



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

LEM Multifamily Fund V, L.P.

Value-Add Real Estate Commitment

William P. Stalter
Senior Portfolio Manager

Melanie A. Cubias
Senior Investment Professional

April 23, 2018



Recommendation:

Staff, together with Courtland, a StepStone company, recommends the Board commit up to \$100 million to LEM Multifamily Fund V, L.P. ("Fund" or "Fund V"). LEM Capital ("LEM") seeks to generate income and appreciation by investing in quality Class A- and B multifamily properties in the United States where value can be added through renovating and upgrading management. The Fund will invest in properties located in infill locations in markets and submarkets where diverse employment drivers, strong demographics, solid public schools, good highway access and other factors should create strong dynamics for potential growth in revenues and property values during the Fund's anticipated investment hold period.

Firm Overview:

LEM was founded in 2002 by Jay J. Eisner, Herbert L. Miller, Jr., and Ira M. Lubert to invest in structured commercial real estate transactions with the mission of seeking exceptional risk-adjusted returns while protecting investor's downside risk. LEM has focused primarily on multifamily assets for the past 15 years. For the past seven years, LEM has been focused on acquiring well-located apartment communities where they seek the ability to create value and increase rents through physical renovations and management upgrades, seeking to build portfolios with consistent current cash flow, equity upside and strong downside protection for investors. LEM's approach combines the local insight, long-term market knowledge and day-to-day management of their nationwide network of operating partners with their disciplined investment selection, rigorous due diligence process and intensive asset management oversight. LEM has experience in all facets of multifamily real estate, including acquisition, renovation, operation, finance and asset management, as well as expertise in capital markets and investment management, all of which will benefit Fund V.

Since 2011, LEM has overseen the acquisition and renovation of over 16,000 apartments in 71 properties in 25 different markets around the country through joint ventures with local operating partners. LEM and its partners have acquired value-add multifamily properties with total capitalizations in excess of \$2 billion. All of the investments made in LEM Funds III and IV and 65% of the investments made in LEM Funds I and II were in the multifamily sector. In 2011, the founding partners made the strategic decision to exclusively target Class B value-add multifamily properties and invest using equity structures designed to generate high current cash flow from property operations and provide the LEM Funds with a meaningful participation in the expected increases in value while providing downside protection for their investors.

Market Opportunity:

Multifamily rental housing is an integral component of the nation's housing stock, providing millions of households with a critical alternative to home ownership. LEM believes that there are several overarching trends that support their focus on investing in the value-add multifamily market. Demographic trends driven by the Millennial generation (individuals ages 18 to 34) and the Baby Boom generation (individuals ages 55 and over) are driving a growing demand for rental housing.

The Baby Boom generation, which has led renter household growth over the last decade, is renting more due to a combination of factors such as downsizing, affordability, attractive amenities, and less responsibility relative to homeownership.

Millennial household growth is another significant demand driver. About one-third of all Millennials still live with their parents or grandparents. In contrast to prior generations, the Millennial generation is delaying marriage and parenthood in favor of educational and economic accomplishments, a factor that is delaying the shift from rental apartments to home ownership and driving up demand for rental properties. By 2035, the Millennials are projected to head 49.8 million households.

Studies have identified the need to build 4.6 million new apartment homes (or an average of 354,000 units annually) at a variety of price points by 2030 to meet anticipated demand for rental housing. It is the expectation that new apartment supply is projected to fall short of satisfying future demand, particularly



for more affordable rental housing, bolstering the prospects for LEM's targeted value-add multifamily niche. Between 2010 and 2014, multifamily completions averaged only 155,000 units delivered per year. This demand, which stems from renters by choice as well as renters by necessity, is creating a larger population of longer-term renters. Existing and future supply of new and affordable housing faces headwinds in meeting rising rental demand. These headwinds consist of rising construction costs, the need to rent new units at elevated rental rates to generate returns that justify such construction and impediments to homeownership for many newly formed households. LEM expects these trends to disproportionately benefit the value-add multifamily segment of the rental market for the next five to ten years and generate attractive risk-adjusted returns with downside protection.

Portfolio Fit:

A commitment to the investment will be allocated to the Value-Add portion of PSERS' Real Estate portfolio. Using the net market value from September 30, 2017, and adjusting the unfunded to include commitments from the prior and current Board meetings as well as three pending open-end fund redemptions, the Real Estate portfolio would be 20.0% Core, 43.2% Opportunistic, and 36.8% Value-Add.

