

APPENDIX H: STATE-OWNED BUILDING VULNERABILITY ASSESSMENT QUESTIONNAIRE

The first 14 questions are background information needed to conduct a successful risk assessment.

1. **ID Number**
 - Agency assigned ID number, if one exists
2. **Agency (name)**
 - Operating agency within or runs the building
3. **Institution**
 - Name of the subsidiary agency (DMA is the operating Agency, WEM is the institution within the agency)
4. **Asset Number**
 - DOA assigned asset number; individually marking the DOA building
5. **Name of Building (alternate name)**
 - Alternate name that the institution or building manger would call their building
6. **Street Address of the Building**
 - Physical street address of building; could be same or different than mailing address
7. **City, Village, Town**
 - City, Village, Town which the building is located
8. **County**
 - County which the building is located
9. **State**
 - State within the building is located
10. **Zip Code (+4)**
11. **Institution Contact Name**
 - Primary Agency contact whom organizes the collection
12. **Contact Phone Number**
 - Primary agency contact phone number
13. **Building Contact Persons Name**
 - Building primary contact
14. **Contact Phone Number**
 - Building primary contact number

Physical Building Properties

15. **Latitude (decimal degree)**

- Latitude of the building in decimal degrees
16. **Longitude (decimal degree)**
- Longitude of the building in decimal degrees
17. **Photograph Numbers: Number photo locations on sketch above**
- Attached photographs of building
18. **Critical Facility**
- Critical facilities include all state owned facilities that are considered essential because of their function, size, service area, or uniqueness, delivery of vital services and for the protection of the health and safety of citizens.
19. **Original Year of Construction**
- Completed construction of original building
20. **Year of Additions**
- Year of any additions to current building
21. **Name of each addition if different from building name**
22. **Gross Square Feet (outside dimensions)**
- Square footage of building
23. **Number of Stories Above Ground**
24. **Number of Stories Below Ground**
25. **Number of occupied floors**
- Number of floors to which there is a primary work area or offices for someone
26. **Square Footage of each Story**
- Square footage of each story, both above and below ground
27. **Building Value (\$)**
- Current building value
28. **Valuation Year**
- Year most recent building value was determined
29. **Contents Value (\$)**
- Value of contents in the building
30. **Building Condition**
- Unknown
 - Excellent – Risk = 1
 - No defects
 - As new condition and appearance
 - Good – Risk = 2

- Minor defects
- Superficial wear and tear
- Some deterioration to finishes
- Major maintenance not required
- Fair – **Risk = 3**
 - Average condition
 - Significant defects are evident
 - Worn finishes require maintenance
 - Services are functional but need attention
 - Deferred maintenance work exists
- Poor – **Risk = 4**
 - Badly deteriorated
 - Potential structural problems
 - Inferior appearance
 - Major defects
 - Components fail frequently

31.

Building Structure Type

<http://academics.triton.edu/faculty/fheitzman/BUILDING%20STRUCTURE%20TYPES.html>

- Type I – Building elements are of noncombustible materials (see Chapter_6_Types of Construction)
 - **Risk = 1**
- Type II – Building elements are of noncombustible materials (see Chapter_6_Types of Construction)
 - **Risk = 1**
- Type III – Exterior walls are of noncombustible materials and the interior building elements are of any material permitted by the code
 - **Risk = 2**
- Type IV – Heavy Timber; Exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood without concealed spaces
 - **Risk = 2**
- Type V – Structural elements, exterior and interior walls are of any materials permitted by the code.
 - Fire-resistance rated construction
 - **Risk = 3**
 - Non fire-resistance rated construction
 - **Risk = 3**
- Unknown

32.

Foundation Type

0 = Unknown

1 = Slab

- Is a structural engineering practice whereby the concrete slab that is to serve as the foundation for the structure is formed from a mold set into the ground.

2 = Perimeter (shallow)

- Is embedded a meter or so into soil. One common type is the spread footing which consists of strips or pads of concrete (or other materials) which extend

below the frost line and transfer the weight from walls and columns to the soil or bedrock.

