Date: July 17, 2015

To: Members of the Investment Committee
California Public Employees' Retirement System

From: Pension Consulting Alliance, Inc. (PCA)

RE: Real Estate Performance through March 31, 2015

PCA received and reviewed Wilshire's Executive Summary of CalPERS' Investment Performance for the period ending June 30, 2015 as it relates to the Real Estate Portfolio. The following items should be considered in your assessment of Real Estate's performance:

Real Estate Market:

- In general, the North American commercial real estate markets continue to display improving fundamentals insofar as occupancy demand and increases in net rental rates. These rates of increase are approaching historical averages. The benefits associated with this increased pace are partially derived from below average new construction levels (with the exception of multifamily residential) and historically low base rates for mortgage loans. It is quite possible that as demand firms, new construction will increase. It is likely that general capital market interest rate increases, as signaled by the Federal Reserve, will translate into higher capitalization rates, which will reduce valuations relative to income. The timing of these potential reductions in value is difficult to forecast (just as reports of imminent rate increases during the last several years have been premature). The extent of the potential decreases in valuations could be mitigated by higher net income levels attributable to increased demand for space, which may offset increases in cap rates to a significant degree.
- Increases in value during the past fiscal year can be attributed primarily to (i) significant pent up demand for core property in major, primarily coastal and gateway cities, which accounts for a large portion of CalPERS' real estate portfolio, and (ii) relatively attractive current returns from completed properties compared to other available income-oriented investments. As employment levels continue to increase and uncertainties about domestic economic trends and political instability are declining, it is reasonable to expect increases in rent, occupancy, and many valuations to continue during the next twelve months.
- The same cannot be said for international investments beyond five major cities in the UK and several key capital cities in Continental Europe and Asia. Much volatility and risk continues to be observed in BRIC countries. Negative to slower employment growth, political instability and government policies have been compounded by the adverse exchange rates movements. This is unlikely to

change materially during the next twelve months, and it is possible that valuations will continue to decline.

CalPERS' Real Estate:

- In an illiquid asset class populated with multi-year partnerships, longer-term results are more significant than those of a shorter duration.
- Real Estate outperformed the Policy Benchmark as reported for the quarter ending June 30, 2015. Performance over the one-year period continued the upward trend started in the third quarter of 2010, yielding 13.5%, net of fees. Over the longer term, the real estate program had less favorable results with net returns of 1.7% during the trailing ten-year period. The pacing (dollar allocation timing) of the pre-2008-09 recession commitments had a very large negative impact on portfolio rates of return versus the Benchmark. These returns were less than the applicable Benchmark returns by 7.7%.

Real Estate Performance	Quarter	1 Year	3 Year	5 Year	10 Year
Real Estate Returns	9.9%	13.5%	13.1%	13.1%	1.7%
Real Estate Policy Benchmark	3.2%	12.4%	11.8%	13.6%	9.4%
Difference	6.7%	1.1%	1.3%	-0.5%	-7.7%

- It has continued to be difficult to put money to work at acceptable projected returns consistent with CalPERS' criteria. Enormous amounts of capital have been and continue to be allocated by global investors to commercial real estate investments, particularly for completed and leased assets located in the US and a handful of major international cities in Europe and Asia. The capital sources are varied; it comes from employees' retirement systems and other pension plans, endowments, foundations, sovereign wealth funds, public REITs, insurance companies and high net worth individuals, both as traditional domestic investments and as "flight capital" seeking a safer place to land than home. Many of these investors have different return/risk thresholds than CalPERS, which has priced CalPERS out of the market. PCA believes the System's discipline will benefit the fund over the long term. This disparate group of typical buyers have been joined by non-traditional property investors such as hedge funds; equity investors looking to take "money off the table" and place profits into what is perceived as less volatile assets; and fixed income investors and others for whom the bond market still does not provide an adequate current return. The effect on prices has been material, with many assets' values exceeding the record levels observed before the Great Financial Crisis of 2008-09. PCA again cautions to temper expectations of sustained increases in value when interest rates and new construction starts return to more normalized levels. To their credit, RAU Staff and the investment managers they supervise have shown discipline in their acquisition efforts, even though there are temptations to reduce yield requirements in order to clear the market and increase the percentage of real estate assets in the overall portfolio.

- As previously articulated, the longer term performance of the real estate portfolio has been hindered by three primary factors:
  - Significant amounts of CalPERS' capital were invested during the 2005 to 2007 period which exposed the portfolio to the risk of vintage-year concentration. The Portfolio now employs more systematic and disciplined approaches toward new capital allocations to managers in order to mitigate this risk;
  - A high proportion of the portfolio was invested for capital appreciation (not current income) in riskier, non-stabilized properties. The Portfolio continues to shift more in the direction of a current income focus, as more capital is deployed in core strategies and less in new opportunistic transactions; and
  - High amounts of leverage were employed at the peak of the cycle. More in line with the real estate benchmark, lower levels of debt are being used. In addition, methods to manage the debt are being reviewed to determine whether, and how, CalPERS can more actively reduce debt costs at the portfolio level compared to the individual manager level.
- Non-stabilized, highly leveraged investments exacerbated historical underperformance compared to the benchmark, which is primarily composed of completed and leased properties, during the economic crisis. Non-stabilized assets provide less income to insulate against valuation declines. Increased leverage magnifies positive appreciation returns in upward market cycles, of which CalPERS' portfolio has been the beneficiary during the past five years, and magnifies negative appreciation returns in downward market cycles such as 2008-10. In recognition of these characteristics, and in order to more closely align the real estate portfolio with the role of real estate, Staff has engaged an agent to dispose of the bulk of the commingled fund limited partnership units (current net asset value: approximately $3B) which hold interests in these types of assets.
- The Real Estate Strategic Plan was approved at the February 2011 Investment Committee Meeting. This plan provides for the implementation of the revised role of real estate as reaffirmed in the last asset allocation study. This role is primarily to provide (i) reliable current income and (ii) diversification from public and private equity return characteristics. Therefore, as seen in fiscal year ending June 30, 2015 results, and planned for the next several years, the portfolio will continue to shift in emphasis towards primarily strategic, stabilized, income producing domestic core assets held for a longer term, and away from more tactical, opportunistic, appreciation-oriented investments held for a shorter term.
- The valuation policy for real estate is changing, effective for the fiscal year beginning July 1, 2015. Going forward, investment managers and external appraisers will value real estate assets held in separate accounts on a quarterly basis. The new process will provide better visibility into short-term performance and volatility than the historical valuation policy, in which CalPERS' separate accounts were appraised once annually, as of March 31. Due to the single annual valuation, the performance of the real estate portfolio lagged other indices and the benchmark during the three quarters in which asset values were not marked to

market. The annual March 31 appraisals for fiscal year 2014-15 were incorporated into the returns reported in this memo. As a result, PCA does not believe this quarter's performance relative to the benchmark is informative since the benchmark includes properties appraised ratably throughout a twelve-month period, and CalPERS' quarterly returns account for the appreciation/depreciation achieved over the last four quarters.

PCA is available to take any questions of the Investment Committee.

Respectfully,

David Glickman
Managing Director

Dillon Lorda
Managing Director

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