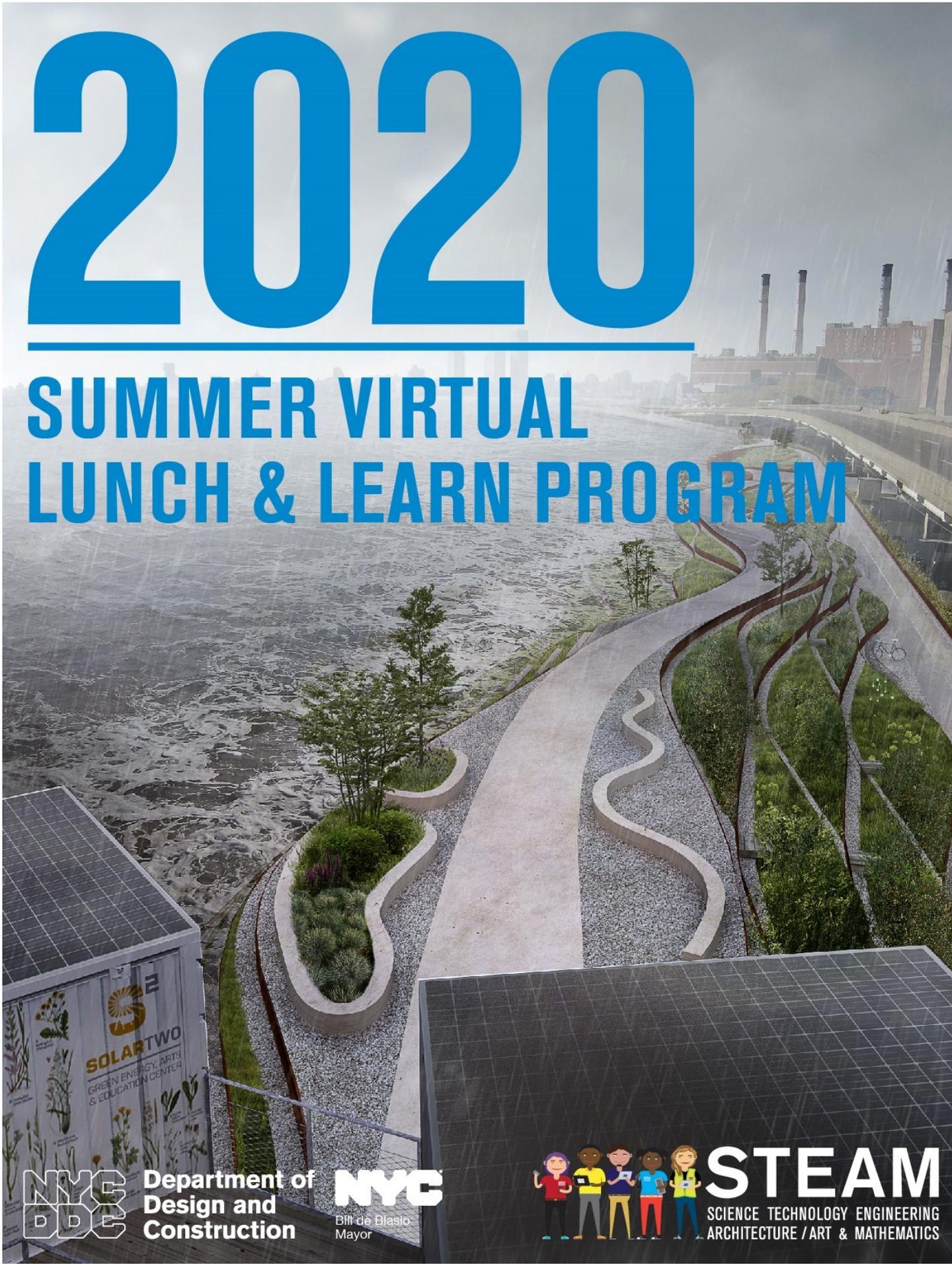


# 2020

## SUMMER VIRTUAL LUNCH & LEARN PROGRAM



Department of  
Design and  
Construction



# STEAM

SCIENCE TECHNOLOGY ENGINEERING  
ARCHITECTURE / ART & MATHEMATICS



"Unity" by Hank Willis Thomas at Tillary and Adams Street, adjacent to the Brooklyn Bridge, NYC Percent for Art Program

# 2020 NYC DDC SUMMER VIRTUAL LUNCH & LEARN PROGRAM

Over the summer of 2020 **The Department of Design and Construction (DDC)**, due to COVID-19 public health concerns offered a virtual “**Lunch and Learn**” program as a substitute for DDC’s in house summer internship program for NYC high school students.

**Lunch and Learn** was designed for students interested in pursuing careers in architecture, engineering, building trades, public administration, business administration and information technology. The program was structured to enable students to gain exposure to the many careers in the built environment and to afford them the opportunity to learn what it takes to build infrastructure and civic buildings in the greatest city in the world. It was a unique opportunity to prepare students for the growing demands of the job market.

The virtual “**Lunch and Learn**” series gave students invaluable exposure to a broad range of professions in architecture, construction and engineering. Our “**Lunch and Learn**” students now have a window into the workings of the City's built environment, an urban landscape that is ever changing in response to the needs of its residents and the natural environment.

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*The NYC DDC Community Partnerships and STEAM Initiatives was created in 2014 to establish a diverse and inclusive pipeline for New York City's youth to engage in architecture, engineering, and construction (AEC) industries. The agency also hosts a summer internship program for college students, a middle school summer enrichment program, as well as numerous educational programs. DDC STEAM has served over 4,000 students since its inception.*



Columbus Circle and Central Park South



# Lorraine Grillo

Department of Design and Construction  
Commissioner

Dear Students,

Congratulations on the successful completion of DDC's first virtual "Lunch and Learn" series, designed to give insight to the City's built environment to high school students interested in careers in architecture, construction, engineering, public administration and business administration.

I'm proud of the commitment you made to stay connected with us and with your education and career goals through this challenging time.

I hope we expanded your knowledge of a variety of career and educational paths and that you learned what it takes to build infrastructure and public buildings in New York City. We will miss the enthusiasm you displayed during presentations and we wish you all the best in your future endeavors.

All the Best,

A handwritten signature in cursive script that reads "Lorraine Grillo".

Lorraine Grillo

Commissioner



Harriet Tubman Memorial, "Swing Low" by Alison Saar. Percent for Art Program



# LILLIAN "LEE" LLAMBELIS

DDC Community Partnerships + STEAM Initiatives  
Deputy Commissioner

Dear Lunch and Learn Participants,

Congratulations on successfully completing the 2020 Summer Virtual "Lunch and Learn" Program with the NYC Department of Design and Construction. "Lunch and Learn" was created as a substitute for DDC's High School Summer Internship Program, which could not be held this year because of COVID-19. Over the past four weeks, you have been introduced to many of DDC's dedicated professionals who have been sharing their expertise and respective personal journeys. We are all very proud of the dedication you have demonstrated.

This summer's virtual "Lunch and Learn" series gave you invaluable exposure to professions in architecture, construction and engineering. You now have a window into the workings of the City's built environment, an urban landscape that is ever changing in response to the needs of residents and the natural environment. DDC professionals volunteered their time to give virtual interactive presentations to help prepare you to select a career path and to share what it takes to build infrastructure and public buildings in New York City this year with the added twist of sharing how DDC helped to build facilities for NYC to assist with critical COVID 19 public health measures.

This has been a great experience for us all. I urge you to continue to explore and take advantage of the many opportunities available at DDC. We wish you all the best of luck in your future endeavors.

All the best,

Lillian "Lee" Llambelis

Deputy Commissioner



Elmhurst Library, Queens

# Meet the Interns





## Matthew Batista

The New York Institute of  
Technology

Grade: College Freshman

Salutations! In September I will be an undergraduate student in the Bachelor of Architecture program at the New York Institute of Technology at SUNY Old Westbury. I was previously a member of the Ace Team 8 at the NYC Department of Design and Construction. In addition to taking part in the Lunch and Learn Program this summer, I am also currently an intern at the U.S. Consulting Group, an architecture and engineering firm in Queens.

This summer was without a doubt filled with trials and tribulations for all of us due to the COVID-19 pandemic, but that didn't stop us [students] from learning. On behalf of the students, we want to thank all the professors, teachers, mentors, etc. that made it possible for us to be able to continue to learn and expand our knowledge. I learned in depth about different positions at the Department of Design and Construction. The responsibilities of DDC professional staff and how they all work together to make the city a better place each and every day. I was especially interested in the presentation of Deputy Commissioner Thomas Foley, and learning how crucial his role is to the city as he manages DDC's Public Buildings Division, with more than 700 projects and work valued at over \$5 billion dollars.

Being surrounded by such marvelous structures within New York City, along with having a thirst to sketch whatever comes to my mind and my grandfather being a civil engineer and a huge influence in my life, my career goal is to become a licensed architect working for the city, helping out where there is great need.



## Pamela Bernal

High School for Construction  
Trades, Engineering and  
Architecture

Grade: 12th

I am a rising senior at the High School for Construction Trades, Engineering and Architecture. I am also a former DDC High School Summer Intern and member of the DDC ACE Team 8 program. This summer through the Lunch and Learn Program, I had a unique opportunity to learn about DDC; its many different components and the critical role that DDC plays in the betterment of New York City. I learned about sustainability, and resiliency and I learned how DDC makes New York City a better place. I was also introduced to many new concepts. I learned, about the various processes that make up architectural designs. It is not just about making a single design. It is about improving and addressing the important needs of the many communities that make up our great city. I also learned about rain gardens, bioswales, and the importance of sustainable green infrastructure.

My goal is to become a civil and a computer engineer. In my free time I enjoy playing soccer and dancing. I also learned that when you begin to work in your professional career it is important that you enjoy what you do, and that you find beauty in every design that you have had a role in helping to create. It will take time and effort to achieve a level of professional success. It is also important to take small steps on the path to completing an important project. And it is equally important to always be open to new opportunities and to never stop learning. I have come to realize that my passion for S.T.E.A.M. - Science, Technology, Engineering, Art/Architecture, and Mathematics, is why I wish to become an Engineer. I also hope to pay it forward and mentor and inspire other first-generation rising professionals, just as the DDC community has mentored and inspired me.



I am an incoming freshman at NYU Tandon School of Engineering and a former DDC High School Summer Intern. My career goal is to become a civil engineer and come to work for the NYC Department of Design and Construction. In my free time, I enjoy playing video games. Over the summer, I learned about the journey of a civil engineer and that the field of civil engineering includes more than just building roads and bridges.

## Kyle Chan

New York University Tandon School  
of Engineering

Grade: College Freshman



I am a rising senior at Benjamin N Cardozo High School. My career goal is to become an engineer working in the automotive industry. I am enrolled in a program where we take courses related to engineering. I also enjoy playing video games and drawing. Throughout the summer I practiced drawing. I enjoy drawing because it's relaxing and I enjoy being creative and artistic. Thank you to the team at DDC and the many presenters who hosted the Lunch and Learn sessions. I was able to learn about working in the industry and I gained insight into what is possible for my future.

## Samuel Cho

Benjamin N Cardozo High School

Grade: 11th



I am a rising sophomore at New Explorations into Science, Technology, and Math. My dream career is to be an engineer and work with DDC to build parks and public buildings. In my free time I love going to the beach and swimming. Over the summer I learned that the DDC STEAM is a wonderful educational program that has built a huge network and community of people interested in the STEAM fields.

## Steven Doljansky

New Explorations into Science,  
Technology and Math

Grade: 9th



I am a rising senior at The Baccalaureate School for Global Education. I am currently undecided on my career goal, but I am choosing between computer engineering and mechanical engineering. In my free time I like to travel and swim competitively. During the summer, I traveled to Egypt to compete with their swimming national team.

## Omar Ebied

The Baccalaureate School for  
Global Education

Grade: 12th



I am a rising senior at Beacon High School and am beginning to explore the world of options for career paths as I start applying to college. Recently my interest in architecture has been growing, and I am considering it as a potential future career. This summer I learned a great deal about engineering and architecture and that has fed my interest for those fields. I was especially intrigued to learn more about green infrastructure and the sustainability of city buildings. I also learned a great deal about public art and its importance in integrating communities across the five boroughs, while inspiring creativity around the city. This summer was very informative, interesting, and attention-grabbing. Thanks, DDC!

## Tevon Gayle

Beacon School

Grade: 12th



I am a senior at the High School of World Cultures. My career goal is to become an architect and build strong and accessible public buildings. In my free time I enjoy drawing, designing, going to the park to read, listen to music, watch series and movies.

## Noelia Angomas Herrera

High School of World Cultures

Grade: 11th



I am a rising sophomore at Stony Brook University working towards a Bachelor degree in Engineering. I am passionate about music, the arts, nature, and helping others. I first got involved with DDC as an intern in the High School Summer Internship Program before my freshman year of college. I enjoyed that program so much that I felt I had to participate in DDC STEAM's program this summer too! Through these virtual meetings and presentations, I learned about project management, the many career pathways for engineers, and the different departments within DDC. It was also very interesting to learn about how successfully DDC is dealing with the current pandemic.

## Aaliyah Kaushal

Stony Brook University

Grade: College Sophomore

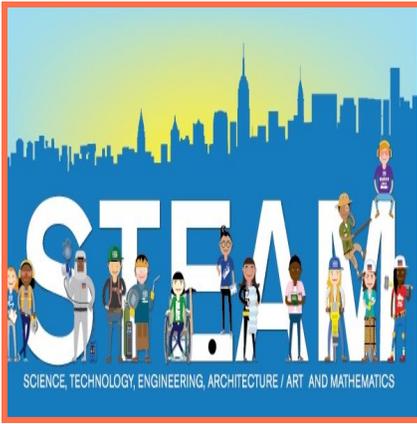


I am a freshman at Stuyvesant High School. My career goal is to become an engineer, more specifically a mechanical or electrical engineer. In my free time, I enjoy playing basketball with my friends and family. Over the summer I learned about the various professions at DDC, ranging from lawyers to project managers, and how each plays an important role in the design of public buildings and infrastructure. This program has motivated me to choose a career path to STEM.

