



Urban Land **New York**
Institute

Technical **Assistance Panels**

Waterfront Edge Design Guidelines TAP Report

MARCH 2018



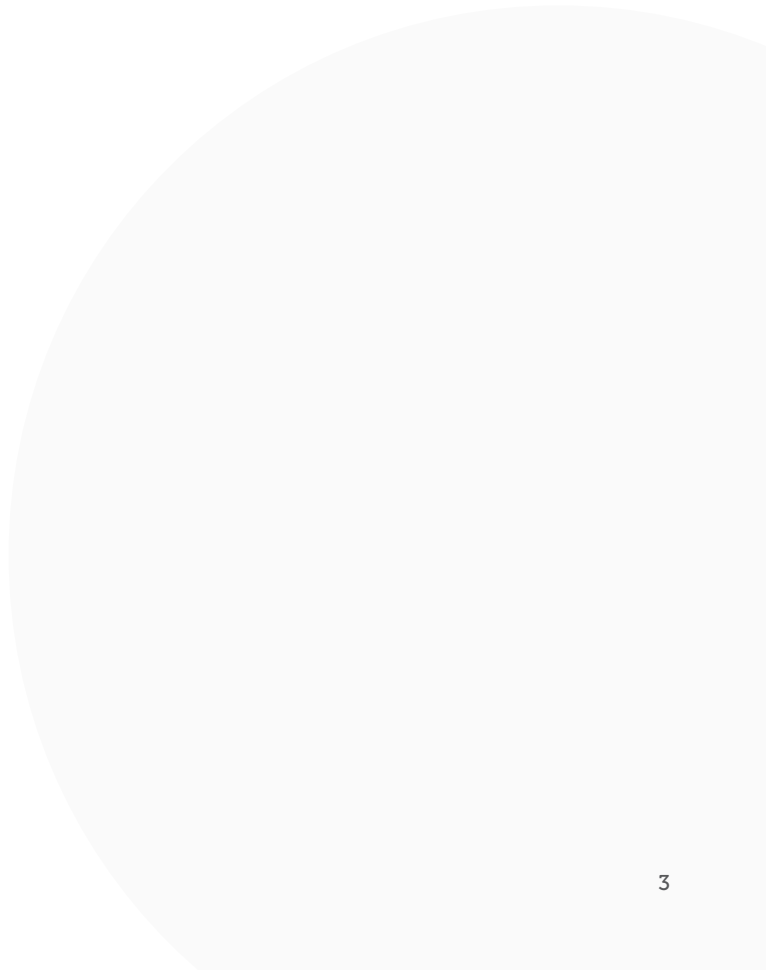
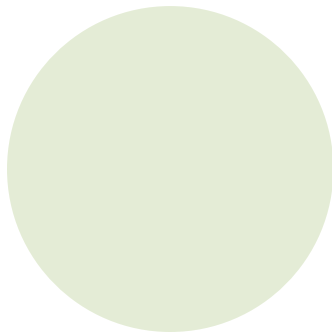
Table of Contents

1 Acknowledgements	3
2 Urban Land Institute and the TAP Program.....	4
3 WEDG TAP Panelists, Sponsor, and Process	5
4 Overview – A Rating System for Resilient, Environmentally Healthy, Accessible, and Equitable Waterfront Development	6
5 Background on the Waterfront Alliance – Advocating for Better Waterfront Design.....	8
6 Analysis – The Current Business Case for WEDG.....	10
7 Recommendations from the TAP	13
- Learn from successful certifications in the marketplace, but don't try to replicate them	
- Recognize the strengths and limitations of the current business case for WEDG	
- Engaging the insurance market may sweeten the business case for WEDG	
- Consider a new target - Municipalities can be the market entry point for WEDG	
- Municipalities can create a WEDG market for developers	
- Engage developers “early and often” to increase WEDG uptake	
- The business case should inform a sustainable organizational and financial model for WEDG	
8 Conclusion	24

Acknowledgements

The Waterfront Edge Design Guidelines Technical Assistance Panel—and this report, which springs from it— were made possible through generous funding from the New York Community Trust (NYCT). The Urban Land Institute’s New York District Council, the Urban Land Institute’s Urban Resilience program and the Waterfront Alliance are grateful for the support and the opportunity to explore this topic.

ULI New York and the ULI Urban Resilience program would also like to thank the Waterfront Alliance, who sponsored the TAP, and Cornell University’s Architecture, Art, and Planning program in New York City (AAP NYC), which hosted the TAP and provided us with workspace overlooking New York City’s beautiful waterfront.



Urban Land Institute and the TAP Program

Founded in 1936, the Urban Land Institute (ULI) is a 501 (c)(3) nonprofit research and education organization whose mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI has more than 40,000 members worldwide representing the entire spectrum of land use and real estate development disciplines working in private enterprise and public service. As the preeminent multidisciplinary real estate forum, ULI facilitates the open exchange of ideas, information, and experience among local, national, and international industry leaders and policy makers dedicated to creating better places. The ULI's New York District Council (ULI New York) covers most of New York State and has more than 2,300 members, including real estate developers, investors, property owners, brokers, architects, planners, public officials, engineers, and students. ULI New York embraces the best practices in leadership development, community service, and enhancement of land-use policy and practice at the local level.

ULI New York convenes Technical Assistance Panels (TAPs) at the request of public officials, community stakeholders, and nonprofit organizations facing

complex land-use challenges. TAPs provide objective, unbiased recommendations from a panel of diverse experts from ULI New York's membership who are assembled specifically for their expertise in the issues identified by the TAP sponsor. Typically, the TAP panelists spend one to two days visiting the study area and analyzing existing conditions, exploring specific planning and development issues, and formulating realistic and actionable recommendations to move initiatives forward in a way that is consistent with the sponsor's goals and objectives.

ULI New York hosted this TAP in partnership with ULI's Urban Resilience program. The Urban Resilience program provides ULI members, the public, and communities across the United States with information on how to be more resilient in the face of climate change and other environmental vulnerabilities. Through technical assistance projects, research, convenings, and support of District Council projects, the Urban Resilience program seeks to enhance community resilience with a focus on opportunities relevant to the built environment, real estate markets, and the land use policy sector.



