

## 2 SITE ANALYSIS

### 2-0 INTRODUCTION

This Chapter addresses the site requirements for FHA-insured mortgages. Before the valuation process can begin, subject properties must meet specific site requirements. The appraisal process is the lender's tool for determining if a property meets the minimum requirements and eligibility standards for a FHA-insured mortgage. In addition, these standards provide a context for the appraiser in performing the physical inspection of the property.

### 2-1 SITE REQUIREMENTS

The purpose of site analysis is to identify the various site characteristics that affect the marketability and the value of the subject property. Site analysis requires the following:

- o determining the desirability and utility of the site
- o determining the degree and extent to which the site, because of external influences, shares in the market for comparable and competitive sites in the community
- o forecasting the likely changes at the site because of justifiable future trends
- o appraising the current situation and knowledge of the various trends that could affect the valuation of the real property

The principal of change is fundamental to appraising real estate and to properly analyzing a site. Value is created and modified by economic, social and governmental changes that occur outside the property. Evaluate the direction of these trends and determine their effect, if any, on the current value of the subject property.

#### A. NEIGHBORHOOD DEFINITION

The appraiser must clearly define the boundaries - north, south, east and west - of the subject neighborhood. By defining the neighborhood, the appraiser can extract pertinent information on which to base valuation conclusions.

#### B. COMPETITIVE SITES

Sites are competitive when they are improved with, or appropriate for, residential properties that are similar in accommodations and sales price or rental range for similar residents or prospective occupants. Compare features of the subject site with the same features of competitive sites within the community. An acceptable site must be related to the needs of the prospective occupants and to the alternatives available to them in other competitive locations.

#### C. DEFINITIONS - CONSTRUCTION STATUS

Proposed - No concrete or permanent material has been

placed. Digging of footing and placement of re-bar is not considered permanent.

Under Construction - From the first placement of concrete (permanent material) to 100% completion. Finalized and ready to occupy.

Existing - 100% complete and has occupancy permit.

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(2-1) Existing  
less than one year - Appraisal performed less than one year since receipt of final occupancy permit issued. For model homes, age begins with issuing of permit to use as a model.

For any home less than 2 years old, list month and year completed in the age box on the URAR.

#### D. ECONOMIC TRENDS

The appraiser must give consideration to, and include in the value analysis, the economic trends of a neighborhood and the general area, including:

- o price and wage levels (the purchasing power of community occupants)
- o employment characteristics
  
- o the current supply and demand for residential dwellings, including projects under construction
- o taxation levels
- o building costs
- o population changes
- o activity of real estate sales market and mortgage interest rates

#### E. LAND USE RESTRICTIONS

Site analysis determines the effects of actual and potential neighborhood land use on the subject site. The following factors form patterns for present and future land uses:

##### 1. Zoning

The appraiser should consider the effect on the value of appropriate and well-drawn zoning ordinances. Land-use controls that receive public approval and are strictly enforced protect residential sites from adverse influences that diminish the desirability of sites. This must be noted on the URAR, and its effect must be quantified in the valuation analysis.

##### 2. Protective Easement/Covenants

Properly drawn protective covenants have proven more effective than zoning regulations in providing protection from adverse environmental influences. When combined with proper zoning ordinances, these covenants provide the maximum legal protection to ensure that a developed residential area will maintain desirable

characteristics or that a proposed or partially built-up neighborhood will develop in a desirable manner. Protective easements and covenants should be superior to any mortgage and should be binding to all parties and all persons claiming under them. These must be noted on the URAR and its effect must be quantified in the Valuation Analysis.

### 3. Inharmonious Land Uses

The appraiser must identify all inharmonious land uses in a neighborhood that affect value. Clearly define the current and long-term effect that inharmonious uses will have on the market value and the economic life of the subject property. If inharmonious land use represents a serious detriment to either the health or safety of the occupants or to the economic security of the property, clearly note safety of the occupants or

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to the economic security of the property, clearly note this on the VC and URAR. Recommend that the property be rejected by the Lender.

### 4. Natural Physical Features

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The appraiser must consider favorable and underlying topography and site features, including pleasing views, wood lots, broad vistas and climatic advantages. Streets that are laid out with proper regard to drainage, land contours and traffic flow show good design and increase the desirability of the neighborhood. This must be noted on the URAR and its effect must be quantified in the valuation analysis.

