City of New York

NYC DDC Utility Coordination Report

September 2024

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Mayor

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Commissioner


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Executive Summary

The NYC Department of Design and Construction (DDC) delivers public buildings and infrastructure projects citywide, with a total capital program of over $35 billion in 2024. As part of this program, DDC's Infrastructure Division builds and upgrades the nation's most extensive network of streets, water mains, and sewers. Delivering this work requires coordinating with the private utility companies whose lines share roadway space with the City's own infrastructure. Over time, different contract terms have been developed to manage the interferences between City work and private utility work. These contract terms have historically been known as "Joint Bidding" and "Section U."

Renewal of New York City's essential infrastructure can be disruptive to the daily activities of residents and businesses. The work is extremely visible to the public and attracts strong community interest from residents, business owners, and everyone who uses the City's streets. The purpose of this report is to provide a public account of recent DDC Infrastructure projects, measuring and comparing the use of the two utility coordination contract terms, to allow stakeholders and public officials to evaluate and compare their value to the City of New York and its taxpayers. This is the first comprehensive comparative analysis that has been conducted in the 20-year history of the Joint Bidding program.

Definitions

JOINT BIDDING: Joint Bidding refers to a method of coordinated street construction in which the City work and private utility work is included and bid within the same contract. New York City has been authorized by the State to utilize Joint Bidding in its infrastructure contracts for 20 years, since 2004.

SECTION U: Section U refers to a section of DDC's construction contracts. It describes a method in which the City contractor may enter into private agreements with the utility companies, and then coordinate and perform the utility interference work outside of the City contract.

The alternative to the parties entering an agreement is for the City to invoke the administrative code and require the private utilities to remove any of their lines that interfere with the public work.

Executive Summary Cont'd

Key Findings

The analysis contained in this report assesses the overall performance of DDC's infrastructure program with respect to project cost and schedule. The analysis also assesses the utilization of minority- and women-owned business enterprises (M/WBEs) on DDC infrastructure projects.

This analysis surveyed cost data from 256 projects, and schedule and M/WBE data from a sample of 37 projects selected to provide a representative cross-section of DDC's infrastructure portfolio. The analysis yielded the following key findings:

- Projects utilizing Section U experienced greater schedule delays than projects utilizing Joint Bidding
- Schedule delays led to cost overruns
- Utilities share in the cost of project overhead on Joint Bidding projects
- There is no significant difference in the price of City items on contracts using Joint Bidding versus those using Section U
- There is no significant difference in M/WBE utilization on contracts with Joint Bidding versus Section U

Overall, it was found that a coordinated approach to street construction, such as Joint Bidding, can save the City over $107 million per year.

Introduction: NYC Public Infrastructure and Utility Interference

About DDC

As New York City's primary capital construction project manager, the NYC Department of Design and Construction delivers public infrastructure projects in all five boroughs. DDC shares the goals of the City of New York to invest in reliable and resilient infrastructure that improves and strengthens communities.

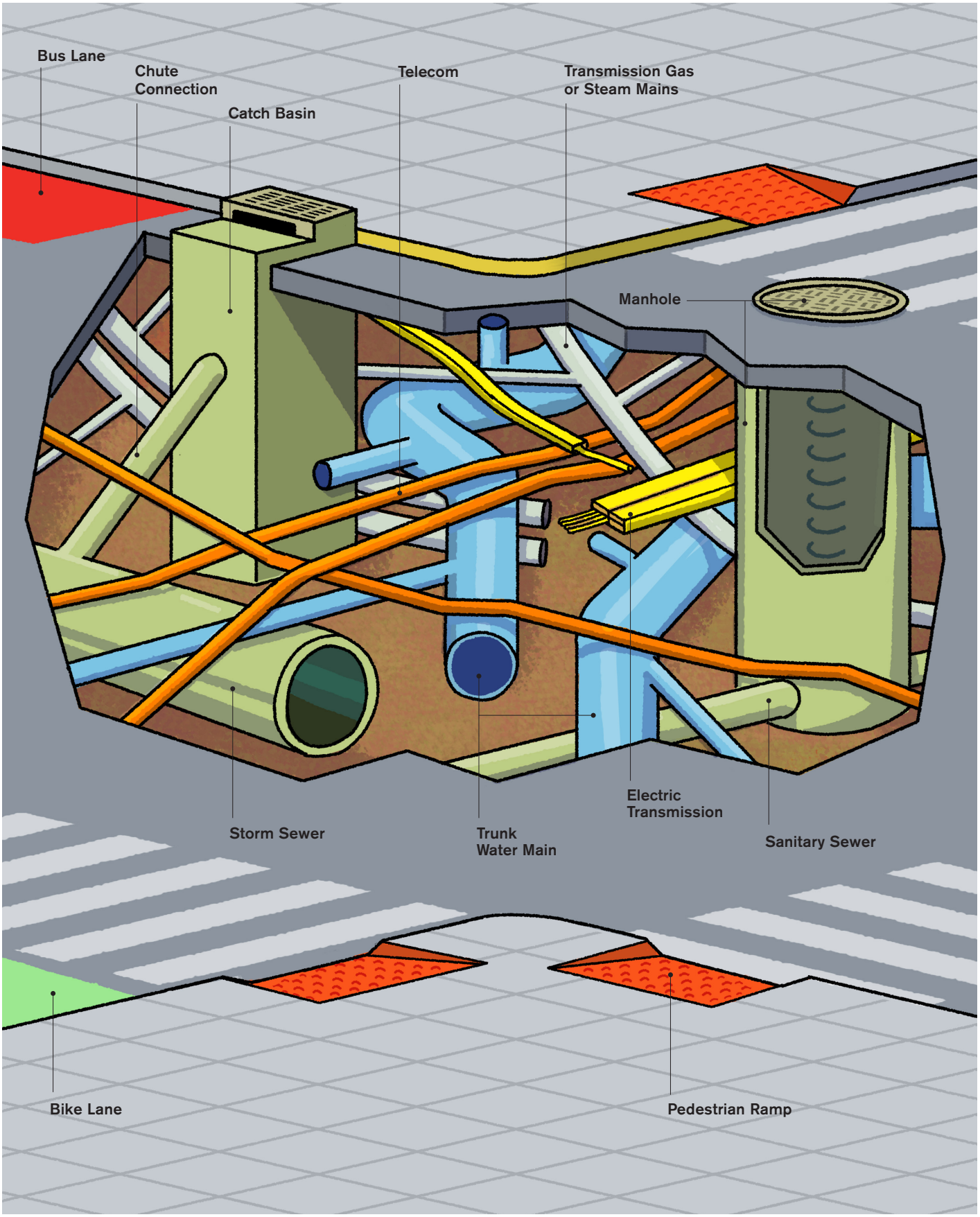
Established in 1996 as a way for the City of New York to efficiently manage the design and construction of its public works, DDC has delivered thousands of public buildings and infrastructure projects. Today, DDC is at work on over 500 projects in every neighborhood in New York City. Within its Infrastructure portfolio, the agency installs and upgrades the water mains that deliver one billion gallons of water a day. DDC also improves the City's sewer system of 7,000 miles of pipes and 135,000 storm drains. DDC's partners in infrastructure upgrades include the NYC Department of Environmental Protection (DEP) and the NYC Department of Transportation (DOT).

