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A Capitalization Rate Analysis for Affordable Housing Assessment in Kansas

A Capitalization Rate Analysis

For Affordable Housing Assessment in Kansas

Effective Date: September 1, 2017
Report Date: January 17, 2018

Prepared For:
David Harper
Director
Division of Property Valuation
Kansas Department of Revenue
915 SW Harrison Street
Topeka, Kansas 66612

Assignment Code: KDR600V.002

Prepared By:
Novogradac & Company LLP
6700 Antioch Road, Suite 450
Merriam, KS 66204
913-677-4600

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January 17, 2018

David Harper
Director, Division of Property Valuation
Kansas Department of Revenue
915 SW Harrison Street
Topeka, Kansas 66612

Subject: A Capitalization Rate Analysis for Affordable Housing Assessment in Kansas

Dear Mr. Harper:

Pursuant to your request, Novogradac & Company LLP ("Novogradac") has performed a capitalization rate analysis with respect to sales of multifamily properties within the State of Kansas. Per the initial request for proposal, and our response, the purpose of this analysis is to provide recommendations to the Department of Revenue's Division of Property Valuation ("PVD") as it pertains to the appropriate application of overall capitalization rates for affordable multifamily properties. This data and associated recommendations may be incorporated into the State of Kansas Subsidized Housing Valuation Guide and/or supplemental data published by PVD as a means to provide assessment authorities within the state with a standardized procedure to determine market value for ad valorem tax purposes per K.S.A. 79-503a. It is our understanding that the primary application of this report as well as the completed Guide will be for Section 42 properties, but may also be applicable for Section 515, 202, and 811 projects within the State of Kansas. The following report provides support for the findings of the study and outlines the sources of information and the methodologies used to arrive at these conclusions.

The State of Kansas Department of Revenue, Division of Property Valuation is the client in this engagement. We understand that they will use this document for various decision-making purposes, as outlined above; additional intended users include various local and county assessment agencies. As our client, the State of Kansas Department of Revenue, Division of Property Valuation owns this report and permission must be granted from them before another third party can use this document. We assume that by reading this report another third party has accepted the terms of the original engagement letter including scope of work and limitations of liability. We are prepared to modify this document to meet any specific needs of the potential users under a separate agreement.

It is noted that we previously prepared a report that was an evaluation of the current Housing Valuation Guide. It is assumed that the reader of this report has also read and is familiar the conclusions and recommendations contained in that report, effective September 13, 2016.

NOVOGRADAC & COMPANY LLP
P 913.677.4600
F 913.677.4601
W www.novoco.com
OFFICE 6700 Antioch Road, Suite 450
Merriam, Kan. 66204

Please do not hesitate to contact us if there are any questions regarding the report or if Novogradac & Company LLP can be of further assistance. It has been our pleasure to assist you with this project.

Respectfully submitted,
Novogradac & Company LLP

Rachel B. Denton, MAI
Partner
Rachel.Denton@novoco.com
KS G-2501

Scott Peirce
Real Estate Analyst
Scott.Peirce@novoco.com
KS G-2998

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INTRODUCTION

INTRODUCTION

HISTORY

The Subsidized Housing Committee ("the Committee") of the Kansas County Appraiser's Association (KCAA) was formed in 2012 in order to address the need for guidance amid growing concerns statewide regarding valuation issues with respect to affordable housing. PVD and the Committee have been working together in order to compile research and issue updated directives for valuation of this sub-class of multifamily housing. The Committee issued initial recommendations for PVD, summarized as follows:

- Rental income should be derived based upon median rents of similar income-restricted properties within the market area. Absent direct competition in the market, use of an expanded geographic area, actual rents, or developer pro forma rents (for proposed developments) should be utilized.
- Vacancy rates should be market-derived, preferably based on like income-restricted properties in the market area. Similar to rental income, absent directly comparable data, an expanded geographic area may be employed, or the actual property vacancy rate.
- Expense ratio may be applied based upon typical ratios in the market, inclusive of a replacement reserve allowance. Most Land Use Restrictive Agreements (LURA) that run with subsidized properties dictate that an allowance for replacement reserves be included.
- Capitalization rate applied should be based upon the findings from an outsourced third party study. Expense ratio research may or may not be included in the scope of work for this study.
- In the case of USDA Section 515 properties, a built-up capitalization rate utilizing the band of investment and/or mortgage equity technique(s) may be applied to actual net operating income given profit restrictions for this asset type. Additionally, actual Section 515 interest rate and loan terms may be employed as most sales of these assets require the assumption of the existing debt.

As a result of these recommendations, PVD, in conjunction with the Committee, began the process of researching a potential third party capitalization rate study. Various prospects were consulted, with the general consensus being that the data would be limited, for a variety of reasons, and that a study may not yield meaningful results. PVD opted to not engage a third party for purposes of conducting a capitalization rate study, and instead, issued an RFP in April 2016 for a consultant to assist PVD in updating the subsidized housing valuation guide. Novogradac was in turn the selected consultant, tasked with the following directives:

1. Review of the current methodology
2. Analysis and conclusions regarding the current methodology
3. Recommendation(s) about a new model or course of action as appropriate

REVIEW OF PREVIOUS RECOMMENDATIONS

In September of 2016, Novogradac and Company LLP performed a review of the current *Subsidized Housing Appraisal Guide*, published by PVD. On completion of the assignment, Novogradac and Company LLP provided the following recommendations as it pertains to the ad valorem tax valuation of affordable multifamily properties:

- Implementation of an income approach methodology, utilizing direct capitalization, as the primary assessment method for affordable developments, based largely on the Iowa model.
    - Require owners of affordable developments to submit income and expense statements each year; valuation should be based on a reconciliation of the three most recent years of income and expenses, to allow for proper treatment of outliers.
    - For those properties less than three years old, data available (including project budget) should be utilized, with secondary support to be provided via income and expenses from comparable properties.
    - In rural markets, for new construction projects the cost approach may be utilized absent any truly comparable data, but should be utilized only when absolutely necessary, given the inherent difficulty in accurately accounting for affordable housing costs and economic obsolescence.
    - **Capitalization rates should be established statewide; Novogradac recommends the development of a "rural" rate and an "urban" rate, established by PVD. These rates should be established each year and can be based on sales of conventional multifamily developments and/or a band of investment technique may be developed.**

- Removal of the current excel model format, as well as the language indicating reliance on the cost approach hybrid currently outlined in the Guide. It is not currently being utilized by many assessors, based upon the responses received from various Committee members. And, it will be superseded by the Income Approach recommendation outlined above.

- Inclusion of additional details regarding the LIHTC program and its mechanics. It is Novogradac's belief that there is still some uncertainty about how the program works and functions in practice and it may be helpful to include additional details regarding the program in a newly revamped Guide.

- An issue of semantics, but it would be helpful to change the name of the Guide itself. "Subsidized" as a term, within the context of Low Income Housing Credit housing, is misleading. "Affordable" Housing Valuation Guide or "LIHTC" Housing Valuation Guide would be more accurate, and also consistent with other states.

- Not a recommendation per se, but we believe that it should continue to be the practice of the individual assessors to specifically exclude the tax credits themselves in establishing value. As discussed previously, this has been a contentious source of debate in the state of Tennessee. Further, many states specifically do NOT include credits in the valuation of these properties. Nonetheless, court decisions in Kansas appear to suggest that there is an argument to include the credits, based upon our research. It would be in the best interest of PVD to research this issue more fully, in case there are potential challenges to current PVD methodology and de facto practices statewide.

CURRENT ENGAGEMENT

In light of our 2016 recommendations, PVD approached Novogradac in the spring of 2017 regarding a capitalization rate analysis as well as additional consulting services pertaining to recommendations for the assessment of affordable properties not operating at typical stabilized levels, for a variety of reasons. Per our negotiated contract, the stated scope of work for this assignment is summarized below.

1. The purpose of the contract is to assist in the development of a capitalization rate analysis for use by the Kansas Department of Revenue, Property Valuation Division, as well as individual county assessors, in the income valuation approach of federally sponsored Affordable Housing projects within the State of Kansas. The primary application will be for Section 42 properties, but should also be applicable for Section 515, 202, and 811.

   The consultant will work in conjunction with a working group consisting of Kansas Department of Revenue, Property Valuation Division (PVD) staff, representatives of the related industry and the Kansas County Appraisers Association (KCAA).

   - The consultant will research capitalization rates of market transaction of traditional housing units across the state.
   - The stratification for the analysis will be broken into two groups based on the county population; urban regions with population of 50,000 or greater and rural regions with populations of less than 50,000. The population data source is at the discretion of the consultant.
   - The capitalization rate needs to reflect typical replacement reserves.
   - The report shall provide a written narrative detailing the methodology used in the analysis as well as provide the recommended rates for each stratification.

2. The state is also requesting written guidance on how to best handle the income valuation of "non-stabilized" projects. Examples of what might constitute the need for the consultant to outline some best practices to follow are:

   - New projects that experience unusually high vacancy rates.
   - Projects still in progress as of the January 1 appraisal date.
   - When only budgeted information is available or no property specific information is available from the property owner.

Pursuant with the assignment, we have conducted a survey and analysis of capitalization rates statewide. The collected data has been broken down by property location (urban versus rural). Additionally, during the course of our research, it was clear that rates also were clustered based upon property class, which was also considered in our analysis and final conclusions. We have made recommendations for appropriate capitalization rates based upon the data.

Further, we have presented a process for valuing those properties that are not operating consistent with market expectations, for a variety of factors. We have included a discussion of those factors that affect the operation of property and have provided sample scenarios to illustrate the process by which these properties can be valued.

