
WHAT IS ENVISION?

FOR LOWER EAST SIDE POWER PARTNERSHIP

NOV 25, 2019

Presentation Agenda

- Introduction to the Sustainable Infrastructure Unit
- Why use Envision?
- What is Envision?
- How Envision is used
- Example Projects
 - Sheldon Ave
 - Starlight Park
- East Side Coastal Resiliency



Introduction to The Sustainable Infrastructure Unit

NYC Department Of Design & Construction

Is the city's **primary capital Project Manager**

INFRASTRUCTURE



PUBLIC BUILDINGS



DDC INFRASTRUCTURE Project Typologies

- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- CATCH BASINS
- CONSTRUCTED WETLANDS
- PLAZAS
- PEDESTRIAN BRIDGES
- STEP STREETS
- RETAINING WALL
- ROADWAY RECONSTRUCTION
- STREET SCAPE
- VISION ZERO / PEDESTRIAN SAFETY

Agency Collaboration

Parks



Sewer and Water Mains



Large Infrastructure
Projects Demand
Inter-agency
Collaboration



Why use Envision?

A STRATEGIC BLUEPRINT FOR CONSTRUCTION EXCELLENCE

INFRASTRUCTURE

The Infrastructure Division

delivers projects on behalf of the Department of Environmental Protection (DEP) and the Department of Transportation (DOT), and last year reconstructed 25 lane miles of New York City streets, and installed or replaced 118 miles of the City's sewers and water mains. The Infrastructure Division is also responsible for essential citywide programs strengthening the **resiliency, sustainability,** and livability of numerous connected communities. These include the City's Coastal Resiliency Program, the innovative Bluebelt stormwater management network in Staten Island, as well as the multi-year effort to make pedestrian ramps throughout the City **ADA compliant** and the \$1.9 billion initiative to improve streets and drainage in southeast Queens.

DDC'S COMPREHENSIVE PLAN TO IMPROVE CAPITAL PROJECT DELIVERY; LAYS OUT THEMES TO DELIVER PROJECTS FASTER AND WITHIN BUDGET.

DDC will leverage recent, significant advances in physical technologies to improve the constructability and **sustainability** of its projects. These include trenchless construction, allowing for the installation of underground infrastructure with minimal excavation, modular building techniques to reduce in-place construction, and porous pavement and concrete to improve ground permeability.

Another factor that DDC must now take into account for every project is **climate change**. The warming of the planet creates new infrastructure challenges related to higher temperatures, sea level rise, droughts, and storms.

VIBRANT DEMOCRACY
INCLUSIVE ECONOMY
THRIVING NEIGHBORHOODS

OneNYC 2050



MODERN INFRASTRUCTURE
HEALTHY LIVES
LIVABLE CLIMATE
EFFICIENT MOBILITY



NYC Parks



NYC Mayor's Office of Resiliency



Communities



Neighborhood improvement



Equitable



Safety



Quality of Life

Innovate

Housing

Vibrant City

Mobility

Increase Public Awareness

Care - Not Just Maintenance

Economic Development

Climate Resilient

Project Delivery

Improve Performance

Resiliency and Sustainability

Resiliency and Sustainability

Organization Excellence

Sustainable Services

Public Engagement

Address Climate Change

Sustainability



Quality of Life



Leadership



Resource Allocation



Natural World



Climate and Resilience

What is Envision?

