



Department of  
Design and  
Construction

JULY 2019

# A STRATEGIC BLUEPRINT FOR CONSTRUCTION EXCELLENCE

## PROGRESS UPDATE

Bill de Blasio  
Mayor

Lorraine Grillo  
Commissioner

In January 2019, the Department of Design and Construction (DDC) released its *Strategic Blueprint for Construction Excellence*, an ambitious, far-reaching plan to transform how the agency manages capital construction projects from start to finish to deliver best-in-class infrastructure and public buildings for the City of New York, on time and on budget.

We are proud of the Blueprint, and six months later we are well on our way to implementing our plan. This *Six-Month Blueprint Progress Update* summarizes some of the significant changes we have made that help to transform project delivery.

The dedicated staff of DDC have rolled up their sleeves and made important changes to standardize business processes, speed dozens of reviews and approvals, control costs and project timelines, work better with sponsor agencies, manage consultant and contractor performance, and create metrics to measure progress.

The improvements span all aspects of our operations: we have enhanced our human resources, improved our data collection and built out our technology infrastructure. We have begun screening all projects to ensure they are viable and fully funded before they are accepted. We have streamlined procurement, design, construction and payment processes, and made outputs measurable.

We are creating a better future for infrastructure in New York City.

# Improving the Pipeline

PROGRESS UPDATE

The Blueprint identified several process improvements for the stage *before* DDC officially accepts a project, the moment the clock starts on design and construction. These reforms now require sponsor agencies to more fully develop project scope and budget objectives for every single project that comes to DDC, and give them expert resources to do so. The outcome of this revised process has already improved the constructability of new projects coming to DDC. Some key highlights of these reforms are below.

## BETTER ASSET SURVEYS: HELPING SPONSOR AGENCIES PLAN FOR THE FUTURE

This spring, DDC began to supplement our approach to evaluating the City's capital assets to help partner agencies with their long-term capital planning. This is a big deal: pilots are underway to comprehensively review City assets and create forward-looking strategies for investment.

Two initiatives are underway: DDC and Brooklyn Public Library (BPL) are piloting **top-to-bottom condition assessments on five libraries**, which will inform planning, decision-making, scope development and budgeting decisions about every aspect of these facilities.

This replaces a less systematic approach used to allocate resources to capital assets. DDC is also creating an **Advance Capital Planning unit** that will support sponsor agencies in planning for future programmatic needs.

## FRONT-END PLANNING: EXPANDED AND EMPOWERED

Today, every new project is systematically reviewed by our **Front-End Planning Unit before it is officially accepted**. In Fiscal Year 2019, DDC reviewed 170 projects, working collaboratively with sponsor agencies to further develop scope and/or ensure additional funding for 69 of them. We work with sponsor agencies to clearly understand the scope of a project and make sure the budget is adequate for the task, limiting last-minute additions and changes, allowing project initiation to proceed sooner, with greater clarity, and with fewer obstacles later on.

Finally, since publication of the Blueprint, we finalized an agreement with the City's Office of Management and Budget (OMB), allowing the **final Front-End Planning report to serve as official Certificate to Proceed (CP) submission materials for OMB review**, so CPs can get processed more quickly. This has eliminated a step and shaved several weeks off the project initiation phase for Public Buildings projects.

## Safety: DDC's First Priority

DDC continues to focus relentlessly on site safety, even while we accelerate project delivery. To that end, we will shortly launch a streamlined site safety plan submission and acceptance portal for our contractors. By increasing inspection frequency, we have also placed a focus on resolving safety deviations, which have been reduced from 410 to 30 over the last quarter.

# Managing Projects More Effectively

PROGRESS UPDATE

The Blueprint outlined several key initiatives to empower our staff in the project delivery process, from managing procurement, to making timely payments, to effectively managing our vendors. Staff training, better use of data and analytical tools, and stronger protocols for working with partner agencies have been implemented, and the results are showing.