3 = Combined Footing

- A continuous spread footing is commonly used to provide a stable base around the entire perimeter of a structure. Buildings with spread footings often include interior spot footings. A spread footing supports the weight (load) from the exterior or foundation walls. The footing thickness provides the strength needed to support the weight. The wider width of the footing base creates a large area to transfer this weight to the ground and to prevent settlement.

4 = Single Column Footing

- A spot or pad footing is used to support a single point of contact, such as under a pier or post. A spot footing is typically a 2' by 2' square pad, 10" to 12" thick, and made with reinforced concrete rated to 3,000 to 5,000 pounds per square inch (psi) in compression.

5 = Pile

- These methods of retaining wall construction employ bored piling techniques - normally CFA or rotary. They provide special advantages where available working space dictates that basement excavation faces be vertical. Both methods offer technically effective and cost efficient temporary or permanent means of retaining the sides of bulk excavations even in water bearing strata. When used in permanent works, these walls can be designed to accommodate vertical loads in addition to moments and horizontal forces. Construction of both methods is the same as for foundation bearing piles. Contiguous walls are constructed with small gaps between adjacent piles. The size of this space is determined by the nature of the soils.

6 = Drilled Pier

- Rotary boring techniques offer larger diameter piles than any other piling method and permit pile construction through particularly dense or hard strata. Construction methods depend on the geology of the site. In particular, whether boring is to be undertaken in 'dry' ground conditions or through water-logged but stable strata - i.e. 'wet boring'. Boring is done until the hard rock or soft rock layer is reached in the case of end bearing piles. If the boring machine is not equipped with a rock auger, then socketing of the hard rock layer is done with the help of a heavy chisel which is dropped from a height of about 1.5 metres (depends on the weight of the chisel and design requirements) by suspending it from a tripod stand attached to a winch crane. The socketing is carried out until the desired depth within the rock layer has been attained. Usually, the required depth within the rock layer is considered to be equal to the diameter of the pile in hard rock layers and is taken to be equal to 2.5 times the diameter of the pile in soft rock layers.

7 = Elevated Pier

- Is a slab on grade foundation that has been separated from the ground and subsequently raised. Generally, a slab can be raised about three to five feet, although several factors affect how high a given slab can be raised. Factors such as adjacent property, drainage, fill height and grading all impose limitations on the maximum practicable raised slab elevation.

8 = Caisson

- Is a retaining, watertight structure used, for example, to work on the foundations of a bridge pier, for the construction of a concrete dam, or for the

repair of ships. These are constructed such that the water can be pumped out, keeping the working environment dry. When piers are to be built using an open caisson and it is not practical to reach suitable soil, friction pilings may be driven to form a suitable sub-foundation. These piles are connected by a foundation pad upon which the column pier is erected.

9 = None

33. Substructure Type

- Unknown
- Slab - concrete slab that is to serve as the foundation for the structure is formed from a mold set into the ground
 - Risk = 1
- Fill – Dirt raising base of structure to grade
 - Risk = 0
- Crawlspace - A crawl space (as the name suggests) is a type of basement in which one cannot stand up — the height may be as little as a foot, and the surface is often soil.
 - Risk = 2
- Basement – The lowermost portion of a structure partly or wholly below ground level
 - Risk = 3
- Pier (Post or Beam) – The piers are connected with grade beams - concrete beams at grade (also referred to as 'ground' beams) - and the structure is constructed to bear on the grade beams, sometimes with heavy column loads bearing directly on the piers.
 - Risk = 1
- Pile (or column) - Foundations relying on driven piles often have groups of piles connected by a pile cap (a large concrete block into which the heads of the piles are embedded) to distribute loads which are larger than one pile can bear
 - Risk = 1

Roof

34. Roof Covering

- Unknown
- Asphalt Shingle - Manufactured by coating a reinforcing material (felt or fibrous glass mat) with asphalt and having mineral granules on the side exposed to the weather.
 - Risk = 3
- Wood Shingle – Normal shingles made of wood instead of asphalt
 - Risk = 3
- Wood Shake - Wooden shingle that is made from split logs
 - Risk = 3
- Barrel Clay Tile – Curved clay tile
 - Risk = 2
- Flat Tile - A thin, flat or convex slab of hard material such as baked clay or plastic, laid in rows to cover walls, floors, and roofs.
 - Risk = 2
- Concrete Flat Tile - A thin, flat or convex concrete slab of hard material such as baked clay or plastic, laid in rows to cover walls, floors, and roofs.
 - Risk = 2

