# CO Homeowners Valuation

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When it comes time for a consumer to purchase a homeowners' insurance policy, those involved in the insuring process should have an idea of the home's replacement cost. Part of calculating the insurance premium is knowing the replacement cost of a home. The Colorado Division of Insurance has implemented new regulations in accordance with HB 13-1225, which modifies Colorado Revised Statutes (C.R.S.) 10-4-110.8, Section 3 & Sec 6-12. Since January 1, 2014, all producers with a property or personal lines line of authority must complete three (3) hours of homeowner continuing education addressing homeowners' insurance valuation. The regulations establish new levels of care for agents and insurers as follows;

- Resident fire and casualty broker-agents and personal lines broker-agents are to satisfactorily complete a three-hour course on homeowners' insurance valuation prior to estimating the replacement value of structures in connection with, or explaining the various levels of coverage under, a homeowners' insurance policy;
- Insurers, agents and brokers that provide replacement cost estimates to applicants and insureds must document who created the estimate and the sources or methods used to create the replacement cost estimate.
- All replacement cost estimates communicated to applicants or insureds must be complete, based upon specifically enumerated standards set forth in the regulations.

## I. Dwelling Property Policies and Coverage

In order to successfully meet the requirements under C.R.S. 10-4-110.8, Section 3 & Sec 6-12, a Property and Casualty Broker-Agent, and Personal Lines Broker-Agent must have significant knowledge in the proper methods of estimating the replacement value of structures. Insurance professionals should be able to explain various levels of coverage under a homeowners' insurance policy, have an understanding of the elements that comprise the value of a dwelling and convey this to the insured and make recommendations of the appropriate levels of coverage.

The Colorado Division of Insurance and the Colorado Legislature received a significant number of complaints by homeowners who lost their residences in past wildfires. Fire survivors complained about problems including that after the fire they learned the replacement value estimates made in setting coverage limits for their homes was too low. This caused underinsurance issues to arise during efforts to rebuild or replace their residences.

### Value Accuracy

The significance of the replacement value being accurate is particularly important given that other than a limited number of homeowners who qualify for guaranteed replacement coverage offered by only a small number of insurers, the vast majority of homeowners have one of three kinds of insurance coverage on their home;

- **Limited Replacement Cost Coverage With an Additional Percentage-** This pays replacement costs up to a specified amount above the policy limit.
- **Limited Replacement Cost Coverage With No Additional Percentage-** This pays replacement costs up to policy limit only.

- **Actual Cash Value Coverage-** This pays the fair market value of the dwelling at the time of the loss, or the cost to repair, rebuild, or replace the damaged or destroyed dwelling with like kind and quality construction up to the policy limit.

It is important to have an accurately estimated, periodically updated replacement value. The seeds of underinsurance are sown through the failure to adequately consider the components of replacement value.

## Dwelling Policy Up to Four Units

A **dwelling policy** is designed for a residence that is owned but not lived in by the owner. A Dwelling policy covers residential property of up to four units, whether occupied by the insured or not. An insured purchases individual coverages on an *a la carte* basis. That is, fire perils separately from extended coverage perils, and coverage for buildings separately from outbuildings and contents. The dwelling policy doesn't automatically include coverage for belongings/personal property; that must be purchased separately. The home itself will also have less coverage on a dwelling fire policy. A dwelling policy is suited more for rental properties, seasonal properties and vacant properties.

## Homeowner's Policy- Owner Occupied

A **homeowner's policy** is for an owner-occupied residence. This type of policy is designed for a residence lived in by the owner. Homeowners' policies are less expensive and provide broader coverage than dwelling policies. These policies are designed to cover contents, liability, and medical claims. However, even if it is an individual's primary residence, older and poorly-maintained homes may not qualify for a homeowner's policy. Buyers of classic "fixer-uppers" who are in the market for a homeowner's policy would be wise to upgrade outdated electrical and plumbing systems before launching other extensive repairs to the home. The condition of these systems could be one of the reasons why a company would refuse to issue anything other than dwelling coverage.

## Thorough Property Coverage

### Types of Coverage

Colorado homeowners' insurance coverage has eight basic types of policies, numbered HO-1 through HO-8:
**HO-1** – Covers valuable, specific items like jewelry, rare coins or art
**HO-2** – Covers a specific part of the house against damage like the roof
**HO-3** – Most common, covers the house, contents of the house and injury to persons in the house or on the property
**HO-4** – Protects renters
**HO-5** – Similar to an HO-3 policy except more comprehensive and more expensive
**HO-6** – Covers condominium owners for things not covered under the HOA policy
**HO-7** – Covers certain losses for a mobile home owner
**HO-8** – Special coverage for older homes that tend to need more repairs than new homes

The homeowners' policy contains two sections. Section I provides property coverages (A, B, C and D) while Section II provides liability coverages (E and F):

Section I
- Coverage A - Dwelling
- Coverage B - Other Structures
- Coverage C - Personal Property
- Coverage D - Loss of Use

Section II
- Coverage E - Personal Liability
- Coverage F - Medical Payments to Others

This course deals with property coverages and insurance valuation so a brief review of Section I coverages follows. There are differences in the property coverage that may necessitate differences in coverage levels. Various coverage options are available.

**Coverage A - Dwelling**

Coverage A provides major property coverage that protects the house and attached structures if damaged by a covered peril.

**Coverage B - Other Structures**

This coverage provides protections to other structures on the residence premises that are not attached to the dwelling. Items covered include detached garages, tool sheds, etc. Coverage B is normally limited to 10% of the coverage A limit. However, the homeowner may purchase more coverage for an additional premium.

**Coverage C - Personal Property**

This coverage provides protection for the contents of a home and other personal belongings owned by the insured and other family members who reside in the home. Coverage C is limited to a percentage (perhaps 50%) of coverage A or is subject to an established amount agreed upon by the insured and the insurance company. Coverage is limited on certain types of property that are especially susceptible to loss, such as:

- Jewelry
- Furs
- Fine Arts
- Silverware
- Antiques
- Collectibles
- Firearms
- Money

Additional amounts of insurance may be purchased. It may be prudent to schedule these items separately. An insurance professional can provide specifics.

**Coverage D - Loss of Use**

This coverage will help with additional living expenses if the home is damaged by a peril insured against to the extent that the insured cannot live in the home. These expenses include, but are not limited to, housing, meals and warehouse storage. Coverage D is normally limited to 20% of Coverage A.

# II. Basic Concepts of Property Valuations

The reader will note this section deals with value of property in a casualty loss. Further concepts regarding the assessment of real property value can be found in another part of this book.

## Loss Settlement Provisions

Simply put, this is the application of policy provisions to the casualty. A loss settlement provision refers to the method used to determine how much is paid for a covered loss. On a replacement cost value or actual cash value basis is how this provision usually requires the payment of claims be handled.

### How It Applies

An insurance policy contemplates two types of claim settlements: (1) the actual cash value and (2) replacement cost. The policy may expressly permit, at the option of the insured, a claim for ACV with no mandate that the insured actually repair the property.

Here is example verbiage for losses on the home or other structures on the property. For Coverage A, two loss settlement provisions may be offered;

**Example A**

Covered loss to Buildings under Coverage A and B will be settled at replacement cost without deduction for depreciation, subject to the following methods:

1.) Settlement under replacement cost will not be more than the smallest of the following:

a. the replacement cost of that part of the building damaged for equivalent construction and use on the same premises.

b. the amount actually and necessarily spent to repair or replace the building intended for the same occupancy and use.

2.) When the cost to repair or replace is more than $1,000 or more than 5% of the limit of insurance in this policy on the damaged or destroyed building, whichever is less, we will pay no more than the actual cash value of the damage until repair or replacement is completed.

3.) At your option, you may make a claim under policy on an actual cash value basis for loss or damage to buildings. Within 180 days after loss you may make a claim for any additional amount on a replacement cost basis if the property has been repaired or replaced.

**Example B**

**Dwelling**

1. Replacement Cost Loss Settlement- Similar Construction: Pays the cost to repair or replace with similar construction materials. Until the actual repair or replacement is completed, there may be a deduction for depreciation.
2. Replacement Cost Loss Settlement- Common Construction: Pays the cost to repair or replace damaged property, including obsolete, antique, and custom-built property, with construction techniques and materials commonly used by the building trades in standard new construction. Until the actual repair or replacement is completed, there may be a deduction for depreciation.

This provision specifies that an insurer's limit of liability for losses covered under terms of the policy (or endorsements) is the maximum amount the insurer will pay for the sum of all losses.

## The Effect of Underinsurance on Settlement

Underinsurance is a condition in which not enough insurance is carried to cover the insurable value. It is related to the coinsurance clause, under which the insured shares in losses to the extent that he or she is underinsured at the time of loss. Coinsurance can be described as a property insurance provision that imposes a penalty on an insured's loss recovery if the limit of insurance purchased is not at least equal to a specified percentage of the value of the insured property. The purpose of coinsurance is to avoid inequity and to encourage insureds to carry a reasonable amount of insurance in relation to the replacement value (or actual cash value, depending on which basis the policy is written) of their property. Consequently, coinsurance provisions typically are incorporated into property insurance policies.

## Example

> **Coinsurance**. If a coinsurance percentage is shown in the Declarations, the following condition applies:
> We will not pay the full amount of any loss if the value of covered property at the time of loss times the coinsurance percentage shown for it in the Declarations is greater than the limit of liability for the property. Instead, we will determine the most we will pay using the following steps:
> a. Multiply the value of covered property at the time of loss by the coinsurance percentage;
> b. Divide the limit of liability of the property by the figure determined in step a;
> c. Multiply the total amount of loss, before the application of any deductible, by the figure determined in step b.; and
> d. Subtract the deductible from the figure determined in step c.
>
> We will pay the amount determined in step d. or the limit of liability, whichever is less. For the remainder, you will either have to rely on other insurance or absorb the loss yourself.
>
> In applying this coinsurance clause we will disregard the value of foundations of buildings which are below the surface of the lowest basement floor or, where there is no basement, which are below the surface of the ground. We will not consider the cost of removal of debris in the determination of actual cash value when applying the coinsurance clause.

If the insured purchases insurance at least equal to the coinsurance percentage (80 percent, for example), the insurer pays the full value of any loss (either replacement cost or actual cash value, depending on what the insured has purchased), less the deductible, up to the limit of insurance. If the insured does not meet the coinsurance requirement, he or she will be penalized in the event of a loss and will become a coinsurer.

To further illustrate

**Underinsurance:**
When:
The value of the property is $250,000
The coinsurance percentage for it is 80%
The limit of liability for it is $100,000
The deductible is $250
The amount of loss is $40,000
Step (1) $250,000 x 80% = $200,000 (the minimum amount of insurance to meet your coinsurance requirements)
Step (2) $100,000 ÷ $200,000 = .50
Step (3) $ 40,000 x .50 = $20,000
Step (4) $ 20,000 - $250 = $19,750
Insurer pays no more than $19,750.
The remaining $20,250 is not covered.

**Adequate insurance**
When:
The value of the property is $250,000
The coinsurance percentage for it is 80%
The limit of liability for it is $200,000
The deductible is $250
The amount of loss is $40,000
Step (1) $250,000 x 80% = $200,000 (the minimum amount of insurance to meet your coinsurance requirements)
Step (2) $200,000 ÷ $200,000 = 1.00
Step (3) $ 40,000 x 1.00 = $40,000
Step (4) $ 40,000 - $250 = $39,750
Insurer pays $39,750 of the loss. No penalty applies.

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The formula used to determine the amount payable when a coinsurance provision applies is;

$$\frac{\text{Insurance Carried}}{\text{Insurance Required}} \times \text{Loss} = \text{Amount Recoverable}$$

(Insurance carried, divided by insurance required, multiplied by the loss, equals the amount recoverable.)

## Actual Cash Value

Actual cash value (ACV) is described by the Colorado Division of Insurance in the following way;

Actual Cash Value (ACV) is the cost to repair or replace an insured item of property at the time of the loss, less depreciation. The value of depreciation is based on the age and condition of the item. Personal property, such as contents, is typically settled at ACV unless the insured purchases Replacement Cost Coverage.

An open policy is one in which the value of the thing insured is not agreed upon, but is left to be ascertained in case of loss.

So, it is an amount equivalent to the replacement cost of lost or damaged property at the time of the loss, less depreciation. Actual Case Value Coverage pays the fair market value of the residence up to an identified policy limit. Fair market value is determined by way of an appraisal based on comparisons to other similarly situated structures, less the value of the land.

Coverage for actual value policies are limited to a specific amount, regardless of whether the value of the house increases. For example, a $70,000 actual cash value policy would cover only $70,000 in damages, even if the value of the house rises to

$100,000. This type of coverage could end up costing the insured out-of-pocket more than they expected. Therefore, increases in limits to keep up with inflation are more important with these types of policies.

## Replacement Cost Value

Replacement cost value is described by the Colorado Division of Insurance in the following way;

Replacement Cost Coverage (RCC) is the cost to replace lost or damaged property with new property of like kind and quality at current prices. For an additional premium, it is available for buildings and contents. Some insurers automatically include RCC in the homeowner policy; however, usually it is an optional coverage that must be purchased.

If a dwelling is insured with replacement cost, the amount of coverage should be equal to 100 percent of the cost to repair or replace the building. If the dwelling is not insured at the cost to replace it, penalties may apply. Some property policies include 125 percent of the RCC amount in the event the coverage limit is exhausted.

If a policy is purchased insuring a home for $200,000 when it will really cost $750,000 to replace it, the insured will get no more than the value listed in the policy, even if the policy says it covers “Replacement Cost”. If that happens, it means the home was under-insured. It is the homeowner’s responsibility to be sure the policy they purchase includes the coverage they need.

Homeowners can hire a contractor or independent appraiser to provide an estimate of what it would cost to rebuild at their current location, if they think the insurance company has appraised the home too low. Although stating a lower value may keep the premium costs down, if a home is hit with disaster, the insurance company will not pay more than the amounts agreed upon in the insured's policy.

### New for Old

The replacement cost policy is relatively new to insurance, dating from the mid-20$^{th}$ Century. Limiting recovery to actual cash value was a mechanism used to make this insurance coverage a policy of indemnity; a sum paid as compensation for a particular loss. The intent of a deduction for depreciation was to be certain that an insured did not derive betterment from the loss. That is, exchanged new for old. In general, replacement involves a substitution of a new asset for an old asset which, for what ever reason, has been demolished, destroyed, or otherwise rendered unusable.

### Superior Coverage

Replacement value of a home can be perceived as superior coverage. Any type of depreciated coverage requires that many of the insureds that have to replace their property must obtain additional funds to pay for property replacement. Full coverage has advantages to both parties to the insurance contract; the entire loss is funded, loss adjustment is easier, and the well-being of the insured. To reduce moral hazard the following general restrictions can be found in replacement cost coverage;

- Coinsurance is required, usually 80%

- The claim is not ‘fully’ payable until replacement by the insured has been made (more on that follows).
- Loss is based on replacement cost of property with identical materials, for the same purpose, and normally on the same site, and the amount actually spent on replacement.

Replacements can also be distinguished by the type of substitution made. Substitution in kind, for example, of a new house identical except in age and condition, is a replacement but not an improvement. Substitution of a superior new house for an old one is a replacement not in kind, and also an improvement.

