Green Lease Leaders: Using the Lease to Drive Clean Energy Innovation, Health & Wellness, and Better Tenant Engagement

Alexandra Harry Program Manager, IMT

November 29, 2018



Today's Hosts



Alexandra Harry, Program Manager, Private Sector Engagement, Institute for Market Transformation





Cindy Zhu, Fellow, Building Technologies Office, U.S. Department of Energy



Today's Guest Speakers



Jessica Long, Director of Sustainability, JBG SMITH





Sara Neff, Senior Vice President, Sustainability, Kilroy Realty Corporation









Better Buildings Partners Are

30 of the Fortune 100 Companies

FORTUNE 100

13%

of all U.S. Commercial Building Space

National Laboratories

93

Local Governments

28

State Governments

12
of the Top 25 U.S. Employers

12%

of the U.S. Manufacturing Energy Footprint





Green Lease Guiding Principles

Tenants and Landlords should:

- 1. Know how much energy their buildings use.
- 2. Pay for energy upgrades commensurate to the financial benefits they receive.
- 3. Realize savings from cost-effective maintenance and behavioral energy best practices they undertake.



What is a green lease?

Energy-aligned "Green" leases **equitably align** the costs and benefits of energy and water efficiency investments between building owners and tenants.

Landlord installs new high efficiency RTU. **Tenant** pays incremental upcharge.

Tenant uses less energy, pays lower bills over life of lease. **Landlord** installs solar on rooftop. **Tenant** purchases onsite power.

Tenant pays lower utility bill, reduces GHG emissions.







Benefits of green leasing



- Reduce utility bills <u>up to</u>
 \$0.51 per square foot*
- Increase NOI
- Reduce occupancy costs
- Increase building occupant satisfaction
- Improve landlord-tenant communication and relationship





Better Buildings Solution Center



Proven Solutions for:

- Large and small buildings
- All sectors
- Specific building types

Search by:

- Your energy efficiency barrier
- A technology or topic
- Your sector
- Your city or state

betterbuildingssolutioncenter.energy.gov





How Green Lease Leaders Drive Sustainability Success Through High-Performance Leasing

Alexandra Harry Institute for Market Transformation November 29, 2018



About the Institute for Market Transformation (IMT)

Mission

Catalyze widespread and sustained demand for high-performing buildings

Vision

A world in which buildings are efficiently and positively transforming our physical, social, and economic wellbeing



Recognizing Leaders in the Field Since 2014



GREEN LEASE LEADERS

CREATING SUSTAINABLE LANDLORD-TENANT RELATIONSHIPS

Since 2014, Green Lease Leaders has:

- Defined best practices in green leasing and addressed the "split incentive" barrier
- Recognized tenants, property owners, and brokers that represent 1.8 billion square feet of commercial, industrial, and retail space who meet the Green Lease Leaders standard



Recognizing Leaders in the Field Since 2014

- ✓ AEW Capital
- ✓ Akridge
- ✓ Allen Matkins
- √ Bentall Kennedy
- ✓ Boston Properties
- ✓ Brandywine Realty Trust
- ✓ Brixmor Property Group
- ✓ Bullitt Foundation
- ✓ Cadillac Fairview
- ✓ CommonWealth Partners
- ✓ California Department of General Services
- ✓ County of Cuyahoga, Ohio
- ✓ Capital One
- ✓ Deutsche Asset & Wealth Management
- ✓ Digital Realty
- ✓ Dropbox
- ✓ DTX
- ✓ Empire Realty Trust
- ✓ Federal Realty Investment Trust
- ✓ Forest City

- ✓ Government Properties Income Trust
- ✓ GSA
- ✓ GNP Realty Partners
- ✓ Green Coast Enterprises
- ✓ IREM
- ✓ Ivanhoe Cambridge
- ✓ Jamestown
- √ JGB Smith
- ✓ Kilroy Realty Corporation
- ✓ Kimco Realty
- ✓ LaSalle Investment Trust
- ✓ Liberty Property Trust
- ✓ Manulife | John Hancock
- ✓ Morgan Creek Ventures
- ✓ Natural Resources Defense Council
- ✓ NEO Realty Group LLC
- ✓ NIKA
- ✓ NGKF
- ✓ OPTrust
- ✓ Oxford Properties
- ✓ Prologis

