

Understanding the assignment, getting the assignment elements right, and following the imposed assignment conditions is crucial.

Read The ACV Guidebook

THIS GENERAL-USE NARRATIVE REPORT TEMPLATE IS ONLY FOR ACV APPRAISALS MADE TO SUPPORT SUBSTANTIAL IMPROVEMENT/SUBSTANTIAL DAMAGE DETERMINATIONS

THE TEMPLATE WAS DEVELOPED TO ASSIST APPRAISERS AND THE FLOODPLAIN MANAGEMENT COMMUNITY

EVERY USE OF THIS TEMPLATE WILL REQUIRE MULTIPLE MODIFICATIONS DEPENDING ON ASSIGNMENT ELEMENTS AND ASSIGNMENT CONDITIONS, ON THE BUILDING CHARACTERISTICS, AND ON THE DOCUMENTATION REQUIRED.

THE PROVIDER ASSUMES NO RESPONSIBILITY OR PROFESSIONAL LIABILITY FOR MISUSE

# APPRAISAL REPORT FOR

PREPARED BY:

EFFECTIVE DATE: (prior to damage or before start of improvement)

DATE OF INSPECTION:

DATE OF REPORT:

ASSIGNMENT NO:

## SUMMARY OF IMPORTANT DATA & CONCLUSIONS

### BUILDING INFORMATION & OWNERSHIP

Building Identification	address
Building Description	a residence of 2,000 sq. ft. living area
Construction Type	ISO-2
Owner of Record	name
Property ID #	folio or STRAP
Use Type	residential or commercial

### CLIENT INFORMATION & VALUE CONCLUSIONS

Client	name
Intended Use	To support a building permit application subject to significant improvement/significant damage determination
Intended Users	The client, the property owner(s), the architect, the general contractor, and <u>Pinellas County</u> floodplain administrators
Appraisal Effective Date	xx-xx-xxxx (before start of work or before damage)
Date of Inspection	xx-xx-xxxx
Date of Report	xx-xx-xxxx
Purpose of the Appraisal	Estimate Actual Cash Value
Actual Cash Value	\$xxx,xxx (this is the amount subject to The Rule)

### GENERAL INFORMATION

Appraiser	name
	State certification info

### EXTRAORDINARY ASSUMPTIONS AND LIMITING CONDITIONS

See The ACV Guidebook, chapter 4

### HYPOTHETICAL CONDITONS

See The ACV Guidebook, chapter 4

## CERTIFICATE OF APPRAISER

Comply, but write no more than is required

## APPRAISAL PROBLEM & METHOD

As an aid to floodplain administrators, the Federal Emergency Management Agency (FEMA) publishes the Substantial Improvement/Substantial Damage Desk Reference (the Desk Reference). The Desk Reference provides guidance on the minimum requirements of the National Flood Insurance Program (NFIP) and it is considered by FEMA to be its NFIP “policy manual”.

Communities participating in the NFIP adopt ordinances to administer the program, they set local policy on how to determine the “market value” of buildings and structures, and they establish the cumulative period for application of the 50 Percent Rule. NFIP regulations use the term “market value”, but there is no NFIP “market value” definition. Market value is a concept defined, understood, and used by real estate practitioners in many other contexts, but the concept as generally understood is very different than what is described in FEMA guidance documents.

The Desk Reference outlines several processes by which the NFIP “market value” can be estimated. The two most common methods are: (1) the adjusted assessment method, and (2) an independent appraisal from a qualified professional.

Section 4.5.1 of the Desk Reference says, *“Property appraisals that are prepared by a professional appraiser according to standard practices of the profession are the most accurate and reliable method for determining market value.”* The Desk Reference clarifies that land, land improvements and accessory buildings are not to be included in estimating the NFIP “market value”; further evidence that “market value”, as the NFIP uses the term, is not like market value as understood elsewhere.

The Desk Reference says that an independent appraisal should be made by a state licensed or state-certified appraiser working in conformance with the Uniform Standards of Professional Appraisal Practice (USPAP). USPAP requires the content of an appraisal report to be consistent with the intended use of the appraisal (in this case, to support a building permit application subject to the 50 Percent Rule). USPAP requires that an appraisal report state the type and definition of the value sought and cite the value definition source. Local ordinance is authority for the value definition. Most local ordinances allow an estimate of Actual Cash Value (ACV) as a reasonable approximation of “market value”. Competent appraisers have concluded that estimating ACV is the best valuation method because it works for all property types, it avoids the issue of value associated with use and occupancy, and it is direct and easy to understand. The local ordinance allows actual cash value appraisals and Actual Cash Value is the methodology employed here.