Replacement cost and actual cash value differ from **market value,** the price for which something would sell under current market conditions. Fair market value (FMV) is an estimate of the market of a property, based on what a knowledgeable, willing, and unpressured buyer would probably pay to a knowledgeable, willing, and unpressured seller in the real estate market. Market value is not used by insurers as a valuation method.

**Different Types of Structures**

Replacement cost will differ for antique, historic, and purpose-built homes. Older homes, especially historic homes, can be very costly to replace and the cost of rebuilding can be significantly higher than an appraised value. Housing developers offer functional living space on basic lots made affordable by simple yet all-inclusive home designs that take advantage of the concept of ‘stock built’ residential construction. Rather than complex assembly and craftsmanship of an earlier era, mass produced housing requires less skill and time to assemble and complete. Part of the difference comes from the term “aesthetics.” The loss settlement provision makes no mention of this term. Because while “appearance” issues have nothing to do with the loss terms, they have everything to do with what the owner of an historic/antique home is going to consider as “replacement cost.”

The loss settlement language in the policy states that if the co-insurance requirement is met, “we will pay the cost to repair or replace, after application of deductible and without deduction for depreciation, but not more than the least of the following amounts: (a) The limit of liability under this policy that applies to the building; (b) The replacement cost of that part of the building damaged for like construction and use on the same premises; or (c) The necessary amount actually spent to repair or replace the damaged building.” So it could be that the form gives the insurer the option to repair or replace, as long as it’s with “like” property. Does the work “like” mean “the same form, kind, character” or “similar” or “having the same function?” It could be argued that *replacement cost* is the cost of replacing the subject with one that has equivalent utility but is built with modern materials and to current standards of design and function. *Reproduction cost* is the cost of building a replica. When the objects in question are one-hundred-year-old engraved brass hinges or transom components, this can mean a balancing of costs and aesthetics when addressing replacement cost in an historic/antique home.

**Colorado Residential Property Coverage Requirements**

Since January 1, 2014 home insurance policies must provide the following protection if a home is destroyed or seriously damaged:

- Every “Replacement Cost” policy offered for purchase or renewal must at the minimum include an option for:
  i. Extended Replacement Cost coverage of at least 10% of the Dwelling Policy Limit (additional money in the event of the need to rebuild)
  ii. Law and Ordinance coverage in the amount of at least 25% of the Dwelling Policy Limit (also additional dollars available in the event of the need to rebuild)
- Every “Replacement Cost” policy offered for purchase in Colorado for a “Dwelling” must include at least 12 months of “Loss of Use” (Additional Living Expenses) coverage. (In the event it is necessary after a covered loss to be out of the home due to evacuation, repairs, or replacement). The new law requires insurers to offer insurance purchasers the option of buying 24 months of ALE, which is recommended, if that higher amount is within the homeowners' budget. Most people lose the use of their home for well over a year after a total loss, and 24 months of ALE has become standard in some policies and by law in some states.

Other changes to Colorado homeowners' insurance coverage include the following;

- Endorsements, disclosure forms, and policies must be written at the 10$^{th}$ grade reading level. Policies issued or renewed in Colorado after January 1, 2015, have to meet these standards.
- The insurer must consider an estimate from a licensed contractor or architect submitted by the policyholder as the basis for establishing the replacement cost of a dwelling.
- The insurer must provide the policyholder an electronic or paper copy of the entire policy including the declarations page and any endorsements within three business days after a loss, and upon request, a “certified copy” within 30 days.
- In the event of an insured total loss the insurer must offer a minimum of 30% of contents limits without requiring the submittal of a detailed itemized inventory list.
- The insurer must make available to the policyholder the methodology used for depreciating the value of personal property.
- Policyholders have at least a full year after a total loss to submit an inventory of lost or damaged property.
- Policyholders will have a minimum of 365 days after they use up the additional Living Expense benefits to replace property and recoup depreciation by collecting full replacement value.

At the end of the text can be found the Summary of Coverage Dwelling Fire Policy

## Depreciation (Holdback) for Claims

One of the basic principles of replacement cost insurance requires that the insured not receive the expanded indemnification until the property is actually repaired and/or replaced. As a result, the insured first collects their depreciated or actual cash value loss, and when the property is repaired or replaced in accordance with the conditions of

the policy, is paid the difference between the actual cash value loss and the replacement cost loss. The money withheld is customarily referred to as a “holdback.”

Some companies will treat the ‘recoverable depreciation’ differently. At the time of settlement it's also common for the insured to sign - in addition to the proof of loss - a ‘Statement as to Full Cost for Repair or Replacement’ spelling out the amount and including wording such as “for use on the same premises.”

### Initial Payment

In several states the contract of insurance directs that, with an open policy requiring replacement cost, there is no deduction for physical depreciation, so the measure of indemnity is replacement cost (the amount to repair, rebuild, or replace) or the policy limit, whichever is less. If the policy requires the insured to replace in order to collect the full replacement cost, the actual cash value is initially paid. Once the property is replaced, the insurer pays the difference, up to the policy limits. Rebuilding or replacement of the total loss at a location other than the insured premises is permitted. In such a case, the measure of indemnity is based on the replacement cost of the insured property and not on the cost to repair, rebuild, or replace at a location other than the insured premises.

### Market Values and Insurable Amount

Market value is not used as a factor in determining replacement cost. **Market value** is the price paid for a house. **Replacement cost** is the price or cost it will take to rebuild the house in the same spot, same size and same quality of construction, at today's costs. Insurance companies use replacement cost, not market value. These can be two different numbers. The price of the land, or lot, is not included in the amount to be paid by the insurer in case of loss.

The concept of replacement cost less depreciation for age, wear and tear is easier stated than put into practice. Depreciation takes into account the age of the property at the time of loss, the extent of its use and, possibly, the degree of its obsolescence. No insurance policy will define depreciation, however. In tax law depreciation is calculated by reference to schedules that have little relationship with a property's useful life. In insurance, the calculation of depreciation does not occur by reference to rigid schedules.

# III. Components of a Structure Necessary to Estimate Replacement Cost

## Standards for Estimates of Replacement Value.

When a licensee conveys an estimate of replacement cost to the insurance-buying public, certain standards are to be met. The estimate of replacement cost must include the expenses that would reasonably be incurred to rebuild the insured structure(s) in its entirety. Consideration of components and features of the insured structure should including at least the following:

- Type of foundation;

- Type of frame;
- Roofing materials and type of roof;
- Siding materials and type of siding;
- Whether the structure is located on a slope;
- Building code upgrades
- Size of the entire structure and square footage of the living space;
- Geographic location of property;
- Number of stories and any nonstandard wall heights;
- Materials used in, and generic types of, interior features and finishes, such as, where applicable, the type of heating and air conditioning system, walls, flooring, ceiling, fireplaces, kitchen, and bath(s);
- Age of the structure or the year it was built; and
- Size and type of attached garage.
- Additional costs associated with building a single or custom home

The estimate of replacement cost should not be based upon the resale value of the land, or upon the amount or outstanding balance of any loan, nor on a deduction for physical depreciation. There follows a brief description of the above-mentioned categories.

**Type of Foundation**

When estimating replacement cost, it is necessary for broker-agents to consider the type of foundation because the cost to repair, replace or rebuild a structure is dependent upon an accurate description of the type of foundation. There can be extreme differences between the costs of replacing one kind of foundation as compared to a different type of foundation. In this regard, when estimating replacement cost, it is necessary to consider the foundation component generally, and to account for the type of foundation as well, so as to accurately estimate the cost.

A foundation is a part of a building that transfers load (weight) to the earth. The foundation of a house is a somewhat invisible and sometimes ignored component of the building. Attention to good foundation design and construction has significant benefits to the homeowner. There are three basic types of foundations- full basement, crawl space, and slab-on-grade. Actual houses may include combinations of these types. There are several construction systems from which to choose for each foundation type. The most common systems, cast-in-place concrete and concrete block foundation walls, can be used for all basic foundation types. Other systems include pressure-preservative-treated wood foundations, precast concrete foundation walls, masonry or concrete piers, cast-in-place concrete sandwich panels, and various masonry systems. A slab-on-grade construction with an integral concrete grade beam at the slab edge is common in climates with a shallow frost depth. In colder climates, deeper cast-in-place concrete walls and concrete block walls are more common. The foundation type and construction system are chosen in part because of appearance factors. Although it is not usually a major aesthetic element, the foundation at the base of a building can be raised above the ground plane, so the foundation wall materials can affect the overall appearance. The preference of foundation type varies with climatic region, although examples of most types can generally be found in any given region. One of the principal factors behind foundation preference is the impact of frost depth on foundation design. The impact of frost depth basically arises from the need to place foundations at greater depths in colder climates. For example, a footing in Minnesota must be at least 42 inches below the surface, while in states along the Gulf Coast; footings need not extend

below the surface at all in order to avoid structural damage from frost heave. Because a foundation wall extending to a substantial depth is required in northern climates, the incremental cost of creating basement space is much less, since it is necessary to build approximately half the basement wall anyway. In a southern climate the incremental first cost of creating a basement is greater when compared with a slab-on-grade with no significant required footing depth.

**Type of Frame**

When estimating replacement cost, it is necessary for broker-agents to consider the type of frame because the cost to repair, replace or rebuild the structure is dependent upon an accurate description of the type of framing. There can be extreme differences between the cost of replacing one kind of framing as compared to a different type of framing. In this regard, when estimating replacement cost, it is necessary to consider the framing component generally, and to account for the type of framing as well, so as to accurately estimate the cost.

**2x4-** The most versatile wall construction method is the 2x4 stud wall. The 2x4 wall construction method is usually the most cost-effective. It offers sufficient strength for most areas, and is normally suitable for most areas in the United States. In certain parts of the United States, a 2x4 wall may not allow enough space for insulation, and as such, a 2x6 wall may be utilized. In the 2x6 wall construction, the additional 2 inches of wall cavity space can be filled with additional insulation which can add an additional level of interior comfort for the homeowner. Also it should be noted that, although a 2x6 house wall construction will be more expensive initially, the additional insulation and space can save a significant amount in future heating and cooling costs.

**Block-**The concrete block construction component is a large rectangular brick used in buildings. Concrete blocks are made from cement, sand and fine gravel for high-density blocks. Lower density blocks may use industrial wastes as an aggregate. Those that use cinders (fly ash) are called cinder blocks. Concrete block, when reinforced with concrete columns and tie beams, is a common building material for the load-bearing walls of buildings, in what is termed "concrete block structure" (CBS) construction.

**ICF-** Another type of home wall construction type is ICF or Insulated Concrete Forms. ICF’s are formwork for concrete that stays in place as permanent building insulation for energy-efficient, cast-in-place, reinforced concrete walls, floors, and roofs. The forms are interlocking modular units that are dry-stacked (without mortar) and filled with concrete. The forms lock together somewhat like Lego bricks and serve to create a form for the structural walls or floors of a building. Concrete is pumped into the cavity to form the structural element of the walls. Usually reinforcing steel (rebar) is added before concrete placement to give the concrete strength, similar to bridges and high-rise buildings made of concrete.

**Steel-** Bridges, railroads, automobiles, and even homes all contain some steel. Builders have the option of using cold-formed steel in homebuilding to frame floors, walls, and roofs. Cold-formed steel framing is not new. It is a field-proven material in both the commercial and residential construction industries. Steel can be consistently produced to very specific strengths, shapes, and sizes within small tolerances. These and other factors have rendered steel a viable framing material to meet the demands of the residential construction industry. In addition to its cost effectiveness and consistent quality, steel has many more advantages which make it appealing to builders and homebuyers.

**Roofing Material and Type of Roof**

When estimating replacement cost, it is necessary that broker-agents to consider the roofing materials and type of roof because the cost to repair, replace or rebuild a structure is dependent upon an accurate description of the type of roof. There can be extreme differences between the costs of replacing one kind of roof as compared to a different type of roof. In this regard, when estimating replacement cost, it is necessary to consider the roof component generally, and to account for the type of roof as well, so as to accurately estimate the cost.

**Roofing materials** include the following;

- Composition asphalt shingle; These range from low-cost 3-tab shingle to architectural shingles with extra durability and style. There are many colors and styles, making them suitable for most residential applications. The shingles are easy to repair and are fire resistant.
- Wood shingles or shakes; A natural look is offered and they to provide some insulation. Long lasting, they are easy to repair or replace and blend in with the environment. However, they are expensive, can be high maintenance, and the fire danger has caused wood shake roofs to be banned in many jurisdictions.
- Metal (sheet aluminum, tin, or copper); Many different looks and colors are available, from standing seam to replication of slate and shakes. They are lightweight, durable and boast a long life span. They are expensive to install or repair.
- Concrete or clay tile; This roof is attractive, fireproof, easy to maintain and very durable. Tiles can be adapted to many architectural designs. The tiles are expensive and heavy. Used in new construction as such roofs require beefed-up structural elements.
- Slate; The beautiful, distinctive slate roof is fireproof, low maintenance, and offers a long life span. However, they are very expensive, heavy, fragile and require specialized installation.
- Concrete; Fiber reinforced concrete can be had in many colors and styles. It is relatively lightweight while fire and insect resistant. Such roofs are low maintenance and extremely durable. They can be expensive
- Hot mopped flat roof; These roofs are suitable for a flat or slightly inclined roof surface. They are inexpensive to install and simple to repair; a good thing, as they are prone to leaking.

**Types or styles of roofs** include gable, hip, mansard, saltbox, gambrel, flat, shed, pyramid hip, and combinations of these styles. Roof styles and materials can be modified to suit the taste and budget of the homeowner. The interested reader can search the internet for illustrations of the various types.

**Siding Materials and Types of Siding**

When estimating replacement cost, it is necessary for broker-agents to consider the type of siding materials and type of siding because the cost to repair, replace or rebuild the structure is dependent upon an accurate description of the type of siding materials and siding. There can be extreme differences between the costs of replacing one kind of siding as compared to a different type of siding. In this regard, when estimating replacement cost, it is necessary to consider the type of siding, and the siding materials as well, so as to accurately estimate the cost.

There are numerous types of siding available for today's homes offering different advantages and/or disadvantages. Certain types of siding are more popular in some areas of the country than others, influenced largely by climate and availability of product. Price also influences the type of siding chosen by a builder or a home owner.

- **Aluminum or Vinyl Siding** These siding options are available on new homes as well as often put on over older types of siding. The biggest advantage of this type of siding is that they do not require painting. The disadvantage is that aluminum siding dents and vinyl siding cracks. Vinyl siding has improved over time as the quality of vinyl improves.
- **Masonite Siding or Hardi Plank** These siding options have a similar appearance but offer very different results. Masonite siding deteriorates over time and requires painting, caulking and routine upkeep. Hardi Plank (a brand name) is a similar looking product but is made of cement and therefore does not rot. It is growing in popularity and is an alternative to Masonite.
- **Brick or Stone** Both of these products provide an excellent siding option. They are virtually indestructible as well as attractive. They do not require the routine maintenance that other types of siding require. The biggest drawback is price.
- **Stucco** Traditional stucco is made with cement and offers a solid, lasting, moisture proof siding. It is seen a great deal in Florida where the climate would require constant upkeep on other types of siding and the solid cement siding keeps the houses cooler than traditional siding.
- **Cedar Shakes** This is an alternative to Masonite siding as it requires less maintenance. When treated with stain it does not rot or peel.
- **Veneer & Synthetic Siding** These siding alternatives give the appearance of other types such as stucco or brick, but do not give the quality or longevity.
- **Clapboard Siding** It is made from solid wood and is more costly than other types of siding but lasts longer and looks better than manufactured sidings such as Masonite. Wood siding lends itself well to stain and therefore will not peel as with siding that is painted.
- **Steel and Vinyl Coatings** They are expensive but are nearly indestructible thus requiring little maintenance. Vinyl Coatings are applied like paint but are much thicker. This is a relatively new product and it is important that it be applied correctly.