## Dean Kaushal

Stuyvesant High School

Grade: 9th



I am a rising junior at Stuyvesant High School. My career goal is to become an architect and use my creativity to produce sustainable aesthetics in infrastructure and construction that promote justice to society. In my free time, I enjoy creating art, drawing, photography, videography, CADing, badminton and swimming. Over the summer I learned a great deal about the many different branches of the agency and how DDC works, and also how broad the mission of the agency is and the work to be done. I learned how many different career paths intersect architecture, engineering and construction, and how without all these different careers DDC would not be able to accomplish its mission. I also learned about the needs of the different parts of the city physically, and the processes to serve these needs and more importantly, the people who will benefit.

## Semoi Khan

Stuyvesant High School

Grade: 11th



I am a rising sophomore at Brooklyn Technical High School. My goal is to become an architect and build accessible buildings and sustainable structures. I enjoy painting, cooking and traveling with my family. Over the summer, the DDC STEAM Lunch and Learn program speakers taught me that it's important to be passionate about the career you choose. I hope to apply my passion for architecture and design to build buildings that serve a purpose and make people happy. This summer was a great experience that exposed me to careers I might pursue in the future. I'm glad I was able to participate because I'm now more excited about pursuing a career in architecture.

## Aliaa Mahgoub

Brooklyn Technical High School

Grade: 10th



I am a member of the Class of 2021, currently considering careers in the STEM fields, most specifically science and engineering. I really enjoy delving into the workings and processes that govern the functions of items and phenomena and methods and approaches to alter and study them further and to find uses for them in everyday life. That is the reason I decided to take part in the Lunch and Learn program. I also wanted to explore my interest in engineering and learn about potential pathways should I decide to embark on a career in engineering. The program provided me with information about the many opportunities available. I plan to continue to explore careers and areas of study more intensively as I prepare to transition to college.

## Mohammed Oguntola

Astor Collegiate Academy

Grade: 12th

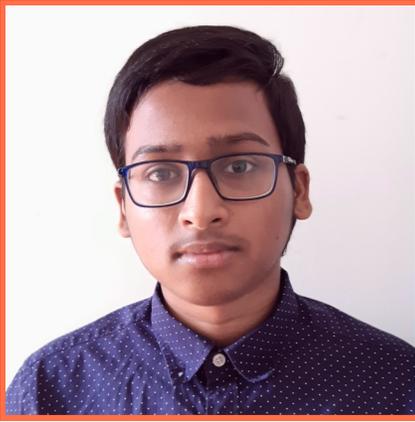


I am a rising senior at LaGuardia's High School for the Performing Arts. I enjoy creating and performing music, as well as creating art work. Through the DDC's Lunch and Learn sessions, I have learned more about my career goal as an architect and interior designer. I am especially interested in green infrastructure and sustainability in the city.

## Kayla Razak

Fiorello H. LaGuardia High School  
of Music & Art and Performing Arts

Grade: 12th



I am a rising junior at Bedford Academy High School. My career goal is to become a software engineer. I plan to develop innovative software that will change the world. In my free time, I like to read and learn about technology. Over the summer I learned a lot about engineering from the DDC Lunch and Learn program. They showed me the many different career paths that can be pursued at DDC. They helped me network with mentors who are successful in their fields. My advice for anyone who is planning to pursue a career in engineering that they join the DDC Lunch and Learn program.

## **Kimiwa Sadat**

Bedford Academy High School

**Grade: 11th**

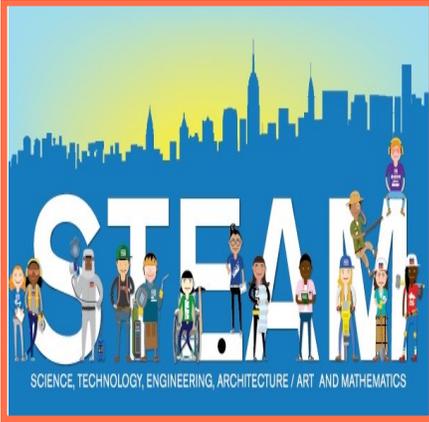


I am a rising sophomore at Farmingdale State College studying Computer Engineering Technology. I hope to learn more about the software and hardware in today's technology and how it is used and designed. In my free time, I enjoy playing basketball and learning about cars. Over the summer I have learned about the many things that the DDC has to offer and I was able to meet and speak to people who have been at DDC for a long time and have them share their experiences with us.

## **Matthew Shehata**

Farmingdale State College

**Grade: College Sophomore**



I am a junior at Thomas Edison High School, currently studying Architecture. During my free time, I enjoy making music, and drawing free handed. My career goal is to become a mechanical engineer at a car manufacturer, as well as a car designer. What I've learn over the course of the summer are the basic skills necessary and day-to-day tasks for my future career.

## Erick Sowers

Thomas A. Edison CTE High School

Grade: 11th



I am a rising freshman at Rensselaer Polytechnic Institute. I am also a former DDC High School Summer Intern and DDC ACE Team 8 member. I plan to major in Civil Engineering and Economics. My long term goal is to establish my own engineering firm and to help provide other young students like myself with internships. In my free time, I enjoy creating art and playing the violin. Over the summer, I learned a great deal about a variety of STEAM fields. I am very thankful to have had the opportunity to join DDC's Lunch and Learn program.

## Karen Wu

Rensselaer Polytechnic Institute /  
HSMSE

Grade: College Freshman

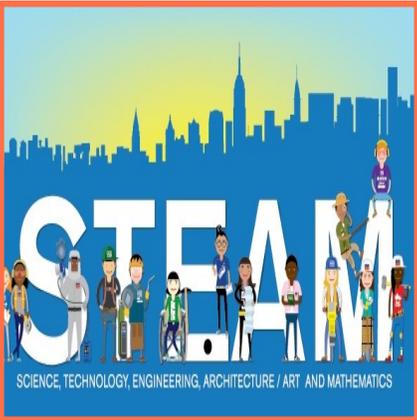


I am a 2020 graduate of the High School for Construction Trades, Engineering and Architecture. In the Fall, I will be attending the John Jay College of Criminal Justice majoring in Political Science. In the future, I plan to be a lawyer, though I'm unsure of which type of law I will practice. Throughout high school, I have been learning about engineering principles, and will continue to pursue that interest on the side. I also enjoy reading and relaxing for leisure. Over the summer I've taken up a new language, Japanese. It is very challenging, but well worth the time put in to learn. I am thankful to have been invited to take part in these informative sessions. Thank you to everyone from the DDC who imparted words of advice and information for me to look back upon and reflect.

## Alyssa Yamraj

John Jay College of Criminal  
Justice

Grade: College Freshman



Next year, I'll be a 9th grader at Hunter College High School. My goal is to enter the field of infrastructure in order to design a more efficient framework for the city to grow upon in the future. My hobbies are traveling and bird watching.

## Leo Zhang

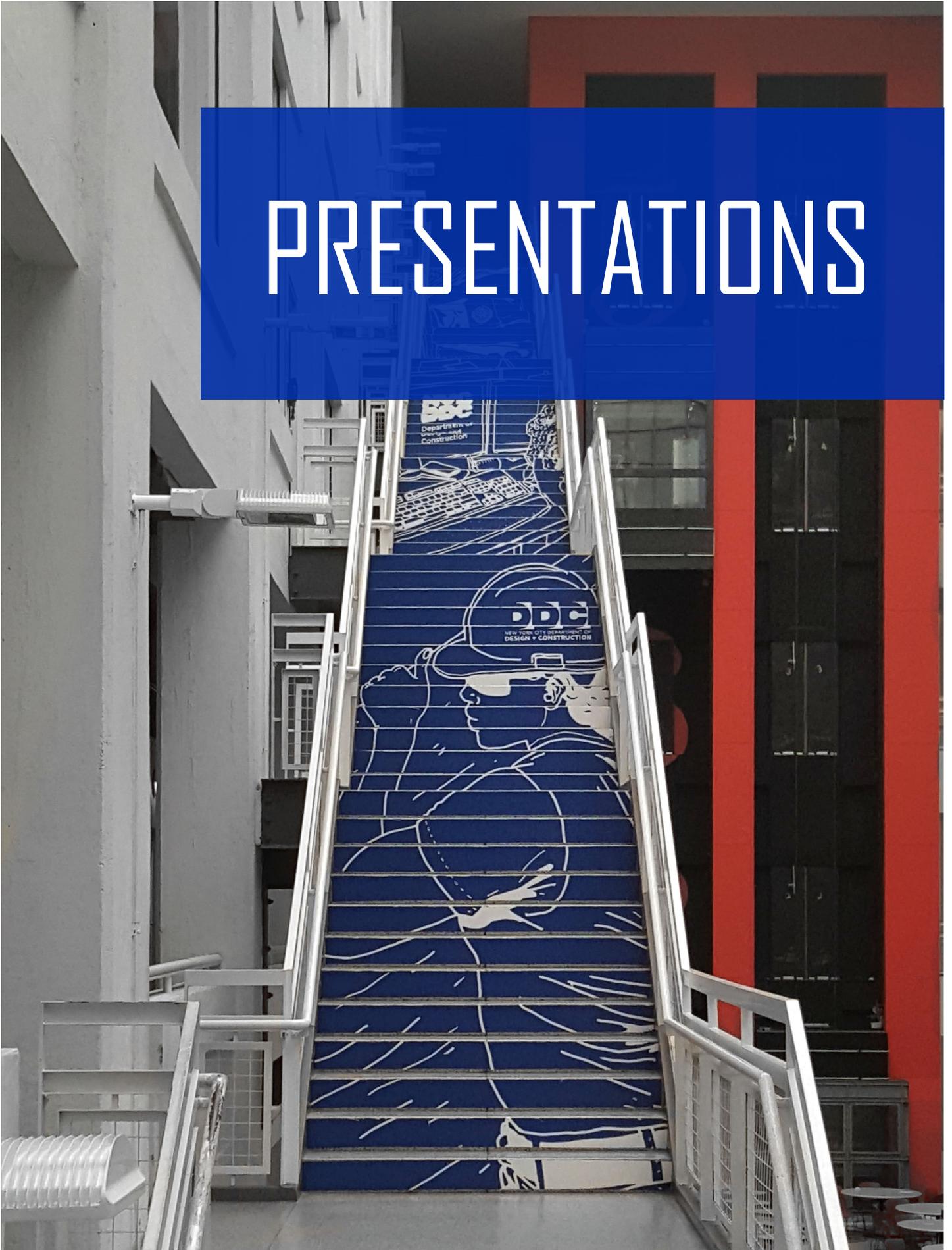
Hunter College High School

Grade: 9th



The High Bridge, NYC's oldest bridge connecting the Bronx and Manhattan

# PRESENTATIONS



# DDC's COVID - 19 Programs

## VIRTUAL PROGRAM

Over the summer of 2020, the **NYC Department of Design and Construction** (DDC) STEAM educational initiative launched a four-week virtual **Lunch and Learn** series to give high school students insight into DDC careers and careers in the built environment.

**Lunch and Learn** was a one-

hour interactive presentation by DDC professionals speaking about critical DDC projects, their current role, career path and education. The series connects DDC professionals in the built environment, administration, construction management and design to students to share their experience and knowledge.

To kick off the series, DDC's **First Deputy Commissioner Jamie Torres-Springer** presented on DDC's COVID-19 projects. DDC's COVID-19 work took place in four essential programs: Two temporary field hospitals built in Brooklyn and Queens created 1,100 new patient beds; the creation of 15 new Coronavirus testing centers and four Department of Health community health centers that were upgraded to manage increased laboratory testing; three large "**Centers of Excellence**" built for the **NYC Health + Hospitals Corporation** to help meet the future needs of New Yorkers who recovered from COVID-19. Also, because of the closure of community cooling centers, DDC also managed the installation of tens of thousands of new air conditioning units in private residences to help older and less wealthy New Yorkers cope with the hot summer weather.

"The big lesson for us as a City agency is that we can get things done fast and with integrity," said DDC's **First Deputy Commissioner Jamie Torres-Springer**.

"As part of New York City's response to the COVID-19 pandemic, DDC played a critical role building emergency medical facilities," said **Lee Llambelis, Deputy Commissioner for Community Partnerships and STEAM Initiatives**.

DDC's response to the COVID-19 crisis was seen in several areas including modifying construction timelines, shifting to a remote workplace and building emergency shelters. The creation of Intensive Care Unit beds for COVID-19 affected patients became a significant priority for the agency. DDC also supported the work to convert the **Billie Jean King Tennis Center**, and the **Brooklyn Cruise Terminal** into temporary hospitals. Three ambulatory facilities were also built in some of the hardest hit neighborhoods to help New Yorkers recover from COVID-19 outside the hospital and to prevent hospitalizations with testing and preventative care. These outpatient **Centers of Excellence** in Brooklyn, Queens, and the Bronx will play essential roles in providing comprehensive primary care services to COVID-19 survivors that support recovery. **Health + Hospitals Corporation**, through their primary care division, Gotham Health, will be operating the **Centers of Excellence**.

### Billie Jean King Tennis Center and Brooklyn Cruise Terminal (1,100 Beds)



Billie Jean King Tennis Center and Brooklyn Cruise Terminal (1,100) Beds

# Why New York City Works

## VIRTUAL PROGRAM

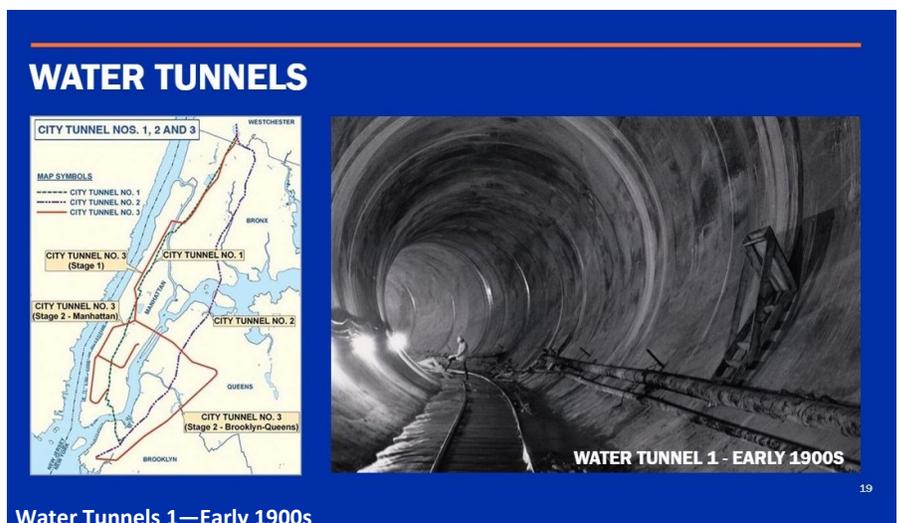
On Wednesday, July 15<sup>th</sup> New York City students participated in the second virtual Lunch and Learn session with Resident Civil Engineer Madeline Skoblik. Ms. Skoblik’s presentation was on the **History of New York City’s Infrastructure, ‘Why New York City Works: A Lesson in Civil Engineering.’** Students were treated to an engaging synopsis of NYC’s history, from its first European settlers to the modern-day melting pot NYC has transformed into. Her introduction to Civil Engineering included an overview of the city’s extensive water resource system, sewers, waste reduction/sanitation, public transportation (subways, and roads), bridges, utilities (gas, electric, steam, and communications (telephone, internet), and building structures. Her presentation concluded with an overview of DDC’s work in capital infrastructure construction. **Ms. Skoblik** described the day to day of working on large scale infrastructure projects throughout the 5 boroughs.