The table below summarizes PSERS' projected exposure inclusive of a recommended \$100 million commitment to the Fund as of September 30, 2017:

Investment Type (\$M)	Market Value ⁽¹⁾	%	Unfunded	%	Total Exposure ⁽¹⁾	%	Long Term Target (%)
Core	1,567.3	25.9%	170.3	6.4%	1,737.6	20.0%	20%
Opportunistic	2,813.2	46.5%	947.7	35.7%	3,760.9	43.2%	30%
Value-Add	1,670.1	27.6%	1,538.7	57.9%	3,208.8	36.8%	50%
Total	\$ 6,050.6	100%	\$ 2,656.7	100%	\$ 8,707.3	100%	100%

⁽¹⁾ Includes Gross PTRES Exposure

Investment Strategy:

The assets underlying investments are expected to consist of value-add multifamily properties (including Class A- and B rental apartments, student and senior housing (and similar properties) primarily located in significant markets in Florida, the greater metropolitan areas of Dallas, Houston, Austin, San Antonio, the Southeast (including Atlanta, Raleigh-Durham, Charlotte, and Nashville), Chicago, Denver, Minneapolis, Phoenix, the Northeast, the Pacific Northwest and California (together, the "Target Markets"). These Target Markets share the characteristics of strong projected job and population growth, good long-term economic prospects, a high quality of life and being desirable places for people to live. The Fund generally will target properties built between 1985 and 2005 with between 200 and 400 units, located in strong, infill submarkets near diverse employment drivers with good growth potential. LEM focuses on well-constructed and well-designed properties with the potential to upgrade and add to the amenity package and modernize unit interiors with features that, while not necessarily equivalent, will give residents a living experience similar to Class A properties but at significantly less cost compared to newer products.

Another important component of LEM's strategy is their focus on properties with a purchase price of \$50 million or less, where there is less competition from larger equity providers that, because of their size, cannot efficiently invest in this niche. LEM's operating partner's ability to acquire properties in this niche is enhanced by the institutional credibility LEM brings to the relationship. Further, LEM employs a partner-led process for sourcing and underwriting each transaction. Unlike some larger managers that may delegate due diligence functions to their investment teams, LEM's managing partners remain deeply involved in each transaction from sourcing to closing. Their investment policy states that at least two of the LEM managing partners will be directly involved in the due diligence of each property, including



conducting site visits, property and unit inspections, market tours, and meeting and touring the property with the third party engineers retained by LEM, and engaging in discussion with local, trusted market experts and their operating partner and their staff. An important feature of an investment in the Fund is LEM's emphasis on making investments that provide current income. LEM is targeting quarterly distributions to investors during the life of the Fund that average between 6% and 8% per annum on outstanding capital, with distributions beginning in the first quarter after the first capital call.

The Fund will be invested based on the following investment themes:

Theme	Description
LEM Manufactures Yield	Fund V will seek to invest in well-constructed value-add multifamily properties with a quality tenant base, high occupancy and good current cash flow. Investing in properties with current cash flow reduces capital risk because distributions begin almost immediately and during a downturn, properties can be held with little or no additional investment. Although the specific business plan will depend on the needs of each individual transaction, LEM expects that many of the value-add business plans for the properties to be acquired by Fund V will contemplate instituting better management practices and implementing one or more of the following: (a) amenity improvements, (b) unit interior upgrades, and (c) exterior renovation.
Niche Market Sector with Multiple Upside Drivers	The Fund's investment strategy is intended to provide investors access to the niche value-add multifamily market, which has multiple upside drivers. The value-add multifamily market targeted by the Fund includes properties that are performing below their potential due to a combination of factors that may include dysfunctional or absentee ownership groups, weak property management, a lack of capital investment or pending loan maturities. Even after contemplated improvements, the Fund's targeted investments are anticipated to remain affordable to potential renters seeking a more moderate price point. These renters often rent more out of necessity than by choice but are willing and able to pay more for a better-quality living environment. Since the Fund will target properties located in markets with strong growth prospects, the LEM team expects the Fund's investments to benefit from positive market momentum as well.
Operating Partner Network and Geographic Diversity	One of LEM's key advantages is their nationwide network of operating partners who provide in-depth local knowledge of the markets in which they operate, access to off-market transactions and the skill and experience needed to acquire, renovate, manage and reposition multifamily assets. LEM's operating partner network consists of unaffiliated, independent third party real estate operating companies. LEM believes hands-on ownership and management is a key factor in maximizing operating performance and value. In making Fund V investments, LEM will seek experienced local operating partners with strong property management and asset management teams and excellent reputations, not only as owner/operators but also as good partners who are financially sound. The operating partner network model allows LEM to share their experience as a multifamily investor, as well as each operating partner's best practices, across the entire operating partner network. LEM believes that sharing best practices augments the management, design, reporting and execution capacities and talents of their operating partners and enhances the execution of their value add business plans.
Investment Structures Align Interests	LEM's longstanding experience structuring real estate transactions allows them to structure investments where there is a strong alignment of interests between the operating partner and the Fund. LEM believes that when the key principals of their operating partners have meaningful capital investments in their joint ventures, they are incentivized to invest with the Fund on transactions where they believe that both the anticipated cash flow and upside potential embedded in the deal are strong. LEM endeavors to include performance requirements and strict controls over management, sale, and other key decisions to maintain the proper alignment of interests.

