	HOLD-DOWN ANCHORS	IO	C				
5.5.3.6.1	16.2IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	IO	C				
5.6.1.4	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	SPANS	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.7.3.3	16.2IO	Low, Moderate, and High Seismicity	Connections	WOOD SILL BOLTS	IO	C				

Table 2.1 - W1a (Wood Multi-Story, Multi-Unit, Residential)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1:	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	STUCCO (EXTERIOR PLASTER) SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	GYPSON WALLBOARD OR PLASTER SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.1	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.2	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	WALLS CONNECTED THROUGH FLOORS	LS	C	C	C	C	
5.5.3.6.3	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	LS	C	C	C	C	
5.5.3.6.4	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	CRIPPLE WALLS	LS	C	C	C	C	
5.5.3.6.5	16.2LS	Low and Moderate Seismicity	Seismic-Force-Resisting	OPENINGS	LS	C	C	C	C	
5.7.3.3	16.2LS	Low and Moderate Seismicity	Connections	WOOD POSTS	LS	C	C	C		
5.7.3.3	16.2LS	Low and Moderate Seismicity	Connections	WOOD SILLS	LS	C	C	C		
5.7.4.1	16.2LS	Low and Moderate Seismicity	Connections	GIRDER/COLUMN CONNECTION	LS	C	C	C	C	
5.7.3.3	16.2LS	High Seismicity	Connections	WOOD SILL BOLTS	LS	C	C	C		
5.6.1.1	16.2LS	High Seismicity	Diaphragms	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.1	16.2LS	High Seismicity	Diaphragms	ROOF CHORD CONTINUITY	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	STRAIGHT SHEATHING	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	SPANS	LS	C	C	C		
5.6.2	16.2LS	High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C		
5.6.5	16.2LS	High Seismicity	Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C		
5.5.3.6.3	16.2IO	Very Low Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	IO	C	C			
-	16.2IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.2IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.3.6.6	16.2IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	HOLD-DOWN ANCHORS	IO	C				
5.5.3.6.1	16.2IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	IO	C	C			
5.6.1.4	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	SPANS	IO	C				
5.6.2	16.2IO	Low, Moderate, and High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.7.3.3	16.2IO	Low, Moderate, and High Seismicity	Connections	WOOD SILL BOLTS	IO	C				

Table 2.1 - W2 (Wood Frames, Commercial & Industrial)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.6.1	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	STUCCO (EXTERIOR PLASTER) SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.1	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	GYPSON WALLBOARD OR PLASTER SHEAR WALLS:	LS	C	C	C	C	
5.5.3.6.1	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	LS	C	C	C	C	
5.5.3.6.2	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	WALLS CONNECTED THROUGH FLOORS	LS	C	C	C	C	
5.5.3.6.3	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	LS	C	C	C	C	
5.5.3.6.4	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	CRIPPLE WALLS	LS	C	C	C	C	
5.5.3.6.5	16.3LS	Low and Moderate Seismicity	Seismic-Force-Resisting	OPENINGS	LS	C	C	C	C	
5.7.3.3	16.3LS	Low and Moderate Seismicity	Connections	WOOD POSTS	LS	C	C	C		
5.7.3.3	16.3LS	Low and Moderate Seismicity	Connections	WOOD SILLS	LS	C	C	C	C	
5.7.4.1	16.3LS	Low and Moderate Seismicity	Connections	GIRDER/COLUMN CONNECTION	LS	C	C	C	C	
5.6.1.1	16.3LS	High Seismicity	Diaphragms	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.1	16.3LS	High Seismicity	Diaphragms	ROOF CHORD CONTINUITY	LS	C	C	C		
5.6.1.5	16.3LS	High Seismicity	Diaphragms	DIAPHRAGM REINFORCE-MENT AT OPENINGS	LS	C	C	C		
5.6.2	16.3LS	High Seismicity	Diaphragms	STRAIGHT SHEATHING	LS	C	C	C		
5.6.2	16.3LS	High Seismicity	Diaphragms	SPANS	LS	C	C	C		
5.6.2	16.3LS	High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C		
5.6.5	16.3LS	High Seismicity	Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C		
5.7.3.3	16.3LS	High Seismicity	Connections	WOOD SILL BOLTS	LS	C	C	C		
5.5.3.6.3	16.3IO	Very Low Seismicity	Seismic-Force-Resisting	HILLSIDE SITE	IO	C				
5.5.3.6.6	16.3IO	Very Low Seismicity	Seismic-Force-Resisting	HOLD-DOWN ANCHORS	IO	C				
-	16.3IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C				
-	16.3IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C				
5.5.3.6.1	16.3IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	NARROW WOOD SHEAR WALLS	IO	C				
5.6.1.4	16.3IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.2	16.3IO	Low, Moderate, and High Seismicity	Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.3IO	Low, Moderate, and High Seismicity	Diaphragms	SPANS	IO	C				
5.6.2	16.3IO	Low, Moderate, and High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.7.3.3	16.3IO	Low, Moderate, and High Seismicity	Connections	WOOD SILL BOLTS	IO	C				

Table 2.1 - S1 (Steel Moment Frames - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.1.2	16.4LS	Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	LS	C	C	C		
5.5.2.1.3	16.4LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.5.2.1.2	16.4LS	Low Seismicity	Seismic-Force-Resisting	FLEXURAL STRESS CHECK	LS	C	C	C		
5.7.2	16.4LS	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.1	16.4LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C	C	
5.5.1.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.2.1.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	INTERFERING WALLS	LS	C	C	C		
5.5.2.2.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	LS	C	C	C		
5.5.2.2.1	16.4LS	High Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNS HI-SEIS	LS	C	C	C		
5.5.2.2.2	16.4LS	High Seismicity	Seismic-Force-Resisting	PANEL ZONES	LS	C	C	C		
5.5.2.2.3	16.4LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C	C	
5.5.2.1.5	16.4LS	High Seismicity	Seismic-Force-Resisting	STRONG COLUMN-WEAK BEAM	LS	C	C	C		
5.5.2.2.4	16.4LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C		
5.6.1.3	16.4LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	LS	C	C	C		
5.6.1.2	16.4LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C		
5.5.2.1.2	16.4IO	Very Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	IO	C				
5.5.1.1	16.4IO	Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.7.2	16.4IO	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.7.3.1	16.4IO	Low Seismicity	Connections	STEEL COLUMNS	IO	C				
5.5.2.2.3	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.2.2.4	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.2.2.5	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	BEAM PENETRATIONS	IO	C				
5.5.2.2.6	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	GIRDER FLANGE CONTINUITY PLATES	IO	C				
5.5.2.2.7	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.2.2.8	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	BOTTOM FLANGE BRACING	IO	C				
5.6.1.4	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.1.3	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	IO	C				
-	16.4IO	High Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.4IO	High Seismicity	Foundation System	SLOPING SITES	IO	C	C			