About NYC's Underground Infrastructure

In New York City, over 6,000 miles of streets and highways connect neighborhoods and link the city to surrounding areas, a vital network maintained by the NYC Department of Transportation. Beneath these roads are thousands of miles of underground sewers and water mains, managed by the NYC Department of Environmental Protection.

Gas, electric, communications, steam, and other private utility lines are also underground, beneath the city's streets and sidewalks. These utilities are managed by private companies including Con Edison, National Grid, Verizon, and others. In most NYC neighborhoods, the lines for these utilities were installed, modified, and replaced over the course of decades, as public needs shifted and expanded. Beneath the roadway, the utilities crisscross one another, their precise locations often unknown until the street is opened up for a construction project. This complex underground environment is often known as the "underground spaghetti."

NYC Public Infrastructure and Utility Interference Diagram



Introduction: NYC Public Infrastructure and Utility Interference Cont'd

Upgrades to Public Infrastructure

Essential infrastructure protects public health while contributing to an equitable and thriving city. DDC upgrades these critical systems to meet current needs and serve New York City for decades.

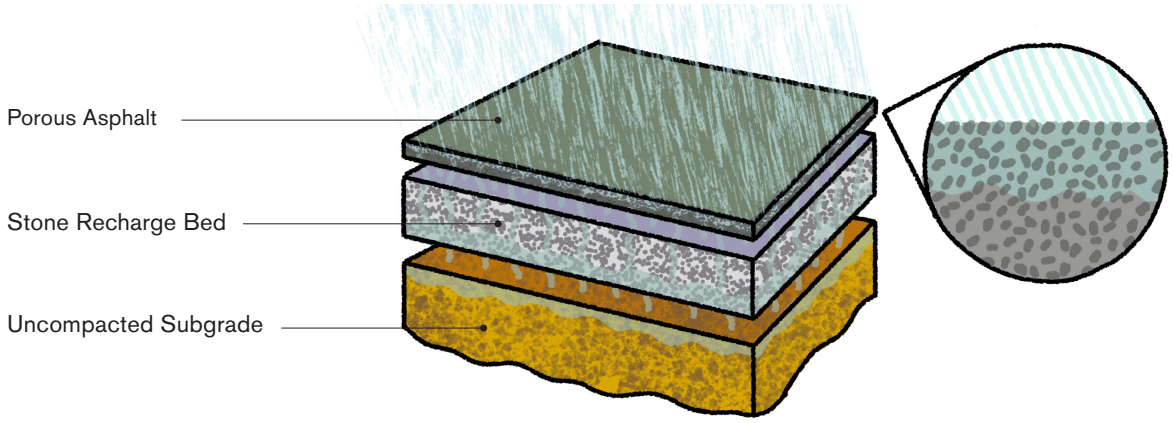
Much of the city's water and sewer infrastructure is aging, with some older water mains installed over 100 years ago. Water main breaks are massively disruptive to communities in the city. DDC's work includes replacing decades-old cast iron water mains with new mains that are more resilient and less prone to breakage. Tests show that some newly installed pipes will last for 200 years, and they are manufactured to avoid breaks and cracks. It is also necessary to improve the city's sewer system to better handle waste and to prevent dangerous street flooding and sinkholes. DDC upgrades and installs new sewers to replace older sewers.

As neighborhoods grow and density increases, critical infrastructure must be upgraded to meet the needs of the increased population. That can mean replacing smaller water mains with larger ones capable of delivering water to large residential and commercial buildings—or even entire blocks of new developments. It can also mean expanding and updating the sewer system to increase local capacity when an area grows or is rezoned for more density to ensure this vital network meets current and future needs.