“I’m happy DDC is continuing to provide virtual learning sessions during this very difficult time. The topic of New York City’s history, especially the development of its complex infrastructure, has always been fascinating to me and I’m excited to share this knowledge with a new generation of students! Civil Engineering provides a roadmap to understanding the built environment and specifically buildings, bridges, roads, subway systems, sewer systems, water tunnels, utilities and more.” **stated Ms. Skoblik**

**Deputy Commissioner Lee Llambelis**, stated, “It underscores how Civil Engineering links to every part of our world. In that it is among the oldest branches of engineering, dating back to when humans first came together to create permanent settlements.”

**Ms. Skoblik** explained the operation of New York City’s water supply system which consists of a series of tunnels that transport water via gravity-flow. Tunnels 1 and 2 were completed by 1935 and have effectively never been shut down since their construction. Water tunnel number 3 is the largest capital construction project in New York City’s history and has been under construction since the 1970s. Madeline explained the cut and cover construction method

which involves using excavation equipment to dig a large trench or rectangular hole in the ground which is then covered by a deck on which vehicles or pedestrians can continue to pass over as work continues underneath. This method is why so many lines run underneath streets and not underneath buildings in the city. She also answered questions from students about the City’s sewer and subway service.



# INFRASTRUCTURE

## VIRTUAL PROGRAM

On July 16, 2020, in the 3<sup>rd</sup> session of the series, **Deputy Commissioner Eric McFarlane** presented on infrastructure, specifically, **“Slip Line Installation: For the Structural Rehabilitation of the New York City’s Trunk Water Main System.”** McFarlane focused on the infrastructure of Astoria, Queens, one of the world’s busiest and most diverse communities in New York City and outlined the challenges faced by the continual maintenance upkeep of the city’s 6,800-mile water distribution system. This includes trunk water mains, which distribute 1.2 billion gallons daily from the three massive water tunnels to nine million NYC residents, which necessitates implementing non-conventional engineering to minimize disturbances to communities, businesses and traffic. The rehabilitation of an 8,500-linear foot stretch of decommissioned 60-inch diameter trunk main spanning seventeen city blocks in a highly dense, commercial and residential hub, centrally located in Astoria, Queens is a tremendous undertaking. To recommission the trunk main while minimizing environmental, social and economic impacts, design engineers from DDC devised an innovative design solution by electing to slip line the existing 60-inch diameter steel water main with a 52-inch diameter steel water main. Given the existing 60-inch main’s deteriorated state, any lining methods used must incorporate full structural rehabilitation.

A poll taken during **McFarlane’s** presentation showed that many students were interested in becoming architects, engineers and even a chemist. He emphasized the importance of having a career objective.

“The work of the Infrastructure division is critically important to the construction and upkeep of NYC’s 6,500 miles of water mains citywide. Their work makes it possible for NYC to deliver the world renowned NYC tap water that New York is known for and NYC residents rely on every day of the year,” **stated Deputy Commissioner for Community Partnerships and STEAM Initiatives, Lee Llambelis.**

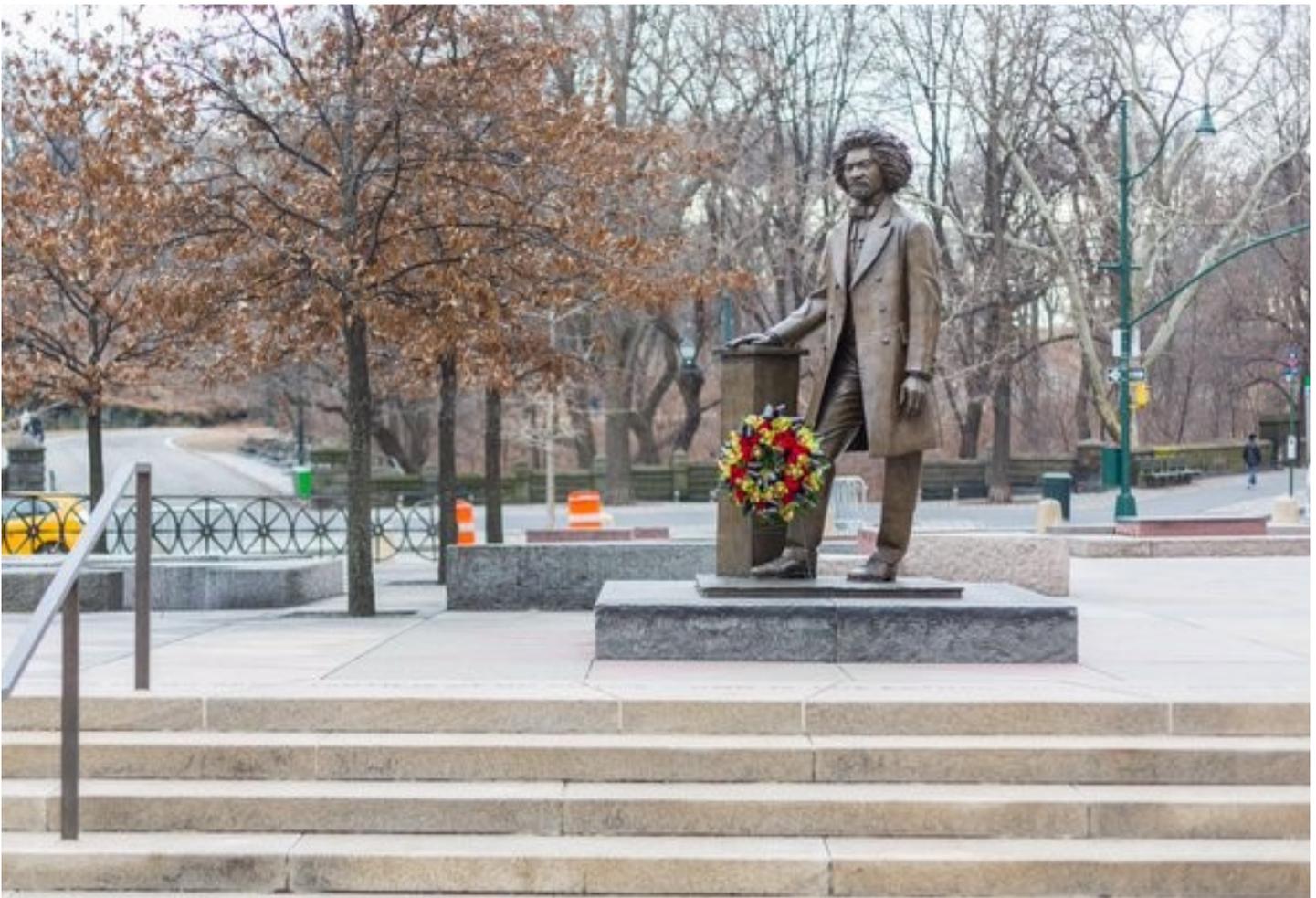
**New York’s City Tunnel No. 3** is one of the most complex and intricate engineering projects in the world. The tunnel will eventually span 60 miles. The size and length of the tunnel, its sophisticated control system, the placement of its valves in special chambers and the depth of excavation, represent state-of-the-art technology. While city tunnel no. 3 will not replace city tunnels no. 1 and no. 2, it will enhance and improve the adequacy and dependability of the water supply system and improve service and pressure to outlying areas of the city. It will also allow for the shutting down, inspection and repair of city tunnels nos. 1 and 2 for the first time since they were activated in 1917 and 1936, respectively.

There were many factors to consider during this project including environmental, financial and community considerations. Pollutants, financial impact on local business and noise and traffic considerations for residences and businesses were all important factors. DDC strategically located all tools and rehabilitation trunk materials to mitigate disruption to services and quality of life. The project conclusion exceeded expectations. From start to finish, the water main project was completed in ten months - seven months ahead of schedule. The rehabilitation work was also completed under budget and the slip lining reduced open-cut trenching by at least 80%.

**Deputy Commissioner McFarlane** also spoke about DDC's work on plazas around the city and specifically the **Frederick Douglass Circle** as an example of plaza work enhanced by DDC's Percent for Art Program. The reconstruction of **Frederick Douglass Circle**, on the northwest corner of Central Park, revitalized the traffic circle with new landscaping, lighting, and traffic signals. In addition, the project features a new sculpture of **Frederick Douglass**, by artist **Gabriel Koran**, and a fountain wall designed by **Algernon Miller**, featuring the constellations, which could have served to guide northbound slaves toward freedom. **McFarlane** further noted, "Design can create equitable spaces, such as **Frederick Douglas Plaza** that convey a sense of welcome to all."

<https://www.youtube.com/watch?v=9bH9veCoqow>

McFarlane shared the impact **COVID 19** has had on DDC projects. He noted, in general projects were completed faster because of the shutdown and low vehicle and pedestrian traffic enabled on-going construction projects to continue without interruption.



Frederick Douglass in New York City Central Park , Percent for Art Program

# Public Arts Program

## VIRTUAL PROGRAM

On July 20, 2020, New York City Department of Design and Construction Deputy Director **Xenia Diente**, an artist and art administrator in the Public Buildings Division, presented the fourth session of DDC STEAM’s Virtual **Lunch and Learn** Program.

**Ms. Diente** spoke about her experience working with visual artists and designers to plan, design, fabricate and install public art citywide in civic projects. Since the formation of DDC in 1996, Public Art has been a component in both public buildings and infrastructure capital improvement projects. **Xenia stated**, “The objective of this Lunch and Learn is to provide an overview of **NYC’s Percent for Art Program** and how A&E’s Public Art administrators manage public art projects within larger DDC capital projects.”

Over the years, the Public Art team has teamed up with DDC STEAM on many events like **Summer Streets, Earth Day, Boogie on the Boulevard** and last year a mural at the **Horizon Juvenile Facility**.

“A particular favorite of mine is **The Haul**, a floor-to-ceiling mural created by young people involved in the criminal justice system at the **Horizon Youth Detention Facility** that depicts inspirational African American men and women who broke barriers and made contributions in architecture and engineering. The mural is both inspiring and illustrative of the transformative power of the arts,” stated **Deputy Commissioner for Community Partnerships and STEAM Initiatives, Lee Llambelis**.

<https://www1.nyc.gov/site/ddc/about/press-releases/2019/pr-081419-Mural-With-Hope.page>

Ms. Diente explained that The Public Art unit’s primary responsibility is to implement **§224 of the New York City Charter**, commonly referred to as the **“Percent for Art Law,”** which mandates that 1% of funds for eligible capital improvement project funds be set aside for the commission, purchase or installation of artworks. Percent for Art projects are developed through a collaborative process that is composed of representatives of the project stakeholders. The team works together throughout the course of the project lifecycle from planning to artist selection, design through installation.

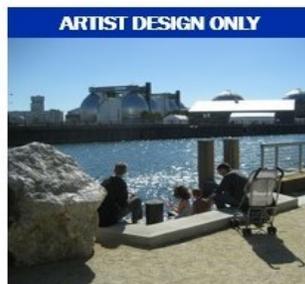
After installation, artworks are reviewed again by the Public Design Commission for compliance with the approved design. Upon final approval of the Public Design Commission, completed artworks become a part of the collection of the City of New York. Artists prepare final documentation for archival purposes.

These capital improvement projects include but are not limited to Courthouses, Parks, Cultural Institutions, Police Precincts, Streetscapes, Plazas, Libraries, Fire Houses, Sanitation Facilities, Memorials, Animal Care Centers, EMS Stations, Homeless Shelters, Marine Transfer Stations, Health Centers, Detention Centers, Children’s Services, Wastewater Treatment, and other publicly owned sites throughout the City.

<https://www1.nyc.gov/site/dclapercentforart/index.page>

### NYC PERCENT FOR ART LOCAL LAW

## What kind of public art approaches are considered?



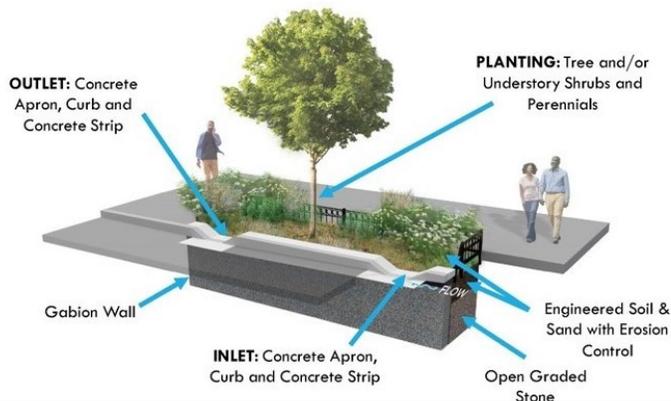
# Green Infrastructure

## VIRTUAL PROGRAM



### GREEN INFRASTRUCTURE COMPONENTS

BIOSWALES [Also Known As: RAIN GARDENS]



#### Green Infrastructure Components

On July 21, 2020, New York City Department of Design and Construction Sustainable Infrastructure Unit Program Director **Sofia Zuberbuhler-Yafar**, Deputy Director **Shani White**, and Sustainability Coordinator **Ankita Nalavade**, presented to students across New York City during the STEAM Virtual Lunch and Learn Series. The team provided an introduction to work of the Sustainable Infrastructure Unit at DDC. They discussed two types of work within the unit- Green Infrastructure (GI) and Sustainability and they explained how the Sustainable Infrastructure Unit helps New York City achieve its sustainability goals.

Program Director **Sofia Zuberbuhler-Yafar** stated, “It is exciting to share with a younger generation ideas and concepts of sustainability and inspire them to improve and positively impact their future! NYC Invests in green infrastructure to control combined sewage overflow and improve water quality.”