Table 2.1 - S1a (Steel Moment Frames - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.1.2	16.4LS	Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	LS	C	C	C		
5.5.2.1.3	16.4LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.5.2.1.2	16.4LS	Low Seismicity	Seismic-Force-Resisting	FLEXURAL STRESS CHECK	LS	C	C	C		
5.7.2	16.4LS	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.1	16.4LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C	C	
5.5.1.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.2.1.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	INTERFERING WALLS	LS	C	C	C		
5.5.2.2.1	16.4LS	Moderate Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	LS	C	C	C		
5.5.2.2.1	16.4LS	High Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNS HI-SEIS	LS	C	C	C		
5.5.2.2.2	16.4LS	High Seismicity	Seismic-Force-Resisting	PANEL ZONES	LS	C	C	C		
5.5.2.2.3	16.4LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C	C	
5.5.2.1.5	16.4LS	High Seismicity	Seismic-Force-Resisting	STRONG COLUMN-WEAK BEAM	LS	C	C	C		
5.5.2.2.4	16.4LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C		
5.6.1.3	16.4LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	LS	C	C	C		
5.6.1.2	16.4LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C		
5.6.2	16.4LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C		
5.6.2	16.4LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C		
5.6.2	16.4LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C		
5.6.5	16.4LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C		
5.5.2.1.2	16.4IO	Very Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	IO	C				
5.5.1.1	16.4IO	Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.7.2	16.4IO	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.7.3.1	16.4IO	Low Seismicity	Connections	STEEL COLUMNS	IO	C				
5.5.2.2.3	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.2.2.4	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.2.2.5	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	BEAM PENETRATIONS	IO	C				
5.5.2.2.6	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	GIRDER FLANGE CONTINUITY PLATES	IO	C				
5.5.2.2.7	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.2.2.8	16.4IO	Moderate Seismicity	Seismic-Force-Resisting	BOTTOM FLANGE BRACING	IO	C				
5.6.1.4	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.1.3	16.4IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	IO	C				
5.6.2	16.4IO	Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				

Table 2.1 - S1a (Steel Moment Frames - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.6.2	16.4IO	Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.4IO	Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.4IO	Moderate Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				
-	16.4IO	High Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.4IO	High Seismicity	Foundation System	SLOPING SITES	IO	C	C			

Table 2.1 - S2 (Steel Braced Frames - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.1.3	16.5LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.5.4.1	16.5LS	Low Seismicity	Seismic-Force-Resisting	BRACE AXIAL STRESS CHECK	LS	C	C	C	C	
5.7.2	16.5LS	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.1	16.5LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C		
5.5.1.1	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.4.4	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C	C	
5.5.4	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C		
5.5.4.6	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	K-BRACING	LS	C	C	C	C	
5.5.4.2	16.5LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C		
5.5.4.3	16.5LS	High Seismicity	Seismic-Force-Resisting	SLENDERNESS OF DIAGONALS	LS	C	C	C	C	
5.5.4.4	16.5LS	High Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C		
5.5.4	16.5LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C	C	
5.5.4.6	16.5LS	High Seismicity	Seismic-Force-Resisting	CHEVRON BRACING	LS	C	C	C	C	
5.5.4.8	16.5LS	High Seismicity	Seismic-Force-Resisting	CONCENTRICALLY BRACED FRAME JOINTS	LS	C	C	C		
5.6.1.3	16.5LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	LS	C	C	C		
5.6.1.2	16.5LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C		
5.7.2	16.5IO	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.5.1.1	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.5.4.2	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.4.5	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.4	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.4.7	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	TENSION-ONLY BRACES	IO	C				
5.5.4.8	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	CONCENTRICALLY BRACED FRAME JOINTS	IO	C				
5.6.1.3	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	IO	C				
5.6.1.4	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.5.4	16.5IO	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.4.1	16.5IO	High Seismicity	Seismic-Force-Resisting	NET AREA	IO	C				
5.7.3.1	16.5IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				
-	16.5IO	High Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.5IO	High Seismicity	Foundation System	SLOPING SITES	IO	C	C			

Table 2.1 - S2a (Steel Braced Frames - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.1.3	16.5LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.5.4.1	16.5LS	Low Seismicity	Seismic-Force-Resisting	BRACE AXIAL STRESS CHECK	LS	C	C	C	C	
5.7.2	16.5LS	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.1	16.5LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C		
5.5.1.1	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.4.4	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C	C	
5.5.4	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C		
5.5.4.6	16.5LS	Moderate Seismicity	Seismic-Force-Resisting	K-BRACING	LS	C	C	C	C	
5.5.4.2	16.5LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C		
5.5.4.3	16.5LS	High Seismicity	Seismic-Force-Resisting	SLENDERNESS OF DIAGONALS	LS	C	C	C	C	
5.5.4.4	16.5LS	High Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C		
5.5.4	16.5LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C	C	
5.5.4.6	16.5LS	High Seismicity	Seismic-Force-Resisting	CHEVRON BRACING	LS	C	C	C	C	
5.5.4.8	16.5LS	High Seismicity	Seismic-Force-Resisting	CONCENTRICALLY BRACED FRAME JOINTS	LS	C	C	C		
5.6.1.3	16.5LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	LS	C	C	C		
5.6.1.2	16.5LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C		
5.6.2	16.5LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C		
5.6.2	16.5LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C		
5.6.2	16.5LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C		
5.7.2	16.5IO	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.5.1.1	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.5.4.2	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.4.5	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.4	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.4.7	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	TENSION-ONLY BRACES	IO	C				
5.5.4.8	16.5IO	Moderate Seismicity	Seismic-Force-Resisting	CONCENTRICALLY BRACED FRAME JOINTS	IO	C				
5.6.1.3	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT FRAMES	IO	C				
5.6.1.4	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.5IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.5IO	Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.5IO	Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.5IO	Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.5IO	Moderate Seismicity	Flexible Diaphragms	NON-CONCRETE FILLED DIAPHRAGMS	IO	C				

