

Two Ways Cities Can Reduce Summer Heat

By Ian Smith and Lucy Hutyra

When summer turns up the heat, cities can start to feel like an oven, as buildings and pavement trap the sun's warmth and vehicles and air conditioners release more heat into the air.

The temperature in an urban neighborhood with few trees can be more than 10 degrees Fahrenheit (5.5 Celsius) higher than in nearby suburbs. That means air conditioning works harder, straining the electrical grid and leaving communities vulnerable to power outages.

There are some proven steps that cities can take to help cool the air—planting trees that provide shade and moisture, for example, or creating cool roofs that reflect solar energy away from the neighborhood rather than absorbing it.

But do these steps pay off everywhere? Which is best, urban trees or cool roofs?

We study heat risk in cities as urban ecologists and have been exploring the impact of tree-planting and reflective roofs in different cities and different neighborhoods across cities. What we're learning

can help cities and homeowners be more targeted in their efforts to beat the heat.

The wonder of trees

Urban trees offer a natural defense against rising temperatures. They cast shade and release water vapor through their leaves, a process akin to human sweating. That cools the surrounding air and reduces afternoon heat. Adding trees to city streets, parks, and residential yards can make a meaningful difference in how hot a neighborhood feels, with blocks that have tree canopies nearly 3 F (1.7 C) cooler than blocks without trees.

But planting trees isn't always simple. In hot, dry cities, trees often require irrigation to survive, which can strain already limited water resources. Trees must survive for decades to grow large enough to provide shade and release enough water vapor to reduce air temperatures. Annual maintenance costs—about \$900 per tree per year in Boston—can surpass the initial planting investment.

Most challenging, dense urban neighborhoods where heat is most intense are often too packed with buildings and roads to grow more trees.



How cool roofs can help on hot days

Another option is "cool roofs." Coating rooftops with reflective paint or using light-colored materials allows buildings to reflect more sunlight back into the atmosphere rather than absorbing it as heat.

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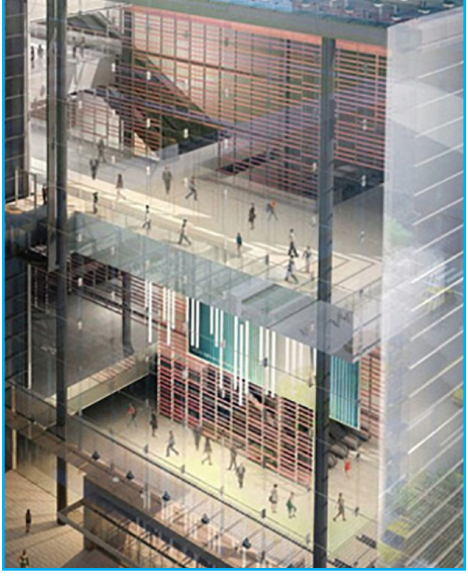
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The **New York State Minority and Women-owned Business Enterprise (MWBE) Regional Expo Series** brings together various New York State Agencies and Authorities and prime contractors that have a significant presence in all 10 NYS regions to provide MWBE firms with information on contracting opportunities.

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MWBEs will be able network with state procurement officers, MWBE liaisons and private companies, listen in on panels and presentations on contracting opportunities and participate in capacity building workshops. And for the first time, the expo series will feature live matchmaking sessions where MWBEs can connect directly to contract opportunities that align with their business goods/services!

The NYS Regional MWBE Expo Series will be held in person only and is free of charge. Registration will be required for all attendees.

Register at <https://esd.ny.gov/2025-mwbe-regional-opportunities-expo-series>

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AirTrain Newark Replacement Program—Maintenance and Control Facility (MCF) Project
PANYNJ Contract No. EWR-154.946
Bid Date: July 31, 2025

Description of project:
Construction of the maintenance, control and operations building and the elevated maintenance yard, as part of the program to replace the AirTrain Newark system. Project will be required to coordinate and interface with Guideway and Stations Contractor and System Technology Contractor, including phased construction.

Many bidding opportunities are available: geotechnical instrumentation and monitoring, material inspection and testing, sitework, curb, sidewalk, asphalt, pavement, pavers, landscaping, fence, signs, guardrail, utilities, watermain, drainage, sewer, storm, precast, electrical, communications, fire alarm, site electric, sanitary, stripping, pavement marking, concrete, rebar, reinforcing, formwork, structural steel, plumbing, fire protection, HVAC, elevator, miscellaneous metals, railings, stairs, MPT, lockers, acoustical ceiling, exterior walls, doors, windows, metal decking, painting, drywall, tile, carpet, vinyl base, acoustic panel, metal panel cladding, metal panels, roofing, insulation, waterproofing, trailers, cleaning, overhead doors, flooring, earthwork, dewatering, haul and dispose, contaminated soil, trucking, fills, stone, sewer cleaning, site clearing, trailers, cleaners, fireproofing, glass and glazing, concrete masonry unit, concrete block, disposal, containers, flagging, piles, groundwater treatment.