Urban Land **New York**
Institute

Technical **Assistance Panels**

WEDG TAP Panelists, Sponsor, and Process

TAP Panel Members and Support Staff

As organizer of the Waterfront Edge Design Guidelines Technical Assistance Panel (TAP), ULI New York convened a panel of volunteer ULI members representing disciplines including development, architecture, urban and environmental planning, and historic preservation. Panel members were selected who possess professional expertise relevant to the objectives for this TAP, with a special focus on waterfront development.

The following individuals served as TAP panelists:

Peter Liebowitz

Vice President, WSP USA (TAP Chair)

Brian Collins

Head of Development, Fisher Brothers

Lisa Craig

Chief of Historic Preservation, City of Annapolis, Maryland

Jonathan Fair

Executive Vice President, Douglaston Development

Billy Grayson

Executive Director, ULI Center for Sustainability and Economic Performance

Edward LaGrassa

President, Chilton Realty

Danielle (Chayot) Lombardo

Vice President, Lockton Companies

Olivia Moss

Principal, HR&A Advisors

Ashley Muse

Architect, Muse Consulting

Spencer Orkus

Development Director, L+M Development Partners

Gerard Romski

Project Executive, Arverne By The Sea
Of Counsel, Rich, Intelisano & Katz, LLP

Matthew Steenhoek

Vice President of Development, PN Hoffman

Additional volunteers for the TAP included Laura Kenny of Cornell's City and Regional Planning Program and Nicholas Cohen, Intern at WSP USA.

Felix Ciampa, Executive Director of ULI New York, and Kathryn Dionne, a Manager for ULI New York, Katharine Burgess, Senior Director of Urban Resilience at ULI, and Megan French, a graduate student intern with the Urban Resilience program, provided organizational and technical support in preparation for and during the TAP process. Special thanks to The Berman Group for providing support with the layout, design and production of this report.

Sponsor: Waterfront Alliance

The Waterfront Alliance's mission is to protect, transform, and revitalize our harbors and waterfronts. They are the New York region's preeminent waterfront advocate for environmental restoration, waterfront access and transportation, and the working waterfront. Now in their ninth year and with more than 900 Alliance Partners, the Waterfront Alliance unites a diverse coalition of stakeholders working toward a powerful shared vision of a resilient New York Harbor and waterways alive with commerce and recreation.

The Waterfront Alliance has enjoyed remarkable success in their short existence. From expanding ferry service on the East River to new Community Eco Docks built or planned in Brooklyn, Queens, Manhattan, and Staten Island, to the internationally heralded Vision 2020: New York City Comprehensive Waterfront Plan of the Bloomberg Administration, the Waterfront Alliance has had a profound effect on the region's 700 miles of shoreline. They incorporate sustainability and ecological enhancement into every aspect of their work.

Kate Boicourt, Waterfront Alliance's Program Manager, led preparation for the TAP and ensured that the panel was well-briefed; Roland Lewis, Waterfront Alliance's Executive Director, participated extensively during the TAP and shared how WEDG fits into the Waterfront Alliance's broader goals. Other Waterfront Alliance staff who supported the TAP include Sarah Dougherty and Jose Soegaard.

TAP Process

The Waterfront Edge Design Guidelines TAP, was held on August 10, 2017, and was based at Cornell University's Architecture, Art, and Planning (AAP NYC) studio in Manhattan. Panelists came primed for the assignment, having reviewed the briefing materials from the Waterfront Alliance in advance and toured the Domino Sugar site in Williamsburg, which was the first development to be certified by WEDG. The day-long TAP included a briefing by the Waterfront Alliance, interviews with stakeholders in waterfront development in New York City and an afternoon of analysis in advance of a final presentation to the Waterfront Alliance. This report recaps and elaborates on the final presentation, including the panelists' impressions of WEDG and recommendations for the Waterfront Alliance moving forward.

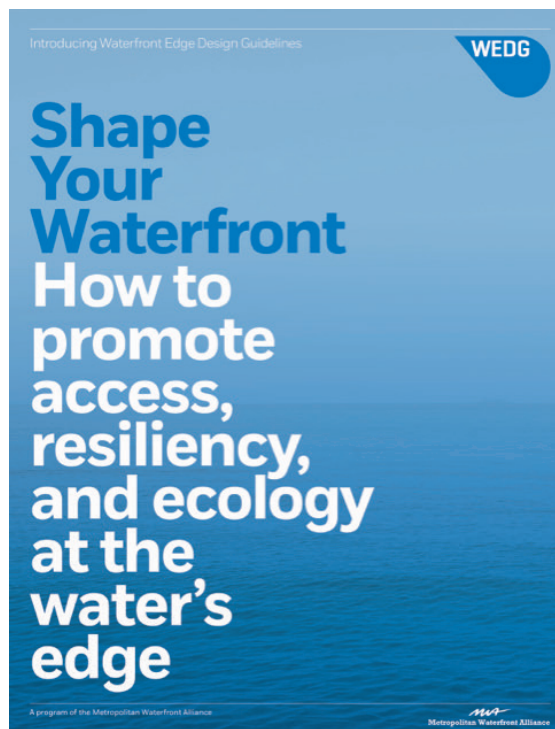
4 |

Overview – A Rating System for Resilient, Environmentally Healthy, Accessible and Equitable Waterfront Development

ULI New York received a grant from the New York Community Trust (NYCT) to provide technical assistance to the Waterfront Alliance – to help this grassroots coalition evaluate opportunities to expand their WEDG® (Waterfront Alliance Design Guidelines) and certification program beyond New York.

