Appendix G:

Seismic Safety in Leasing

1. Background **G-1**

2. Definition of Seismic Zones **G-1**

a. Explanation of seismic terminology and exemptions G-1

b. Seismic Map of the Continental U.S. G-1

3. RLP, Offer, Award, and Post-Award Process **G-2**

a. Generating the RLP package G-2

b. Pre-award submittals G-2

c. Award decision process G-3

d. Preparing the Lease G-3

e. Post-award requirements for Seismic Retrofit or New Construction G-4

4. RP 8 Exemptions **G-4**

Attachment 1: RLP Seismic Paragraphs **G-6**

Attachment 2: Seismic Offer Forms **G-11**

Attachment 3: Lease Seismic Paragraphs **G-21**

Attachment 4: RP 8 Exemptions **G-24**

1. Background

When GSA is preparing to lease a property, the agency requires that buildings meet Government-specified levels of safety in the event of an earthquake. Since seismic activity varies across the United States, the building requirements are based on the likelihood and intensity of earthquake activity.

Executive Order 12941, Seismic Safety of Existing Federally Owned or Leased Buildings, sets some of these safety requirements.. The Executive order states:

> By the authority vested in me as President by the Constitution and the laws of the United States of America, and in furtherance of the Earthquake Hazards Reduction Act of 1977, as amended by Public Law 101–614, which requires the President to adopt ''standards for assessing and enhancing the seismic safety of existing buildings constructed for or leased by the Federal Government which were designed and constructed without adequate seismic design and construction standards'' (42 U.S.C. 7705b(a)), it is hereby ordered as follows:
>
> Section 1. Adoption of Minimum Standards. *The Standards of Seismic Safety for Existing Federally Owned or Leased Buildings* (*Standards*), developed, issued, and maintained by the Interagency Committee on Seismic Safety in Construction (ICSSC), are hereby adopted as the minimum level acceptable for use by Federal departments and agencies in assessing the seismic safety of their owned and leased buildings and in mitigating unacceptable seismic risks in those buildings....

In response to Public Law 101-614 and the Executive order, the Interagency Committee on Seismic Safety in Construction (ICSSC) was created. The ICSSC is a committee of 30 Federal departments and agencies with an interest in seismic safety. A major role of the ICSSC is to encourage the adoption of consistent and effective seismic safety practices by the Federal government. Accordingly, the ICSSC issued the first edition of Standards of Seismic Safety for Existing Federally Owned or Leased Buildings in 1994 as Recommended Practice 4 (RP 4), the second edition in 2002 as RP 6, and the third edition, in 2011 as RP 8. RP 8, sometimes referred to in this Appendix G as the "Standards," superseded earlier versions and included the most recent editions of the reference documents and current methodologies used in seismic design.

The Standards are intended to –

- Identify and set minimum acceptable seismic performance objectives for Federally leased and owned buildings,
- Create common minimum evaluation and mitigation measures for all Federal departments and agencies, and
- Require all Federal entities to have agency-conceived and agency-controlled seismic safety programs for their existing owned or leased buildings.

RP 8 establishes procedures and criteria intended to minimize the risks of earthquake-related deaths or life-threatening injuries. Section 1.1.2 of RP 8 also provides criteria for more stringent standards when it is necessary to control damage or maintain function after the earthquake.

The appropriate standard for most GSA leases is the "Life Safety based objective," which is prescribed in RP 8. When an earthquake occurs, any buildings covered under the Life Safety standard may have some structural damage, but the damage should not be life threatening.

The building must not partially or totally collapse. The Request for Lease Proposals (RLP) and Lease paragraphs are written to meet the Life Safety standard.

Occasionally client agencies may require a higher level seismic standard. When this occurs, the agency will notify GSA that it needs one of the following standards:

- "Occupancy-based performance objective" standard designed to protect facilities that pose special risks or that must recover functionality quickly after an earthquake.
- "Mission-critical facilities" standard designed to safeguard facilities which require highly reliable operational performance during and immediately after an earthquake.

All threshold measurements referenced in this appendix are American National Standards Institute-Building Owners and Managers Association Office Area (ABOA), except residential space which will be measured according to local conventions.

If a higher standard is required, the client agency and GSA's seismic safety engineers must develop it because the RLP and Lease paragraphs do not include these higher standards. The Lease Contracting Officer (LCO) should also consult with the Office of Regional Counsel for assistance with incorporating any higher standard in the RLP.

2. Definition of Seismic Zones

a. Explanation of seismic terminology and exemptions

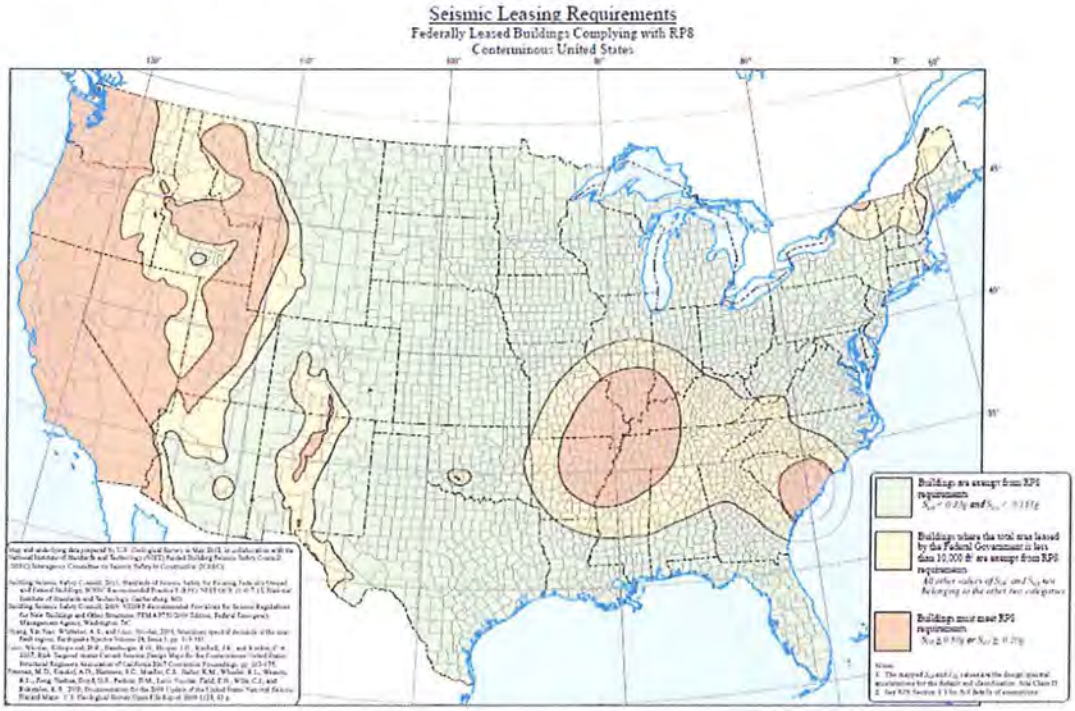
The Seismic Leasing Requirements map graphically depicts criteria established by the ICSSC RP 8, Sections 1.3a, 1.3b, and 1.3i exemptions. The map shows earthquake effects in areas of the U.S. that are defined using the acceleration parameters S_{DS} and S_{D1} which are based on the ground motions (size and timing of earth movements), multiplied by a percentage of the Maximum Credible Earthquake, for that geographical area. The mapping application uses Site Class D as the default soil classification, which is allowed in the national codes.