CAPITALIZATION RATE SURVEY

CAPITALIZATION RATE SURVEY

METHODOLOGY AND DEFINITIONS

In order to develop our recommendation regarding applicable capitalization rates for subsidized properties, we have gathered data on sales of multifamily properties located within the State of Kansas. We have also included sales located within the Kansas City Metropolitan area, but on the Missouri side of the state line, given that these are considered comparable and competitive to those properties located in the Kansas portion of the metropolitan area. Other than these instances, all of the sales utilized in the analysis are located within the state of Kansas.

We have utilized market rates sales given the lack of sales of affordable properties that are truly arm's-length, market oriented transactions. Typically, when affordable properties transfer the transaction occurs between related entities, and assets are rarely exposed to the open market. We are aware of three recent sales that have occurred that we will discuss in more detail in a following section. Among the conventional market, there is more than sufficient data available to analyze and draw conclusions.

Sales were researched using various sources including public records, Multiple Listing Service (MLS), and data services such as Costar, Inc. and Xceligent, Inc. The information contained in this analysis was verified by these resources as well as buyers, sellers, brokers, and other market participants such as appraisers. Information was also culled from Novogradac's work files.

The data was compiled and will be presented comparing two main characteristics – **location and class**.

Location

As part of this analysis, we have considered the location of the sales in order to determine the effect the location has on the overall capitalization rate. We have divided the sales into two categories – urban versus non-urban.

The client requested that we evaluate the data based on the county population – regions with populations more than 50,000 and those with less than 50,000. Upon researching the sales, there are few that fall into the latter category. As such, we evaluated the data based on how a typical investor who is active, not only the Kansas market but in other markets as well, would view the location of the property.

We anticipate that investors would consider an urban property to be one located within one of three major metropolitan areas within the state – Kansas City, Topeka, and Wichita. We have narrowly defined these metropolitan areas to include only those properties located within the largest counties in the metropolitan area. For example, the Kansas City Metropolitan area consists of 15 counties. However, some of the counties would likely be considered outlying markets by the typical investor. Thus, for sales located within the Kansas City Metropolitan area, we consider those properties located within Johnson and Wyandotte Counties in Kansas and Jackson, Clay, and Platte Counties in Missouri to be urban properties. Similarly, we consider the sales located within the city limits of Wichita and Topeka to be urban properties. All other sales are considered to be non-urban, second-tier locations.

Class

Additionally, during the course of our research, it was clear that sales data, and resulting capitalization rates, are clustered by class. As a result, we deemed it prudent to further stratify data based upon three identified classes: Class A, Class B, and Class C. The definitions of each class that we have utilized are shown below. These definitions are a general summary based upon research from several sources including the Building Owners and Managers Association (BOMA), the National Apartment Association, as well as numerous brokers' websites.

Class A – These properties are typically newer properties built within the last 15 years with the most amenities, highest income earning tenants, lowest vacancies, and typically demand the highest rents. These properties usually have no deferred maintenance noted. Class A properties are typically (though not always) located in newer, high growth areas or those areas experiencing a significant amount of redevelopment. These properties are typically owned by institutional investors such as Real Estate Investment Trusts (REITs), life insurance companies, pension funds, etc. These properties have the lowest overall capitalization rates based upon the relatively lower risk of the cash flows. These are mostly contained within investment portfolios that include multiple of similar properties.

Class B – This class of properties generally consist of properties built in the last 15 to 30 years with average amenities. Rents are generally lower than the Class A properties. These properties will generally exhibit at least some deferred maintenance given their older age. Tenants are typically a mix of white collar and blue collar workers with incomes lower than that of tenants of Class A properties. Class B properties are generally located in older, stable areas. These properties are typically owned by REITs, private investments groups, some institutional investors, and very high net worth individuals. Overall capitalization rates are typically higher than Class A properties given a slight increase in risk to the cash flow based upon tenancy, rent levels, vacancy, and volatility of expenses given their older age.

Class C – Class C properties are typically older properties, built 30 plus years ago. They generally have a limited amount of amenities. These properties will typically exhibit lower rents, higher vacancy, and more deferred maintenance. Tenants are typically blue collar workers. Class C properties are generally located in older, declining or stable areas. These properties typically trade at a higher overall capitalization rates given increased risk to the cash flow based upon tenancy, rent levels, vacancy, and volatility of expenses given their older age. These properties are typically owned by private investors and private investment groups and are generally not considered institutional grade investments.

The following chart summarizes the comparison between three classes of properties. Sample photographs of the various classes of properties are located on the following pages.

CLASS COMPARISON

Class	Characteristic	Desciption
Class A	Age	Generally 15 years or less
	Amenities	Best
	Location	Newer, Growth or Redevelopment Areas
	Rents	Generally Highest
	Vacancy	Generally Lowest
	Typical Owner	Institutional
	Overall Capitalization Rate (Risk)	Lowest
Class B	Age	Generally 15 to 30 years
	Amenities	Above Average
	Location	Older, Stable Areas
	Rents	Average to Above Average
	Vacancy	Average
	Typical Owner	Some Institutional/Private Investment Groups/High Net Worth Individuals
	Overall Capitalization Rate (Risk)	Average to Below Average
Class C	Age	Generally 30 years or older
	Amenities	Average to Below Average
	Location	Older, Declining, Stable Areas
	Rents	Average to Below Average
	Vacancy	Average to Below Average
	Typical Owner	Private Investor or Investment Group
	Overall Capitalization Rate (Risk)	Average to Above Average

It is noted that Class D properties were not analyzed in this assignment as they are typically declining properties with volatile cash flows and demonstrate a significant amount of functional and/or external obsolescence. The overall capitalization rates vary widely as these properties are often unstable and, at times, nearing the end of their economic life.

In addition to the sale data that will be discussed, we will present information from the *PwC Real Estate Investor Survey*. *The PwC Real Estate Investor Survey* is widely recognized as an authoritative source for capitalization and discount rates, cash flow assumptions, and actual criteria of active investors, as well as property market information. The survey is conducted quarterly for all property types nationwide.

Sample Photographs of Classes

Class A (Sovereign at Overland Park, Overland Park, KS)

Typical building

Outdoor living area in common area

Fitness facility

Clubhouse

Pool area

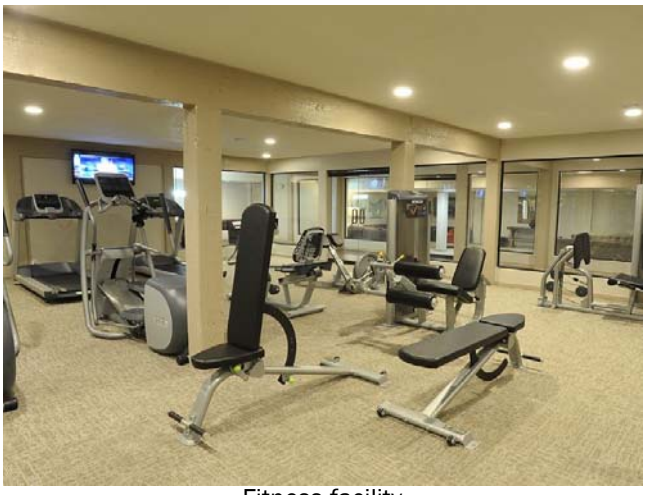
Putting green

Photo Source: Apartments.com

Class B (The Ridge Apartments, Overland Park, KS)

Typical building

Pool area



Fitness facility

Laundry facility

Photo Source: Apartments.com

Class C (The Courtyard Apartments, Overland Park, KS)

Typical building

Typical building

Typical building

Photo Source: Apartments.com

SUMMARY OF DATA COLLECTED

Our survey included 121 sales of multifamily properties of varying sizes, ages, classes, and locations that have occurred since January 1, 2014.

The charts below summarize the general information for the properties surveyed; more detailed information pertaining to each transaction can be found in the Addenda.

SURVEY SUMMARY

	# of Properties Surveyed	Year built			Average
Class B	44	1965	to	2010	1989
Class C	62	1929	to	2006	1976
Total	**121**				

SURVEY SUMMARY

	# of Properties Surveyed	Units			Average
Class A	15	19	to	364	243
Class B	44	12	to	986	239
Class C	62	6	to	408	101
Total	**121**				

The following chart summarizes the sales broken down by urban versus non-urban location.

SUMMARY - URBAN VS. NON-URBAN

Class	Location	# of Properties Surveyed	OAR			Average
A	Urban	14	5.00%	to	6.61%	5.75%
	Non-Urban	1	6.01%	to	6.01%	6.01%
B	Urban	34	5.50%	to	8.90%	6.80%
	Non-Urban	10	5.98%	to	10.00%	6.94%
C	Urban	42	5.18%	to	9.80%	7.63%
	Non-Urban	20	5.94%	to	12.60%	7.94%
All	All Urban	90	5.00%	to	9.80%	7.02%
	All Non-Urban	31	5.94%	to	12.60%	7.55%

REPLACEMENT RESERVES

Replacement reserves refers to a line item expense that is designated for the replacement of certain items that wear out over time. These are not typical ongoing maintenance items and usually include items such as roof, HVAC, parking lot replacement, etc. The Dictionary of Real Estate Appraisal, 6th Edition, published by the Appraisal Institute, defines this term, in this case, replacement allowance, as follows:

An allowance that provides for the periodic replacement of building components that wear out more

rapidly than the building itself and must be replaced during the building's economic life; sometimes referred to as reserves or reserves for replacement.

The technique for allocating expenses typically included in reserves varies widely by property owner. In some cases, the property owner sets aside a certain amount ($250 per unit for example) each year in a fund for use when these items are at the end of their useful life. Other property owners will set aside a specific budgeted amount and draw from it each year. Regardless of which technique the property owner employs, the amount set aside varies from property to property. Some property owners will not include replacement reserves at all as a line item expense. These property owners enjoy a higher annual cash flow and accept the risk of large capital expenses that are not formally funded.