- Slate – flat tile made from slate
 - Risk = 2
- Metal Shingle – same as asphalt shingle, but metal
 - Risk = 2
- Metal Panel – large, flat metal pieces overlaid
 - Risk = 2
- Built-up with gravel – BUR consists of multiple plies of roof felts laminated together with bitumen with gravel on top
 - Risk = 1
- Built-up without gravel – BUR consists of multiple plies of roof felts laminated together with bitumen
 - Risk = 1
- Modified Bitumen – asphalt based roof felt
 - Risk = 1
- Single Ply Membrane (Mechanically Attached) - strong, flexible sheets composed predominately of synthetic polymer manufactured to strict quality control requirements – screw/nail/hinge
 - Risk = 1
- Single Ply Membrane (Adhered) - strong, flexible sheets composed predominately of synthetic polymer manufactured to strict quality control requirements – glued
 - Risk = 1
- Single Ply Membrane (Gravel Ballast) – strong, flexible sheets composed predominately of synthetic polymer manufactured to strict quality control requirements with gravel on top
 - Risk = 1
- Other

35. **Roof Wall Anchorage**

0 = Unknown

1 = Toe nail

- Nails or screws driven at an angle through the truss into the top plate of the wall
 - Risk = 1

2 = Anchor Bolt

- Metal framing anchors makes it possible to reinforce the connection between trusses or rafters and the supporting wall
 - Risk = 1

3 = Strap/Clips

- Steel straps that wrap over the top of the truss and attach to the wall on one side of the truss only
 - Risk = 1

4 = Weld

- Welding of adjacent wall panel and roof panel plates together to secure with exterior wall
 - Risk = 1

5 = None

- Risk = 5

36. **Shielding Height**

Shielding Height is the height of surrounding objects and placement of those objects for protecting/guarding said building from the elements.

- Unknown
- Taller Buildings
 - Risk = 1
- Similar Buildings
 - Risk = 1
- Shorter Buildings
 - Risk = 2
- Taller Trees
 - Risk = 1
- Tree Height Similar to Building Height
 - Risk = 1
- Shorter Trees
 - Risk = 2
- None
 - Risk = 3

37. **Roof Slope (degrees)**

- Unknown
- Less than 10 degrees
 - Risk = 1
- 11 to 20 degrees
 - Risk = 1
- 21 to 30 degrees
 - Risk = 2
- 31 to 45 degrees
 - Risk = 2
- 46 to 60 degrees
 - Risk = 3
- Greater than 60 degrees
 - Risk = 3

38. **Gable Ends Braced**

- Unknown
- Braced – The triangular shape end wall is anchored to the roof and ceiling structure
 - Risk = 0
- Unbraced – The triangular shape end wall is not anchored to the roof or ceiling structure
 - Risk = 2
- NA

39. **Roof Sheathing**

- Unknown

- Plywood – Layered wood board
 - Risk = 2
- Oriented Strand Board (OSB) – Wood panel that shares many of the strength and performance characteristics of plywood
 - Risk = 2
- Plank – Roof decking, consisting of 2-inch (and thicker) tongue-and-groove planking, is commonly used for flat or low-pitched roofs in post-and-beam construction. Single tongue-and-groove decking in nominal 2 by 6 and 2 by 8 sizes is available with the V-joint pattern only
 - Risk = 1
- Metal Deck - Roof deck is popular because it is strong, lightweight, economical, and easy to install
 - Risk = 1
- Concrete Slab
 - Risk = 1
- Batten Deck – Wood roof deck
 - Risk = 2
- Other

40. **Roof Perimeter Architecture**

- Unknown
- Roof overhang < 2 feet
 - Risk = 2
- Roof overhang > 2 feet
 - Risk = 3
- Braced parapet
 - Risk = 1
- Unbraced parapet
 - Risk = 2
- Overhang and braced parapet
 - Risk = 2
- Overhang and unbraced parapet
 - Risk = 3
- None
 - Risk = 1
- Other

41. **Wall Cladding Type**

- Unknown
- Reinforced Masonry or Reinforced Concrete
 - Risk = 1
- Unreinforced Masonry
 - Risk = 2
- Brick Veneer
 - Risk = 2
- Composite Materials Siding