- ✓ PGIM
- ✓ Principal
- ✓ PwC
- ✓ Regency Centers
- ✓ Rocky Mountain Institute
- ✓ Shorenstein Properties
- ✓ Sprint
- ✓ TD Bank
- ✓ TH Real Estate
- ✓ The Tower Companies
- ✓ Triovest
- ✓ Ulta Beauty
- ✓ Unico
- ✓ USAA Real Estate Company
- ✓ Washington REIT
- ✓ Weingarten Realty
- ✓ Welltower
- √ YuMe



2018's Green Lease Leaders



EN LEASE LEADERS

CREATING SUSTAINABLE LANDLORD-TENANT RELATIONSHIPS























































Green Lease Leaders Enhancements



- Alignment with ENERGY STAR Tenant Space
- Two levels of recognition:
 - Silver (foundation)
 - Gold (implementation)
- More flexibility with larger menu of credits
- Updated website, reference guides, and online lease assessment tool and applications



What are the Requirements?





- Silver (Foundation level)
 - Earn both prerequisites and at least 5 of 9 credits
 - Document standard (form), corporate policies, etc. meet credit requirements
 - Executed leases not required
- Gold (Implementation level)
 - Silver documentation PLUS
 - At least 1 executed lease
 - Brief case study



What are the Requirements for Tenants?

Prerequisites

- Provide sustainability/energy contact to landlord
- Require minimum energy efficient fit-out:
 - Estimate energy use
 - Meter tenant energy use
 - Light efficiently
 - Share utility data with landlord
 - Purchase efficient equipment

Credits

(Choose at least 5)

- Track tenant space energy use
- Track tenant space water use
- Request building ES score from landlord
- Ensure transaction management team receives energy training
- Implement tenant energy management best practices
- Purchase on-site renewables if offered by landlord and competitively priced
- Accept cost recovery for EE upgrades that benefit tenant
- Request building energy performance in Site Selection Questionnaire
- Demonstrate innovation in leasing



What are the Requirements for Landlords?

Prerequisites

- Provide/sustainability contact to tenants
- Implement cost recovery clause for energy efficiency upgrades benefiting tenant

Credits (Choose at least 5)

- Track common area energy use
- Track common area water use
- Disclose whole-building ENERGY STAR annually
- Ensure brokers have energy training
- Implement landlord energy management best practices
- Require tenants to purchase on-site renewables Meter tenant spaces that are greater than 5,000 square feet
- Request annual tenant energy disclosure
- Require minimum energy efficiency fitout for tenants
- Demonstrate innovation in leasing



Case Studies from Green Lease Leaders



The Tower
Companies –
Achieved the first
ever Fitwel
certification for a
multifamily building



Morgan Creek Ventures & Rocky Mountain Institute – Used the lease to maintain successful net-zero building operations



Kimco Realty
Corporation's used clauses that allow the company to submeter tenant spaces to drive efficient operations.





Learn More About the Requirements





- Overview of requirements
- Prerequisites
- Credits
- FAQs
- Helpful resources
- Example lease clauses and corporate guidelines



