



Department of
Design and
Construction

MARCH 2020

A STRATEGIC BLUEPRINT FOR CONSTRUCTION EXCELLENCE

A YEAR OF PROGRESS



Bill de Blasio
Mayor

Lorraine Grillo
Commissioner

Introduction

In January 2019, the Department of Design and Construction issued its *Strategic Blueprint for Construction Excellence*, a plan to comprehensively reform the capital construction process to make more efficient use of taxpayer dollars and shorten the time it takes to build high-quality public projects that benefit all New Yorkers.

One year later, the agency has advanced every initiative contained in the *Blueprint* and has developed new ones to advance in 2020 and beyond. While it will take more time to fully realize all of these process improvements on project durations, DDC continues to make progress in almost every area to improve the delivery of the infrastructure and civic facilities New York City deserves. In the last year:

Process improvements have reduced the initiation phase by **five months** and procurement phase by **three months**;

The time to process a negotiated change order **went down by half**;

The percentage of projects in DDC's Public Buildings Division completed over budget **decreased by 35 percentage points** from the previous year;

Processing times for payments across the agency have **declined by over 40%** since last fiscal year;

The review process for Site Safety Plans has been **cut by more than half**.

Overall, since the introduction of the *Blueprint*, **DDC has reduced the median project timeline from front-end planning through end of construction by six months**. Additional process improvements that have been identified but not implemented are expected to reduce durations by another 30 months, resulting in **an overall reduction of 36 months, or three years**, for the median time it takes to move a project from front-end planning through the end of construction.

Project Excellence

Project Excellence encompasses DDC's overall goal of ensuring quality and efficiency in all phases of project delivery. Ultimately, Project Excellence results in lasting and transformative public projects that are enduring, inspiring and built on time and on budget.

To promote Project Excellence, DDC is doing more to help sponsor agencies plan their capital budgets. **A new Advance Capital Planning Unit** is already piloting a building conditions assessment program with Brooklyn Public Library, helping them plan forward-looking, sensible investment strategies.

DDC now puts **all new projects through an extensive Front-End Planning (FEP) review** to ensure that they have the proper scope and budget in place before they begin. FEP also helps ensure that common causes of delay, such as regulatory or budget constraints or adverse field conditions, are identified and addressed *before* projects start to improve project success. In Fiscal Year 2019, the FEP Unit updated more than half the projects it reviewed in

cooperation with sponsoring agencies, giving these projects a much higher chance for success down the road.

DDC is also raising its standards for consultants, and has created **new consultant guides** as well as an orientation process to introduce them to the agency's vision and standards. Consultants are now required to adhere to **aggressive new design schedules** and **master specification lists**, which encourage the use of easy-to-procure materials. At the end of projects, consultants are **evaluated more thoroughly** so the agency can engage with higher performing consultants in the future.

DDC's Public Buildings Division is creating **new Cost Estimating Guides**, which will help sponsor agencies plan and reduce delays that occur when costs are higher

than the project budget. Public Buildings has also established **liaisons at the Public Design Commission and the Landmarks Preservation Commission** to help expedite necessary approvals.

Another key element of Project Excellence is maximizing the potential of DDC's project managers, who are uniquely situated to solve problems in the field and keep projects moving forward. The agency is giving them **access to better design and construction management tools** and the training to use those tools effectively. DDC is also **empowering its project managers** to make critical decisions with less administrative oversight in order to lead projects to successful completion.



Southeast Queens
Infrastructure Upgrades
Queens

“DEP currently has more than 150 infrastructure projects in design or in construction with DDC, valued at more than \$4 billion. It's very important that these projects are completed quickly and efficiently so that we can provide the best possible water and sewer service to the residents of New York City.

In the last 18 months, Commissioner Grillo's team at DDC has approached us with numerous strategies for moving projects along, including better coordination with the other utilities that are in the street. This type of collaboration makes our capital planning process more reliable and removes a lot of uncertainty, ultimately leading to better decisions about how to maintain and improve the City's irreplaceable water and wastewater systems.”

DEP COMMISSIONER VINCENT SAPIENZA

Timely delivery of projects can also depend heavily on **effective coordination with private utilities** that have equipment located in City streets, such as Con Edison and National Grid. Interference with private utilities is the most common cause of infrastructure project delays, so DDC now meets monthly with private utilities to better plan capital projects to minimize those delays. DDC is also **expanding the use of joint bidding**, in which necessary private utility work is included in the same contract as City work and completed by one project team in a coordinated way to greatly reduce conflicts and interference that can slow projects.

