

Green Infrastructure Grant Program Workshop

DEP Green Infrastructure Grant Program:

Website: www.nyc.gov/dep/gigrantprogram

Email: gigrantprogram@dep.nyc.gov



DEP Newsletter

Newsletters

Get the latest updates from the Department of Environmental Protection by subscribing to the newsletter(s) of your choice.

* Indicates required fields

Topics*

☐ DEP Press Releases

☐ DEP Weekly Pipeline

☐ DEP Procurement Opportunities

☐ DEP Gowanus Construction Updates

☒ DEP Stormwater

☐ DEP Cloudburst Corona

☐ DEP Cloudburst Kissena

☐ DEP Cloudburst East New York

☐ DEP Cloudburst Parkchester

Newsletter sign-up:
nyc.gov/dep/newsletters

Agenda

Part 1: Introduction

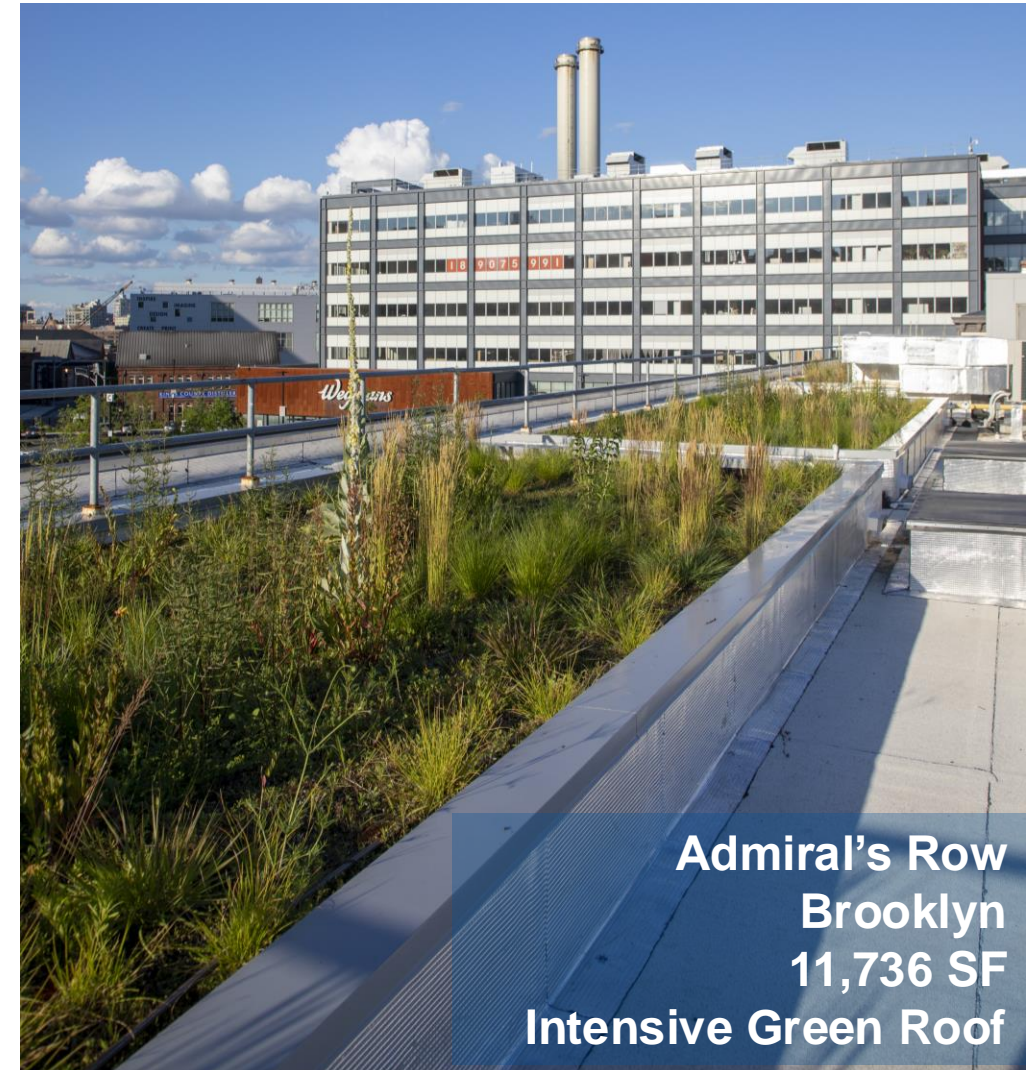
- Stormwater in NYC
- Green Infrastructure as a Solution
- Green Infrastructure in NYC

