Process


Brooklyn Bridge
NEXT LEFT
25

Process

1

Introduction

About this Chapter

This chapter describes how DOT projects originate and how they are planned, designed, and implemented, with the exception of work performed on bridges, tunnels, and viaducts, which is managed by DOT's Bridges Division. The chapter includes four case studies: a safety project, a transit project, a plaza project, and a public space activation project.

Generally, DOT implements two kinds of projects: "Operational" and "Capital." Operational projects usually do not involve sub-surface utility work, drainage, or roadway grading, and they are designed by DOT staff and built either by agency personnel or by a DOT contractor. Capital projects can impact sub-surface conditions and are more comprehensive. They are initiated by DOT and typically designed by DDC staff or consultants and are built by DDC contractors.

Information about specific procedures for notification, permitting, approval, and execution of work by developers and utilities can be found in DOT's *Street Works Manual*.

Operational projects are mainly funded by the city's Expense Budget, which pays for day-to-day operating expenditures, while Capital projects are funded largely by the city's Capital Budget, which generally comes from bond proceeds. Capital and Operational projects may also obtain funding from federal, state, and private grants.

Operational projects usually do not involve sub-surface utility work, drainage, or roadway grading, and they are designed by DOT staff and built either by agency personnel or by a DOT contractor: Grand Army Plaza, Brooklyn

Pipe installation as part of street reconstruction. Capital projects can impact sub-surface conditions and are more comprehensive. They are managed by DDC: Second Avenue and E Houston Street, Manhattan

Community Participation

DOT conducts extensive outreach to communities whenever the agency implements safety enhancement projects or makes changes to the local transportation network. Input from residents and businesses helps DOT assess the character and needs of specific neighborhoods in the project-development process. While each DOT unit that manages a project is involved in community outreach, the Borough Commissioners are the agency's primary liaison with communities and generally conduct the ongoing dialogue.

The Borough Commissioners routinely meet with Community Boards, elected officials, business leaders, and other community stakeholders on issues ranging from full-scale intersection redesign projects to parking regulation adjustments. These meetings can be in community rooms or school auditoriums, in agency or other offices, or on site to review specific traffic concerns.

To facilitate a more robust and inclusive outreach process, DOT's Street Ambassadors team engages with community members and other street users at project sites and community workshops to better understand mobility and usage patterns and seek input on project elements. The team uses in-person surveys, designed with the project managers, and provides translation services tailored to the neighborhood. The results of these surveys are analyzed to inform project scoping and design choices.

DOT tailors its community outreach to suit the scope, size, complexity, and magnitude of potential impacts of each project. The outreach process is iterative, as DOT often adjusts and modifies projects based on community feedback. For some projects, as with NYC Plaza Program Capital projects, local community institutions may be engaged as maintenance and programming partners. DDC also conducts community outreach for DOT street reconstruction Capital projects, in coordination with DOT. DOT notifies local elected officials of every large project and presents the project to the relevant Community Board(s) during planning and prior to implementation.

DOT Design Reviews and Analyses

Multiple DOT divisions review project designs throughout the planning and design phases. They review designs not only to identify potential problems or conflicts of projects, but also to identify opportunities to advance the agency's policy goals as enumerated in this Manual, DOT's strategic plan, and in other DOT publications. Depending on the type of project, DOT divisions consider the following items (some of which overlap with the technical areas addressed by CEQR, the State Environmental Quality Review Act [SEQR], or National Environmental Policy Act [NEPA] processes):

- Safety of all street users
- Pedestrian mobility and access
- Accessibility that meets or exceeds ADA standards
- Cyclist protection and network connectivity
- Transit access and operations
- Network operations
- Pedestrian and vehicular level of service (LOS)
- Air quality
- Construction-phase impacts
- Parking utilization
- Goods delivery
- Community priorities
- Historic resources and neighborhood character
- Public space opportunities
- Resiliency
- Stormwater capture and/or filtration
- Plantings
- Aesthetic appeal
- Temporary and permanent art and street furniture placement

Vision Zero, the city's initiative to eliminate traffic deaths, prioritizes safety in all street design projects.

DOT prepares design documents and performs safety and operations analyses as required by federal, state, and local laws, rules, and regulations (including CEQR, SEQR, and NEPA procedures). DOT also conducts its analyses according to standard engineering practices and design guidelines (including those described in this Manual). The level of review varies by project.