Learn More



www.greenleaselibrary.com

Green Lease Library



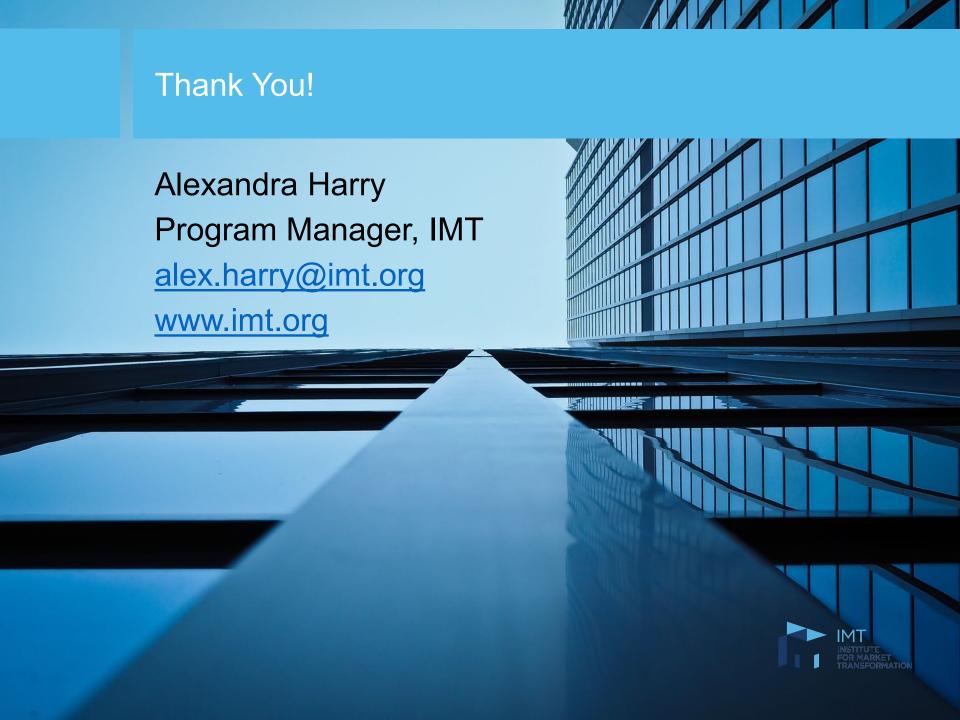


What's Next?



- Go the extra mile apply for Green Lease Leaders!
 - Applications Deadline by March 31, 2019
 - 2019 Leaders will be announced at the June BOMA convention in Salt Lake City
- Contact IMT for hands-on guidance at imtweb@imt.org







19 MILLION SF IN OPERATING ASSETS

19 MILLION SF
IN OUR DEVELOPMENT
PIPELINE

50+ YEARSOF EXPERIENCE

TRANSFORMING PROPERTIES INTO PLACES

We own, operate, develop, and/or invest in a portfolio of nearly 19 million square feet—with another 19 million square feet in our development pipeline—all concentrated in attractive submarkets in the Washington, DC region. Our creativity and scale enable us to be more than owners—we are placemakers who shape inspiring and engaging places, which we believe create value and have a positive impact in every community we touch.

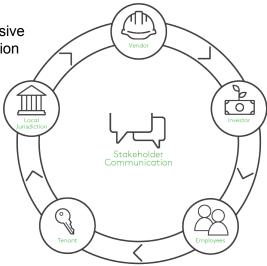




Environmental, social, and governance (ESG) issues are a priority for our stakeholders and can affect long-term performance of investment portfolios.

All local jurisdictions have set aggressive carbon reduction and climate adaptation goals and require ESG data to track performance.

Our tenants are responding to ESG trends and are looking to for support in achieving their goals and reporting standards.



By focusing on ESG issues that are important to the next generation of our workforce we can continue to attract top talent to our organization.

Incorporating ESG factors into the investment process can enhance risk-adjusted financial performance. Business-relevant sustainability issues can contribute to a company's sustainable long-term financial performance.

BLACKROCK

"Your company's strategy must articulate a path to achieve financial performance. To sustain that performance, however, you must also understand the societal impact of your business as well as the ways that broad, structural trends—from slow wage growth to rising automation to climate change—affect your potential for growth."

- Larry Fink, BlackRock, Annual Letter to CEOs, January 2018



Local jurisdictions have long-term plans for carbon reduction and climate adaptation and want to partner with building owners and developers to meet climate goals.



ADAPT TO CLIMATE CHANGE
CLIMATE READY BUILDINGS

CUT ENERGY USE 50%

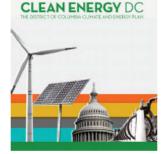
50% RENEWABLE ENERGY

NET ZERO NEW BUILDINGS

NET ZERO RETROFITS

CUT GHG EMISSIONS 50%





Arlington County is the first community in the country to win a top award for its environmentally-friendly policies from the U.S. Green Building Council.





Institutional investors have made commitments to consider ESG data in their investment process and interest in ESG growing steadily over the past decade.



PRI signatories, which represent over \$80 trillion assets under management, have committed to incorporating ESG in their investment decisions.



GRESB Investor Members represent \$17 trillion in institutional capital, with 94% stating that they use results in their investment decisions.

