Part 2: Grant Program

- Grant Program Guidelines
- Previous Grant Project Examples
- Q&A

Part 3: Grant Application

- Application Templates
- Q&A
- Introduction to Green Roof Inventory Survey



**Admiral's Row
Brooklyn
11,736 SF
Intensive Green Roof**

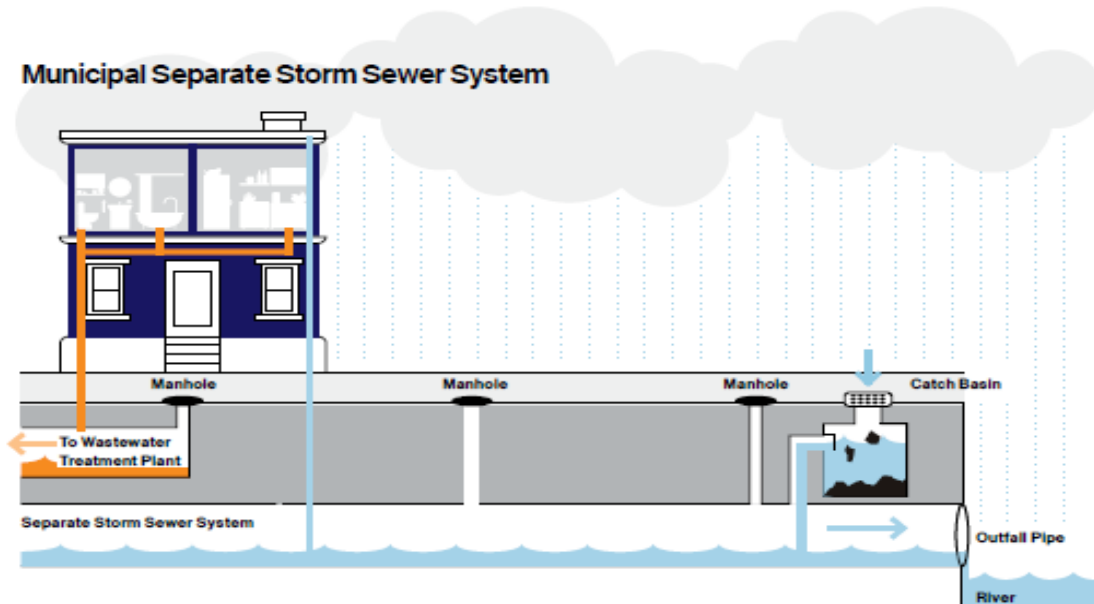
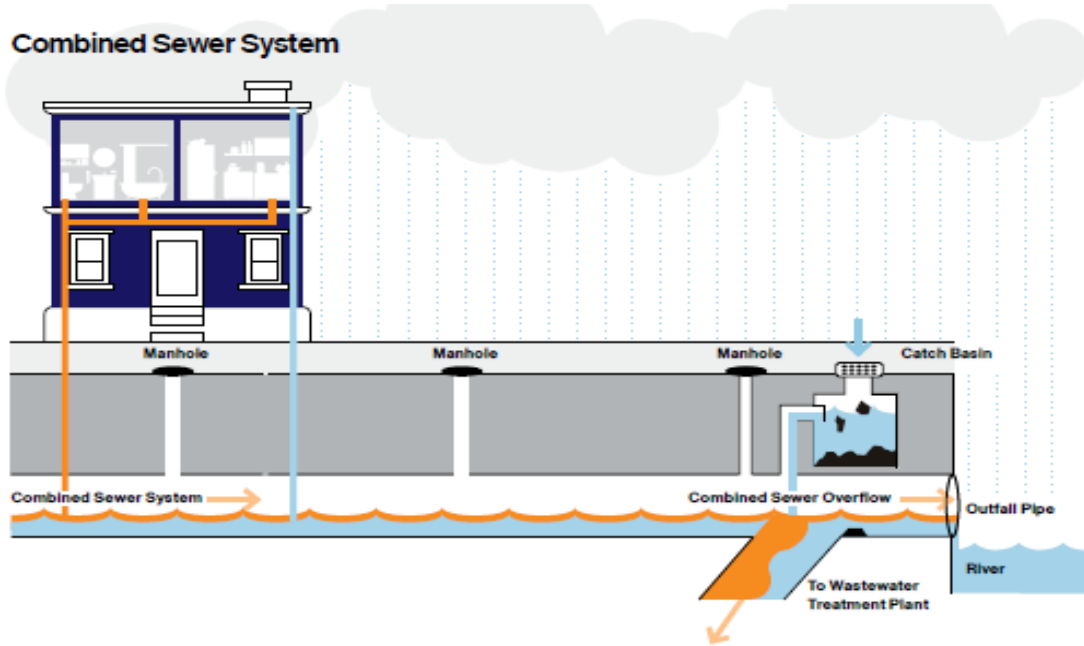
Why Green Infrastructure?



The Problem

Combined Sewer System – both wastewater and stormwater are carried by a single pipe to a wastewater resource recovery facility (WRRF)

Municipal Separate Storm Sewer (MS4) – wastewater is carried by one pipe to the WRRF, and stormwater is carried by a separate pipe directly to local waterbodies.



Green Infrastructure Technologies



Permeable Pavements



Rainwater Harvesting



Rain Gardens



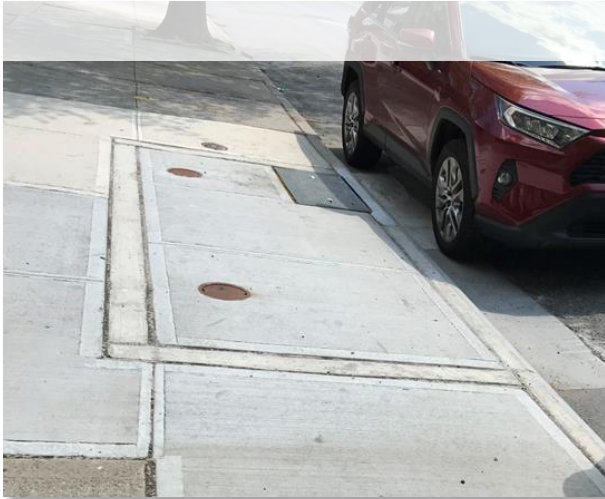
Green Roofs



Green Infrastructure in NYC

NYC
Environmental
Protection

NYC Green Infrastructure Program



Right-of-Way (Sidewalks and Roadways)