## NEW PROJECT MANAGEMENT TRAINING TO DRIVE BETTER OUTCOMES

DDC has initiated an extensive training program to give project managers the tools they need to manage a complex and challenging construction portfolio. Nearly a third of our front-line project managers have received in-depth training on tools to help them oversee contractors and keep a tighter rein on costs and schedules. The new training program, which will reach the rest of project managers by mid-2020, creates direct accountability and empowers project managers to deliver projects on time and on budget.

## USING DATA TO CONTROL COSTS

DDC is developing more useable data to measure and set agency performance standards. In February, we established an Office of Cost Control that is mining project information to analyze and standardize a range of unit costs. In the future, we will be able to apply this data to establish standardized project cost expectations, a key tool in implementing cost control. Data collection and analysis are now underway. Metrics will follow soon.

In April, DDC began establishing **standard design and construction durations** for a range of project types based on past experience and best practices. This allows us to set clear expectations for future performance and prevent delays and cost overruns. This work has already proved essential in improving contracted schedules and reducing review times for change orders, payments, and certificates to proceed.

## LIMITED PROJECT CHANGES, STREAMLINED PAYMENTS

Where changes to a project are unavoidable during construction, we are taking steps to ensure they do not unduly delay the project. DDC, OMB and the Comptroller's Office are developing an Expanded Work Allowance pilot for more than twenty initial projects. Under this effort, when standard but unplanned work fits established criteria, we will be able to advance progress payments to the contractor within weeks. This will speed project completion and reduce overall cost by streamlining approvals and minimizing payment delays. Metrics on this pilot will be available in the coming months. We have also centralized processing change orders that do not meet Expanded Work Allowance criteria, which has already **reduced average change order review time by more than 50%**.

We are also establishing a Payment Review Unit and reforming our Engineering Audit Office (EAO) practices to pay consultants and contractors faster.

## Becoming an Owner of Choice

The design and construction sector is complex and depends on the efforts of skilled professionals and competent firms, who are often in high demand across the city and the nation. Through our Blueprint reforms, DDC seeks to become an owner of choice for consultants and contractors—coming in with a clear scope and standard expectations about durations, paying promptly for work performed, making rapid decisions about expanded work and change orders, and providing effective project management guidance throughout the process.



## New Measures to Accelerate Priority Projects

A potentially game-changing project management approach is underway for the NYPD's new 116th Precinct in Queens. DDC **has already saved over a year** in the pre-construction phase of this project by accelerating design reviews, initiating a faster procurement process, and expediting the release of funds. As we move forward, we are allowing for changes and flexibility

to overcome barriers, and incentivizing contractors to adapt. Design is complete and the project will be entering construction later this year, also on an accelerated timeline. But this success must be replicated. Strategies used on this project will be documented and applied to more projects so they become standard practice.

# Getting More From Our Contractors and Consultants

PROGRESS UPDATE

The Blueprint tasked DDC with establishing better business relationships with contractors and consultants, which includes streamlining our procurement process, creating improved contractor performance and evaluation standards, and employing innovative project delivery tools. In just six months, the agency has taken several critical steps in that direction.

## PROGRAM MANAGEMENT & PROJECT CONTROLS: DDC-CONTRACTOR PARTNERSHIPS

Modern budget and schedule management in a complex construction environment requires modern systems and practices. To that end, DDC is moving to **implement program management and project controls** across its projects, in partnership with consultants and contractors. Key to this effort is moving to require **regular, digital schedule submissions in P6 formats** for all projects, implementing and **making use of Building Information Modeling (BIM)** technology, and adding new cost estimating requirements to our design consultant guidelines. We have also established **standard design and construction durations** for a range of

project types and will gradually reduce these durations as project delivery improves across the portfolio.

Finally, **DDC has revamped performance evaluation criteria for design consultants and construction managers**, with plans to expand to all vendors over the next year. These criteria will hold vendors to higher standards on timeliness, fiscal responsibility, and quality of service.