### 5. Attractiveness of Neighborhood Buildings

The overall appeal of a neighborhood is strengthened if the buildings in a neighborhood harmonize with each other and their physical surroundings. A pleasing variety that results in harmoniously blended properties is desirable but not mandatory. The age of the structure is not in itself an important consideration; however, the maintenance of the structure over time has an important impact. Consider the amount of rehabilitation that has taken place or is taking place in a neighborhood. This must be noted on the URAR and its effect must be quantified in the valuation analysis.

### 6. Neighborhood Character

Mobility and economic growth can alter neighborhood patterns. Shopping, recreation, places of worship, schools and places of employment should be easily accessible. This must be noted on the URAR and its effect must be quantified in the valuation analysis.

#### 7. Character of Neighborhood Structures

The appraiser must carefully analyze the age, quality, obsolescence and appropriateness of typical properties in a neighborhood. Take into account the attitude of the user group as well as the alternative choices available to the specific market under consideration. This must be noted on the URAR and its effect must be quantified in the valuation analysis.

#### F. COMMUNITY SERVICES

Community services include commercial, civic and social centers. For a neighborhood to remain stable and retain a high degree of desirability, it should be adequately served by elementary and secondary schools, neighborhood shopping centers, churches, playgrounds, parks, community halls, libraries, hospitals and theaters. A lack of services in the community should be noted and quantified in the valuation analysis. The appraiser must note a change in these services and quantify the effect on value.

#### G. TRANSPORTATION

Ready access to places of employment, shopping, civic centers, social centers and adjacent neighborhoods is a requisite of neighborhood stability. The appraiser must take into consideration the transportation requirements of the typical family and quantify the effect on value.

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#### H. UTILITIES AND SERVICES

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The appraiser must consider these utilities and neighborhood services: police and fire protection, telephone services, electricity, natural gas, garbage disposal, street lighting, water supply, sewage disposal, drainage, street improvements and maintenance. Public services and utilities can affect value and must be quantified. A lack of these services should be noted and quantified in the valuation analysis.

#### I. NEIGHBORHOOD CHANGE CONSIDERATIONS

As time passes, desirability changes residential areas in any location. Therefore, give special consideration to the following:

- o infiltration of commercial, industrial or nonconforming use
- o positive and negative effect on value of gentrification
- o changes in the mobility of people (employment shifts)
- o weakly enforced zoning regulation or covenants

#### J. MARKETABILITY

The demand for home ownership in a neighborhood is directly related to the marketability of the homes in the neighborhood or in competitive neighborhoods. Home

ownership rates, vacancies and the marketing time of dwellings in a neighborhood help the appraiser determine the strength of market demand and the extent of supply.

K. SMALL COMMUNITY MARKET PREFERENCES

A small town may have its own set of standards in architectural design, livability, style of mechanical equipment, lot size, placement of structures, nature of street improvements and in all features of the physical property and environment. Judge each in light of local standards and preferences.

L. OUTLYING SITES AND ISOLATED SITES

The segment of the market interested in purchasing homes in these sites compares the advantages and disadvantages of other outlying or isolated locations.

M. STUDY OF FUTURE UTILITY

The study of future utility is typically covered in the appraiser's Highest and Best Use Analysis and includes:

- o selecting possible uses
- o rejecting uses that are obviously lower or higher than the most probable use
- o analyzing differing motives of those buyers

The study of the future uses and utility of a particular property will lead the appraiser to the property's Highest and Best Use.

N. CONSIDERATION OF GENERAL TAXES AND SPECIAL ASSESSMENTS  
When estimating value, account for general taxes and special assessments:

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- o General real estate taxes related to specific sites are a recurring periodic expense in the ownership of taxable real property and must be accounted for in the value estimate.

- o Special assessments of various types are frequently an additional expense of

(2-1) ownership and must similarly be accounted for in the value estimate.

Determine the relative effect of the real estate tax and/or special assessment's burden on the desirability of the site. Enter this information on the URAR.

1. Assessment

The real estate tax liability is computed by multiplying the assessed value by the tax/ millage rate, which is typically expressed in dollars per

hundred or dollars per thousand of assessed value. In the addendum to the VC, state the assessment, real estate tax liability and tax year. State the assessed market value of the subject property in the addenda.

- > If there is no method to relate the assessment to market value, such as new construction where reasonable assessment may not exist, mark the assessed market value response as "N/ A".

## 2. Special Assessment

A special assessment can be calculated in two ways:

- o the same way as real estate taxes, or
- o on a pro-rated basis

Determine how the special assessment is calculated and report the special assessment liability on the URAR.

- > If the property does not have special assessment, mark the URAR "N/A".