Table 2.1 - S2a (Steel Braced Frames - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.5.4	16.5IO	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.4.1	16.5IO	High Seismicity	Seismic-Force-Resisting	NET AREA	IO	C				
5.7.3.1	16.5IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				
-	16.5IO	High Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.5IO	High Seismicity	Foundation System	SLOPING SITES	IO	C	C			

Table 2.1 ASCE 41 Compliance Required for Structural Safety Sub-rating

Table 2.1 - S3 (Steel Light Frames)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C		
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C		
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.4.1	16.6LS	Low and Moderate Seismicity	Seismic-Force-Resisting	BRACE AXIAL STRESS CHECK	LS	C	C	C	C	
5.7.2	16.6LS	Low and Moderate Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.1	16.6LS	Low and Moderate Seismicity	Connections	STEEL COLUMNS	LS	C	C	C	C	
5.5.2.2.1	16.6LS	High Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	LS	C	C	C		
5.5.2.2.4	16.6LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C		
5.6.5	16.6LS	High Seismicity	Seismic-Force-Resisting	OTHER DIAPHRAGMS	LS	C	C	C		
5.7.5	16.6LS	High Seismicity	Connections	ROOF PANELS	LS	C	C	C		
5.7.5	16.6LS	High Seismicity	Connections	WALL PANELS	LS	C	C	C	C	
5.5.2.1.2	16.6IO	Very Low and Low Seismicity	Seismic-Force-Resisting	FLEXURAL STRESS CHECK	IO	C	C			
5.6.1.4	16.6IO	Moderate Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.6IO	Moderate Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.5.2.2.1	16.6IO	High Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	IO	C	C			
5.5.2.2.4	16.6IO	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.2.2.5	16.6IO	High Seismicity	Seismic-Force-Resisting	BEAM PENETRATIONS	IO	C				
5.5.2.2.7	16.6IO	High Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.2.2.8	16.6IO	High Seismicity	Seismic-Force-Resisting	BOTTOM FLANGE BRACING	IO	C				
5.7.2	16.6IO	High Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.7.3.1	16.6IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				
-	16.6IO	High Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.6IO	High Seismicity	Foundation System	SLOPING SITES	IO	C	C			

Table 2.1 - S4 (Steel Frames with Concrete Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.1.2	16.7LS	Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	LS	C	C	C		
5.5.2.1.3	16.7LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C		
5.5.4.1	16.7LS	Low Seismicity	Seismic-Force-Resisting	BRACE AXIAL STRESS CHECK	LS	C	C	C		
5.5.2.5.1	16.7LS	Low Seismicity	Seismic-Force-Resisting	COMPLETE FRAMES	LS	C	C	C		
5.5.3.1.1	16.7LS	Low Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C		
5.5.3.1.3	16.7LS	Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.7.3.1	16.7LS	Low Seismicity	Connections	STEEL COLUMNS ANCHORED TO FOUNDATION	LS	C	C	C	C	
5.7.2	16.7LS	Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.2	16.7LS	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	LS	C	C	C	C	
5.7.3.4	16.7LS	Low Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.5.1.1	16.7LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.2.2.1.	16.7LS	Moderate Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	LS	C	C	C		
5.5.2.2.4 & 5.5.4	16.7LS	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C	C	
5.5.4.4	16.7LS	Moderate Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C	C	
5.5.4.6	16.7LS	Moderate Seismicity	Seismic-Force-Resisting	K-BRACING	LS	C	C	C	C	
5.5.2.2.1	16.7LS	High Seismicity	Seismic-Force-Resisting	MOMENT-RESISTING CONNECTIONS	LS	C	C	C		
5.5.2.2.3	16.7LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C	C	
5.5.2.1.5	16.7LS	High Seismicity	Seismic-Force-Resisting	STRONG COLUMN/WEAK BEAM	LS	C	C	C		
5.5.2.2.4 & 5.5.4	16.7LS	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	LS	C	C	C	C	
5.5.4.2	16.7LS	High Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	LS	C	C	C	C	
5.5.4.3	16.7LS	High Seismicity	Seismic-Force-Resisting	SLENDERNESS OF DIAGONALS	LS	C	C	C	C	
5.5.4.4	16.7LS	High Seismicity	Seismic-Force-Resisting	CONNECTION STRENGTH	LS	C	C	C		
5.5.4.6	16.7LS	High Seismicity	Seismic-Force-Resisting	CHEVRON BRACING	LS	C	C	C	C	
5.5.4.8	16.7LS	High Seismicity	Seismic-Force-Resisting	CONCENTRICALLY BRACED FRAME JOINTS	LS	C	C	C		
5.5.3.2.1	16.7LS	High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	LS	C	C	C		
5.6.1.1	16.7LS	High Seismicity	Diaphragms	DIAPHRAGM CONTINUITY	LS	C	C	C		
5.6.1.3	16.7LS	High Seismicity	Diaphragms	OPENINGS AT SHEAR WALLS AT DIAPHRAGMS	LS	C	C	C		
5.6.1.3	16.7LS	High Seismicity	Diaphragms	OPENINGS AT FRAMES AT DIAPHRAGMS	LS	C	C	C		
5.5.3.1.3	16.7IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.3.4	16.7IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
5.5.2.1.2	16.7IO	Low Seismicity	Seismic-Force-Resisting	DRIFT CHECK	IO	C				