**RESILIENCY
+ SUSTAINABILITY**

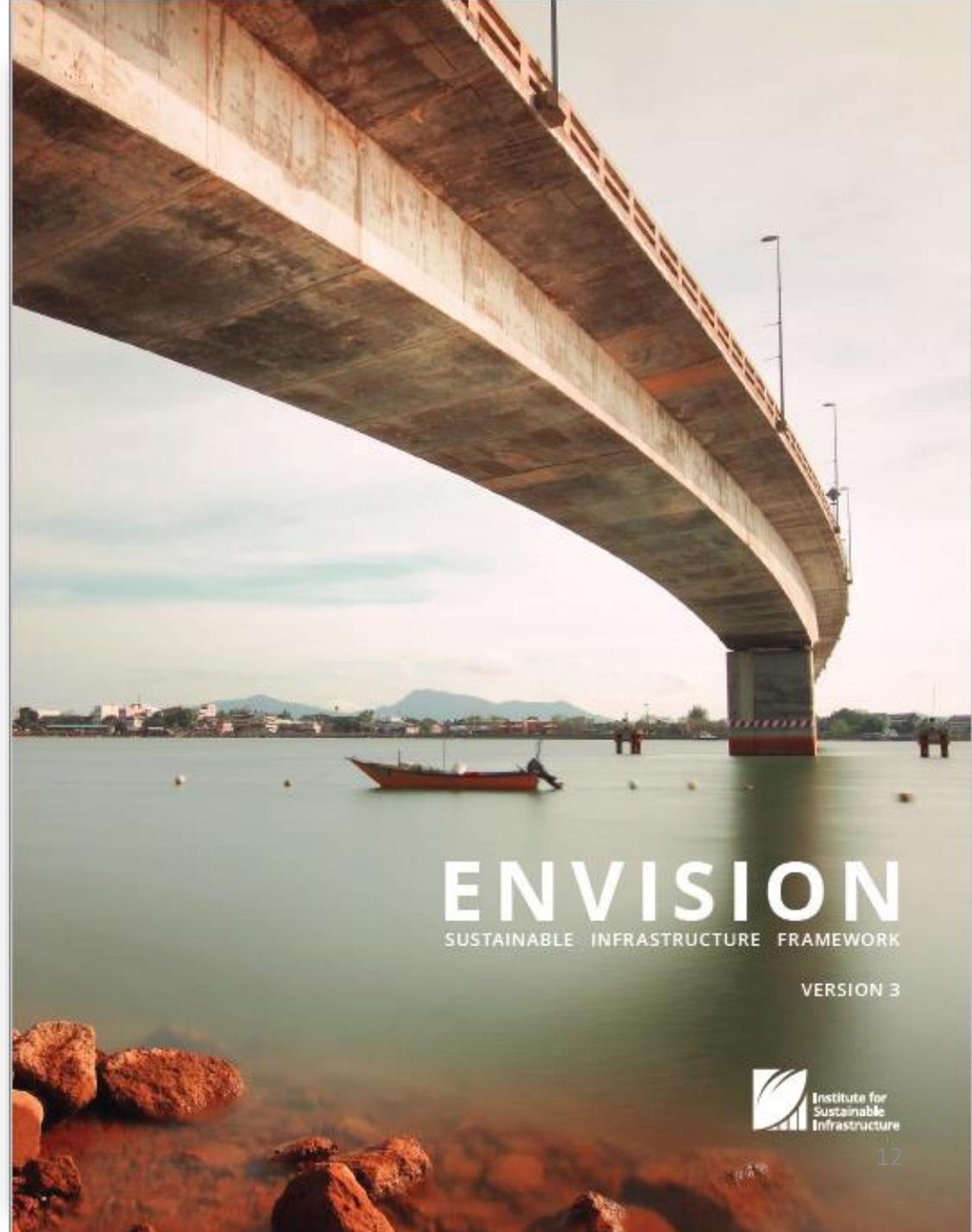
ENVISION

Envision Guidance Manual

The written framework for resiliency and sustainability created by a joint collaboration between:



<https://sustainableinfrastructure.org/envision-version-3/>



Envision Credit System

A framework that includes **64 sustainability and resilience indicators**, called ‘credits’, organized around five categories:



What does this mean to me and my community?



**Quality
Of Life**
14 Credits

WELLBEING

QL1.1 Improve Community Quality of Life

QL1.2 Enhance Public Health & Safety

QL1.3 Improve Construction Safety

QL1.4 Minimize Noise & Vibration

QL1.5 Minimize Light Pollution

QL1.6 Minimize Construction Impacts

MOBILITY

QL2.1 Improve Community Mobility & Access

QL2.2 Encourage Sustainable Transportation

QL2.3 Improve Access & Wayfinding

COMMUNITY

QL3.1 Advance Equity & Social Justice

QL3.2 Preserve Historic & Cultural Resources

QL3.3 Enhance Views & Local Character

QL3.4 Enhance Public Space & Amenities

WHAT DOES THIS MEAN TO ME?

- Identifies community needs, goals and issues through meaningful engagement
- Assess social, economic, and environmental conditions
- Considers the health and safety benefits are equitably distributed
- Considers the operational and construction noise impacts
- Expands mobility and access options
- Address neighborhood access and wayfinding
- Considers historic context of equity, social justice, and environmental justice
- Identifies historic/ cultural resources; views and local character



Leadership

12 Credits

COLLABORATION

LD1.1 Provide Effective Leadership & Commitment

LD1.2 Foster Collaboration & Teamwork

LD1.3 Provide for Stakeholder Involvement

LD1.4 Pursue Byproduct Synergies

PLANNING

LD2.1 Establish a Sustainability Management Plan

LD2.2 Plan for Sustainable Communities

LD2.3 Plan for Long-Term Monitoring & Maintenance

LD2.4 Plan for End-of-Life

ECONOMY

LD3.1 Stimulate Economic Prosperity & Development

LD3.2 Develop Local Skills & Capabilities

LD3.3 Conduct a Life-Cycle Economic Evaluation

WHAT DOES THIS MEAN TO ME?

- project team commitment to sustainability/ resiliency; periodically address the social, environmental, and economic aspects of the project through meetings/ written reports
- interdisciplinary collaborative project; overall long-term sustainability of the community
- two-way line of communication to reply to inquiries; dialogue and partnership
- improve the socioeconomic conditions of the community; may involve training programs for local skill development



Resource Allocation

14 Credits

MATERIALS

RA1.1 Support Sustainable Procurement Practices

RA1.2 Use Recycled Materials

RA1.3 Reduce Operational Waste

RA1.4 Reduce Construction Waste

RA1.5 Balance Earthwork On Site

ENERGY

RA2.1 Reduce Operational Energy Consumption

RA2.2 Reduce Construction Energy Consumption

RA2.3 Use Renewable Energy

RA2.4 Commission & Monitor Energy Systems

WATER

RA3.1 Preserve Water Resources

RA3.2 Reduce Operational Water Consumption

RA3.3 Reduce Construction Water Consumption

RA3.4 Monitor Water Systems

WHAT DOES THIS MEAN TO ME?

