

# Sustainability Work Template

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# USING THIS TEMPLATE TO SUPPORT THE MASTER PLAN GOALS

The Master Plan’s goals of ensuring long term financial sustainability, increasing local patronage, and advancing a diverse, equitable and inclusive Market are reinforced through the holistic integration and specific strategies of sustainable actions focused on food, energy and resilience, materials and resources, and health and wellbeing.

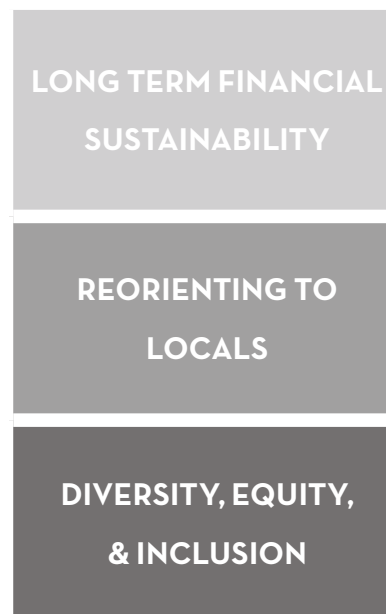
**Long term financial sustainability:** Increased financial sustainability can be supported through investing in buildings, spaces, and utilities that are more resilient and adaptable to changing conditions – as primarily described in the Energy and Resilience and Materials and Resources focus areas. Sustainable physical and environmentally sensitive solutions are more adaptable to shocks and stressors due to climate change.

When viewed through life-cycle cost lens, these investments can “flatten” spikes of unexpected costs and recover sometimes higher up-front costs. While more study regarding specific approaches appropriate to the Market is needed, we expect that these savings and benefits can support the Market’s overall financial sustainability, and can be passed on to business owners in the form of more stable and predictable utility costs, business incubation support, improved tenant spaces, and active, vital public spaces that meet changing needs.

**Reorienting to locals:** Seattle has a reputation as a “green” city with a strong local culture of sustainability and action to respond to climate change. The Market embodies a deep understanding of the connection between local sourcing of food and materials, local production, and sustainability. The Market can continue to build on this reputation for local sourcing through a variety of actions identified across all four focus areas such as recognizing the urban-rural connection through certification programs, prioritizing and recognizing vendors that reinforce the circular economy, or participating in zero waste programs. By acting as a leader in sustainability, the Market can reinforce its alignment with Seattle’s values and reattract locals.

**Diversity, equity, and inclusion:** These focus areas will also advance a diverse, equitable, and inclusive Market – particularly in the wellbeing focus area which highlights the ways “belonging” is experienced and can intentionally be reinforced in the Market community. The effects of climate change disproportionately impact disadvantaged groups. By embracing more environmentally sustainable practices, the Market can support greater environmental equity.

## MASTER PLAN GOALS



## SUSTAINABILITY WORK TEMPLATE FOCUS AREAS



# GUIDE TO THE ACTION MATRIX

The Sustainability Work Template includes four focus areas supported by an action matrix that lists strategies, actions, and tactics/next steps. The action matrix also includes potential partners and types of tactics, which are described on the next page. This Sustainability Work Template is a road map tool, not an implementation plan. It recommends key steps to take that will lead to more detailed information we will use for prioritization of and decision-making about investments to make the Market more sustainable.

## TYPES OF PARTNERS

The icons below identify who could be involved in the strategies and actions in this Work Template.

### PARTNERS



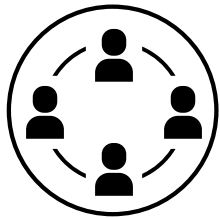
- Community Members
- Pike Place Market Historical Commission (MHC)
- City of Seattle, King County, Seattle Public Utilities, and other government agencies
- Food & community focused for-profit companies
- Community based organizations

### MANAGEMENT & OPERATIONS



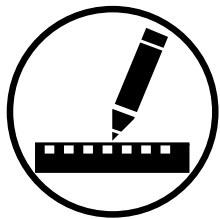
- Pike Place Market Preservation & Development Authority (PDA)
- Government agencies that regulate housing at the city, state and federal level
- Other developers and property owners within or adjacent to the district

### PROGRAMS & COMMUNITY INITIATIVES



- Pike Place Market Foundation
- Craft affiliated organizations
- Community supported agriculture
- Food assistance programs
- Farmers market affiliated organizations

### CONSULTANTS & DESIGNERS



- Energy auditors
- Commissioning agents
- Architects, engineers, landscape architects, and urban designers
- Contractors
- Other contracted professional services

The Sustainability Work Template is a living document intended to provide flexibility over time as new technologies, strategies, advancements, and challenges emerge. It is a document that will require regular updates to chart progress on strategies and actions, and should be updated every five to seven years.

## TYPES OF TACTICS

This column in the matrix on the following pages categorizes each tactic by the following categories:

**BENCHMARKING** Benchmarking is the practice of comparing the measured performance of a device, process, facility, or organization to itself, its peers, or established standard or norms, with the goal of establishing a baseline to measure progress against.

**COMMUNICATIONS** This includes formal and informal media and communication within the Market and externally with stakeholders, customers, and community. The Market manages a robust website; additional formats include permanently installed signage, QR codes, digital dashboards, social media, and newsletters or annual reports.

**DESIGN & CONSTRUCTION** Preparing and implementing physical investments, capital improvements, or modifications to the built environment. From ongoing maintenance and repair projects to tenant improvements and renovations recommended in the Master Plan, nearly all present opportunities to incorporate more sustainable choices.

**EVALUATION** Assessments or acts resulting in the determination of value, nature, character, condition, or quality. This could include energy audits, waste stream audits, life-cycle analyses, triple-bottom line studies, retro commissioning, etc.

**EVENTS & PROGRAMMING** Leveraging existing events and programming and considering new programs will be a key tactic in implementing sustainability strategies.

**OPERATIONAL POLICY** Sustainability strategies may require modifications or additions to our framework for day-to-day decision-making, guidelines, procedures, and protocols to ensure consistency and efficiency in achieving goals.

**OWNER PROJECT REQUIREMENTS (OPR)** A document that contains a high-level outline of the goals and requirements deemed by the owner to be important for the success of design and construction projects. Typically, owners create a template or baseline OPR document with standards, targets, and performance specifications which provide guidance to architects, engineers, and contractors at the start of a capital improvement project and ensure sustainability goals are incorporated.

**PARTNERSHIP OUTREACH** Determining a plan, approach, and implementation to build and maintain relationships with affiliated groups to achieve the goals of the Master Plan. Quite a high number of strategies involve partnerships with affiliated groups. As such, a first step for many strategies will be outreach.

**SURVEY** A component of Evaluations and Benchmarking and to gather data from key constituents, stakeholders or organizations.

# FOOD



CONSULTANTS & DESIGNERS



PROGRAMS & COMMUNITY INITIATIVES



MANAGEMENT & OPERATIONS



PARTNERS

**Support sustainable food and farming practices and continue to elevate the diverse and historic culture of food in the Pacific Northwest.**

## **WHY THIS MATTERS TO THE MARKET:**

As part of embracing Pacific Northwest Food Life, expanding on the Market's longtime role of providing access to healthy locally-sourced food is central. The Market can support equitable and sustainable farming practices in the region and Pacific Northwest. We can select and/or prioritize farm and food businesses that source local products and ingredients. These actions demonstrate a substantive response to the climate crisis and bring meaning to an authentic Pacific Northwest Food Life experience.

## **KEY STRATEGIES**

- Select and prioritize farm and food businesses that source local products and ingredients.
- Support preserving and reinforcing equitable and sustainable farming practices in the Pacific Northwest.
- Work towards zero food waste and net zero carbon emissions among producers and vendors.

## FOOD STRATEGY 1

### SELECT AND PRIORITIZE FOOD BUSINESSES THAT SOURCE LOCAL PRODUCTS AND INGREDIENTS.

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.






| ACTIONS   |  | TACTICS/ NEXT STEPS  | PARTNERS         | TYPE                          | IMPACT | EFFORT | NOTES  |
|---|--|--|------------------|-------------------------------|--------|--------|--|
| F1A: Expand the “Meet the Producer” philosophy with an increased focus on farmers who have earned sustainability certifications or practice innovative land stewardship.            |  | Identify producers who have a sustainability story to tell or have achieved/are pursuing third party sustainability certification and invite their participation and provide support.  | Internal Program | Events & Programming          |        |        |  |
|   |  | Consider how prioritizing Meet the Producer (including craftspeople and food product makers) can be integrated with in-person programming and the Market experience, especially for residents within a mile walk of the Market.            | Internal Program | Events & Programming          |        |        |  |
| F1B: Encourage existing farm and food businesses to source products and ingredients locally and regionally.   |  | Merchants, vendors, and tenants to conduct a baseline survey of where they currently source ingredients (within or outside of 300-mile radius).  | Internal Program | Partnership Outreach / Survey |        |        | Target to consider: By 2034, 75% of existing farm and food businesses source at least 50% of products and ingredients locally and regionally within 300 miles of the Market.                                     |
|   |  | Conduct a bi-annual survey of merchants, vendors, and tenants to identify where they source ingredients (within or outside of 300-mile radius).  | Internal Program | Partnership Outreach / Survey |        |        |  |
| F1C: Prioritize selection of new tenants who source local products and ingredients and/ or include local workforce, hiring or regenerative practices that support circular economy. |  | During lease up, request survey response from prospective vendors and tenants on where they currently source products, ingredients, and hiring practices. Accompany with communications about the benefits of supporting circular economy. | Internal Program | Survey / Benchmarking         |        |        | Target to consider: By 2034, 100% of the new tenants source a majority of their products and ingredients locally and/or include local workforce, hiring or regenerative practices that support circular economy. |



## FOOD STRATEGY 2

### SUPPORT PRESERVING AND REINFORCING EQUITABLE AND SUSTAINABLE FARMING PRACTICES IN THE PACIFIC NORTHWEST.

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| ACTIONS   | TACTICS/ NEXT STEPS  | PARTNERS  | TYPE                                      | IMPACT | EFFORT | NOTES   |
|---|--|---|---|--------|--------|---|
| F2A: Support the intersection of urban-rural sustainable food economies by participation in sustainable certification programs that support equitable and sustainable farming practices.      |  Request and encourage sellers, vendors and farmers to sign onto a pledge, such as the CUESA Seller Pledge, a 15-point sustainability program that supports worker welfare, biodiversity, water conservation, reduce food waste, animal welfare and foodwise kids' program. | CUESA: Center for Urban Education about Sustainable Agriculture | Events & Programming / Operational Policy |        |        |   |
|   |  Identify incentives for obtaining certifications such as B-Corp, SalmonSafe or Certified Organic.  |   | Operational Policy                        |        |        |   |
|   | Communicate the benefits of this target and these incentives to current and prospective tenants.   |   | Communications                            |        |        |   |
| F2B: Be an active partner to Indigenous and Tribal communities to support Indigenous food sovereignty - the ability to grow, eat and share food according to their own traditions and values. |  Read and apply the "Beyond Land Acknowledgement" Toolkit.  | Internal Program & Food Bank                                    | Events & Programming                      |        |        | Develop a description of the Market's partnerships with Tribal communities to uplift indigenous food sovereignty in the region. |
|   |  Identify Native led organizations focused on food sovereignty that operate in the area and begin outreach process.   |   | Events & Programming                      |        |        |   |
|   |  Consider what the Market might offer: traditional native food production and vendor space, convenings for Indigenous land management practices, co-sponsor an annual Indigenous Food Sovereignty gathering and festival, etc.  |   | Events & Programming                      |        |        |   |



FOOD STRATEGY 3

WORK TOWARDS ZERO FOOD WASTE AND NET ZERO CARBON EMISSIONS AMONG PRODUCERS AND VENDORS.