On August 10, 2017, ULI convened a diverse group of land use and development professionals for a one-day Technical Assistance Panel (TAP) to evaluate the

business case for waterfront design guidelines and a certification program. The group included real estate developers with recent or current waterfront projects, and therefore represented potential users of WEDG should it achieve more widespread adoption. The Waterfront Alliance asked the group to address four key questions in evaluating and recommending incentives for developers and landowners to engage with the WEDG ratings and certification program:



Waterfront Alliance's Waterfront Edge Design Guidelines
Image courtesy of the Waterfront Alliance

- 1. Primary incentives: What are the major drivers and decision points for engaging with the WEDG program for waterfront developers and the waterfront real estate community? How does this vary among the spectrum of project sizes and types?**
- 2. What are the potential economic benefits you have seen associated with other credit programs? Are there similar benefits you might expect with WEDG?**
- 3. At what point in the development process would you be most receptive to a conversation about WEDG? At what stage would it be most useful to you? Ideally, WEDG is considered as early as possible in the design process, as it is a tool to shift design towards more resilient, accessible, ecologically-friendly measures. However, there may be critical windows for engaging in conversation from the developers' perspective. What are these and how might the WEDG program encourage engagement at the right time?**
- 4. Insurance and risk reduction incentives: How do you think about and discuss risk/loss avoidance with your design teams? Your insurance providers? How is flooding/resilience built into your insurance package? Given the financing of many larger projects, influence on insurance premiums and loans may be a driver for some projects, but not others. How can WEDG appeal to these decision points? Are there ways that risk avoidance benefits of particular WEDG measures could be better articulated?**

The following report summarizes the panel's findings, analysis, and recommendations for the Waterfront Alliance as they look to expand the impact of their design guidelines and certification program across New York and to more markets nationwide.

The recommendations of this report were based on the first version of WEDG and were provided to the Waterfront Alliance in 2017, and informed the revision of their new, nationally-applicable version of WEDG, released in March, 2018. The new version and business plan for the program were influenced by, and reflect many of the recommendations contained in this report, including a greater alignment with existing ratings systems (LEED, SITES, Envision, and others) and the insurance industry, a refinement of the business case for WEDG, and new target users.



The TAP team, including ULI panelists and staff, the Waterfront Alliance and representatives from development firm Two Trees Management, kicked off the TAP with a dinner and site tour of the first real estate project certified by WEDG, the Domino Sugar Factory redevelopment in Brooklyn.

Images courtesy of ULI/Katharine Burgess

Background on the Waterfront Alliance – Advocating for Better Waterfronts

Since its inception in 2007, the Waterfront Alliance has been working to make New York’s waterfront more accessible, ecologically friendly, inclusive, and resilient, through direct programs and events inspiring New Yorkers to activate their waterfronts, and policy and advocacy to shape decision-making. Over the past decade the Waterfront Alliance has grown to include more than 1,000 organizations working together to improve more than 700 miles of shoreline in the New York-New Jersey metropolitan region. The organization works both at the grassroots organizing and advocacy level, but also convening technical and political

programs and conversations focused on improving and revitalizing the New York-New Jersey waterfront.

The Waterfront Alliance developed WEDG to distill best practices in waterfront design into a framework that developers and others can use to ensure that waterfront projects are sustainable, resilient, inclusive, and provide quality access to waterfront resources. WEDG promotes exemplary waterfront design for people, communities, and the environment while creating a tool for communication about waterfront issues between different stakeholders in the development process.



The Waterfront Alliance used three primary themes in the creation of WEDG: resiliency, access and ecology.

Image courtesy of the Waterfront Alliance

In its first iteration, WEDG has been recognized by the American Planning Association and other organizations as an innovative tool to help drive quality waterfront development. It has also been leveraged as a tool for architects, developers, and the complex NYC waterfront regulatory landscape to help streamline the process of bringing a development from concept to construction. The Waterfront Alliance has developed a checklist and launched a certification program to recognize residential, commercial, industrial, and park projects that have incorporated WEDG design guidelines effectively into their waterfront development.

WEDG is currently undergoing a revision process in part to develop a program that is applicable to waterfront development beyond the NY/NJ region. The Waterfront Alliance sees tremendous potential for impact beyond New York. As noted by the organization:

“In 2010, roughly 40% of the nation’s population lived in counties directly on the shoreline. Nationwide, flood insurance claims have averaged more than \$1.9 billion per year in the past decade... An adaptation approach that includes many tools –

public and private-is...needed to face the challenge of preparing our communities and ecosystems for the future.”

Supported by the Rockefeller Foundation, New York Community Trust, and the Doris Duke Charitable Foundation, the Waterfront Alliance is exploring a number of potential avenues to bring their standards to other cities, including a potential partnership with two to four cities in 2018. In advance of this expansion, the ULI TAP findings will inform the revision and restructuring of WEDG to better serve more users.

A key element to widespread adoption is understanding what motivates real estate developers to use WEDG, including the business case for WEDG certification. The Waterfront Alliance is also still determining how to best scale up and deliver a certification program to other cities and markets.

6 |

Analysis – The Current Business Case for WEDG

As part of the Technical Assistance Panel (TAP) process, the panel interviewed leaders from the Waterfront Alliance, as well as representatives from the New York architecture and planning community. The panel also interviewed representatives from many of the key regulatory agencies charged with managing waterfront development and asset protection in the city, including the New York City Department of City Planning and the Mayor’s Office of Recovery and Resilience.

Interviewees highlighted several key benefits of the Waterfront Alliance’s work on WEDG:

- The Waterfront Alliance exhibited leadership by identifying the needs and gaps in the market for a rating system or framework focused on waterfront sites.
- The Waterfront Alliance has played a major role in shaping the City’s Comprehensive Waterfront Plan and WEDG guidelines line up well with the primary goals of this plan.
- The Waterfront Alliance has done very impressive work engaging a broad range of stakeholders in the development of WEDG and achieving consensus on the concept and guiding principles.
- City leaders believe that the WEDG guidelines are an effective tool to help developers streamline their development process by helping them avoid costly delays and modifications that may be required by regulatory agencies concerned with the ecological and community impacts of development projects.
- Some developers have found that WEDG can be an effective community engagement tool, helping to build community buy-in for new waterfront development. For example, Two Trees Management, a New York real estate development firm, have stated that their use of WEDG certification may have increased community acceptance of the Domino Sugar redevelopment.

The Domino Sugar site, located on the South Williamsburg waterfront in Brooklyn, was one of the first developments to achieve WEDG certification.