Later in this report, we discuss the PwC Investor Survey data in depth. However, the chart below summarizes the responses from selected survey participants, with respect to replacement reserves.

INSTITUTIONAL INVESTOR - SELECT SURVEY RESPONSES

Respondent	Comments	OAR Estimate		
Insurance Company	Does not use a separate structural replacment reserve	3.50%	to	6.00%
Pension Fund Advisor	Does not use a separate structural replacment reserve	4.00%	to	6.00%
Domestic Pension Fund	Does not use a separate structural replacment reserve	3.75%	to	6.00%
Institutional Investor	Does not use a separate structural replacment reserve	4.00%	to	5.00%
Pension Fund Advisor	Uses separate structural reserve of $100	5.75%	to	7.00%
Private Investment Firm	Does not use a separate structural replacment reserve	5.00%	to	8.00%

As noted above, only one of the survey respondents above includes a separate line item expense for replacement reserves. Furthermore, in our opinion, the one respondent that included a reserve amount includes one at a level generally below industry expectations, in terms of what is considered an "appropriate" allowance utilized by most appraisers in the practice of valuing multifamily properties.

Of the properties researched, 30 of the 121 reported a line item for replacement reserves; thus the vast majority did not. According to The Appraisal of Real Estate, 13th Edition, also published by the Appraisal Institute, reserves should be handled in accordance with local practice, and "the replacement allowance may be reflected explicitly as an expense or implicitly in the capitalization or discount rate." For the purposes of analyzing our survey data, we will utilize overall capitalization rates without replacement reserves included for the purposes of consistency given that some properties reported a deduction and some did not. In the conclusions and recommendations, we will discuss the applicability of replacement reserves for affordable housing properties and our recommendations on their inclusion in the estimation of assessed value.

ANALYSIS OF DATA

OAR By Location (Urban versus Non-Urban)

The following charts summarize the survey data for urban versus non-urban location.

SUMMARY - URBAN VS. NON-URBAN

Class	Location	# of Properties Surveyed	OAR			Average
A	Urban	14	5.00%	to	6.61%	5.75%
	Non-Urban	1	6.01%	to	6.01%	6.01%
B	Urban	34	5.50%	to	8.90%	6.80%
	Non-Urban	10	5.98%	to	10.00%	6.94%
C	Urban	42	5.18%	to	9.80%	7.63%
	Non-Urban	20	5.94%	to	12.60%	7.94%
All	All Urban	90	5.00%	to	9.80%	7.02%
	All Non-Urban	31	5.94%	to	12.60%	7.55%

The overall capitalization rates for the urban properties are generally lower for than the non-urban properties for Class A and B but relatively the same for Class C properties. The following chart summarizes the spread between the properties based upon location.

OAR SPREAD - URBAN VS. NON-URBAN

Class	Location	# of Properties Surveyed	Average	Spread
A	Urban	14	5.75%	-
	Non-Urban	1	6.01%	0.26%
B	Urban	34	6.80%	-
	Non-Urban	10	6.94%	0.14%
C	Urban	42	7.63%	-
	Non-Urban	20	7.94%	0.31%
All	All Urban	90	7.02%	-
	All Non-Urban	31	7.55%	0.52%

The data for Class A properties is limited. The spread between the urban versus non-urban properties is 26 basis points. For Class B properties, the spread is just 14 basis points. As previously mentioned, the spread for Class C properties is relatively minimal at 31 basis points. Overall, the spread for urban versus non-urban properties is 52 basis points.

OAR By Class

The classes of multifamily properties were previously defined. The chart below summarizes the survey data broken down by class.

SURVEY SUMMARY

	# of Properties Surveyed	OAR			Average
Class B	44	5.50%	to	10.00%	6.83%
Class C	62	5.18%	to	12.60%	7.73%
Total	**121**				

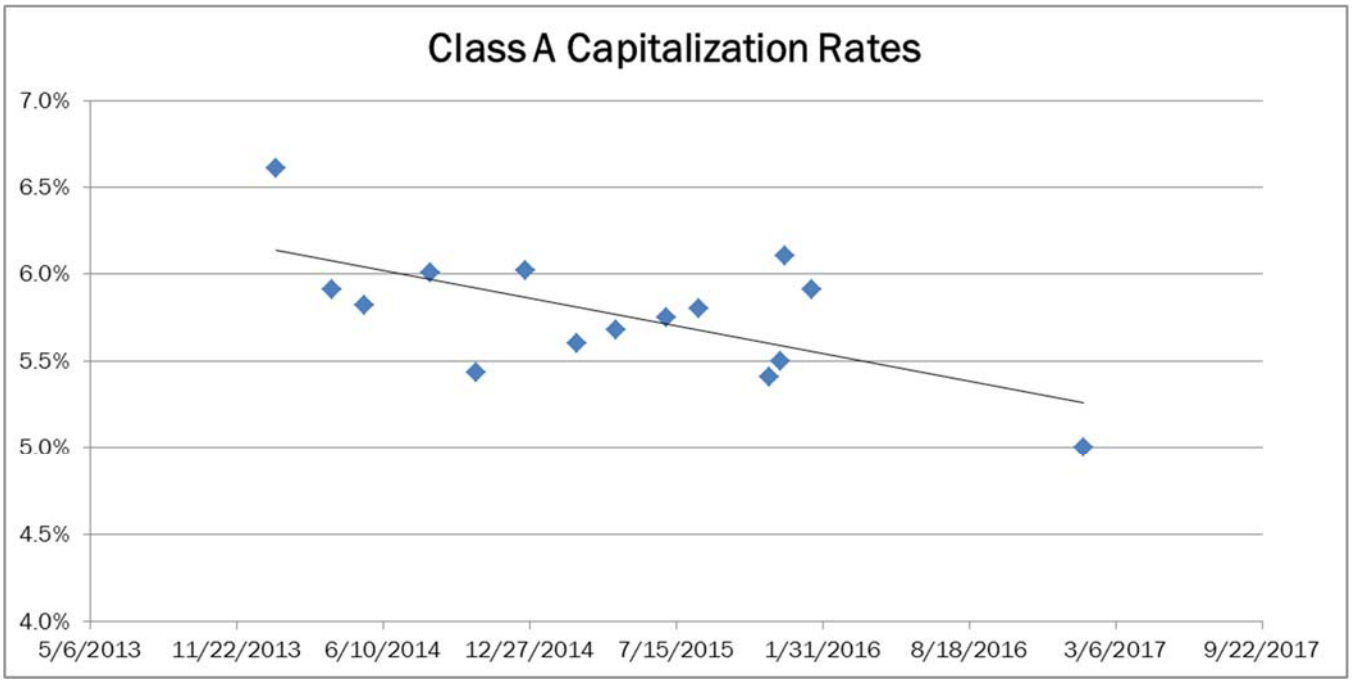
The overall capitalization rates for Class A properties range from 5.00 to 6.61 percent with an average of 5.77 percent. The Class B properties range from 5.50 to 10.00 percent with an average of 6.83 percent while Class C properties range from 5.18 to 12.6 percent with an average of 7.73 percent.

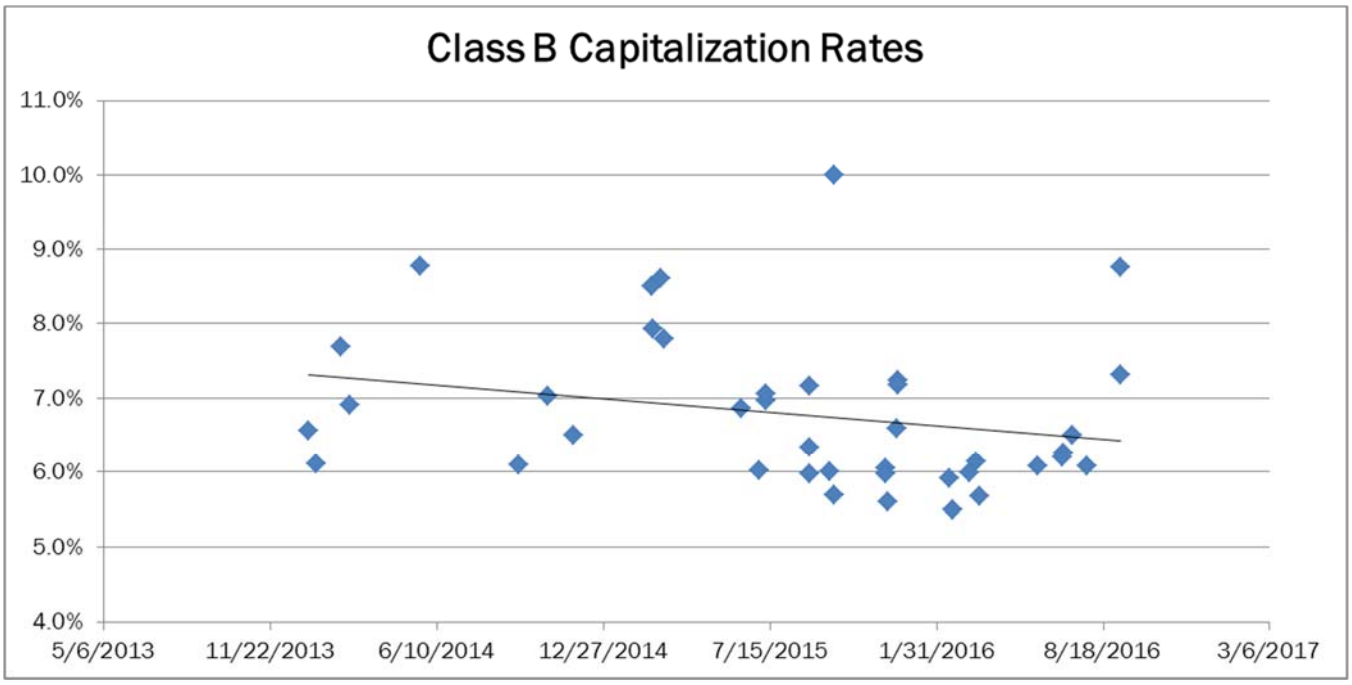
The following chart summarizes the spread between the average capitalization rates of the classes.

