IAAO

Certificate of Excellence

in

Assessment Administration

Submission

April 1, 2020

CONTACT:

George Mascellino, CAE, AAS, CFE, Chief Deputy
P.O. Box 429 Titusville, FL 32781-0429
george.mascellino@bcpao.us • (321) 264-6702 • www.bcpao.us

Brevard County Property Appraiser

Certificate of Excellence in Assessment Administration - Submission

Table of Contents

Chapter 1

ENVIRONMENT

Question 1: What distinguishes the jurisdiction by geography, economy and market situation?

Provide a brief narrative backed by statistics for the most recent five years for the following:

- Population and demographic trends
- Economic trends by major sector or industry
- The trend and current number of assessable real and personal properties and total valuations (with breakdowns by major categories, such as residential, commercial, industrial, and agricultural)
- Numbers of sales, new properties, and appeals by major property categories
- Land area
- The fiscal importance of the property tax in each tax district and for the jurisdiction as a whole
- Recent extraordinary events such as natural disasters

Explain the assessment cycle if it falls outside of the calendar year.

(Coordinate the responses to this question with question one in Chapter 2, Management and Staffing.)

Brevard County (Brevard) is located in the United States on the east coast of central Florida, 35 miles east of the Orlando metropolitan area. The City of Titusville is Brevard's county seat, which is part of the Palm Bay-Melbourne-Titusville, Florida Metropolitan Statistical Area.

Brevard County extends 72 miles north-south and averages 26.5 miles east-west with a total area of 1,557 square-miles of which 541 is water. Brevard is flat and only a few feet above sea level in most areas. Much of western Brevard is government-owned wetlands and subject to Florida's St. Johns River Water Management District. Most of Merritt Island (a large island in northeast Brevard separated from the mainland by the Indian River) and Cape Canaveral (a smaller island east of Merritt Island) contain federally-owned spaceflight facilities bordered on the north by the Merritt Island National Wildlife Refuge. A narrow strip of mostly-developed oceanfront land is separated from east mainland Brevard by the Indian and Banana rivers. Brevard has hot, humid summers, and cool, dry winters.

Primary access to all points in Brevard is through three main roads running north-south: Interstate 95, central; U.S. Highway 1, west of the Indian River; and State Road A1A, west of the Atlantic Ocean. The Martin B. Anderson Beachline Expressway (State Road 528, aka The Beachline) runs east-west from Orlando to Port Canaveral and becomes State Road A1A, providing access to many miles of sandy beaches along Brevard's coastline. State roads 46 and 50 in north Brevard, and 192 in south Brevard, also provide east-west access.

Brevard County is home to the John F. Kennedy Space Center and Cape Canaveral Air Force Station Space Launch Complex, both sharing rich space exploration histories. Also known as *The Space Coast*, Brevard County was the epicenter of the Mercury, Gemini, Apollo, Skylab, Viking, Voyager, Space Shuttle, International Space Station, and many other successful space programs. Space operations in Brevard County over the last 60 years include manned and unmanned spaceflight with launches carrying commercial,

scientific, and government spacecraft, including the famed Saturn V moon rockets. Commercial spaceflight entities expanded operations into 2020, including United Launch Alliance, Blue Origin, SpaceX, and others. Spaceflight research, design, development, construction, launch, recovery, and telemetry continue to be important to Brevard County's economy in both jobs and tourism.

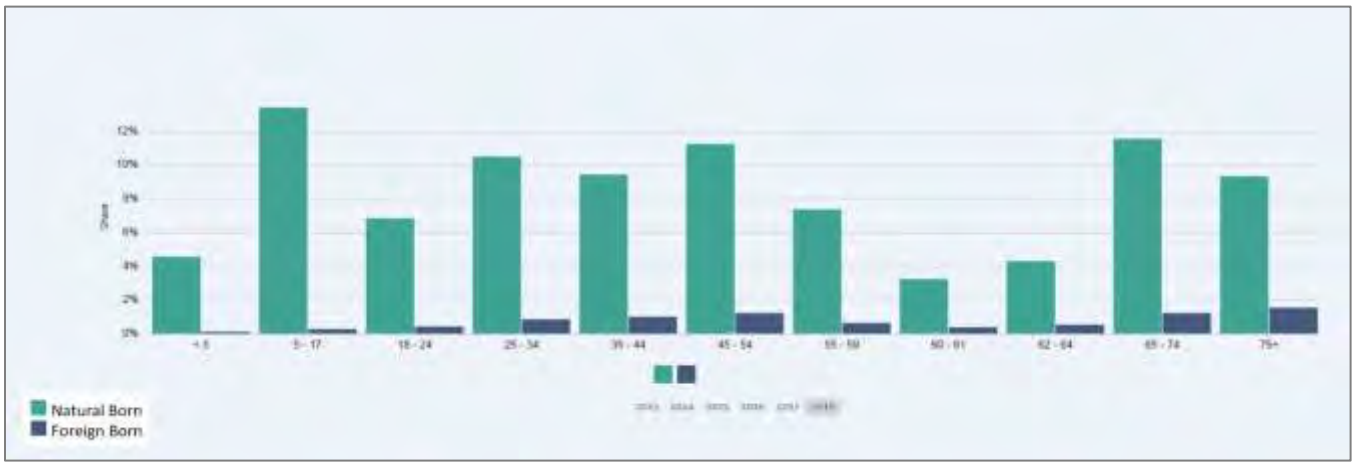
Brevard County hosts the world's second-busiest cruise port, located just south of Cape Canaveral's aerospace facilities. According to PortCanaveral.com, 80 percent of Port Canaveral's revenue is generated from cruise businesses that serve four-million passengers annually on Royal Caribbean, Carnival, and Disney cruise ships, among others. Port Canaveral is also home to many commercial cargo ships, liquid natural gas facilities, and a small U.S. Navy submarine base. Patrick Air Force Base, just south of Port Canaveral, provides immediate protection for aerospace and military interests.

Brevard County is home to the Orlando Melbourne International Airport and other smaller airports including Titusville's Space Coast Regional Airport, Merritt Island Airport, and Valkaria Airport.

In addition to economic downturns caused by fluctuating space programs, Brevard County is subject to destruction brought on by severe weather. Like all Florida counties, Brevard is often in the path of hurricanes. However, because Brevard is a coastal county, it is at greater risk from storm surge, flooding, and severe beach erosion. Recent history includes the infamous 2004 trio of Charley, Ivan, and Jeanne, which caused over $100 million in property damage in Brevard County alone. Hurricane Fay in 2008 caused another $70 million in property damage in Brevard. Most recently, 2016's Hurricane Matthew and 2017's Hurricane Irma destroyed or damaged over 1,600 Brevard homes and caused widespread erosion to Brevard County beaches. While it is the good weather that brings tourist dollars to Brevard County, it is the destructive and extreme weather that takes them away.

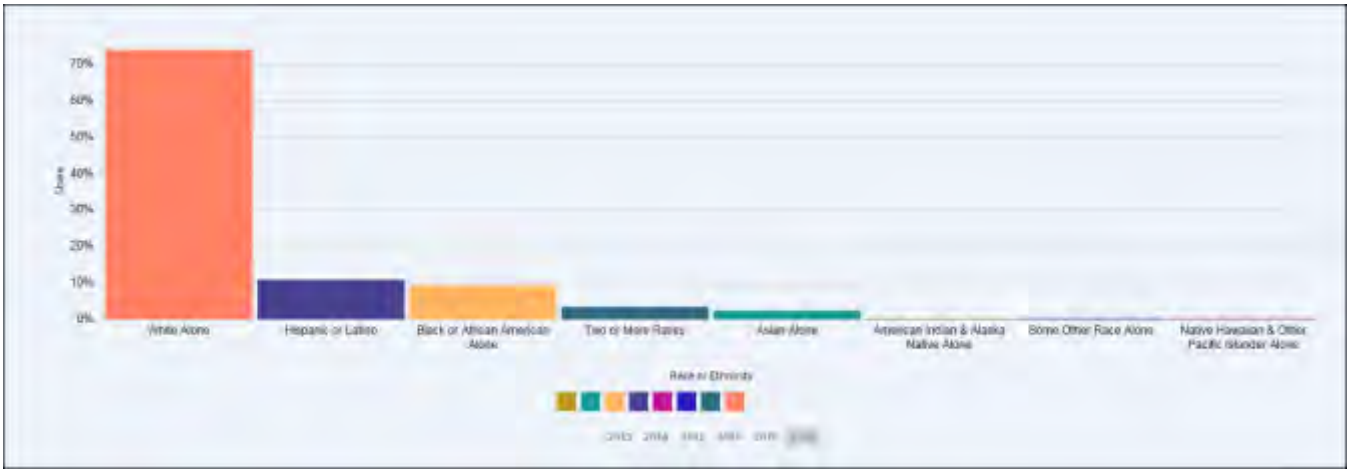
Figures 1-1.1 through 1-1.3 illustrate various Brevard County demographics:

Figure 1-1.1 Demographics - Age



Source: DataUSA.io

Figure 1-1.2 Demographics - Race



Source: DataUSA.io

Figure 1-1.3 Population Trends

Population

Census Population	Brevard County	Florida
1980 Census	272,959	9,746,961
1990 Census	398,978	12,938,071
% change 1980-90	46.2%	32.7%
2000 Census	476,230	15,982,824
% change 1990-00	19.4%	23.5%
2010 Census	543,376	18,801,332
% change 2000-10	14.1%	17.6%
Age		
% Under 18 years of age	19.8%	21.3%
% 65 years of age and over	20.4%	17.3%
Race & Ethnicity		
% White alone	83.0%	75.0%
% Black or African American alone	10.1%	16.0%
% Hispanic or Latino (of any race)	8.1%	22.5%

Source: SpaceCoastTPO.com

With 596,849 estimated residents in 2018, Brevard was ranked 10th most populous county out of 67 Florida counties. Brevard County grew an estimated 9.8 percent from 2010 to 2018 (see Figure 1-1.4).

Figure 1-1.4 Population Trends

POPULATION TRENDS			
	2010	2018 (est.)	Percent Change
Brevard County	543,376	596,849	9.8%
Titusville	43,761	46,497	6.3%
Melbourne	76,068	82,826	8.9%
Palm Bay	103,190	114,194	10.7%

Source: U.S. Census Bureau

There are no major metropolitan areas in Brevard County. Brevard is statistically low-density with an average of 383 residents per square-mile. However, most of Brevard is vacant wetlands, conservation, and government-owned land, so actual population density is significantly higher. Although agriculture is still a viable lifestyle, farmland is routinely converted to platted subdivisions as demand for housing increases.

Figure 1-1.5 shows the general upward trend in home prices over the last five years.

Figure 1-1.5 Home Price Trends

Median Sale Price										
Home Type	2015	2016	2015-2016 % Change	2017	2016-2017 % Change	2018	2017-2018 % Change	2019	2018-2019 % Change	2015-2020 % Increase
Homes	189,900	200,000	5.3%	220,000	10.0%	235,000	6.8%	240,000	2.1%	26.4%
Townhomes	165,000	170,000	3.0%	186,000	9.4%	200,000	7.5%	217,500	8.7%	31.8%
Mobile Homes	62,000	72,000	16.1%	80,750	12.2%	89,000	10.2%	97,000	9.0%	56.5%
Condominiums	139,000	138,900	-0.1%	148,900	7.2%	160,000	7.5%	180,000	12.5%	29.5%

According to FloridaJobs.org, Brevard had a total labor force in 2019 of almost 283,000 of which over 274,000 were employed. Space Coast Unemployment rose above Florida levels when NASA's Space Shuttle program ended in 2011. Increased commercial spaceflight operations through 2019 brought new jobs to Brevard, dropping the unemployment rate to match Florida overall (see Figure 1-1.6).

Figure 1-1.6 Unemployment Trends

	Unemployment Trends				
	2015	2016	2017	2018	2019
Brevard	6.0	5.1	4.3	3.5	3.1
Florida	5.5	4.8	4.2	3.6	3.1
U.S.	5.3	4.9	4.4	3.9	3.4

Source: Floridajobs.org

With the increasing presence of private space industries in Brevard County and baby-boomer retirements to Florida, the housing industry strengthened further in the last few years. Construction-related jobs in 2018 were up 75 percent since 2010 (see Figure 1-1.7). Trade, Transportation, and Utilities continued to be the largest employment sector in Brevard, with Education and Health Services not far behind.

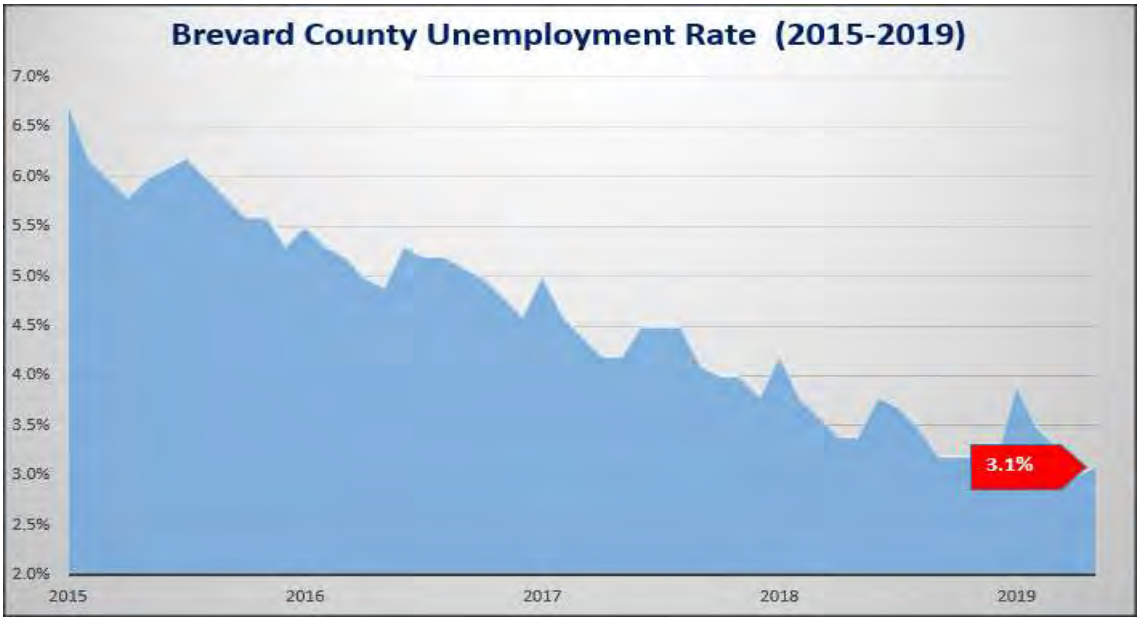
Figure 1-1.7 Jobs Types

INDUSTRY TITLE	December 2010	December 2018	Percent Change
Total Nonfarm	195,400	228,400	16.9%
Total Private	166,300	199,800	20.1%
Goods Producing	28,600	41,200	44.1%
Service-Providing	166,800	187,200	12.2%
Private Service Providing	137,700	158,600	15.2%
Mining, Logging and Construction	8,400	14,700	75.0%
Manufacturing	20,200	26,500	31.2%
Computer and Electronic Product Manufacturing	12,000	14,100	17.5%
Trade, Transportation, and Utilities	34,300	39,200	14.3%
Retail Trade	25,600	29,300	14.5%
Information	2,400	2,800	16.7%
Financial Activities	7,600	8,800	15.8%
Professional and Business Services	32,600	34,500	5.8%
Education and Health Services	32,800	36,700	11.9%
Leisure and Hospitality	20,900	27,700	32.5%
Other Services	7,100	8,900	25.4%
Government	29,100	28,600	-1.7%
Federal Government	6,500	6,400	-1.5%
State Government	2,300	3,000	30.4%
Local Government	20,300	19,200	-5.4%

Source: U.S. Department of Labor

As shown in Figure 1-1.8, the unemployment rate in Brevard County has steadily declined over the last five years, following the same general pattern of Florida and the United States.

Figure 1-1.8 Brevard County Unemployment Rate



Source: Bureau of Labor Statistics

Brevard County's property can be grouped into five major categories: residential, agricultural, unimproved, commercial/industrial, and institutional. Residential properties consist of single-family homes, mobile (manufactured) homes, townhomes, condominiums, and multi-family structures such as duplexes, and triplexes. Agricultural properties are bona fide income-producing businesses including orchards, nurseries, marketable timber and crop lands, and grazing land. Unimproved parcels (aka vacant land) are properties without structures. Zoning for these parcels includes residential, commercial/industrial, agricultural, or institutional uses. Commercial/industrial properties include retail operations, office and professional buildings, service industries, apartment complexes, hotels and restaurants, and manufacturing and warehousing. Institutional properties are non-commercial including government (United States military facilities, state-owned wildlife lands, county schools, etc.), and non-profit entities such as hospitals, churches, and charities. Many have full or partial tax exemptions.

Figure 1-1.9 shows annual real property parcel counts while Figure 1-1.10 illustrates the number of new real property parcels added to Brevard County. The numbers reveal continued growth in residential and commercial properties and a reducing agricultural base as larger parcels are subdivided and developed into smaller parcels.

Figure 1-1.9 Real Property Parcel Count by Category

Parcel Count by Property Category					
Property Type	**2015**	**2016**	**2017**	**2018**	**2019**
Residential	235,509	236,880	238,237	240,353	242,620
Agricultural	1,543	1,491	1,455	1,418	1,388
Unimproved	70,040	69,653	69,273	70,023	69,012
Commercial/Industrial	9,913	9,959	9,930	9,997	10,035
Institutional	9,851	9,993	10,130	10,221	10,239
Total	**326,856**	**327,976**	**329,025**	**332,012**	**333,294**

Figure 1-1.10 New Real Property Parcels by Category

New Parcels by Property Category					
Property Type	**2016**	**2017**	**2018**	**2019**	**Total**
Residential	1,371	1,357	2,116	2,267	**7,111**
Agricultural	(52)	(36)	(37)	(30)	**(155)**
Unimproved	(387)	(380)	750	(1,011)	**(1,028)**
Commercial/Industrial	46	(29)	67	38	**122**
Institutional	142	137	91	18	**388**
Total	**1,120**	**1,049**	**2,987**	**1,282**	**6,438**

The Brevard County Property Appraiser's Office's (BCPAO) real property market valuations steadily increased through 2019 since the low-water marks of 2012. Residential and commercial/industrial valuations increased around 50 percent between 2015 and 2019 (see Figure 1-1.11). The 2019 assessment roll revealed a slowdown in the percentage increases, however. For the first time in several years, most market values by category had percentage increases in the single digits (residential: 6.6 percent). Only the commercial/industrial properties differed (12.8 percent).

Figure 1-1.11 Real Property Market Value by Property Type

Total Market Value by Property Category						
PROPERTY TYPE	2015	2016	2017	2018	2019	Percent Change
Residential	32,780,454,210	36,381,239,680	40,524,306,090	45,009,938,950	47,984,417,380	46.38%
Agricultural	403,664,910	422,110,210	428,333,330	421,664,190	419,386,240	3.89%
Unimproved	1,185,244,200	1,273,006,560	1,351,987,510	1,511,733,940	1,580,853,420	33.38%
Commercial/Industrial	5,085,682,630	5,707,062,470	6,179,392,910	6,835,456,990	7,710,131,418	51.60%
Institutional	4,860,059,620	5,061,405,370	5,897,977,040	6,128,090,250	6,498,713,290	33.72%
Total	44,265,105,570	48,844,824,290	54,381,996,880	59,906,884,320	64,193,501,750	45.02%

The quantity of qualified sales (those used in valuation) steadily increased for residential properties (see Figure 1-1.12). This is primarily due to new-home construction in recently-developed subdivisions, favorable lending conditions, and increased market demand from retired baby-boomers moving to the area.

Figure 1-1.12 Real Property Qualified Sales by Category

Total Qualified Sales by Property Category					
PROPERTY TYPE	2015	2016	2017	2018	Total
Residential	12,726	14,217	14,761	15,220	**56,924**
Agricultural	11	20	14	8	**53**
Unimproved	594	722	1,214	1,653	**4,183**
Commercial/Industrial	239	217	235	271	**962**
Institutional	10	4	6	3	**23**
Total	**13,580**	**15,180**	**16,230**	**17,155**	**62,145**

Figure 1-1.13 shows the history of tangible person property (TPP) values and accounts. As the table reflects, total TPP market value increased over the last five years, even with asset depreciation.

Figure 1-1.13 Tangible Personal Property Accounts

Tangible Personal Property Accounts by Type						
PROPERTY TYPE	2015	2016	2017	2018	2019	Percent Change
Business Accounts	23,452	24,635	24,793	24,722	24,500	
Rental Properties	8,119	8,145	8,025	7,980	7,949	
Leasing Accounts	8,954	9,212	9,586	9,880	9,974	
Total Just (Market) Value	$ 9,043,478,265	$ 9,290,425,111	$ 9,260,941,531	$ 9,481,324,938	$ 9,656,788,169	6.78%

There are four valuation types in Florida: market, assessed, taxable, and classified use. Market value reflects anticipated net proceeds to the seller if the property were sold at highest and best use in an arm's-length transaction; assessed value is market value less any statutory caps; taxable value is assessed value less any exemptions; classified use value reflects use-value of any portion of land used for bona fide agricultural purposes or held as conservation easement.

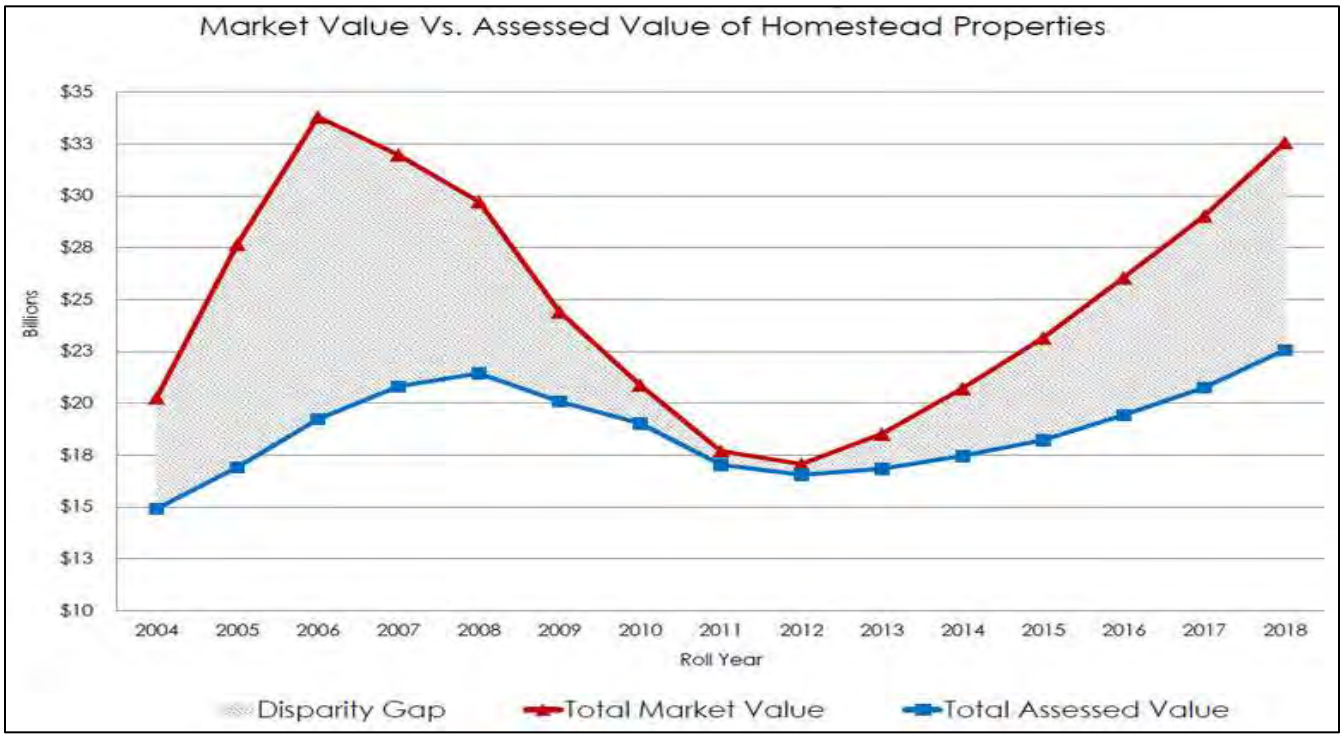
Florida assessment cycles begin January 1 annually per Section 192.042(1) Florida Statutes (see Exhibit 1-1.1). Valuation notices are mailed to owners and posted on the BCPAO public website in August. The appeals process follows in September.

The number of Value Adjustment Board (VAB) cases filed by petitioners appealing market value is shown in Figure 1-1.14. Total appeals each year are relatively constant and a very small percentage of properties countywide. The Save Our Homes (SOH) assessment cap has much to do with this. The SOH cap limits assessed value increases on homesteaded properties (properties that are the bona fide primary residence of the owners) to 3 percent or the Consumer Price Index (CPI), whichever is less. This creates a buffer for times when BCPAO market valuations increase as they did in 2006 during the housing bubble (see figure 1-1.15). As a result, tax bills are relatively level year to year, so owners rarely appeal.

Figure 1-1.14 VAB Cases by Property

Appeals by Property Type					
PROPERTY TYPE	2015	2016	2017	2018	Total
Residential	185	205	195	218	**803**
Agricultural	0	10	1	5	**16**
Unimproved	34	156	37	34	**261**
Commercial/Industrial	205	291	206	208	**910**
Institutional	6	10	15	9	**40**
Total	**430**	**672**	**454**	**474**	**2030**

Figure 1-1.15 Disparity Gap between Market and Assessed Value Due to Assessment Caps



The property tax is vital to all five districts. Nearly 80 percent of all tax revenue for Brevard County in the last decade was derived from the property tax (see Figure 1-1.16).

Figure 1-1.16 Brevard County Tax Revenues by Source (2009-2018)

Fiscal Year	General Property Tax (1)	Sales And Use Tax (1)	Motor Fuel Tax (2)	Franchise Fees/Service Tax (1)	Total
2009	$ 221,711,577	$ 15,522,810	$ 7,792,301	$ 24,239,238	$ 269,265,926
2010	193,121,708	15,416,037	7,719,502	22,336,079	238,593,326
2011	192,192,463	16,430,103	7,697,371	21,399,649	237,719,586
2012	186,046,337	18,728,928	7,918,177	20,681,709	233,375,151
2013	183,761,113	18,943,935	8,662,379	20,712,408	232,079,835
2014	188,884,586	19,983,673	8,922,124	21,017,000	238,807,383
2015	201,684,868	22,121,934	9,138,572	20,949,011	253,894,385
2016	208,233,093	24,844,640	9,670,235	20,384,882	263,132,850
2017	215,874,911	58,199,195 (3)	10,066,128	20,093,287	304,233,521
2018	223,872,746	74,013,781	10,037,468	20,704,464	328,628,459

(1) The ad valorem property taxes, sales and use taxes, and communications services tax are combined for financial statement presentation and disclosed by fund type as taxes. Franchise fees are reported as permits, fees and special assessments.

(2) The motor fuel tax is disclosed in the County Transportation Trust Fund, as intergovernmental revenues.

(3) Effective January 1, 2017, the County began collecting a half-cent discretionary infrastructure sales tax for the purpose of restoring the Indian River Lagoon.

Source: Brevard County Comprehensive Annual Financial Report, 2018

Question 2: What are the functions of the assessment agency, and what assessment-related functions (if any) are carried out by other agencies?

> Briefly describe the functions of the office and the support it receives from outside agencies and contractors. Focus on functions that are covered in later chapters of this Guide. Identify the agencies and contractors that provide services or support. Include services provided by provincial and state supervisory agencies.

The county office of Property Appraiser was created by Article VIII, Section I of the Florida Constitution while the duties of the Property Appraiser are enumerated in Chapters 192 thru 196 of the Florida Statutes (referenced in subsequent text).

In keeping with all aspects of the International Association of Assessing Officers (IAAO) Standard 4 on Property Tax Policy, the main constitutionally-charged duties of the BCPAO are to discover, list, and appraise all real and tangible property in the jurisdiction, and to administer exemptions and agricultural classifications. To accomplish this, the BCPAO maintains several departments.

Four departments are charged with the discovery-and-list portion of the duties: Field Operations, which gathers information from county and municipal building departments and physically and remotely inspects properties for improvements; Tangible Personal Property, which gathers information through annual returns submitted by business owners; Tax Roll Administration, which updates the ownership records based on documents recorded in the public records; and GIS & Cadastral Services, which maintains the cadastral maps (also based on information recorded in the public records). To aid in property discovery, the BCPAO contracts with a vendor to supply orthogonal and oblique aerial imagery of the jurisdiction.

Two departments are charged with the valuation portion of the duties: Valuation, which includes all vacant and improved real property including agricultural properties, and Tangible Personal Property, which includes mobile homes not owned by the land owner.

The administration of property tax exemptions is handled by the Taxpayer Services Department. The administration of agricultural classifications is handled by the resident expert in the Valuations Department, who is both state certified and licensed in real property appraisal.

Chapter 195 of the Florida Statutes requires the Florida Department of Revenue (FDOR) to review all of this work to ensure compliance with applicable laws.

The BCPAO maintains an in-house Information Systems (IS) Department that provides support to all areas of operation (further discussion in Chapter 3). The IS staff maintains all computer hardware and software.

Question 3: Does the law contain features conducive to current-market-value assessment?

	Does the property tax system contain	Yes	No	Comments/Citation
1.	A law expressly requiring that most or all property be valued on the basis of current market value? If 'no,' state the basis of assessments. Provide a link to each law or decision.	✓		Section 4, Article VII, of the State Constitution, (see Exhibit 1-3.1), requires a just value for both real and tangible property valuations
2.	A law (or regulation) requiring independent ratio studies (such as by an oversight agency) measuring the level and uniformity of values within and among classes of property in accordance with the *Standard on Ratio Studies*? Provide a link to each law or decision.	✓		The Florida Department of Revenue – in accordance with IAAO Standard 4.1.1.1 on Property Tax Policy – is charged with establishing standards of value per Section 195.032 of the Florida Statutes (see Exhibit 1-3.2).
3.	A law requiring revaluations and re-inspections on a specified schedule or when performance standards are not met, in accordance with the current IAAO standards? If 'no,' describe the jurisdiction's practice regarding reassessments. Provide a link to each law or decision.	✓		A five-year inspection cycle is mandated by section 193.023, Florida Statutes (see Exhibit 1-3.3).
4.	A law requiring buyers and sellers to disclose prices and terms of sales to assessing officers? (a) If "no," provide a link to legal citation that does not allow for acquiring these data. (b) If "no", in Chapter 7 provide an explanation of how these data are collected.	✓		Section 201.02, Florida Statutes, (see Exhibit 1-3.4), requires documentary stamps be paid on all documents transferring an interest on property.

	Does the property tax system contain	Yes	No	Comments/Citation
5.	A law requiring taxpayers to furnish assessing jurisdictions with statements of income and expense. (a) If "no," provide a link to legal citation that does not allow for acquiring these data. (b) If "no" in Chapter 10 provide an explanation of how these data are collected.		✓	Not required, but if not provided when requested by BCPAO, taxpayer cannot use the information in a later appeal, (see Exhibit 1-3.5).
6.	Laws or regulations that provide special treatment for classes of properties or owners. Provide description and link to legal references. • Property assessed at a percent of market value o All property at the same percent o The percent varies by class • Exemptions o Homesteads (seniors, veterans, disabled) o Non-profit (charitable, religious, educational) o Personal Property o Other (specify) • Special provisions o Tax increment financing districts (TIFs) o Use-value assessments (agricultural land, timber) o Minerals • Valuation caps o Base year (values set as of a fixed past date, as of the time of transfer, or both) o Value may not increase at a percentage greater than the rate of inflation o Value may not increase each year by more than a fixed percentage	✓		There are many statutes that provide special treatment for classes of properties or owners. These will be discussed in detail below.
7.	A law requiring that education aid payments and similar intergovernmental transfer payments be based on credible estimates of actual taxable wealth (that is, equalized values) rather than on un-equalized or poorly equalized local assessed values? If 'yes,' describe the features of the law. Discuss any problems. Provide a link to each law or decision.		✓	Education payments and the like are distributed at the state level and are not a function of the BCPAO.

	Does the property tax system contain	Yes	No	Comments/Citation
8.	Other laws that reinforce or undermine market value assessment? If 'yes,' describe the purpose and features of each law. Provide a link to each law or decision.	✓		Properties used to provide affordable housing must be valued using actual rent instead of market rent (see Exhibit 1-3.6)

1-3.1 Does the property tax system contain a law expressly requiring that most or all property be valued on the basis of current market value?

Section 4, Article VII of the Florida Constitution (see Exhibit 1-3.1) requires that all property be assigned a just value. This mandate is codified in section 195.0012, Florida Statutes (see Exhibit 1-3.7). The Florida Supreme Court has interpreted the meaning of "just valuation" to be synonymous with "fair market value" (see Exhibit 1-3.8).

1-3.2 Does the property tax system contain a law (or regulation) requiring independent ratio studies (such as by an oversight agency) measuring the level and uniformity of values within and among classes of property in accordance with the *Standard on Ratio Studies*?

The FDOR is charged with the general supervision of property assessment and valuation to ensure assessment uniformity throughout the state (see Exhibit 1-3.9). In doing so, the FDOR has the authority to establish standards of value as granted in Section 195.032 of the Florida Statutes (see Exhibit 1-3.2). The roll evaluation standards used by FDOR are the same as used by IAAO (see Exhibit 1-3.10).

1-3.3 Does the property tax system contain a law requiring revaluations and re-inspections on a specified schedule or when performance standards are not met, in accordance with the current IAAO standards?

Florida is an annual-reassessment state. The official date of assessment each year is January 1 (see Exhibit 1-3.11). The BCPAO is statutorily charged with inspecting each property at least once every five years either physically or with image technology (see Exhibit 1-3.3).

1-3.4 Does the property tax system contain a law requiring buyers and sellers to disclose prices and terms of sales to assessing officers?

There is no statutory requirement to inform the BCPAO of the selling price or terms of sale. Florida statutes (see Exhibit 1-3.4) require the payment of documentary stamps on each document that transfers title. The tax is a constant 70 cents per 100 dollars (.007). The BCPAO uses this figure and the amount of documentary taxes paid to determine the selling price of the property.

1-3.5 Does the property tax system contain a law requiring taxpayers to furnish assessing jurisdictions with statements of income and expense?

Florida law does not require the owners of income producing properties to provide income and expense information to the BCPAO. The BCPAO does have the right to ask for the data and the owner has a right to deny the request. The caveat is that if the BCPAO asks for the data and the owner refuses to provide it, the owner cannot later use that data in any appeals to reduce the valuation (see Exhibit 1-3.5). The data that is requested and obtained from owners is held as confidential by the BCPAO (see Exhibit 1-3.12).

1-3.6 Does the tax system contain laws or regulations that provide special treatment for classes of properties or owners?

Many Florida statutes exist that provide special treatment for classes of properties or owners; the majority of which are either exemptions from taxation, or requirements for special appraisal methods based on property use. As stated in the response to question 1 above, all property in Florida is to be valued at 100 percent of just (aka market) value. Assessment caps limit the increase in assessed value, and exemptions are applied to assessed value to arrive at taxable value. Any portion of a property with an agricultural classification is assessed based on current use rather than highest and best use.

Florida has many exemptions for people who own property and occupy it as their primary residence. Florida's primary Homestead Exemption reduces taxable value up to $50,000 (see Exhibit 1-3.13). Brevard currently has approximately 158,000 properties with a Homestead Exemption. To be eligible for this exemption, owners must be a permanent Florida resident as evidenced by supporting documentation (see Exhibit 1-3.14).

Residing owners of properties with Homestead Exemption may also qualify for one of several disability exemptions provided by Florida statutes (see Exhibit 1-3.15). Exemptions for blindness, partial disability, widow/widower, and total and permanent disability are available. These exemptions run from $500 for a widow/widower exemption to a total tax exemption for full disability. There are disability exemptions for veterans and first responders that range from a $5,000 reduction in taxable value to total tax exemption based on the severity of the disability. The surviving spouses of veterans and first responders (fire fighters, police, etc.) are also eligible for the exemption based on their spouse's disability.

Non-profit organizations, religious entities, educational facilities, scientific and literary organizations, affordable housing, or properties of historical significance are eligible for tax exemption (see Exhibit 1-3.16) based on the ownership (see Exhibit 1-3.17) and use (see Exhibit 1-3.18).

Properties primarily used for bona fide commercial agricultural purposes (see Exhibit 1-3.19) are appraised according to current agricultural use irrespective of zoning or highest and best use. However, agricultural lands subject to a state or federal eradication or quarantine program are required to be valued at $50 per acre per Section 193.461(7)(a) (see Exhibit 1-3.20), Florida Statutes. Additionally, properties subject to a conservation easement are required to be valued recognizing the limitations of the easements on value Sections 193.501 (see Exhibit 1-3.21), and 704.06 (see Exhibit 1-3.22), Florida Statutes.

The value of the common area used for the exclusive benefit of property owners within a subdivision or condominium is prorated among the lots or units of the condominium, and not separately assessed (see Exhibit 1-3.23).

Owners of business-related tangible personal property located in Florida are eligible for an exemption of up to $25,000 (see Exhibit 1-3.24).

Devices used for the generation of renewable energy are either fully or partially exempt from taxation by Florida statutes (see Exhibit 1-3.25). Devices used on residential properties are totally exempt from property tax, and devices on non-residential properties are 80 percent exempt. Tax Incremental Financing is available under Chapter 163 (see Exhibit 1-3.26).

In 1994, Florida voters approved a constitutional amendment limiting the amount that assessed values can increase to the lesser of CPI or 3 percent for properties with a Homestead Exemption (see Exhibit 1-3.27). In 2008, a similar benefit was approved for non-homesteaded properties, but the cap is 10 percent (see Exhibit 1-3.28).

1-3.7 Does the property tax system contain a law requiring that education aid payments and similar intergovernmental transfer payments be based on credible estimates of actual taxable wealth (that is, equalized values) rather than on un-equalized or poorly equalized local assessed values?

Education payments and the like are distributed at the state level, and are not a function of the BCPAO. The Florida constitution requires that all assessments throughout the state be arrived at uniformly using the same methodologies. The FDOR compiles the assessment data from each Florida county and provides that information to the Board of Education. The Board of Education is responsible for developing formulas (see Exhibit 1-3.29) to ensure an equitable disbursement (see Exhibit 1-3.30) of tax revenues to public schools.

1-3.8 Does the property tax system contain other laws that reinforce or undermine market value assessment?

Some property tax laws reinforce market value assessment while others tend to hinder it. In addition to the examples provided in the response to question 1-3.6 and in box 8 above (actual

rent for affordable housing), other examples do exist. For example, because Florida is an annual reassessment state and the assessment date is January 1 of each year, improvements that are not substantially complete as of the assessment date are not assessed or taxed for that year (see Exhibit 1-3.11). Additionally, if the county Property Appraiser discovers an improvement that was omitted from previous tax rolls, it may not back-tax the owner if the owner either notified the Property Appraiser of the error or complied with the permitting requirements at the time of construction (see Exhibit 1-3.31).

Question 4: Does the law contain features detrimental to current-market-value assessment?

	Does the property tax system contain	Yes	No	Comment/Citation
1.	A law or regulation that limits the discretion the assessor has in using a generally accepted valuation methodology (such as in valuing shopping centers) or in considering the probable use of a property in the near future (such as a firm requirement to consider only the current use)? If 'yes,' describe how each law interferes with current-market-value assessment.	✓		Properties providing what is classified as Affordable Housing must be valued using actual rent instead of market rent (see Exhibit 1-3.6).
2.	A classified property tax system with numerous classes, extreme rate (or ratio) differentials (that is, the highest rate being 250 percent or more than the lowest)? If the jurisdiction operates under a classified property tax system, identify the classes and the legal assessment ratios or tax rate for each class.		✓	Florida does not operate under this type of system.
3.	A partial exemption that shields many properties from taxation? Identify the main types of partial exemptions and provide information on the percentage or monetary amount of each exemption and the number of properties receiving it.	✓		Florida Statutes contain many exemptions that can be granted on a full or partial basis.

	Does the property tax system contain	Yes	No	Comment/Citation
4.	A limit on how much the appraised value of a property can be increased or decreased? If there are assessment change limits, describe them.	✓		Assessed value for homesteaded properties can increase no more than 3 percent (see Exhibit 1-3.27) while non-homestead properties can increase up to 10 percent (see Exhibit 1-3.28).
5.	Another law or regulation that interferes with current-market-value assessment? If yes, describe the features of each such law.	✓		See response to question 3.8.

1-4.1 Does the property tax system contain a law or regulation that limits the discretion the assessor has in using a generally accepted valuation methodology (such as in valuing shopping centers) or in considering the probable use of a property in the near future (such as a firm requirement to consider only the current use)?

Florida Statute 193.017 (see Exhibit 1-4.1) requires that properties used to provide affordable housing and that have received tax credits from the Florida Housing Finance Corporation and are valued using the income approach must be valued using actual rents and not market rents.

1-4.2 Does the property tax system contain a classified property tax system with numerous classes, extreme rate (or ratio) differentials (that is, the highest rate being 250 percent or more than the lowest)?

The Florida Constitution mandates a uniform assessment level for all properties at 100 percent just (aka market) value. All properties are valued to this level regardless of use or property type. The FDOR, as part of their oversight duties, has developed criteria that are the same for every category based on IAAO standards (see Exhibit 1-4.2).

1-4.3 Does the property tax system contain a partial exemption that shields many properties from taxation? Identify the main types of partial exemptions and provide information on the percentage or monetary amount of each exemption and the number of properties receiving it.

Florida statutes allow for many exemptions and, consistent with IAAO Standard 5.3.1 on Property Tax Policy, the BCPAO applies them accordingly. These exemptions were listed in the response to question 3.6.

1-4.4 Does the property tax system contain limits on how much the appraised value of a property can be increased or decreased? If there are assessment change limits, describe them.

Florida statutes limit the amount a property's assessed value can increase - not market value. In accordance with IAAO Standard 5.4.3 on Property Tax Policy, the BCPAO follows the state law limiting certain value increases. This topic was discussed in the response to question 3.6.

1-4.5 Does the property tax system contain another law or regulation that interferes with current-market-value assessment? If yes, describe the features of each such law.

This topic was discussed in the response to question 3.8.

Question 5: Does the property tax system have measures that ensure that the jurisdiction has the capacity to perform its assessment functions effectively?

	Indicate whether any of the following apply. If an item applies, describe briefly how it affects assessment operations and how the jurisdiction is still able to function effectively.	Yes	No	N/A	Comments/Citation
1.	The jurisdictional framework provides little support to local assessment districts, either from the [state] property tax supervisory agency or a county-level agency		✓		A great deal of support is provided by the FDOR.
2.	The lack of legal authorization to join cooperatively with another assessment district or to contract for assessment services		✓		No impediments exist that would prevent the BCPAO from contracting for services.
3.	The low reliance on property taxes by the governments that the assessment district serves, such that the cost of funding assessment administration is deemed too high in relation to the revenues generated		✓		Property revenue accounts for approximately 25 percent of the local county government's revenues.
4.	The mechanism for funding assessment administration does not take into account the fiscal importance of the function		✓		The county and 17 municipalities in the jurisdiction rely on the property tax system for revenue.

1-5.1 The jurisdictional framework provides little support to local assessment districts, either from the [state] property tax supervisory agency or a county-level agency.

The FDOR provides a great deal of aid and assistance to the 67 Florida Property Appraisers. The FDOR provides assessment equity criteria, procedural manuals for valuation of real, tangible, and classified use properties, manuals for developing market areas, and assistance developing cadastral maps (see Exhibit 1-5.1). FDOR also provides links to the necessary legal documents such as statutes, Attorney General Opinions, court cases, and FDOR technical advisement bulletins (see Exhibit 1-5.2).

1-5.2 The lack of legal authorization to join cooperatively with another assessment district or to contract for assessment services.

As independently elected constitutional officers, Florida Property Appraisers have no statutory restrictions prohibiting them from contracting for assessment services. The BCPAO is a voluntary member of the Property Appraiser's Association of Florida (PAAF) which is an organization of 58 of Florida's 67 county Property Appraisers created over 100 years ago to promote networking and lobbying efforts (the PAAF website address is www.paaf.us).

1-5.3 The low reliance on property taxes by the governments that the assessment district serves, such that the cost of funding assessment administration is deemed too high in relation to the revenues generated.

While it was previously noted in this chapter (Chapter 1) that property taxes made up 80 percent of all revenue from taxes, property tax revenue only represents about 25 percent of total revenue from all sources for taxing jurisdictions within Brevard County.

1-5.4 The mechanism for funding assessment administration does not take into account the fiscal importance of the function.

Florida statutes stipulate rules for the BCPAO's budget approval and billing of services (see Exhibit 1-5.3). Each taxing jurisdiction contributes to the BCPAO's budget based on the relationship between the taxing jurisdiction's tax levy and the entire tax levy of the county combined.

EXHIBITS – Chapter 1

Chapter 2

MANAGEMENT AND STAFFING

Question 1: Does the jurisdiction keep abreast of changes in laws, regulations, and court decisions?

	Practice	Yes	No	Comment/citation
1.	The jurisdiction has ready access to an up-to-date compilation of property tax laws and regulations.	✓		The BCPAO has internet access to all current and past laws and regulations.
2.	The jurisdiction has ready access to, a service that reports property tax cases.	✓		The BCPAO has four methods to access property tax cases: contracted attorney on retainer, FDOR website, membership in a Property Appraiser organization, and membership in IAAO.
3.	The jurisdiction regularly monitors news of legal developments affecting it.	✓		Using the four methods above, the BCPAO keeps current with local legal issues.
4.	The jurisdiction regularly briefs the staff (and other interested parties) on recent legal developments affecting it.	✓		All legal information received is provided to the appropriate department.
5.	The jurisdiction actively participates in critical reviews of current legislation and in the development of legislative proposals.	✓		As a member in the PAAF, the BCPAO continuously reviews proposed legislation for acceptability to the appraisal process. PAAF members also propose their own legislation.
6.	The jurisdiction regularly meets with and participates in groups concerned with improved legislation.	✓		The BCPAO meets with fellow members of PAAF and concerned constituents.

2-1.1 The jurisdiction has ready access to an up-to-date compilation of property tax laws and regulations.

The FDOR publishes both the Florida Statutes (see Exhibit 2-1.1) and the Florida Administrative Code (see Exhibit 2-1.2). Along with the Florida Constitution (see Exhibit 2-1.3), the Florida Statutes and Florida Administrative Code are all publicly available on the internet.

2-1.2 The jurisdiction has ready access to a service that reports property tax cases.

The BCPAO has an attorney for legal counsel and to report property tax cases. As mentioned previously, the BCPAO is also a member of PAAF, which represents 58 of the 67 Florida Property Appraisers. PAAF also has an attorney on retainer to act as a lobbyist and to keep members informed of upcoming legal issues including court cases. Several of the BCPAO staff are members of both IAAO and the Florida Chapter of IAAO (FCIAAO), and are exposed to current court developments through activities within those organizations.

2-1.3 The jurisdiction regularly monitors news of legal developments affecting it.

The BCPAO regularly monitors legal developments through activities involving all methods outlined in the response to question 1-2, above.

2-1.4 The jurisdiction regularly briefs the staff (and other interested parties) on recent legal developments affecting it.

The BCPAO forwards information received from of the sources listed in the previous questions to appropriate staff. Since it is not feasible to send every employee to every event where information might be disseminated, the BCPAO ensures that debriefing sessions occur within the various departments after staff return from a training event.

2-1.5 The jurisdiction actively participates in critical reviews of current legislation and in the development of legislative proposals.

The PAAF has a legislative committee whose sole purpose is to keep abreast of upcoming legislation. The committee informs members of proposed legislation, and then seeks guidance from members whether to support or oppose the legislation. The committee does the same with legislation proposals that originate within the PAAF. PAAF reviews the legislation and seeks

guidance from the body as a whole. The BCPAO also reviews national legislation through membership and participation in IAAO.

2-1.6 The jurisdiction regularly meets with and participates in groups concerned with improved legislation.

Along with the shared activities described in the responses above, the Property Appraiser also meets regularly with constituents and concerned organizations. This practice is in keeping with IAAO Standards 8 on Public Relations and 4.7 on Property Tax Policy. For example, the Property Appraiser recently met with veteran groups to discuss new benefits available to veterans. The Property Appraiser also met with the public to explain a tax abatement program available to homeowners whose homes were damaged or destroyed by recent hurricanes.

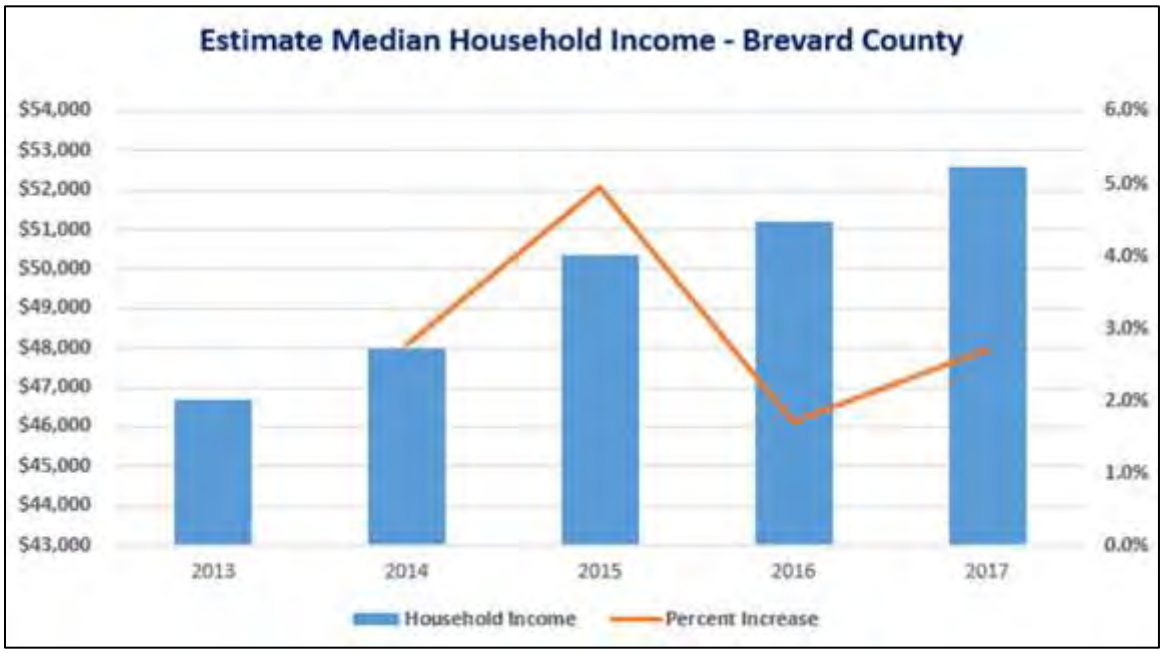
Question 2: Does the jurisdiction regularly monitor the local economy, development patterns, and property market trends?

As requested in Chapter 1, question 1, provide examples of analyses produced by the office or others concerning general trends in markets, the economy, and demography. Statistics should cover the most recent five years. Coordinate answer with question 13 of Chapter 6.

The BCPAO Valuation Department regularly monitors the local economy, development patterns, and real property market trends.

Figure 2-2.1 illustrates that the demographics of median household income steadily rose over the last few years. By tracking the combination of these household income trends and recent unemployment statistics, the BCPAO can deduce that Brevard County's current economy is healthy, and, with the continued increase in space industry employment, this trend is expected to continue.

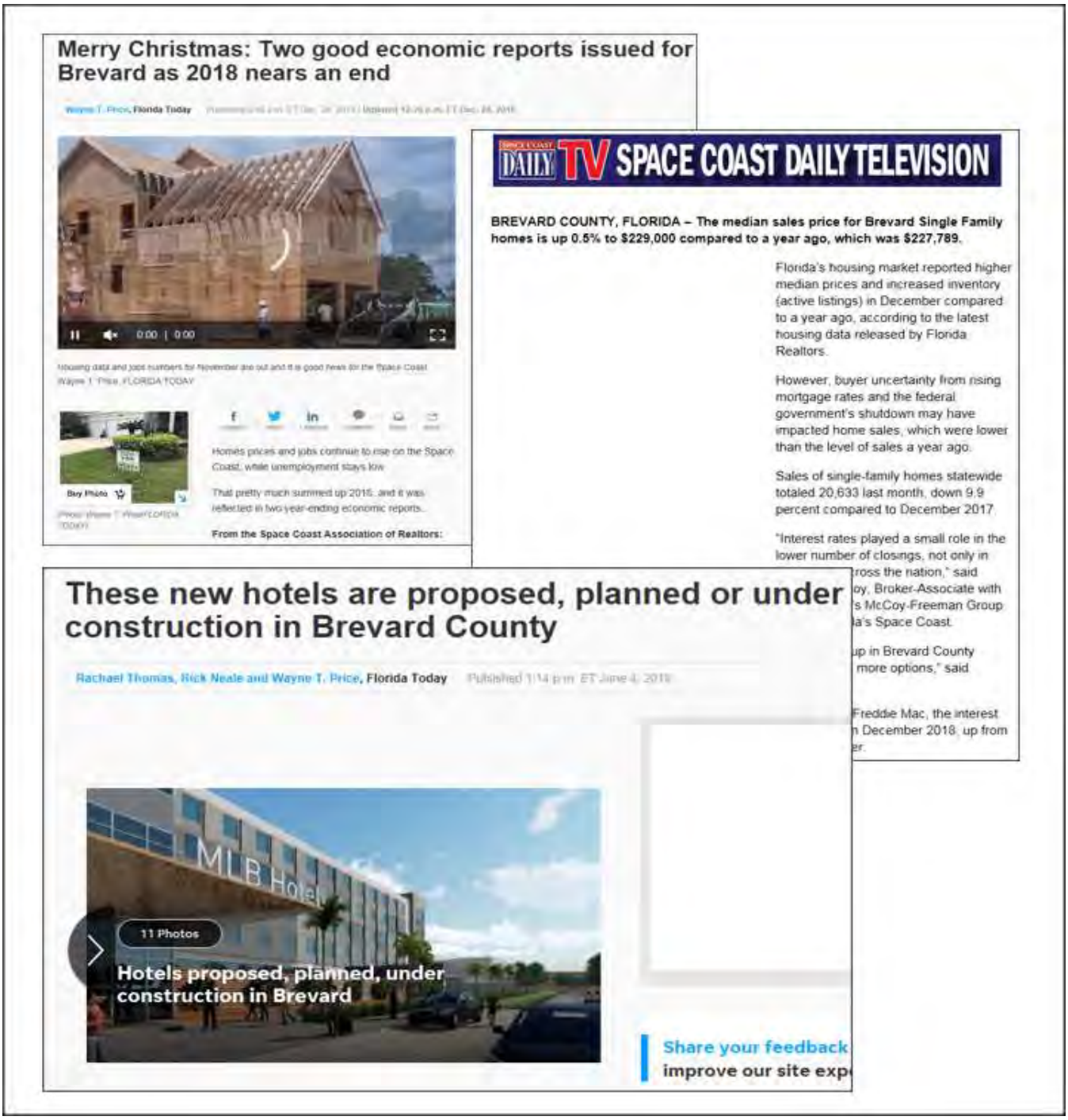
Figure 2-2.1 Median Household Income



Source: Census Bureau

Additionally, the Valuation Department regularly monitors local media reports, whose analysts have conducted their own market research, as seen in Figure 2-2.2. Sometimes these articles point the Valuation Department to additional market data sources. Media reports can also educate taxpayers about market movement, which can help them understand market trends, particularly as they relate to ad valorem assessment changes.