DDC also recently established a new **Americans With Disabilities Act (ADA) Accessibility Compliance Unit** to ensure that all of its projects comply with the ADA and take into consideration the unique needs of all New Yorkers. The ADA Accessibility Compliance team will review project scopes and designs to maximize accessibility and comply with established standards. In addition, the FEP Unit assesses all infrastructure project proposals to maximize opportunities to include sidewalk accessibility improvements, such as pedestrian ramp upgrades or installation.

In the last year, the agency has **greatly enhanced its outreach** to New Yorkers. DDC implemented a new process to provide communities with **earlier notification** of scheduled projects and intensified community engagement on new and complex programs, such as East Side Coastal Resiliency and Borough-Based Jails.

“I have 20 years in City government and a lot of DDC experience, and this was the first time something like Building Assessment Surveys were ever proposed to Brooklyn Public Library. We signed on immediately. That sort of analysis is really hard to come by and any data we could get from it would be helpful.

The results of the DDC assessments will help make our long-term capital planning more efficient. The needs assessment also gave us a range of options for each library, from a minimum restoration cost up to the cost of complete replacement of the building. Typically, we don't get this sort of clear-eyed assessment of our buildings until we've already started some capital construction project.

One of our branches was scheduled to be our next major overhaul, and now we know how much it will take to do an intervention for that branch. The figure DDC provided is being forecasted as part of our January Commitment Plan and we even are using it as part of our community engagement. We know DDC has a really tough mission and we view the library team at DDC to be excellent partners.”

KAREN SHEEHAN, EXECUTIVE VICE
PRESIDENT, FINANCE & ADMINISTRATION,
CFO BROOKLYN PUBLIC LIBRARY



East Flatbush Library
Brooklyn

SPOTLIGHT

A project that recently began to transform and revitalize Downtown Far Rockaway encompasses numerous elements of DDC's new approach to Project Excellence.

A massive \$139 million project sponsored by DOT and DEP, will bring new streets with new pedestrian space, landscaping and green infrastructure, plus improved stormwater drainage to an area of Queens that has not seen large infrastructure investments in decades. Streets throughout the Downtown Far Rockaway area will be completely rebuilt and, in many cases, realigned to ease traffic and enhance pedestrian safety in conjunction with Mayor de Blasio's Vision Zero goals. New curbs and sidewalks will be installed along with approximately two miles each of new storm sewers, sanitary sewers and water mains.

The scale of the project would normally have called for a seven-year construction schedule, but working with local businesses and elected officials DDC has compressed that timeline to just three years. DDC worked closely with private utilities in the area to plan and phase the project, and, by using joint bidding, \$6.7 million of private utility lines will be rebuilt with no concerns about delays or interference. To keep the community informed of progress, and to coordinate necessary street closures and utility shutoffs with local homeowners and businesses, DDC has assigned two Community Construction Liaisons to the project.

“RDRC has been involved in the planning for the redevelopment of Downtown Far Rockaway ever since our proposal for a new pedestrian plaza back in 2009. We've been working with DDC on the project for the last three or four years. DDC has recently made a concerted effort to be more engaging. It's been more responsive as an agency, more willing to receive input and also more accessible.

Downtown Far Rockaway is very constricted and we were concerned about the effect that the proposed seven-year construction schedule would have had on the local businesses. RDRC helped advocate for a shortened schedule and the City was receptive to that. There's also been a concentrated effort by DDC to reach out to the community to educate them about the project and to minimize disruptions. I appreciate the fact that DDC came to the community with knowledgeable and trustworthy people to connect with people and push this information out over the next three years.”