Detailed information about the 50 Percent Rule and Actual Cash Value methodology is available at [www.floodpointusa.com](http://www.floodpointusa.com).

## **DEFINITIONS OF ACTUAL CASH VALUE AND REPRODUCTION COST THE 50 PERCENT RULE**

The 50 Percent Rule is a consequence of the definitions of Substantial Improvement and Substantial Damage found at 44 CFR § 9.4, and the mitigation measures found at 44 CFR § 9.11(d)(3)(i)(ii)(iii).

The rule is applied as a compromise between private property rights and the public interest.

### **MARKET VALUE**

“Market value” is a term used in the NFIP definitions of Substantial Improvement and Substantial Damage, but this term has no NFIP regulatory definition. The Desk Reference attempts to explain what is meant by “market value”, but there are troubling conceptual problems.

At the end of the first paragraph, in Section 4.5.3 of the Desk Reference it is written, “*In most situations, ACV is a reasonable approximation of market value.*” Many local ordinances recognize ACV as valid appraisal methodology.

### **ACTUAL CASH VALUE**

The first sentence of Section 4.5.3 in the Desk Reference defines Actual Cash Value as:

*The cost to replace a building on the same parcel with a new building of like-kind and quality, minus depreciation due to age, use, and neglect.*

As used above, the meaning of “cost to replace” is very close to the NFIP insurance-side glossary definition of “Replacement Cost Value” which is:

*The cost to replace property with the same kind of material and construction without deduction for depreciation.*

The cost referred to in both definitions copied above has the same meaning as the appraisal industry definition of “Reproduction Cost” (see The Dictionary of Real Estate Appraisal, 7<sup>th</sup> Edition, published 2022 by the Appraisal Institute) which is:

*The estimated cost to construct, at current prices as of the effective date of the appraisal, a duplicate or replica of the building being appraised, using the same or similar materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building.*

For this appraisal Actual Cash Value is understood to mean:

*The reproduction cost of the existing building on the same parcel, minus depreciation due to age, use, and neglect.*

## LOCATION MAP

One or more as needed

## **AERIAL IMAGE**



## **FLOOD MAP**

Be sure to use the map set the community has adopted

## **BUILDING IMAGES**

As many as are necessary to fully understand the building.

Images should match conditions on the appraisal effective date.

Don't include street scenes, views or other images that aren't about the building

## BUILDING DESCRIPTION

### Field Work and Context

I inspected the building on 29 August 2022. For the building size and some of the construction details I relied on the County appraiser's property record card and online building sketch.

### Construction Details

Size:	Living Area	2,825 sq. ft.
	Other Under Roof	
	Garage	592
	Courtyard Porch	118
	Screen Porch	<u>468</u>
	Total Additional	<u>1,178</u>
	Total Under Roof	4,003 sq. ft.

Architectural Style:

Year Built:

Additions & Conversions:

Construction Class: ISO

Quality:

Foundation:

Frame:

Subfloor:

Exterior Walls:

Exterior Wall Height:

Roof Structure and Finish:

Windows/Doors:

Heat and Air Conditioning:

Fireplace:

Electrical Service:

Plumbing: There are xx plumbing fixtures

Fire Protection System:

Security System:

Interior Finishes:

Kitchen:

Laundry Room:

Screen Porch:

Car Storage:

Special Features:

### Building Permit History

These comments are specific to the building being appraised

Neglected maintenance:

There is current maintenance consisting of:

Roof fascia repair	\$ 1,200
Exterior painting	11,000
Interior drywall repairs	1,400
Interior baseboard repairs	<u>300</u>
Total	\$13,900

According to the client, and confirmed by City online permit records, a complete re-roof was accomplished in early September 2022.

There is no unusual settling or structural failure. The structure presents as the same as its actual age.

## ESTIMATING REPRODUCTION COST

A key step in ACV methodology is an estimate of the cost to reproduce the existing building. Cost estimates are developed through recognized cost services, by obtaining detailed cost breakdowns from clients or contractors, and by analyzing actual cost comparables.

There are several nationally recognized cost-estimating services. We subscribe to xxxxxxxxxxxxxxxxxxxxxxxxx because it provides the best, localized information. I developed a cost estimate through xxxxxxxxxxxxxxxxxxxxxxxxx.

It is very difficult to obtain well documented information from contractors and architects, unless it is about a building they are currently involved in, and the appraiser has a valid reason to know. I have no direct contractor/architect construction budget information about structures like the subject because new construction is code compliant and subject building is not. I did not develop a cost indication by this method.

