



METROPOLITAN TRANSPORTATION COMMISSION



ASSOCIATION OF BAY AREA GOVERNMENTS

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**BayAreaMetro.gov**

## *Memorandum*

TO: Regional Planning Committee

DATE: September 18,  
2018

FR: Executive Director

RE: Earthquake Field Guide and Home Safety Quiz

The Resilience Program has recently published two new resources designed to help Bay Area residents identify their earthquake housing risk – the Earthquake Field Guide and Earthquake Home Safety Quiz. These resources are intended to communicate earthquake risk to Bay Area residents; both through the Resilience Program website, and by providing a communication tool to local jurisdictions. Both resources are featured on a new website associated with the Resilience Program website ([resilience.abag.ca.gov](http://resilience.abag.ca.gov)), [homequakequiz.org](http://homequakequiz.org). The Field Guide and Home Safety Quiz are complementary resources that were designed to be used in parallel.

Both the projects were funded through the U.S. Geological Survey's Earthquake Hazards Program. The Quiz replaces an old home safety quiz which was last updated in 2003 and reflects updated methodology and a fresh user interface.

### **Field Guide**

The Field Guide consists of a print and online resource that illustrates identifying features through easy visual cues that point to whether a residential buildings belongs to one of the commonly known seismically vulnerable building types in the Bay Area. Research and observation of performance in past earthquakes has shown that certain common construction types have patterns of damage in earthquakes and are more likely to benefit from seismic retrofit to reduce risks. The Guide contains illustrations and descriptions of each of these types, with identifying features highlighted and explained, expected performance described, and next steps that users can take if they suspect they live in a vulnerable housing type. If users want more information, or do dive deeper into their home's vulnerabilities, they are directed online to take the Earthquake Home Safety Quiz. The Field Guide covers single family, multi family, and mobile homes.

The print version of the Field Guide is compact and pocket-friendly. Print copies are available to local jurisdictions and partner agencies. The online version of the Field Guide offers the same information in a web-friendly format, allowing users to access the information from their computer or smartphone.

### **Housing Quiz**

The online Home Safety Quiz prompts users to answer a series of questions about their home to determine if any potential vulnerabilities are present due to geologic hazards (liquefaction, landslide, and fault rupture), the building structure, or nonstructural components (fire hazards,

chimney hazards, etc). There are three versions of the quiz: for single family homes, for multi family residential buildings, and for mobile homes. Users select the most applicable quiz from the homequakequiz.org website and are taken to the appropriate quiz version. The quiz is adaptable based on answers, asking only the most relevant questions to the user based on their input. The quiz length averages 20 questions depending on quiz type and user answers. The quiz is designed to be user-friendly while still leading to meaningful outcomes; users are likely to be asked to peek under their home at their foundation, pull appliances away from the wall to check connections, and walk around the inside and outside of their homes to visually check for certain conditions. No contractor or engineer is required to successfully complete the quiz. The quiz can be used by homeowners, renters, or landlords.

Once users have submitted their answers, they receive a customized outcomes page that shows their results in a visual manner. Each potential area of vulnerability is described using four factors – how much it impacts the safety of the home before and after a retrofit, how much it impacts livability of the home before and after a retrofit, how much it costs to retrofit, and whether it is considered a high priority retrofit. There is also a written description of the vulnerability and its impacts, as well as resources to find more information or pursue retrofit. The outcomes page has a printer-friendly option so users can print out a customized report on their home to show a contractor, home inspector, or engineer. The outcomes page is designed to help users easily see which vulnerability is most critical, and make informed decisions about how to reduce their vulnerability.

### **Next Steps**

Jurisdictions can help by spreading the word about these resources to local residents. Each jurisdiction can take up to 10 printed copies of the Field Guide to share with staff and residents. Many jurisdictions have links on their websites to the old quiz; these links should be updated to reflect the new resources. The resources should be shared widely with various city departments (planning, housing emergency management), Community Emergency Response Teams (CERTs), neighborhood associations, community groups, and other jurisdictions. The resources can be used in conjunction with existing programs and outreach campaigns around seismic safety, housing, or local hazard mitigation planning. Additional copies of the printed Field Guide may be available by request.

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Steve Heminger

### **Attachments:**

- Presentation

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