Image courtesy of SHoP Architects



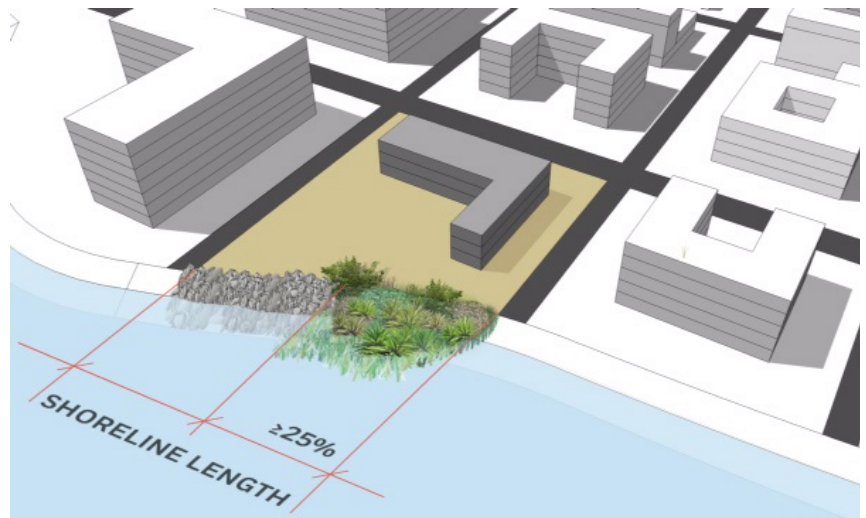
- WEDG has been a useful tool for Community Boards in New York seeking to foster more accessible, resilient waterfront development in their areas, including Community Board 1 in lower Manhattan and Community Board 9 in the Bronx.
- Interviewees believed that WEDG has potential as a tool beyond New York and that it could be a useful tool for waterfront regulatory agencies and city planning offices, helping them streamline the project permitting process through an agreed upon standard for “what’s good” in waterfront development.

Interviewees also recognized some inherent challenges with WEDG as it is currently structured and with its potential applicability beyond NYC:

- Many interviewees felt WEDG’s “points” for certification presented challenges, as different development uses take a project down different development “pathways.” Earning points for one key goal of WEDG often meant losing a commensurate amount of points towards another goal. As a result, WEDG may have a tough time developing a LEED-like system of certification levels, minimum performance criteria, and comparability across projects.
- Architect and developer interviewees recognized that the business case for WEDG in NYC (streamlining the approval and permitting process by satisfying multiple agencies’ design criteria) may not translate to cities whose waterfront goals are different, or where regulatory bodies have different criteria for waterfront development permitting and approval.
- Land use planners and city officials recognized that WEDG would have to go through significant “customization” to be applicable to different geographies because of different resilience

challenges and different ecological considerations. WEDG does not have the same level of universal applicability as building-level certifications like LEED (Leadership in Energy and Environmental Design), BREEAM (Building Research Establishment Environmental Assessment Method), and WELL (WELL Building Standard).

- Everyone recognized that WEDG also needed to identify new funding and delivery mechanisms if the organization wanted to take their design guidelines and certification program to scale – currently the certification program is managed internally by staff with a volunteer-based pilot program launched in 2017. Currently only seven projects have been certified.



WEDG encourages the incorporation of natural features providing ecosystem services. For example, ER-Credit 5.1 awards projects for replicating or restoring natural features along at least 25% of the site shoreline.

Image courtesy of the Waterfront Alliance (2015 WEDG manual V1, p32)



Panelists discuss WEDG

Image courtesy of the Waterfront Alliance

Points-based Systems: Another Perspective

When discussing whether WEDG could be more like LEED, a few panelists felt that a point-based certification that lined up as closely with LEED as possible would have the greatest chance of widespread market adoption. Their argument was that the market is comfortable with executing LEED, so, if WEDG could align its points as closely as possible with LEED, including credit equivalents and only requiring a select amount of additional “points”, developers would be encouraged to find the most cost-effective way to earn enough points to meet their certification goal and level. The majority of interviewees and panelists, however, felt that WEDG’s goals and credit categories that earned points were so different than LEED that it would be virtually impossible to line up well with LEED’s points and certification levels.

Recommendations from the TAP

After completing interviews with key stakeholders, reviewing the briefing materials, and holding a series of small group discussions to develop consensus on the four key questions posed by the Waterfront Alliance, the panel made the following recommendations on refining and marketing the WEDG program and guidelines to bring WEDG 2.0 to the next level:

Learn from successful certifications in the marketplace, but don't try to replicate them

In marketing its certification program, the Waterfront Alliance expressed their interest to have WEDG be "LEED for the Waterfront" – a standardized, replicable set of sustainable design, construction, and management steps that can be executed via a checklist, and certified by a third party. Based on the panels' experience with LEED, WELL, and other certifications, there were some challenges identified in applying a LEED-like model to WEDG:

- LEED and WELL have a much broader potential geographic footprint (ALL buildings, everywhere), while WEDG is limited to projects on the water's edge.
- WEDG's point system and design guidelines do not seem to lend themselves as naturally to a "silver, gold, platinum" level of certification. Because WEDG goals are sometimes in conflict, this naturally drives a conversation about necessary trade-offs based on the projects' primary goals.
- WEDG does not currently have a program to certify a large number of projects – to achieve LEED-scale (or even WELL, currently at 500 buildings and counting). WEDG would need to invest heavily in an accreditation program.

- WEDG also has positive attributes that LEED and WELL may not – it provides a framework to help developers explore tradeoffs between competing waterfront goals and uses and includes hard-to-measure but important goals like community access, engagement, and equity. WEDG also incorporates resilience more directly than LEED or WELL. Some of the value of these components would be lost if WEDG was more like LEED.

The panel recommends that WEDG explore a different pathway to widespread market adoption than LEED and WELL – focusing on its value proposition as a set of design guidelines that can help cities achieve their multiple waterfront design goals, and helping developers align their project proposals to help them get approved more efficiently.

There also may be opportunities to leverage the framework and strategies promoted by WEDG through partnerships or structured cross-equivalencies with other existing certification programs or institutions, such as Enterprise Green Communities or the U.S. Green Building Council. For example, the Sustainable Sites Initiative (SITES) or LEED for Neighborhood Development (LEED-ND) – two rating systems managed through Green Building Certification Inc. – sometimes operate in a waterfront context. In fact, LEED for Neighborhood Development (LEED-ND) does not currently have a strong waterfront component. With some partnership work, WEDG could be a potential waterfront overlay for an existing system like LEED-ND or SITES. However, pursuing a partnership like this would require time, commitment and decisions on whether the Waterfront Alliance feels strongly about remaining the "owner" and primary promoter of WEDG. A partnership, particularly with a commercially-managed rating system, would generate many opportunities for adoption and exposure to new markets, but it also would inevitably lead to some compromises and reduced control over the framework. The dynamic of the Waterfront Alliance's community-facing work with WEDG, such as work for New York's Community Boards, may also shift with a partnership.