When sales of speculative new construction are available, actual costs can be estimated with reasonable accuracy through extraction methodology. This method can be useful to calibrate cost system quality levels and, in rare cases, as a direct cost indication. I did not develop a cost indication by this method.

## PROGRAMMED COST ESTIMATE

THIS SECTION IS TAKEN FROM A REPORT WHERE THE COST SYSTEM USED WAS CORELOGIC COMMERCIAL EXPRESS. REWRITE AS REQUIRED TO DISCUSS YOUR COST SYSTEM, THE VERSION, HOW IT WORKS, AND ANY MANUAL ADJUSTMENTS NEEDED AS OF THE APPRAISAL EFFECTIVE DATE.

### Introduction

A reproduction cost estimate was developed through CoreLogic Commercial Express, version 1.12.1.467, copyright 2013-2020, the latest version of this on-line program.

**The system output report is labeled “replacement cost”, but my inputs are consistent with a reproduction or replica of Subject building, not a code-compliant replacement.**

I’m using this program because it is very detailed and well adapted to estimating the cost of complex residential and commercial structures.

### Total Component Methodology

The system starts with the location (zip or postal code). Commercial Express uses this information to account for the climatic, seismic zone and high wind zone requirements of the building. All three of these location-sensitive issues affect a building’s design and, therefore, the cost of the building. The correct labor rates and material costs are also based on the zip or postal code.

The system offers eight construction quality settings:

- Economy
- Average
- Average/Superior
- Superior
- Superior/Premium
- Premium
- Premium +
- 5.0

The construction type determines the structure of the building, and it is probably the most important bit of information. This information dictates the framing system to be used as well as the structural floors and roof. For example, if frame is selected as the construction type, the exterior walls, bearing walls, partitions, structural floors, and roof will be constructed of wood or light-gauge steel. The construction of this “shell” will meet the requirements for the specific zip or postal code entered.

The final piece of the total component concept is the occupancy. The occupancy entered determines the “build-out” of the shell that was defined by the construction type and location. For example, a frame apartment occupancy would employ frame construction for the walls, structural floors, and roof, have suitably fenestrated exterior walls, and include

finishes, building services, and miscellaneous features compatible with frame construction and appropriate for an apartment. More specifically, the structural assemblies would be of dimensional lumber or light-gauge steel members. The outer walls would contain an adequate number of entrance doors and slide-by or double-hung windows. There would be numerous partitions finished with drywall, carpet, and vinyl as floor finishes, drywall as a ceiling finish, residential lighting fixtures and receptacles, baseboard heat, a full complement of residential plumbing fixtures, kitchen and bath cabinets, and other sundry features such as closet shelving and clothes poles, storage lockers, mailboxes, and an intercom system.

In summary, the total component concept constructs a building component-by-component, meeting the requirements for the specific location, the construction type, and the stated occupancy.

### **Direct Costs**

Prevailing wage rates for 19 different construction trades, union, or merit shop, plus fringe benefits, are researched. Seven elements referred to as others are also researched, including state and local taxes, workers' compensation, unemployment compensation, bodily injury insurance, contractors' liability insurance, and Social Security.

This information is obtained from building trade councils, associated general contractor organizations, local unions and contractors, and state and local government agencies.

CoreLogic uses the prevailing wage rate, whether union or merit shop, adjusted for location and property type.

Prices for local materials are checked using a similar method. Brick, concrete block, ready-mix, lumber, and steel vary between locations; therefore, they are researched from local suppliers. Costs for these items include state and local taxes, freight charges, and contractor discounts.

National material prices for items such as plumbing fixtures, piping, and wiring, which are distributed nationwide by supply centers, are researched as one price for the entire country, and then adjusted by state and local taxes.

### **Contractor Overhead & Profit**

When contractors construct a building, they charge a fee for their services. This component of direct cost is usually referred to as overhead and profit. The cost system generated values include a typical allowance for this cost category. However, that percentage can vary, and it is dependent upon a given area's market conditions. Market conditions that affect contractor's overhead and profit can be long-term, short-term, or a combination of both. A local catastrophe such as a tornado strike might have short-term effects, whereas the booming economy of a ski resort area frequented by affluent people may allow contractors to charge higher fees long-term. CoreLogic monitors this cost component and has identified approximately 2,000 areas in the United States where additional costs are presently being experienced. These additional costs are automatically applied by the system based on the building address zip code.