Figure 2-2.2 Media Market Reports



The BCPAO's commercial appraisers prepare market trend reports for office properties (see Exhibit 2-2.1), retail properties (see Exhibit 2-2.2), and apartment complexes (see Exhibit 2-2.3) to develop rates, and for value defense during the appeal period. Source data for these reports include information from RealtyRates.com, IREM, Moody's Analytics, HOST Almanac, STR's Hotel Transaction Almanac, and CoStar.

The Valuation Department also acquires and reviews information on local mobile home parks. Obtaining local data on mobile home parks is difficult due to insufficient sales. Therefore, the BCPAO receives an annual JLT Market Report from Datacomp (see Exhibit 2-2.4). This information has been an excellent source for market rents and occupancy rates throughout the years, and many of these data patterns can be highly correlated with other rental housing options.

Question 3: Does the jurisdiction engage in formal planning?

Furnish a copy of the jurisdiction's current strategic plan. Briefly describe how the jurisdiction implements the plan. (CEAA applicants that do not have a strategic plan at the time of submission will not pass this part of the question.) If the jurisdiction has an operational plan in force, furnish a copy. If the jurisdiction currently has one or more project plans in force (such as for the implementation of a revaluation or the installation of a new computer system), attach a copy of each plan and briefly describe the progress toward realizing it.

The BCPAO engages in strategic planning and maintains an evolving document containing an executive summary, formal mandates, and SWOT analysis. This document describes current office strategies to resolve known deficiencies (see Exhibit 2-3.1).

Operational goals of the office include providing quality service and promoting accuracy, equity, transparency, and professionalism. In addition, the office continues to seek new best practices, process improvements, personnel development, and investment in technology.

Procurement of a new computer-assisted mass appraisal (CAMA) system was the impetus of a major BCPAO improvement project plan from 2013 to 2016. More information on this key acquisition is found later in this chapter.

Question 4: Has the jurisdiction prepared a written estimate of necessary human resources?

Attach copies of recent staffing needs analyses, benchmarks used, including supporting documentation such as benchmark production rate tables or internal analysis for several key, high-volume, labor-intensive tasks.

Include a statement indicating the size of the staff over the previous 5 years and where in the office the growth or reduction of staff has occurred and why.

Prepare a brief description of the current personnel resources for each major function identified in the formal plan (question 3), specify whether these resources are adequate for the tasks, and identify plans for rectifying any deficiencies.

Describe how the reappraisal cycle affects the level of staffing.

The BCPAO has conducted staffing level studies for the two departments that produce work that is measurable and processed consistently by each employee. The first study is an ongoing program in the Field Operations Department, which is responsible for inspecting all real property improvements in Brevard County. The department manager created an Excel spreadsheet to track all field staff, their hours worked, and their production (see Exhibit 2-4.1). This data is used to determine both staffing levels and, in conjunction with a quality control program, disciplinary reviews.

Workload tracking is also used in the Deeds (Title) Department, logging the data entry production of individuals whose tasks relate to processing property ownership transfers. The Property Appraiser set a goal for the Deeds Department to have BCPAO ownership records reflect Clerk of Court ownership records within thirty days. Previous data entry delays were in excess of three months. To determine what constitutes a typical day's work, the Deeds Department manager developed a tracking spreadsheet (see Exhibit 2-4.2). Analyzing data from this spreadsheet revealed that, to meet the new 30-day mandate, the Deeds Department needed two additional data entry specialists and a senior data entry specialist to direct activities.

Figure 2-4.1 summarizes the BCPAO's current staffing. Each department, except for Deeds and Field Operations, has had a consistent level of staffing over the past five years. Deeds and Field Operations departments fluctuate in the number of staff or the amount of overtime work, depending on the local

real estate market activity. In times of increased market activity, these departments experience the immediate effect of increased construction and sales activity, and the Property Appraiser usually responds by allowing overtime pay to meet the short term needs of the two units.

Figure 2-4.1 2019 Staffing Levels

Brevard County - Staffing	
Department	**Staffing Level**
Administration	9
Deeds	6
Field Operations	14
GIS & Cadastral Services	8
Governmental Affairs	3
Homestead Investigations	5
Information/Support Services	10
Tangible Personal Property	6
Taxpayers Services	20
Valuations	18
	99

The BCPAO believes that staffing levels are sufficient for the annual reappraisal cycle, recognizing that there exists times of increased activity which requires a shift in resources or tasks. Two times a year the BCPAO is inundated with customer contacts. The first is from January to March 1: the time period to file for property tax exemptions. In years past, this was an extremely busy time because taxpayers had to physically visit the office to apply for exemptions. Homeowners can now file online from the BCPAO public website, which has significantly reduced foot traffic, overtime, and/or shifting of staff resources (see Exhibit 2-4.3).

The second busy period is mid-August through January, during the appeals period. Within days following the mailing of proposed tax notices to taxpayers, the BCPAO is swamped with phone calls and office visits from taxpayers questioning their assessments during normal operating hours throughout the week. The BCPAO temporarily suspends most deputies' flex time to ensure high-quality service is provided. Appraisal team members are typically stationed at the Titusville office located in northern Brevard or at the Palm Bay office located in southern Brevard. When the appeals process begins, the Valuation Department temporarily relocates at least one appraiser to each of the other three BCPAO

offices to personally assist taxpayers with valuation questions. This ensures each of the five BCPAO offices is staffed with a member of the Valuation Department to respond to customers in those locations.

Question 5: Has the jurisdiction prepared an estimate of necessary physical resources?

Briefly describe the jurisdiction's office facilities, noting the adequacy of office space for staff, the public, and other needs, such as housing mapping and computer equipment.

Briefly describe physical and electronic library resources available to the staff, including textbooks, professional journals, and market surveys and data sources.

Brevard County is responsible for providing constitutional officers with facilities sufficient to carry out their duties. Compliant with IAAO Standard 6.2 on Mass Appraisal of Real Property, the BCPAO has sufficient space for the functions required. The main BCPAO office is in Titusville, the county seat, and occupies one half of floors 3 and 4, and all of floor 5 in a six-story governmental service complex. The BCPAO recently contracted with vendor, American Business Interiors, to upgrade office furniture and redesign workplace layouts on floors 4 and 5. Sufficient expansion capabilities exist on each floor for future growth. Two of the four satellite offices – Viera and Melbourne – are fully staffed and use all available space. The Palm Bay and Merritt Island satellite offices have unused space that can accept future growth.

The BCPAO maintains a physical library of IAAO student reference manuals and textbooks for employees to use in preparation of attending IAAO courses. The Valuation Department also retains a library of assessment-related books and journals that are augmented yearly and is available to the appraisal staff to use for unique appraisal assignments. The BCPAO also subscribes to Marshall and Swift Valuation Service (by CoreLogic). Both current and previous data books are kept in the Valuation Department library for use in current or retrospective appraisal analysis.

The BCPAO subscribes to many third-party data sources that, in the past, provided pre-printed data books, which are maintained in the Valuation Department library for historical purposes. The Valuation Department is now receiving electronic copies from these data sources and storing them in a shared

server environment for all appraisal staff to access. These services include RealtyRates, IRR, PWC, and IREM, to name a few.

Question 6: Does the budgeting process employed by the jurisdiction explicitly consider outputs in addition to inputs so that the prospects of obtaining adequate funding are improved?

Provide copies of approved operating and capital budgets for the jurisdiction for the three most recent years and include the documents that the jurisdiction submitted to budgeting officials and governing bodies justifying funding requests.

Briefly describe whether and how program and performance budgeting concepts were used.

Discuss whether approved budgets are considered adequate, and discuss perceived inadequacies.

If budgetary needs fluctuate with the revaluation cycle, discuss the needs.

The BCPAO is a constitutionally-created agency that has budgetary oversight by the FDOR. Per Section 195.087, Florida Statutes (see Exhibit 2-6.1), and Chapter 12D-11, Florida Administrative Code (see Exhibit 2-6.2), Property Appraisers are required to submit their budgets to the FDOR by June 1 using forms and manner required by the department (see Exhibit 2-6.3). The budget summaries for the past three years are here: for 2016-2017 (see Exhibit 2-6.4); for 2017-2018 (see Exhibit 2-6.5); for 2018-2019 (see Exhibit 2-6.6).

BCPAO budgets represent a strong commitment to update systems and processes, introduce necessary technologies that enhance the accuracy of the mass appraisal process, and reorganize staff to maximize employee productivity and organizational effectiveness. In consideration of the demands in force by the Florida Constitution and the Brevard County Charter, the BCPAO used prudent fiscal prioritization when developing these budgets. The budgets are respectful of the organizations and taxpayers that fund BCPAO operations while investing in the people, processes, and infrastructure that enables the BCPAO to fulfill its mandate and serve as a model government office.

Although the budget is submitted as a line item budget per FDOR rules, the budget is developed using program-based considerations. Each department is designed to fulfill a part of the many statutory duties assigned to the BCPAO. Each department head is responsible for submitting a budget to the Senior Director of Finance Administration that encompasses all needs for the upcoming year. A major focus of department heads is personnel and training. Capital expenditures are handled by the director on an office-wide basis. Department heads are expected to know their departmental needs and use the information from their strategic planning sessions to direct their activities.

The budgets submitted over the last three years have met the needs of the BCPAO. The local real estate market is still strong and it appears that one area of concern continues to be the amount of staff required to conduct timely field inspections. The local permit activity has increased to the point where discussions are held on whether to hire more staff or continue using overtime. The Field Operations Department manager has tracked production as discussed in the answer to question 2.4 above. Once this tracking is complete, the manager will determine permanent staffing levels.

The BCPAO budgetary needs do not fluctuate with the revaluation cycle.

Question 7: Is the jurisdiction well-organized?

Provide the jurisdiction's organizational plan, including a current organization chart, position descriptions, and other documentation describing lines of communication, responsibilities, and authority. Describe when and how these materials are reviewed and updated.

The Property Appraiser is the chief officer elected by Brevard County voters, and has four direct reports: the Senior Director of Finance and Administration, the Director of Governmental and Public Affairs, the Chief Deputy Property Appraiser (see Exhibit 2-7.1), and Executive Assistant. Human Resources catalogs over 60 unique positions that the BCPAO has defined and uniformly documented, each containing such items as job summary, requirements, department, pay grade, and so on (see Exhibit 2-7.2).

The Senior Director of Finance and Administration manages human resources, finance, and office administration functions. In keeping with IAAO Standards 4.7 on Property Tax Policy and 3.1 on Public

Relations, the BCPAO employs a Director of Governmental and Public Affairs. This employee manages the public outreach process, legislative initiatives, and any Freedom of Information Act (FOIA) requests. The Chief Deputy oversees seven directors and managers who supervise all areas of the appraisal process and the technology that supports that process.

The BCPAO organizational structure is monitored throughout the year to take advantage of new ideas and improvements to work processes. A recent example of this was the separation of the Deeds Department from the GIS and Cadastral Services Department. Administration determined that the ministerial duties of data entry were significantly different from the advanced technical duties of GIS professionals. Because these data-entry specialists were performing functions more akin to tax roll maintenance, the Deeds Department was put under the authority of the Tax Roll Administrator.

Question 8: Is the staff well-managed?

Briefly discuss the agency's approach to the following practices, and provide policy and procedural documentation.

- Merit-based selection and promotion
- Up-to-date written procedural documentation
- A workflow management system (see Chapter 3)
- Up-to-date, written personnel policies
- Regular management and staff meetings
- Regular performance reviews
- Evenhanded administration of progressive disciplinary procedures
- Compliance with equal employment opportunity (EEO) laws
- Sexual harassment policies.

The BCPAO staff is well managed. To communicate appropriate standards of action and behavior, BCPAO maintains a Policy & Procedures manual that acquaints deputies with their general rights, benefits, and responsibilities. This manual is available on the BCPAO's intranet site as shown in Figure 2-8.1.

Figure 2-8.1 Policies & Procedures Intranet Page

The current administration changed the paradigm of "hire managers based on technical skills" to "hire managers with broad managerial expertise". To accomplish this – and, in keeping with IAAO Standard 3.2 on Professional Development – the BCPAO partnered with Brevard County to enroll certain employees in their Executive Leadership program developed by the County for their management team. In this 18-month program, employees learn management theory, team building, coaching and counseling and networking skills. Both current and prospective managers and directors are sent through this program.

In 2018 BCPAO contracted with Evergreen Solutions (Evergreen) to conduct a classification and compensation study of positions in the organization, with emphasis on establishing pay bands and equitable salary comparable to other county offices and positions (see Exhibit 2-8.1). During this study, Evergreen helped revise job descriptions for many positions within the BCPAO to include levels, such as Field Evaluator I, Field Evaluator II, and Senior Field Evaluator. In conjunction with IAAO Standard 6.1 on

Professional Development, the BCPAO department managers revised entry-level qualifications. Additionally, each description now includes the essential job skills that must be mastered before advancement to the next level is considered. Job description criteria are objective and quantitative to reduce potential for favoritism or misuse. The study provides a pay classification system that, when used in conjunction with recently revised job descriptions, allows for incremental advancement for staff as their careers progress.

The BCPAO has five offices distributed throughout the county with the farthest (Palm Bay) located 75 miles south of the main office in Titusville, which is located in northern Brevard. Communication issues have always existed between the offices resulting in some offices not receiving timely information. Moreover, management discovered that employees were performing the same tasks differently in different offices. To alleviate this, the BCPAO recently contracted with a vendor, Alluvionic, to help with process management. The first documentation dealt with the processing of property tax exemption applications. The vendor helped create an instruction document that is now used consistently throughout all five BCPAO offices. This document doubles as a training tool for new employees. Alluvionic is currently working with appraisal staff to document processes within the Valuation Department such as property splits, combinations, and tax roll corrections.

The BCPAO has recently added a position to the Human Resource Department to help with the administrative tasks of the departmental manager. The Human Resource Manager is a member of the Society for Human Resource Management (SHRM) and is certified through that association. As part of the certification process, the manager began updating all existing personnel processes and creating new documentation with oversight by a contracted labor attorney to ensure proper application of pertinent law. Managers and directors are also kept abreast of current human resource issues, with this attorney providing seminars for staff, including any recent information on sexual harassment policies. The attorney also works closely with the human resource staff to address issues involving compliance with the many federal and state worker protection statutes and equal employment opportunity laws. The Human Resource Department ensures that discipline is consistent throughout the organization, after upper management recently discovered that a couple of managers handled a particular infraction differently, confusing employees and reducing morale. Now, managers are required to consult with the Human Resource Department prior to performing any disciplinary actions.

While informal interdepartmental meeting between managers can happen as needs arise, the BCPAO regularly schedules several types of management meetings. The first and most frequent is the weekly administrative meetings between the Property Appraiser and senior management that keep upper-level management informed of major office activities. Quarterly meetings are held with directors and managers to discuss departmental status and for administration to convey information that affects the entire staff.

Every October, all five BCPAO offices close for a full-day "all-hands" meeting held in one location to discuss the general scope and direction of the BCPAO for the upcoming year. This assembly allows face-to-face meetings with deputies who routinely communicate via email and telephone, but rarely meet in person. Since this meeting is held right before the annual health benefits enrollment period, a Brevard County Employee Benefits representative provides information about any upcoming benefit changes. The afternoon period includes a breakout session in which departments meet to resolve communication issues and streamline processes.

Newly hired staff are placed on a 90-day probation period and given reviews every 30 days. Once placed on full-time status, they, along with all other staff, receive a formal annual review supplemented with intermittent coaching and counseling as needed. The BCPAO uses a web based performance review program called Cornerstone. It standardizes the steps in a performance review and provides analytics for management to use in determining the effectiveness of the process.

Question 9: Do the members of the staff have the right set of skills and experience?

Provide position descriptions that include professional education and experience requirements
Provide budgetary evidence of support for appropriate continuing education and training for staff.
Provide data on the average length of service and the range of service for different types of employees.

Through the hiring process, training, and continuing education incentives, BCPAO directors, managers, and Human Resource Department ensure that all staff members have the right set of skills and experience for their jobs.

Position descriptions that require professional education and experience include deputies in the Valuation, GIS/Cadastral, Information/Support Services and Administrative departments (see Exhibit 2-9.1). The BCPAO annually budgets for continuing education, technical training, and educational requirements for attaining professional designations (see Exhibit 2-9.2).

Figure 2-9.1 presents a table listing the number of staff in each department, the average length of service for that department, and the range of service. These numbers only indicate the length of service as a BCPAO employee, and do not account for other relevant experience.

Figure 2-9.1 Staff Numbers and Service Time

BCPAO - Length/Range of Service			
Department	**No. of Staff**	**Ave Service Length**	**Service Range**
Administration	9	13 years	1 month to 34 years
Deeds	6	2 years	7 months to 4 years
Field Operations	14	7 years	2 months to 25 years
GIS/Cadastral	8	12 years	4 months to 31 years
Governmental Affairs	3	18 years	13 years to 23 years
Homestead Investigations	5	5 years	1 month to 6 years
Information/Support Services	10	14 years	1 month to 25 years
Tangible Personal Property	6	15 years	1 year to 33 years
Taxpayer Services	20	12 years	1 month to 32 years
Valuations	18	14 years	2 months to 34 years

Nearly half (45) of the BCPAO staff hold office-supported licenses, designations, and certifications in such areas as appraisal, GIS, mapping, and human resources (see Exhibit 2-9.3).

Thirty-seven staff members, including those from the Valuation Department, Field Operations Department, and TPP Department, hold Certified Florida Evaluator (CFE) credentials offered by the FDOR, with the remainder in those departments actively pursuing this certification. Requirements for the CFE include two years' experience and successful completion of four IAAO courses, including Course 101 (Fundamentals of Real Property Appraisal) and Course 102 (Income Approach to Valuation).

The BCPAO's Chief Deputy, top appraisers, and other senior staff hold one or more IAAO designations including the Certified Assessment Evaluator (CAE), Assessment Administration Specialist (AAS), Residential Evaluation Specialist (RES), and/or a Florida Certified General Appraiser or Florida Certified Residential Appraiser license.

Four staff members hold the Certified Cadastralist of Florida (CCF) offered through the Florida Association of Cadastral Mappers (FACM), and one holds the Geographic Information Systems Professional (GISP) designation offered through the Urban and Regional Information Systems Association' (URISA) Geographic Information Systems Institute (GISCI). CCF requirements include employment at a Florida Property Appraiser's office and successful completion of IAAO Course 600 (Principles and Techniques of Cadastral Mapping) and Course 601 (Cadastral Mapping - Methods and Applications), along with four FACM courses: FACM 01 (Mathematics for the Cadastralist); FACM 02 (The Public Land Survey System); FACM 03 (Interpretation of Real Property Descriptions); and FACM 04 (Basic Map Compilation).

Active participation in local chapters and user groups is encouraged and supported. BCPAO staff members participate as committee members of various professional organizations, and regularly attend conferences such as those offered by IAAO, FACM, and others. The BCPAO pays all membership, conference, and professional fees to ensure a very high level of expertise and professionalism in all areas.

Question 10: Are salaries and benefits competitive?

Provide a salary schedule and any analyses of how jurisdiction salaries compare with those of comparable jurisdictions. Discuss how the salary levels are compared. Provide evidence of the adequacy of salaries and benefits with recent human resource, consultant, or professional organization surveys.

State any salary incentives for professional certifications, designations, or other ways to improve technical proficiency.

Provide the annual turnover ratio for the past five years for each class of employee. Discuss any reasons for loss of staff.

As discussed in Question 8, the BCPAO contracted with Evergreen Solutions to conduct an equity-pay study. This was the result of an analysis of the current pay structure that identified several shortcomings, the most blatant being the lack of pay bands. Evergreen was hired to review the current salaries for equity and to provide recommendations to develop a pay band system.

Evergreen directed the BCPAO to rank jobs in terms of their contribution to the success of the organization through a job analysis tool (JAT). The JAT ranked jobs on five factors with the highest rankings reflecting the most demanding jobs. Once this was completed, the pay bands were developed by grouping similar JAT scores and salaries. The result was a salary schedule, implemented in 2018, and scheduled to be reviewed every three to five years (see Exhibit 2-10.1). The study also indicated that there were areas of concern in regards to whether or not salary levels for some jobs were competitive with the market. Although Evergreen provided recommendations based on their own 2018 professional market research and surveys (see Exhibit 2-10.2), these concerns will be addressed in future studies with the vendor.

Florida law limits certification pay for FDOR-certified Property Appraisers to $2,000 per year (see Exhibit 2-10.3). This limit is also applied to any employee regardless of the number of certifications.

Staffing level over the past five years has been right at 100 employees. The BCPAO has experienced very little turnover in most departments except for Field Operations and Taxpayer Services. Both of these sections are the entry point into BCPAO employment and, as such, offer the lowest salaries. As a result, the BCPAO is finding it harder to retain these lower-salaried employees, especially in light of the nearby booming space industry with higher-paying administrative and support jobs.

Question 11: Are skills in procurement and contract management sufficient?

List any services that are contracted.

Describe and provide evidence that demonstrates the office management's procurement and contracting skills.

If internal sources are insufficient, describe how the assessment office acquires contracting and procurement services.

Regarding statutory duties, the BCPAO performs all tasks without contracting out functions. However, the BCPAO uses vendors to provide non-valuation services such as network security, aerial photography, and CAMA support. In addition, the process-improvement contract with Alluvionics was discussed in a

previous response. The BCPAO also contracted with Tax Management Associates to conduct audit services for the exemption tax roll. This contract will be discussed in the response to Question 12.

With respect to procuring an improved service for any insufficient system, the BCPAO knew the antiquated CAMA system needed replacement. The heavily-patched and undocumented program was originally developed in 1968 and maintained in-house at great cost. In 2013, the newly-elected Property Appraiser created a committee to develop a request for proposal (RFP) for a new CAMA system (see Exhibit 2-11.1). This was the first time BCPAO management produced an RFP. The committee directed each department head to provide specifications required for the new system, and those provisions were gathered together and submitted into one document. The committee then posted the RFP and reviewed vendor responses. The committee chose four vendors to provide live presentations and, from those demonstrations, chose Patriot Properties, Inc. as the new CAMA vendor.

Question 12: Are exemption and other property tax reduction measures well-managed?

Briefly describe the jurisdiction's programs administering exemptions and other property tax reduction measures. Note any particular challenges and successful initiatives.

The BCPAO administers property tax exemptions for property owners and non-profit organizations through requirements set out in Chapter 196 of the Florida Statutes. Personal exemptions are exemptions that are given to property owners based on their personal circumstances such as resident status, disability, income level, age, etc. Out of the approximate 350,000 parcels in Brevard County, about 160,000 have some type of personal exemption. Taxpayer Services deputies, trained to review applications for compliance with pertinent law, process these exemptions. Recently, Taxpayer Services completed a review of their instruction manual and, with the assistance of Alluvionics, developed an enhanced, comprehensive reference guide (see Exhibit 2-12.1).

Once processed, the BCPAO is responsible for ensuring that only qualified applicants maintain a personal exemption. Florida statutes require that properties that receive a personal exemption are used

exclusively by the owner. Rental of the property is not allowed and will result in the removal of the exemption. The personal exemption in Florida is also contingent on the owner being a Florida resident. If someone receiving a personal exemption in Florida is also receiving a tax benefit in another jurisdiction that requires residency, the Florida exemption is removed.

The Homestead Investigations Department is charged with ensuring compliance with these rules, but does not have the resources to check all existing exemptions for corresponding exemptions in other states. To accomplish this, the BCPAO has contracted with Tax Management Associates (TMA) to conduct audits looking for these types of issues. TMA partners with Lexis-Nexis to search their databases and provide leads to individuals who have exemptions in both Brevard County and in other states. This program has been widely successful in recovering hundreds of thousands of dollars each year as a result of payment of liens against property receiving unqualified exemptions (see Exhibit 2-12.2).

The BCPAO administers property tax exemptions for governmental and non-profit organizations in a similar fashion to the personal exemptions, except that the auditing is done in-house. There are approximately 2,500 properties that receive a non-profit type exemption, and those properties are tracked using normal field inspections and documents recorded in the public records.

Question 13: Is the quality assurance program of the jurisdiction adequate?

Briefly discuss whether and how the jurisdiction approaches the following quality assurance measures. A not applicable answer may be acceptable if a reasonable explanation is provided as to why the program or practice is not applicable to the jurisdiction. Include statistical reports and any other documentation that are a part of these programs or practices as exhibits. Describe how the adequacy of quality assurance program is evaluated.
1. Staff recruitment, selection, and training reinforce quality assurance.
2. Staff is required to adhere to ethical standards. The office provides needed guidance and deals promptly and effectively with ethical problems.
3. The office's organization reinforces quality assurance.
4. The office's computer system design reinforces quality assurance.
5. Standards of performance are formalized.

Briefly discuss whether and how the jurisdiction approaches the following quality assurance measures. A not applicable answer may be acceptable if a reasonable explanation is provided as to why the program or practice is not applicable to the jurisdiction. Include statistical reports and any other documentation that are a part of these programs or practices as exhibits. Describe how the adequacy of quality assurance program is evaluated.
6. Procedures are documented.
7. Data maintenance programs reinforce quality assurance.
8. Data security procedures reinforce quality assurance.
9. The valuation program reinforces quality assurance.
10. Valuation accuracy is monitored regularly using a flexible ratio study program.
11. Procedures for administering exemption and relief measures reinforce quality assurance
12. Management communicates quality assurance expectations.
13. Management takes appropriate corrective action when potential or actual quality problems surface.
14. The office listens to taxpayers and other stakeholders.
15. Management periodically assesses risks.
16. Management periodically commissions procedural audits.

Quality Assurance	Applicable (Y/N)	Present (Y/N)	Adequate (Y/N)	Comment
Staff recruitment, selection, and training reinforce quality assurance.	**Y**	**Y**	**Y**	Jobs are posted using national posting boards to attract the most candidates. Job descriptions accurately reflect job duties. Sufficient funds are available to encourage staff to obtain appraisal licenses and designations.
Staff is required to adhere to ethical standards. The office provides needed guidance and deals promptly and effectively with ethical problems.	**Y**	**Y**	**Y**	The BCPAO has developed standards of behavior as part of the Deputy Manual. Each employee is required to follow these standards.

The office's organization reinforces quality assurance.	**Y**	**Y**	**Y**	The organizational structure of the BCPAO provides an effective conduit for the dissemination of information and the ability to cross-check between departments.
The office's computer system design reinforces quality assurance.	**Y**	**Y**	**Y**	The current CAMA system relies heavily on the use of predetermined data entry options. This ensures data consistency and prevents human error.
Standards of performance are formalized.	**Y**	**Y**	**Y**	The BCPAO is currently working with a vendor, Alluvionics, to review all procedures for each valuation-related department.
Procedures are documented.	**Y**	**Y**	**Y**	Same as above.
Data maintenance programs reinforce quality assurance.	**Y**	**Y**	**Y**	The CAMA system provides query filters to discover errors and inconsistencies.
Data security procedures reinforce quality assurance.	**Y**	**Y**	**Y**	SecureWorks protects BCPAO networks from external attacks.
The valuation program reinforces quality assurance.	**Y**	**Y**	**Y**	The CAMA system runs edits to discover errors and inconsistencies. Statistical analysis is performed regularly to ensure compliance with applicable regulations.
Valuation accuracy is monitored regularly using a flexible ratio study program.	**Y**	**Y**	**Y**	The Valuation Department develops several edits to produce revealing statistics throughout the appraisal cycle (see Chapter 7).
Procedures for administering exemption and relief measures reinforce quality assurance	**Y**	**Y**	**Y**	Staff is well trained to administer exemptions. The BCPAO uses vendor TMA to review existing exemptions for compliance.
Management communicates quality assurance expectations.	**Y**	**Y**	**Y**	The BCPAO conducts quarterly meetings among administrative staff, managers, and directors and annually with employees as a group. Expectations are discussed at each of these gatherings.

Management takes appropriate corrective action when potential or actual quality problems surface.	**Y**	**Y**	**Y**	All edits are reviewed by managers/directors for adherence to expectations. Management has authority to implement changes to processes and procedures to ensure a quality product.
The office listens to taxpayers and other stakeholders.	**Y**	**Y**	**Y**	The Property Appraiser has an extensive outreach program using in-person speeches, website comment submittals, and paper comment cards.
Management periodically assesses risks.	**Y**	**Y**	**Y**	The BCPAO is located on the east coast of Florida, which is very susceptible to hurricanes. The office has general procedures in place to mitigate minor damage to operations, but has no plan if a catastrophic event were to take place. As a tenant in a county-owned building, the BCPAO is forced to leave that level of disaster planning to the County Commissioners Office and the Emergency Operations staff.
Management periodically commissions procedural audits.	**Y**	**Y**	**Y**	Alluvionics is currently reviewing valuation and exemption processes; TMA is reviewing exemptions.

EXHIBITS – Chapter 2

Chapter 3

INFORMATION TECHNOLOGY

Question 1: Does a modern database management system with its expected services and interfaces underlie the assessment system?

Describe how procedural and systems documentation relate to one another and provide samples including at least the tables of contents.

Characterize the automated edits in place in the jurisdiction, including range edits, cross-field edits, required entries, forced choices, and any other notable features.

Indicate whether other software systems or subsystems e.g. for statistics, sketching, GIS, reporting, government revenue management, document management, or scheduling, are present and either part of or integrated with the database system. List them and note any procurement issues in this regard.

Describe the backup and recovery provisions in place for the office's systems.

Briefly summarize the extent to which staff in various roles and other offices of government are authorized access to the system for purposes of creating, reading, updating or deleting information of various types.

Indicate whether information is received from sources outside the office in an optimally efficient way and whether any steps are underway to improve such transfers, either in batch mode or real time.

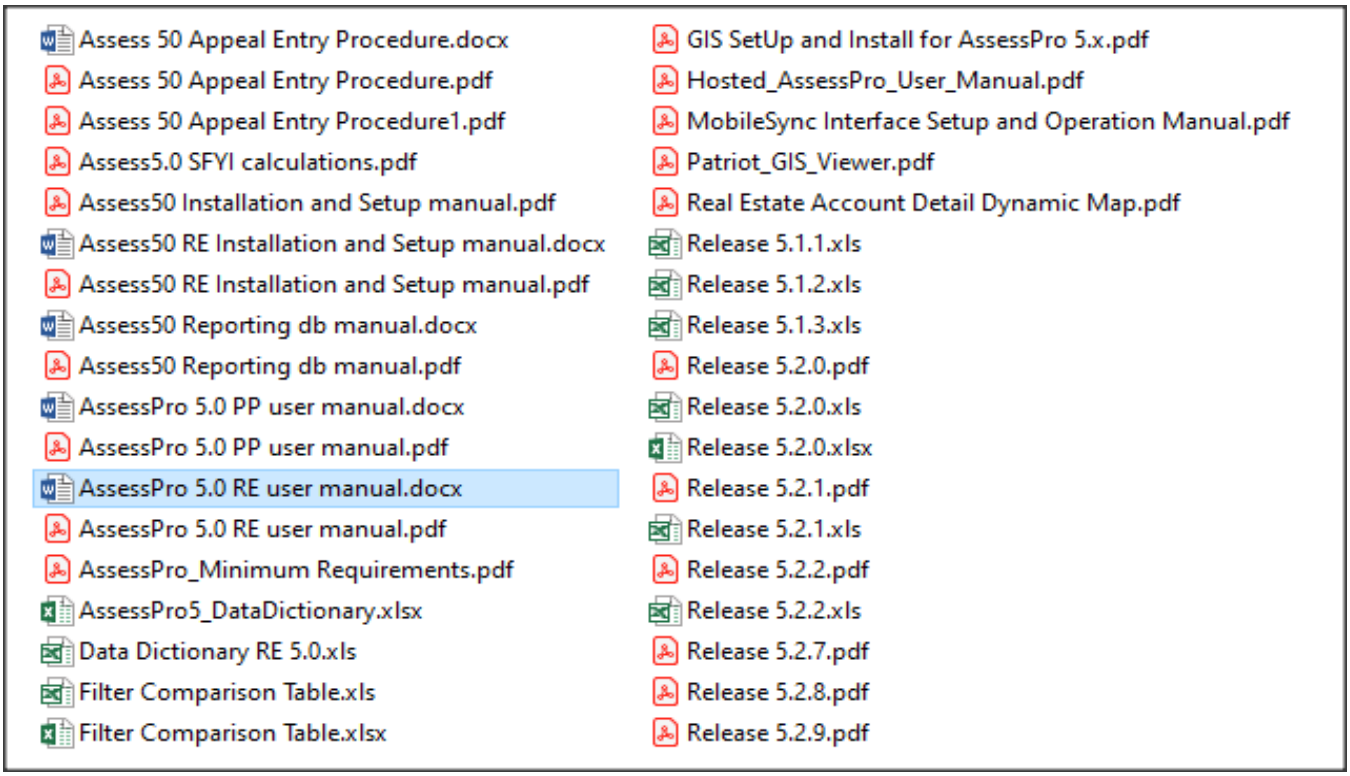
Provide a network diagram and indicate the annual systems maintenance costs and what percentage of the budget is earmarked for IT.

Describe any virtualization or cloud services being considered or contracted, the vendors involved, and the motivation for such initiatives.

The BCPAO's AssessPro version 5 (AP5) CAMA system by Patriot Properties uses a modern Microsoft SQL Server database accessed through a graphical user interface (GUI) built using current Microsoft C# technology.

Extensive documentation covering all AP5 functionality is stored on a shared network drive, accessible by all users. User manuals exist in Microsoft Word, Adobe PDF, and Microsoft Excel formats, and are broken out into functional areas as shown in Figure 3-1.1.

Figure 3-1.1 AssessPro List of User Manuals



These manuals and documentation comprise several hundred pages of information including installation documentation for the Information Systems (IS) Department (see Exhibit 3-1.1). Users can also view the manuals directly from CAMA.

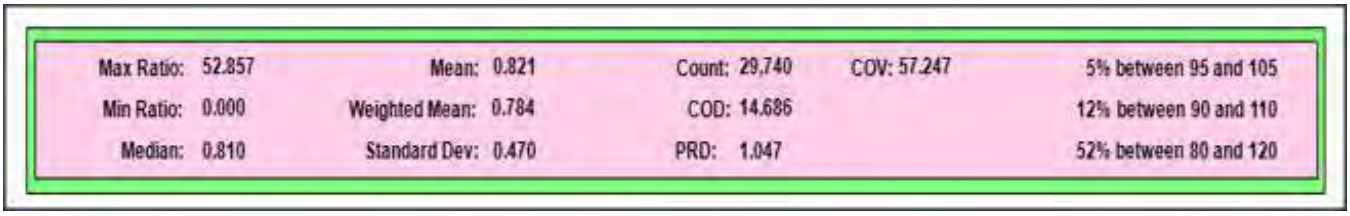
The BCPAO configured CAMA so that certain fields must be populated on distinct screens before a save action can be completed. If users attempt to save a record with a missing required field, the system provides a warning message indicating which field or fields must be populated before the save action can complete. CAMA administrators can configure any data entry field to have a minimum and maximum value on quantitative fields, or provide a warning message when a user attempts to save a record that has a quantitative value beyond the recommended range. Other qualitative data elements are required but do not set a high or low range. For example, building quality must be populated on a building record before a user can save the changes.

Based on configurable security roles, the Senior Director of Information Systems can limit access to certain screens, functions, and individual data entry items to reduce the number and scope of data entry errors.

The CAMA reporting program is integrated within the database management system (DBMS) and includes more than 1,500 Crystal Reports provided by the software vendor to which the IS Department adds custom designed reports to meet specific reporting needs.

Most of the analytical reports include many standard statistical measures: record count, minimum, maximum, median, mean, standard deviation, etc. Figure 3-1.2 shows a sample AP5 report containing statistical measures such as coefficient of dispersion (COD), coefficient of variation (COV), price-related differential (PRD), etc.

Figure 3-1.2 AP5 Statistical Report



Max Ratio:	52.857	Mean:	0.821	Count: 29,740	COV: 57.247	5% between 95 and 105
Min Ratio:	0.000	Weighted Mean:	0.784	COD: 14.686		12% between 90 and 110
Median:	0.810	Standard Dev:	0.470	PRD: 1.047		52% between 80 and 120

The reporting engine is extended by an extract component that pulls information out of the CAMA database as opposed to just printing or sending to an Adobe PDF file. The extracts leverage the Microsoft Office suite to generate text, spreadsheets, database files, and database connections for information stored in CAMA.

The filtering tool in AP5 refines the selected parcel set by performing comparisons on more than 1,500 database fields (see Exhibit 3-1.2). Default and custom saved filters are available in both the reporting and extract tools.

The original CAMA procurement was for a fully-integrated system with built-in building footprint sketching (SketchPro). However, SketchPro has not yet reached a level of maturity on par with Apex (third-party sketch software), so the BCPAO chooses to remain with Apex for now. The BCPAO is now working with both vendors to automate pushing sketch data from Apex into AP5.

Appraisers with ArcGIS licensing can access basic geographic information in AP5 via the GISPro component. Users can view and create basic map projects as well as edit the CAMA database spatially

based on their permissions level. Additionally, AP5's built-in MapWINGIS tool provides a small subject-property locator map to all users as they navigate the system (see Exhibit 3-1.3).

Several other built-in AP5 tools exist that do not require special licensing, but do necessitate configuration: a document links tool to tie CAMA to the document management system, workflow management, in-app messaging, and parcel linking to popular online map sites such as Google Maps, Bing Maps, Yahoo Maps, etc.

The BCPAO continues to work with the CAMA vendor to implement new online-filing systems for residential homestead and personal exemption filings (aka Online Homestead or OLH) as well as TPP online tax return filing (aka Online Filing System or OFS). OLH replaced the BCPAO legacy system composed of two separate programs for accepting applications. All applications for residential exemptions are now taken through OLH, including those taken by the Taxpayer Services department and front counter staff.

OFS is much further behind in priority with the vendor. The BCPAO's peers in Florida are working with the vendor to alpha/beta test OFS, and the BCPAO is currently in initial testing. The BCPAO hopes OFS is ready for the 2021 return period when it is expected that a large number of over 50,000 TPP account holders will begin using the new system.

The BCPAO has not yet explored several integration points between AP5 and third-party vendors including Spatialest, Pictometry, and iLookAbout GeoViewPort.

The BCPAO's servers are backed up using StorageCraft ShadowProtect software and consist of a base image and continual chain of incremental backup images. Daily incremental backups are kept for seven days and then rolled into weekly backups which, in turn, are rolled into monthly backups kept for one year for systems with important data. Data can be retrieved from any of the consolidated points in the chain and the entire server can be brought back to a point-in-time "bare metal" restore if necessary.

The IS Department maintains three fully-functional AP5 systems for CAMA: production (PROD), testing (TEST), and next release (NEXT). Any hotfixes or changes intended for PROD are run through TEST and

validated by appropriate departments before getting released to PROD. NEXT is for testing the next release of AP5.

The database servers are in-house virtual servers, with three-host failover automation. There are SQL Server jobs enabled for a full daily backup with transaction log backups every 15 minutes during business hours. Database backups and transaction log backups are part of the BCPAO's disaster recovery protocol as well.

The BCPAO staff of approximately 100 users are separated into functional groups and assigned to a security role for database and CAMA system access. The Senior Director of Information Systems configures the security roles to match the read/write requirements for each group (see Exhibit 3-1.4).

The highest level of permissions is reserved for the "admin" (administrator) security role in the CAMA system, which permits full read, write, and delete access on all screens within the application, including editing security roles for other users. Very few users belong to this role. At the other end of the permissions spectrum is the "read only" security role, which IS Department personnel originally created to allow only read access to a limited number of screens in AP5. This role has since been eliminated and replaced with a more focused approach to user-access whereby users view more data screens without editing ability. The BCPAO cadastral mappers, for example, have roles in the system to view nearly every screen in CAMA, but they cannot edit any appraisal data.

The security system within AP5 allows the BCPAO to further hide fields from screens based on security role. For example, Social Security Number (SSN) on the ownership screen is hidden for all security roles except for those with permission to view that specific field. This feature adds desired granularity to the security protocols.

Other governmental entities do not have direct access to AP5. However, certain government entities authorized by the BCPAO have privileged access to certain potentially sensitive (but not confidential) information through the public website via an Internet Protocol (IP) address white list. There is also an abundance of GIS and CAMA data on the BCPAO website that is downloadable for free. The BCPAO public website provides a wide range of functionality to search, view, and download results returned

from ad-hoc user queries. Detailed building, sale, valuation, exemption, address, and ownership data are available through the public website, which is updated daily from CAMA through a proxy server for added network and database security.

The BCPAO, in general, loads large amounts of bulk data into the CAMA system from external databases efficiently, and performs operations to clean that data before it impacts production data. These data loads are automated through SQL Server jobs that execute on a schedule that the IS Department has configured, and consist of SQL (structured query language) statements and DTS (data transformation service) jobs. The three largest external data sources are the monthly data load of county and municipal permits, the weekly data load of county master parcel addressing, and the annual non-ad valorem data from other governmental agencies.

Additionally, OLH documents are placed in a holding area within CAMA for staff review, eliminating the need for excessive data entry.

One large data source the BCPAO is currently exploring is ownership transfer documents (deeds) from the Clerk of Courts. The Deeds Department currently works all transfers by hand without any automation. This time-consuming and labor-intensive data-entry work entails significant cost and effort. Automating segments of this process would help shorten the period between when the Clerk of Courts records the transaction, and when the transaction appears in BCPAO records, and on the public website.

The IS Department's network diagram of the BCPAO reveals the complexities involving linking multi-floor and satellite offices (see Exhibit 3-1.5).

The 2019-2020 systems maintenance cost for the BCPAO's IS Department was approximately $350,000, representing 25 percent of the 2019-2020 operating budget and 3.9 percent of the total budget.

At this time, the BCPAO is not planning additional virtualization or cloud services for the CAMA system.

Question 2: Does the database improve quality and minimize potentially inconsistent redundancies?

Provide evidence from the data dictionary of data normalization and standardization.

Identify any standards to which the database schema deliberately conforms, including those from IAAO standards and those promulgated by oversight agencies, GIS agencies, or other bodies.

If applicable, note any areas in which it would be beneficial to develop further database standards.

The CAMA database improves quality and minimizes redundancies through the extensive use of foreign key relationships and other standard normalization techniques. For example, the Owners table maintains an internal primary key for each unique combination of ownership name which is a foreign key to the relationship table, PropertyOwners. The PropertyOwners table has a foreign key to the primary key in the Properties table. In this manner, the Properties table has a many-to-many relationship to Owners using foreign keys. This type of relationship is the foundation of the CAMA database.

The CAMA database includes 275 lookup and cross reference tables with foreign key relationships to other tables within the system. Parcel attributes assigned to buildings, land, yard items (yard items are improvements that are not part of the main structure, and include such things as tennis courts, light poles, sheds, swimming pools, etc.), and parcel descriptions, for example, rely on these lookup tables for information. Very few free-form text fields in the database exist on the parcel level, and those are reserved primarily for notes that are otherwise not typically candidates for foreign keys or lookup data.

By restricting available values and removing free-form text fields, the BCPAO ensures that data remain consistent and correct. Each record in the lookup tables includes an identification key (a short code), and both a short and long description clarity.

In keeping with IAAO Standards 3 and 3.3.1 Mass Appraisal of Real Property, the BCPAO CAMA database features storage and processing capabilities of relevant sales, cost, and income and expense data, as well as other factors that significantly affect market and assessed valuations.

The BCPAO uses a variety of built-in AP5 audit tools as well as many tools developed in-house to identify areas that need analysis for data consistency.

Question 3: Does the database enable added functionality?

Briefly describe what modules interact with the data management system, including how the functions in the standards on Mass Appraisal of Real Property, Verification and Adjustment of Sales, and Ratio Studies are performed.

Indicate whether such modules are provided from third party sources and the cost/benefit considerations involved in opting to integrate or forego such capabilities for the office.

If outside modules are used, indicate whether their acquisition was influenced by the Standard on Contracting for Assessment Services.

The CAMA database enables added functionality. Being a SQL-compliant database also provides the ability to create custom modules and programming. The BCPAO currently has an import process for county and municipal building permits and annual appeals that writes data directly to the CAMA database for review. There is also an OLH process that accepts an application and places it in a staging area for review. Once the reviewer approves the application, it is automatically applied to the record.

These two modules are outside the scope of real property valuation and sales, and, thus, do not lend themselves to the IAAO standards suggested in the criteria above. Additionally, the modules were not provided from third party sources, but do provide an enormous benefit to the organization and public, especially the OLH process, which is further described in other chapters in this report.

The BCPAO is implementing a third-party module from ESRI Canada (Environmental Systems Research Institute) called ESRI Assessment Analyst (EAA) for desktop reviews of properties (EAA is detailed in Chapter 6). The software will communicate directly with AP5. Before contracting with the vendor and acquiring the software, the BCPAO adhered to several recommendations offered in the IAAO Standard on Contracting for Assessment Services, including Standard 3.2 (Qualifications), Standard 4.2 (Contract Provisions), and 5.2 (Planning and Review), among others.

Question 4: Do the database tools provide for modern support for temporal and spatial variables?

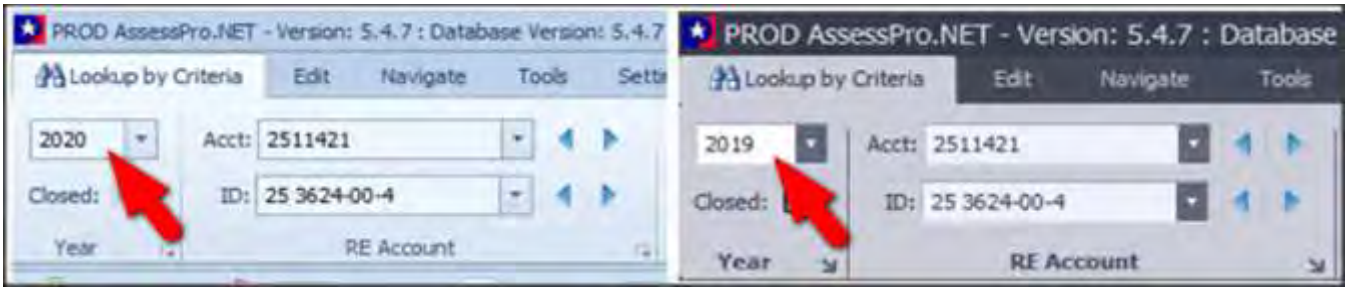
Characterize the ability of the database to transparently handle data entry and updating for past, current, and upcoming tax years and the need of the users to separately activate separate tables to do so.

Indicate how readily queries can be made to retrieve data based on locational/spatial relationships, such as buffers or travel times, rather than being limited to predefined neighborhoods previously coded in the database.

Explain how the requirements of the relevant IAAO standards are met.

The database tools provide for modern support for temporal and spatial variables, and AP5 users can open as many tax years for editing as they like. CAMA administrators can limit users to work within specific database years based on their security role. An additional measure ensuring that users are aware of the roll year they are working on is built in to the AP5 user interface, which enables an administrator to set a different color scheme for each year, as illustrated in Figure 3-4.1.

Figure 3-4.1 AP5 Color Scheme by Roll Year



All information saved within the database is timestamped and can be retrieved from the system based on the date it was committed. All records are stored as inserted records in the database tables as opposed to deletions or updates of records in place. In other words, every change to the data results in a new database record rather than overwriting existing records. This prevents data loss and allows recovery of all data elements at any point in time. Additionally, the BCPAO has the ability to code land, buildings, and yard items with georeferenced coordinates in the CAMA database, but the office has not yet implemented this functionality.

Because most of the database is organized into related tables within the CAMA system, the database type is a relational database management system (RDMS), as defined in the IAAO Standard on Data Quality. This database scheme allows users to identify data in relation to other data. The BCPAO strives to adhere to the four principles of data quality (accuracy, currency, consistency, and completeness) as described in IAAO Standard 3 on Data Quality. These goals dovetail with IAAO Standards 3.2.2.2 and 4.1.4 on Ratio Studies, as sales ratios require accurate, current, and consistent data for both sold and unsold properties.

Question 5: Does the database provide support for parcel aggregates and sub-parcel records?

Describe how economic aggregates of parcels are identified and handled for valuation. Describe how tax liabilities are allocated among them if they are not valued individually. If the database design reflects taxable objects rather than the more traditional parcels, provide documentation. Address how leasehold and possessory interests are handled.

The CAMA database supports parcel aggregates and sub-parcel records. However each condominium, timeshare interest, parcel group and tangible leasehold is separately valued for taxation purposes. Moreover, appraisers can value contiguous parcels together and apportion value to each, based on several factors including lot size, if they choose.

AP5 does not require a parcel to have geometry, improvements, or acreage. Most parcels in Brevard County are identified by a seven-digit account number. Leasehold accounts start with a seven-digit account number for the parent parcel whereas child parcels have the seven-digit account number followed by a three-digit extension to maintain uniqueness.

Condominiums are typically identified by the condominium declaration or submitted plans. All condominium units have an individual parcel number and are valued individually. All condominium

common areas are non-taxable per Florida statutes, and all value associated with the common area is prorated to the individual condominium units.

Question 6: Does the valuation software allow for flexibility and adaptation?

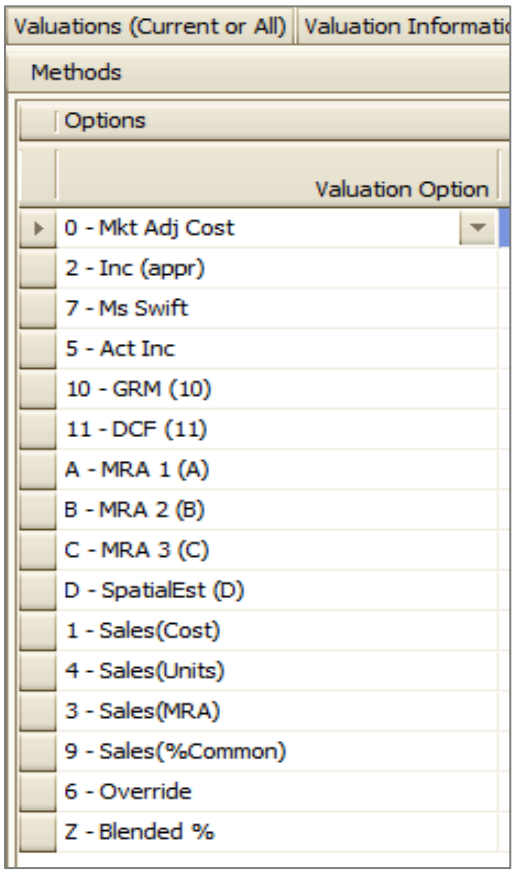
Discuss whether the development of valuation models, including revisions of table parameters, can be done in a reproducible, iterative, and what-if context without any danger of jeopardizing the official roll in progress.

Briefly discuss any valuation modeling enhancements that may be under consideration, the anticipated costs and expected benefits of implementing them, and any experience with alternative valuation modeling approaches and lessons learned.

Indicate how the system is used to meet the Standard for Mass Appraisal and the Standard on Verification and Adjustment of Sales.

The valuation modules within the CAMA system allow for significant flexibility and adaptation. Compliant with IAAO Standard 4 on Mass Appraisal of Real Property, the system gives appraisers the ability to assess parcels using many different methodologies. Figure 3-6.1 is an AP5 screenshot showing the convenience of several valuation options the BCPAO's appraisers have in valuing property, including market-adjusted replacement-cost-new-less-depreciation (RCNLD), income approach, Marshall & Swift, reported direct income capitalization, gross-rent multipliers (GRM), discounted cash flow (DCF), multiple regression analysis, Spatialest modeling, direct sales comparison, manual override, or blending any of these.

Figure 3-6.1 AP5 Valuation Options Page



Any or all of these models may be applied to any, all, or a filtered set of parcels. Marshall & Swift and Spatialest are third-party integration points and require additional vendor licensing. The other approaches to valuation require only that BCPAO staff build and maintain valuation modeling tables.

Because BCPAO appraisers work on multiple assessment roll years, they usually first alter calculation table parameters in the CAMA system's TEST or "what-if" database (a clone of the production database) before pushing valuation changes to the live system. The TEST environment allows appraisers to examine ratio results without impacting the production database. The IS Department batch-processes jobs nightly via SQL Server to perform full system calculations and tax roll functions so that the appraisers can see the impact of their changes the next day.

The BCPAO appraisers are currently working on 2020 valuations, and will begin analyzing existing appraisal calculations this summer for accuracy. The goal is to implement some changes to move data away from manually overridden data elements on certain parcels and towards more mass appraisal of

all parcels. The BCPAO's legacy CAMA system had many limitations on property valuation techniques that users are now beginning to overcome in the new CAMA system, and the BCPAO expects that this process will take at least a few years to implement. Likewise, and in keeping with IAAO Standard 7.9 on Verification and Adjustment of Sales, the BCPAO appraisers plan to eventually understand and use the new CAMA system's accommodating time-adjustment table to track price levels over time, and adjust sale prices accordingly (see Exhibit 3-6.1).

Question 7: Does the valuation modeling software produce results capable of being timely applied?

Briefly discuss the process by which valuation models proceed from the development stage to production, any bottlenecks in the process, and how these have been addressed. Indicate whether any service-level agreements are in place that govern response-time and data-governance issues arising from the jurisdiction's reliance on third-party interactions with its data.

The valuation modeling software is capable of being timely applied. As mentioned above, each parcel in AP5 can have multiple valuation methods applied concurrently. One of these methods is marked as the primary method for each parcel, and the value derived from that method is used as the market value for the parcel.

The IS Department initiates automatic nightly SQL jobs that calculate and publish new market values for all accounts for display and review the next day. The nightly process runs for approximately three hours and causes no bottlenecks with other nightly processing jobs and backups.

There are currently no service-level agreements in place that govern response time.