- source materials and equipment from manufacturers and suppliers that implement sustainable practices
- avoid sending useful materials to landfills by specifying reused materials; divert construction and demolition waste streams from disposal to recycling and reuse
- conserve energy by reducing overall operational energy consumption throughout project life
- conserve resources and reduce greenhouse gases and air pollutant emissions by reducing energy consumption during construction
- reduce potable water consumption during construction and operation; encouraging the use of greywater, recycled water, and stormwater to meet water needs



**Natural
World**
14 Credits

SITING

- NW1.1** Preserve Sites of High Ecological Value
- NW1.2** Provide Wetland & Surface Water Buffers
- NW1.3** Preserve Prime Farmland
- NW1.4** Preserve Undeveloped Land

CONSERVATION

- NW2.1** Reclaim Brownfields
- NW2.2** Manage Stormwater
- NW2.3** Reduce Pesticide & Fertilizer Impacts
- NW2.4** Protect Surface & Groundwater Quality

ECOLOGY

- NW3.1** Enhance Functional Habitats
- NW3.2** Enhance Wetland & Surface Water Functions
- NW3.3** Maintain Floodplain Functions
- NW3.4** Control Invasive Species
- NW3.5** Protect Soil Health

WHAT DOES THIS MEAN TO ME?

- minimize impact of stormwater runoff quantity, rate, and quality
- reduce non-point-source pollution by reducing the quantity, toxicity, bioavailability, and persistence of pesticides and fertilizers
- prevent pollutants from contaminating surface water and groundwater; includes spill and leak diversion systems, spill prevention plans, and cleanup



Climate and Resilience

10 Credits

EMISSIONS

CR1.1 Reduce Net Embodied Carbon

CR1.2 Reduce Greenhouse Gas Emissions

CR1.3 Reduce Air Pollutant Emissions

RESILIENCE

CR2.1 Avoid Unsuitable Development

CR2.2 Assess Climate Change Vulnerability

CR2.3 Evaluate Risk & Resilience

CR2.4 Establish Resilience Goals and Strategies

CR2.5 Maximize Resilience

CR2.6 Improve Infrastructure Integration

WHAT DOES THIS MEAN TO ME?

- reduce greenhouse gas emissions during operation; reduce project contribution to climate change
- reduce emissions of air pollutants: particulate matter (including dust), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, lead, and volatile organic compounds
- conduct a comprehensive/ multi-hazard risk and resilience evaluation; Acute Shocks (Short-term) Hurricanes - Heat Waves - Flooding; Chronic Stressors (Long-term) Sea Level Rise - Aging Infrastructure - Global Warming
- develop a comprehensive climate change vulnerability assessment; share climate threat findings with the community to develop resilience goals and strategies; maximize resilience to withstand hazards

Applicability

- Envision recognizes that not all credits will be applicable to all projects.
- Credits can be omitted from consideration by designating them as “not applicable”.

For example:

NW 1.3 Preserve Prime Farmland.

Projects that do not contain prime farmland may deem this credit “Not Applicable”.

Applicability: Projects that do not contain prime farmland, and for which no siting options containing prime farmland were possible or seriously considered, may apply to have this credit deemed not applicable with supporting documentation.

Levels of Achievements

64 credits with **multiple levels of achievement** represent the spectrum of performance goals from improving beyond conventional practice, to conserving and restoring communities and environments



RESTORATIVE

CONSERVING

SUPERIOR

ENHANCED

IMPROVED

NO POINTS



QUALITY OF LIFE: WELLBEING

QL1.1 Improve Community Quality of Life

26

POINTS

INTENT

Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.

METRIC

Measures taken to assess community needs and improve quality of life while minimizing negative impacts.

LEVELS OF ACHIEVEMENT

IMPROVED	ENHANCED	SUPERIOR	CONSERVING	RESTORATIVE
A+B	A+B+C+D	A+B+C+D+E	A+B+C+D+E+F	A+B+C+D+E+F+G
(2) Community Considerations	(5) Community Linkages	(10) Broad Community Alignment	(20) Holistic Assessment & Collaboration	(26) Protecting The Future

(A) The project team identifies and takes into account community needs, goals, and issues. For example, the project team has located and reviewed the most recent community planning information and assessed relevant community needs, goals, and/or issues.

(B) The project meets or supports community needs and/or goals.

(C) The project assesses the social impacts it will have on the host and affected communities' quality of life.

(D) The affected communities are meaningfully engaged in identifying how the project supports community needs and/or goals.

(E) Based on the social assessment, potential negative impacts on the host or nearby affected communities are mitigated following a hierarchy that prioritizes avoidance, minimization, restoration, and offsetting.

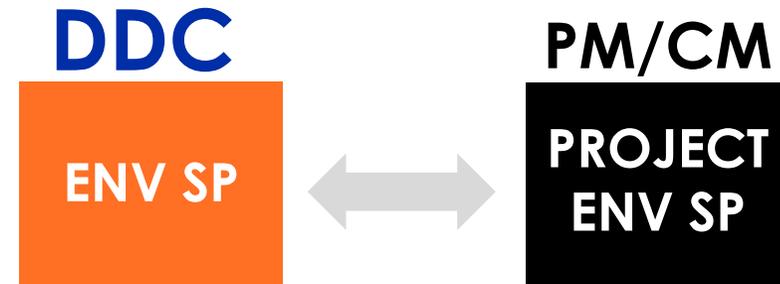
(F) Community satisfaction is demonstrated by feedback from the stakeholder engagement process verifying actions taken in criteria A, B, C, and D.

(G) The project proactively addresses trends in changing social, economic, and/or environmental conditions within the community in order to ensure a high quality of life over the long term.

Envision Sustainability Professional (ENV SP) Credential

Through its Envision Sustainability Professional (ENV SP) credential, Envision recognizes and brings attention to individuals trained and dedicated to developing more sustainable infrastructure.