## **Adjustments, Additions & Deductions**

**Recent Cost Increases (Lag Time)** – As of the appraisal effective date, the CoreLogic Commercial Express cost system updated quarterly. I've inquired of CoreLogic how much lag time is built into the system. It seems there is a data compiling lag of 4 to 6 weeks before publication. Depending on where the appraisal effective date falls within a quarter to 18 weeks, or 4 to 4 ½ months. This is not a problem during periods of stability, but during times of change an adjustment might be required.

Southwest Florida construction costs have risen consistently over the last several years. The rate of increase peaked during and after the Covid crisis. This cycle was driven by supply/demand imbalances caused by a strong building/renovation cycle exacerbated by increased demand as some people elected to retire early or simply relocate to avoid crises elsewhere. As of late 2022 (just prior to hurricane Ian) there were signs of returning stability. The CoreLogic cost database effective on 27 September 2022 was published in June 2022 and reflects data compiled into late May. At that time costs, especially labor costs, were still increasing, such that many local contractors had stopped making fixed-price bids. There probably is probably some increase in profit at the general contractor level, but most of the cost increase seems to be at the sub-contractor level where bids are escalating to retain labor and compensate for high demand.

I adjusted the cost system up 10% to account for rising costs and cost system lag.

## **Results**

CoreLogic yields a building reproduction cost of \$598,541.

A detailed cost report follows.



INSERT HERE THE DETAILED COST SYSTEM OUTPUT REPORT

## DEPRECIATION ESTIMATE

DEVELOP AND EXPLAIN HOW DEPRECIATION WAS ESTIMATED. THERE IS GOOD HELP IN CHAPTER 7 OF THE ACV GUIDEBOOK FOUND AT FLOODPOINTUSA.COM. THE PHYSICAL LIFE CALCULATOR AND SUPPORTING DOCUMENTATION IS ALSO AVAILABLE FREE AT FLOODPOINTUSA.COM. IF YOU USE THE PHYSICAL LIFE CALCULATOR TOOL, PUT A COPY OF THE OUTPUT PAGE IN THE REPORT.

THIS SECTION IS NOT ABOUT EFFECTIVE AGE AND TOTAL ECONOMIC LIFE

IF YOU DEVELOP A STRAIGHT-LINE ESTIMATE OF PHYSICAL DETERIORATION, DON'T FORGET TO CONSIDER ANY NEGLECT (CURRENT MAINTENANCE) OR UNUSUAL STRUCTURAL ISSUES WHICH WILL REQUIRE ADJUSTMENT OF THE STRAIGHT-LINE DEPRECIATION AMOUNT.

IF YOU WANT TO BE THOROUGH, CONSIDER THE AGE AND COST OF THE ROOF COVER AND ADJUST FOR THAT FACTOR AS NECESSARY – SEE THE ACV GUIDEBOOK, CHAPTER 7, PAGES 43 & 44.

BY WHATEVER APPROPRIATE METHOD YOU USE, REACH A CONCLUSION OF TOTAL PHYSICAL DETERIORATION AS A DOLLAR AMOUNT.

FOLLOWING IS FROM A TYPICAL REPORT.

### Depreciation Defined

*The Dictionary of Real Estate Appraisal, Seventh Edition*, published 2022 by the Appraisal Institute, defines depreciation as:

*“In appraisal, a loss in the value of improvements from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the value of the improvement on the same date.”*

### Depreciation Concepts

Real estate appraisers analyze depreciation by categories, physical deterioration, functional obsolescence, and external obsolescence. Physical deterioration is rot, corrosion, warping, sagging, settling, cracking, and the inevitable wearing out that comes with age and use. Functional obsolescence is about deficiencies or excesses (superadequacies) built into a structure that detract from its economic performance. Functional problems can be as simple as a poor choice of paint color, or as involved as a bad floorplan. External obsolescence is loss in building value caused by negative influences outside the property. Usually, obsolescence accounts for 2/3 to 3/4 of total depreciation.

The NFIP definition of Actual Cash Value references a deduction for “physical depreciation” which is the same as the physical deterioration category described above. We can estimate straight-line physical depreciation for a given building if we know the building age, and if we can forecast the building physical life. A building physical life forecast poses the question:

Assuming this building was properly designed and constructed on the same site, occupied in the same way, and properly maintained, how long would the building stand?

The assumptions of proper building design, proper construction and proper maintenance are essential, because structural flaws, construction defects, and neglect will result in physical depreciation greater than the straight-line amount.

Other professionals have made studies, published papers, and developed tools to help forecast the physical life of buildings.

