

GENERAL EARTHQUAKE DAMAGE INSPECTION CHECKLIST

Where description is indicated, attach additional pages of notes and photographs keyed to appropriate checklist item.

A. GENERAL INFORMATION

1. Street Address of the School: Carr. 633, Km 4.4, Bo. Batahona
 City: Morovis State: PR Zip: _____
2. School Name: Esc. Angel L. Quintero Alfaro
3. Date of inspection: 20/enero/2020 11:38am - 1:00pm
4. Inspector's Name: Ing. José L. Girona Márquez

B. BUILDING SITE INSPECTION

5. Utility Service Safety:

IMPORTANT—Immediately following an earthquake, check the entire property, especially near appliances, for the smell of gas. If gas odor is detected, turn off the gas at the meter where it enters the house. Locate and repair leaks before turning gas back on. If the gas odor persists after the gas has been shut off, vacate the building and contact the gas utility company immediately.

IMPORTANT—Before entering a damaged, vacant building verify that gas is off. Check the gas meter for damage and position of main gas valve, either a manual valve or a seismically-activated gas shut-off valve. Do not enter the building if gas odor is detected.

- a. Odor of natural gas leakage? YES NO b. Downed powerlines? YES NO

6. Surrounding topography: (check one)

- Flat
 Gently sloping (easily walkable)
 Steeply sloping (difficult or impossible to walk in some areas)

7. Building pad: (check one)

- Flat
 Terraced or multilevel
 Gently sloping (less than 4-foot ground surface elevation difference across house)
 Steeply sloping (greater than 4-foot ground surface elevation difference across house)

8. Geotechnical Issues: (if yes, provide description and photos)

- | | YES | NO |
|---|--------------------------|--------------------------|
| a. New cracks in the ground? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Signs of fresh cracking in or movement of hardscape? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Signs of fresh cracking in or movement of retaining walls? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Patterns of cracking that extend through the ground surface, hardscape, and improvements? | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Evidence of sand boils or other fresh-appearing deposits of sand or mud? | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Unusual slumping, rising, or bulging of the ground surface? | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Evidence of rock falls or slope instability above site? | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Ground movement or wet areas indicating possible broken underground utility lines? | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Other phenomena (e.g., septic tanks surfacing, differential settlement, ground consolidation)? | <input type="checkbox"/> | <input type="checkbox"/> |

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B. BUILDING SITE INSPECTION (continued)

YES NO

9. Evidence of earthquake-induced permanent ground deformation in the immediate vicinity of the property?

C. GENERAL BUILDING INFORMATION

10. Safety Assessment Tag: (☑check one) None Green Yellow Red

(others): Yellow Red

11. a) Year of original construction (best estimate): _____

b) Total square footage (best estimate): _____

YES NO

12. Have any repairs, modifications, or demolition been performed since the earthquake?
If yes, describe _____

13. Building configuration:
- a. Single story
 - b. Combination one and two story
 - c. Full two story
 - d. Three story
 - e. Split level
 - f. Typical
 - g. Other, describe _____

16. Sill bolting:
- a. Structure bolted to foundation
 - b. Structure not bolted to foundation
 - c. Don't know

14. Exterior wall finish:
- a. Stucco
 - b. Panel siding
 - c. Metal siding
 - d. Masonry veneer
 - e. Other, describe _____

17. Roof configuration:
- a. Gable
 - b. Hip
 - c. Flat or very low slope
 - d. Shed
 - e. Other, describe _____

15. Foundation configuration:
- a. Slab-on-grade
 - b. Crawlspace without cripple walls
 - c. Crawlspace with cripple walls
 - d. Exposed piers or posts
 - e. Typical
 - f. Metal
 - g. Other, describe _____

18. Roof covering:
- a. Asphaltic membrane
 - b. Wood shingle or shake
 - c. Concrete
 - d. Metal
 - e. Elastomeric
 - f. Other, describe _____

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D. EXTERIOR BUILDING INSPECTION