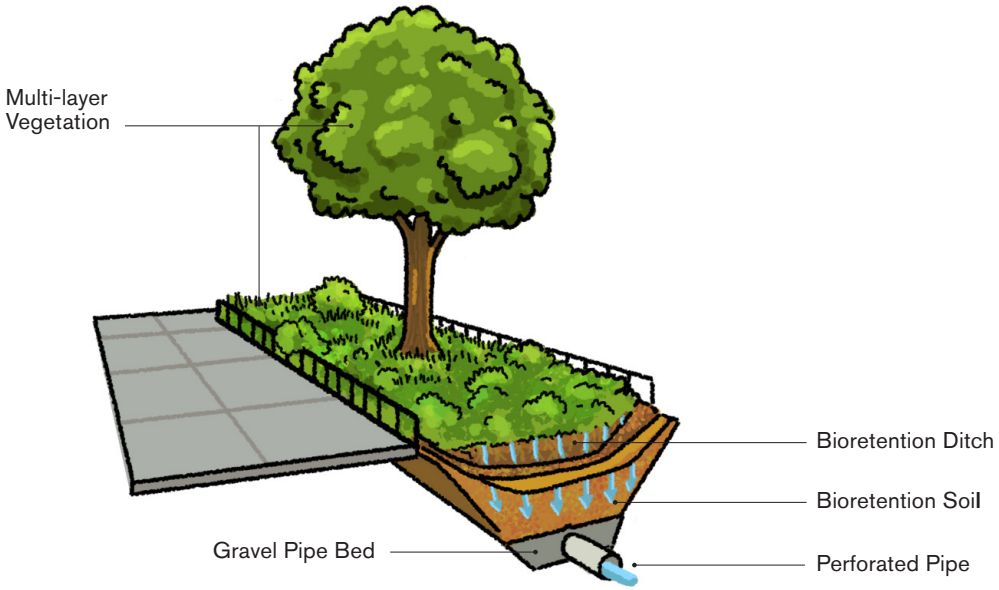
As rainfall becomes more extreme, upgrades to the city's stormwater management system are especially essential. DDC's work includes installing sewers that can handle more stormwater, which reduces flooding on city streets. Installing additional green infrastructure assets, including porous pavement and infiltration basins, reduces the burden on the City's sewer system and improves the quality of the stormwater entering its waterways. These upgrades improve quality of life in other ways, including encouraging healthier and cleaner waterways, providing better fire protection, and more.

Upgrades to Green Infrastructure

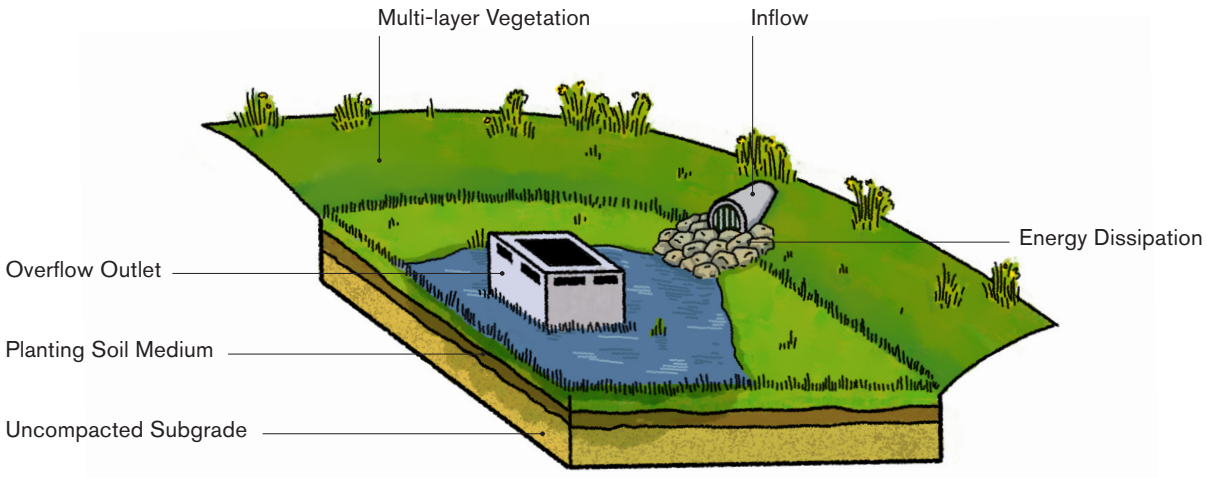
Porous Pavement



Rain Garden



Infiltration Basin



Introduction: NYC Public Infrastructure and Utility Interference Cont'd

Managing Utility Interferences

Private utility companies are permitted to use the City's rights-of-way for their lines under franchise agreements, which are contracts between the City and the private utility company. New Yorkers receive vital services through these agreements. When private utility lines interfere with City construction work, including underground installation of water or sewer lines, these agreements mandate that private utility companies relocate and protect their lines at their own cost. However, this unique combination of public infrastructure and privately-owned utility lines laid down separately over the course of decades, with their precise locations unknown, makes the maintenance and replacement of City-owned and privately-owned elements particularly complex and costly.

Coordination practices have varied over time. While utility companies have always been responsible for the relocation of these lines, it was at the discretion of those companies whether the work would be done separately or by the contractor responsible for the City construction work. Only one contractor can hold street opening permits for an active street construction project at a given time. Therefore, the most efficient way for the utility lines to be relocated was to have the City's existing contractors assume responsibility to move, support, and protect the private utility lines during construction work.

On DDC projects, the relationship between the City contractor and private utility companies was governed by Section U, referring to a section within DDC's construction contracts. This Section established a process by which the utility company and the contractor would negotiate the exact terms of their agreement outside of the City's contract. Under Section U, the City's contractors often had to open up the street to discover the location of the private utilities, then conduct private negotiations with each of the utility companies to determine the cost to protect their lines. This arrangement led to City construction work stalling for months and even years while negotiations and re-designs were ongoing. While this negotiation process took place, dug-up streets remained open, businesses were adversely impacted, and essential construction projects were halted.

Introduction: NYC Public Infrastructure and Utility Interference Cont'd

Following the terrorist attacks on September 11, 2001, New York City was challenged to quickly rebuild areas of Lower Manhattan with the densest and most complex underground infrastructure in the country. To ensure that utility negotiations didn't stall this urgently needed work, the New York State Legislature passed the first "Joint Bidding" law in 2004, to allow the City to bid public and private utility work under a single contract. The private utility companies would continue to pay for the work to protect their lines, but the City would now be able to set the terms by including this work in its contract, creating transparency and leveling the playing field among contractors. The private utilities would also be required to provide "pre-engineering" of their lines to include in the City's contract and would share in the costs required to oversee the project and maintain the site during construction.

