

Summary of input requirements for User Defined Facility (UDF) data fields in Hazus 2.1: for use with Earthquake module

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Cost Contents Design Occupancy Area (Sq Building Year Latitude Longitude Zip Name
Quality Footage) Type Built

Cost - Provide either the replacement cost or building inventory cost. The building inventory cost can be taken from the parcel/assessors information.

Content Cost - Provide content cost if available. Otherwise content cost will be calculated based on the occupancy class as shown in the table below.

| No. | Label | Occupancy Class | Contents Value (%) |
|--------------------|-------|----------------------------------------------|--------------------|
| Residential | | | |
| 1 | RES1 | Single Family Dwelling | 50 |
| 2 | RES2 | Mobile Home | 50 |
| 3 | RES3 | Multi Family Dwelling | 50 |
| 4 | RES4 | Temporary Lodging | 50 |
| 5 | RES5 | Institutional Dormitory | 50 |
| 6 | RES6 | Nursing Home | 50 |
| Commercial | | | |
| 7 | COM1 | Retail Trade | 100 |
| 8 | COM2 | Wholesale Trade | 100 |
| 9 | COM3 | Personal and Repair Services | 100 |
| 10 | COM4 | Professional/Technical/ Business Services | 100 |
| 11 | COM5 | Banks | 100 |
| 12 | COM6 | Hospital | 150 |
| 13 | COM7 | Medical Office/Clinic | 150 |
| 14 | COM8 | Entertainment & Recreation | 100 |
| 15 | COM9 | Theaters | 100 |
| 16 | COM10 | Parking | 50 |
| Industrial | | | |
| 17 | IND1 | Heavy | 150 |
| 18 | IND2 | Light | 150 |
| 19 | IND3 | Food/Drugs/Chemicals | 150 |
| 20 | IND4 | Metals/Minerals Processing | 150 |

| No. | Label | Occupancy Class | Contents Value (%) |
|--------------------|-------|--------------------------------|--------------------|
| 21 | IND5 | High Technology | 150 |
| 22 | IND6 | Construction | 100 |
| Agriculture | | | |
| 23 | AGR1 | Agriculture | 100 |
| | | Religion/Non/Profit | |
| 24 | REL1 | Church/Membership Organization | 100 |
| Government | | | |
| 25 | GOV1 | General Services | 100 |
| 26 | GOV2 | Emergency Response | 150 |
| Education | | | |
| 27 | EDU1 | Schools/Libraries | 100 |
| 28 | EDU2 | Colleges/Universities | 150 |

Design Quality - relates to the code in effect at the time the building was built. Refer to the information below. The building official should have this information as well, so we can assign a specific code for all buildings based on year built.

Capacity curves and fragility curves for High-Code, Moderate-Code, Low-Code and Pre-Code buildings are based on modern code (e.g., 1976 *Uniform Building Code*, 1985 *NEHRP Provisions*, or later editions of these model codes). Design criteria for various seismic design zones, as shown in Table 5.3. Additional description of seismic levels may be found in Section 5.7.

Table 5.3 Approximate Basis for Seismic Design Levels

| Seismic Design Level | Seismic Zone (<i>Uniform Building Code</i>) | Map Area (<i>NEHRP Provisions</i>) |
|----------------------|--------------------------------------------------|-----------------------------------------|
| High-Code | 4 | 7 |
| Moderate-Code | 2B | 5 |
| Low-Code | 1 | 3 |
| Pre-Code | 0 | 1 |

Occupancy – Provide the specific occupancy class for the building based on the table below.

| Label | Occupancy Class | Example Descriptions |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| | Residential | |
| RES1 | Single Family Dwelling | House |
| RES2 | Mobile Home | Mobile Home |
| RES3 | Multi Family Dwelling RES3A Duplex RES3B 3-4 Units RES3C 5-9 Units RES3D 10-19 Units RES3E 20-49 Units RES3F 50+ Units | Apartment/Condominium |
| RES4 | Temporary Lodging | Hotel/Motel |
| RES5 | Institutional Dormitory | Group Housing (military, college), Jails |
| RES6 | Nursing Home | |
| | Commercial | |
| COM1 | Retail Trade | Store |
| COM2 | Wholesale Trade | Warehouse |
| COM3 | Personal and Repair Services | Service Station/Shop |
| COM4 | Professional/Technical Services | Offices |
| COM5 | Banks | |
| COM6 | Hospital | |
| COM7 | Medical Office/Clinic | |
| COM8 | Entertainment & Recreation | Restaurants/Bars |
| COM9 | Theaters | Theaters |
| COM10 | Parking | Garages |
| | Industrial | |
| IND1 | Heavy | Factory |
| IND2 | Light | Factory |
| IND3 | Food/Drugs/Chemicals | Factory |
| IND4 | Metals/Minerals Processing | Factory |
| IND5 | High Technology | Factory |
| IND6 | Construction | Office |
| | Agriculture | |
| AGR1 | Agriculture | |
| | Religion/Non/Profit | |
| REL1 | Church/Non-Profit | |
| | Government | |
| GOV1 | General Services | Office |
| GOV2 | Emergency Response | Police/Fire Station/EOC |
| | Education | |
| EDU1 | Grade Schools | |
| EDU2 | Colleges/Universities | Does not include group housing |