TABLE 1A: OPERATIONAL & CAPITAL PROJECT CHARACTERISTICS

	Operational	Capital
Elements	Signals, lighting, markings, signs, basic concrete work such as islands or medians, street furniture, landscaping, and paint. No sub-surface or significant drainage work	Project can include full reconstruction, sub-surface infrastructure upgrades and/or relocation, lighting, permanent streetscape elements, regrading, resurfacing, and green infrastructure. Many streetscape elements that can be Expense-funded can also be included in Capital projects.
Funding Source	Mostly city Expense funds; some federal and state grants	Mostly city Capital funds; some federal and state grants
Budget	No restrictions	$35,000 minimum ($50,000 minimum as of July 1, 2020)
Total Project Timeline	1–2 years	4-7 years
Coordination with DEP	Generally not necessary	DOT and DEP coordinate to avoid conflict and, where possible, undertake joint projects. DEP requirements may affect implementation schedule.
Reviews by Other Agencies* and Utilities	DOT reviews designs with FDNY to confirm emergency vehicle access through new street geometries. Utilities are consulted as necessary. FHWA and NYSDOT review FHWA-funded projects, and FTA reviews projects that it funds. Designs for all works of art and structures† intended for use in a fixed location for more than one year are subject to PDC review.‡ Projects may require LPC and/or SHPO review.	Multiple stakeholders are included in the planning and design review process at DDC, including FDNY, LPC, MOR, NYPD, OMB, Parks, PDC, and SHPO. Private utilities also review. MTA and Port Authority are consulted as necessary. FHWA and NYSDOT review FHWA-funded projects, and the FTA reviews projects that it funds. Coordination with as many as 40 public agencies and private entities may be required.
Coordinating Agency	DOT	Typically DDC (in design and construction)
Useful Life	No requirements	Minimum 5 years
Protected Status	Additional Operational and/or Capital work may often be done at project site post-completion, as needed.	No additional work can be performed at project site for at least 5 years if it damages the Capital asset.
Planning	DOT or its consultant	DOT or its consultant
Design	DOT or its consultant	DDC or consultant, often based upon a conceptual schematic from DOT
Implementation	DOT or its contractor	DDC contractor

* *For major transportation projects, DOT is required to consult with FDNY, NYPD, MOPD, and SBS. Major transportation projects are defined in section 19-101.2 of the New York City Administrative Code as any project that after construction will alter four or more consecutive blocks or 1,000 consecutive feet (whichever is less); a major realignment of the roadway, including either the removal of a vehicular (travel) lane(s) or full-time removal of a parking lane(s) or addition of a vehicular (travel) lane(s). For further information, see Section 19-101.2 of the New York City Administrative Code.*

† *See the definition of "structures" in Section 854(b) of the New York City Charter.*

‡ *For further information see Section 854(g) of the New York City Charter.*

Reviews by Other Entities

Other city agencies and private utilities regularly review project designs. FDNY reviews any designs—whether Operational or Capital—that might affect its operations. DEP and private utilities review each Capital project for potential impacts on their infrastructure and for opportunities to fold in repair or upgrades of their infrastructure as part of the project.

Aside from FDNY and DEP, other city agencies review DOT projects as necessary. Parks reviews all projects that impact planted areas in the public right-of-way, including greenstreets, existing street trees, or proposed new street trees. NYPD reviews DOT projects that may have security implications. MOPD reviews Operational projects for consistency with ADA standards.

Major transportation projects (as defined in Section 19-101.2 of the New York City Administrative Code) require notification to the affected Community Board(s) and council member(s) as well as consultation with multiple agencies.

See Table 1a for more information on reviews of DOT projects by other entities.

PDC and LPC Review

PDC reviews all projects planned to be installed for more than one year. LPC reviews all projects located within the city-designated historic districts and scenic landmarks or impacting city-designated individual landmarks. Neither Commission reviews or approves roadway markings.

Per Local Law 77 of 1995, the NYC Charter was revised to outline the shared jurisdictions of PDC and LPC with regard to individual landmarks, historic districts, and scenic landmarks depending on project type. In general, PDC has jurisdiction over all art projects and any project not located within a historic district. PDC and LPC have joint jurisdiction over scenic landmarks with projects located in these areas typically requiring review by both Commissions. LPC has jurisdiction over any project occurring within a historic district or impacting an individual landmark, unless it is an artwork. For more information on PDC and LPC jurisdiction and review, visit **www.nyc.gov/designcommission** and **www1.nyc.gov/site/lpc/index.page**.

It is critical for projects to consider reviews by these Commissions and plan accordingly. In general, the Commissions will review projects multiple times throughout design.

Stages of PDC Review

The likelihood of PDC review should be determined during scoping. If PDC review is considered probable, its extent should be determined, and the design team should structure its schedule accordingly.

Conceptual

- Necessary for complex or large-scale projects, including those subject to ULURP

Preliminary

- This is typically the first time PDC reviews the design. Preliminary review is generally an iterative process that may require multiple submissions
- Community Board review is required prior to submission
- All necessary interagency coordination should be accomplished prior to submission
- Maintenance responsibilities must be identified and addressed prior to submission
- Significant design changes after preliminary approval must be submitted for PDC review prior to proceeding to 90% final design

Final

- Conditions of Preliminary approval must be resolved
- Projects—generally those that are narrow in scope—can be submitted for preliminary and final approval simultaneously, provided they comply with all requirements for both levels of review
- All maintenance concerns must be resolved. Outside maintenance partners must commit to responsibilities, as applicable

Stages of LPC Review

Unlike PDC, LPC does not have discrete levels of review; they will issue a report (advisory or binding) upon receipt of appropriate project materials. Consult with LPC staff early to determine the extent of LPC review. Depending on the design, pursuant to LPC's rules, staff may be able to issue an approval. Otherwise, a public hearing will be required followed by a vote from the full Commission. Community Board review is required prior to any hearing.