**Building on a slope**

When estimating replacement cost, it is necessary for broker-agents to consider whether the structure is located on a slope because the cost to repair, replace or rebuild a structure on a slope is a function of the whether the structure is located on a slope. There can be extreme differences between the costs of replacing a structure on a slope as compared to replacing a structure that is not located on a slope. In this regard, it is necessary for this component to be considered when estimating replacement cost.

Some residential lots are not very flat. Building a slab house on this sloping ground can create extra work and expense. Building on a slope is about creating a stable, flat foundation, either dug into the slope or supported above the ground level, on which the house can be built. Building on a sloping lot can be much more expensive and time consuming than building on a flat lot.

### Building Code Upgrades

Also known as law and ordinance coverage, it provides coverage for the additional costs required to bring a damaged residence up to current building code requirements. Without this coverage, a policy would pay only the amount needed to repair or replace the damaged home to restore it to the condition it was in prior to the loss, and would not cover any additional costs due to changes required by current building codes. Building code upgrades may be required in categories including wiring, plumbing, foundation, and roof. If a house needs even partial rebuilding the owner may be required to install a sprinkler system, build retaining walls or raise the building above flood plain, install fire-code roofing, or modify the building for handicapped access.

### Size and Square Footage

Consider the size of the entire structure and, separately, the square footage of the living space. When estimating replacement cost, it is necessary for broker-agents to determine accurately the size of the entire structure and separately the square footage of the living space because the cost to repair, replace or rebuild a structure is dependent upon the size of structure and square footage of living space.

The inaccurate reporting of square footage in real estate is an area of concern. “Square footage” of a building may include enclosed porches and covered decks as well as the area of an attached garage. A more conventional view of “square footage” of a house involves its living area or “conditioned space.” The part of the building that is designed to be thermally conditioned (heated or cooled), either for the comfort of occupants or for other reasons such as preserving temperature-sensitive goods. It can be said to be the floor area of enclosed conditioned spaces on all floors measured from the interior surfaces of exterior partitions for nonresidential buildings and from the exterior surfaces of exterior partitions for residential buildings.

### Geographic Location of Property

Building supplies and construction labor have different costs based upon the location of the property. There can be extreme differences between the cost of replacing a structure in one geographic location as compared to another. In this regard, it is necessary for this component to be considered when estimating replacement cost.

The old saw is that the value of real estate revolves around three factors; location, location, location. When determining the value of a home, the quality of the neighborhood in which a home is located is a big factor. In support of this point, both government assessors and private appraisers utilize the "comparable sales approach" to determine the value of a property. However, this study is not about market value of a house, it is about replacement cost. Geographic location in this context refers to expediting, locating, and delivering materials and manpower for rebuilding according to local code. Such an issue would have to be addressed on a case-by-case basis. For its own set of reasons, a house to be rebuilt in a neighborhood of winding streets with many children present would pose a logistical challenge equivalent to the house located in a remote canyon. For their own reasons, some geographic locations are more challenging than others.

### Number of Stories and Heights

When estimating replacement cost, it is necessary that broker-agents consider the number of stories and nonstandard interior wall heights because the cost to repair, replace or rebuild to a certain number of stories, and or to replace nonstandard wall heights, is dependent on an accurate description of these components. There can be extreme differences between the costs of replacing a structure depending on these components and it is necessary for them to be considered when estimating replacement cost.

The cost per square foot is often higher for a small home than that of a larger home. When building a larger home, the cost of expensive items (such as a furnace or kitchen) is spread over more square footage. Consequently, a larger home may have a lower square footage cost than a smaller home. Also, it usually costs less to build a two-story home when compared to a one-story home that has the same square footage. This is because a two-story home will have a smaller roof and foundation. Plumbing and ventilation are more compact in two-story homes. Non standard floor to ceiling heights, non square corners, and vaulted areas are examples of features that will add cost to home construction.

### Features and Finishes

When estimating replacement cost, it is necessary that broker-agents consider the materials used and the types of interior features and finishes, because the cost to repair, replace or rebuild the structure is a function of the materials used to construct the dwelling and the types of interior features and finishes. There can be an extreme difference in the cost of replacing a structure with one kind of materials used in construction and the types of interior finishes as compared to a structure which does not make use of those materials and interior features and finishes. In this regard, it is necessary for theses components to be considered when estimating replacement cost.

Interior features and finishes are a function of cost and quality. The approximate costs and value of an interior finish is subjective and contains many variables. A rule of thumb is to use higher estimates for larger metropolitan areas and the lower estimates where home prices are below the national average. Adjust costs for substitutions or refinements in a category-by-category basis; paint, countertops, wallpaper, light and plumbing fixtures, etc. For size differences, scale total costs in direct proportion to the size of the project. The adjusted costs can then be used as a basis for setting a material budget and for comparing contractor bids.

### Cost of Demolition and Debris Removal

When estimating replacement cost, it is necessary that broker-agents consider the cost of demolition and debris removal because in the event of a total loss the cost to repair, replace or rebuild the structure will necessarily include costs associated with demolition and debris removal.

The cost of demolition and debris removal, within reasonable limits, must be covered and paid in addition to the rebuilding cost. Care must be taken to allow for disposal cost of any hazardous materials

**Architect, Engineer, Permits**

When estimating replacement cost, it is necessary that broker-agents consider that the cost to repair, replace or rebuild the structure will include costs associated with architect's plans, engineering reports and or permits. These costs can and do occur on partial losses, but do not result in underinsurance (if omitted) on a partial loss, as the coverage limits will be sufficient.

These are the costs associated with the design and preconstruction phase of home building. These costs may not be included in the construction contract and will be billed directly by the architect or engineer associated with the replacement home construction. In most instances, the cost of stock plans is a set dollar amount.

**Age or Year Built**

When estimating replacement cost, it is necessary that broker-agents consider the age of the structure and the year it was built. This may have an impact on the cost to repair, replace or rebuild the structure including factors such as code upgrade requirements and availability of materials.

The age of the structure goes back to the argument of 'replace' vs. 'reproduce.' Postwar houses, built with economies of scale in mind, may be replaced and with a structure that satisfies current code. Antique/historic homes require a different outlook. These homeowners generally want replacement and restoration with historically accurate materials. Those cost more, and so do the craftsmen who install them. It costs more rebuilding a pre-1945 home using historically accurate materials than rebuilding a similar-sized newer home using modern materials. A homes size and period details influence the cost to restore it.

**Attached Garage**

An attached garage protects vehicles and yard equipment. It can also raise the resale value of a home. Figuring prices, need and location is important. A one-car garage may be all that is needed, but a two-car is better; two-car with a work/utility area even better. Before the construction process it is necessary to determine if such an addition will be permitted by the local government. The homeowner must verify that the job can be done legally before taking any further steps.

**Additional Costs Building a Single or Custom Home**

Tract homes utilized the mass production philosophy that maximizes economies of scale. Economies of scale dictate that the average cost of producing a commodity fall as output of the commodity rises. It is faster to build 40 homes using the same material and similar floor plan than it is to build a custom home. The estimate of replacement cost should be based on an estimate of the cost to rebuild or replace the structure taking into account the cost to reconstruct the single property being evaluated, as compared to the cost to build multiple, or tract, properties. This is necessary because in tract housing labor costs are reduced as the home-builders need not be skilled craftsmen and material costs are reduced since the builder is buying and transporting materials in bulk amounts. The repetitive nature of the plans, and the large number of units produced, are the most significant factors in reducing the cost of these houses.

# IV. Effects of Catastrophes on Replacement Cost

A catastrophe is an extremely large-scale disaster. The frequency and severity of natural and man-made catastrophes have increased significantly in recent years. Natural catastrophes include events such as hurricanes, earthquakes, floods, and tsunamis; and man-made disasters include oil platform explosions, aviation disasters, and terrorism.

## Demand Surge

"Demand surge" is a phenomenon characterized by a substantial increase in the cost of construction due to unusually high demand for contractors, building supplies and construction labor. A replacement cost estimate, or construction cost estimate, generated by or on behalf of a licensee, should not include consideration for demand surge. Demand surge typically occurs after a disaster such as a wildfire, earthquake, or other natural disaster, in which large numbers of structures are destroyed within a specific geographic area.

The disclosure to the applicant or insured is necessary as every one of the other factors required to be considered in estimating replacement cost or a construction cost may be related to a premium cost, but while the other factors are knowable and have some relation to the individual structure being evaluated, the extent of any disaster and thus the degree of demand surge is unknowable and bears no logical correlation to the structure. The purpose is to assure that the replacement cost be calculated to rebuild or replace a home in a situation where there is no demand surge, and that the additional percentage available in a replacement cost policy would provide coverage in the event the loss was related to a disaster, where demand surge elements might exist.

Hurricanes, earthquakes and wildfires can damage or destroy property quickly. With home building occurring in more areas, housing developments and thickly settled areas are akin to bowling pins waiting for disaster to strike. Demand surge refers to price inflation for scarce construction materials, labor and services following a significant disaster. The more widespread the damage is, the greater the price for the rebuilding resources. Demand surge costs are influenced by the inability to have resources simultaneously available when damage is widespread. The Actuarial Standards Board defines Demand Surge as:

> ***"A sudden and usually temporary increase in the cost of materials, services, and labor due to the increased demand for them following a catastrophe."***

The usage of the term "demand surge" is similar to its definition. The limited sense of demand surge, as an increase in material and labor costs, is often the first and primary description of increased losses after catastrophes, and additional explanations quickly follow to complete the general definition of demand surge. Observers offer increasing material and labor costs first to explain larger losses in catastrophes and then provide additional explanations, respectively: insurers are unable to verify a large volume of claims, and they face political pressure to quickly pay claims; the decisions of regulators and insurers expand coverage beyond the stated language of insurance policies.

Demand surge is an important issue for individuals and institutions that sustain losses in natural disasters, particularly for property insurers and governments that finance reconstruction. Estimates of demand surge following large-scale natural disasters have quantified a general increase of costs ranging from 10–40% following Hurricane Katrina (Guy Carpenter, 2005) The aggregate of higher repair costs at each damaged property results in a greater loss for an insurer that indemnifies many properties in an affected area. For a single insurer, the additional loss caused by demand surge may mean the difference between survival and ruin. For example, 20th Century Insurance, based in the Los Angeles area, was nearly bankrupted by claims following the 1994 Northridge Earthquake, a disaster that produced a reported 20% demand surge.

Primary insurers must anticipate their future losses in order to establish cash reserves, secure reinsurance, and set premiums for their policyholders. Future losses are inherently uncertain. Employing the best available hazard and risk information should reduce this uncertainty and improve the accuracy of predictions. In this context, better knowledge of demand surge can assist insurers in their business decisions. Demand surge also bedevils consumers and consumer advocates. Skeptical insurance consumers and their advocates have an *ipso facto* license to question the validity of demand surge models. An insurance company may counter that, to be economically viable, it must use the best available model to anticipate any demand surge costs and reflect these costs in policy premiums. Any such extra premiums would become a source of serious conflict between insurers and policyholders, as well as consumer advocates.

**Concentration of Risk**

Allowing that the demand surge exists and claims are to be paid; who will pay?
The demand surge could be expressed as a concentration in property catastrophe rates via a “concentration charge.” That is, an additional charge on top of the manual rate which varies based on the insurer’s exposure level in the area where the potential insured is located. Insurers might think such a charge (if feasible) might be justified. Regulators probably would not like it. In a perfectly functioning economy, with plentiful reinsurance and capital market capacity, insurers would be able to diversify away exposure concentration problems. Insurers would collect the additional money for their concentration problems, and then diversify those problems away, presumably for less cost than they collected in concentration charges. Competitive markets would not allow such an arbitrage engine to exist for long. The situation is unfortunately not as simple as that. Diversification of exposure concentration means geographical balancing amongst capacity providers- insurers, reinsurers, or capital market participants. But how to diversify those exposures is still unsettled. Efforts to this point have focused on balancing the exposures which have already been written by insurers - via catastrophe reinsurance (regular or securitized), several proposed catastrophe indices, even direct exposure exchanges.

**Services Added**

Several general definitions or usages of “demand surge” add “services” to the short list of labor and materials to explain higher costs after catastrophes, but the reference to services is unclear. Services might refer to expenditures by insurers to claims adjusting firms, or by insurers to construction contracting firms, or by construction contracting firms to businesses that serve them while they mobilize, market their services, do the

repairs, etc. Since insurance claims include additional living expenses and other time-element losses, services in this context could mean virtually any expenditure paid to businesses at any distance from the catastrophe by any insured entity during the life of any time-element claim. Examples of items affected by demand surge appear in the sub headings below.

**Construction Labor Shortages**

Market forces generally ensure that the availability of labor in any particular geographical area is sufficient to accommodate a normal level of demand without affecting price. However, when demand increases sharply and unexpectedly- as after a catastrophe event -consequent pressure on resources can cause prices to inflate. The relative scarcity of resources in such a situation can also result in increases in the time required to repair and rebuild damaged property. Also, there often are add-on costs associated with post-catastrophe rebuilding efforts, such as for the transportation and lodging of workers who cannot stay in the most devastated areas. When there is an increased supply of labor because of high unemployment, it is possible that it may take longer for available resources to be exhausted due to slack in the regional labor market, any given industry loss will produce a lower demand surge factor (inflationary effect). On the other hand, it is also possible that a recessionary environment could lead to a decline in the number of capable, trained construction workers. It is difficult to say *a priori* which effect would dominate.

**Building Supply Shortages**

When large losses are produced by natural hazards, reconstruction can be hampered by the availability of materials and/or labor. These shortages lead to post-event inflation. Demand surge is usually expected to add 10% to 20% to the loss. The California Earthquake Authority testified that insurers estimated a 20% impact for demand surge following the January 17, 1994 Northridge earthquake. The actual inflation rate for labor and materials in some cases (such as Hurricane Katrina) can go higher, given the scope and the timing of the loss. Following a major natural disaster, increases in demand for construction material can result in increased claims settlement costs. Settlement costs may also rise from large events such as hurricanes or earthquakes due to the demands upon insurers to settle thousands of claims in a short time. Based on actuarial principles, it is reasonable to include these additional costs in establishing the appropriate rate. However, determining a demand surge factor is difficult since limited data are available to measure the impact of this phenomenon on claims costs.