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| ACTIONS  | TACTICS/ NEXT STEPS   | PARTNERS   | TYPE               | IMPACT | EFFORT | NOTES   |
|--|---|------------|--------------------|--------|--------|---|
| F3A: Develop a zero-waste and net zero carbon emissions plan.  |  Establish Market-wide policy to mandate biodegradable packaging for producers and merchants' inventory and back of house operations.  | Consultant | Operational Policy |        |        | Consider target goal of 2034 for zero-waste and 2040 for net zero carbon emissions. |
|  |  Enhance Market-wide policy to compost post-consumer food waste, divert pre-consumer excess food, clippings, and by-products from the waste stream through partnerships.   |            | Operational Policy |        |        |   |
|  |  Build on existing partnerships and align with Seattle Public Utility's zero-waste program to foster education, programming, and training for staff and customers around food waste diversion at Market dining venues. |            | Communications     |        |        |   |
| F3B: Adopt green purchasing guidelines to help buyers understand the environmental criteria to consider when making purchases. |  Hire a consultant who specializes in green / sustainable purchasing and procurement standards to advise on a Market specific policy.  | Consultant | Operational Policy |        |        |   |
|  |  Develop and adopt sustainable purchasing program standard that promotes environmental preferred purchasing (EPP); offer this standard as a template for merchants, vendors, and tenants to adopt.                     |            | Operational Policy |        |        |   |



# FOOD

Support sustainable food and farming practices and continue to elevate the diverse and historic culture of food in the Pacific Northwest.

## MULTIBENEFITS OF THESE STRATEGIES:

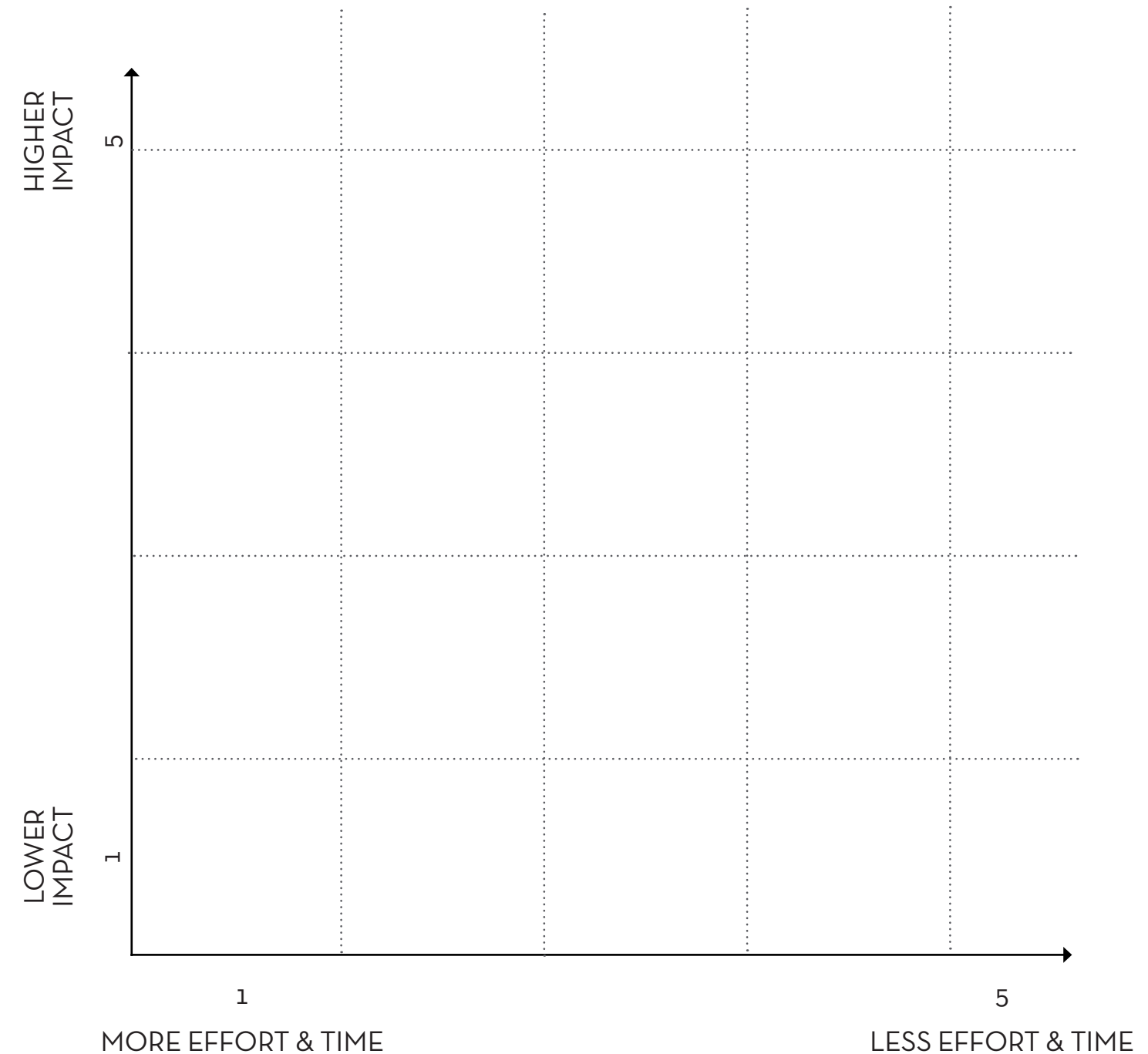
- Reinforce the identity of the Market as a Pacific Northwest Food Life destination.
- Promote community wellbeing through access to affordable, healthy food.
- Build relationship between local farmers and merchants which attracts more local interest in products and producers.
- Demonstrate leadership in decarbonization by minimizing or eliminating food waste.

**“Locals should always be able to get groceries in the Market”**

Source: Eco-Charette

**“We should partner with organizations that support and prioritize farmers doing sustainable ag.”**

Source: Eco-Charette



NOTE: THIS CHART IS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

# ENERGY & RESILIENCE



CONSULTANTS &  
DESIGNERS



PROGRAMS &  
COMMUNITY  
INITIATIVES



MANAGEMENT  
& OPERATIONS



PARTNERS

**Achieve low-carbon, efficient operations while improving human comfort and resiliency.**

## WHY THIS MATTERS TO THE MARKET

The Market has a long history of innovation, testing ideas, and inspiring others. In partnership with the Market Historical Commission, we have an opportunity to become a model for sustainable historic preservation by demonstrating best practices for adaptive reuse of historic buildings in the context of changing energy codes and climate adaptation. Reducing carbon consumption can be accomplished by minimizing how much energy is needed and maximizing conservation of energy. Priorities can be established by starting with a comprehensive energy audit of all PDA-owned buildings. Energy requirements will continue to increase in part due to the climate crisis. To be responsive we can consider technologies that adapt the Market's physical plant at different scales. We can also plan and design for emergencies and vulnerabilities associated with the long-term effects of climate change impacts.

## KEY STRATEGIES

- Meet energy benchmarking and reporting requirements per the City and State Building Energy Performance Standards (BEPS) mandates.
- Reduce energy use by minimizing demand and maximizing conservation, optimizing physical plant performance at all scales.
- Maximize human comfort in living and working spaces while using extremely little energy.
- Plan and design for emergencies and for vulnerabilities associated with the long-term effects of the climate crisis.







# ENERGY & RESILIENCE STRATEGY

## 1

### MEET ENERGY BENCHMARKING AND REPORTING REQUIREMENTS PER THE CITY AND STATE BUILDING ENERGY PERFORMANCE STANDARDS (BEPS) MANDATES.

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

| ACTIONS   |   | TACTICS/ NEXT STEPS:   | PARTNERS   | TYPE                              | IMPACT | EFFORT | NOTES  |
|---|---|--|--|-----------------------------------|--------|--------|--|
| ER1A: Further assess State of Washington and Seattle Building Emissions Performance Standards (BEPS) reductions and target dates. |    | Meet with representatives from government agencies to confirm the target dates, required reductions and pathways to compliance, including detailed information on 'hardship' alternative compliance. | Government agencies                                  | Partnership Outreach / Evaluation |        |        | Initiate conversations and outreach to comply with forthcoming mandatory measures. |
|   | <br> | Work in conjunction with the Market Historical Commission to draft a proposal to regulatory agencies that balances historic building restrictions with energy performance targets.                   | Government agencies and Market Historical Commission | Operational Policy                |        |        | Continue participation in the Seattle Clean Buildings Accelerator Workshops        |
| ER1B: Begin reporting to State of Washington and Seattle Building Emissions Performance Standards.                                |    | Steps to report will be provided by regulatory body.   |  | Benchmarking                      |        |        | Begin reporting to the State of Washington in 2027. Mandatory measure.             |
|   |   | Steps to report will be provided by regulatory body.   |  | Benchmarking                      |        |        | Begin reporting to the City of Seattle in 2030. Mandatory measure.                 |

# ENERGY & RESILIENCE STRATEGY

## 1

MEET ENERGY BENCHMARKING AND REPORTING REQUIREMENTS PER THE CITY AND STATE BUILDING ENERGY PERFORMANCE STANDARDS (BEPS) MANDATES.

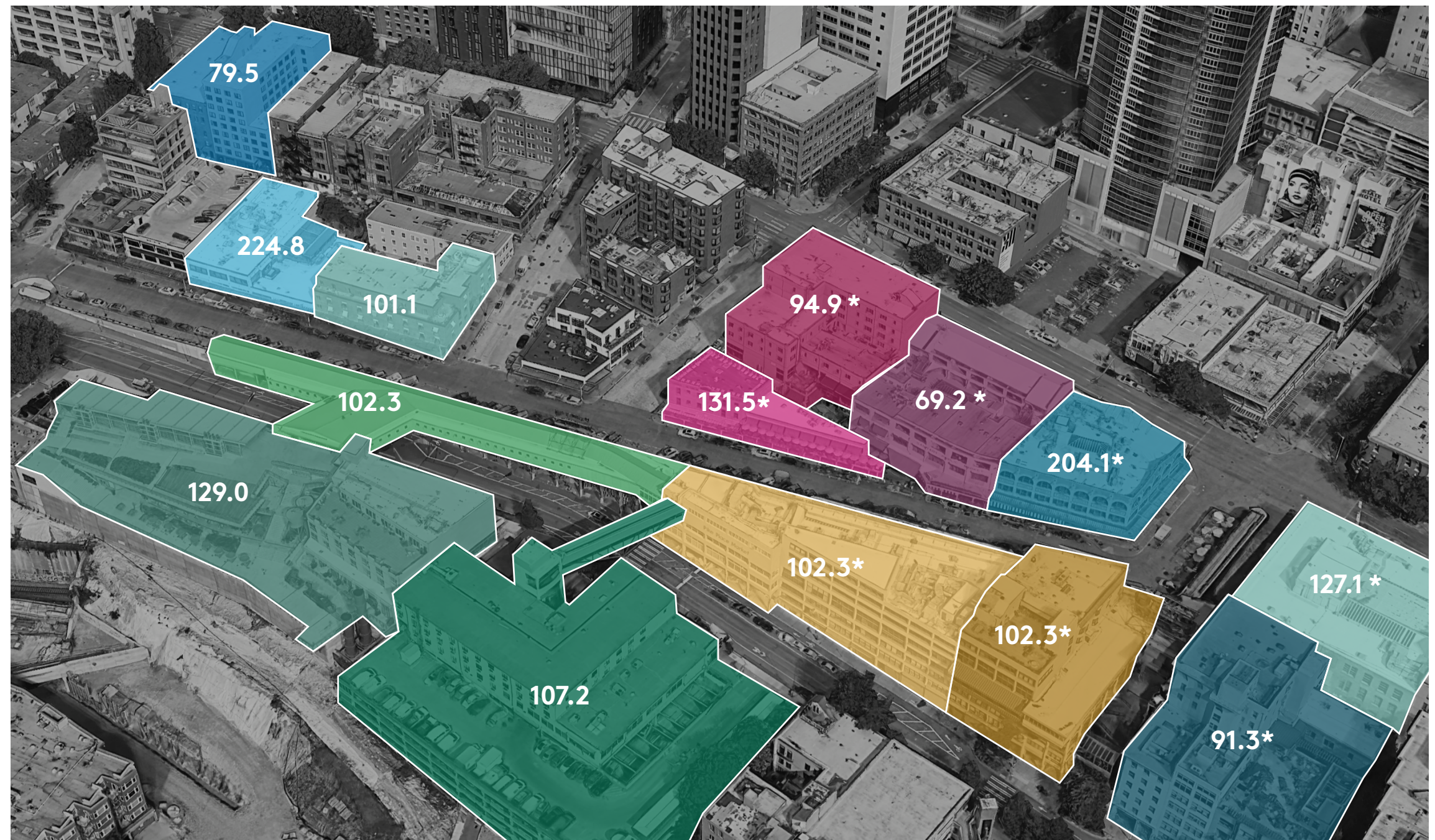
CURRENT MEASURED EUI (ENERGY USE INTENSITY)