Environmental Reviews and Historic Preservation

Environmental review processes, NEPA and SEQR/CEQR, require DOT to assess the potential consequences of its projects. Many of DOT's projects are exempt from review because they fall within a Type II SEQR/CEQR category or are classified as a NEPA Categorical Exclusion (CE). Projects that require federal approval or use federal funding must complete the NEPA process with the federal agency (e.g., FHWA, FTA, FEMA, HUD) in addition to SEQR/CEQR.

Pursuant to Section 106 of the National Historic Preservation Act, if the project uses federal funds or requires federal approvals, the project must be evaluated for its effect on historic properties within what is called the Area of Potential Effect (APE). Section 106 requirements are distinct from those of NEPA, but Section 106 can be coordinated with NEPA. While the federal agency providing the funding is ultimately responsible for making a determination under Section 106, DOT, DDC, or consultants working on their behalf will prepare all relevant project documentation. Projects funded by FHWA are reviewed by NYSDOT for compliance with Section 106 requirements with SHPO providing concurrence on the determination. Projects funded by other federal entities are typically documented by DOT or DDC and reviewed by SHPO. A similar process for evaluation is required under Section 14.09 of the New York State Historic Preservation Act of 1980 for projects using state funds or permits. The team should initiate these processes as early in the project timeline as is possible.

SHPO maintains a database of historic and cultural resources as well as projects reviewed by their office, the Cultural Resource Information System (CRIS), which is searchable and readily available at **cris.parks.ny.gov/Login.aspx?ReturnUrl=%2f**.

For additional guidance on city, state, and environmental and historic review, see APPENDIX B for resource documents and links.

In addition, for federally funded projects, Section 4(f) of the United States Transportation Act requires FHWA or FTA to make a finding that the project minimizes use of historic resources and parks and recreation areas as defined in the law. This requirement, unlike Section 106, is substantive and contains a specific requirement that the agency select whichever reasonable and prudent alternative minimizes "uses" of those resources.

Projects Initiated Outside DOT

While this chapter focuses on projects that originate at DOT, other entities—both public and private—can plan and design projects that affect the ROW. In such cases, DOT ensures that the projects meet established criteria, particularly with regard to safety, and provides guidance on meeting other requirements and guidelines, such as those enumerated in CEQR and this Manual.

Project designs must conform to existing contexts or, if other, nearby projects are planned, to future conditions. For instance, a project site might be located along an official truck route or a planned bicycle route, in which case DOT requests that sufficient lane widths be maintained to continue to accommodate trucks, or asks that bike lanes be incorporated into the design.

Operational Projects

1.1.1 Origination

Operational projects can originate as a result of one or more of the following:

- A DOT citywide safety initiative, such as Vision Zero, identifies an area in which to make safety enhancements based on crash data and other factors
- As is the case with the development of the bicycle lane network or Select Bus Service routes and many other projects, a DOT unit leads a citywide or neighborhood-level planning process that identifies modifications
- Another city agency's project, such as a DCP neighborhood rezoning or planning study, creates an opportunity for DOT to make cost-effective enhancements in the course of the project
- Elected officials provide funding for a project
- Elected officials, the general public, business improvement districts, other agencies, or Community Boards request certain treatments or ask DOT to investigate conditions
- Non-profit organizations with community support apply to DOT's NYC Plaza Program to convert underutilized ROW into public spaces

The New York City Charter mandates that each Community Board submit to the mayor and the appropriate borough president statements of its expense budget priorities for the fiscal year. This is one mechanism by which a Community Board can originate a DOT Operational project. See Section 230 of the New York City Charter for more information.

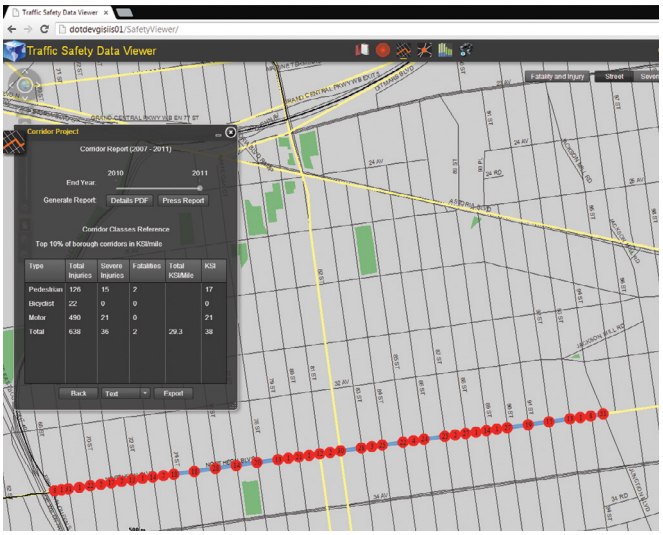
111th Street and Corona Avenue, Queens

1.1.2 Planning & Design

Scoping (1–4 Months)
DOT plans and designs most of its Operational projects rather than engaging a consultant to do so. When it begins to plan a project, agency staff conduct site visits, talk to stakeholders, and collect appropriate information, which typically includes some or all of the following:

- Crash data
- Traffic speeds
- Pedestrian, bicycle, and motor vehicle volumes
- Turning-movement counts
- Parking utilization
- Contextual information, particularly local land uses, parking regulations, bus/truck route information, etc.
- Inventory of existing infrastructure, such as fire hydrants, storm drains, manholes, sidewalks and curbs, curb cuts, etc.
- Relevant demographic data, such as high proportions of older adults and/or people with disabilities

Goals and preliminary design concepts often emerge from initial data collection and information from stakeholders.