For the first time, the new Joint Bidding law treated the public and private utilities as public-private partners in the subsurface environment. It enabled the City to complete work years faster than otherwise possible, saving money for taxpayers and returning streets to their communities.

Joint Bidding in 2024

The New York State legislature has passed updates and extensions to the Joint Bidding law three times since 2004, broadening the authorization citywide. Most recently, the authorization was extended to 2025. To implement the Joint Bidding law, DDC has developed different approaches, in dialogue with City contractors, industry associates, and private utility companies. The agency's goal is to speed construction and ensure a fair and efficient system. Most recently, DDC launched "Joint Bidding 5.0" which combines a pre-established price (based on historical data and professional engineering estimates) list for the work to support and protect utility lines with open bidding for any utility system upgrades or reinforcements.

Joint Bidding: Piloting Different Approaches

JB 1.0	Limited to federally funded Lower Manhattan contracts per the 2004 authorizing legislation. Utilized a multiplier for City and utility items per agreement with the utilities.
JB 2.0	Citywide. Utilized open bid for City and utility items.
JB 3.0	Citywide. Utilized a multiplier for City and utility items.
JB 4.0	Citywide. Utilized a set price list for utility items.
JB 5.0	Citywide. Utilizes an updated price list for utility "support and protect" items and open bid for utility system upgrades or reinforcements.

Introduction: NYC Public Infrastructure and Utility Interference Cont'd

DDC uses Joint Bidding wherever possible because of its efficiency in coordinating private utility work, which saves time and money (described further in the Project Performance Analysis section of this report). However, some projects cannot utilize Joint Bidding because they commenced before the citywide authorization or because a Citywide construction contract includes locations that are unidentified at the time the contract is bid. Utility work in such projects is conducted via private negotiations between the contractor and the utility companies, like the historical model, and remains governed by the Section U agreement. Additionally, some surface-level improvements do not disturb utility lines so Joint Bidding is not needed.

Joint Bidding vs. Section U

Here is how private utility work is handled under Joint Bidding versus Section U:

	Joint Bidding	"Section U"
How is the City work bid?	Competitive Sealed Bid	Competitive Sealed Bid
How is the private utility work bid?	Included in City contract. DDC has developed different approaches to pricing the utility work, including open bid, bid multiplier, and price list.	Not included in City contract. The City's contractor conducts separate negotiations with individual utility companies.
Who pays for the private utility work?	The private utility companies.	The private utility companies.
Does the City have insight into the price of utility work?	Yes, the City sees all costs associated with the private utility work, and all payments flow through DDC.	No, the City is not party to the negotiation and does not have insight into the costs paid by the utility companies to the contractor.
Who pays for the costs to oversee construction and maintain the site?	The City and the private utility companies share these costs in proportion to the value of their work (e.g. if the utility work represents 30% of the total contract value, the utility company pays 30% of the overhead costs). The private utility companies also share in the costs to restore the site.	The City pays 100% of these costs.

Project Performance Analysis

Given the increasing complexity and cost associated with utility work in infrastructure projects, DDC's Project Controls team was tasked with comparing the cost and schedule performance of projects executed under Joint Bidding versus those using Section U. The goal was to understand the differences in bid costs on City work and in project delays, as well as the associated costs of those delays, to identify trends and potential areas for improvement.

To complete this analysis, a sample comprising 19 Section U projects and 18 Joint Bid projects was identified to achieve a balanced and representative dataset. The projects were selected to be recently completed or nearing completion, including the most recent Section U contracts that are specific to a given location (since DDC does not currently initiate new Section U contracts in most circumstances, it was necessary to include projects that started as early as 2015). Projects were also selected to be comparable in scale, with Joint Bidding projects averaging $26 million and 2.42 years original duration, and Section U projects averaging $22 million and 2.44 years original duration. Lastly, the projects represent a range of different project types with at least two Joint Bidding and two Section U projects in each borough. This selection ensured that the findings would be robust and applicable across a range of projects.

The analysis was conducted by gathering detailed data from several sources:

- **Schedule and Time Extension Data from DDC's Benchmark system and ACCO records**: Provided comprehensive records on project timelines and delays.
- **Unit Cost Data from DDC's BidScope+ system:** Provided comprehensive data on unit costs across various projects.
- **Resident Engineer and Inspector (REI) Cost from DDC's PDMS and Benchmark system:** Provided data on REI costs.
- **Force Account Data from PIMS, CDS, and DDC Benchmark:** Provided detailed force account expenditures.
- **Utilities Receivables from DDC Finance Team:** Provided information on revenue collected from cost-sharing agreements with private utilities.

Findings

Review and analysis of the data led to the following key findings:

1. **Section U projects experience greater schedule delays than Joint Bidding projects.**

   While many public infrastructure projects are subject to some level of delay, the average utility-related delay for Section U projects (2.31 years) was found to exceed the average recorded for Joint Bidding projects (0.58 years) by nearly 300%. Section U projects showed high variability in the duration of the total delay, ranging from no delay to over 7.5 years for the longest running project within the sample set, York Avenue (this project remains ongoing and is described in further detail in the Case Studies section of this report). Joint Bidding projects showed shorter and more consistent delays ranging from a time savings up to a maximum delay of 3 years.

Project Performance Analysis for Joint Bidding vs. Section U Cont'd

Not all delays on public infrastructure projects are caused by utility coordination. DDC used data from approved Time Extensions (required to be filed by the contractor whenever a project exceeds the predetermined schedule) to attribute the appropriate percentage of the project delays to the private utility work.

2. **Schedule delays lead to cost overruns.**

   Public infrastructure projects incur several different overhead costs related to their duration, from items required to maintain the site, like construction trailers, to oversight items like Resident Engineer and Inspection (REI) costs and the City's own costs to supervise the job. The average total cost of these factors is approximately $200,000 per project per month.

   As a result, the average utility-driven delays on a Joint Bidding project yield an additional cost to the City of approximately $1.5 million per project. These same delays on a Section U project yield an additional cost of $5.8 million per project.