Investment Structure:

LEM Multifamily Fund V, L.P. is a Philadelphia-based Delaware limited partnership and is registered as an investment adviser with the SEC. The Fund is being organized to invest in U.S. real estate and real estate related assets. The firm is an employee-owned private partnership.

Investment Instruments:

Investments by the Fund will be comprised of interests in real estate properties, which typically will be a joint venture with LEM's local operating partner.

Investment Team:

LEM Capital is headquartered in Philadelphia, PA. LEM leads an experienced team of real estate investment professionals consisting of 19 employees of which 12 are investment professionals and three are partners. The day-to-day operations of LEM are led by two founding partners, Jay J. Eisner and



Herbert L. Miller, Jr., along with David M. Lazarus who have a combination of 85 years of experience making real estate investments.

Investment Highlights:

Extensive Operating Partner and Relationship Network
LEM works in tandem with a national network of third-party operating partners to source a geographically diversified pipeline of potential transactions. They work closely with their operating partners at every step of the investment process, including identifying potential investments, using their joint relationships and reputations to secure transactions and then working in tandem to devise and implement their business plans. This operating partner and relationship network has been built by the managing partners and the investment team over time. The operating partner network has grown because of LEM's reputation as a straightforward and reliable capital provider that can evaluate real estate quickly and close transactions. LEM believes this network will benefit the Fund by providing access to better investment opportunities and better execution of those opportunities.
Providing a Value Alternative to Class A Rents Caters to the Median Household
Class B apartments offer younger renters and members of the middle class affordable rental options. As of the fourth quarter of 2017, the average effective rent for Class A apartments was \$1,638 versus \$1,239 for Class B apartments representing a delta of almost \$400 on a monthly basis. This delta is projected to expand to \$482 by 2022. The difference in rents is meaningful and makes a significant impact on the monthly budget for renters, particularly when viewed in the context of the national median household income of \$56,516.
In-Depth Knowledge of Multifamily Properties and Target Markets
LEM has developed extensive contacts in the multifamily industry and in-depth knowledge of each of the Target Markets. The investment and asset management teams are regularly in the Target Markets to source and evaluate new transactions, manage existing investments and meet with LEM's network of contacts to build the firm's knowledge base.
Investment Discipline
Over the past fifteen years, LEM has been disciplined in adhering to the targeted investment strategy for each of the prior LEM Funds. They have been selective in pursuing investments while focusing primarily on cash flowing properties with strong downside protection. By adhering to their investment strategy, LEM avoided many of the pitfalls experienced by some of their competitors during the Great Recession.
Senior Management Involvement
LEM's managing partners plan to be actively involved in the execution of the Fund's strategy and in directing all aspects of the Fund's investment process and operations, including sourcing, structuring, negotiating and closing transactions as well as overseeing ongoing asset management of the portfolio. The LEM managing partners are involved in setting the scope and overseeing the execution of underwriting for each investment. At least two of the three LEM managing partners actively oversee each individual transaction, including inspecting each potential property, meeting with each operating partner and overseeing the negotiation of all investment documents and closing of each transaction. LEM believes the heavy involvement of senior management in underwriting and structuring investments is key to protecting investor's downside.
In-House Asset Management
LEM's in-house asset management team directly monitors performance at the individual property level and does not rely on third-parties to oversee investments. Continuous monitoring of property performance, requiring monthly financial reporting for all investments, performing ongoing market reconnaissance and maintaining continuous contact with operating partners ensures that the LEM managing partners and the LEM team remain actively involved in every investment. This hands-on asset management allows LEM to be proactive and resolve any issues in a timely manner and to pursue strategies, including refinancings and potential sales pursuant to their put option right, that LEM believes will optimize returns for investors.
Franchise Value
LEM has established themselves as a leading midsize multifamily investor. Their well-known brand and name recognition convey a conservative approach, credibility in the marketplace, certainty of execution and the highest level of integrity. LEM's franchise value and institutional credibility are critical to the origination process and has been essential in building a strong pipeline of investment-worthy transactions and helping their operating partners to win deals.



