

Module 2: Exposure and Vulnerability





Week 3

- **Concept of Vulnerability**
- **Concept of Exposure**

PS: The learners conduct hazard hunts of exposed elements and propose corresponding corrective actions for one's preparedness.

CONCEPT OF VULNERABILITY

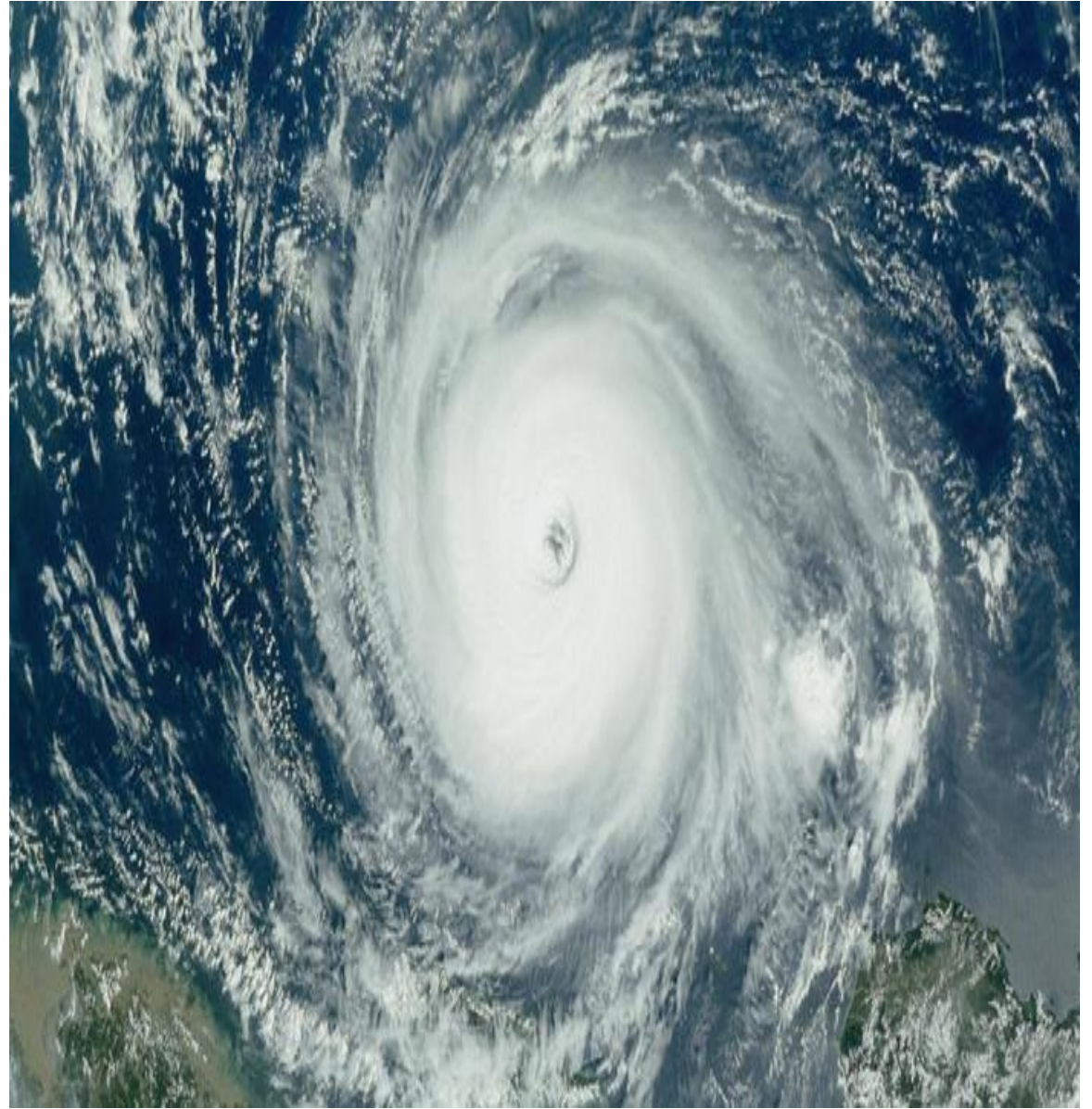
- The diminished capacity of an individual or group to anticipate, cope with, resist, and recover from the impact of a natural or man-made hazard (International Federation of Red Cross and Red Crescent Societies (IFRC))
- The characteristics and circumstances of a community, system, or asset that make it susceptible to the damaging effects of a hazards (United Nations Office for Disaster Risk Reduction)