As stated in the response to Question 3, the BCPAO has recently implemented EAA. This tool runs on a SQL Server back end, integrating GIS and CAMA data with a single platform for improved data integrity, more accurate assessments, and real property reviews.

Question 8: Can the valuation modeling software produce data on the confidence of its estimates?

Briefly discuss the ability of the modeling software to generate information on the accuracy of its estimates of value, both as a general matter pertaining to the mean and, if possible to diverse individual estimates.

If the latter is possible, comment on how the costs of producing them compare to the benefits of enabling more precise targeting of the efforts of the post-modeling review task force.

If produced, are they produced internally to the algorithm or do they derive only from external checks, such as absolute and percentage differences from the prior assessment?

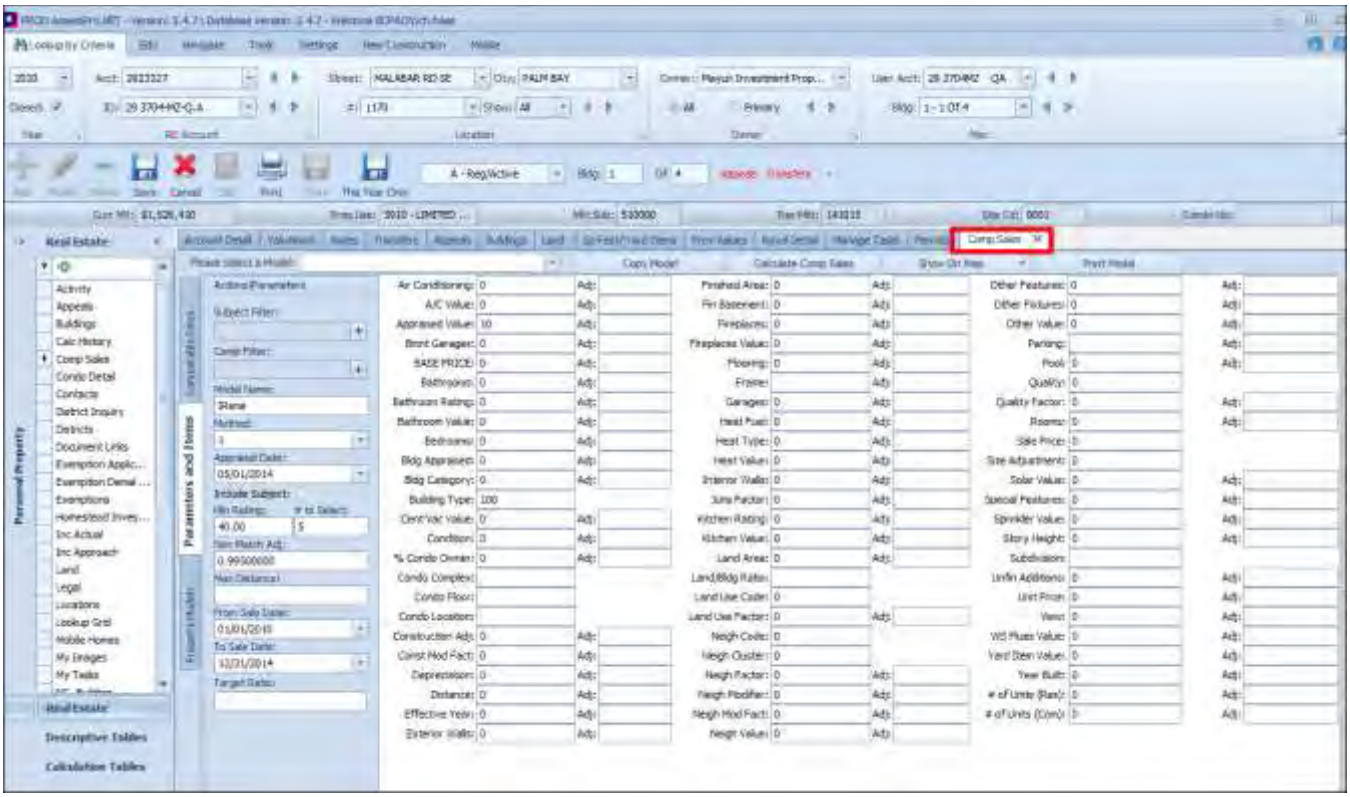
AP5 produces information about valuation estimate confidence in the form of concentrated ratio studies. These ratio studies are generated from AP5 as statistical analysis reports stratified by land type, building style, building class, condition, district, grade, jurisdiction, land use, market area, neighborhood, age, zoning, and many other property characteristics. These reports compare current market valuation to arm's-length sales. If a ratio study for particular properties (or groups of properties) deviates greatly from the wider median ratio for the entire county or stratum being analyzed, appraisers can perform deeper corrective analysis. However, there is no automatic internal algorithm within AP5 that will indicate to appraisers which parcels need to be reviewed by the appraisal staff. Appraisers can also perform similar concentrated ratio studies comparing current market value to prior market value, as opposed to sale price.

Question 9: Does the valuation modeling software support its estimate of a parcel's value with a small set of comparable properties, sold or unsold, that have had their estimates adjusted to reflect how they would compare to the subject property after adjusting for the differences between them?

Describe how grids of comparables are used in the valuation, quality assurance, and appeals-defense stages, how coefficients are developed or specified to determine comparability both for selection purposes and for adjusting for differences, the benefits and problems that arise in their use, and how the problems, if any, have been addressed.

The CAMA system has a robust comparable sales module with more than 100 configurable data elements (see Figure 3-9.1). Comparable sales models can be applied to individual parcels or filtered sets of parcels, and are calculated in a similar manner to the standard cost approach within the system. BCPAO appraisers have not yet used the AP5 comparable sales module in a normal appraisal cycle, but intend to begin this process in 2021.

Figure 3-9.1 CAMA – Sales Comparison Approach



Question 10: Can the valuation software permit the implementation of analyses not contemplated by the original design, either by customizing reserved variables and processes in the core DBMS, by facilitating third party interfaces, or both?

Describe the process by which system enhancements are prioritized, prototyped, developed, and implemented. Provide one such example, if applicable.

The valuation software can permit the implementation of analyses not contemplated by the original design. AP5 has additional data fields in every table reserved for future use. Because AP5 is vendor-built

and marketed worldwide, it provides all anticipated fields along with an abundance of "UserDefined" fields throughout the database for customization and expansion as needed.

Work is ongoing with Patriot Properties to extend AP5 usage so that CAMA system technicians can aid in repurposing fields for features specific to appraisers' needs. For example, the Condominium Department is using the building field "Plumbing" for their north/south exposure factor, "Insulation" for their size group factor, "Shape" for their overall complex factor, and "Electric" for other (individual) factors. These factors are all part of an equation that includes the condominium base rate and square-footage to arrive at market value. These customizations were made on AP5 screens so that field labels match the inputs throughout the system.

Besides the many available options for appraising property throughout the CAMA system, AP5 includes a manual override for cases that have extenuating circumstances that an appraisal model cannot capture. These overrides exist on building, land, yard item, and income approach screens, and enable appraisers to override individual elements that don't otherwise fit well into a valuation model.

Question 11: Can the system take advantage of the benefits of integrated CAMA/geographic information technology?

If the jurisdiction has integrated the GIS into the CAMA software to provide ready transitions between the two, cite the primary benefits of doing so. (Other stand-alone GIS questions appear in chapter 4.)

The current system takes advantage of integrated CAMA/geographic information technology using a built-in AP5 application called GISPro. GISPro enables a user to perform simple thematic mapping, update information in the CAMA database in real-time, and navigate both GISPro and AP5 simultaneously. For example, if a user has both applications open and selects a parcel in AP5, then GISPro will automatically navigate to that parcel. Conversely, if a user clicks on a parcel in GISPro, then AP5 will automatically navigate to that parcel in the user interface. GISPro is a separate tab in AP5 and is available in the same way other tabs are available (sales, ownership, building, land, etc.)

Question 12: Does the system provide advanced workflow processing and management, including those relevant for appeals documents at the various required levels?

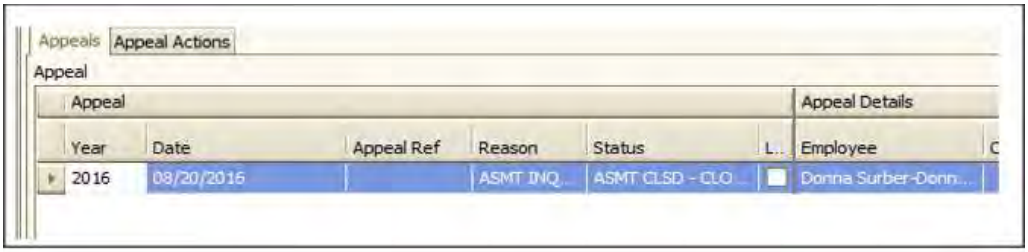
Briefly describe your workflow capabilities, including what functions the software supports, and provide examples of key workflow reports.

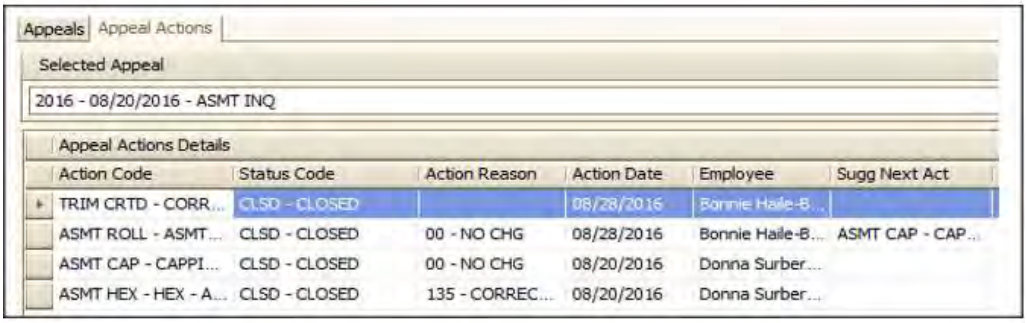
AP5 uses activities to track complete and incomplete work. There is no automated workflow dashboard to directly route work units from one employee to another.

Users can track work queues for appraisers and monitor progress. The CAMA system or various AP5 integrations (transfers, appeals, OLH, etc.) create some of these activities. Users can use built-in filters in the application to report on the amount of work completed and remaining within each appraisal area.

Appraisers track valuation inquiries and appeals through the appeals module in AP5, and have the ability to capture all actions associated with each appeal – from initial contact from the taxpayer or representative through final disposition by the VAB or court. Each incremental step of the process can be assigned to an employee, as illustrated in Figure 3-12.1, and tracked with dates, actions, next actions required, next action due dates, and notes.

Figure 3-12.1 AP5 Appeals Page





Question 13: Does the system provide advanced document management?

If applicable, briefly describe how documents, mapping, and photographic images are collected and used in the office.

Describe how Freedom of Information Act (FOIA) requests are handled and what technologies have been used to address such requests efficiently.

AP5 provides the ability to link documents to parcels. These documents are saved in the database or file system, and are accessed via hyperlink through the Documents Links tab. Figure 3-13.1 illustrates how all links for these shared items are stored on the network. The CAMA database only stores an HTML link to a location on the network to help reduce data duplication.

Figure 3-13.1 AP5 Document Links Page

Account Detail | Activity | Valuations | Transfers | Appeals | Buildings | Land | Sp Feat/ Yard Items | Prev Values | Time Adjustment | Document Links

File Name	Description	ContentType	External Link	Create Date
Photos	Photos for 2221006	Photos	http://field1/building/photos/asp/img_re...	10/31/2015
Scanned Documents	Scanned Documents for 2221006	Scanned Docum...	http://imaging/WX/DataSources/legato/...	10/31/2015
GIS	Scanned Documents for TRS: 22 3534	GIS Scanned Do...	http://imaging/WX/DataSources/legato/...	10/31/2015
TaxCollector	Tax Collector link for 2221006	TaxCollector	https://brevard.county-taxes.com/publi...	10/31/2015
Conveyance	Book/Page: 4341/2143 SaleDate: 05/08/2001	712909	https://vaclmweb1.brevardclerk.us/Accl...	08/25/2016
Conveyance	Book/Page: 4438/3353 SaleDate: 10/10/2001	722117	https://vaclmweb1.brevardclerk.us/Accl...	08/25/2016
Conveyance	Book/Page: 4945/3454 SaleDate: 06/11/2003	793298	https://vaclmweb1.brevardclerk.us/Accl...	08/25/2016
Conveyance	Book/Page: 5005/1740 SaleDate: 08/02/2003	807243	https://vaclmweb1.brevardclerk.us/Accl...	08/25/2016
Conveyance	Book/Page: 8180/512 SaleDate: 05/25/2018	1333128	https://vaclmweb1.brevardclerk.us/Accl...	07/28/2018
Homestead_Receipt.pdf		application/pdf		01/17/2020

FOIA requests are handled by the Director of Governmental and Public Affairs. The BCPAO strives for transparency, and any information that does not compromise state statute or one of the nine FOIA exemptions, can be provided. Typically the IS Department handles all large data requests. Properly trained employees of the BCPAO handle all other requests. Additionally, the BCPAO public website provides free downloadable spatial and tabular data. Data for every non-confidential record in the CAMA system is available in these downloads and through the website's ad-hoc querying tools.

Question 14: Does the agency keep abreast of potentially relevant technological developments?

Describe how the jurisdiction evaluates the cost/performance characteristics of its present method of on-site data collection relative to other alternatives, including paper forms, electronic forms, and mobile devices. Describe how the jurisdiction monitors the cost performance characteristics of its present communication methods relative to alternatives, including websites, for information dissemination and possibly collection. Describe other steps taken to keep abreast of potentially relevant technological developments

In the past several years the BCPAO has pursued a course away from paper forms and towards electronic filing of all exemption applications and as many other statutorily-required documents. The TPP Department is now completely paperless, enabling one employee to telecommute full time. This was a cost savings project made possible by advancements in technology. Likewise, the GIS & Cadastral Services Department has initiated a paperless system for parcel splits, combinations, and new subdivisions.

From an internal perspective, SQL Server is used to automate as many processes as possible. Property tax exemptions are all processed programmatically, and all data received is programmatically inserted into the parcel record without manual keying.

The BCPAO monitors public perception of the BCPAO's accredited, user-friendly website by studying submitted customer reviews. Judging from reactions, website visitors appreciate the ability to easily attain and assimilate a plethora of free public data. Additionally, the Property Appraiser and other BCPAO representatives regularly attend speaking engagements, organized meetings, and community outreach events to communicate assessment-related information to appreciative audiences.

The BCPAO keeps abreast of potentially relevant technological developments. The staff is encouraged to seek out professional designations within their respective fields and to network with fellow designees on innovative techniques and applications. The BCPAO's deputies monitor relevant technology group meetings and attend technology conferences to keep their skills sharp. Both appraisal and IS Department staff regularly attend educational seminars and conferences (as the budget allows), as well as make use of online educational opportunities.

The BCPAO keeps a constant watch on the emergence of new technologies for integration with AP5 and other systems. In the past couple of years, this has included Apex Sketch and EAA with the goal of appraisers spending more time appraising, and less time entering data.

The BCPAO public website is regularly tested for accessibility, and changes are made as needed with the intention of exceeding the requirements of the American Disability Act (ADA). Web browsers constantly evolve. Testing criteria changes to accommodate these browser evolutions. The BCPAO public website is closely monitored to ensure content is accessible to all website visitors.

The BCPAO public website is also checked for security. Technology in the form of cyber threats is a fast-changing segment of the cyber landscape. The BCPAO relies on third-party software to protect, test, and review website security. Deprecated security protocols are disabled with better options taking their place. Much of the network security is handed off to third-part software and vendors who are experts in the field. Recent third-party network penetration tests and frequent third-party website security checks showed that the website ranks very high for security.

Question 15: Does the computer system maintain a frozen record of the property at the time of sale?

Provide system documentation on how property characteristics data and sales data are merged and saved.

Provide sample sales reports to support that this objective has been met. Explain how the system conforms to requirements of the Standard on Verification and Adjustment of Sales.

The CAMA system does not maintain a frozen record of the property at the time of sale. All property characteristics can be reproduced at any point in time within the AP5 CAMA database, so there is no process to merge and save sales data and property characteristics.

After property ownership transfers to a new owner, the appraiser examines the sale to determine if it was an arm's-length transaction. The appraiser, in conjunction with IAAO Standard 5.10 on Verification

and Adjustment of Sales, will then change aspects of the property in the CAMA system which will more accurately depict the property at the time of sale.

EXHIBITS – Chapter 3

Chapter 4

CADASTRAL MAPPING

Question 1: Do the cadastral maps enable the jurisdiction to have reasonable assurance that all taxable parcels have been identified and no parcels have escaped inclusion in the system?

Briefly describe how the cadastral map allows assessing jurisdictions to guarantee that no more than a small fraction of the potentially taxable land in the jurisdiction has escaped inclusion in the cadastral records.

Specify the maximum fraction that could have escaped inclusion, and how that fraction was determined. An example might be an analysis of discrepancies following a reconciliation of the sum of the sizes of taxable parcels (and non-taxable features such as rights of way and water) with independent determinations of the size of the jurisdiction.

The BCPAO's GIS (Geographic Information System) & Cadastral Services Department performs all mapping and property abstracting operations. The department uses a suite of ESRI software along with digital orthographic aerial imagery acquired annually. Brevard County uses the "NAD 83 HARN State Plane Florida East FIPS 0901 Feet" also known by the WKID (Well Known ID) of 2881 coordinate system. All parcels are mapped using legal descriptions from recorded deeds, plats, and surveys. Cadastral maps are in accordance with the Florida Administration Code 12D-1.009 Mapping Requirements and IAAO standards.

To identify parcels that may have escaped inclusion in the GIS and CAMA systems, a biannual analysis is done that compares GIS parcel records with CAMA parcel records. This is in compliance with IAAO's Standard 5.3.1 on Manual Cadastral Maps and Parcel Identifiers. Both databases are joined, and records not in the GIS system are flagged. These are reviewed and researched by the mappers. As of August 2019, 233 unmapped parcels were found in the GIS system, representing just 0.07 percent of all parcels. Additional QA/QC (quality assurance/quality control) processes are in place to ensure all parcels (taxable and non-taxable) are mapped in the GIS (see Exhibit 4-1.1).

Discrepancies in parcel size are updated and corrected as parcel splits and combinations are processed. With the use of Coordinate Geometry (COGO) tools, parcel size is calculated and size correction is submitted to update the assessed acreage. Analyzing discrepancies between the total assessed acreage and total mapped acreage does not apply to the BCPAO at this time due to the inaccuracies that occurred during the paper-to-digital conversion of the assessment maps. However, cadastralists are correcting these inaccuracies using additional geospatial data and modern software.

Question 2: Do the cadastral maps provide the basic information specified in the IAAO standard?

Provide one or more sample maps indicating how each shows that the criteria from the IAAO standards have been met. PDFs or letter or legal size reproductions or extracts are preferred in lieu of full size maps.

The BCPAO's cadastral maps (digital and printed) are compliant with all elements of the Essentials of Design in IAAO Standard 6 on Manual Cadastral Maps and Parcel Identifiers. At a minimum, the BCPAO's digital cadastral maps include the following elements:

- Parcel boundaries as polygon features, each with a parcel identifier (parcel ID)
- Acreage of all parcels over one acre
- Parcel dimensions
- Subdivision or plat boundaries with subdivision name and the book and page of the recorded plat
- Block, lot, and tracts within subdivisions
- Geographic subdivisions such as Public Land Survey System (PLSS) section grid, government lots, etc.
- Other geographic features, such as water boundaries, right-of-ways, etc.
- Government boundaries, such as zoning, land use, special taxing districts, etc.

BCPAO mapping standards:

- Urban Areas – 1“ = 200’ (1:2,400) for positional accuracy (see Exhibit 4-2.1)
- Rural Areas – 1” = 400’ (1:4,800) for positional accuracy (see Exhibit 4-2.2)
- Paper Assessment Map Worksheets - 1” = 200’

Additional GIS map products:

- Orthogonal aerial imagery with parcel boundary overlay
- Tax district maps (see Exhibit 4-2.3)

Question 3: Does the jurisdiction maintain a complete set of cadastral maps showing the identity, size, shape, and location of each parcel in the jurisdiction as of each assessment date that remains subject to ongoing litigation?

Briefly describe the update and retention policy of the cadastral maps and the documents supporting them, and whether they support the functions cited above. Describe their availability to support any tax-related legal issues that may arise in past or future periods. Indicate what mechanisms are in place to ensure that no elements of the tax base are lost as novel legal concepts of ownership rights come to be recognized, Examples which may force unanticipated changes in valuation and other assessment procedures include condominiums, co-ops, transferrable development rights, air rights, and mineral rights.

The BCPAO maintains a complete set of cadastral maps in the GIS database, showing the identity, size, shape, and location of each parcel within the jurisdiction. Map data created in the GIS is publicly accessible in the BCPAO web map (MapView) and aerial image viewer (EagleView). In MapView, more details are displayed as the map is zoomed in closer (see Exhibit 4-3.1). Both applications share the same data source, ensuring both maps show the same features. Geospatial web data is updated weekly.

A history layer in GIS, represented in Figure 4-3.1, is updated for changes that occurred from parcel splits, combinations, or right-of-way vacations. Official record book and page and recorded dates are entered in the retired parcel. Also, all BCPAO annual GIS submittals to the FDOR are archived for the last seven years as another source for reviewing parcel changes.

Figure 4-3.1 History Layer

History

PID/Name *	Acres	Description	Official Record	Legal Start Date	Legal End Date	History
26 3732-52-*-27.01	0.92	<Null>		07/02/2016	04/12/2019	Retired Tax Parcel
29 3725-75-A-25	0.59	<Null>	<Null>	04/15/2014	06/14/2019	Retired Tax Parcel
28 3623-FA-3-7.02	0.55	<Null>		04/15/2016	06/20/2019	Retired Tax Parcel
28 3623-FA-3-7.03	3.83	<Null>	4189/772	01/23/2017	06/20/2019	Retired Tax Parcel
20G3441-AC-*-93.04	0.26	<Null>	8172/2343	05/23/2018	05/28/2019	Retired Tax Parcel
24 3726-CG-98-14	0.51	<Null>	8242/2295	03/23/2016	08/21/2018	Retired Tax Parcel
20G3519-AI-2-5.02	4.02	<Null>	8064/971	01/03/2018	05/23/2018	Retired Tax Parcel
28 3720-50-N	0	<Null>	PB 39 PG 88	<Null>	11/01/1993	Retired Tax Parcel
28 3720-50-L	0	<Null>	PB 39 PG 88	<Null>	11/01/1993	Retired Tax Parcel
28 3720-50-P	0	<Null>	PB 45 PG 5	<Null>	07/14/1999	Retired Tax Parcel
28 3720-50-M	0	<Null>	PB 45 PG 5	<Null>	07/14/1999	Retired Tax Parcel

Because of imprecise parcel alignment resulting from paper-to-digital conversion, the GIS & Cadastral Services Department continually updates and maintains the paper assessment maps along with the digital maps. These paper maps are scanned regularly as changes occur and are available as far back as the 1980s. For new parcel splits, combinations, subdivisions, and condominiums, cadastralists create and scan a digital packet (containing assessment reports, deeds, and maps) to keep a history of the changes in the configuration of a parcel. In the CAMA system, cadastralists add notes on each tax account to record activities and any changes that occurred, as depicted in Figure 4-3.2.

Figure 4-3.2 CAMA System Notes – New Sub Example

Account Notes

Date	Note Type	Note
08/22/2018	APPL - Appeal Notes	2018 ASMT REASON: New sub Adelaide Phase 5 PB 65 PG 53 being split from parent parcel 00-251; AV less than MV
08/22/2018	LAND - Land Notes	8/22/2018 S/O ADELAIDE PHASE 5 PB 65 PG 53 (TAKING 47.40 AC) AND S/O 00-252 (NO LONGER CONTIGUOUS 26.41 AC).
08/17/2018	TRF - Transfer	S/O ADELAIDE PHASE 5 BEING PB 65 PG 53 (SUBD # 51) (TAKES 47.40 AC)
07/06/2017	APPL - Appeal Notes	ASMT REASON: S/O
07/06/2017	TRF - Transfer	S/O PB 63 PG 12 BEING ADELAIDE PHASE 3 (SUBD #27) (TAKING 13.74 AC)
07/06/2017	TRF - Transfer	S/O PB 62 PG 55 BEING ADELAIDE PHASE 2 (SUBD #26) (TAKING 7.05 AC)
05/25/2017	TRF - Transfer	S/O PART OF AMENDMENT NO 1 TO ADELAIDE PER PB 62 PG 34 (SUBD #50) (TAKING 4.13 AC)
05/10/2017	BUILDPERM - Building Permit Notes	TD 5-10-17
03/01/2017	AG - AG Notes	Ag removed per returned green card.
12/16/2016	BUILDPERM - Building Permit Notes	WF 12-16-16
12/05/2016	APPL - Appeal Notes	VAB 2016-00762 WITHDRAWN BY PETITIONER.
11/03/2016	APPLACTN - Appeal Action Notes	VAB #249 Withdrawn 10/17/2016.
10/31/2016	TRANSFERS - Transfers Notes	7609/712 PT (25-36-29-00-1; 251; 25-36-32-00-251) A DUDA & SONS INC TO THE VIERA COMPANY (LEGAL VERIFIED BY A JONES)—
10/24/2016	APPLACTN - Appeal Action Notes	2016 VAB #249 Withdrawn. DOR 3
09/02/2016	APPLACTN - Appeal Action Notes	ASMT VALUE RESULT: REMOVE ALL IMPROVEMENTS PER 1/11/2016 PICTOMETRY REVIEW. ASSESS ONLY AS VACANT LAND.
09/02/2016	APPL - Appeal Notes	ASMT REASON: We are assessing bldgs and special features that weren't there 1/1/2016.
09/02/2016	APPL - Appeal Notes	ASMT INQ:Deputy Office Inquiry.
07/19/2016	APPLACTN - Appeal Action Notes	Ag acres corrected due to split/combine.
07/06/2016	APPL - Appeal Notes	ASMT REASON: S/O
07/06/2016	APPL - Appeal Notes	ASMT INQ: Deputy office inquiry
07/06/2016	TRF - Transfer	S/O PART OF 00-762 PER 7143/2123 & 7347/165 PT (NOTES ON 00-6 & 00-756 AS GRANTEE ALREADY ON TITLE & BOTH DEEDS TRANSFER ALL ON 00-752 &...

Based on the BCPAO's retention policy as described above, the GIS & Cadastral Services Department maintains the history of the changes in parcel configurations and documentations on all property

records. These map and recorded documentations can be retrieved to support assessment-related legal issues or litigations; however, the department does not handle these types of cases. The GIS & Cadastral Services Department conducts research to correct errors in the property records and cadastral maps. Other recorded documents that are essential for research are acquired through the Brevard County Clerk of Court's website (see Exhibit 4-3.2).

The BCPAO's GIS & Cadastral Services Department does not track air and mineral rights. Developer rights are noted on recorded subdivision plats and can be retrieved through the Brevard County Clerk of Court's website, if recorded separately.

Question 4: Are maps and related records maintained on a timely basis?

Specify the records-update timeline for routine splits and combinations, for subdivision packages, for tax-code-area maintenance, and the interval for producing maps and related documents in support of appeals/litigation.

The GIS & Cadastral Services department receives property splits/combinations from owner requests and documents recorded at the Clerk of Court. Recorded documents are delivered to the BCPAO in three to four weeks, and are then sorted by title specialists to identify parcels where a split/combination has occurred. These documents are routed to an abstract and mapping specialist who completes the work, which can take up to two weeks depending on complexity. A digital packet containing an assessment report, deed, and map, is routed to the mapping specialists, Valuation Department, Homestead Department, Sales Qualification Department, Agricultural Department, and any other staff member required to review the change, as presented in Figure 4-4.1.

Figure 4-4.1 Parcel Split/Combination Routing Form

Also scan to: 41-00-29 (2003241); 41-00-83 (2003295); 41-00-90 (3020713)

Master Parcel ID: 2003217

TWP	RGE	SEC	SUB	BLOCK	LOT
20G	34	41	00	6.2	

SYNOPSIS

PER ORB 8518/1020:
S/O 41-00-90 FROM 41-00-6.2 (TAKING .53 AC & 23,087 SQ FT) & FROM 41-00-29 (TAKING .53 AC & 23,087 SQ FT) & FROM 41-00-83 (TAKING 4.32 AC & 188,179 SQ FT) TOTAL TAKING 5.38 AC & 234,353 SQ FT

TSF: 41-00-90 PER ORB 8518/1025

	ROUTE	NOTES	Initials	Date
SPLIT	✓		IP	11/05/2019
COMBINE				
ADDITION TO TAX ROLL				
PERMITS: FIELD OPS (J Sasala)	✓	NO CHANGE - NO BUILDINGS OR PERMITS TO MOVE	JXS	11/06/2019
BUILDING (M Eubanks)	✓	OK	NLE	11/07/2019
VALUATIONS MA: 01/6	✓	Done	CH	12/11/2019
VALUATION MANAGER	✓	Reviewed	RH	12/11/2019
AGRICULTURE	✓	Reviewed	RH	12/11/2019
HOMESTEAD				
EXEMPTIONS (G Mascellino)				
SOH (B Haile)	✓	done	bh	03/19/2020
SALES QUALIFICATIONS	✓	DONE	MQC	11/06/2019
TAX ROLL	✓	done	sca	11/06/2019
COMPLETION	✓			
SCANNING	✓			

An instruction manual for most of the process outlined above is being assembled for the GIS & Cadastral Services Department in keeping with IAAO Standard 5.3 on Manual Cadastral Maps and Parcel Identifiers.

Changes due to annexation or special taxing districts are mapped within one to two weeks. If a property has an open appeal or is the subject of litigation, the GIS & Cadastral Services Department notifies the Valuation Department while continuing to complete all mapping and splits procedures.

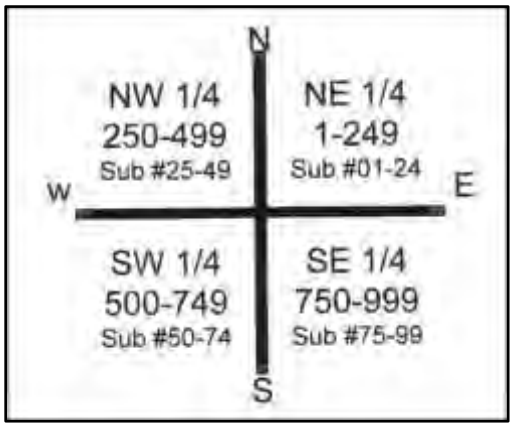
Question 5: Are all parcels assigned a unique identifier that is associated with its current configuration and size?

Describe the parcel-numbering system, including how splits and combinations, sub-parcels (such as, condominiums, subsurface rights, air rights, and leased property), and easements are handled. If the parcel identifier used in the jurisdiction is not tied to a geographic location, describe what institutional changes would have to be made to bring the situation into concert with IAAO standards. Also describe what steps the valuation team and others have to take to work around the record-keeping deficiency.

The BCPAO's parcel numbering system, in conjunction with IAAO Standard 7.2.2 on Manual Cadastral Maps and Parcel Identifiers, is based on PLSS using Township, Range, Section, Subdivision/Condo, Block & Lot alphanumeric identifiers.

For maintaining parent and child parcels, the BCPAO adheres to the guidance of IAAO Standard 7.3 on Manual Cadastral Maps and Parcel Identifiers. When splitting acreage parcels (unplatted) and creating a new parcel number, cadastralists assign the child parcel the geographic location of township-range-section, and a subdivision placeholder of double zeros (00). The parcel number is issued from the range of numbers assigned to each quarter section. For example, the northeast quadrant is given a number range from 1 thru 249 as seen in Figure 4-5.1. Thus, if the next available number in the northeast quadrant of Township 28 Range 37 Section 3 is 249, the parcel ID would be: 28-37-03-00-249.

Figure 4-5.1 Acreage Parcel and Subdivision ID Numbering System



For subdivisions, cadastralists use the format Township-Range-Section-Subdivision-Block-Lot/Tract. While cadastralists issue the subdivision identifier from the next available number from the range of numbers assigned to each quarter (see Figure 4-5.1 above), they use the block and lot/tract numbers

directly from the recorded plat. Therefore, if the next available subdivision number in the southwest quadrant of Township 28 Range 37 Section 3 is 55, and the recorded plat identified a parcel as Block A Lot 10, the parcel ID would be: 28-37-03-55-A-10.

Newly created condominiums generally inherit part of the parent parcel number and a new parcel ID is assigned. For example, if the parent parcel ID is 27 3830-EV-*-5, the new parcel ID for Unit 1 would be 27 3830-EV-*-5.1, then 5.2 for Unit 2, and so forth.

For parcel combinations where one parcel is vacant land and the other is improved, the parcel ID with the improvement is retained and the parcel being combined is inactivated. If all parcels included in the combination are improved or unimproved, the lowest parcel ID is kept and the rest are inactivated.

While cadastralists map and work ingress, egress, and conservation easements without a seven-digit account number in the GIS system (discussed previously), they do assign a parcel ID to those easements that are supported by a recorded document.

Question 6: Do cadastral maps include representations of improvements as well as the legal boundaries of the parcels?

Briefly describe and provide an example of the extent to which cadastral maps include, or can effectively integrate information on, building footprints and other improvement features. (A jurisdiction not required to include improvements on their maps will not be adversely evaluated.)

Including parcel improvements in the GIS as map features is not a Florida requirement and is not part of the work done by the GIS & Cadastral Services Department. The BCPAO periodically contracts with a vendor to map building footprints in an automated fashion to assist in finding missed, incorrect, or unpermitted improvements using a desktop application by EagleView called ChangeFinder, and EAA by ESRI Canada (detailed in Chapter 6). However, because this footprint data is only a snapshot in time and only created every few years, it is not integrated into the GIS, but reserved for appraisers through the vendor's software as part of very specific projects.

Question 7: Are maps spatially referenced and capable of meeting national map accuracy standards or IAAO standards, including those cited by reference such as the American Society for Photogrammetry and Remote Sensing (ASPRS) standards? Do they meet the standards when plotted at the scales cited in the IAAO standard?

Briefly describe the locational accuracy of the cadastral maps, what standards are required to be met, and how compliance has been ascertained. Provide links to examples.

Cadastral maps are spatially referenced to the Florida State Plane Coordinate System and meet IAAO standards. The digital orthographic photography the BCPAO uses is provided by EagleView in a product referred to as Pictometry. Urban areas are imaged at 4-inch pixel resolution, and rural areas are imaged at 9-inch pixel resolution, which meets ASPRS Class I standards. Cadastral maps are overlaid on the aerial imagery to verify positional accuracy. Land Boundary Information System (LABINS) Certified Corners (see Exhibit 4-7.1) and platted subdivision corners are used to correct parcel misalignments.

Mapping standards follow the general guidelines laid out by the IAAO standards for map products (see Question 2 on urban and rural area standards).

Question 8: Are maps (or a geographic information system) capable of significantly enhancing the mass appraisal system?

Briefly describe how the cadastral mapping system contributes to the valuation process and how such spatially referenced data are incorporated in the process. If applicable, identify the office's GIS software and broadly describe the applications for which it has been used (some potential details of which are separately identified below).

The BCPAO's GIS plays an integral role in mass appraisal by providing an abundance of reliable assembled and symbolized value-relevant spatial data (see Exhibit 4-8.1). This spatial data is available worldwide two ways: on the BCPAO's public website in assembled form, as displayed in the BCPAO's web map (MapView), which is used by BCPAO staff as well as the public; and separately, as downloadable packages. It is also used by county and municipal planning, routing, and code enforcement departments, emergency management, fire, and police agencies, and the court system. It is used for e-911 routing and

for post-catastrophe recovery efforts. Additionally, this spatial data is used to create special boundaries, such as taxing districts, annexations, and commissioner districts, and is also used by zoning officials to ensure every parcel is zoned correctly.

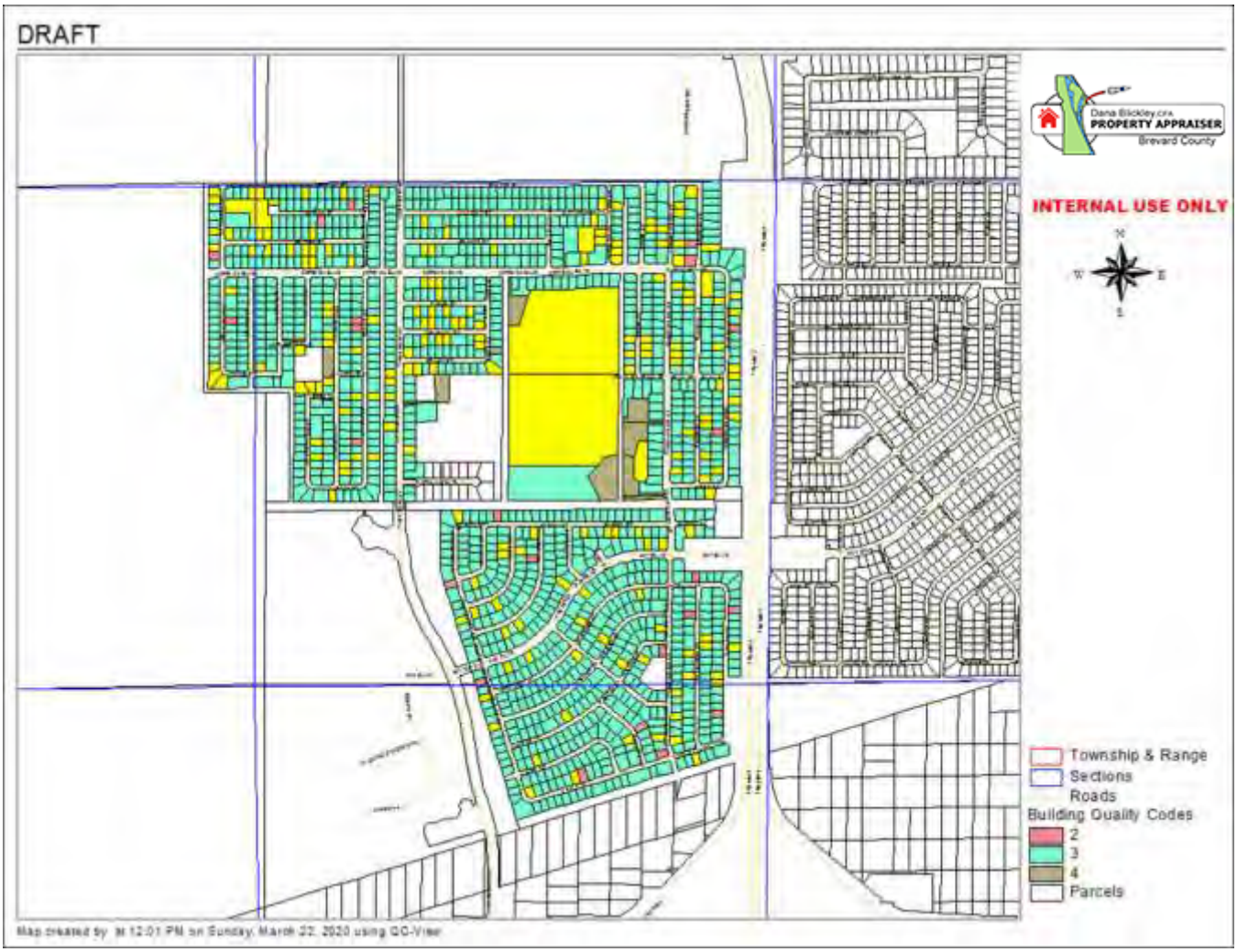
This spatial data is also available in a desktop application called QC-View (detailed in Chapter 6) that enables real property appraisers to symbolize subsets of parcels selected with ad-hoc query tools to discover errors and anomalies in valuation data. It is used in multiple vendor applications including EAA (discussed earlier), ChangeFinder (discussed earlier and in Chapter 6), AP5, and EagleView's SectorPlanner – to name a few. The BCPAO's GIS and the data it contains is highly regarded and heavily used by all BCPAO staff and the public in myriad ways. It is an essential part of the appraisal process, and critical for accurate and equitable assessments. Expanding the positive impact the GIS has on the appraisal process and the public is among the highest priorities for BCPAO web/CAMA/GIS technology professionals.

Question 9: Does the GIS or mapping system display and support valuation areas and identifiers?

Briefly describe the integration of valuation areas into the office's GIS or mapping system and provide one or more screen prints and maps illustrating how appraisers can display and utilize market areas and neighborhoods in valuation work.

The GIS has parcel IDs that can be linked to the CAMA system to symbolize parcels by market area codes (see Exhibit 4-9.1). As mentioned previously, the appraisers use GIS data in a desktop GIS/appraisal application called QC-View to symbolize parcels within specific market areas, site codes (frontage on rivers, ocean, golf courses, etc.), and other locational factors that are best analyzed visually on a map. QC-View uses GIS data to symbolize parcels from over 135 fields as unique values or ranges of values represented as different filled or outlined polygons (by color, pattern, symbol, etc.) For example, appraisers can query for all single-family oceanfront homes with a pool within a specific market area, and symbolize those parcels by sale ratio, square-footage ranges, construction quality, etc. Appraisers can export or print the resulting maps, as displayed in Figure 4-9.1. More information about QC-View presented later in this chapter, and in greater detail in chapters 6 and 8.

Figure 4-9.1 QC-View Printout – Parcels Symbolized by Building Quality Codes



Market area and neighborhood boundary data are stored and maintained in the CAMA system at the parcel level, and linked to GIS parcel polygons for display and analysis wherever needed.

Question 10: Can market areas and neighborhoods be updated with GIS?

Briefly describe how market area and neighborhood boundaries are maintained. Provide an example of how a recent addition or change was implemented. Comment on the frequency of boundary changes and the timeliness with which such changes can be accomplished.

The AP5 vendor is currently developing a GIS tool (GISPro Online or GPO) that will enable market and neighborhood changes to the CAMA data directly through GPO. The GIS parcel data is normalized to only contain data relevant to the cadastral map and not anything related to valuation. The key to all parcel data is a seven-digit number used to link GIS parcel data to a multitude of tabular data. Although

the Valuation Department uses a desktop GIS/appraisal tool to visualize market areas and other important information, market areas and neighborhoods are maintained in the CAMA system, not in the GIS, and are not yet updated via a GIS-enabled tool.

When new child parcels are created, the new property records will inherit the market area attached to the parent parcel in the CAMA system. Boundary changes occur regularly as the department receives documentation for property splits, combinations, and recorded subdivisions. Cadastralists normally complete changes within two to three weeks.

Question 11: Does the jurisdiction perform advanced spatial analyses possible only with a GIS?

If applicable, provide examples of GIS-generated maps for sales analysis and comparable sales selections, and briefly describe and provide evidence of the jurisdiction's use of key GIS capabilities, such as those listed or any additional ones developed for the jurisdiction.

As discussed previously, the appraisers use a feature-rich desktop GIS/appraisal application called QC-View (see Exhibit 4-11.1) for spatial analysis, which has been in use since 2001 and is essential to the appraisal process. A user guide detailing functionality is available in Exhibit 4-11.2 and an article about it was published in the August 2006 edition of IAAO's Fair & Equitable (discussed in Chapter 8). As mentioned earlier, the AP5 vendor is developing a product called GISPro Online (GPO) that is contracted to be a replacement for QC-View, which is based on an older version of ESRI software.

EXHIBITS – Chapter 4

Chapter 5

PROPERTY USE CODES, MARKET AREAS, AND NEIGHBORHOODS

Question 1: Does the jurisdiction employ a logical property type classification scheme?

Provide a copy of the jurisdiction's property use codes demonstrating a top-down schema and a report showing the number of parcels of each type.

Describe how conversions are handled.

The BCPAO employs use codes which track a logical property type classification scheme. This structure follows a detailed list of classifications and sub-classifications as defined by the Florida Administrative Code (see Exhibit 5-1.1) in which the first two digits of the code define the category of property, as shown in Figure 5-1.1.

Figure 5-1.1 FDOR Use Codes by Property Type

Use Code Range	Property Type
00	Vacant Residential
01 to 09	Improved Residential
10 to 39	Commercial
40 to 49	Industrial
50 to 69	Agricultural
70 to 79	Institutional
80 to 89	Governmental
90 to 97	Miscellaneous
98	Centrally Assessed
99	Non-Agricultural Acreage

Of the 321 available use codes (see Exhibit 5-1.2), 260 are applied to all parcels in Brevard County. Over 62 percent of all properties are coded either Single-Family Residence or Condominium.

The conversion process of changing a use code from one type to another begins with appraisers reviewing, and sometimes physically inspecting, the subject property. If the property fulfills all of the requirements for a new use code, appraisers make the change within the CAMA system's Land page.

Occasionally, appraisers request the creation of a new use code for a specific type of property which they find significantly different from existing property types and use codes. For example, appraisers recently discovered that multi-family properties with two, three, or four (or more) units, originally built as single-family homes and since converted, sell differently from originally-built duplexes, triplexes, and quadraplexes. So, they created a new use code in the CAMA system and, after identifying the specific parcels (see Exhibit 5-1.3), batch-coded these properties to the 0855 use code. Following such changes, the BCPAO contacts the relevant taxing jurisdictions so that they can accurately apply them for non-ad-valorem taxing purposes.

Question 2: Does the CAMA system provide for mixed use properties?

Describe several common mixed uses in your jurisdiction and how they are treated in the CAMA system.

Provide printouts of several properties illustrating how they are handled.

The CAMA system provides valuation methods to account for mixed-use properties, which are typically comprised of two or more buildings with separate utility. Buildings are coded to a particular use within the CAMA system, and receive a base rate from the CAMA base rate table specific to that use.

One typical example of mixed-use property is retail/single-family. For example, a convenience store at the front of a property (see Exhibit 5-2.1) may have a single-family home attached to the back of the building for use as the manager's residence. Each building is described and coded within the CAMA system, and the sum of each building's value is added to the land and yard item values to arrive at a market value (see Exhibit 5-2.2).

Another typical mixed-use property includes three or more building types. For example, an owner a few years ago purchased a small retail center (see Exhibit 5-2.3) along with adjacent properties with older buildings, presumably to remodel and expand. The parcel is assessed with the retail store, a single-family residence, and a duplex. Again, each building is properly coded and the sum of the value of the structures is added to the land and yard items to arrive at market value (see Exhibit 5-2.4).

Brevard County has a few mixed-use properties that are very complicated in nature. For example, a church in Merritt Island has a private school and a diverse number of buildings (see Exhibit 5-2.5). Twenty structures make up this mixed-use property with thirteen different building use codes. Because of the variety, the BCPAO assesses the property using the cost approach to value (see Exhibit 5-2.6).

Question 3: Has the jurisdiction developed separate geographic areas and location identifiers for each major property type?

Provide copies of maps showing geographic delineations and identification codes for major property types in the jurisdiction.

In accordance with IAAO Standard 3.3.1 on Mass Appraisal of Real Property (Location Data Property Characteristics), the BCPAO developed separate geographic areas and location identifiers for major property types. In 1997, the Valuation Department created market areas for residential valuation models. These market areas (see Exhibit 5-3.1) are highly correlated with geographic features in Brevard County, and follow economic patterns. The BCPAO uses a two-character field known as the "Factor District" in the CAMA system to denote market areas.

By late 1999, the Valuation Department had established additional geographic areas for other property types: three commercial market areas (see Exhibit 5-3.2) and nine condominium market areas (see Exhibit 5-3.3).

Question 4: Do appraisers determine geographic areas used for valuation purposes?

Describe how geographic boundaries used for valuation purposes are determined.

Provide an example of a map showing the overlay of political boundaries or school districts, subdivisions, and residential neighborhood boundaries.

The BCPAO's appraisers have direct involvement in determining geographic areas for valuation purposes. As described previously, the Valuation Department delineated market areas over 20 years ago for valuation models, which is in keeping with IAAO Standard 4.1 on Mass Appraisal of Real Property. Originally, Brevard had 21 market areas, but this was pared down to 17 due to appraisers' input on sales analysis and economic market sizes. For example, Merritt Island (Market 16) once included Market 19, which was South Merritt Island. However, the appraiser for the area eventually discovered that an insufficient number of sales existed to properly analyze the region, so Market 19 was incorporated into Market 16. A similar incidence occurred when an appraiser merged Cocoa Beach (formerly known as Market 18) with Market 17 (now Cape Canaveral / Cocoa Beach) for sales analysis purposes.

Residential market area boundaries have been relatively static for many years. However, appraisers continue to determine and adjust geographic areas down to the neighborhood level. For example, a developer created two adjacent subdivisions about ten years apart. Because of this, an appraiser assigned a separate neighborhood code to each subdivision. Now that all of the lots in both subdivisions are improved and the area is in a period of stability, the area's appraiser determined that the properties were comparable enough to combine both areas into a single neighborhood (see Exhibit 5-4.1). Through a simple batch-update process in the CAMA system, appraisers can re-code any number of areas into a single neighborhood code for future assessment purposes.

Geographic areas can also be altered for personnel-assignment purposes. Soon, the Commercial Department plans to make changes to the three commercial market areas. Originally designated as three major economic areas (North/Central Mainland, South Mainland, and Merritt Island and Beaches), the Valuation Department discovered that the commercial property count within these market areas was not equitable. Market area 51 (South Mainland) contained the two largest cities in the county (Melbourne and Palm Bay) (see Exhibit 5-4.2) causing a dissimilar and unreasonable workload for the commercial appraiser assigned to that area. Restructuring commercial market areas in this area will more equitably distribute the workload.

Question 5: Are geographic areas sufficiently large to afford adequate market data for analysis?

> Provide a report showing the number of properties in each market area and neighborhood and, desirably, the number of sales used in valuation analyses in the most recent reappraisal.
>
> Explain why some residential areas may have seemingly low property counts (for example, less than several hundred in a market area or less than 100 in a neighborhood) or atypically high counts.

In accordance with IAAO Standard 6 on Ratio Studies, The BCPAO's market areas are sufficiently large enough to acquire sufficient market data for analysis. Figure 5-5.1 categorizes all market areas for the major types of properties in Brevard County. Two market areas (40 – commercial and 60 – agriculture) are included in this table. Their respective properties are distributed throughout Brevard County. Thus, these two market area codes are more property identifiers than they are geographic references.

Figure 5-5.1 FDOR Use Codes by Property Type

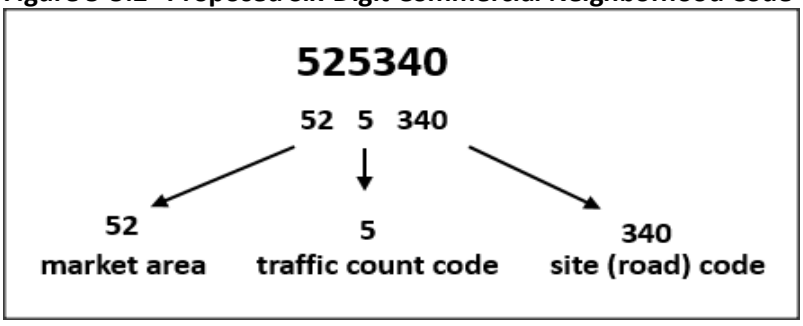
	Market Area	Neighborhood Count	Parcel Count	Sale Count
RESIDENTIAL	1	36	8,040	143
	2	2	227	2
	3	180	21,905	933
	4	15	9,918	503
	5	0	2,311	3
	6	26	7,915	167
	7	73	10,436	261
	8	80	9,920	423
	9	175	23,883	1,226
	10	53	6,522	325
	11	97	13,921	668
	12	139	21,005	913
	14	108	73,846	2,928
	15	49	14,450	380
	16	140	17,478	816
	17	141	4,903	223
	20	246	20,394	1,041
CONDO	41	78	5,111	168
	42	50	6,753	227
	43	63	7,415	209
	44	61	3,330	153
	45	88	2,498	124
	46	74	3,157	156
	47	65	3,301	190
	48	27	2,184	100
	49	68	4,893	228
COMMERCIAL	40	0	2,224	9
	50	0	8,250	65
	51	0	11,441	116
	52	0	4,107	36
AG	60	0	1,383	7

The table in Figure 5-5.1 shows that the condominium parcel count and sale count per condominium market area is acceptable, although Market 48's sale count is somewhat marginal. However, because the condominium units in this area are highly homogeneous, appraisers can accurately and equitable assess them.

The overall parcel count is adequate for all single-family market areas except for Market 2 (The Great Outdoors RV resort). As it is, this is an unusual area where most of the improved properties are single-family residences that are subject to condominium restrictions and declarations. The 227 parcel-count is mostly unimproved parcels yet to be developed. The appraiser for this area has considered incorporating these properties into adjacent Market 3 (Titusville) until improved. Market 5 predominantly consists of large, undeveloped, non-agricultural tracts in the marsh lands of western Brevard County.

Commercial market areas have not yet been branched into neighborhoods, but future plans exist to do so based on location and traffic counts. For example, the Commercial Department currently assigned Ron Jon Surf Shop (which fronts A1A in Cocoa Beach) a neighborhood code of 520000. In the near future, for commercial properties, appraisers plan to code the third digit of the six-digit code as a road type "5" (road with very high traffic count) and the last three digits "340" for road frontage (site code 340 - A1A). Figure 5-5.2 expounds on this new, proposed coding system.

Figure 5-5.2 Proposed Six-Digit Commercial Neighborhood Code



Following this change, Ron Jon Surf Shop and other commercial entities in the immediate area would have a neighborhood code of 525340.

Question 6: Does the jurisdiction validate the assignment of property use codes and geographic identifiers?

Describe quality control procedures utilized in the maintenance of property use codes and geographic identifiers. Refer to the reports produced in response to questions 1 and 5 above and explain any blank or invalid categories.

The BCPAO validates the assignment of property use and market area codes. Appraisers are limited to assigning only one use code per building, and only one use code for the property overall. The Valuation Department's data analyst often produces cross-tabulation checks (see Exhibit 5-6.1) through CAMA filters and SPSS (Statistical Package for the Social Sciences, by CoreLogic) software to verify that appropriate use codes are assigned within appropriate market areas. When the data analyst identifies problem properties, they are sent to the appraisers for review and correction.

For the two-digit market area codes and six-digit neighborhood codes, appraisers are also limited to adding only one value in the CAMA system tables, preventing any description from having more than one code. Residential appraisers are also required to review available neighborhood codes through an Excel spreadsheet (see Exhibit 5-6.2) to prevent duplication before being entered in the CAMA system.

Appraisers often find blank or invalid marks following a use-code query in AP5. They can usually explain such anomalies as being new parcels in an unfinished parcel split, or as a parcel that has been "closed" on the roll but not yet inactivated in the CAMA system.

EXHIBITS – Chapter 5

Chapter 6

PROPERTY DATA COLLECTION AND MAINTENANCE

Question 1: Do computer records contain information on current property use, highest and best use, and indicators of legal uses, such as zoning?