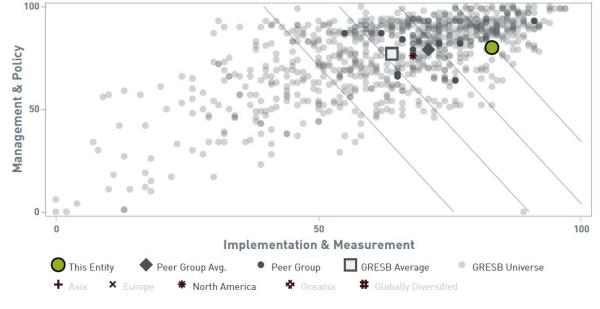






The results of our first year submission to the GRESB assessment demonstrates strong management and performance in ESG factors.







Investors are looking for clearly communicated, standard ESG data disclosures.



The Sustainability Accounting Standards Board (SASB) is the continuation of a natural evolution of corporate disclosure—the history of which is rooted in the U.S. Securities Acts of the 1930s, establishment of the SEC in 1934 and the formation of the Financial Accounting Standards Board (FASB) in 1973.

SASB has developed industry-specific standards that help public corporations disclose material, decision-useful sustainability information to investors.

Real Estate Industry Sustainability Topics

- Energy Management
- Water Management
- Management of Tenant Sustainability Impacts
- Climate Change Adaptation

Sustainability Disclosure Topics & Accounting Metrics

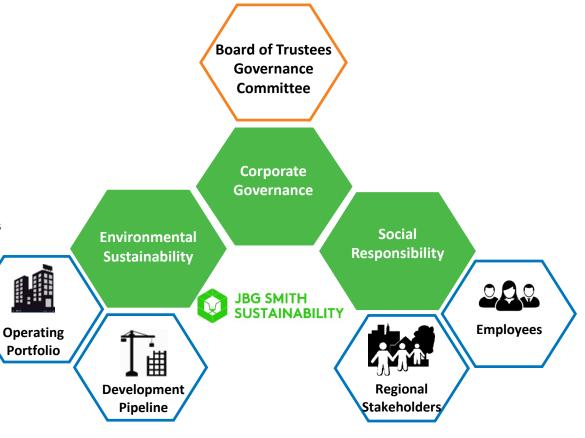
- Percentage of new leases that contain a cost recovery clause for resource efficiency related capital improvements
- Percentage of tenants that are separately metered or submetered for (1) grid electricity consumption and (2) water
- Discussion of approach to measuring, incentivizing, and improving sustainability impacts of tenants



A key aspect of strong ESG Management is top-down leadership and integration of ESG considerations into our standard investment process.



- The structure demonstrates ESG oversight at the top levels of the organization.
- Members of the Steering Committees include Investment & Design Review Committee as well as corporate leadership.
- Asset teams are ultimately responsible for integration of ESG issues asset business plans and standard business practices.
- The Sustainability team is responsible for:
 - · monitoring industry trends
 - · recommending strategy
 - working with asset teams to implement approved strategies
 - monitoring and reporting on performance





Certifications & Energy Ratings

LEED New Construction

1.7MM Square Feet Certified LEED for Existing
Buildings: Operations &
Maintenance

7.5MM Square Feet Certified **ENERGY STAR**

10.7MM Square Feet Certified **Green Certifed**

72%

of portfolio has either LEED or ENERGY STAR (many with both!)





Green Leasing Playbook

The leasing and tenant improvement process offer an opportunity to impact the performance of the asset. By engaging tenants early in the leasing process about sustainable business practices to incorporate in their space aligns landlord and tenant economic, environmental, and social goals.

The Green Leasing Playbook provides guidance on green leasing objectives aligned with the existing leasing process:

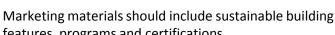


Online Data

CoStar data and property websites should include sustainability features, programs and certifications.



Lease **Negotiations**



JBG SMITH standard lease includes key green-leasing clauses. Ensure tenants understand these mutually beneficial lease clauses.

Included in the lease are JBG SMITH building rules and regulations include requirements for sustainable building materials and construction practices.



features, programs and certifications.



Prior to conducting a test-fit provide tenant with Sustainable Fit-out Guidelines. TI allowance should consider LL & TT efficiency goals.



JBG SMITH or 3rd party construction management teams should meet with engineering staff to review lease requirements, approve space design, and discuss opportunities to improve building performance. (Additional costs may be funded by efficiency capital).