DOT's Traffic Safety Data Viewer displays and exports crash data details and summaries for corridors and intersections. Information from the Viewer informs project scoping.

Design (6–12 Months)
DOT assesses the project site and creates a base map to establish existing conditions. Agency staff then design enhancements that meet project goals. DOT may collect additional information as the project is developed if other nearby intersections are determined to be in need of modification.

DOT consults with FDNY to address any concerns about the impact of the designs on its operations. The agency may also present the preliminary concepts to the relevant Community Board and elected officials for input. If the project is a major transportation project, as defined in section 101.2 of the New York City Administrative Code, DOT also consults with NYPD, SBS, and MOPD. DSNY is consulted when a design might impact its operations. Designs for all works of art and structures intended for use in a fixed location for more than one year are subject to PDC review.

In some cases, if DOT contemplates making changes to signal timing or narrowing or removing lanes, the agency uses computer modelling to anticipate future conditions and adjust the plan or make improvements as needed.

1.1.3 Implementation (1 week to 4 months)

Once a project design is completed, the relevant DOT units and/or outside contractors implement the project. The construction season is usually between mid-April and mid-November.

DOT staff monitor and analyze crash data at the project site for up to three years after implementation. DOT also compares pre- and post-implementation motor vehicle, bicycle, and pedestrian data to determine what impact, if any, the project had on safety and mobility. If issues arise out of this analysis, DOT may revisit the project to make modifications. DOT is increasingly measuring other project-performance indicators as well, such as economic impacts.

Capital Projects

1.2.1 Origination

DOT Capital projects are initiated in any of the following ways:

- DOT identifies state-of-good-repair needs for roadways, bulkheads, retaining walls, or step streets. (This Manual does not cover bridges, tunnels, and viaducts, which are managed by DOT's Bridges Division)
- DOT divisions identify safety, mobility, resiliency, or other issues that need Capital enhancements
- A DOT citywide initiative, such as Vision Zero, identifies areas in which to make enhancements. Such initiatives often employ Operational work prior to Capital implementation
- Another agency's project, such as a DEP infrastructure upgrade, creates an opportunity for DOT to incorporate enhancements to the ROW
- The general public or Community Boards make requests, sometimes seeking funding from their elected officials or from grants
- Elected officials provide funding for a project
- The mayor or other elected officials may establish priorities to be fulfilled by DOT

1.2.2 Planning & Design

Scoping (3 Months–1 Year)
When a Capital project is proposed, DOT creates an initial project budget and adds the project to the list of the agency's Capital needs. Projects are typically prioritized for funding based on a given project's alignment with the agency's strategic goals. After a rigorous prioritization process, the project may be funded in the Capital Plan, which is updated three times per year. OMB must approve the addition of the project to DOT's Capital Plan before work can begin.

DOT begins research into the project location and visits the site with various agency divisions and other stakeholders to discuss the project scope prior to funding the project. After funding, the agency refines the project scope and engages DDC to provide design and construction management services; this process generally takes several months to a year, depending on the project's size and complexity. Prior to project initiation, DOT works closely with DDC's Front End Planning unit, as well as other stakeholders, so that the project's scope, budget, and schedule are achievable and acceptable to all parties. DOT divisions and other relevant agencies compile information that may have some bearing on the project—e.g., traffic analysis, crash data, environmental studies, etc.—and about other planned or ongoing work occurring in the project area or nearby.

Among many factors, scoping considers the impacts of climate change, including projected sea level rise, heat island effect, and coastal storm surge. To ensure consistency in these measurements, all elevations are measured in accordance with the North American Vertical Datum of 1988 (NAVD88). Special attention is given to whether the project is located in a flood-vulnerable area, according to FEMA's flood risk maps. Capital projects in high flood risk areas may involve many additional resiliency considerations from planting selection and salt tolerance to concrete and asphalt thickness. Project managers should refer to the latest version of New York City's *Climate Resiliency Design Guidelines*, which provide more detailed guidance on these topics.

If the project includes non-standard elements, such as distinctive materials or furnishings, OMB reviews and comments on the preliminary project scope and budget.

The project is then transferred to DDC for detailed design and implementation using the Capital Project Initiation form (CPI). The CPI includes:

- Project purpose/justification
- Site plan and conceptual design, if applicable
- Project description
- Cost estimate
- Funding sources summary
- Other relevant reference materials

Design (1-3 Years)
DDC usually awards a contract or task order to a consultant to design the project. For less complex projects, DDC may use in-house staff. DDC and the consultant conduct an analysis of existing conditions.