SITE EUI = KBTU / SQUARE FOOT / YEAR  
KBTU (ONE-THOUSAND BRITISH THERMAL UNITS)

- LIVINGSTON/BAKER BUILDING
- SOAMES/DUNN BUILDING
- STEWART HOUSE
- NORTH ARCADE
- PUBLIC MARKET PARKING GARAGE
- TRIANGLE MARKET
- FIRST AND PINE BUILDING
- SANITARY MARKET
- FAIRLEY BUILDING
- LELAND BUILDING
- CORNER MARKET
- LASALLE BUILDING
- ECONOMY MARKET
- MARKETFRONT

\* = ALREADY MEETS WA CLEAN BUILDINGS ACT TARGETS

NO BUILDINGS MEET SEATTLE BEPS REQUIREMENTS AS EMISSION RATES ARE CURRENTLY REPORTED IN ENERGY STAR.



NOTE: THIS IS A PRELIMINARY ASSESSMENT BASED UPON AN INITIAL REVIEW OF CARBON EMISSION REDUCTION STANDARDS. OWNER SHOULD MEET WITH GOVERNMENT AGENCY DEPARTMENTS TO CONFIRM TARGET DATES, REDUCTIONS, PATHWAYS TO COMPLIANCE AND LEARN ABOUT INCENTIVES AND PROGRAMS TO ASSIST WITH COMPLIANCE. ALL NUMBERS ARE BASED UPON 2023 METERED ENERGY DATA.

# ENERGY & RESILIENCE STRATEGY

## 1

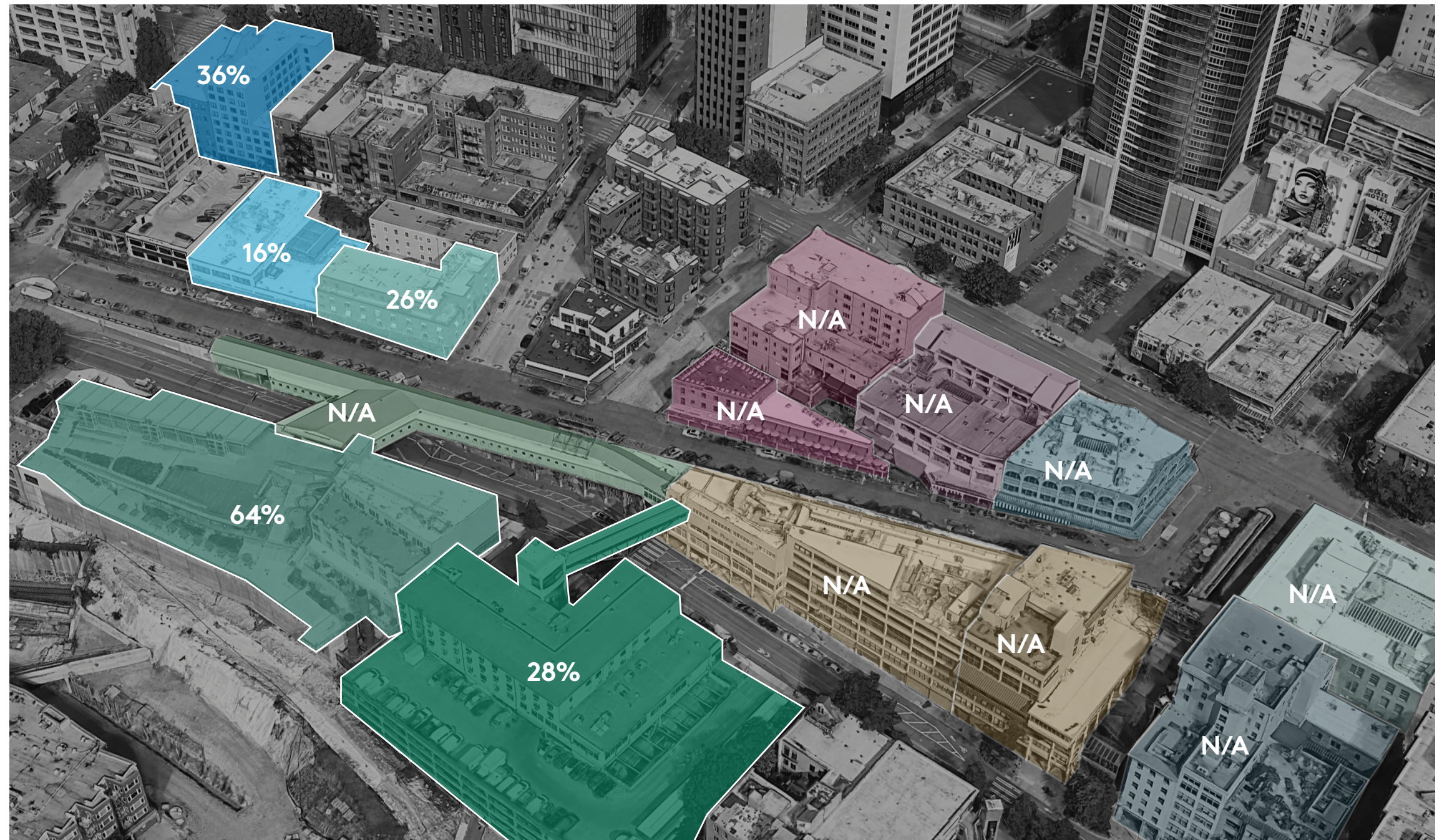
### MEET ENERGY BENCHMARKING AND REPORTING REQUIREMENTS PER THE CITY AND STATE BUILDING ENERGY PERFORMANCE STANDARDS (BEPS) MANDATES.

The Building Emissions Performance Standard for the State of Washington is under the Clean Buildings Act legislation, which looks at Site EUI, and takes into account source energy carbon emissions.

#### SITE EUI % REDUCTION REQUIRED FOR WA STATE CLEAN BUILDINGS ACT

SITE EUI = KBTU / SQUARE FOOT / YEAR  
KBTU (ONE-THOUSAND BRITISH THERMAL UNITS)

- LIVINGSTON/BAKER BUILDING
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# ENERGY & RESILIENCE STRATEGY 1

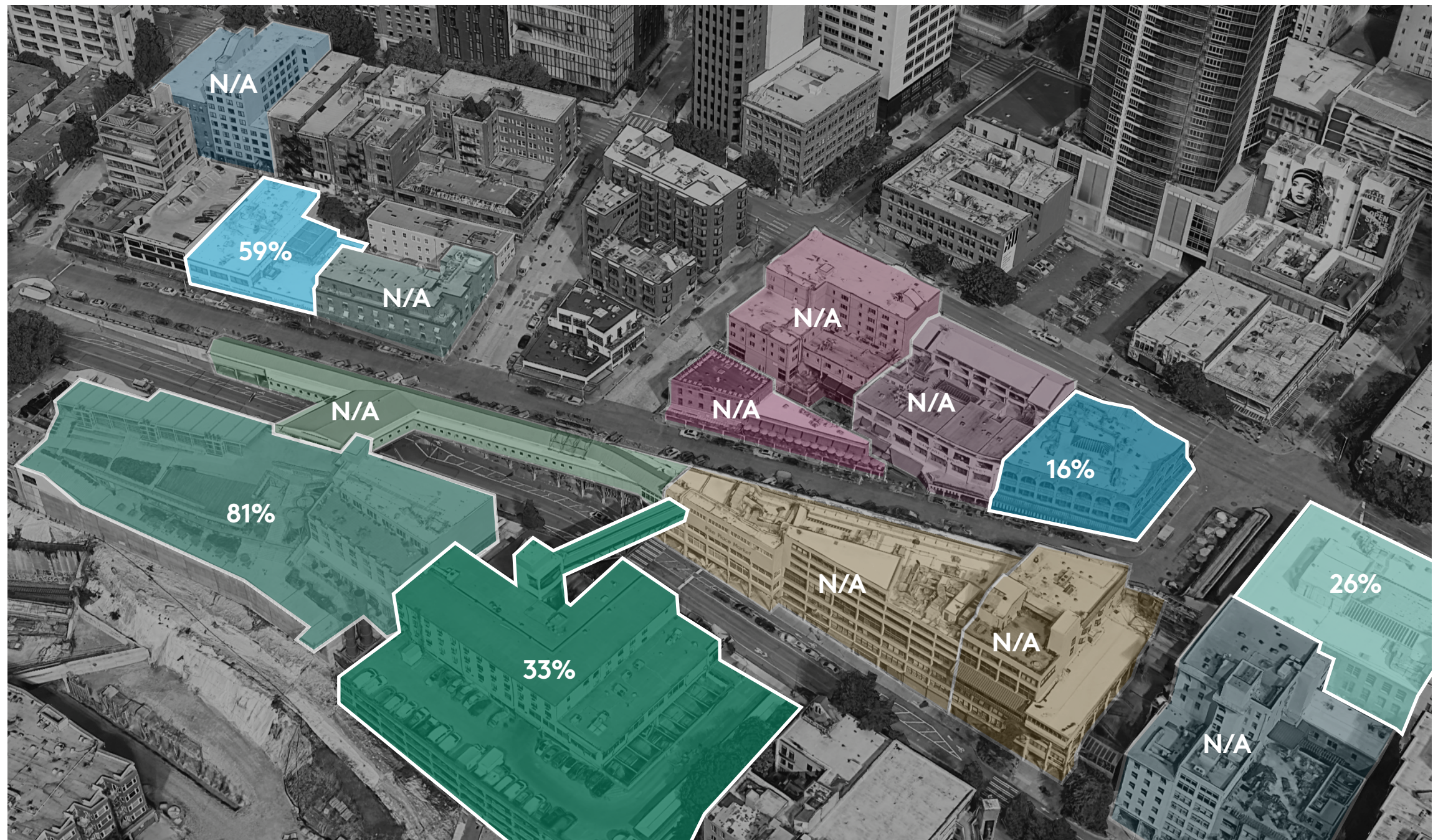
MEET ENERGY BENCHMARKING AND REPORTING REQUIREMENTS PER THE CITY AND STATE BUILDING ENERGY PERFORMANCE STANDARDS (BEPS) MANDATES.

The Building Emissions Performance Standard for the City of Seattle is more stringent than the State of Washington.