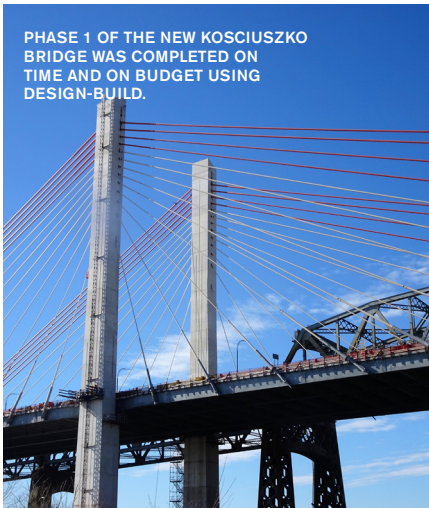
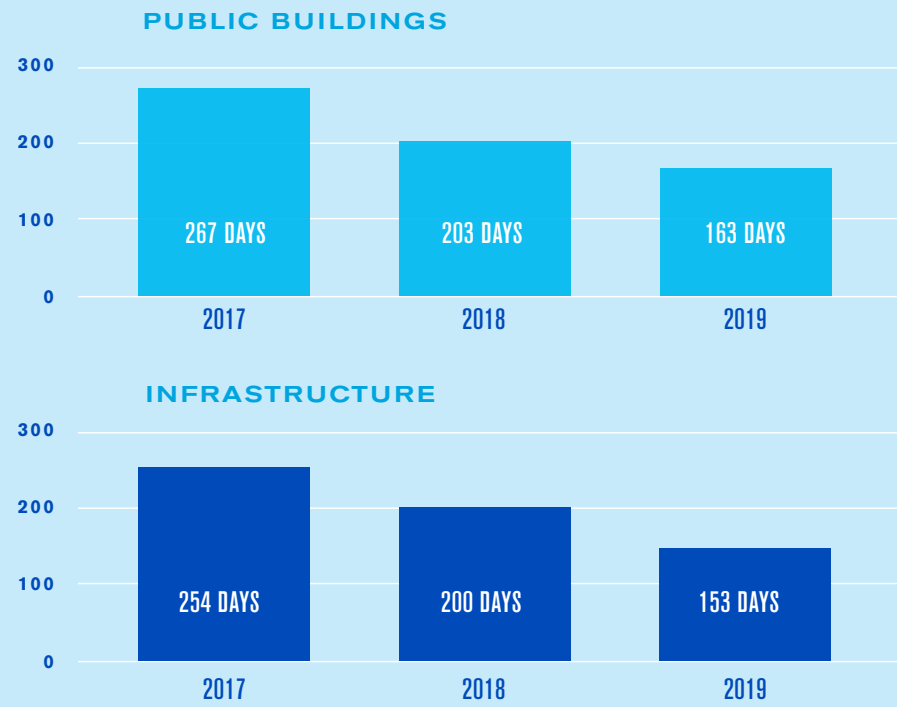
## BUILDING OPPORTUNITY AND EXPANDING THE CONTRACTOR POOL

Since release of the Blueprint, the Office of Diversity and Industry Relations has completed an internal and external review of barriers that Minority- and Women-Owned Businesses (M/WBEs)

face when trying to do business with DDC. To address these challenges, **DDC is creating a business development unit** that will increase the capacity of M/WBEs through outreach, technical assistance, business growth, and advocacy.

We are also **developing online programs and a comprehensive marketing campaign to proactively attract new vendors** and provide step-by-step guides on how to do business with DDC. DDC will make aggressive use of two new tools created this year by the State legislature: permission to make discretionary procurements of M/WBE firms under \$500,000 contract value, and the ability to implement an M/WBE mentoring program.

## Median procurement duration has decreased by over 100 days



PHASE 1 OF THE NEW KOSCIUSZKO BRIDGE WAS COMPLETED ON TIME AND ON BUDGET USING DESIGN-BUILD.