Project Manager/Construction Manager (PM/CM)
ENV SP will conduct the Envision Pre-Assessment
checklist and upload supporting documentation for
third party verification.



Envision Award Levels of Applicable Credits

20%



ENVISION

VERIFIED

TARRANT REGIONAL WATER DISTRICT
INTEGRATED PIPELINE PROJECT

TARRANT, TEXAS

30%



ENVISION

SILVER

TARRANT REGIONAL WATER DISTRICT
INTEGRATED PIPELINE PROJECT

TARRANT, TEXAS

40%



ENVISION

GOLD

TARRANT REGIONAL WATER DISTRICT
INTEGRATED PIPELINE PROJECT

TARRANT, TEXAS

50%



ENVISION

PLATINUM

TARRANT REGIONAL WATER DISTRICT
INTEGRATED PIPELINE PROJECT

TARRANT, TEXAS

How Envision is used



DDC Typologies & Anticipated Minimum Envision Rating

Typology I



Comprehensive Site Work

SILVER

Typology II



Engineered Wetland

SILVER

Typology III



Subsurface Linear Work

VERIFIED

Typology IV



Plazas

VERIFIED

Typology V



Pedestrian Bridges

VERIFIED

Typology VI



Step Streets

SILVER

Typology VII



Typical Coastal Resiliency

SILVER

Typology VIII



Retaining Walls

VERIFIED

Typology IX



Street Reconstruction

SILVER

Envision Work Flow Diagram



Include Envision in PM/CM (Project Manager/Construction Manager) Contract



PM/CM Assigns a Project ENV SP

ENV SP

PM/CM ENV SP conducts the Preliminary review using Envision Pre- Assessment Checklist

Assessment Questions	Yes/No	Criteria Met?
A. Has the project team identified and taken into account community needs, goals, and issues?	Yes	Yes
B. Does the project meet or support the needs and goals of the host and/or affected communities?	Yes	Yes
C. Has the project team assessed the social impacts the project will have on the host and affected communities' quality of life?	Yes	Yes
D. Have the affected communities been meaningfully engaged in identifying how the project meets community needs and/or goals?	Yes	Yes
E. Has the project team addressed negative social impacts?	No	No
F. Are the affected communities satisfied that the project addresses their needs and goals as well as mitigate negative impacts?	No	No
G. Does the project proactively address long-term social, economic, or environmental changes that impact quality of life?	No	No



NYC DDC Collaborates with PM/CM to provide documentation and review Pre-Assessment Checklist



Award



ISI Third Party Verification

Category	Credit	Points	Progress
Wellbeing	QL1.1 Improve Community Quality of Life	10	Progress bar
	QL1.2 Enhance Public Health & Safety	10	Progress bar
	QL1.3 Improve Construction Safety	10	Progress bar
	QL1.4 Minimize Noise & Vibration	10	Progress bar
Mobility	QL2.1 Improve Community Mobility & Access	10	Progress bar
	QL2.2 Encourage Sustainable Transportation	10	Progress bar
	QL2.3 Improve Access & Wayfinding	10	Progress bar
Community	QL3.1 Advance Equity & Social Justice	10	Progress bar
	QL3.2 Preserve Historic & Cultural Resources	10	Progress bar
	QL3.3 Enhance Views & Local Character	10	Progress bar
	QL3.4 Enhance Public Space & Amenities	10	Progress bar
Innovate or Exceed	QL4.0 Innovate or Exceed Credit Requirements	10	Progress bar

PM/CM ENV SP uploads documentation to ISI (third party) Envision online portal

Envision Verification and Award (third party)

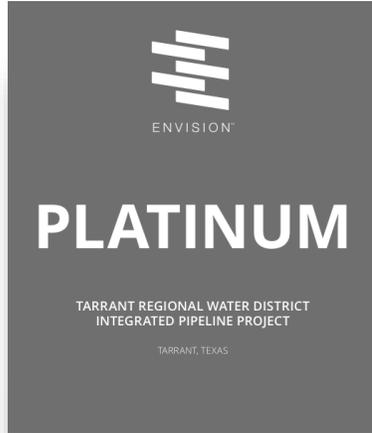
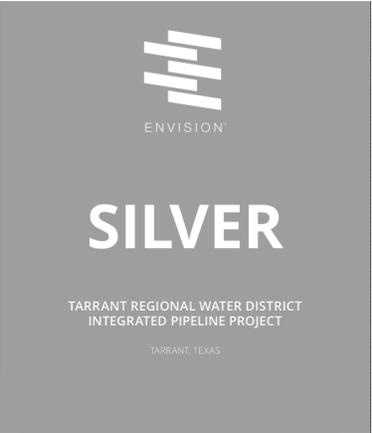
Documentation according to the level of achievement is uploaded on the online scoresheet and sent for ISI third party verification.

20%

30%

40%

50%



Example Projects

- Sheldon Ave
- Starlight Park





Sheldon Avenue, Staten Island

Project Description

- Remove residents from septic and connect to sewer system via sanitary sewer
- Provides ecologically sound and cost-effective storm water management for approximately one third of Staten Island's land area.

Project Results

- Reduced flooding
- Removed residences from septic
- Community roadway improvements

	Verified Score Information		
Credit Category	Applicable	Verified	Percentage
QUALITY OF LIFE	138	43	31%
LEADERSHIP	121	52	43%
RESOURCE ALLOCATION	80	4	5%
NATURAL WORLD	164	59	36%
CLIMATE AND RISK	122	60	49%
Total Points / %	625	218	35%





Starlight Park, Bronx

Project Description

- A park located in the South Bronx between Westchester Avenue and East Tremont Avenue along the banks of the Bronx River.