SITE EUI % REDUCTION REQUIRED FOR SEATTLE BEPS COMPLIANCE

SITE EUI = KBTU / SQUARE FOOT / YEAR  
KBTU (ONE-THOUSAND BRITISH THERMAL UNITS)

- LIVINGSTON/BAKER BUILDING
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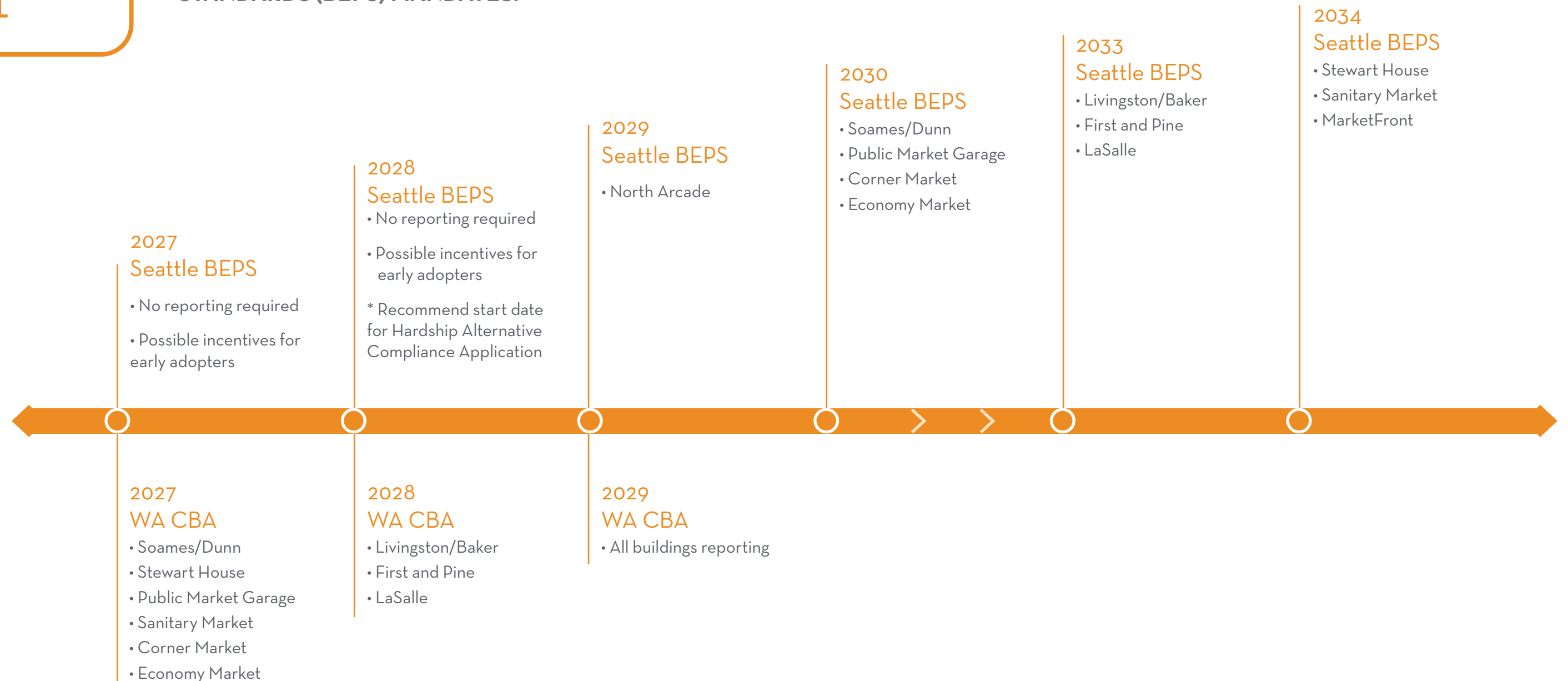


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## ENERGY & RESILIENCE STRATEGY 1

### MEET ENERGY BENCHMARKING AND REPORTING REQUIREMENTS PER THE CITY AND STATE BUILDING ENERGY PERFORMANCE STANDARDS (BEPS) MANDATES.

Timeline illustrating anticipated city and state reporting and compliance requirements.



NOTE: THIS IS A PRELIMINARY ASSESSMENT BASED UPON AN INITIAL REVIEW OF CARBON EMISSION REDUCTION STANDARDS. OWNER SHOULD MEET WITH GOVERNMENT AGENCY DEPARTMENTS TO CONFIRM TARGET DATES, REDUCTIONS, PATHWAYS TO COMPLIANCE AND LEARN ABOUT INCENTIVES AND PROGRAMS TO ASSIST WITH COMPLIANCE. ALL NUMBERS ARE BASED UPON 2023 METERED ENERGY DATA.



**ENERGY & RESILIENCE STRATEGY**  
2

**REDUCE ENERGY USE BY MINIMIZING DEMAND AND MAXIMIZING CONSERVATION, OPTIMIZING PHYSICAL PLANT PERFORMANCE AT ALL SCALES.**

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

| ACTIONS   |  | TACTICS/ NEXT STEPS:  | PARTNERS  | TYPE                                      | IMPACT | EFFORT | NOTES   |
|---|--|---|---|---|--------|--------|---|
| ER2A: Perform comprehensive energy audits and/or retro commissioning.   |  | Perform a comprehensive energy audit of all PPM (Project and Portfolio Management) buildings and prioritize the assessment of buildings with high EUIs (Energy Use Intensity) and nonconformance of state and city building performance standard targets.   | Internal Management and Operations with Consultants | Evaluation / Benchmarking                 |        |        | Refer to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Energy Audit standards as well as WA Clean Buildings Act and Seattle BEPS Mandates to determine scope of assessments and targeted reductions. |
|   |  |   |   |   |        |        |   |
|   |  | Energy audit to include energy retrofit recommendations with a life cycle assessment (cost comparison over the long term) to inform decision making.  | Internal Management and Operations with Consultants | Benchmarking                              |        |        |   |
|   |  | Identify high impact (energy savings) measures and prioritize those for implementation first, include cost estimates for these investments in capital funding campaigns and financing applications.   | Internal Management and Operations with Consultants | Operational Policy                        |        |        |   |
| ER2B: Implement energy efficiency measures, such as physical improvements to systems, equipment, controls, and building envelope. |  | Prioritize large and small projects based upon findings of energy audit, retro commissioning or other existing facility assessments, cost benefit analysis and efficacy. Implement energy efficiency measures into capital investment planning, either as standalone projects and/ or other improvements. | Consultants, Designers, Engineers, and Contractors  | Design & Construction                     |        |        | Refer to results of Energy Audit Report outcomes  |
|   |  |   |   |   |        |        |   |
|   |  | Leverage government incentives and programs to offset initial costs of capital improvements that result in EUI and operational carbon reductions.   | Government Agencies                                 | Partnership Outreach / Operational Policy |        |        |   |
| ER2B: Target behavioral and education energy efficiency and conservation measures such as plug loads and lifestyle changes.       |  | Expand energy saving education and behavior change strategies to support energy saving actions ranging from turning off lights and unplugging equipment when not in use to monitoring building energy dashboards and reporting issues.  | Internal Management and Operations                  | Communications / Operational Policy       |        |        |   |








# ENERGY & RESILIENCE STRATEGY

## 3



### MAXIMIZE HUMAN COMFORT IN LIVING AND WORKING SPACES WHILE USING EXTREMELY LITTLE ENERGY.

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| ACTIONS  |   | TACTICS/ NEXT STEPS:   | PARTNERS  | TYPE                      | IMPACT | EFFORT | NOTES   |
|--|---|--|---|---------------------------|--------|--------|---|
| ER3A: Leverage the existing energy efficiency qualities of the Market's buildings.                           | <br>  | Evaluate passive measures in the existing conditions and historic building design that do not use or use minimal energy, including the building massing and orientation, building envelope, daylighting and shading, and operable windows. | Consultants   | Evaluation / Benchmarking |        |        | 50% of Market Historical Commission project proposal submissions reference and include passive measures in their proposals. |
|  |   | Conduct technical review of cost and feasibility of restoring historic building passive features where it would provide benefit to operational energy and carbon emissions.  | Consultants   | Design & Construction     |        |        |   |
| ER3B: Integrate feedback from residents, merchants, producers, tenants, and vendors with energy assessments. | <br><br> | Conduct post-occupancy evaluations (POE) of all buildings throughout the Market annually.  | Internal Management and Operations and/ or with Consultants | Design & Construction     |        |        | The POE should include a survey with at least 60% response rates per user-group and space.                                  |
|  |   | Include POE findings when planning corrective action   | Consultants   | Evaluation / Survey       |        |        |   |







# ENERGY & RESILIENCE STRATEGY

## 4



### PLAN AND DESIGN FOR EMERGENCIES AND VULNERABILITIES ASSOCIATED WITH THE NEAR AND LONG TERM IMPACTS OF CLIMATE CHANGE.

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| ACTIONS  |   | TACTICS/ NEXT STEPS:  | PARTNERS              | TYPE  | IMPACT | EFFORT | NOTES  |
|--|---|---|-----------------------|---|--------|--------|--|
| ER4A: Create and adopt a Resilience Plan for the Market.   |    | Review and understand local or regional resilience resources, including: planning documents, publications, regulations, or other guidelines.  | Resilient King County | Evaluation / Benchmarking                             |        |        | Resilient King County and City of Seattle Resilience Planning documents are key resources.   |
|  |    | Perform a resilience charrette with stakeholders to discuss the performance goals for the Market during a disaster event—continuity of operations, community resource, quick recovery, or temporary relocation.                               |                       | Events & Programming                                  |        |        |  |
|  |  | In the Resilience Plan, identify how the Market is already resilient-- integrate and strengthen these community infrastructure assets and bolster their viability if necessary.   |                       | Operational Policy / Owner Project Requirements (OPR) |        |        | Develop and adopt a Resilience Plan to align with capital investment project planning.   |
|  |  | Develop communication strategies around resilience goals, procedures, systems and protocols.  |                       | Communications  |        |        |  |
| ER4B: Partner to create one or more resilience hubs in the Market, including a micro-grid system capable of grid-optimization and independent operability during a disaster. |  | Build upon the success of the district heating system in place.   |                       | Design & Construction                                 |        |        | Resilience hubs are familiar community places that also provide supplies, resources, infrastructure, and/or shelter during extreme events. |
|  |   | Study feasibility of on-site renewables and micro-grid technologies such as thermal storage, battery storage and grid-interactive inverters to reduce peak loads and create the ability to be independent from the grid during power outages. |                       | Design & Construction                                 |        |        |  |
|  |  | Create shelter-in-place areas which allow for passive survivability during hazardous air quality, extreme heat events or other stressors identified in the resilience plan.   |                       | Design & Construction                                 |        |        |  |

# ENERGY & RESILIENCE

Achieve low-carbon, efficient operations while improving human comfort and resiliency.