- Vulnerability in this context can be defined as the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard.

Vulnerability is ...

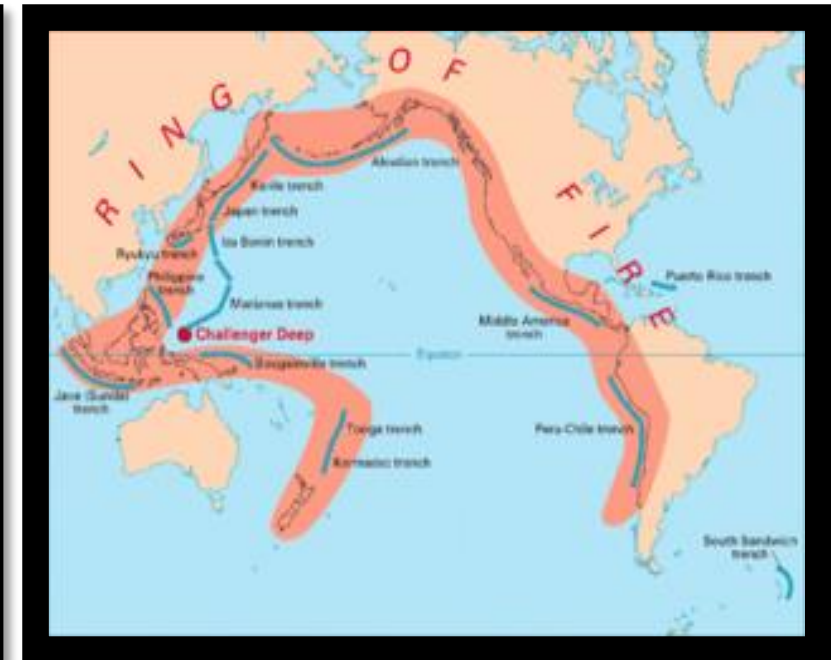
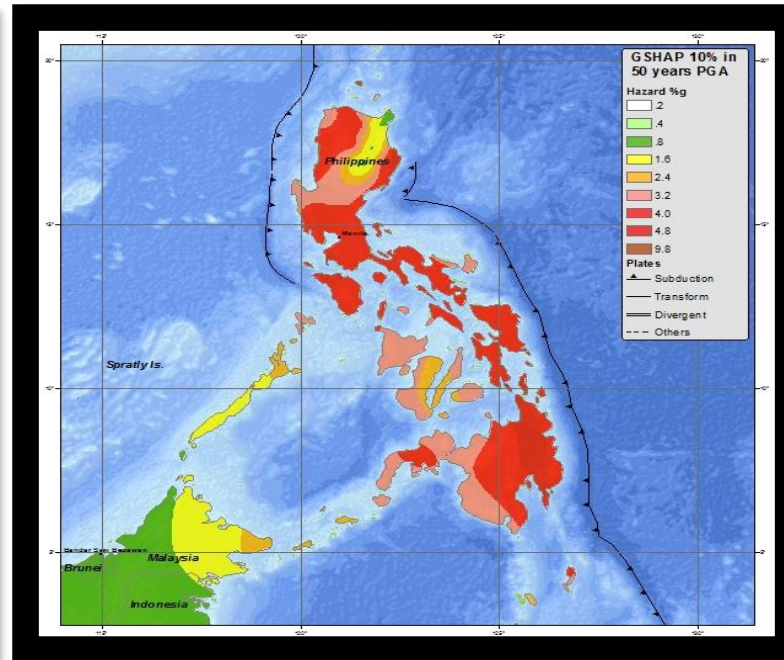
situation specific.

hazard specific.