Definitions:

Acceleration Parameters are coefficients determined using a scientific method to forecast seismic ground motions at a known location from predicted earthquakes. This is discussed further in RP 8, table C1.3 Exemptions.

Site Class is a national code-based method that classifies soil properties based on the effect of seismic ground motions (site classes are ranked A-F)

b. Seismic Map of the Continental U.S.



Continental U.S. map entitled, Seismic Leasing Requirements: Continental United States, prepared by U.S. Geological Survey in May 2012.

The map above shows three different colors corresponding to the S_{DS} and S_{D1} for Site Class D. The legend reads:

(Green) - S_{DS} < 0.330g and S_{D1} < 0.133g (low and very low seismicity)

- All buildings are exempt.

(Yellow) - S_{DS} < 0.50g and $S_{D}1$ < 0.20g (medium seismicity)

- Buildings where the total area leased by the Federal Government is less than 10,000 ABOA SF are exempt.

(Red) – S_{DS} > 0.50g or S_{D1} > 0.20g (high and very high seismicity).

- Buildings of steel light frame or wood construction with areas less than 3,000 ABOA SF are exempt.

These maps were developed to help owners and leasing professionals understand the application of RP 8 exemptions.

The map is available at www.gsa.gov/portal/content/101286. This link also has maps of Alaska, Hawaii, and Puerto Rico. Leasing Specialists must contact the regional seismic engineer for guidance on the remaining U.S. Territories.

3. RLP, Offer, Award, and Post-Award Process

a. Generating the RLP package

This appendix issues RLP and Lease paragraphs replacing all paragraphs that were issued based on previous Standards.

RLP paragraphs

Unless the lease action falls under one of the three exemptions discussed below, the Leasing Specialist must include the applicable seismic RLP paragraphs and offer forms in the RLP package. There are two seismic RLP paragraphs: one for medium seismic areas (yellow on the seismic map) and one for high to very high seismic areas (red on the seismic map). The Leasing Specialist must choose the appropriate RLP paragraph and delete the other, following the hidden (blue) instructional text included with the RLP paragraph. The seismic RLP paragraphs with hidden text are included in this document as Attachment 1. The seismic offer forms (A through F) are attached as Attachment 2, Seismic Offer Forms.

Transactions exempt from seismic requirements

Paragraph 4 of this document and Attachment 4 (excerpted from RP 8) describe all of the RP 8 exemptions. Some of these exemptions are project based. Therefore, the Standards are not applicable in any of the following situations, and the seismic RLP paragraphs and the offer attachments must be deleted:

- The lease term will be for less than five (5) years,
- The lease will be for building structures that are intended only for incidental human occupancy, (occupied by persons for a total of less than 2 hours a day), or
- The delineated area lies in a green area (low and very low seismicity) of the Seismic Leasing Requirements map.

If the delineated area is not clearly in one seismic area (low, medium, or high), the Leasing Specialist must contact the regional seismic engineer for assistance. If the seismic engineer determines that the delineated area crosses the border of two different seismicity areas, the Leasing Specialist must also contact the Office of Regional Council before deciding which standards to apply.

b. Pre-award submittals

Acceptable Methods of Meeting RP 8 Standards

- Be certified as a Benchmark Building (Seismic Form A),
- Be certified as meeting the Life Safety performance standard based on an ASCE 31 Evaluation (Seismic Form B),
- Commit to retrofit the building to meet the requirements of RP 8 (Seismic Form C, Part 1),
- Commit to provide new construction in accordance with current local code (Seismic Form C, Part 2), or
- Represent that the offered building qualifies for an exemption based on the square footage threshold and the area of seismicity:

- In an area of moderate seismicity (yellow area), the Offeror's representation that there will be less than 10,000 ABOA SF of Federally leased space in the offered building upon commencement of the lease term. (Seismic Form D)
- In an area of high seismicity (red area), the Offeror's representation that the offered building is a one-story building of steel light frame or wood construction with less than 3,000 ABOA SF. (Seismic Form D)
- Detached one- or two-family dwelling located where $S_{DS} < 0.4$ g, unless covered under an occupancy-based performance objective. (To make this determination, consult with the regional seismic engineer.)

Unless claiming an exemption as described above, Offerors with existing buildings must submit one of three seismic forms:

- Benchmark Certificate (Seismic Form A),
- Existing Buildings Certificate (Seismic Form B), or
- Building Retrofit Commitment (Seismic Form C, Part 1).

If using one of the certificates (Seismic Form A or B), the completed certificate must be signed and stamped by a licensed engineer and be accompanied by appropriate documentation as indicated on the certificate form. An existing building certificate must certify that the building does or does not meet the Life Safety performance standard of RP 8.

For new construction, the Offeror must complete and sign the "Preaward Commitment" in Seismic Form C, Part 2. The Offeror must specify the engineer responsible for designing the building and the applicable design code.

c. Award decision process

Prior to award, the Lease Contracting Officer must review the seismic form supplied by the Offeror to determine whether the building meets the requirements of the Standards by one of the methods listed in paragraph 3b.

If the Lease Contracting Officer receives one or more offers that are in full compliance with the Standards and the requirements of the RLP, any buildings that do not meet the Standards become ineligible for award.

Generally, one or more of the buildings will meet the Standards. However, if none of the buildings meet the Standards, then the Lease Contracting Officer must consider expanding the delineated area to bring in additional buildings that may meet the Standards. If the delineated area cannot be expanded, the Lease Contracting Officer, in consultation with the seismic engineer, must consider the level of seismic safety along with other factors in the RLP in making the award decision.

d. Preparing the Lease

The next step in the process is creating the Lease, which is the responsibility of the Leasing Specialist or Lease Contracting Officer. The appropriate seismic lease language, along with hidden (blue) text instructions, is located in Attachment 3 of this appendix. The language and instructions have also been added to the Lease models. For buildings that meet the Standards without promising seismic retrofit or new construction or are eligible for award despite not meeting the Standards, no additional lease language addressing seismic safety is required. For offers that include an agreement to retrofit the building to meet the Standards, the Leasing Specialist must follow the instructions in Attachment 3 and the RLP template for adding the retrofit and post award submittal requirements to the lease. For new construction, the Leasing Specialist must

retain the Seismic New Construction paragraph, which addresses the Lessor's post-award compliance responsibilities.

e. Post-award requirements for Seismic Retrofit or New Construction

Leases for new construction or seismic retrofits have post-award requirements. The Offeror must submit post-award documentation. These requirements are outlined below:

Pre-construction submittals (for retrofit only)

- Milestone project schedule (design start, submit for permits, permits approved, construction start, construction finish, etc.),
- Final design and construction documents for seismic retrofit, including structural calculations, drawings, and specifications, or
- Geotechnical report.

