Α.	GENERAL INFORMATION		
1.	Street Address of the school:	Calle Muñoz Rivera final	
-	City: San Lorenzo	State: Puerto Rico	Zip:
2.	School Name: Luis Muñoz Rivera		
3.	Date of inspection: 15 de enero de 2020		
4.	Inspector's Name: <u>José A. Cora Rodríguez / José</u>	ava Gil P.E. (Supervisor)	
В.	Inspector's Name: José A. Cora Rodríguez / José BUILDING SITE INSPECTION	Revisado 7 Tel	56
5.	Utility Service Safety:		
detecte	TANT–Immediately following an earthquake, check the ent d, turn off the gas at the meter where it enters the house. I e gas has been shut off, vacate the building and contact the	cate and repair leaks before turning gas l	
	TANT–Before entering a damaged, vacant building verify the ither a manual valve or a seismically activated gas shut-off		
	a. Odor of natural gas leakage?	b. Downed powerlines?	YES 🛛 NO
6.	Surrounding topography: (⊡check one) ☐ Flat ☐ Gently sloping (easily walkable) ☐ Steeply sloping (difficult or impossible to walk in so	e areas)	
7.	Building pad: (@check one) Flat Terraced or multilevel Gently sloping (less than 4-foot ground surface electors) Steeply sloping (greater than 4-foot ground surface)		
8.	Geotechnical Issues: (if yes, provide description and ph	os)	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 w	s?	
	d. Patterns of cracking that extend through the ground s	face, hardscape, and improvements?	
	e. Evidence of sand boils or other fresh-appearing depo	ts of sand or mud?	
	f. Unusual slumping, rising, or bulging of the ground su	ace?	
	g. Evidence of rock falls or slope instability above site?		
	h. Ground movement or wet areas indicating possible b	ken underground utility lines?	
	i. Other phenomena (e.g. septic tanks surfacing differ	tial settlement ground consolidation)?	

В.	BUILDING SITE INSPECTION (continued)		YES	NO
9.	Evidence of earthquake-induced permanent ground deformation property?	in the immediate vicinity of the		
C.	GENERAL BUILDING INFORMATION		Maata ay	
10.	Safety Assessment Tag: (@check one) None G (others): Yellow	reen		
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 s 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	Sill bolting: a. Structure bolted to foundate by the structure not bolted to foundate by the structure bolted to foundate by the structure by the structure bolted to foundate by the structure by th		
14.	g. Other, describe	b. Hip c. Flat or very low slope d. Shed e. Other, describe Roof covering: a. Asphaltic membrane b. Wood shingle or shake		
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	c. Concrete d. Metal e. Elastomeric f. Other, describe		

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

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

D.	EXTERIOR BUILDING INSPECTION (continued)			
24.	Attached or abutting improvements: (if yes, provide description and photos)	YES	NO	N/A
	a. Collapse, partial collapse, or separation of attached porches, carports, Gazebos, or		\boxtimes	
	awnings?			
	b. Evidence of recent settlement or displacement of exterior steps, patios,		\boxtimes	
	or walkways relative to the building?	-	57	,,
	c. Signs of movement between building floor and/ or exterior hardscape or retaining	Ш	\boxtimes	Ш
	wall along the uphill side of hon steeply sloping sites?			
	d. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of		\boxtimes	
	air conditioning condenser unit(s)?			
25.	Independent exterior improvements: (if yes, provide description and photos)	F1	57	_
	a. Damaged detached gazebo?			
	b. Damage to fences / privacy walls?			
	c. Damage to retaining walls?	Ц	\bowtie	
	d. Damage to walkway?			
	e. Evidence of leakage from water supply lines?			
	f. Toppling, shifting, or damage/leakage at fuel connection of propane tanks? Desconocido.			
	g. Others damage Desconocido.			
E.	INTERIOR INSPECTION			
26.	General information	1-1-		
	 a. If interior access not possible, identify reason b. Typical wall and ceiling fir i. Red tag i. Drywall 	IISN		
	ii. Hazardous materials ii. Plaster on gypsum			
	iii. Other hazardous condition, iii. Plaster on wood lated describe iv. Other, describe En		afón acustico.	
	W. Ottlet, describe			
	iv. Other, describe			