Describe the jurisdictional requirements pertaining to valuation by property use. Describe what zoning and land use data is collected and maintained and how it is made available.

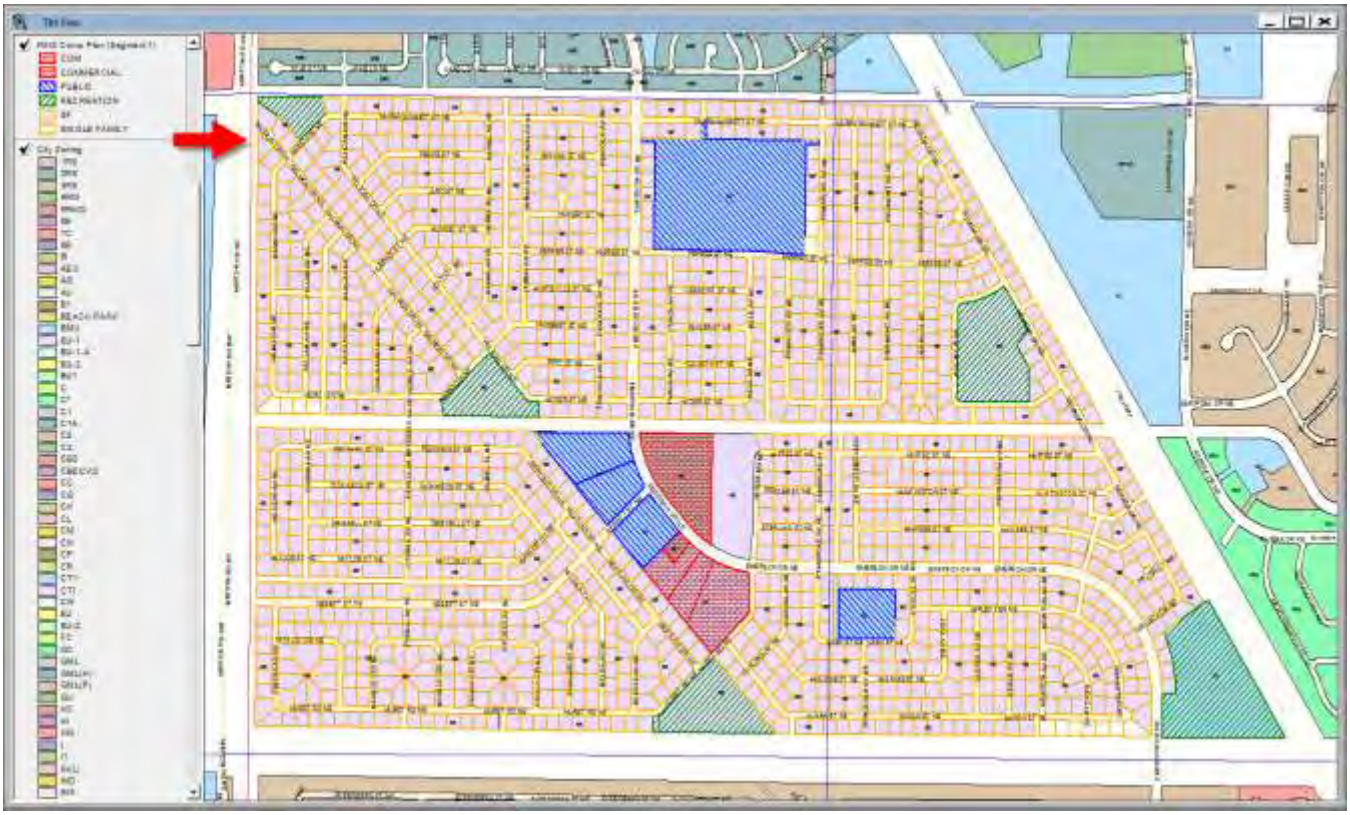
The BCPAO's CAMA system has records containing information on current property use and indicators of legal uses, such as zoning.

Almost all property uses in Brevard County require valuation. Exceptions include such use codes as 0903 and 0913 (vacant and improved residential common areas). More of a policy rather than a requirement, appraisers value the vacant common areas at $0 and the improved common areas at a nominal $10. Both types of properties do not produce an ad-valorem tax bill. Agricultural property uses require appraisers to generate fair market values and agricultural classification values. Distressed properties with use codes such as 0164 (Residential Improvement Not Suitable for Occupancy) require appraisers to assess improvements at a nominal value or with considerable depreciation. Additionally, road right-of-ways (property use codes 9400-public and 9410-private) necessitate placing a nominal value of $10 until the parcel is absorbed by the county or municipality, after which it is inactivated in the CAMA system.

BCPAO real property appraisers' primary GIS/appraisal tool, QC-View, has the ability to search and symbolize vacant and improved property use codes, site codes, zoning, future land use, and wetlands (see Chapter 4 for link to QC-View's user guide, and Chapter 8 for link to IAAO Fair & Equitable article about QC-View). Valuation appraisers can identify sample groups through various searches, and display those sample groups by color, pattern, or other symbology. Figures 6-1.1 and 6-1.2 show examples of QC-View's geospatial display capabilities for some of these attributes.

Figure 6-1.1 QC-View - Sample Group Displayed by Property Use Code

Figure 6-1.2 QC-View - Sample Group Displayed by Future Land Use Over City Zoning



Additionally, when appraisers work parcel splits, combinations, or subdivisions, they verify the subjects' zoning codes and comprehensive land use codes (LUC) to determine proper land rates and values. Appraisers access interactive zoning maps from municipal and county websites to view current data from authoritative sources (see Exhibit 6-1.1).

Question 2: Does the jurisdiction have a documented rationale for the data it collects, including its decisions on interior vs. exterior inspections and the frequency of each type of inspection?

List each property characteristic that the office collects and maintains and specify whether it is primarily required for valuation, or for other uses. Indicate the reliability of each data element and the rationale for collecting and maintaining it.

The BCPAO produced and maintains the Data Collection Manual for the Field Operations Department (see Exhibit 6-2.1), which is consistent with IAAO Standard 3.3.2.3 on Mass Appraisal of Real Property. This document guides field appraisers through the property inspection process and teaches field staff that obtaining accurate and objective information, and uniform subjective information, is critical to accurate and equitable valuation.

In keeping with IAAO Standard 3.3 on Mass Appraisal of Real Property, the BCPAO field appraisers collect many property characteristics from the exterior and interior of building structures. Figure 6-2.1 illustrates data characteristics the BCPAO considers sufficient for classification and valuation. Field Operations personnel are responsible for the Location and Improvement categories. While objective information is gathered from building plans, on-site inspections, and remote inspections via aerial imagery and geospatial tools, subjective information is gathered almost exclusively through on-site inspection.

Figure 6-2.1 Data Characteristics Used for Classification and Valuation

Data	Data Location	Data Type	Primary Use
LOCATION			
Site address	-	Objective	ID/Record Verification
Property Use Code	-	Subjective	Classification
"Known as" (commercial name)	-	Objective	ID/Record Verification
IMPROVEMENT			
Number of Stories/Multi-story	-	Subjective	ID/Record Verification
Total Units on Property	-	Objective	ID/Record Verification
Year Built	-	Objective	ID/Record Verification
Building Type	Ext/Int	Subjective	Valuation
Effective Age	Ext/Int	Subjective	Valuation
Quality	Ext/Int	Subjective	Valuation
Common/Party Wall Percentage	Ext/Int	Objective	Valuation
Foundation	Exterior	Objective	Valuation
Frame Type	Exterior	Objective	Valuation
Wall Type	Exterior	Objective	Valuation
Roof Structure Type	Exterior	Objective	Valuation
Roof Cover Type	Exterior	Objective	Valuation
Heat Type	Exterior	Objective	Valuation
Interior Wall Type	Interior	Objective	Valuation
Interior Ceiling Type	Interior	Objective	Valuation
Interior Floor Type	Interior	Objective	Valuation
Story Height	Exterior	Objective	Valuation
Building Sub Areas	Interior	Subjective	Valuation
Yard Items	Exterior	Subjective	Valuation
LAND			
Lot size - (overall acreage)	-	Objective	Valuation
Unit type (assessment method)	-	Objective	Valuation
Units	-	Objective	Valuation
Market Area	-	Objective	Valuation
Neighborhood code	-	Objective	Valuation
Site code	-	Subjective	Valuation
Zoning code	-	Objective	Valuation
Comprehensive Land Use code	-	Objective	Valuation
External	-	Subjective	Valuation

After field appraisers arrive at a property, they first verify general site data and then begin determining or verifying exterior characteristics of the building. Interior inspections of residential property, if performed, are generally implemented on two occasions: during initial inspection of a new home when substantially complete but not yet inhabited, and when property owners notify the BCPAO of interior damage or incorrect information (water/fire damage, unfinished areas, etc.) and invite the BCPAO out

to inspect the property. Interior inspection of residential property is not a requirement in Florida, and is mostly avoided. Field appraisers typically schedule an interior review with the taxpayer where, at an appointed time, the Field Operations Manager sends two BCPAO deputies to perform the inspection to verify visual findings and prevent any discrepancies. The appraisers also use third party websites such as MLS listings and realtor web pages to obtain interior information.

Through the years, the BCPAO determined that all data characteristics with a primary use of Valuation (see Figure 6-2.1 above) undeniably influence market value. The reliability of these features was tested and confirmed with multiple-regression models. These same characteristics were used as variables or converted variables and, consequently, produced logical and explainable coefficients. In contrast, such things as bedroom and bathroom counts, home irrigation, and fences, either did not significantly affect market value, or were unreliable due to inaccessibility and uncertainty. Only in the last twenty years has the BCPAO collected data from new construction plans submitted to building departments. Information about interior components of older properties was either a presumption or taken at the word of owners without verification. No Florida law requires owners to divulge this information. So, for equity, unreliable data was omitted from the appraisal process and is no longer collected.

The BCPAO's rationale for collecting and maintaining the particular data it collects rests with the importance of the benefits it receives: sufficient and verifiable evidence to equitably and uniformly mass appraise over 300,000 properties each year at the lowest cost to the taxpayer.

Question 3: Does the jurisdiction maintain computerized data on land attributes important in the local market?

List and briefly describe the land valuation characteristics maintained in the CAMA and/or GIS databases for valuation, highlighting any especially useful or innovative data elements and how such descriptors are standardized for ease of year-to-year updates.

The BCPAO maintains data on land attributes important to valuation in local markets. Figure 6-3.1 is a subset of the descriptive table presented in responses to previous questions, and summarizes the important land value characteristics maintained in the CAMA database. For example, appraisers use

such characteristics as zoning and comprehensive land use to help shape the rate and assessment method they might use (per-lot, per-square-foot, per-acre, per-front-foot, etc.) Depending on the site code and any external obsolescence, appraisers also use CAMA's "Influ %" fields to adjust rates by a percentage (described further in Chapter 8).

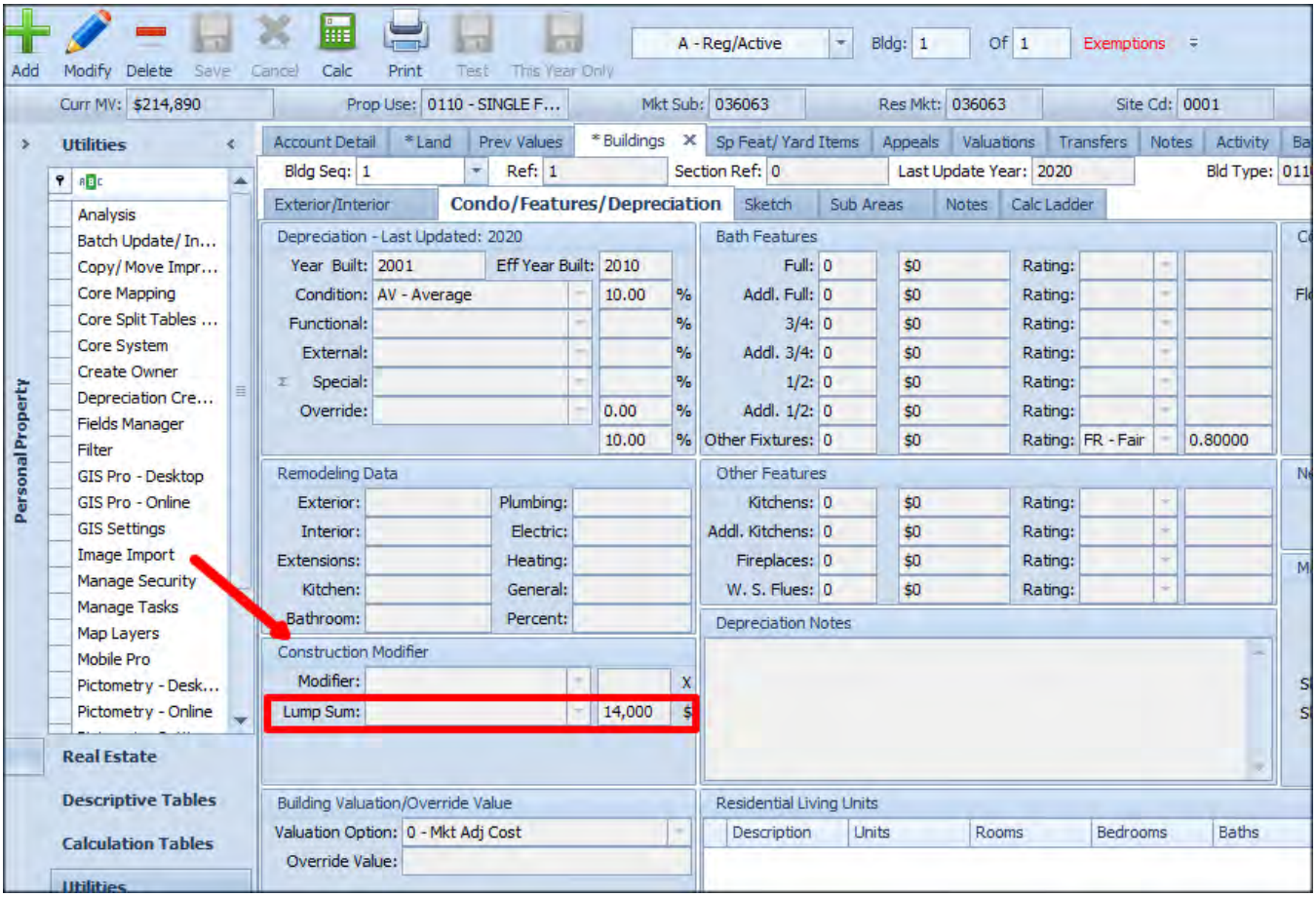
Figure 6-3.1 Data Characteristics for Classification and Valuation - Land

Data	Data Location	Data Type	Primary Use
LAND			
Lot size - (overall acreage)	-	Objective	Valuation
Unit type (assessment method)	-	Objective	Valuation
Units	-	Objective	Valuation
Market Area	-	Objective	Valuation
Neighborhood code	-	Objective	Valuation
Site code	-	Subjective	Valuation
Zoning code	-	Objective	Valuation
Comprehensive Land Use code	-	Objective	Valuation
External	-	Subjective	Valuation

One groundbreaking land data characteristic - the "Neighborhood code" - was first generated two decades ago when the BCPAO was developing initial multiple-regression models and immediately improved ratio dispersion statistics. This code allowed appraisers to instantly apply a lump-sum adjustment to all parcels within the neighborhood, bringing the overall neighborhood level of assessment (LOA) to an appropriate and equitable level.

For example, appraisers learned that neighborhood 036063 had 6 sales with ratios ranging from 75 percent to 79 percent, even after applying new land and building rates. By applying a lump sum amount of $14,000 in the CAMA's Construction Modifier Lump Sum field as seen in Figure 6-3.2, appraisers raised the valuations enough to generate a neighborhood LOA consistent with the county's overall goal of 85 percent (LOA discussed in more detail in Chapter 12).

Figure 6-3.2 CAMA Lump-Sum Adjustment



Appraisers update neighborhood adjustments year-to-year in the CAMA system when they find that all other attributes (building and land) remain acceptable, but discover that the neighborhood inexplicably continues to sell differently.

Question 4: Does the jurisdiction physically inspect properties at least every four to six years?

Briefly describe how frequently physical inspections are completed, how aerial photography is used in the inspection process, and whether all properties in a stratum are re-inspected or revalued when a sale of one or more unusually priced comparable properties is reported.

In accordance with IAAO Standard 3.3.4 on Mass Appraisal of Real Property, the BCPAO inspects all parcels every five years per Section 193.023(2), Florida Statutes (see Exhibit 1-3.3).

Field appraisers perform on-site inspections for all qualifying sales, additions, and taxpayer requests for review. Among items to inspect, field appraisers verify that improvements have current photos and updated digital footprint sketches in the system.

Field appraisers also conduct inspections using digital aerial imagery technology. Orthogonal and oblique aerial imagery is acquired annually over several weeks near the January-1 statutory appraisal date. Desktop reviews include use of several map applications, but the two primary applications used for aerial analysis are EagleView's CONNECTExplorer and CONNECTAssessment. CONNECTExplorer (see Figure 6-4.1) provides access to annual aerial imagery from 2007 to 2020, and includes identification and measurement tools. The vendor also supplies aerial imagery for affected areas following catastrophic events, such as Hurricane Irma, at no additional charge. CONNECTAssessment (see figure 6-4.2) is similar to CONNECTExplorer, but provides side-by-side comparison tools and direct management and tracking of property reviews identified by EagleView's ChangeFinder service (discussed later in this chapter). The BCPAO's most recent desktop appraisal toolset, EAA (introduced in Chapter 3), integrates ESRI, EagleView, and CAMA tools for a more cohesive desktop review system. Implementation is expected by third-quarter 2020.

Figure 6-4.1 EagleView CONNECTExplorer

Figure 6-4.2 EagleView CONNECTAssessment

Valuation Department appraisers handle inspection of properties that have recently been sold, but a total stratum re-inspection is not triggered when one or more unusually priced comparable properties are discovered. The appraisers typically inspect the outliers and any other exceptional sales. Confident in their sale data for typical homes sales, appraisers believe that a complete area re-inspection is neither warranted nor cost effective.

The BCPAO uses CONNECTAssessment (discussed previously) to recheck parcels that have not been inspected within five years. The program takes older aerials and compares them with new aerials to detect any improvement changes. If a change is detected, an appraiser reviews the property and updates the CAMA record. In some cases, an on-site inspection is required.

Question 5: Does the jurisdiction regularly obtain copies of building permits, occupancy permits, or both, and does it conduct physical inspections of affected properties?

Describe the jurisdiction's ability to obtain relevant information from other government agencies, the frequency and format in which it is received, and any noteworthy procurement issues.

The BCPAO receives permits from unincorporated Brevard County and municipal building departments in the form of paper copies or electronic downloads.

The Field Operations Department receives both final dates and Certificate of Occupancy (CO's) notifications from the various jurisdictions. The BCPAO's Building Plans Specialist queries AP5 for these permits and obtains the construction plans from each governing office. From these construction plans, the specialist creates digital footprint drawings in Apex for field staff to use during their on-site inspections. Personnel verify some permits through image technology.

For the 2019 assessment roll, the BCPAO received approximately 33,300 permits electronically (about 2,800 per month). In addition, the Field Operations manager received approximately 23,000 hard-copy permits (about 1,900 per month).

Building permit procurement issues exist. For example, the BCPAO discovered that not all unincorporated Brevard County electronic permits are sent. Swimming pool permits as well as re-roofs and demolitions are never downloaded. Because of this, field appraisers frequently discover new swimming pools when out reviewing other permitted items. Also, some cities have no permit search on their websites. When their permits are described with an unaccommodating, generic title such as "Add/Alt" or "Misc", field appraisers are left with little information from which to determine if the permit actually warrants a field inspection. To remedy the situation, the BCPAO plans to appoint an office liaison from the Field Operations Department to meet with permitting offices to resolve some of these issues.

Question 6: Is the residential property record card designed to facilitate collection and review, and is it supported by a data-coding manual and training program?

Provide a copy of the primary data collection form(s), and data collection and training documents. Indicate how they promote clarity, good organization, integration between form and manual, and quality through training materials.

The BCPAO residential property record card (aka property data card or PDC) is designed to facilitate collection and review, and is supported by a data coding manual and training process. The PDC contains

all objective and subjective information along with parcel ID, site address, transfer dates, and owner information (see Exhibit 6-6.1).

Field appraisers designed the current PDC so that an efficient physical inspection matches a well-organized flow of the card's data-points (down and left to right). For example, immediately after exiting the vehicle, filed inspectors verify address, property use, quality, story height, and condition, then move on to exterior/interior information before making measurement verifications. Data entry specialists key data from PDCs into AP5 in much the same way it was collected. To ensure quality, these specialists follow the same PDC training document as the field appraisers (see Exhibit 6-6.2).

The BCPAO is currently updating the Field Operations Manual this year to make the training process easier to comprehend. Writers, working with the project-management vendor, Alluvionic, are referencing current procedures to the new CAMA pages and system.

Question 7: Does the office use mobile electronic devices for field data collection?

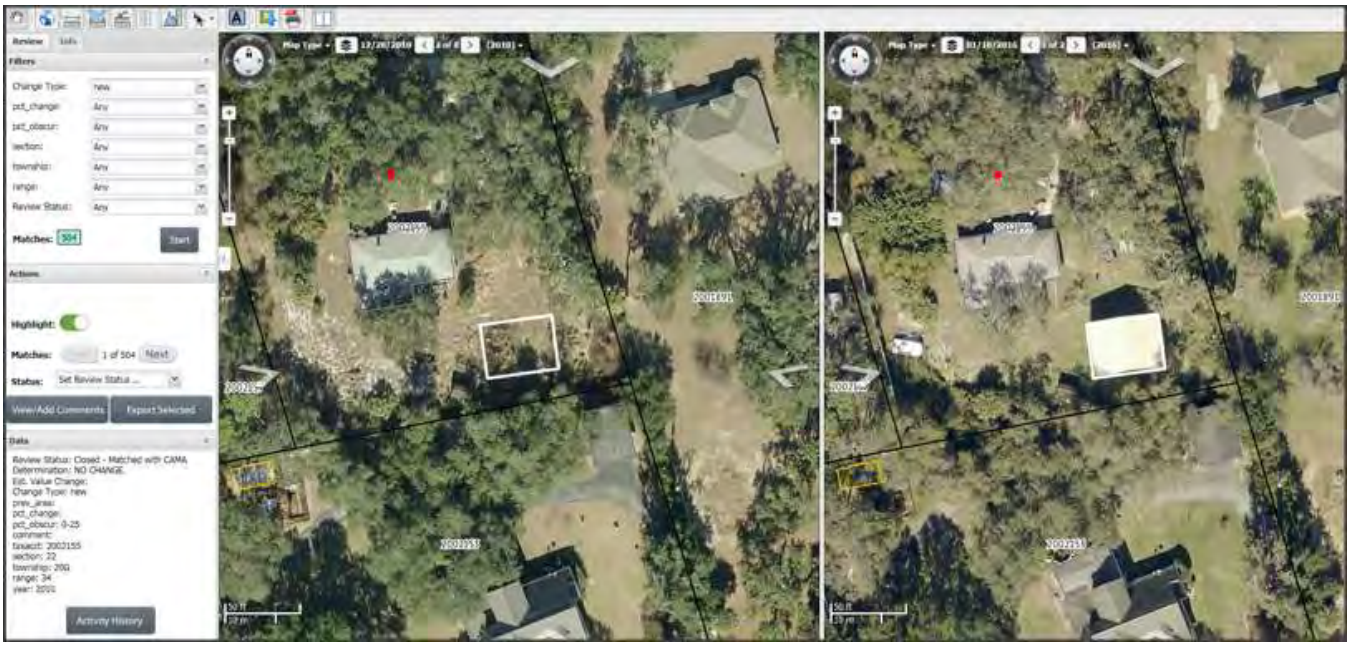
Describe what steps are taken to maximize the efficiency and reliability of field data collection. If applicable, briefly describe your automated field data collection systems and operations, including initial and ongoing costs and benefits, how data are collected and validated, how sketching is handled, and the role, if any, field data collection devices play in the procurement of photographs, signatures, or other proofs-of-visit.

The BCPAO has reviewed and tested several electronic field collection products, but does not currently use mobile devices for field data collection. Florida's weather and environment are major limiting factors. Extreme heat, sun, wind, and sand make collecting data on a digital device problematic – especially when visiting oceanfront properties. Touch screens are quickly coated with sweat, sand, and sunscreen, and intense sunlight makes even the best screens difficult to read. High heat reduces battery life and can damage electronic devices recharging in parked vehicles.

The BCPAO, like many other large jurisdictions with over 330,000 parcels, has recently fallen behind on the mandated 5-year review. Thus, the Office sought help in adding a quicker, data collection system.

To stay in compliance, help lower costs, enlist other office personnel, and document results, the BCPAO procured EagleView's ChangeFinder to help identify changes, as seen in Figure 6-7.1. With a subset of parcel polygon data provided by the BCPAO, the vendor compares base-year imagery with current flight-year imagery to detect changes at the parcel level. In an automated fashion, the vendor generates building footprint outlines from aerial photography. Vendor personnel then compare building structure outlines filtered by a custom set of parameters. The vendor's reviewers assign each parcel a "change type" and then the project is sent back to the BCPAO for deputies to review. Appraisers sketch any confirmed changes or new structures, and key corresponding data into the CAMA system.

Figure 6-7.1 EagleView ChangeFinder



The BCPAO benefited immensely from this tool. Because ChangeFinder identified matching parcels (52,000 from the 2007-2010 project), these parcels were labeled with a new field check date and are now in compliance with Florida requirements. The Valuation Department's data analyst validated the results of the matching candidates after several sample tests revealed that 99.5 percent of all declared matches were genuine. Due to the pre-identification of the "Matching" set, the BCPAO was able to divert all manpower to those candidates that ChangeFinder identified as a "Change" (6,200 from the 2007-2010 project). Over a dozen deputies worked on this set, which was completed in less than three months.

The BCPAO estimated that, while physical field inspections cost the jurisdiction about $9.33 per parcel, the ChangeFinder application calculated cost only $1.25 per parcel. ChangeFinder was well worth the investment.

For actual physical inspections, it is the responsibility of the field staff to accurately measure all improvements on each parcel. The field appraisers typically use the Bosch laser measuring devices to measure improvements, and each vehicle has a 100-foot and 25-foot tape measure as back up in case the laser malfunctions.

All BCPAO vehicles are equipped with GPS tracking to validate proof-of-visit. The field appraisers take photos with a digital camera and upload the photos to a server repository. Photos are viewed through the BCPAO intranet site (see Exhibit 6-7.1), and are linked in AP5. When photos are uploaded, a daily report is created that also verifies proof-of-visit.

Question 8: Does the assessment office have computerized edits that include both range and consistency checks?

List and briefly describe the jurisdiction's various computerized data edits and how they are updated.

The CAMA system includes both preset and custom reports that can easily include range and consistency edits. Users create filters using almost any CAMA field to perform data checks.

The CAMA system has over 200 reports. Most of the range and consistency edits lie in a few folders based on subsets of the system, and some of these edits are further refined into smaller groups for specific examinations (see Exhibit 6-8.1). These reports can be generated in hard or digital copy.

Most CAMA report jobs run overnight and populate the reporting tables. Some jobs run during the day, updating only data that has changed since the last run.

Question 9: Are property data collected or at least reviewed by experienced appraisers?

Briefly describe the practices for data collection for residential, commercial, and industrial property, including requirements both for new-construction data collectors and for those involved in maintenance and sales verification.

Describe the training received for each, the standards promulgated (see questions 11 and 12), and the steps taken to ensure consistency over time and across the jurisdiction.

All field appraisers are deemed proficient after following a rigorous 90-day training course (see Exhibit 6-9.1). Trainers and trainees complete in-office and in-field task lists to ensure trainees understand all aspects of the job (See Exhibit 6-9.2). Data collected by these trainees is reviewed by senior field staff for quality assurance, which is discussed under future questions in this chapter.

All field appraisers perform new-construction data collection as well as maintenance and sales verifications. The Field Operations Department currently employs nine residential field appraisers and three, more-seasoned, field appraisers who primarily review commercial and industrial properties due to the inherent complexities of such properties.

Although the Field Operations Department has experienced a high turnover rate in the past few years, technology and highly-experienced remaining staff accomplish field-inspection goals. Consistency, resulting from training and adherence to standards promulgated in the Field Operations and 90-day training manuals ensures accurate, equitable, and complete field data is collected.

Question 10: Does the jurisdiction have explicit data accuracy standards?

Briefly describe the jurisdiction's data accuracy standards and how they are developed, revised over time, used throughout the office, and how they accord with the IAAO Standards.

The BCPAO's Field Operations Department has very clear and documented data accuracy standards. The BCPAO developed the latest standards several years ago, and are frequently refined. Field staff, Valuation Department appraisers, and the Chief Deputy contribute criteria for these standards.

Consistent with IAAO Standard 3.3.2.4 on Mass Appraisal of Real Property, the BCPAO's field appraisers are required to be accurate to within 1 foot when measuring linear feet or story height. Regarding objective, categorical, or binary data, field appraisers must score at least 90 percent on a quality control inspection (discussed later). Field appraisers are advised that the omission or mislabeling of data will negatively affect their scores. As to subjective categorical field data, BCPAO standards require being within 10 years of observed effective year built and within 1 class of quality grade. Moreover, because these two subjective fields significantly affect valuation, field appraisers are required to inform the area's responsible Valuation Department personnel of any changes so they can cross-check the conversion.

Question 11: Does the jurisdiction have a data quality control program?

Briefly describe the jurisdiction's data quality control/quality assurance. Describe any special data review or collection activities undertaken for geographic areas with high CODs (Coefficient of Dispersion). If possible, note the impact of such reviews on the COD.

The BCPAO Field Operations Department has a quality control program. The current procedure is defined in a comprehensive quality control policy and is performed at least three times a year on each staff member (see Exhibit 6-11.1).

The Field Operations Manager assembles a random day's work for each field appraiser, which is then reviewed by a senior staff member. A point system determines the accuracy of inspections. Field appraisers who do not meet the expectations of the quality control standards will begin the first step of three disciplinary actions, including a letter of instruction, a written reprimand with probation, and dismissal. Furthermore, the manager will schedule an improvement plan with additional training to correct deficiencies and weaknesses. All field appraisers are encouraged to seek training for any item concerning the collection of field data that they do not understand.

Recent statistics reveal no unreasonably high coefficients of dispersion (CODs) in any market areas. Appraisers are usually vigilant of all issues related to unusual sale prices and, therefore, special data reviews for specific geographic areas have not been necessary.

Question 12: Does the jurisdiction avail itself of valuable third party data sources?

Briefly describe the jurisdiction's use of data from external sources and the extent to which it is used as received or as a flag to attempt to confirm changes with primary sources.

The BCPAO field appraisers use third party data sources such as Brevard MLS, Zillow, and REALTOR.com. These websites are excellent sources for interior information with the photos and narratives they provide.

The commercial field appraisers use CoStar, LoopNet, and the business' own websites to obtain information for valuation purposes.

Question 13: Does the jurisdiction obtain and make appropriate use of electronic photographs?

Briefly describe your office's procurement of photographs, their type(s), refresh cycle(s), irregular updating, and usage.

The field appraisers take multiple photos of each improvement on a parcel that are in a direct line of sight while adhering to privacy and trespass laws, and BCPAO guidelines. Photos of unimproved land are taken if there was cause for a special visit to the property. As discussed in Question 7, field appraisers upload photos to a server repository. Photos are viewed through the BCPAO intranet website, and are linked in AP5. The field appraisers set a flag in the database denoting a web-safe front photo, which is displayed on the BCPAO public website. The BCPAO intranet photo page also archives old photos to retain a history for each parcel.

In 2007 the BCPAO completed a project to acquire at least a front photo of every single-family home in Brevard County. With the advent of desktop review using high-resolution aerial imagery, many of these 2007 photos have not been replaced with newer photos. If a permit, appeal, owner request, or other action did not occur to trigger an on-site inspection, these photos remain as the most recent in the system. Figure 6-13.1 illustrates a home which has neither sold nor required an on-site inspection.

Figure 6-13.1 Single-Family Residence Latest Photo - 2007

Although the BCPAO has discussed possible remedies to update property photos, including contracting with outside vendors such as iLOOKABOUT or ESRI, no immediate strategies exist. Figure 6-13.2 shows how oblique imagery sometimes renders street-side photos unnecessary or even inferior. Unless obstructed by trees, annual oblique imagery can provide more current, countywide, visual information about a building's exterior — including frontage, features, surroundings, etc. — from a variety of views (north, south, east, and west). In the example shown in Figure 6-13.2, capturing the entire front-view of this home with a handheld camera at street level would require a wide-angle lens. High-resolution oblique aerial imagery provided a more informative photo of the property.

Figure 6-13.2 2019 Oblique Aerial Image of Single-Family Home

Question 14: Does the jurisdiction capture property data available from marketing materials or blueprints?

Briefly describe the jurisdiction's acquisition of data from builders in the form of marketing materials and blueprints. Describe how the jurisdiction uses such data.

As discussed previously, the BCPAO's Building Plans Specialist obtains building permits and construction plans from county and municipal building departments. The specialist draws building footprint subareas and other structures using Apex software, which field appraisers verify on site.

Regarding marketing materials, appraisers are encouraged to visit the sales office to pick up brochures and flyers when physically reviewing newly developed subdivisions. Any information about site plans, prices, and interior amenities can only benefit the appraisers in future classifications and valuations.

Question 15: Does the jurisdiction capture information submitted during appeals?

Briefly describe the jurisdiction's use of data submitted upon appeal, how it is managed, and whether it is used beyond the specific circumstances of the appeal.

During the appeal process, the BCPAO uses all information gathered to ensure improvement and land valuations are accurate and equitable. The Valuation Department and Field Operations Department gather such data as final/CO dates, construction costs, repair estimates, surveys, private appraisals, and current information from on-site inspections. After the appeal season concludes, appraisers enter all significant data into the CAMA system's historic notes field and send all noteworthy documents to scanning for future reference.

EXHIBITS – Chapter 6

Chapter 7

SALES DATA AND RATIO STUDIES

Question 1: Are all transfers of property (sales) uniquely identified and captured?

If the jurisdiction operates under a legal system that provides for mandatory disclosure of sales information to appraisers and their relevant oversight agency, explain the process, provide a copy of the sales disclosure document, and describe whether each sale is uniquely identified and accounted for in an auditable manner. If the jurisdiction is currently working without sales disclosure, describe how sales are identified and processed and any efforts the jurisdiction is involved in to remedy the policy deficiency.

Although Florida has no disclosure laws, transfers of all recorded properties are uniquely identified and captured in accordance with IAAO Standards 3 and 4 on Verification and Adjustment of Sales.

Nearly all real property sales are recorded with Brevard County Clerk of Court, which assigns the deed an Official Record Book and Page number. Deeds are electronically forwarded to the BCPAO's Deeds Department. After reviewing information contained within the transfer document, these specialists apply a preliminary qualification code based on FDOR guidelines (see Exhibit 7-1.1). They then manually enter all pertinent information about the transaction into the CAMA Transfers page.

One of the most important segments of deed information is the real estate transfer fee (Florida Documentary Stamp Tax, aka doc stamps). This tax is broad and could apply to any transfer of an interest in property (see Exhibit 7-1.2). Paid to the Clerk of Court, doc stamps are directly related to the property's sale price and are used to reverse-calculate what the owner paid for the property.

Question 2: Are real estate sales properly screened and appropriate adjustments made?

Provide a description of the jurisdiction's validation procedures, including any written guidelines used for the validation process.

If applicable, describe how sale prices are adjusted for items such as personal property in the CAMA system and indicate whether the original price is preserved. Provide documentation with examples.

Discuss the coding system for sales validation, including what is done when more than one code is applicable, assuming the codes are not mutually exclusive.

Describe briefly how the jurisdiction processes multi-parcel commercial sales.

Describe how sales valid for valuation purposes, but not for ratio study purposes (or vice versa), are handled and how they are retrieved for various purposes. Provide examples.

All real estate sales are properly screened and verified, consistent with IAAO Standard 5 on Verification and Adjustment of Sales.

Once the Deeds Department enters all sale information into the CAMA system, they send a daily list of all "qualifiable" deeds to the Sales Qualification Specialist (SQS). The SQS analyzes the deeds while following written guidelines (see Exhibit 7-2.1) from the Valuation Department Operations Manual, and vets all codes on every deed, looking for missing or incorrect coding. The SQS also disqualifies any additional deeds by looking for occurrences such as final judgements or lis pendens (pending legal actions). After this stage, the SQS sends out letters and sale surveys (see Exhibit 7-2.2) to owners of the remaining deeds in an effort to seek out any additional information not discernible from the sale price and deed.

The SQS estimates that well over half of all surveys are returned back to the office for review for any sale qualification changes. If the SQS makes a change, the appropriate appraiser is notified. The SQS sends all relevant documents to the Scanning Department.

Appraisers also screen sales. After filtering for a subset of properties in the CAMA system, appraisers monitor sales within their market areas, paying particular attention to those with assessment-to-sales ratios below 70 percent and above 100 percent. They often use online realty services to provide more data about transactions as well as the public MLS service and CoStar Property Services. Like the SQS, the

appraisers may also contact the parties of record (buyers and sellers), real estate agents, title specialists, and attorneys. Appraisers may also field-review the property, and interview any neighbors for additional information, if required.

The FDOR prohibits the adjustment of sale prices due to transaction details. However, in keeping with IAAO Standard 7.5 on Verification of Adjustment of Sales, when members of the Valuation Department discover that a sale includes personal property which is known to be greater than 10 percent of the sale price, they can change the qualification code to "35 – Transfer involving atypical amounts of personal property". For example, when a condominium unit is sold furnished, the Sales Verification Survey returned from the buyer is used by the SQS to disqualify these sales (see Exhibit 7-2.3). Appraisers often apply the "35" disqualification code after reviewing certain transactions where a sales ratio appears to be an outlier. For example, a body shop recently sold for $500,000 but the BCPAO's valuation was only half that amount. Further discussion with the seller by an appraiser revealed that thousands of dollars' worth of equipment was included and the appraiser corrected the qualification code and documented this change for FDOR purposes (see Exhibit 7-2.4).

The BCPAO coding system accommodates IAAO Standard 6 (specifically Standards 6.5 and 6.6) on Verification and Adjustment of Sales, and actually involves four codes: sale qualification code, sale verification code, source code, and property change code. The sale qualification code, as described previously, follows strict FDOR guidelines. It is initially applied by the Deeds Department specialists and can be entered and changed at any time by the sales qualification specialist or an appraiser. Sale information is submitted to the FDOR each year as part of the Sales Data File (SDF) which is analyzed for missing or invalid transfer data. The sale verification code (see Exhibit 7-2.5) provides management with a quick answer to the question if the SQS or appraiser has researched the transaction, and is entered in CAMA. The source code is entered by the Deeds Department specialist into the CAMA system in the initial stages of the transaction review, and essentially is the deed instrument type (see Exhibit 7-2.6). The property change code is used by the FDOR and is part of the SDF (see Exhibit 7-2.7). The code is used to track properties with a significant change in physical attributes since the sale date.

Following a transaction review (which may lend itself to multiple transfer/disqualification codes) the SQS may contact an appraiser for help in the decision. The BCPAO has no specific rules on these unusual

incidences, so appraisers decide on a case-by-case basis, and usually choose a transfer code that best represents the circumstances, and is easiest to defend, if the need arises.

With regards to multi-parcel sales, specialists in the Deeds Department identify these sales in the early stages of transaction reviews. Even though the FDOR may disqualify these transactions, appraisers find that most of these sales are otherwise acceptable and useful for developing rates. Appraisers from the Commercial Department are always seeking supplementary sales, so they track all sales (qualified or disqualified) for appropriateness, and enter them into an annual spreadsheet (see Exhibit 7-2.8).

As written above, the Commercial Department reviews every sale every year, irrespective of the transfer code. Many disqualified sales are still considered arm's-length transactions after further review. For example, besides the multi-parcel sales, appraisers often find that some transfers to or from a financial institution are compatible with qualified sales, especially if the sale involves a bank or and the sale price meets expectations. Another example is transfers between relatives. Occasionally the sales price of these transaction types is within a reasonable range and, although the FDOR requires these sales to be disqualified for ratio studies, these transactions are useful in developing rates.

As another oversight check, the FDOR conducts an in-depth audit every year to verify the jurisdiction's sale qualification decisions. The FDOR assembles 100 deeds and performs their own sales qualification study. For the county to pass, 90 percent of the BCPAO's qualification codes must match FDOR codes. The reviewing process begins with the mismatches – qualified sale by the Property Appraiser vs. disqualified sale by the FDOR (or vice-versa). At this point the Property Appraiser must convince the FDOR where the agency may be wrong. If the FDOR is convinced that the Property Appraiser has additional/sufficient evidence to overturn the FDOR original decision, the FDOR will declare the individual sample a "match". If the FDOR is not convinced, the Property Appraiser is deemed incorrect, concedes, and the sale becomes a "mismatch" (see Figure 7-2.1). The FDOR review process each year takes about a week with final results and scoring coming in mid-May.

Figure 7-2.1 FDOR Sale Qualification Audit

Brevard County scores:

Year	Sample Size	Original Mismatch	Final Mismatch	Score
2013	40	4	2	95.0%
2014	40	4	1	97.5%
2015	40	4	0	100.0%
2016*	40	6	0	100.0%
2017	40	3	0	100.0%
2018	40	5	0	100.0%
2019	100	8	0	100.0%
2020	100			

*First year using AP5

Question 3: Are sales used in valuation analyses and ratio studies adjusted to the valuation date (time-trended)?

Describe what methods of time adjustment are used by the jurisdiction and how they correspond to the IAAO standard and the material in Fundamentals of Mass Appraisal.

Provide sample trend analysis reports and reports showing methods of time adjustment, along with a description of these reports.

Sales used in valuation analyses and ratio studies are time-trended, in conjunction with IAAO Standard 7.9 on Verification and Adjustment of Sales. However, since the FDOR only time-trends single-family residences and condominiums, the BCPAO, also, only time-adjusts these property types to mirror the FDOR's results each year.

The BCPAO uses time-adjustment factors (TAF) developed and applied on a straight-line basis. Through a multiplicative model used to find the natural log of the sale-to-assessment-ratio (SAR), the BCPAO uses regression analysis to help extract the appropriate trends. Once the trends are determined, they are applied to determine the TAF required for each month, for each type of property. Figure 7-3.1 is an output report from SPSS reflecting the TAF for condominiums for the 2019 roll year. Essentially, the market stabilized around May 2018.

Figure 7-3.1 Condominium Time-Adjustment Factors - 2018

CONDO TAF			
*Report			
TAF			
Sale Month (Jan 2018=1, Feb 2018=2, etc.)	Mean	N	Std. Deviation
1	1.0225	81	0
2	1.0154	89	0
3	1.0083	141	0
4	1.0013	109	0
5	0.9944	129	0
6	0.9944	83	0
7	0.9944	104	0
8	0.9944	94	0
9	0.9944	75	0
10	0.9944	98	0
11	0.9944	73	0
12	0.9944	65	0
13	0.9944	66	0
Total	1.0001	1207	0.00897

Figure 7-3.2 is an SPSS output report reflecting the TAF for single-family residences which include mobile homes and townhomes. The market indicated stabilized prices around July 2018 for these property types.

Figure 7-3.2 Single-Family Residence Time-Adjustment Factors - 2018

SFR TAF			
*Report			
TAF			
Sale Month (Jan 2018=1, Feb 2018=2, etc.)	Mean	N	Std. Deviation
1	1.039	353	0
2	1.0318	449	0
3	1.0246	625	0
4	1.0175	606	0
5	1.0104	655	0
6	1.0034	641	0
7	0.9964	624	0
8	0.9895	629	0
9	0.9826	485	0
10	0.9825	511	0
11	0.9925	468	0
12	0.9975	441	0
13	1.0025	334	0
Total	1.0052	6821	0.01616

Question 4: Are ratio studies conducted at timely intervals during the valuation process?

Describe how often ratio studies are used to monitor valuation accuracy.

Provide examples of the types of ratio studies prepared.

Describe the steps the jurisdiction follows if the ratio study results do not fall within the acceptable standards set by the Standard on Ratio Studies.

Provide a sample to demonstrate various types of strata used in the ratio studies.

Note whether the results of ratio studies conducted by the jurisdiction or by the state oversight agency are shown on assessment notices, and provide samples if so. (If there is no requirement for them, the jurisdiction will not be penalized for omitting them.)

Consistent with IAAO Standard 4.2 on Ratio Studies, the BCPAO conducts ratio studies at timely intervals during the valuation process, usually bi-weekly and then weekly as the valuation process approaches the first deadline in June. Appraisers may also conduct their own daily ratio studies when evaluating their properties at the neighborhood level.

The actual valuation process begins January 1 each year. Therefore, the data analyst usually runs the first studies in late February. One study monitors several statistics including the LOA, PRD, and COD of strata 1 and 6 (see Figure 7-4.1 for strata definitions). Overall numbers (for stratum 1 and 6 together) are reviewed as well as those delineated by market areas.

Figure 7-4.1 Florida's Statutory Strata

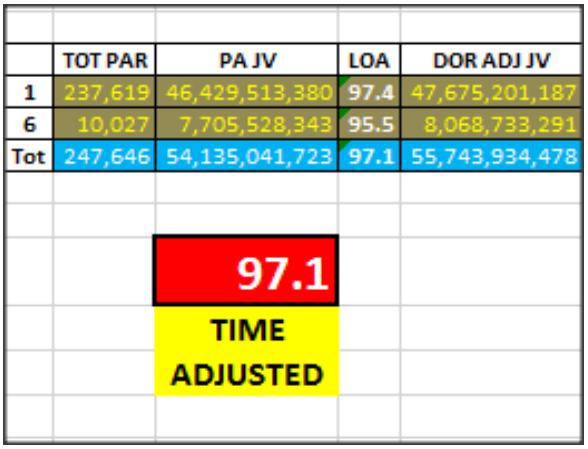
Basic Stratum	Definition	Use Codes
Statutorily Defined 1	Residential property that consists of one primary living unit, including, but not limited to, single-family residences, condominiums, cooperatives, and mobile homes.	01, 02, 04, and 05
Statutorily Defined 2	Residential property that consists of two or more primary living units.	06 and 08
Statutorily Defined 3	Non-homestead agricultural and other use-valued property.	50 -69 and 97
Statutorily Defined 4	Vacant lots.	00 and 07
Statutorily Defined 5	Nonagricultural acreage and other undeveloped parcels.	10, 40, and 99
Statutorily Defined 6	Improved commercial and industrial property.	03, 11 - 39 and 41 - 49
Statutorily Defined 7	Taxable institutional or governmental, utility, locally, assessed railroad, oil, gas and mineral land, subsurface rights, and other real property.	70 - 96 and 98

Because the studies are color coded for degrees of acceptability, an early-year strata ratio report may indicate that much work is still needed to improve acceptable ratio standards (see Exhibit 7-4.1). By the end of the valuation process, a strata ratio report (see Exhibit 7-4.2) should display that all major groups are "in the green" and all minor categories "out of the red".

The FDOR has approved the BCPAO assessment rolls every year because they adhere to the IAAO Standard on Ratio Statistics (see Exhibit 7-4.3). During the valuation process, the data analyst constantly monitors the work of appraisers as they review their sales and re-evaluate their assigned market areas. The data analyst often identifies outlier sales needing additional review since they are adversely affecting the market area's PRD and COD numbers.

The data analyst is also mindful of the LOA numbers from the two strata the FDOR scrutinizes. The FDOR mandates that each stratum's LOA must be plus or minus 5 percent of the overall LOA. Because stratum 6 (improved commercial) has so few sales, the LOA frequently lags behind during most of the valuation process until commercial appraisers make final adjustments. Ultimately, the BCPAO's Commercial Department's stratum 6 LOA finishes within 5 percent of the overall LOA. Figure 7-4.2 shows an example of the estimated LOAs for stratum 1, 6, and overall after a recent study.

Figure 7-4.2 Final Levels of Assessment (LOAs)



	TOT PAR	PA JV	LOA	DOR ADJ JV
1	237,619	46,429,513,380	97.4	47,675,201,187
6	10,027	7,705,528,343	95.5	8,068,733,291
Tot	247,646	54,135,041,723	97.1	55,743,934,478

Through an Excel spreadsheet (see Exhibit 7-4.4), the analyst enters all data from an SPSS output page to produce statistics and LOAs for stratum 1, 6, and overall, in an effort to estimate the overall LOA from the FDOR. All properties for each stratum have been through numerous exclusion filters including year built, ownership, and new construction amount. In the end, each stratum is stratified into five groups, based on market value, of which four are used for computations.

The Truth in Millage (TRIM) Notice of Proposed Taxes does not show ratio study results conducted by the BCPAO or the FDOR (see Exhibit 7-4.5). LOA results are posted on the FDOR's website for each Florida county.

Question 5: Does the jurisdiction conduct ratio studies by property groups and subgroups?

Document the strata that the jurisdiction uses for performing ratio studies and provide sample ratio study results to demonstrate that IAAO standards have been met.

Note any rules the jurisdiction employs about what stratification bases are to be used in, in case of usual sample sizes and reliability statistics.

The BCPAO conducts ratio studies by property groups and subgroups. The examples (presented in the previous segment) display geographic stratification by market areas (see Exhibit 7-4.2). As discussed previously, Brevard County uses 17 residential market areas, 9 condominium market areas, and 3 commercial market areas. All groups and subgroups meet IAAO standards for ratio studies. Additionally, the strata report example (see Exhibit 7-4.4) groups properties by market value level, from which FDOR studies are conducted. All groups and subgroups meet IAAO standards for ratio studies.

The data analyst also conducts ratio reports (see Exhibit 7-5.1) on residential properties: single-family, townhomes, and half-duplexes. This study analyzes LOA for several property subgroups: use codes, building class, market areas, effective year built, major site codes, and others. By the end of the valuation process, a vast majority of these subgroups validate that the IAAO standards have been met down to the subgroup level. Figure 7-5.1 illustrates excellent equity between property groups by major site codes for the 2019 assessment roll.

Figure 7-5.1 Levels of Assessment (LOAs) by Major Site Codes

CURRENT MV STUDY	NO.	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	SD	AAD	PRD	COD
Ocean	23	81.3	84.3	83.0	97.6	8	5	101.6	6.5
River	126	82.8	82.4	81.6	96.0	10	6	101.0	7.4
River Acc	26	83.1	81.6	82.6	97.2	10	7	98.8	7.8
Canal	288	83.0	84.3	83.2	97.9	10	6	101.3	7.7
Golf	196	83.4	84.3	84.2	99.1	6	4	100.1	4.7
Other	10883	82.9	83.3	83.1	97.8	8	5	100.3	6.4

Any subgroup that fails one or more of the ratio standards reveals that either additional appraisal work is required for this subgroup or a CAMA table's data factors need to be adjusted.

In trying to mirror FDOR's stratum report, the BCPAO follows certain rules to exclude cases from ratio reports such as large-valued parcels which are 15 percent or more of the total value of the stratum. For example, if a commercial warehouse was sold and assessed at $15 million and the entire stratum 6 (commercial) market value was $100 million, the sale would not be included in the study. Additionally, the BCPAO will exclude newly built properties (e.g. 2018-built homes for the 2019 roll year), and statistically low-value parcels (for 2019, market values below $90,000).

The FDOR only evaluates strata that have at least 5 percent of the total assessed value of all suitable property in the county. Because of this, the data analyst annually examines each stratum's total value. Value data, as Figure 7-5.2 suggests, once again verified that the FDOR would be scrutinizing stratums 1 (improved residential) and 6 (improved commercial) only. Stratum 7, although totaling almost $6.5 billion, comprises institutional and governmental properties, which are not analyzed in FDOR ratio reports.

Figure 7-5.2 Strata - Total Market Values

*Statistics MV stratm	N		Sum	
	Valid	Missing		
1	239,464	0	47,266,583,150	74%
2	3,002	0	706,987,530	1%
3	1,386	0	419,034,480	1%
4	56,948	0	990,017,650	2%
5	4,547	0	591,953,490	1%
6	10,030	0	7,706,561,668	12%
7	10,231	0	6,496,662,070	10%
11	65	0	5,134,930	0%
13	6,971	0	153,280	0%
			64,183,088,248	100%

The data analyst will conduct additional ratio studies of combinations of property characteristics if a reliable sample is present, usually 30 cases.

Question 6: Does the jurisdiction use ratio studies as a tool for planning both reappraisals and staff needs?

Describe and provide sample ratio reports and similar documents that show ratio study results in support of planned revaluation activities.

Provide ratio reports indicating the need for additional field appraiser training.

Provide evidence of the use of ratio studies for other purposes as well, such as correction, evaluation of performance, the conduct of reappraisals, and neighborhood definition.

In keeping with IAAO Standard 3.1 on Ratio Studies, the BCPAO periodically uses ratio studies during the valuation process to evaluate overall and specific market area statistical success. These ratio reports, along with a more comprehensive ratio study, are used to provide an objective evaluation of appraiser work output, and to supplement the appraiser's annual performance evaluation.

In accordance with IAAO Standard 3.7 on Ratio Studies, the objective study is designed to identify appraisal performance, strengths and weaknesses, and any possible inconsistencies within an appraiser's market area (see Exhibit 7-6.1). The study is unique in that it provides LOA range-goals down to the neighborhood (subdivisions or groups of similar subdivisions) level, and indicates the number of neighborhoods in which the appraiser was able to fulfill these goals. The study is scored, and, if a particular portion meets requirements, points are awarded. For example, if a neighborhood had at least four sales, the neighborhood median ratio range was expected to be between 82 percent and 87 percent. If appraisers were able to fulfill this goal in 90 percent of their market area's eligible neighborhoods, they performed well and were scored accordingly.

Before appraisers are scheduled to appear at their annual performance evaluations, the appraiser's objective study report is printed from the main report. This printout is ultimately reviewed by the appraiser and manager during the performance evaluation so that the appraiser can review the last performance review, and obtain a clear understanding of the next year's expectations.

This objective study is still relatively new and scoring is still being revised. However, because every appraiser is scored the same, the study also provides an excellent opportunity for management to evaluate appraiser performance.

Question 7: Can the jurisdiction perform ratio studies by combinations of property characteristics specified by staff on an ad-hoc basis?

Describe and provide examples of some of the user-defined reports designed for the jurisdiction. Describe the ratio study software applications used in the jurisdiction.

The BCPAO can perform ratio studies by combinations of property characteristics specified by any appraiser at any time through filters within the CAMA system.

The data analyst also performs ratio studies involving combinations of property characteristics. For equity purposes, the data analyst ensures that LOAs are similar for third-party versus builder sales, pool homes versus non-pool homes, and one-story homes versus two-story homes. Figure 7-7.1 reveals that the appraisers did well in 2019 in evaluating third-party sales versus homes sold from a builder (new homes). The LOAs are both 98 percent (rounded).