Inspections during construction (for retrofit only)

- Special inspections by the Lessor's engineer to meet the requirements of the International Building Code (IBC), Chapter 17.

Pre-occupancy/Acceptance

- For seismic retrofits: confirmation by the Lessor's engineer using the Certificate of Seismic Compliance Retrofitted Buildings (Seismic Form E). This certificate is required prior to space acceptance.
- For new construction: confirmation by the Lessor's engineer using the Certificate of Seismic Compliance New Building (Seismic Form F). This certificate is required prior to space acceptance.

4. RP 8 Exemptions

RP 8, Section 1.3 provides ten exemptions for buildings that are not expected to pose a significant safety risk. The full text from Section 1.3 is located in Attachment 4.

The exemptions discussed in this appendix are based on the Life Safety based performance objective. If a higher performance objective is designated (occupancy based or mission critical facilities), the Leasing Specialist must contact the regional seismic engineer for further guidance.

How exemptions are applied to leasing

Exemptions "a" and "b" are location based, covering buildings in areas with low to very low levels of seismic activity. On the seismic map (which is located in paragraph 2b of this appendix), these areas are shaded green. Any facilities in the green area are exempt from the seismic requirements of this RLP and the Lease.

Exemption "c" is for detached one- and two-family dwellings in a seismic area where $S_{DS} < 0.4$ g. Please note this area cannot be determined by looking at the map. These are rare and are not

part of typical lease transactions. Therefore, the Leasing Specialist must consult the regional seismic engineer for a determination.

Exemption "d" is for building structures that people will occupy for less than 2 hours a day, which is known as incidental human occupancy. This exemption may be used, for example, for buildings at antenna sites, non-manned storage buildings, and similar locations.

Exemption "e" is for one-story buildings of steel light frame or wood construction with areas less than 3,000 ABOA SF. Anytime this type of building is leased, it is exempt.

Exemptions "f" and "g" are for buildings scheduled for demolition and buildings in foreclosure. These exemptions do not have any application in GSA lease procurements. Procurements for less than 5 years are already exempt (see following paragraph) and the demolition exemption should not be used for procurements that are 5 years or longer. Since being in foreclosure is a temporary condition, an offeror cannot rely on the foreclosure exemption as a basis for compliance with the Standards for the term of the lease.

Exemptions "h" and "j" are for non-Federally owned buildings, where the Federal Government has short-term leases. To be exempt, the buildings must either (1) have a remaining useful life of less than five years or (2) fulfill an agency need for less than 5 years. Therefore, Leases of less than 5 years are exempt.

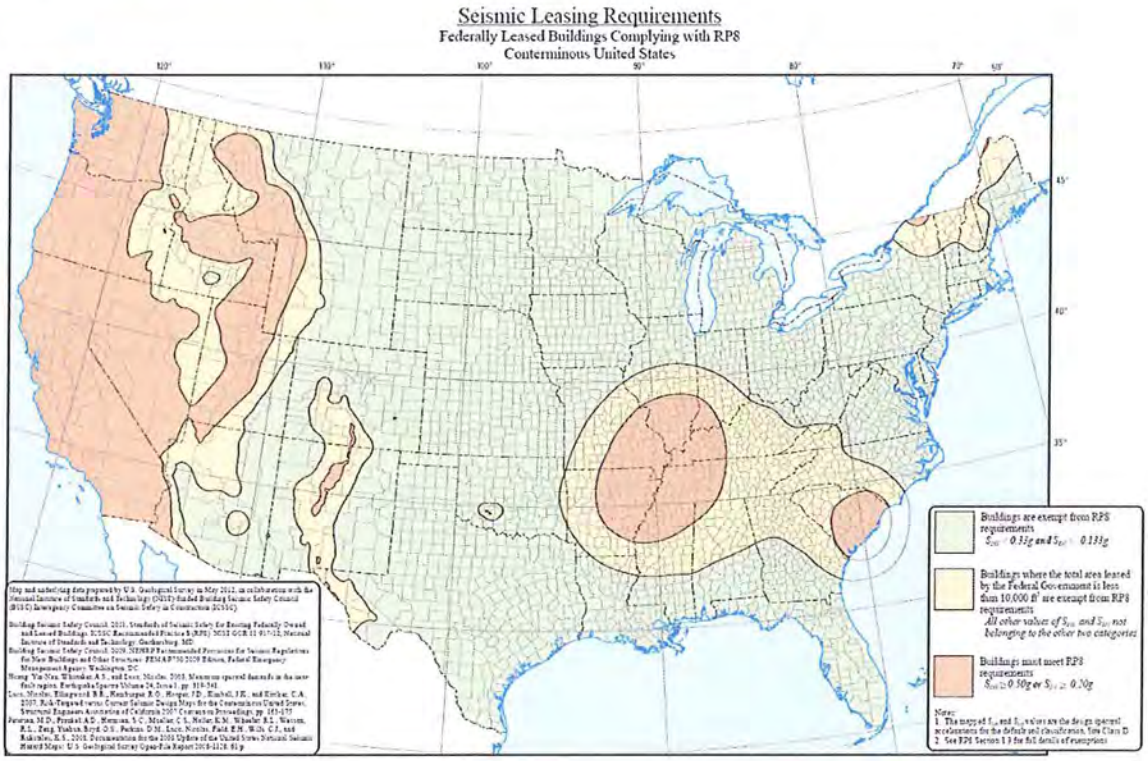
Exemption "i" is for non-Federally owned buildings in a moderate seismicity area (the yellow area of the map in paragraph 2.b) that contain a total area leased by the Federal Government of less than 10,000 ABOA SF. The Federal Government, including GSA, agencies with delegated authority, or agencies with statutory authority, may have other ongoing procurements or existing leases in the delineated area. Offerors must represent that if awarded this Lease, **the offered building** would not have greater than or equal to 10,000 ABOA SF of space leased to the Federal Government.

In addition to the exemptions in Section 1.3 of RP 8, buildings that qualify as Benchmark Buildings in accordance with Table 1-1 in RP 8 are deemed to comply with the structural evaluation and retrofitting provisions of RP 8. Buildings can qualify as Benchmark Buildings either because they were originally constructed in accordance with a qualifying code or because they have been retrofitted to meet the requirements of a qualifying code.