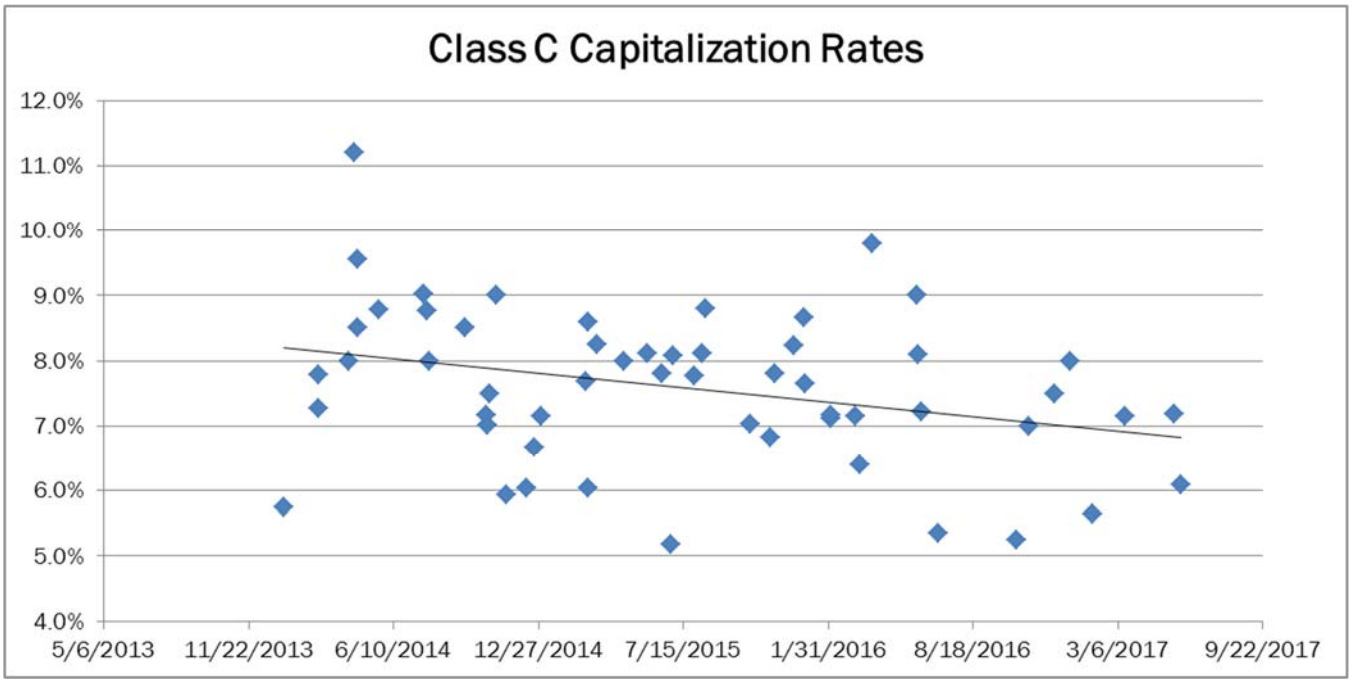
AVERAGE SPREAD BETWEEN CLASSES

	# of Properties Surveyed	Average	Spread
Class A	15	5.77%	-
Class B	44	6.83%	1.06%
Class C	60	7.73%	0.90%

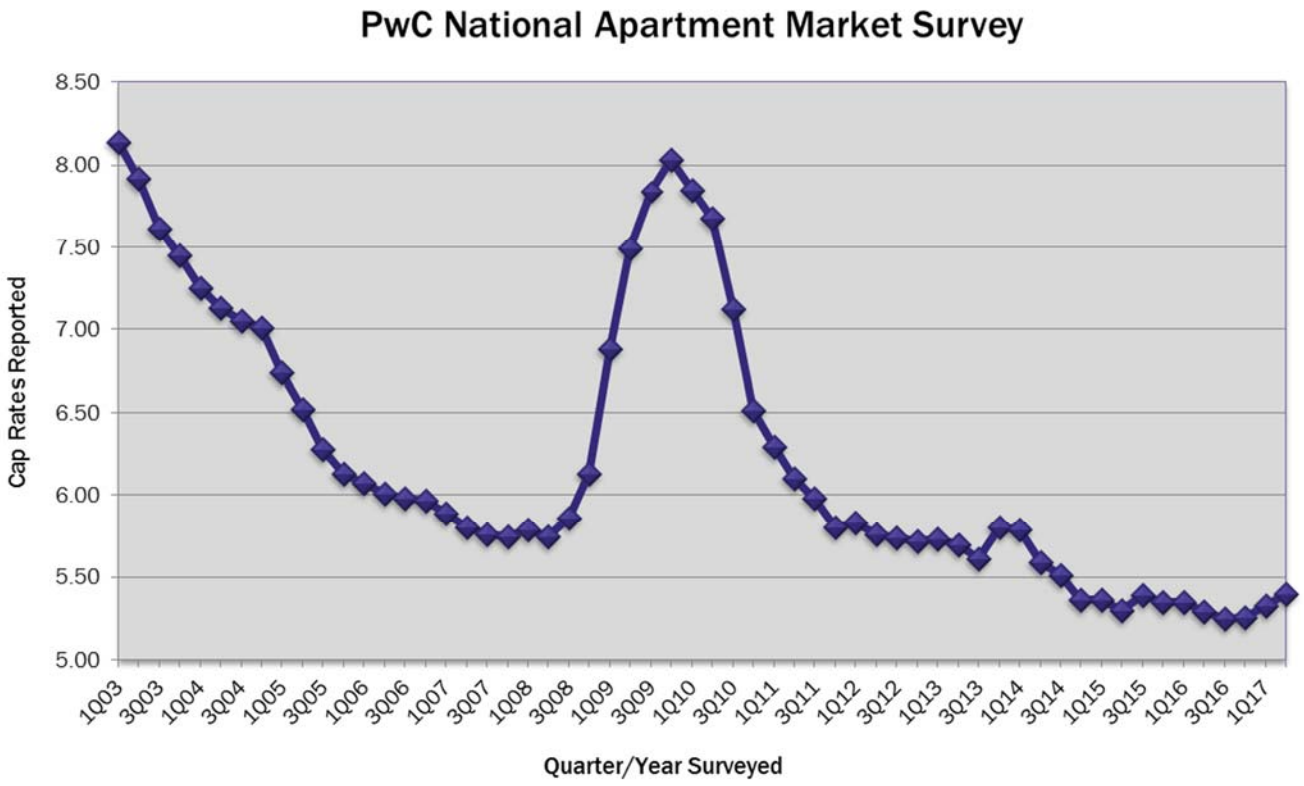
The spread from the Class A to Class B properties is 106 basis points. The spread between Class B and Class C properties is 90 basis points. The following graphs summarize the overall capitalization rates of the sales over time; all three classes exhibit a downward trend over time, consistent with national trends of compressing capitalization rates.


Class A Capitalization Rates
7.0%
6.5%
6.0%
5.5%
5.0%
4.5%
4.0%
5/6/2013
11/22/2013
6/10/2014
12/27/2014
7/15/2015
1/31/2016
8/18/2016
3/6/2017
9/22/2017


Class B Capitalization Rates
11.0%
10.0%
9.0%
8.0%
7.0%
6.0%
5.0%
4.0%
5/6/2013
11/22/2013
6/10/2014
12/27/2014
7/15/2015
1/31/2016
8/18/2016
3/6/2017



The following is a discussion of the data summarized in the PwC Investor Survey. The following charts summarize the national trends in overall capitalization rates for institutional grade (Class A) properties, dating back to 2003.



PwC Real Estate Investor Survey National Apartment Market Overall Capitalization Rate Institutional Grade Investments					
Quarter	Cap Rate	Change (bps)	Quarter	Cap Rate	Change (bps)
1Q03	8.14	-	2Q10	7.68	-0.17
2Q03	7.92	-0.22	3Q10	7.12	-0.56
3Q03	7.61	-0.31	4Q10	6.51	-0.61
4Q03	7.45	-0.16	1Q11	6.29	-0.22
1Q04	7.25	-0.20	2Q11	6.10	-0.19
2Q04	7.13	-0.12	3Q11	5.98	-0.12
3Q04	7.05	-0.08	4Q11	5.80	-0.18
4Q04	7.01	-0.04	1Q12	5.83	0.03
1Q05	6.74	-0.27	2Q12	5.76	-0.07
2Q05	6.52	-0.22	3Q12	5.74	-0.02
3Q05	6.28	-0.24	4Q12	5.72	-0.02
4Q05	6.13	-0.15	1Q13	5.73	0.01
1Q06	6.07	-0.06	2Q13	5.70	-0.03
2Q06	6.01	-0.06	3Q13	5.61	-0.09
3Q06	5.98	-0.03	4Q13	5.80	0.19
4Q06	5.97	-0.01	1Q14	5.79	-0.01
1Q07	5.89	-0.08	2Q14	5.59	-0.20
2Q07	5.80	-0.09	3Q14	5.51	-0.08
3Q07	5.76	-0.04	4Q14	5.36	-0.15
4Q07	5.75	-0.01	1Q15	5.36	0.00
1Q08	5.79	0.04	2Q15	5.30	-0.06
2Q08	5.75	-0.04	3Q15	5.39	0.09
3Q08	5.86	0.11	4Q15	5.35	-0.04
4Q08	6.13	0.27	1Q16	5.35	0.00
1Q09	6.88	0.75	2Q16	5.29	-0.06
2Q09	7.49	0.61	3Q16	5.25	-0.04
3Q09	7.84	0.35	4Q16	5.26	0.01
4Q09	8.03	0.19	1Q17	5.33	0.07
1Q10	7.85	-0.18	2Q17	5.40	0.07

Source: PwC Real Estate Investor Survey, Q2 2017

Nationally, overall capitalization rates peaked in the fourth quarter of 2009. The have declined significantly since the peak. Over the last three years, capitalization rates have fluctuated slightly but within a fairly tight range. The following chart summarizes the current and recent key indicators published in the survey, regarding various rates, rents, expenses, and marketing time.