“The work of the Sustainable Infrastructure Unit is critically important as it provides interventions that afford NYC residents a healthier, safer, and eco-friendly future through the creation of more sustainable infrastructure,” stated **Lee Llambelis**, Deputy Commissioner for Community Partnerships and STEAM Initiatives.

The team went on to explain how Green Infrastructure projects aim to provide storm water management in Combined Sewer Overflow (CSO) areas. Combined Sewer Overflow is untreated waste combined with storm water from the urban surface that is released into the environment.

**Deputy Director White** emphasized why citizens should care about sewer overflows, explaining that CSO outfalls adversely affect the quality of surrounding waters by contributing to high levels of bacteria that makes it dangerous for swimming, boating and fishing. Those high levels of bacteria also increase organic material which results in low dissolved oxygen levels that in turn can stress or kill fish. **Ms. White** explained Green Infrastructure practices and discussed some ongoing pilot projects the team is working on to help alleviate and solve these issues. Ms. White stated, “One example of Green infrastructure that DDC has installed across the city are over 5,000 bioswales, also known as rain gardens, that help control combined sewage, manage runoff, and improve water quality.”

**Sustainability Coordinator Ankita Nalavade** provided an overview of DDC’s Sustainability projects that help integrate sustainable measures in the Planning, Design, and Construction of Infrastructure projects. She also explained the **Envision credit system** which provides a framework that includes 64 sustainability and resilience indicators, called ‘credits’, organized around five categories: **Quality of Life, Leadership, Resource Allocation, Natural World, and Climate and Resilience**. Simply put, “What LEED is to Building Projects, Envision is to Infrastructure,” **Ms. Nalavade** noted.

# Public Building Moving Forward

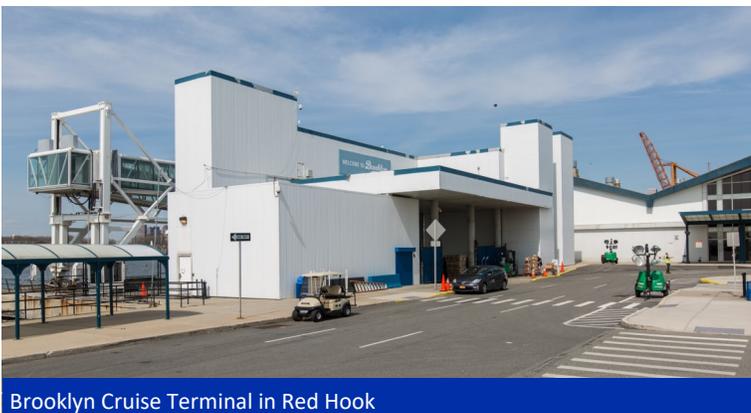
## VIRTUAL PROGRAM

On **July 22, 2020**, New York City Department of Design and Construction **Deputy Commissioner for Public Buildings Thomas Foley**, presented the fifth session of DDC STEAM's Virtual **Lunch and Learn** Program to over 35 students across New York City.

**Deputy Commissioner Foley** spoke about DDC's Public Buildings efforts during the global health crisis. He discussed and displayed projects DDC has constructed and/or is planning to construct throughout New York, including but not limited to **Queens Theatre in the Park, Elmhurst Community Library, NYPD 40th Precinct, FDNY Rescue 2, and the East 91<sup>st</sup> Street Marine Transfer Station**. **Foley** stated, "DDC is committed to delivering capital projects that are inspiring, enduring, practical, constructible and cost sensitive." He encouraged students to evaluate their career paths noting that, "working with the city and various different agencies, students would gain great exposure to construction projects across the industry spectrum."

"As the City's primary capital construction project manager, DDC builds many of the civic facilities New Yorkers use every day. Deputy Commissioner Foley and the amazing team in Public Buildings have been working to ensure clarity and stability as we navigate the pandemic and provide city residents with much needed facilities," stated **Lee Llambelis, Deputy Commissioner for Community Partnerships and STEAM Initiatives**.

**DDC's Public Buildings has also partnered with NYC Health + Hospitals** to manage the design, construction and operations for the COVID-19 positive Emergency Room Program at the **Billie Jean King National Tennis Court** in Flushing Queens, and the **Brooklyn Cruise Terminal** in Red Hook. **Foley** noted that the Public Buildings Division has provide over 1100+ beds for patients within the Billie Jean King Tennis Court and at the Brooklyn Cruise Terminal and also help set up 5 various testing lab facilities in Manhattan and the Bronx.



Brooklyn Cruise Terminal in Red Hook

**DDC and NYC Health + Hospitals** are also establishing three **Centers of Excellence** which will be operated by **Gotham Health** that will provide comprehensive outpatient primary care services to COVID-19 survivors. What would normally be a 2+ year construction schedule has been compressed to meet high emergency demands. These Centers for Excellence are projected to be completed this fall and will be

located in the Bronx, Brooklyn and Queens. Alongside managing construction projects to aid the city during quarantine, DDC Public Buildings is also managing vendors that are providing low-income senior citizens with air conditioners.

# Virtual Reality

## VIRTUAL PROGRAM

On **Tuesday July 28**, **Lucy Wong**, an **Executive Director in the Public Buildings Division** presented to students across New York City during the **STEAM Virtual Lunch and Learn Series**. **Ms. Wong** introduced Virtual and Augmented reality and explained how these cutting-edge tools are used in the construction industry. She also spoke about her educational and career journey.

“Virtual Reality is the future where Architecture, Engineering, and Construction industries will save millions of dollars by creating a virtual environment to test and experiment prior to construction,” said **Ms. Wong**, **Executive Director of the Human Services/Universal Pre-K/Administrative Children’s Services program units in the Public Buildings Division**

“Our students learned about the critical role virtual reality plays in construction. It is important that students gain exposure to this state of the art technology,” stated **Deputy Commissioner for Community Partnerships and STEAM Initiatives, Lee Llambelis**.



Virtual reality in the construction industry is helping end users easily understand the design of soon to be built facilities. It allows stakeholders to see potential problems before structures are built. In October 2017, DDC STEAM developed a Virtual Reality pilot program for our summer interns.

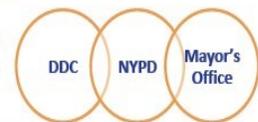
**Ms. Wong** also spoke about her work on the 40<sup>th</sup> Police Precinct, where she helped design a community center on the first floor of the precinct.

She explained the benefits of creating a community center that is inviting and uses artwork and naturally lit windows to give the space a more welcoming feel. The building is ADA accessible and has an entrance that allows everyone to easily access the building.

**The Americans with Disabilities Act (ADA)** is a civil rights law that prohibits discrimination based on disability. The ADA also requires covered employers to provide reasonable accommodations to employees with disabilities, and imposes accessibility requirements on public accommodations.

### VR workshop

NYC is asking for Community Rooms to allow for open collaboration and inclusiveness within neighborhoods. DDC is designing and building these facilities.



Hollenbeck Replacement Precinct, 2009  
Los Angeles, California



North Precinct, TBD  
Seattle, Washington

# East Coastal Resiliency Program

## VIRTUAL PROGRAM

On **July 29<sup>th</sup>, 2020**, New York City Department of Design and Construction's **East Side Coastal Resiliency (CR) team: How Sheen Pau, Kiumars Q. Amiri, and Bobby Issac** presented to students across New York City on DDC Community Projects during the STEAM Virtual **Lunch and Learn** Series. The team introduced the work of the **East Side Coastal Resiliency Program**. They explained the importance of designing and building flood prevention systems during times of crisis and described how their work helps New York City protect its shoreline. Members of the Coastal Resiliency team shared their backgrounds and professional experience, as well as the Coastal Resiliency team's roles and project portfolio.

On **October 29, 2012**, Super Storm Sandy made landfall and greatly affected the New York region. The

### COASTAL RESILIENCY PROJECTS

COMMUNITY MOBILITY & ACCESS - EXISTING CONDITIONS



Community Mobility & Access—Existing Conditions

storm caused extensive coastal flooding, resulting in significant damage to thousands of residences, businesses, open spaces, transportation networks, power supplies, and water and sewer infrastructure across the City. To address this vulnerability, DDC's **Coastal Resiliency (CR) Program** works to design and construct integrated coastal flood protection systems that consist of floodwalls, flood gates, raised landscapes, and upgraded sewer systems. The flood protection systems are designed to protect against high water levels from coastal storms and sea level rise, to respond quickly to the urgent need for increased flood protection and resiliency, while also improving waterfront access and open spaces.

The team explained that their overall design objectives included:

- Responding quickly to the urgent need for increased flood protection and resiliency
- Providing reliable and integrated Flood Protection Systems
- Integrating infrastructure into the public realm
- Improving waterfront open spaces, preserve access & views

“The work of the Coastal Resiliency team is an important part of how New York City has begun to develop ways to protect the shoreline in the aftermath of the devastation of Super Storm Sandy. It is critically important to raise awareness of the effects extreme weather can have on coastal areas and on the importance of building resilient and sustainable structures and infrastructure,” said **Lee Llambelis, DDC Deputy Commissioner for Community Partnerships & STEAM Initiatives**.

“We design to the criteria of hurricane and flood preventions in various New York City neighborhoods like Red Hook, Downtown Manhattan, and Far Rockaway zones to protect community and resident life,” said **Kiumars Q. Amiri, DDC's Deputy Director of Community Engagement for the Coastal Resiliency**.

The Coastal Resiliency team also discussed how sustainable infrastructure helps reduce construction waste, manage storm water and makes it possible to plan for long-term monitoring and maintenance.

# East Coastal Resiliency Program

## VIRTUAL PROGRAM

The Coastal Resiliency team also discussed how sustainable infrastructure helps reduce construction waste, manage storm water and also makes it possible to plan for long-term monitoring and maintenance.

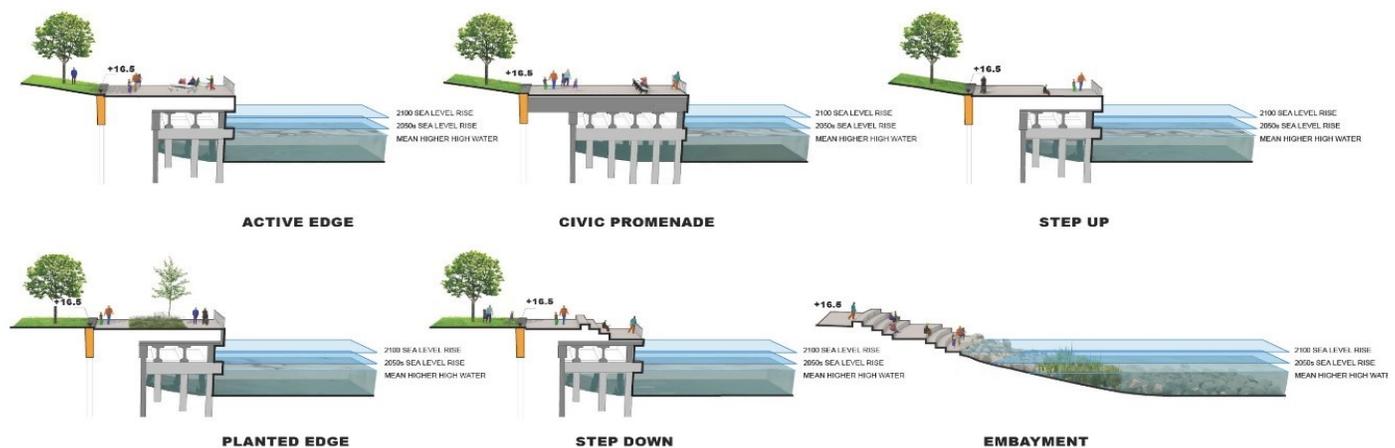
**How Sheen Pau** serves as Assistant Commissioner of Infrastructure Design for the New York City Department of Design and Construction. In her capacity, she oversees and manages the design of street, water main, sewer, bridge, retaining wall, step street, sustainable infrastructure, and coastal resiliency projects. Ms. Pau is a professional licensed engineer with the New York State and with Washington D.C. She has over 30 years of engineering experience. Ms. Pau received her Bachelor of Engineering and her Masters of Engineering from the City College of New York.

**Bobby Issac** is a member of the Coastal Resiliency team at the Department of Design and Construction. In his capacity as the Director, with his team, he manages the design of coastal flood protection systems for New York City. He also serves as the Geotechnical Engineer (underground engineering) for the Department. He has over 24 years of research and professional experience in Civil Engineering, and is a registered Professional Engineer in New York and Michigan. He earned his Master's degree in Engineering from the University of Massachusetts and Bachelor's degree in Engineering from Nagpur University, India.

**Kiumars Q. Amiri (Q)** is the Deputy Director of Community Engagement for the Coastal Resiliency program at the NYC Department of Design and Construction (DDC). His experience includes community development, project management, resiliency and sustainability frameworks, and place making initiatives for both public and private sector projects. His primary role at DDC consists of leading community engagement and outreach for DDC's coastal resiliency portfolio, working closely with DDC's Intergovernmental Affairs, City Hall, partner City agencies, Elected Officials offices, and various stakeholders. Q manages the development and execution of outreach strategies and action plans, with the goal of effectively bridging project teams and community members by cultivating community relations and support.

## PROTECTING AGAINST FUTURE FLOODING

### PROJECT DESIGN - OPTIONS FOR INCORPORATING WATER ACCESS



# Design Work

## VIRTUAL PROGRAM

On **July 30**, New York City Department of Design and Construction (DDC) **Deputy Director of Architecture Jenny Gillette** and **Motoko Shoji, Senior Project Manager** with the Public Buildings Division, presented to students across New York City. They introduced architectural design work at DDC during the STEAM summer of 2020, Virtual **Lunch and Learn** Series.

**Ms. Gillette and Ms. Shoji** discussed their respective careers, the global nature of their work and the importance of designing buildings and infrastructure that are resilient, sustainable, and equitable. They also discussed the **American's Disabilities Act (ADA)** and the importance of making civic structures compliant with the ADA. The **ADA** is a civil rights law that prohibits discrimination based on disability. The law requires covered employers to provide reasonable accommodations to employees with disabilities and imposes accessibility requirements on public accommodations.

"As a city we strive to make NYC more accessible," said **Deputy Commissioner for Community Partnerships and Stem Initiatives, Lee Llambelis**. "It is critically important that residents and visitors with disabilities be fully included in every facet of daily life."