Identify key building attributes and green certification goals. If tenant intends to pursue certification, discuss requirements with sustainability and Property Management team prior to signing the lease to understand associated costs.



Property Management and Engineering teams begin engaging tenant during the buildout. During initial meetings review building sustainability programs.



Green Leasing Resources

Sustainable Building Key Features

LEED & ENERGY STAR
Certification status

Transit, Walk, Bike Score

Amenities & Services (recycling, green cleaning, bike storage)

Used during early discussions/ tours

Tenant Fit-Out & Leasing Guide

Provides recommendations to encourage our tenants to

Incorporate sustainability strategies.

Used during Test Fit, LOI, Lease Negations and Tenant Improvement Design and Construction

Tenant Fitwel Guide

Provides information on health and wellness strategies.

JBGSgreen.com

Tenant engagement site focused on providing tools and resources to tenants wishing to incorporate sustainability in the design and operations of their space.



BUILDING NAME OR LOGO



Targeting **LEED Gold** Certification (currently under review)





ENERGY STAR certified with a score of 84.

THE BENEFITS OF A SUSTAINABLE BUILDING:



IMPROVED PRODUCTIVITY



BETTER RECRUITMENT AND RETENTION









State of the art tenant service center, monitoring building equipment operations round the clock.



Green cleaning program designed to protect health without hurting the environment.



Comprehensive waste management program tracking diversion metrics.



Tenant engagement programs providing tools and resources for sustainable operations.



Access to electric vehicle charging stations in the parking garage.



JBG SMITH has committed to reducing energy use intensity (EUI) by 20% by 2024 as part of the DOE Better Buildings Challenge.



JBG SMITH employees hold green accreditations providing expertise in sustainable real estate practices.



JBG SMITH is a Green Lease Leader





PLANNING TIMELINE

As you move toward key milestones during the completion of your fit-out, keep the design considerations listed below in mind. Create a checklist for these sustainability strategies as early on as possible and revisit them periodically during the process. Increase transparency by sharing the design strategies you want to execute with all stakeholders, which include; landlord, architect, general contractor, and employees, to yield the best results.



- Plumbing Fixtures
- Base Building Lighting
- Air Filtration
- Base Building HVAC
- Sub-metering



- Server Optmization and Cloud Computing
- Supplemental Lighting
- Lighting Controls
- Daylighting
- Materials Selection
- ENERGY STAR Equipment
- Water Filtration
- Thermal Controls Office Layout
- Acoustical Design
- Construction Waste
- Management
- Furniture Re-Use

- Construction Indoor Air Quality
- **Best Practices** MERV 13 Filters



Commissioning

ENERGY MANAGEMENT

As a tenant, you have the ability to control energy end uses through effective energy efficiency tactics.

ENERGY MANAGEMENT STRATEGIES HVAC & EQUIPMENT



SPACE SELECTION/LEASE NEGOTIATION

Develop an energy-aligned lease that encourages your landlord to charge you based in part or in whole on your space's electrical usage versus a pro-rata share. Work with your landlord to install a sub-metering system to verify your billing rate.



DESIGN PHASE/TEST-FITS

Avoid the use of chlorofluorocarbons (CFCs) and hydro-chlorofluorocarbons (HCFCs)based refrigerants in your supplemental AC units with your contractor. These refrigerants are major contributors to ozone depletion.

Specify the use of ENERGY STAR products to efficiently meet your office space's needs for IT equipment, lighting, appliances, and supplemental HVAC equipment. These products are designed to limit energy use. DCSEU rebates are available for some appliances and equipment.

Consider moving your company's server to the cloud. Server rooms and IT closets, which often require an uninterrupted power supply and dedicated cooling, are major energy users. Discuss this opportunity with your IT professional.



POST-CONSTRUCTION/MOVE-IN

Engage a commissioning agent to verify that newly-installed mechanical, electrical, and plumbing systems will meet the design's energy goals. By properly commissioning systems from the onset, you can prevent repair fees over the system's lifetime.