- Risk = 2
- Vinyl
 - Risk = 2
- Metal Panel
 - Risk = 2
- Wood
 - Risk = 2
- Stucco
 - Risk = 2
- EIFS – Exterior Insulation Finishing System
 - Risk = 1
- Glass
 - Risk = 3
- Other

Fire Detection and Suppression System

42. **Fire Alarms**

- Automatic
 - Risk = 1
- Manual
 - Risk = 3
- None
 - Risk = 5

43. **Smoke Detectors**

- Hardwired
 - Risk = 1
- Hardwired and Interconnected
 - Risk = 1
- Battery powered
 - Risk = 3
- None
 - Risk = 5

44. **Sprinkler System**

- Complete
 - Risk = 1
- Partial _____%
 - Risk = 3
- None
 - Risk = 5

Emergency Electric Power

45. **Building Connected to an Emergency Generator**

- Yes – Institution wide generator(s)
 - Risk = 1
- Yes – Building generator(s)
 - Risk = 1
- No generator connection
 - Risk = 3

46. **Generator Fuel Type**
- Diesel or Gas
 - Natural Gas
 - Propane or LP
 - Secondary electric supply

Waste Water Disposal and Treatment

47. **Waste Water Treatment System:**
- Municipally Owned Waste Water Treatment Plant
 - A municipal wastewater treatment plant is a facility that is designed to treat municipal wastewater. The level of treatment at a plant will vary based on the BOD limits and the specific processes involved. This space type in Portfolio Manager is appropriate for primary, secondary, and advanced treatment facilities with or without nutrient removal. Treatment processes may include biological, chemical, and physical treatment. This space type is best applied to wastewater treatment facilities of 150 MGD or smaller
 - Institution Operated Waste Water Treatment Plant
 - Septic System:
 - Serving only this building or multiple buildings at institutions
 - Pumped to drain field or gravity flow to drain field
48. **Is waste water pumped from the building to the collection system or septic tank?**
- Yes
 - No

Water Supply and Distribution System

49. **Water Supply:**
- Municipally owned water system
 -
 - Institution operated water well(s):
 - Number of currently operating well(s) on property: _____
 - Institution operated water tower(s) or reservoir(s)
 - Total storage capacity: _____ gallons
 - Booster station:
 - Yes
 - No
50. **Water Distribution:**
- Municipally owned distribution system and service line to this building
 - Institution owned distribution system and service line to this building
 - Well with service directly to this building

Occupancy and Use

51. **Occupancy Class IBC Chapter 3**
- Assembly Group A:
- Uses intended for the gathering together of persons for the purposes such as civic, social or religious functions, recreation, food or drink

consumption or awaiting transportation. A room of less than 50 persons used for assembly but is accessory to a different occupancy shall be considered that different occupancy. Assembly area less than 750 square feet, which is accessory to a different occupancy, is not considered assembly. Assembly rooms which are accessory to Group E are not considered as Group A. Religious educational rooms and auditoriums with occupant loads less than 100 persons which are accessory to churches are considered A-3. Group A is divided into five sub groups,

- A-1
 - Usually with fixed seating, intended for production and viewing of the performing arts or motion pictures,
 - **Risk = 1**
- A-2
 - Uses intended for food and/or drink consumption
 - **Risk = 1**
- A-3
 - Uses intended for worship, recreation or amusement and other assembly uses not otherwise classified
 - **Risk = 1**
- A-4
 - Uses intended for viewing of indoor sporting events and activities with spectator seating
 - **Risk = 1**
- A-5
 - Uses intended for participation in or viewing outdoor activities
 - **Risk = 1**

Business:

- Assembly occupancies less than 50 persons and/or uses intended for office, professional or service-type transactions, including storage of records and accounts.
- B
 - **Risk = 1**

Educational:

- Uses intended by 6 or more persons at any one time for educational purposes through the 12th grade. Daycare uses for educational, supervision or personal care services for more than 5 children older than 2 1/2yrs
- E
 - **Risk = 1**

Factory & Industrial:

- Uses intended for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair or processing operations that are not classified Group H hazardous or Group S storage. Group is divided into two sub groups,
 - F-1
 - Moderate Hazard
 - **Risk = 3**
 - F-2
 - Low Hazard

○ Risk = 1

High Hazard:

- Uses intended for manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed by code. Group H is divided into five sub groups,
 - H-1
 - Detonation hazard
 - Risk = 5
 - H-2
 - Accelerated burning
 - Risk = 5
 - H-3
 - Materials that readily support combustion or pose a physical hazard
 - Risk = 5
 - H-4
 - Materials are health hazard
 - Risk = 5
 - H-5
 - Semiconductor fabrication facilities and comparable R7D areas which HPM's are used
 - Risk = 5

Institutional:

- Uses intended in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment or in which the liberty of the occupants is restricted. Group I is divided into four sub groups
 - I-1
 - Houses more than 16 persons, on a 24 hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff
 - Risk = 5
 - I-2
 - Used for medical, surgical, psychiatric, nursing or custodial care on a 24 hr basis of more than five persons who are not capable of self-preservation. Less than five people shall be considered an R-3
 - Risk = 5
 - I-3
 - Is inhabited by more than five persons who are under restraint or security and is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupant's control
 - Risk = 5

Mercantile:

- Uses intended for the display and sale of merchandise, and involve stocks of goods, wares or merchandise incidental to such purposes and accessible to the public.
 - M
 - **Risk = 1**

Residential:

- Uses intended for sleeping purposes. Group R is divided into four sub groups
 - R-1
 - Occupants are transient in nature
 - **Risk = 3**
 - R-2
 - Occupancies containing sleeping units or more than two dwelling units where the occupants are more permanent in nature
 - **Risk = 5**
 - R-3
 - One and two family dwelling, or adult and child care facilities that provide accommodation for five or fewer persons of any age for less than 24 hours.
 - **Risk = 5**
 - **Town Houses** are occupancies where the development is owned by others but the individual plot of real estate that the dwelling is seated is owned by the occupant.
 - **Risk = 5**
 - **Condominiums** are occupancies where the development is owned by others including the individual plot of real estate but the interior of the dwelling unit from wall to wall are owned by the occupant.
 - **Risk = 5**
 - R-4
 - Are intended for occupancy as residential care/assisted living facilities including more than five but not more than sixteen occupants, excluding staff
 - **Risk = 5**

Storage:

- Uses intended for storage that is not classified as a hazardous occupancy. Group S is divided into two sub groups
 - S-1
 - Moderate-hazard storage
 - **Risk = 5**
 - S-2
 - Low-hazard storage
 - **Risk = 3**

Utility

- Uses intended for structures of an accessory character and not classified in any specific occupancy
 - U
 - **Risk = 1**

52. **Daytime Occupants (number of people)**

Week Day: _____

Weekend Day: _____

53. **Nighttime Occupants (number of people)**

Week Day: _____

Weekend Day: _____

54. **Kitchen Facilities**

0 = Unknown

1 = Yes

2 = No

55. **Kitchen Capacity (meals per day)**

56. **Dining Facilities**

0 = Unknown

1 = Yes

2 = No

57. **Dining Capacity (number of seats)**

58. **Sleeping Facilities**

0 = Unknown

1 = Yes

2 = No

59. **Sleeping Capacity (number of beds)**

60. **Number of Hospital Beds**

61. **Hazardous Materials Stored On-Site**

0 = Unknown

Risk = 1

1 = Yes

Risk = 5

2 = No

Risk = 1

Flood

FEMA Map Service Center:

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

62. **FIRM Panel Number**

- This field identifies the FIRM panel number for which CBRS data is being referenced. This number is always a 4-digit number corresponding to the number shown on the FIRM title block

63. **FIRM Community Number**

- Each record in the database references one FIRM panel or specific area on a map panel that contains one or more CBRS units. The community's name is presented in the Community field. It is important to note that the data presented in the CBRS Units on FIRM Panel field contains CBRS data for only those areas that fall within the boundaries of the community.