**KEVIN ALEXANDER, PRESIDENT
& CEO ROCKAWAY DEVELOPMENT
REVITALIZATION CORPORATION**



Downtown Far Rockaway
Queens

Improved Project Delivery at DDC

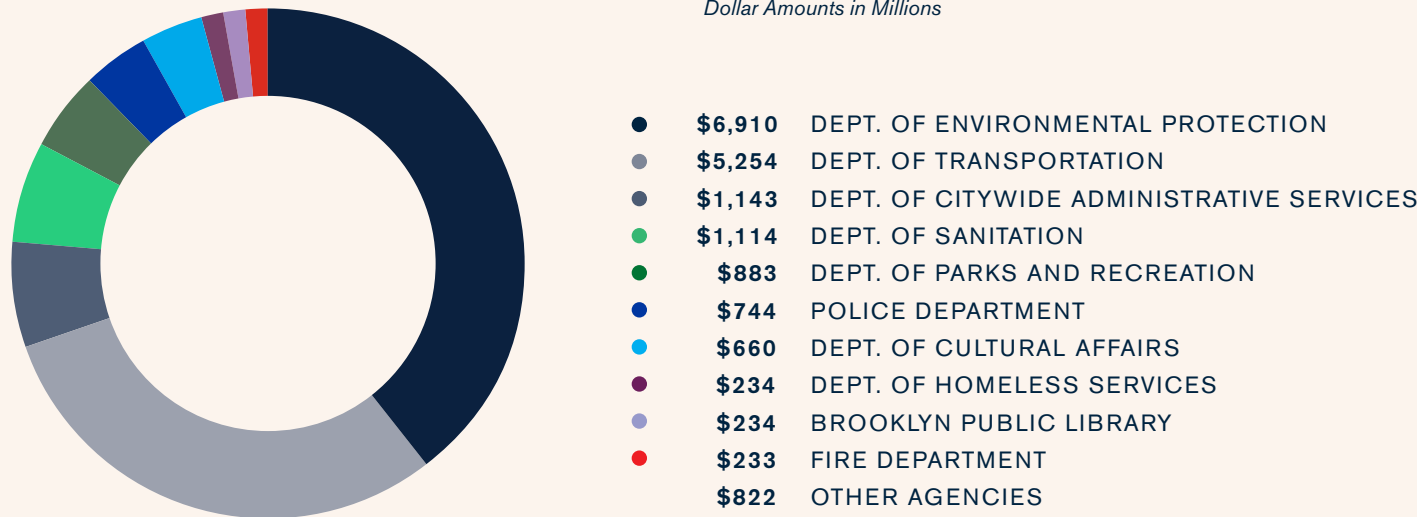
DDC is making significant progress to deliver best-in-class infrastructure and public buildings, on time and on budget.

Managing 1,000+ Public Works

DDC's current projects are valued at **\$18 billion** across 20 City agencies.