"The portfolio of projects the city receives is tremendous. It is exciting and inspiring to serve the community, regardless of their income status. All you need to do is live and visit New York City and you can experience all of it too," said **Jenny Gillette, DDC's Deputy Director of Architecture**.

"We incorporate the needs and accessibility of public and private clients. I've worked on various projects like police precincts, community centers, homes, and plazas. We try to do our best to make the structures sustainable for the environment as well," said **Motoko Shoji, DDC Public Buildings Division's Senior Project Manager**.

**Ms. Gillette** explained how she developed multiple specialty sculptures for a large Chinese firm that included umbrella canopies and escalation enclosures. The umbrella canopies were designed to shield pedestrians from the rain and the escalation enclosures used glass and aluminum in a creative and artistic way. She highlighted how working with global clients and sophisticated technicians and engineers help broaden her experience and showcase her skills.

**Ms. Gillette** led an In-house design team that created comfortable and safe space in police precincts that followed the requirements and accommodations for desk accessibility under the **Americans with Disability Act**. She also explained how her team challenged themselves to provide a space where everyone can feel safe and protected.



Chongqing International Trade and Commerce Center

Both **Ms. Shoji and Ms. Gillette** have been working on **Specimen Collection Modules**, tents that can be used for testing for COVID-19. These tents have been built all over the city and set up in schools to get NYC residents tested quickly and safely. The photos show the installation process where tubes were incorporated into the design to ventilate air, making it clean and cool.

# FEDERAL GRANT REQUIREMENTS FOR CITY REIMBURSEMENT VIRTUAL PROGRAM

On Tuesday, **August 4<sup>th</sup>**, **Barry Vanterpool**, **Director of the Grant Reimbursement** in the infrastructure Division of the NYC Department of Design and Construction presented in the fourth week of the Department of Design and Construction's summer of 2020 virtual **Lunch and Learn** program.

**Mr. Vanterpool** spoke about the **Federal Grant Requirements for City Reimbursement** and discussed the significance of federal grants. He explained how grants were used to fund construction projects and to rebuild the city's infrastructure after catastrophic events, and also to revitalize communities, provide opportunities to upgrade facilities, improve and implement pedestrian and vehicular safety measures, and to ensure equal employment opportunities.

He also outlined how grant requirements are met through compliance with the **Americans with Disabilities Act (ADA)**. For example, ADA compliance can be met by constructing compliant pedestrian ramps that incorporate visually contrasting detectable warning surfaces. And also, by adhering to the **Buy American Act**, which ensures that all steel and iron products used on DDC projects are manufactured in the United States. **The Buy American Act** is intended to boost the American economy. And lastly, by employing **Affirmative Action practices** to prevent discrimination against women, minorities, low income residents and underrepresented businesses.

"A considerable amount of the damage done by Superstorm Sandy was corrected thanks to Federal grants received by the city. Some of those funds were used to build new sewers, catch basins and wetlands, which in turn help to mitigate flooding and improve roadway drainage," stated **Deputy Commissioner for Community Partnerships and STEAM Initiatives, Lee Llambelis**.

**Mr. Vanterpool** also spoke about the importance of finding mentors and shared examples of the many benefits of interning at DDC. He stated, "the relationships formed during an internship can in some instances enable students to return to DDC as a college intern and in other instances as permanent employees."



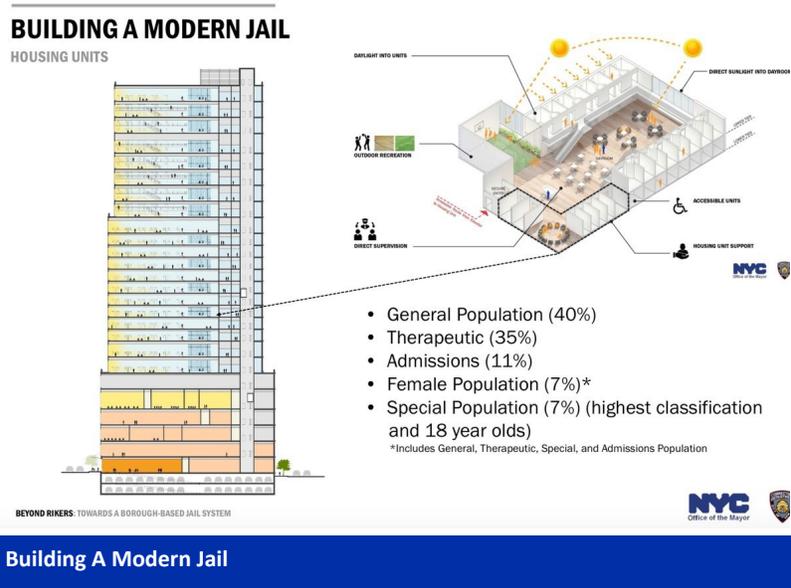
Detectable Warning Surfaces, Grand Avenue and Vanhorn / Seabury, Queens

# In House Law Unit

## VIRTUAL PROGRAM

On **August 5**, **David Varoli**, **Deputy Commissioner and General Counsel** at the NYC Department of Design and Construction presented during the DDC summer **Lunch and Learn** series on the work of the In-House Law Unit. **Mr. Varoli** and his team of lawyers provide legal services and guidance to all DDC divisions. They also work with the City Law Department on standard contract forms like the City standard construction contract. The Law Division is responsible for ensuring that DDC contracts are compliant with the desires of the agency and the law.

“The Law Department at DDC focuses on laws that address procurement, contract administration matters, bids and requests for proposals, insurance, legal challenges, default proceedings, copyright matters, property rights, property acquisition, and matters pertaining environmental law,” stated **Deputy Commissioner and General Counsel David Varoli**.



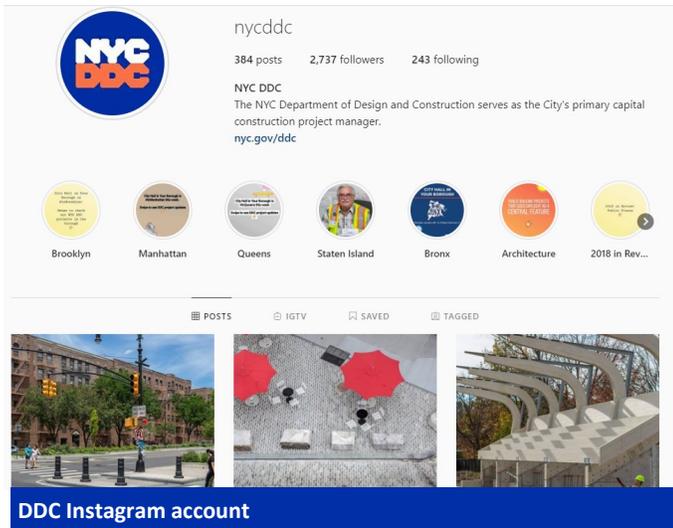
**Mr. Varoli** discussed several critical projects, including the **Borough Based Jail Program**, which aims to create a network of modern and humane borough-based jails to make good on the City’s commitment to closing Rikers Island. This smaller jail system, built upon a foundation of dignity and respect, would reflect the reality that both crime and the number of people in jail have continued to fall. The borough-based system is intended to strengthen connections to families, attorneys, courts, medical and mental health care, and faith and community-based organizations. Being closer to home and transit will enhance the network of support systems for people who are detained and help prevent future returns to jail. The goal is to reimagine these jail facilities as civic assets that would provide a better life for those who are detained and work in them, support smoother transitions back home, and serve as a resource for the community.

**Mr. Varoli** also discussed his work lobbying for the passage of the **Design Build** law, a legal mechanism that allows New York City to save millions on public construction projects in that it allows government agencies to combine design and construction project bids into one contract to save dollars and time. Construction projects can easily be sidetracked by any number of issues, often resulting in delays and exponential budget costs. He encouraged students to watch **School House Rock**, a short video from the 1970’s that explained the structure of the United States government ("**I'm Just a Bill**") and how a bill becomes a law. He also spoke about the importance of finding mentors to help guide students on their journey.

# Communications and Social Media

## VIRTUAL PROGRAM

The final **Lunch and Learn** session on **August 7, 2020**, culminated with a presentation by **Andrew Hollweck, Deputy Commissioner for Communications and Policy**, and **Anastasia von Raison, Social Media Coordinator**. Their presentation on social media's role in DDC's communication strategy provided a unique perspective on the multi-purposed use of social media platforms and its benefit to local communities.



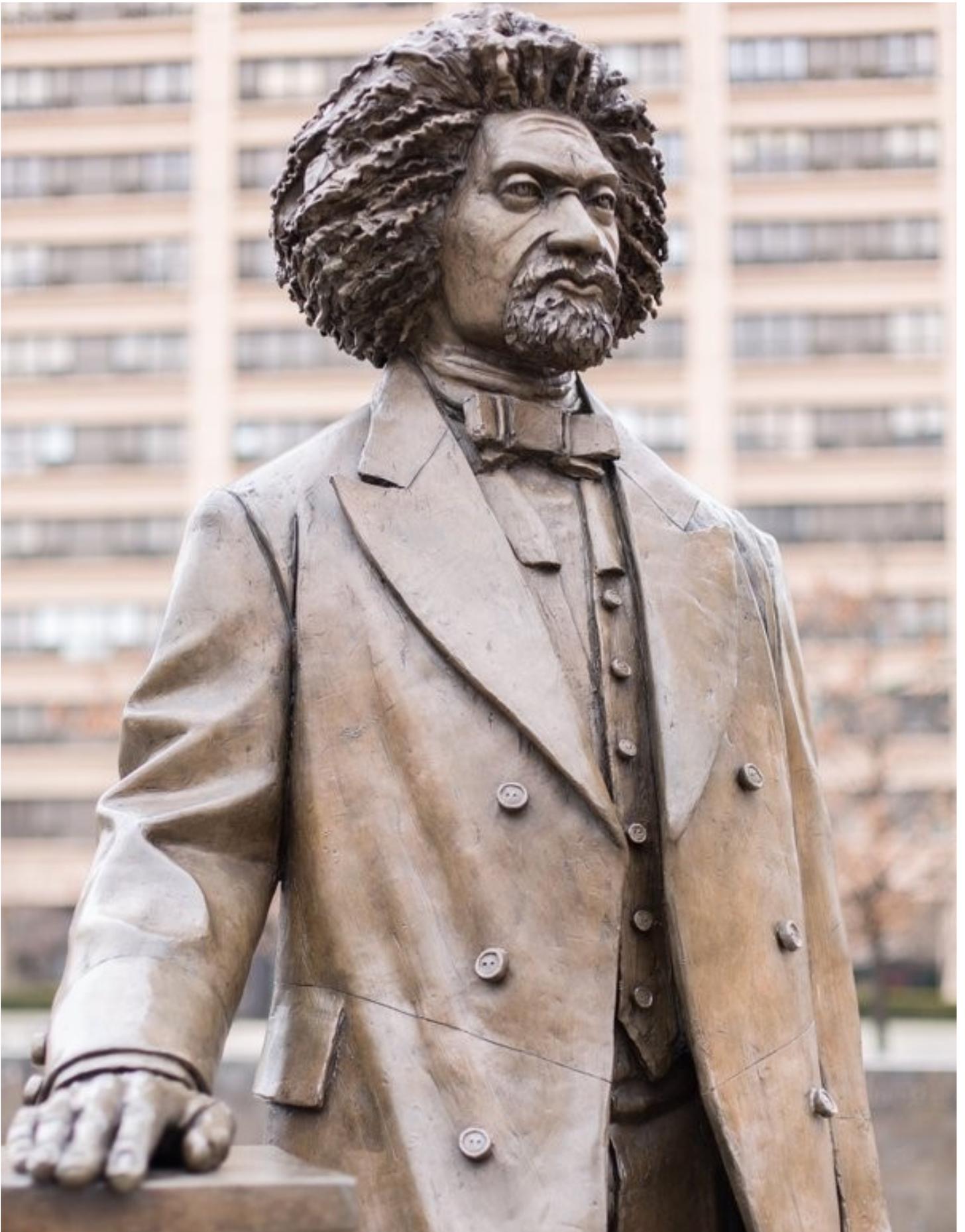
**Deputy Commissioner Hollweck** noted, “Over the last several decades, government has begun to focus on community engagement as a key ingredient to a successful project. Print, video and online resources are all components of the Communications Unit engagement strategy.”

**Deputy Commissioner Hollweck** gave an overview of the projects and programs of the **Communication and Policy Unit**. The communications team is the main contact point communities across the city can reach out to for information

about DDC. He noted the importance of building strong community relationships and improving communications tools for the agency to ensure that stakeholders are both engaged and informed. The division works with the Office of Intergovernmental and Community Affairs to engage elected officials, nonprofit organizations and other local partners in meaningful dialogue about DDC programs taking place in their vicinity.

**Ms. von Raison** plays a key role in managing the agencies social media content and response. She discussed the process by which DDC posts, reposts, and tags and tweets information. Information about DDC projects shared on social media is received from the DDC's Community Construction Liaisons. These individuals help ensure that accurate and up-to-date information is disseminated across the 5 boroughs. Social media enables DDC to interact with audiences in real time, helping to solve any issues in a timely manner. At DDC, it is essential that agency digital communications are strong and representative of our values. Social media is evolving as a tool to connect people with services, offer answers, receive feedback, and more. It is a way to amplify the many ways DDC is helping communities.

**Ms. Von Raison** also spoke about DDC's ability to review the analytics of each post; viewing the number of impressions, engagements, clicks, comments, retweets and likes. Receiving information about how audiences engage with posts helps DDC understand what themes are resonating with community members. The session ended with a robust Q & A confirming the impact and inspiration this series had on student participants. She stated, “In today's fast-paced digital world, more and more people get their news through social media. City governments have a duty to keep everyone informed of their activities.”



Frederick Douglass Memorial, Percent for Art Program

# Meet the Speakers



DDC Atrium Stairs



## Kiumars Q. Amiris

Deputy Director of Community Engagement

Infrastructure | Design 2

Kiumars Q. Amiri is the Deputy Director of Community Engagement for the Coastal Resiliency program at the NYC Department of Design and Construction (DDC). His experience includes community development, project management, resiliency and sustainability frameworks, and placemaking initiatives for both public and private sector projects. His primary role at DDC consists of leading community engagement and outreach for DDC's coastal resiliency portfolio, working closely with DDC's Intergovernmental Affairs, City Hall, partner City agencies, Elected Officials offices, and various stakeholders. Q. manages the development and execution of outreach strategies and action plans, with the goal of effectively bridging project teams and community members by cultivating community relations and support.



