



Republic of the Philippines
QUEZON CITY COUNCIL

Quezon City
20th City Council

PO20CC-101

15th Regular Session

ORDINANCE NO. SP- **2549**, S-2016

AN ORDINANCE ESTABLISHING A MANDATORY SEISMIC RETROFITTING PROGRAM FOR QUEZON CITY OWNED AND BARANGAY-OWNED BUILDINGS, PARTICULARLY THOSE BUILT BEFORE THE 1990 EARTHQUAKE, ADOPTING ENGINEERING AND ENVIRONMENTAL/GREEN BUILDING FINDINGS OF LOCAL CONDITIONS, APPROPRIATING FUNDS THEREOF, AND FOR OTHER PURPOSES.

Introduced by Councilor **GIAN CARLO G. SOTTO**.

Co-Introduced by Councilors **Anthony Peter D. Crisologo, Lena Marie P. Juico, Elizabeth A. Delarmente, Victor V. Ferrer, Jr., Oliviere T. Belmonte, Alexis R. Herrera, Precious Hipolito Castelo, Voltaire Godofredo L. Liban III, Ramon P. Medalla, Ranulfo Z. Ludovica, Estrella C. Valmocina, Allan Benedict S. Reyes, Kate Abigael G. Coseteng, Franz S. Pumaren, Eufemio C. Lagumbay, Marvin C. Rillo, Raquel S. Malañgen, Irene R. Belmonte, Ivy Xenia L. Lagman, Marra C. Suntay, Jose A. Visaya, Karl Edgar C. Castelo, Julianne Alyson Rae V. Medalla, Godofredo T. Liban II, Andres Jose G. Yllana, Jr., Allan Butch T. Francisco, Marivic Co-Pilar, Melencio "Bobby" T. Castelo, Jr., Rogelio "Roger" P. Juan, Diorella Maria G. Sotto, Donato C. Matias, Eric Z. Medina and Ricardo B. Corpuz.**

WHEREAS, based on the finding of the Metro Manila Earthquake Impact Reduction Study jointly undertaken by the Philippine Institute of Volcanology and Seismology (PHILVOCS), the Japan International Cooperation Agency (JICA) and the Metro Manila Development Authority (MMDA) it was acknowledged that Metro Manila will experience moderate to severe earthquake in the foreseeable future, increased effort to reduce earthquake hazards should be encouraged and supported;

WHEREAS, this Ordinance shall empower the City Engineering Department to assess the earthquake hazards and identify the city-owned and barangay-owned buildings that are potentially hazardous to life in the event of an earthquake;

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WHEREAS, among the potentially hazardous buildings surveyed and identified are wood frame, multi-unit buildings constructed before 1972 and the 1990 earthquake having a soft, weak or open front wall lines (soft-story conditions) which are particularly vulnerable to severe damage in case of a major earthquake thus endangering the lives of the residents;

WHEREAS, it is the declared policy of the Quezon City government to ensure the safety and well-being of its residents against potential risks and hazards in the event of a major natural and man-made disasters.

NOW, THEREFORE,

BE IT ORDAINED BY THE CITY COUNCIL OF QUEZON CITY IN REGULAR SESSION ASSEMBLED:

SECTION 1. TITLE – this Ordinance shall be referred to as “MANDATORY SEISMIC RETROFIT PROGRAM FOR EARTHQUAKE IMPACT VULNERABLE FOR CITY AND BARANGAY-BUILDINGS OF 2016”.

SECTION 2. PURPOSE.

- A. To promote and develop state-of-the-art user-friendly engineering resources and applications to mitigate the effects of natural and other hazards on the built environment.
- B. To perform a study called a Quezon City Action Plan for Seismic Safety to study city and barangay-owned buildings in Quezon City that are vulnerable to collapse or severe damage in case of moderate or major earthquake.
- C. To develop earthquake safety policy recommendations founded on clear technical bases and focused on wood frame structures and were build prior to the 1990 earthquake.
- D. To ensure that Quezon City and Barangay Buildings be resilient from the disastrous effects of a major earthquake as well as to protect the health, safety, and welfare of Quezon City



residents by reducing the possible collapse or major structural damage, loss of housing stock, or risk of fire caused by an earthquake to the most vulnerable wood frame city-owned buildings. This Ordinance require retrofits that will greatly increase building safety, occupiable within 24 hours of a moderate earthquake, using standards that limit retrofit costs.

E. List of Barangays in Quezon City traversed by the Valley Fault System.

- a. Bagong Silangan
- b. Bagumbayan
- c. Batasan Hills
- d. Blue Ridge B
- e. Libis
- f. Matandang Balara
- g. Pansol
- h. White Plains
- i. Ugong Norte
- j. Loyola Heights
- k. Pasong Putik Proper
- l. Payatas

SECTION 3. SCOPE – This Ordinance shall apply to existing buildings of Quezon City Government and Barangay that have not been seismically strengthened to meet standards of the National Building Code.