Public Property Retrofits



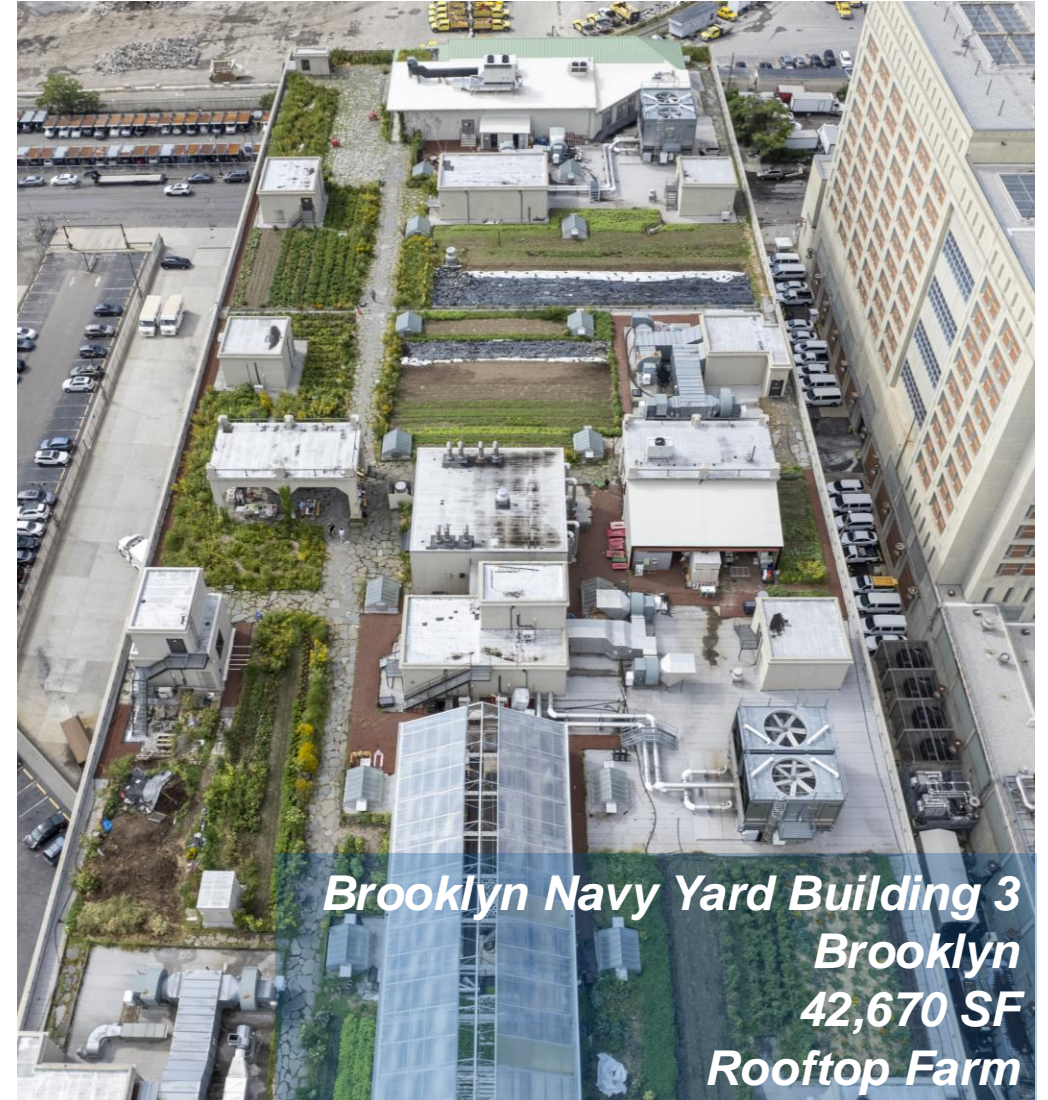
Private Property Incentives

Green Infrastructure Grant Program



Grant Program Guidelines

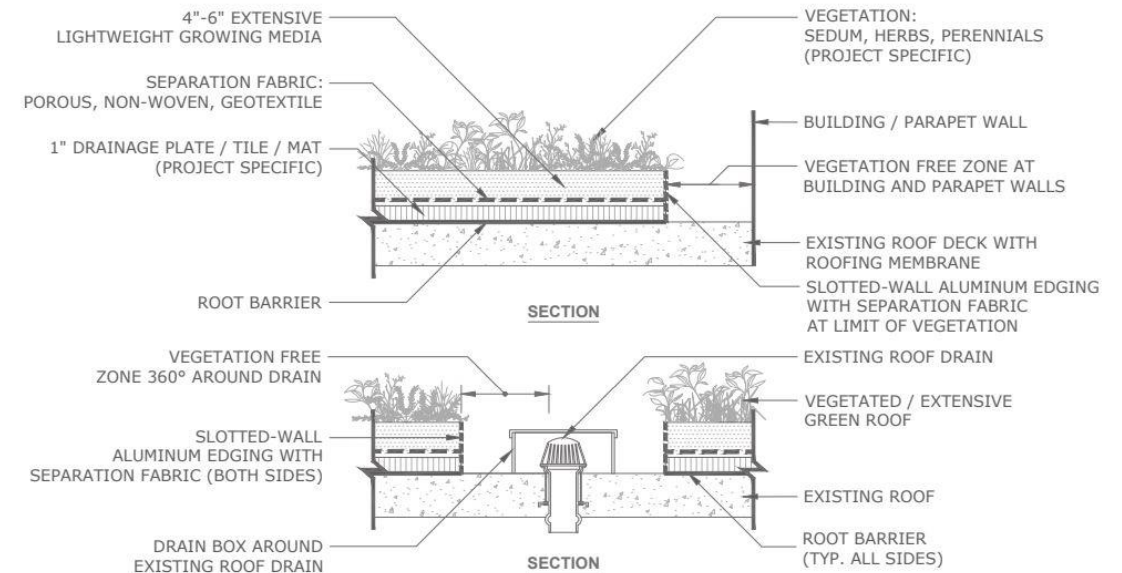
- DEP will fund the **design** and **construction** costs for green roof retrofits on private property in New York City.
- Project must be located in the combined or separate sewer area.
- Applicants must be able to execute the Program **Funding Agreement** and **Restrictive Covenant as-is**.
- Applications are accepted year-round.