**Fuel Shortages**

Direct losses from a catastrophe may be amplified by spatial propagation of the catastrophe ‘shock’ into different sectors of the economic system; this includes fuel supplies over both the short and long term. This can be found in the inflation caused by disruptions in the supply and demand equilibrium as well as increased demand and by technical constraints that slow down the reconstruction effort or increase its recovery cost. Basic fossil fuel delivery systems are disrupted in the event of a catastrophe. Due to the volatile nature of these substances, governments are loathe to allow them to be distributed in the disaster zone in a haphazard fashion. Standard delivery channels of gasoline, diesel, and natural gas are stymied. Market forces are negated as the

government seeks to restore order. Fuel must be trucked in by the entities engaged in first rescue, then recovery, then repair of damages.

**Transportation Issues**

The region affected by a disaster may be similarly misleading. The “remoteness” of an area has been suggested to explain some past demand surge events. Isolated populations, such as those in Darwin, Australia, or on Kaua’I Island in Hawaii, may pay significantly more for reconstruction following disasters. However, geographic remoteness may not be a fundamental concern. In terms of demand surge, the ability to supply an affected area determines its “remoteness.” In Hurricanes Andrew and Katrina, contractors and materials were also brought into the affected region. The relevant question then is not how far away, but more immediately, at what cost the materials, labor, equipment, and financing can be brought or ‘transported’ to the affected area. Thus, information on the capacity and costs of transportation and of temporary housing for workers seems more fundamental than distance. The particular region may also inform an assessment of the pertinent socioeconomic issues for demand surge.

After a "normal" catastrophe, such as the four hurricanes of 2004, insurers reached a 90% settlement rate after four months. Traditionally, insurers send adjusters to the worst hit areas first, and then work out to areas that were not as severely impacted. After Katrina, adjusters and others were banned from the heavily damaged areas, such as parts of New Orleans, so they had to start in the outer areas and work their way in. A settled claim, however, doesn't mean it's closed. A claim can be open for many months because the homeowner is rebuilding the home. Insurers do not just write a check for $200,000 and walk away, the payout process parallels the rebuilding. Still, the claims have been effectively settled. They have been adjusted, and insurers and policyholders have come to an agreement on the sum.

**Permit Restrictions Can Result in Increased Costs**

Although the demanded materials, labor, equipment, and financing may be available and readily transported, local authorities may restrict the free movement of supplies and prices. Authorities may choose to set prices or place ceilings through anti-price gouging laws. The migration of labor from outside an affected area may be restricted or entirely prohibited. Thus, demand surge may vary by region, not because of physical geography, but rather because of the fundamental questions of physically supplying an area and any restrictions on the flow of those supplies.
Delay in repairs drives up the cost of repairs. Delays can result from infrastructure damage, delay in building permit process, or a shortage of building inspectors.

Katrina highlights the unknown as well as underestimated exposures from extreme events. The sheer volume of homes needing adjusting, debris/damage removal and then building permits over-taxed the local government system. Political pressures, lawsuits, and coverage disputes tend to increase ultimate losses.

Like the peril and region, the year of an event may not be fundamental to demand surge. Rather, the year may be a proxy for issues such as materials supply and the capacities of transportation systems. For example, materials suppliers may now rely on just-in-time-supply chains, rather than inventories. Thus, the reconstruction after recent disasters may be more vulnerable to materials shortages than after disasters of twenty

or fifty years ago. In regions with recently well-developed transportation systems, however, the ease of moving materials may offset the problem of smaller inventories. Again, the year *per se* may not provide fundamental information about demand surge.

The sequence, or timing, of events may also not directly affect demand surge. A single event, isolated in time and location from another event, might be seen as a standard disaster to which other disasters can be compared. Thus, it can be used in comparisons with the more unusual catastrophe-following-catastrophes or clustered events.

# V. Enhancements and Endorsements to the Policy

An endorsement or rider is a written modification that either adds to or deletes one or more provisions of the general policy to serve particular needs. Insurance policies are written for the broadest market possible. To keep premiums affordable, only the coverage required by most people is included in the standard homeowners' insurance policy. For instance, the standard policy does not include coverage for a home business, because most people don't have a home business.

Broker-agents must be familiar with policy enhancements and endorsements. It is necessary that broker-agents be well versed in this area so that they can communicate options to insureds and applicants. The purpose is that broker-agents, and in turn, insureds and applicants, will have an understanding of how these insurance coverage and policy options are available to help protect against underinsurance. This decision regarding which policy level to purchase is often the most important one an insured or applicant will make in determining how best to insure the structure. The replacement cost levels are significantly different from one another, and some may be available to a particular insured or applicant and some might not be, depending on a number of factors including whether a specific carrier offers the coverage and whether the property to be insured so qualifies.

## Review of Significant Endorsements

Inclusion of the gamut of specific coverages in the standard policy would increase premiums even for people who do not have a need for that coverage type. There are more than 100 endorsements for the standard homeowner's policy. A list of common endorsements is presented here.

**Blanket Endorsement**

This is used in place of a scheduled personal endorsement. It covers multiple types of property without itemizing. The Blanket Endorsement covers what the standard policy does not cover such as jewelry, coins, etc...

**Business Pursuits Endorsement**

This endorsement extends liability coverage if an at-home sales business or other small franchise-type venture is operated from the home.

**Credit Card Forgery and Depositors Forgery Coverage Endorsement covers**

This covers the loss, theft or unauthorized use of credit cards. It also covers forgery of any check, draft, promissory note, etc... This endorsement has certain exceptions. No deductible applies.

**Earthquake Insurance Endorsement**
This is available through most insurance companies. It is regarded as catastrophic coverage and usually has a deductible of 10% of the home's value.
**Guaranteed Dwelling Endorsement**
This covers the market value of the home. Often the market value is higher than the replacement cost.
**Guaranteed Contents Endorsement**
Covers the cost to replace a personal item even though the homeowner might have owned it for a number of years and contents have depreciated in value.
**Home Business Endorsement**
This endorsement extends liability coverage in the home if the homeowner owns and operates a business in the home.
**Home Daycare Endorsement**
Covers any liability claims if a daycare is operated from the home.
**Income Property Endorsement**
Extends liability coverage to areas of the home or premises that are rented.
**Increased Limits on Money and Securities**
Increases the coverage on money, bank notes, securities, deeds, etc...
**Inflation Guard Endorsement**
Allows the insurance company to automatically change the policy limit. This is done to cover the replacement cost of a home that is increasing with inflation to maintain the coverage at 80% of replacement cost. Not all companies offer this endorsement.
**Ordinance and Law Endorsement**
Extends coverage for additional costs of reconstructing the home under current codes. This usually applies to older homes.
**Other Structures Endorsement**
Covers larger more elaborate structures (gazebos, guest house etc.) that would exceed the standard 10% limit.
**Personal Injury Endorsement**
Extends liability coverage to the homeowner if he or she is sued for libel, slander, and defamation of character. This is covered in umbrella policies and may not be needed.
**Sewer and Drains Endorsement**
Covers damage to the finished or storage basement in the event of faulty sewer lines or drains. This is not covered by standard policies.
**Scheduled Personal Endorsement**
Sometimes called a "personal article floater" covers possessions such as jewelry, furs, stamps, coins, guns, computers, antiques, and other items that may exceed normal limits in a standard policy. Each item is valued, itemized and described. Excluded perils are listed. There is usually no deductible applied to this coverage.
**Secondary Residence Premises Endorsement**
Applies to a secondary residence.
**Theft Coverage Protection Endorsement**
Extends theft protection to the contents of the motor vehicle, trailer or watercraft without proof of forced entry.
**Watercraft Endorsement**
Extends personal liability and medical payments on small sailboats and outboard motor boats.

**Flood Insurance**
It is required by the lender if the home is located in a flood plain. Flood damage is generally not covered by homeowners' insurance. Depending on where the home is

located it may qualify for flood insurance through the National Flood Insurance Program (NFIP). Flood insurance covers direct physical damage to the main home and its foundation and erosion damage. It does not cover structures extended over water and structures other than buildings such as pools and gazebos.

## Catastrophe Coverages and Types of Replacement Cost

As discussed in a previous section, shortages occurring as a result of the demand surge phenomenon can be costly. The surge manifests itself as an increase in the cost of repair or replacement of damaged property that may occur following a large-scale disaster when many individuals and organizations vie for a limited supply of labor and materials needed for repair.

After a large disaster, construction material and labor can temporarily be in short supply, so construction costs are inflated. Demand-pull inflation is asserted to arise when aggregate demand in an economy outpaces aggregate supply. This is commonly described as "*too much money chasing too few goods*". More accurately, it should be described as involving "*too much money **spent** chasing too few goods*", since only money that is spent on goods and services can cause inflation. This would not be expected to persist over time due to increases in supply. The term demand-pull inflation is mostly associated with Keynesian economics. The larger the impact of the event on the local economy is, the larger the effect of demand surge will be. For example, an event that causes a $5 billion insurance industry loss might cause demand surge to increase construction costs by 5%, while an event that causes a $40 billion insurance industry loss might cause demand surge to increase construction costs by 25%.

## Building Ordinance Coverage Requirements

### Building Code Upgrade

In certain circumstances the cost to repair, rebuild or replace will be impacted by costs associated with building code requirements. This occurs when building codes may have changed between the time the structure was first constructed and the time after a loss when the structure is to be repaired, rebuilt or replaced. It is necessary that broker-agents understand the availability of this coverage, what is covered under the upgrade and what is not, so that the information can be made known to insureds and applicants.

Ordinance and Law protects the insured when the undamaged portion of a house is not up to the current codes, ordinances, and laws of the political subdivision in which it is located. When a house damaged by fire, flood or other peril is to be rebuilt, all the electrical, plumbing and air conditioning must meet current codes and standards. Ordinance and Law will cover the extra cost of updating these items without worrying about going over the total amount available for repairs. If a home is getting older (not just an antique/historic home), the homeowner is wise to seek this coverage.

Coverage provided for building code upgrades by a policy of residential property insurance shall be applicable to building codes, ordinances, standards, or laws only to the extent that those codes, ordinances, standards, or laws do not impose stricter standards on the property on the basis of the level of insurance coverage applicable to the property. (C.R.S. 10-4-110.8)

## Types of Replacement Cost coverage

The levels of coverage for replacement cost policies are:

- Guaranteed Replacement Cost Coverage with Full Building Code Upgrade;
- Guaranteed Replacement Cost Coverage with Limited or No Building Code Upgrade pays replacement costs without regard to policy limits but limits or excludes costs resulting from code changes;
- Limited Replacement Cost Coverage With an Additional Percentage which pays replacement costs up to a specified amount above the policy limit;
- Limited Replacement Cost Coverage With No Additional Percentage which pays replacement costs up to policy limit only.

The coverages are shown in chart form in Section II. Being well-versed in the coverages available enables broker-agents to communicate effectively to insureds and applicants the features of each policy level and the kind of protection afforded. This will assist insureds and applicants in making an informed choice.

### Replacement Cost Coverages and Limits

ACTUAL CASH VALUE COVERAGE pays the costs to repair the damaged dwelling minus a deduction for physical depreciation. If the dwelling is completely destroyed, this coverage pays the fair market value of the dwelling at time of loss. In either case, coverage only pays for costs up to the limits specified in the policy.

REPLACEMENT COST COVERAGE is intended to provide for the cost to repair or replace the damaged or destroyed dwelling, without a deduction for physical depreciation. Many policies pay only the dwelling's actual cash value until the insured has actually begun or completed repairs or reconstruction on the dwelling. Coverage only pays for replacement costs up to the limits specified in the policy.

EXTENDED REPLACEMENT COST COVERAGE is intended to provide for the cost to repair or replace the damaged or destroyed dwelling without a deduction for physical depreciation. Many policies pay only the dwelling's actual cash value until the insured has actually begun or completed repairs or reconstruction on the dwelling. Extended Replacement Cost provides additional coverage above the dwelling limits up to a stated percentage or specific dollar amount. Insured should read the policy for the additional coverage that applies.

GUARANTEED REPLACEMENT COST COVERAGE covers the full cost to repair or replace the damaged or destroyed dwelling for a covered peril regardless of the dwelling limits shown on the policy declarations page.

BUILDING CODE UPGRADE COVERAGE, also called Ordinance and Law coverage, is an important option that covers additional costs to repair or replace a dwelling to comply with the building codes and zoning laws in effect at the time of loss or rebuilding. These costs may otherwise be excluded by the policy. Meeting current building code requirements can add significant costs to rebuilding a home. Refer to the policy or endorsement for the specific coverage provided and coverage limits that apply.

### Exclusions

Not all causes of damage are covered by common homeowners or residential fire policies. The homeowner must read the policy to see what causes of loss or perils are not covered. Coverage for landslide is typically excluded. Some excluded perils such as earthquake or flood can be purchased as an endorsement to the policy or as a separate policy. Homeowners should be encouraged to make contact with the agent, broker, or insurance company if there is any concern about any of the exclusions in the policy. Other items frequently ***not*** included in replacement cost coverage are, professional fees for architects and engineers, cost of permits, builder's overhead and profit, interim financing charges, and mortgage payments while the home is being fixed.

### Misuse of Extended Replacement Cost

Agents need to know that failure to insure the full value of the risk and relying on the "replacement cost" endorsement to make up the difference is inappropriate. This course of action harms the policyholder.

## VI Dwelling Fire Insurance

Provisions of the dwelling fire policy are not set out by statute, however, Colorado fire policies follow the same format as many other states That is, a policy providing coverage against the peril of fire only, or in combination with coverage against other perils, must provide coverage with respect to the peril of fire, when viewed in its entirety. Features of interest regarding the basic fire policy include the following;

- It is not required to be used for reinsurance between insurers.
- Either the blanks in the form or those in an attached endorsement attached thereto shall be appropriately filled.
- It may show the term in any form which clearly states the period during which the insurance is to continue. The period shall begin and end on specified dates at 12:01 a.m. standard time, at the location of the property involved.
- By special agreement the provisions regarding appraisement or apportionment of loss may be waived and valuations may be agreed upon in advance of loss.
- The insurer may add any matter relating to its financial condition, directors, officers, shareholders and history, and the address of its home office and principal office in the United States.
- There may be added to the standard form clauses providing for and defining the rights, duties and obligations of mortgagees, assignees and other parties having or acquiring an interest in the insured subject matter.
- Clauses may be added (a) Covering subject matter and risks not otherwise covered (b) Assuming greater liability than is otherwise imposed on the insurer (c) Granting insured permits and privileges not otherwise provided (d) Waiving any of the matters which may be waived and which avoid the policy or suspend the insurance (e) Waiving any of the requirements imposed on the insured after loss.
- After a covered loss insurer provides a free copy of his or her policy if requested by the insured. Insured is also entitled to a free copy of the policy on an annual basis.

## ACV and RCV Differences

**Replacement Cost** is the amount it would take to replace or rebuild a home or repair damages with materials of similar kind and quality, without deducting for depreciation. Depreciation is the decrease in home or property value since the time it was built or purchased because of age or wear and tear. Many insurers require homeowners to insure their homes for at least 80% of the replacement cost. If the homeowner fails to insure for at least that, a penalty is applied to partial losses.

Under an open policy, indemnity is the expense to the insured of replacing the loss in its condition at the time of the loss. In several state jurisdictions, its value is computed at the time of the loss. An open policy is one in which the value of the thing insured is not agreed upon, but is left to be ascertained in case of loss.