## MULTIBENEFITS OF THESE STRATEGIES

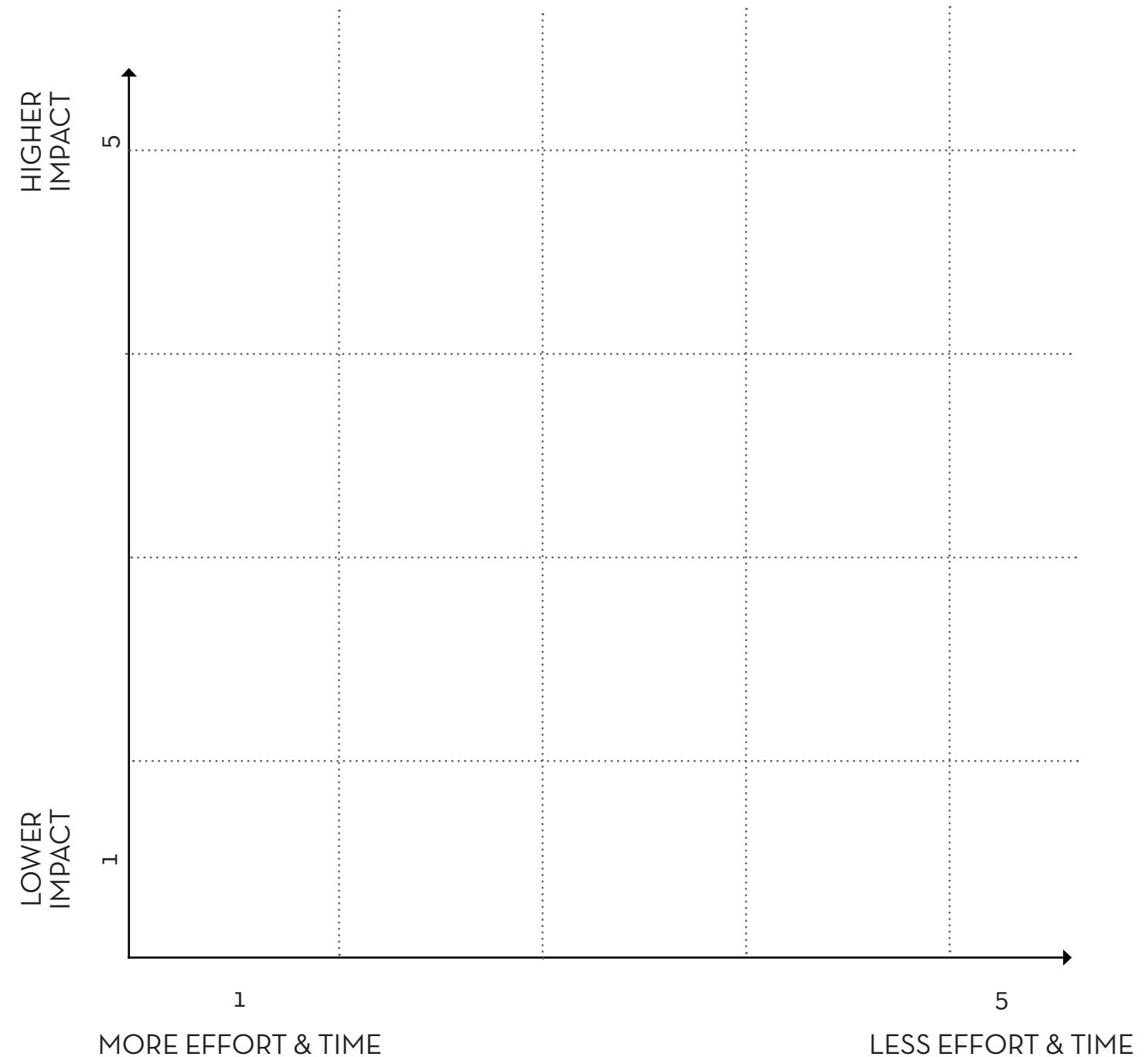
- Increase resiliency and adaptability to heat waves, wildfire smoke, more intense rainstorms, and extreme weather.
- Reduce operational energy costs and augment energy cost stability.
- Improved satisfaction of vendors and visitors.
- Demonstrate leadership in decarbonization, especially in the context of a historic district.
- Reinforce the City’s role as a global leader in addressing climate change.

**“We should showcase sustainability elements for public education.”**

Source: Eco-Charette

**“Pike Place Market can become an example for energy resilience within a historic condition.”**

Source: Eco-Charette



NOTE: THIS CHART IS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

# MATERIALS & RESOURCES



CONSULTANTS & DESIGNERS



PROGRAMS & COMMUNITY INITIATIVES



MANAGEMENT & OPERATIONS



PARTNERS

**Minimize possible negative impacts to human health and the planet by making informed material selections that balance priorities to achieve durable, safe, and healthy projects with an equitable, sustainable supply chain.**

## WHY THIS MATTERS TO THE MARKET

The Market possesses valuable and cherished buildings and places in the heart of Seattle with historic significance. Maintaining and improving the performance, durability and experience of these spaces contributes to their long-term value and sustainability. We can also work with the Market Historical Commission to preserve historic character with sustainable materials that contribute to reducing carbon emissions.

We can give preference to regionally manufactured products and materials and incentivize merchants to shorten supply chains - which reduces carbon impacts - and support equitable labor practices - another goal showing up in state climate policies.

## KEY STRATEGIES

- Minimize overall waste streams.
- Prioritize selection of low carbon, non-toxic architectural materials in maintenance, repair, and capital projects.
- Encourage and celebrate use of regionally manufactured products or materials in maintenance, repair, and capital projects.

# MATERIALS & RESOURCES STRATEGY 1



## ACTION MATRIX

### MINIMIZE OVERALL WASTE STREAMS.

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

| ACTIONS                              |  | TACTICS/ NEXT STEPS:   | PARTNERS                                 | TYPE  | IMPACT | EFFORT | NOTES   |
|--------------------------------------|--|--|--|---|--------|--------|---|
| MR1A: Adopt a Zero-Waste Plan.       |  | Align with Seattle's vision and Seattle Public Utility's policy for zero-waste.  | Seattle Public Utility & City of Seattle | Operational Policy                                    |        |        | Recommended target: Divert 90% of municipal solid waste from the landfill by 2034 |
| MR1B: Conduct a Waste Stream Audit.  |  | Conduct a Waste Stream Audit of all buildings in the Market to establish baseline understanding of volume of landfill, compost, recyclables.   |  | Evaluation / Benchmarking                             |        |        |   |
| MR1C: Implement zero-waste measures. |  | Require compostable pre-packaged food preference and contract awards to suppliers that can provide locally recyclable and locally compostable packaging options.   |  | Operational Policy / Owner Project Requirements (OPR) |        |        |   |
|                                      |  | Prohibit single-use plastics <ul style="list-style-type: none"> <li>In Zero-Waste Plan, identify next steps towards elimination of non-essential single-use plastics and foam by 2030.</li> <li>Prohibit the sale, procurement, or distribution of packaging foam, such as food containers and packaging material.</li> <li>Eliminate plastic bags in retail and food service.</li> <li>Eliminate single-use plastic food ware and beverage bottles in food service.</li> <li>Phase out single-use plastic beverage bottles in other venues/services at contract renewal.</li> </ul> |  | Operational Policy                                    |        |        |   |
|                                      |  | Develop communication strategies to share the benefits of zero-waste goals, procedures, systems and protocols.   |  | Communications  |        |        |   |





# MATERIALS & RESOURCES STRATEGY 2



## ACTION MATRIX

**PRIORITIZE SELECTION OF LOW CARBON, NON-TOXIC ARCHITECTURAL MATERIALS IN MAINTENANCE, REPAIR, AND CAPITAL PROJECTS.**

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.





| ACTIONS  |   | TACTICS/ NEXT STEPS:  | PARTNERS    | TYPE  | IMPACT | EFFORT | NOTES  |
|--|---|---|-------------|---|--------|--------|--|
| MR2A: Select low embodied carbon materials during maintenance, repair and capital improvement projects.                                    |    | When developing the Owner Project Requirements (OPR) and Basis Of Design (BOD), the Market will include a Sustainable Procurements Guide for materials and resources. This guide will identify criteria and provide specification guidance on low-embodied carbon materials for items such as flooring, drywall, insulation, structural systems, low global-warming potential (GWP) refrigerants in HVAC equipment, casework, furniture, wall assemblies and more.  | Consultants | Operational Policy / Owner Project Requirements (OPR) |        |        | LEED and the Carbon Leadership Forum, and the EC3 Tool are some of the frameworks that offer guidance on embodied carbon material standards.                   |
|  |    | Require that contractors and consultants refer to this information in specifications when providing design or construction services.  |             | Operational Policy / Owner Project Requirements (OPR) |        |        |  |
| MR2B: Select healthier materials which are free of red-list toxic ingredients during maintenance, repair and capital improvement projects. |  | When developing the Owner Project Requirements (OPR) and Basis of Design (BOD), the Market will include a Sustainable Procurements Guide for materials and resources. This guide will identify criteria and provide specification guidance on healthier materials, identify limits on Volatile Organic Compounds (VOCs) and restrict the use of products which contain chemicals of concern in items such as flooring, paint, caulking and sealants, adhesives, casework, furniture, wall assemblies, lighting, mechanical equipment, and more. | Consultants | Operational Policy / OPR                              |        |        | LEED and the Healthy Building Network, Declare, and the Mindful Materials Tool are some of the frameworks that offer guidance on healthier material standards. |
|  |  | Require that contractors and consultants refer to this information in specifications when providing design or construction services.  |             | Operational Policy / OPR                              |        |        |  |

# MATERIALS & RESOURCES STRATEGY 3



**ENCOURAGE AND CELEBRATE USE OF REGIONALLY MANUFACTURED PRODUCTS OR MATERIALS IN MAINTENANCE, REPAIR, AND CAPITAL PROJECTS.**

*NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.*

| ACTIONS   |   | TACTICS/ NEXT STEPS:   | PARTNERS  | TYPE                                       | IMPACT | EFFORT | NOTES |
|---|---|--|---|--|--------|--------|-------|
| MR3A: Develop a local materials palette that showcases Pacific Northwest craftspeople to incorporate in maintenance, repair and capital improvement projects. |    | Think locally and regionally when creating the Owner Project Requirement (OPR) and Basis Of Design (BOD). Develop a regional materials palette based on what is available locally, especially for heavier materials.   | Design Consultants, Makers Alliances, Reuse Contractors | Operational Policy                         |        |        |       |
|   |    | Increase radius to meet product criteria. When possible, design with reclaimed/salvaged materials such as bricks or lumber, and reclaimed components such as furniture systems, raised floors, and commercial doors.   |   |  |        |        |       |
| MR3B: Responsible sourcing during maintenance, repair and capital improvement projects.   |  | Support building design and product selections that contribute to a circular economy by reusing and improving existing buildings, designing for resiliency, adaptability, disassembly, and reuse; aspiring to a zero-waste goal for construction; and specifying products that contain recycled content and/or products that can be recycled.  | Design Consultants and Contractors                      | Operational Policy / Design & Construction |        |        |       |
|   |  | When creating the OPR and BOD, prefer manufacturers with a high level of product transparency. If information does not exist, ask and work with manufacturers to produce and provide Environmental Product Declarations (EPDs), Health Product Declarations (HPDs), and Declare labels. Consider products with an extended producer responsibility, especially for furniture, fixtures, and equipment, which have a shorter service life. This includes the circular economy model where manufacturers provide products as a service or have a takeback program. | Design Consultants and Contractors                      | Operational Policy / Design & Construction |        |        |       |

# MATERIALS & RESOURCES

Minimize possible negative impacts to human health and the planet by making informed material selections that balance priorities to achieve durable, safe, and healthy projects with an equitable, sustainable supply chain.