Table 2.1 - S4 (Steel Frames with Concrete Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.5.1.1	16.7IO	Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.5.2.1.1	16.7IO	Low Seismicity	Seismic-Force-Resisting	INTERFERING WALLS	IO	C	C			
5.7.2	16.7IO	Low Seismicity	Connections	TRANSFER TO STEEL FRAMES	IO	C				
5.5.2.2.2	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	PANEL ZONES	IO	C				
5.5.2.2.3	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.2.2.5	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	BEAM PENETRATIONS	IO	C				
5.5.2.2.6	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	GIRDER FLANGE CONTINUITY PLATES	IO	C				
5.5.2.2.7	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.2.2.8	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	BOTTOM FLANGE BRACING	IO	C				
5.5.4	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.5.4.2	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SPLICES	IO	C				
5.5.4.5	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	OUT-OF-PLANE BRACING	IO	C				
5.5.4.7	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	TENSION-ONLY BRACES	IO	C	C			
5.5.3.2.1	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	IO	C				
5.5.3.1.4	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	OVERTURNING	IO	C				
5.5.3.2.2	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	CONFINEMENT REINFORCING	IO	C				
5.5.3.1.5	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	WALL REINFORCING AT OPENINGS	IO	C				
5.5.3.1.2	16.7IO	Moderate Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.6.1.3	16.7IO	Moderate Seismicity	Diaphragms	OPENINGS AT FRAMES AT DIAPHRAGMS	IO	C				
5.6.1.4	16.7IO	Moderate Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.7IO	Moderate Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.5.2.2.4 & 5.5.4	16.7IO	High Seismicity	Seismic-Force-Resisting	COMPACT MEMBERS	IO	C	C			
5.7.3.1	16.7IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				

Table 2.1 - S5 (Steel Frames with Infill Masonry Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.3.1.1	16.8LS	Low Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK RM	LS	C	C	C		
5.5.3.1.1	16.8LS	Low Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK URM	LS	C	C	C		
5.5.3.5.1 & 5.5.3.5.3	16.8LS	Low Seismicity	Seismic-Force-Resisting	INFILL WALL CONNECTIONS	LS	C	C	C	C	
5.7.3.1	16.8LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C	C	
5.5.1.1	16.8LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.5.3	16.8LS	Moderate Seismicity	Seismic-Force-Resisting	INFILL WALL ECCENTRICITY	LS	C	C	C		
5.7.2	16.8LS	Moderate Seismicity	Connections	TRANSFER TO INFILL WALLS	LS	C	C	C	C	
5.5.3.1.2	16.8LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C		
5.5.3.5.2	16.8LS	High Seismicity	Seismic-Force-Resisting	CAVITY WALLS	LS	C	C	C	C	
5.5.3.1.5	16.8IO	Moderate Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C	C			
5.5.3.1.2	16.8IO	Moderate Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.2	16.8IO	Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.6.1.4	16.8IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.8IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C	C			
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.6.3	16.8IO	Moderate Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C	C			
5.5.3.1.2	16.8IO	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.3.1	16.8IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				

Table 2.1 - S5a (Steel Frames with Infill Masonry Shearwalls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.3.1.1	16.8LS	Low Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK RM	LS	C	C	C		
5.5.3.1.1	16.8LS	Low Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK URM	LS	C	C	C		
5.5.3.5.1 & 5.5.3.5.3	16.8LS	Low Seismicity	Seismic-Force-Resisting	INFILL WALL CONNECTIONS	LS	C	C	C	C	
5.7.3.1	16.8LS	Low Seismicity	Connections	STEEL COLUMNS	LS	C	C	C	C	
5.5.1.1	16.8LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.5.3	16.8LS	Moderate Seismicity	Seismic-Force-Resisting	INFILL WALL ECCENTRICITY	LS	C	C	C		
5.7.2	16.8LS	Moderate Seismicity	Connections	TRANSFER TO INFILL WALLS	LS	C	C	C	C	
5.5.3.1.2	16.8LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C		
5.5.3.5.2	16.8LS	High Seismicity	Seismic-Force-Resisting	CAVITY WALLS	LS	C	C	C	C	
5.6.1.2	16.8LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C		
5.6.2	16.8LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.8LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.8LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.8LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C		
5.7.1.2	16.8LS	High Seismicity	Connections	STIFFNESS OF WALL ANCHORS	LS	C	C	C		
5.5.3.1.5	16.8IO	Moderate Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C	C			
5.5.3.1.2	16.8IO	Moderate Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.2	16.8IO	Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.6.1.4	16.8IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.8IO	Moderate Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.8IO	Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.8IO	Moderate Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				
5.5.3.1.2	16.8IO	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.3.1	16.8IO	High Seismicity	Connections	STEEL COLUMNS	IO	C				

Table 2.1 ASCE 41 Compliance Required for Structural Safety Sub-rating

Table 2.1 - C1 (Concrete Moment Frames)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.9LS	Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.2.1.3	16.9LS	Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.7.3.1	16.9LS	Low Seismicity	Connections	CONCRETE COLUMNS	LS	C	C	C	C	
5.5.2.1.1	16.9LS	Moderate Seismicity	Seismic-Force-Resisting	INTERFERING WALLS	LS	C	C	C	C	
5.5.2.1.4	16.9LS	Moderate Seismicity	Seismic-Force-Resisting	COLUMN SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.2.3.1	16.9LS	Moderate Seismicity	Seismic-Force-Resisting	FLAT SLAB FRAMES	LS	C	C	C	C	
5.5.2.3.2	16.9LS	High Seismicity	Seismic-Force-Resisting	PRESTRESSED FRAME ELEMENTS	LS	C	C	C		
5.5.2.3.3	16.9LS	High Seismicity	Seismic-Force-Resisting	CAPTIVE COLUMNS	LS	C	C	C	C	
5.5.2.3.4	16.9LS	High Seismicity	Seismic-Force-Resisting	NO SHEAR FAILURES	LS	C	C	C	C	
5.5.2.1.5	16.9LS	High Seismicity	Seismic-Force-Resisting	STRONG COLUMN WEAK BEAM	LS	C	C	C	C	
5.5.2.3.5	16.9LS	High Seismicity	Seismic-Force-Resisting	BEAM BARS	LS	C	C	C	C	
5.5.2.3.6	16.9LS	High Seismicity	Seismic-Force-Resisting	COLUMN-BAR SPLICES	LS	C	C	C	C	
5.5.2.3.6	16.9LS	High Seismicity	Seismic-Force-Resisting	BEAM-BAR SPLICES	LS	C	C	C	C	
5.5.2.3.7	16.9LS	High Seismicity	Seismic-Force-Resisting	COLUMN-TIE SPACING	LS	C	C	C	C	
5.5.2.3.7	16.9LS	High Seismicity	Seismic-Force-Resisting	STIRRUP SPACING	LS	C	C	C	C	
5.5.2.3.8	16.9LS	High Seismicity	Seismic-Force-Resisting	JOINT TRANSVERSE REINFORCING	LS	C	C	C	C	
5.5.2.5.2	16.9LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	LS	C	C	C	C	
5.5.2.5.3	16.9LS	High Seismicity	Seismic-Force-Resisting	FLAT SLABS	LS	C	C	C	C	
5.6.1.1	16.9LS	High Seismicity	Diaphragms	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.7.3.5	16.9LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.5.1.1	16.9IO	Very Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.5.2.1.4	16.9IO	Very Low Seismicity	Seismic-Force-Resisting	COLUMN SHEAR STRESS CHECK	IO	C	C			
5.5.2.1.3	16.9IO	Very Low Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	IO	C	C			
5.7.3.1	16.9IO	Very Low Seismicity	Connections	CONCRETE COLUMNS	IO	C				
5.5.2.3.2	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	PRESTRESSED FRAME ELEMENTS	IO	C	C			
5.5.2.3.3	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	CAPTIVE COLUMNS	IO	C				
5.5.2.3.6	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	COLUMN-BAR SPLICES	IO	C				
5.5.2.3.9	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	JOINT ECCENTRICITY	IO	C	C			
5.5.2.3.10	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	STIRRUP AND TIE HOOKS	IO	C	C			
5.5.2.5.2	16.9IO	Low and Moderate Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C				
5.6.1.4	16.9IO	Low and Moderate Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.9IO	Low and Moderate Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.7.3.5	16.9IO	Low and Moderate Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				