Schematic Geometric Design
The consultant creates a schematic geometric design—a basic design showing curblines and markings—upon which all DOT divisions, as well as other relevant agencies, comment. Changes in geometry or to the number of moving lanes often require further traffic analysis.

Final Design
Final Design begins the process of creating construction documents. Once DDC and its consultant incorporate all of DOT's comments on the schematic geometric design, the consultant produces the final design in three stages: 40%, 75%, and 100% completion. DDC circulates each set of drawings to all DOT divisions, relevant public and private stakeholders, and to the relevant Community Boards and elected officials for their review. At 40% and 75% design, DOT collates and transmits its comments to DDC, and the consultant incorporates the comments into the next design phase. DDC holds "alignment" meetings with the private utilities during final design, as necessary, to avoid conflicts with their infrastructure and so that there is minimal disruption to the construction schedule.

Acquisition/ULURP as Necessary
Capital projects sometimes require the acquisition of private property (e.g., to build a new street or widen an existing street) and/or Uniform Land Use Review Procedure (ULURP) (e.g., to map a new street or change a street's mapped width or grade). These processes will generally add up to two years to a project's implementation timeline, need to have an environmental determination, and require a public hearing, Community Board review, and City Council approval.

1.2.3 Construction (1–3 Years)

Once the design is complete, DDC requests a construction Certificate to Proceed (CP) from OMB and bids out the project to construction management (CM) firms and contractors. OMB typically issues the construction CP before the CMs and contractors respond. Construction can begin when the contract with the selected bidder is finalized with DDC.

The role of DDC is to:

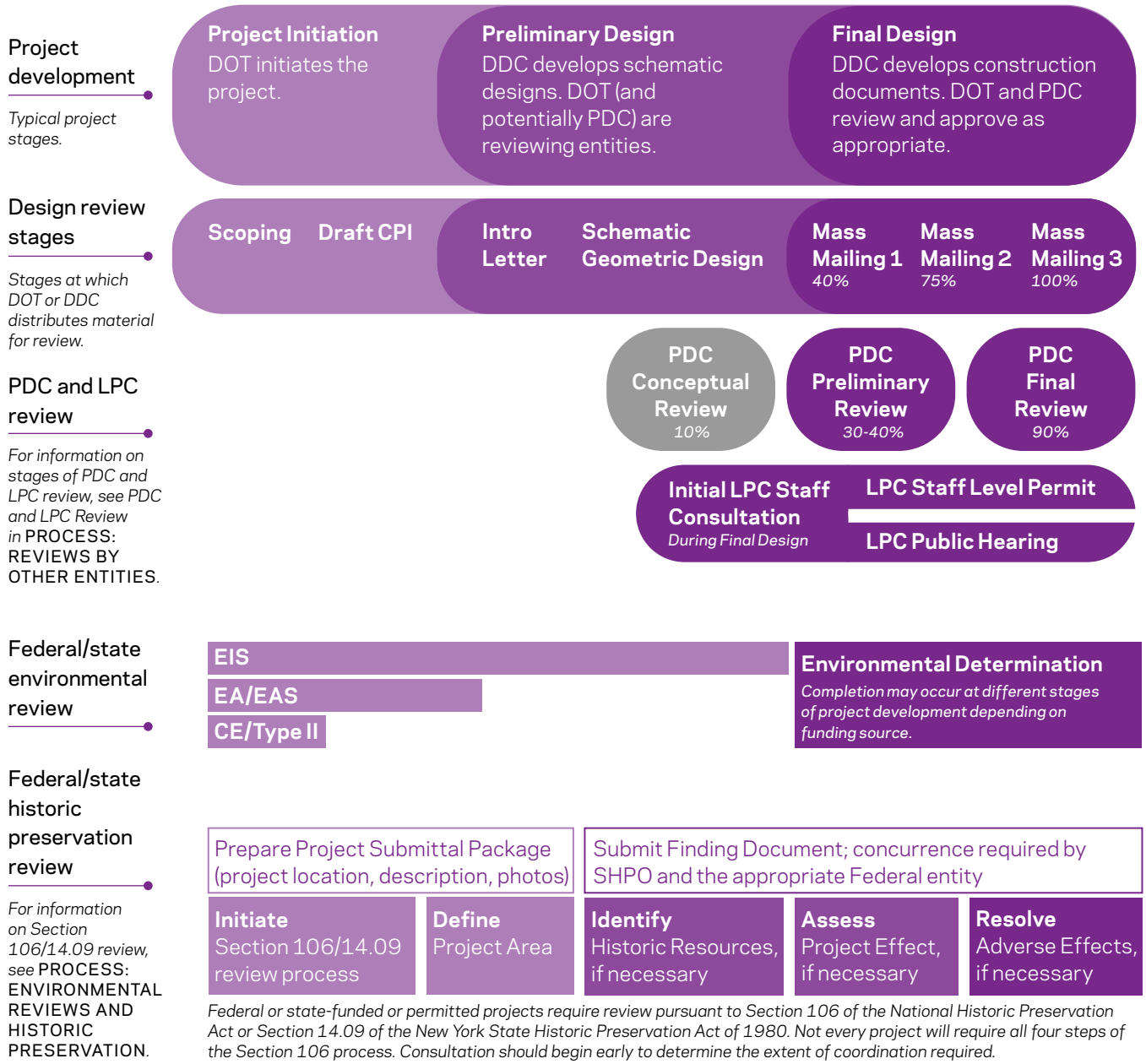
- Perform or contract for and oversee design work, procure construction services, and manage the construction process for DOT's Capital street projects
- Coordinate among all stakeholders and manage outreach to communities affected by projects
- Manage Capital street work funded by different city agencies and coordinate Capital programs to minimize conflicts