Table 29
NATIONAL APARTMENT MARKET
Second Quarter 2017

	CURRENT	LAST QUARTER	1 YEAR AGO	3 YEARS AGO	5 YEARS AGO
DISCOUNT RATE (IRR)[a]					
Range	5.50% – 10.00%	5.50% – 10.00%	5.50% – 10.00%	6.00% – 13.00%	5.25% – 14.00%
Average	7.28%	7.24%	7.28%	7.98%	8.30%
Change (Basis Points)		+ 4	0	– 70	– 102
OVERALL CAP RATE (OAR)[a]					
Range	3.50% – 8.00%	3.50% – 8.00%	3.50% – 8.00%	3.50% – 10.00%	3.75% – 10.00%
Average	5.40%	5.33%	5.29%	5.59%	5.76%
Change (Basis Points)		+ 7	+ 11	– 19	– 36
RESIDUAL CAP RATE					
Range	4.50% – 8.00%	4.25% – 8.00%	4.25% – 7.50%	4.25% – 9.50%	4.50% – 9.75%
Average	5.82%	5.75%	5.76%	6.02%	6.15%
Change (Basis Points)		+ 7	+ 6	– 20	– 33
MARKET RENT CHANGE[b]					
Range	(1.00%) – 5.00%	0.00% – 5.00%	0.00% – 7.00%	0.00% – 8.00%	(2.00%) – 8.00%
Average	2.64%	2.80%	3.08%	2.75%	2.80%
Change (Basis Points)		– 16	– 44	– 11	– 16
EXPENSE CHANGE[b]					
Range	2.00% – 3.00%	2.00% – 4.00%	2.00% – 4.00%	1.00% – 4.00%	1.00% – 4.00%
Average	2.69%	2.73%	2.81%	2.76%	2.65%
Change (Basis Points)		– 4	– 12	– 7	+ 4
MARKETING TIME[c]					
Range	1 – 9	1 – 9	1 – 9	0 – 10	0 – 18
Average	3.8	3.9	3.6	4.1	5.3
Change (▼, ▲, =)		▼	▲	▼	▼

a. Rate on unleveraged, all-cash transactions b. Initial rate of change c. In months

Further, the capitalization rate trends from the chart above are summarized below.

CURRENT AND HISTORICAL OAR - INSTITUTIONAL				
National Apartment				
	Low	High	Average	Change
Current Quarter	3.50%	8.00%	5.40%	-
Last Quarter	3.50%	8.00%	5.33%	0.07%
One Year Ago	3.50%	8.00%	5.29%	0.04%
Three Years Ago	3.50%	10.00%	5.59%	-0.30%
Five Years Ago	3.75%	10.00%	5.76%	-0.17%

Source: PwC Real Estate Investment Survey, Q2 2017

Additionally, the chart below summarizes the information from the most recent quarter broken down by institutional versus non-institutional grade properties. Institutional grade properties refer primarily to Class A properties, though some upper tier Class B properties may qualify. Non-institutional grade properties would be classified primarily as Class B and Class C properties.

INSTITUTIONAL-GRADE VS. NON-INSTITUTIONAL GRADE

National Apartment		
Institutional		
Low	High	Average
3.50%	8.00%	5.40%
Non-Institutional		
Low	High	Average
3.75%	12.00%	6.71%
Spread - Institutional to Non-Institutional		
Low	High	Average
0.25%	4.00%	1.31%

Source: PwC Real Estate Investment Survey, Q2 2017

The indicated spread between institutional and non-institutional grade properties ranges from 0.25 to 4.0 percentage points with an average of 1.31 percentage points. The Survey also provides anecdotal information in the form of selected survey responses. These are shown below.

INSTITUTIONAL INVESTOR - SELECT SURVEY RESPONSES

Respondent	Comments	OAR Estimate		
Insurance Company	Does not use a separate structural replacment reserve	3.50%	to	6.00%
Pension Fund Advisor	Does not use a separate structural replacment reserve	4.00%	to	6.00%
Domestic Pension Fund	Does not use a separate structural replacment reserve	3.75%	to	6.00%
Institutional Investor	Does not use a separate structural replacment reserve	4.00%	to	5.00%
Pension Fund Advisor	Uses separate structural reserve of $100	5.75%	to	7.00%
Private Investment Firm	Does not use a separate structural replacment reserve	5.00%	to	8.00%

The survey respondents indicate a range of capitalization rates from 3.5 to 8.0 percent. Additionally, only one of the respondents indicated that they include reserves for structural replacement in their pro forma calculation of net income streams, as previously discussed.

ANALYSIS OF LIHTC SALES

In addition to the above data, with the assistance of the client, we were able to confirm sales of three affordable housing properties in Kansas. The charts below summarize the data from these sales.

PROPERTY 1

Property Name:	Prospector's Point
Address:	9680 Lexington Ave. DeSoto, KS
Sale Date:	7/11/2017
Number of Units:	32
Year Built:	1998
Sale Price:	$1,210,000
Income Basis:	2016
NOI Before Reserves	$90,256
NOI After Reserves	$72,442
OAR Prior to Reserve Deduction	7.5%
OAR After Reserve Deduction	6.0%

PROPERTY 2

Property Name:	Sundance Apartments
Address:	1311 E. 33rd St. Hays, KS
Sale Date:	7/11/2017
Number of Units:	56
Year Built:	1998
Sale Price:	$1,999,000
Income Basis:	2016
NOI Before Reserves	$156,733
NOI After Reserves	$144,946
OAR Prior to Reserve Deduction	7.8%
OAR After Reserve Deduction	7.3%

PROPERTY 3	
Property Name:	Sundance Apartments
Address:	202 E. Sundance Dr. Paola, KS
Sale Date:	7/11/2017
Number of Units:	60
Year Built:	1999
Sale Price:	$1,337,000
Income Basis:	2016
NOI Before Reserves	$95,545
NOI After Reserves	$72,265
OAR Prior to Reserve Deduction	7.1%
OAR After Reserve Deduction	5.4%

The capitalization rates range from 7.1 to 7.8 percent based upon the NOI prior to the deduction for reserves. They range from 5.4 to 7.3 percent including the deduction for reserves. The amount deducted for reserves varies by property. These properties are considered Class B properties and the overall capitalization rates fall within the range (before reserves) indicated by Novogradac's survey of conventional sales.

However, we caution the reader that sales of LIHTC properties can be difficult to analyze, given that motivations for sale of these properties can vary quite a bit from typical market expectations. It is our understanding that all three of these properties transferred as part of a portfolio 1031 Exchange, to a developer based in Wisconsin. They appear to have been listed on the open market, with a brokerage firm, and do not appear to have been Qualified Contract transactions. All three properties were built in the late 1990s and the initial compliance period has ended but the extended use period remains (length unknown though assumed to be a minimum of 30 years from the initial placed in service date (15 years initial compliance plus a minimum of 15 years extended use). It is unclear if the purchaser intends to hold and continue operations as is, potentially resyndicate and renovate via a new LIHTC transaction, or some other motivation. Nonetheless, we believe the data is important to consider, and it clearly supports the findings of our broader capitalization rate research.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS AND RECOMMENDATIONS

OVERALL CAPITALIZATION RATES

Based upon the survey data, we have arrived at conclusions and recommendations for capitalization rates for multifamily properties based on class and location. We will provide a range of recommended capitalization rates.

For Class A properties, the range in overall capitalization rates is from 5.00 to 6.61 percent with an average of 5.77 percent. Our recommendation for overall capitalization rates would be from 5.25 to 6.25 percent. We have not relied on the lower or the upper end of the range in order to account for any outliers on either end.

The Class B properties range from 5.50 to 10.00 percent with an average of 6.83 percent. The data indicates that overall capitalization rates for Class B properties are 1.06 percentage points higher than Class A properties. Thus, we recommend an overall capitalization rate for Class B properties within the range of 6.25 to 7.25 percent.

For Class C properties, the range in overall capitalization rates is wide. Based on the data, the range is from 5.18 to 12.60 percent. The risk to the cash flows for Class C properties is significantly higher than Class A or B. On average the overall capitalization rates are 0.89 percentage points higher than Class B properties. Additionally, the PwC survey indicates that overall capitalization rates for non-institutional grade (most similar to Class C) properties are 1.31 percent higher than for institutional grade properties. We recommend an overall capitalization rate for Class C properties within the range of 7.25 to 8.25 percent.