With an open policy requiring replacement cost, there is no deduction for physical depreciation, so the measure of indemnity is replacement cost (the amount to repair, rebuild, or replace) or the policy limit, whichever is less. If the policy requires the insured to replace in order to collect the full replacement cost, the actual cash value is initially paid. Once the property is replaced, the insurer pays the difference, up to the policy limits. At least 12 months must be allowed for replacement, with additional six month extensions out to 24 months. Additional time beyond that can be allowed.

**Actual Cash Value** is the amount it would take to repair or replace damage to a home after depreciation. The cost to replace the insured item with an item of similar kind and quality with depreciation of the insured item deducted from the amount. Most standard home insurance policies cover home contents on an actual cash value basis.

Actual cash value can be described in the following way;
Under an open policy with an actual cash value settlement option, payment is as follows;

- In case of total loss, the policy limit or the fair market value, whichever is less.
- In case of a partial loss, the amount it would cost the insured to repair, rebuild, or replace the loss less a fair and reasonable deduction for physical depreciation based upon its condition at the time of loss
  -Or-
  the policy limit, whichever is less.
- In case of a partial loss, deduction for physical depreciation should apply only to components of a structure that are normally subject to repair and replacement during the useful life of that structure.

## Exclusion and Limitations of Coverage

The ‘Basic’ or ‘Standard’ Fire Policy only covers the perils of fire, lightning and removal. It covers damage to the building and its contents. To get comprehensive coverage, the property owner must seek endorsements that address his or her particular insurance needs.

The Dwelling Fire Policy has been around for some time. As policy forms have evolved and been updated, the fire policy is seen in some quarters as obsolete. However, it still holds a place of historical significance as the forerunner to many of the policy forms still used today. The Dwelling Fire Policy has four sections:

**1) Declaration:** Description and location of property, insured amount, name of insured;
**2) Insuring agreements:** Premium amount, obligations of the insured, actions the insured must take in the event of loss and resultant claim;
**3) Conditions:** Describes what suspend or restricts the coverage, such as an increase in the hazard with the knowledge of the insured;
**4) Exclusions:** Perils not covered under the policy, such as enemy attack, including action taken by military force in resisting actual or impending enemy attach.
**COVERED PERILS:** The dwelling fire policy covered direct loss from the peril of fire, lightning and removal from premises (known simply as “removal”). Because the dwelling fire policy was a named peril contract, it did not cover any other perils than those stated in the insuring agreement.
**Fire:** The peril of fire is defined as combustion sufficient to produce a spark, flame, or glow. Mere smoke, scorching, or charring is insufficient to establish the existence of a fire. The courts have distinguished between "friendly" and "hostile" fire. Friendly Fire: A friendly fire is one intentionally started and burns within the confines for which it was intended, such as a fire in a fireplace. A friendly fire is an event not covered by insurance, Hostile Fire: A fire becomes hostile when it was not started intentionally, or has escaped from the confines for which it was intended. A hostile fire is the only type of fire covered by insurance.
**Lightning:** The peril of lightning is defined as the natural discharge of electricity from the atmosphere and does not include artificially generated electricity such as from an electrical power surge. Lightning was one of the first perils added to fire insurance policies.
**Removal:** This provides insurance to property while it is removed from the residence premises to protect it from a covered peril. Property loss to undamaged property, while removed from the original specific premises to prevent further damage is insured for up to 30 days while removed.
**SETTLEMENT OPTIONS:** As stated in the dwelling fire policy contract, the insurer will not pay more than the least of the these four limits: 1) The amount of the policy; 2) The actual cash value; 3) The interest of the insured; or 4) The amount necessary to repair or restore the property (partial loss).
**Insured's Obligations:** 1) Provide immediate notice of the loss; 2) Protect property from further damage; 3) Separate damaged from undamaged property; 4) Inventory the loss; 5) Provide proof of loss within 60 days.

## Extensions of Coverage

Extended coverages are often available which can add the following seven perils to the policy: 1) Windstorm; 2) Hail; 3) Aircraft; 4) Riot & Civil Commotion; 5) Vehicle; 6) Explosion 7) Smoke. The extended coverage perils can be easily remembered by using the acronym WHARVES.

Also in the fire policy, the vandalism and malicious mischief endorsement covers willful and malicious damage to covered property with a 30-day limit, in the event the property is vacant or unoccupied within a 30-day time limit. Vacant means that the building has no contents and no one currently inhabits the premises. Unoccupied means the building has some contents, but no one currently inhabits the premises.

Other structures can be on the same premises as the principal structure. A detached garage on dwelling premises is “appurtenant” to the dwelling. Some legal forms may refer to the “other structures” protected under the policy as “appurtenant structures.”

### Earthquake Coverage

Property insurance policies are designed to cover perils such as fire and theft. Policies are not designed to cover potentially catastrophic events like earthquakes. This coverage is specifically excluded from standard policies. Even though people in the U.S. live near fault lines, damaging seismic activity is infrequent and hard to predict. A devastating earthquake in the U.S. is a once-in-a-lifetime occurrence for most people or the earth may be still for generations to come. Earthquake insurance can be endorsed, or added, to a home insurance or business property insurance policy. Earthquake insurance rates vary with the type of building construction. Wooden structures, because they will flex in a mild earthquake, have lower insurance rates than brick structures. Earthquake insurance policies usually have higher deductibles - typically 10% to 25% of the building insurance amount - and often separate deductibles will apply for the building structure, building contents, and detached structures, like bulkheads, sheds and garages. Earthquake insurance rates vary by location, building structure, and coverage amount and deductible selection.

## VII Types of Basic Building Construction

### Type of Construction

There are various methods used to estimate replacement cost. In this regard, it is necessary that broker-agents have an understanding of very basic types of building construction. This will enable them to recognize the components, to ask the insureds and applicants the correct questions to ascertain the information necessary to factor into an estimated replacement cost. Replacement cost will differ depending upon the type of basic building construction. Basic building construction types are listed below;

**Tilt-Up-** A tilt-up building's walls are created horizontally in large slabs of concrete called panels. The panels are then lifted, or “tilted up”, into position around the building's foundation. In traditional forms of wall construction, the walls are made up of structural columns which are then faced with siding, brick, or stucco. Regardless which traditional approach is used, building the exterior walls is a time-consuming, multi-stepped process. This means the tilt-up structure's exterior wall is virtually finished when it is tilted into place.

**Cinderblock-** Concrete masonry unit (CMU) construction creates a structure that is economical, energy efficient, fire-resistant, and involves minimal maintenance. In addition, concrete masonry allows architectural freedom and versatility. The standard concrete block is a rectangular 8X8X16-inch unit (200X200X400 mm) made mainly of Portland cement, gravel, sand, and water and a pigment, if desired. The most common application of concrete masonry is walls for buildings. However, other uses for concrete masonry units include retaining walls, chimneys, fireplaces, and fire safe enclosures of stairwells, elevator shafts, and storage vaults.

**Wood Frame-** This is a building technique based around wooden structural members which provide a stable frame to which interior and exterior wall coverings are attached,

and covered by a roof comprising horizontal ceiling joists and sloping rafters (together forming a truss structure or roof frame). The frame is covered by various sheathing materials to give weather resistance. Wood frame construction has become the dominant construction method in North America because of its economy. Use of minimal structural materials allows builders to enclose a large area with minimal cost, while achieving a wide variety of architectural styles.

**Brick and Masonry-** Masonry construction is the building of structures from individual units laid in and bound together by mortar; the term *masonry* can also refer to the units themselves. The common materials of masonry construction are brick, stone, and stucco. CMU construction was considered separately above. The materials used, the quality of the mortar and workmanship, and the pattern in which the units are assembled can significantly affect the durability of the overall masonry construction.

**Metal Frame-** Construction with a metal frame usually refers to a building technique with a "skeleton frame" of vertical steel columns and horizontal I-beams, constructed in a rectangular grid to support the floors, roof and walls of a building which are all attached to the frame. The development of this technique made the construction of the skyscraper possible. Steel studs can also be used for interior walls.

## Combustibility Classifications

Building construction classifications are based upon combustibility and fire resistance. The terminology used to define buildings has changed over the years, while the features of the construction methods have remained consistent. While building-design professionals may identify a building as a Type I, the fire service may refer to it as a fire-resistive building. Both terms correctly identify the building. National Fire Protection Association (NFPA) 220, *Standard on Types of Building Construction*, uses Type I, II, III, IV, or V to identify a particular type of building. The fire service typically has used other terms to identify a building, such as "wood frame" for a building that uses wood as its structural element or "ordinary" for a building constructed with noncombustible exterior walls (usually masonry materials) and having a wood-frame interior. This type of construction also is often referred to as “Main Street, USA,” the type of construction that could be found on the main street of any small town.

Fire-resistance ratings for construction materials are established as a result of recognized and accepted testing methods. Standards such as those developed by the American Society for Testing and Materials (ASTM) are commonly used in building codes to test such items as fire walls, fire doors, and other fire-rated construction components. Agencies such as Underwriters Laboratories, Inc. (UL), Factory Mutual Global (FM), and other laboratories typically test construction materials and components in the form in which they will be used. As an example, a fire door would be tested with a fire-rated door frame as a total component. To use a fire-rated door with a lightweight wood frame around it would defeat the purpose, which is to stop a fire from spreading to the other side.

**Limited combustible** identifies structural materials that have about one-half the heat potential of wood (not to exceed 3,500 Btu/lb). As a point of comparison, Douglas fir equals 8,400 Btu/lb. Limited combustible also is used for materials that are essentially noncombustible but have a combustible coat, or cover, with a flame-spread rating below that of red oak (100). Limited combustible also is used where the entire structural member has a flame-spread rating below twenty-five, which is not changed by cutting through the material.

Treating material typically involves treating the exterior of the wood with a fire-retardant chemical, which will reduce the flame-spread rating to less than fifty. If the wood is sawed, it then has exposed portions without the fire-retardant treatment, thus negating the limited-combustible classification. Many building codes require structures, such as multiple-residence dwelling units, that may have exposed wooden joists to be painted with a fire-retardant paint. Some communities have required the use of fire-retardant paint in all areas that are painted, even when the building materials themselves are noncombustible. The New York City Housing Authority requires the emergency stairwells in highrise apartment buildings to be painted with fire-retardant paint instead of latex or enamel paints to eliminate the vertical spread of fire on the painted surface.
**Noncombustible materials** are those that will not ignite, burn, support combustion, or release flammable vapors when heated. While these materials cannot be ignited and will not support combustion, they may react to heat in a manner that could affect structural stability. As an example, unprotected steel is a noncombustible material, but it expands significantly when heated, which could either push a wall out or, if it is confined, twist and turn, with the possibility of structural members falling. In addition, at about 1,000°F (538°C), steel loses about fifty percent of its load-carrying capability.

### Multiple Classifications or Interconnected Construction Types

Fire-protection considerations are generally based on the highest level of fire resistance or combustibility under fire conditions. As an example, if a wood-frame building is constructed next to a noncombustible structure with unprotected openings from the wood-frame building into the adjoining noncombustible building, then the fire service, for fire-suppression purposes, would consider the entire structure as a wood-frame building.

Buildings are classified according to five distinct kinds of construction, as listed below:

- Type I—Fire-resistive buildings
- Type II—Noncombustible buildings
- Type III—Ordinary-construction buildings
- Type IV—Heavy-timber buildings
- Type V—Wood-frame buildings

### Type I—Fire-Resistive Buildings

Fire-resistive buildings may be used for many different occupancies, such as office buildings, shopping centers, or residential units. The critical structural requirement for Type I buildings is that all walls, floors, roofs, and supporting members must be made of noncombustible materials. In addition, any noncombustible material that is subject to stress from high temperatures (e.g., steel) must be protected from heat to avoid failure. Structural elements such as bearing walls, columns, beams, girders, trusses, and floors must be constructed in accordance with standards developed as a result of standardized fire-resistance testing. Fire-resistance ratings range from as little as two hours for interior bearing walls to four hours for beams, girders, and trusses. For fire-suppression operations, the advantage of Type I buildings is structural collapse is unlikely. In several instances, Type I buildings have burned well past the standard time for fire resistance but have not collapsed, even though the buildings suffered structural deterioration.

### Type II—Noncombustible Buildings

Noncombustible buildings may be used for many different occupancies, such as office buildings, warehouses, and automobile repair shops. The critical structural requirement

for Type II classification is that walls, floors, roofs, and supporting structural members must be made from noncombustible or limited-combustible materials. Structural elements may have from a zero- to two-hour fire-resistance rating. The concern for fire-suppression operations is that any unprotected steel structural elements, under fire conditions, could expand or relax, thus causing structural failure.

**Type III—Ordinary-Construction Buildings**
An ordinary-construction building may be used for many different occupancies, such as office buildings, retail sales stores, or mixed occupancy, such as a retail sales store on the first floor with a dwelling unit on the second floor. This construction method is often referred to as “Main Street, USA,” since it is representative of building types on main streets in many American small towns. The critical structural requirement for Type III classification is that the exterior walls must be constructed of noncombustible materials, most commonly masonry or stone. Interior walls and supporting structural elements are typically made from wood, which may have a fire-resistance rating of up to one hour. Fire resistance may be rated from zero to as much as one hour for interior bearing walls, support columns, beams, girders, floors, and roofs.

**Type IV—Heavy-Timber Buildings (Mill Construction)**
A heavy-timber building is generally used for manufacturing, storage, or other similar purposes that require a structure to support very heavy floor loads. Today, many of these buildings have been converted for other occupancies, including retail sales stores and residential dwellings. This method of construction also may be called “mill construction,” reflecting the intended use for the earliest of these types of buildings. The critical structural requirements are that (1) the exterior walls are constructed from noncombustible materials, typically masonry or stone, and (2) the interior support materials are made from large wooden timbers. Supporting columns for floors must be a minimum of 8” wide and 8” deep. Other support members must be a minimum of 4” by 6”. Floors typically are constructed of heavy planks that are 3” thick covered with a finished floor. Roofs are constructed of splined or tongue-and-groove planks that are 2” thick. The strengths of Type IV buildings are the noncombustible exterior walls and the large wooden interior support systems, which have fire-resistance ratings that range from one to two hours. Concerns for this building type are the possible void areas created during renovations (which are not allowed in this type of construction) and openings in the floors for items such as conveyor belts, freight elevators, and other power transfer systems, which can allow for rapid fire and smoke spread between floors.

**Type V—Wood-Frame Buildings**
A wood-frame building may be used for many different purposes, such as single-family dwellings, multiple-family dwellings, restaurants, or retail sales stores. There are five distinct methods of wood-frame construction: log, post-and-beam, balloon, platform, and plank-and-beam. The structural elements, as the name indicates, are made from wood. Some other materials may be used as well, such as steel for a center carrier beam to support the floor joists for the first floor. Fire resistance is generally limited, but it can be required to be up to one hour for certain applications.

# VIII Methodology of Determining Value

In order to successfully meet the requirements of HB 13-1225, a Property and Casualty and/or Personal Lines Broker-Agent must have significant knowledge in the proper methods of estimating the replacement value of structures. For producers authorized to sell property or personal insurance lines of business, at least three of the twenty-four hours of continuing education must be for courses in homeowners' insurance coverage. With this training these agents will be able to explain various levels of coverage under a homeowners' insurance policy, have an understanding of the elements that comprise the value of a dwelling and convey this to the insured and make recommendations of the appropriate levels of coverage.