A pool home sells differently in Florida. Together with a screened enclosure, decking, and possible spa, a pool home can usually command $25,000 or more than a comparable non-pool home, and usually sells quicker. Because of these distinctions, the BCPAO keeps tract of the LOAs for these two types of homes to ensure equity continues annually. Figure 7-7.1 shows the latest numbers of 98 and 97 percent, which is acceptable.

At any time, the data analyst can add a second level of combinations of property characteristics such as third-party versus builder sales, with or without pools. Again, Figure 7-7.1 reveals excellent equity.

One of the primary sources of concern from appraisers a few years ago was the differences in market values between one and two-story homes of the same size. A few years ago, the Valuation Department assessed second-floor square-footage at the same rate as first-floor. Appraisers were performing their own ratio statistics and finding problems. In 2018 the department began assessing the second floor and above to 90 percent of the base rate. Results were impressively improved. When recently analyzed, single-story and multi-story homes are now more equitably assessed.

Figure 7-7.1 LOAs by Property Characteristics

CURRENT MV STUDY	NO.	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	SD	AAD	PRD	COD
Third Party	10119	83	83	83.0	97.6	8	6	100.4	6.7
Builder sale	1423	84	84	83.5	98.2	5	4	100.4	4.7
No Pool	8769	84	83	83.4	98.1	8	6	100.3	6.6
Pool homes	2773	83	83	82.5	97.1	7	5	100.3	5.9
Third Party no pool	7416	83	84	83.3	98.0	9	6	100.2	7.0
Third Party pool	2703	82	83	82.5	97.1	7	5	100.2	5.8
Builder sale no pool	1353	84	84	83.5	98.2	5	4	100.4	4.6
Builder sale pool	70	83	84	82.8	97.4	9	6	101.1	7.4
Qual 3s and 4s									
1 story homes	7248	83	84	83.3	98.0	7	5	100.5	5.9
2+ story homes	1360	83	84	83.4	98.1	7	5	100.6	5.5

As previously described, the data analyst uses SPSS, which enables very quick ratio results from imported Excel data. The appraisers analyze data through Excel spreadsheets to generate their ratio statistics.

Question 8: Does the statistical program used to produce the ratio study compute the IAAO standard measures of level (median, mean, weighted mean ratio), horizontal uniformity [coefficient of dispersion (COD)], and vertical uniformity [price-related differential (PRD) and coefficient of price-related bias (PRB)]? (Note: Jurisdictions will enjoy a grace period for introducing the use of the PRB.)

Note whether the measures calculated comply with the requirements in the standard.

Provide computer-generated reports of all the statistics listed.

If extreme or outlier ratios are trimmed when computing measures of vertical equity (PRD and PRB) and horizontal uniformity (COD), explain the process.

Note whether field appraisers have access to software to perform ratio analysis on their assigned territories.

In accordance with IAAO Standards 5.3 and 5.4 on Ratio Studies, the BCPAO's statistical software computes ratio reports measuring LOA, COD and PRD (see Exhibit 7-8.1). The software does not automatically calculate the price-related bias (PRB), but the data analyst uses an SPSS syntax with which to produce PRB at any time (see Exhibit 7-8.2). All appraisers have access to a PRB-generating Excel spreadsheet, as well (see Exhibit 7-8.3).

The data analyst often trims certain outlier sales beginning with those with assessment-to-sales ratios below 55 percent and above 130 percent. Additional exclusions would include any sale with an unusually large subarea in relation to the living area (e.g. a 1,200 square-foot single-family home with a 1,300 square-foot garage). The analyst will also trim outlier sales which have abnormally high sale prices. SPSS's boxplot application helps in this analysis (see Exhibit 7-8.4).

Valuation appraisers often perform ratio analyses on neighborhoods within their assigned market areas. Some perform periodic studies on their entire market areas. They generate these reports by filtering for necessary data through the CAMA system and exporting to an Excel spreadsheet.

Question 9: Does the jurisdiction compute confidence intervals for the statistics it computes as described in question 8 above?

Describe the various intervals used in judging the acceptability of the results calculated in the ratio studies, how each of them is specified and calculated, what level of confidence is used, and how the results are explained to a non-technical audience. Indicate the standards with which the jurisdiction must comply.

The BCPAO does not directly compute confidence intervals for calculating statistics, nor does the FDOR require any county to compute statistics with a specific confidence interval. However, the 95-percent confidence interval is routinely used by the FDOR in their Property Tax Oversight ratio studies. Since the BCPAO tries to predict the FDOR reports, the data analyst uses SPSS' preset 95-percent confidence level. This procedure is in keeping with IAAO Standard 5.5 on Ratio Studies and measures of reliability.

Question 10: Does the jurisdiction compute additional study-validating measures for the statistics it computes as described in section 8 above?

Describe any tests that are used to address side issues such as the normality of the data, the representativeness of the sample, or other considerations.

The data analyst and Chief Deputy routinely run internal edits to seek abnormal data entries and unrealistic valuations. A common test would be to check the prior year's valuation versus current valuation. If valuations increased over 100 percent, the suspect parcels are identified for further review. The CAMA system has a preset report for this test (see Exhibit 7-10.1). The data analyst also performs tests on missing or blank data entries for year built, effective year built, building quality, building components, and missing or incorrect yard item measurements.

The appraisers often perform ratio statistics on a representative sample within their assigned market areas. For example, some older neighborhoods contain unimproved properties in different stages of condition and land coverage. To understand the impact of the condition and land coverage in a sale price, the appraiser may filter for these types of sales, export them to an Excel spreadsheet (see Exhibit 7-10.2), and see if there is enough transactions and pertinent data to make a value determination.

Question 11: Does the jurisdiction test that sold and unsold properties have been appraised similarly (to ensure sample representativeness)?

Describe how sold and unsold properties are analyzed to show equity between sold and unsold properties. Describe any other analyses undertaken to address sample representativeness, including use of time-adjusted older sales, differential weighting of certain sales, or exclusion of first-time sales. Provide sample reports that analyze the representativeness of the sales sample. Indicate whether adjustments are made in the ratio studies to account for multiple tests.

In conjunction with IAAO Standard 5.2.2 on Mass Appraisal of Real Property in assessment uniformity among property groups, the BCPAO runs test to ensure that sold and unsold properties are similarly appraised.

Following the initial valuation process, the data analyst runs tests to determine the median market value percent increase for the sales sample in each market area. Once these numbers are found, the analyst finds the median market value percent increase of the non-sale population. The analyst then compares

the two numbers for every market area. Data results from these tests can reveal if appraisers changed valuations at a higher rate to sold properties than to the general population, indicating possible "sales chasing". If the numbers are close (within plus or minus 2 points), the data suggests that the population moved within an acceptable level with the sold properties. To achieve the best possible representativeness, care is taken to exclude parcels with new construction, added or deleted values, parcel splits or combinations, and new homes.

The appearance of any sales chasing is inhibited somewhat by two procedures: First, improvement (base) rates are changed at the market area level, so all properties are affected. Second, land rates are changed at the neighborhood level, thereby affecting all land in the coded neighborhood. As long as appraisers review and reassess every neighborhood, the valuation of the population should move correspondingly with the sales sample.

The data analyst creates sample reports (see Exhibit 7-11.1) to display overall market area numbers and results from subgroups, such as percentage increases by quality within the market area and neighborhoods. Meaningful numbers, however, only come from subgroups that have appropriate sample sizes in total population, and especially in number of sales. The familiar red, yellow, and green color-coding scheme shows the appraisers' areas of success and areas needing more work.

The data analyst also studies the percentage of parcels with a valuation change from the prior year. Figure 7-11.1 displays the change type percentages between Market 4's sales sample with the rest of the population. Analogous numbers are expected, especially when sample representativeness is good.

Figure 7-11.1 Property Valuation Change – Market Area 4

MKT 4

Change Type	Population			Sale Sample	
	N	Percent chgd		N	Percent Chgd
Parcels MV decreased	48	0.6%		7	1.5%
Parcels w/ no change in MV	38	0.4%		2	0.4%
Parcels MV increased	8430	99.0%		451	98.0%

The only adjustments that the data analyst might make to the ratio studies would be to disregard geographic boundaries and perform tests countywide on such things as use codes, building quality, building effective age, building footprint size, and location. If such studies only provide a brief glimpse of possible sales chasing on a certain level, the BCPAO appraisers would be encouraged to double their efforts to minimize this practice.

Appropriate population movement is also "graded" within the appraiser's objective study (see response to Question 6). Appraiser area results are posted (see Exhibit 7-11.2) and scored. The scoring breeds competition between appraisers in getting the highest scores for the most equitable and uniform market areas.

Question 12: Do the ratio studies include appropriate graphics?

Provide examples with a description of the ratio study graphics and how the jurisdiction produces and uses them.

BCPAO Ratio studies include appropriate graphics either through exporting data from the CAMA system into an Excel spreadsheet, or SPSS.

In addition to a statistic tables, the data analyst produces a graph (see Exhibit 7-12.1) comparing the county's residential market areas' LOAs and CODs. The chart provides instant visualization of the level of success for geographic equity and horizontal uniformity.

To illustrate results of vertical equity among all major property types, the BCPAO generates a PRD by Market Area graph (see Exhibit 7-12.2), which doubles as an illustration to show equity among market areas.

Residential appraisers like to see a visual on the causes of a time trending factor. The data analyst creates a chart each year (see Exhibit 7-12.3) representing the monthly LOA change (adjusted weighted mean ratio of all residential market areas), which is very helpful, especially in value defense.

Question 13: Do the jurisdiction's ratio studies compare favorably with any the oversight agency may conduct, possibly an appraisal- rather than sales- ratio study?

Note whether the oversight agency conducts ratio studies and, if so, compare and contrast their methodologies and results, highlighting the strengths and weaknesses of each.

Describe whether the different sets of studies have benefitted from one another and whether their results have tended to converge over recent years.

The BCPAO's ratio studies compare favorably with that of the FDOR in general positions. For assessment roll approval, the BCPAO must pass a strict ratio study performed by the FDOR that focuses on studies of two strata: improved residential and improved commercial/industrial. The FDOR puts great emphasis on these two strata because they are a high percentage of the county's aggregate total market value. Each stratum is separated into quartiles based on the number of parcels, which are distinguished and sorted by market value ranges. Early in this process, the FDOR identifies all of the parcels representing the bottom 5 percent aggregate total and discards them from the study.

The FDOR adds sales into the study that have been filtered to eliminate parcels with new homes, excess new construction or deletions, and sales with anonymous (confidential) ownership. The report generates statistics such as the median, mean, weighted mean, COD, COV, and PRD at the 95-percent confidence interval. The ultimate goal is an acceptable LOA for the entire county based on the weighted averages of the two strata, and passing grades for assessment roll approval per the FDOR's Complete Submission and Roll Evaluation Standards (see Exhibit 7-13.1).

The FDOR produces at least four separate reports including a time trending analysis and a report known as the "Fifth Quarter" report which seeks to determine if the next roll year's sale prices continue current-year fourth-quarter trends.

The strengths of the methodologies include analyzing for equity and consistencies between four valuation "buckets" and studying only strata 1 and 6, where sales are both plentiful and representative of economic market conditions within the county.

One minor weakness of the studies is the elimination of the low-value properties. As discussed previously, for 2019, the stratum 1 low bucket had a high value of almost $90,000. Hence, because most mobile homes and low-value homes and townhomes are assessed below this level, they are not evaluated by the FDOR. Moreover, for 2019, the stratum 6 low bucket had a high value of almost $198,000, meaning any commercial/industrial property valued less than $198,000 was not scrutinized. Regardless, the county appraisers work to ensure equity and uniform levels of assessment for all properties.

As detailed earlier, the BCPAO each year tries to mirror the FDOR ratio studies to predict their LOA results. For the most part, the BCPAO has been successful when dealing with un-trended sale prices. An FDOR test report (see Exhibit 7-13.2) generated in June can look very similar to one (see Exhibit 7-13.3) produced by the BCPAO a month earlier. High and Low buckets are similar as are sample sizes and ratio statistics. In both studies the LOA was 97.3 in 2019.

The difference and prediction problem, however, comes from the FDOR Time-Trended Sale Ratio Study. Initial data for this study is almost identical to the untrended sales ratio study, but, eventually much subjectivity comes into play in determining which properties to trim to produce the best analysis results. For example, at some point the modeler – in determining TAF from a regression analysis – might eliminate a percentage of upper and lower-valued parcels. Additionally, large-tract sales, homes with high land-to-building ratios, homes with unusually large or small total living areas are removed, and then graphs are created to filter for more outliers. Finally, the modeler determines the model type used: one-spline or multi-spline. Because of these numerous subjective choices, final numbers can vary between studies.

As a result, the BCPAO often finds itself under-predicting the TAF. The 97.1 LOA prediction in May 2019 was high, for example, compared to the FDOR's June test prediction of 96.1.

In addition to sales ratio studies, the FDOR selects a random sample of sales and performs a complete appraisal of each property. A few years ago, the FDOR suspended this part of their audit, citing lack of funding and workforce. Recently, they reinstituted this practice and are currently evaluating a sample of 10 commercial sales throughout Brevard County.

EXHIBITS – Chapter 7

Chapter 8

LAND VALUATION

Question 1: Is the land valuation process clearly documented?

Provide copies of manuals and guidelines related to land valuation. Briefly describe the process for maintaining documentation and ensuring that appraisers are adequately trained in and familiar with land valuation policy and procedures.

The BCPAO clearly documents aspects of land valuation. The Florida Administrative Code (Rule 12D-8.011(1)(h)) (see Exhibit 8-1.1) requires a separate land value on assessment rolls be submitted to the FDOR. In accordance with practices set forth in IAAO Standard 4.5 on Mass Appraisal of Real Property, BCPAO appraisers are expected to follow the guidelines and procedures, and use their knowledge gained from classes, seminars, and work experience to value land uniformly and equitably.

Information on this subject resides as a chapter in a rather antiquated Valuations Department Operations Manual, created over fifteen years ago. Some parts of the Land Valuation (see Exhibit 8-1.2) chapter are no longer relevant, especially in light of the BCPAO attaining a new CAMA system in 2016. Segments within this chapter describing a list of use codes are out of date. However, current use codes and descriptions are available in a CAMA table, and can be downloaded straight into Excel for a printed reference (see Exhibit 8-1.3). Since the list comes from the CAMA system, it is always current. Project-management vendor, Alluvionic, is currently assisting the Valuation Department in updating the new operations manual.

The list of site codes within the chapter is also somewhat obsolete. Many of the site codes were reworked in 2012 to provide a more logical numbering system with the type of site identifier: first digit 1 for waterways, 8 for lot identifiers, 3 for roadways. Again, current site codes and descriptions are available in a CAMA table, and can be downloaded straight into Excel for a printed reference (see Exhibit 8-1.4). Since the list comes from the CAMA system, it is always current, and, as such, is the preferred reference.

Use, site, deed, and other BCPAO code/description lists are also available on the BCPAO public website, linked from the property details page.

This Land Valuation chapter contains directions on how to delete land segments, create next year's land segments, mass update land rates, as well as a few other procedures – all describing steps using the Office's previous CAMA system. The Valuation Department is currently writing the first chapters of a procedural manual for the Valuations Department. Chapters for processing appeals (see Exhibit 8-1.5) through the new CAMA system as well as parcel splits and combinations (see Exhibit 8-1.6) and subdivisions (see Exhibit 8-1.7) are completed, but are updated periodically as appraisers continue to become familiar with to the nuances of the new CAMA system, which continues to evolve.

Many of the policy parts of the manual are current. For example, appraisers continue to follow the rules on how to use specific land units for specific properties, how to use percentage adjustments, how to assess excess/surplus land, and how to consider zoning and future land use in evaluating property.

Besides the old manual and new chapters for a future manual, appraisers are kept current with policy and procedures through chapters of an instruction manual provided by the CAMA vendor as well as concise instructions periodically produced by a member of the Valuation Department staff. An example of the former would be the land chapter of the vendor's user manual mentioned in Chapter 3 (see Exhibit 8-1.8). The latter would include instructions on creating new land rates within the new CAMA system (see Exhibit 8-1.9).

Question 2: Is all land assigned an appropriate unit of comparison?

Provide a report listing the number of properties appraised by unit of comparison for each property type (except condominiums). The report might, but need not, have the following format:

Property Type	**Unit of Comparison**	**Number of Parcels**
Single-family residential	Square feet	xxxxx
	Site or lot	xxxxx
Etc.		

Each parcel is associated with a square-footage and acreage amount. Other than condominiums, which have no land component, every parcel has at least one land segment assigned with a particular unit of comparison.

Most residential properties – both improved and unimproved – are assessed on a per-lot basis, with 99 percent of all new subdivisions parcels assessed per-lot. This is mostly due to new subdivisions being developed with smaller lots with narrow or zero lot lines.

Brevard County has miles of waterfront properties (canal, river, ocean, etc.). Most of these residential properties are assessed by frontage (front-foot or effective-front-foot) with residual acreage assessed as excess land. Larger tracts are usually assessed by acreage.

Commercial and industrial land is most often assessed by square-footage, although some larger industrial properties are assessed on a per-acre basis.

Figure 8-2.1 shows total parcel counts using specific units of comparison. Over 92 percent of all residential properties (new and old) are assessed per-lot. Because Brevard County has many square-miles of platted, yet unimproved subdivision lots that were created in the 1960s during the first space boom, 71 percent of all unimproved properties are assessed per-lot. Nearly 89 percent of commercial/industrial properties are assessed per square-foot.

Figure 8-2.1 Parcel Count by Property Type and Unit of Comparison

Parcel Count by Property Type and Land Unit of Comparison		
PROPERTY TYPE	**Unit of Comparison**	**Parcel Count**
Residential	AC - Acres	7593
	EF - Eff Front Ft	2855
	FF - Front Foot	5451
	LOT - Lot	199198
	SF - Square Foot	959
Agricultural	AC - Acres	1217
	EF - Eff Front Ft	1
	FF - Front Foot	43
	LOT - Lot	83
	SF - Square Foot	43
Unimproved	AC - Acres	13272
	EF - Eff Front Ft	726
	FF - Front Foot	999
	LOT - Lot	43685
	SF - Square Foot	2718
Commercial/Industrial	AC - Acres	330
	EF - Eff Front Ft	42
	FF - Front Foot	106
	LOT - Lot	438
	SF - Square Foot	7200
Institutional	AC - Acres	6339
	EF - Eff Front Ft	207
	FF - Front Foot	384
	LOT - Lot	1998
	SF - Square Foot	1308

Question 3: Aside from areas with few sales, is land valuation based primarily on the sales comparison approach, using either a standard unit or base lot method?

Describe the method by which the sales comparison approach is applied to land appraisal.

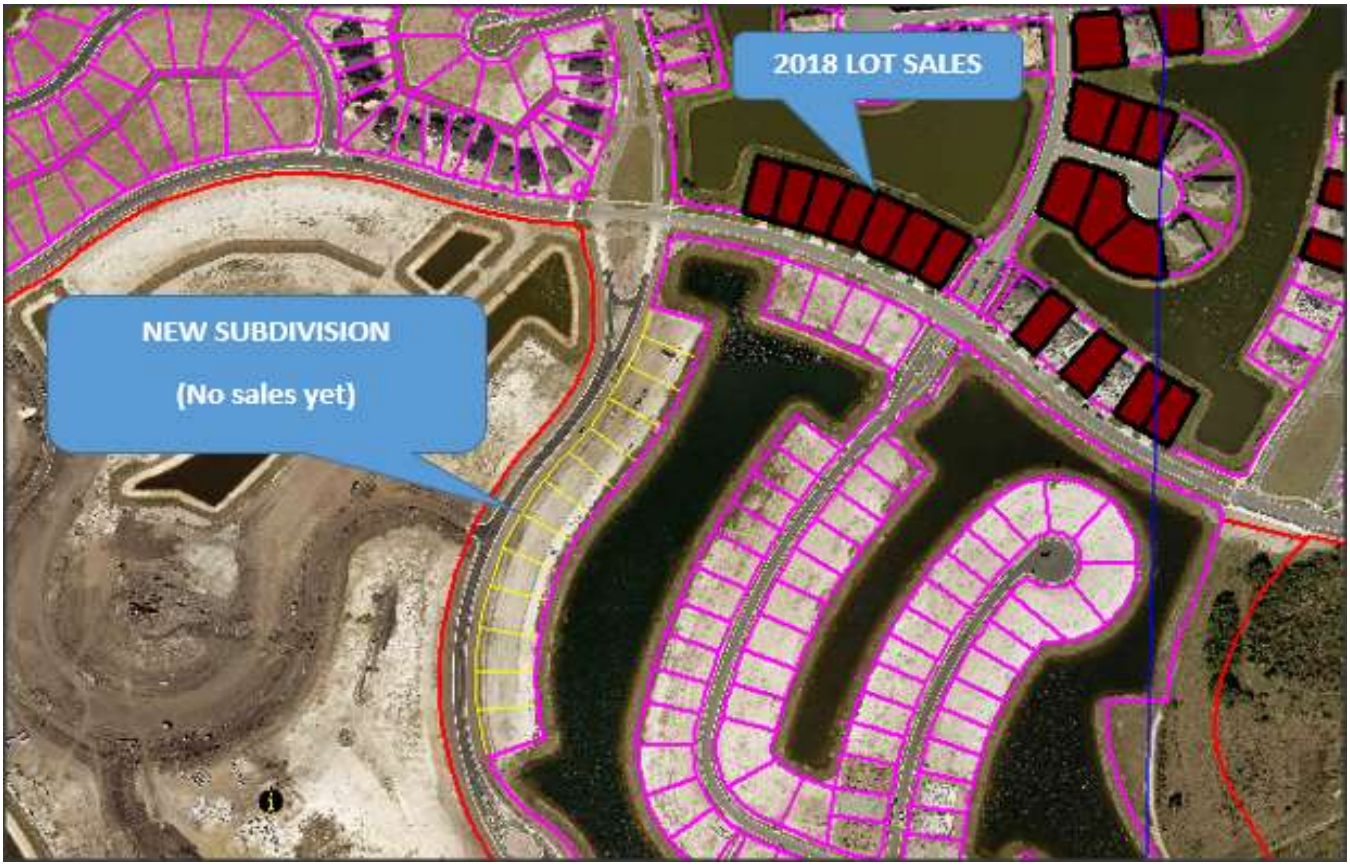
Refer to relevant manuals or guidelines and provide examples of property records or reports illustrating the process.

In conjunction with IAAO Standard 4.6.5 on Mass Appraisal of Real Property, the BCPAO's land valuation is based almost exclusively on the sales comparison approach.

The purest examples of this are found when appraisers are reassessing new or developing subdivisions where unimproved lot sales are abundant. The appraiser will first filter for sales occurring prior to the statutory assessment date (January 1) but may also filter for sales past this date to look for continuing trends. Once the appraisers verify sales for accuracy and qualification, they statistically study the transactions to identify the median, range, and deviation. After determining a base rate, appraisers apply an LOA adjustment per Chapter 193.011(8) (see Exhibit 8-3.1) to determine an adjusted base rate. Typically the appraiser will find a rate from CAMA's Land Price table (see Exhibit 8-3.2) and apply this rate to the selected lots.

Often appraisers find that developers of new subdivisions have not yet sold any lots, and a land rate cannot be directly determined. Appraisers then search for unimproved lot sales of nearby subdivisions. Figure 8-3.1 demonstrates an example using QC-View (introduced in previous chapters) to determine if nearby lot sales can be used for new subdivision valuation.

Figure 8-3.1 QC-View - Map of Comparable Vacant Lot Sales



The Valuations Department does not yet have written guidelines for the above procedures, although, with the assistance of the project management vendor, Alluvionics, the subdivision instruction manual will have most of these processes described.

Question 4: Are size adjustments regularly developed based on market analysis?

Describe how size adjustments are determined. Refer to relevant documentation and provide formulas or adjustment tables illustrating the process.

Size adjustments are regularly developed based on careful market analysis. However, adjustment tables do not yet exist except for the effective-front-foot table, which was converted from the former CAMA system. As the new CAMA system becomes battle-hardened through additional full-cycles, features such as built-in adjustment tables will replace other less-standardized methods.

Land appraisers adhere to the Land Valuation Manual instruction involving size adjustments: "*percentage adjustments (for size, condition, shape, utility, corner influence) should be market-supported and applied equitably throughout a given area or neighborhood."*

A segment on using size adjustments is found in the Land Valuation chapter where it states that condition, shape, and utility should receive market-supported adjustments applied equitably.

Frontage refers to the amount of linear-footage a property has that abuts a road, golf course, street, water, etc. In valuation of residential lots, front-footage is most often used with waterfront properties. For years, the BCPAO has used residential neighborhood standard lot depth of 125 feet. So, if lots are similar in depth or sell similarly despite the depth, appraisers use the front-foot unit of comparison. The calculation would be front-feet times the rate, irrespective of the lot's depth.

In some market areas, depth is a significant factor in valuing waterfront parcels. Lots with less depth than what is typical in the market generally sell for less, and lots with excess depth typically sell for more.

However, the premium is rarely proportionate to the dimensions involved. Thus, the BCPAO uses the effective-front-foot unit of comparison, whereby the amount of frontage is factored up or down by a factor relative to the difference in depth from the standard 125 feet. BCPAO appraisers use a depth factor table within the CAMA system for such calculations (see Exhibit 8-4.1). For example, a riverfront lot with 130 feet of frontage and a depth of only 100 feet would attain a factor of .9000, as Figure 8-4.1 suggests. The adjusted frontage of 117 feet (130 x .9000) would be multiplied by the riverfront rate in the area.

Figure 8-4.1 Segment of Depth Factor Table

From Frontage	To Frontage	Depth	Factor
0	999999	91.000	0.8540
0	999999	92.000	0.8590
0	999999	93.000	0.8640
0	999999	94.000	0.8700
0	999999	95.000	0.8750
0	999999	96.000	0.8800
0	999999	97.000	0.8850
0	999999	98.000	0.8900
0	999999	99.000	0.8950
0	999999	100.000	0.9000
0	999999	101.000	0.9040
0	999999	102.000	0.9080
0	999999	103.000	0.9130
0	999999	104.000	0.9180

Appraisers can also use additional size-adjustment techniques as required, especially when certain neighborhoods show specific sale-price patterns. For example in a few large-acre-tract neighborhoods in northern Brevard, the appraiser discovered that the first acre sells for a premium, the next four acres at a lesser rate, and any remaining acreage at an even lower rate. Figure 8-4.2 shows an appraiser's adjustment table illustrating this process. A vacant parcel in neighborhood 13032 (see highlighted line top, right in Figure 8-4.2) has 11.08 acres and is assessed at $25000/ac less 20 percent for the first acre, $25,000/ac less 50 percent for the next four acres, and (line 3) $25,000/ac less 75 percent for the remaining acreage.

Figure 8-4.2 Appraiser's Table of Neighborhood Land Adjustments

Nbhd	Rate	Acres		Imp-Line 1	%	Line2	%	Line3	%		Vac-Line 1	%	Line 2	%	Line 3	%
13032	25,000	**4.65**		1.00	100%	3.65	-20%				1.00	-20%	4.00	-50%	6.08	-75%
13035	33,500	**10.00**									1.00	-20%	4.00	-60%	5	-80%
13035	33,500	**3.79**		1.00	100%	2.79	-40%		-80%							
11038	23,500	**6.00**		1.00	100%	4.00	-20%	1.00	-75%							
11038	23,500	**4.60**									1.00	-20%	3.60	-50%		-75%
11039	23,500	**1.83**		1.00	100%	0.83	-20%									
11033	22,500	**2.69**		1.00	100%	1.69	-20%									
11033	22,500	**2.69**									1.00	-20%	1.69	-50%		

Through the CAMA system, percentage size adjustments are directly applied to any land line through one, two, or three fields, known as influence fields, through which a "25", for example, entered in the field would calculate the rate multiplied by 125 percent.

Question 5: Are adjustment factors regularly developed for relevant features based on market analysis?

Describe the process of developing and applying adjustment factors for relevant property features.

Cite available documentation and provide copies of formulas or valuation tables containing the adjustments.

Adjustment factors are regularly developed for relevant features based on market analysis. The most common adjustment factor applied for a land feature relates to a location adjacent to a particular topography or structure. This adjustment is identified in the CAMA system by site code.

For example, after a new subdivision is added to the assessment roll, appraisers perform a market analysis of the available unimproved lot sales. Often the analysis reveals that lots adjacent to a lake or preserve sell for a premium, and appraisers will apply an upward percentage adjustment in one of the three influence fields, as described previously. This adjustment stays with the lot's assessment even

after the subdivision is fully developed if the market continues to indicate that buyers are still willing to pay a premium for such property features.

Appraisers also apply negative adjustments when required. Figure 8-5.1 shows that the appraiser, following a market analysis, applied a downward adjustment to properties backing up to a tire store. As shown in the map and legend, homes outlined in cyan use the $65,000/lot rate discounted by 10 percent due to the external obsolescence of a noisy commercial garage.

Figure 8-5.1 QC-View - Neighborhood Map of Land Rates and Adjustments

A segment on using percentage adjustments for such factors can be found in the Land Valuation chapter (see Exhibit 8-1.2) where it reiterates that all adjustments should be market-supported and applied equitably throughout the neighborhood.

The BCPAO does not have formulas or tables containing these adjustments. Appraisers apply all land line modifications on an individual basis by lot or by batch-updating a set of lots within a neighborhood through the CAMA system. Accuracy is then checked visually with QC-View or through a CAMA filter (see Exhibit 8-5.1), whose results could be readily exported to Excel for further review.

Question 6: Does land valuation employ spreadsheet or statistical software?

Describe the software used in land appraisal and provide examples of analyses conducted.

As mentioned previously, when valuing land and studying the relevance of new land rates, appraisers use spreadsheets, and the data analyst uses SPSS.

Appraisers query the CAMA system for a filtered subset of subject neighborhoods and retrieve such information as vacant sales, improved sales, current land rates and percentage adjustments, and site codes. This data is then transferred to a Microsoft Excel spreadsheet (see Exhibit 8-6.1) for further analysis by categorizing and arraying data to achieve simple statistics for LOA and dispersion.

The data analyst uses SPSS in analyzing unimproved sales throughout the county. Data is brought in through a CAMA filter, transferred to Excel, and then exported into SPSS for analysis. Figure 8-6.1 is an example of a countywide land-sales analysis created through an SPSS table.

Figure 8-6.1 Ratio Statistics Vacant Land Sales (Countywide)

Ratio Statistics for MV / Sale Price							
Mkt Area	Mean	Median	Weighted Mean	Std. Deviation	Average Absolute Deviation	Price Related Differential	Coefficient of Dispersion
1	0.752	0.728	0.746	0.141	0.113	1.007	0.155
3	0.816	0.824	0.785	0.121	0.093	1.039	0.113
4	0.814	0.800	0.778	0.144	0.112	1.047	0.140
6	0.848	0.900	0.863	0.162	0.128	0.983	0.142
7	0.796	0.818	0.745	0.160	0.111	1.069	0.135
9	0.821	0.829	0.820	0.040	0.026	1.001	0.031
10	0.763	0.742	0.730	0.157	0.125	1.046	0.168
11	0.852	0.846	0.843	0.073	0.050	1.011	0.059
12	0.849	0.846	0.826	0.135	0.094	1.028	0.111
14	0.822	0.818	0.790	0.142	0.116	1.041	0.142
15	0.826	0.833	0.822	0.103	0.079	1.006	0.095
16	0.802	0.818	0.804	0.062	0.038	0.998	0.046
20	0.818	0.803	0.832	0.107	0.082	0.984	0.102
Overall	0.820	0.822	0.805	0.135	0.108	1.018	0.131

Question 7: Does land valuation employ computerized mapping or GIS software?

Describe how computerized maps or GIS software is used in land valuation.

Provide two or more examples of the analyses or output.

BCPAO appraisers currently have five GIS applications available to them: QC-View, MapView, EagleView, CONNECTExplorer, and CONNECTAssessment.

Released in 2001, QC-View is still the GIS/appraisal application of choice because of its rich functionality, ease of use, speed, and reliability. QC-View is a desktop/laptop application built in-house, designed specifically for appraisers by an RES, CFE appraiser, and was the subject of an IAAO *Fair & Equitable* article in August 2006 (see Exhibit 8-7.1). Key features include statistical and spatial analysis, visual quality control, and creation of highly-targeted maps, charts, tables, and reports.

QC-View has three primary toolsets: Search, Show-Me, and More Info. These customizable toolsets enable fast, ad-hoc analysis and quality control. The Search tools enable appraisers to identify a user-specified group of properties and highlight them on the map through simple, stepwise, criteria refinement. The one-click Show-Me tools symbolize properties on the map based on color-coded attributes, such as price range, site codes, use codes, building size, land rates, and the existence/absence of features such as swimming pools.

Figure 8-7.1 shows how QC-View quickly identified two single-family land rate anomalies. In addition, as Figure 8-7.2 graphically depicts, QC-View lends itself to full statistical reports from which appraisers can instantly create supporting tables and charts. An Excel table is generated from the selected parcels using fields chosen by the appraiser ad-hoc or from any number of user-defined field lists. The time-saving features of QC-View not only support more accurate and equitable assessments, they also enable the Valuations Department to complete a larger workload with fewer appraisers.

Before QC-View, the appraisers relied on paper maps they manually colored and notated by hand (if workloads were small and time was in abundance), or they simply skipped these hand-made maps, and painstakingly reviewed thick stacks of green-bar paper printouts one line at a time. With the release of QC-View, many issues resulting from these archaic practices were identified and corrected.

Figure 8-7.1 QC-View – "Show-Me" Land Rates

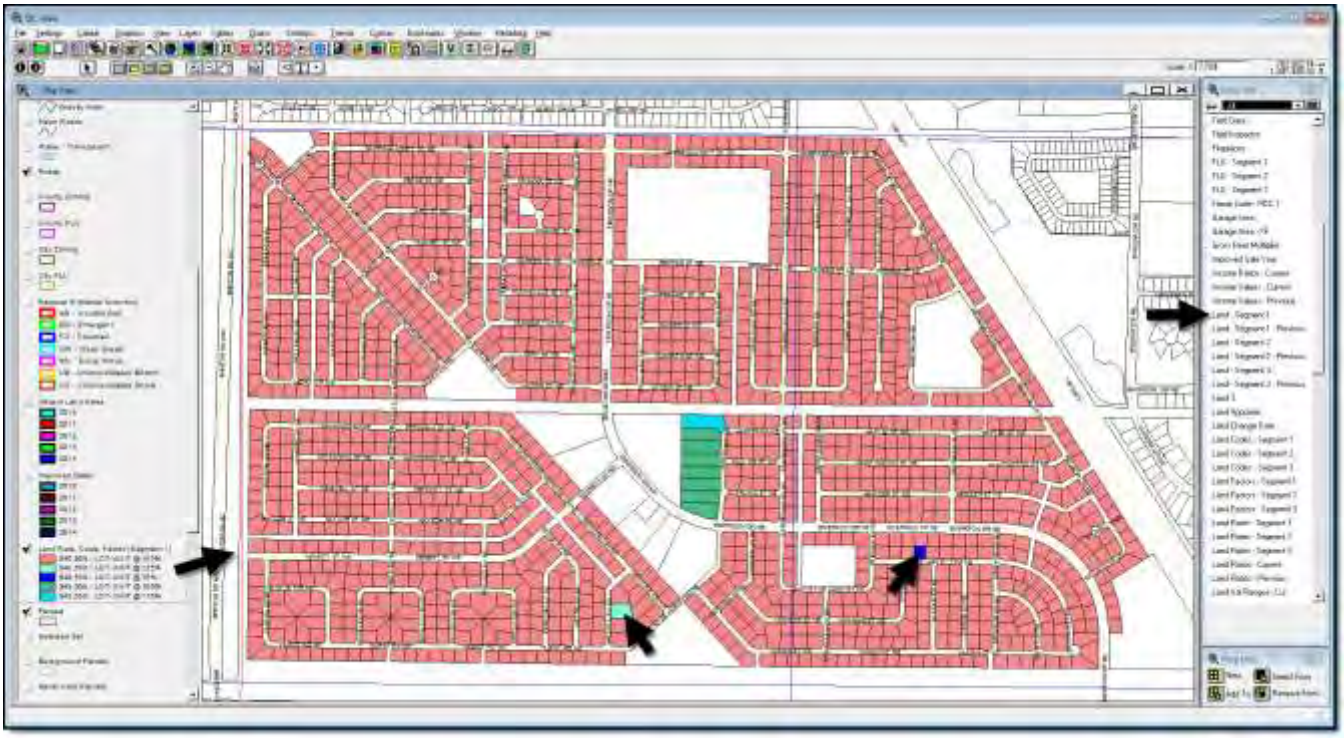
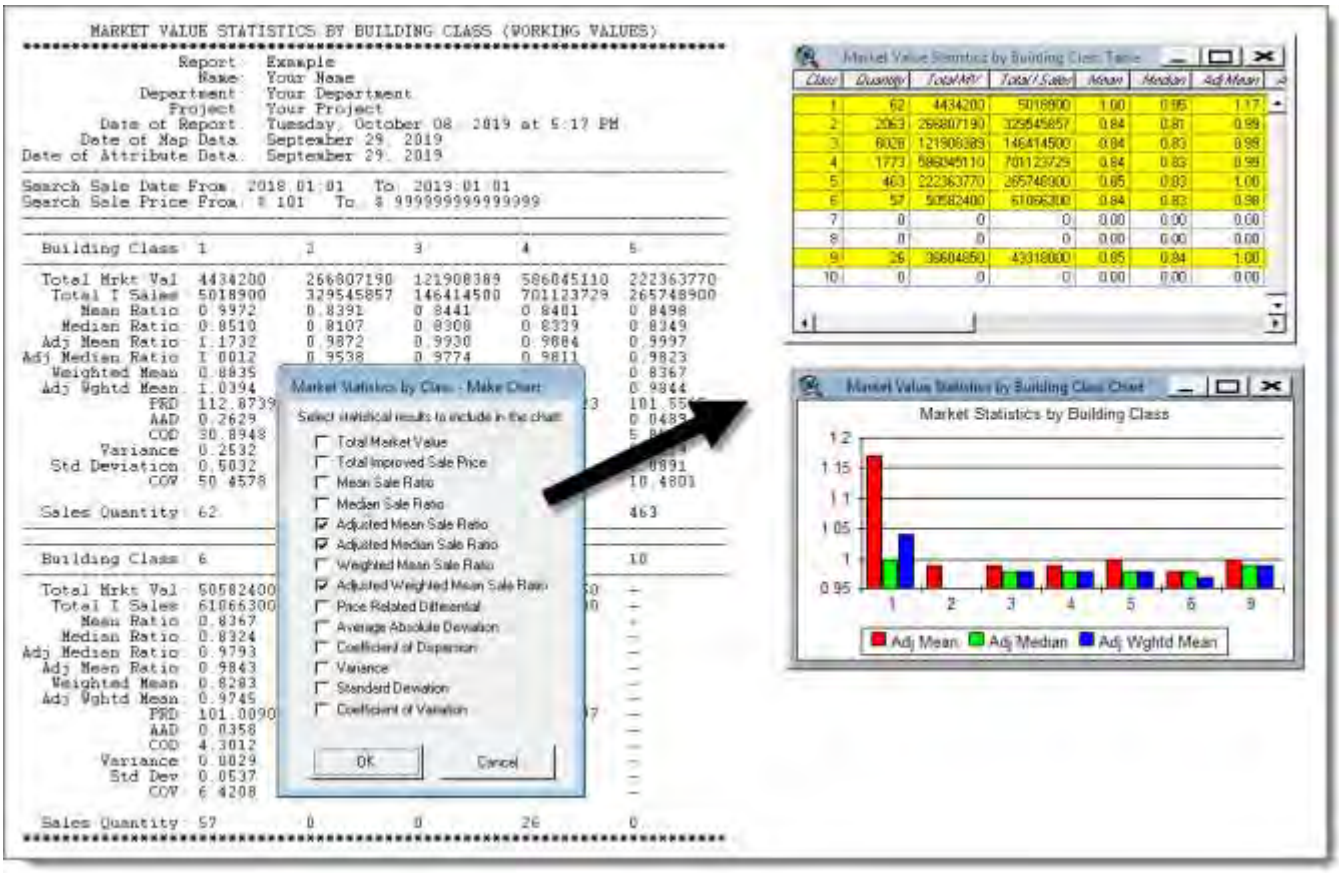


Figure 8-7.2 QC-View Reports

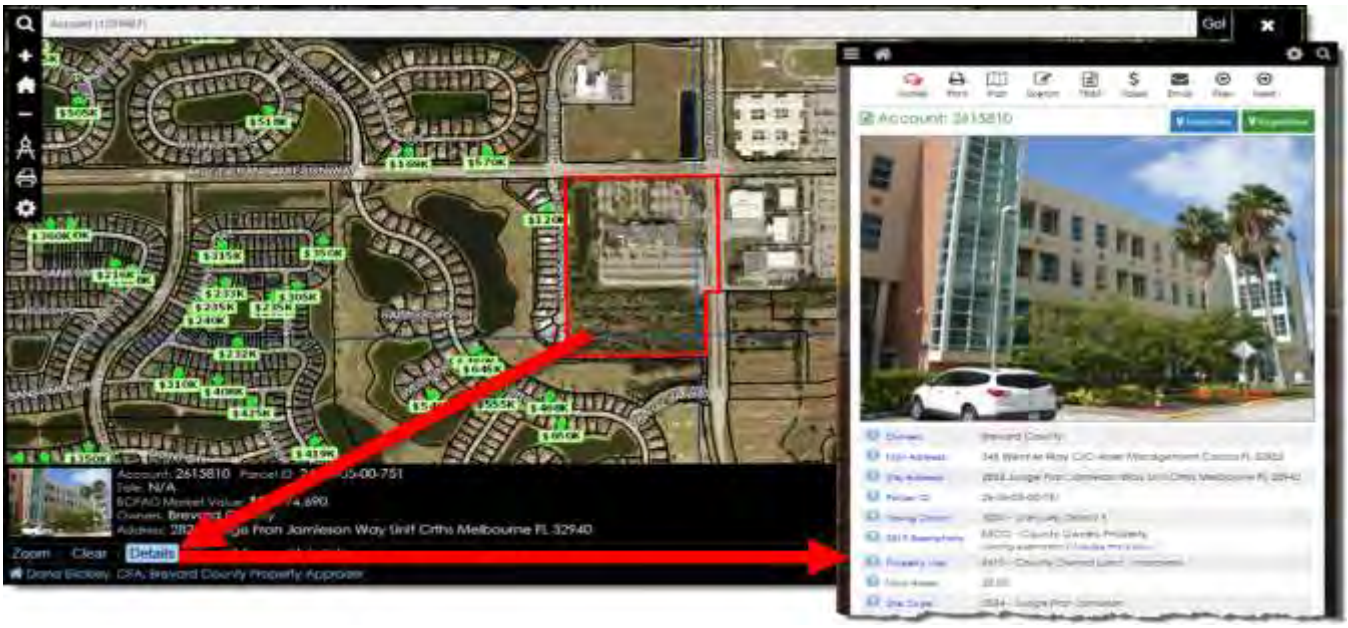


MapView, available on the BCPAO's public website, was built in-house and released in 2016 as a simple, interactive, online map viewer. MapView is a primary component of the website's Property Search feature and was part of the submission for the IAAO's Public Information Program Award (see Exhibit 8-7.2), which was awarded to the BCPAO in 2019 (see Exhibit 8-7.3).

Principal features of MapView include measurement tools, aerial imagery, sales, and the info panel. MapView is available as both an integrated component on the Property Search page, and as a stand-along interactive map.

While the Info panel provides basic parcel information, a Details link on the info panel opens a data-rich property details page for the individual account, as shown in Figure 8-7.3.

Figure 8-7.3 BCPAO Public Website - MapView Details Link



MapView's scalable user interface ensures it is useful to everyone, including blind and low-sighted users. By providing the ability to increase the size of components on the screen while still maintaining usability of the tools, users can choose how much of the interface is occupied by the map, and how much is occupied by tools and panels. Map pins denoting the location of each sale are a different shape in addition to being a different color to accommodate visitors with visual disabilities. Figure 8-7.4 shows MapView with 2017, 2018, and 2019 sales toggled on and the interface scaled up to 200 percent,

enlarging buttons, text, and graphics. MapView, as seen in Figure 8-7.5, was designed to fit on virtually any size device.

Figure 8-7.4 BCPAO Public Website - MapView Scaled to 200% and 2017, 2018, and 2019 Sales Toggled On

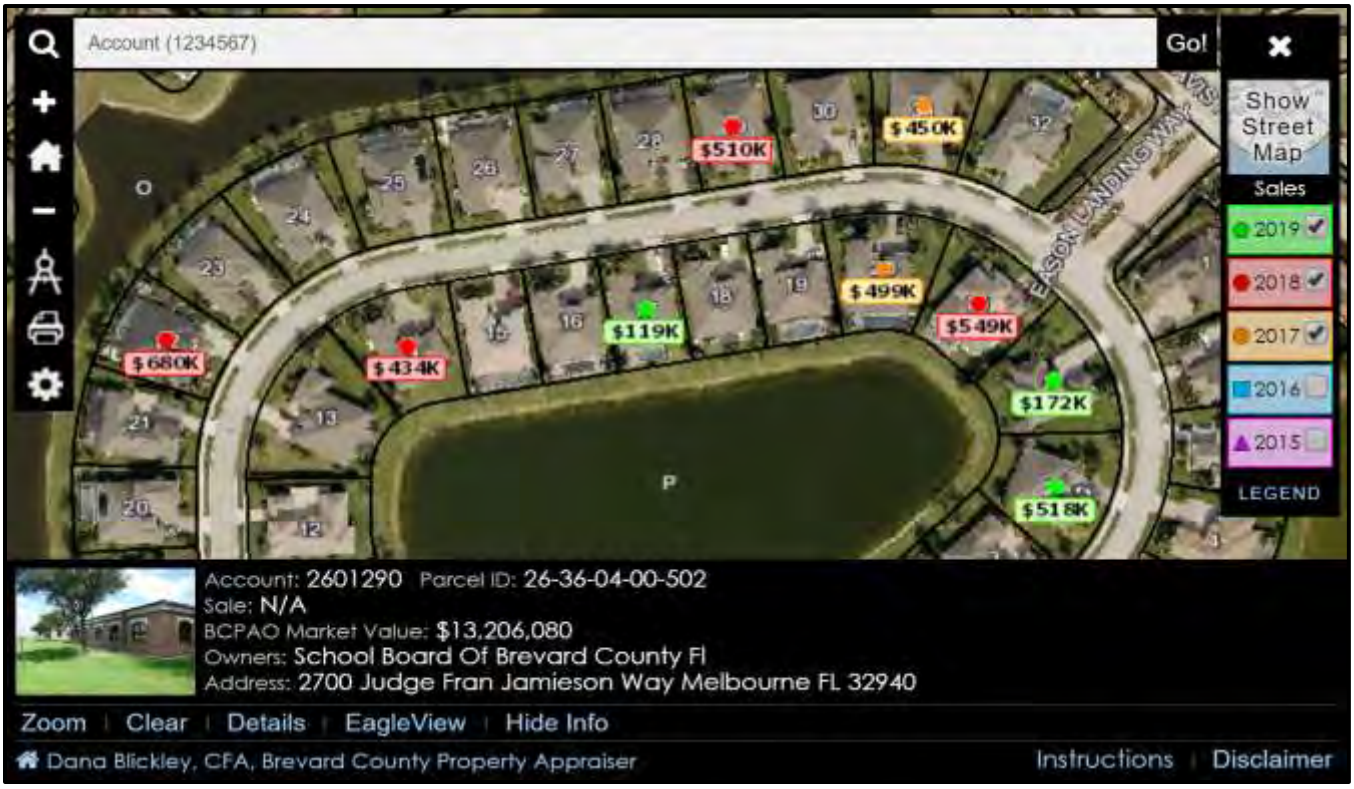
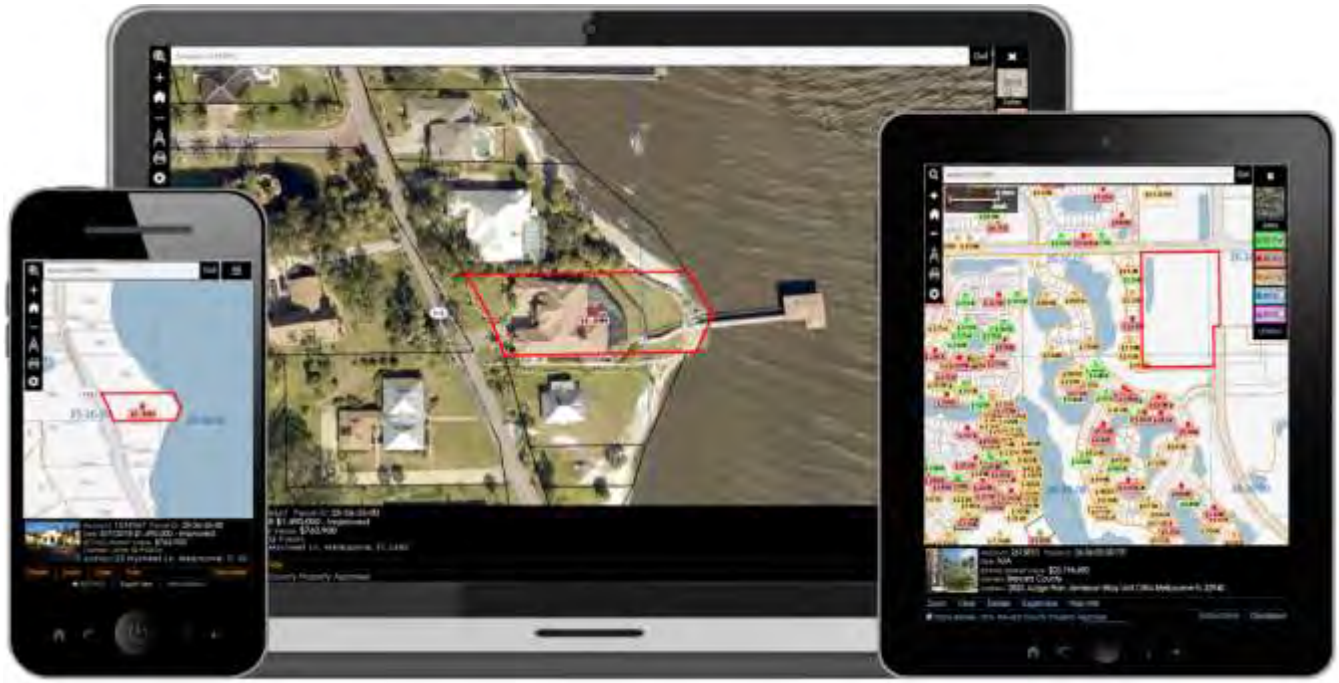


Figure 8-7.5 BCPAO Public Website - MapView Fits on Virtually Any Size Device



Instructions for MapView are available on the BCPAO public website (see Exhibit 8-7.4)

A link to the EagleView oblique aerial image viewer is available in MapView, and opens a separate browser window for side-by-side comparison of the subject property and nearby features. EagleView is a modified version of the vendor's IPA (Integrated Pictometry Application) online aerial image viewer, and is available to the world on the BCPAO's public website. Figure 8-7.6 shows an example of an aerial from EagleView that provides access to annual oblique and orthogonal aerial imagery from 2007 through 2019, as well as imagery for areas affected by recent hurricanes. Each aerial image is dated precisely to when the photo was taken, and flights are scheduled as close to January 1 as possible - the legal assessment date in Florida. This helps to determine if structures were substantially complete for a specific assessment roll year. Oblique imagery helps appraisers identify building changes not visible from orthogonal aerial imagery (e.g. enclosed porches), and to remotely inspect properties that are gated, landlocked, submerged, hazardous, protected, or otherwise inaccessible.

Figure 8-7.6 BCPAO Public Website - EagleView Oblique Aerial Imagery

Instructions for EagleView are available on the BCPAO public website (see Exhibit 8-7.5)

Similar to EagleView, CONNECTExplorer, by the same company, provides appraisers with access to the same imagery as EagleView, but with the addition of advanced proprietary measurement and markup tools, as shown in Figure 8-7.7.

Figure 8-7.7 CONNECTExplorer Measurement Tools

CONNECTAssessment is another GIS application built by the EagleView company. It, too, provides access to all years of Pictometry imagery, but also provides side-by-side comparison of aerial imagery and change detection analysis with building footprints. This product, as displayed in Figure 8-7.8, is ideal for appraisers when performing desktop reviews.

Figure 8-7.8 CONNECTAssessment Change Detection

For nearly two decades, the BCPAO has recognized the value of spatial analysis through map feature symbolization and integration with tables, charts, and reports, and continues to innovate with GIS technology in an appraiser-friendly way.

Question 8: When current year sales are insufficient for reliable analysis, does the office supplement them with prior sales and/or employ supplemental land valuation methods?

Explain measures taken to ensure that land value analyses are based on adequate sample sizes. Provide samples of price trend analyses and adjustment factors used to convert prior sales prices to current value. Describe supplemental methods used to value land for which adequate sales are not available. Provide one example of each such method.

When current year sales are insufficient for reliable analysis, the Valuation Department can supplement them with prior-year sales and/or employ supplemental land valuation methods.

Most vacant sales occur in newer subdivisions or in a few massive neighborhoods which were developed in the 1960s and still contain several thousand unimproved lots. For example, market area 14 in south Brevard County includes the Port Malabar subdivisions, a major General Development Corporation project subdividing over 50,000 lots from nearly 40 square-miles during the latter part of the Space Race era. Almost 700 vacant lot sales occurred in 2018 alone, as Figure 8-8.1 shows. This total number is common each year.

Figure 8-8.1 Vacant Land Sale Count, 2018 (Countywide)

Case Processing Summary		
Mkt Area	Count	Percent
1	28	2.7%
3	32	3.1%
4	42	4.0%
6	28	2.7%
7	6	0.6%
9	45	4.3%
10	19	1.8%
11	6	0.6%
12	30	2.9%
14	696	66.9%
15	69	6.6%
16	12	1.2%
20	27	2.6%
Overall	1040	100.0%

Brevard County, however, also contains hundreds of neighborhoods that are in stability or decline. Most of these have few (if any) unimproved lots remaining, and even fewer of these sell each year. For such cases, if appraisers think the land valuation needs to be reviewed, they conduct one or more studies including expanding the area of applicable and comparable sale data to nearby properties and/or study the improved sales of a neighborhood and remove the depreciated value of the improvements to arrive at land value.