*Brooklyn Navy Yard Building 3
Brooklyn
42,670 SF
Rooftop Farm*

Green Roof Projects

- Green roof projects should contain a root barrier, drainage layer, filter layer, growing media, and vegetation.
- Green roofs projects must be a minimum of **3,500 SF** and have a minimum of soil depth of **1.5 inches**.



***NEW* Green Roof Reimbursement Schedule**

Grant funding for green roof projects is determined by the proposed green roof vegetated area and soil depth following the Green Roof Reimbursement Schedule:

Soil Depth (in)	GRA \geq 3,500 (SF)*
1.5 - 1.99	\$15
2.0 - 2.99	\$20
3.0 - 3.99	\$35
4.0 +	\$40

Example: 25,000 SF green roof with 4 inches of soil

- $\$40/\text{SF} \times 25,000 \text{ SF} = \$1,000,000$
- Total maximum reimbursement = \$1,000,000

Ineligible Costs, Projects and Restrictions

- Ineligible Costs include:
 - Maintenance and operations
 - Non-green roof project components (new roof, benches, lighting, etc.)
 - Research not related to the proposed grant project construction
 - Legal fees for contract execution
- Also...
 - Grant projects must be in compliance with all local, state and federal laws
 - Grant funding cannot be used to meet any regulatory requirements a property is subject to (Local Law 92+94, Unified Stormwater Rule, etc.)
 - The City of New York will have unrestricted rights to use the designs selected for any future project at no additional costs



Previous Grant Awardees

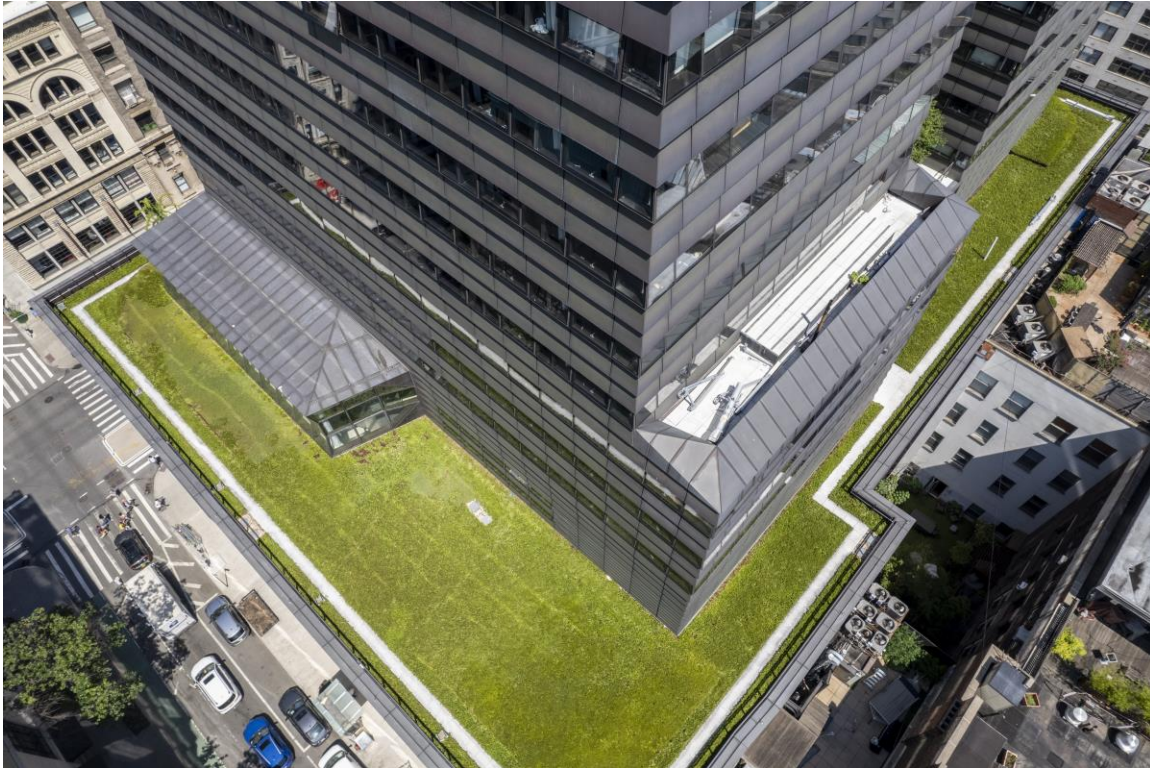
NYC
Environmental
Protection

NYU Langone Medical Center

Grantee:	New York University
Property Type:	Private Hospital
Technology:	Extensive Sedum Green Roof
Project Size:	12,168 SF
Soil Depth	3"



The New School



Grantee:	The New School
Property Type	Educational Facility
Technology:	Extensive Sedum Green Roof
Project Size:	11,245 SF
Soil Depth:	6"

Corporate Commons Three

Grantee:	Corporate Commons Three, LLC
Property Type:	Commercial
Technology:	Rooftop Farm
Project Size:	23,375 SF
Soil Depth	9"





Citylights

Grantee:	Citylights at Queens Landing, Inc.
Property Type	Residential Co-op
Technology:	Intensive Green Roof
Project Size:	15,842 SF
Soil Depth:	8"-16"

Submitting an Application



Step 1: Determining Eligibility

Property Eligibility

- Be privately-owned and within NYC
- Have an owner willing to sign the Funding Agreement and Declaration of Restrictive Covenant as-is
- Be completed within one year from the construction start date unless otherwise agreed upon with DEP
- Provide 20 years of maintenance
- Be a minimum cost of \$50,000.00

Site Connection

- Documentation indicating existing sewer connections or detention systems

Applicant Resources

Grantee Guide

Applicants should use this guide to obtain information on program eligibility, design requirements and the application process.