### Insurable Replacement Cost

"Insurable Replacement Value" represents the replacement or reproduction cost of the insurable improvements. It is not a "Value", but rather a Cost Estimate that makes no allowance for land value, depreciation, indirect costs, or developer's profits. As such, it is unrelated to Cash Value or Market Value. "Insurable Replacement Value" is normally defined as follows:

1) The value of the property that is recognized as insured under the provisions of the applicable insurance policy.

2) The value used by insurance companies as the basis for insurance. The replacement or reproduction cost of the property with materials of like kind and quality intended for the same use less deterioration and non-insurable items. This value is not market or cash value but rather it is entirely a cost concept.

### Valuation Metrics

The need for accurate real estate valuation arises from the heterogeneous nature of property as an investment class: no two properties are identical, and all properties differ from each other in their location- which is one of the most important determinants of their value. So there is no centralized bourse for the trading of property assets, as there exists for trade in corporate stock. The absence of a market-based pricing mechanism determines the need for an expert valuation of property. If the value is based on the market price, then it must also be based on the highest and best use of the real property. There are three general groups of methodologies for determining value. These are usually referred to as the "three approaches to value" which are generally independent of each other:

**The sales comparison (market) approach**- This approach compares a property's characteristics with those of comparable properties which have recently sold in similar transactions. The process uses one of several techniques to adjust the prices of the comparable transactions according to the presence, absence, or degree of characteristics which influence value. As such, all sales comparison approach methods are variations on utility valuation (hedonic) measurements, which determine the value of something as the sum of the value of the various components which contribute utility.

**The income approach-** While there are quite a few acceptable methods under the rubric of the income approach, most of these methods fall into three categories: direct capitalization, discounted cash flow, and gross income multiplier. These approaches do not apply to replacement cost valuation and are beyond the scope of this book.

**The cost approach**- The cost approach says that a buyer of real estate will not pay more for a property than it would cost to build an equivalent. The cost of construction minus depreciation, plus land, therefore is a limit, or at least a metric, of market value. There are some fairly large assumptions embedded here. One of the basics is that there is a sufficient supply of buildable land so that construction is a viable alternative to purchase of an existing property. In urban areas today there are areas which are either so fully developed or so restrictive in their planning approvals that new construction is not an option because of the scarcity of land. A related question is whether the building in question is anything that would actually be built again in that market. If the trend of development favors, say, high volume warehousing, would anyone consider building a multi-story manufacturing facility? If the trend is to high density condominium buildings, would anyone consider building a detached house? The cost of constructing an obsolete building isn't considered relevant to market value.

In between new and totally obsolete various negative elements related to age, fashion and change (depreciation) will accrue. These are lumped into physical (wear, tear and deterioration), functional (look, feel, form and style), and locational (the influence of factors outside the property itself).

There are other methodological issues which can be problematic. How does one estimate cost? Is it based on reproduction of an exact replica or something that is judged to be functionally equivalent? Can cost even be estimated in an exact manner? When a project is put up to bid, is there not usually a range of prices offered for the same plans and specifications? Is the final cost of a project equal to the original bid? How should profit be treated?

Some maintain that the cost approach will normally be the highest of the three approaches. At the same time it is a truism that a project is only feasible if its projected cost is less than its completed value.

## A. Proprietary Valuation Tools

Marshall & Swift/Boeckh, a leading supplier of local building cost information, residential and commercial property valuation services for the property and casualty insurance sector in the United States. Marshall & Swift provides real estate and insurance companies with an industry building cost database. Per information at the company’s website, Marshall & Swift’s cost estimating manuals and computer software valuation programs are broadly accepted in the real estate and insurance business. As markets evolve and costs change throughout the year, the Marshall & Swift database and valuation programs are updated quarterly to assure that its users have the most current building cost data available. Building cost information is available for the U.S., U.S. Territories and Canada.

## B. Real Estate Appraisals

Real estate appraisal is the practice of developing an opinion of the value of real property, usually its market value. “Market value” is defined as the estimated amount for which a property should exchange on the date of valuation between a willing buyer and

a willing seller in an arms-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.

Real estate appraisals can be used to determine replacement cost if they use the 'Components of a Structure Necessary to Estimate Replacement Cost' method explained in Section III of this book. When a licensee conveys an estimate of replacement cost to the insurance-buying public, certain standards must be met. The estimate of replacement cost must include the expenses that would reasonably be incurred to rebuild the insured structure(s) in its entirety.

## C. Insurance Company Valuation Software

There are other software developers besides Marshall & Swift that specialize in providing real estate valuation software to assist real estate and insurance professionals in gathering and organizing data into a usable format. By analyzing comparable sales, and building costs; and finally assembling the results into clear and concise reports, one or more narrative sections, or full narrative appraisals can be produced. Report design is what makes the product valuable to the end user. Systems are built into the software to lead the operator through the inputs, to check for calculation errors and to prevent invalid assumptions. Such programs rely on cost accounting, which can be viewed as translating the supply chain (the series of events in the production process that, in concert, result in a product) into financial values.

## D. Contractor and Expert Estimates

The building trades are ubiquitous across the United States. Contractors doing the work and paying for materials and labor are a good source of information on product pricing. Ask three different contractors and a range of pricing will be evident. Caution must be taken in that, due to the localized nature of an individual contractor's work, pricing will not necessarily reflect regional trends. Architects and design firms are also good sources of information on home replacement costs.

## E. Cost per Square Foot Estimates

Replacement cost is often quoted as the cost per square foot it takes to rebuild a home. Per square foot figures are good as ballpark estimates; a starting point which can vary widely based on location and features of the individual home. Keep in mind that such estimates no longer meet the terms of the component requirement that is necessary for replacement costs estimates.

## F. Insured's Opinion

The term replacement cost or replacement value refers to the amount that an entity would have to pay to replace an asset at the present time. The insured will generally not have an accurate assessment of the replacement cost of an asset because of sentimental attachment, lack of objectivity in pricing, or unfamiliarity with the market. The responsibility of determining value rests with the insurer under the new regulations. It renders the homeowner's lack of sophistication in pricing moot.

# IX. Fire Mitigation

A **wildfire** is any uncontrolled fire in combustible vegetation that occurs in the countryside or a wilderness area. The wildland urban interface (WUI) is the area where urban and suburban development meets native, natural vegetated areas. It can be a beautiful place to live, but with the benefits of being near nature come risks and responsibilities. Colorado State Forest Service personnel serve as resources for landowners, homeowners and communities to ensure that they have the knowledge to fully prepare for future wildfires. The Colorado State Forest Service website is http://csfs.colostate.edu/

## A. The Fire Problem

In Colorado, the state's diverse ecosystems significantly influence the threat of fire and its associated risks. Fire has played an integral in shaping the state's landscape and natural resources over the millennia. Understanding this past helps predict future fire behavior and assess threats to natural resources and urban improvements.

### History of Fire in the Western United States

In terms of assessing the ecological role of fire, experts typically view the pre-settlement period (prior to 1700) as the time when the "natural" fire regime standard developed. During this period, both lightening and people were responsible for causing fires. As was common for indigenous peoples throughout the world, Indians in what was to become Colorado historically set fires to alter plant and animal populations, facilitate the collection of desirable species, and protect their villages from uncontrolled fire. While broad climate changes are partially responsible for significant variations in fire over time, Native Americans have been present in the state long enough to exert their own evolutionary force on fire patterns, supplementing and altering the long-term influences of lightning fires. Beginning first with Spanish missionaries, then with trappers and miners, and finally with westward expansion due to the railroads, the settlement period (after 1700) saw significant changes in land use. Livestock grazing, water and timber utilization, farming, mining, and other human activities altered vegetation and brought new fire sources. Changes in fire regimes greatly accelerated after the 1850s, as large influxes of settlers dramatically altered the landscape (Leiberg, 1902*).* Early photographs depicting settlement activities show the extent and nature of these changes (Gruell, 2001). Starting in the early 1900s and accelerating after the formation of the United States and Colorado State Forest Services, organized fire suppression came to define the modern era of fire management. Today, land use changes, population growth, development, fire suppression methods, and variations in climate continue to influence the nature and size of fires and how they interact with the natural environment.

Fire is an integral component of many of Colorado's ecosystems. However, uncontrolled wildfires are costly, putting lives and property at risk and compromising watersheds, open space, timber, range, recreational opportunities, wildlife habitats, endangered species, historic and cultural assets, wild and scenic rivers, other scenic assets, and local economies. The challenge is how to manage fires across Colorado's diverse ecosystems to reduce both costs and losses.

Whether state, federally or privately owned, much of Colorado is composed of forests, grasslands, and other vegetated lands. Over the years, underbrush has grown substantially on these lands. Drought conditions and disease infestation fuel large and intense wildfires. There has been an increase in the number and size of communities that border these areas in the wildland-urban interface. Suppressing wildfires that threaten these areas costs significantly more because protecting homes and other structures is costly.

Catastrophic wildfires not only compromise the forests' ability to sustain timber, outdoor recreation, clean water, and other uses but also pose hazards to human health, safety, and property. Because smoke from such fires contains substantial amounts of fine particulate matter and other hazardous pollutants, the fires can pose substantial health risks to people living in this interface. The growing number of large wildfires and acres burned (coupled with the increasing complexity of suppression in the wildland/urban interface) has greatly increased the costs of suppressing fires.

## B. Risk and Hazard Problem

The four major natural causes of wildfire ignitions are lightning, volcanic eruption, sparks from rockfalls, and spontaneous combustion. Many wildfires are attributed to human sources such as arson, discarded cigarettes, sparks from equipment, and power line arcs.

### Fuel Type

The spread of wildfires varies based on the flammable material present and its vertical arrangement. For example, fuels uphill from a fire are more readily dried and warmed by the fire than those downhill, yet burning logs can roll downhill from the fire to ignite other fuels. Fuel arrangement and density is governed in part by topography, as land shape determines factors such as available sunlight and water for plant growth. Overall, fire types can be generally characterized by their fuels as follows:

- **Ground** fires are fed by subterranean roots and buried organic matter. This fuel type is especially susceptible to ignition due to spotting. Ground fires typically burn by smoldering, and can burn slowly for days to months, such as peat or coal fires.
- **Crawling** or **surface** fires are fueled by low-lying vegetation such as leaf and timber litter, debris, grass, and low-lying shrubbery.
- **Ladder** fires consume material between low-level vegetation and tree canopies, such as small trees, downed logs, and vines and other invasive plants that scale trees may also encourage ladder fires.
- **Crown**, **canopy**, or **aerial** fires burn suspended material at the canopy level, such as tall trees, vines, and mosses. The ignition of a crown fire, termed *crowning*, is dependent on the density of the suspended material, canopy height, canopy continuity, and sufficient surface and ladder fires in order to reach the tree crowns.

Wildfires occur when the necessary elements of a fire (oxygen, heat, and fuel) come together in a wooded area: an ignition source is brought into contact with a combustible material such as vegetation that is subjected to sufficient heat and has an adequate supply of oxygen from the ambient air. A high moisture content usually prevents ignition

and slows propagation, because higher temperatures are required to evaporate any water within the material and heat the material to its fire point.

### Effect of weather

Heat waves, droughts, cyclical climate changes such as El Nino, and regional weather patterns such as high-pressure ridges can increase the risk and alter the behavior of wildfires. Since the mid 1980s, earlier snowmelt and associated warming has also been associated with an increase in length and severity of the wildfire season in the Western United States. However, one individual element does not always cause an increase in wildfire activity. For example, wildfires will not occur during a drought unless accompanied by other factors, such as lightning (ignition source) and strong winds (mechanism for rapid spread).

## C. Laws that Impact the Mitigation of Risk and Hazard

In March 2013, the Colorado State Forest Service released a new online mapping tool that will help community leaders, professional planners and interested citizens determine wildfire risk and where forest management actions can achieve the greatest impact to reduce that risk.
Through CO-WRAP, fire mitigation professionals, prevention planners, natural resource professionals and interested citizens can generate maps and download data and reports that describe defined project areas, such as neighborhoods or watersheds. The information in the web portal is based on geographic information system (GIS) data layers that allow users to view such themes as likelihood of an acre burning, potential fire intensity, historic fire occurrence and values at risk from wildfire.

### Community Wildfire Protection Plans

Community Wildfire Protection Plans (CWPPs) are available to address the challenges of the wildland-urban interface in a way that brings about comprehensive and locally supported solutions. These plans are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) of 2003. The Healthy Forests Restoration Act places renewed emphasis on community planning by extending a variety of benefits to communities with a wildfire protection plan in place. Critical among these benefits is the option of establishing a localized definition and boundary for the wildland-urban interface (WUI), and the opportunity to help shape fuels treatment priorities for surrounding federal and non-federal lands.

The CWPP, as described in the Act, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability and natural resources. It offers a positive, solution-oriented environment in which to address challenges such as local firefighting capability, the need for defensible space around homes and subdivisions, and where and how to prioritize land management on both federal and non-federal land.

Colorado landowners with property located in a wildland-urban interface area may qualify to receive a tax subtraction for the costs of wildfire mitigation work: As authorized by §39-22-104(4)(n), C.R.S., for income tax years 2009 through 2013 individuals, estates and trusts may subtract from federal taxable income 50 percent of the costs

incurred in performing wildfire mitigation measures. Particulars on qualifications and limitations under the Wildfire Mitigation Measures Subtraction are available at the Colorado Department of Revenue.

**Key Components of a CWPP in Colorado**

Participants

- The CWPP process must include local government, the local fire authority, local CSFS representatives and representatives of relevant federal land management agencies, as well as other relevant non-governmental partners.
- Partners should assess community risks and values, identify protection priorities and establish fuels treatment projects.

Plan Components Include:

- A description of the community's wildland-urban interface (WUI) problem areas, preferably with a map and narrative.
- Information on the community's preparedness to respond to a wildland fire.
- A community risk analysis that considers, at a minimum, fuel hazards, risk of wildfire occurrence and community values to be protected both in the immediate vicinity and the surrounding zone where potential fire spread poses a realistic threat.
- Identification of fuels treatment priorities on the ground and methods of treatment.
- Ways to reduce structural ignitability.
- An implementation plan.

Level of Specificity

- A CWPP can be developed for any level of "community," from a homeowners' association or mountain town to a county or metropolitan city.
- Information contained in the plan should be at a level of specificity appropriate for the community.
- County level plans can be used as an umbrella for community plans but should not be considered a substitute. A county plan will not provide the detail needed for project-level planning.

If an existing plan already meets the majority of the CWPP criteria, a community plan can be adapted to meet the remainder of the criteria. This needs to be done in collaboration with community members and relevant partners as listed in the Participants component of the CWPP.

**Objective**

The broad objective of the Wildland-Urban Interface Fire Area Building Standards is to establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in Wildland-Urban Interface Fire Areas. The use of ignition resistant materials and design to resist the intrusion of flame or burning embers projected by a vegetation fire (wildfire exposure) will prove to be the most prudent effort Colorado has made to try and mitigate the losses resulting from the repeating cycle of interface fire disasters.