For example: An organization that services a community creates an annual operating budget. Each property becomes liable for its percentage of that budget based on the percentage of front feet their property has compared to the total amount of front feet as a special assessment in this community.

## 2-2 SPECIAL NEIGHBORHOOD HAZARDS AND NUISANCES

Physical conditions in some neighborhoods are hazardous to the personal health and safety of residents and may endanger physical improvements. These conditions include unusual topography, subsidence, flood zones, unstable soils, traffic hazards and various types of grossly offensive nuisances.

When reporting the appraisal, consider site hazards and nuisances.

- > If site hazards exist and cannot be corrected but do not meet the level of unacceptability, the appraisal must be based upon the current state.

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- > If the hazard and/or nuisance endangers the health and safety of the occupants or the marketability of the property, mark "YES" in VC-1 and return the unfinished appraisal to the lender.

(2-2) The lender, who is ultimately responsible for rejecting the site, relies on the appraiser's site analysis to make this determination. Guidelines for determining site acceptability follow. The appraiser is required to note only those readily observable conditions.

A. UNACCEPTABLE SITES

FHA guidelines require that a site be rejected if the property being appraised is subject to hazards, environmental contaminants, noxious odors, offensive sights or excessive noises to the point of endangering the physical improvements or affecting the livability of the property, its marketability or the health and safety of its occupants. Rejection may also be appropriate if the future economic life of the property is shortened by obvious and compelling pressure to a higher use, making a long-term mortgage impractical.

These considerations for rejection apply on a case-by-case basis, taking into account the needs and desires of the purchaser. For example, a site should not be considered unacceptable simply because it abuts a commercial use; some commercial uses may not appeal to a specific market segment while other commercial uses may.

If the condition is clearly a health and safety violation, reject the appraisal and return it to the lender. If there is any doubt as to the severity, report the condition and submit the completed report. The lender must clear the condition and may require an inspection or reject the property. For those conditions that cannot be repaired, such as site factors, the appraised value is based upon the existing conditions.

B. TOPOGRAPHY

There are special hazards caused by unique topography. For example, denuded slopes, soil erosion and landslides often adversely affect the marketability of hillside areas. When evaluating the site, consider earth and mud slides from adjoining properties, falling rocks and avalanches. These occurrences are associated with steep grades and must be considered in the site analysis.

C. SUBSIDENCE

Danger of subsidence is a special hazard that may be encountered under a variety of circumstances:

- o where buildings are constructed on uncontrolled fill or unsuitable soil containing foreign matter such as organic material
- o where the subsoil is unstable and subject to slippage or expansion

In mining areas, consider the depth or extent of mining operations and the site of operating or abandoned shafts or tunnels to determine if the danger is imminent, probable or negligible.

The appraiser must note any readily observable conditions, which indicate potential problems. Signs include fissure or cracks in the terrain, damaged foundations, sinkholes or settlement problems.

If there is a danger of subsidence, the specific site will be deemed ineligible unless complete and satisfactory evidence can be secured to establish that the probability of any threat is negligible.

- > If there is evidence of subsidence, the property is ineligible. Mark the "YES" column in VC-1 under subsidence.

D. OPERATING AND ABANDONED OIL OR GAS WELLS

Operating and abandoned oil and gas wells pose potential hazards to housing, including potential fire, explosion, spray and other pollution.

1. Existing Construction

No existing dwelling may be located closer than 300 feet from an active or planned drilling site. Note that this applies to the site boundary, not to the actual well site.

2. New or Proposed Construction

If an operating well is located in a single-family subdivision, no new or proposed construction may be built within 75 feet of the operating well unless mitigation measures are taken. This measure is designed to:

- o avoid nuisance during maintenance
- o diminish noise levels caused by pumping
- o reduce the likelihood of contamination by potential spills

The appraiser must examine the site for the existence of or any readily observable evidence of a well.

3. Abandoned Well

A letter may be obtained from the responsible authority in the state government stating that the subject well was safely and permanently abandoned.

- o When such a letter is provided, a dwelling may be located no closer than 10 feet from the abandoned well.
- o When a letter is not provided, the dwelling must be located at least 300 feet from the abandoned well.

The lender is responsible for obtaining the letter; the appraiser must note the location of the well and verify the existence of the letter.

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4. Special Case - Proposed, Existing or Abandoned Wells

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Hydrogen sulfide gas emitted from petroleum product wells is toxic and extremely hazardous. Minimum clearance from sour gas wells may be established only after a petroleum engineer has assessed the risk and state authorities have concurred on clearance recommendations for petroleum industry regulation and for public health and safety.