The spread between urban versus non-urban properties was 26 basis points for Class A properties, 14 basis points for Class B properties, and 34 basis points for Class C properties. On average, capitalization rates for urban properties are 52 basis points lower than non-urban properties. Note this average is based on the entire set of data, rather than an average of the reported mean spread differentials by Class. **We recommend an upward adjustment of 50 basis points be made to the above capitalization rate range for non-urban properties.**

The following chart summarizes initial recommendations based upon the data:

RECOMMENDED OAR

Class	Location	Recommended OAR
A	Urban	5.25% to 6.25%
	Non-Urban	5.50% to 6.50%
B	Urban	6.25% to 7.25%
	Non-Urban	6.50% to 7.50%
C	Urban	7.25% to 8.25%
	Non-Urban	7.50% to 8.50%

As it applies to LIHTC properties, very few, if any, are considered Class A properties. As such, we recommend overall capitalization rates consistent with the Class B and C properties. **As such, we recommend an overall capitalization rate range in-line with the Class B and C properties in the survey, or 7.0 to 8.0 percent.**

Additionally, the data suggests a spread between the urban and non-urban properties of approximately 25 to 50 basis points, which is well-supported by the data. However, given the small sample size of non-urban transactions and the challenges some non-urban markets present, it may be prudent to consider a wider spread than the 50 points as recommended here.

The overall capitalization rates analyzed in this survey were derived prior to a deduction for replacement reserves, as this is common practice within the market. The above range is applicable whether replacement allowance is included or not, though the treatment of replacement allowance should be considered when selecting a specific capitalization rate. It is common for replacement reserves to be included in an operating statement when valuing affordable properties; as shown with the three sales of affordable properties discussed earlier, rates and NOI were illustrated both with and without reported reserves. No adjustment to the capitalization rate is necessary as the overall capitalization rate for a property is reflective of the typical investor's expectations of return on the cash flow inclusive of all expenses. The majority of data points considered, including the three affordable properties, do not include an allowance for reserves. However, our recommendation would be for PVD to require that LIHTC properties report their operating expenses net of reserves, and apply a standardized reserve per unit amount to all developments, at PVD's discretion, as discussed in the proceeding pages.

Inclusion of the replacement allowance would result in a lower overall capitalization rate recommendation as the reduction in cash flow resulting from the inclusion of replacement allowance would result in a lower overall capitalization rate. The chart below summarizes the effect of the inclusion of replacement allowance in a property's cash flow on the overall capitalization rate.

	Without RA	With RA
Total Income	$1,439,250	$1,439,250
Operating Expenses	($641,963)	($641,963)
Replacement Allowance	$0	($37,500)
Net Operating Income (NOI)	**$797,288**	**$759,788**
Sale Price	$10,000,000	$10,000,000
Resulting OAR	**7.97%**	**7.60%**
Difference		**-0.38%**

In this example, the inclusion of replacement allowance results in an indicated overall capitalization rate that is 38 basis points lower than when replacement allowance is excluded from the income statement. It is noted that the above example is meant to illustrate the relationship between the inclusion of replacement allowance and is not meant to suggest that the difference is always 0.38 percent. The difference would vary between specific properties as the income and expense inputs would deviate.

Our recommendation of the inclusion of replacement allowance is discussed in more depth on the proceeding pages. However, given this recommendation, we recommend overall capitalization rates in the middle of the previously discussed range. The chart below summarizes specific capitalization rate recommendations.

RECOMMENDED OAR

Location	Recommended OAR
Urban	7.50%
Non-Urban	8.00%

RESERVE ALLOWANCE RECOMMENDATION

Affordable housing properties typically take some sort of replacement allowance expense deduction. These are typically handled one of two ways.

The first is an end of year reconciliation based upon actual expenditures on replacement allowance items. For example, a 150-unit property spends $48,200 on replacement allowance items. This equates to a repair allowance of $321.33 per unit ($48,200 / 150 units = $321.33 per unit). This is a line-item deduction on the operating expense statement.

The second technique is to specify a set amount per unit for long-term replacement allowance. This figure can be based upon industry-wide standards, historical operations, or some combination thereof. In this case, a set line-item deduction is made regardless of expenditures, with any shortfall or surplus carried forward to the proceeding year's financials (depending likely on recommendations from accounting professionals). For examples, a 150-unit property sets aside $300 per unit for replacement allowance, thus a line-item deduction of $45,000 is made to the income statement ($300 per unit X 150 units = $45,000).

For the purposes of ad valorem assessment and taxation, we recommend the second technique be utilized with a standard figure applied across all properties state-wide.

Within the affordable housing industry, repair allowances are estimated based primarily upon tenancy but also accounting for the age of the property. As previously discussed, repair allowance accounts for the repair and replacement of certain long-lived real estate components such as roof, HVAC, parking lot, etc. According to the Novogradac & Company 2017 Multifamily Rental Housing Operating Expense Report, the data indicates that as a property ages, the total replacement cost of these items increases. Typically, in the first 10 years of a property's lifespan, the repair and replacement of these items remain fairly fixed and constant but relatively minimal. However, during this time period funds should be set aside for the eventual replacement. In years 11 – 20, replacement of these items on a larger scale is necessary as their remaining economic life decreases. By year 20, significant repairs and replacements are expected.

As an illustration of this trend, we present the difference between average repairs and maintenance costs for properties of different ages. For example, the average repairs and maintenance expenses for a five-year-old property was $398 per unit based upon the data. In contrast, the average repairs and maintenance expenses for a 25-year-old property was $772 per unit. This is an increase of approximately 94 percent. While replacement allowance is designated for the repair and replacement of long-lived items versus ongoing repairs and maintenance of a property, this comparison illustrates the increase in the cost of maintaining a multifamily

property over time.

Additionally, the report indicates that expenses for senior properties are generally lower than family properties. The report states that "property managers often mention that the presence of children is associated with a higher occurrence of damage and wear at family properties" versus senior properties. While some expense items such as payroll, management, and administrative expenses are higher on average for senior properties, repairs and maintenance are typically higher for family properties. The report indicated an average repairs and maintenance expense of $720 per unit for family properties versus $634 for senior properties, a difference of approximately 13.6 percent. Again, repairs and maintenance expenses are different than replacement allowance expenses, but this data illustrates the difference between the cost of maintaining a property based on tenancy.

Also, when a property applies for LIHTC funding, be it for new construction or acquisition/rehabilitation, state housing entities that govern the allocation process often require a minimum amount for replacement reserves be included in the required as part of the property's pro forma statement. These typically vary based upon age and/or tenancy. The chart below summarizes the requirements set forth in the qualified allocation plan for several states and illustrates the differences anticipated based upon age and tenancy.

TENANCY

State	Family	Senior	% Difference
Iowa	$400	$300	-25.0%
Illinois	$400	$350	-12.5%
Arkansas	$250	$250	0.0%

CONSTRUCTION STATUS

State	Acquisition / Rehab	New Construction	
Oklahoma	$300	$250	-16.7%
Colorado	$300	$250	-16.7%

As indicated, senior properties are anticipated to have a lower required reserve allowance versus family properties. New construction properties have a lower requirement than existing properties.

Generally speaking, replacement allowance of $250 per unit for senior properties is accepted in the industry while $300 per unit is an industry norm for family properties.

It is important to establish a standard set by the PVD given that this is an item subject to some variation based upon the varying accounting practices and/or motivations of particular owners. Based upon the above discussion, the following chart summarizes our recommendations. We have segmented these recommendations based upon tenancy and age of properties with the figures based upon that data presented, our experience with affordable properties, and industry-accepted practice.

	Tenancy	
Age (Years)	Family	Senior
0 - 10	$300	$250
11 - 20	$300	$250
20 - 30	$325	$275
30 plus	$350	$300

NON-STABILIZED PROPERTY RECOMMENDATIONS

NON-STABILIZED PROPERTY RECOMMENDATIONS

As a part of this engagement we have been asked to recommend a technique for estimating values of properties that are not operating on a stabilized basis. As previously discussed in the scope of work, these properties include new projects or those where only budgeted information is available. Further, we will address properties that are performing below market expectations and are considered distressed.

Proposed/Under Construction/In Lease-up

For proposed and under-construction properties, there is no historical income or expense information available. Additionally, for properties that are in the lease-up phase, the income and expense information will be incomplete. However, the developer will have had to submit a pro forma operating statement for the tax credit/subsidy application and/or bank financing. As such, these figures can be utilized in estimating the appraised value of the property assuming the property is completed and at stabilized occupancy at market-oriented rental rates.

We will use the example of a fictional property containing 150 units. In this example the property is achieving average rents of $833 per month resulting in a potential gross income (PGI) of $1,500,000 annually based upon the pro forma. We are assuming that market vacancy is 5 percent. Expenses in this example are estimated based upon our experience; it is noted that expenses vary significantly from property to property and market to market. These figures are merely for the purposes of this example and should not be relied upon for any other analysis. The following chart summarizes a hypothetical pro forma income and expense statement for this fictional property.

Property:	Sample Apartments	
Total Units:	150	
Assumptions:	Stabilized rents at market. Vacancy at market (5%)	
Income	**Total**	**Per Unit**
Potential Gross Income	$1,500,000	$10,000
Other Income	$15,000	$100
Vacancy (5%)	($75,750)	($505)
Effective Gross Income	$1,439,250	$9,595
Expenses	**Total**	**Per Unit**
Administration	$15,000	$100
Maintenance and Operating	$135,000	$900
Utilities	$127,500	$850
Payroll	$150,000	$1,000
Insurance	$22,500	$150
Real Estate Taxes	$120,000	$800
Management (@ 5% of EGI)	$71,963	$480
Replacement Reserves	$37,500	$250
Total Expenses	**$679,463**	**$4,530**
Net Operating Income (NOI)	**$759,788**	**$5,065**

Based upon an overall capitalization rate of 8.0 percent, the resulting value is shown below. The value below assumes construction completion and stabilization, and achievable market-oriented rents.