LEED, WELL and WEDG: A Comparison

	LEED	WELL	WEDG
Primary focus	sustainability	health	waterfront design, including access, ecology and resiliency
Building location requirements	can be applied to any type of building	can be applied to any type of building	limited to waterfront
Multiple set levels of certification	yes	no; however, certifications can achieve different scores	no
Multiple types of certification available for different building and development types	yes	yes	yes
Capacity to certify large number of projects	yes (> 90,900 commercial; >410,00 residential) *	yes (500+)	no
Certification administered by secondary entity	yes; developed by US Green Building Council, administered by GBCI	yes; developed by International WELL Building Institute, administered by GBCI	no; developed and administered by Waterfront Alliance
Existence of a professional standard for committed practitioners	yes; LEED-AP (many types available)	yes; WELL-AP	no
Existence of a national professional network including local chapters	yes	no	no
Integration into federal building standards and municipal codes	yes	no	no
Framework encourages to explore tradeoffs of uses	no	no	yes
Ability to quantify/address community engagement	no	no	yes
Ability to quantify/address equity	no	no	yes
Direct incorporation of resilience	pilot credits currently in development	no	yes

Chart courtesy of ULI

Recognize the strengths and limitations of the current business case for WEDG

In evaluating the business case for a real estate project, developers look for opportunities to decrease the cost of delivering a building to the market, and ways to maximize the value of a project once it is completed. Developers in many markets have embraced LEED because they have found that the incremental cost of LEED certification is low, and the increase in rents,

effective rents, and asset value associated with LEED is worth the expense of pursuing certification. Tenants are demanding LEED because they value LEED's potential to lower their operating expenses (energy and water cost), improve their indoor air quality, and provide them with a third-party recognition of their commitment to environmental responsibility. In addition, many markets require LEED, or provide a suite of quantifiable incentives to make pursuing LEED certification more attractive to developers.

WEDG has a business case in NYC – and the Waterfront Alliance should work to strengthen it:

In NYC, WEDG has elements that speak to the business case for developers. Architects, developers, and city officials agree that aligning a development with WEDG guidelines is likely to make the permitting process quicker and more efficient, helping developers to avoid costly project delays and deliver their developments to market sooner (so they can generate income faster and begin working on a positive return on investment (ROI)). There is some suggestion that WEDG can also help streamline community engagement, making it more likely that communities will support a development project. WEDG should look to quantify the value of this permitting and approval efficiency, to help developers understand the economic value of leveraging WEDG to

streamline their waterfront development process. The Waterfront Alliance should also consider advocating for development incentives that can strengthen the business case for WEDG certification – if developers received density waivers, tax abatements, or other related incentives contingent upon earning WEDG certification, there would be a more favorable cost-benefit equation for developers looking to quantify the ROI of pursuing WEDG certification.

**LEED and WELL:
Economic Benefits**

- WELL provides a specific set of economic benefits, including:
 - A set of health-based outcomes that have been shown in select buildings to improve employee satisfaction, reduce turnover, and in some cases, boost productivity – all of which makes this space more valuable for the tenant.
 - A boost to marketing, both by assuming “early adopter” status and attracting tenants who value health and wellness.
- LEED provides other benefits, including:
 - Increased rents and reduced vacancy.
 - Reduced operating expenses (energy, water, waste).
 - Acting as a proxy for quality for many asset managers and investors.
 - Reduced timeline and cost for permitting in several markets.
- In some markets, LEED has become a “license to operate” due to incorporation into building codes.

Research on the business case for LEED

The business case for LEED certification is well documented, showing its ability to create positive economic outcomes. Ample research exists on the topic, including explorations of national trends and trends specific to particular markets and building types. In *World Green Building Trends*, McGraw Hill Construction found that primary motivations for green building are satisfying client demand (35%) and market demand (33%). The study also found that green building is typically cost effective for surveyed projects, providing benefits such as decreased operating costs, increased project value and increased asset valuations.

A report, called *The Relationship Between Corporate Sustainability and Firm Financial Performance*, looks at the implications of LEED building standards in 93 LEED certified bank branches and 469 non-rated branches, owned and operated by PNC Financial Services Group. Overall, the report finds that PNC’s business performance exceeded in LEED rated buildings over those that are not certified. Specifically, more than 450 consumer deposit accounts were opened in LEED rated facilities and had balances over \$3 million more per facility per year over non-certified branches. LEED rated branches also opened 25 more consumer loan accounts with almost \$1 million in balances per facility per year, over non-certified branches. Employees in LEED certified branches also saw an increase in sales by over \$460,000 per employee, compared to those in non-certified branches.

WEDG's business case in NYC may not translate to other markets: Based on conversations with developers and real estate owners from outside the New York City market, developers face a different set of permitting and approval challenges, and in many cases, work in cities with a very different set of policy priorities for their waterfront development. These cities also face very different development climates, and generally are not competing to build major waterfront developments. As a result, the New York City business case associated with more favorable project approval outcomes and quicker, easier permitting may not be as compelling in other cities. For WEDG to have a business case in these markets, it would need to demonstrate quantifiable economic benefits to the developer from pursuing its certification, or work with local policymakers to create a set of incentives that would drive adoption of WEDG principles in these markets.

In the panel's view (based on the current business case), driving more project certifications in New York may be a better short-term opportunity than taking WEDG (as currently designed) to other markets.

Engaging the insurance market may sweeten the business case for WEDG

The Waterfront Alliance asked the panel to specifically look at how the insurance industry could engage with WEDG, to determine whether insurers would consider offering reduced insurance premiums or more favorable policies for developers who achieve WEDG certification.

The panel recommended that the Waterfront Alliance start by consulting a select few major underwriters/carriers, encourage them to join the Waterfront Alliance's advisory panel, and work to determine whether developers who are earning WEDG certification are reducing their potential losses associated with extreme events, including flooding. The panel believes that there is a business case for insurers to consider more favorable rates for WEDG-certified developments, as these projects will have been required to incorporate flood-mitigation and other resilience considerations into their developments (beyond code compliance).