## MULTIBENEFITS OF THESE STRATEGIES:

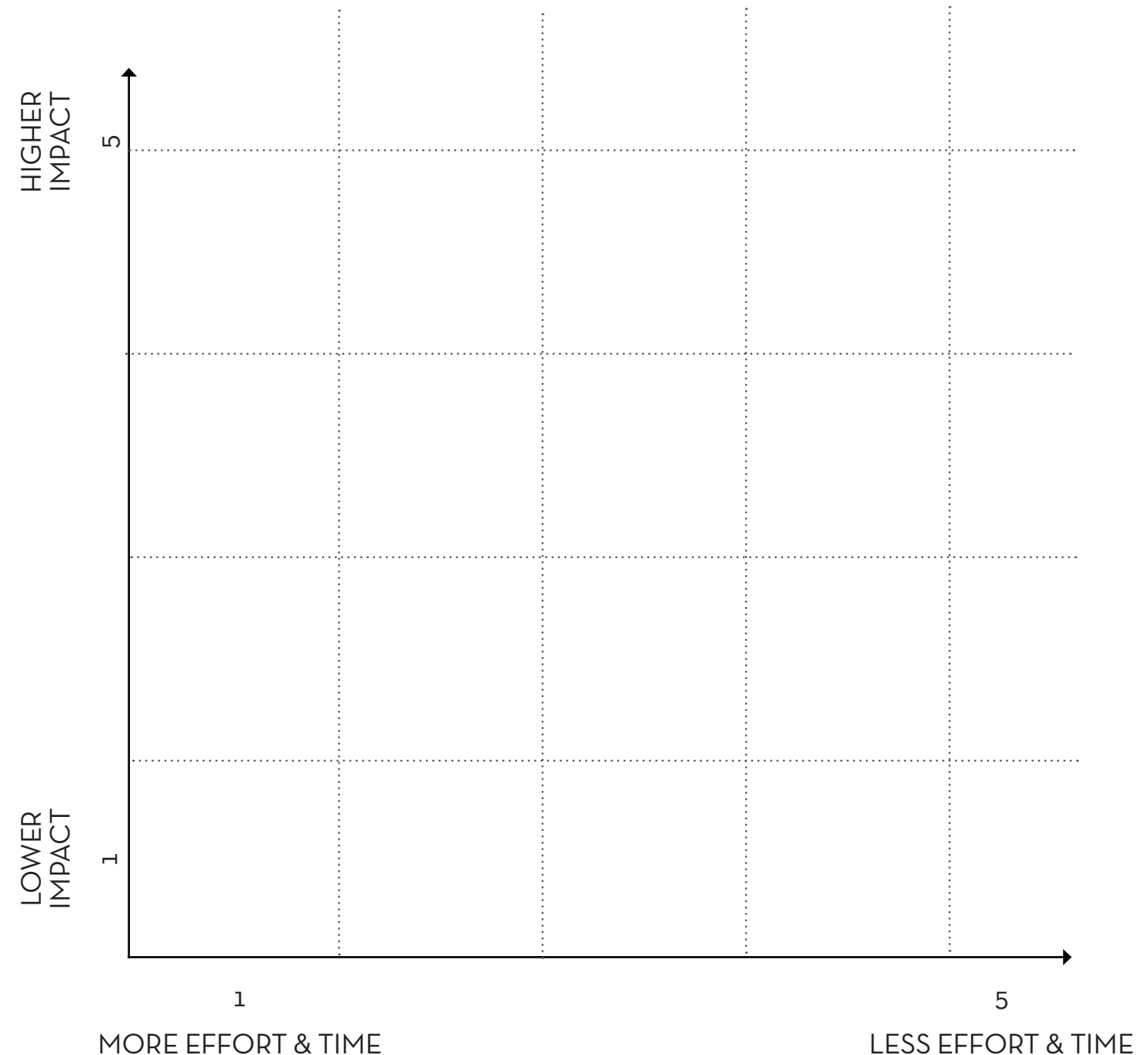
- Demonstrate leadership that compels others to follow.
- Improve worker, visitor, resident, and environmental health by minimizing material toxicity.
- Reduce the Market’s carbon footprint by prioritizing life cycle circularity in material selection.
- Create a memorable experience that is unique to the region and enhances Market identity.
- Increased durability of higher quality materials extends the useful life cycle and reduces capital costs over time.

**“We should assess the year-round carbon footprint of the Market.”**

Source: Eco-Charette

**“We should encourage the use of composting and compostable containers.”**

Source: Eco-Charette



NOTE: THIS CHART IS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.



# HEALTH & WELLBEING



CONSULTANTS &  
DESIGNERS



PROGRAMS &  
COMMUNITY  
INITIATIVES



MANAGEMENT  
& OPERATIONS



PARTNERS

**Advance holistic, targeted approaches that actively support physical, mental, emotional, and financial effects on occupants and the community.**

## WHY THIS MATTERS TO THE MARKET

As the leaders of an iconic civic space in Seattle, we can demonstrate how the built environment improves the health and well-being of people who live, work, and visit. Evidence-based strategies can result in improved public health outcomes and have also been shown to increase civic engagement. Public space is the foundation of civic engagement and a healthy democracy as a place where a fee or purchase is not required, and people can build familiarity, empathy and trust across race, income, and beliefs.

The 2023 Council Eco-charrette emphasized reinforcing the human experience at the Market as a top priority. The following holistic approaches to human experience cross over physical improvements, programming and operations and maintenance and include:

- Physical needs: air, water, light, thermal comfort, sound, visual comfort, which includes health and environmental requirements
- Healthy lifestyle: nourishment, movement, accessibility, ergonomics
- Social wellbeing: mental health, sense of belonging, sense of community, capacity for resilience

## KEY STRATEGIES

- Improve indoor environmental quality and comfort to support long-term health and wellbeing of merchants, residents, and visitors.
- Nurture wellbeing through community programming and a sense of comfort and belonging in public civic spaces.
- Elevate and celebrate connections to natural elements throughout the Market .



# HEALTH & WELLBEING STRATEGY 1

## IMPROVE INDOOR ENVIRONMENTAL QUALITY TO SUPPORT LONG-TERM HEALTH AND WELLBEING OF MERCHANTS, RESIDENTS AND, VISITORS.

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| ACTIONS  | TACTICS/ NEXT STEPS:   | PARTNERS                         | TYPE                             | IMPACT | EFFORT | NOTES  |
|--|--|----------------------------------|----------------------------------|--------|--------|--|
| HW1A: Create sustainable design standards for wellbeing in all capital improvement projects. | Facilities group to create an Owner Project Requirements (OPR) baseline document of design standards that addresses Market-wide standards for indoor environmental factors for human health, comfort, and wellbeing.<br><br>Indoor Environmental Qualities address design strategies and environmental factors—such as air quality, ventilation rates, lighting quality, acoustic design, thermal set points, ergonomics, and control over one’s surroundings. | Internal Team with Consultant(s) | Owner Project Requirements (OPR) |        |        | Refer to LEED, ASHRAE, and state and local building codes.   |
| HW1B: Implement wellbeing focused sustainable design standards outlined in OPR.              | During any capital improvement project, include the OPR design targets into the scope of work and implementation for physical investments.   |                                  | Design & Construction            |        |        |  |
| HW1C: Pursue Fitwel certification or the WELL Standard on one Market building or space.      | By piloting one space or building in the Market in a healthy building certification, we will learn how to implement, track, and benchmark actions and strategies that impact human health and wellbeing.   | Internal Team with Consultant(s) | Design & Construction            |        |        | Refer to Fitwel or WELL rating systems, which offer tailored scorecards for a variety of building types from tenant improvements, multifamily buildings, workplace, and retail spaces. |



HEALTH & WELLBEING STRATEGY 2

NURTURE WELLBEING THROUGH COMMUNITY PROGRAMMING AND A SENSE OF COMFORT AND BELONGING IN PUBLIC CIVIC SPACES.

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

| ACTIONS   |      | TACTICS/ NEXT STEPS:  | PARTNERS                                 | TYPE  | IMPACT | EFFORT | NOTES   |
|---|------|---|--|---|--------|--------|---|
| HW2A: Continued leadership for uplifting civically engaged public space in the region.  |      | Read the Center for Active Design’s “Assembly Civic Design Guidelines” to creating civically engaged, public spaces.  | Center for Active Design and Consultants | Owner Project Requirements (OPR)                      |        |        |   |
|   | <br> | Include aligned recommendations in the Owner Project Requirements (OPR) from the Assembly Guidelines, such as: Make Public Spaces Welcoming, Make Public Spaces Comfortable, Foster Local Democracy, Make Space for Activity and more.                                    | Consultants                              | Events & Programming / Design & Construction          |        |        | This tactic can attract greater vibrancy and economic activity to the Market over time.   |
| HW2B: Cultivate an authentic sense of belonging in Market programs and physical spaces.   |      | Identify work with allied organizations, their stakeholders and building occupants (could be at a charrette, workshop or via a survey) to understand their perspective on the challenge of creating a sense of belonging. Focus on historically marginalized communities. | Community Partners                       | Events & Programming / Survey / Design & Construction |        |        | Consider “sense of belonging” as a metric included in the annual surveying of Market visitors, vendors, tenants, and constituents.<br><br>This tactic can ensure the Market is evolving to be inclusive of changing demographics in the region, keeping the Market relevant and economically viable for future generations. |
|   |      | Identify opportunities for design interventions, artwork, programming, and events which support human   | Community Partners                       | Design & Construction                                 |        |        |   |
| HW2C: Incorporate active-design elements including ergonomic design to reduce workplace injury, safe walking, and wheel routes. |      | Incorporate active design, accessibility, and ergonomic design criteria in the OPR.   | Design Consultants                       | OPR / Design & Construction                           |        |        |   |



HEALTH & WELLBEING STRATEGY 3

ELEVATE AND CELEBRATE CONNECTIONS TO NATURAL ELEMENTS THROUGHOUT THE MARKET.

NOTE: THE IMPACT AND EFFORT COLUMNS ARE INTENTIONALLY LEFT BLANK AS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

| ACTIONS  |  | TACTICS/ NEXT STEPS:  | PARTNERS                       | TYPE                             | IMPACT | EFFORT | NOTES   |
|--|--|---|--------------------------------|----------------------------------|--------|--------|---|
| HW3A: Understand value of connections to natural elements throughout the Market. |  | Read through Terrapin Bright Green’s “14 Patterns of Biophilic Design” and related literature on economic and health benefits.  | Internal Team with Consultants | Evaluation                       |        |        |   |
| HW3B: Design and build connections to natural elements throughout the Market.    |  | <p>Incorporate at least three of the fourteen biophilic design principles in every capital improvement project.</p> <p>When writing the OPR, include biophilic design criteria for design teams to consider such as:</p> <p>Nature In the Space: visual connections with natural features, increased greenery and landscape, thermal and airflow variability, sensory stimuli such as sound of water, views to bay, dynamic light.</p> <p>Natural Analogues: biomorphic forms, natural materials that connect with nature, complexity and order, fractal patterns, etc.</p> <p>Nature of the Space: prospect, refuge, mystery, risk, and awe.</p> | Design Consultants             | Owner Project Requirements (OPR) |        |        | On every capital investment project, seek out ways to incorporate these design principles and features. |

# HEALTH & WELLBEING

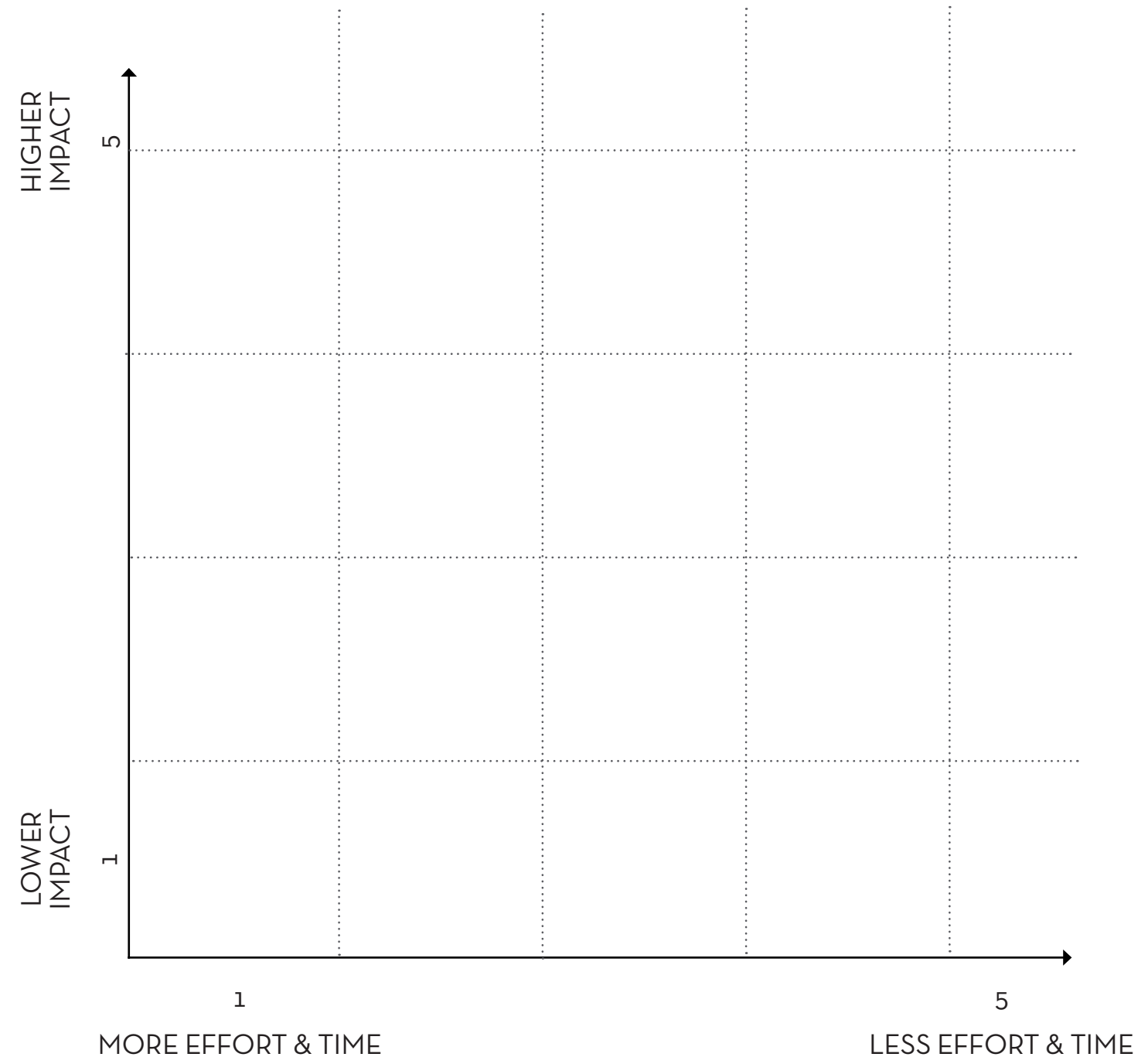
Advance holistic, targeted approaches that actively support physical, mental, emotional, and financial effects on occupants and the community.