Design Development and Review Diagram
Many teams across DOT and partner agencies participate in the design development and review process. As the project develops, DOT works with relevant oversight entities to complete the required environmental review and related approvals, which informs the decision-making process.

This diagram covers the typical project development phases, the stages at which DOT or DDC distributes designs for review, and where both local (PDC and LPC) and federal discretionary review processes come into play.

The vast majority of projects DOT undertakes are considered Type II projects under SEQR/CEQR and are thus exempt from local environmental review. They may also fall within one or more Categorical Exclusions (CE) under NEPA, requiring minimal documentation that is approved by the relevant state and federal agencies. However, some DOT projects require additional review in the form of Environmental Assessment (EA)/Environmental Assessment Statement (EAS) and/or Environmental Impact Statements (EIS). An EA (NEPA) or EAS (SEQR/CEQR) can take three to six months to complete whereas an EIS can take two years or more.

This diagram describes the sequential development of a project as well as when certain review milestones should occur in the project timeline.



Federal or state-funded or permitted projects require review pursuant to Section 106 of the National Historic Preservation Act or Section 14.09 of the New York State Historic Preservation Act of 1980. Not every project will require all four steps of the Section 106 process. Consultation should begin early to determine the extent of coordination required.

NEXT PAGE: *Delancey Street and Suffolk Street, Manhattan*


CAT

Case Studies

Grand Concourse

Capital Project

The Grand Concourse is one of the busiest, most iconic thoroughfares in the Bronx. The 5-mile-long project area experiences some of the highest pedestrian death and injury counts in the Borough. Following the successful implementation of a Street Improvement Project (SIP) in 2009, over $250 million was invested in safety improvements and other enhancements. In 2014, with the inception of the Vision Zero initiative, the Grand Concourse was named a Vision Zero Great Street, designating it as a priority for redesign. The current multi-phase Capital investment project includes improvements that target existing safety conditions, reduce vehicle delays, and greatly improve walking, cycling, and driving.

Purpose

Rebuild, expand, and plant medians.

Enhance cyclist safety with grade-separated bike lanes.

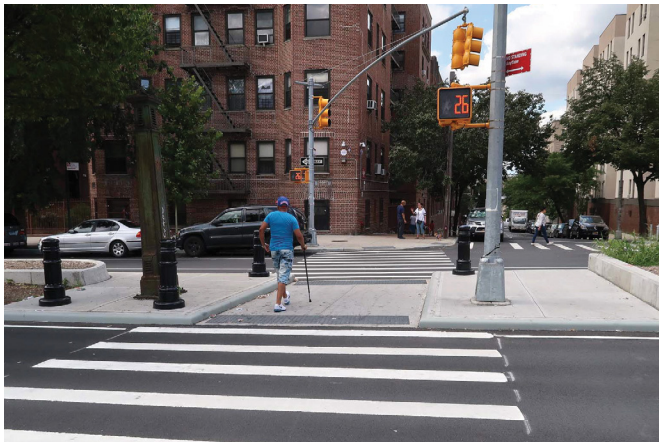
Add curb extensions.

Reconfigure slip lanes with stop controls.

Enhance safety and visibility at crossings with raised crosswalks.

Location

Passes through West Concourse, Mount Hope, Fordham, Bedford Park, and Van Cortlandt Village.



ABOVE *and* **BELOW:** *Capital construction over the last decade at Grand Concourse has improved pedestrian crossings: Bronx*

Context

As a high-density residential and commercial corridor, Grand Concourse is a venue for active, vibrant public life in the Bronx.

Grand Concourse is recognized for its rich architectural history; the corridor is flanked by a large concentration of Art Deco-style buildings.

The B and D lines run below the high-volume corridor, situating it at the intersection of several modes of transit.

Project Origination

Beginning in the mid-2000s, the high pedestrian fatality rate at Grand Concourse drew attention to the corridor as a significant safety concern, and Grand Concourse has since been formally designated a Vision Zero Priority Corridor to reflect the urgency of safety hazards. Addressing these challenges, and leveraging strong political will, DOT moved forward with work to narrow a service road and stripe out medians along Grand Concourse. DOT's Bridges, who were reconstructing Lou Gehrig Plaza at E 161st Street, agreed to build out Phase 1 of the Grand Concourse safety improvements as part of their existing Capital project. Coupling the first phase safety improvements with Bridges' Capital work enabled the successful completion of the needed safety improvements and, consequently, substantial benefits to the public realm. Phases 1 and 2 of the project were completed prior to the launch of the Vision Zero Great Streets Initiative.