Comparison of Flood Protection Measures

Example Strategies	Regulatory	WEDG
Regulatory	No	Yes
WEDG	X% net fill allowed	No net fill
Reduce Slope	Max slope of 1:2	More gradual slope <1:4
Flood Proofing	Raise equipment	Raise equipment Wet flood proofing
Redundant Systems	Critical	Critical & residential

The panelists compared WEDG's flood protection measures to the typical regulatory approach, noting that many aspects of WEDG offer further protection, which could appeal to insurers of waterfront properties. This brief summary was prepared on-site at the TAP and would require more detailed analysis for discussion with an insurer or broker.

As a follow up to the panel, select panelists conducted a follow-up interview with a leading U.S. property insurance company. After reviewing the WEDG guidelines, this insurer had the following observations and recommendations to supplement the panel's findings:

- WEDG has a compelling value proposition for insurers, as it addresses some of the major risks that underwriters consider when looking at waterfront development – extreme weather events and flooding risks. In many ways this makes WEDG more effective than LEED as a tool insurers could use to consider better-than-market pricing for insurance.
- Insurers would like to see other major property risks (especially wind) taken into consideration in WEDG guidelines, with points associated with wind damage mitigation strategies.
- WEDG certification would need to include a third-party engineering evaluation and review to be considered for any insurance premium discount or special consideration in the underwriting process. Leading insurers would still want their own engineers involved early in the process, possibly to provide guidance on what WEDG points to pursue, and what level of certification would satisfy their underwriters.
- While WEDG may not be able to advertise a consistent “insurance discount” as a result of achieving certification, there is a strong argument that WEDG-certified projects could get a better insurance rate than similar buildings built to code in the same market applying for insurance at the same time, or that WEDG projects may be insurable in some markets while comparable projects that did not follow WEDG guidelines may not be able to secure the same level of coverage.

The panel believes that if insurance companies offered policies with lower premiums and better terms for WEDG-certified projects, this would significantly strengthen the business case for WEDG, and provide developers with a quantifiable value for WEDG they could work into their value analysis calculations. If insurance rate reductions were tied to a specific WEDG threshold (certified or not certified) or a certification level with a predictable, quantifiable reduction in premiums, this could easily be incorporated into development calculations. If the

cost of certification was less than the cost reduction on insurance premiums, all developers would pursue this certification.

FORTIFIED

As was the case in New York City with Sandy, hurricanes Ivan and Katrina destroyed billions of dollars' worth of property in the southeast United States and increased home insurance rates. To become more resilient for future weather events and encourage the building of stronger homes, the State of Alabama has been supporting a set of performance-based engineering and building standards, called FORTIFIED Home. These standards, created and tested by the Insurance Institute for Business and Home Safety, protect homes from rain, hail, wildfire, and winds up to 130 miles per hour.

To promote the use of these standards in the private sector and drive adoption in the market, Alabama passed legislation in 2009 to require insurers to offer discounts to owners of homes that meet the FORTIFIED standard, to create a program that offers financial incentives to building new construction using FORTIFIED, and to provide grants for retrofitting existing homes. Coastal homes in Alabama that have been built to meet the FORTIFIED standard have since seen returns on their investment, such as a 7% increase premium in resale value, a 35% discount on insurance premiums, and the potential for avoided losses after an extreme weather event. Alabama now leads the country in the number of FORTIFIED homes with over 2,500.



The IBHS Research Center tests FORTIFIED certified (right) and non-certified (left) homes' ability to endure major weather events.

Image courtesy of the Insurance Institute for Business and Homes Safety

Consider a new target - Municipalities can be the market entry point for WEDG

In discussing the potential for municipalities to incentivize WEDG certification in their jurisdictions, the panel also recommended that the Waterfront Alliance consider cities as potential clients for their program and services.

WEDG is currently very much rooted in New York City and its development environment. New York City has some of the most sophisticated approaches to waterfront planning in the country, including waterfront zoning regulations addressing bulk, use and access for waterfront blocks, piers, platforms and floating structures. New York City policymakers have described WEDG as a useful tool for them; yet, the opportunity is likely to be much greater for cities with fewer resources and frameworks for waterfront development currently in place.

Cities have a clear business case to drive ecology, community access, community engagement, and resilience in their communities – a resilient, sustainable development with quality public access can help reduce the city’s operating expenses and future public infrastructure expenses, reduce disaster recovery costs, improve public realm and quality of life and become a sustainable source of tax revenue. In short, WEDG may be a useful tool for cities to realize the economic potential of their waterfront sites such as:

- WEDG provides a set of best practices, informed by experts, that can help to shape a waterfront planning framework.
- WEDG-certified projects can contribute to the public sector’s goals to create a resilient waterfront and creating public amenities.
- Creating a clear set of waterfront development guidelines can spur a greater volume and higher-quality of valuable waterfront development.

City planning and permitting offices are also often under-resourced, which can make the development

review and permitting process slow and inconsistent across projects. Adoption of WEDG guidelines could streamline the planning and approval process, helping cities save time and money while generating projects that are more consistently aligned with their master plans. However, given that cities have different regional needs, climate contexts, marketing, and zoning contexts, customization and local partners will be needed to get the local versions right and achieve local buy-in.

The Waterfront Alliance should look for cities with a similar set of waterfront values articulated in their development master plans, or cities looking to build these values into their waterfront development strategies. Cities may also be particularly good markets for WEDG, and/or city officials or staff may be particularly receptive if:

- Their waterfronts are rapidly gaining value and desirability and/or experiencing development pressures
- Funded waterfront projects are already underway; resilience-focused projects such as those funded through HUD’s National Disaster Resilience Competition, may be particularly good fits.

The Waterfront Alliance could work with these cities to refine their master plans, and then customize WEDG for the specific waterfront development goals for the city. Once the city connected its waterfront development plan to WEDG guidelines, it could then incentivize developers to use WEDG as a tool to align development proposals with the city’s waterfront goals.

It will also be important to reach out to the real estate and design community in new markets for WEDG. ULI District Councils, particularly those with resilience or sustainability committees, may also be interested in learning about WEDG and offering a sounding board to the Waterfront Alliance about likely applicability and market interest.



