FEMA P-154 Data Collection Form

No. Stories: Above Grade:   Below Grade:   Ovar Built: 1937   ES Code Year: 1935 UBC				
Retaining wall   Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK Adjacency:				
Adjacency: Pounding Falling Hazards from Taller Adjacent Building				
Concrete column  Line of roof above  Plan  North  North  SKETCH  Line of roof above  North  Additional sketches or comments on separate page  Line of roof tile  COMMENTS:  Code year is assumed as no drawings were provided. North line is a retaining wall with approximately 7' of retained earth. There is a moderate upslope to the west of the wall. Site was not considered to be sloping. South line consists of four RC columns; it is likely they are not well-confined. Roof framing is large timber; connections between columns and framing members is unknown. Roof tiles are badly damaged and do not appear to be anchored. East bay has been enclosed with nonstructural infill material. UC Seismic Rating: V				
not well-confined. Roof framing is large timber; connections between columns and framing members is unknown. Roof tiles are badly damaged and do not appear to be anchored. East bay has been enclosed with nonstructural infill material. UC Seismic Rating: V				
BASIC SCORE MODIFIERS AND FINAL LEVEL 1 SCORE S.				
DAGIO COCILE, MICHINE, AND I MALE LEVEL 1 COCILE, OLI				
FEMA BUILDING TYPE Do Not Know W1 W1 A W2 S1 S2 S3 S4 S5 C1 C2 C3 PC1 PC2 RM1 RM2 URM MI				
Basic Score         3.6         3.2         2.9         2.1         2.0         2.6         2.0         1.7         1.5         2.0         1.2         1.6         1.4         1.7         1.7         1.0         1.5           Severe Vertical Irregularity, $V_{L1}$ -1.2         -1.2         -1.0         -1.0         -1.1         -1.0         -0.8         -0.9         -1.0         -0.7         -1.0         -0.7         -0.7         -0.6         -0.6         -0.7         -0.6         -0.5         -0.5         -0.6         -0.4         -0.6         -0.5         -0.5         -0.6         -0.4         -0.6         -0.5         -0.5         -0.6         -0.4         -0.6         -0.5         -0.5         -0.6         -0.4         -0.6         -0.5         -0.5         -0.6         -0.5         -0.5         -0.6         -0.5         -0.5         -0.6         -0.5         -0.5         -0.6         -0.6         -0.8         -0.0 <td< th=""></td<>				
FINAL LEVEL 1 SCORE, $S_{L1} \ge S_{MIN}$ . 0.5				
EXTENT OF REVIEW  Exterior:				
Yes, Final Level 2 Score, $S_{L2}$ 0.6 No the structural system  Whostructural hazards? Yes No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary.  No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary.  No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary.  No, no nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary.				
detailed evaluation is not necessary				

Figure 1-1 RVS Level 1 Data Collection Form for High seismicity region.

FEMA P-154 Data Collection Form

Optional Level 2 data collection to be performed by a civil or structural engineering professional, architect, or graduate student with background in seismic evaluation or design of buildings.

Bldg Name: Bus Shelter	Final Level 1 Score:	$S_{Li} = 0.5$	(do not consider S <sub>MIN</sub> )
Screener: TAS/Englekirk	Level 1 Irregularity Modifiers:	Vertical Irregularity, $V_{L_1} = 0.0$	Plan Irregularity, $P_{L1} = -0.8$
Date/Time: 04/21/2021 12:00 PM	ADJUSTED BASELINE SCORE:	$S' = (S_{ij} - V_{ij} - P_{ij}) = 0.5 - 0.0$	· (-0.8) = 1.3