Table 2.1 - C2 (Concrete Shear Walls - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.5.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	COMPLETE FRAMES	LS	C	C	C		
5.5.1.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.7.2	16.10LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.3.4	16.10LS	Low and Moderate Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.5.2.5.2	16.10LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	LS	C	C	C		
5.5.2.5.3	16.10LS	High Seismicity	Seismic-Force-Resisting	FLAT SLABS	LS	C	C	C	C	
5.5.3.2.1	16.10LS	High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	LS	C	C	C		
5.7.3.5	16.10LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.6.1.1	16.10LS	High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.3	16.10LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.5.3.1.3	16.10IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.2	16.10IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.4	16.10IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
-	16.10IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.10IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.2.5.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C				
5.5.3.2.1	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	IO	C				
5.5.3.1.4	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	OVERTURNING	IO	C				
5.5.3.2.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	CONFINEMENT REINFORCING	IO	C				
5.5.3.1.5	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL REINFORCING AT OPENINGS	IO	C				
5.5.3.1.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.7.3.5	16.10IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				
5.6.1.3	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.4	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C	C			
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.6.3	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C	C			

Table 2.1 - C2a (Concrete Shear Walls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.5.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	COMPLETE FRAMES	LS	C	C	C		
5.5.1.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.10LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.7.1.1	16.10LS	Low and Moderate Seismicity	Connections	WALL ANCHORAGE AT FLEXIBLE DIAPHRAGMS	LS	C	C	C	C	
5.7.2	16.10LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.3.4	16.10LS	Low and Moderate Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.5.3.2.1	16.10LS	High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	LS	C	C	C		
5.7.3.5	16.10LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.6.1.1	16.10LS	High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.3	16.10LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.2	16.10LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C	C	
5.6.2	16.10LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.10LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.10LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.10LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C	C	
5.5.3.1.3	16.10IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.2	16.10IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.4	16.10IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
-	16.10IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.10IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.2.5.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C	C			
5.5.3.2.1	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	IO	C				
5.5.3.1.4	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	OVERTURNING	IO	C				
5.5.3.2.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	CONFINEMENT REINFORCING	IO	C				
5.5.3.1.5	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL REINFORCING AT OPENINGS	IO	C				
5.5.3.1.2	16.10IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.7.3.5	16.10IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				
5.6.1.3	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.4	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.10IO	Low, Moderate, and High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C				

Table 2.1 - C2a (Concrete Shear Walls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.6.2	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.10IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				

Table 2.1 - C3 (Concrete Frames with Infill Masonry Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.5.1 & 5.5.3.5.3	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	INFILL WALL CONNECTIONS	LS	C	C	C	C	
5.7.2	16.11LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.3.1	16.11LS	Low and Moderate Seismicity	Connections	CONCRETE COLUMNS	LS	C	C	C	C	
5.5.2.5.2	16.11LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	LS	C	C	C		
5.5.2.5.3	16.11LS	High Seismicity	Seismic-Force-Resisting	FLAT SLABS	LS	C	C	C	C	
5.5.3.1.2	16.11LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C		
5.5.3.5.2	16.11LS	High Seismicity	Seismic-Force-Resisting	CAVITY WALLS	LS	C	C	C	C	
5.5.3.5.3	16.11LS	High Seismicity	Seismic-Force-Resisting	INFILL WALLS	LS	C	C	C	C	
5.7.3.5	16.11LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.6.1.1	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.3	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.7.2	16.11IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.1	16.11IO	Very Low Seismicity	Connections	CONCRETE COLUMNS	IO	C				
5.5.2.5.2	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C				
5.5.3.1.5	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C				
5.5.3.1.2	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.3.5	16.11IO	Low and Moderate Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				
5.6.1.3	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C	C			
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.6.3	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C	C			
5.5.3.1.2	16.11IO	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				

Table 2.1 - C3a (Concrete Frames with Infill Masonry Shearwalls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.1	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.5.1 & 5.5.3.5.3	16.11LS	Low and Moderate Seismicity	Seismic-Force-Resisting	INFILL WALL CONNECTIONS	LS	C	C	C	C	
5.7.2	16.11LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.3.1	16.11LS	Low and Moderate Seismicity	Connections	CONCRETE COLUMNS	LS	C	C	C	C	
5.5.3.1.2	16.11LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C		
5.5.3.5.2	16.11LS	High Seismicity	Seismic-Force-Resisting	CAVITY WALLS	LS	C	C	C	C	
5.5.3.5.3	16.11LS	High Seismicity	Seismic-Force-Resisting	INFILL WALLS	LS	C	C	C	C	
5.7.3.5	16.11LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.7.1.2	16.11LS	High Seismicity	Connections	STIFFNESS OF WALL ANCHORS	LS	C	C	C		
5.6.1.1	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM CONTINUITY	LS	C	C	C	C	
5.6.1.3	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.11LS	High Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.6.1.2	16.11LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C	C	
5.6.2	16.11LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.11LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.11LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.11LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C	C	
5.7.2	16.11IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.1	16.11IO	Very Low Seismicity	Connections	CONCRETE COLUMNS	IO	C				
5.5.2.5.2	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C	C			
5.5.3.1.5	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C				
5.5.3.1.2	16.11IO	Low and Moderate Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				
5.7.3.5	16.11IO	Low and Moderate Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				
5.6.1.3	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.11IO	Low and Moderate Seismicity	Diaphragms (Flexible or Stiff)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				