## New Design-Build Authorization Changes the Paradigm

In June the New York State Legislature passed landmark legislation giving DDC and several other New York City agencies the authority to employ the Design-Build project delivery method on most construction projects. An unprecedented change in the City's procurement toolbox, Design-Build will reduce or eliminate lengthy procurement phases, enable integration between construction and design, and has been shown to accelerate overall project delivery times and reduce costs significantly. Design-Build will allow DDC to tackle projects both large and small in a new way, bringing public works online sooner, more predictably and cost-effectively. We expect to turn to design-build as a key tool for executing projects for the City's library systems, the citywide pedestrian accessibility program, and vital public safety services when the legislation is signed.

- We have **proposed changes to Procurement Policy Board rules** to reduce time delays related strictly to "process" requirements, without forgoing transparency. A number of these changes will be coming online before the end of the year.
- We have **partnered with the Mayor's Office of Contract Services (MOCS) to secure key delegations of authority** to take on several administrative functions, which will reduce the time required to award contracts while observing key regulatory constraints.

### STREAMLINING PROCUREMENT

The Blueprint identified the solicitation and acquisition of consultants and contractors as fraught with inefficiencies and friction. Since then, we have taken a range of aggressive steps to improve this process, contributing to DDC being on track to achieve a high commitment rate for fiscal year 2019:

- **Procurement functions are now centralized within the Office of the Agency Chief Contracting Officer (ACCO)**, dramatically reducing paperwork processing times and improving overall quality of documentation.

# Modernizing Internal Systems and Technology

PROGRESS UPDATE

To truly transform our operations, we are making improvements to our systems, organizational structures, and data use. DDC needs best-in-class tools to deliver best-in-class infrastructure and public buildings. We are drawing on innovations and trends in both the public and private sectors to change how we work.

## Executing a Comprehensive Information Technology Strategy

In 2018, DDC embarked upon an ambitious and comprehensive plan for information technology modernization and transformation.

A new end-to-end project management IT system, Benchmark, is being developed to support a number of innovations, including modules for Front-End Planning, Task Order and Change Order initiation, preparation and submission of CPs, as well as a project delivery system to process payments in conjunction with the City's PASSport system. These changes will save about 9 months in early project stages and significant design, procurement and construction time.

We have also improved the way we collaborate with the Department of Environmental Protection (DEP), the Department of Transportation (DOT), and private utilities to reconstruct streets around the City with a platform to share project locations, schedules, designs, and construction documentation in a digital format.

### PROGRAM MANAGEMENT FOR AN UNPRECEDENTED PORTFOLIO

DDC has instituted **program management**, a comprehensive approach to overseeing large portfolios of multiple projects, that integrates design, construction, and program-specific controls. Many of these programs have achieved major milestones over the past several months:

**Southeast Queens:** DDC is hard at work delivering the \$1.9 billion Comprehensive Drainage Improvement Program to alleviate flooding in Southeast Queens. Through robust program management, 10 projects have been completed, and DDC is slated to complete construction of 34 additional projects by 2029.

**Coastal Resiliency:** DDC is bringing a program executive on board to ensure that these critical projects across the City share a consistent approach and benefit from lessons learned. Of note, the \$1.45 billion East Side Coastal Resiliency Project is in the final stages of design, and the City's construction schedule will ensure an operable flood protection system prior to hurricane season 2023.

**Borough-Based Jails:** DDC is developing a stand-alone program management organization for successful delivery of the Borough-Based Jails System subject to approval of the City's plan. This critical program is key to not only closing Riker's Island and creating a humane criminal justice system for New York City, but also demonstrating our ability to deliver a complex Design-Build program.

**Citywide Pedestrian Accessibility:** DDC and DOT are partnering to ensure that all New Yorkers and visitors are able to safely traverse City streets and sidewalks through a multi-decade program to make every corner in NYC ADA accessible. In FY2019 alone, 7 contracts worth nearly \$78 million were awarded to advance this ambitious goal.