64. **FIRM Effective Date (mm/dd/yyyy)**

- This field identifies the date of the subject FIRM panel containing CBRS areas

65. **Flood Hazard Zone**

Special Flood Hazard Area (SFHA)

- Zone A – **Risk = 5**
 - **A** The base floodplain mapped by approximate methods, i.e., BFEs are not determined. This is often called an unnumbered A Zone or an approximate A Zone.
 - **A1-30** These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
 - **AE** The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
 - **AO** The base floodplain with sheet flow, ponding, or shallow flooding. Base flood depths (feet above ground) are provided.
 - **AH** Shallow flooding base floodplain. BFEs are provided.
 - **A99** Area to be protected from base flood by levees or Federal Flood Protection Systems under construction. BFEs are not determined.
 - **AR** The base floodplain that results from the decertification of a previously accredited flood protection system that is in the process of being restored to provide a 100-year or greater level of flood protection.
- Zone V and VE
 - **V** The coastal area subject to a velocity hazard (wave action) where BFEs are not determined on the FIRM.
 - **VE** The coastal area subject to a velocity hazard (wave action) where BFEs are provided on the FIRM.

Outside SFHA or Undetermined Flood Hazard

- Zone B and Zone X (shaded) – **Risk = 3**

- Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from the 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
- Zone C and Zone X (unshaded) – **Risk = 1**
 - Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.
- Zone D – **Risk = 1**
 - Area of undetermined but possible flood hazards.

66. **Base Flood Elevation**

- The elevation shown on the Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30, and VE that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year.

67. **Vertical Datum for Flood Elevation**

- Unknown
- NGVD (or MSL NGVD)
 - National Geodetic Vertical Datum was the vertical control datum established for vertical control surveying by the general adjustment of 1929. The datum was used to measure elevation or altitude above, and depression or depth below, mean sea level (MSL)
- NAVD (or MSL NAVD)
 - North American Vertical Datum is the vertical control datum established for vertical control surveying based upon the general adjustment of the North American Datum of 1988
- Other

68. **Other Vertical Datum Definition**

- Definition of “other” vertical datum from question 67

69. **Lowest Adjacent Grade Elevation**

- The lowest point of the ground level next to the building
- The lowest or highest finished ground level that is immediately adjacent to the walls of the building. Use natural (pre-construction), ground level, if available, for Zone AO and Zone A (without BFE)
- Risks are based on if the building is located within the floodplain
 - **>2 ft below = 7**
 - **1 ft below = 5**
 - **At BFE = 3**
 - **1 ft above 1**
 - **>2 ft above = 0**

70. **Post-FIRM**

- A building for which construction or substantial improvement occurred after December 31, 1974, or on or after the effective date of an initial Flood Insurance Rate Map (FIRM), whichever is later.
 - **Pre-FIRM = 5**
 - **Post-FIRM = 1**

71. **Elevation of Lowest Finished Floor**

- The measured distance of a building's lowest floor above the National Geodetic Vertical Datum (NGVD) or other datum specified on the FIRM for that location.
- Risks are based on if the building is located within the floodplain
 - **>2 ft below = 7**
 - **1 ft below = 5**
 - **At BFE = 3**
 - **1 ft above = 1**
 - **>2 ft above = 0**

72. **Lowest Floor Below Grade on all sides**

- Unknown
- Yes – The lowest finished floor that is below ground level on all sides
 - **Risk = 3**
- No – The lowest finished floor is above ground level on all sides
 - **Risk = 1**

73. **Mechanical Equipment Height Relative to Lowest Floor (feet)**

74. **Percentage of Contents Value on First Floor (%)**

- **Risk:**
 - **0% = 0**
 - **1% - 20% = 1**
 - **21% - 40% = 2**
 - **41% - 60% = 3**
 - **61% - 80% = 4**
 - **81% - 100% = 5**

75. **Percentage of Contents Value Below Grade (%)**

76. **Building Flood Proofed**

- Any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitation facilities, or structures with their contents.
 - **Risk**
 - **Yes = 0**
 - **No = 5**

Wind

77. **Wind Exposure Class**

- **Exposure B** – Urban and suburban areas, wooded areas or other terrain with numerous closely spaced obstructions having the size of single-family dwellings

or larger. Exposure B shall be assumed unless the site meets the definition of another type of exposure.