## Xenia Diente

Deputy Director

Public Building | Architecture & Engineering

Xenia Diente is an artist and art administrator with more than 18 years of experience working with visual artists and designers to plan, design, fabricate and install public art citywide in civic projects. She strives to strengthen opportunities for artists and designers to creatively serve NYC. Xenia has managed NYC Percent for Art projects that have received local to national recognition including the NYC Design Commission Award for Excellence in Design, Public Art Network Year in Review, and Collaboration of Design + Art. She is a 2020 Create Change Artist-In-Residence at The Laundromat Project, Coro civic leadership LNY25 alumna and 2011 recipient of the Atlantic Center for the Arts social practice artist residency led by artist Rick Lowe. She is a member of Americans for the Arts Public Art Network and Public Art Dialogue. Prior to DDC, she worked for artist-engineer Chuck Hoberman as an industrial designer developing kinetic toys for kinetic sculpture museum installations at Hoberman design and associates. Xenia is a lifelong New Yorker based in Queens with a Bachelors in Fine Art from The Cooper Union School of Art.



## Thomas Foley

Deputy Commissioner

Public Building | Executive

As Deputy Commissioner, Thomas Foley manages the overall direction of DDC's Public Buildings Division, supported by 450 executives, managerial, professional, and administrative staff with over 711 active projects serving 28 sponsor agencies with portfolios valued at over 10 billion dollars. He also establishes short and long-term plans for the division to best align with the goals of the agency and provides executive leadership on divisional/agency initiatives. Mr. Foley also manages the \$8.7B Borough-Based Jail Program for the Public Buildings Division at DDC. This program is part of the plan to shutter Rikers Island by 2026, and to construct four Borough-based jails in Brooklyn, Bronx, Manhattan, and Queens by utilizing Design-Build project delivery. A guiding urban design principle for the borough-based jail system proposal is neighborhood integration. This is part of a once in many generations opportunity to build a smaller and more humane justice system that includes facilities grounded in dignity and respect. These facilities must be beacons of high-quality civic architecture that integrate into the immediate neighborhood context and are assets to all New Yorkers.



## Jennifer Gillette

Deputy Director In-House Design

Public Buildings | Architecture & Engineering

Jenny Gillette, RA, serves as the Deputy Director of Architecture for the New York City Department of Design and Construction (DDC). Working with communities throughout the city's five boroughs, the DDC provides municipal agencies with the design, construction, and management of new and renovated structures such as libraries, police precincts, courthouses, and senior centers. Prior to joining the public sector, Gillette worked at several private design firms, managing diverse groups of designers, engineers, and building professionals to deliver a wide range of project typologies including custom façade systems, single and multi-family residential buildings, and healthcare facilities in under-resourced environments. She has served on the Historic Preservation Commission in Montclair, NJ, and taught at Columbia University's Graduate School of Architecture, Planning, and Preservation. She holds a bachelor's degree from Barnard College and a master's degree in architecture from the University of Texas at Austin. She is a registered architect in New York and New Jersey, and is a LEED accredited professional.



Andrew Hollweck is Deputy Commissioner for Communications and Policy at the New York City Department of Design and Construction where he is focused on building strong community relationships and improving communications tools for the agency to ensure stakeholders are engaged and informed. Prior to this Mr. Hollweck was Senior Vice President and Chief of Staff at the New York Building Congress, where he was a key industry advocate for smart public infrastructure investment. Mr. Hollweck has been involved in the public works sector as a policy expert for more than twenty years.

## Andrew Hollweck

Deputy Commissioner

Office of Communications and  
Policy



Bobby Issac is a member of the Coastal Resiliency team at the Department of Design and Construction. In his capacity as the Director, with his team, he manages the design of coastal flood protection systems for New York City. He also serves as the Geotechnical Engineer (underground engineering) for the Department. He has over 24 years of research and professional experience in Civil Engineering and is a registered Professional Engineer in New York and Michigan. He earned his Master's degree in Engineering from the University of Massachusetts and Bachelor's degree in Engineering from Nagpur University, India.

## Bobby Issac

Director

Infrastructure | Design 2



## **Eric MacFarlane**

**Deputy Commissioner**

**Infrastructure | Executive**

Eric C. Macfarlane leads the New York City Department of Design and Construction, Infrastructure Division with a technical staff of 500 employees, consisting mostly of engineers, project managers, and analysts. The division is responsible for the design and construction management of the capital infrastructure programs for the City of New York consisting of: consolidated roadways, sanitary sewers, storm drainage system, water distribution network and various urban landscape improvements. Currently the division has a 5 years capital plan portfolio of 625 projects in various phases, from planning, design and construction, valued at more than \$10 billion. A few significant active projects under his management include: the \$57 million Times & Duffy Squares reconstruction; connecting the final section of a third water tunnel to the City's water distribution system, a project valued at more than \$235 million; a coastal resiliency program estimated at more than \$2 billion and; the South East Queens storm water drainage program budgeted at more than \$1.9 billion. The Infrastructure Division also procures the services of engineering consultants for both design and construction management who provide supplementary assistance in the delivery of DDC's annual infrastructure projects commitment plan. He has a Bachelor of Engineering degree from the City College of New York (Grove School of Engineering), and a Master of Science, Civil Engineering degree from Polytechnic Institute of New York (NYU-Tandon School of Engineering). He is a New York State licensed Professional Engineer, member of the American Society of Civil Engineers, member of the National Academy of Construction, and Envision sustainability Professional.



## **Ankita Nalavade**

**Sustainability Coordinator**

**Infrastructure | Program  
Administration**

Ankita graduated with a master's in Sustainable Environmental Systems from Pratt Institute, New York. She has a background in architecture and practiced as an Architect in Mumbai, India. Her portfolio is a combination of strong design background and understanding of sustainable planning systems. Currently, she is working with the agency as Sustainability Coordinator and Project Manager in the Infrastructure unit. Her role involves encouraging Sustainability and Resiliency measures in various NYC DDC's Infrastructure Capital Projects such as road reconstruction, coastal resiliency and step street projects.



How Sheen Pau serves as Assistant Commissioner of Infrastructure Design for the New York City Department of Design and Construction. In her capacity, she oversees and manages the design of street, watermain, sewer, bridge, retaining wall, step street, sustainable infrastructure, and coastal resiliency projects. Ms. Pau is a professional licensed engineer with the New York State and with Washington D.C. She has over 30 years of engineering experience. Ms. Pau received her Bachelor of Engineering and her Masters of Engineering from the City College of New York

## How Sheen Pau

Assistant Commissioner

Infrastructure | Design 2



Born and raised in Tokyo, Motoko Shoji has lived, studied, and worked in 10 different cities across five countries. After she and her husband moved to New York City in 2009, their love of the city's diversity and energy made them decide to stay and raise a family. After earning a BA in Economics at Waseda University in Tokyo, Motoko worked as a research consultant for the Japanese government, helping to shape various financial policies. Although the work was interesting, she could not deny her passion: architecture. She later gained a Master of Architecture from the Southern California Institute of Architecture. Motoko has designed innovative and environmentally responsive projects at Coop Himmelb(l)au, Behr Browsers Architects, and David Hertz FAIA Architects, as well as been in part of the strategic planning of the campus renovations for the Manhattan District Attorney's Office. Currently, Motoko is a Senior Project Manager with the DDC Public Buildings Division - Police Unit, and is one of ten participants in the 2020 class of AIA New York's Civic Leadership Program. In NYC, she has initiated and led several events, including "Dialogues for a New Japan" at the Center for Architecture in 2011. In 2011, she received the AIANY Women in Architecture Recognition Award.

## Motoko Shoji

Senior Project Manager

Public Building | Uniform Structures



## Madeline Skoblik

Engineer In Charge

Infrastructure | Construction  
Management 3

Originally from Minnesota, I received my undergraduate degree in Civil Engineering at the University of Wisconsin-Madison in 2015 and moved to New York in early 2016. As a DDC project manager for infrastructure construction projects in Manhattan, I've headed several large projects as a resident engineer, most notably the plaza reconstruction project at Astor Place and Cooper Square. I am currently an Engineer-In-Charge for the Gansevoort reconstruction project and an accelerated distribution water main project. These projects includes work like water main replacement, catch basin construction, curb and sidewalk expansion, and street light and traffic adjustment work.



## Jamie Torres-Springer

First Deputy Commissioner

Executive Office

Jamie Torres-Springer has served as First Deputy Commissioner of New York City's Department of Design & Construction since 2018. The agency is responsible for delivering \$9B in public infrastructure and facilities for 20 sponsor agencies across City government, achieving high standards of design and construction excellence. He helped develop DDC's Strategic Blueprint for Construction Excellence, an action-oriented plan to improve performance by making City capital projects more constructible, modernizing project management resources and systems, and improving contracting and construction management tools, including through implementation of design-build authority for a range of projects recently authorized by New York State.

First Deputy Commissioner Torres-Springer is a graduate of McGill University and the Harvard University Kennedy School of Government



Barry Vanterpool is the Director of the Grant Reimbursement and Contract Compliance Unit in the Infrastructure Division overseeing Grant funded capital construction projects managed by DDC. This role also entails ensuring projects adhere to all Grantee requirements for construction and Affirmative Action. He writes procedural language for technical staff and serves as agency liaison between the City and all pertinent funding agencies. Prior to overseeing the Grants Unit, Mr. Vanterpool served as a Resident Engineer managing and inspecting the capital construction of sewer, water main, and highway projects for the Infrastructure division of DDC and the Sewer Construction division of the Department of Environmental Protection. Barry holds a bachelor's degree from Stony Brook University and has been working for the City for 31 years.

## Barry Vanterpool

Director

Infrastructure | Executive



As General Counsel for the City's Department of Design and Construction David has advocated for legislation that expanded design-build authority. Design Build allows New York City to save millions on public construction projects in that it allows government agencies to combine design and construction project bids into one contract to save dollars and time. He is a graduate of Fordham University and the Pace University Law School.

## David Varoli

Deputy Commissioner

Law & Legal



Anastasia von Raison is the Social Media Coordinator at the New York City Department of Design and Construction (DDC). She manages DDC's social media platforms, informing and interacting with audiences about the scope of the agency's work. She previously worked in communications at Rodale Books and the United Nations. She holds a Master's of Science degree in Asian Politics from the School of Oriental and African Studies at the University of London and a Bachelor's Degree in Asian Studies from St. John's University.

## Anastasia Von Raison

Social Media Coordinator

Office of Creative Services | Office  
of Communications and Policy



Shani has over 18 years of experience working in a variety of roles. She's experienced in landscape architecture, community planning and project management. She has also worked on the design and construction of the DEP Green Infrastructure portfolio and other NYC capital projects. She holds a Bachelor's in Landscape Architecture and a Master of Science in Urban Affairs. In addition, Shani is a Licensed Landscape Architect.

## Shani White

Deputy Director

Infrastructure | Design 2



## Lucy Wong

Executive Director

Public Buildings | Uniform Structures

Lucy Wong is the Executive Director of the Human Services/Universal Pre-K/Administrative Children's Services program units in the Public Buildings Division. Lucy manages technical and staffing needs, as well as scope, schedule and budget for all three unique portfolios. Her work at the Agency also includes design and construction of cultural institutions, NYPD facilities, and NYCHA apartment repairs. Lucy is currently lead of the COVID19 Specimen Collection testing sites. She has over 19 years of experience in the architectural and construction industry. Lucy holds a Master of Business Administration as well as a Master of Architecture from Massachusetts Institute of Technology. She received her BFA from Parsons School of Design. Lucy has worked for private firms including Skidmore, Owings & Merrill and The Stubbins Associates (now a part of Jacobs Engineering Group.)



## Sofia Zuberbuhler-Yafar

Program Director

Infrastructure | Program Administration

Sofia Zuberbuhler-Yafar is Program Director for the Sustainable Infrastructure Unit with the New York City Department of Design and Construction. She manages design contracts and ensures the on-time delivery of NYC's Department Environmental Protection's various multi-million-dollar city-wide green infrastructure contracts. Currently she is integrating sustainable design measures and goals within the agency standards and contracts. Sofia is the only NYC public agency certified ENV SP Trainer and is preparing fellow colleagues to become ENV SPs. Mrs. Zuberbuhler-Yafar is a licensed Landscape Architect with a graduate degree in Urban Design and over 19 years of varied experience including urban planning with the NYC Department of City Planning and landscape architecture design in the private realm.



