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:** Ave. Ramón B. López #401 SECT. Sabana Llana
   City: San Juan **State:** P.R. **Zip:** 00926
2. **School Name:** Elemental Nueva Dr. Rafael López Sicardó
3. **Date of inspection:** 16/enero/2020
4. **Inspector's Name:** Luis T. Cádiz / José R. Gayá - Supervisor

B. BUILDING SITE INSPECTION

Revisado 3/Feb/2020

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?	☐	☑
b. Signs of fresh cracking in or movement of hardscape?	☐	☑
c. Signs of fresh cracking in or movement of retaining walls?	☐	☑
d. Patterns of cracking that extend through the ground surface, hardscape, and improvements?	☐	☑
e. Evidence of sand boils or other fresh-appearing deposits of sand or mud?	☐	☑
f. Unusual slumping, rising, or bulging of the ground surface?	☐	☑
g. Evidence of rock falls or slope instability above site?	☐	☑
h. Ground movement or wet areas indicating possible broken underground utility lines?	☐	☑
i. Other phenomena (e.g., septic tanks surfacing, differential settlement, ground consolidation)?	☐	☑

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

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): 2003

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 _____

14. Exterior wall finish:
- ☑ a. Stucco
- ☐ b. Panel siding
- ☐ c. Metal siding
- ☐ d. Masonry veneer
- ☐ 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 UNKNOWN

16. Sill bolting:
- ☐ a. Structure bolted to foundation
- ☐ b. Structure not bolted to foundation
- ☐ c. Don't know
- ☑ d. N/A

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

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

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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?	☐	☑	
b. Obvious lean in any story?	☐	☑	
20. Exterior walls: (if yes, provide description and photos)			
a. Fresh cracking at corners of door and window openings?	☐	☑	☐
b. Fresh cracking at building corners?	☐	☑	☐
c. Door or window openings racked out of square?	☐	☑	☐
d. Broken glass in windows or doors?	☐	☑	☐
e. Wall leaning?	☐	☑	☐
f. Bulging or delamination of stucco?	☐	☑	
g. Pattern of cracking that extends from the ground surface, through foundation, and wall?	☐	☑	
h. Evidence of recent relative movement at mudsill line?	☐	☑	
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?	☐	☑	☐
j. Collapse, partial collapse, or separation of masonry veneer?	☐	☑	☐
k. Severe cracking, separations, or offsets at building irregularities?	☐	☑	☐
21. Foundation: (if yes, provide description and photos)			
a. Fresh cracking of exposed perimeter foundation?	☐	☑	
b. Relative movement between slab and footing in "two-pour" slab-on-grade foundations?	☐	☐	☑
c. Ask homeowner if any earthquake retrofits have been done to the home?	☐	☐	☑
If Y describe: _____			
d. If the answer to c is Y, were bolts added to connect the home to the foundation?	☐	☐	☑
e. If the answer to c is Y, were plywood or sheathing added to any cripple walls under the home?	☐	☐	☑

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D. EXTERIOR BUILDING INSPECTION (continued)

22. Kitchen Hook (if yes, provide description and photos)	YES	NO	N/A
a. Present on external wall?	☐	☐	☑
b. Present at internal location?	☐	☐	☑
c. Collapse or partial collapse?	☐	☐	☑
d. Visible damage or cracking?	☐	☐	
e. Visible tilting or separation from building?	☐	☐	☑
f. Shifted or loose and displaced	☐	☐	☑
g. Deterioration or deformation	☐	☐	☑
	☐	☐	☑

23. Roof: (if yes, provide description and photos)			
a. Shifted or dislodged or concrete damage?	☐	☑	☐
b. Impact damage to roof from falling object?	☐	☑	☐
c. Displaced rooftop HVAC units?	☐	☑	☐
d. Significantly sagging roof ridgelines?	☐	☑	☐
e. Signs of movement between rafter tails and wall finishes at eaves?	☐	☑	☐
f. . Buckled/dislodged flashing or tearing of roof membrane, roof/wall intersections in split level buildings, additions, or other building irregularities?	☐	☑	☐
g. Tearing of roof membrane or deck waterproofing at re-entrant corners?	☐	☑	☐
h. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of rooftop mechanical equipment?	☐	☑	☐
i. Shifting of or damage to solar panels?	☐	☐	☑

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

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?	☐	☐	☑
	b. Evidence of recent settlement or displacement of exterior steps, patios, or walkways relative to the building?	☐	☑	
	c. Signs of movement between building floor and/ or exterior hardscape or retaining wall along the uphill side of hon steeply sloping sites?	☐	☑	☐
	d. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of air conditioning condenser unit(s)?	☐	☑	☐
25.	**Independent exterior improvements: (if yes, provide description and photos)**			
	a. Damaged detached gazebo?	☐	☐	☑
	b. Damage to fences / privacy walls?	☐	☑	☐
	c. Damage to retaining walls?	☐	☐	☑
	d. Damage to walkway?	☐	☑	☐
	e. Evidence of leakage from water supply lines?	☐	☑	☐
	f. Toppling, shifting, or damage/leakage at fuel connection of propane tanks?	☐	☑	☐
	g. Others damage	☐	☐	☑