The City of Annapolis offers one example of a municipality actively engaged in waterfront planning that prioritizes principles exemplified in WEDG such as accessibility, flood preparedness and ecological function. The city is currently advancing a number of waterfront planning initiatives, including a City Dock Master Plan and the “Weather it Together” project, a strategy for historic preservation and hazard mitigation in the downtown waterfront district. WEDG could be a very useful tool for Annapolis to evaluate future waterfront development, consider the overall framing principles and ensure adherence with existing plans underway. However, the conversation would need to acknowledge planning initiatives underway and customize WEDG or the application of WEDG rather than considering the framework in isolation. Steps for the Waterfront Alliance to engage with Annapolis, or another city with similar plans underway, could include:

- Present WEDG to the “Weather it Together” stakeholder group, which has managed outreach and the process for the “Weather it Together” plan
- Review the current City Dock Master Plan and apply WEDG principles
- Take a study tour with city planners to identify potential sites for WEDG beyond the boundaries of the City Dock Master Plan
- Discuss next steps about how WEDG could be used by the city in future waterfront planning efforts, including the role of incentives.

The City of Annapolis regularly experiences flooding, seen here surrounding a sculpture at the City Dock (top image). Planning processes underway, such as the City Dock Master Plan, offer an opportunity for the application of WEDG principles.

Image courtesy of City of Annapolis

Consider incentives and strategies for municipalities, which could support a WEDG market for developers

The current business case for WEDG is too theoretical and qualitative to drive widespread market adoption. Without quantifiable incentives that decrease development costs or increase development yields, most developers will not invest time and money in pursuing WEDG certification. To build a consistent business case for WEDG, municipalities will need to provide a set of policies that incentivize WEDG certification on their waterfronts. Accordingly, the Waterfront Alliance may achieve better uptake by promoting WEDG to municipalities and encouraging the development of WEDG-related incentives, as opposed to focusing efforts exclusively on the real estate community.

Some of the most common policy tools used to incentivize development include:

Incentives that reduce the cost of development: These incentives could include reducing or waiving building permit fees, providing tax abatement incentives, reducing the requirements associated with providing

public amenities or construction elements that do not directly generate revenue, or providing matching public financing for the development of public access components of a waterfront development project.

Incentives that increase the potential revenue from development: Municipalities could provide incentives that ease height restrictions, allow for more dense development such as through increased Floor Area Ratio (FAR), reduce property taxes, or provide other policy incentives that would allow a developer to maximize long-term revenue associated with their projects.

Time is money – incentives that reduce the length of the approval, permitting and construction process: Municipalities could consider tangible steps to reduce the length of time it takes for a development to get approval, receive a building permit, break ground, or complete final inspections and commissioning.

Incorporating WEDG into city RFPs also offers another opportunity to raise awareness of WEDG and encourage the real estate community, and practitioners such as architects and landscape architects, to use the framework. The Waterfront Alliance has already had some success with the incorporation of WEDG into a New York City Economic Development Corporation RFP and should continue to promote WEDG to agencies and others to achieve this again.

Examples of Green Building Incentives

The following incentives represent a selection of those currently in place across the U.S. This chart does not represent the full range of policies in place in each city profiled.

City	Incentive Type	Eligible Projects	Details	Administered by	More Information
Arlington County, Virginia	Density Bonus	Buildings achieving LEED Silver level, or higher	LEED Silver projects receive a 0.25 FAR bonus, LEED Gold projects receive a 0.35 FAR bonus, and LEED Platinum projects receive a 0.5 FAR bonus.	Green Building Incentive Program, Arlington County Planning Commission	https://newsroom.arlingtonva.us/release/arlington-updates-green-building-incentive-program/
Miami, Florida	Density Bonus	Buildings achieving LEED Silver, Gold or Platinum	Buildings are eligible within Miami's "urban core zone." Bonuses align with LEED ratings: 2% of Floor Lot Ratio (FLR) for Silver, 4% of FLR for Gold and 13% FLR for Platinum	City of Miami Planning and Zoning	Miami 21 Article 3: http://www.miami21.org/PDFs/FinalDocumentsMay2010/Article3-GeneraltoZones-AsAdopted-May2010.pdf
Chicago, Illinois	Expedited Permitting or Permit Review	Projects that achieve certification within LEED or Green Globes rating systems are eligible for the Green Permit Benefit Tier program. Projects that include green strategies or technologies, specifically green roofs, rainwater harvesting, solar thermal panels, geothermal systems, and wind turbines are eligible for the Green Permit program.	Qualifying projects within the Green Permit Benefit Tier program are guided through the expedited permit process by a dedicated Green Permit Project Administrator and are eligible for a possible fee reduction. Projects that qualify for the Green Permit program will receive a priority review.	The Chicago Department of Buildings	https://www.cityofchicago.org/city/en/depts/bldgs/provdrs/green_permit.html
Issaquah, Washington	Expedited Permitting or Permit Review	Residential projects that achieve Green 5 Star certification under King/Snohomish Master Builders Assoc (Built Green). Commercial projects that achieve LEED Gold certification	Projects pursuing the green building certification are priority during building permit review stage, about a 50% reduction in time during the review stage. Each project is also assigned a "Green Concierge" to support faster processing and act as a POC	Development Services Department	http://www.issaquahwa.gov/index.aspx?nid=386
Seattle, Washington	Expedited Permitting or Permit Review	Buildings achieving a certification (LEED Gold or Platinum, Living Building Challenge Petal or Net-Zero Energy, Passive House Institute US Building, Built Green 4,5 or Emerald Star) and achieving a number of energy conservation, water conservation, waste reduction and indoor air quality goals	The program includes priority appointment scheduling, faster plan review, faster routing and processing and a single point of contact	Seattle Department of Construction and Inspections	http://www.seattle.gov/dpd/permits/greenbuildingincentives/prioritygreenexpedited/default.htm
Scottsdale, Arizona	Expedited Permitting or Permit Review (Integrated Permit Process)	Once a project plan is approved based on green building rating criteria, building permit is issued and building inspections are provided at the same time as regular city inspections. Once completed, the building also receives a Green Certificate of Occupancy, which is permanently part of the city record and on the website	Every builder that submits a project to the Green Building Program must also attend at least 2 green building related workshops. Additional incentives for participating in the program include: technical assistance, inclusion in a directory of other local green builders/designers, promotional packages	Green Building Program, City of Scottsdale	http://www.scottsdaleaz.gov/green-building-program/incentives
Charlottesville, Virginia	Tax Rebate	Eligible projects must achieve at least one of the following: exceeds energy efficiency standard by 30%, based on VA Uniform Statewide Building Code; meets/exceeds Green Globes Green Building Rating System performance standards; meets/exceeds LEED standard; meets/exceeds EarthCraft House Program; meets/exceeds performance guidelines for Energy Star program	Projects (commercial/non residential and residential) that meet energy efficiency standards are eligible for 50% tax rate reduction for 1 tax year.	Charlottesville Department of Neighborhood Development Services	http://www.charlottesville.org/departments-and-services/departments-h-z/public-works/environmental-sustainability/green-building-incentives