Proximity to a Hazard Event

- An area frequented by a certain hazard predisposes it to high vulnerability.



Population Density Near A Hazard Event

- **Population** – refers to the individuals inhabiting a particular space at the same time.
- **Population density** – refers to the number of individuals living in an area in relation to the size of an area.
- Crowded communities have high vulnerability to hazards

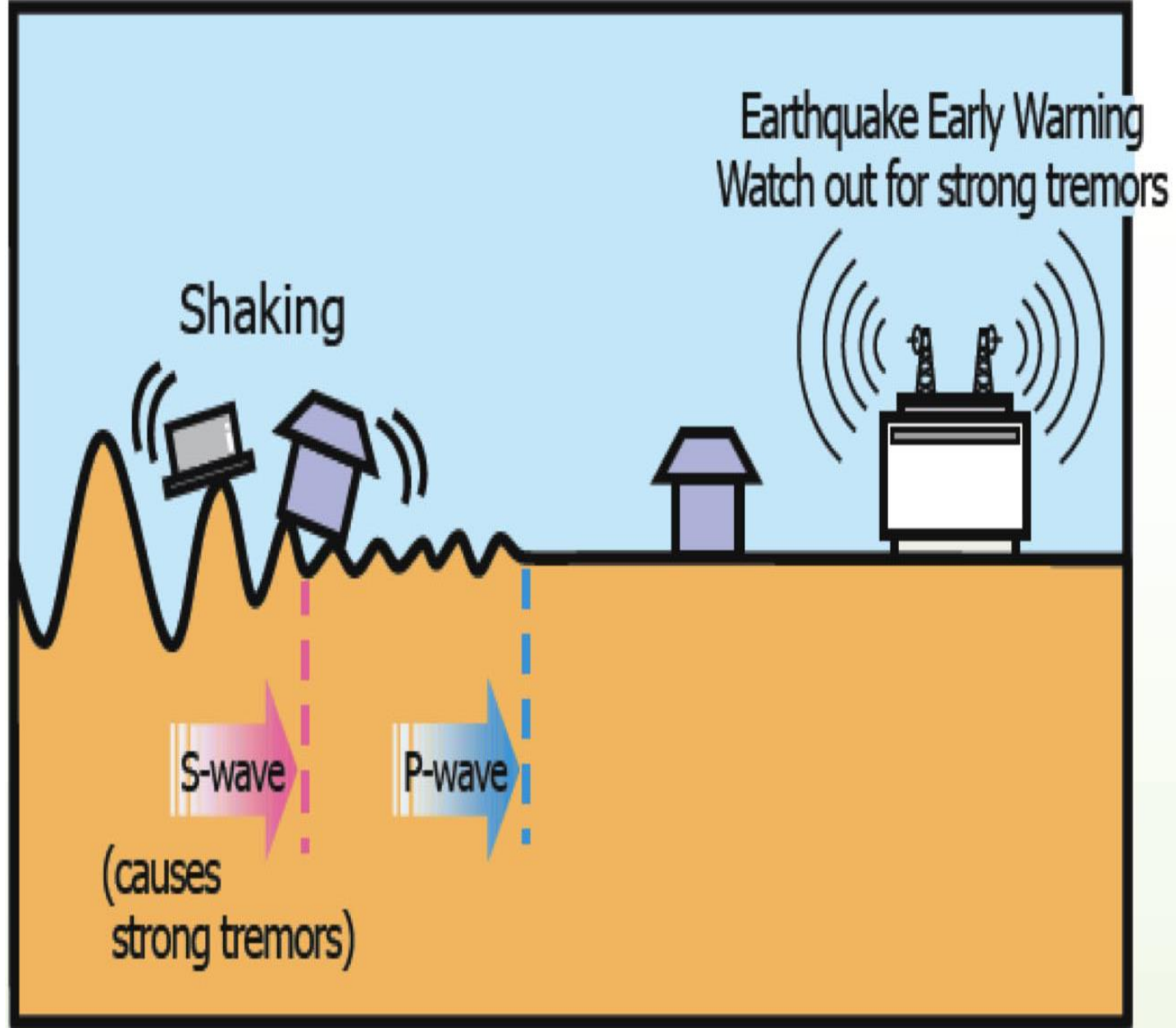


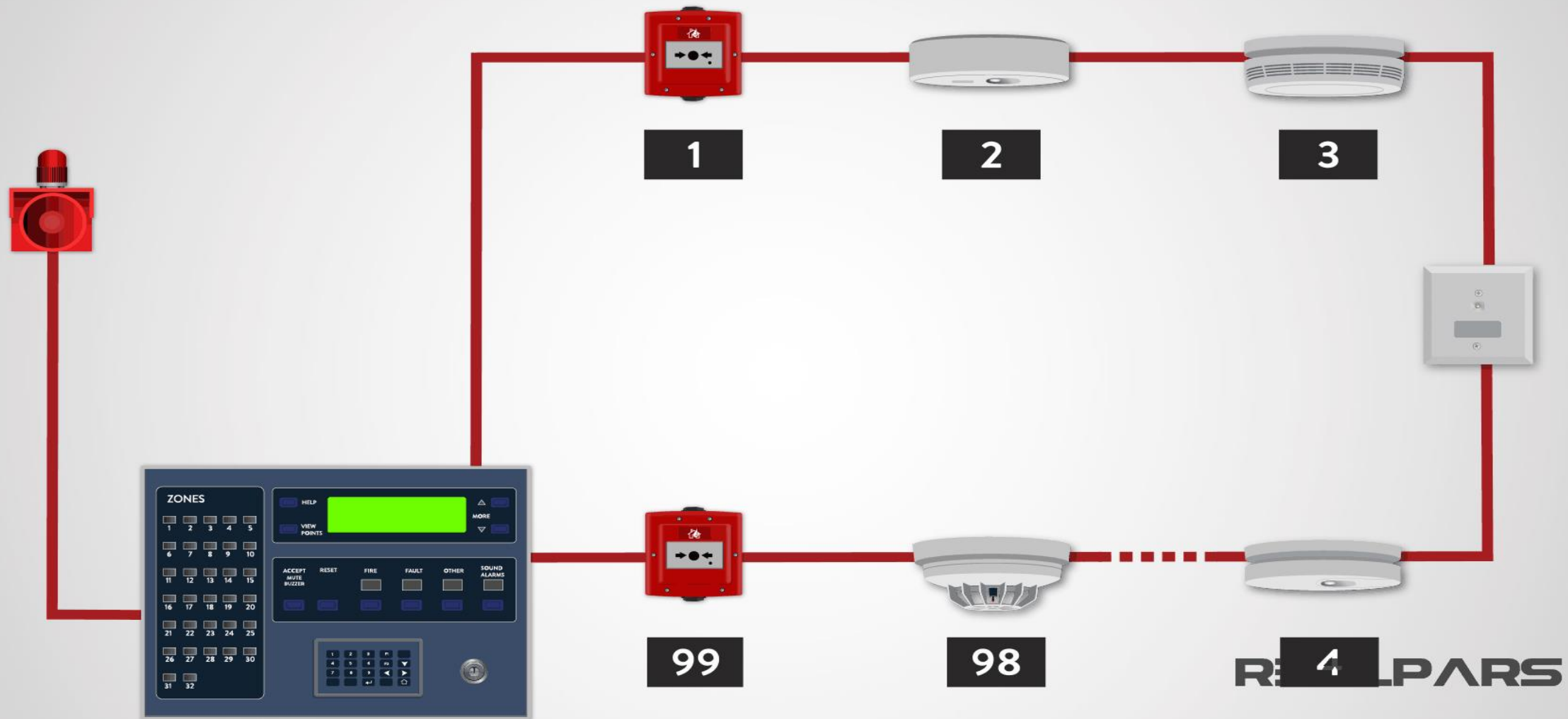


UNTV

Capacity and Efficiency to Reduce Disaster Risk

- It includes the accessibility and availability of services and facilities that help in preparing for or during disaster.
- The availability of the resources would result in the ability of a community to anticipate, adapt, and respond to the changes in socio-ecological and economic impacts that are usually experienced after a disaster.







Building Codes And Disaster Policies

- Buildings and other structures may increase disaster risk.
- Hazard-resistant structures can lower the vulnerability of a community, especially when the features or designs of the structures are hazard specific.

FIRE CODE OF THE PHILIPPINES

**With Implementing
Rules and Regulations**