3. **Utilities share in the cost of project overhead on Joint Bidding projects.**

   For Joint Bidding projects, the private utility companies pay part of the project overhead costs in proportion to the value of their work. For example, on the High-Level Storm Sewer and Water Main replacement project in the Gowanus area, the value of the private utility work on the project was calculated at 21.5% of the total project cost. As a result, the private utility companies reimbursed the City for 21.5% of the project's overhead costs, at a total of $1.3 million.

   The Joint Bidding projects in the sample set benefited from these cost-sharing agreements with the private utilities, allowing DDC to recover an average of $1,026,028 per project. On Section U projects, since the City is not party to the agreement between the contractor and the private utility companies, no such cost sharing agreement exists, and the City pays the full value of the project's overhead costs.

4. **There is no significant difference in the price of City work items on Joint Bidding versus Section U contracts.**

   DDC uses unit-price contracts for its public infrastructure work, so contractors bidding on a project propose a unit price for each of the items required to complete the work (for example, a contractor proposes a price per linear foot of water main). DDC maintains detailed data on the bids it receives, dating back to 1996. This data includes information on the bid price of every item. DDC analyzed its bid price data to determine whether the utility coordination model — Joint Bidding vs. Section U — had an impact on the cost of the City work.

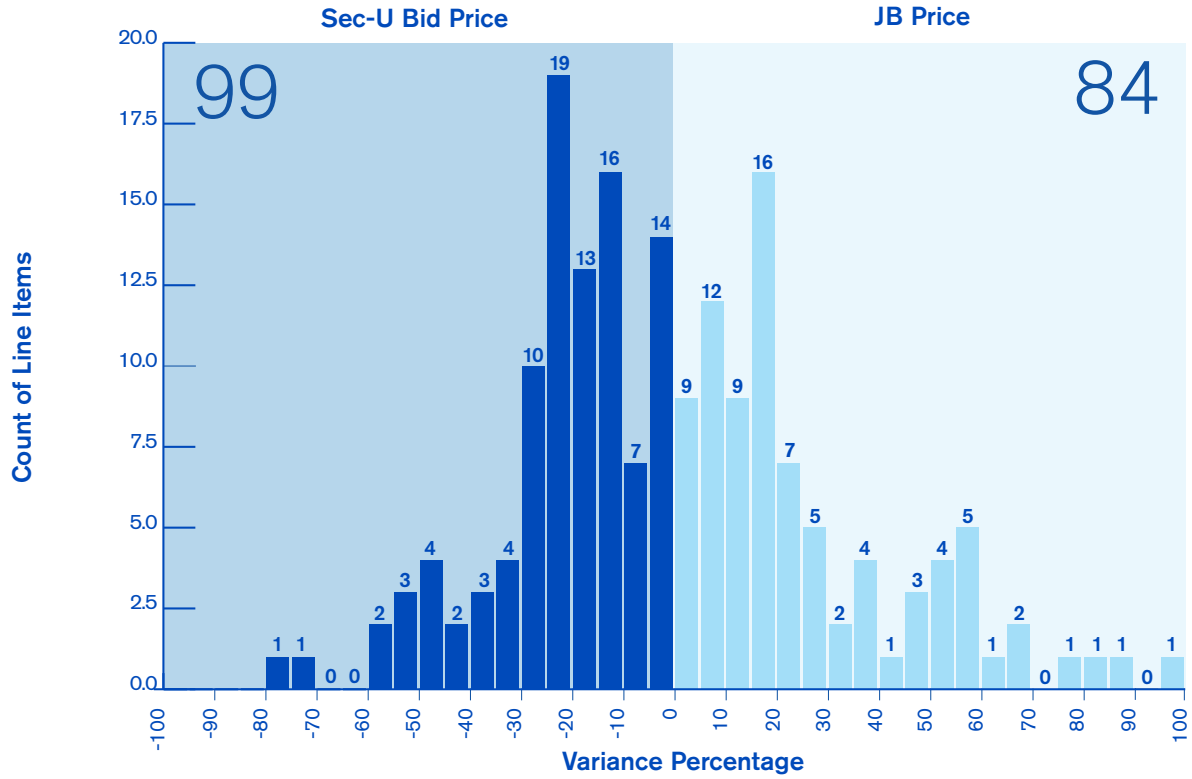
Project Performance Analysis for Joint Bidding vs. Section U Cont'd

To complete this analysis, the team evaluated contract line items in 62 Joint Bidding contracts and 171 Section U contracts. Considering only the line items that appear in at least ten contracts of each type, there were a total of 183 work items. For those items, the median Section U unit price and median Joint Bidding unit price were calculated. Because the contracts were awarded over the last ten years, unit prices were normalized to their present value by applying an industry standard of 4.0% annual escalation.

In comparing median joint bid unit prices versus median Section U unit prices for the 183 work items, it was found that Section U unit prices were higher for 99 work items and Joint Bidding unit prices were higher for 84 work items (less than 2% variance). It appears that the distribution is symmetrical. Therefore, the analysis found there to be no significant difference between the unit price of City items on Joint Bidding versus Section U contracts.

Correlation Between Unit Price of DDC Work Items and Contract Type

183	62	171	-2%	99	84
# of Line Items	# of JB Projects	# of Sec U Projects	Variance % PSO	# of Line Items Sec U is Higher	# of Line Items JB is Higher



Project Performance Analysis for Joint Bidding vs. Section U Cont'd

5. Joint Bidding saves the City over $100 million per year.

As described above, the results of the analysis indicate that a typical Section U project costs the City and its taxpayers almost $5.4 million more than a typical Joint Bidding project, due to the cost of increased schedule delays and the lack of cost-sharing reimbursements for project overhead costs. The bid unit price of City work items was determined to be insignificant and not a contributing factor.

Approximately 20 new projects per year were determined to be eligible for Joint Bidding. As a result, the $5.4 million in cost savings was multiplied by 20 projects to calculate the annual associated cost savings.