- Download the [Grantee Guide](#)

Program Flyer

The Green Infrastructure Grant Program flyer gives a brief overview of the grant program and can be shared with interested participants.

- Download the [Green Infrastructure Grant Program Flyer](#)

Sewer Connection

Property owners can request sewer connection documents through the [Permit and Review Information System \(PARIS\)](#). For more information, visit [Request Water & Sewer Records](#).

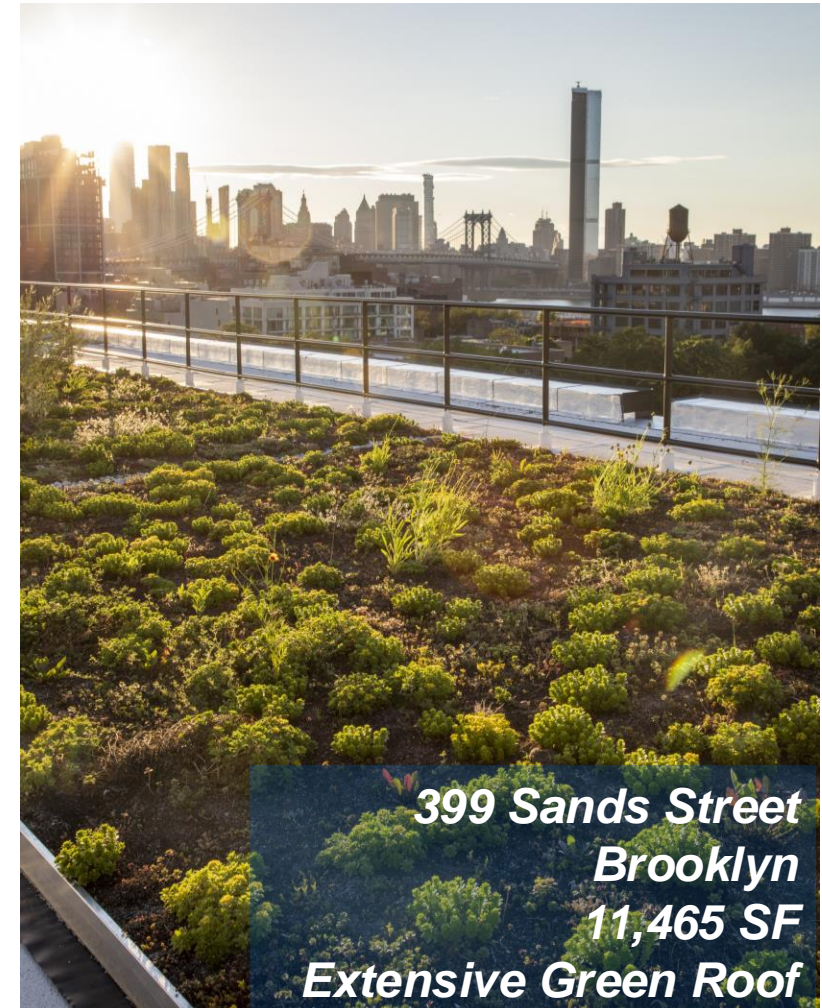
Legal Agreement and Restrictive Covenant

Before submitting a grant application, we encourage potential grantees to review the Legal Agreement and Restrictive Covenant that are required to participate. Please email questions to gigantprogram@dep.nyc.gov.

- Download the [Grant Funding Agreement](#)
- Download the [Declaration of Restrictive Covenant](#)

Structural Analysis

- P.E. stamped structural analysis that verifies that the loading capacity of the roof is sufficient for the proposed design. This document must be submitted with the grant application.
- Level of effort depends upon the *knowns* of the building and roof



Step 2: Review Legal Documents and Process

- The Green Infrastructure Grant Program is a **reimbursement** program.
- Documents critical to review prior to application:
 - 1) Grantee Guide
 - 2) Funding Agreement
 - 3) Declaration of Restrictive Covenant
- Design review occurs simultaneously with the budget review.
- DEP will reimburse costs once designs/budget are finalized and a Funding Agreement is registered.



Grant Program Legal Agreements

Funding Agreement

- Contract between the Property Owner and the City of New York
- Boilerplate outlines Property Owner and DEP Responsibilities and cannot be altered
- Appendices are Project Specific (Final Scope of Work, Budget, Maintenance Plan)

Declaration of Restrictive Covenant

- Required for all projects
- Provides for long term maintenance of the green infrastructure installation for the 20-year project term

Both legal documents must be signed as-is.

Step 3: Project Team and Design Concept

Once the team is assembled, the project scope can be decided, and concept plan can be advanced.

Team Member	Role
Private Property Owner	<ul style="list-style-type: none">• Owns the property• Signs all legal documents• Ultimately responsible for the design, construction, and maintenance of the project
Project Manager (can be owner or design professional)	<ul style="list-style-type: none">• Coordinates project with property owner and DEP
Professional Engineer Registered Architect Registered Landscape Architect	<ul style="list-style-type: none">• Prepares construction documents for the design submittals• Stamps final plans
Contractors	<ul style="list-style-type: none">• Constructs and installs the project
Maintenance Team	<ul style="list-style-type: none">• Maintains the project for its 20 year useful life• May be existing facilities staff

Design Concept

- Clearly labeled
- Direction of flow
- Location of green roof area
- Important features of the property (i.e., property line, building line)
- Existing drains, mechanical equipment, etc.