Topic		RS TO ADD TO ADJUSTED BA				Yes	Subtotals
Vertical	Statement (If statement is true, circle the "Yes" modifier; otherwise cross out the modifier.)   Sloping   W1 building: There is at least a full story grade change from one side of the building to the other.						Gubtotuis
Irregularity, V <sub>L2</sub>	Site Non-W1 building: There is at least a full story grade change from one side of the building to the other.				-1.2 -0.3		
irregularity, VL2	Weak W1 building cripple wall: An unbraced cripple wall is visible in the crawl space.				I.	-0.6	
	and/or			o ato al ma	mant frama	- Part 197	
	, , , , , , , , , , , , , , , , , , ,					-1.2	
	Soft Story (circle one maximum)  and there is less than 8' of wall on the same line (for multiple occupied floors above, use 16' of wall minimum).  W1A building open front: There are openings at the ground story (such as for parking) over at least 50% of the length of the building.						
	maximum	Non-W1 building: Length of lateral system at any story is less than 50% of that at story above or height of any					
		story is more than 2.0 times the height of the story above.					
		Non-W1 building: Length of lateral system at any story is between 50% and 75% of that at story above or height				-0.9	
		of any story is between 1.3 and 2.0 times the height of the story above.					
	Setback						
	Jelbauk	diaphragm to cantilever at the offset.					
			n at upper stories are inboard of those at lower storie	e		-1.0 -0.5	
						-0.3	
	Short	There is an in-plane offset of the lateral elements that is greater than the length of the elements.  Short C1,C2,C3,PC1,PC2,RM1,RM2: At least 20% of columns (or piers) along a column line in the lateral system have					
	Column/		he nominal height/depth ratio at that level.	ne lateral	system nave	-0.5	
	Pier		olumn depth (or pier width) is less than one half of th	e denth o	f the chandre		
	I ICI	or there are infill walls or adjacent floo		ie depti i o	i ii ie spailuit	-0.5	
	Split Level	There is a split level at one of the floo				-0.5	
	Other		ertical irregularity that obviously affects the building's	eaiemic n	erformance	-1.0	$V_{L2} = 0.0$
	Irregularity					-0.5	(Cap at -1.2)
Plan	Irregularity There is another observable moderate vertical irregularity that may affect the building's seismic performance.  Torsional irregularity: Lateral system does not appear relatively well distributed in plan in either or both directions. (Do not						
Irregularity, <i>P</i> <sub>L2</sub>	include the W1A open front irregularity listed above.)						
megalanty, 7 12	Non-parallel system: There are one or more major vertical elements of the lateral system that are not orthogonal to each other.					-0.7	
	Reentrant corner. Both projections from an interior corner exceed 25% of the overall plan dimension in that direction.					-0.4	
	Diaphragm opening: There is an opening in the diaphragm with a width over 50% of the total diaphragm width at that level.					-0.2	
	C1, C2 building out-of-plane offset: The exterior beams do not align with the columns in plan.					-0.4	$P_{L2} = -0.7$
				ic nerform	ance	-0.7	(Cap at -1.1)
Redundancy	Other irregularity: There is another observable plan irregularity that obviously affects the building's seismic performance.  The building has at least two bays of lateral elements on each side of the building in each direction.						(Cup ut -1.1)
Pounding	Building is separated from an adjacent structure  The floors do not align vertically within 2 feet.  (Cap total					+0.3	
r ouriding	DE 800 000 000 000 000 000 000 000 000 00	by less than 1% of the height of the shorter of the  One building is 2 or more stories taller than the other.					
						.2) -0.5	
S2 Building	building and adjacent structure and:  The building is at the end of the block.  modifiers at -1.2  "K" bracing geometry is visible.					-1.0	
C1 Building	Flat plate serves as the beam in the moment frame.						
PC1/RM1 Bldg	There are roof-to-wall ties that are visible or known from drawings that do not rely on cross-grain bending. (Do not combine with				-0.4 +0.3		
FC I/NIVII blug			rom drawings that do not rely on cross-grain bending	J. (DO 1101 i	combine wit	7 70.3	
PC1/RM1 Bldg	post-benchmark or retrofit modifier.)  The building has closely spaced, full height interior walls (rather than an interior space with few walls such as in a warehouse).						
URM							
MH	Gable walls are present.						
Retrofit	There is a supplemental seismic bracing system provided between the carriage and the ground.						M = 0.0
	Comprehensive seismic retrofit is visible or known from drawings.					+1.4	W. W
		$S_{L2} = (S' + V_{L2} + P_{L2} + M) \ge S_{MIN}$				(Transfer	to Level 1 form
			egatively affects the building's seismic performance:				
lf yes, describe tl	ne condition in	the comment box below and indicate on	the Level 1 form that detailed evaluation is required	independ	ent of the bu	ilding's score	
OBSERVAR!	E NONSTO	HCTHRAL HAZARDS					
	-	UCTURAL HAZARDS		V	Na T	A	
Location Exterior	1	Check "Yes" or "No")	or unbroad unrainfored durants at income	Yes	No	Com	ment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.						
	There is heavy cladding or heavy veneer.						
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.						
		unreinforced masonry appendage over e			X		
		gn posted on the building that indicates			<del>↓</del>		
	I Ihere is a to	iller adjacent hjjilding with an i inanchore	d LIRM wall or unbraced LIRM paraget or chimney	1 1	∧ I		

Location	Statement (Check "Yes" or "No")	Yes	No	Comment
Exterior	There is an unbraced unreinforced masonry parapet or unbraced unreinforced masonry chimney.		X	
	There is heavy cladding or heavy veneer.		Χ	
	There is a heavy canopy over exit doors or pedestrian walkways that appears inadequately supported.		Χ	
	There is an unreinforced masonry appendage over exit doors or pedestrian walkways.		Χ	
	There is a sign posted on the building that indicates hazardous materials are present.		Χ	
	There is a taller adjacent building with an unanchored URM wall or unbraced URM parapet or chimney.		X	
	Other observed exterior nonstructural falling hazard:	Χ		Unanchored roof tiles
Interior	There are hollow day tile or brick partitions at any stair or exit corridor.		Χ	
	Other observed interior nonstructural falling hazard:		X	
Estimated No	nstructural Seismic Performance (Check appropriate box and transfer to Level 1 form conclusions)			_
	☐ Potential nonstructural hazards with significant threat to occupant life safety → Detailed Nonstructural	al Evalu	ation rec	ommended
	Nonstructural hazards identified with significant threat to occupant life safety → But no Detailed Nor	structur	al Evalua	tion required
	☐ Low or no nonstructural hazard threat to occupant life safety → No Detailed Nonstructural Evaluation	n require	d	

Figure 1-2 RVS Level 2 Optional Data Collection Form for High seismicity region.