Planning and Design

The project is currently funded through five phases covering E 161st to E 198th Streets. Phases 1 and 2 are complete; Phase 3 is in construction; Phase 4, which includes a grade-separated bike lane along the median, is beginning construction; Phase 5 is beginning design; Phases 6 and 7 are not currently funded. Design includes landscaping, new crossings, protected median expansions, protected bike facilities, and bus improvements. Crossings are improved with upgraded accessibility and raised crosswalks.

Several signalized intersections were installed to ease crossing where median barriers had disrupted the grid.

Because the B and D lines run below the entire corridor, the project requires ongoing coordination with MTA.

Implementation

SIP implementation: May 2009 -June 2009

Raised median adjacent to protected bike lane is scheduled for planting as part of Grand Concourse Capital project: Bronx

In 2011, prior to Capital project, medians on Grand Concourse were in disrepair: Bronx

Phase 1 (Lou Gehrig Plaza): March 2006 - 2008 (Construction)

Phase 2 (E 166th to E 171 Streets): May 2014 - October 2017 (Construction)

Phase 3 (E 171st to E 175th Streets): December 2017 - May 2020, planned (in construction)

Results

Local Community Boards have responded positively to the project, expressing satisfaction with new median plantings and improved maintenance.

Three years after the completion of Phase 1, total injuries have decreased 45% along the segment of Grand Concourse from 161st to 165th Streets.

Phases 1 and 2 have been replanted, and long-term maintenance agreements are in place to ensure the longevity of plantings, which have contributed to the beautification of the corridor.

Bx6 Select Bus Service Route

Operational Project

Select Bus Service (SBS) is New York City's bus rapid transit service, with 17 service routes located in all five boroughs. Designed in response to decreased bus speeds, SBS aims to create more reliable, expedient, and comfortable rides for customers. In the case of the South Bronx Crosstown Route, SBS enhancements significantly improved bus speeds and rider experience.

Purpose

Improve bus travel times and reliability, especially at key bottlenecks; enhance pedestrian safety; and allow bus-curb access.

Location

Primarily on 161st Street and 163rd Street in the South Bronx, yet the full route connects Riverside Drive West in Washington Heights to the Hunts Point Market in Hunts Point.

Context

The Bx6 bus serves 24,000 daily riders as a critical crosstown route connecting to Manhattan, the Hunts Point markets, and eight subway lines.

ABOVE: *E 161st Street and River Avenue, Bronx*

BELOW: *E 161st Street and Sherman Avenue, Bronx*

161st Street is a high volume street with mostly mixed-use land use and several major buildings, such as Yankee Stadium and a number of Bronx courthouses. Prior to SBS implementation, cars often parked and double parked in front of bus stops and a nearby family court, preventing the bus from accessing the curb.

Narrow sidewalks along the corridor forced pedestrians to walk on the streets, creating dangerous pedestrian conditions.

Affordable housing currently in development along the corridor will further intensify the area's transit needs.

Project Origination

After the success of Fordham Road and Webster Avenue SBS projects in the Bronx, MTA and DOT determined a need for a South Bronx Crosstown SBS route. As a result of input from stakeholders, including the Bronx Borough President's office, and on-street outreach with bus riders, the Bx6 was selected as the appropriate candidate due to need for improvements and opportunities for implementation.

Planning and Design

Through data analysis, DOT and MTA identified 161st Street from the Macombs Dam Bridge to Morris Avenue as a critical portion of the route due to high ridership and slow existing bus speeds. This section also included pedestrian safety and ADA issues, such as narrow sidewalks and street operations that blocked bus stop curb access in front of the courthouse. These challenges called for an unconventional and innovative design.

To address these issues, DOT considered creating a center-running busway starting at the Yankee Stadium Crosswalk, converting the tunnel under the Grand Concourse to bus-only, and constructing a pair of bus boarding islands in front of the courthouses. This design also allowed for sidewalk expansion between River Avenue and Gerard Avenue.

Subsequent traffic analysis revealed that a two-way bus tunnel would significantly impact traffic in the westbound direction. After extensive outreach, featuring over 30 community meetings and events, DOT opted to balance the needs of community members and traffic concerns. The resulting design featured converting eastbound tunnel to bus-only while still allowing traffic in the westbound tunnel.

E 161st Street between Sherman Avenue and Morris Avenue, Bronx

The center-running design with boarding islands helped mitigate the courthouse parking challenges.

Implementation

Implementation was conducted July-September 2017.

With a hard project deadline, the construction process required coordinating multiple parties at once.

DOT in-house teams poured bus boarding islands, while coordinating with MTA to install the bus shelters, fare machines, and SBS Wayfinding signs. Temporary materials were used for sidewalk expansions.

Results

Bx6 SBS route travel times are 11-16% faster than previous local service.