If a sample size needs expansion, appraisers enlarge the sale search area for sales of comparable property. A typical example of this is riverfront sales. Many parcels on the Indian River are improved. Unimproved sales are difficult to find. It is quite common to search for comparable vacant sales miles away from the subject neighborhood. For example, unimproved comparable lot sales 15 to 20 miles away can help value lots in the City of Titusville (see Exhibit 8-8.1).

An example of the extraction method would be the valuing of a stable neighborhood where all lots are improved. A typical neighborhood may include homes built around the same time period. Appraisers adjust the depreciated improvements by 15 percent (for cost of sale – Section 193.011(8), Florida Statutes, explained earlier in this report). They then subtract the sum of these adjustments from the sale price and are left with the land value as extracted from the sale price. This result is then adjusted

by 15 percent to arrive at an indicated land value for assessment purposes. The extraction method (see Exhibit 8-8.2) works very well when homes are relatively homogeneous.

The BCPAO does not use price-trend analyses or TAF to convert prior unimproved land sale prices to current value. In most neighborhoods unimproved sale prices do not vary greatly over the course of an appraisal year. If they do - and if enough sales are available - appraisers base their new land rate on the most recent prices.

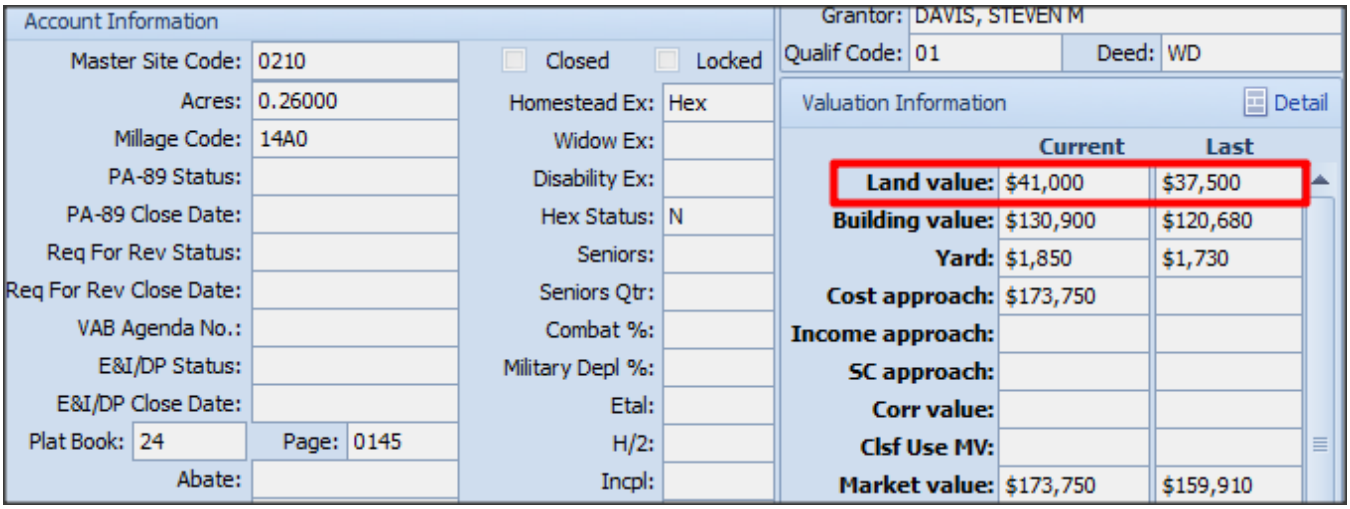
Question 9: Are land valuation tables or models regularly updated?

Explain how often land values are updated and procedures for doing so. Provide samples of both current and prior valuation rates.

The BCPAO's land rate tables can be updated at any time through the CAMA system. During the CAMA conversion in 2016, prior-CAMA land rates were transferred into a new CAMA table. Appraisers soon discovered that they could easily add more appropriate rates as required. For example, after a land rate analysis in 2018, a commercial appraiser discovered an area which required a land rate of $0.30 per square-foot. The appraiser followed steps in adding a new rate to the CAMA system and then applied the rate to the area (see Exhibit 8-9.1).

Land valuations are reviewed every year in every market area. Typically appraisers work market areas by neighborhoods (those with sales, and those without) until each has been evaluated. If results indicate that building and depreciation rates are adequate, and property valuations are still low compared to sale prices, appraisers will increase the land rate. This is easily accomplished in the CAMA system by updating parcels individually (see Exhibit 8-9.2), or by batch-updating a filtered sample. Following a change, any user can view the CAMA Account Detail page showing the before-and-after land valuations, as shown in Figure 8-9.1.

Figure 8-9.1 CAMA's Account Detail Page Example



Question 10: Are sales ratio studies regularly conducted for vacant land?

Describe how often ratio studies are conducted for vacant land, how land sales are stratified for such studies, how many years of sales are used, and whether the sales are time-adjusted.

Provide examples of your most recent studies.

Sales ratio studies on vacant land are conducted regularly by appraisers in the early steps of the annual appraisal process. The data analyst requires the appraisers to finish their land studies and re-evaluations prior to review of building rates.

Appraisers typically filter for neighborhood sales through the CAMA system, export the data into Excel, and then study the sales-ratio data. Stratification occurs when the appraiser categorizes the sales by site code. For example, lots along a riverfront area could be site coded as direct riverfront, river access, or river view. Riverfront area sale prices are highly correlated with the buildable site's proximity to the waterfront. Figure 8-10.1 is an example of an appraiser's recent ratio study of unimproved sales on or near the river.

Figure 8-10.1 Unimproved Sales (River, 2018)

Property ID	Sale Date	Sale Price	Total MV	Total LV	Sale Ratio	Site Code
3009080	07/10/2018	$600,000	$495,000	$495,000	0.825	0110 - RIVER FRONT
2956586	05/23/2018	$550,000	$400,000	$400,000	0.727	0110 - RIVER FRONT
2710888	05/30/2018	$ 70,000	$ 58,000	$ 58,000	0.829	0111 - RIVER VIEW
2953432	04/20/2018	$185,000	$104,000	$104,000	0.562	0113 - RIVER VIEW (LIMITED)
3017485	03/05/2018	$225,000	$181,300	$181,300	0.806	0114 - RIVER ACCESS
2462101	05/11/2018	$220,000	$188,010	$188,010	0.855	0115 - RIVER ACC/LIMIT VIEW

The data analyst each year stratifies all unimproved sales by major site code groups (oceanfront, riverfront, canal-front, golf-front and other) and determines if appraisers need to rework some areas. Next, the data analyst uses current sales and performs at least three or four studies during the appraisal process (see Exhibit 8-10.1).

Appraisers use sales occurring before the statutory appraisal date of January 1, but, when sales are too few to determine rates, they review sales occurring in January and February of the current year. Since the most recent market boom began in 2012, appraisers found that including sales over two years old is problematic due to high fluctuation during long time periods. Appraisers do not time-adjust land sales at this time due to continuing market expansion, annual price stability, and abundant sale data.

Question 11: Is agricultural and timber land appraised in compliance with legal requirements using appropriate methods and techniques?

Provide a copy of relevant statutes and state/provincial guidelines relating to the valuation of agricultural and timber land.

Indicate how these properties area appraised and include a copy of valuation tables or schedules used to do so.

Agricultural and timber land are appraised in compliance with legal requirements using appropriate methods and techniques. Qualifying agricultural property is classified by type (pasture, row crops, citrus, timberland, etc.), and is assessed according to agricultural use value rather than highest and best use,

which may differ. This practice is in compliance with IAAO Standard 4.6.6 on Mass Appraisal of Real Property.

Agricultural zoning of property does not automatically entitle an owner to an agricultural classification for assessment purposes, as agricultural zoning and agricultural classification are not the same. To be considered for an agricultural classification, an owner must file an application with the BCPAO between January 1 and March 1 of the year in which the classification is first requested. An agricultural business plan (a formal statement of business goals, plans to reach them, and information about the organization) should be furnished with the application.

Pursuant to Section 193.461, Florida Statutes: *"Only lands which are used primarily for bona fide agricultural purposes shall be classified agricultural"* (see Exhibit 1-3.19). Bona fide agricultural purposes means good-faith commercial agricultural use of land, which is defined as "*the pursuit of an agricultural activity for a reasonable profit, or at least the reasonable expectation of meeting investment costs and realizing a reasonable profit*". In determining whether the use of the land for agricultural purposes is bona fide, the above statute clearly defines factors to consider. In determining whether a property can be classified as agricultural, the agricultural appraiser also follows additional guidelines and standard assessment procedures found in Rule 12D-51.001 (see Exhibit 8-11.1) of the Florida Administrative Code.

If a property is leased, an owner must provide a copy of the lease with the application. The lease must have the name and address of both the lessor and lessee, and be for a term of not less than five years.

Any residence or other building on the property that has a non-agricultural use, together with a sufficient amount of land to support those non-agricultural use structures (usually one acre), is excluded from the agriculture classification.

The agricultural appraiser uses a rate table (see Exhibit 8-11.2) for the various types of agricultural lands. These rates have been relatively stable over the years and are primarily derived from state guidelines of the income an acre of land should produce. Additional data from other agricultural industries and nearby counties act as rate recommendations.

Question 12: Are mineral properties appraised in compliance with statutory requirements using appropriate methods and techniques?

Provide a summary of and a link to statutes and state/provincial guidelines relating to the valuation of mineral properties.

If the jurisdiction appraises mineral properties, indicate how it is done and include a copy of relevant valuation tables, schedules, or guidelines.

If valuation is contracted, indicate how the process conforms to the Standard on Contracting for Assessment Services.

Note: Applies only to jurisdictions with taxable timber or mineral properties.

Based on Section 193.481, Florida Statutes, mineral rights can be appraised, but Brevard County has no properties with this distinction.

EXHIBITS – Chapter 8

Chapter 9

RESIDENTIAL VALUATION

Question 1: Is primary reliance placed on the sales comparison approach in the appraisal of single-family homes, condominiums, and townhomes?

Indicate whether the cost approach, sales comparison approach, or both approaches are used in the appraisal of various types of residential properties. If primary emphasis is not placed on the sales comparison approach, indicate why. If the jurisdiction uses multiple regression analysis, explain its use and provide examples.

In keeping with IAAO Standard 4.3 on Mass Appraisal of Real Property, the appraisals of single-family homes, condominiums, and townhomes, the BCPAO primarily relies on the sales comparison approach.

Valuation base rates for single-family residences, townhomes, and mobile homes are derived from sales within each market area. For the seventeen residential market areas, the data analyst annually reviews market data, and develops seventeen base rates for these three property types, ensuring that rates are practical, defendable, and that annual changes are relatively consistent with adjacent market area rates. However, yard item rates and values are primarily derivatives of the cost approach from the Marshall & Swift Residential Cost Handbook. Thus, the BCPAO's current primary approach to value uses both approaches to value: a hybrid cost approach that uses both cost data and sales data.

Condominiums, as discussed later in this chapter, also use Marshall & Swift in valuing related yard items; however, the primary approach to value for this type of property is the sales comparison approach.

In the last two decades, the BCPAO went through several stages in identifying the preferred primary approach to residential value. Up until 1998, properties were valued by a hybrid cost approach. Following eighteen months of model specification and calibration, the office switched over to a pure sales comparison approach with rates directly driven from multiple regression analysis models. The BCPAO's procedure, for which it won the IAAO Distinguished Assessment Jurisdiction Award in 1998 (see Exhibit 9-1.1), was one of the first in Florida. This system lasted until 2007 when an administrative

decision was made to switch back to the hybrid cost approach, with the model-driven values as a test for reasonableness. This was due to the continuing complications involved with the capped assessed values afforded to Florida property owners. These values, when dealing with parcel splits, combinations, and retroactive valuations, require more stable building and yard item rates for which the hybrid cost approach is more suitable because it is less susceptible to large annual rate changes.

Beginning in 2016 the BCPAO implemented a new CAMA system. The hybrid cost approach (see Exhibit 9-1.2) continued to get the primary emphasis, but the model-driven sales comparison approach was completely abandoned because any resulting outputs from modeling had no place in the new CAMA system's procedures. The BCPAO plans to reinstitute the sales comparison approach once other CAMA issues are resolved, placing it alongside the hybrid cost approach to act as a supporting value.

Question 2: Are sales used in residential valuation adjusted to the valuation date?

Indicate whether the jurisdiction tracks changes in price levels for residential properties, the method(s) employed, and the extent to which separate analyses are conducted by property type and market area.

Sale prices are generally not adjusted in residential valuation to the valuation date. The annual LOA goal, however, is adjusted to a "working LOA" to account for annual sale price fluctuation.

Each year, the BCPAO sets an LOA goal for residential properties. After a time-trend analysis, the data analyst estimates a working LOA for assessment purposes to achieve a time-adjusted LOA from the FDOR that meets the BCPAO's goal. For example, if sale prices generally increased over the prior year, and time adjustments are predicted to be nominal, the working LOA might be set to 98 percent to achieve an FDOR time-adjusted LOA of 96 percent. The data analyst communicates the working LOA to the appraisers early in the valuation process. The appraisers use this LOA to calibrate their market area and neighborhood ratio studies. Thus, most neighborhood sales are valued with base rates and land rates so that the weighted mean adjusted ratio (working LOA) of the neighborhoods would be near 98 percent (see Exhibit 9-2.1).

The BCPAO tracks changes in price levels primarily through time-trending analysis. As reiterated in an earlier chapter on ratio studies, the data analyst uses regression analysis to help extract appropriate time trends. Once the trends are determined, they are applied to determine the TAF required for each month, for both single-family homes and condominiums. Appraisers use the factors and apply them to the sales price of comparable homes in their comparable sales grid for value defense.

The BCPAO has no TAF related to sales or sale price modification within the new CAMA system at this time.

Question 3: Are residential valuation models, equations, and tables recalibrated each revaluation year?

Indicate whether the jurisdiction recalibrates residential valuation models, equations, or tables each revaluation year. Provide two or more examples of the models or tables used in your two most recent revaluations for the same property type or market area.

Residential tables are recalibrated each roll year, as well as residential valuation models prior to 2016.

Consistent with IAAO Standard 5.1 on Mass Appraisal of Real Property, the data analyst annually calibrates and specifies a regression model (see Exhibit 9-3.1) for each residential market area; however, model specification was a result of mere tweaking in subsequent appraisal year models (see Exhibit 9-3.2). Resulting coefficients were plugged into the former CAMA system, which computed an equation to a final market value by the sales comparison approach.

Following ratio studies of newer subdivisions with new homes for each residential market area, the data analyst applies and updates the base rates (see Exhibit 9-3.3) for single-family residences in the current CAMA system.

After performing sales analysis, condominium appraisers review their complexes individually, and apply a condominium complex base rate (see Exhibit 9-3.4) each year. This factor uses the overall countywide

condominium base rate and individual unit size, and is applied to every unit within the complex. Additional factors, such as floor level and view, are described later in this chapter.

Question 4: Are single-family residential neighborhoods adequate in size?

Indicate how many residential neighborhoods or neighborhood groups were used in the most recent reappraisal and how many years of sales were used.

Indicate what is done when a neighborhood has few sales.

Provide a sales ratio or other report showing the number of single family residential sales used in each neighborhood or neighborhood group in the most recent revaluation.

Most single-family residential neighborhood/complexes are adequate in size, which is consistent with IAAO Standard 7 on Ratio Studies. Currently the BCPAO's Valuation Department has identified over 1,540 neighborhood/complexes. Sixty percent have at least 30 residential housing units. Another 10 percent have at least 20 residential housing units. Although 18 percent of the neighborhood/complexes have fewer than 10 residential housing units, three-quarters of these are townhome complexes where more homogeneous properties usually minimize sale price variations.

When neighborhoods and complexes have few sales, appraisers search for comparable sales in adjacent neighborhoods. Appraisers consider proximity, land value, lot size, improvement age, and improvement quality as the most important features in making this determination.

Besides the number of neighborhood/complexes described above, all 17 residential market areas are divided into market subareas. The full market code is a six-digit number that may lead with a zero. The first two digits denote the market area. The third digit denotes the subarea (e.g. subarea 6 in 036063). Market subareas are best described as a "section of town". For example, market subarea 036 is in market area 03 and is a group of neighborhoods in the south part of Titusville; market subarea 034 is a group of Titusville neighborhoods on the east side, near the Indian River, and so forth. Brevard County has 74 market subareas, and, although once used in the regression models as a variable, these geographic areas are still used to test success in ratio studies. Figure 9-4.1 reveals parcel counts in these market subareas along with a count of residential sales used in the most recent evaluation.

Figure 9-4.1 Brevard County Marker Subarea Count - 2019

CURRENT MV STUDY submkt	2019 Parcel Count	2019 Sale Count	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	PRD	COD
11	1876	168	80.4	77.7	79.7	93.8	97.5	14.2
12	369	15	82.4	84.9	82.4	96.9	103.0	12.3
13	915	40	81.1	81.6	81.2	95.5	100.5	11.0
21	30	9	85.0	84.0	83.9	98.7	100.1	4.5
31	6801	357	80.6	82.7	81.2	95.5	101.8	10.8
32	774	43	83.0	83.2	82.4	96.9	101.0	8.9
34	289	25	78.2	77.4	74.0	87.1	104.6	11.6
35	3280	184	77.8	80.2	79.3	93.3	101.2	11.1
36	5734	376	82.9	83.4	82.9	97.5	100.6	7.7
37	1024	66	82.0	83.4	82.7	97.3	100.9	8.2
38	747	52	82.2	84.6	82.8	97.4	102.2	12.2
39	444	16	83.1	84.8	84.3	99.2	100.5	8.7
41	7884	438	83.0	84.3	83.3	98.0	101.1	8.2
42	1050	60	78.2	80.1	78.8	92.7	101.7	12.3
43	102	2	81.4	81.4	80.9	95.2	100.6	3.0
61	1899	107	83.0	84.6	83.9	98.7	100.8	10.1
62	462	41	80.5	81.3	81.8	96.2	99.4	11.1
65	52	1	80.8	80.8	80.8	95.1	100.0	0.0
71	4856	223	82.8	81.8	80.2	94.4	102.0	7.5
73	3003	152	83.0	82.6	82.2	96.7	100.5	5.9
74	718	28	84.8	83.5	84.4	99.3	98.9	5.8
81	8001	420	83.1	83.2	83.2	97.9	100.1	5.6
82	1024	47	82.4	81.9	81.0	95.3	101.2	6.5
91	5706	337	83.2	84.2	84.0	98.8	100.2	3.0
92	8083	537	83.2	84.3	84.1	98.9	100.3	3.4
93	5376	779	83.2	83.6	83.4	98.1	100.3	3.7
94	430	14	82.5	83.5	82.0	96.5	101.8	4.6
101	896	45	82.1	83.8	84.4	99.3	99.4	6.5
102	1804	80	82.3	83.3	82.8	97.4	100.6	6.0
103	1412	101	82.7	83.5	83.1	97.8	100.5	6.5
104	1043	75	83.0	83.5	82.9	97.5	100.7	6.1
105	578	42	83.6	83.0	83.0	97.6	100.0	5.0
111	5100	285	83.4	84.5	83.4	98.1	101.3	8.8
112	1567	68	82.8	82.0	81.2	95.5	101.0	6.5
113	947	39	82.5	87.6	84.6	99.5	103.5	14.1
115	3407	205	83.6	84.2	83.7	98.5	100.5	5.0
116	1114	43	81.8	82.6	81.9	96.4	100.8	5.2
117	998	59	83.4	83.8	83.3	98.0	100.6	5.0

	2019 Parcel Count	2019 Sale Count	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	PRD	COD
121	10896	813	82.6	82.7	82.1	96.6	100.7	5.3
122	1793	97	81.8	82.0	81.5	95.9	100.5	5.7
124	950	50	84.3	83.3	83.1	97.8	100.2	3.6
125	895	48	83.1	84.1	82.8	97.4	101.5	5.5
126	2045	282	83.0	82.9	82.7	97.3	100.1	4.7
127	1014	18	84.4	82.1	83.3	98.0	98.5	11.0
141	13995	1078	82.9	83.2	83.3	98.0	99.9	7.4
142	1422	72	84.1	85.3	84.2	99.1	101.3	7.9
143	1919	106	84.1	84.6	84.5	99.4	100.2	6.6
144	10151	519	81.0	81.6	81.4	95.8	100.2	7.6
145	507	27	80.4	82.9	82.5	97.1	100.5	7.0
146	2123	211	83.0	83.5	83.3	98.0	100.2	4.5
147	10566	684	82.6	83.1	82.8	97.4	100.3	8.3
151	3000	136	83.5	82.3	81.7	96.1	100.7	8.9
152	713	313	85.1	85.0	83.0	97.6	102.5	9.9
161	871	84	85.6	83.7	84.9	99.9	98.6	7.2
162	1729	94	84.2	84.2	83.6	98.4	100.7	5.8
163	4205	239	83.5	83.9	83.3	98.0	100.7	6.2
164	365	17	81.8	85.5	85.4	100.5	100.2	9.9
165	350	18	83.8	84.6	83.4	98.1	101.4	5.9
166	2896	154	82.9	84.0	83.1	97.8	101.1	6.9
167	1510	83	81.7	82.5	81.9	96.4	100.7	6.3
168	1214	58	84.2	85.1	84.9	99.9	100.2	5.9
169	2193	103	83.6	83.9	81.7	96.1	102.7	5.9
171	2336	113	81.4	82.7	82.1	96.6	100.8	7.1
172	2095	102	83.4	84.0	82.5	97.1	101.8	7.1
173	149	8	83.9	84.3	84.2	99.1	100.1	5.0
201	6445	349	83.0	84.7	84.1	98.9	100.7	6.0
202	770	41	82.1	83.5	82.9	97.5	100.7	4.9
203	849	42	83.1	84.0	84.3	99.2	99.7	6.2
204	2118	93	83.0	84.3	84.2	99.1	100.2	6.4
205	2508	143	83.4	84.6	83.6	98.4	101.2	5.8
206	1713	129	83.3	84.1	83.9	98.7	100.2	3.8
207	530	25	81.6	87.1	86.4	101.6	100.8	8.9
208	1696	94	83.4	84.8	84.3	99.2	100.6	5.3
209	2359	124	82.8	84.0	83.9	98.7	100.2	4.7

Question 5: Do residential sales comparison models include those property characteristics that contribute significantly to value?

Indicate whether the following characteristics are relevant in the various residential strata or market areas in the jurisdiction and whether they are represented in valuation models and tables.

- Living area
- Construction grade or quality
- Age, effective age, and/or condition
- Neighborhood
- Lot size (except for condominiums)
- Basement size and finish
- Garage type and area
- Location amenities such as water frontage, school districts, golf courses, and premium view
- Location decrements such as heavy traffic or nuisances
- Interior or exterior amenities such as porches, decks, balconies, bathrooms or bath fixtures, fireplaces, and swimming pools

Provide one or more examples illustrating the rates and adjustments applied.

Residential sales comparison models, used prior to 2016 and before implementation of the new CAMA system, included several property characteristics which contributed significantly to value.

Figure 9-5.1 is an SPSS model syntax and indicates that the main variables in the model were effective-square-feet of living area, square-footage of the garage/carport, effective age of the property (all linearized by building quality), market subarea, location amenities (site code), neighborhood code, and month of sale prior to assessment date. Other items such as pools, spas, fireplaces, and yard items were found to be insignificant in the model results. These items were extracted from the adjusted sale price prior to regression modeling, and then added to the model-predicted value later.

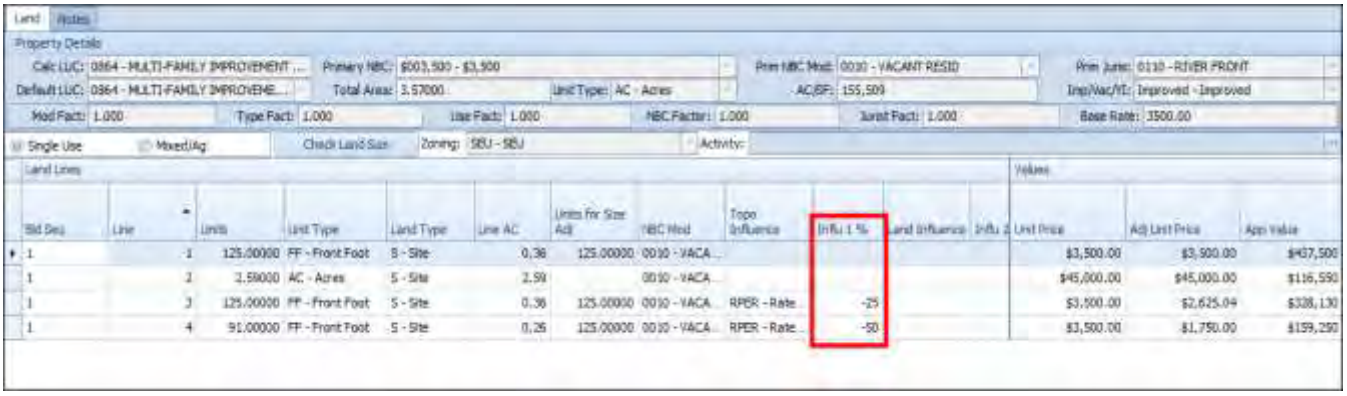
Figure 9-5.1 SPSS Model Syntax – Variables Used

```
*REGRESSION.
COMPUTE PRICEZ= .807*Saleval-Obldg-ACCy+3.50*NOHTACSF- 10*UNITSSF- SITUSADJ - POOLVAL - SPAVAL - FPVAL - sub05*15000.

VAR LABELS PRICEZ 'ADJUSTED PRICE'.
REGRESSION
/STATISTICS=END
/CRITERIA=PIN( 15) POUT ( 20)
/DESCRIPTIVES=MEAN STDDEV
/DEPENDENT=PRICEZ
/METHOD=backwards EFFSQFTZ AGEZSFZ MONTHSSF SUB02 to sub03 sub06 to th09 rivmonsf canmonsf ocnmonsf SUB02 lingarcp
NBHD1 to NBHD17 NBHD19 TO CMPLX650 cansub4 cansub7 cansub9 golfsub9 rivsub4 RIVSUB9 cansub5
/SAVE PRED(PREDIC).

*rivsub3 rivsub9.

*SALES RATIOS.
COMPUTE ESP=PREDic+Obldg+ACCY-3.50*NOHTACSF+ 10*UNITSSF + SITUSADJ + POOLVAL + SPAVAL + FPVAL + sub05*15000.
```

The CAMA system has dedicated pages to various fields where appraisers can apply building and land component adjustments. The "Exterior/Interior" and "Condo/Features/Depreciation" pages contain all physical entries and factors used in building calculations (see Exhibit 9-5.1). On these pages, appraisers enter building components, as well as quality, effective age, additional depreciation, and neighborhood adjustments ("Construction Modifier" on the "Condo/Features/Depreciation" page).

On the CAMA "Land" page appraisers make rate adjustments to each land line, if necessary. As illustrated in Figure 9-5.2, the appraiser applied a "-25" entry and a "-50" to land lines, indicating that land lines 3 and 4 were adjusted downward 25 percent and 50 percent, respectively. This land field is often used for lot adjustments such as for size, location, and condition.

Figure 9-5.2 Land Page – Adjustments to Land Lines



Appraisers view CAMA's cost calculator ladder to reconcile any changes they make to examine how the valuation changed using these adjustments (see Exhibit 9-5.2). This page displays all adjustment factors used against the base rate, total depreciation, special feature dollar amount, as well as neighborhood adjustments in the form of the construction (building) multiplier, or lump sum dollar amount.

Question 6: How are atypical homes valued?

Indicate what types of atypical homes are found in the jurisdiction and how they area appraised. Provide one or more examples.

Atypical homes are not uncommon in Brevard County. Most of these properties are assessed using typical base rates for property use, building subareas, and yard items common to the area. Appraisers make value adjustments by applying additional depreciation due to functional obsolescence or superadequacy due to atypical style/design, size, and/or marketability. For example, the home depicted in Figure 9-6.1 is shaped like a castle and reportedly has some functional problems as well, such as access to a main bathroom is through two bedrooms.

Figure 9-6.1 "Castle" Home with Functional Obsolescence

Appraisers frequently encounter homes with atypical size. One such example is a single-family residence containing almost 7,500 square feet with a 2,500 square foot garage (see Exhibit 9-6.1). Because the structure resides in a neighborhood where most homes have about 2,500 square feet, appraisers applied an additional 15 percent depreciation due to superadequacy.

The central Brevard single-family residence seen in Figure 9-6.2 was featured in a 2011 episode of ABC's "Extreme Makeover" program where the original structure was rebuilt with major interior and exterior upgrades. Unfortunately, this superior-quality house is surrounded by average quality homes for several square miles. Following a lower than expected 2016 sale price, the appraiser applied an additional 35 percent depreciation due to superadequacy.

Figure 9-6.2 "Extreme Makeover" Home – Central Brevard

Question 7: How are homes subject to flooding, tornados, hurricanes, contamination, or other external obsolescence issues valued?

Describe external obsolescence issues encountered in the jurisdiction and how they are handled. Provide at least one case study or example.

Brevard County is susceptible to late-summer and early-autumn hurricanes. When these storms wreak havoc on homes, the BCPAO field inspects the affected properties and applies additional depreciation until damage is repaired. Homes are re-inspected late in the year for any changes to condition. Some owners, for various reasons, take years to restore their homes. In fact, over 240 homes in Brevard County are still identified as having hurricane damage, some suffering storm damage four years ago.

Figure 9-7.1 graphically displays a home with hurricane roof damage from 2017. Appraisers often apply additional physical curable depreciation to these types of damaged properties. In this case they applied 25 percent additional depreciation.

Figure 9-7.1 SFR with Hurricane Roof Damage

Fire damage is treated much the same: appraisers apply additional depreciation commensurate with the amount of damage to the property. Sometimes the house is a total loss (see Exhibit 9-7.1), and the building valuation is brought to a nominal $500.

Question 8: How are condominiums and townhomes valued?

Indicate how the jurisdiction appraises condominiums and townhomes. If there are complexes in which rental units are common, describe how units in those complexes are appraised.

Townhomes, as described earlier in this chapter, are valued the same way as single-family residences. Base rates are derived from sales from each market area. Yard item rates and values are primarily derivatives of the cost approach from the Marshall & Swift Residential Cost Handbook.

Brevard County has over 31,000 condominium units in 1,155 complexes. During the 2016 transition from the previous CAMA system to the new CAMA system, 2016 condominium valuations were not calculated. Instead, the CAMA technicians entered the 2015 valuations into a lump sum field for 2016, and then condominium appraisers adjusted these by a construction modifier.

Beginning in 2018, the BCPAO took full advantage of the new CAMA system's capabilities of using factors, and began valuing condominiums using these factors. After determining an overall countywide condominium base rate to apply to the base area, appraisers administer up to six factors to produce a valuation. The equation, as seen in Figure 9-8.1 with a sample calculation, accounts for most of the condominium property characteristics that contribute significantly to value.

Figure 9-8.1 Condominium Valuation Calculation Equation

Base		Base Area		Condo Complex Factor		View Factor		Exposure Factor		Size Group Factor		Location Factor		Floor Level Factor		
$ 101	X	2200	X	1.012	X	1.000	X	0.900	X	0.980	X	0.780	X	1.200	=	$ 185,639
															rounded	$ 185,600

This technique allows for superior flexibility in valuing complexes, and units within complexes. View factors are associated with site location (river view, ocean view, golf view, etc.). Exposure factors basically detract for north-facing units (a measurable sale price reduction for Florida condominiums). Location factors are associated with whether the unit is an inside or outside (corner) unit.

Condominium-related yard item rates and values (discussed earlier in this chapter) are primarily derivatives of the cost approach from the Marshall & Swift Residential Cost Handbook.

Condominium and townhome complexes in Brevard have a high percentage of rental units. Because landlords tend to be more lapse in their upkeep, the individual units within a complex may vary in condition. Condominium appraisers do not know the condition of every unit. Thus, they are forced to apply the same rates and factors to every unit unless they learn otherwise. This method of assessing is

in line with keeping comparable units equitable and uniform, but can negatively affect ratio study numbers. Poor-condition units and renovated units contrast clearly in an analysis (see Exhibit 9-8.1).

Homeowner association (HOA) amenities and common areas are typically used by the association members for their benefit. These conveniences and their taxable values are exempt from property taxes, per Chapter 718 (see Exhibit 9-8.2), Florida Statutes, which requires that the contributory value of all amenities is allocated to each unit's assessment. Along with HOA fees and restrictions, sale prices are highly correlated with available amenities.

Question 9: Are condominium and townhome neighborhoods adequate in size?

Describe the jurisdiction's stratification approach for condominiums and townhomes and indicate the time span of sales used for valuation. Provide a report showing the neighborhoods or project groups created for condominiums and townhomes and either (a) the number of parcels in each or (b) the number of sales used for each during the most recent revaluation.

Condominium units are stratified by complexes and their complex number; townhomes by complexes and, like residential areas, are identified with their unique 6-digit neighborhood code.

Most condominium complexes are adequately sized. The BCPAO's Valuation Department has identified over 1,150 complexes (see Exhibit 9-9.1). About 75 percent of these have at least 10 units and only 2 percent have fewer than 3 units.

When complexes have few sales, condominium appraisers search for comparable sales in adjacent complexes. Similar to assessing single-family residences, condominium appraisers consider location, unit sizes, age, quality, and amenities as the most important features in making this determination.

Of the 434 townhome complexes, 15 percent have fewer than 3 units (see Exhibit 9-9.2). This is a major problem for the appraiser who covers the beachside cities of Cape Canaveral and Cocoa Beach where

numerous 2 and 3-unit unique townhome complexes exist. The difficulty of assessing these and finding appropriate comparable sales in value defense is readily apparent. Appraisers often use sales from the previous and following year to value these properties. The eventual goal is to closely analyze the area and combine many of these smaller complexes into larger groups to provide larger sample sizes from which to study market trends.

Question 10: Are appropriate procedures in place for the valuation of mobile/manufactured homes?

Provide a copy of statutes, guidelines, and procedures for classification and assessment of mobile/manufactured homes.

Explain how the jurisdiction values mobile/manufactured homes that are affixed to land, as well as those mobile/manufactured homes that are situated on rental sites or pads.

Describe any outside sources of information that are used.

Procedures exist for the valuation of manufactured housing. A chapter within the Field Operations Manual expounds on the descriptions and history of minimum construction and safety standards required for these structures (see Exhibit 9-10.1).

The manual defines five classes of manufactured housing. Because federal standards changed in 1976 (see Exhibit 9-10.2) and again in 1985 (see Exhibit 9-10.3), the BCPAO field appraisers correlate manufactured home building classes with these dates and the year the home was built. Essentially, class application can be as simple as referring to a small spreadsheet as seen in Figure 9-10.1.

Figure 9-10.1 MH Building Class Identification

MANUFACTURED HOMES BUILDING CLASS MATRIX			
	Year built		
	< 1976	1976 - 1985	> 1985
single wide	class 1	class 2	class 3
double wide	class 2	class 3	class 4
triple wide			class 5

Mobile homes permanently affixed to land where both the home and the land are owned by the same entities must buy a real property (RP) series sticker required, per Section 193.075, Florida Statutes, and Chapter 320, Florida Statutes (see Exhibit 9-10.4). The BCPAO must assess mobile homes with RP series stickers as real property.

Chapter 320, Florida Statutes also requires that Mobile home owners who do not own the land on which the mobile home is situated, must pay the annual license tax by buying a mobile home (MH) series sticker. Mobile homes that meet the criteria for a MH series sticker, but do not have a current MH sticker, are assessed as tangible personal property. Mobile homes that do not have a current RP or MH sticker are assessed by the BCPAO, placed on the tangible personal property assessment roll, and taxed annually as tangible personal property.

Yard items not affixed to MH series mobile homes are valued and assessed as real property. The owner of the mobile home park is responsible for any resulting ad valorem taxes.

The only outside source of appraisal information regarding mobile home assessment is the annual JLT Market Report by from Datacomp, which provides detailed information on mobile home leasing communities throughout Brevard County (see Exhibit 9-10.5).

Question 11: Are appropriate procedures in place for the valuation of cottage and recreation properties?

Indicate whether the jurisdiction contain cottages or other residential recreation properties, such as summer homes and cabins?

The BCPAO has no use codes for cottages or recreational properties, and Florida counties are not required to classify properties in this way.

Question 12: Do construction costs manuals reflect the local market?

Describe the source of construction cost rates within the jurisdiction, any adjustments, and steps taken to ensure that they reflect the local market.

Indicate the date of construction costs used in the most recent revaluation and what factors, if any, were applied to adjust them to current costs.

In conjunction with IAAO Standard 4.2 on Mass Appraisal of Real Property, the Valuation Department's residential appraisers use the Marshall & Swift Residential Cost Handbook exclusively for construction cost rates, which reflect the local market. The valuation service provides hard copy, updated data to the BCPAO quarterly. Appraisers use the manual's cost rates primarily for yard items, and apply regional and local multipliers as applicable (see Exhibit 9-12.1).

The effective date of construction cost is the valuation date. In accounting for the first and eighth criteria of Section 193.011, Florida Statutes, the appraisers generally apply a 15 percent adjustment to costs indicated by the manual. If the indicated cost for a concrete tennis court is $32,400, appraisers will value it (cost new) at $25,000, after applying local multipliers and statutory adjustments.

Question 13: Are depreciation schedules market-derived?

Indicate the source of the jurisdiction's residential depreciation schedules.

Explain how depreciation schedules are derived from or checked against the local market.

Compliant with IAAO Standard 3.6 on Mass Appraisal of Real Property, the BCPAO Valuation Department's depreciation schedules are market driven. The department has developed five residential depreciation schedules, mirroring those in the previous CAMA system. However, the new CAMA system provides more flexibility in assigning effective ages to buildings. The previous system limited effective-age entries to multiples of five (see Exhibit 9-13.1). Moreover, these figures were static each year until a user changed them. Thus, many properties' depreciation remained unchanged every year.

The new CAMA system allows users to enter any effective age by whole numbers and routinely calculates the age difference between current roll year and effective year, resulting in automatic depreciation.

Depreciation schedules include five market-derived tables in CAMA. These five tables differ in depreciation rate based on the life expectancy per home quality. The BCPAO applies the R-45 table (life expectancy 45 years) to quality 1 (low) homes; R-55 table to quality 2 (fair) homes; R-60 table to quality 3 and 4 (average and good) homes; R-65 table to quality 5 and 6 (very good and excellent) homes; and R-70 to quality 9 (luxury) homes (see Exhibit 9-13.2).

Since the acquisition of the new CAMA system, the BCPAO has slowly converted the old and more aggressive depreciation schedules to mirror more of the straight line method recommended by Marshall & Swift. Recent studies provide graphic illustrations of the prior year's schedule, the Marshall & Swift measurement, and the proposed next year's depreciation schedule (see Exhibit 9-13.3).

Recent ratio study statistics, as seen in Figure 9-13.1, indicate that these market-driven depreciation schedules are satisfactory and that further adjustments for next year may be minor and limited to just quality 1 and 2 homes, which represent most of the older structures.

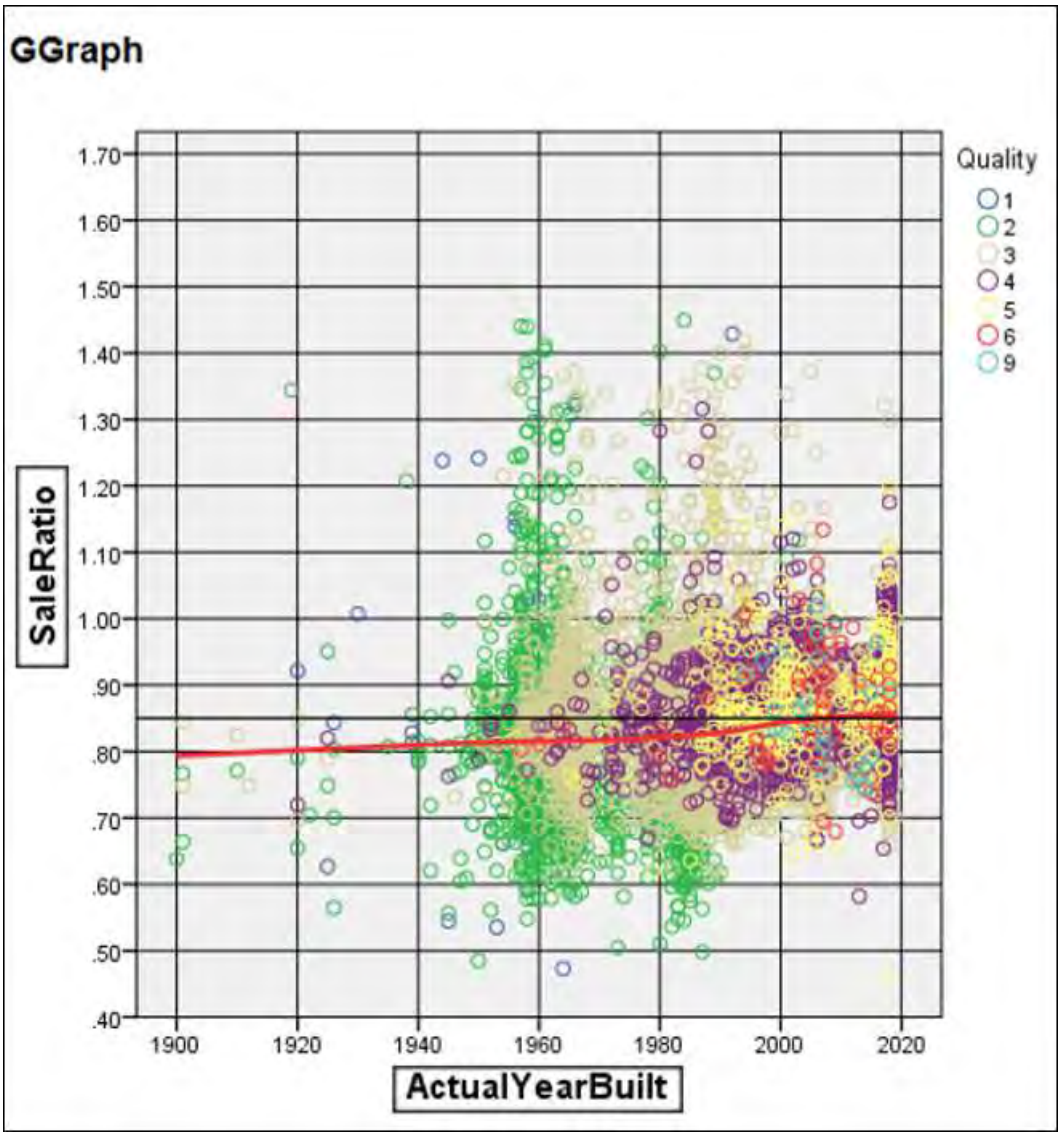
Figure 9-13.1 LOA by Effective Year Built - SFRs

CURRENT MV STUDY	NO.	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	SD	AAD	PRD	COD
EffYrblt =< 1980	104	88	91	89.9	105.8	12	9	100.8	10.4
EffYrblt = 1985	269	85	87	85.3	100.4	11	8	101.5	8.9
EffYrblt = 1990	582	83	84	84.3	99.2	12	8	100.0	9.4
EffYrblt = 1995	996	83	83	83.1	97.8	10	7	100.2	8.4
EffYrblt = 2000	1878	83	84	83.5	98.2	9	6	100.3	7.4
EffYrblt = 2005	2701	82	82	82.5	97.1	8	5	99.7	6.5
EffYrblt = 2010	2571	83	84	83.2	97.9	6	4	100.6	5.2
EffYrblt = 2015	2441	83	83	82.8	97.4	6	4	100.4	4.9

Another method of representing data from the table above is through a scatterplot with a LOESS (Locally Weighted Scatterplot Smoothing) trend line. Figure 9-13.2 illustrates a color coded (by building quality) scatter graph of single family home sale ratios (from 2018 sales) versus actual year built. The trend line

reveals regressivity exists for the older, lower quality homes, especially those built before 1980. Assuming land values are appropriate, the older homes require less depreciation. Thus, residential appraisers can either lower the effective age of these older, often renovated homes or adjust the lower-quality depreciation tables to account for less depreciation percentage.

Figure 9-13.2 Scatter Graph - Sale Ratio vs. Actual Year Built



Question 14: Are cost values reconciled to the market?

Explain how residential RCNLD estimates are reconciled to the local market.

Provide an example of the process.

The BCPAO reconciles RCNLD values to the market, albeit in a limited way, since square-foot rates are developed from the market and vary between market areas.

Field personnel enter building permit data into the CAMA system. Available and meaningful permit data from the cities is sporadic at best, but the data the BCPAO does receive usually include the estimated cost of construction. Appraisers compare these figures with the change in market value (building and yard item values) as well as study the relationship between the permit cost and the market value change.

Additionally, appraisers indirectly test residential RCNLD estimates through ratio studies of new homes. After developing market-driven land rates and values for a market area, appraisers apply the square-foot rate to the market area and analyze the results. If marks are unsatisfactory, appraisers adjust the rates. For example, if the weighted mean ratio of new home sales falls short, appraisers may increase a market area's square-foot rate by a dollar.

Eventually, all new homes in the seventeen residential market areas are reconciled, and the LOA of new homes versus existing homes reaches a desired equilibrium, as seen in Figure 9-14.1.

Figure 9-14.1 Sale Ratio Comparisons – New Homes vs Existing Homes - 2019

CURRENT MV STUDY	NO.	MEDIAN RATIO	MEAN RATIO	WTD RATIO	WTD RAT adj	SD	AAD	PRD	COD
Existing homes	10119	83	83	83.0	97.6	8	6	100.4	6.7
New homes	1423	84	84	83.5	98.2	5	4	100.4	4.7

Question 15: Are values checked for accuracy, uniformity, and compliance with IAAO ratio study standards?

Provide samples of sales ratio analyses conducted for residential properties in the latest revaluation.

Explain what remedial action is taken when problems are found.

Consistent with IAAO Standard 5.2 on Mass Appraisal of Real Property, residential valuations are consistently checked for accuracy, uniformity, equity, and compliance with IAAO ratio study standards.

Several times during the valuation process, the data analyst tests each appraiser's market areas for compliance (see Exhibit 9-15.1). The data analyst conducts additional studies on use codes, building quality, depreciation, and location to decide if CAMA table factors need to be adjusted. Condominium market areas are also studied (see Exhibit 9-15.2) to ensure accurate and equitable results.

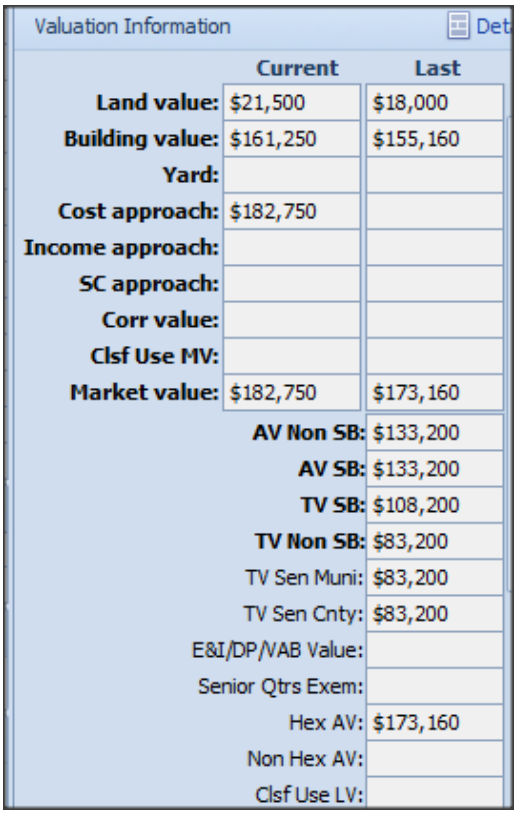
Late in the valuation process, most appraisers have already researched their outlier sales enough to either assess them accordingly or disqualify them based on credible, permissible evidence. When problems arise, they are typically related to out-of-line LOAs. The data analyst researches market sales deeper to identify problem neighborhoods, and then communicates with the appraisers about possible recommendations for adjustments.

Question 16: When multiple approaches are used, how are values reconciled?

Where multiple approaches or methods are used for a given residential property type or market area, explain the process by which the jurisdiction reconciles the estimates or determine which will be used for assessment purposes.

The BCPAO only uses the hybrid cost approach to value. Figure 9-16.1 presents a screen shot of the new CAMA system displaying only a cost approach value.

Figure 9-16.1 Account Detail Page – Cost Approach Value



Valuation Information

	Current	Last
Land value:	$21,500	$18,000
Building value:	$161,250	$155,160
Yard:		
Cost approach:	$182,750	
Income approach:		
SC approach:		
Corr value:		
Clsf Use MV:		
Market value:	$182,750	$173,160
AV Non SB:		$133,200
AV SB:		$133,200
TV SB:		$108,200
TV Non SB:		$83,200
TV Sen Muni:		$83,200
TV Sen Cnty:		$83,200
E&I/DP/VAB Value:		
Senior Qtrs Exem:		
Hex AV:		$173,160
Non Hex AV:		
Clsf Use LV:		

As described earlier in this chapter, the BCPAO was producing a model-driven sales comparison approach prior to implementation of the new CAMA system. Consistent with IAAO Standard 4.7 on Mass Appraisal of Real Property, the BCPAO was emphasizing one approach (hybrid cost) over the other (sales comparison), and using the latter as a back-up valuation.

The BCPAO is learning the intricacies of the new CAMA system's sales comparison approach. Once data is converted into a usable format, the CAMA field "SC approach" (seen in the figure above) will be populated.

It is difficult to determine how the BCPAO will reconcile multiple values for the residential properties, if at all. Most likely, the sales comparison approach will perform as back-up and support of hybrid cost numbers, similar to how it was done with the previous CAMA system.

EXHIBITS – Chapter 9

Chapter 10

COMMERCIAL VALUATION

Question 1: Does the jurisdiction have a commercial cost manual that is up to date and rooted in the local market?

Indicate the source of the jurisdiction's commercial cost manual and valuation tables.
Indicate when they were last updated and, if trend factors are applied, the base date to which they are applied.
Explain how depreciation and, if applicable, market adjustment factors are determined.
Provide a copy of the commercial depreciation schedules.

The BCPAO uses a system that incorporates an updated commercial cost manual based on local market data. The basis of the BCPAO's commercial cost is the Marshall & Swift Valuation Service, a comprehensive national cost guide of commercial structures. Costs are provided for various structure types, components, and site improvements, and contain regional and local multipliers (see Exhibit 10-1.1). The BCPAO reviews reported construction costs, cost data from building permits, and cost data from other sources. These sources include data from new construction properties appealed to the VAB as well as discussions with property owners. Other sources include fee appraisers, builders, and review of various media sources (CoStar, trade journal articles, etc.).

The example in Figure 10-1.1 is a developer's cost data submitted during the 2018 assessment roll year for a new apartment complex, which was obtained through the appeals process.

Figure 10-1.1 Developer's Cost Data

Summary of all Apartment Buildings + Club House	Hard Cost	Soft Cost	
Concrete Slab and Footing	$519,421.50		
Framing Material	$1,523,444.13	Architect + Engineering plans	$89,352.20
Elevated Concrete	$202,626.45	Engineer Survey / Testing Fees	$23,353.71
Exterior Siding	$199,696.77	Titusville permits / concurrency	$596,617.49
Exterior Stone + Brick	$224,710.20	Brevard County permits / concurr	$652,637.36
Exterior Doors	$264,946.50	Construction Supervison	$137,773.57
Windows	$270,299.25	**Site / Grading**	$605,000.00
Roofing Material	$168,210.90	**Curb / Gutter inlets**	$103,185.00
Roofing Labor	$116,818.65	**Paving / Striping**	$257,415.00
Framing Labor	$936,117.00	**Storm / Sewer Detention**	$186,580.00
Stairs and Railings	$257,575.50	Pool	$234,750.00
Interior Doors + Trim Material	$227,615.31	Playground	$44,446.96
Interior Trim Labor	$125,277.75	Signage	$13,044.22
Cabinets + Installation	$351,029.25	Landscaping + Irrigation	$145,185.30
Counter Tops	$161,781.75	Appliances	$228,050.55
Drywall	$818,286.30		
Insulation	$126,746.10	**TOTAL - Soft Cost**	$3,317,391.36
Flooring	$353,919.15		
Shelving + Mirrors	$68,415.75		
Paint	$293,026.50		
Electrical Contractor	$590,253.30	**Water system**	$200,401.00
Lighting Package	$220,240.80	**Sewer System**	$404,023.00
HVAC	$513,103.50		
Plumbing	$824,949.45	Total cost of items required	$604,424.00
Fire Sprinkler System	$286,416.00	to be given to the city.	
Sidewalks + Concrete	$71,750.25		
Landscaping + Irrigation	$145,185.30		
Final Clean-up	$60,869.25		
Clubhouse Furniture / Fitness Equipme	$96,057.00		
TOTAL	**$10,018,789.56**		

The statutory valuation date in Florida is January 1. Commercial costs are annually reviewed and updated as necessary. This includes costs for the various structure types (see Exhibit 10-1.2), high-value cost items such as elevators, clean rooms, and other improvements referred to as Special Features and Yard Items (SFYI) in the CAMA system (see Exhibit 10-1.3).

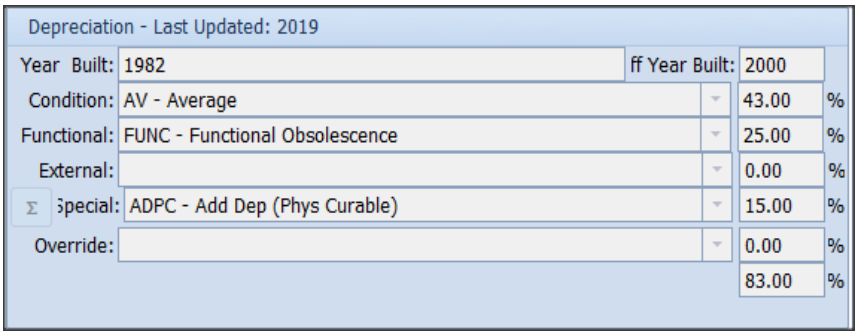
Every two to three years, and after the annual review process, commercial appraisers apply trend factors to existing cost numbers and base rates. For the 2019 valuation year, appraisers conducted a study to review all of the BCPAO's commercial cost data from the various sources earlier described in this section (see Exhibit 10-1.4).

Additionally, per Section 193.011, Florida Statutes, appraisers must consider several factors when valuing property, including adjusting valuations to account for the cost of sale (15 percent). This is

detailed in FDOR form DR-493, which is completed annually by each Property Appraiser in Florida (see Exhibit 10-1.5). This adjustment directly impacts the development of commercial cost rates, which appraisers adjust downward by 15 percent prior to entering them into the CAMA system (see Exhibit 10-1.6).