In total, it was determined that Joint Bidding saves the City $107.8 million each year.

	Joint Bidding	"Section U"
Average delay related to private utility work	**.58 years**	**2.31 years**
Additional project cost due to utility-driven schedule delay	**$1,461,334**	**$5,826,714**
Revenue collected from private utilities due to cost sharing agreement (oversight costs)	**$1,026,028**	**$0** (no cost sharing)
Net cost impact of utility work (project delay cost minus revenue from cost sharing)	**$435,307**	**$5,826,714**
Average project cost savings associated with Joint Bidding (Section U additional cost minus Joint Bidding additional cost)	**$5,391,408**	
Estimated annual cost savings attributed to Joint Bidding (calculated at 20 JB projects/year)	**$107,828,155**	

M/WBE Participation Analysis for Joint Bidding vs. Section U

The City of New York seeks to ensure fair participation and equal opportunity in City procurement, as stipulated by Local Law 1 of 2013. To follow this law and enhance participation by minority and women-owned firms, DDC sets goals for participation by minority- and women-owned business enterprises (M/WBEs) on all competitive procurements across its portfolio. M/WBE goals are established by identifying the likely subcontracting areas and evaluating the number of certified M/WBE vendors who can perform the work. Within DDC's portfolio, a Public Buildings project typically includes many different trades, and M/WBE goals for those construction contracts typically range from 20–30% and often include goals disaggregated by select ethnic certification categories. On Infrastructure projects, where much of the construction work is self-performed by the prime vendor and there are fewer involved trades, M/WBE goals typically range from 5–15% if the work is mostly below ground, and up to 20% if the scope includes surface level work like reconstruction and resurfacing of streets.

Given this commitment to compliance through building opportunity for M/WBEs, DDC reviewed the use of City-certified M/WBEs within the 37 projects included in this report. The analysis aimed to determine whether the utility coordination methodology impacts M/WBE utilization, and it was clear there was no significant difference between the two methodologies and ability to meet the M/WBE goals established on the contracts.

However, DDC noted a difference among contractors, with one group who met or exceeded the established M/WBE goals and a different group who failed to meet these goals. This trend occurred irrespective of utility coordination type; it was evident that contractors who met the established goals did so whether the project followed Joint Bidding or Section U. Of the 20 different prime contractors who completed the 29 projects with M/WBE goals in this report:

- There were 10 unique contractors awarded a total of 16 contracts that either met or exceeded the M/WBE goal established on their contract, of which five vendors met or exceeded the goals on multiple contracts. This group paid approximately $75.6 million dollars to MWBEs, and achieved approximately 17% M/WBE utilization.
- There were 10 unique contractors awarded a total of 13 contracts that did not meet the M/WBE goal established on their contract, of which three vendors were noncompliant on multiple contracts. This group of vendors paid approximately $7.8 million to M/WBEs, and achieved approximately 4% M/WBE utilization.

M/WBE Participation Analysis for Joint Bidding vs. Section U Cont'd

The projects in this report include eight projects with federal funding (as described earlier, Joint Bidding was initially limited to federally funded contracts). On those eight projects, federal requirements for Disadvantaged Business Enterprise (DBE) participation supersede City goals, and therefore local M/WBE goals were not established. Specifically, five Joint Bidding contracts and three Section U contracts did not include participation goals for City-certified M/WBEs. Nonetheless, M/WBEs were utilized on these projects, and seven different vendors paid approximately $16.4 million to M/WBEs to date on these projects, in addition to any DBE vendors that were awarded subcontracts to meet federal goals.

	Contract Count	Sum of Contract Awards	Amount Paid to M/WBEs	% PAID to M/WBEs
Joint Bidding	**13**	**$ 365,658,867**	**$ 50,051,706**	**14%**
COMPLIANT/ EXCEEDED GOAL	8	$ 144,713,085	$ 38,827,752	27%
NONCOMPLIANT	5	$ 220,945,782	$ 11,223,954	5%
Section U	**16**	**$ 445,589,634**	**$ 41,940,287**	**9%**
COMPLIANT/ EXCEEDED GOAL	8	$ 292,911,923	$ 36,753,319	13%
NONCOMPLIANT	8	$ 152,677,710	$ 5,186,969	3%
No City M/WBE Goals	8	$ 280,665,424		

Note: Compliance status determined from payment data in Checkbook NYC or the Payee Information Portal of the City of New York.

Refer to the Appendix for additional data.

DDC has initiated several steps to improve M/WBE compliance across the portfolio:

- Conducting meetings with contractors at regular intervals to monitor compliance with the M/WBE goals established on contract
- Performing a final compliance review at project substantial completion to determine shortfall from M/WBE goal amount, if any
- Conducting annual performance evaluations to include a weighted score compliance with M/WBE goals

Case Studies: Joint Bidding vs. Section U

City agencies (DDC, DOT, and DEP) coordinate with the private utility companies throughout the design process on all projects that involve private utility work. Coordination includes regular Alignment Meetings to discuss the location of private utility lines and any related updates to underground infrastructure. Based on projections from project engineers on the City work, and input from the utility companies, a project duration is established and placed into the construction contract. Given the complexity and history of NYC streets, utility interference often proves to be more extensive than expected once the street is opened up for construction work.

The following two case studies (one of a Section U project and another of a Joint Bidding project included among the 37 projects in the sample set) provide additional detail to illustrate what can occur in a situation with extensive utility interference.