- > If there is readily observable evidence that the conditions exist, mark the "YES" column in VC-1 under operating and abandoned wells.
- > If an inspection by a qualified person verifies that the condition exists and is acceptable based on the standards defined above, account for the presence of wells in the valuation of the property.

E. SLUSH PITS

A slush pit is a basin in which drilling "mud" is mixed and circulated during drilling to lubricate and cool the drill bit and to flush away rock cuttings. Drilling mud normally contains large quantities of bentonite - a very expansive soil material. This results in a site with the potential for great soil volume change and, therefore, damage to structures.

To be eligible for FHA mortgage insurance, all unstable and toxic materials must be removed and the pit must be filled with compacted selected materials.

- > If a property is proposed near an active or abandoned well, call for a survey to locate the pits and their impact on the subject property.
- > If there is any readily observable evidence of slush pits, mark the "YES" column in VC-1.

F. HEAVY TRAFFIC

Close proximity to heavily traveled roadways can have a negative effect on the marketability and value of sites because of excess noise and danger. Properties backing to freeways or other thoroughfares that are heavily screened or where traffic is well below grade and at a sufficient distance from the property may not affect value. For detailed noise acceptance levels, reference 24 CFR 51.103.

- > If there is significant noise or unsafe traffic conditions that endanger the occupants or affect the marketability of the property, mark "YES" in VC-1.

Typically, traffic hazards cannot be corrected. Therefore, the appraiser must quantify the effect on value if the property is marketable. This adjustment should be supported by comparable transactions. This condition could be the reason that a lender ultimately rejects the property. Do not reject existing properties only because of heavy traffic if there is evidence of acceptance within the market and if use of the dwelling is expected to continue.

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#### G. AIRPORT NOISE AND HAZARDS

- (2-2) Sites near, an airport may be subjected to the noise and hazards of low-flying aircraft. Appraisers must identify affected properties, review airport contour maps and condition the appraisal accordingly.

Do not reject existing properties only because of airport influences if there is evidence of acceptance within the market and if use of the dwelling is expected to continue. HUD's position is that because the properties are in use and are expected to be in use into the near future, their marketability should be the strongest indicator of their acceptability. Marketability should account for the following considerations:

- o plans for future expansion of airport facilities
- o prospective increases in the number of planes or flights using the field or specific runways
- o the timing and frequency of the volume of flights
- o any other factors that may increase the annoyance of having the airport nearby excessive noise

If changes are likely, the appraiser must anticipate any adverse effect that these changes are likely to have on the marketability of the property. The appraiser should judge each situation on its merits. Compare the effect of aircraft activity on the desirability of a particular site with other sites that are:

- o improved with similar structures
- o considered competitive with those located in the subject neighborhood

#### H. SPECIAL AIRPORT HAZARDS

HUD requires that the buyer of a property located in a Runway Clear Zone/Clear Zone is advised that the property is located in such a zone and of the implications associated with that site. This includes the possibility that the airport operator could acquire the property in the future.

1. New and Proposed Construction  
New and proposed construction within Runway Clear Zones

(also known as Runway Protection Zones) at civil airports or within Clear Zones at military airfields are ineligible for home mortgage insurance.

Properties located in Accident Potential Zone I at military airfields may be eligible for FHA insurance provided that the property is compatible with Department of Defense guidelines. For more information, see 24 CFR 51.303(b).

If new or proposed construction lies within these zones, mark "YES" in VC-1.

2. Existing Construction

Existing dwellings more than one year old are eligible for FHA mortgage insurance if the prospective purchaser acknowledges awareness that the property is located in a Runway Clear Zone/Clear Zone. The lender will furnish this disclosure form to the

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buyer. For a sample of the buyer's acknowledgment certification, see HUD Handbook 4150.1, REV-1, Chapters 4-26 (a) and (b).

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- > Note whether the property is in a Clear Zone and condition the appraisal on the buyer's acknowledgment.

I. PROXIMITY TO HIGH PRESSURE GAS

A dwelling or related property improvement near high-pressure gas, liquid petroleum pipelines or other volatile and explosive products - both above ground and subsurface must be located outside of the outer boundary of the pipeline easement.

> If the property is less than ten feet away, mark "YES" in VC-1.

J. OVERHEAD HIGH-VOLTAGE TRANSMISSION LINES

No dwelling or related property improvement may be located within the engineering (designed) fall distance of any pole, tower or support structure of a high-voltage transmission line, radio/TV transmission tower, microwave relay dish or tower or satellite dish (radio, TV cable, etc.). For field analysis, the appraiser may use tower height as the fall distance.