The idea for community-based forest planning and prioritization is neither novel nor new. However, the incentive for communities to engage in comprehensive forest planning and prioritization was given new and unprecedented impetus with the enactment of the Healthy Forests Restoration Act in 2003. This landmark legislation

includes the first meaningful statutory incentives for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to give consideration to the priorities of local communities as they develop and implement forest management and hazardous fuel reduction projects. In order for a community to take full advantage of this new opportunity, it must first prepare a Community Wildfire Protection Plan (CWPP). Local wildfire protection plans can take a variety of forms, based on the needs of the people involved in their development. Community Wildfire Protection Plans may address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection- or all of the above.

The process of developing a CWPP can help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the wildland-urban interface. It also can lead community members through valuable discussions regarding management options and implications for the surrounding watershed. The language in the HFRA provides maximum flexibility for communities to determine the substance and detail of their plans and the procedures they use to develop them. Because the legislation is general in nature, some communities may benefit from assistance on how to prepare such a plan.

## D. How to Provide Mitigation

Saving lives and protecting assets are two primary goals in defending property from wildland fires. Wildfire and human development have always been in conflict. Wildfire is a natural part of the environment and human development in wildlands is an accepted practice. This inherent conflict requires careful management in order to reduce or eliminate losses to life, property, and resources from wildfires. Some past management practices have failed to address the comprehensive nature of the human/wildfire conflict and have exacerbated conditions that can lead to more damaging fires. One example is wildfire suppression without aggressive management of hazardous fuels. Another is wildfire suppression without performance-based fire-resistant construction standards or fire-safe development requirements. Daily actions and decisions often fail to consider wildfire risks and the potential for resulting losses.

### Mitigate the Risk and Hazard- Complete Fire Protection Approach

Managing the human/wildfire conflict requires a commitment of resources and a focused mitigation plan over the long term.

### Managing the Human/Wildfire Conflict

The approach must be system-wide and include the following:

- An informed, educated public that takes responsibility for its own decisions relating to wildfire protection
- An effective wildfire suppression program
- An aggressive hazardous fuels management program
- Land use policies and standards that protect life, property, and resource protection
- Construction and property standards that provide defensible space

The Colorado State Forest Service provides information for homeowners and landowners with comprehensive instruction on wildfire preparedness. Much information can be found at-

http://csfs.colostate.edu/pages/home-land-owners.html

**Mitigation imperatives**

Included in the short list of mitigation imperatives;

i. Quick Fixes- Address vegetation close to the house. Removal of older, larger and dying plants, maintain plantings and eliminate plants (fuel) under windows, near decks, or at inside corners. Landscape with only 'fire-safe' plants (no junipers or cedars).
ii. Long-Term Actions- Homeowners should be familiar with their property layout. Firefighters must have access in order to defend the property; no rangy, random or scraggly growth. The roof structure and its composition are the greatest potential threat to the house. Wooden fences are great for screening and privacy but can readily ignite. Outbuildings often receive less/deferred maintenance when compared to a dwelling. They are a fuel source for wild fires and must be free of trash and debris. Wooden decks and porches are a fuel source; steps should be taken to reduce the risk of their ignition. Firewood storage should be far from the house. A long-term approach should be applied to landscaping; think carefully about grassy areas, replace monocots with deciduous trees. Windows and vents are potential entry points for fire- protective measures should be taken. Siding and soffit material must not be flammable or fire friendly. The ability of firefighters to protect a house is only effective if the equipment can be deployed. Homeowners should have the fire department inspect the property.

**Fire Control**

The standard and most common way to control a class-A fire (the combustion of a flammable material with oxygen and heat) is to remove heat by spraying the burning solid fuels with water from a fire-hose connected to a pump. Other methods of controlling a class-A fire would be to "smother" the fire with carbon dioxide, such as from a fire extinguisher, cutting off its oxygen.

In a wildfire, fire control includes various wildland fire-suppression techniques such as defensible space, opening the fuel ladder spacing, removing fuel in the fire's path with firebreaks and backfires, to minimize the brushfire from reaching new combustible fuel and spreading further.

**Provide Mitigation**

Protecting a building from wildfire takes a two-pronged approach:

- Remove flammable materials from around the building
- Construct the building of fire resistant material

**The Home Ignition Zone**


**The Home Ignition Zone (HIZ)**

Two factors have emerged as the primary determinants of a home's ability to survive a wildfire – quality of the **defensible space** around the home and the home's **structural ignitability**.

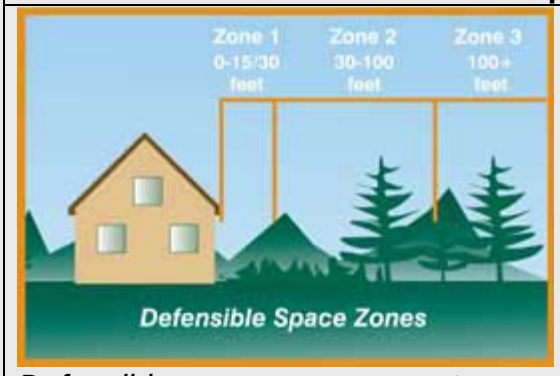
Together, **these two factors create a concept called the Home Ignition Zone (HIZ)**, which includes the structure and the space immediately surrounding the structure. To protect a home from wildfire, the primary goal is to reduce or eliminate fuels and ignition sources within the HIZ.

**Defensible Space**

Defensible space is the area around a home or other structure that has been modified to reduce fire hazard. In this area, natural and manmade fuels are treated, cleared or reduced to slow the spread of wildfire. Creating defensible space also works in the reverse, and reduces the chance of a structure fire spreading to neighboring homes or the surrounding forest. Defensible space gives the home a fighting chance against an approaching wildfire. Creating an effective defensible space involves a series of management zones in which different treatment techniques are used. These zones should be developed around each building on the property, including detached garages, storage buildings, barns and other structures. The actual design and development of a home's defensible space depends on several factors;

- Size and shape of building(s)
- Construction materials
- Slope of the ground
- Surrounding topography
- Sizes and types of vegetation on the property

**Defensible Space Management Zones**




*Defensible space management zones*

Three zones need to be addressed when creating defensible space:

- **Zone 1** is the area nearest the home and other structures - This zone requires maximum hazard reduction.
- **Zone 2** is a transitional area of fuels reduction between Zones 1 and 3.
- **Zone 3** is the area farthest from the home. It extends from the edge of Zone 2 to the property boundaries.

For more information on how to create wildfire-defensible space around a home, including the three defensible space zones, refer to the CSFS publication:

- Creating Wildfire-Defensible Zones (738 KB PDF)

Additional guidance may be requested from a forester at the property owner's local CSFS district, fire department or a consulting forester.

In many jurisdictions the law requires that homeowners do fuel modification to 100 feet (or the property line) around their buildings to create a defensible space for firefighters and to protect their homes from wildfires. Proper clearance to 100 feet dramatically increases the chance of the house surviving a wildfire. This defensible space also provides for firefighter safety when protecting homes during a wildland fire. New building codes will protect buildings from being ignited by flying embers which can travel as much as a mile away from the wildfire. Ignition-resistant material standards are designed to prevent embers from igniting a building:

**Building Materials Listings for Wildland Urban Interface Building Materials**
The Colorado State Forest Service provides a publication titled 'Firewise Construction-Design and Materials' for homeowners and builders in the Wildland Urban Interface with design and building techniques that can offer more protection from wildland or forest fires. This booklet, along with a trove of other wildfire prevention information, is available online at;
*http://csfs.colostate.edu/pages/wf-publications.html*

A cursory review of the internet finds other political subdivisions of Colorado publish information about fire prevention. The publications list materials such as: roof coverings, fire resistive wall and ceiling-floor assemblies, wall finish materials, fire and non-fire related hardware, insulating products, fire doors, fire dampers, electrical appliances and devices. Products or components are listed based upon an evaluation of test results that include an analysis of required product performance and reliability features. Through testing various national organizations provide ratings or evaluations for the fire resistivity of materials or building assemblies. A building assembly is a combination of materials forming a component of a building such as a roof or wall. The ratings are in the following categories:
Combustible or noncombustible
Classes: A (best), B, and C
Time: 20 minute, one-hour, two-hour and four-hour

The organizations that provide these ratings are:
The International Conference of Building Officials (ICBO) through its publication, the Uniform Building Code (UBC); Also a founding member of the International Code Council (ICC) through its publication the International Building Code (IBC); The American Society for Testing and Materials (ASTM); the Underwriters Laboratory (UL); and the National Fire Protection Association (NFPA).

The difference between a non-combustible material and a rated material or assembly is the surface resistance to ignition versus the protection afforded the building behind it.

# X. Documentation of Person Estimating Replacement Value

When engaged in an estimate of replacement cost provided by an insurance professional in connection with a homeowner’s insurance policy, the licensee is advised to document the following;

- Designation or status of the person preparing the estimate. That is, the insurer underwriter or actuary or other person identified by the insurer; a broker-agent, a contractor, an architect, a real estate appraiser, or other person or entity making such an estimate
- For the person preparing the estimate the name, job title, address, telephone number, and license number (if applicable) should be noted
- The source or method used to make the estimate. This includes any replacement cost calculator, contractor's estimate, architectural report, real estate appraisal, or other source or method
- A copy of inspections, reports, contractor's estimates, or other documents used to prepare the estimate of replacement value

The licensee maintains records of the estimate for a time period (five years, for example) after coverage terminates. If the estimate of replacement cost is provided to an applicant to whom an insurance policy is never issued these provisions do not apply. The regulation imposes no duty upon a broker-agent to obtain from the insurer and maintain any information or document that in the absence of this regulation would not come into the possession of the broker-agent in the ordinary course of business.

## Standards Used When a Licensee Estimates Replacement Cost

When a licensee conveys an estimate of replacement cost to the insurance-buying public, certain standards should be met. The estimate of replacement cost must include the expenses that would reasonably be incurred to rebuild the insured structure(s) in its entirety. Methods used to determine replacement cost should use the 'Components of a Structure Necessary to Estimate Replacement Cost' method explained in Section III of this book.

An estimate to rebuild or replace the structure;

- Takes into account the cost to reconstruct the single property being evaluated, not the cost to build multiple, or tract, houses
- Is not based on the resale value of the land, or upon the amount or outstanding balance of any loan
- Does not include a deduction for physical depreciation

Estimates are to be created using current sources and methods. On at least an annual basis licensees will verify that the sources and methods used to generate the estimate of replacement cost are kept current to reflect changes in the costs of reconstruction and rebuilding

Quite often the information, data or statistical methods used or relied upon by a licensee to estimate replacement cost may be obtained through a third-party source. The licensee must provide a copy of the estimate of replacement cost to the applicant or insured. If the estimate is communicated by telephone, the estimate should be mailed promptly to the insured. If no insurance coverage ensues, there is no obligation.

## Itemize Projected Cost

Estimates must itemize the projected cost for each element or construction component as specified in Section III of this book. Any underlying assumptions used in making the estimates must also be documented.

Revised or updated estimates of replacement cost are to be provided to the insured with any renewal offer. Inflation is not considered an element of revision and annual recalculations are not obligatory.

The information supplied to the applicant or insured should be maintained for five years after the term of insurance expires. If no contract for insurance ensues the licensee maintains the file in accordance with his or her normal course of business.

Provision of an out-of-compliance replacement value estimate constitutes making a statement with respect to the business of insurance which is misleading and which by the exercise of reasonable care should be known to be misleading and can be construed as an unfair insurance practice.

When an insurer identifies one or more specific sources or tools that a broker-agent must use to create an estimate of replacement cost, then the insurer;

- prescribes complete written procedures to be followed
- provides the broker-agent with training and materials necessary to properly utilize the sources or tools according to the insurer's prescribed procedures
- is responsible for any noncompliance that results from the failure of the estimate to satisfy cost estimate requirements. The broker-agent is not the responsible party in such a case. If such noncompliance results from failure by the broker-agent to follow the insurer's prescribed written procedures when using the source or tool, then the broker-agent is responsible.

These requirements apply to communications by a licensee, verbal or written, with the sole exception of internal communications within an insurer, or confidential communications between an insurer and its contractor, that concern the insurer's underwriting decisions and that never come to the attention of an applicant or insured. No provision of these requirements is to be construed as requiring a licensee to estimate replacement cost or to set or recommend a policy limit to an applicant or insured. The requirements do not obligate a licensee to advise the applicant or insured as to the sufficiency of an estimate of replacement cost.

The requirements do not limit or preclude a licensee from providing and explaining the Colorado Summary Disclosure Form, explaining the various forms of replacement cost coverage available to an applicant or insured, or explaining how replacement cost basis policies operate to pay claims. Applicant or insureds are not barred from obtaining their own estimate of replacement cost from an entity permitted to make such an estimate. In the context of this discussion the term "minimum amount of insurance" means the lowest amount of insurance that an insurer requires to be purchased in order for the insurer to underwrite coverage on a particular property. An insurer may tell a homeowner that he or she must purchase a minimum amount of insurance that does not comport with replacement cost analysis. However, if such minimum amount of insurance is based in whole or in part on an estimate of replacement value, the estimate should also be provided and should comply with all applicable provisions of these requirements.

# C.R.S. 10-4-110.8

*C.R.S. 10-4-110.8*

COLORADO REVISED STATUTES

This document reflects changes current through all laws passed at the First Regular Session
of the Sixty-Ninth General Assembly of the State of Colorado (2013)

TITLE 10. INSURANCE
PROPERTY AND CASUALTY INSURANCE
ARTICLE 4.PROPERTY AND CASUALTY INSURANCE
PART 1. GENERAL

C.R.S. 10-4-110.8 (2013)

10-4-110.8. Homeowner's insurance - prohibited and required practices - estimates of replacement value - additional living expense coverage - copies of policies - personal property contents coverage - inventory of personal property - definitions - rules

(1) An insurer may not cancel or fail to renew coverage of an insured solely because the insured inquires about coverage for homeowner's insurance and the inquiry is not related to an actual claim to the property insured.

(2) An insurer may only provide information regarding claims to an entity that compiles or monitors personal claim or loss experience shared by insurers for underwriting or rating purposes.

(3) For the purposes of this section, unless the context otherwise requires:

(a) "Claim" includes a demand for payment of a benefit by the insured, the payment of a covered benefit by an insurer, a loss reserve established by the insurer, a loss adjustment expense incurred by the insurer, or a payment made to the insured.

(b) "Inquiry" means a request for information regarding the terms, conditions, or coverages afforded under an insurance contract.

[Editor's note: This version of subsection (3) was effective until January 1, 2014.]

(3) For the purposes of this section, unless the context otherwise requires:

(a) "Additional living expense coverage" or "ALE" covers increased living expenses during the time required to repair or replace damage to the policyholder's dwelling unit following an insured loss or, if the policyholder permanently relocates, the time required to move the policyholder's household to a new location.

(b) "Claim" includes a demand for payment of a benefit by the insured, the payment of a covered benefit by an insurer, a loss reserve established by the insurer, a loss adjustment expense incurred by the insurer, or a payment made to the insured.

(c) "Dwelling" means a single-family home, other than a mobile home, condominium, or manufactured home that is used as a primary residence by the owner of the dwelling.

(d) "Extended replacement cost coverage" pays a designated amount above the policy limit to replace a damaged structure if necessary under current building conditions.

