

**AMERICAN ASSOCIATION OF INSURANCE SERVICES
INLAND MARINE GUIDE
BUILDERS' RISK
CIVIL WORKS PROJECT**

RATING

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PREMIUM BASE

The premium base is the limit for each location. Unless otherwise indicated, all loads are expressed as annual loads per \$100 of the limit.

BUILDERS' RISK CIVIL WORKS PROJECT -- PREMIUM DETERMINATION

Each location should be rated separately.

Step 1.A

Basic Load -- Determine the basic load based on the building construction and the following risk characteristics:

- a. Fire Protection - Jobsite
 - 1) proper distribution of fire extinguishers, use of fire watch for welding/cutting operations, proper storage of gas cylinders and flammable liquids, use of U.L. listed temporary heaters
 - 2) inadequate distribution of fire extinguishers, no fire watch for welding/cutting operations, improper storage of gas cylinders and flammable liquids, use of open fires for heating
- b. Fire Protection - Public (if Town Protection Class not available)
 - 1) fire station within five miles of jobsite, staffing by career personnel
 - 2) fire station beyond five miles of jobsite or outside of community or district of jobsite, staffing by volunteer personnel
- c. Fire Potential
 - 1) fire resistive or non-combustible buildings or structures, project includes substantial earthen works, installation of non-combustible equipment or materials (e.g., steel piping)
 - 2) frame buildings or structures, little or no earthen works, little or no installation of non-combustible equipment or materials (e.g., steel piping)
- d. Theft and Vandalism Protection - Jobsite
 - 1) fenced jobsite, use of guards, target materials not stored at jobsite, jobsite not in an isolated area
 - 2) jobsite not fenced, guards not posted at jobsite, target materials stored at jobsite, jobsite in an isolated area
- e. Theft and Vandalism Potential - Jobsite
 - 1) property crime at jobsite area is at or below the national average
 - 2) property crime at jobsite area is above the national average
- f. Transit and Off-Site Storage Exposure
 - 1) short distance between jobsite and storage location, use of common carriers to haul materials, off-site location properly secured
 - 2) long distance between jobsite and storage location, use of owned vehicles to haul materials, off-site location inadequately secured

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g. Other Hazard Exposures

1) Wind

- a) distance to coast
 - 5 miles or beyond
 - within 5 miles
- b) hurricane wind probability
 - very low, low, moderate
 - high, very high, extreme
- c) straight line wind
 - no risk (no reported events); below average risk (average less than 1.5 events per year on); average risk (+1.5 - 2.5 events per year on average)
 - elevated risk (+2.5 - 5 events per year on average); high risk (+5 - 15 events per year on average); extreme risk (more than 15 events per year on average)

2) Hail

- a) no risk (no storms); low risk (less than 2 storms per year); average risk (2-3 storms per year)
- b) elevated risk (3-5 storms per year); high risk (5-15 storms per year); extreme risk (more than 15 storms per year)

Concentration Of Values	Town Protection Class Grade or Within municipal boundary <u>1 - 8</u>	Town Protection Class Grade or Outside municipal boundary <u>9 - 10</u>
25% or less	.025 - .11	.13 - .20
26% to 50%	.035 - .12	.16 - .24
51% to 75%	.05 - .16	.17 - .26
76% to 100%	.07 - .21	.22 - .32

Concentration of values means the percentage of covered property values that are located within 1,000 ft. of each other.

Step 2.A

Coinsurance Modification -- Select the modification factor that corresponds to the applicable coinsurance percentage and multiply it by the basic load determined in Step 1.A.

<u>Coinsurance Percentage</u>	<u>Factor</u>
100%	1.00
90%	1.06
80%	1.11
70%	1.17
Less than 70%	1.33

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Step 3.A

Earthquake Or Earth Movement Load -- Determine the load for earthquake or earth movement coverage, if applicable. MMI - Refers to the Modified Mercalli Intensity scale which is a measurement of the intensity of an earthquake.

The type of coverage should be considered when determining a load:

- a. earthquake only coverage
- b. earth movement coverage (earthquake and other earth movement exposures)

Earthquake Risk Score -- Earthquake Risk Score is based on a sliding scale from 0-100. The score is intended to serve as an indicator of the potential for structural damage to occur in the event of seismic activity. The score combines Peak Ground Acceleration (PGA) and a Soil Susceptibility Index (SSI), which is a measure of the risk associated with soil conditions and includes liquefaction, densification, and strength of substrate measures. Additionally, the score includes supplementary Modified Mercalli Intensity (MMI) information.

Earthquake Or Earth Movement Load

<u>MMI</u>	<u>Earthquake Risk Score</u>
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11 - 12	Very High (66-100)
10	High (35-65)

Load: Refer to Company for earthquake or earth movement load filed with the Department of Insurance

<u>MMI</u>	<u>Earthquake Risk Score</u>	<u>MMI</u>	<u>Earthquake Risk Score</u>
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9	Moderate (19-34)	6 - 8	Low (10-18)
		1 - 5	Very Low (1-9)

Load:	.065 - .075	Load:	.005 - .060
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Earthquake Or Earth Movement Sublimits -- If the total earthquake/earth movement limit is less than 100% of the value of the total project, multiply the earthquake/earth movement load by the applicable factor below:

<u>EQ/EM Limit/Total Project Values</u>	<u>Factor</u>
100%	1.00
95%	.975
90%	.95
85%	.925
80%	.90
75%	.875
70%	.85
65%	.825
60%	.80
55%	.775
50% or less	.75

Use interpolation for factors between these percentages.