In keeping with IAAO Standard 3.6 on Mass Appraisal of Real Property, commercial depreciation tables are defined in the jurisdiction's CAMA system, (see Exhibit 10-1.7). These tables use straight-line depreciation based on structure type, economic life, and condition (see Exhibit 10-1.8). On an individual parcel basis, should depreciation need modification, appraisers adjust the effective age as well as add extra depreciation factors. These factors could include functional obsolescence (as seen in Figure 10-1.2), external obsolescence, and special obsolescence (used in unique circumstances).

Figure 10-1.2 Depreciation Types and Factors



Question 2: Does the jurisdiction have a program for the routine capture of income and expense data?

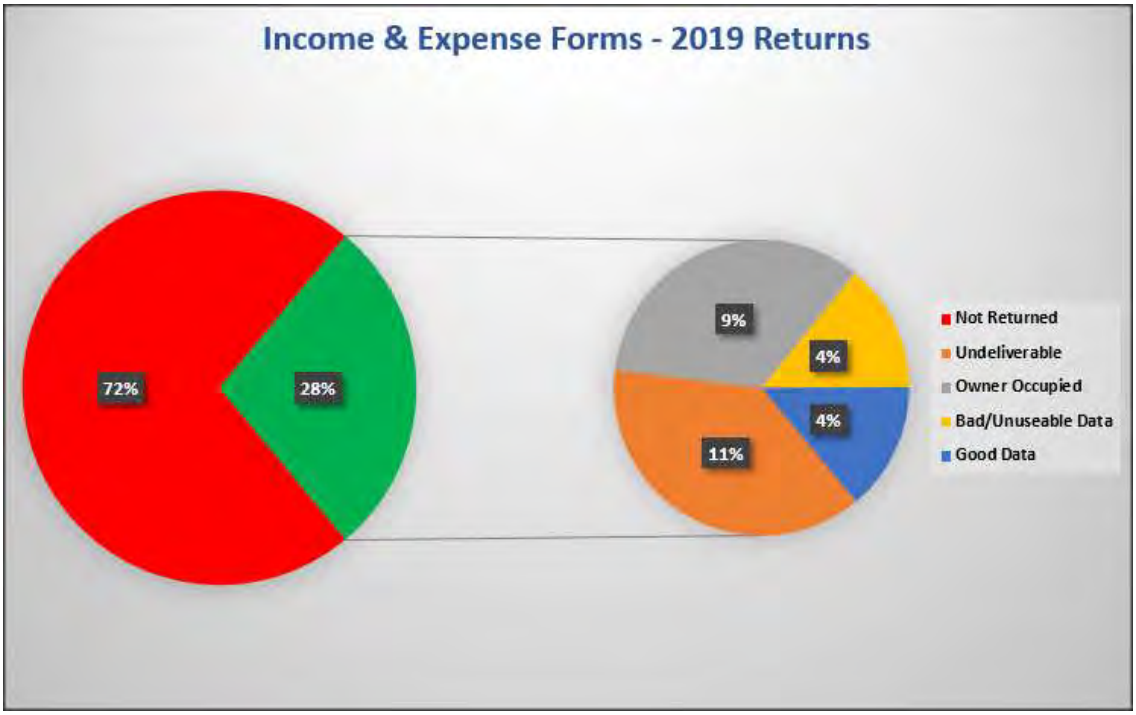
Describe your efforts (and challenges) in collecting income and expense data. Provide examples of forms used. Indicate response rates, whether you consider them sufficient, and what steps are taken to increase responses

The BCPAO has a collection program for income and expense data in accordance with IAAO Standard 3.5 on Mass Appraisal of Real Property. In February of each year, income and expense questionnaire forms

are mailed to each commercial property owner in Brevard with the inclusion of a self-addressed, postage-paid envelope. Because the format of the income and expense form is based on property use, the BCPAO uses multiple versions of this form, including apartments (see Exhibit 10-2.1); hotels/motels; mobile homes and RV parks; marinas; multi-family rentals; warehouses; shopping centers; offices; and retail space.

The return rate for commercial income and expense forms is reasonably consistent, although not comprehensive. For the 2019 roll year, 28 percent of the income and expense forms were returned to the BCPAO, as graphically displayed in Figure 10-2.1. Of the returned forms, 42 percent were either undeliverable or considered to contain unreliable data. Some forms were returned as "owner occupied" (see Exhibit 10-2.2). Generally, the owner-occupied forms were labelled by the property owners themselves, and their use of the property renders any requested data virtually unusable. Thus, a total of only 4 percent of the total income and expense forms that were initially mailed provided quality, practical data.

Figure 10-2.1 Income & Expense Forms – 2019 Returns



The BCPAO has future plans for an income/expense online system to improve the response rates. The current mail-in method typically results in owners submitting data incorrectly (see Exhibit 10-2.3),

providing inaccurate data (see Exhibit 10-2.4), or ignoring the request. Commercial appraisers believe that owners are suspicious about these forms, believing that their data will be used to increase their taxes, and will not be kept confidential. Some owners know that responding to the questionnaire is optional, and simply do not care to assist the BCPAO with their company's income data. This becomes problematic for them when they decide to appeal their valuations. Section 194.034(1)(h) Florida Statutes states: "no petitioner may present for consideration, nor may a board or special magistrate accept for consideration, testimony or other evidentiary materials that were requested of the petitioner in writing by the Property Appraiser of which the petitioner had knowledge and denied to the Property Appraiser." Commercial appraisers have found that this provision in the law is not reliably enforced by special magistrates at the VAB.

Fortunately, Income and Expense forms constitute a small fraction of commercial data obtained annually by the BCPAO. Appraisers obtain more reliable data from sources such as LoopNet, CoStar, (see Exhibit 10-2.5), and, most importantly, through the appeals process, when taxpayers lawfully submit reliable data (see Exhibit 10-2.6).

The BCPAO's CAMA software does allow for storing actual income and expense data (see Exhibit 10-2.7), though, to date, the BCPAO stores and analyzes it externally, using Excel spreadsheets (see Exhibit 10-2.8).

Question 3: Do commercial appraisers screen and validate commercial market data?

Indicate what staff positions are responsible for screening commercial income and sales data. Describe the validation and screening process.

Commercial appraisers review all commercial sales, consistent with IAAO Standards 3, 4, and 5 on Verification and Adjustment of Sales. They use data from sources such as: MLS listings, CoStar (see Exhibit 10-3.1), LoopNet listings, BCPAO sales qualification questionnaires, contact with buyer/seller/broker, site visits, deeds, news articles, and reviews of GIS and Pictometry data. After a

thorough review, the commercial appraisers qualify or disqualify sales as appropriate based on FDOR standards, conducting on-site inspections when required.

Commercial appraisers list qualified sales in an Excel sales file for use as comparable sales for both valuation and defense purposes (see Exhibit 10-3.2). Appraisers also review disqualified sales for potential valuation purposes. The failure for these sales to meet specific FDOR qualification standards does not preclude them from the valuation process. When appropriate, appraisers add these disqualified sales to the Excel sales file along with the qualified sales.

In addition to thorough sales screening and validation, the Commercial Department reviews all other available market data, such as income and expense forms, fee appraisals submitted by property owners, information obtained through the appeal process, leases, market reports, and third-party data sources mentioned previously. Appraisers analyze this data for abnormalities, and any data falling outside normal ranges is researched, and justification made for inclusion in the valuation process. Data failing to meet these standards is not used.

Question 4: Does the jurisdiction obtain and utilize information on typical income and capitalization rates available from third party sources?

Indicate what commercial data services and publications are utilized in the jurisdiction. Describe the use made of data from these sources. Provide at least one example.

The BCPAO's Commercial Department uses capitalization rates available from third-party sources: CBRE, Realty Rates, HOST, IRR (see Exhibit 10-4.1), IREM, DataComp (JLT Market Report), PWC, STR, and other third-party data sources previously listed. As discussed earlier, additional data is acquired through the appeals process, discussions with brokers, review of media reports/articles, and the sales validation process. When sufficient data exists during the sales validation process, appraisers calculate their capitalization rates. Otherwise, they use third-party sources.

All of the capitalization rate information gathered from these various sources is compiled, refined, and incorporated into the jurisdiction's annual valuation reports. Appraisers generate these reports for major property use types including apartments, offices (see Exhibit 2-2.1), retail, industrial & warehouse, and mobile home parks & campgrounds. In addition to detailing capitalization rates, these jurisdictional market reports include information on typical market vacancy & collection loss and expense ratios, along with market trends.

Due to the provisions of Section 193.011, Florida Statutes, the way it impacts market value determination, capitalization rates (like cost rates discussed in Question 1) are adjusted by a percentage. Once commercial appraisers determine a market capitalization rate for each property use code, the rates are adjusted downward by 15 percent in compliance with the DR-493. The final step in this capitalization rate development process is for the appraisers to apply the adjusted rates (see Exhibit 10-4.2) to the CAMA tables.

Question 5: Are spreadsheet and/or statistical packages used in analyses?

Describe the use the jurisdiction makes of spreadsheet and/or statistical software in the appraisal of commercial properties.

Describe the interface with the CAMA system, that is, how are income rates and adjustments developed outside the CAMA system are put into the CAMA system for application to the inventory of properties.

The Commercial Department uses SPSS software in sale ratio analysis, which is in compliance with FDOR and IAAO guidelines. Most other commercial valuation analysis is done using Excel.

Data analysis is not currently performed in the CAMA system. Instead, appraisers download the required data (sales or building data) into Excel. Appraisers also generate spreadsheets to compile income and market data from various sources. Once the analytical process is completed in Excel, the commercial appraisers manually upload the resulting data and rates back into the CAMA system. Depending on the specific data in question, this may involve updating an individual property record (see Exhibit 10-5.1) or updating valuation models in the various CAMA tables (see Exhibit 10-5.2).

Commercial appraisers may apply valuation data in the CAMA system three ways: at the individual parcel level, through the selection of a group of properties using the Filter functions (see Exhibit 10-5.3), or through the valuation models. Appraisers apply the valuation models to groups of parcels based on property use codes, with the ability to further categorize by market area. At the parcel level, appraisers can override the model rates if needed (see Exhibit 10-5.4).

Question 6: Are multi-family properties appraised by the sales comparison or income approach?

Describe how the jurisdiction appraises multi-family properties. Provide examples of income or sales analyses conducted for such properties. Indicate how the office appraises properties for which insufficient sales or income data are available.

Except for newly-constructed buildings, the BCPAO's Commercial Department typically values multi-family properties using the income approach (see Exhibit 10-6.1). BCPAO policy is to value new construction by the cost approach so that assessments reflect construction costs as well as eliminate valuation issues due to new, unleased space, such as calculating the impact of lease-up periods on value. Along with IAAO Standard 4.6.3 on Mass Appraisal of Real Property, appraisers use the cost approach when sales and income data are not available.

Appraisers may perform onsite inspections for various reasons: for adding new construction to the assessment roll; for picking up new buildings from building permits; for fulfilling five-year review requirements; or to address some other valuation issue. One key aspect of such onsite inspections is the verification of unit data (bedroom & bathroom counts, number of different rental unit types, etc.) To supplement onsite visits, appraisers verify unit data through many sources, such as responses from income & expense questionnaires (see Exhibit 10-2.1), rent rolls submitted through the appeals process, and online sources. Typical online sources include home rental websites such as ApartmentFinder (see Exhibit 10-6.2), Zillow, and other third-party sources listed previously. Many of these sources provide

valuable data regarding rents and vacancy levels. Appraisers enter some of this data into the CAMA system and Excel spreadsheets (see Exhibit 10-6.3). Through these spreadsheets, appraisers stratify data based on quality, location, unit counts, and unit mixtures (numbers of different types of units) and then analyze the data to develop income models and rates.

If data is inadequate from the aforementioned sources, the BCPAO uses third-party information, such as IRR, IREM (see Exhibit 10-6.4), and Realty Rates. Data obtained from these sources include vacancy rates, expense ratios, rent-per-square-foot, and capitalization rates. Whenever possible, the commercial appraisers calculate capitalization rates from sale properties. Realistically, however, few properties exist where the commercial appraisers have adequate sale information to calculate a reliable capitalization rate. Thus, third-party data becomes very important in determining multi-family capitalization rates (see Exhibit 10-6.5).

The sales comparison approach is not typically used as a primary method for multi-family valuation, with the exception of an individual property sale in a reasonable time period prior to the annual valuation date. In this instance, appraisers consider all aspects of the sale for valuation purposes. After keying sales data into Excel (see Exhibit 10-6.6), appraisers determine price per apartment unit (for various quality and unit mixtures). This serves as a reliable check on the income approach, and helps reveal if final income valuations fall within a reasonable range. Appraisers include a sales comparison approach (see Exhibit 10-6.7) as part of their valuation defense during the appeals process.

Question 7: Do multi-family valuation models recognize features important to renters and investors in such properties?

Indicate what specific features are accounted for in the jurisdiction's multi-family income and/or sales comparison models.

If the income approach is used, specify what characteristics or variables drive potential gross income (PGI), vacancy rates, expense ratios, and capitalization rates.

If the sales comparison approach is used, specify what features are recognized in sales comparison models.

Include examples of valuation models or tables that show how valuation rates and adjustments vary by property type, geographic area, and other relevant features.

The Commercial Department uses the income approach as the primary method of valuation for multi-family properties. As discussed in the answer to Question 6, the sales comparison approach primarily serves as a test for the reasonableness of the income approach results.

The multi-family income approach directly accounts for total unit counts, which are stratified into unit counts for a specific bedroom/bathroom count. For example, the potential gross income (PGI) calculation may be broken down into 1-bedroom/1-bath units, 2-bedroom/1.5-bath units, and 3-bedroom/2-bath units. Miscellaneous income accounts for factors such as onsite laundry facilities, pet rent, garage rental, etc. Indirectly, the multi-family income approach accounts for many other factors. Rental rates used in the calculation of the PGI are inclusive of factors such as clubhouses, pools, age, location, quality, condition, etc. These same factors drive vacancy rates, expense ratios, and capitalization rates. For example, newer, higher-quality multi-family complexes have lower vacancy and capitalization rates while older, poorly-maintained complexes typically experience higher expense ratios.

The BCPAO's multi-family properties (see Exhibit 10-7.1) are divided into six different use codes based on unit count and number of stories (see Figure 10-7.1 below). Commercial appraisers develop income rates for each of these use codes and market areas. Appraisers can adjust rates with an override at an individual property level as discussed in Question 5, based on specific conditions such as maintenance issues, hurricane damage, or significant vacancy issues.

Figure 10-7.1 Apartment Types

Use Code	Description
0351	GARDEN APARTMENTS - 1 STORY - 10 TO 49 UNITS
0352	GARDEN APARTMENTS - 1 STORY - 50 UNITS AND UP
0353	LOW RISE APARTMENTS - 2 OR 3 STORIES - 10 TO 49 UNITS
0354	LOW RISE APARTMENTS - 2 OR 3 STORIES - 50 UNITS AND UP
0355	HIGH RISE APARTMENTS - 4 STORIES AND UP
0356	TOWNHOUSE APARTMENTS

The valuation table, as seen in Figure 10-7.2, displays PGI, vacancy, expense, and CAP rate ranges used by commercial appraisers for various property types throughout the county.

Figure 10-7.2 Commercial Valuation Table – Rate Ranges

Property Type	Market Areas	PGI Monthly Rental Rate Range	PGI Square Foot Rental Rate Range	Vacancy Rate Range	Expense Rate Range	Include Non-Ad Valorem Fees?	Cap Rate Range	Load Cap Rate with Millage?
Multi-family	50, 51, 52	$650 - $1500	-	5% - 10%	40% - 60%	Yes	7.50% - 8.00%	Yes
Office	50, 51, 52	-	$10.00 - $25.00	5% - 25%	30% - 35%	Yes	8.00% - 11.50%	Yes
Retail	50, 51, 52	-	$6.00 - $30.00	5% - 20%	25% - 30%	Yes	7.75% - 10.25%	Yes
Warehouse & Light Industrial	50, 51, 52	-	$4.00 - $15.00	5% - 25%	15% - 30%	Yes	9.00% - 10.75%	Yes

Question 8: Are office buildings appraised based on capitalized net income?

Indicate how the jurisdiction appraises office properties.

Assuming the income approach is used, provide a copy of your current PGI, vacancy, expense, and cap rate tables.

If the sales comparison approach is used, provide a copy of your most recent model(s).

Compliant with IAAO Standards 4.4 and 4.6.4 on Mass Appraisal of Real Property, the BCPAO's Commercial Department uses the income approach as the primary method of valuation for office properties. The sales comparison approach primarily serves as a test for the reasonableness of the income approach. As described earlier, the sales comparison approach is not typically used as the primary valuation method for Brevard's office parcels except for sales occurring close to the annual valuation date. Appraisers determine the price per square foot (PPSF) from their Excel sales data entries, which can serve as a reliable check on the income approach (see Exhibit 10-8.1). Again, as with other commercial valuation at the BCPAO, the commercial appraisers include the sales comparison as part of their valuation defense.

Except for newly-constructed buildings, which are valued using the cost approach, office buildings are valued using the income approach. Income data for office properties is obtained from a variety of sources. Again, typical sources of data include income & expense questionnaires, rental & MLS listings, sales verification questionnaires, discussions with brokers and/or property owners, and published third-

party data sources already mentioned. Third-party data is the primary source for expense ratio development and capitalization rates (see Exhibit 2-2.1).

Brevard's office properties are divided into ten different use codes, as seen in Figure 10-8.1. Use codes are based on number of tenants (single tenant vs. multi-tenant), number of stories (single story vs. multi-story), and use (professional office, office complex, etc.). Income rates are developed for each of these use codes and market areas. As with other commercial types, appraisers can adjust rates at the individual property level.

Figure 10-8.1 Office Building Types

USE CODE	DESCRIPTION
1700	OFFICE BUILDING - SINGLE TENANT - 1 STORY
1710	OFFICE BUILDING - MULTI TENANT - 1 STORY
1715	OFFICE BUILDING - MODULAR
1738	OFFICE SHELL BUILDING
1800	OFFICE BUILDING - SINGLE TENANT - 2 OR MORE STORIES
1810	OFFICE BUILDING - MULTI TENANT - 2 OR MORE STORIES
1900	PROFESSIONAL BUILDING - SINGLE TENANT - 1 STORY
1910	PROFESSIONAL BUILDING - MULTI TENANT - 1 STORY
1920	PROFESSIONAL BUILDING - SINGLE TENANT - 2 OR MORE STORIES
1930	PROFESSIONAL BUILDING - MULTI TENANT - 2 OR MORE STORIES
1940	PROFESSIONAL OFFICE COMPLEX

Valuation rate ranges for office buildings are seen in Figure 10-7.2 above.

Question 9: Are retail appraisals rooted in market data, and do they recognize variations in relevant location and building features?

Explain what approaches and methods are used in the appraisal of retail properties. Indicate which receives primary emphasis and why.

If the income approach is used, provide a copy of your current PGI, vacancy, expense, and cap rate tables.

If the sales comparison approach is used, provide a copy of your most recent model(s).

If the cost approach is used, provide a copy of relevant market adjustment factors.

The Commercial Department uses the income approach as the primary method of valuation for retail properties, with the sales comparison approach used as a test for reasonableness. Similar to other commercial types, appraisers enter all validated sales into an Excel spreadsheet (see Exhibit 10-9.1) for analysis, and value defense.

Except for newly-constructed buildings (valued by the cost approach), the BCPAO's Commercial Department typically values retail properties using the income approach. The commercial appraisers obtain income data for retail properties from questionnaires, brokers, and the same third-party sources previously listed for other types of commercial properties (see Exhibit 2-2.2).

Brevard County's retail properties are divided into twelve different use codes as seen in Figure 10-9.1. Use codes area based on number of tenants (single tenant vs. multi-tenant) and use (retail drug store, anchored shopping complex, regional shopping mall, etc.). Appraisers develop income rates for each of these use codes and by market area. As discussed in Question 5, appraisers can adjust rates at an individual property level based on specific conditions such as fire, flood, stigma, or other unusual factors causing atypical vacancy.

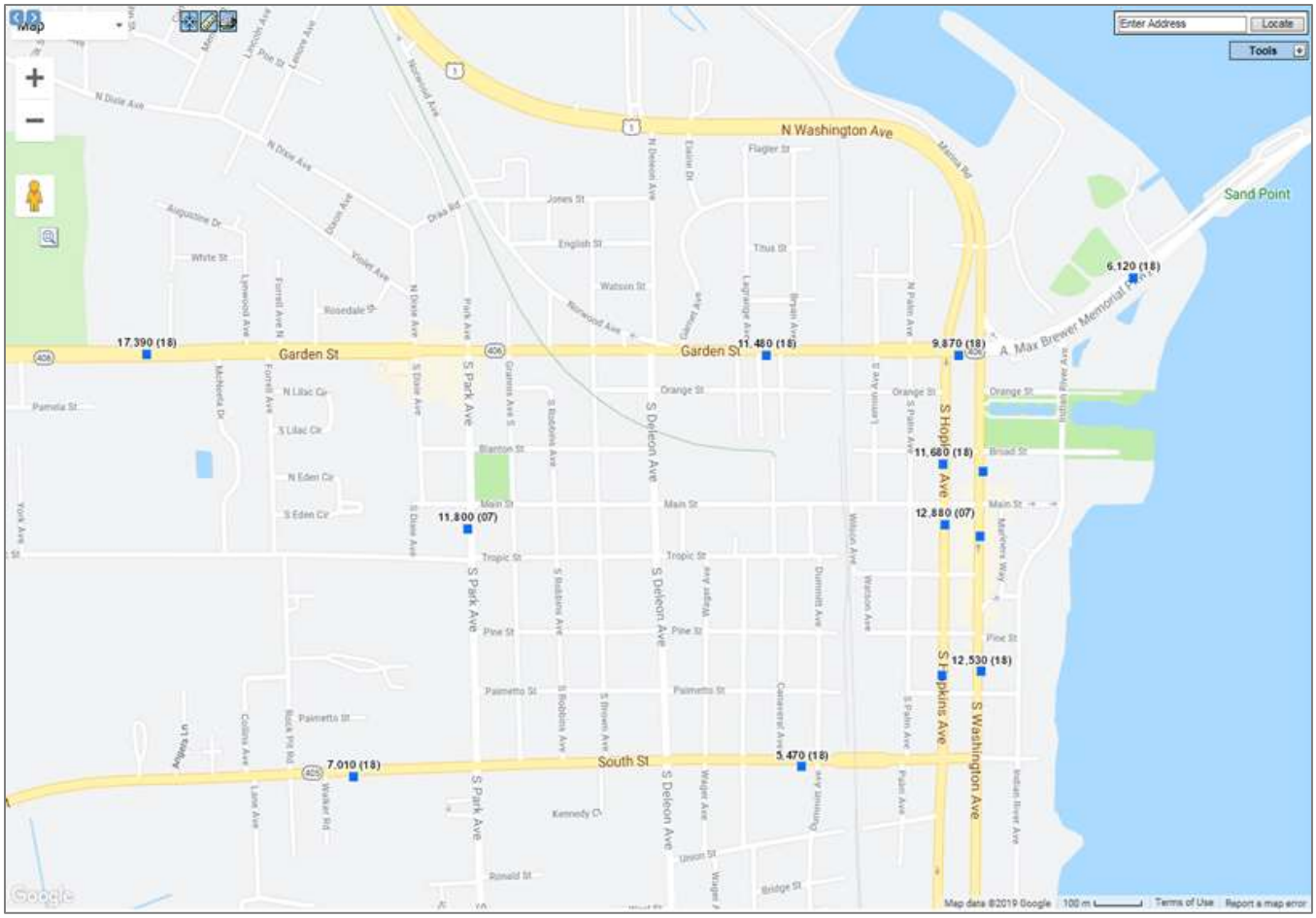
Figure 10-9.1 Retail Building Types

USE CODE	DESCRIPTION
1100	RETAIL STORE - 1 UNIT
1105	RETAIL DRUGSTORE - NOT ATTACHED
1110	RETAIL STORE - MULTIPLE UNITS
1115	RETAIL TIRE STORE
1125	CONVENIENCE STORE
1130	CONVENIENCE STORE WITH GAS PUMP
1138	RETAIL SHELL BUILDING
1150	WAREHOUSE DISCOUNT STORE
1300	DEPARTMENT STORE
1400	SUPERMARKET
1500	REGIONAL SHOPPING MALL
1600	SHOPPING COMPLEX - COMMUNITY/NEIGHBORHOOD

Valuation rate ranges for retail buildings are displayed in Figure 10-7.2 above.

The commercial appraisers consider other factors when developing the various retail rates. Because location is a prime factor for retail operations, the BCPAO considers traffic count data and property location factors (corner lot, ingress/egress, etc.) when developing PGI and capitalization rates. The traffic count map, depicted in Figure 10-9.2, is an illustration of the locational data considered in the valuation process.

Figure 10-9.2 Traffic Count Map



The BCPAO considers building features to be relevant to value. In the case of a retail drugstore, the presence of a drive-thru is significant. For many other retail properties, it is the interior configuration/buildout.

Question 10: Do appraisals for warehouses and light industrial properties recognize the features that drive market value for such properties?

Explain how warehouse and light industrial properties are appraised. Provide copies of relevant valuation models or tables.

As with office and retail properties, the Commercial Department uses the income approach as the primary method of valuation for warehouse and light industrial properties. The BCPAO's Commercial Department values warehouse and light industrial properties by the cost approach when insufficient data exists. Approximately half of property use codes associated with warehouse and light manufacturing are valued using the cost approach.

Appraisers obtain income data for warehouse and light industrial properties from identical sources described in previous questions. Valuation rate ranges for warehouses and light industrial properties are shown in Figure 10-7.2 above.

The BCPAO's warehouse and light industrial properties are divided into thirteen different use codes (see Exhibit 10-10.1). As previously discussed for other commercial property types, the commercial appraisers develop income rates for each of these use codes by market area, and can adjust rates at an individual property level based on specific conditions.

Commercial appraisers consider other factors in warehouse and light industrial property valuation, including whether to include locational factors as well as features that are building-specific. Locational factors include proximity to transportation (major roadways, railroad access, Port Canaveral), proximity to specific high-demand areas (Kennedy Space Center, Melbourne Airport), and access to the property. Building-specific features include building size, percentage of office space, insulation and air conditioning areas, necessary trucking accommodations (loading docks, loading wells, dock levelers), and other building modifications, all of which lend themselves to the property being a special-use facility requiring careful evaluation by BCPAO commercial appraisers.

Question 11: How are values reconciled?

Explain how the jurisdiction reconciles values estimates when multiple approaches or methods are used.

Provide a copy of sales ratio or other analyses conducted for this purpose.

The BCPAO performs a cost approach on all commercial properties. An income approach is developed for a majority of commercial parcels. The commercial appraisers use the sales comparison approach on a very limited number of parcels.

Generally, most commercial property types have sufficient market data from which to determine a reliable income value. In this instance, appraisers give the income approach primary consideration. The cost approach is used for special-use properties, properties with significant levels of new construction, and for property uses with inadequate market data from which to develop an income value.

Value reconciliation is primarily based on the applicability of the approach to value. Typically, should a situation exists where cost, income, and sales values were all developed for a particular parcel, rather than reconcile a value to fit all, the appraiser will choose the most relevant value based on the discussion above. This approach to reconciliation also works well for value defense, because it shields the appraiser from having to explain and support the highly-subjective weighting of each approach to a VAB Special Magistrate. Nevertheless, should the need to reconcile between these various approaches exist, the CAMA system allows for an override value (see Exhibit 10-11.1).

Typically, appraisers use an override value for several purposes, including valuing properties outside the CAMA system (due to the unique circumstances of the property) or applying a specific value that was determined through the appeals process.

Question 12: Does the jurisdiction have policies for the appraisal of mixed-use properties?

Indicate what mixed use properties are common in the jurisdiction and how they are appraised.

Provide a copy of relevant policies, guidelines, or training manuals.

Brevard's mixed-use parcels typically consist of older improvements, and are generally a mixture of residential and commercial units, as discussed in Chapter 5. The BCPAO's specific use code for properties in this category is 1210-Commercial Mixed Use. Brevard also has a number of parcels with a mixture of apartment use and some other commercial use, often retail or office, and in some instances, warehouse, restaurant, etc.

The BCPAO has no written guidelines for the valuation of commercial mixed-use properties; however, accepted departmental procedures do exist regarding the valuation of these parcels. As with other commercial property uses, the income approach is the primary method of valuation, should adequate data exist to determine a reliable income value. In the case of commercial mixed-use properties, appraisers value each individual use by the income approach separately: the apartment portion (valued in the same manner, using the same rates as other multifamily properties), and the other commercial portion(s) (using the respective rates based on the specific commercial use). The resulting income values for the component uses are totaled to determine an overall income value for the property (see Exhibit 10-12.1).

Appraisers often use the cost approach in valuing situationally-dependent, commercial mixed-use properties. Typically, this is the case with unique properties, such as those with a significant amount of new construction or properties that do not lend themselves to developing an income approach value due to condition, use, location, etc.

The commercial appraisers found that mixed-use properties encompass a relatively low percentage of the overall number of commercial parcels in Brevard. And, with mixed-use properties generally being older (minimal new construction), the Commercial Department's development of written departmental procedures on the appraisal of mixed-use properties has not been a priority.

Question 13: How are special purpose properties appraised?

Indicate what type of special purpose properties are most common and command the highest value in the jurisdiction.

Describe how these properties are appraised and provide copies of relevant appraisal materials.

Indicate if any such properties are appraised by another assessment agency (e.g., the state or province) or by an outside contractor.

Provide at least one example of a special purpose property appraisal.

If the jurisdiction is responsible for the appraisal of utility and/or inter-jurisdictions transportation properties, describe how this task is addressed.

The most common special purpose properties in Brevard County are special use manufacturing/research and development facilities, primarily for aerospace and/or aviation purposes. In particular, the location of the Kennedy Space Center within Brevard serves as a draw for these exotic property uses, such as facilities for OneWeb Satellite, Blue Origin, Northrop Grumman, and the Harris Corporation, as illustrated in Figures 10-13.1 through 10-13.4.

Figure 10-13.1 OneWeb Satellite Facility

Source: bizjournals.com

Figure 10-13.2 Blue Origin Aerospace Facility

Source: al.com

Figure 10-13.3 Northrup Grumman Facility

Source: EagleView 2019

Figure 10-13.4 Harris Corporation

Source: EagleView 2019

The BCPAO's Commercial Department recently added a new use code for a recently-built special purpose property: 4840 - Cold Storage and Warehouse Distribution Center. This was in response to a newly-constructed cold storage distribution warehouse, as seen in Figure 10-13.5. This 611,000 square-foot structure (see Exhibit 10-13.1) was built by Walmart in a relatively rural area of Brevard, but less than a mile from Interstate 95.

Figure 10-13.5 Walmart Cold Storage and Warehouse Distribution Center

Source: EagleView 2019

The commercial appraisers value all special-use properties internally. In accordance with IAAO Standard 4.6.7 on Mass Appraisal of Real Property, the BCPAO uses the cost approach the most appropriate method for valuing these special-purpose properties. One exception to this rule may occur through the appeals process. Though uncommon, it is possible that the BCPAO could commission for an outside appraisal for value defense purposes of a special-use property.

Railroad owned properties are also an exception. These properties are centrally assessed by the FDOR. As a means of identifying them, the BCPAO uses property use code 9800 – Centrally Assessed. BCPAO appraisers, however, value all other public utilities. As described in more detail in Chapter 11, TPP appraisers use the income and unitary valuation approaches to value properties such as power plants and gas pipelines.

EXHIBITS – Chapter 10

Chapter 11

PERSONAL PROPERTY ASSESSMENT

Question 1: What personal property is assessable in the jurisdiction?

If no personal property is assessable in the jurisdiction, simply state that it is not and proceed to the next chapter. If all or some personal property is assessable, prepare a table or matrix indicating what personal property in taxable. Indicate whether any personal property is assessed by the state/province or other jurisdiction. If private vehicles are assessed, provide a link to the appropriate legal requirements.

There are two classes of personal property: tangible and intangible. Florida once had an intangible personal property tax, but most parts of the law were repealed by the Florida legislature, effective January 1, 2007 (Ch. 312 (H.B. 209), Laws 2006). Florida law defined intangible property as any property that, while not intrinsically valuable, derives value from what it represents, such as stocks and corporate and government bonds. The State of Florida administered the intangible personal property tax system; not Florida's Property Appraisers.

In accordance with IAAO Standard 3 on Valuation of Personal Property, Section 192.011, Florida Statutes, explicitly defines that all assessable (tangible) personal property is that which is located within the county, except inventory, whether such property is taxable, wholly or partially exempt (see Exhibit 11-1.1). Section 192.032(2), Florida Statutes, further stipulates that personal property is not immune to taxation and shall be assessed according to situs in that county and taxing jurisdiction in which it is physically on January 1 of each year, with some exceptions (see Exhibit 11-1.2).

Figure 11-1.1 lists the property types assessed by the TPP Department.

Figure 11-1.1 Assessable Tangible Personal Property

Assessed Tangible Personal Property
Computers and Printers
Construction Equipment
Construction in Progress
Expensed Items
Furniture and Fixtures
Leasehold Improvements
Machinery and Equipment
Mobile Home Attachments
Supplies
Untagged Vehicles

Florida does not assess private vehicles as personal property, and does not charge a personal property tax on vehicle ownership.

Question 2: Is a thorough personal property discovery program in place?

Briefly describe each of the methods, sources, and procedures the jurisdiction uses to discover new or previously escaped personal property accounts.

Indicate which have proven most helpful.

In keeping with IAAO Standard 4 on Valuation of Personal Property, the TPP Department has a personal property discovery procedure in place. TPP appraisers discover tangible personal property through physical inspections, newspaper articles, social media, the cities' business licenses departments, TPP tax returns, and advertising.

The Brevard County Tax Collector issues business tax receipts for new businesses. TPP appraisers receive copies of business licenses weekly. These licenses include existing and new businesses located in Brevard County in both the unincorporated areas and municipalities.

The most successful methods for discovering new or previously-escaped TPP accounts are through field inspections and notification of new occupational licenses and business tax receipts. TPP appraisers estimate that 90 percent of last year's almost 3,000 new accounts came from these methods (see Exhibit 11-2.1).

Question 3: How is personal property appraised?

Explain how the jurisdiction appraises personal property. Indicate the source of the cost schedules and provide copies. Explain whether and how the sales comparison and income approaches are used for different types of personal property.

Tangible personal property is classified as assets owned by a business or individual that are used to generate income but not classified as real property. Appraisers consider the type of property when choosing which appraisal method (cost approach, sales comparison approach, or income approach) is the most accurate, and will result in a fair, equitable, and uniform assessment of the property.

Consistent with IAAO Standard 7.2.1 on Valuation of Personal Property, TPP appraisers most often use the cost approach in valuing business personal property. Appraisers apply this method to determine the value of the assets after noting original cost (installation, sales, and freight costs) and the economic life of the asset. When computing values, TPP appraisers use the equipment index (see Exhibit 11-3.1) along with the untrended depreciation schedule (see Exhibit 11-3.2) to produce a present worth table (see Exhibit 11-3.3), and then apply these resulting percentages to the original cost new. The depreciation schedule, which is distributed by the FDOR, is based on the personal property type, the age of the property, and the age-life until the asset reaches a nominal value.

TPP appraisers, in accordance with IAAO Standard 7.2.2 on Valuation of Personal Property, use the sales comparison approach as a check to ensure that the cost approach does not exceed market value, as required by Florida statute. The most common procedure when performing this check is to research values of similar equipment through available online websites such as EquipmentTrader.com and

DotMed.com. Another source for value verification comes from taxpayers or their agents during the appeals process. In an attempt to boost their arguments, petitioners often submit appraisal data, which is based on sales data or equipment offered online. If appraisers verify that such data is authentic, similar to equipment being assessed, and properly adjusted for local and regional factors, then the resulting value can provide evidence to adjust the cost approach valuation.

Although cognizant of IAAO Standard 7.2.3 on Valuation of Personal Property, TPP appraisers rarely apply the income approach to tangible personal property because it is very difficult, if not impossible, to separate the income attributable to the personal property from other income. Even hotel properties, which are assessed based on their income, may derive a portion of their income from intangibles such as affiliation with a national chain, and the accompanying advertising and reservation system.

The BCPAO does use the income approach except when valuing utility properties such as power plants and gas pipelines, because investors in utilities are generally buying a reliable income stream. One example of this is Natural Gas Cape Canaveral Clean Energy Center in Port St. John, as seen in Figure 11-3.1. The TPP valuation in 2019 was almost $695 million.

Figure 11-3.1 Florida Power & Light's Natural Gas Cape Canaveral Clean Energy Center

In conjunction with this, the TPP appraisers use the unitary valuation approach, which is typically applied to properties that operate across county and state boundaries and whose value depends on the interrelation and operation of all of the properties as a unit. By using this approach, TPP appraisers examine the income from all utility properties and divide that amount by an appropriate capitalization rate to arrive at market value.

Question 4: Is personal property valuation automated?

Indicate whether the personal property valuation process is fully automated. Provide a copy of relevant valuation reports and the notice provided to taxpayers.

The tangible personal property valuation process is fully automated. Based on FDOR depreciation schedules and BCPAO guidelines, TPP appraisers enter values into the CAMA system, and the values auto-depreciate each year. A TRIM Notice of Proposed Taxes or property record card provides a breakdown of the total for each category.

The CAMA system provides easy access and printing of TPP record cards, which are always provided at taxpayer request (see Exhibit 11-4.1). Additionally, like real property, a TRIM Notice of Proposed Taxes is mailed out mid-August each year, and allows taxpayers 25 business days to appeal the valuation of their assets during the value defense phase of the assessment roll year (see Exhibit 11-4.2).

Question 5: Are the real and personal property systems linked to each other?

Indicate whether the office's real and personal property systems are linked so that it can access data on one while logged into the other. Explain the linkage and provide a relevant screen print.

The tangible personal property account (e.g. P123972), which includes no geographic identifiers, is linked to the associated parcel ID (e.g. 25-37-03-00-3.1), which includes geographic identifiers based on PLSS

(see response to Chapter 4, Question 5 for details about PLSS). For example, the red outlines on Figure 11-5.1 highlight the location of the associated parcel ID, asset site location, tax account, and the district group (taxing agency code) on the CAMA TPP Account Details page. Figure 11-5.2 shows the associated real property Account Detail page with identical information highlighted.

Figure 11-5.1 CAMA's TPP Account Detail Page

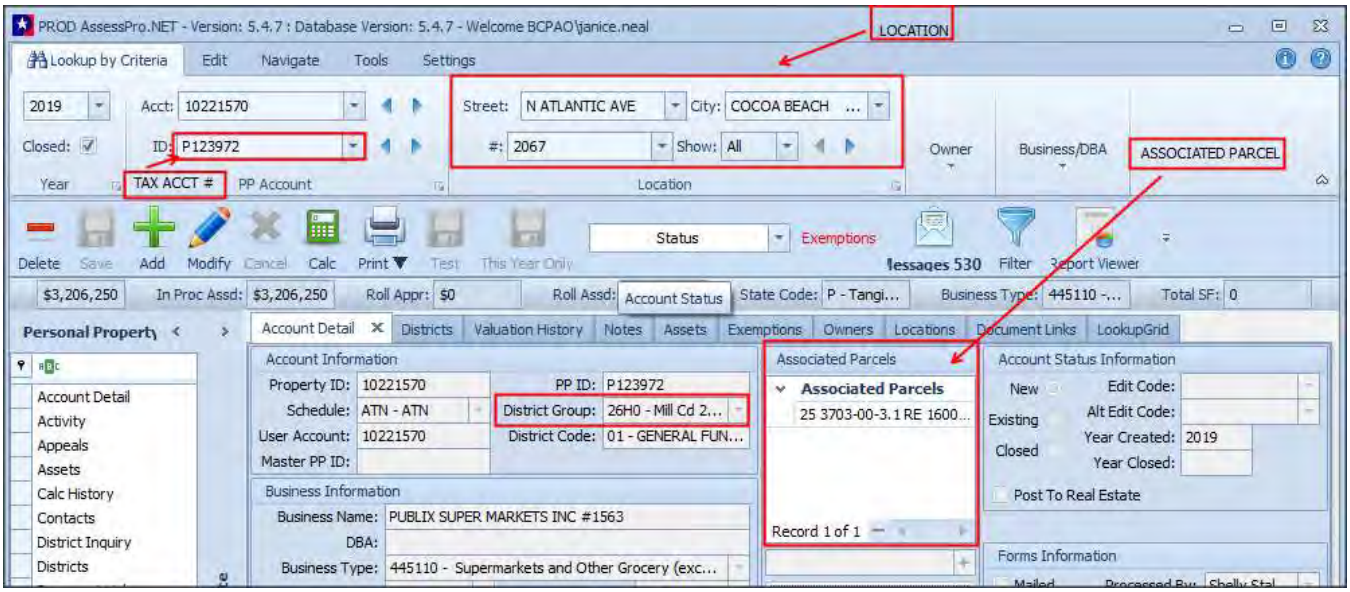
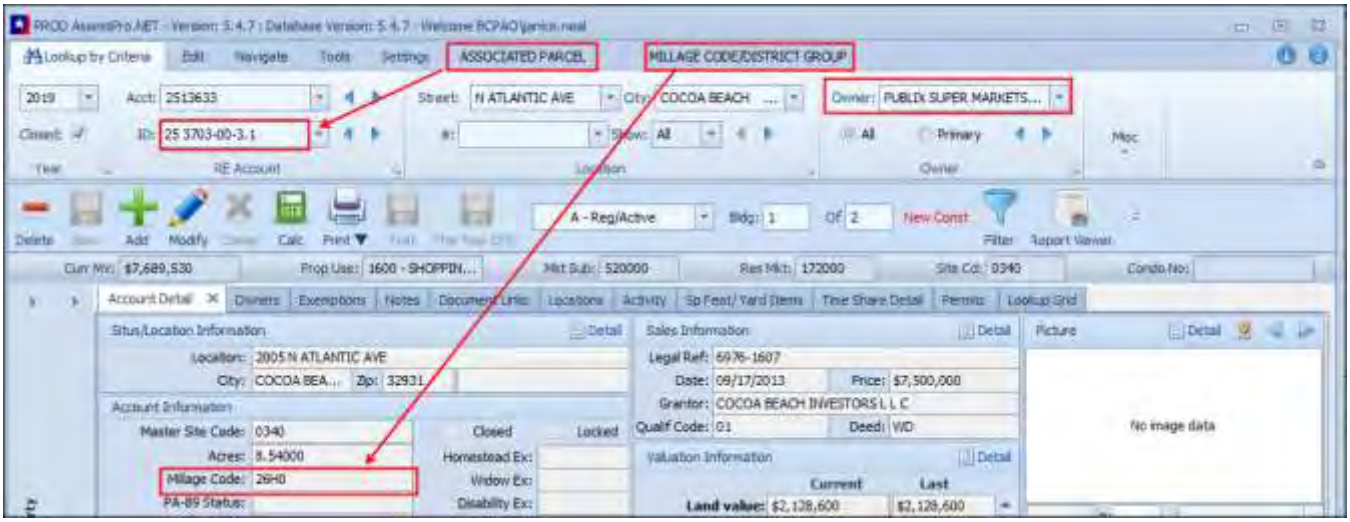


Figure 11-5.2 CAMA's Real Property Account Detail Page

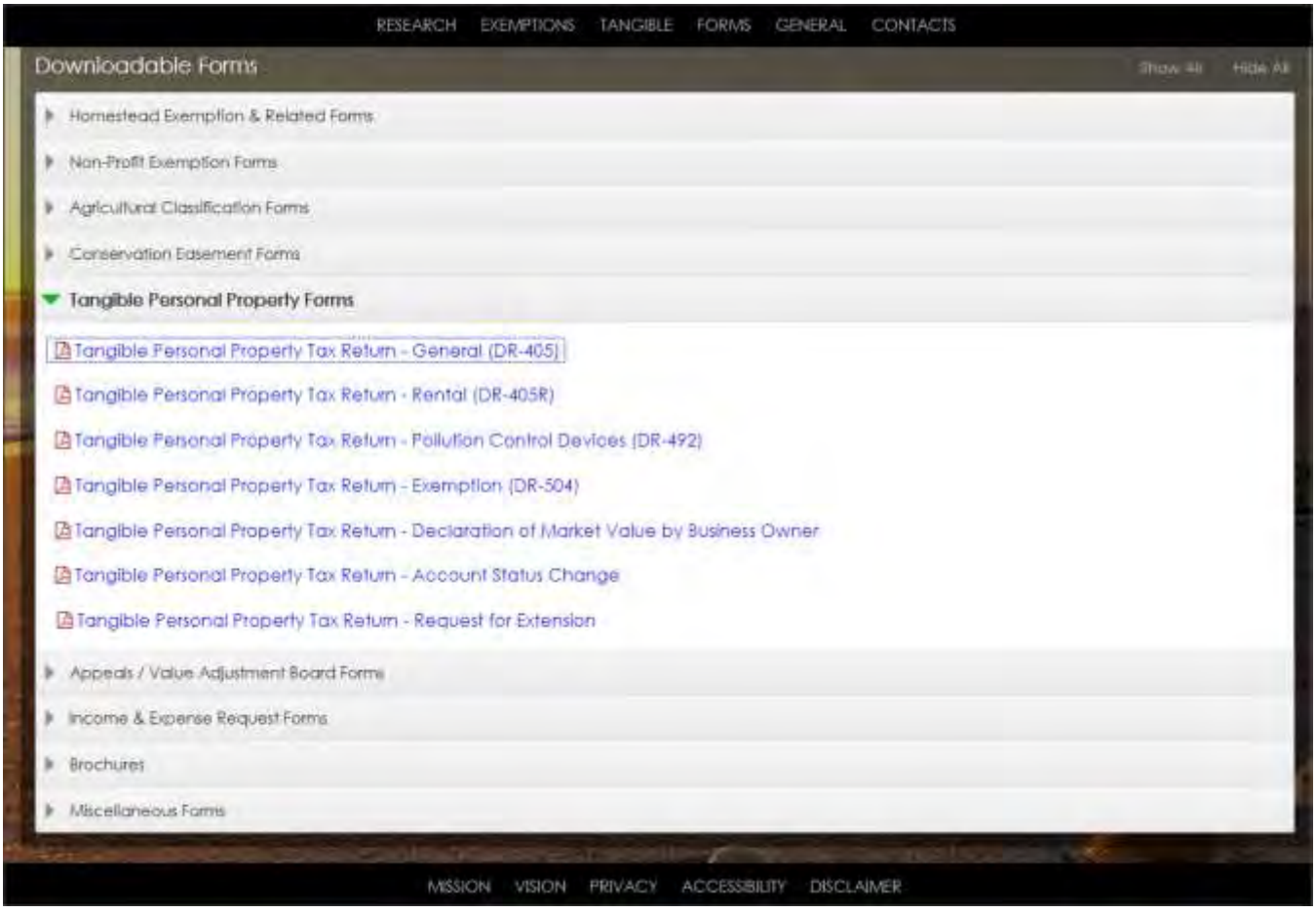


Question 6: Does the jurisdiction provide taxpayers with required reporting forms each year?

Indicate when personal property declarations are mailed and/or made available on-line. Describe follow-up procedures if declarations are not returned by the requested due date. Provide a copy of the forms and related instructions.

As shown in Figure 11-6.1, all required TPP forms are available on the BCPAO website as fillable PDFs, including the Tangible Personal Property Tax Return for business form (General DR-405) (see Exhibit 11-6.1).

Figure 11-6.1 BCPAO Website Downloadable Forms Page



Each January, business owners with current accounts receive forms mailed to them from the TPP Department to report all equipment used in their businesses.

Businesses and individuals are required by law to list all personal property used to generate income. All fully depreciated items, whether written off or not, must be reported at original installed cost. The annual period for declaring tangible personal property is January 1 to April 1. However, to avoid late penalties, owners may request an extension (May 1) from the BCPAO (see Exhibit 11-6.2).

The BCPAO's TPP appraisers follow strict guidelines on imposing percentage penalties to those who file late returns, as seen in Figure 11-6.2. Appraisers enter the penalty amount in the appropriate box on the owner's Tangible Personal Property Tax Return (see Exhibit 11-6.3).

Beginning in August, TPP appraisers begin field inspecting each account that has not filed a return to determine if the business is still active or is new for the tax roll. If new, appraisers inspect and estimate the value of the tangible business assets, and deliver a blank, printed return form for the taxpayer to file. If the valuation of business assets is $25,000 or less, a *Declaration of Market Value by Business Owner* form is delivered instead of a return form (see Exhibit 11-6.4).

For each business that did not file and that had over $25,000 in tangible assets the prior year (or wasn't already waived based on their status from the prior year), TPP appraisers review the business licenses and call the business to verify activity, location, and address, and to provide notification of their failure to file a timely TPP return.

Figure 11-6.2 Assessable TPP

PENALTIES	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
Without Extension	5%	10%	15%	20%	25%	-
With Extension	-	5%	10%	15%	20%	25%

Question 7: Has the jurisdiction taken steps to facilitate reporting by taxpayers?

Describe how the office facilitates (eases) taxpayer reporting.

Note whether the steps undertaken have improved compliance or the efficiency of processing returns.

The BCPAO takes steps to facilitate TPP reporting by taxpayers. One method is mailing DR-405 Tangible Personal Property Tax Returns along with instructions and a self-addressed return envelope to business owners each January. The mailing includes accounts that exceed the assessed value of $25,000 (details following), and new accounts not yet assessed. Also, as mentioned earlier, all TPP forms are available on the BCPAO public website as fillable PDFs. There is also a web page dedicated to the TPP Department. The BCPAO website also provides phone, email, and webmail contact directly to the TPP Department, as well as others. The BCPAO is currently in the early stages of implementing an online TPP filing and tracking system, and integrating this with the CAMA system.

The $25,000 TPP minimal value threshold was based on a state amendment, which was voted on and passed in 2007, becoming effective in 2008. Business owners in 2008 were required to file a current 2008 Tangible Personal Property Tax Return listing all tangible personal property used in their business, following which they would receive the $25,000 TPP exemption (see Exhibit 11-7.1). If assets were assessed $25,000 or less, the account was waived the following year, and these taxpayers were no longer required to file again, unless their business acquired more assets that would carry them over the $25,000 threshold.

Per Section 193.063, Florida statutes (see Exhibit 11-7.2), and as noted earlier, the BCPAO offers a 30-day extension and up to 45 days for filing the DR-405 tangible personal property tax return (see Exhibit 11-7.3). The extension extends the deadline to May 1 each year and to May 15 if granted 45 days.

Question 8: Does the jurisdiction take remedial action when a taxpayer fails to respond?

Indicate legal remedies for failure to comply and provide a link to the relevant legislation. Describe what steps the office takes when a taxpayer fails to submit a personal property declaration. Provide at least one example.

Compliant with IAAO Standard 6.1 on Valuation of Personal Property, the State of Florida imposes penalties for failure to comply with laws on filing returns (see Exhibit 11-6.2). Penalties for improper or late filing of returns include: for failure to file - 25 percent of the total tax levied against the property for

each year that no return is filed; for late filing - 5 percent of the total tax levied against the property covered by that return for each year, for each month, or portion thereof, that a return is filed after the due date, but not to exceed 25 percent of the total tax; and, for unlisted property on a return - 15 percent of the tax attributable to the omitted property; and others.

When taxpayers fail to submit a personal property declaration, the TPP Department imposes all applicable penalties required by law. Such was the case in 2019 when an industrial warehouse complex acquired a new full service, "Ma & Pa" pizzeria (see Exhibit 11-8.1). The property owner failed to file a return on the tangible personal property assets of this new enterprise. Thus, TPP appraisers made a field inspection and estimated the value of the restaurant's assets to be $40,000. That amount plus the 25 percent penalty was the taxable value for 2019. Additionally, the BCPAO applied no $25,000 TPP exemption, because an exemption requires a filed declaration form.

Question 9: Are personal property returns retained in a central repository?

Describe what steps are taken once a personal property return is received.

Indicate whether personal property data is maintained in central repository.

When declarations are returned by mail, indicate whether they are imaged and maintained in a document management or other on-line retrieval system.

TPP returns are stored on the BCPAO's documents servers and accessed through CAMA's Document Links page (see Exhibit 11-9.1). TPP appraisers scan returns into a Microsoft Access database, which enables the TPP Department to track returns and respond to taxpayer inquires. All records are kept confidential per Section 193.074, Florida Statutes (see Exhibit 1-3.12).

Question 10: Does the personal property system flag abnormal year-to-year changes?

Indicate whether the personal property system flags accounts with abnormal year-to-year changes or other irregularities.

If so, briefly describe the process.

Indicate whether edit thresholds are predetermined or can instead be customized to report atypical value changes.

The BCPAO's new CAMA system flags abnormal year-to-year changes by automatically determining if the subject rate, which is based on business type, number of units, and square feet, falls within an acceptable range. Figure 11-10.1 illustrates that a supermarket is likely reporting an accurate amount of business tangible personal property, since the "Subject Rate" field is "in the green" and the corresponding number ($682,910) is within a reasonable range for this business type.

Figure 11-10.1 TPP Subject Rate Verification (Acceptable)

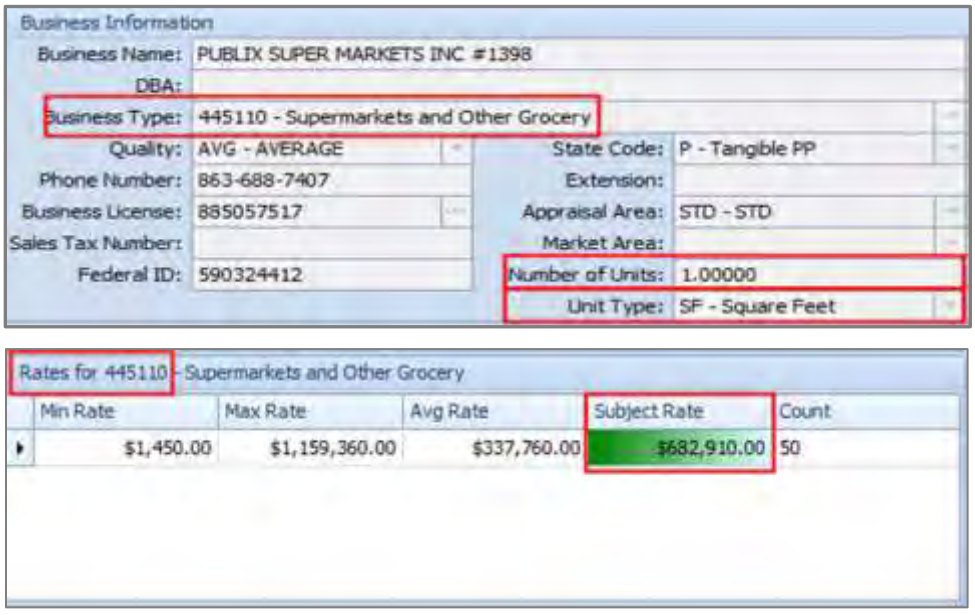


Figure 11-10.2 represents an example of a parcel that requires a review of the business' TPP valuation. Since the "Subject Rate" field is "in the red" because the number is low, TPP appraisers most likely are under-assessing the TPP valuation for this business type. For these types of accounts, TPP appraisers

look at the last time a return was filed on this parcel and thoroughly evaluate the return. After reviewing the return, TPP appraisers conduct a field inspection to ensure their records are accurate and timely.