VALUE CALCULATION	
Net Operating Income	*$759,788*
Divided by Overall Capitalization Rate (OAR)	*8.0%*
Indicated Value	**$9,497,344**
Indicated Value - Rounded	**$9,500,000**
Indicated Value Per Unit	**$63,333**

Assuming the effective date of January 1, if the property has not yet "broken ground," the appraised value would be the value of the vacant land. Once site improvements and/or vertical improvements have begun, a percentage completion can be determined at the time of assessment (in this case, January 1) and applied to the as complete/stabilized value as shown below. The same premise would apply to a property that is constructed but still in the lease up phase on January 1.

Scenario	As Complete / Stabilized Value	Muliplied by Completion or Leased %	Indicated Value	Indicated Value	Per Unit
25 percent constructed or leased	$9,497,344	25.0%	$2,374,336	$2,370,000	$15,800
50 percent constructed or leased	$9,497,344	50.0%	$4,748,672	$4,750,000	$31,667
75 percent constructed or leased	$9,497,344	75.0%	$7,123,008	$7,120,000	$47,467

The percentages above are examples and the actual percentage of completion can be determined by property inspection or by owner/other third party certification of the current status of construction or lease-up.

Distressed Properties

In this case, "distressed properties" refer to those properties that are not operating at market levels based upon income, expenses, or vacancy rates that are not consistent with those typically anticipated in the market. A variety of factors, both internal and external, can contribute to this situation.

The largest internal factor that affects the operation of a property is the quality of management. Poor management can affect both the income and expenses of a property. If there is not an over-supply of product in the market, vacancy rates are low, and demand is adequate, yet rental rates for a property are still below typical market levels, this may be due to poor management. Similarly, if vacancy rates are above those at comparable properties (absent any physical issues related to the property such as damaged/uninhabitable units), this is likely related to issues such as deficient marketing activity, insufficient turn time of vacant units, or stigma related to the property. Additionally, deficient maintenance practices can have a significant effect on the performance of a property, often resulting in increasing maintenance costs. Further, failure to control expenses such as payroll, administration, etc. can result in underperformance of a property.

External factors affecting the performance of a property include an over-supply of units in the market, a financial downturn in the local and/or national economy, increased unemployment, and a decrease in area wages, or a combination thereof. These can be the result of cyclical forces wherein a recovery is anticipated at some point or due to a constant decline in the overall market that may or may not be reversible.

The following charts summarize various scenarios that result in differing net operating income for the same property. We used the same fictional property but assume it is an existing, operating asset. For these scenarios, the various vacancy rates are presented in order to illustrate their effect on the net operating income. It is noted that there are various other factors that could affect the operating income included rental rates and expenses. We have chosen to adjust the vacancy rates for this illustration for the sake of simplicity and consistency. Vacancy rates for a specific property should be readily available and easily demonstrates the distressed nature of a specific property versus analyzing line item expenses.

Market Vacancy (5%)

Property:	Sample Apartments	
Total Units:	150	
Assumptions:	Stabilized rents at market. Vacancy at market (5%)	
Income	**Total**	**Per Unit**
Potential Gross Income	$1,500,000	$10,000
Other Income	$15,000	$100
Vacancy (5%)	($75,750)	($505)
Effective Gross Income	$1,439,250	$9,595
Expenses	**Total**	**Per Unit**
Administration	$15,000	$100
Maintenance and Operating	$135,000	$900
Utilities	$127,500	$850
Payroll	$150,000	$1,000
Insurance	$22,500	$150
Real Estate Taxes	$120,000	$800
Management (@ 5% of EGI)	$71,963	$480
Replacement Reserves	$37,500	$250
Total Expenses	**$679,463**	**$4,530**
Net Operating Income (NOI)	**$759,788**	**$5,065**

VALUE CALCULATION	
Net Operating Income	*$759,788*
Divided by Overall Capitalization Rate (OAR)	*8.0%*
Indicated Value	**$9,497,344**
Indicated Value - Rounded	**$9,500,000**
Indicated Value Per Unit	**$63,333**

The concluded value for the property operating a market vacancy is $9,500,000. A rent loss deduction associated with above market vacancy can be made to this concluded value to arrive at an estimated market value.

In order to calculate the appropriate rent loss deduction, the vacancy rate can be based upon the actual number of vacant units as shown below.

Total Units	Vacant Units	Vacancy
150	8	5.0%
150	15	10.0%
150	30	20.0%
150	45	30.0%
150	60	40.0%
150	75	50.0%

The actual rent loss is the difference between the market vacancy deduction (in this case $75,750) and the actual vacancy. The rent loss deductions are calculated below.

Scenarios	Market Vacancy Deduction (@ 5%)	Actual Vacancy Deduction	Difference (Rent Loss Deduction)
10% Vacancy	$75,750	$151,500	($75,750)
20% Vacancy	$75,750	$303,000	($227,250)
30% Vacancy	$75,750	$454,500	($378,750)
40% Vacancy	$75,750	$606,000	($530,250)
50% Vacancy	$75,750	$757,500	($681,750)

Thus, the concluded values for the sample property based upon the various above market vacancy scenarios are below. It is noted that, for simplicity sake, the rent loss deductions are not discounted.

Scenarios	Stabilized NOI	OAR	Stabilized Value (Rounded)	Less Rent Loss Deduction*	Concluded Value (Rounded)	Value per Unit
10% Vacancy	$759,788	8.0%	$9,500,000	($75,750)	$9,420,000	$62,800
20% Vacancy	$759,788	8.0%	$9,500,000	($227,250)	$9,270,000	$61,800
30% Vacancy	$759,788	8.0%	$9,500,000	($378,750)	$9,120,000	$60,800
40% Vacancy	$759,788	8.0%	$9,500,000	($530,250)	$8,970,000	$59,800
50% Vacancy	$759,788	8.0%	$9,500,000	($681,750)	$8,820,000	$58,800

* Rent loss is the difference between market vacancy and actual vacant

When analyzing distressed properties, we consider two key issues.

1. The appraised value should be set at such an amount as to not to be so burdensome to the property that it would be a detriment to future operations, which could restrict a property's ability to recover from the current level of distress.
2. The appraised value should be high enough to satisfy the fiduciary responsibility of the county to collect a reasonable amount of taxes from the property.

Utilizing an appraised value based upon a pro forma or market oriented net operating income could overstate the value of the property and could thus be burdensome to the operation of the property going forward. In contrast, basing the appraised value off the current net operating income could potentially understate the value of the property significantly, particularly in the case of a property that has a minimal or negative net operating income.

In order to satisfy both concerns stated above, actual net operating income for a property can be utilized to a point. A threshold for values could be set in order to ensure that a reasonable amount of taxes are being collected regardless of the operation of the property. One way to accomplish this would be to set a baseline, or lowest appraised value per unit, that is applied to a distressed property.

This per unit baseline value could be set by the county assessor based upon the assessed value for other properties in the market. For example, the average of the assessed values for the ten lowest valued properties in the county could be relied upon in setting the baseline. An example is shown below. It is noted that the properties below are used for illustrative purposes only and do not reflect actual existing assets.

Property	Total Appraised Value	# of Units	Appraised Value per Unit
1	$5,150,000	85	$60,588
2	$5,900,000	100	$59,000
3	$7,150,000	119	$60,084
4	$4,400,000	72	$61,111
5	$2,750,000	47	$58,511
6	$13,200,000	225	$58,667
7	$9,450,000	155	$60,968
8	$9,850,000	164	$60,061
9	$5,950,000	99	$60,101
10	$12,125,000	202	$60,025
Average		**127**	**$59,912**
Baseline County Appraised Value			**$60,000**

In this example, the baseline amount would be $60,000 per unit. Thus, the appraised value for the various scenarios previously presented is shown below.

Scenario	NOI	OAR	Income Approach Value (rounded)	Value per Unit	Recommended Value per Unit*	Recommended Appraised Value
@ Market (5% Vacancy)	$759,788	8.0%	$9,500,000	$63,333	$63,333	$9,500,000
@ 10% Vacancy	$687,825	8.0%	$9,420,000	$62,800	$62,800	$9,420,000
@ 20% Vacancy	$543,900	8.0%	$9,270,000	$61,800	$61,800	$9,270,000
@ 30% Vacancy	$399,975	8.0%	$9,120,000	$60,800	$60,000	$9,000,000
@ 40% Vacancy	$256,050	8.0%	$8,970,000	$59,800	$60,000	$9,000,000
@ 50% Vacancy	$112,125	8.0%	$8,820,000	$58,800	$60,000	$9,000,000

*Accounts for the baseline amount

The baseline amount would vary by county but this technique would adequately satisfy the two issues previously identified regarding a reasonable tax burden for a property and the reasonable expectation of the county for tax collection. Please note that this does not suggest that the baseline amount for any particular county should be $60,000 or similar. Rather, this is an example of a technique that could be utilized.