For the purpose of this Handbook, a High-Voltage Electric Transmission Line is a power line that carries high voltage between a generating plant and a substation. These lines are usually 60 Kilovolts (kV) and greater, and are considered hazardous. Lines with capacity of 12-60 kV and above are considered high voltage for the purpose of this

Handbook. High voltage lines do not include local distribution and service lines.

Low voltage power lines are distribution lines that commonly supply power to housing developments and similar facilities. These lines are usually 12 kV or less and are considered to be a minimum hazard. These lines may not pass directly over any structure, including pools, on the property being insured by HUD.

> If the property is within the unacceptable distance, mark "YES" in VC-1.

K. SMOKE, FUMES, OFFENSIVE NOISES AND ODORS

Excessive smoke, fog, chemical fumes, noxious odors, stagnant ponds or marshes, poor surface drainage and excessive dampness are hazardous to the health of neighborhood occupants and adversely affect the market value of the subject property.

> If these conditions threaten the health and safety of the occupants or the marketability of the property, mark "YES" in VC-1. If, however, the extent of the hazard is not dangerous, account for its effect in the valuation of the property.

> Include other factors that may affect valuation such as offensive odors and unsightly neighborhood features such as stables or kennels.

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L. FLOOD HAZARD AREAS

Designation of Special Flood Hazard Areas

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Federal Emergency Management Agency (FEMA) determines Special Flood Hazard Areas nationwide, (SFHA). FEMA issues Flood Hazard Boundary Maps to designate these areas in a community. A special flood hazard may be designated as Zone A, AO, AH, Al-30, AE, A99, VO or V1-30, VE or V.

- o Only those properties within zones 'A' and 'V' require flood insurance.
- o Zones 'B' or 'C' do not require flood insurance because FEMA designates only zones 'A' and 'V' as "Special Flood Hazard Areas."

An appraisal report with a positive indication in a Special Flood Hazard Area (SFHA) activates a commitment requirement for flood insurance coverage. The appraiser must quantify the effect on value, if any, for properties within a designated flood map.

A lender shall reject a property in any of these circumstances:

- o if the property is subject to frequently recurring flooding
- o if there is any potential hazard to life or safety
- o if escape to higher ground would not be feasible during severe flooding conditions

FEMA Maps

For copies of FEMA's Flood Hazard Boundary Maps and Flood Insurance Rate Maps, contact:

Federal Emergency Management Agency (FEMA)  
 FEMA Map Service Center  
 P.O. Box 1038  
 Jessup, MD 20794-1038  
 Phone: 1-800-358-9616  
 Fax: 1-800-358-9620

Eligibility of Properties for FHA Insurance

The lender is responsible for determining the eligibility of properties in Flood Zones, and relies on the appraiser's notation on the URAR.

1. New and Proposed Construction

If any part of the property improvements essential to the property value and subject to flood damage are located within the 100-year floodplain, then the entire property, improved and otherwise, is ineligible for FHA mortgage insurance unless a Letter of Map Amendment (LOMA) or a Letter of Map Revision (LOMR) is submitted with the case for endorsement. Proposed construction where improvements are located, or to be located, within a designated Special Flood Hazard Area (SFHA) is ineligible for FHA insurance. This is true regardless of whether the property is covered or will be covered by flood insurance unless the lender can furnish evidence of a LOMA, a LOMR or evidence that the property is not in a SFHA.

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(2-2) For existing properties located in a SFHA, make the appropriate notation in the URAR.

- > If the proposed improvements are located in a SFHA and there is no LOMA or LOMR mark "YES" in VC-1 and return the unfinished appraisal to the lender until these documents are retrieved.

2. Existing Construction

Market attitude and acceptance determine the eligibility of existing properties located in a designated SFHA. Flood insurance is required for properties accepted for mortgage insurance in a FEMA-designated SFHA.

3. Condominium

The Homeowners Association is responsible for maintaining flood insurance on the project as a whole, not each individual unit. The appraiser must verify the location of a condominium in the floodplain and make the correct notation in the URAR.

M. STATIONARY STORAGE TANKS

Stationary Storage tanks containing flammable or explosive material pose potential hazards to housing, including hazards from fire and explosions.

- > If the property is within 300 feet of a stationary, storage tank containing more than 1000 gallons of flammable or explosive material, the site is ineligible. Mark "YES" in VC-1 and return the unfinished appraisal to the lender.