On 161st Street between Yankee Stadium and Melrose Avenue, Bx6 SBS travel times are between 32-46% faster eastbound (the direction with the bus-only tunnel) and 14-18% faster westbound than previous local service.

The Capital project will build upon existing successful transit improvements as well as address significant state-of-good-repair needs along 161st Street.

Diversity Plaza

Capital Project

Diversity Plaza was originally implemented as the result of a neighborhood-wide transportation study. The plaza's implementation simplified a complex intersection and eased access to the 74th Street-Roosevelt Avenue train station. Initially implemented in interim materials, the pedestrian plaza was later built out with permanent materials and fixtures, further enhancing its pedestrian safety benefits.

Purpose

Enhance pedestrian safety and provide more open space and amenities.

Location

The plaza is located on 37th Road between Broadway and 74th Street and on 73rd Street between Broadway and Roosevelt Avenue in a dense commercial district in Jackson Heights, Queens.

ABOVE: *Diversity Plaza as a permanent pedestrian plaza: Queens*

BELOW: *Prior to Capital project completion, Diversity Plaza was constructed using temporary materials: Queens*

Context

The surrounding area is characterized primarily by high-density, street-level retail as well as other commercial and residential uses. Low-rise buildings house mostly small retail businesses and offices on both sides of Diversity Plaza, while the north side of the plaza features an entrance to the 74th Street-Roosevelt Avenue elevated subway station. Multiple bus lines, including the Q70 SBS to LaGuardia Airport, serve the area immediately adjacent to the plaza.

Project Origination

In 2011 DOT completed a transportation study that, among other things, included a recommendation for the closure of 37th Road to vehicular traffic as a means to make a safer intersection at 73rd Street and Broadway and to accommodate community requests for more open space. DOT created an interim plaza at this location in fall 2012. Diversity Plaza eventually became a Capital project and was reconstructed in permanent materials, opening again to the public in the summer of 2018.

Planning and Design

Before and after creating the interim plaza, DOT conducted extensive community outreach and technical analyses, which included a study of the impacts of the closure on safety, traffic operations, and deliveries.

Scoping for the permanent plaza was completed and transmitted to DDC in May 2013.

DOT engaged local stakeholders throughout the design process through public workshops and coordination with local elected officials.

Durable permanent materials were employed to reduce maintenance needs. Large above-ground planters allow for robust plantings while enhancing pedestrian safety. The layout of the space, with moveable tables and chairs, prioritizes flexibility to allow for easy circulation and promote a wide variety of community events.

Implementation

Capital construction began in spring 2017 and was completed in summer 2018.

Results

Administered by DOT along with community partners SUKHI NY and The Friends of Diversity Plaza, the pedestrian plaza provides public seating, landscaping, and ample opportunity for community-based events all year round. Daily maintenance, seasonal plantings, and other services are provided by the Horticultural Society of New York through a contract with DOT as part of the OneNYC Plaza Equity Program.

Fifth Avenue Street Seat

Operational Project

Small-scale interventions can transform streetscapes into safe, walkable spaces for pedestrians. The seasonal Street Seat is an effective way to calm traffic, increase visibility, and maximize the utility of sidewalk area.

Purpose

Create a seasonal outdoor seating opportunity; improve the public realm; enhance pedestrian safety; and provide an attractive setting for eating, reading, meeting friends, or taking a rest.

Location

The Street Seat is located on the active commercial corridor of 5th Avenue at St. Mark's Place, near Barclays Center and Flatbush Avenue in Park Slope, Brooklyn.

Context

With proximity to mass transit connections and major destinations such as Barclays Center, 5th Avenue in Park Slope buzzes with pedestrian activity. The active corridor includes many retail and restaurant options, but lacks adequate public space to host vibrant street life.

ABOVE *and* **BELOW:** *DOT installed the 5th Avenue Street Seat in response to a request by a local business, SkyIce: 5th Avenue and St. Marks Avenue, Brooklyn*

Project Origination

DOT's Public Space Unit worked with the 5th Avenue Park Slope BID and a local business, who applied to install this Street Seat.

Planning and Design

After the community partner submitted a plan, DOT visited the site to assess the potential for design intervention. Partners and DOT collaborated to present to the Brooklyn Community Board 6, and gathered support from the adjacent businesses and the community at large.

Implementation

DOT installed 'No Standing Anytime' signs, wheel stop bars, flexible delineators, and a parking stripe.

The partner hired a fabricator to build the Street Seat structure out of cedar wood and a contractor to install it. To ensure physical accessibility, the Street Seat rests on a platform to make it level with the curb and sidewalk. The partner maintains the structure and surrounding plantings as part of the legal project maintenance agreement. DOT conducts periodic inspections, and the partner conducts surveys to garner valuable public input.

Results

The Street Seat project repurposed one parking space into an asset for hundreds of pedestrians daily. With new seating, the 5th Avenue corridor benefits from more active street life, additional greenery, and open views. Sales also increased after the Street Seat was installed.

5th Avenue and St. Marks Avenue, Brooklyn