Join the Healthy Building Movement

JBG SMITH will support tenants achieve Fitwel Workplace: Commercial Interior Space certification under the Fitwel rating systems. JBG SMITH is committed to evaluating full-building certification in buildings with tenants pursuing the Commercial Interior Office Space certification. By incorporating these wellness focused design and operations strategies our tenants will experience all the benefits of operating in a healthier buildings.

Each of the Fitwel Health Impact categories contribute to occupant health and wellbeing and help to reduce absenteeism and turn over and improve productivity and employee retention.

Wellness Design Considerations

- Provide workstations that have natural daylight in a majority of the workplace.
- Provide views of nature² or a direct lines of sight to greenery inside of the building from a majority of workstations.
- Provide employees with access to active workstations and provide educational material outlining the workplace health benefits of active workstations (provided by JBG SMITH)
- Provide a break area(s) featuring: seating, refrigerator, microwave, and INSTILLS FEELINGS OF sink. WELL-BEING
- Provide one dedicated lactation room or station for every 200 regular occupants, up to a maximum of four and a minimum of one.
- Specify non-emitting or low-VOC materials.

PROVIDES HEALTHY **FOOD OPTIONS**





IMPACTS COMMUNITY



REDUCES MORRIDITY + ARSENTERISM





SUPPORTS SOCIAL EQUALITY FOR VULNERABLE

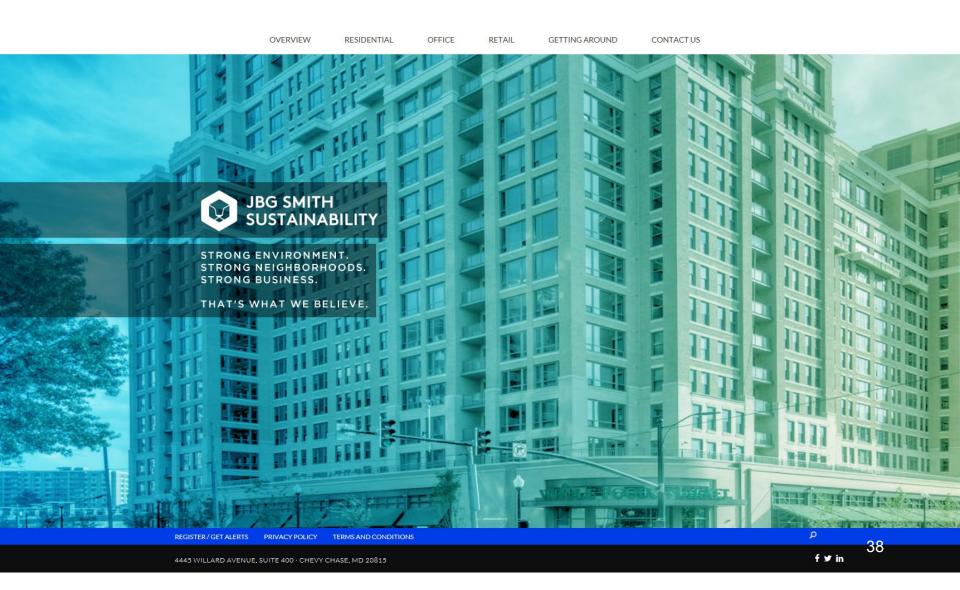




INCREASES PHYSICAL

OCCUPANT







Why Care?

Why should our tenants care about Sustainability?



Happier Occupants - Green buildings are designed to have healthier, cleaner indoor environmental quality, which means health benefits for occupants and increased employee productivity.



Community Benefits - Creating economically and environmentally resilient places, where people live, work and play promotes strong neighborhood connections, that not just for building users, but for the larger community.



Lower Operating Costs - Green buildings cost less to operate and maintain. By benchmarking and proactively managing energy and water use we save money for our tenants and residents.



Environmental Responsibility - Reducing energy consumption is not just for operating cost impacts, but also offers a direct reduction in an organization's "carbon footprint."



Office

Going Green @ the Office

Energy Materials

Water

Waste

Health & Wellness

Sustainable Leasing & Tenant Fit

Out Guide

Tenant Service Center

Going Green @ the Office

JBG SMITH is committed to reducing the consumption of natural resources and raising awareness of conservation strategies that building occupants can employ in day to day activities. By focusing on operational efficiency and responsible management we can protect the environment while providing vibrant, healthy workplaces that produce engaged and productive employees.