Top Sponsor Agencies

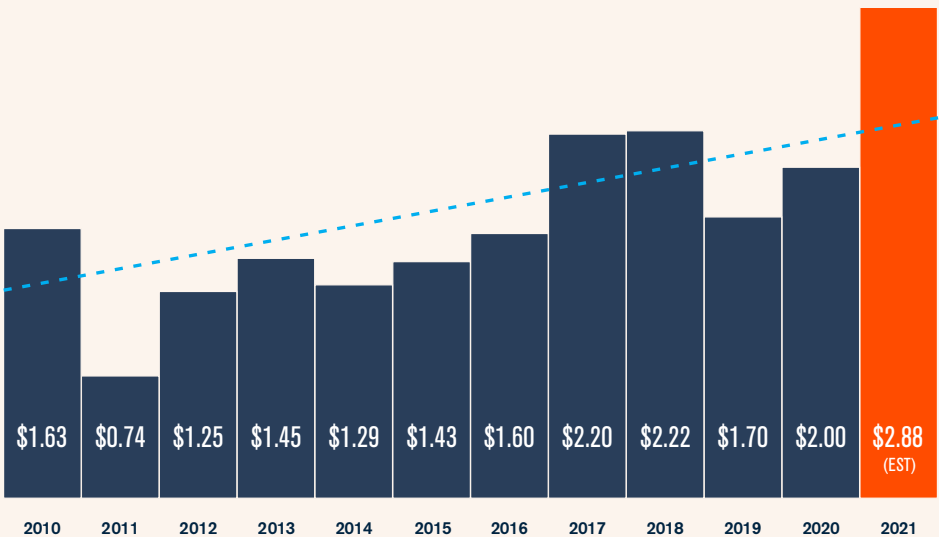
Dollar Amounts in Millions



A Growing Portfolio

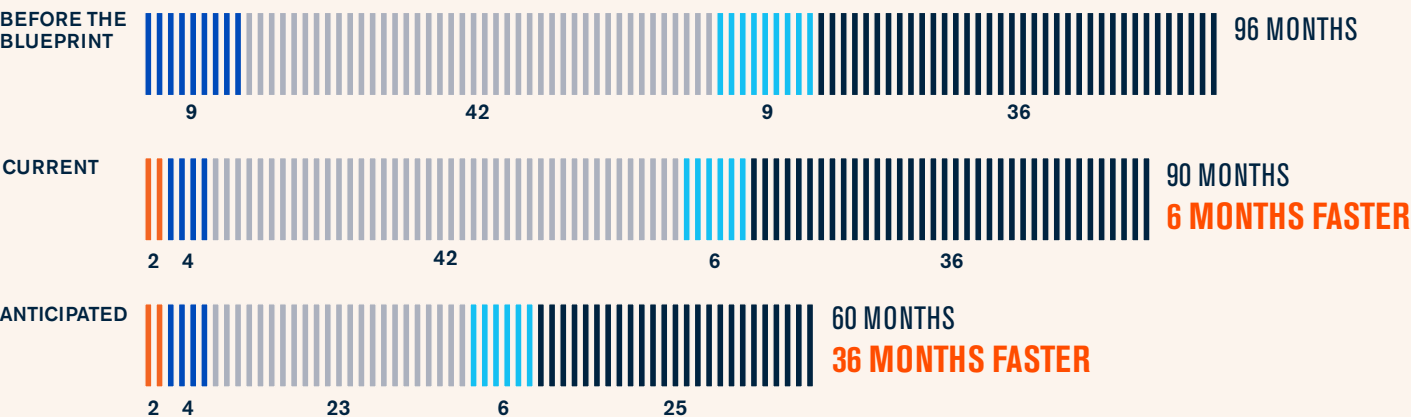
DDC's capital commitments continue to increase as the agency upgrades vital infrastructure and builds critical public buildings for a growing city.

DDC Capital Commitments
Shown in Billions by Fiscal Year



Speeding Up Delivery by Accelerating Each Phase of the Process

5 PHASES: FRONT-END PLANNING INITIATION DESIGN PROCUREMENT CONSTRUCTION Duration : | = 1 Month



Planning More Effectively

170 PROJECTS REVIEWED BY FRONT-END PLANNING TEAM

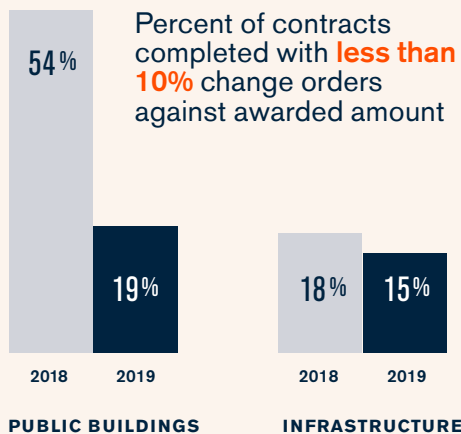
53% DEVELOPED FURTHER WITH SPONSORS (FY19)

Accelerating Payments for Extra Work

The Construction Allowance & Change Order Task Force

SINCE ITS CREATION, CHANGE ORDER PROCESSING TIMES **DECREASED BY ALMOST 60 DAYS**

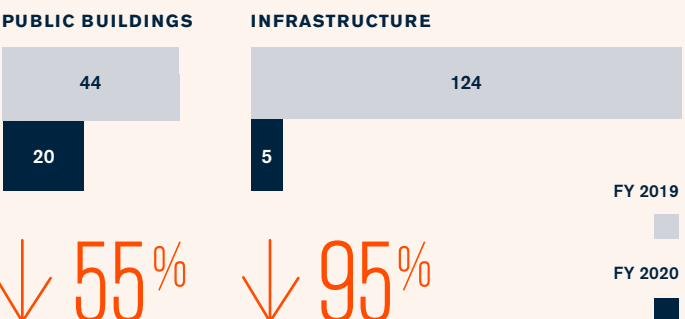
Limiting Change Orders



Streamlining Safety Review

Smarter and faster safety plan review **has dramatically decreased** the time to get construction started