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Earthquake Or Earth Movement Deductible Modification -- Multiply the earthquake/earth movement load by the applicable deductible factor using either the percent deductible table or the dollar deductible table.

Percentage: The factor is based on the percentage of the deductible amount to the earthquake limit. \$5,000 minimum deductible amount applies.

<u>Deductible %</u>	<u>Factor</u>
1% or less	1.00
2%	.975
3%	.95
5%	.90
10%	.85
15%	.80
20%	.75

Use interpolation for factors between these percentages.

Dollar Amount: The factor is based on the dollar amount of the deductible amount applicable to the earthquake limit.

<u>Deductible \$</u>	<u>Factor</u>
\$5,000 or less	1.00
\$10,000	.90
\$15,000	.85
\$20,000	.80
\$25,000	.75
\$50,000	.70
\$100,000 or more	.60

Use interpolation for factors between these dollar amounts.

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Step 4.A

Flood Load -- Determine the load for flood including sewer backup, if applicable. The following risk features should be considered when determining a load:

- a. The potential for sewer backup and seepage
- b. Mix of flood zones
- c. Risk features designed to mitigate flood exposure and water damage

Flood Risk Score -- Flood Risk Score is based on a sliding scale from 0-100. The score is intended to serve as an indicator of the potential for structural damage to occur in the event of flooding. The score combines federal flood zones, elevation (i.e., property elevation and water surface elevation) and comprehensive hydrology data (e.g., distance to one hundred year flood plain).

Special Flood Hazard Area (SFHA) - The 100-year flood plain.

Flood Risk Score: High (50-59), Very High (60-79), and Extreme (80 or above)

Load: Refer to Company for flood load filed with the Department of Insurance

All Other Flood Zones

Flood Risk Score: Very Low (0-19), Low (20-29), and Moderate (30-49)

Load: .03 - .20

Flood Sublimits -- If the total flood limit is less than 100% of the value of the total project, multiply the flood load by the applicable factor below:

<u>Flood Limit/Total Project Values</u>	<u>Factor</u>
100%	1.00
95%	.975
90%	.95
85%	.925
80%	.90
75%	.875
70%	.85
65%	.825
60%	.80
55%	.775
50% or less	.75

Use interpolation for factors between these percentages.

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Flood Deductible Modification -- Multiply the flood load by the applicable deductible factor using the dollar deductible table. The factor is based on the dollar amount of the deductible amount applicable to the flood limit.

<u>Deductible \$</u>	<u>Factor</u>
\$5,000 or less	1.00
\$10,000	.90
\$15,000	.85
\$20,000	.80
\$25,000	.75
\$50,000	.70
\$100,000 or more	.60

Use interpolation for factors between these dollar amounts.

Step 5.A

Add the loads together that were developed in Steps 2.A, 3.A, and 4.A.

Step 6.A

Multiply the result of Step 5.A by the limit of insurance (per \$100).

Step 7.A

Multiply the Builders' Risk rating information shown in Loss Cost Rating Information by the applicable company loss cost multiplier, and then multiply the result by the result of Step 6.A to determine the premium.

Step 8.A

Deductible (excluding earthquake, earth movement, and flood) -- Modify the premium by any applicable deductible modification.

<u>Deductible Amount</u>	<u>Factor</u>
\$500	1.05
\$1,000	1.00
\$2,500	.90
\$5,000	.85
\$10,000	.75

Step 9.A

IRPM -- Modify the premium in Step 8.A. by any applicable Individual Risk Premium Modification.

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ADDITIONAL PREMIUM DETERMINATION PROCEDURES (if applicable)

Delay In Completion Coverage

This method should be used for builders' risk civil works projects when Delay In Completion Coverage is provided:

Step 1.B

Determine the delay in completion factor based on the following risk features:

- a. Limit for any 30 days
- b. Duration of project
- c. Potential duration of delay

Factor: 1.05 - 1.50

Step 2.B

Multiply the factor in Step 1.B by the result of Step 5.A (5.A is the sum of the loads developed in the Builders' Risk Civil Works Project Premium Determination Steps 2.A, 3.A, and 4.A).

Step 3.B

Multiply the result of Step 2.B by the limit of insurance for delay in completion (per \$100).

Step 4.B

Multiply the Builders' Risk rating information shown in Loss Cost Rating Information by the applicable company loss cost multiplier, and then multiply the result by the result of Step 3.B.

Step 5.B

Waiting Period -- Modify the premium of Step 4.B. by any applicable waiting period modification.

<u>Waiting Period</u>	<u>Factor</u>
24 hours	1.20
48 hours	1.10
72 hours	1.00
4 days	.90
5 days	.80
6 days	.70

Step 6.B

IRPM -- Modify the premium by any applicable Individual Risk Premium Modification.

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Equipment Breakdown And Testing Coverage

This method should be used for builders' risk civil works projects when Equipment Breakdown And Testing Coverage is provided:

REFER TO COMPANY

Claim Preparation Expense Coverage

This method should be used for builders' risk civil works projects when Claim Preparation Expense Coverage is provided:

Step 1.C

Determine the applicable Claim Preparation Expense factor based on the Claim Preparation Expense limit.

<u>Limit</u>	<u>Factor</u>
\$5,000 or Less	2.00
Greater Than \$5,000	2.50

Step 2.C

Multiply the Claim Preparation Expense factor by the limit of insurance (per \$100).

Step 3.C

Multiply the Builders' Risk rating information shown in Loss Cost Rating Information by the applicable company loss cost multiplier, and then multiply the result by the result of Step 2.C.

Contract Penalty Coverage

This method should be used for builders' risk civil works projects when Contract Penalty Coverage is provided:

REFER TO COMPANY