	YES	NO	N/A
19. General: (if yes, provide description and photos)			
a. Collapse, partial collapse, or building off foundation?	<input type="checkbox"/>	<input type="checkbox"/>	
b. Obvious lean in any story?	<input type="checkbox"/>	<input type="checkbox"/>	
20. Exterior walls: (if yes, provide description and photos)			
a. Fresh cracking at corners of door and window openings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Fresh cracking at building corners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Door or window openings racked out of square?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Broken glass in windows or doors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Wall leaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Bulging or delamination of stucco?	<input type="checkbox"/>	<input type="checkbox"/>	
g. Pattern of cracking that extends from the ground surface, through foundation, and wall?	<input type="checkbox"/>	<input type="checkbox"/>	
h. Evidence of recent relative movement at mudsill line?	<input type="checkbox"/>	<input type="checkbox"/>	
i. . At locations where the exterior stucco is continuous from the framing down over the foundation, is there cracking of stucco along the mudsill level accompanied by indications of permanent displacement (sliding) of the building relative to the foundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Collapse, partial collapse, or separation of masonry veneer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Severe cracking, separations, or offsets at building irregularities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Foundation: (if yes, provide description and photos)			
a. Fresh cracking of exposed perimeter foundation?	<input type="checkbox"/>	<input type="checkbox"/>	
b. Relative movement between slab and footing in "two-pour" slab-on-grade foundations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Ask homeowner if any earthquake retrofits have been done to the home?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Y describe: _____			
d. If the answer to c is Y, were bolts added to connect the home to the foundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. If the answer to c is Y, were plywood or sheathing added to any cripple walls under the home?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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D. EXTERIOR BUILDING INSPECTION (continued)

	YES	NO	N/A
22. Kitchen Hook (if yes, provide description and photos)			
a. Present on external wall?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Present at internal location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Collapse or partial collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Visible damage or cracking?	<input type="checkbox"/>	<input type="checkbox"/>	
e. Visible tilting or separation from building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Shifted or loose and displaced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Deterioration or deformation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Roof: (if yes, provide description and photos)			
a. Shifted or dislodged or concrete damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Impact damage to roof from falling object?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Displaced rooftop HVAC units?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Significantly sagging roof ridgelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Signs of movement between rafter tails and wall finishes at eaves?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. . Buckled/dislodged flashing or tearing of roof membrane, roof/wall intersections in split level buildings, additions, or other building irregularities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Tearing of roof membrane or deck waterproofing at re-entrant corners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of rooftop mechanical equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Shifting of or damage to solar panels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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D. EXTERIOR BUILDING INSPECTION (continued)

	YES	NO	N/A
24. Attached or abutting improvements: (if yes, provide description and photos)			
a. Collapse, partial collapse, or separation of attached porches, carports, Gazebos, or awnings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Evidence of recent settlement or displacement of exterior steps, patios, or walkways relative to the building?	<input type="checkbox"/>	<input type="checkbox"/>	
c. Signs of movement between building floor and/ or exterior hardscape or retaining wall along the uphill side of non steeply sloping sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of air conditioning condenser unit(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Independent exterior improvements: (if yes, provide description and photos)			
a. Damaged detached gazebo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Damage to fences / privacy walls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Damage to retaining walls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Damage to walkway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Evidence of leakage from water supply lines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Toppling, shifting, or damage/leakage at fuel connection of propane tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Others damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. INTERIOR INSPECTION

26. General information

a. If interior access not possible, identify reason

- i. Red tag
- ii. Hazardous materials
- iii. Other hazardous condition, describe _____
- iv. Other, describe _____

b. Typical wall and ceiling finish

- i. Drywall
- ii. Plaster on gypsum lath
- iii. Plaster on wood lath
- iv. Other, describe _____

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E. INTERIOR INSPECTION (continued)

	YES	NO	N/A
27. Walls: (if yes, provide description and photos)			
a. Fresh cracking, buckling, spalling, or detachment of interior wall finish at corners of door and window openings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Fresh cracking of wall finishes at wall corners or wall/ceiling intersections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Door or window openings racked out of square?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Wall leaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Pattern of cracking that extends from the floor slab through the wall?	<input type="checkbox"/>	<input type="checkbox"/>	
f. Movement or sliding of walls relative to the floor?	<input type="checkbox"/>	<input type="checkbox"/>	
g. Severe cracking, separations, or offsets at building irregularities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Doors damaged, difficult to operate, or inoperable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Windows damaged, difficult to operate, or inoperable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Ceilings: (if yes, provide description and photos)			
a. Collapse of ceiling finish?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Fresh cracking of ceiling finishes, especially at re-entrant corners; cracks along corner bead at stairwell openings; cracking or tearing of finishes at ceiling/wall juncture; or multiple "nail pops"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Damage to ceiling finishes in vicinity of corridors or commons places?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Separations or cracks in ceiling finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Water damage or evidence of recent leakage from plumbing lines or roofing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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E. INTERIOR INSPECTION (continued)