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

E.	INTERIOR INSPECTION (continued)			
29.	Floors: (if yes, provide description and photos)	YES	NO	N/A
	a. Evidence of recent sloping, sagging, settlement or displacement of floors?		\boxtimes	
	b. In slab-on-grade locations, fresh cracking of floor slab or floor finishes?		\bowtie	
	c. Significant sagging or unusual bounciness of floors frames?		\boxtimes	
	d. Separations or cracks in floor finishes at split-levels, re-entrant corners, additions,		\boxtimes	
	appendages, or other building discontinuities?			
	e. Signs of movement between floor and exterior hardscape or retaining wall along		\boxtimes	
	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?	Ц	\boxtimes	
30.	Mechanical systems: (if yes, provide description and photos)		\boxtimes	
	a. Displaced connection of appliance flues connected to chimneys?			
	b. Toppling, shifting, leakage from tank, leakage from water connections displaced flue			ГЖ
	connection or damage/leakage at gas line or electrical connection of water heater	ido.		
	c. Shifting, damage/leakage at gas line, flue connection, electrical connection, refrigerant line,			X
	and condensate drain connection of furnace or air conditioning fan-coil unit? Desconocido.)			X
	d. Damage to gas line of gas stoves or gas fueled clothes dryers? Desconocido			
	e. Damage to toilets?		\boxtimes	
	f. Decreased or restricted water pressure at appliances, faucets, or toilets?	potenting	-	
	g. Toppling or shifting of free-standing wood stove and/or flue?			Ц
	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 Desconocido.			
	, and the second			

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?		\boxtimes	
	b. Impact damage to countertops from falling objects?		\boxtimes	
	c. Cracking of ceramic tile in showers or tub/shower enclosures consistent with		\boxtimes	
	earthquake damage to adjacent wall finishes?			
F.	CONTINGENT INSPECTIONS			
		YES	NO	N/A
32.	Retaining Tank Wall damage?		\boxtimes	
33.	Water tank or other field subterranean structure		\boxtimes	

G. RECOMENDACIÓN AL SECRETARIO Departamento de Educación Dr. Eligio Hernández Pérez Secretario de Educación Hora: 3:30pm Código: AEP-8644 Fecha de Inspección: Escuela: Esc. Luis Muñoz Rivera 15 de enero de 2020 Municipio: San Lorenzo, PR. Abrir Escuela (Verde) Abrir Parcialmente la Escuela (Amarillo) No Abrir la Escuela (Rojo)

Nota: Verde se refiere a que no se observaron daños estructurales severos; Amarillo se refiere a que se observaron algunos daños estructurales, que requieren atención; Rojo re refiere a que la estructura evidencia daños estructurales significativos.

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.

No se encontró daño estructural luego del terremoto a la fecha de inspección del 15 de enero de 2020 hora 3:30pm. El plantel educativo está compuesto de varias estructuras que poseen en su diseño estructural la condición de columna corta o "short column" esta condición deberá ser atendida lo cual recomendamos que se realicen estudios y análisis estructurales adicionales. No obstante observamos que en algunas estructuras las columnas localizadas en los pasillos, aparentan tener en el punto de interconexión entre la pared de bloques y la columna una junta de expansión en ambos extremos de la pared.

- Pared de bloques localizada en pasillo del comedor en fuente de agua. Condición preexistente. Recomendamos remover por seguridad la sección fracturada y reparar. Ver fotos IMG_1236.
- Fascia exterior de bajantes drenajes de techos. No daño estructural. Recomendamos remover y reparar. Ver foto IMG_1281.
- Techo alero pasillo frente salón 5 primer nivel. Acero de refuerzo corroído ocasiona el desprendimiento de hormigón. Condición preexistente. Recomendamos remover por seguridad el hormigón desprendido y reparar. Ver foto IMG_1367.

Notas generales: 1. Grietas generales en el empañetado en paredes de bloque en la parte superior donde conecta con las vigas y en la conexión de las paredes de bloques con las columnas. Se recomienda reparación del empañetado. 2. Filtraciones de techo y entre pisos intermedios. Condición preexistente. No relacionado con el terremoto. 3. Juntas de expansión. Observamos que están en deterioro. Las mismas deben revisarse y en las juntas empañetadas en plafón de encontrar material de cemento suelto debe removerse por seguridad. 4. Recomendamos verificar y probar las líneas de gas en cocinas y sistemas de control de incendios en los planteles antes de comenzar las clases.

Comentarios adicionales ver adjunto:

José Gaya Gil Nombre (Letra de Melde)

Firma

19679 # Licencia



IMG. 1367







IMG. 1281



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:

Certificación

Descripción del Trabajo: Inspección y Verificación de Instalaciones

Fecha de Emisión:

2020-02-07

Monto Emitido:

\$5

Número de Serie:

7904-8394-0724-9672

Número de Caso:

8644

Proyecto / Unidad:

Escuela Luis Muñoz Rivera

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