Attachment 1: RLP Seismic Paragraphs

THE FOLLOWING ARE EXEMPT FROM THE SEISMIC STANDARDS AND ALL SEISMIC LEASING PARAGRAPHS, AND THE ATTACHMENTS CAN BE DELETED:

- THE LEASE IS FOR LESS THAN FIVE (5) YEARS,
- THE LEASE IS FOR BUILDING STRUCTURES THAT ARE INTENDED ONLY FOR INCIDENTAL HUMAN OCCUPANCY (OCCUPIED BY PEOPLE FOR TWO HOURS OR LESS PER DAY),
- DETACHED ONE- AND TWO-FAMILY DWELLINGS LOCATED WHERE S_{DS} < 0.4 G. (CHECK WITH THE REGIONAL SEISMIC ENGINEER TO DETERMINE THE SEISMICITY OF THE DELINEATED AREA), OR
- THE DELINEATED AREA IS IN THE GREEN AREA (LOW AND VERY LOW SEISMICITY) IN THE SEISMIC LEASING REQUIREMENTS MAP
- (SEE BELOW FOR MAP AND ADDITIONAL INSTRUCTIONS).



THE ABOVE MAP DESIGNATES THE LEASING SEISMIC AREAS.

LOCATE THE DELINEATED AREA ON THE SEISMIC LEASING REQUIREMENTS MAP, WHICH IS AVAILABLE AT www.gsa.gov/portal/content/101286. IF IT IS CLEARLY IN THE GREEN, YELLOW, OR RED AREAS, FOLLOW THE INSTRUCTIONS BELOW. IF THE LOCATION IS CLOSE TO A BORDER OF TWO AREAS, CONTACT THE REGIONAL SEISMIC ENGINEER FOR ASSISTANCE WITHDETERMINING WHICH AREA THE BUILDING IS LOCATED IN.

GREEN AREA
IF THE DELINEATED AREA LIES IN AN AREA OF LOW AND VERY LOW SEISMICITY, THE PROJECT IS EXEMPT FROM THE REQUIREMENTS OF RP 8.

ACTION REQUIRED: **DELETE THE FOLLOWING PARAGRAPHS FROM THE RLP:**

- **SEISMIC SAFETY FOR EXISTING CONSTRUCTION – MODERATE SEISMICITY**
- **SEISMIC SAFETY FOR EXISTING CONSTRUCTION – HIGH SEISMICITY**

DO NOT ATTACH THE OFFER FORM PACKAGE, SEISMIC REQUIREMENTS, TO THE RLP/LEASE OFFER PACKAGE.

YELLOW AREA
IF THE DELINEATED AREA LIES IN AN AREA OF MODERATE SEISMICITY, THE PROJECT IS SUBJECT TO THE REQUIREMENTS OF RP 8. THE ONE EXCEPTION IS THAT A BUILDING CONTAINING LESS THAN 10,000 ABOA SF RENTED BY THE GOVERNMENT IS EXEMPT. BECAUSE THE FEDERAL GOVERNMENT, INCLUDING GSA, AGENCIES WITH DELEGATED AUTHORITY, OR AGENCIES WITH STATUTORY AUTHORITY, MAY HAVE OTHER ONGOING PROCUREMENTS OR EXISTING LEASES IN THE DELINEATED AREA, OFFERORS MUST REPRESENT THAT, IF AWARDED THIS LEASE, THE OFFERED BUILDING WILL HAVE LESS THAN 10,000 ABOA SF OF SPACE LEASED TO THE FEDERAL GOVERNMENT. THIS IS COVERED IN MODERATE SEISMICITY PARAGRAPH, SUB-PARAGRAPH B.1.

ACTION REQUIRED:
INCLUDE IN THE RLP:
- **SEISMIC SAFETY FOR EXISTING CONSTRUCTION – MODERATE SEISMICITY**

DELETE FROM THE RLP:
- **SEISMIC SAFETY FOR EXISTING CONSTRUCTION – HIGH SEISMICITY**

ACTION REQUIRED: ATTACH THE OFFER FORM PACKAGE, SEISMIC REQUIREMENTS, TO THE RLP/LEASE OFFER PACKAGE:

RED AREA
IF THE DELINEATED AREA LIES IN AN AREA OF HIGH AND VERY HIGH SEISMICITY, THE PROJECT IS SUBJECT TO THE REQUIREMENTS OF RP 8. THE ONE EXCEPTION IS THAT A ONE-STORY BUILDING OF STEEL LIGHT FRAME OR WOOD CONSTRUCTION WITH LESS THAN 3,000 ABOA SF OF SPACE IN THE BUILDING IS EXEMPT. THIS IS COVERED UNDER PARAGRAPH, SUB-PARAGRAPH B.1OF THE HIGH SEISMICITY PARAGRAPH.

ACTION REQUIRED: DELETE THE FOLLOWING FROM THE RLP:
- SEISMIC SAFETY FOR EXISTING CONSTRUCTION – MODERATE SEISMICITY

INCLUDE IN THE RLP:
- SEISMIC SAFETY FOR EXISTING CONSTRUCTION – HIGH SEISMICITY

ACTION REQUIRED: ATTACH THE OFFER FORM PACKAGE, SEISMIC REQUIREMENTS, TO THE RLP/LEASE OFFER PACKAGE:
SEISMIC SAFETY – MODERATE SEISMICITY (SEP 2012)

A. The Government intends to award a Lease to an Offeror of a Building that is in compliance with the Seismic Standards. If an offer is received which is in compliance with the Seismic Standards and the other requirements of this RLP, then other offers which do not comply with the Seismic Standards will not be considered. If none of the offers is in compliance with the Seismic Standards, the LCO will make the award to the Offeror whose offer meets the other requirements of this RLP and provides the best value to the Government, taking into account price, seismic safety and any other award factors specified in this RLP.

B. An offered Building will be considered to be in compliance with the Seismic Standards if it meets one of the following conditions:

1. The offer include a representation that the Building will have less than 10,000 ABOA SF of Space leased to the Federal Government upon commencement of the lease term (Seismic Form D),
2. The offer includes a Seismic Certificate certifying that the Building is a Benchmark Building (Seismic Form A).
3. The offer includes a Seismic Certificate based on a Tier I Evaluation showing that the Building meets the Seismic Standards (Seismic Form B). The submission must include the checklists and backup calculations from the Tier 1 Evaluation.
4. The offer includes a Seismic Certificate based on a Tier 2 or Tier 3 Evaluation showing that the Building complies with the Seismic Standards (Seismic Form B). If the certificate is based on a Tier 2 or Tier 3 Evaluation, the data, working papers, calculations and reports from the evaluation must be made available to the Government.
5. The offer includes a commitment to retrofit the Building to satisfy all of the Basic Safety Objective requirements of ASCE/SEI 41 (Seismic Form C, Part 1). If the Offeror proposes to retrofit the Building, the offer must include a Tier 1 report with all supporting documents, a narrative explaining the process and scope of retrofit, and a schedule for the seismic retrofit. The Offeror shall provide a construction schedule, concept design for the seismic upgrade, and supporting documents for the retrofit, including structural calculations, drawings, specifications, and geotechnical report to the Government for review and approval prior to award. The documentation must demonstrate the seismic retrofit will meet the seismic standards and be completed within the time frame required.
6. The offer includes a pre-award commitment to construct a new Building, using local building codes (Seismic Form C, Part 2).