Step 4: Begin the Application Process

- Property owner must complete the Pre-Application Form and send to gigantprogram@dep.nyc.gov.
- DEP will reach out and schedule a pre-application meeting to discuss property eligibility, the proposed project and the project timeline.
- DEP will provide application templates to property owner after the pre-application meeting.
- Applications are accepted on a rolling basis.

NYC GREEN INFRASTRUCTURE GRANT PROGRAM

Form Submission: Please download and send completed form to gigantprogram@dep.nyc.gov

APPLICANT CONTACT INFORMATION

Name:

Legal Name of Business/Organization (if applicable):

Address:

City: State: Zip Code:

Email: Confirm Email:

Phone Number:

Applicant Role:

Check if Applicant Contact Information is the same as Property Owner ☐

PROPERTY OWNER INFORMATION

Name:

Legal Name of Business/Organization (if applicable):

Address:

City: State: Zip Code:

Email: Confirm Email:

Phone Number:

PROJECT INFORMATION

Project Name:

Project Address:

Project City: Project State: Project Zip Code:

Borough/Block/Lot:

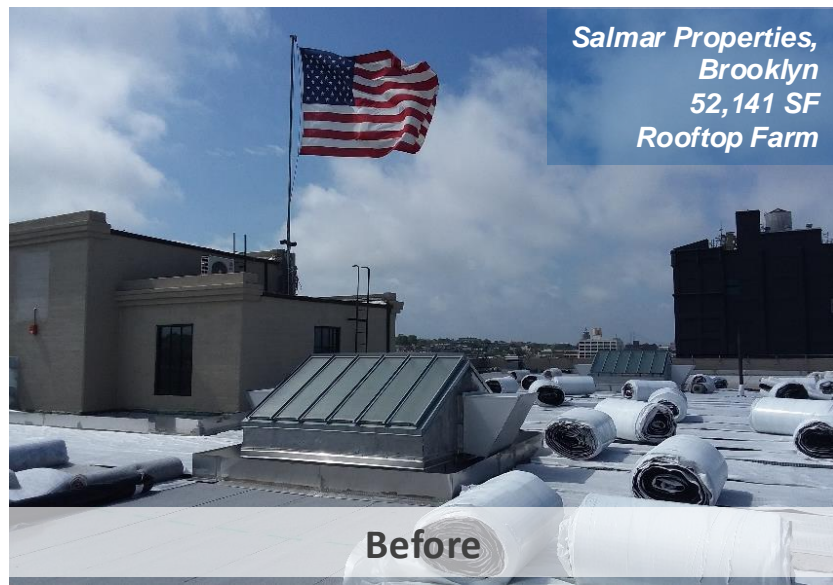
The property is served by: Property Type:

Total Impervious Area of Roof (SF):



Tips for a Stronger Application

Issue	Example
Overall Design	Is the design sized correctly? Is the project overbuilt or underbuilt?
Feasibility	Is the proposed project feasible? Will it be accepted by DEP, DOB, or the Fire Department?
Replicability	Is the project overly complex? Can it be widely replicated?
Community Development	Does the project have community partners or is it publicly accessible? Is there a workforce development or educational component?



Encouraged...but not required!

- Matching funds/in-kind contributions
- Letters of support from community stakeholders
- Education programming and/or public access
- Supports workforce development
- Community access/involvement

Questions?

- Visit www.nyc.gov/dep/gigrantprogram to
 - access the pre-application form
 - review eligibility criteria
 - review grantee requirements
 - download workshop presentation
 - review press releases with previous winner information
 - find out about upcoming workshops
- Email gigrantprogram@dep.nyc.gov with questions



Application Templates

Templates: Project Estimate

Green Roof Area (SF)	3,500	DEP Soft Costs	Not to Exceed	DEP Total Costs			
Soil Depth (Inches)	1.5		\$10,500	\$52,500			

Item No.	Hard Costs	Description	Quantity	Unit	Unit Cost	Total Unit Cost	DEP	Matching Funds
	[Enter Material name in each line]							
	Subtotal					\$0	\$0	\$0

	Soft Costs	Description	Unit	Unit Cost	Total Unit Cost	DEP	Matching Funds
	Design Fee						
	Site Investigations						
	Permitting						
	General Conditions						
	Subtotal				\$0	\$0	\$0
	Project Subtotal				\$0	\$0	\$0
	Allowance*	15%					
	Total Project Costs				\$0	\$0	\$0

Enter these fields in the Project Proposal Summary of Online Application				*Allowance funds will be used to address the following construction items, depending upon the specific needs of the project and any unforeseen circumstances.			
Enter this number in Total Project Cost	\$0						
Enter this number into Hard Costs	\$0						
Enter this number into Soft Costs	\$0						
Enter this number into Total Requested Funds from DEP	\$0						
Enter this number into Matching Funds	\$0						
				1 Utility coordination			
				2 Excavation and/or disposal needs			
				3 Additional material and/or equipment needs			
				4 Addressing unforeseen hazardous materials			

Templates: Stormwater Calculations

Step 1 STORMWATER VOLUME MANAGED: Estimate the total volume managed for the proposed installation. Calculate the volume storage

Green Roof Area

Total Proposed Green Roof Area (SF)	3,500	<i>Enter area of green roof in square feet</i>
-------------------------------------	-------	--