Roberto Clemente Plaza in the Bronx, Percent for Art Program



2015 Interns at Astor Place

# Students Experience

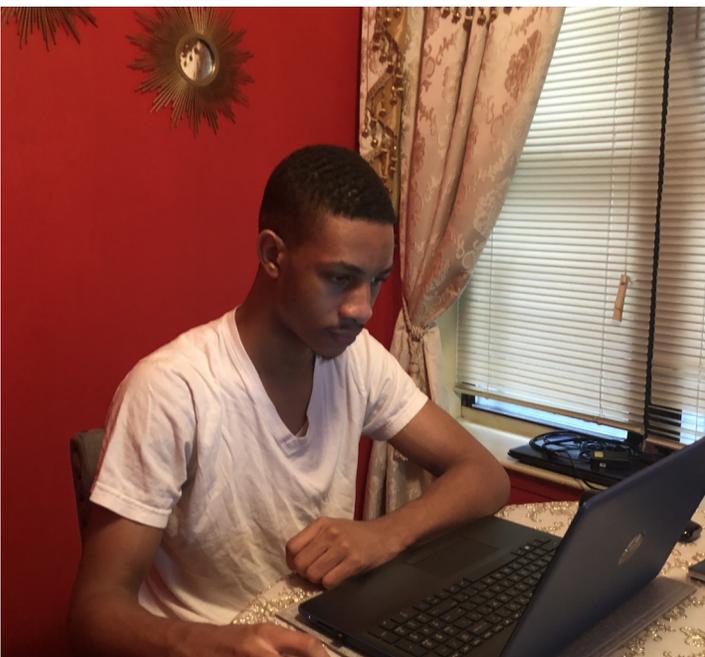


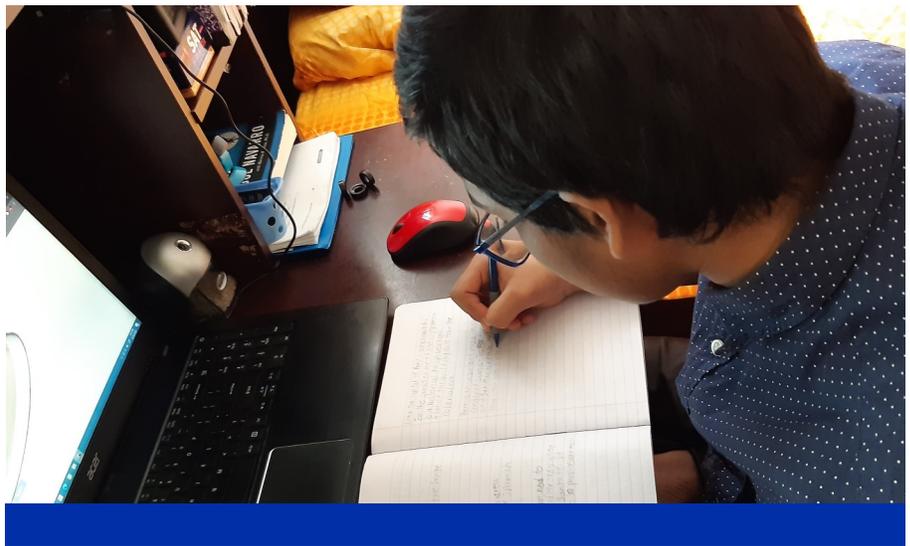
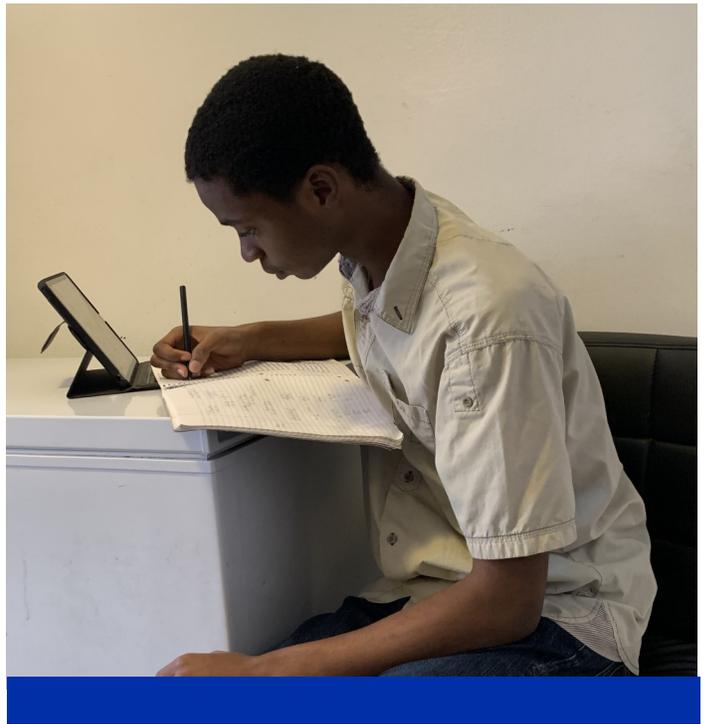
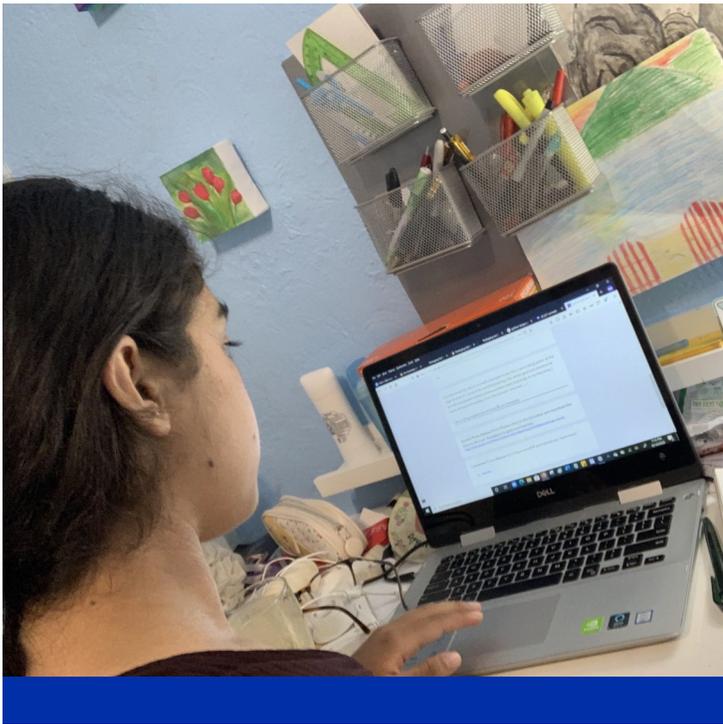


STEAM Engineer Boy



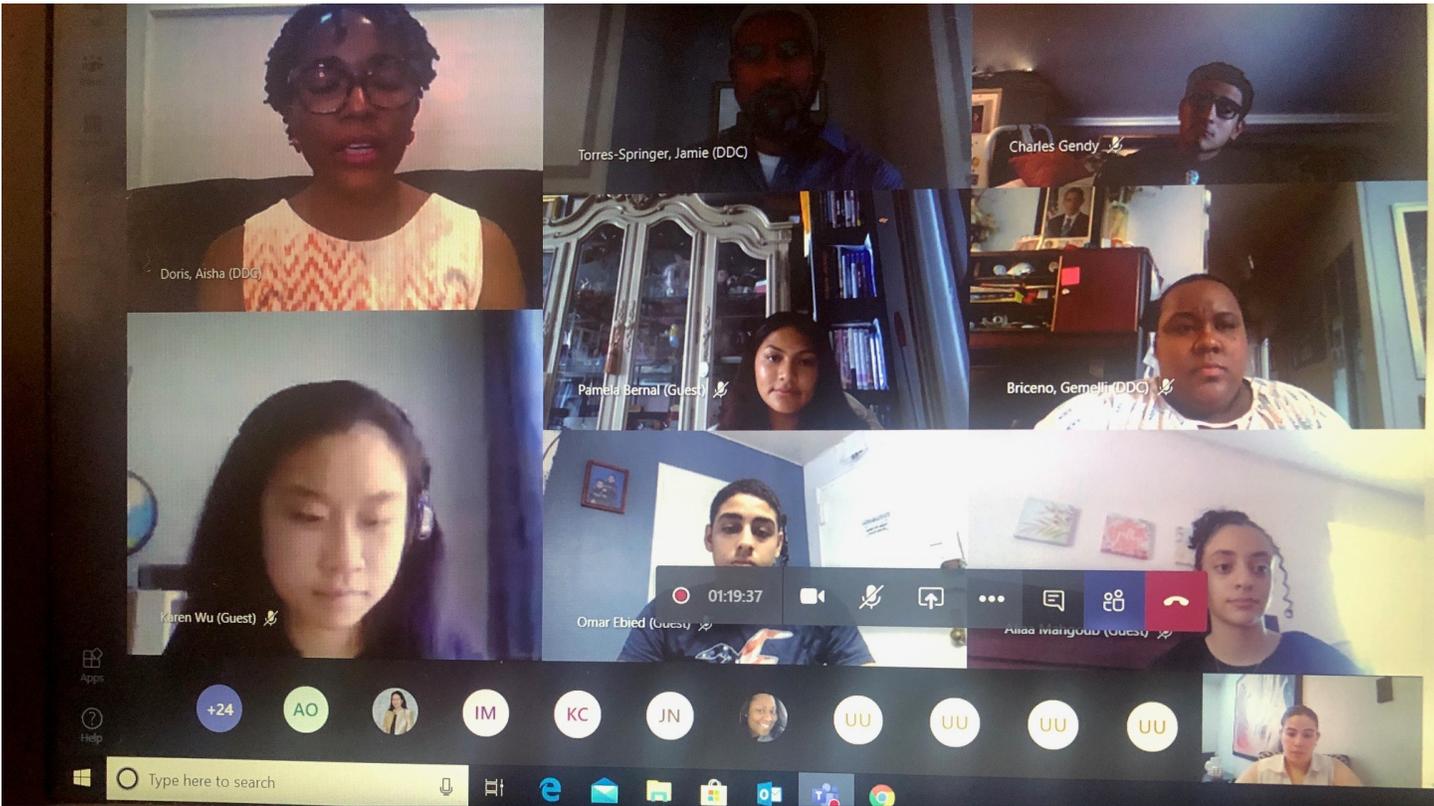
Students participating in the Lunch and Learn Virtual Program





SCIENCE, TECHNOLOGY, ENGINEERING, ARCHITECTURE / ART AND MATHEMATICS

Students participating in the Lunch and Learn Virtual Program



Students and STEAM Staff during Lunch and Learn Program





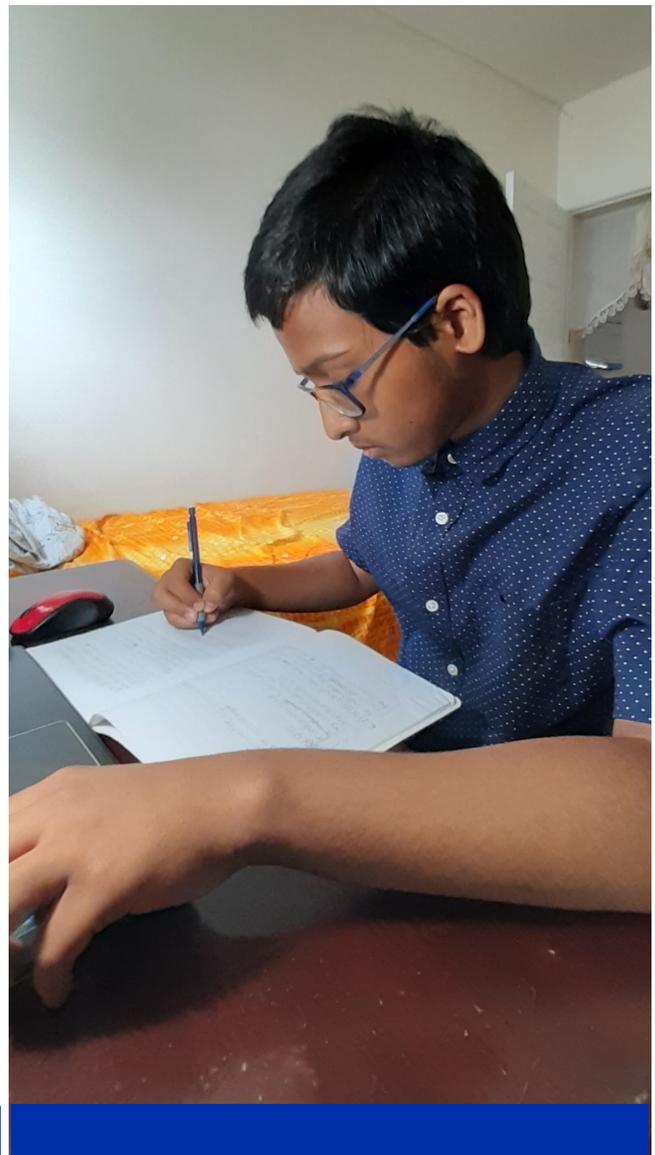
Gillette, Jennifer (DDC)



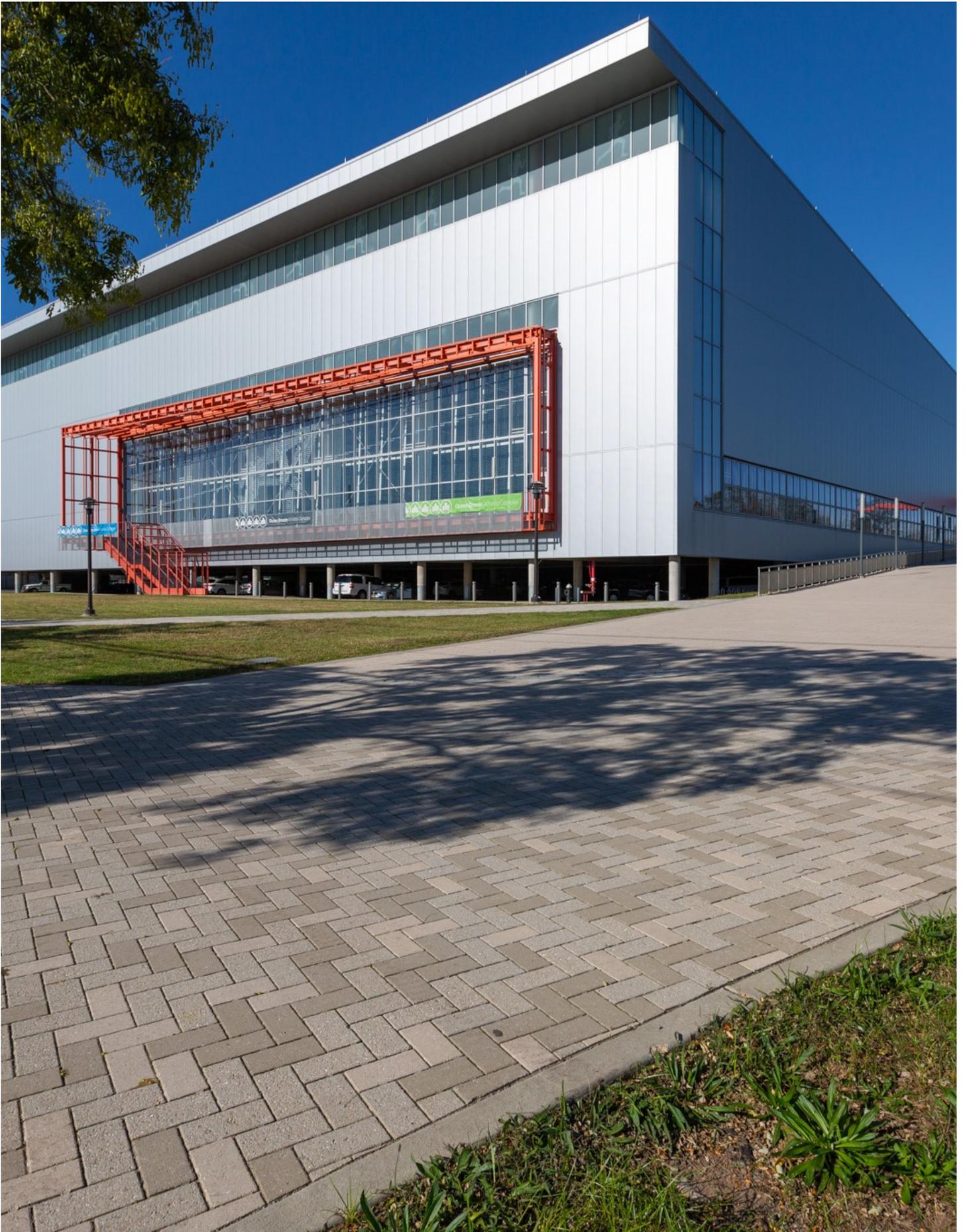
Speakers Jennifer and Motoko during their virtual session