Section U Case Study: York Avenue Water Main and Sewer Upgrades (Project ID SEN002169)

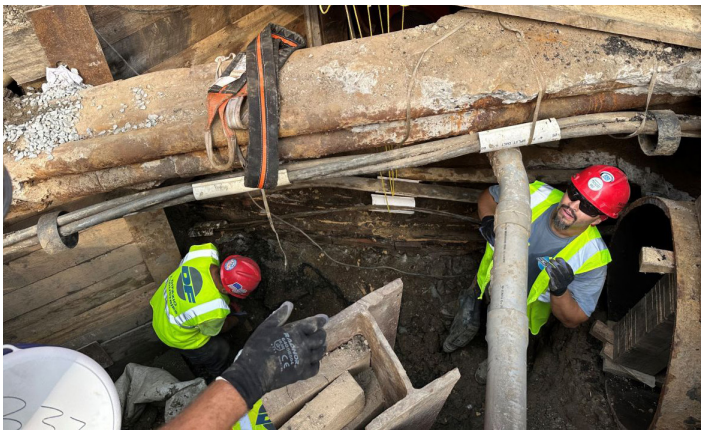
Because DDC did not have citywide Joint Bidding authorization during design of the project, this project was bid under Section U. In total, the project has been delayed over seven years, with 80% of that time attributable to coordination with the private utilities. These delays have cost the City an additional $21 million in project overhead costs alone, on a contract originally valued at $7.4 million.

SEN002169 originated as a joint DEP and DOT project to replace water mains, sewers, and catch basins on York Avenue in Manhattan (from East 61st to East 63rd streets and along a portion of East 62nd St). The scope also included street resurfacing, sidewalk and curb improvements, and streetlights and traffic signal replacement as determined by DOT. The design was completed at the end of 2014, and after construction procurement and award at $7.4 million, a Notice to Proceed was issued to the contractor in August 2015 for a contract duration of approximately one year.

The utility companies provided pre-engineering drawings during design, but these drawings did not accurately capture the extent or location of the lines. Once DDC's contractor opened the street for water main work, DDC and the contractor identified significant Con Edison underground utilities not previously identified, which had to be relocated underground to create space for the City's new water and sewer infrastructure. A significant amount of communication lines also required relocation.

Section U Case Study: York Avenue Water Main and Sewer Upgrades (Project ID SEN002169)

Right: Project map, York Avenue water main and sewer upgrades
Below: New water mains installed at York Avenue and East 62nd Street in close proximity with private utility lines that had to be moved to accommodate the new pipes



Case Studies: Joint Bidding vs.Section U Cont'd

In addition to the work needed to move and protect these existing lines, the project included extensive private utility work paid for and supervised by Con Edison to upgrade the local electrical system and gas mains. Much of Con Edison's work is seasonal and can only be done at certain times of the year because of heating and cooling concerns, as well as limitations to work permit hours. Since the City work could not proceed until Con Edison's work was complete, such limitations led to periods in which little to no work could progress on site.

Schedule Summary

- Early City Sewer and Water Main Work not impacted by private utility work: Completed Fall 2015
- Original Completion Date: Winter 2017
- Current Anticipated Completion (as of August 2024): Summer 2025
- **Total Delay: 2,700+ Days**

Delay Summary

- Number of Time Extensions Granted for This Project: 11
- Number of Time Extensions Involving Con Edison: 11
- Number of Time Extensions Involving *Only* Con Edison: 7
- Last Delay Caused by Issue other than Con Edison Coordination: August 2018

Cost Summary

- Project cost at contract registration: $7.4 million
- Cost of schedule delay (project overhead costs over 92-month delay): $21.2m

SEN002169 - Section U Schedule Delay Cost

Contract Data

Construction Start Date (Per NTP Letter)	9/8/15
Original Substantial Completion Date (Per NTP Letter)	6/3/17
Actual Substantial Completion Date (Per BM)	
Projected Substantial Completion Date (Per BM)	12/31/24*
Baseline Construction Duration in CCD	635 CCDs (21 mos.)
Schedule Delay	2768 CCDs (92 mos.)
Section U Delay	2768 CCDs (92 mos.)
Actual / Projected Construction Duration	3402 CCDs (113 mos.)

Contractor: Difazio Industries, LLC
Borough: Manhattan
Project ID: SEN002169
Registration #: 20151427999
PIN: 8502014SE0042C

Contract Amt: $ 7,423,423.00
Reg. Contr Amt: $ 7,387,423.00

Project Costs During Original Contract Duration

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 16,000.00	Month	21	$ 338,666.67
Maintenance of Traffic (Source: BidScope+)	$ 4,166.67	Month	21	$ 88,194.52
Field Office (Source: BidScope+)	$ 10,000.00	Month	21	$ 221,666.67
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 76,447.63	Month	21	$ 1,618,141.42
City Personnel - Burden Total Budgeted Cost / Original Duration	$ 71,149.61	Month	21	$ 1,506,000.00
MTA Force Account ** (Source: CDS)	$ 52,200.00	Month	21	$ 1,104,900.00
				$ 4,867,569.27

Schedule Delay Cost

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 16,000.00	Month	92	$ 1,476,266.67
Maintenance of Traffic (Source: BidScope+)	$ 4,166.67	Month	92	$ 384,444.75
Field Office (Source: BidScope+)	$ 10,000.00	Month	92	$ 922,666.67
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 76,447.63	Month	92	$ 7,053,567.64
City Personnel - Burden Total Budgeted Cost / Original Duration	$ 71,149.61	Month	92	$ 6,564,737.01
MTA Force Account ** (Source: CDS)	$ 52,200.00	Month	92	$ 4,816,320.00
SCHEDULE DELAY COST	**$ 229,963.90**			**$ 21,218,002.73**

* Data current as of June 2024.

Case Studies: Joint Bidding vs. Section U Cont'd

Joint Bidding 2.0 Case Study: Downtown Far Rockaway Business District Improvements (Project ID SANDR02)

This project in Far Rockaway, Queens, was delivered ahead of schedule despite utility interference. It utilized Joint Bidding, as well as early completion incentives.

The Downtown Far Rockaway Business District Improvements project originated as a joint DEP and DOT project to reduce the flooding risk from heavy rain while adding critical safety and public realm improvements. The $114 million project included 25 blocks of stormwater drainage upgrades, with new sidewalks, planting, and green infrastructure. It also included a new 15,000-square-foot pedestrian plaza and community space.