Investment / Risk Considerations:

<p>Short-Term Leases</p> <p>Substantially all of the leases in the Fund's apartment investments are for a term of one year or less. Because these leases generally permit the residents to leave at the end of the lease term without penalty, the Fund's rental revenues will be impacted by declines in market rents more quickly than if such leases were for longer terms. <i>Mitigation:</i> Conversely, the Fund's rental revenues will be impacted by a rise in the market more quickly than if such leases were for longer terms.</p>
<p>Competition for Tenants</p> <p>The Fund's investments will compete with other housing alternatives to attract residents, including other rental apartments, condominiums and single-family homes that are available for rent, as well as new and existing condominiums and single-family homes for sale. Competitive residential housing in a particular area could adversely affect the Fund's ability to lease apartment homes and the ability to increase or maintain rental rates. <i>Mitigation:</i> To mitigate this risk LEM (a) invests in infill locations with limited new development; (b) focuses on opportunities in better than average sub markets and in better than average locations within submarkets; (c) provides a high-quality product at a market-competitive price; (d) partners with local partners that provide a high-quality of on-site management; and (e) closely monitors the property operations and marketing plans through LEM's asset management team.</p>
<p>Financial Condition of Tenants</p> <p>The Fund's revenue, distributable cash flow and the value of the interests would be adversely affected if a significant number of the tenants of the Fund's properties are unable to meet their lease obligations. In the event of default by a significant number of tenants, the Fund may experience delays and incur substantial costs in enforcing its rights as the owner of such properties. <i>Mitigation:</i> On-site management generally run credit and background checks and verify income for all applicants. Tenants are typically required to have household income that is at least three times the rent.</p>
<p>Leverage</p> <p>The Fund's investments will involve material amounts of indebtedness. The Fund expects to leverage its investments with debt financing at the property or operating company level. Debt service requirements may deplete cash flows and relatively small changes in the overall value of investments will have a magnified impact on the value of the equity of the Fund. If a portfolio investment were unable to generate sufficient cash flow to meet principal and interest payments on its indebtedness, the value of the Fund's investment in such portfolio investment would be significantly reduced or even eliminated. <i>Mitigation:</i> In order to limit the Fund's indebtedness, the leverage on a portfolio basis will not exceed 75% of total acquisition cost as of the time indebtedness is incurred. Historically LEM has utilized leverage of 68%. There is no Fund level leverage.</p>
<p>Operating Partners</p> <p>LEM invests alongside operating partners in various investment structures. Unlike previous Funds when some operating partners were in the first loss position, Fund V investments will be predominately pari passu structures. <i>Mitigation:</i> LEM has established many operator relationships that have provided a steady stream of deals and that is expected to continue into the future. Operating partners have a minimum of 15% equity in the deal which ensures strong alignment of interest. Further, LEM holds a put option on all of their deals to control the timing of the sale of the asset and has the right to buy out and bring in new management if the current one is not performing to their standards.</p>
<p>Interest Rates</p> <p>Changes in prevailing interest rates could negatively affect the value of the Fund. Interest rate changes may affect, among other items, the cash flows of an investment directly and the cost of leverage. <i>Mitigation:</i> The Fund intends to use various interest rate hedging products including caps and swaps.</p>

PSERS History & Performance:

PSERS relationship with LEM Capital began in 2006. The following table summarizes PSERS' historical performance with LEM Capital, as of September 30, 2017:

Fund (\$M)	Vintage	Fund Size	Commitment	Contributions	Distributions	NAV	Net IRR	MoC
LEM Multifamily Senior Equity Fund IV, L.P.	2015	400.0	75.0	33.8	3.2	36.9	21.0	1.2
LEM RE HY Debt & Pfd Equity Fund III, L.P.	2012	226.4	75.0	75.0	69.8	62.6	24.6	1.8
LEM Real Estate Mezzanine Fund II, L.P.	2006	315.4	75.0	60.0	67.9	4.9	4.3	1.2
Total			\$ 225.0	\$ 168.8	\$ 140.9	\$ 104.4	11.2%	1.5x



According to the Burgiss Manager Universe, all three funds are top quartile performers for their respective vintage year. LEM Real Estate Mezzanine Fund II, L.P. is a 2006 vintage year fund that performed well when compared to its peer group during a time when the real estate market was hit hard by the Great Recession.