## MULTIBENEFITS OF THESE STRATEGIES:

- Increased resiliency and adaptability to inclement conditions including wildfire smoke and excessive heat.
- Improved merchant and visitor comfort, safety, and sense of belonging.
- Support merchants and improve the visitor experience through improved wayfinding.
- Potential cost savings through adaptive comfort strategies and reduced space conditioning needs.
- Enhance connection to nature and the local climate.

**“We should nurture wellbeing through local food, including community programming.”**  
 Source: Eco-Charette

**“It’s important to expand programs that are inclusive, accessible, and reach cultural and income diverse people.”**  
 Source: Eco-Charette



NOTE: THIS CHART IS A WORK SPACE FOR THE MARKET TO COMPARE ACTIONS TO ONE ANOTHER IN ORDER TO ASSIST WITH PRIORITIZATION AND DECISION MAKING.

# IMPLEMENTATION

This Sustainability Work Template addresses both short and long term work. There are several foundational, cross-cutting actions that will lay the groundwork for clarifying priorities and financial investments.

The Template's strategies and actions cover both physical improvements and operations. Nearly all actions first require assessments, targeted studies, surveys, policies, and further planning, as well as added capacity, to carry out the work. This is not an exhaustive list and is meant as a starting point.

## Guiding Principles for Implementation:

- Evaluate all strategies for life-cycle cost benefits to the Market, community, and environment.
- Wherever possible, treat multiple issues as an integrated solution. Refer to multibenefit solutions suggested under each focus area.
- Aim to incorporate sustainability language and requirements into the Market's standard procedures and operating practices and build it into our culture.

## Write an Owner Project Requirements (OPR)

The Owner Project Requirement is a critical document in construction and renovation projects that serves as the foundation for the design and construction process. The OPR provides a clear understanding of the project's goals, objectives, and requirements, helping to align all stakeholders involved. It outlines the expectations of the owner and defines what success looks like for the project.

The OPR outlines the project's overall vision and scope and is the primary document the design team uses to develop the project's design concepts. The construction team also uses it to develop the project's plan. The OPR guides the project team's decisions throughout the project lifecycle, ensuring they align with goals and objectives.

Developing an OPR typically involves extensive collaboration and communication between the owner, design, and construction teams. It is a living document that evolves throughout the project lifecycle, reflecting scope, goals, and requirements changes. As the project progresses, the OPR is continuously reviewed and updated to reflect the owner's needs and objectives accurately.

## Write a Basis of Design (BOD) Document

A Basis of Design typically follows an OPR and outlines the project's specific design solutions and technical requirements. It explains the systems, equipment, and materials used in construction or renovation projects. The BOD includes technical specifications, benchmarks, thresholds, calculations, and even drawings that serve as a basis for the design team to develop detailed design plans.

It can be thought of as a template document which contains standards that ought to be adopted and incorporated into most or all physical improvement projects. It may use specific and 'prescriptive' design criteria or can be more 'performance' based.

A project-specific BOD will be written by the architect and engineering team on each project, and this template BOD created by the Market's facilities team is meant to create continuity and clear standards across capital improvements, tying in the Market's key sustainability goals, strategies, and actions.

## Conduct Energy Audits and Retro Commissioning

When evaluating an existing building, or portfolio of buildings, discovering the path to energy efficiency requires more measurement and planning. Performing an energy audit of the building is the best place to start. An energy audit is a comprehensive evaluation and analysis of a building's current energy use. Results from energy audits provide insight for building owners and also identify the most economical and energy-saving opportunities.

Typically, an engineer specializing in existing buildings will review the recent use and operation of the building and present possible options to optimize building performance. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) provides the industry standard for energy audits. Their model presents three levels of energy audits with steadily increasing levels of effort and detail which can be found in the Glossary.

## Conduct Waste Audits

A waste audit is a method for analyzing an organization's waste stream. The goal is to discover what types and quantities of waste, such as paper, plastic, or food are produced within a given timeframe – usually a week. Auditing also measures how much waste is recycled versus thrown out. Businesses usually conduct waste audits in order to set recycling, reduction, and diversion goals as they prepare to go green or seek LEED O&M Certification. There are waste management programs and independent organizations that offer waste audit services which include the work of the audit, a findings report with analysis, and recommendations.

# IMPLEMENTATION

## Post Occupancy Evaluations (POE)

There are a number of sustainability actions in this plan which relate to occupant behavior, comfort, and experience. To impact those criteria, an assessment or evaluation to establish a baseline of current information is key. The POE method is a type of survey focused on the built environment. Typically, the building owner contracts with a firm or individual experts who were not involved in the original design or construction to evaluate the building's successes and deficiencies after occupancy. This requires that the building be occupied through at least one, and preferably several, heating and cooling cycles.

The POE is not conducted to grade the building or develop recommendations for the solution of identified deficiencies. These are usually accomplished through separate building assessments. The cause of the deficiency is identified so that lessons can be compiled for the Market to consider changing practices and criteria to eliminate the problems in future buildings.

The basic elements of a POE include:

- Determination of the purpose and objectives of the POE
- Identification of building elements and systems to be evaluated (in tandem with Energy Audit)
- Determination of metrics to be evaluated during the POE
- Development and review of Building Occupant Questionnaire
- Physical evaluation of the facility
- Conducting facility occupant interviews

A POE is meant to be part of a feedback loop to help answer important questions about user experience, occupant behavior, and building and space performance, both qualitatively and quantitatively. It is recommended that POEs are performed on a recurring basis, approximately every three years.

# IMPLEMENTATION PHASING

|  | 3 YEARS |      |      | 5 YEARS |      |      | 10 YEARS |      |      |      |
|--|---------|------|------|---------|------|------|----------|------|------|------|
|  | 2024    | 2025 | 2026 | 2027    | 2028 | 2029 | 2030     | 2031 | 2032 | 2033 |
| <b>Comprehensive Assessments and Actions</b>   |         |      |      |         |      |      |          |      |      |      |
| Owner's Project Requirements document  |         |      |      |         |      |      |          |      |      |      |
| Basis of Design document(s)  |         |      |      |         |      |      |          |      |      |      |
| Energy audits and retroactive commissioning  |         |      |      |         |      |      |          |      |      |      |
| Conduct waste audits   |         |      |      |         |      |      |          |      |      |      |
| Create post occupancy evaluation criteria  |         |      |      |         |      |      |          |      |      |      |
| Begin conducting POEs: repeats every 3years  |         |      |      |         |      |      |          |      |      |      |
| <b>FOOD</b>  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 1: Select and prioritize farm and food businesses that source local products and ingredients.</b>  |         |      |      |         |      |      |          |      |      |      |
| F1A: Expand Meet the Producer to focus on sustainability   |         |      |      |         |      |      |          |      |      |      |
| F1B: Local sourcing  |         |      |      |         |      |      |          |      |      |      |
| F1C: Circular economy  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 2: Support preserving and reinforcing equitable and sustainable farming practices in the Pacific Northwest.</b>                          |         |      |      |         |      |      |          |      |      |      |
| F2A: Urban-rural Food Network  |         |      |      |         |      |      |          |      |      |      |
| F2B: Indigenous food sovereignty   |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 3: Work towards zero waste and reduced carbon emissions on and off site among vendors.</b>   |         |      |      |         |      |      |          |      |      |      |
| F3A: Zero food waste   |         |      |      |         |      |      |          |      |      |      |
| F3B: Green purchasing  |         |      |      |         |      |      |          |      |      |      |
| <b>ENERGY &amp; RESILIENCE</b>   |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 1: Meet City and State energy benchmarking and reporting requirements per the Building Energy Performance Standards (BEPS) mandates.</b> |         |      |      |         |      |      |          |      |      |      |
| ER1A: Assess state BEPS target dates and reductions  |         |      |      |         |      |      |          |      |      |      |
| ER1B: Begin reporting  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 2: Reduce Energy Use &amp; Carbon Emissions</b>  |         |      |      |         |      |      |          |      |      |      |
| ER2A: Perform energy audits  |         |      |      |         |      |      |          |      |      |      |
| ER2B: Implement energy efficiency measures   |         |      |      |         |      |      |          |      |      |      |
| ER2C: Target residential and commercial occupant behavior conservation measures  |         |      |      |         |      |      |          |      |      |      |

|  | 3 YEARS |      |      | 5 YEARS |      |      | 10 YEARS |      |      |      |
|--|---------|------|------|---------|------|------|----------|------|------|------|
|  | 2024    | 2025 | 2026 | 2027    | 2028 | 2029 | 2030     | 2031 | 2032 | 2033 |
| <b>Strategy 3: Maximize human comfort in living and working spaces while using extremely little energy.</b>  |         |      |      |         |      |      |          |      |      |      |
| Target 3A: Leverage existing building assets /passive measures   |         |      |      |         |      |      |          |      |      |      |
| Target 3B: Conduct post-occupancy evaluations and incorporate improvements   |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 4: Plan and design for emergencies and for vulnerabilities associated with the long-term effects of the climate crisis.</b>                      |         |      |      |         |      |      |          |      |      |      |
| Target 4A: Create resilience plan  |         |      |      |         |      |      |          |      |      |      |
| Target 4B: Implement resilience features   |         |      |      |         |      |      |          |      |      |      |
| <b>MATERIALS &amp; RESOURCES</b>   |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 1: Minimize Overall Waste Streams</b>  |         |      |      |         |      |      |          |      |      |      |
| MR1A: Zero waste plan  |         |      |      |         |      |      |          |      |      |      |
| MR1B: Waste audit  |         |      |      |         |      |      |          |      |      |      |
| MR1C: Implement zero water measures  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 2: Prioritize selection of low carbon, non-toxic architectural materials during maintenance, repair and capital improvement projects.</b>        |         |      |      |         |      |      |          |      |      |      |
| MR2A: Low carbon materials   |         |      |      |         |      |      |          |      |      |      |
| MR2B: Healthy materials  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 3: Encourage and celebrate use of regionally manufactured products or materials during maintenance, repair and capital improvement projects.</b> |         |      |      |         |      |      |          |      |      |      |
| MR3A: Local Pacific Northwest materials  |         |      |      |         |      |      |          |      |      |      |
| MR3B: Responsible sourcing   |         |      |      |         |      |      |          |      |      |      |
| <b>HEALTH &amp; WELLBEING</b>  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 1: Improve Indoor Environmental Quality</b>  |         |      |      |         |      |      |          |      |      |      |
| HW1A: Create sustainable design standards for wellness   |         |      |      |         |      |      |          |      |      |      |
| HW1B: Implement sustainable design standards for wellness  |         |      |      |         |      |      |          |      |      |      |
| HW1C: Pursue Fitwel certification  |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 2: Nurture Community Wellbeing</b>   |         |      |      |         |      |      |          |      |      |      |
| HW2A: Uplift design for civically engaged public spaces  |         |      |      |         |      |      |          |      |      |      |
| HW2B: Programming for sense of belonging   |         |      |      |         |      |      |          |      |      |      |
| HW2C: Incorporate active design and ergonomic design   |         |      |      |         |      |      |          |      |      |      |
| <b>Strategy 3: Promote Physical Connections to Natural Systems</b>   |         |      |      |         |      |      |          |      |      |      |
| HW1A: Identify value of natural elements in urban spaces   |         |      |      |         |      |      |          |      |      |      |
| HW1B: Implement connections to natural elements  |         |      |      |         |      |      |          |      |      |      |