Project Results

- Continuous greenway
- Bike paths
- Pedestrian bridge
- Additional Seating
- Appropriate Lighting
- Clear Wayfinding Signage

Credit Category	Applicable	Pre-Assessment Review	Percentage
Quality of Life	200	182	91%
Leadership	182	114	63%
Resource Allocation	196	56	29%
Natural World	216	179	83%
Climate and Resilience	172	8	5%
Total Points/%	966	539	56%



An aerial photograph of a coastal park area, likely the East Side Coastal Resiliency project in New York City. The image shows a large green park with many trees, a paved walkway, and a multi-lane road with a bridge crossing over it. The water is visible in the background. The text "East Side Coastal Resiliency" is overlaid in white, bold font across the center of the image.

East Side Coastal Resiliency

ESCR - Envision Work Flow Diagram



Include
Envision
in
Contract



PM/CM
Assigns a
Project ENV SP

ENV
SP

PM/CM ENV SP
conducted a
Preliminary
review using
Envision
Pre-Assessment
Checklist

We are here

Assessment Questions	Yes/No	Criteria Met?
A Has the project team identified and taken into account community needs, goals, and issues?	Yes	Yes
B Does the project meet or support the needs and goals of the host and/or affected communities?	Yes	Yes
C Has the project team assessed the social impacts the project will have on the host and affected communities' quality of life?	Yes	Yes
D Have the affected communities been meaningfully engaged in identifying how the project meets community needs and/or goals?	Yes	Yes
E Has the project team addressed negative social impacts?	No	No
F Are the affected communities satisfied that the project addresses their needs and goals as well as mitigate negative impacts?	No	No
G Does the project proactively address long term social, economic, or environmental changes that impact quality of life?	No	No



NYC DDC
Collaborates
with PM/CM to
provide
documentation
and review
Pre-Assessment
Checklist



Award



ISI Third Party
Verification

Category	Credit	Score	Weight	Target	Actual
Wellbeing	QL 1.1 Improve Community Quality of Life	100	100	100	100
Wellbeing	QL 1.2 Enhance Public Health & Safety	100	100	100	100
Wellbeing	QL 1.3 Improve Construction Safety	100	100	100	100
Wellbeing	QL 1.4 Minimize Noise & Vibration	100	100	100	100
Wellbeing	QL 1.5 Minimize Light Pollution	100	100	100	100
Wellbeing	QL 1.6 Minimize Construction Impacts	100	100	100	100
Mobility	QL 2.1 Improve Community Mobility & Access	100	100	100	100
Mobility	QL 2.2 Encourage Sustainable Transportation	100	100	100	100
Mobility	QL 2.3 Improve Access & Wayfinding	100	100	100	100
Community	QL 3.1 Advance Equity & Social Justice	100	100	100	100
Community	QL 3.2 Preserve Historic & Cultural Resources	100	100	100	100
Community	QL 3.3 Enhance Views & Local Character	100	100	100	100
Community	QL 3.4 Enhance Public Space & Amenities	100	100	100	100
Innovate or Exceed	QL 0.0 Innovate or Exceed Credit Requirements	100	100	100	100

PM/CM ENV SP uploads
documentation to ISI
(third party) Envision
online portal

Preliminary Results of The *ENVISION Pre-Assessment Checklist* conducted by PM/CM

Credit Category	Applicable	Pre-Assessment Review	Percentage
Quality of Life	200	159	80%
Leadership	182	99	54%
Resource Allocation	196	25	13%
Natural World	194	64	33%
Climate and Resilience	146	121	83%
Total Points/%	918	468	51%