ADDENDUM A

Qualifications of Consultants

STATEMENT OF PROFESSIONAL QUALIFICATIONS
RACHEL BARNES DENTON, MAI

I. EDUCATION

Cornell University, Ithaca, NY
School of Architecture, Art & Planning, Bachelor of Science in City & Regional Planning

II. LICENSING AND PROFESSIONAL AFFILIATION

Designated Member of the Appraisal Institute
Member of National Council of Housing Market Analysts (NCHMA)
Member of Commercial Real Estate Women (CREW) Network
- 2011 and 2012 Communications Committee Co-Chair for the Kansas City CREW Chapter
- 2013 Director of Communications and Board Member for Kansas City CREW
- 2014 Secretary and Board Member for Kansas City CREW
- 2015 and 2016 Treasurer and Board Member for Kansas City CREW

State of Arkansas Certified General Real Estate Appraiser No. CG3527
State of California Certified General Real Estate Appraiser No. AG044228
State of Colorado Certified General Real Estate Appraiser No. 100031319
State of Hawaii Certified General Real Estate Appraiser No. CGA1048
State of Illinois Certified General Real Estate Appraiser No. 553.002012
State of Kansas Certified General Real Estate Appraiser No. G-2501
State of Minnesota Certified General Real Estate Appraiser No. 40420897
State of Missouri Certified General Real Estate Appraiser No. 2007035992
State of New Mexico Certified General Real Estate Appraiser No. 03424-G
State of Oklahoma Certified General Real Estate Appraiser No. 13085CGA
State of Oregon Certified General Real Estate Appraiser No. C000951
State of Texas Certified General Real Estate Appraiser No. 1380396

III. PROFESSIONAL EXPERIENCE

Novogradac & Company LLP, Partner
Novogradac & Company LLP, Principal
Novogradac & Company LLP, Manager
Novogradac & Company LLP, Senior Real Estate Analyst

IV. PROFESSIONAL TRAINING

Educational requirements successfully completed for the Appraisal Institute:
- Appraisal Principals, September 2004
- Basic Income Capitalization, April 2005
- Uniform Standards of Professional Appraisal Practice, November 2005
- Advanced Income Capitalization, August 2006
- General Market Analysis and Highest & Best Use, July 2008
- Advanced Sales Comparison and Cost Approaches, June 2009
- Advanced Applications, June 2010
- General Appraiser Report Writing and Case Studies, July 2014
- Standards and Ethics (USPAP and Business Practices and Ethics)
- MAI Designation General Comprehensive Examination, January 2015
- MAI Demonstration of Knowledge Report, April 2016

Completed HUD MAP Training, Columbus, Ohio, May 2010

Have presented and spoken at both national Novogradac conferences and other industry events, including the National Council of Housing Market Analysts (NCHMA) Annual Meetings and FHA Symposia, Institute for Professional and Executive Development **(**IPED**)** conferences, and state housing conferences, such as Housing Colorado.

V. REAL ESTATE ASSIGNMENTS

A representative sample of Due Diligence, Consulting, or Valuation Engagements includes:

In general, have managed and conducted numerous market analyses and appraisals for various types of commercial real estate since 2003, with an emphasis on affordable multifamily housing.

Conducted and managed appraisals of proposed new construction, rehab and existing Low-Income Housing Tax Credit properties, Section 8 Mark-to-Market properties, HUD MAP Section 221(d)(4) and 223(f) properties, USDA Rural Development, and market rate multifamily developments on a national basis. Analysis includes property screenings, economic and demographic analysis, determination of the Highest and Best Use, consideration and application of the three traditional approaches to value, and reconciliation to a final value estimate. Both tangible real estate values and intangible values in terms of tax credit valuation, beneficial financing, and PILOT are considered. Additional appraisal assignments completed include commercial land valuation, industrial properties for estate purposes, office buildings for governmental agencies, and leasehold interest valuation. Typical clients include developers, lenders, investors, and state agencies.

Managed and conducted market studies for proposed Low-Income Housing Tax Credit, HUD MAP, market rate, HOME financed, USDA Rural Development, and HUD subsidized properties, on a national basis. Analysis includes property screenings, market analysis, comparable rent surveys, demand analysis based on the number of income qualified renters in each market, supply analysis and operating expense analysis. Property types include proposed multifamily, senior independent living, large family, acquisition/rehabilitation, historic rehabilitation, adaptive reuse, and single family developments. Typical clients include developers, state agencies, syndicators, investors, and lenders.

Completed and have overseen numerous Rent Comparability Studies in accordance with HUD's Section 8 Renewal Policy and Chapter 9 for various property owners and local housing authorities. The properties were typically undergoing recertification under HUD's Mark to Market Program.

Performed and managed market studies and appraisals of proposed new construction and existing properties insured and processed under the HUD Multifamily Accelerated Processing (MAP) program. These reports meet the requirements outlined in HUD Handbook 4465.1 and Chapter 7 of the HUD MAP Guide for 221(d)(4) and 223(f) programs.

Performed and have overseen numerous market study/appraisal assignments for USDA RD properties in several states in conjunction with acquisition/rehabilitation redevelopments. Documents are used by states, lenders, USDA, and the developer in the underwriting process. Market studies are compliant to State, lender, and USDA requirements. Appraisals are compliant to lender requirements and USDA HB-1-3560 Chapter 7 and Attachments.

Performed appraisals for estate valuation and/or donation purposes for various types of real estate, including commercial office, industrial, and multifamily assets. These engagements were conducted in accordance with the Internal Revenue Service's Real Property Valuation Guidelines, Section 4.48.6 of the Internal Revenue Manual.

Conducted a Highest and Best Use Analysis for a proposed two-phase senior residential development for a local Housing Authority in the western United States. Completed an analysis of existing and proposed senior supply of all types, including both renter and owner-occupied options, and conducted various demand analyses in order to determine level of need and ultimate highest and best use of the site.

Prepared a three-year Asset Management tracking report for a 16-property portfolio in the southern United States. Data points monitored include economic vacancy, levels of concessions, income and operating

expense levels, NOI and status of capital projects. Data used to determine these effects on the project's ability to meet its income-dependent obligations.

Performed various community-wide affordable housing market analyses and needs assessments for communities and counties throughout the Midwest and Western states. Analysis included demographic and demand forecasts, interviews with local stakeholders, surveys of existing and proposed affordable supply, and reconciliation of operations at existing supply versus projected future need for affordable housing. Additional analyses included identification of housing gaps, potential funding sources, and determination of appropriate recommendations. These studies are typically used by local, state, and federal agencies in order to assist with housing development and potential financing.

Managed a large portfolio of Asset Management reports for a national real estate investor. Properties were located throughout the nation, and were diverse in terms of financing, design, tenancy, and size. Information compiled included income and expenses, vacancy, and analysis of property's overall position in the market.

Performed appraisals of LIHTC assets for Year 15 purposes; valuations of both the underlying real estate asset and partnership interests have been completed. These reports were utilized to assist in potential disposition options for the property, including sale of the asset, buyout of one or more partners, or potential conversion to market rate.

STATEMENT OF PROFESSIONAL QUALIFICATIONS
SCOTT L. PEIRCE

I. EDUCATION

Drake University – Kansas City, Missouri
Bachelor of Business Administration - Marketing

II. LICENSING AND PROFESSIONAL AFFLIATION

State of Kansas Certified General Real Estate Appraiser No. G-2998
State of Missouri Certified General Real Estate Appraiser No. 2015026360

III. PROFESSIONAL EXPERIENCE

Analyst - Novogradac & Company LLP
September 2016 to Present

Edwards Peirce Valuation Services
Principle
July 2015 to September 2016

United States Appraisals
Review Appraiser
June 2015 to September 2016

Gretzinger Appraisals, Inc.
Appraiser
June 2004 to May 2015

Enterprise Fleet Services
Account Executive
2002 – 2004

Enterprise Rent-a-Car
Branch Rental Manager
1997 - 2002

IV. PROFESSIONAL TRAINING

Educational requirements successfully completed for the Appraisal Institute

- Basic Appraisal Principles
- Basic Appraisal Procedures
- National Uniform Standards of Professional Appraisal Practice
- Basic Income Capitalization
- Advanced Income Capitalization
- Narrative Report Writing
- Subdivision Analysis
- The Cost Approach
- Appraising Land Subject to Ground Leases
- The New FHA Handbook
- 2016-2017 National USPAP Course

V. REAL ESTATE ASSIGNMENTS

A representative sample of Due Diligence, Consulting, or Valuation Engagements includes:

- Prepared and managed market studies and appraisals for proposed Low-Income Housing Tax Credit, market rate, HOME financed, USDA Rural Development, and HUD subsidized properties, on a national basis. Analysis includes property screenings, market analysis, comparable rent surveys, demand analysis based on the number of income qualified renters in each market, supply analysis, and operating expenses analysis. Property types include proposed multifamily, senior independent living, assisted living, large family, and acquisition with rehabilitation.

- Prepared and managed Rent Comparability Studies for expiring Section 8 contracts and USDA contracts for subsidized properties located throughout the United States. Engagements included site visits to the subject property, interviewing and inspecting potentially comparable properties, and the analyses of collected data including adjustments to comparable data to determine appropriate adjusted market rents using HUD form 92273.

- Performed and have overseen numerous market study/appraisal assignments for USDA RD properties in several states in conjunction with acquisition/rehabilitation redevelopments. Documents are used by states, lenders, USDA, and the developer in the underwriting process. Market studies are compliant to State, lender, and USDA requirements. Appraisals are compliant to lender requirements and USDA HB-1-3560 Chapter 7and Attachments

- Researched and analyzed local and national economy and economic indicators for specific projects throughout the United States. Research included employment industries analysis, employment historical trends and future outlook, and demographic analysis.

- Examined local and national housing market statistical trends and potential outlook in order to determine sufficient demand for specific projects throughout the United States.

- Performed and managed market studies and appraisals of proposed new construction and existing properties under the HUD Multifamily Accelerated Processing (MAP) program. These reports meet the requirements outlined in HUD Handbook 4465.1 and Chapter 7/Appendix 7 of the HUD MAP Guide for 221(d)(4) and 223(f) programs.

- Performed valuation assignments for commercial (office, retail, industrial, special use) and multifamily properties as well as residential and commercial subdivision valuation.

ADDENDUM B

Sale Data

REDACTED DUE TO CONFIDENTIALITY