Table 2.1 - C3a (Concrete Frames with Infill Masonry Shearwalls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.6.3	16.11IO	Low and Moderate Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				
5.5.3.1.2	16.11IO	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C				

Table 2.1 - PC1 (Precast/Tilt-Up Concrete Shearwalls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.7.1.1	16.12LS	Low Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.5.1.1	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	WALL SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.5.3.1.2	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	WALL THICKNESS	LS	C	C	C		
5.7.1.3	16.12LS	Moderate Seismicity	Connections	WOOD LEDGERS	LS	C	C	C	C	
5.7.2	16.12LS	Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.4.1	16.12LS	Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.3.3.1	16.12LS	High Seismicity	Seismic-Force-Resisting	WALL OPENINGS	LS	C	C	C	C	
5.6.1.2	16.12LS	High Seismicity	Diaphragms	CROSS TIES IN FLEXIBLE DIAPHRAGMS	LS	C	C	C	C	
5.6.2	16.12LS	High Seismicity	Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.12LS	High Seismicity	Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.12LS	High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.12LS	High Seismicity	Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C	C	
5.7.1.4	16.12LS	High Seismicity	Connections	MINIMUM NUMBER OF WALL ANCHORS PER PANEL	LS	C	C	C	C	
5.7.3.4	16.12LS	High Seismicity	Connections	PRECAST WALL PANELS	LS	C	C	C	C	
5.7.3.5	16.12LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.7.4.2	16.12LS	High Seismicity	Connections	GIRDERS	LS	C	C	C		
5.5.3.1.3	16.12IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.2	16.12IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.2	16.12IO	Very Low Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	IO	C	C			
5.5.2.5.2	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY FOR RIGID DIAPHRAGMS	IO	C	C			
5.5.3.3.1	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL OPENINGS	IO	C				
5.5.3.3.3	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	PANEL-TO-PANEL CONNECTIONS	IO	C				
5.5.3.1.2	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.6.1.4	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	SPANS	IO	C				
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.7.3.4	16.12IO	Low, Moderate, and High Seismicity	Connections	PRECAST WALL PANELS	IO	C				
5.7.3.5	16.12IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				

Table 2.1 - PC1a (Precast/Tilt-Up Concrete Shearwalls - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.7.1.1	16.12LS	Low Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.5.1.1	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	WALL SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.5.3.1.2	16.12LS	Moderate Seismicity	Seismic-Force-Resisting	WALL THICKNESS	LS	C	C	C		
5.6.4	16.12LS	Moderate Seismicity	Diaphragms	TOPPING SLAB	LS	C	C	C	C	
5.7.2	16.12LS	Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.2	16.12LS	Moderate Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	LS	C	C	C	C	
5.7.4.1	16.12LS	Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.2.5.2	16.12LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY FOR RIGID DIAPHRAGMS	LS	C	C	C		
5.5.3.3.1	16.12LS	High Seismicity	Seismic-Force-Resisting	WALL OPENINGS	LS	C	C	C	C	
5.7.1.4	16.12LS	High Seismicity	Connections	MINIMUM NUMBER OF WALL ANCHORS PER PANEL	LS	C	C	C	C	
5.7.3.4	16.12LS	High Seismicity	Connections	PRECAST WALL PANELS	LS	C	C	C	C	
5.7.3.5	16.12LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.7.4.2	16.12LS	High Seismicity	Connections	GIRDERS	LS	C	C	C		
5.5.3.1.3	16.12IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.2	16.12IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.2	16.12IO	Very Low Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	IO	C				
5.5.2.5.2	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY FOR RIGID DIAPHRAGMS	IO	C				
5.5.3.3.1	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL OPENINGS	IO	C				
5.5.3.3.3	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	PANEL-TO-PANEL CONNECTIONS	IO	C				
5.5.3.1.2	16.12IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.6.1.4	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	SPANS	IO	C	C			
5.6.2	16.12IO	Low, Moderate, and High Seismicity	Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.7.3.4	16.12IO	Low, Moderate, and High Seismicity	Connections	PRECAST WALL PANELS	IO	C				
5.7.3.5	16.12IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				

Table 2.1 - PC2 (Precast Concrete Frames with Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.2.5.1	16.13LS	Low and Moderate Seismicity	Seismic-Force-Resisting	COMPLETE FRAMES	LS	C	C	C		
5.5.1.1	16.13LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.13LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.13LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C	C	
5.6.4	16.13LS	Low and Moderate Seismicity	Diaphragms	TOPPING SLAB	LS	C	C	C	C	
5.7.2	16.13LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.2	16.13LS	Low and Moderate Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	LS	C	C	C	C	
5.7.3.4	16.13LS	Low and Moderate Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.7.4.1	16.13LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.2.4, 5.5.2.5.1, & 5.5.2.5.2	16.13LS	High Seismicity	Seismic-Force-Resisting	PRECAST FRAMES	LS	C	C	C	C	
5.6.1.1	16.13LS	High Seismicity	Seismic-Force-Resisting	PRECAST CONNECTIONS	LS	C	C	C		
5.5.2.5.2	16.13LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	LS	C	C	C		
5.5.3.2.1	16.13LS	High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	LS	C	C	C		
5.5.3.3.1	16.13LS	High Seismicity	Diaphragms	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.7.3.5	16.13LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.7.4.3	16.13LS	High Seismicity	Connections	CORBEL BEARING	LS	C	C	C		
5.7.4.3	16.13LS	High Seismicity	Connections	CORBEL CONNECTIONS	LS	C	C	C		
5.5.3.1.3	16.13IO	Very Low Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	IO	C	C			
5.7.2	16.13IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.2	16.13IO	Very Low Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	IO	C				
5.7.3.4	16.13IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
5.5.2.5.2	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C				
5.5.3.2.1	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	COUPLING BEAMS	IO	C				
5.5.3.1.4	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	OVERTURNING	IO	C				
5.5.3.2.2	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	CONFINEMENT REINFORCING	IO	C				
5.5.3.1.5	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL REINFORCING AT OPENINGS	IO	C				
5.5.3.1.2	16.13IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	WALL THICKNESS	IO	C				
5.5.3.2.1	16.13IO	Low, Moderate, and High Seismicity	Diaphragms	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.4	16.13IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.13IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.7.3.5	16.13IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				