Restoring community connections to the East River Waterfront



Restoring community connections to the East River Waterfront



Balanced Passive & Active Waterfront Edge



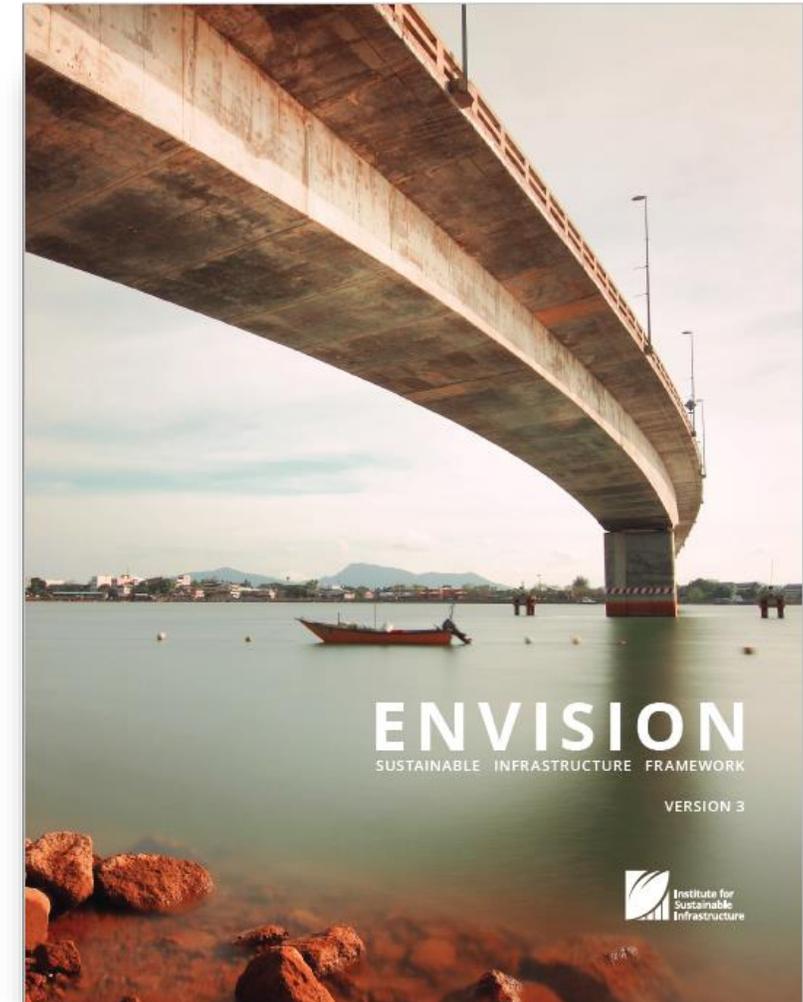


Improved Community Access & Connectivity



Establishing a Sustainability Management Plan

PRELIMINARY DESIGN		FINAL DESIGN	
Task 01: Project Development/Identification 0 19 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> LD2.2 Plan for Sustainable Communities		
<input type="checkbox"/> QL1.2 Enhance Public Health and Safety	<input type="checkbox"/> LD2.3 Plan for Long-Term Monitoring and Maintenance		
<input type="checkbox"/> QL2.1 Improve Community Mobility and Access	<input type="checkbox"/> LD2.4 Plan for End-of-Life		
<input type="checkbox"/> QL2.2 Encourage Sustainable Transportation	<input type="checkbox"/> LD3.1 Stimulate Economic Prosperity and Development		
<input type="checkbox"/> QL2.3 Improve Access and Wayfinding	<input type="checkbox"/> NW1.4 Preserve Undeveloped Land		
<input type="checkbox"/> QL3.1 Advance Equity and Social Justice	<input type="checkbox"/> CR2.1 Avoid Unsuitable Development		
<input type="checkbox"/> QL3.2 Preserve Historic and Cultural Resources	<input type="checkbox"/> CR2.2 Assess Climate Change Vulnerability		
<input type="checkbox"/> QL3.3 Enhance Views and Local Characters	<input type="checkbox"/> CR2.3 Evaluate Risk and Resilience		
<input type="checkbox"/> QL3.4 Enhance Public Space and Amenities	<input type="checkbox"/> CR2.4 Establish Resilience Goals and Strategies		
<input type="checkbox"/> LD2.1 Establish a Sustainability Management Plan			
Task 03: Subsurface Exploration Program 0 3 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> QL3.3 Enhance Views and Local Character		
<input type="checkbox"/> QL3.2 Preserve Historic and Cultural Resources			
Task 04: Sidewalk Cellar Doors Condition Inventory 0 1 0.0%			
<input type="checkbox"/> QL1.3 Improve Construction Safety			
Task 05: Vault Program Level I 0 1 0.0%			
<input type="checkbox"/> QL1.3 Improve Construction Safety			
Task 06: Vault Program Level II 0 1 0.0%			
<input type="checkbox"/> QL1.3 Improve Construction Safety			
Task 9: Tree Inventory 0 2 0.0%			
<input type="checkbox"/> QL3.3 Enhance Views & Local Character	<input type="checkbox"/> QL3.4 Enhance Public Space & Amenities		
Task 10: Roadway Pavement Design 0 2 0.0%			
<input type="checkbox"/> LD2.4 Plan for End of Life	<input type="checkbox"/> RA1.2 Use Recycled Materials		
Task 11: Schematic Geometric Design 0 6 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> CR2.1 Avoid Unsuitable Development		
<input type="checkbox"/> QL1.2 Enhance Public Health and Safety	<input type="checkbox"/> CR2.3 Evaluate Risk and Resilience		
<input type="checkbox"/> QL1.4 Minimize Noise & Vibration	<input type="checkbox"/> CR2.4 Establish Resilience Goals and Strategies		
Task 13: Preliminary Quantity and Cost Estimating 0 5 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> LD2.2 Plan for Sustainable Communities		
<input type="checkbox"/> QL1.2 Enhance Public Health & Safety	<input type="checkbox"/> RA1.5 Balance Earthwork On Site		
<input type="checkbox"/> QL2.1 Improve Community Mobility and Access			
Task 14: Street Design Including Study & Design of Street ... 0 14 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> QL3.3 Enhance Views & Local Character		
<input type="checkbox"/> QL1.2 Enhance Public Health & Safety	<input type="checkbox"/> QL3.4 Enhance Public Space & Amenities		
<input type="checkbox"/> QL1.4 Minimize Noise & Vibration	<input type="checkbox"/> RA1.5 Balance Earthwork On Site		