C. The LCO may allow an Offeror to submit a Seismic Certificate after the deadline for final proposal revisions. However, the LCO is not obligated to delay award in order to enable an Offeror to submit a Seismic Certificate.

D. **Definitions.** For the purpose of this paragraph:

- "ASCE/SEI 31" means the American Society of Civil Engineers standard, Seismic Evaluation of Existing Buildings. You can purchase ASCE/SEI from ASCE at (800) 548-2723 or by visiting http://www.pubs.asce.org.

- "ASCE/SEI 41" means American Society of Civil Engineers standard, Seismic Rehabilitation of Existing Buildings. You can purchase ASCE/SEI from ASCE at (800) 548-2723 or by visiting http://www.pubs.asce.org.

- "Benchmark Building" means a building that was designed and built, or retrofitted, in accordance with the seismic provisions of the applicable codes specified in Section 1.3.1 of RP 8.

- Engineer" means a professional engineer who is licensed in Civil or Structural Engineering and qualified in the structural design of buildings. They must be licensed in the state where the property is located.

- "RP 8" means "*Standards of Seismic Safety for Existing Federally Owned and Leased Buildings ICSSC Recommended Practice 8 (RP 8)*," issued by the Interagency Committee on Seismic Safety in Construction as ICSSC RP 8 and the National Institute of Standards and Technology as NIST GCR 11-917-12. RP 8 can be obtained from http://www.wbdg.org/ccb/NIST/nist_gcr11_917_12.pdf

- "Seismic Certificate" means a certificate executed and stamped by an Engineer on the appropriate Certificate of Seismic Compliance form included with this RLP together with any required attachments.

- "Seismic Standards" means the requirements of RP 8 Section 2.2 for Life Safety Performance Level in ASCE/SEI 31 or the Basic Safety Objective in ASCE/SEI 41, unless otherwise specified.

- "Tier 1 Evaluation" means an evaluation by an Engineer in accordance with Chapters 2.0 and 3.0 of ASCE/SEI 31. A Tier 1 Evaluation must include the appropriate Structural, Nonstructural and Geologic Site Hazards and Foundation Checklists.

- "Tier 2 Evaluation" means an evaluation by an Engineer in accordance with Chapter 4.0 of ASCE/SEI 31.

- "Tier 3 Evaluation" means an evaluation by an Engineer in accordance with Chapter 5.0 of ASCE/SEI 31.

(end of paragraph)

SEISMIC SAFETY – HIGH SEISMICITY (SEP 2012)

A. The Government intends to award a Lease to an Offeror of a Building that is in compliance with the Seismic Standards. If an offer is received which is in compliance with the Seismic Standards and the other requirements of this RLP, then other offers which do not comply with the Seismic Standards must not be considered. If none of the offers is in compliance with the Standards, the LCO will make the award to the Offeror whose offer meets the other requirements

B. of this RLP and provides the best value to the Government, taking into account price, seismic safety and any other award factors specified in this RLP.

C. An offered Building will be considered to be in compliance with the Seismic Standards if it meets one of the following conditions:

1. The offer includes a representation that the Premises will be in a one-story Building of steel light frame or wood construction with less than 3,000 ABOA SF of space in the Building (Seismic Form D).
2. The offer includes a Seismic Certificate certifying that the Building is a Benchmark Building (Seismic Form A).
3. The offer includes a Seismic Certificate based on a Tier I Evaluation showing that the Building meets the Seismic Standards (Seismic Form B). The submission must include the checklists and backup calculations from the Tier 1 Evaluation.
4. The offer includes a Seismic Certificate based on a Tier 2 or Tier 3 Evaluation showing that the Building complies with the Seismic Standards (Seismic Form B). If the certificate is based on a Tier 2 or Tier 3 Evaluation, the data, working papers, calculations and reports from the evaluation must be made available to the Government.
5. The offer includes a commitment to retrofit the Building to satisfy all of the Basic Safety Objective requirements of ASCE/SEI 41 (Seismic Form C, Part 1). If the Offeror proposes to retrofit the Building, the offer must include a Tier 1 report with all supporting documents, a narrative explaining the process and scope of retrofit and a schedule for the seismic retrofit. The Offeror shall provide a construction schedule, concept design for the seismic upgrade and supporting documents for the retrofit, including structural calculations, drawings, specifications, and geotechnical report to the Government for review and approval prior to award. The documentation must demonstrate the seismic retrofit will meet the seismic standards and be completed within the time frame required.
6. The offer includes a pre-award commitment to construct a new Building, using local building codes (Seismic Form C, Part 2).

D. The LCO may allow an Offeror to submit a Seismic Certificate after the deadline for final proposal revisions. However, the LCO is not obligated to delay award in order to enable an Offeror to submit a Seismic Certificate.

E. **Definitions.** For the purpose of this paragraph:

- "ASCE/SEI 31" means the American Society of Civil Engineers standard, Seismic Evaluation of Existing Buildings. You can purchase ASCE/SEI from ASCE at (800) 548-2723 or by visiting http://www.pubs.asce.org.

- "ASCE/SEI 41" means American Society of Civil Engineers standard, Seismic Rehabilitation of Existing Buildings. You can purchase ASCE/SEI from ASCE at (800) 548-2723 or by visiting http://www.pubs.asce.org.

- "Benchmark Building" means a building that was designed and built, or retrofitted, in accordance with the seismic provisions of the applicable codes specified in Section 1.3.1 of RP 8.

- Engineer" means a professional engineer who is licensed in Civil or Structural Engineering and qualified in the structural design of buildings. They must be licensed in the state where the property is located.

- "RP 8" means *"Standards of Seismic Safety for Existing Federally Owned and Leased Buildings ICSSC Recommended Practice 8 (RP 8),"* issued by the Interagency Committee on Seismic Safety in Construction as ICSSC RP 8 and the National Institute of Standards and Technology as NIST GCR 11-917-12. RP 8 can be obtained from http://www.wbdg.org/ccb/NIST/nist_gcr11_917_12.pdf

- "Seismic Certificate" means a certificate executed and stamped by an Engineer on the appropriate Certificate of Seismic Compliance form included with this RLP together with any required attachments.

- "Seismic Standards" means the requirements of RP 8 Section 2.2 for Life Safety Performance Level in ASCE/SEI 31 or the Basic Safety Objective in ASCE/SEI 41, unless otherwise specified.

- "Tier 1 Evaluation" means an evaluation by an Engineer in accordance with Chapters 2.0 and 3.0 of ASCE/SEI 31. A Tier 1 Evaluation must include the appropriate Structural, Nonstructural and Geologic Site Hazards and Foundation Checklists.
- "Tier 2 Evaluation" means an evaluation by an Engineer in accordance with Chapter 4.0 of ASCE/SEI 31.
-
- "Tier 3 Evaluation" means an evaluation by an Engineer in accordance with Chapter 5.0 of ASCE/SEI 31.