SECTION 4. DEFINITIONS – For purposes of this Ordinance, these definitions under the National Building Code shall apply, viz:

- a. *Seismic Retrofitting – shall mean either structural strengthening or providing the means necessary to modify the seismic response that would otherwise be expected by an existing building during an earthquake, to significantly reduce hazards to life and safety while also providing for the substantial safe ingress and egress of the building occupants immediately after an earthquake.*
- b. *Risk Categories are defined as follows:*

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- i. *Essential Buildings - any building housing a hospital or other medical facilities having a surgery or emergency treatment area, fire or police station, city government disaster operation and communication centers.*
- ii. *High Risk Buildings - any non-essential having an occupied load of 100 or more persons.*
- iii. *Medium Risk Building - any non-essential building having an occupied load of less than one hundred and not included within the definition of low risk building below.*
- iv. *Low Risk Building - any non-essential building not open to the public used as warehouse/storage building.*
- v. *Adoption Date - shall refer to the date of the approval of this Ordinance and its Implementing Rules and Regulations.*
- vi. *Seismic Strengthening - shall refer to all engineering/environmental work necessary to comply with the requirements of this Ordinance.*

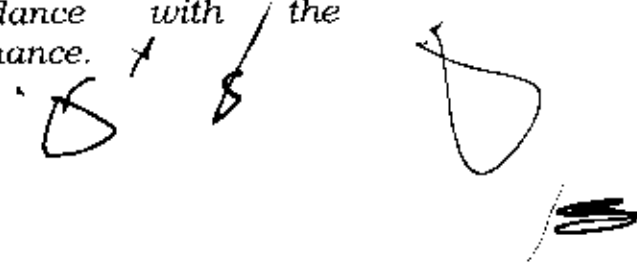
SECTION 5. REQUIREMENT FOR AN ENGINEERING REPORT.

- A. *Within one (1) year after the adoption of this Ordinance, the city and barangay-owned buildings subject of this Ordinance shall be required to have an engineering report to the City Engineer which evaluates the existence, nature, and severity of any structural deficiencies in their building capacities for earthquake resistance which could result in damage or collapse or cause potential injury of loss of lives. The engineering report shall include the following information:*

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1. *Time Frame* - the engineering report shall be submitted within twenty four (24) months after the adoption of this Ordinance.
 2. *Authorized Preparers* - Engineering Report shall be prepared by a Civil or Structural Engineer who is familiar with seismic analysis and design.
 3. *Purpose* - the purpose of each engineering report shall be to investigate in a thorough and unambiguous fashion, a building structural systems that resist earthquake forces, and to evaluate their adequacy to resist the seismic forces.
 4. *Engineering Standards* - the minimum engineering standards to be used in the preparation of engineering reports or drawings shall be those contained in the National/Quezon City Building Code.
 5. *Format* - the written engineering report shall include all portions of the building and any measures necessary to correct deficiencies to no less than the minimum engineering standards.
- B. *The City Engineering Official Shall review the engineering report for each identified building to ensure conformance with this Ordinance. The City Engineer may, at its option, consult the services of a civil or structural engineer to assist in the evaluation of the submitted report at the sole cost of the city government and Barangay concerned. If the City Engineer, in consultation with the civil/structural consultants, determines that the building needs to be seismically strengthened with this ordinance despite the conclusion of the engineering report, the City Engineer may require the submission of construction drawing/report and repair any deficiency in accordance with the requirements of this Ordinance.*



- C. *The Building Administrator of Seismic Prone Buildings (SPB) shall notify all concerned with written notifications that an engineering report has been completed and has been submitted to the Office of the City Engineer. Such notification must be made within ninety days of submission of engineering report to the city government.*

SECTION 6. REPAIR OF DEFICIENCIES REQUIRED.

- A. *All Public Buildings requiring Seismic Strengthening as determined by the engineering report or the building official pursuant to Section 5 of this Ordinance shall complete work required by approved construction drawing within the following time frame that is applicable:*

1. *Essential Building and High Risk Buildings – work must be completed and receive final approval from City Engineer within four years after the adoption of this Ordinance.*
2. *Medium and Low Risk Building-work must be completed and receive final approval from the City Engineer within six years after the approval of this Ordinance.*

- B. *If after review of the engineering report, a building is determined to pose immediate threat to public health or safety, the building may require repairs to be made in a timely manner than set forth in the preceding section.*

- C. *If it is determined that the cost to seismically strengthen is not financially reasonable, the City Engineer may recommend demolition. Such documentation/application shall be made to the City Engineer for review and must follow all procedural requirements for demolition under the existing Quezon City Building Code. Approved demolition work must be completed within the time frame enumerated in the preceding sub-section. The City Engineer may modify or extend the time frame for demolition based upon the specific circumstances of the demolition work.*