PRESIDENTIAL DECREE NO. 1185

(With Republic Act No. 9514)

The NATIONAL BUILDING CODE OF THE PHILIPPINES

2018 edition

with its revised Implementing Rules and Regulations

**New Schedule of Fees and other Charges:
NBCDO Memorandum Circular No. 01 Series of 2005**

**Additional Rules and Regulations on Sign or Signboard Structures
approved by Secretary Hermogenes E. Ebdane Jr.**

**The Law to Enhance Mobility of Disabled Persons with
implementing rules and regulations**

The Act of Comprehensive Fire Code of the Philippines

**Real Estate Services, Creating for the Purpose of
Professional Regulatory Board**

The Law in Civil Engineering Practice

The Act of Registration, Licensing, and Practice of Architecture

CERTIFICATE OF FINAL INSPECTION

Cert. of Completion

Number

0 C P - 2 0 - 0 0 9

0 1 - 2 0 - 0 0 9

January 15, 2020

January 15, 2020

Date Submitted

Date Issued

SEGUERRA, LORENZO JR. T.

1120190060

March 22, 2019

BLDG. PERMIT No.

DATE ISSUED

J. Rizal St. Poblacion,

Talisay City

LOCATION OF CONSTRUCTION

1-STOREY COMMERCIAL BUILDING

DECEMBER 2019

Php 1,722,250.00

DATE OF COMPLETION

COST AS BUILT

Submitted the following documents as required:

☐ LOGBOOK

☐ AS-BUILT PLANS/SPEC'S