Table 2.1 - PC2a (Precast Concrete Frames without Shearwalls)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.14LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.2.3.4	16.14LS	Low and Moderate Seismicity	Seismic-Force-Resisting	COLUMN SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.2.1.3	16.14LS	Low and Moderate Seismicity	Seismic-Force-Resisting	COLUMN AXIAL STRESS CHECK	LS	C	C	C	C	
5.5.2.4	16.14LS	Low and Moderate Seismicity	Seismic-Force-Resisting	PRECAST CONNECTION CHECK	LS	C	C	C	C	
5.6.4	16.14LS	Low and Moderate Seismicity	Diaphragms	TOPPING SLAB	LS	C	C	C	C	
5.7.2	16.14LS	Low and Moderate Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	LS	C	C	C	C	
5.7.4.1	16.14LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.2.3.2	16.14LS	High Seismicity	Seismic-Force-Resisting	PRESTRESSED FRAME ELEMENTS	LS	C	C	C		
5.5.2.3.3	16.14LS	High Seismicity	Seismic-Force-Resisting	CAPTIVE COLUMNS	LS	C	C	C	C	
5.5.2.3.8	16.14LS	High Seismicity	Seismic-Force-Resisting	JOINT REINFORCING	LS	C	C	C	C	
5.5.2.5.2	16.14LS	High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	LS	C	C	C	C	
5.7.3.5	16.14LS	High Seismicity	Connections	UPLIFT AT PILE CAPS	LS	C	C	C		
5.7.4.1	16.14LS	High Seismicity	Connections	GIRDERS	LS	C	C	C		
5.7.4.3	16.14LS	High Seismicity	Connections	CORBEL BEARING	LS	C	C	C		
5.7.4.3	16.14LS	High Seismicity	Connections	CORBEL CONNECTIONS	LS	C	C	C		
5.5.1.1	16.14IO	Very Low Seismicity	Seismic-Force-Resisting	REDUNDANCY	IO	C				
5.5.2.3.2	16.14IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	PRESTRESSED FRAME ELEMENTS	IO	C	C			
5.5.2.3.3	16.14IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	CAPTIVE COLUMNS	IO	C				
5.5.2.5.2	16.14IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	DEFLECTION COMPATIBILITY	IO	C				
5.6.1.4	16.14IO	Low, Moderate, and High Seismicity	Diaphragms	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.14IO	Low, Moderate, and High Seismicity	Diaphragms	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.7.3.5	16.14IO	Low, Moderate, and High Seismicity	Connections	UPLIFT AT PILE CAPS	IO	C				
5.7.4.1	16.14IO	Low, Moderate, and High Seismicity	Connections	GIRDERS	IO	C	C			
5.7.2	16.14IO	Low, Moderate, and High Seismicity	Connections	TRANSFER TO FRAMES	IO	C				

Table 2.1 - RM1 (Reinforced Masonry Bearing Walls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.7.1.1	16.15LS	Low and Moderate Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.7.1.3	16.15LS	Low and Moderate Seismicity	Connections	WOOD LEDGERS	LS	C	C	C	C	
5.7.2	16.15LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.3.4	16.15LS	Low and Moderate Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.7.4.1	16.15LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.6.1.3	16.15LS	High Seismicity	Stiff Diaphragms	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.15LS	High Seismicity	Stiff Diaphragms	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.6.1.2	16.15LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C	C	
5.6.1.3	16.15LS	High Seismicity	Flexible Diaphragms	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.15LS	High Seismicity	Flexible Diaphragms	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.6.2	16.15LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.15LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.15LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.15LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C	C	
5.7.1.2	16.15LS	High Seismicity	Connections	STIFFNESS OF WALL ANCHORS	LS	C	C	C		
5.7.2	16.15IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.4	16.15IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
-	16.15IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.15IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.3.1.5	16.15IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C				
5.5.3.1.2	16.15IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C	C			
5.6.1.3	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				

Table 2.1 - RM2 (Reinforced Masonry Bearing Walls - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.5.3.1.3	16.15LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REINFORCING STEEL	LS	C	C	C		
5.6.4	16.15LS	Low and Moderate Seismicity	Stiff Diaphragms	TOPPING SLAB	LS	C	C	C	C	
5.7.1.1	16.15LS	Low and Moderate Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.7.2	16.15LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.2	16.15LS	Low and Moderate Seismicity	Connections	TOPPING SLAB TO WALLS OR FRAMES	LS	C	C	C	C	
5.7.3.4	16.15LS	Low and Moderate Seismicity	Connections	FOUNDATION DOWELS	LS	C	C	C	C	
5.7.4.1	16.15LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.6.1.3	16.15LS	High Seismicity	Stiff Diaphragms	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.15LS	High Seismicity	Stiff Diaphragms	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.15LS	High Seismicity	Flexible Diaphragms	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.15LS	High Seismicity	Flexible Diaphragms	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.7.2	16.15IO	Very Low Seismicity	Connections	TRANSFER TO SHEAR WALLS	IO	C				
5.7.3.4	16.15IO	Very Low Seismicity	Connections	FOUNDATION DOWELS	IO	C				
-	16.15IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.15IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.5.3.1.5	16.15IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	REINFORCING AT WALL OPENINGS	IO	C				
5.5.3.1.2	16.15IO	Low, Moderate, and High Seismicity	Seismic-Force-Resisting	PROPORTIONS	IO	C	C			
5.6.1.3	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.15IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C	C			
5.6.2	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.6.3	16.15IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C	C			