(end of paragraph)

Attachment 2: Seismic Offer Forms

Instructions to Leasing Specialists:

The following seismic forms are intended to be issued as an attachment to the RLP package. Therefore, unless the transaction is exempted as described under paragraph 3a of this Appendix, the LCO must attach the entire group of six Seismic Forms to the RLP package. The Offeror/Offeror's engineer must fill out the appropriate form(s) among the four pre-award submittals to complete his or her offer. The pre-occupancy submittals are also included as part of the RLP package, to inform Offerors of potential post-award obligations.

RLP OFFER ATTACHMENT - SEISMIC OFFER FORMS

Instructions for Offeror:

Forms A through D are pre-award submittals. Depending upon the form, either the Offeror or the Offeror's engineer shall complete and sign the form to confirm seismic compliance with RP 8. When the engineer fills out a form, he or she is also required to stamp it. The Offeror's engineer shall represent whether the Building meets RP 8 standards, using Form A for Benchmark Buildings or Form B for other existing buildings. If the engineer's certification indicates that the Building does not meet RP 8 standards, the Offeror shall agree to retrofit the building to meet the standards, using Form C, Part 1. Offerors providing new construction shall commit to a design code, using Form C, Part 2. Offerors may represent that their building meets an exemption criteria, using Form D.

Forms E and F are post-award submittals. They only apply when the Offeror has agreed to either retrofit an existing building (use Form E) or is constructing a new building (use Form F). Prior to the Government accepting leased space, the Lessor's engineer shall complete, stamp, and sign the appropriate representation.

The forms must include the supporting documentation stated in the RLP and Lease.

Below is a detailed explanation of each of the forms.

SEISMIC FORM A - CERTIFICATE OF SEISMIC COMPLIANCE BENCHMARK BUILDING

A benchmark building is one that was designed and built or retrofitted in accordance with structural provisions that are considered to provide acceptable life-safety protection. RP 8, Section 1.3, Table 1-1 shows the construction codes that qualify a building as a Benchmark Building. If a building qualifies, no additional hazards need be considered. If the seismicity of a region has changed since the benchmark dates listed in the table, the building must be evaluated in accordance with the now current or greater seismicity of the region to be compliant with the RP 8 Standards.

SEISMIC FORM B - CERTIFICATE OF SEISMIC COMPLIANCE EXISTING BUILDING

The engineer shall evaluate the building to determine compliance with the Life Safety Performance Level. He or she shall use RP 8 Chapter 3 and ASCE/SEI 31 to determine compliance. The evaluation must include the appropriate Structural, Nonstructural, and Geologic Site Hazard and Foundation Checklists with backup calculations.

SEISMIC FORM C – BUILDING RETROFIT OR NEW CONSTRUCTION PRE-AWARD COMMITMENT

Part 1 only applies to planned retrofit of an existing building. The Offeror shall identify the engineer in charge of the seismic retrofit and commit that the retrofit's design and construction will conform to the requirements of ASCE/SEI 41, Basic Safety Objective. The commitment must also include a Tier 1 report with supporting documentation, a narrative, scope, and schedule of the proposed renovations.

Part 2 only applies to new construction. The Offeror shall identify the engineer in charge of the design of the building and specify which building code he or she is using to design and construct.

SEISMIC FORM D – OFFEROR'S REPRESENTATION OF EXEMPTION FROM SEISMIC STANDARDS

The Offeror may claim an exemption from seismic compliance if representing that the offered building meets either of the following exemptions:

- In an area of moderate seismicity, the total space leased in the building by the Federal government, including the offered space, will be less than 10,000 ABOA SF upon commencement of the lease term.
- In an area of high to very high seismicity, the offered building is a one-story building of steel light frame or wood construction with less than 280 m^2 (3,000 ABOA SF).

SEISMIC FORM E - CERTIFICATE OF SEISMIC COMPLIANCE RETROFITTED BUILDING

The engineer in charge of the building's structural retrofit of the leased building shall certify that the design standard was the Basic Safety Objective as set forth in ASCE/SEI 41, Seismic Rehabilitation of Existing Buildings, and that the building was retrofitted to that standard.

SEISMIC FORM F - CERTIFICATE OF SEISMIC COMPLIANCE NEW BUILDING

The engineer shall certify that the design and construction of new buildings or additions to existing buildings conforms to the seismic provisions of the latest edition of the applicable State or local government codes under which it was built.

DEFINITIONS - The following definitions apply to the completion of the above-referenced forms:

1. **Engineer** means a professional engineer who is licensed in Civil or Structural Engineering and qualified in the structural design of buildings. They must be licensed in the state where the property is located.

2. **ASCE/SEI 31** means the American Society of Civil Engineers standard, Seismic Evaluation of Existing Buildings." ASCE/SEI 31 can be purchased from ASCE at (800) 548-2723, or by visiting http://www.pubs.asce.org.

3. **ASCE/SEI 41** means American Society of Civil Engineers standard, Seismic Rehabilitation of Existing Buildings." ASCE/SEI 41 can be purchased from ASCE at (800) 548-2723, or by visiting http://www.pubs.asce.org.

4. **Seismic Certificate** means a certificate executed and stamped by an Engineer on the appropriate Certificate of Seismic Compliance form included with this solicitation together with any required attachments.

5. **RP 8** means "Standards of Seismic Safety for Existing Federally Owned and Leased Buildings ICSSC Recommended Practice 8 (RP 8)," issued by the Interagency Committee on Seismic Safety in Construction as ICSSC RP 8 and the National Institute of Standards and Technology as NIST GCR 11-917-12. You can obtain RP 8 from the Building and Fire Research Laboratory, National Institute of Standards and Technology, Gaithersburg, MD 20899, or download copy athttp://www.wbdg.org/ccb/NIST/nist_gcr11_917_12.pdf.

SEISMIC FORM A

CERTIFICATE OF SEISMIC COMPLIANCE
BENCHMARK BUILDING

Date: _____

This affirms that _____ served as engineer in charge of the seismic evaluation of the building located at _____.

The building has the following characteristics:

ASCE Building Type:	No. of Stories:	Approx. Area:
Building Design Code:	Year of Design Code:	Year of Construction:

On the basis of the building characteristics and to the extent permitted by this level of evaluation, it is my opinion that the subject Building qualifies as a Benchmark Building as indicated in ASCE/SEI 31, Table 1-1.

Affix Stamp and Sign Here

Engineer's Name:

Firm:

Address:

Telephone:

License No.:

License State:

Expiration Date:

SEISMIC FORM B

CERTIFICATE OF SEISMIC COMPLIANCE
EXISTING BUILDING

Date: _____

This affirms that _____ served as engineer in charge of the seismic evaluation of the building located at _____.

The building has the following characteristics:

ASCE Building Type:	No. of Stories:	Approx. Area:
Building Design Code:	Year of Design Code:	Year of Construction:

I have evaluated this building at the Life Safety Performance Level as set forth in the ICSSC RP 8, Standards of Seismic Safety for Existing Federally Owned and Leased Buildings, using ASCE/SEI 31 methodology:

___Tier 1 Evaluation

___Tier 2 Evaluation

___Tier 3 Evaluation

___Other (please explain below)

Documentation of this evaluation must be attached to this Certificate.