		YES	NO	N/A
29.	Floors: (if yes, provide description and photos)			
	a. Evidence of recent sloping, sagging, settlement or displacement of floors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. In slab-on-grade locations, fresh cracking of floor slab or floor finishes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Significant sagging or unusual bounciness of floors frames?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Separations or cracks in floor finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Signs of movement between floor and exterior hardscape or retaining wall along the uphill side of homes on steeply sloping sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. A pattern of fresh cracks, gaps, or joint separations in floor finishes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. Impact damage to floor finishes from falling contents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	Mechanical systems: (if yes, provide description and photos)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Displaced connection of appliance flues connected to chimneys?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Toppling, shifting, leakage from tank, leakage from water connections displaced flue connection or damage/leakage at gas line or electrical connection of water heater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Shifting, damage/leakage at gas line, flue connection, electrical connection, refrigerant line, and condensate drain connection of furnace or air conditioning fan-coil unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Damage to gas line of gas stoves or gas fueled clothes dryers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Damage to toilets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. Decreased or restricted water pressure at appliances, faucets, or toilets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. Toppling or shifting of free-standing wood stove and/or flue?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h. Toppling, shifting, damage/leakage at fuel connection of fuel oil tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Other Damage in the dining room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. Damage near the gas tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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E. INTERIOR INSPECTION (continued)

31. Architectural woodwork and special finishes: (if yes, provide description and photos)	YES	NO	N/A
a. Shifting of or damage to kitchen or bathroom cabinetry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Impact damage to countertops from falling objects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Cracking of ceramic tile in showers or tub/shower enclosures consistent with earthquake damage to adjacent wall finishes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F. CONTINGENT INSPECTIONS

	YES	NO	N/A
32. Retaining Tank Wall damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Water tank or other field subterranean structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G. RECOMENDACIÓN AL SECRETARIO

Departamento de Educación
 Dr. Eligio Hernández Pérez
 Secretario de Educación

Hora: 11:38 am - 1:00 pm

Código: 17186

Escuela: Angel L. Quintero Alfaro

Fecha de Inspección: 20/enero/2020

Municipio: Morovis

- Abrir Escuela (Verde)
- Abrir Parcialmente la Escuela (Amarillo)
- No Abrir la Escuela (Rojo)

Comentarios: Ver anejo : Informe de Inspección por terremoto.

José L. Girona Márquez
 Nombre (Letra de Molde)

José L. Girona Márquez
 Firma

7236
 # Licencia



23 de enero de 2020

INFORME DE INSPECCION POR TERREMOTO

Proyecto: Escuela Angel L. Quintero Alfaro, Morovis / AEP-8505

Dirección: Carr. 633, Km. 4.4 Bo. Barahona, Morovis, PR

Director: Sr. Carlos Figueroa La Torre / Tel. 787-384-2899

Fecha de Inspección: 20 de enero de 2020

Hora de Inspección: 11:38 am – 1:00 pm

Inspector: Ing. José L. Girona Márquez, Licencia Núm. 7236 – PE

COMENTARIOS Y OBSERVACIONES:

1. Grieta entre paredes rampa. No son estructurales.
2. Salón Comedor: En la segunda columna interior, tiene grieta con desprendimiento de hormigón. Es existente pero se debe reparar antes de poner en uso el comedor tiene varilla expuesta y corroída en su base.
3. El resto de la escuela tiene grietas no estructurales, que son reparables.

Se visitaron todos los salones, áreas de servicios, cancha y comedor. Además, se revisaron las líneas de gas en la cocina del comedor, no encontrando ningún liqueo de gas. Se aclara que la inspección realizada es visual de los elementos estructurales de los edificios existentes en relación únicamente a los efectos directos que el sismo pudo haber causado. Ningún análisis estructural ni cálculos han sido evaluados pertinentes a la construcción original de los edificios ni su cumplimiento con los códigos de construcción vigentes en Puerto Rico.