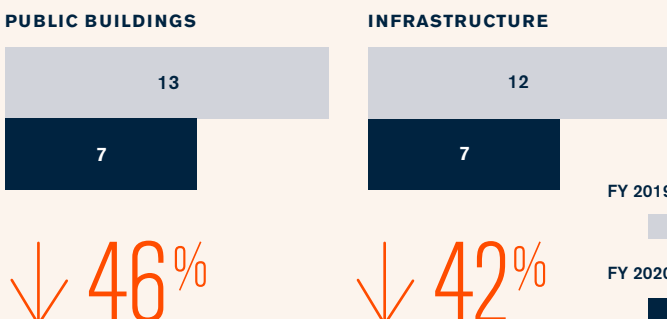
Safety Plan Review Time, Median in Days



Fast-Tracking Payments

Recent reforms have **reduced payment processing times** across the agency

Payment Processing Time, Median in Days





Rescue Company 2
Brooklyn

Performance Management

Through a **newly centralized Project Controls Division**, DDC is using rigorous data analytics at all stages of project delivery to identify strengths, monitor progress and find new opportunities for improvement.

Using data, DDC has **set ambitious new performance targets** across the board. Design of new Public Buildings projects will now take 16 months, down from the previous median of over three years. DDC's Infrastructure Division has a new goal to build new storm sewers in just over two years. DDC has formalized these target durations and now includes them in new DDC contracts.

When data analysis showed a delay in bid packaging and the review of contract specifications, DDC standardized the specifications and integrated them directly into its contracts, shortening bid preparation. New automated tools

by Project Controls also streamline data and reporting, freeing up significant amounts of staff time to dedicate to other areas of improvement.

The agency is currently moving to fully implement **Primavera P6 Enterprise Schedule Management**, cloud-based, best-in-class project portfolio management software that is in standard use throughout the construction industry. DDC is also developing a **workload analyzer tool** that will maximize the allocation of agency resources.

Investing in its workforce is one of the most efficient and lasting ways for DDC to transform project delivery, promoting staff retention and ensuring that DDC is a rewarding and fulfilling place to have a career. The agency has renewed focus on **staff development** and improved management capacity that supports employee growth and assists staff in obtaining professional licenses. To date, the agency has provided close to 230 employees with **advanced project management training** and more than 600 with **occupation-specific training** in areas such as engineering, surveying and design.



SPOTLIGHT

Aggressive New Project Delivery Targets in Action at Queens Botanical Garden

DDC is managing a project for the NYC Department of Cultural Affairs that will deliver a new 14,500-square-foot education space at the Queens Botanical Garden to provide year-round programming for students, community gardeners and local residents. Using new, standardized and more aggressive scheduling for both design and construction, the \$21 million project is projected to be completed in three years and nine months—a **full 20 months faster than** similar projects DDC completed in Fiscal Years 2017 to 2019.

Owner of Choice

The more companies and consultants want to work with DDC, the more competition there is for DDC contracts and the more options DDC has in delivering capital projects. To help expand its vendor pool and make working with the agency easier and more rewarding, **DDC is paying contractors more quickly**, reducing their risk and strengthening partnerships with regulatory authorities and other City agencies.

In the last year, the agency has sought industry feedback on process improvements and improved its outreach on contracting opportunities. It is also building a **new Online Vendor Portal** that will replace paper submissions and allow for streamlined document submission to expedite change order and payment tracking.

Most important for companies that do business with DDC, the agency has made a concerted effort to reduce the time from invoice to payment. A **new, centralized Payment Review Unit** actively troubleshoots problems and speeds payments to consultants and contractors for completed, quality work.

The agency has also made improvements to change order processing. In February 2019, DDC established the **Construction Allowance and Change Order (CACO) Task Force**, which has reduced the time to process a negotiated change order by more than half. The frequency of change orders has also been reduced through a combination of front-end planning and more robust design and constructability reviews.

Additionally, in 2019, DDC partnered with the NYC Office of Management and Budget (OMB) and the Comptroller's Office to create an **Expanded Work Allowance pilot program** which streamlines payments to contractors for extra work caused by regularly occurring field conditions.