### SMART BUDGETING TO MORE EFFECTIVELY ALLOCATE RESOURCES

DDC has begun implementing a ground up, or zero-based, budgeting approach, an innovative approach in which each division must carefully survey and explain its personnel and other expense budget needs with its overall project and operational goals in mind. This approach will enable us to look at all of our planned spending and strategically allocate limited resources to areas of greatest need. It will also provide a stronger rationale for future budget requests, supported by workload data and thoughtful operational analyses.

# Implementation Summary

PROGRESS UPDATE

## Improve the Pipeline

### ACCOMPLISHMENTS

#### Expand Front End Planning

- ✓ DDC to oversee all Capital Project Scope Development studies of DDC-managed projects
- ✓ Launched the Front End Planning module in Benchmark, DDC's project management system
- ✓ Piloted new buildings conditions assessments with Brooklyn Public Library

#### Improve Project Initiation and Limit Scope Change

- ✓ Launched standardized, online Project Initiation form
- ✓ Issued sponsor-initiated change request policy

#### Streamline and Accelerate Certificates to Proceed (CPs)

- ✓ Streamlined Certificate to Proceed (CP) submission materials for Public Buildings
- ✓ Secured increased DEP blanket CPs
- ✓ Made CP request creation, processing, and OMB submission fully electronic

## Manage Projects More Effectively

### ACCOMPLISHMENTS

#### Institute Robust Project Management and Controls

- ✓ Implemented Project Management Professional training for all agency construction project managers
- ✓ Updated project types and created corresponding target design and construction durations
- ✓ Created a Cost Control Unit in the Commissioner's Office

#### Limit Change Orders & Expedite Contractor Payments

- ✓ Created the integrated Construction Allowance and Change Order Task Force
- ✓ Finalizing parameters of pilot program for Expanded Work Allowance with Comptroller
- ✓ Improved Engineering Audit Office payment review procedures to expedite payments to vendors

#### Enhance Utility Coordination

- ✓ Established monthly all-hands meetings and data-sharing task force with utilities

#### Expand Community Outreach and Engagement

- ✓ Created borough-based communications strategy and added Government Relations unit staff

## Get More From Our Contractors and CMs

### ACCOMPLISHMENTS

#### Increase M/WBE Participation

- ✓ Integrated Office of Diversity and Industry Relations in contract review and subcontractor request approvals
- ✓ Creating Business Development Unit to address M/WBE barriers to entry in doing business with DDC

#### Streamline Procurement

- ✓ Secured key delegations of authority from Mayor's Office of Contract Services (MOCS)
- ✓ Implemented centralized internal procurement processes under Agency Chief Contracting Officer
- ✓ Developing Procurement Policy Board rule change proposals to further accelerate procurement

#### Create Flexible Vendor Performance Tools

- ✓ Published updated design specifications in Public Buildings
- ✓ Revamped design consultant and construction manager performance evaluation criteria

#### Employ Innovative Project Delivery

- ✓ Secured Design Build legislation for all projects \$10 million or more and select projects \$1.25 million or more

## Modernize Internal Systems and Technology

### ACCOMPLISHMENTS

#### Transform Information Technology Systems

- ✓ Launched Electronic Project Initiation, Front End Planning module, and DDC Anywhere

#### Invest in Research and Development

- ✓ Advanced research and development pilots for trenchless construction technology and predictive risk management

#### Standard Operating Procedures

- ✓ Rolled out planning and initiation Standard Operating Procedures in Public Buildings

#### Develop Program Management

- ✓ Developed program management structure for Southeast Queens, Coastal Resiliency, Citywide Pedestrian Accessibility, and Borough-Based Jails

#### Invest in Workforce Development

- ✓ Held Employee Recognition Awards event commending high-performing individuals, units, and project teams