JBG SMITH

Jessica Long Director of Sustainability jlong@jbgsmith.com

WE ARE A 2018 GREEN LEASE LEADER

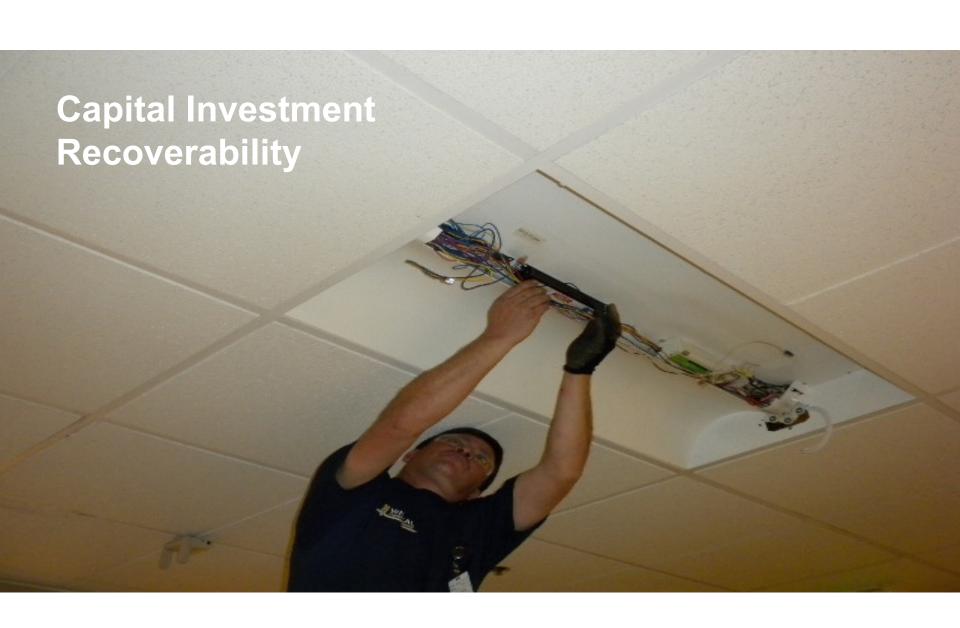




#GREENLEASELEADERS

SAVING ENERGY AND IMPROVING BUILDING PERFORMANCE, ONE LEASE AT A TIME.

LEARN MORE AT GREENLEASELEADERS.COM





100 Hooper Street

DESIGN STANDARD & BUILDING STANDARD TENANT IMPROVEMENT SPECIFICATIONS

INTRODUCTION

Kilroy Realty Corporation has had a strong commitment to sustainability over the past six decades. These building standards are designed to maintain the level of quality and sustainability expected of our Class A properties, and to help our tenants achieve their own environmental goals.

Many of the requirements and suggestions in these standards are based on the LEED for Commercial Interiors v2009 rating system; tenants are encouraged to pursue LEED for Commercial Interiors certification in either LEED v2009 or LEED v4 for their improvements.

This section addresses aspects of a project that are not expressly addressed in the Standards section that follows it. The purpose of these design criteria is to maximize the energy efficiency, materials use, and indoor environmental quality of the completed Class A tenant improvements.

Projects must implement the required prescriptive energy efficiency measures found throughout this document. If the tenant chooses, they may instead produce an energy model demonstrating that the project achieves an overall energy reduction of 10% or more below the requirements of Title 24-2014.

METERING AND SUBMETERING

- 1. Tenant is required to install submetering equipment to measure and record energy use within the
- 2. Tenant is encouraged to develop and implement a measurement and verification (M&V) plan that incorporates the monitoring information from the above end uses and is consistent with Option B, C or D of the 2001 International Performance Measurement & Verification Protocol (IPMVP) Volume I: Concepts and Options for Determining Energy and Water Savings.
- 3. Tenant is encouraged to provide a process for corrective action if the results of the M&V plan indicate that energy savings are not being achieved.

Tenant shall install web-enabled wireless water leak sensor devices designed to alert the Tenant on a twentyfour (24) hour seven (7) day per week basis if a water leak is occurring in the Premises. The Water Sensors shall be installed in any areas in the Premises where water is utilized (such as sinks, pipes, faucets, water heaters, coffee machines, ice machines, water dispensers and water fountains), and in locations that may be designated from time to time by Landlord.