Table 2.1 - URM (Unreinforced Masonry Bearing Walls - Flexible Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.16LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.16LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.7.1.1	16.16LS	Low and Moderate Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.7.1.3	16.16LS	Low and Moderate Seismicity	Connections	WOOD LEDGERS	LS	C	C	C	C	
5.7.2	16.16LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.4.1	16.16LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.3.1.2	16.16LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C	C	
5.5.3.4.1	16.16LS	High Seismicity	Seismic-Force-Resisting	MASONRY LAYUP	LS	C	C	C		
5.6.1.3	16.16LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.16LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.6.1.2	16.16LS	High Seismicity	Flexible Diaphragms	CROSS TIES	LS	C	C	C	C	
5.6.2	16.16LS	High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	LS	C	C	C	C	
5.6.2	16.16LS	High Seismicity	Flexible Diaphragms	SPANS	LS	C	C	C	C	
5.6.2	16.16LS	High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	LS	C	C	C	C	
5.6.5	16.16LS	High Seismicity	Flexible Diaphragms	OTHER DIAPHRAGMS	LS	C	C	C	C	
5.7.1.2	16.16LS	High Seismicity	Connections	STIFFNESS OF WALL ANCHORS	LS	C	C	C		
5.7.4.4	16.16LS	High Seismicity	Connections	BEAM, GIRDER, AND TRUSS SUPPORTS	LS	C	C	C	C	
5.7.1.1	16.16IO	Very Low Seismicity	Connections	WALL ANCHORAGE	IO	C	C			
-	16.16IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.16IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.6.1.3	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C				
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C				
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C				
5.6.3	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C				

Table 2.1 - URMa (Unreinforced Masonry Bearing Walls - Stiff Diaphragms)

Tier 2 Sec	Checklist	Seismicity	System	Item	Perf. Level	C = Compliance Required for Safety sub-Rating:				Result
						5-Star	4-Star	3-Star	2-Star	
5.4.1.1	16.1	Very Low Seismicity	Structural Components	LOAD PATH	LS	C	C	C		
5.7.1.1	16.1	Very Low Seismicity	Structural Components	WALL ANCHORAGE	LS	C	C	C		
5.4.1.1	16.1.2LS	Low Seismicity	Building System General	LOAD PATH	LS	C	C	C	C	
5.4.1.2	16.1.2LS	Low Seismicity	Building System General	ADJACENT BUILDINGS	LS	C	C	C		
5.4.1.3	16.1.2LS	Low Seismicity	Building System General	MEZZANINES	LS	C	C	C		
5.4.2.1	16.1.2LS	Low Seismicity	Building Configuration	WEAK STORY	LS	C	C	C	C	
5.4.2.2	16.1.2LS	Low Seismicity	Building Configuration	SOFT STORY	LS	C	C	C	C	
5.4.2.3	16.1.2LS	Low Seismicity	Building Configuration	VERTICAL IRREGULARITIES	LS	C	C	C	C	
5.4.2.4	16.1.2LS	Low Seismicity	Building Configuration	GEOMETRY	LS	C	C	C	C	
5.4.2.5	16.1.2LS	Low Seismicity	Building Configuration	MASS	LS	C	C	C	C	
5.4.2.6	16.1.2LS	Low Seismicity	Building Configuration	TORSION	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	LIQUEFACTION	LS	C	C	C		
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SLOPE FAILURE	LS	C	C	C	C	
5.4.3.1	16.1.2LS	Moderate Seismicity	Geologic Site Hazards	SURFACE FAULT RUPTURE	LS	C	C	C	C	
5.4.3.3	16.1.2LS	High Seismicity	Foundation Configuration	OVERTURNING	LS	C	C	C		
5.4.3.4	16.1.2LS	High Seismicity	Foundation Configuration	TIES BETWEEN FOUNDATION ELEMENTS	LS	C	C	C		
5.5.1.1	16.16LS	Low and Moderate Seismicity	Seismic-Force-Resisting	REDUNDANCY	LS	C	C	C		
5.5.3.1.1	16.16LS	Low and Moderate Seismicity	Seismic-Force-Resisting	SHEAR STRESS CHECK	LS	C	C	C	C	
5.7.1.1	16.16LS	Low and Moderate Seismicity	Connections	WALL ANCHORAGE	LS	C	C	C	C	
5.7.2	16.16LS	Low and Moderate Seismicity	Connections	TRANSFER TO SHEAR WALLS	LS	C	C	C	C	
5.7.4.1	16.16LS	Low and Moderate Seismicity	Connections	GIRDER-COLUMN CONNECTION	LS	C	C	C	C	
5.5.3.1.2	16.16LS	High Seismicity	Seismic-Force-Resisting	PROPORTIONS	LS	C	C	C	C	
5.5.3.4.1	16.16LS	High Seismicity	Seismic-Force-Resisting	MASONRY LAYUP	LS	C	C	C		
5.6.1.3	16.16LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	LS	C	C	C		
5.6.1.3	16.16LS	High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	LS	C	C	C		
5.7.4.4	16.16LS	High Seismicity	Connections	BEAM, GIRDER, AND TRUSS SUPPORTS	LS	C	C	C	C	
5.7.1.1	16.16IO	Very Low Seismicity	Connections	WALL ANCHORAGE	IO	C	C			
-	16.16IO	Very Low Seismicity	Foundation System	DEEP FOUNDATIONS	IO	C	C			
-	16.16IO	Very Low Seismicity	Foundation System	SLOPING SITES	IO	C	C			
5.6.1.3	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT SHEAR WALLS	IO	C				
5.6.1.3	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	OPENINGS AT EXTERIOR MASONRY SHEAR WALLS	IO	C				
5.6.1.4	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	PLAN IRREGULARITIES	IO	C				
5.6.1.5	16.16IO	Low, Moderate, and High Seismicity	Diaphragms (Stiff or Flexible)	DIAPHRAGM REINFORCEMENT AT OPENINGS	IO	C				
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	STRAIGHT SHEATHING	IO	C	C			
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	SPANS	IO	C	C			
5.6.2	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS	IO	C	C			
5.6.3	16.16IO	Low, Moderate, and High Seismicity	Flexible Diaphragms	NONCONCRETE FILLED DIAPHRAGMS	IO	C	C			