On the basis of the building characteristics and to the extent permitted by this level of evaluation it is my opinion that subject Building (*check one*) ☐ does / ☐ does not meet the Life Safety Performance Level of ICSSC RP 8.

Affix Stamp and Sign Here

Engineer's Name:
Firm:
Address:
Telephone:
License No.:
License State:

Expiration Date:

Comments:

Attach: ASCE/SEI 31 Checklist(s) Structural, Nonstructural, and Geologic Site Hazards and Foundation.

SEISMIC FORM C

BUILDING RETROFIT OR NEW CONSTRUCTION
PREAWARD COMMITMENT

PART 1

PREAWARD COMMITMENT TO RETROFIT BUILDING:

Date: _____

This affirms that _____ shall serve as the engineer in charge of the seismic retrofit of the building located at _____. The retrofit must be designed to meet the **Basic Safety Objective,** as set forth in ASCE/SEI 41 Seismic Rehabilitation of Existing Buildings.

In accordance with the requirements of this Standard and the seismic paragraph in the Request for Lease Proposals (RLP), our offer includes a commitment to retrofit the building to satisfy all of the Basic Safety Objective requirements of ASCE/SEI 41. The offer includes a Tier 1 report with all supporting documents, a narrative explaining the process, scope of renovations, and a schedule for the seismic retrofit. Documentation shall be provided before award that demonstrates the seismic retrofit will meet the seismic standards and be completed within the time frame required.

PART 2

PREAWARD COMMITMENT TO CONSTRUCT A NEW BUILDING:

Date: _____

This affirms that _____ will serve as the engineer in charge of the structural design of the building located at _____. The criteria for design must be the _____ edition of the _____ building code.

In accordance with the requirements of this code, we prepared a quality assurance plan that included requirements for testing and inspecting critical elements of the structure and also periodic observation by our staff. We reviewed special inspection and testing reports prepared by the inspection agency and contractor submittals. On the basis of this, and to the extent permitted by this level of construction surveillance, it is my opinion that the Building was designed and constructed in conformance with the requirements of the above code.

The building has the following characteristics:

Building Type:	Building Height:	Approx. Area:
Building Design Code:	Year of Design Code:	Year of Construction:

OFFEROR

SIGNATURE	NAME OF SIGNER

SEISMIC FORM D

OFFEROR'S REPRESENTATION OF EXEMPTION FROM SEISMIC STANDARDS

Date: _____

I represent that my building is exempt from the requirements of RP 8 because:

☐ The Building is located in an area of medium seismicity and the Building will have less than 10,000 ABOA SF of space leased to the Federal Government upon commencement of the lease term.

☐ The Building is located in an area of high to very high seismicity, and it is a one-story building with a steel light frame or wood construction with less than 3,000 ABOA SF of space in the building.

_____

_____

OFFEROR

SIGNATURE	NAME OF SIGNER

SEISMIC FORM E

CERTIFICATE OF SEISMIC COMPLIANCE
RETROFITTED BUILDING

PRE-OCCUPANCY CERTIFICATE:

Date: _____

This affirms that _____ served as the engineer in charge of the structural retrofit of the building located at _____. The standard for design was the Basic Safety Objective as set forth in ASCE/SEI 41 Seismic Rehabilitation of Existing Buildings.

In accordance with this Standard, we prepared a quality assurance plan, which requires staff to observe, test, and inspect the seismic retrofit work. We have also reviewed special inspection and testing reports prepared by the inspection agency and contractor submittals. On the basis of this, and to the extent permitted by this level of construction surveillance, it is my opinion that building was designed and constructed to conform with the requirements of the Standard listed above.

The building has the following characteristics:

ASCE Building Type:	No. of Stories:	Approx. Area:
Building Design Code:	Year of Design Code:	Year of Construction:
Retrofit Design Standard:	Year of Retrofit Standard:	Year of Retrofit:

Documentation of this retrofit must be available to GSA.

On the basis of the above, it is my opinion that subject Building ___ does, ___ does not meet the Basic Safety Objective - Performance Level as set forth in ASCE/SEI 41, Seismic Rehabilitation of Existing Buildings.

Affix Stamp and Sign Here

Engineer's Name:
Firm:
Address:

Telephone:
License No.:
State:
Expiration Date:

SEISMIC FORM F

CERTIFICATE OF SEISMIC COMPLIANCE
NEW BUILDING

PRE-OCCUPANCY CERTIFICATE:

Date: _____

This affirms that _____ served as the engineer in charge of the structural design of the building located at _____. The criteria for design were the _____ edition of the _____ code.

In accordance with the requirements, we prepared a quality assurance plan, which requires staff to observe, test, and inspect the structure's critical elements. We have also reviewed special inspection and testing reports prepared by the inspection agency and contractor submittals. On the basis of this, and to the extent permitted by this level of construction surveillance, it is my opinion that the building was designed and constructed to conform with the requirements of the code listed above.

The building has the following characteristics:

Building Type:	Bldg. Height:	Approx. Area:
Building Design Code:	Year of Design Code:	Year of Construction:

Affix stamp and sign here

Engineer's Name:

Firm:

Address:

Telephone:

License No.:

State:

Expiration Date:

Comments:

Attachment 3: Lease Seismic Paragraphs

The Lease template has been updated. It now includes paragraphs to account for new construction or for retrofitting buildings to meet the seismic standards of RP 8.

However, in order for the conditional language to take effect, the Leasing Specialist must add the suggested language to the Building Improvements and Documents Incorporated In The Lease paragraphs to codify the commitment by the Lessor to make these retrofits and provide applicable seismic submittals.

The following paragraphs require the Leasing Specialist to identify and transcribe the commitments made during the offer stage on the final Lease document.

ACTION REQUIRED: THE LIST OF ATTACHMENTS IS NOT COMPREHENSIVE. ADJUST THE LIST AS APPROPRIATE FOR THE SPECIFIC TRANSACTION.
DELETE ANY ATTACHMENTS THAT ARE NOT APPLICABLE (FOR EXAMPLE, SEISMIC PRE-AWARD RETROFIT COMMITMENT, SMALL BUSINESS SUBCONTRACTING PLAN, ETC.)

NOTE: EXHIBITS SHOULD BE LABELED WITH SEQUENTIAL LETTERS.
AGENCY REQUIREMENTS REFER TO EITHER SPECIFIC REQUIREMENTS OR SPECIAL REQUIREMENTS, DEPENDING UPON WHETHER A TURN-KEY MODEL IS USED.
INCLUDE DIDS OBTAINED DURING NEGOTIATIONS WHEN USING STREAMLINED MODEL OPTION 3.
THE LCO MAY DECIDE IT IS MORE SUITABLE TO INCORPORATE SOME EXTENSIVE OR SENSITIVE DOCUMENTS BY REFERENCE, FOR EXAMPLE, THE COURTS DESIGN GUIDE.

