

## ***Interactive comment on “Building and design defects observed in the residential sector and the types of damage observed in recent earthquakes in Turkey” by M. Tolga Çöğürçü***

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### **CORRECTIONS**

âĖ Page 1: The title of the paper reflects the content of the study. The new title of paper is: "CONSTRUCTION AND DESIGN DEFECTS IN THE RESIDENTIAL BUILDINGS AND OBSERVED EARTHQUAKE DAMAGE TYPES IN TURKEY"

âĖ Page 2: Abstract: The abstract of the paper is well organized. THANK YOU

âĖ Page 3: Paragraph 10: the following sentence must be removed.

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“A though earthquakes have tragic consequences for society, they also constitute a unique natural laboratory for civil engineers and architects” REMOVED

âĖ Page 3: The word “error” can be replaced with “mistake” or “fault”

“ERROR” WAS REPLACED WITH “MISTAKE” IN THE PAPER

âĖ Page 4: Since the contribution of the paragraph is limited, the following paragraph must be removed.

“The requirements established by earthquake-resistant building codes are designed to provide a minimum amount of safety for buildings. For better earthquake responses and 5 higher safety, it is necessary to satisfy conditions that exceed the regulation conditions. There are no obstacles to providing most of the strength and ductility required by code.

Although earthquake-resistant structural design depends on many uncertainties, it can be done to comply with certain conditions. Reinforced concrete buildings can be damaged heavily or collapse in earthquakes due to failures and errors at the stage of design and production. The failures do not represent defects in the reinforced concrete itself.” REMOVED

âĖ Page 5: There are too much information about the geology of the Turkey, the following paragraph must be removed.

“An ancient ocean connecting the Atlantic Ocean and the Mediterranean Sea to the Indian Ocean began disappearing due to the northward movement of the Arabian plate. Thus, the Arabian continent and Eurasian continent started to collide. Anatolia is in this collision zone. The collision causes the continental crust in the east of Anatolia to be thickened, and this thickening still continues. East Anatolia has risen approximately 2000 m over the course of several million years. Approximately 5 million years ago, the North Anatolia fault and East Anatolia fault combined in Karliova as a result of pinching of the Arabian plate, which moves northward by 2 m every 100 years. The Anatolian

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plate has moved west ever since.” REMOVED

âĖ Page 6: The seismic map of Turkey, reference of this map must be given in order to prevent copyright problems.

âĖ Page 7: Section 3.1, the word “illegal” is can be replaced with, “ building stock. . . . has no legal or formal authorization.

“ILLEGAL” WAS REPLACED WITH “HAS NO LEGAL”IN THE PAPER

âĖ Page 9: Section 3.2.1, the word “wrong” can be replaced with “deficient” âĖ “WRONG” WAS REPLACED WITH “DEFICIENT”IN THE PAPER

âĖ Page 9: It is very difficult and sometimes impossible for a civil engineer to convert an existing structure structural system to an earthquake-resistant one.

“STRUCTURE” WAS REPLACED WITH “STRUCTURAL SYSTEM ”IN THE PAPER

âĖ Page 10: The following sentence can be omitted and corresponding figure can be removed. CORRECTED âĖ Page 32: The figure can be redrawn.

“Structural frames with infilled walls and the model of the structure are shown in Fig. 4” REMOVED

âĖ Page 33-34: Figures can be combined in one figure. REMOVED

âĖ Page 35: This figure has no contribution, can be removed. REMOVED

âĖ Page 37: I think everybody knows how to calculate relative displacements, this figure can be removed. REMOVED

âĖ Page 44: There are too much photos. First and last photos can be omitted.

FIRST AND LAST PHOTO REMOVED

âĖ Page 45: This figure has too much photos and it is difficult to follow. The first, 4 th and last photos can be removed. LAST PHOTO REMOVED

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âĖ Page 46: This figure has too much photos. Last photos can be removed. LAST PHOTO REMOVED

âĖ Page 45-46: This two figures can be combined in one figure and number photos can be 4 maximum (one more photo can be removed). LAST PHOTO REMOVED

âĖ Page 47: Second photo can be removed. SECOND PHOTO REMOVED

âĖ Page 48: First photo can be removed. FIRST PHOTO REMOVED

âĖ Page 49: First photo can be removed. FIRST PHOTO REMOVED

âĖ Page 50: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 51: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 52: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 53: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 54: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 55: 2nd and 3th photos can be removed. 2nd and 3th PHOTO REMOVED

âĖ Page 56: First photo can be removed. FIRST PHOTO REMOVED

âĖ Page 57: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 58: Last photo can be removed. LAST PHOTO REMOVED

âĖ Page 60: Quality of the figure is poor and photo can be removed. REMOVED âĖ

Page 61: First photo can be removed. FIRST PHOTO REMOVED

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/3/C180/2015/nhessd-3-C180-2015-supplement.pdf>

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