Growing Media

Depth of Growing Media (Inches)	1.5	<i>Enter total depth of growing media in inches</i>
Porosity of Growing Media (%)	50%	<i>Enter the void space as a percentage of the growing media volume</i>
Volume of Growing Media (CF)	437.5	<i>Enter total volume of growing media in cubic feet</i>
Storage Volume of Growing Media(CF)	218.75	<i>Available void space of planting soil</i>

Storage volume of additional layers (Enter '0' if not applicable or add additional layers if necessary)

Drainage Layer Storage Volume (max CF)		<i>Void space available in drainage layer</i>
Granular Layer Storage Volume (max CF)		<i>Void space available in granular layer</i>
Retention Layer Storage Volume (max CF)		<i>Void space / storage capacity available in retention layer</i>
Storage Volume of other detention devices (max CF)		<i>Void space / storage capacity of other devices</i>

Tributary Area	5,000	<i>If you believe that Tributary Area for your project exceeds Green Roof Area s</i>
Estimated Volume Managed (CF)	218.75	<i>Note that Tributary Area and Volume Managed do not effect reimbursement</i>
Estimated Volume Managed (Gal)*	1,636	

Templates: Project Timeline

Green Infrastructure Grant Application Construction Timeline Template

*The Project Timeline must include a detailed task description for all work associated with the **construction** of the proposed project. This includes all work that must be completed on the property before construction begins (e.g. roof repair). Please note that project construction must be completed within one (1) year of the construction start date, unless otherwise agreed upon with DEP at the time of selection. Applicants are encouraged to submit projects that can be completed early. Enter the Total Weeks into the Project Proposal Summary of the online application.*

Detailed Task Description	Number of Weeks to Complete
1	
2	
3	
Total Number of Weeks for Construction	

Templates: Maintenance Plan

Green Infrastructure Grant Program Maintenance Plan Template

Grantees are required to maintain their projects for twenty (20) years. Quarterly and Yearly maintenance summaries will be required beginning from the construction end date for three years. Answer the questions below in detail. When complete, upload the template into the Project Details section of the application.

1) Maintenance Tasks and Frequencies

Describe the maintenance activities required to maintain the green infrastructure installation. What specific tasks will be undertaken (e.g. irrigation, hand or chemical weeding, inspection for clogging, removing sediment, standard cleaning and upkeep). How often will these tasks be performed?

2) Maintenance Personnel

Describe the personnel who will be responsible for maintaining the project. How many staff members/hours will be assigned to maintenance? Describe the training process including manuals or protocols that will be used to prepare the responsible staff.

3) Equipment and Materials

Describe the equipment and materials that are required for maintaining the project. How often will the equipment need to be repaired or replaced? Who is responsible for maintaining the equipment and materials?

4) Warranties and Guarantees

Do any of the potential project contractors include warranties or guarantees on their work, materials, or equipment? If so, describe in detail and include terms.

5) Maintenance Costs

What are the anticipated costs for labor and material for the twenty (20) year life of the project? How will maintenance tasks and labor be funded?

Templates: Statement of Agreement

STATEMENT OF AGREEMENT – **SAMPLE**

Instructions: Applicants must complete a Statement of Agreement, signed by the authorized signatory for the property, acknowledging that they have reviewed with their legal counsel both the Funding Agreement and Restrictive Covenant, and if awarded will execute both documents as provided and will comply with all of the eligibility requirements described in the Grant Application.

(On company letterhead)

Date:

New York City Department of Environmental Protection
59-17 Junction Blvd. 11th Floor
Flushing, NY 11373
Attn: Green Infrastructure Grant Program

I **[enter name of authorized signatory for the property]**, have read and thoroughly reviewed both the Funding Agreement and the Declaration of Restrictive Covenant with my legal counsel and agree that, if awarded the grant, I will execute the Funding Agreement and record the Declaration of Restrictive Covenant as provided at the NYC Department of Finance in a timely manner.

Sincerely,

[Authorized Signatory]
[Enter Project Title]
[Enter Address and Borough Block and Lot number]

Questions?

- Visit www.nyc.gov/dep/gigrantprogram to
 - access the pre-application form
 - review eligibility criteria
 - review grantee requirements
 - download workshop presentation
 - review press releases with previous winner information
 - find out about upcoming workshops
- Email gigrantprogram@dep.nyc.gov with questions

DEP Green Roof Inventory

- Local Law 154 (2023) requires DEP to report out green roofs based on best available information.
- DEP Green Roof Survey will capture voluntary reporting of green roofs by any party.

DEP Webpage:

<https://www.nyc.gov/site/dep/water/green-infrastructure.page>

Stormwater Management

Combined Sewer
Overflows

Municipal Separate Storm
Sewer System

[Green Infrastructure](#)

The Bluebelt Program

[f](#) [t](#) [t](#) [e](#) Share

[Print](#)

Green Infrastructure

Green infrastructure collects stormwater from streets, sidewalks, and other hard surfaces before it can enter the sewer system or cause local flooding. By reducing the amount of stormwater that flows into the [Sewer System](#), green infrastructure helps prevent [Sewer Overflows](#) and improves the health of local waterways. We have successfully built thousands of green infrastructure installations across New York City.



View our [Interactive Map of Green Infrastructure Projects](#). If you have a green roof project that you'd like to add to this map, fill in our [Green Roof Inventory Survey](#).



We provide financial incentives for installing green infrastructure on private property. Learn about [Green Roof Retrofit Grants](#) and [Resilient NYC Partners](#).



From [Rain Gardens](#), infiltration basins, and green roofs to playgrounds with underground detention systems, learn about the [Types of Green Infrastructure](#) you might come across in NYC.