Inspected as to the following requirements:

LUZCO No. 2020-002

01/03/2020

LAND USE

MANUEL C. RAGASA JR.

LINE & GRADE

ENGR. ARNEL C. BACALSO

STRUCTURAL

FLORENCIO T. ABARQUEZ

SANITARY PLUMBING

ENGR. JILSON D. BUMAYAC

ELECTRICAL

ABIEL A. ARAW-ARAW

ARCHITECTURAL

JOEL L. WATIN

MECHANICAL

The construction of the above-described building has been found to be in order and therefore the "Certificate of Occupancy" is hereby recommended for approval.

ABIEL A. ARAW-ARAW

Chief, Enforcement Division

ENGR. AUDIE B. BACASMAS

Building Official



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION AND COMMUNICATIONS

OFFICE OF THE BUILDING OFFICIAL

CITY OF TALISAY

Certificate of Occupancy

Number

112020 0016

1-23-2020

Date Issued

This certifies that the building/structure which has been designed and constructed a 1-Storey Commercial Building with Building Permit No. 1120190060 dated March 22, 2019 issued under the name of SEGUERRA, LORENZO JR. T., has been inspected and found to be in conformity with the approved plans and specifications on file in this office and the provisions of the National Building Code (P.D. 1096) and its implementing rules and regulations and therefore the building/structure may now be occupied or used.