# GLOSSARY

For an in depth list of green building & sustainability definitions, please visit: <https://www.usgbc.org/glossary>

Glossary of green building terms: <https://www.greenbuilt.org/resources/glossary-of-green-building-terms/>

**AEC:** Architecture, Engineering and Construction Industries

**ASHRAE:** American Society of Heating, Refrigerating, and Air-Conditioning Engineers

**ASHRAE Level 1 Energy Audit:** Walk-through Analysis is a preliminary and basic assessment of a building's energy performance. This audit is designed to identify straightforward energy-saving opportunities and provide a clear understanding of the building's energy consumption patterns. It involves a brief review of the facility's utility bills and other operating data to get an overview of energy use trends. Following this, an auditor conducts a walk-through of the facility to visually inspect its systems and operations. Based on these initial findings, the auditor will then provide a report that highlights areas of inefficiencies and recommends low-cost or no-cost measures to improve energy efficiency. The Level 1 audit aims to give building owners a quick snapshot of potential energy-saving opportunities without delving into detailed system analyses. It's an excellent starting point.

**ASHRAE Level 2 Energy Audit:** Energy Survey and Analysis offers a more detailed and comprehensive evaluation of a building's energy performance compared to a Level 1 audit. This audit dives deeper into understanding the building's energy consumption by meticulously analyzing its systems, operations, and energy use patterns. The process begins with a thorough review of utility bills, equipment specifications, and operating data, breaking down energy consumption by individual equipment and systems. Following this, on-site surveys are conducted to identify a broader range of energy conservation measures. Each of these identified measures is then assessed for potential energy savings, costs of implementation, and payback periods. The Level 2 audit is finalized with a detailed report that provides building owners with actionable insights, a clear plan for energy-saving initiatives, and a cost-benefit analysis for each recommended measure. This level of audit is suitable for building owners who are committed to understanding and improving their property's energy efficiency in a more in-depth manner, making data-driven decisions based on a balance of costs and benefits.

**ASHRAE Level 3 Energy Audit:** Detailed Analysis of Capital-Intensive Modifications is the most in-depth and comprehensive of the ASHRAE audit types. This audit is specifically geared towards large-scale, capital-intensive projects by delving into intricate details of potential retrofits or modifications highlighted in a Level 2 audit. The focus is on providing a clear and detailed analysis of specific energy-saving measures, often involving complex simulations, advanced engineering calculations, and detailed energy modeling to validate potential energy conservation measures. The financial evaluation in a Level 3 audit is also more granular, taking into account

factors like longer-term energy price projections, equipment lifecycle costs, and maintenance implications. The resulting report from this audit provides a detailed roadmap for major energy retrofits, ensuring building owners have all the necessary data to make informed investment decisions. This level of audit is best suited for facilities considering substantial infrastructure changes or upgrades to drastically enhance energy efficiency.

**Biophilic Design:** Design principles and strategies to increase human connectivity to the natural environment through the use of natural elements, analogs/metaphors of natural systems, and space and place conditions.

**Carbon Neutral vs Net Zero Carbon:** Carbon-neutral refers to offsetting the total amount of carbon emissions. Net-zero carbon means no carbon was emitted from the get-go, so no carbon needs to be captured or offset. For example, a company's building running entirely on solar, and using zero fossil fuels can label its energy as "zero carbon."

**Carbon Offset:** A unit of carbon dioxide equivalent that is reduced, avoided, or sequestered to compensate for emissions occurring elsewhere (World Resources Institute)

**Eco-Charrette:** A meeting of stakeholders to consider the economics and ecology (eco) of various sustainability ideas. The purpose of an eco-charrette includes building alignment, cohesion and momentum of the sustainability program.

**Embodied Energy:** All the energy required to grow, harvest, extract, manufacture, refine, process, package, transport, install and dispose of a particular product or building material.

**Energy Audit:** A systematic process to assess and analyze the energy use and consumption of a given facility, building, or system. Its primary purpose is to identify energy-saving opportunities, inefficiencies, and to recommend ways to reduce energy waste. By conducting an energy audit, one can understand how energy is used in a facility and then prioritize improvements to increase energy efficiency and reduce energy-related costs.

**Energy Benchmarking:** A process by which building energy performance is compared to an average or mean. EUI is the typical metric used and buildings are compared to similar building types.

Benchmark EUIs for many building types have been established based on the 2012 Commercial Building Energy Consumption Survey, known as CBECS, and available here: <https://www.eia.gov/consumption/commercial/>

Architecture 2030 uses benchmarks as a starting point in establishing energy performance targets for design. See: <https://zerotool.org/about/>

**Energy Use Intensity (EUI):** The amount of energy used per square foot annually. It's calculated by dividing the total energy consumed by the building in a year by the total gross floor area. Like miles per gallon for cars, EUI is the prime indicator of a building's energy performance. kBTU /square foot / year

# GLOSSARY

**Green House Gases (GHGs):** Any atmospheric gas that absorbs and re-emits heat. Primary GHGs include: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and the so-called F-gases (hydrofluorocarbons and perfluorocarbons) and Sulphur hexafluoride (SF<sub>6</sub>). Although these gases occur naturally in the environment, human activity has been releasing extra GHGs into the atmosphere since the industrial revolution, contributing to the disruption of the global climate.

**Global-warming potential (GWP):** A metric used to describe potential changes in global surface temperatures as a result of higher concentrations of atmospheric greenhouse gases, considering the relative potency, molecule for molecule, taking into account how long a particular greenhouse gas remains active in the atmosphere.

**Green Building Rating Systems/ Sustainability Frameworks (GBRSs):** Third-party, voluntary, and market driven standards that measure buildings' sustainability level by multi-criteria assessment, and encourage the adoption of environmentally, socially and economically sustainable practices in design, construction and operation of buildings (or neighborhoods). GBRSs aim at guiding and assessing the project throughout all its life cycle, thus limiting the negative impact on the environment, as well as on the building occupants' health and well-being, and even reducing operational costs. Examples include: LEED, Passivehouse, WELL, Fitwel, JUST Communities, Living Building Challenge, and more.

**Operational Energy (OE):** The energy needed to run buildings. OE includes space conditioning, mechanical ventilation, elevators, pumps, cooking, hot water, lighting, appliances and plug loads from electrical receptacles.

**Public Space as Civic Infrastructure:** The unique conditions of public space are the foundation civic engagement and a healthy democracy. Public space is civic infrastructure that welcomes everyone and does not require a fee or purchase. It provides the potential for people to connect across race, income, and beliefs. The Market has served the Seattle community in this regard for over a century.

**Red List Building Materials:** Materials that contain chemicals that have been designated as harmful to living creatures, including humans, or the environment. In collaboration with building owners, design and construction professionals often incorporate a "redlist" of ingredients in building materials to avoid through specifications.

**Resilience:** The ability to thrive in the face of change. To create systems that enhance, rather than degrade, the world around them, and in turn that can withstand inevitable shocks from environmental and technological changes.

**Scope 1 Emissions:** Direct emissions from sources owned or controlled by an organization

**Scope 2 Emissions:** Indirect emissions from purchased electricity, steam, heat, and cooling

**Scope 3 Emissions:** All other emissions associated with an organization's activities, including indirect and offsite processes

**Seattle Building Emissions Performance Standard Policy (BEPS):** The City of Seattle developed the proposed Building Emissions Performance Standard (BEPS) policy with input from hundreds of building owners, managers, tenants, labor representatives, affordable housing proponents, environmental justice groups, and others in 2022.

The Seattle BEPS complements Washington State's Clean Buildings Energy Performance Standard, which regulates energy use in existing buildings. The State Standard is important for energy efficiency, but its current energy targets would only reduce Seattle building emissions by about 4% by 2030. Seattle's BEPS fills this gap with these building owner requirements:

- Verify energy and emissions data reported to the Benchmarking Program to ensure accuracy.
- Meet greenhouse gas intensity (GHGI) emissions targets that will be phased in by building size and type, or achieve alternative compliance options, during the first three compliance intervals.
- Document current emissions performance, building equipment, and actions needed to achieve subsequent GHGI targets.
- Achieve net-zero emissions by 2050 or earlier, depending on building size and type.

**Site EUI vs Source EUI:** There are two types of Energy Use Intensity: site and source. Site EUI is the amount of heat and electricity a building consumes as reflected in utility bills. Source EUI traces heat and electricity use back to the original raw fuel input creating a more holistic understanding of a building's energy use.

**Site Energy:** The amount of energy consumed at the building site indicated in utility statements or via metering for an existing building or as predicted by energy modeling software for a building in design. Utility delivered energy plus renewable energy generated and used onsite are included because they are required to operate the building. Renewable energy exported to the electric grid is not included because it is not used for building operations. Site EUI is the amount of site energy used in one year divided by the total square feet of building area.

**Social Determinants of Health (SDOH):** The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

SDOH have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:

- Safe housing, transportation, and neighborhoods
- Racism, discrimination, and violence
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Polluted air and water
- Language and literacy skills

SDOH also contribute to wide health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity – and even lowers life expectancy relative to people who do have access to healthy foods.

# GLOSSARY

**Social Equity:** “Just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Unlocking the promise of the nation by unleashing the promise in us all.”-Policy Link

Unlike equality, which connotes sameness, equity is responsive to what different people need to thrive. Equitable policies actively mitigate the disproportionate harm faced by certain communities.

**Source Energy:** Heat and electricity used at the site back to the original raw inputs. Electricity, for example, can be generated at a power plant by burning raw fuels such as coal or natural gas, from clean sources such as large hydropower plants, or from renewable ‘fuels’ such as sun, wind, small hydropower, and geothermal. Source energy includes the total amount of raw fuel used at power plants to operate a building.

**Sustainability:** The ability to continue important functions and access to resources indefinitely without a decline in quality. Sustainability is made up of three pillars: the economy, society, and the environment. These principles are also informally used as profit, people and planet.

**Washington State Clean Buildings Act:** The Clean Buildings Act (HB 1257, 2019) was signed into law in May 2019. The legislation required the Washington State Department of Commerce to develop and implement a Clean Buildings Standard (WAC 194-50) for existing commercial buildings where the sum of the floor area exceeds 50,000 ft<sup>2</sup>. Compliance with the standard for covered buildings is phased in from 2026 -2028. The objective is to reduce energy consumption, improve energy efficiency and performance in existing buildings. By adopting this rule, Commerce intends to maximize reduction of greenhouse gas emissions from the building sector.

**Wellbeing:** The experience of health, happiness, and prosperity; including good mental health, life satisfaction, a sense of meaning or purpose, and the ability to manage stress.