(e) "Inquiry" means a request for information regarding the terms, conditions, or coverages afforded under an insurance contract.

(f) "Law and ordinance coverage" means coverage for increased costs of demolition, construction, renovation, or repair associated with the enforcement of building ordinances and laws.

(g) "Recoverable depreciation" means the difference between the cost to replace insured property and the actual cash value of the property.

[Editor's note: This version of subsection (3) became effective January 1, 2014.]

(4) Every insurer issuing a policy of homeowner's insurance shall comply with section 10-3-1104 (1) (h) and all other provisions of part 11 of article 3 of this title.

(5) (a) In a common interest community, as defined in section 38-33.3-103 (8), C.R.S., a unit owner may file a claim against the policy of the unit owner's association to the same extent, and with the same effect, as if the unit owner were a named insured if the following conditions are met:

(I) The unit owner has contacted the executive board or the association's managing agent in writing, and in accordance with any applicable association policies or procedures for owner-initiated insurance claims, regarding the subject matter of the claim;

(II) The unit owner has given the association at least fifteen days to respond in writing, and, if so requested, has given the association's agent a reasonable opportunity to inspect the damage; and

(III) The subject matter of the claim falls within the association's insurance responsibilities.

(b) The association's insurer, when determining premiums to be charged to the association, shall not take into account any request by a unit owner for a clarification of coverage.

(6) (a) Before issuance or renewal of a replacement-cost homeowner's insurance policy whose dwelling limit is equal to or greater than the estimated replacement cost of the residence, the insurer shall make available to an applicant the opportunity to obtain extended replacement-cost coverage and law and ordinance coverage. At a minimum,

the insurer shall make available law and ordinance coverage in an amount of insurance equal to ten percent of the limit of the insurance for the dwelling and extended replacement-cost coverage in an amount of insurance that is at least twenty percent of the limit of the insurance for the dwelling. Information provided must be accompanied by an explanation of the purpose, terms, and cost of these coverages. This paragraph (a) does not apply to any homeowner's insurance policy that already includes extended replacement-cost coverage and law and ordinance coverage in amounts greater than or equal to the amounts specified in this paragraph (a).

(b) All homeowner's insurance replacement cost policies for a dwelling must include additional living expense coverage. This coverage must be available for a period of at least twelve months and is subject to other policy provisions. Insurers shall offer policyholders the opportunity to purchase a total of twenty-four months of ALE coverage and give an applicant an explanation of the purpose, terms, and cost of this coverage. This paragraph (b) does not apply to any homeowner's insurance policy that already includes at least twenty-four months of ALE coverage as a standard provision.

[Editor's note: Subsection (6) became effective January 1, 2014.]

(7) (a) The text of all endorsements, summary disclosure forms, and homeowner's insurance policies must not exceed the tenth-grade reading level, as measured by the Flesch-Kincaid grade level formula, or must not score less than fifty as measured by the Flesch reading ease formula. Insurers shall revise all homeowner's insurance policies issued or renewed in Colorado on or after January 1, 2015, to comply with this subsection (7). Thereafter, all homeowner's insurance policies must comply with this subsection (7).

(b) For the purposes of this subsection (7):

(I) A contraction, hyphenated word, or numbers and letters, when separated by spaces, count as one word;

(II) A unit of words ending with a period, semicolon, or colon, but excluding headings and captions, count as a sentence; and

(III) A syllable means a unit of spoken language consisting of one or more letters of a word as divided by an accepted dictionary. If the dictionary shows two or more equally acceptable pronunciations of a word, a pronunciation containing fewer syllables may be used.

(IV) "Text" includes all printed matter except the following:

(A) The name and address of the insurer; the name, number, or title of the policy; the table of contents or index; captions and subcaptions; and specification pages, schedules, or tables; and

(B) Any policy language that is drafted to conform to the requirements of a federal law or regulation; any policy language required by a collectively bargained agreement; any medical terminology; any words that are defined in the policy; and any policy language required by law or regulation if the insurer identifies the language or terminology excepted and certifies in writing that the language or terminology is entitled to be

excepted.

[Editor's note: Subsection (7) became effective January 1, 2014.]

(8) The insurer must consider, subject to the insurer's underwriting requirements, an estimate from a licensed contractor or licensed architect submitted by the policyholder as the basis for establishing the replacement cost of a dwelling.

[Editor's note: Subsection (8) became effective January 1, 2014.]

(9) At renewal of a homeowner's insurance policy, the insurer shall provide written notification to the policyholder describing changes in insurance policy language that are applicable to that renewal period.

[Editor's note: Subsection (9) effective January 1, 2014.]

(10) Every homeowner's insurance carrier shall make available to a policyholder an electronic or paper copy of the policyholder's insurance policy, including the declaration page and any endorsements, within three business days after a request from the policyholder. The policyholder shall determine the method of delivery. Every homeowner's insurance carrier shall make available to a policyholder a certified copy of the policyholder's insurance policy within thirty days after a request from the policyholder.

[Editor's note: Subsection (10) effective January 1, 2014.]

(11) (a) In the event of a total loss of the contents of an owner-occupied primary residence that was furnished at the time of loss, the insurer shall offer the policyholder a minimum of thirty percent, or a larger percent by mutual agreement of the policyholder and insurer, of the value of the contents coverage reflected in the declaration page of the homeowner's policy without requiring submittal of a written inventory of the contents. In order to receive up to the full value of the contents coverage, the policyholder may accept the offer under this paragraph (a) and submit a written inventory as required by the insurer.

(b) If the policyholder receives the depreciated value of contents insured under a policy, the insurer must make available to the insured the methodology used for determining the depreciated value of the insured contents.

(c) (I) An insurer shall allow the policyholder at least three hundred sixty-five days after a total loss claim to submit an inventory of lost or damaged property.

(II) An insurer shall allow the policyholder at least three hundred sixty-five days after expiration of ALE to replace property and receive recoverable depreciation on that property.

[Editor's note: Subsection (11) effective as of January 1, 2014.]

(12) (a) Notwithstanding any provision of a homeowner's insurance policy that requires the policyholder to file suit against the insurer, in the case of any dispute, within a period of time that is shorter than required by the applicable statute of limitations provided by

law, a homeowner may file such a suit within the period of time allowed by the applicable statute of limitations; except that this paragraph (a):

(I) Does not revive a cause of action that, as of May 10, 2013, has already been barred by contract; and

(II) Applies only to a cause of action that, as of May 10, 2013, has not been barred by contract.

(b) On and after January 1, 2014, an insurer shall not issue or renew a homeowner's insurance policy that requires the policyholder to file suit against the insurer, in the case of any dispute, within a period of time that is shorter than required by the applicable statute of limitations provided by law.

**HISTORY:** Source: L. 2004: Entire section added, p. 1972, § 3, effective August 4; entire section added, p. 1981, § 2, effective January 1, 2005.L. 2005: (3) and (4) amended and (5) added, p. 1390, § 20, effective January 1, 2006.L. 2006: (5) amended, p. 1226, § 16, effective May 26.L. 2013: (12) added, (HB 13-1225), ch. 183, p. 672, § 2, effective May 10; (3) amended and (6) to (11) added, (HB 13-1225), ch. 183, p. 672, § 2, effective January 1, 2014.

## Summary of Coverage

# Summary of Coverage
# Dwelling Fire Policy

**THIS DOCUMENT IS A SUMMARY OF YOUR DWELLING FIRE COVERAGE. THE INFORMATION IN THIS DOCUMENT DOES NOT REPLACE ANY POLICY PROVISION. COVERAGE IS SUBJECT TO THE TERMS, CONDITIONS, SPECIAL LIMITS AND EXCLUSIONS OF THE POLICY AND APPLICABLE ENDORSEMENTS. PLEASE READ YOUR POLICY FOR DETAILS! IN THE EVENT OF A CONFLICT BETWEEN THE POLICY AND THIS SUMMARY DISCLOSURE FORM, YOUR POLICY PROVISIONS SHALL PREVAIL.**

| | |
|---|---|
| **General information:** | The coverage amount listed on your attached declaration page is only an estimate of the replacement cost value of your insured property. It may not be sufficient to replace your property in the event of a total loss. If you have concerns about the estimated replacement cost amount used to derive your coverage, you should take an opportunity to discuss this with us to ensure your property has enough coverage in the event of a total loss.<br><br>It is important that you review and discuss your coverage with your agent or company representative on an annual basis. Any changes to your insured property, i.e. remodeling or building code updates, may require an increased coverage amount for your insured property. |
| **Your declaration page lists the specific limits of your policy for each of these coverages:** | **DWELLING:** The dwelling is the main residential home. We offer different types of policies; please see the attached chart. You may want to consider a replacement cost policy or an actual cash value policy. If you insure your dwelling on a replacement cost basis, we will encourage you to choose a coverage limit equal to the estimated cost to rebuild it.<br>• **Replacement Cost** is the amount it takes to replace your damaged or destroyed property, subject to the limits shown in your declaration page and policy. Please refer to your policy for additional information.<br>• **Actual Cash Value** is the cost of repairing or replacing damaged or destroyed property with property of same kind and quality less depreciation, subject to the limits shown in your declaration page and policy.<br><br>**OTHER STRUCTURES:** Buildings and other structures not attached to the dwelling such as fences, sheds and detached garages. These are subject to the "other structures" limit identified in your declaration page. If additional coverage is needed, discuss it with us.<br><br>**PERSONAL PROPERTY:** Personal items used, such as appliances, in the occupancy of the dwelling and, owned by you, are covered under this policy. Renters or tenants should consider purchasing a separate policy.<br><br>**LOSS OF USE/FAIR RENTAL VALUE:** Covers fair rental value during the time required to repair or replace the damage to your dwelling if a covered loss renders it uninhabitable. This coverage may be subject to time and expense limitations. Please review your policy.<br><br>**PERSONAL LIABILITY:** This coverage is not included on this policy. Please contact us to discuss available options to protect your liability.<br><br>**MEDICAL PAYMENTS TO OTHERS:** This coverage is not included on your policy. Please contact us to discuss available options. |

| | |
|---|---|
| **Items that may affect your premium:** | • Deductible: That part of the covered loss for which you are responsible for paying. Please review your policy declaration page. Deductibles may be a fixed amount, a percentage of the dwelling limit, or a combination of both;<br>• Multiple policy discounts;<br>• Claim history (discount or surcharge);<br>• Age of home (discount or surcharge);<br>• Roof age or type (discount or surcharge);<br>• Smoke/fire/burglar alarms. |
| **Additional coverages you might want to consider, for an additional premium:** | • **Ordinance or Law Coverage:** Covers increased costs of demolition, construction, renovation or repair associated with the enforcement of building ordinances and law.<br>• **Water and Sewer Back-up:** Pays up to the limit specified in the coverage form for damage caused by overflow or sump pump discharge.<br>• **Personal Umbrella Policy:** Provides additional liability coverage to supplement the protection provided by property and automobile insurance policies.<br>• **Earthquake:** Provides coverage for certain earth movement related losses that are typically excluded from a dwelling fire insurance policy. **[Insurers include only if offered.]** |
| **General Exclusions:** | **Your policy does not provide coverage for all possible losses. The following are examples of some of reasons a loss might not be covered. Please refer to your policy for specific exclusions:**<br><br>**Property Exclusions:**<br>• Loss or damage that you intentionally cause;<br>• Flooding*, earth movement, settling, cracking, bulging, shrinkage or expansion of the structure, other structures, or of pavements, driveways, or sidewalks;<br>• Pollution and contamination;<br>• Land;<br>• Birds, vermin, or house pets;<br>• Mold or fungi;<br>• Wear and tear.<br>* Flood insurance may be purchased through the National Flood Insurance Program (www.floodsmart.gov) |
| **Reasons for cancellation, non-renewal *or* increase in premium:** | **Cancellation and Nonrenewal:**<br><br>You may cancel your policy at any time by writing to us or your agent and indicating the date the cancellation is to take effect.<br><br>We may choose to cancel or non-renew your policy. If your policy is cancelled or non-renewed, we will send you advance notice. Some examples of reasons for cancellation and non-renewal include, but are not limited to:<br>1. Failure to pay your premium when it is due;<br>2. Knowingly making a false statement or a material misrepresentation on your application for your policy;<br>3. Knowingly making a false statement or material misrepresentation regarding a claim;<br>4. Frequency or type of claims;<br>5. A substantial change in the use or occupancy of the premises.<br><br>**Increase in Premium:**<br><br>Conditions that may increase your premium include, but are not limited to:<br>1. A loss resulting in a paid claim;<br>2. A general rate increase. This results from the loss experience of a large group of policyholders rather than from a loss suffered by an individual policyholder. A general rate increase applies to many persons in the group, not just those who had losses.<br>3. Adjustment for inflation. We include inflation coverage in your policy. This coverage may automatically increase the amount of your insurance coverage as inflation pushes up the cost of replacing your home. The increases may be based on a construction cost index and may be reflected in the premium on each renewal date. **[Insurers should include this paragraph only if it is applicable.]**<br>4. Change in credit-based insurance score. **[Insurers should include this only if the insurer uses credit-based insurance scoring in the rating methodology.]** |

***IMPORTANT:*** *In Colorado, there is potential for large and even total losses due to fires, tornadoes, other natural disasters, or other causes of loss. It is extremely important to conduct an annual review of your property coverage to ensure you are adequately insured. If you have questions or concerns regarding your insurance coverage, be sure to discuss them with your insurance agent or company representative. Please maintain a copy of this document and your entire policy in a safe and secure location away from your property.*

## Comparison of Dwelling Fire Policy Forms

| Perils Covered | | | |
|---|---|---|---|
| **Coverage** | **DP-1** | **DP-2** | **DP-3** |
| **Dwelling and Other Structures** | Modified Basic[1] | Broad[2] (Without Theft) | Open Peril[3] (Without Theft) |
| **Personal Property** | Modified Basic[1] | Broad[2] (Without Theft) | Open Peril[3] (Without Theft) |
| **Fair Rental Value** | Modified Basic[1] | Broad[2] (Without Theft) | Open Peril[3] (Without Theft) |
| **Loss Settlement** | | | |
| **Dwelling and Other Structures** | Actual Cash Value[4] | Replacement Cost[5] | Replacement Cost[5] |
| **Personal Property** | Actual Cash Value[4] | Actual Cash Value[4] | Actual Cash Value[4] |

1. "**Modified Basic**" means fire, lightning and internal explosion.
2. "**Broad**" means fire, lightning, windstorm or hail, explosion, riot or civil commotion, aircraft, vehicles, smoke and volcanic eruption.
3. "**Open Peril**" means coverage for property for all risks of direct physical loss that are not specifically excluded by the policy.
4. "**Actual Cash Value**" means the cost of repairing or replacing damaged or destroyed property with property of like kind and quality less depreciation, subject to the limits shown in your declaration page and policy.
5. "**Replacement Cost**" means the amount it takes to replace your damaged or destroyed property, subject to the limits shown in your declaration page and policy. Please refer to your policy for additional information.

***IMPORTANT:*** *This document is a summary of coverage available under your dwelling fire policy. The dwelling fire policy is a contract between you and us. Each of us has duties, rights and responsibilities under this contract. Please review your policy carefully. If you have any questions or concerns you may also contact the Colorado Division of Insurance.*