Growing the business capabilities of **Minority- and Women-Owned Business Enterprises (M/WBEs)** is a highly effective way to expand the vendor pool and a key priority for the agency. DDC's Office of Diversity & Industry Relations is establishing a

new Business Development Unit that will pair emerging M/WBEs with established construction management firms in the field through a **new Mentorship Program** to support increased construction and professional services opportunities for M/WBEs. DDC will take advantage of new State legislation that increases the M/WBE discretionary procurement threshold from \$150,000 to \$500,000 and is creating pre-qualified lists for M/WBE vendors.

DDC has worked with its oversight agencies to **reduce administrative delays** while ensuring continued strong oversight. OMB recently established a Capital Coordination Unit to support DDC's *Strategic Blueprint* initiatives, and the two agencies continue to meet to reduce the time it takes to approve a project to proceed. DDC has also executed several agreements with the Mayor's Office of Contract Services (MOCS) to receive **more authority to independently perform contract reviews** and expedite contract awards and registration.

SPOTLIGHT

Creating Opportunities for M/WBEs

Expanding the pool of contractors and consultants that work with DDC creates more competition for City contracts and gives DDC more options for completing projects successfully. One way DDC does this is by supporting Minority- and Women-Owned Business Enterprises (M/WBEs) through a variety of programs that nurture emerging companies and educate them on how to do business with the City.

A certified M/WBE contractor recently completed an interior renovation of Queens Theatre in the Park two months ahead of schedule and \$375,000 under budget. Contractor Sharan Builders, Inc. of College Point updated four restrooms with new plumbing, light fixtures, stalls and tiling. The floors in the Theatre's dressing rooms were refinished, lighting fixtures were rewired, and countertops and vanities were fully replaced to improve ADA accessibility. The ceiling work in the Theatre's inner lobby accommodates new energy efficient lighting fixtures, HVAC diffusers and sprinkler heads.



Queens Theatre in the Park
Queens

Expanded Delivery Toolbox

One of the key elements of the *Strategic Blueprint* is the use of **alternative project delivery methods** above and beyond the standard Design-Bid-Build model DDC has been bound to since its creation.

After years of advocating for the authority to use the **Design-Build** project delivery method, legislation was signed into law at the end of December giving DDC and other City agencies the right to use Design-Build for a range of projects.

DDC has prepared throughout 2019 for the time when designers and builders will be part of integrated Design-Build teams, and has worked closely with the **Design-Build Institute of America (DBIA)** to implement industry best practices, hire and train staff and develop advanced vendor evaluation and project selection tools.

The agency has also proposed the use of other collaborative project delivery models such as Construction Manager-Build and Construction Manager-at-Risk, as well as **insurance reform** that would decrease the cost of administrative overhead and open bidding opportunities to small construction firms and M/WBEs. The agency is also expanding its use of **contract incentives** to speed up critical projects.

SPOTLIGHT

A New Design-Build Era

With Design-Build authority, the City can now complete capital construction projects more quickly, save hundreds of millions in tax dollars annually and provide better quality projects faster and more efficiently. On just three large future projects — a new Property Clerk Building for NYPD, the expansion of the Jackson Heights Library and a new storm sewer system in southeast Queens —DDC estimates it can shave a year or more off the process and save taxpayers more than \$25 million by using Design-Build.



Southeast Queens
Infrastructure Upgrades
Queens

Conclusion

One year after the release of its *Strategic Blueprint for Construction Excellence*, from advanced capital planning to project initiation to performance management to vendor payments, **DDC has made tremendous progress improving almost every aspect of its project delivery**. In 2020, the work to implement Project Excellence will continue and expand.

This year, DDC will seek to build on its collaboration with its oversights including the NYC Comptroller, Office of Management and Budget and Mayors Office of Contract Services, and continue to find ways to reduce other administrative challenges while maintaining safeguards for the expenditure of taxpayer dollars. It will also focus on additional Owner-of-Choice improvements by further enhancing its vendor outreach and vendor relations, including the nurturing of M/WBEs.

The agency will implement Design-Build while continuing to advocate for alternative project delivery methods. And it will improve its staff development by ensuring that DDC managers provide constructive and timely feedback to its front-line workers.

We are proud of these changes and the short time in which we have been able to implement them. For more information and further progress updates, go to **nyc.gov/ddc/blueprint**.



New York City
Department of Design
and Construction

30-30 Thomson Avenue
Long Island City, NY 11101

nyc.gov/ddc