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 STUCCO

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

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?	☐	☑	☐
	b. Fresh cracking of wall finishes at wall corners or wall/ceiling intersections?	☑	☐	☐
	c. Door or window openings racked out of square?	☐	☑	☐
	d. Wall leaning?	☐	☑	☐
	e. Pattern of cracking that extends from the floor slab through the wall?	☐	☑	
	f. Movement or sliding of walls relative to the floor?	☐	☑	
	g. Severe cracking, separations, or offsets at building irregularities?	☐	☑	☐
	h. Doors damaged, difficult to operate, or inoperable?	☐	☑	☐
	i. Windows damaged, difficult to operate, or inoperable?	☐	☑	☐
28.	**Ceilings:** (if yes, provide description and photos)			
	a. Collapse of ceiling finish?	☐	☑	☐
	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"?	☐	☑	☐
	c. Damage to ceiling finishes in vicinity of corridors or commons places?	☐	☑	☐
	d. Separations or cracks in ceiling finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?	☐	☑	☐
	e. Water damage or evidence of recent leakage from plumbing lines or roofing?	☐	☑	☐

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

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?	☐	☑	☐
	b. In slab-on-grade locations, fresh cracking of floor slab or floor finishes?	☐	☑	☐
	c. Significant sagging or unusual bounciness of floors frames?	☐	☑	☐
	d. Separations or cracks in floor finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?	☐	☑	☐
	e. Signs of movement between floor and exterior hardscape or retaining wall along the uphill side of homes on steeply sloping sites?	☐	☑	☐
	f. A pattern of fresh cracks, gaps, or joint separations in floor finishes?	☐	☑	☐
	g. Impact damage to floor finishes from falling contents?	☐	☐	☑
30.	**Mechanical systems: (if yes, provide description and photos)**			
	a. Displaced connection of appliance flues connected to chimneys?	☐	☐	☑
	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?	☐	☑	☐
	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?	☐	☑	☐
	d. Damage to gas line of gas stoves or gas fueled clothes dryers?	☐	☑	☐
	e. Damage to toilets?	☐	☑	☐
	f. Decreased or restricted water pressure at appliances, faucets, or toilets?	☐	☑	☐
	g. Toppling or shifting of free-standing wood stove and/or flue?	☐	☑	☐
	h. Toppling, shifting, damage/leakage at fuel connection of fuel oil tank?	☐	☑	☐
	i. Other Damage in the dining room	☐	☐	☑
	j. Damage near the gas tank	☐	☑	☐

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

E. INTERIOR INSPECTION (continued)

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

F. CONTINGENT INSPECTIONS

		YES	NO	N/A
32.	**Retaining Tank Wall damage?**	☐	☐	☑
33.	Water tank or other field subterranean structure	☐	☐	☑

G. RECOMENDACIÓN AL SECRETARIO

Departamento de Educación
Dr. Eligio Hernández Pérez
Secretario de Educación

Hora: 1:30 pm

Código: 77289 ~~86356~~

Escuela: Elemental Nueva Dr. Rafael López Sicardó

Fecha de Inspección: 16/enero/2020

Municipio: San Juan

Abrir Escuela (Verde) ☑

Abrir Parcialmente la Escuela (Amarillo) ☐

No Abrir la Escuela (Rojo) ☐

Comentarios:

VER "DISCLAIMER" EN PAGINA ADJUNTA

En la inspección solo se pudo identificar grietas pequeñas (≤ 1/16") en el area de empañetados. Tambien se identificó grietas en el area de juntas frias entre elementos estructurales y paredes de bloque. Existe grieta en pared de blogue localizada en área de almacén de segundo piso que se recomienda reparar por seguridad, ya que no se conoce la construcción de esta pared de blogue.

José R. Bayá Gil
Nombre (Letra de Molde)

Firma

19679
Licencia

JOSE R. BAYA GIL
INGENIERO
LICENCIADO
Lic. #19679
PUERTO RICO
Sello

H. DISCLAIMER

Green means that no severe structural damage was observed; Yellow refers to some structural damage, which requires attention; Red refers to the structure showing significant structural damage.

It should be noted that, as requested, this report is based solely on a visual inspection of the as-is facility for the purpose of assessing the presence of significant structural damage resulting from the seismic event since January 07, 2020 which may affect its structural condition compared to that prior to the seismic event.

The determination of the structural adequacy of the existing facility to meet the applicable design and construction building codes requirements as well as developing recommendations for the rehabilitation of the facility will require a more extensive investigation than that one requested to be conducted and reported herein.

COLEGIO DE INGENIEROS Y AGRIMENSORES
DE PUERTO RICO

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ESTAMPILLA DIGITAL ESPECIAL (EDE)

Ing. José R. Gaya Gil, PE

Práctica de:	Ingeniería
Licencia:	19679
Renglón:	Documento
Descripción del Trabajo:	Inspección y Verificación de Instalaciones
Fecha de Emisión:	2020-01-24
Monto Emitido:	$5
Número de Serie:	3071-7057-8493-0562
Número de Caso:	26
Proyecto / Unidad:	Escuela Elemental Nueva Dr. Rafael López Sicardó
Rol del Profesional:	Consultor

Certificación:

El profesional certifica con la emisión de la estampilla digital especial del Colegio de Ingenieros y Agrimensores de Puerto Rico el haber cumplido con las disposiciones de la Sección 11 de la Ley 319 del 15 de mayo de 1938, según enmendada.

La colocación del sello profesional constituye la cancelación de la estampilla digital especial