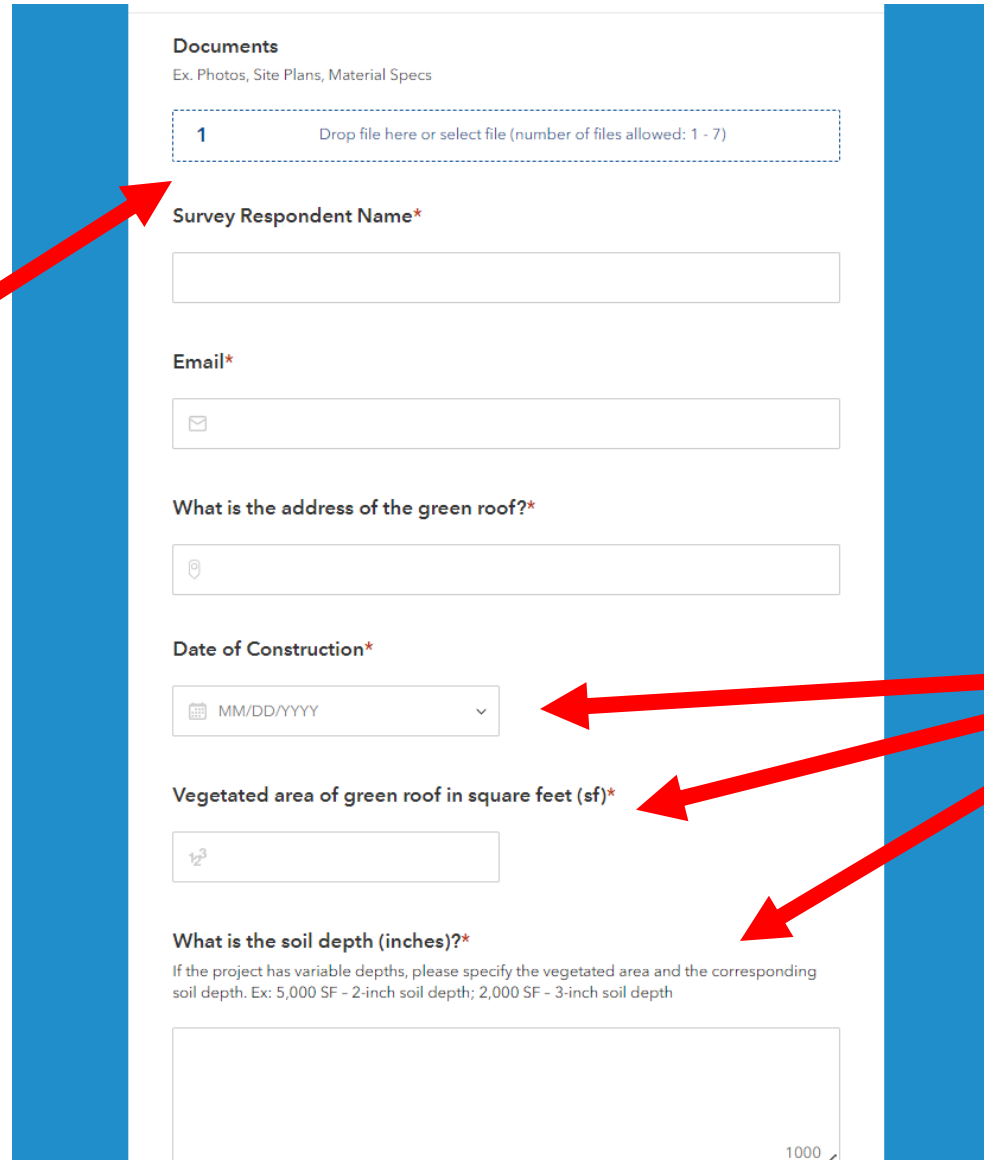


Green infrastructure protects New York Harbor and reduces local flooding. Take a [Harbor Water Quality Virtual Tour](#) and learn more about [Flood Prevention](#).

DEP Green Roof Inventory

Upload project documents such as photos, site plans, and material specs

DEP Webpage:
<https://www.nyc.gov/site/dep/water/green-infrastructure.page>



The screenshot shows a web form titled "DEP Green Roof Inventory". It has several sections: "Documents" with a file upload area, "Survey Respondent Name*", "Email*", "What is the address of the green roof?*", "Date of Construction*" with a date picker, "Vegetated area of green roof in square feet (sf)*" with a text input and a superscript "2" button, and "What is the soil depth (inches)?*" with a text input and a note about variable depths. Red arrows point from external text blocks to the "Documents" upload area, the "Date of Construction" date picker, the "Vegetated area" input, and the "Soil depth" input.

Documents
Ex. Photos, Site Plans, Material Specs

1 Drop file here or select file (number of files allowed: 1 - 7)

Survey Respondent Name*

Email*

What is the address of the green roof?*

Date of Construction*

MM/DD/YYYY

Vegetated area of green roof in square feet (sf)*

12²

What is the soil depth (inches)?*
If the project has variable depths, please specify the vegetated area and the corresponding soil depth. Ex: 5,000 SF - 2-inch soil depth; 2,000 SF - 3-inch soil depth

Fill in information about the project such as date of construction completion, the vegetated area, and soil depth.

Questions?

- Visit www.nyc.gov/dep/gigrantprogram to
 - access the pre-application form
 - review eligibility criteria
 - review grantee requirements
 - download workshop presentation
 - review press releases with previous winner information
 - find out about upcoming workshops
- Email gigrantprogram@dep.nyc.gov with questions