<input type="checkbox"/> QL1.6 Minimize Construction Impacts	<input type="checkbox"/> RA3.1 Preserve Water Resources		
<input type="checkbox"/> QL2.1 Improve Community Mobility and Access	<input type="checkbox"/> NW2.4 Protect Surface & Groundwater Quality		
<input type="checkbox"/> QL2.3 Improve Access & Wayfinding	<input type="checkbox"/> NW3.5 Protect Soil Health		
<input type="checkbox"/> QL3.2 Preserve Historic & Cultural Resources	<input type="checkbox"/> CR2.1 Avoid Unsuitable Development		
Task 15: Tree Impact Mitigation and Tree Planting ... 0 2 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> NW2.3 Reduce Pesticide & Fertilizer Impacts		
Task 17: Street Lighting System Design 0 11 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> RA2.1 Reduce Operational Energy Consumption		
<input type="checkbox"/> QL1.2 Enhance Public Health & Safety	<input type="checkbox"/> RA2.3 Use Renewable Energy		
<input type="checkbox"/> QL1.5 Minimize Light Pollution	<input type="checkbox"/> RA2.4 Commission & Monitor Energy Systems		
<input type="checkbox"/> QL3.2 Preserve Historic & Cultural Resources	<input type="checkbox"/> NW1.4 Preserve Undeveloped Land		
<input type="checkbox"/> QL3.3 Enhance Views & Local Character	<input type="checkbox"/> CR1.2 Reduce Greenhouse Gas Emissions		
<input type="checkbox"/> QL3.4 Enhance Public Space & Amenities			
Task 18: Traffic Signals System Design 0 4 0.0%			
<input type="checkbox"/> QL1.1 Improve Community Quality of Life	<input type="checkbox"/> QL3.3 Enhance Views and Local Character		
<input type="checkbox"/> QL3.2 Preserve Historic and Cultural Resources	<input type="checkbox"/> QL3.4 Enhance Public Space and Amenities		
Task 19: Construction Staging and Maintenance ... 0 5 0.0%			
<input type="checkbox"/> QL1.2 Enhance Public Health & Safety	<input type="checkbox"/> QL2.1 Improve Community Mobility and Access		
<input type="checkbox"/> QL1.3 Improve Construction Safety	<input type="checkbox"/> QL2.2 Encourage Sustainable Transportation		
<input type="checkbox"/> QL1.6 Minimize Construction Impacts			
Task 21: Preparation of Specifications 0 29 0.0%			
<input type="checkbox"/> QL1.3 Improve Construction Safety	<input type="checkbox"/> RA2.1 Reduce Operational Energy Consumption		
<input type="checkbox"/> QL1.5 Minimize Light Pollution	<input type="checkbox"/> RA2.2 Reduce Construction Energy Consumption		
<input type="checkbox"/> QL1.6 Minimize Construction Impacts	<input type="checkbox"/> RA2.3 Use Renewable Energy		
<input type="checkbox"/> LD2.1 Establish a Sustainability Management Plan	<input type="checkbox"/> RA2.4 Commission & Monitor Energy Systems		
<input type="checkbox"/> LD2.2 Plan for Sustainable Communities	<input type="checkbox"/> RA3.2 Reduce Operational Water Consumption		
<input type="checkbox"/> LD2.3 Plan for Long-Term Monitoring & Maintenance	<input type="checkbox"/> RA3.3 Reduce Construction Water Consumption		
<input type="checkbox"/> LD2.4 Plan for End of Life	<input type="checkbox"/> NW2.3 Reduce Pesticide & Fertilizer Impacts		
<input type="checkbox"/> RA1.1 Support Sustainable Procurement Practices	<input type="checkbox"/> NW3.5 Protect Soil Health		
<input type="checkbox"/> RA1.2 Use Recycled Materials	<input type="checkbox"/> CR1.1 Reduce Net Embodied Carbon		
<input type="checkbox"/> RA1.3 Reduce Operational Waste	<input type="checkbox"/> CR1.2 Reduce Greenhouse Gas Emissions		
<input type="checkbox"/> RA1.4 Reduce Construction Waste	<input type="checkbox"/> CR2.1 Avoid Unsuitable Development		
<input type="checkbox"/> RA1.5 Balance Earthwork On Site			