STEAM Architecture Girl



STEAM Engineer Girl



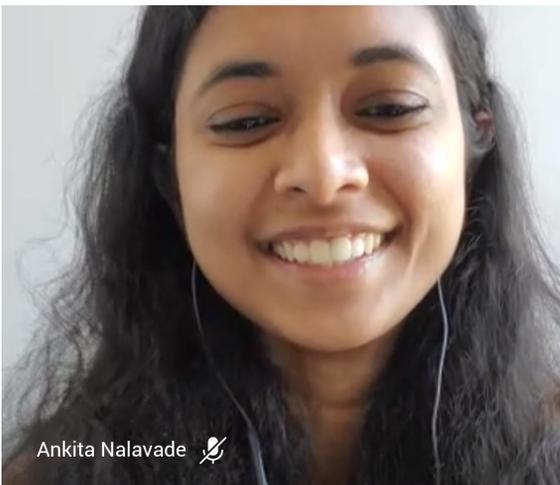
Ocean Breeze Athletic Complex on Staten Island

# Speakers Experience





Specimen collection site at the Highbridge Recreation Center



Ankita Nalavade



Ankita, Shani and Sofia getting ready for their session



## COASTAL RESILIENCY TERMS

**NYC DDC** Department of Design and Construction

<p><b>GLOBAL CLIMATE CHANGE</b></p> <p>Significant changes in global temperatures, precipitation, wind patterns and other measures of climate that occur over several decades or longer.</p>	<p><b>GREENHOUSE EFFECT</b></p> <p>The trapping of the sun's energy in a planet's lower atmosphere due to the greenhouse transparency of the atmosphere to solar radiation from the sun that is otherwise trapped within the planet's surface.</p>	<p><b>SEA LEVEL RISE</b></p> <p>Horizontal and vertical changes in the average water level that are considered when planning for future conditions.</p>
<p><b>ELEVATION</b></p> <p>Height above a given bench, especially sea level.</p>	<p><b>BERMS</b></p> <p>Typically grass-covered mounds that soften the impact of tidal surges and structures built to absorb and reduce wave impacts.</p>	<p><b>GROINS</b></p> <p>Removable structures that jett out into the ocean and cause sand to drift along the coastline of the shore to another spot due to wind and water.</p>
<p><b>LEEVES</b></p> <p>An earthen mound with a structural core used to keep floodwaters out of protected areas.</p>	<p><b>SEA WALLS</b></p> <p>A wall or embankment erected to prevent the sea from encroaching on or washing an area of land.</p>	<p><b>PLANTED DUNES</b></p> <p>Large sand dunes that reduce wave heights to coastal areas. Beaches planted help keep the sand in place.</p>
<p><b>MARSHES</b></p> <p>An area of low-lying land that is flooded in well seasons or at high tide, and typically means a wetland of various types.</p>	<p><b>DRAINAGE</b></p> <p>Methods of directing rainfall, wastewater from buildings, or floodwaters away from an area to prevent soil flooding. In urban environments this concept is a network of pipes.</p>	<p><b>JETTIES</b></p> <p>Offshore walls over multiple miles in length or structures that are built on either side of a coastal inlet. Whereas groins are built to keep the width of beach areas, jetties are built to hold a channel to the ocean well open for navigation purposes. They are also built to prevent stormwater and debris from encroaching on dunes.</p>
<p><b>OYSTER REEFS</b></p> <p>A cluster of oyster shells is a natural barrier to the ocean water and help stabilize structures and reduce wave action offshore.</p>	<p><b>IRRIGATION</b></p> <p>To supply potential areas with water using a system and to flush salt water after a flood event.</p>	<p><b>SALT TOLERANT PLANTS</b></p> <p>A plant adapted to living in a saline environment. Examples include coastal reeds, Seaside Larkspur, Prickly Pear Cactus, Lander's Cotton, and Amaranthaceae.</p>
<p><b>"SOFT EDGES"</b></p> <p>Soft edges are gradual transitions—the kind one could sit down upon in the ocean—near the land. They are permeable surfaces before an impermeable surface like a coast.</p>		

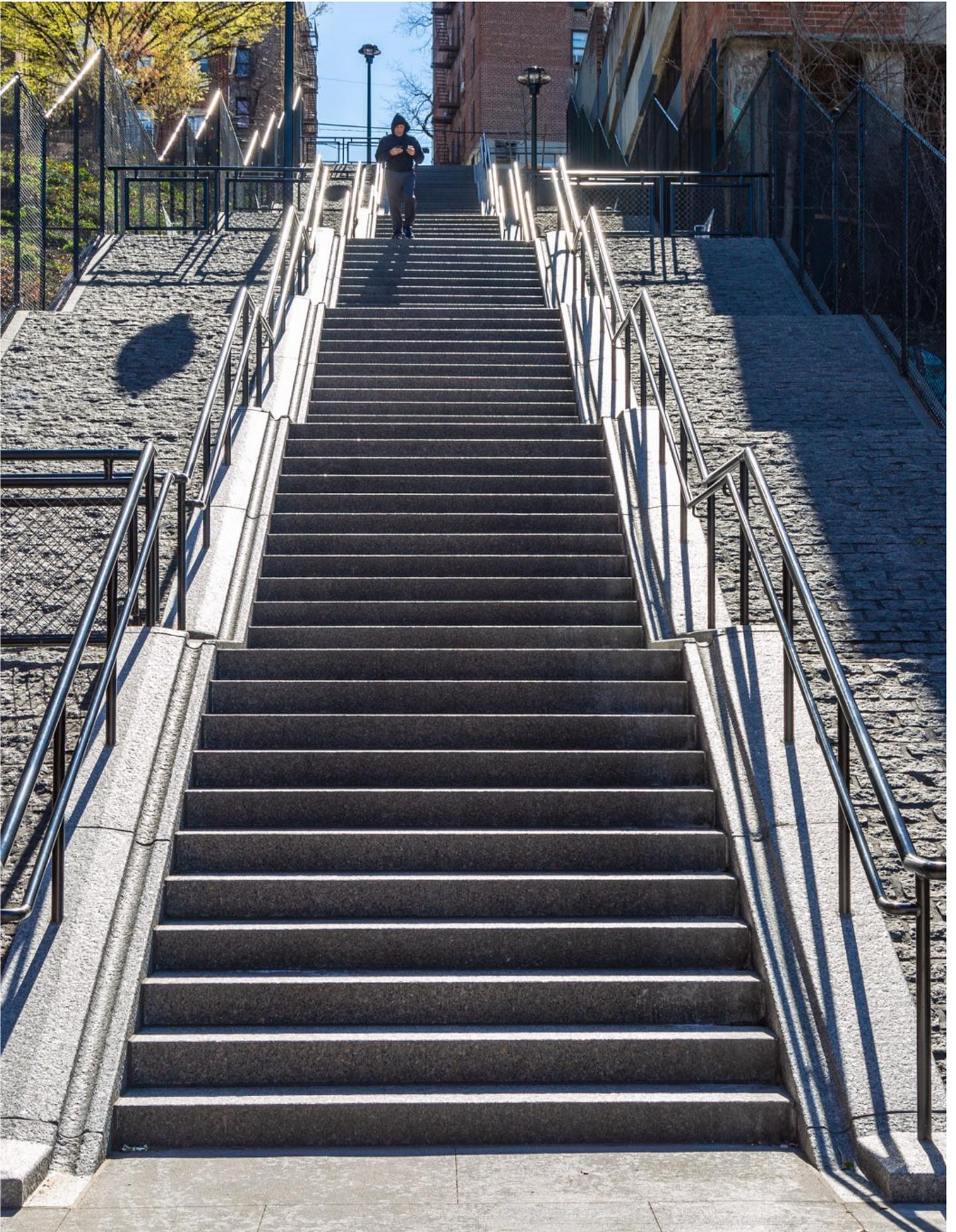
DDC Coastal Resiliency Poster



Look closely at the butterfly that landed on Barry Vanterpool's glasses!



Emergency Management temporary hospital at the Billie Jean King Tennis Center



229th Street Step Street in the Bronx

# ACKNOWLEDGEMENTS

*Thank you to the following NYC Department of Design and Construction staff members for their collaboration and support in making the DDC STEAM Summer of 2020 Virtual Lunch and Learn Program a success.*

For providing leadership and support:

Commissioner Lorraine Grillo

First Deputy Commissioner Jamie Torres-Springer

Deputy Commissioner Community Partnership & STEAM Initiatives Lillian Llambelis, Esq.

Associate Commissioner Human Resources & Staff Development Dalela Harrison

Executive Director Public Information Ian Michaels

Human Resources

Office of Communication & Policy

Creative Services

Our Summer of 2020 Virtual Lunch and Learn Speakers:

Kiumars Amiri, Xenia Diente, Thomas Foley, Jennifer Gillette, Andrew Hollweck, Bobby Issac, Eric MacFarlane, Ankita Nalavade, How Sheen Pau, Motoko Shoboji, Madeline Skoblik, Jamie Torres-Springer, Barry Vanterpool, David Varoli, Anastasia Von Raison, Shani White, Lucy Wong, Sofia Zuberbuhler-Yafar

For successfully coordinating the DDC STEAM Summer Virtual Lunch and Learn Program:

STEAM Initiatives Team: Director Aisha Doris, Senior Program Coordinator Tatiana Vargas, Program Coordinator Jenny Ng, and Program Coordinator Gemelli Briceño

Thank you for all you did to help make the DDC STEAM 2020 Summer Virtual Lunch and Learn Program a success!

New York City

Bill de Blasio

Mayor



# STEAM TEAM



**Lillian "Lee" Llambelis**

DDC Community Partnerships + STEAM Initiatives  
Deputy Commissioner



**Aisha Doris**

DDC Community Partnerships + STEAM Initiatives  
Director



**Tatiana Vargas**

DDC Community  
Partnerships + STEAM  
Senior Program Coordinator



**Jenny Ng**

DDC Community  
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Program Coordinator

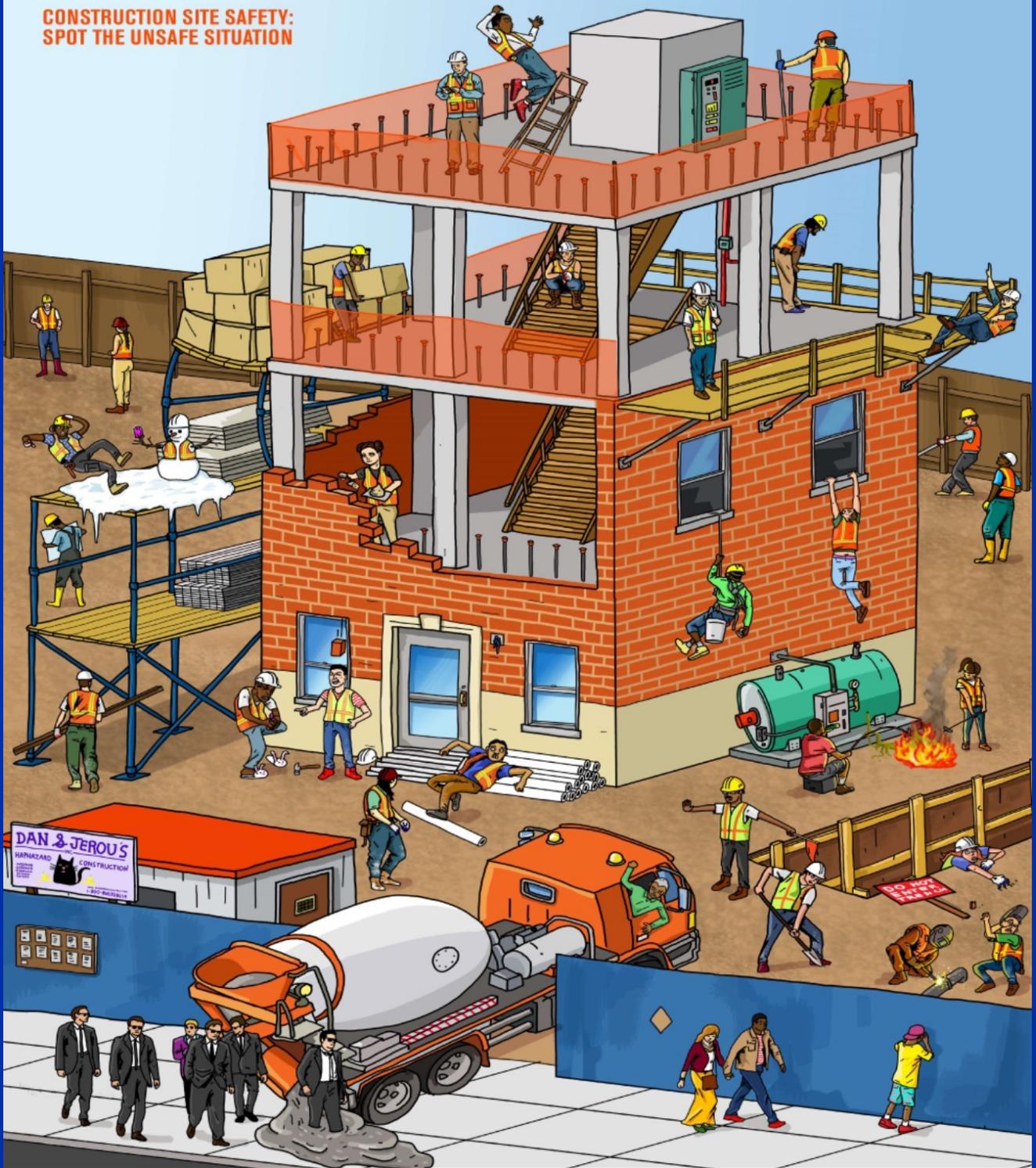


**Gemelli Briceño**

DDC Community  
Partnerships + STEAM  
Program Coordinator



**CONSTRUCTION SITE SAFETY:  
SPOT THE UNSAFE SITUATION**



**Department of  
Design and  
Construction**



**Bill de Blasio  
Mayor**