Building Type – Describes the type of building (wood, steel etc). Select from the list below for the appropriate building type.

| No. | Label | Description | Height | | | |
|-----|-------|------------------------------------------------------|----------|---------|---------|------|
| | | | Range | | Typical | |
| | | | Name | Stories | Stories | Feet |
| 1 | W1 | Wood, Light Frame ($\leq 5,000$ sq. ft.) | | 1 - 2 | 1 | 14 |
| 2 | W2 | Wood, Commercial and Industrial ($> 5,000$ sq. ft.) | | All | 2 | 24 |
| 3 | S1L | Steel Moment Frame | Low-Rise | 1 - 3 | 2 | 24 |
| 4 | S1M | | Mid-Rise | 4 - 7 | 5 | 60 |

(continued below)

| | | | | | | |
|----|------|---------------------------------------------------------------------|-----------|-------|----|-----|
| 5 | S1H | | High-Rise | 8+ | 13 | 156 |
| 6 | S2L | Steel Braced Frame | Low-Rise | 1 - 3 | 2 | 24 |
| 7 | S2M | | Mid-Rise | 4 - 7 | 5 | 60 |
| 8 | S2H | | High-Rise | 8+ | 13 | 156 |
| 9 | S3 | Steel Light Frame | | All | 1 | 15 |
| 10 | S4L | Steel Frame with Cast-in-Place Concrete Shear Walls | Low-Rise | 1 - 3 | 2 | 24 |
| 11 | S4M | | Mid-Rise | 4 - 7 | 5 | 60 |
| 12 | S4H | | High-Rise | 8+ | 13 | 156 |
| 13 | S5L | Steel Frame with Unreinforced Masonry Infill Walls | Low-Rise | 1 - 3 | 2 | 24 |
| 14 | S5M | | Mid-Rise | 4 - 7 | 5 | 60 |
| 15 | S5H | | High-Rise | 8+ | 13 | 156 |
| 16 | C1L | Concrete Moment Frame | Low-Rise | 1 - 3 | 2 | 20 |
| 17 | C1M | | Mid-Rise | 4 - 7 | 5 | 50 |
| 18 | C1H | | High-Rise | 8+ | 12 | 120 |
| 19 | C2L | Concrete Shear Walls | Low-Rise | 1 - 3 | 2 | 20 |
| 20 | C2M | | Mid-Rise | 4 - 7 | 5 | 50 |
| 21 | C2H | | High-Rise | 8+ | 12 | 120 |
| 22 | C3L | Concrete Frame with Unreinforced Masonry Infill Walls | Low-Rise | 1 - 3 | 2 | 20 |
| 23 | C3M | | Mid-Rise | 4 - 7 | 5 | 50 |
| 24 | C3H | | High-Rise | 8+ | 12 | 120 |
| 25 | PC1 | Precast Concrete Tilt-Up Walls | | All | 1 | 15 |
| 26 | PC2L | Precast Concrete Frames with Concrete Shear Walls | Low-Rise | 1 - 3 | 2 | 20 |
| 27 | PC2M | | Mid-Rise | 4 - 7 | 5 | 50 |
| 28 | PC2H | | High-Rise | 8+ | 12 | 120 |
| 29 | RM1L | Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms | Low-Rise | 1-3 | 2 | 20 |
| 30 | RM1M | | Mid-Rise | 4+ | 5 | 50 |

| | | | | | | |
|----|------|----------------------------------------------------------------------|-----------|-------|----|-----|
| 31 | RM2L | Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms | Low-Rise | 1 - 3 | 2 | 20 |
| 32 | RM2M | | Mid-Rise | 4 - 7 | 5 | 50 |
| 33 | RM2H | | High-Rise | 8+ | 12 | 120 |
| 34 | URML | Unreinforced Masonry Bearing Walls | Low-Rise | 1 - 2 | 1 | 15 |
| 35 | URMM | | Mid-Rise | 3+ | 3 | 35 |
| 36 | MH | Mobile Homes | | All | 1 | 10 |

Year built - provide the year built. This information may also be available in the parcel/assessors information.

Latitude/Longitude - provide the latitude and longitude if available. Otherwise provide the address and we can determine the lat/long.

Zip code - provide the zipcode for the building.

Name - provide the name of the building