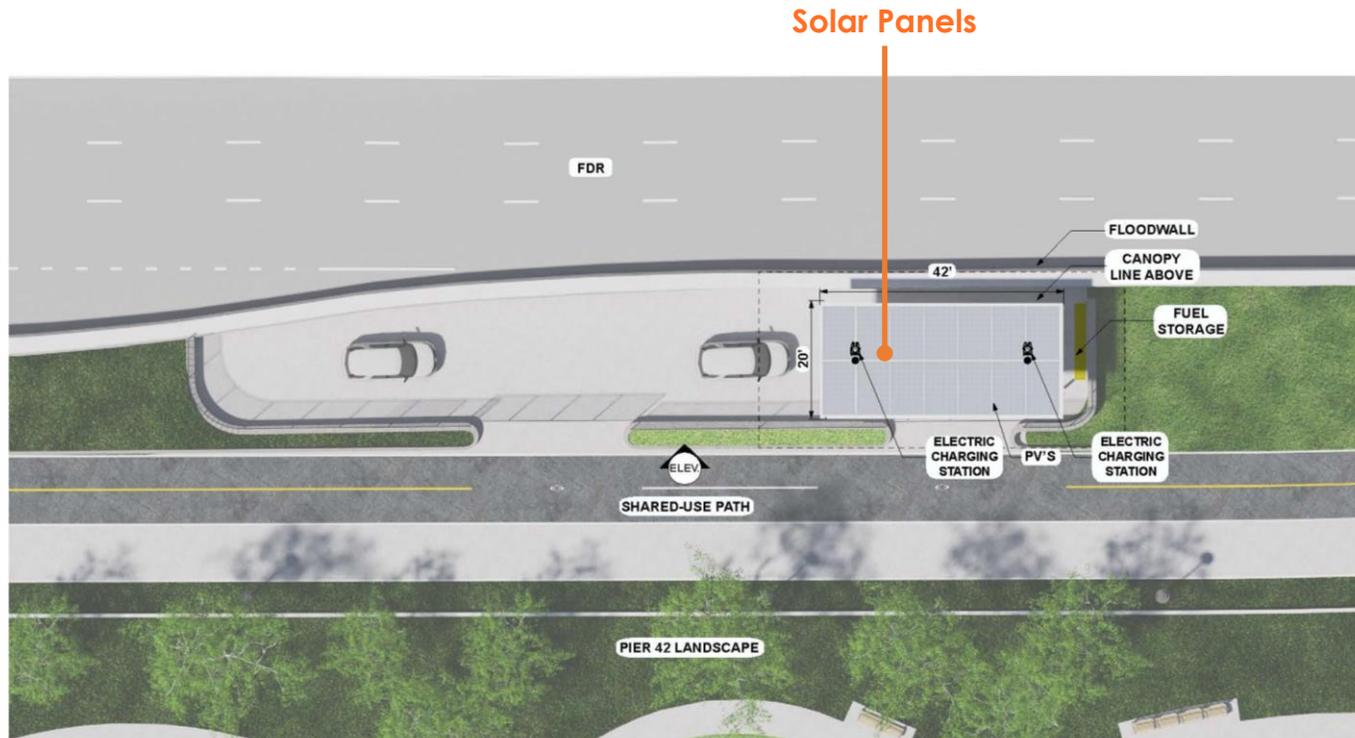


ENVISION
SUSTAINABLE INFRASTRUCTURE FRAMEWORK

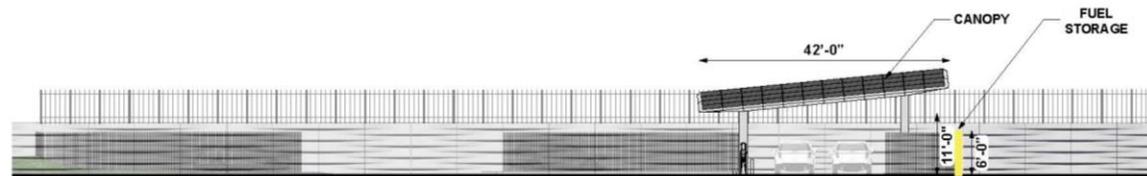
VERSION 3



Use Renewable Energy

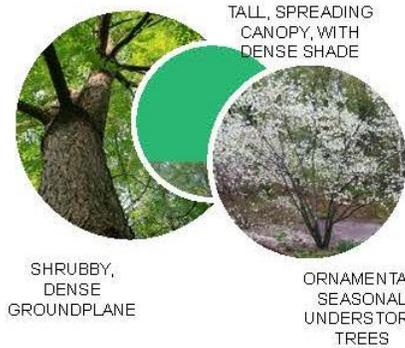


Pier 42 Maintenance Area Plan



Pier 42 Maintenance Area Elevation

Diverse Plant Species

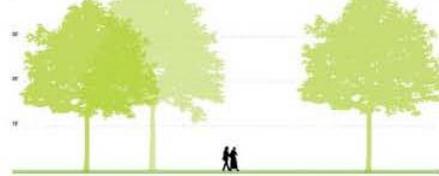


**HIGH, FULL CANOPY
CREATES CONNECTED,
DAPPLED SHADE**



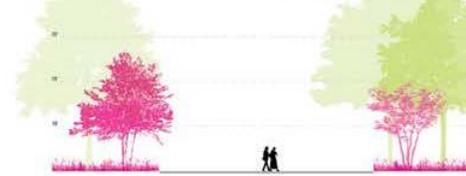
WOODLAND EDGES

- Location: Western urban edge of park. Ornamental understory trees, conifers, shrubs, and perennials provide visual interest along paths and slopes while buffering views
- Maintenance: Trees, shrubs, groundcovers



PASTORAL OPENINGS

- Location: Open lawns and spectator areas
- Lawn groundplane maintains open sight lines and open circulation
- Maintenance: Trees, lawn



LAYERED GROVES

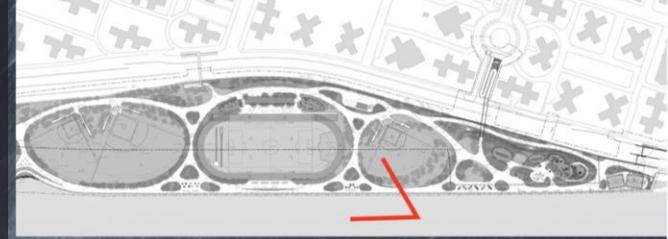
- Location: Clearing edges and special areas
- Ornamental understory trees and a low perennial groundplane maintain veiled, eye-level sight lines
- Maintenance: Trees, garden beds



MARITIME EDGES

- Location: Maritime edges of open spaces and esplanade
- Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge
- Maintenance: Trees, shrubs, grasses

Both neighborhood and elevated park will be protected from future storm surge



ACRONYMS

- **ENV SP** - Envision Sustainability Professional
- **PM/CM** - Project Manager/Construction Manager
- **ISI** - Institute for Sustainable Infrastructure

ENVISION V3 GUIDELINES

<https://sustainableinfrastructure.org/envision-version-3-downloadable/>

QUESTIONS AND COMMENTS

NYC DDC: WHAT IS ENVISION?

THANK YOU

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