Build demand for the WEDG brand through strategic private sector engagement

The panel agreed that municipalities represent a very important target audience for WEDG, particularly due to the potential for impact by WEDG and the Waterfront Alliance's values and mission. However, given the Waterfront Alliance's interest in cultivating WEDG users in the development community, the panel also explored opportunities for strategic engagement. Some target audiences that could create marketing momentum for WEDG include:

- Developers with an established commitment to, and brand focus on, sustainability and resilience
- National developers that are using the standard in New York, and see value in implementing the standard in other jurisdictions
- A limited number of anchor waterfront owners or users, who develop and manage large or highly visible waterfront sites, such as
 - Port Authorities
 - The Coast Guard
 - National oil companies or other corporations with substantial waterfront holdings

The Waterfront Alliance should also consider whether there are products which would specifically support the implementation of WEDG; for example, LEED has driven the establishment and growth of numerous products, such as no-VOC sealants and paints. These businesses would ultimately become important partners in promoting WEDG and supporting the growth of the framework.

Engage developers "early and often" to increase WEDG uptake

The Waterfront Alliance asked the panel to provide insight on when in the development process it makes the most sense to engage developers around WEDG. The general consensus was "early and often" - that the earlier in the planning process WEDG was introduced the more opportunity there was to cost-effectively work to align a development plan with the WEDG framework. The panel also had the following recommendations to make WEDG more applicable to more points in the development process:

- Align WEDG credits with steps in the development process, so that WEDG credits can be highlighted, eliminated, or checked off based on applicability
- Consider simplifying (or reducing) the number of credit types and categories based on the type of development or the market, with a simplified "WEDG-light" for projects or communities where the full WEDG process is not economical, such as single family residential properties, or not as relevant based on project factors.
- WEDG has value in NYC all the way through development completion. WEDG can still help after a site plan is developed to generate community buy-in (as was the case with Two Trees' Domino Sugar project), or as a post-construction evaluation tool (to help a project determine how they benchmark against similar projects on their shared waterfront).



WEDG has the most potential to impact project design if integrated early in the planning process.

The business case should inform a sustainable organizational and financial model for WEDG

While the panel was not specifically asked by the Waterfront Alliance to evaluate the organization's current business model and funding sources, panelists felt it was important to provide recommendations on how the Waterfront Alliance's business model could support more widespread adoption of the WEDG program. Currently, the Waterfront Alliance does not have enough capacity to support incoming projects – not nearly enough infrastructure or oversight to support a rapid national expansion of the certification program.

The current funding model, which is largely grant-supported, also would not sustain a national-level certification program. However, if working nationally and providing services to both cities and the real estate community, it would be reasonable for the Waterfront Alliance to require fees for services related to WEDG. This would ultimately enable WEDG to support itself as an earned income initiative.

If WEDG pursued a strategy of engaging cities to help them refine their waterfront master plans, then tailored WEDG as a set of design guidelines to help cities, the organization could generate revenue through consulting arrangements with cities (or local coalitions looking to drive better waterfront policy at the local level). Future WEDG certification could be carried out by "WEDG Accredited Professionals" (AP), who could be trained by WEDG or the city (for a fee) and then certified to provide

either certified first-party technical assistance, or third-party certification of projects.

If WEDG looks to implement a national certification program, it will need to develop a certification program for accredited professionals (to support project scoring and certification), and the infrastructure to evaluate and certify projects efficiently. To satisfy the insurance underwriting industry, these "certifiers" may need to hold some professional accreditation with the industry or be certified professional engineers. In this business model, USGBC (the standard-setter and promoter) and GBCI (the certification body) and ENERGY STAR (the standard setter) with licensed Professional Engineers (the certification body) may be good business models to evaluate in scaling up this program.

Finally, the panel briefly discussed the current branding of WEDG and how it might impact national adoption of, and interest in, the program. The panel encouraged the Waterfront Alliance to focus on branding and take a deliberate strategy before scaling the program. The current name, WEDG, can have negative connotations – a wedge divides, whereas the WEDG standards seek to foster accessible spaces that bring communities together. While the panel did not explore this issue in depth, all agreed that the name will be critical to any strategy to grow the standard and seek national adoption. So, when moving forward with WEDG, the Waterfront Alliance should be certain that whatever branding is used represents the values of the program and could be self-explanatory for users not already familiar with the Waterfront Alliance's work.

8 |

Conclusion

The Waterfront Alliance has built an impressive and much-needed set of design guidelines that are helping to transform New York's waterfront. The WEDG program is a valuable tool in driving this transformation, helping developers design and implement projects that are ecologically sensitive, resilient, and support quality community access and involvement. In New York, the WEDG program can help developers better navigate the complex regulatory environment of New York City's waterfront to complete their projects more efficiently, and WEDG-certified projects may see quicker permitting, less community resistance, better insurance coverage and rates, and other benefits that could translate to a better return on their development.

While there may be a business case for WEDG in New York City, it could be much stronger with quantifiable incentives that would reduce development costs or increase potential development revenues. To grow the

current WEDG program nationally, the business case for developers to implement WEDG will need to be much stronger. Clear, quantifiable public policy incentives can help build a stronger business case for WEDG, as would lower property insurance premiums and better coverage from the insurance industry. If WEDG wants to meet an increased demand for certification, it will also need to create robust programs to train certifiers and to objectively certify projects. If WEDG can create a market with clear, quantifiable business benefits associated with certification and these quantifiable benefits outweigh the cost of certification, developers at any waterfront edge would actively embrace and execute this certification program.



Urban Land **New York** Institute

ULI New York

25 West 45th Street, Suite 505

New York, NY 10036

newyork.uli.org

For more information email
newyork@uli.org or call 917.773.8822