Figure 11-10.2 TPP Subject Rate Verification (Problem Example)

The thresholds for "Min Rate" (minimum-valued account amount) and "Max Rate" (maximum- valued account amount) represent the high and low marks for a particular business type. For example, in Figure 11-10.1, the "Count" field displays "50", representing 50 "Supermarket and Other Grocery business types in the county. Of these 50, one has a total TPP valuation of $1,450 ("Min Rate") while another tops out at $1,159,360 ("Max Rate"). The average ("Avg Rate") is a computation of the total valuation of all stores divided by 50. An algorithm within the CAMA system is set to highlight the Subject Rate field in red or green based on the subject's relation to the average rate.

Question 11: Does the office conduct routine audits?

Describe the office's personal property audit program and whether it complies with the Standard on Valuation of Personal Property.

Indicate the number and percentage of accounts that were audited over the past three years.

If available, provide statistics on the amount of personal property value added as a result of the audits.

Describe the background and training of personal property auditors.

The TPP Department does not conduct routine audits. Realizing that this does not comply with IAAO Standard 6.2 on Valuation of Personal Property, the BCPAO is revisiting the proposal for the TPP Department to establish an audit program to ensure proper listing of all TPP in the Brevard County. Project-management vendor, Alluvionic, will assist the department in this endeavor.

The FDOR conducted no audits in at least the last five years, reportedly due to diminished funding.

EXHIBITS – Chapter 11

Chapter 12

VALUE DEFENSE

Question 1: Has the jurisdiction evaluated both the review and appeal system under which it operates and its role in the system?

Outline the appeal process in the jurisdiction. Briefly discuss any of the issues in Table 12-1 that are significant in the jurisdiction. Describe how the issues affect assessment operations and any steps the jurisdiction has taken to mitigate any adverse effects.

Table 12-1. Appeal System Issues and Practices

	Issue	Yes	No	Comments/References
1.	Do the assessment and tax calendars impose constraints on the time available for tasks crucial to developing defensible values or defending assessments, such as whether the time between the valuation date, deadlines for submitting income and expense information, the deadline for completing rolls and issuing notices, appeal deadlines, etc.? Is the calendar readily available to the public?		✓	The assessment and tax calendars impose constraints on the time required to develop defensible values and assessments (see timeframes below). The BCPAO does not publish an appeal-specific calendar, but such information is printed on each TRIM Notice of Proposed Taxes, which are published on the BCPAO public website.
2.	Are taxpayers required to state the grounds for their appeals and to back up their complaints with evidence?	✓		The petitioner is not required to state the grounds for their appeal or to present supporting evidence.
3.	Do the reasons for appeals suggest problems with assessments that have a systemic cause (that is, outdated values or valuation methods that do not meet professional standards)?		✓	Various appeal reasons have not suggested that there exists any underlying systematic cause of BCPAO assessments.
4.	Do assessments have a presumption of correctness that must be overcome with evidence?	✓		Assessments are presumed correct only if and after the BCPAO proves it with a preponderance of evidence.
5.	Are members of formal appeal bodies required to have relevant experience?	✓		Members of the formal appeal bodies are required to have relevant experience.
6.	Are formal appeal bodies briefed on the current year's assessment program?	✓		All formal appeal bodies are briefed on the current year's assessment program.
7.	Are appeal bodies required to give a reason for their decisions?	✓		Every appeal body is required to give reasons for their decisions.
8.	Is there a common belief that the formal appeal process is biased or corrupt?		✓	There is no belief that the formal appeal process is biased or corrupt.

12-1.1 Do the assessment and tax calendars impose constraints on the time available for tasks crucial to developing defensible values or defending assessments, such as whether the time between the valuation date, deadlines for submitting income and expense information, the deadline for completing rolls and issuing notices, appeal deadlines, etc.? Is the calendar readily available to the public?

Statutory assessment and tax calendars impose certain constraints on the time required to develop defensible values and assessments. As mentioned in Chapter 11, petitioners have 25 days following receipt of their TRIM Notice of Proposed Taxes to file a value-related petition to the VAB. If petitioners wish to present evidence at the VAB hearings, they must submit a copy of this evidence to the Property Appraiser 15 days prior to the hearing date. The Property Appraiser then reciprocates and sends their evidence to the petitioner 7 days prior to the hearing. All exemption and classification appeals must be filed within 30 days after the Property Appraiser mails denial notices, which must be mailed by July 1.

Deadlines for filing exemptions, classifications, income and expense information, TPP tax returns, and appeal petitions for denials are spread throughout the year, enabling adequate time for reviews and corrections, if any.

The BCPAO maintains a highly-detailed digital assessment calendar used internally for roll processing. While this calendar is not published on the BCPAO's public website, a less detailed calendar containing important dates is available (see Exhibit 12-1.1). A similar calendar is published on the FDOR website (see Exhibit 12-1.2). Additionally, the BCPAO public website has a dedicated section for public notice of upcoming deadlines in the header of every page. Email, telephone, and web contact to every office department is also published on the website (see Exhibit 12-1.3).

12-1.2 Are taxpayers required to state the grounds for their appeals and to back up their complaints with evidence?

Petitioners are no longer required to stipulate specific details about their appeal on the petition form, and are not required to provide evidence in support of their appeal. However, if they

wish to present evidence at the VAB hearing, they must follow the statutory requirements detailed previously.

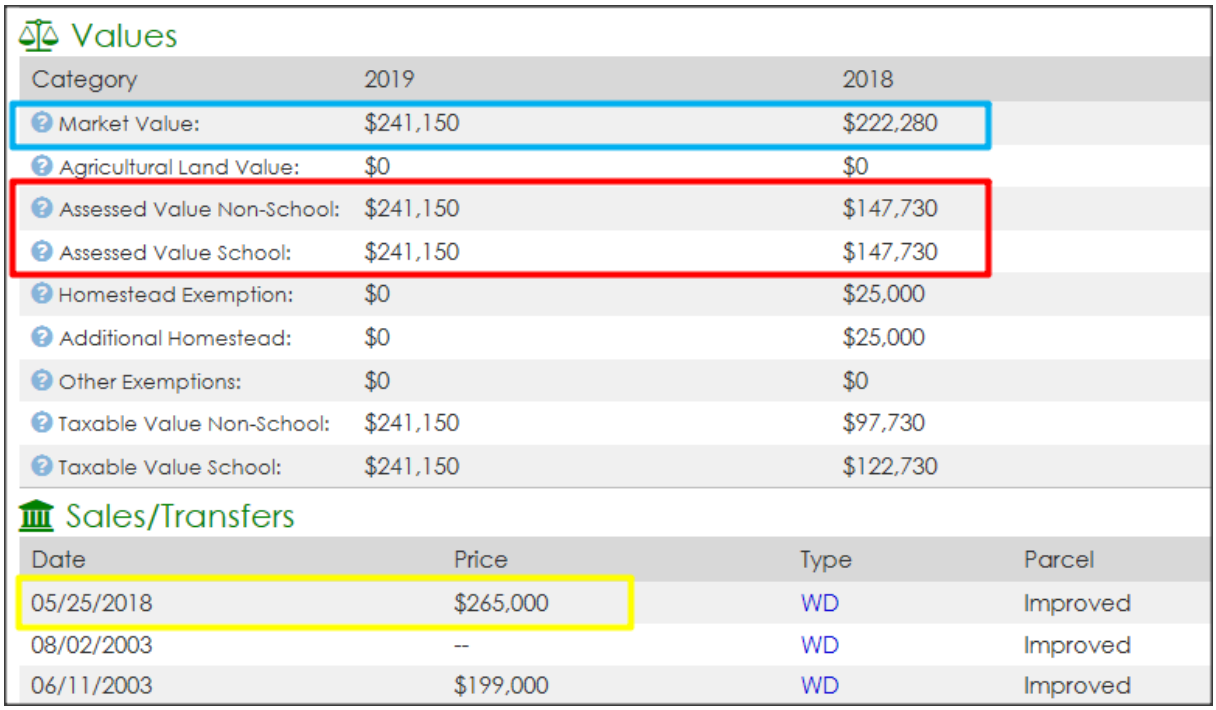
Petitioners have the ultimate burden of proving that the assessment on their property is incorrect per Section 194.301(2), Florida Statutes (see Exhibit 12-1.4). They must prove that the assessment does not represent just (market) value, does not represent the classified use value based on its current use, or is arbitrarily based on appraisal practices different from those generally applied to comparable properties.

12-1.3 Do the reasons for appeals suggest problems with assessments that have a systemic cause (that is, outdated values or valuation methods that do not meet professional standards)?

Reasons for appeals do not suggest any systematic problems with values or valuation methods. The vast majority of residential appeals are filed for two reasons: to reduce a tax increase, or to get a 15-percent reduction in the assessment based on the recent sale price.

Owners who bought homes in the prior year generally see a large tax increase the following year due to various reasons. If the sold property had a Homestead Exemption from the prior owner, the Property Appraiser – by law – must remove the Homestead Exemption and any assessed value cap on January 1 following the sale of the property. This inevitably increases assessed value, taxable value, and property taxes for the new owner. The increase is directly proportional to the length of the prior ownership and market appreciation during that time span. As Figure 12-1.1 demonstrates, a home that hasn't changed hands since 2003 and contains a capped assessed value much lower than market value, recently sold in 2018. As a result, the Property Appraiser removed any capped assessed value and, where the 2019 market value increased only 8.4 percent, the capped assessed value increased 63 percent (to market value). Many owners are not aware of this law and file an appeal, even after having an informal conversation with the appraiser about this very subject.

Figure 12-1.1 Market Value and Assessed Value Comparison Following Ownership Change



Values

Category	2019	2018
Market Value:	$241,150	$222,280
Agricultural Land Value:	$0	$0
Assessed Value Non-School:	$241,150	$147,730
Assessed Value School:	$241,150	$147,730
Homestead Exemption:	$0	$25,000
Additional Homestead:	$0	$25,000
Other Exemptions:	$0	$0
Taxable Value Non-School:	$241,150	$97,730
Taxable Value School:	$241,150	$122,730

Sales/Transfers

Date	Price	Type	Parcel
05/25/2018	$265,000	WD	Improved
08/02/2003	--	WD	Improved
06/11/2003	$199,000	WD	Improved

Florida law requires that assessments reflect market value and not a specific sale price. As mentioned in Chapter 1, market value for assessment purposes represents net proceeds to the seller in an arm's-length transaction, and excludes cost of sale. As discussed in Chapter 10, FDOR form DR-493 stipulates that anticipated selling price is adjusted downward by 15 percent to reflect cost of sale. However, real property investment companies and professional tax representatives, while knowing this, often file appeals to reduce the market value of their property by 15 percent based on a recent sale of the subject property, which may or may not reflect market value. Courts have consistently ruled that just value, as written in Florida statutes, equals market value. Thus, most special magistrates affirm that the law does not require properties to be at any specified level below their last sale price to the exclusion of all other criteria in Section 193.011, Florida Statutes, and that merely offering the DR-493 to rebut a specific valuation is insufficient to overturn the determination of market value.

12-1.4 Do assessments have a presumption of correctness that must be overcome with evidence?

The BCPAO's assessment is presumed correct if the appraiser proves by a preponderance of the evidence that the assessment was arrived at by complying with Section 193.011, Florida

Statutes, any other applicable statutory requirements relating to classified use values or assessment caps, and professionally accepted appraisal practices, including mass appraisal standards, if appropriate. However, taxpayers who challenge assessments are entitled to a determination by the VAB of the appropriateness of the appraisal methodology used in making the assessment.

12-1.5 Are members of formal appeal bodies required to have relevant experience?

A special magistrate is a quasi-judicial officer who "stands in the shoes" of the VAB in carrying out decision-making duties delegated by the VAB.

Compliant with IAAO Standard 5 on Assessment Appeal, special magistrates are to have knowledge of property tax principles, laws, and ratio studies. All special magistrates must meet the qualifications specified in Section 194.035, Florida Statutes, (see Exhibit 12-1.5). Additionally, Rule 12D-9.010(4)(d)1, F.A.C. (Florida Administrative Code) (see Exhibit 12-1.6), provides that a special magistrate appointed to hear issues of exemptions, classifications, portability assessment difference transfers, changes of ownership or control, or a qualifying improvement determination must have met one of the following requirements:

1. Be a member of The Florida Bar with no less than five years of experience in the area of ad valorem taxation and have received the Department's [FDOR] training; or

2. Be a member of The Florida Bar with no less than three years of experience in the area of ad valorem taxation and have completed the Department's training including the exam.

Rule 12D-9.010(4)(d)2, F.A.C., provides that a special magistrate appointed to hear petitions regarding the valuation of real estate shall be a state certified real estate appraiser and must have met one of the following requirements:

1. Have not less than five years of real property valuation experience and have received the Department's training; or

2. Have not less than three years of real property valuation experience and have completed the Department's training including the exam. A real property valuation special magistrate must be certified under Chapter 475, Part II, F.S. See Rule 12D-9.010(4)(d)2, F.A.C.

Rule 12D-9.010(4)(d)3., F.A.C., provides that a special magistrate appointed to hear petitions regarding the valuation of tangible personal property shall be a designated member of a nationally recognized appraiser's organization and must have met one of the following requirements:

1. Have not less than five years of experience in tangible personal property valuation and have received the Department's training; or

2. Have not less than three years of experience in tangible personal property valuation and have completed the Department's training including the exam.

12-1.6 Are formal appeal bodies briefed on the current year's assessment program?

Special magistrates attend training sessions sponsored by the FDOR, and are given instructions on the appeal process and any recent changes to statutes and administrative rules. At the time of the petition hearing, appraisers brief the special magistrate on valuation trends and appreciation developments within the subject property's area. In addition, the FDOR provides an updated version of the Uniform Policies and Procedures for Value Adjustment Boards each year as key reference material (see Exhibit 12-1.7).

At the formal VAB hearings, the BCPAO or representative briefs the Board on the current year's assessment findings for the entire county, and then more specific information pertaining to the cases.

12-1.7 Are appeal bodies required to give a reason for their decisions?

Consistent with IAAO Standard 6.2 on Assessment Appeals regarding written decisions, special magistrates are required to render their decisions in writing, except for petitions that are withdrawn or previously settled with the Property Appraiser. Written decisions must include findings of fact and conclusions of law, and reasons for upholding or overturning the determination of the Property Appraiser. Special magistrates only make recommendations to the VAB who may accept the findings without further hearing.

Per Section 194.035(1), Florida Statutes, the VAB shall consider these recommendations and may act upon them without further hearing.

12-1.8 Is there a common belief that the formal appeal process is biased or corrupt?

There is no common belief that the formal appeal process is biased or corrupt. All participants of the appeal process, from the special magistrates to the five VAB members, are entrusted to be fair and independent in applying Florida laws and uniform rules in rendering decisions relating to property assessments, classifications, and exemptions. Importantly, the VAB has no jurisdiction or control over taxes or tax rates established by the taxing authorities.

And, in keeping with IAAO Standard 7 on Assessment Appeal, the VAB hearings are open to the public; are subject to complete post-hearing transcripts; are advertised with a notification of hearing time, place, time allotted, and instructions; and the results are resolved within a reasonable time from the conclusion of the hearings.

Question 2: Are taxpayers encouraged to discuss concerns with the jurisdiction informally before lodging a formal appeal?

Briefly describe and illustrate how the office is organized to handle informal appeals and how such appeals are conducted. Provide data on typical numbers of appeals as a percentage of total parcels, by class.

In accordance with IAAO Standards 3.1 and 6 on Assessment Appeal, the BCPAO encourages taxpayers to discuss their assessments through an informal review with an appraiser before lodging a formal appeal.

Per Section 194.011(2), Florida Statutes, and F.A.C. 12D-9.002, taxpayers are entitled to an informal conference with the Property Appraiser (see Exhibit 12-2.1). Compliant with IAAO Standard 6.1 on Assessment Appeal, each August, the BCPAO mails out a TRIM Notice of Proposed Taxes to all property owners. Taxpayers are asked to review these notices as soon as they receive them, and to contact the BCPAO quickly if they discover what they believe may be a mistake. Taxpayers have the opportunity to speak with a qualified staff member if they disagree with their property valuation, classification, or exemption status, so that the office can assist them within the time frame allowed by law.

Most taxpayers call one of the BCPAO's five offices (usually the one closest to their property) to confer with an appraiser. After retrieving initial, relevant information, a member of the Taxpayer Services Department forwards the phone call to the appraiser responsible for the area in which the subject property is located. Walk-in taxpayers first visit with Taxpayer Service staff who, again, try to help the taxpayer as much as they can before calling for an appraiser for assistance.

In conjunction with IAAO Standard 10 on Public Relations, the BCPAO desires a friendly, courteous, and equitable resolution to any disagreement. Thus, the appraiser will respectfully review any information taxpayers provide. If the appraiser discovers that the BCPAO made a mistake, or if taxpayers provide verifiable information that was previously unavailable to the BCPAO that would justify a change, the BCPAO is obliged to make any warranted changes within the timeframe allowed by law. If, after meeting with an appraiser who has examined all of the relevant data, taxpayers still disagree with the appraiser's

original determination, taxpayers are advised by the appraiser to file a petition with the VAB on or before the deadline printed on their TRIM Notice of Proposed Taxes.

Regarding real property cases, Figure 12-2.1 illuminates the fact that few (0.2 percent) residential property owners file VAB petitions, and less than half of them petition against the valuation. Commercial owners follow a similar pattern with about one percent of commercial property owners stating their case in front of a special magistrate.

Figure 12-2.1 VAB Petition Appeal Counts – Brevard County

			Appeal Meeting Type (count)			Parcel Count	Percent
Appeal Year	Property Type	Appeal Type	Informal	Formal (petitioned)	Total	Total	Petitioned
2017	Commercial	Avcap	5	0	5		
		Value	27	271	298		
		Exempt	3	1	4		
		Total	35	272	307	25501	1.1%
	Residential	Avcap	39	0	39		
		Value	431	216	647		
		Exempt	1172	402	1574		
		Total	1642	618	2260	304187	0.2%
			1677	890	2567		
2018	Commercial	Avcap	6	0	6		
		Value	37	236	273		
		Exempt	1	13	14		
		Total	44	249	293	26022	1.0%
	Residential	Avcap	85	0	85		
		Value	788	298	1086		
		Exempt	534	237	771		
		Total	1407	535	1942	305716	0.2%
			1451	784	2235		

Question 3: Does the jurisdiction have documented procedures for handling taxpayer inquiries and formal appeals?

Explain the composition of the appeals body and how it is constituted.

Submit copies of documents describing how formal appeals of various types should be processed. Include relevant forms and screenshots.

The BCPAO has documented procedures for handling taxpayer inquiries related to formal appeals. Consistent with IAAO Standard 3.2 on Assessment Appeals, the VAB serves as the first level of formal

appeal for property owners. The VAB consists of two Brevard County commissioners, one Brevard County School Board member, and two citizen members per Section 194.015, Florida Statutes (see Exhibit 12-3.1). The chairperson must be a county commissioner. The county commission and school board members are appointed from their respective chairpersons. The county's VAB member appoints one citizen member, who must own a home in Brevard County with a Homestead Exemption, and the school board appoints the other citizen member, who must own a business occupying commercial space located within the school district. Furthermore, a citizen member cannot be a member or employee of any taxing authority and may not represent property owners in any administrative or judicial review of property taxes.

In addition to the VAB members, the roles of the VAB clerk and VAB attorney are important. The VAB clerk is ultimately responsible for the operation of the VAB, from providing petition forms and scheduling times, to keeping verbatim records of VAB proceedings and maintaining filed documents (see Exhibit 12-3.2). The VAB attorney's primary role is to advise the VAB on all aspects of the review process to ensure all actions taken by the VAB and its appointees meet legal requirements. VAB Counsel cannot represent the BCPAO, the Tax Collector, any taxing authority, or any property owner in any administrative or judicial review of property taxes.

Value petitions received by the VAB clerk are entered into the online Axia property tax appeal system, as shown in Figure 12-3.1. A BCPAO support service specialist and liaison to the VAB clerk then follows a list of instructions and requirements for processing these formal appeals (see Exhibit 12-3.3).

Figure 12-3.1 Axia Tax Appeal System

Source: Brevard County Clerk of Courts

Both online and hard copy petitions, which are available at any of the BCPAO or Clerk of Court offices, include comprehensive filing instructions and directives on taxpayers' partial payment of taxes, to avoid automatic denial (see Exhibit 12-3.4).

All VAB petitions require the BCPAO VAB liaison to open an appeal within the CAMA system. These remain open until the case is settled, withdrawn, or decided following the final VAB meeting. Appraisers follow strict guidelines on handling these types of appeals during the VAB procedures (see Exhibit 12-3.5).

Question 4: Does the jurisdiction track the status of each formal appeal to ensure that proper preparations are made for the hearing, that it is appropriately disposed of, and that records are properly updated?

Briefly describe and illustrate how the jurisdiction tracks informal and formal appeals from filing through disposition. Provide statistics and discuss trends.

The BCPAO tracks the status of each formal appeal from the Clerk's initial receipt of the petition to final scanning. Appraisers, who work with formal appeals which are withdrawn or settled, eventually send the relevant documentation back to the BCPAO's VAB liaison who reviews all contents for accuracy and certitude before sending them to the BCPAO Scanning Department for archiving.

Formal appeals are treated similarly in the end, but only after all the special magistrate's decision results are processed, checked for errors, calculated for any revised market and assessed values, approved by the VAB, and entered into the CAMA system. The BCPAO prominently displays a flowchart of this tracking process in the Valuation Department for quick reference (see Exhibit 12-4.1).

Informal appeals are known as "assessment inquiries" and include potential issues which are usually resolved without a taxpayer filing a formal petition. Appraisers follow a detailed instruction manual for these reviews (see Exhibit 12-4.2), which includes complete tracking of the investigation from initially entering the appeal into the CAMA system, to closing it out following a manager's review.

Figures 12-4.1 and 12-4.2 offer information on total parcel counts for both types of appeals the BCPAO has recently handled. A five-year trend indicates that VAB special magistrates have generally sided with the BCPAO's original recommendations, especially in dealings with market value.

Figure 12-4.1 Five-Year Trend VAB Petition Count – Brevard County

2017	Number of Counties Reported:	62	Out of 67								
Revised 20-Dec-18	Total Number of Exemption Parcels		% of Par.	Total Number of Assessment Reduction Parcels		% of Par.	Both Reduced and Granted	Parcels Withdrawn or resolved Both types	Total Number of Par.	Dollar Reduction Taxable Value	SHIFT IN TAXES DUE TO BOARD ACTION
COUNTY	Requested	Granted	Granted	Requested	Reduced	Granted					
BREVARD	403	98	24%	487	14	3%	112	517	890	12,363,780	213,306

2016	Number of Counties Reported:	63	Out of 67								
Revised 14-Aug-18	Total Number of Exemption Parcels		% of Par.	Total Number of Assessment Reduction Parcels		% of Par.	Both Reduced and Granted	Parcels Withdrawn or resolved Both types	Total Number of Par.	Dollar Reduction Taxable Value	SHIFT IN TAXES DUE TO BOARD ACTION
COUNTY	Requested	Granted	Granted	Requested	Reduced	Granted					
BREVARD	263	101	38%	818	190	23%	291	483	1,081	49,430,370	918,234

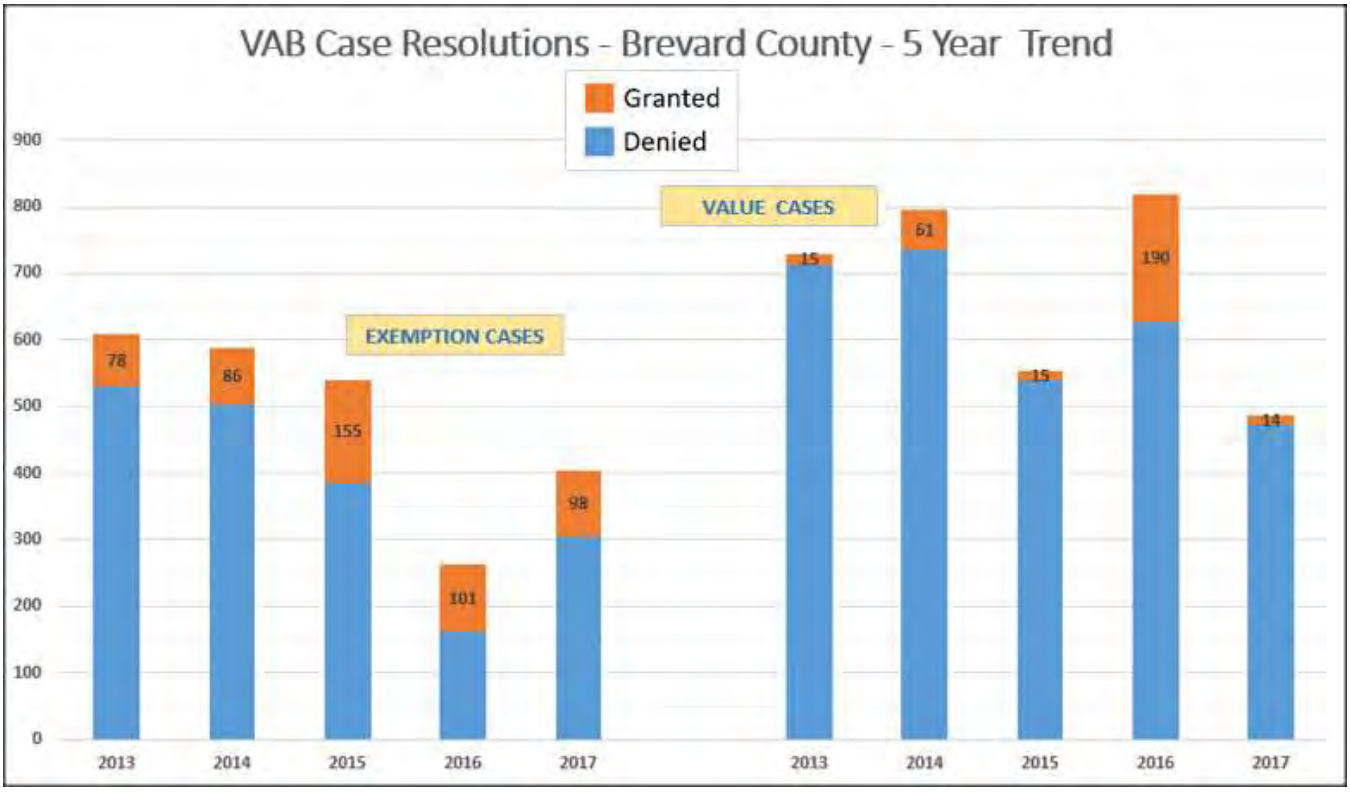
2015	Number of Counties Reported:	63	Out of 67								
Revised 18-Nov-16	Total Number of Exemption Parcels		% of Par.	Total Number of Assessment Reduction Parcels		% of Par.	Both Reduced and Granted	Parcels Withdrawn or resolved Both types	Total Number of Par.	Dollar Reduction Taxable Value	SHIFT IN TAXES DUE TO BOARD ACTION
COUNTY	Requested	Granted	Granted	Requested	Reduced	Granted					
BREVARD	540	155	29%	554	15	7%	170	715	1,094	21,543,114	421,357

2014	Number of Counties Reported:	62	Out of 67								
Revised 28-Jul-16	Total Number of Exemption Parcels		% of Par.	Total Number of Assessment Reduction Parcels		% of Par.	Both Reduced and Granted	Parcels Withdrawn or resolved Both types	Total Number of Par.	Dollar Reduction Taxable Value	SHIFT IN TAXES DUE TO BOARD ACTION
COUNTY	Requested	Granted	Granted	Requested	Reduced	Granted					
BREVARD	589	86	15%	796	61	8%	147	525	1,385	7,898,880	151,607

2013	Number of Counties Reported:	63	Out of 67								
Revised 24-Jul-15	Total Number of Exemption Parcels		% of Par.	Total Number of Assessment Reduction Parcels		% of Par.	Both Reduced and Granted	Parcels Withdrawn or resolved Both types	Total Number of Par.	Dollar Reduction Taxable Value	SHIFT IN TAXES DUE TO BOARD ACTION
COUNTY	Requested	Granted	Granted	Requested	Reduced	Granted					
BREVARD	609	78	13%	728	15	2%	93	612	1,337	5,709,420	101,311

Source: Florida Department of Revenue

Figure 12-4.2 Five-Year Trend VAB Petition Count – Brevard County



Question 5: Does the jurisdiction take steps to present its case effectively?

Briefly discuss and illustrate how the jurisdiction presents its case in formal appeals. If necessary, distinguish between ordinary residential appeals and commercial and industrial appeals.

Explain how the jurisdiction uses guidance in both USPAP and IAAO standards.

The BCPAO takes steps to present appeals cases effectively. Once the appraisers receive notice of outstanding cases and scheduled dates, they gather evidence and prepare printed files, which include summary sheets, a comparable sales grid, photos, aerials, data record cards, sketches, and any other pertinent information.

After the special magistrate conducts a formal introduction at the VAB hearings, BCPAO appraisers are usually allowed to present their information first. Appraisers will first distribute copies of their files to the petitioner and special magistrate and proceed to read information from a summary sheet (see Exhibit 12-5.1), including descriptions of the properties being contested, referrals to the comparable properties, and final recommendations. Despite this "summary" connotation, BCPAO appraisers are expected to provide a full defense of their valuations at the beginning of the hearing. All evidence is presented upfront.

After mass appraising for over six months, residential appraisers find themselves defending in a way similar to fee appraisers, because special magistrates overwhelmingly prefer such demonstrations. Hence, consistent with IAAO Standard 5.5 on Mass Appraisal of Real Property appraisers create a separate analysis for each case, and prepare a comparable sales grid from which to prove that the subject's valuation does not exceed just value (see Exhibit 12-5.2). Further direction from IAAO Standard 5.5 emphasizes that BCPAO appraisers should to explain their valuation on a simple, taxpayer level, never resorting to "the value came from the CAMA system" defense.

Commercial appraisers provide additional, more comprehensive, data support for their cases (see Exhibit 12-5.3) including income streams, comparable rental property, Marshall & Swift cost approach numbers, related business articles, and a complete dossier they've compiled from several sources that details the status of retail valuation for Brevard County for the year (see Exhibit 2-2.2).

Regarding all value defense, the BCPAO appraisers are guided by other standards set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and IAAO: specifically, Standard 5-1 in understanding what is required to produce a credible mass appraisal; Standard 5-3 in identifying and analyzing the effect on use of the factors of highest and best use, and neighborhood trends; Standard 5-4 in identifying appropriate procedures required to perform an appraisal including physical, functional, and external market factors; Standard 5-6 in analyzing terms and conditions of leases for income producing properties; and Standard 5-7 in reconciling data quality and quantity, to ensure standards of accuracy are maintained.

Question 6: When a formal appeal involves difficult appraisal issues and considerable value is at stake, can the jurisdiction obtain outside expert assistance?

Briefly describe the office's practices regarding outside assistance, how the need for assistance is determined, the typical number of engagements, and typical outcomes. How does the process conform to the *Standard on Contracting for Assessment Services*? Provide a sample contract.

If a VAB case involves difficult appraisal issues and considerable value is at stake, the BCPAO can obtain outside expert assistance if desired. However, to date, the BCPAO has no history in acquiring outside assistance for any value case, whether for the VAB appeal process or for any subsequent circuit court proceedings.

Question 7: Does the jurisdiction allow—or have a strategy for allowing—online appeal filings?

Describe and illustrate appeal documents that can be filed online. Discuss any plans for online filings. Report on any problems with past efforts. (Failure to have an on-line system does not result in an automatic failure of this question.)

The Brevard County Clerk of Court, which is ultimately responsible for the operation of VAB proceedings, allows online appeal filing via the Axia property tax appeal system. Axia, developed by county government software developer Pioneer Technology Group, provides online access for taxpayers, Property Appraisers, special magistrates, and VAB staff. The system is most useful in providing real-time status of petitions, hearing dates, hearing decisions, and the submittal and retrieval of evidence.

The BCPAO website provides questions and answers about the entire appeal process, as seen in Figure 12-7.1. These responses direct taxpayers to file an online petition (see Exhibit 12-7.1) through AXIA with the Brevard County Clerk of Court, if they wish, or simply complete a printed copy (see Exhibit 12-7.2).

Figure 12-7.1 BCPAO Website Appeal Q&A Page

Regarding any problems with the on-line filings, the BCPAO had a brief issue one year when the Clerk's office had uploading issues to the AXIA website portal. Also, periodically, when technicians annually update or change AXIA, taxpayers have reportedly contacted the Clerk's office about minor data glitches, which are usually resolved within a day.

Question 8: Does a supervisory agency or review body have the power to review values and valuation methods on its initiative, or is the jurisdiction required to submit valuations to a regulatory body for approval before taxes can be levied?

If a supervisory agency requires submissions used to evaluate the operations of the jurisdiction, describe them, including the kinds of data and information that are submitted, whether any of the submissions are electronic, and how the agency uses them to evaluate performance.

The BCPAO is statutorily mandated to submit reported values to FDOR four times a year: a Sale Data File (SDF) by April 1, a Preliminary Assessment Roll by July 1 (see Exhibit 12-8.1), a Final Tax Roll by the end of the first week of October (see Exhibit 12-8.2), and a Post-VAB Final Tax Roll, submitted immediately after the final VAB meeting, usually in March of the following year (see Exhibit 12-8.3). The FDOR examines the roll files to identify for any errors in exemption calculations, capping issues, and value differences between rolls.

The Preliminary Assessment Roll is the submission from which the FDOR determines county roll approval by meeting all statistical expectations of a full ratio study, and determining the overall level of assessment. The Final Tax Roll must account for any value differences since the Preliminary Assessment Roll due to completed appeals, and is the roll on which tax bills are based. The Post-VAB Final Tax Roll must account for all VAB value changes since final roll approval where, again, the FDOR is ensuring that the county's valuations are fair and equitable.

The BCPAO also submits the Name Address Personal (NAP) file and the Name Address Legal (NAL) file each year. As part of their property tax oversight obligations, the FDOR scrutinizes the SDF, NAL, and NAP files for appropriate coding and consistency. All submissions are electronic.

EXHIBITS – Chapter 12

Chapter 13

COMMUNICATIONS AND TAXPAYER ASSISTANCE

Question 1: Does the jurisdiction have an active public information and assistance program?

Briefly describe the jurisdiction's public information and assistance program, including its practices and activities in the following areas:

- Research, action planning, and evaluation
- Training backed up by documented procedures
- Policies regarding data access (including confidentiality policies)
- Data and service pricing policies

Attach copies of policy and practice memoranda, and manuals.

In accordance with IAAO Standards 2 on Public Relations and 4.7 on Public Tax Policy, the BCPAO disseminates information to the public is several ways: direct mailing, newspaper articles, website, public appearances, and through five offices distributed throughout Brevard County for walk-in public service. In keeping with IAAO Standard 3.1 on Public Relations, these activities are the responsibility of the Director of Government Affairs and Public Relations. The BCPAO does not develop metrics tracking the effectiveness of any public information campaign.

Although the BCPAO is independent from the local county government, the BCPAO does avail itself of some of the resources provided by the county's Human Resource Department. One of those resources is training for new employees, including a class on Customer Contact. In this class employees are trained on how to interact with customers in a professional manner.

The BCPAO's website provides an abundance of free spatial and tabular data for every non-confidential record in the CAMA system and GIS. Confidential information is governed by Florida statutes. A form to request confidential status is available on the BCPAO public website (see Exhibit 13-1.1). Once approved, all information confidential by statute is hidden from public view.

The BCPAO also recently developed an intra-agency form for governmental agencies that rely on BCPAO data to perform their duties (see Exhibit 13-1.2). The purpose of the agreement is for the agency to acknowledge that the data received may contain confidential information, and should be maintained as such by the recipient.

The BCPAO does not charge for unaltered data, which is also freely available for download on the BCPAO website, but there is a cost-recovery charge for data requests that require research or data manipulation by staff. Other cost-recovery charges include paper copies and large-format printed maps, which can be ordered and paid for via the BCPAO website.

Question 2: Does the jurisdiction employ appropriate communications channels in addressing its constituents' concerns and needs?

Briefly describe how the jurisdiction uses media. List media appearances, speaking engagements, and meetings organized by the office. Attach copies of the media products that are used.

Consistent with IAAO Standards 3.4 and 7.1 on Public Relations, the BCPAO uses various media sources to inform the public of the property valuation process, property tax exemptions, and any changes in public policies. The organization routinely uses broadcast media, print media, and social media to provide information to Florida property owners. The Property Appraiser and staff have appeared on local news channels such as Spectrum News Channel 13, Space Coast Daily TV, and various video appearances with the Florida Today (USA Today Network). The Property Appraiser also makes frequent radio appearances on local radio stations (WMMB-AM talk radio) and participates in digital equivalents, such as podcasts via Facebook.

The BCPAO also uses print media, such as TRIM Notice of Proposed Taxes mailing inserts, brochures, newspaper and journal/magazine articles to provide public service information and to educate property owners about Florida property tax exemptions and classifications, valuation trends, factors influencing real estate markets, and changes in public policy. The BCPAO was featured in Florida Today, Orlando

Sentinel, TC Palm, Space Coast Living Magazine, and, most recently, Florida Trend Magazine (see Exhibit 13-2.1).

Social media is changing the way the BCPAO does business, and, consistent with IAAO Standard 12.4 on Public Relations, the BCPAO has a Facebook page (see Exhibit 13-2.2). With this media brand, the BCPAO is providing the public with contact information, website links, and valuable content at a reduced cost to taxpayers. One lofty goal is make all in-office services also available online. Many of these services are already available on the BCPAO website, with some in the works, some in planning, and still others evolving in the minds of creative thinkers at the BCPAO.

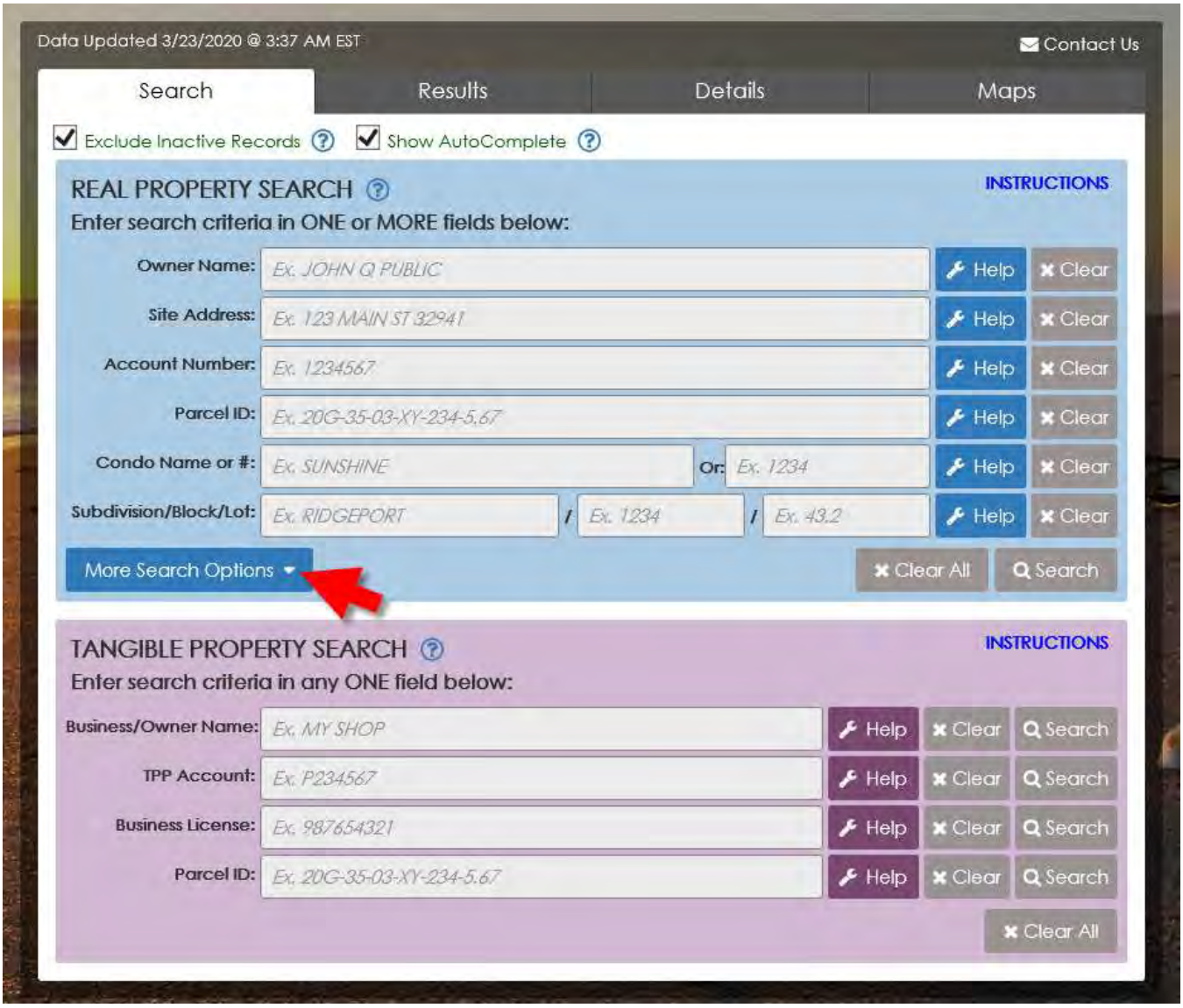
Even though the BCPAO employs several types of media to interact with the public and provide information, the office continually and regularly attends speaking engagements, organized meetings, and community outreach events, accommodating IAAO Standard 8 on Public Relations. Examples of speaking engagements include but are not limited to annual presentations to the Space Coast Board of Realtors, Space Coast Women in Defense, Rotary Clubs in Brevard County, Space Coast League of Cities, Brevard County City Clerk's Association, various local Realty companies, and city commission meetings (see Exhibit 13-2.3). The office also attends annual events organized by the community that target senior citizens and veterans (see Exhibit 13-2.4).

Question 3: Can property records be accessed online by parcel identifier, situs address, owner, and geographically?

Describe how the public can access property-specific information online. Provide public screen shots and reports that show information retrieval and display by methods created for the general public.

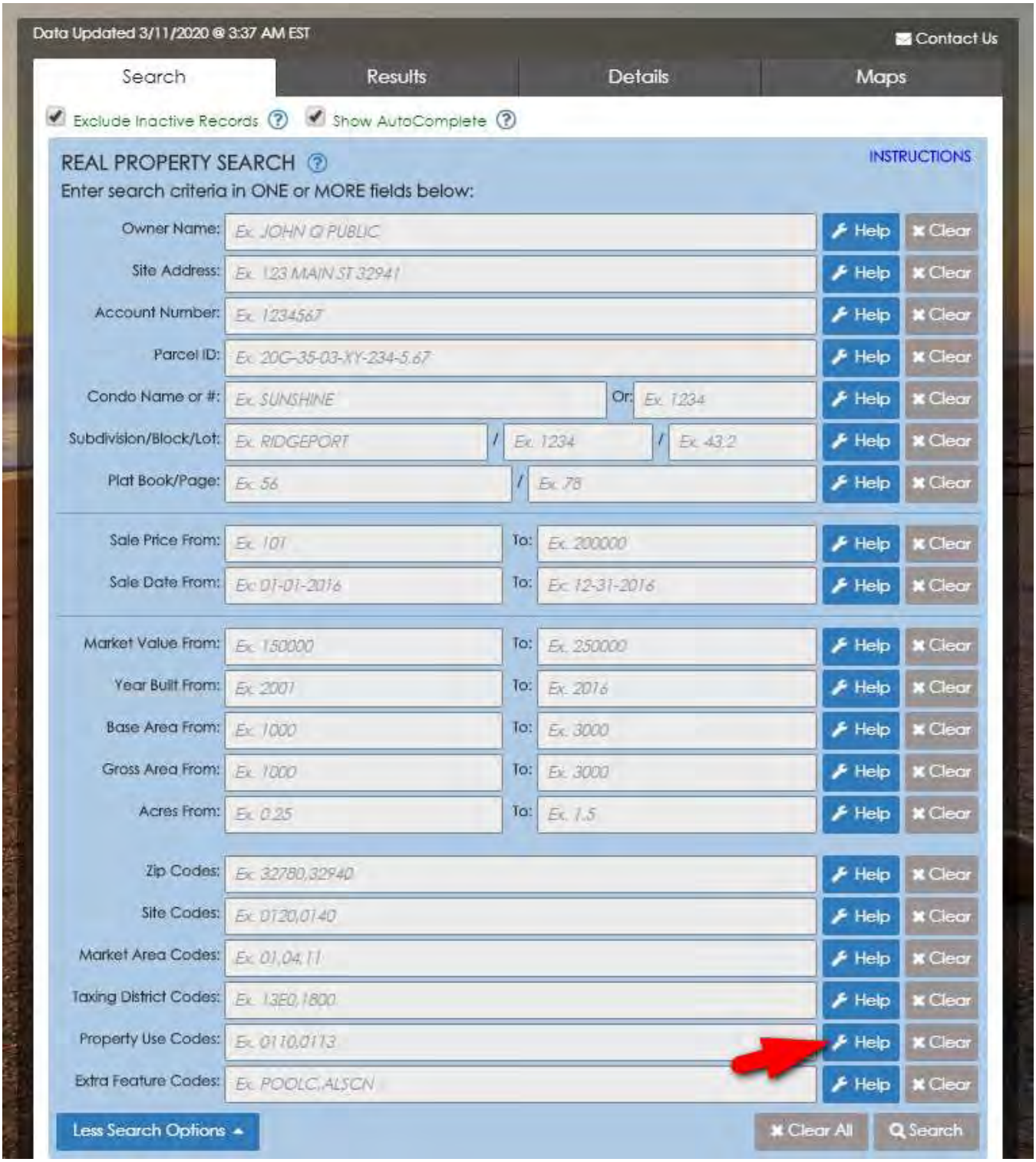
The BCPAO website's Property Search feature is among the most advanced public property record search tools available anywhere. Property data can be searched, viewed, printed, exported, and mapped through a user-friendly interface, as shown in Figure 13-3.1.

Figure 13-3.1 BCPAO Website – Real and Tangible Property Record Search



The most commonly used search tools are visible by default, and more search options are available by clicking the "More Search Options" button, as shown above and in Figure 13-3.2. Website visitors can conduct simple and complex queries with any number of criteria combinations. These search tools provide transparency through an abundance of free property data.

Figure 13-3.2 BCPAO Website – Advanced Real Property Search



As displayed above and in Figure 13-3.3, a Help button located to the right of every search input field provides tools to help users enter less-known search criteria such as site codes, use codes, etc. without resorting to a lookup table, as well as tools to help users enter a parcel ID, which is often formatted

differently on various public documents. Clicking any of the codes in the list automatically adds them to the input box.

Figure 13-3.3 BCPAO Website – Advanced Real Property Help

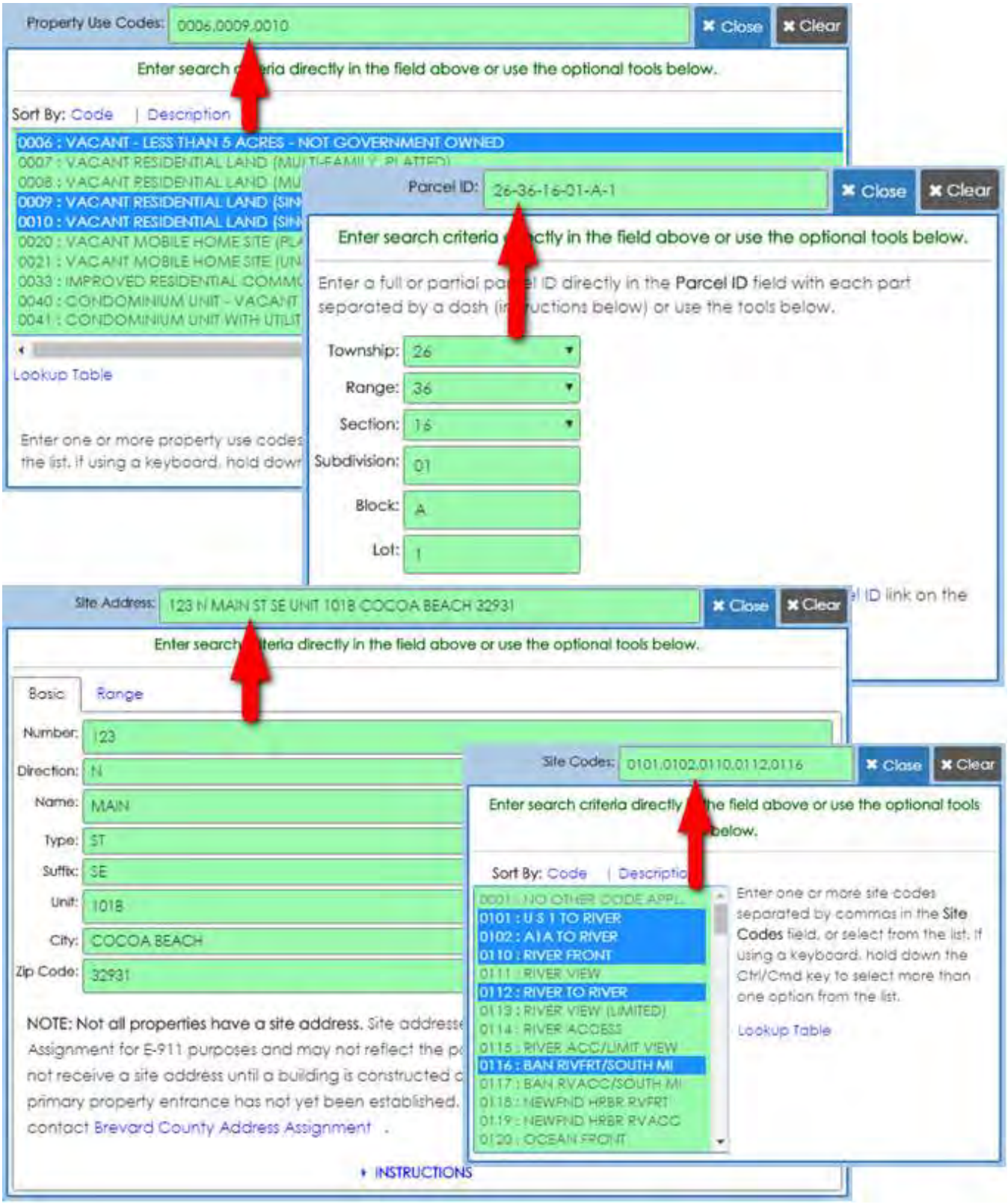


Figure 13-3.4 illustrates how the public website's front page includes much information suggested by IAAO Standard 12.1 on Public Relations, including a welcome section, mission and vision statements, links to news releases, property information, exemptions and appeals, annual reports, FAQs, tax history, and much more.

Figure 13-3.4 BCPAO Website – Home Page

Awarded the 2019 IAAO Public Information Program Award (see Exhibit 8-7.3), The BCPAO public website is part of a continuing vision of technological innovation for superior customer service and

governmental transparency. More detailed material is found in the award nomination documentation (see Exhibit 8-7.2).

Question 4: Does the jurisdiction have informational materials available for the public?

Provide examples of the kinds of information made available to the public, including such matters as:

- How to reach the jurisdiction—telephone numbers, address, contacts (including e-mail)
- How properties are assessed—ideally a USPAP-compliant mass appraisal report containing descriptions of how different types of properties are appraised (the specific methods and procedures used, not general descriptions of the three approaches to value) backed by data on price trends, etc.
- How frequently properties are reappraised.
- How to apply for an exemption or other relief measure.
- How to appeal an assessment.
- Important dates.

Provide the jurisdiction's web address, site map, and briefly describe the main features of the site. Attach copies of, or links to, available documents.

The BCPAO publishes five pamphlets available on the public website, at the five offices, and via U.S. Mail, on request. These informational pamphlets provide information relative to the various property tax exemptions and tangible personal property information (see Exhibit 13-4.1). The BCPAO also provides these pamphlets to closing and title companies throughout the county. Office addresses, phone numbers, and e-mail address are included, as well as important dates.

The BCPAO also produces a pamphlet that is included in the annual August mailing of the TRIM Notice of Proposed Taxes (see Exhibit 13-4.2). This document outlines various available exemptions, and provides current information on changes to tax laws.

The BCPAO's developers designed and built the public website with the mindset that any information that may be requested by the public is available on the website. Pages of numerous informational tabs exist for access to property tax exemptions, calendars, office hours, and copies of the budget, as seen in Figure 13-4.1.

Figure 13-4.1 BCPAO Website Navigation Tabs

In addition to the property search feature, other features help the public receive BCPAO services even when the five offices are closed for the day. They include OLH (introduced in Chapter 1), charts, graphs, free tabular and spatial data downloads, GIS maps, forms, and the ability to directly contact any department within the office. In addition to this contacts page (see Exhibit 12-1.3), the BCPAO website

contains a simple contact form, available on every page (see Exhibit 13-4.3). The BCPAO website address is www.bcpao.us.

Question 5: Does the jurisdiction have contingency plans for responding to crises and emerging issues?

Briefly describe the jurisdiction's contingency planning, using examples of responses if available.

In compliance with IAAO Standard 3.3.1 on Public Relations, the office plans on how to secure the physical environs of the office to minimize potential damage from storms and other crises. These plans mostly involve the protection of the personal computers, equipment, servers and data, and can involve an essential portion of the office's operating budget (see Exhibit 13-5.1). The BCPAO is a tenant in a county-owned facility, and the protection of the building is the responsibility of Brevard County. The BCPAO public webservers are located at a hardened, offsite location that is capable of keeping the BCPAO website available even with widespread power outages.

The Property Appraiser, working with the Chief Deputy and the Director of Government Affairs & Public Relations, ultimately handles all public crises. As stated in Chapter 2, the BCPAO has general procedures in place to mitigate minor damage to operations, but has no plan if a catastrophic event were to take place, leaving emergency plans under the direction of the County Commissioners Office and the Emergency Operations staff.

EXHIBITS – Chapter 13