- Risk = 1

- **Exposure C** – Open terrain with scattered obstructions, including surface undulations or other irregularities, having heights generally less than 30 feet (9144 mm) extending more than 1,500 feet (457.2) from the building site in any quadrant. This exposure shall also apply to any building located within Exposure B-type terrain where the building is directly adjacent to open areas of Exposure C-type terrain in any quadrant for a distance of more than 600 feet (182.9 m). This category includes flat open country, grasslands and shorelines in hurricane-prone regions.

- Risk = 3

- **Exposure D** – Flat, unobstructed areas exposed to wind flowing over open water (excluding shorelines in hurricane-prone regions) for a distance of at least 1 mile (1.61 km). Shorelines in Exposure D include inland waterways, the Great Lakes and coastal areas of California, Oregon, Washington and Alaska. This exposure shall apply only to those buildings and other structures exposed to the wind coming from over the water. Exposure D extends inland from the shoreline a distance of 1,500 feet (460 m) or 10 times the height of the building or structure, whichever is greater

- Risk = 5

78. **Topography**

- The configuration of a surface including its relief and the position of its natural and man-made features.
 - Unknown
 - Flat – No change in elevation
 - Risk = 5
 - Valley – Depression with predominant extent in one direction
 - Risk = 5
 - Ridge – Continuous elevational crest for some distance
 - Risk = 5
 - Slope – Steepness, incline, gradient, or grade of a straight line
 - Risk = 5

79. **Wind Shielding**

- Unknown
- None
 - Risk = 3
- One Side
 - Risk = 2
- Two Sides
 - Risk = 2
- Three Sides
 - Risk = 1
- Surrounded
 - Risk = 1

80. **Glass Door and Window Opening (%)**

- Unknown

- 0 to 10%
 - Risk = 1
- 11 to 20%
 - Risk = 2
- 21 to 30%
 - Risk = 3
- 31 to 40%
 - Risk = 4
- 41 to 50%
 - Risk = 5
- 51 to 60%
 - Risk = 6
- Greater than 60%
 - Risk = 7

81. **Other Door Area (%) (excludes glass doors)**

- Unknown
- 0 to 10%
 - Risk = 1
- 11 to 20%
 - Risk = 2
- 21 to 30%
 - Risk = 3
- Greater than 30%
 - Risk = 4

82. **Garage Doors (number of doors)**

- A garage door is a large door on a garage that can either be opened manually or by a garage door opener. Although of many designs, most garage doors are sectional, upward-acting, and self-storing. Garage doors are necessarily large to allow passage of automobiles and/or trucks.
 - Unknown
 - None
 - Risk = 0
 - 1 Door
 - Risk = 1
 - 2 Doors
 - Risk = 1
 - 3 Doors
 - Risk = 2
 - 4 Doors
 - Risk = 2
 - 5 Doors
 - Risk = 3
 - Greater than 5 doors
 - Risk = 3

83. **Roll-up doors (number of doors)**

- An overhead door is one designed to open from a mechanism at the top, allowing the door to be pulled up and into a horizontal position. Overhead doors are commonly used as garage doors.
 - Unknown
 - None
 - Risk = 0
 - 1 Door
 - Risk = 1
 - 2 Doors
 - Risk = 1
 - 3 Doors
 - Risk = 2
 - 4 Doors
 - Risk = 2
 - 5 Doors
 - Risk = 3
 - Greater than 5 doors
 - Risk = 3

84. **Door Protection**

- Unknown
- Wood
 - Risk = 2
- Metal
 - Risk = 1
- Plywood
 - Risk = 2
- None
 - Risk = 3
- Other
 - Risk = 1

Manufactured Housing

85. **Manufactured Housing – Tie Downs**

- More tie downs are needed in coastal areas where there is more storm activity, and more damaging storm history. To combat the force of winds, two types of tie downs are used. A vertical tie is used over the roof of a single-wide home to combat wind damage. A diagonal tie down is used to tie the frame down to the ground. This combats winds from lifting up the home. Single-wide homes require both types of tie downs. Due to weight factors, a double-wide mobile home only requires the diagonal tie down to anchor the home and frame to the ground.
 - Unknown
 - Yes
 - Risk = 1
 - No
 - Risk = 5

Damage History

86. **Has the building received damages in the past from natural hazards?**

- Unknown
- Yes
 - Risk = 5
- No
 - Risk = 1