The owner shall properly maintain this building to enhance its architectural well-being, structural stability, sanitation and fire-protective properties and shall not be occupied or used for purposes other than its intended use as stated above.

This Certification is issued in accordance with Section 309, Chapter 3 of P.D. 1096.

ENGR. AUDIE B. BACASMAS

Building Official

NOTE:

A certified copy hereof shall be posted within the premises of the building and shall not be removed without authority from the Building Official. The official number (s) assigned to the building (s) is/are: Good for 1 unit/s only.



Republic of the Philippines
DEPARTMENT OF HEALTH
BUREAU OF HEALTH FACILITIES AND SERVICES

LICENSE TO OPERATE

an

AMBULATORY SURGICAL CLINIC

is hereby granted to

ASIAN STEM CELL INSTITUTE, INC. (ASCI)

Suite 1508 Medical Plaza Ortigas, San Miguel Ave., Pasig City

Owner : ASIAN STEM CELL INSTITUTE, INC. (ASCI)

License Number : 13-028-14-AS-2

Validity of License : 02 June 2014 - 31 December 2016

Surgical Service:

Plastic and Reconstructive Surgery



By Authority of the Secretary of Health:

ATTY. NICOLAS B. LUTERO III, CESO III

Assistant Secretary

This license is renewable every three (3) years and subject to suspension or revocation if the facility is found violating AO 183 s., 2004/ AO 2008-0027/AO 2012-0012 and related issuances. Application for renewal shall be submitted thirty (30) days before the date of expiration.

CONCEPT OF EXPOSURE

- The elements at risk from a natural or man-made hazard event.
- These elements include: individuals, communities, properties, building and structures, agricultural commodities, livelihoods, public facilities, infrastructure, and environmental assets present in an area that are subjected to potential losses.

- The concepts of exposure and vulnerability are distinct. A community can be exposed but is not necessarily vulnerable.
- **Exposure** refers to people, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

ELEMENTS EXPOSE TO HAZARDS

- **Physical Element** – these are the elements that are tangible or can be visually seen.

Examples: landscapes, inhabitants, buildings, and other structures that make up the environment. Some are measurable, such as population density.



- **Socioeconomic Elements** – refers to the manner of social interactions when exposed to a hazard event.
- These comprise the institutional and government systems that dictate the kind of well-being and lifestyle of communities.

- For example, socioeconomic elements exposed to flooding and storm surge hazards includes systems of communication and transportation, delivery of basic facilities, goods and services, network of market and trade, and stability of fishing industries.



- **Environmental Elements** – these include the ecosystems and the natural processes that are exposed to hazard events.
- Human activities such as overgrazing, deforestation, and exploitation of natural resources strip the environment of its natural abilities to protect itself from any natural hazard.



The Relationship of Hazards, Exposure, and Vulnerabilities

- Hazard are possible threats that may come unexpectedly or otherwise. A hazard can lead to a disaster in a community if:
 - a. The community is exposed to it.
 - b. The community's circumstance or situation make it vulnerable to the hazard.

- **Hazards are inevitable.** In perspective of nature, hazard events are not at all devastating. They are systematic processes that are necessary for its continued existence. If communities are aware of this exposure and do nothing to address the hazard, they increase their vulnerability to disasters. Once identified as exposed and vulnerable, it should be obligatory for communities to implement appropriate measures to lower their vulnerability.

Case Analysis

- It will posted in Google Classroom

HOW CAN WE REDUCE RISK?

$$\text{RISK} = \text{HAZARD} \times \text{EXPOSURE} \times \text{VULNERABILITY}$$

We can improve our abilities to monitor and forecast hazards

Increased awareness of the hazards faced by communities and their exposure to them

The greatest benefits can be achieved by reducing the vulnerability to natural hazards

Next Topic

- Concepts of Hazards
- Types of Hazards
- Importance of various hazards