If you are interested in bidding on this project, please contact Skanska's Outreach Coordinator: Aislinn.Speranza@skanska.com • EOE/Vet/Disabled

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IS SOLICITING COST PROPOSALS FROM NEW YORK STATE DBE SUBCONTRACTORS AND VENDORS

Design-Build Services for LIRR West Side Yard Flood Mitigation Measures
MTA Construction and Development Contract No. 6401
Bid Date: August 22, 2025

Description of project:
Design, furnish, construct, and install concrete perimeter flood walls, seepage cut-off barriers below the concrete flood walls, flood gates, deployable flood barriers, sump pumps, a tide gate chamber, drainage system improvements, workable aisles and a diesel generator, an automatic transfer switch, ancillary electrical equipment, and required communications.

This project will develop flood protection solutions for the West Side Yard in order to prevent and mitigate flooding of the LIRR Tunnels. The flood protection along the WSY perimeter will be accomplished via a combination of permanent flood walls and deployable flood barriers.

Many bidding opportunities are available: deep foundations, minipiles, jetgrout, sheeting, rebar installation, concrete supply, site work, electrical work, painting, paving, curb and sidewalk, site utilities.

If you are interested in bidding on this project, please contact Skanska's Diversity and Outreach Coordinator: Aislinn.Speranza@skanska.com • EOE/M/F/Vet/Disabled

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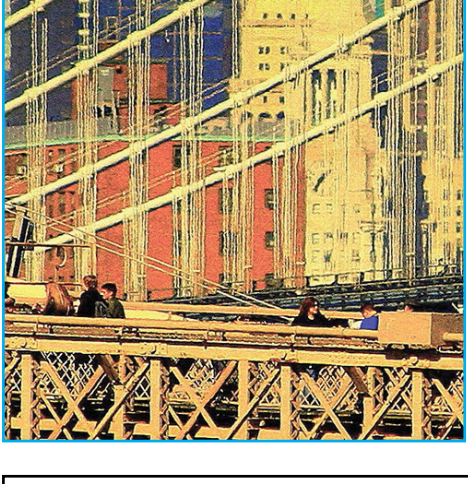
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VIRTUAL EVENTS FOR YOUR BUSINESS

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Federal Contracting: Woman-Owned Small Business (WOSB) Certification Program Webinar
Tuesday, August 19, 2025, 2:00 pm–4:00 pm Online
Main Sponsor(s): US Small Business Administration
Contact: Patrice Dozier, patrice.dozier@sba.gov
Fee: Free; registration required
SBA is creating a space for Woman-Owned Small Businesses, via WOSB certification! Are you a woman owner of a small business? The federal government's goal is to award at least five percent of all federal contracting dollars to woman-owned small businesses each year. Join us for training on how to register for SBA's Woman-Owned Small Business (WOSB) program, which helps eligible small businesses to qualify for federal contracting opportunities. The monthly sessions include an overview of the self-certification process, and a discussion of the NAICS codes that qualify as WOSB or EDWOSB. Register at <https://www.eventbrite.com/e/woman-owned-small-business-wosb-certification-program-tickets-1123667883889>

8(a) Orientation and SAM Registration Webinar
Wednesday, August 20, 2025, 10:30 am–12:00 pm Online
Main Sponsor(s): US Small Business Administration
Contact: SBA Illinois District Office, 312-353-4528, illinois.do@sba.gov
Fee: Free; registration required
Join the Small Business Administration (SBA)

Illinois District Office for a virtual workshop providing an overview of the 8(a) Business Development program, eligibility requirements, and program benefits. Also learn how to increase your potential for federal contract opportunities through System for Award Management (SAM) registration, including information that you need for the registration process. SBA presenters will offer additional tips, address FAQs, give directions on where to get further assistance, and answer your other questions. For this and other events, one goal is to better address the needs of attending current and soon-to-be business owners. To register for this event webinar, visit <https://www.sba.gov/event/651188>

Selling to the Federal Government Webinar
Thursday, August 28, 2025, 1:00 pm–4:00 pm Online
Main Sponsor(s): US Small Business Administration
Contact: George Tapia, 610-382-3086, george.tapia@sba.gov
Fee: Free; registration required
Did you know that the federal government is the largest purchaser of goods and services in the world? Interested in learning how your business can market your services or goods to the federal government? Register online at <https://www.eventbrite.com/e/how-to-sell-to-the-federal-government-tickets-21790713611> SBA helps to ensure small businesses get fair opportunities to share federal government prime contracts. Topics will include: How to Register, Small Business Certifications, Finding Opportunities, Marketing Your Firm, Federal Supply Schedules, Getting Paid, Tips to Prepare Your Offer, How to Seek Additional Assistance. All training sessions are held via Microsoft Teams Meeting.