### **Physical Life Potential**

According to the sixth edition of **Cost Studies of Buildings**, by Allan Ashworth and Srinath Perera, published in 2015, by Routledge,

*“Where a building has been carefully designed and constructed and properly maintained its physical life can be almost indefinite.”*

This supports what we know from direct observation. The long physical life of buildings is plainly evident, even in north America where the history of building construction is relatively short. In the U.S. there are commercial and residential buildings still standing and in use more than 250 years after they were built. In my own southwest Florida community, there are many examples of buildings already over 100 years old.

### **Construction Materials & Structural Failure**

From the abstract of her paper entitled, “***Survey on actual service lives for North American buildings***”, presented in 2004 at the Woodframe Housing Durability and Disaster Issues conference, Las Vegas, research scientist Jennifer O’Connor with Forintek Canada Corp. reported the results of a demolition survey in a major North American city that captured building age, building type, structural material, and the reason for demolition of 227 buildings.

Ms. O’Connor concluded that the kind of materials used in construction are not determinant of physical life. Reasons for demolition were instead related to changing land values, lack of suitability of the building for current needs (obsolescence), and lack of maintenance of various non-structural components (neglect). Only eight buildings (less than 4%) identified a specific structural failure. Over 50% of the buildings she studied were residential.

This supports the assertion that the bulk of depreciation is in obsolescence, not physical deterioration.

### **Physical Life Calculator Tool**

In his 2011 conference paper entitled, “**Estimating the Useful Life of Buildings**”, Professor Craig Langston of Bond University, Queensland, Australia, analyzes building obsolescence, and in doing so, develops estimates of potential physical life using a new tool he calls the **Physical Life Calculator**.

Professor Langston explains that his physical life calculator algorithm assumes a base life of 100 years, and then adds or deducts points (years) according to the responses to questions. It

is similar in concept to the Living to 100 Life Expectancy Calculator that predicts human life span based on extensive medical and empirical data. Some conservatism is applied to the estimate and the forecast is rounded down to one of the following outcomes: 25, 50, 75, 100, 150, 200, 250 or 300 years. The physical life calculator is unsuitable for temporary structures or for iconic monuments, both of which require specialist judgment.

Here is a useful tool, logically developed by an impartial third party, that was designed to forecast physical life based on individual building characteristics. The Calculator does not replace expert opinion, but it informs expert judgement.

A working copy of the Physical Life Calculator and its supporting documentation can be downloaded free at [www.floodpointusa.com](http://www.floodpointusa.com).

ON THIS PAGE COPY THE PHYSICAL LIFE CALCULATOR OUTPUT REPORT

### Application to Subject

The physical life calculator returns a forecast of at least 150 years. This forecast is supportive of what might be estimated by reasoned observation.

Eighty percent of the building was constructed in 1957, so that part is 65 years old. The 1968 addition is 54 years old. The weighted average building age is 63 years. Sometimes, as in this case, structural additions can modify (reduce) building age. Renovations often make a difference in the appearance of a building, but renovations usually don't affect the internal structure, or the physical life forecast. I'm treating the building as 63 years old.

Straight-line physical depreciation is 42.00% (63/150) or \$251,735 ( $.4200 \times \$599,369$ ).

There was current maintenance (exterior painting) estimated to cost \$4,000. That increases depreciation by \$4,000.

The roof cover is assumed to be 17 years old. The life of a roof like this is about 20 years, so the roof cover is about 85.00% depreciated. The cost to replace a roof like this one is about \$9.50 per square foot, or \$21,945. The roof structure was depreciated 42.00% by the straight-line method discussed above, so the adjustment to depreciation for the roof condition is an increase in depreciation of \$9,436 ( $.4200 - .8500 \times \$21,945$ ).

Total physical deterioration is:

Straight-line amount	\$251,735
Current maintenance	4,000
Adjust for Roof Condition	<u>9,436</u>
Total Physical Deterioration	\$265,171

## ESTIMATE OF ACTUAL CASH VALUE

Actual cash value is indicated thus:

Reproduction Cost New	\$780,538
Less: Physical Depreciation	<u>(361,517)</u>
Actual Cash Value	\$419,021

The actual cash value is \$419,021. This is the amount against which the 50% Rule applies.

## **ADDENDUM**

Things to consider putting in the Addendum:

County appraiser or tax assessor information used or relied on

“As Built” construction plans

A building sketch

Professional reports by others

Extensive documentation in support of the cost estimate or depreciation

Your professional qualifications