800W, UL 924, ECD00-200

LL OUTLET

n Grade, Leviton 15A, 125V, Decora.

ertically

ht at 18" above finish floor to centerline of outlet U.O.N

the requirements of title 24 which mandates that certain convenience outlets must be by motion sensor and labeled clearly

LL OUTLET

wall - mounted vertically. onduit stub to ceiling and wiring by Tenant's telephone vendor.

CORRIDORS

wall - mounted vertically, fire rated assembly may be required. tem and cabling by tenant's security system vendor. white on white/light colored walls, black on dark colored walls. security card readers as follows:

Keypad - HID iCLASS SE, RPK 40

Mullion - HID iCLASS SE, RP15

Wall - HID iCLASS SE. RP40



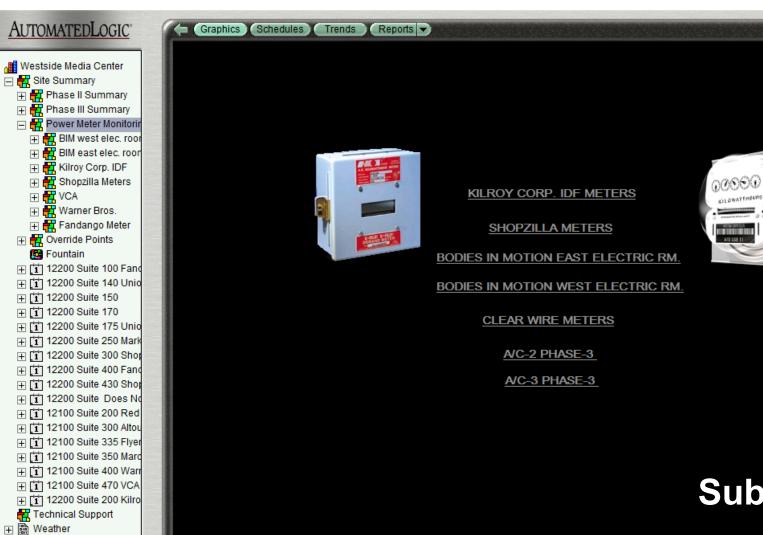
100 Hooper | September 2016

 Tenant shall install ENERGY STAR® qualified equipment for ENERGY STAR® eligible equipment installed as part of the tenant's scope of work. Includes appliances, office equipment, electronics, and commercial food service equipment

KILROY

100 Hooper | September 2016 Page 12 of 19

Building Standards

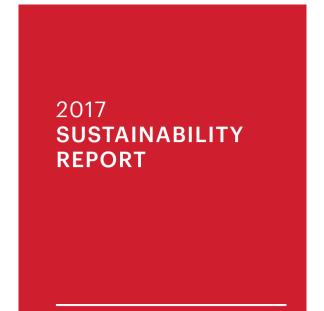


Submetering

●●● ●



Utility Consumption Disclosure



@KILROYGREEN

KILROY













Contact Information



Brokers for Better Buildings: Marc Spellman & @daltonsaber31 @CBRE helped us sign 6 green leasing deals totaling approximately 26,000 RSF at #LEED Gold & @ENERGYSTAR certified Calabasas Park Centre so far this year. @cbregreen @IMT_speaks



10:42 AM - 20 Jun 2018





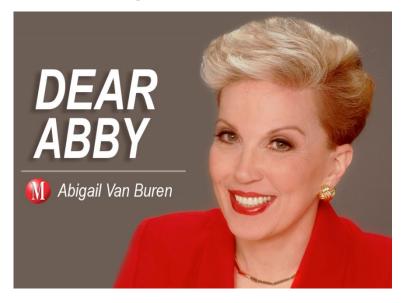
Brokers for Better Buildings: Nicole Mihalka @JLL has helped execute 50+ deals and counting in our #LEED Gold & @ENERGYSTAR Sunset Media Center #Hollywood bldg @IMT_speaks @USGBC







Advice on Green Leasing



- Benchmarking ordinances help engage legal
- Don't reinvent the wheel
- Get a green lease template
- Add a few softballs
- Green up your Building Standards
- Proactively engage brokers
- Prepare for pushback
- Apply for recognition!