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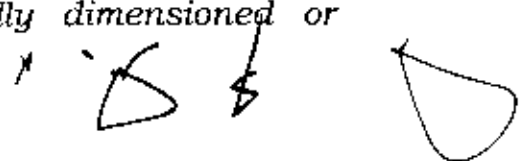
SECTION 7. APPLICATION FOR BUILDING PERMIT OF SEISMIC PRONE BUILDINGS - The building administrator of a Seismic Prone Building shall apply for a building permit to make alteration, modification or renovation, he must submit an engineering report as part of the permit application. The report must include an evaluation on whether the proposed work is in any portion of the building needing a seismic strengthening. If the building official determines that the proposed work does not include an area where seismic strengthening is required, the building administrator/structural engineer shall submit construction drawing as integral part of the permit application. The City Engineer will determine which part of the seismic strengthening work must be part of the proposed project.

SECTION 8. CONSTRUCTION DRAWINGS REQUIRED.

A. All city-owned building needing seismic strengthening as determined by the engineering report's outlined in the preceding section are required to submit a complete set of construction drawings to the Office of the City Engineer not later than two (2) years after the adoption date of this Ordinance. Required drawings must be professionally prepared and stamped and signed by the structural engineer. Construction drawings must be complete and include all improvements to be made to comply with the mandates of this Ordinance.

B. CONSTRUCTION DRAWINGS SHALL INCLUDE:

1. Dimensioned floor and roof plans showing existing walls and the size and spacing of floor and roof framing members and sheathing materials.
2. All existing crosswalls and their materials of construction. The location of the crosswalls and their openings shall be fully dimensioned or drawn to scale on the plans.



3. Dimension walls elevations showing openings, thickness, heights, the type of veneer, its thickness and its bonding, and/or ties to the structural masonry.
4. The extent and type of existing wall anchorage to floors and roof when use in the design;
5. The extent and type of any parapet corrections which were previously performed, if any;
6. Repair details, if any of cracked or damaged unreinforced masonry walls.

SECTION 9. In the implementation of this Ordinance, the City Mayor is hereby authorized to disburse LDRRMF pursuant to NDRRMC-DBM-DILG Joint MC 2013-1 (05 March 2013).

SECTION 10. Any violation of the provisions of this Ordinance shall be considered a public nuisance and the City Engineer may order the Seismically prone city and barangay-owned building to be vacated.

SECTION 11. IMPLEMENTING RULES AND REGULATION – The City Engineer, the Environmental Protection and Waste Management Department (EPWMD), the General Services Department, in coordination with the Philippine Institute of Volcanology and Seismology (PHILVOCS), shall, within ninety (90) days after approval of this Ordinance shall establish the necessary Implementing Rules and Regulations.

SECTION 12. SEPARABILITY CLAUSE – If any provision/ section, sub-section, or any portion of this Ordinance is held invalid or unconstitutional, other section/s shall remain valid.

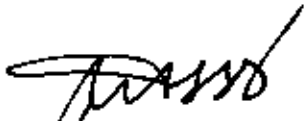
SECTION 13. REPEALING CLAUSE – All laws, decrees, issuances executive order, ordinance that are deemed inconsistent or contrary to this Ordinances are hereby considered/as repealed and amended accordingly. ✕

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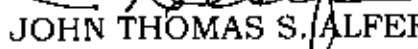
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SECTION 14. EFFECTIVITY – *This Ordinance shall take effect upon its approval.*

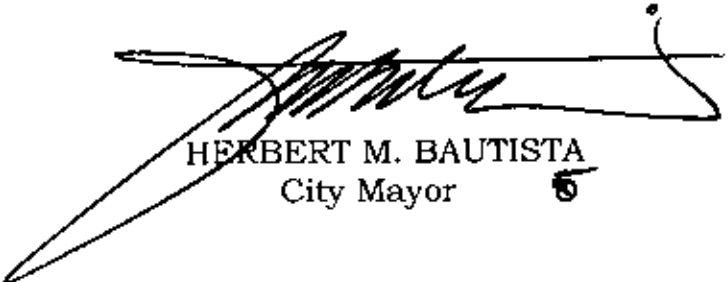
ENACTED: November 21, 2016.


RODERICK M. PAULATE
President Pro-Tempore
Acting Presiding Officer

ATTESTED:



Atty. JOHN THOMAS S. ALFEROS III
City Gov't. Asst. Dept. Head III

APPROVED: 06 JAN 2017


HERBERT M. BAUTISTA
City Mayor

CERTIFICATION

This is to certify that this Ordinance was APPROVED by the City Council on Second Reading on November 21, 2016 and was PASSED on Third/Final Reading on December 5, 2016.


Atty. JOHN THOMAS S. ALFEROS III
City Gov't. Asst. Dept. Head III