Investment Committee Disclosure:

Relationship with Courtland, a StepStone company:	None Disclosed
Introduction Source:	Fund Sponsor
Placement Agent:	None in the United States. CAPRA in Europe.
PA Political Contributions:	None Disclosed
PA Presence:	Yes, one investment in LEM Fund III.
Potential Conflicts:	We are not aware of LEM having any investment conflicts.
First Time Fund With PSERS:	No
PSERS Allocation Implementation Committee Approval:	April 23, 2018

Oversight Responsibility:

Investment Office:	Charles J. Spiller Deputy CIO, Non-Traditional Investments William P Stalter Senior Portfolio Manager Melanie A. Cubias Senior Investment Professional
External Consultant:	Courtland, a StepStone company



April 17, 2018

Board of Trustees
Commonwealth of Pennsylvania,
Public School Employees' Retirement System
5 North 5th Street
Harrisburg, PA 17101

Re: LEM Multifamily Fund V, L.P.

Dear Trustees:

Courtland, a StepStone company ("Courtland"), having been duly authorized by the Board of PSERS, has evaluated the LEM Multifamily Fund V, L.P. (the "Fund"). The Fund will focus exclusively on the multifamily sector, acquiring high-quality, value-add Class A- and B middle-market properties. LEM creates value by improving management and modernizing properties through capital upgrades. LEM focuses on infill locations in markets with diverse employment drivers and strong demographics. LEM's underwriting will focus on minimizing risk and maintaining value through active management and providing attractive current income. Consistent with the tactics it has employed over time, the Fund will be investing in mid-size real estate assets with a net asset value typically in \$10 to \$15 million range. This sector generates less institutional interest, therefore pricing on investments can often be quite favorable. A \$400 million fund would result in approximately 30-35 investments.

There are significant demand drivers for multifamily assets including the growing Millennial population, the growth of the U.S. population in general, the decline in homeownership rates, and job growth in the economy. The 75 million Millennials entering their prime renting years (i.e., age 18-36) have a strong propensity to rent. This age cohort are getting married later and want the financial flexibility to rent. Further, well located, well maintained class A- and B properties tend to perform well in a down cycle. While the gateway markets are prone to swings in NOI growth, LEM's portfolio and product type are well positioned in a softer market.

The Fund is targeting net returns of 12-15%; with up to 60% of returns expected to be derived from current cash flow. The balance of the return resulting from appreciation driven by the growth in income from the capital improvements at the properties. LEM invests with experienced local operating partners, typically on a *pari passu* basis. LEM has many established operator relationships that have provided a steady stream of deals and are expected to continue in the future. LEM has gained more confidence in their operating partners as the relationships have lasted longer. There is a thorough vetting process of new operating partners. Lastly, the operating partners have a minimum of 15% of the equity in a deal (often much higher), which ensures strong alignment.

All of the Fund's investments will be in the multifamily sector in the U.S., with at least 75% of the Fund's investments located in states along the east and west coasts, the northeast corridor and the greater metropolitan areas of Dallas, Houston, Austin, San Antonio, Nashville, Chicago, Minneapolis, and Denver. The Fund will not invest in ground-up development, other than in properties where development is an ancillary part of the overall investment strategy. LEM anticipates that investments will generally be sold individually upon completion of their business plans, though LEM conducts regular sell/hold analyses that may cause an investment to be sold earlier or held longer.



Courtland's recommendation is based upon the following factors and is made within the context of PSERS' investment guidelines.

- Detailed due diligence with key LEM management team members, and review of all relevant materials provided by LEM.
- Evaluation of the Fund's proposed investment strategy within the context of the current investment environment.
- Evaluation of LEM's track record and organizational resources.
- Discussion and review of the market conditions in markets relative to the proposed investment strategy.
- The strategy proposed for the Fund is appropriate for the real estate component of the portfolio.

Based on the above, Courtland recommends that PSERS commit up to \$100 million to the Fund. Courtland makes this recommendation considering LEM's qualifications and PSERS' overall investment guidelines.

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Fund, since their needs, objectives and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Fund. Courtland does not provide legal or other non-investment-related advice.

Sincerely,

COURTLAND, A STEPSTONE COMPANY

A handwritten signature in black ink that reads "Steven Novick".

Steven Novick
Partner