DOCUMENTS INCORPORATED IN THE LEASE (SEP 2012)

The following documents are attached to and made part of the Lease:

DOCUMENT NAME	NO. OF PAGES	EXHIBIT
FLOOR PLAN(S)		
PARKING PLAN(S)		
AGENCY SPECIFIC/SPECIAL REQUIREMENTS (USE "SPECIFIC" ONLY FOR TURN-KEY MODELS. OTHERWISE USE "SPECIAL"		
SECURITY REQUIREMENTS		
SECURITY UNIT PRICE LIST		
GSA FORM 3517B, GENERAL CLAUSES		
GSA FORM 3518, REPRESENTATIONS AND CERTIFICATIONS		
SEISMIC FORM C, BUILDING RETROFIT OR NEW CONSTRUCTION PRE-AWARD COMMITMENT		
SMALL BUSINESS SUBCONTRACTING PLAN		
AMENDMENTS TO RLP NO. XXXXX		

(end of paragraph)

ACTION REQUIRED: USE THE FOLLOWING PARAGRAPH IF THE OFFER INCLUDED A COMMITMENT TO BUILDING UPGRADES IN ORDER TO BE ELIGIBLE FOR AWARD.
BE SPECIFIC IN DESCRIBING THE IMPROVEMENTS TO BE COMPLETED. IF NECESSARY, PROVIDE THE INFORMATION IN AN ATTACHMENT AS AN EXHIBIT, ADD THE STATEMENT "AS DESCRIBED IN THE ATTACHED EXHIBIT 'X,'" AND ATTACH THAT EXHIBIT TO THE LEASE
ADD OR DELETE SUB-PARAGRAPHS AS APPROPRIATE
LIST THE INFORMATION IN THE LETTERED SUB-PARAGRAPHS BELOW. EXAMPLES INCLUDE:

- FIRE PROTECTION AND LIFE SAFETY UPGRADES
- ABAAS UPGRADES
- SEISMIC RETROFIT: USE SUGGESTED LANGUAGE AS FOLLOWS: "THE LESSOR HAS COMMITTED ON SEISMIC FORM C (EXHIBIT _____ TO THIS LEASE) TO DO A SEISMIC RETROFIT, AND TO MEET ALL OF THE SEISMIC REQUIREMENTS IN THIS LEASE."
- ENERGY EFFICIENCY UPGRADES FOR ACTIONS EXEMPTED FROM ENERGY STAR LABEL REQUIREMENTS

IF THE OFFER DID NOT INCLUDE A COMMITMENT TO BUILDING UPGRADES, DELETE THIS PARAGRAPH

BUILDING IMPROVEMENTS (SEP 2012)

Before the Government accepts the space, the Lessor shall complete the following additional Building improvements:

A. _____
B. _____
C. _____

(end of paragraph)

The LCO must include the following paragraphs, which contain the seismic requirements conditional language, whenever the Lessor commits to a seismic retrofit or new construction.

ACTION REQUIRED: WHEN ISSUING AS PART OF THE INITIAL RLP PACKAGE:

- DELETE FOR AREAS OF LOW AND VERY LOW SEISMICITY (GREEN AREAS ON MAP).
- INCLUDE AREAS OF MODERATE, HIGH, AND VERY HIGH SEISMICITY (YELLOW AND RED AREAS ON MAP).

ACTION REQUIRED: WHEN DRAFTING THE FINAL LEASE:

- INCLUDE IF THE OFFER INCLUDED COMMITMENTS TO PERFORM SEISMIC RETROFITS.
- DELETE IF OFFER DOES NOT INCLUDE COMMITMENTS TO PERFORM SEISMIC RETROFITS.

SEISMIC RETROFIT (SEP 2012)

The following requirements apply to leases requiring seismic retrofit:

A. The Lessor shall provide a final construction schedule, all final design and construction documents for the seismic retrofit, including structural calculations, drawings, and specifications to the Government for review and approval prior to the start of construction. When required by local building code, a geotechnical report shall be made available to the Government.

B. The Lessor's registered civil or structural engineer shall perform special inspections to meet the requirements of Chapter 17 of the International Building Code (IBC).

C. For leases requiring seismic retrofit, the space will not be considered substantially complete until a Seismic Form E - Certificate Of Seismic Compliance - Retrofitted Building, certifying that the building meets the Basic Safety Objective of ASCE/SEI 41, executed by a registered civil or structural engineer, has been delivered to the LCO.

(end of paragraph)

ACTION REQUIRED: WHEN ISSUING AS PART OF THE INITIAL RLP PACKAGE:

- DELETE FOR AREAS OF LOW AND VERY LOW SEISMICITY (GREEN AREAS ON MAP).
- INCLUDE FOR AREAS OF MODERATE, HIGH, AND VERY HIGH SEISMICITY (YELLOW AND RED AREAS ON MAP).

ACTION REQUIRED: WHEN DRAFTING THE FINAL LEASE:

- INCLUDE IF THE OFFERED BUILDING WILL BE NEWLY CONSTRUCTED.
- DELETE IF OFFERED BUILDING WILL NOT BE NEWLY CONSTRUCTED.

SEISMIC SAFETY FOR NEW CONSTRUCTION (SEP 2012)

For leases requiring new construction, the space will not be considered substantially complete until the LCO receives the Seismic Form F, Certificate Of Seismic Compliance – New Building. This form must be completed by the civil or structural engineer and certify that the building was designed and constructed in accordance with the appropriate local code.

(end of paragraph)

Attachment 4: RP 8 Exemptions
The table below is taken directly from RP 8:

RP 8 - 1.3 Exemptions
The following buildings are exempt from the Standards:

a. All buildings located where $S_{DS} < 0.167$ g and $S_{D1} < 0.067$ g; where S_{DS} and S_{D1} are the Design Earthquake Spectral Response Acceleration Parameters at short periods and at a 1 second period, respectively, as defined in ASCE-7.

b. All buildings located where $S_{DS} < 0.330$ g and $S_{D1} < 0.133$ g unless designated for an occupancy-based performance objective;

c. Detached one- and two-family dwellings located where $S_{DS} < 0.4$ g unless designated for an occupancy-based performance objective;

d. Building structures that are intended only for incidental human occupancy or that are occupied by persons for a total of less than 2 hours a day, unless designated for an occupancy-based performance objective;

e. One-story buildings of steel light frame or wood construction with areas less than 280 m^2 (3000 ft^2), unless designated for an occupancy-based performance objective;

f. Buildings scheduled for demolition;*

g. Buildings in foreclosure;*

h. Non-Federally owned buildings leased by the Federal Government with temporary short-term leases;

i. Non-Federally owned buildings containing a total area leased by the Federal Government of less than 930 m^2 (10,000 ft^2) where $S_{DS} < 0.50$ g and $S_{D1} < 0.20$ g; or,

j. Buildings designated by the agency as having a remaining useful life of, or fulfilling an agency need for, less than five years.

***Exemptions f. and g. have been reviewed by GSA for leasing purposes. They have been determined to not apply to leased buildings.**