The project required significant coordination including with two transportation systems (MTA and Nassau County Inter-County Express), numerous local businesses, entities responsible for adjacent construction projects (including the DDC-managed new Far Rockaway Library), and communities related to several new affordable housing developments by NYC Housing Preservation and Development (HPD) and the Economic Development Corporation (EDC).

The contract was originally estimated at $139 million with a duration of seven years, then promised to the community in three years, and ultimately delivered three months ahead of that promised three-year schedule and $25 million under budget. This success was attributable both to Joint Bidding and the incorporation of early completion incentives into the construction contract, which award the contractor a set amount of additional compensation for each day of time savings over the contract duration.

Joint Bidding impacted the project schedule as follows:

- Facilitated prompt payments to the contractor for utility work (under Joint Bidding, payments for both City work and utility work flow through DDC)
- Minimized/eliminated cost negotiations between the contractor and utility companies, helping to keep work moving
- Minimized disputes between the contractor and utility companies overall
- Improved overall coordination between the utility companies, DDC and the contractor on site.

One specific example occurred during tree planting on Beach 20th Street. The contractor discovered an unmarked Verizon duct beneath the location where the trees were supposed to be planted. On a Section U job, an issue like this would typically take months to resolve while the contractor and utility company engage in private negotiations outside of DDC. With Joint Bidding, the ducts were quickly identified as Verizon's and the work was carried out using already identified utility pay items in the contract. The removal of the interference and tree planting at this location was ultimately completed in two weeks.

Downtown Far Rockaway Business District Infrastructure Improvements, Before and After

Conclusion

Given the complexity of New York City's underground environment, building essential infrastructure is challenging no matter the delivery model. In practice, Joint Bidding projects experience many of the same challenges and delays as Section U projects. Projects like the Worth Street reconstruction, included in this report, or the Greenwich Street reconstruction currently ongoing, demonstrate that utility-driven schedule delays impact Joint Bidding projects.

However, based on the analysis included in this report, a coordinated approach to street construction, such as Joint Bidding, provides several advantages over Section U. First, Joint Bidding projects were found to experience significantly shorter delay durations, returning streets to the public faster and more reliably, with less schedule variation. These time savings, combined with the financial benefit to the City from cost-sharing agreements, are estimated to save approximately $5.4 million per project. On an annual basis, Joint Bidding is estimated to save the City over $107 million, a noteworthy value to the City of New York and City taxpayers.

This analysis provides a data-driven foundation for the City to consider coordinated street construction as an effective methodology for future projects, yielding more efficient use of resources and improved project outcomes.


Worth St

Appendix

Schedule Performance and Associated Costs

- Time Extensions Due to Private Utility Interference — Joint Bid
- Time Extensions Due to Private Utility Interference — Section U
- Cost Impact of Utility Work-Related Schedule Delay on Section-U Projects
- Section U Schedule Delay Cost — By Project

Cost-Sharing Revenue

- Estimate of Revenue from Private Utilities based on Cost Sharing Agreement

Unit Cost Analysis

- Correlation between Unit Price of DDC Work Items and Contract Type

M/WBE Utilization

- M/WBE Compliance

NOTE: The data contained in this appendix and throughout the report is current to June 2024, unless othewise noted.

Time Extensions Due to Private Utility Interference - Joint Bid

Project ID	Project Name	Borough	Construction Start Date (NTP)	Original Substantial Completion Date (NTP)	Actual Construction Completion Date (BM)	Projected Construction Completion Date (BM)	Schedule Delay	Utility Related Time Extensions					Total TE due to Utility Interference in CCD	% Delay due to Utility wrt overall delay
								TE #1 CCD	TE #2 CCD	TE #3 CCD	TE #4 CCD	TE #5 CCD		
HWXP136C	Reconstruction of Grand Concourse - Ph 4	Bronx	4/15/2020	6/13/2023	6/13/2023		0						0	0%
HWXS511	Reconstruction of West Tremont Ave Step St	Bronx	4/19/2018	10/5/2019	3/23/2020		170	74	0				74	44%
SANDHW08	Reconstruction of Front Street, Manhattan	Manhattan	10/21/2019	6/16/2022		6/30/2025	1110	468	255				723	65%
SANDR02	Far Rockaway Improvements Business District	Queens	8/1/2019	7/15/2022	6/3/2022		-42						0	0%
SE810	STM & San SWR, Willet Pt Blvd Whitestone Area, Ph 2	Queens	9/17/2018	9/15/2022	6/16/2023		274	243	0	264			507	100%
SEK20067	High Level STM Sewers in Gowanus Canal Area - Ph II	Brooklyn	10/1/2018	9/29/2021	6/21/2023		630	120	99	117	363		699	100%
SEQ200529	STM & Comb Sewers in 130th Road	Queens	8/27/2018	8/25/2020	6/29/2020		-57						0	0%
SEQ200531	Storm Sewer Extension in 239 Street	Queens	9/4/2018	6/30/2020	6/26/2020		-4						0	0%
SER200151	Storm & Sanitary sewers in Amboy Road and South Railroad Ave.	Staten Island	11/5/2018	11/3/2020	11/3/2020		0						0	0%
SER200202	New Strorm Sewer Extension in Eagan Avenue	Staten Island	11/4/2019	5/31/2022	6/30/2022		30	0					0	0%
HWMWTCA7F	Reconstruction of Warren & John Sts	Manhattan	1/9/2017	7/7/2019	7/28/2020		387	244	115	31	387		777	100%
HWMWTCA7E	Reconstruction of WORTH ST	Manhattan	4/11/2016	4/10/2019	4/26/2022		1112	713	184	81			978	88%
BEDA001	Accelerated Dist. WM Repl. & Sewer Rehab.	Brooklyn	10/19/2015	10/17/2016	10/16/2017		364						0	0%
HWQ1184A	James Court Roadway and Bulkhead	Queens	3/18/2019	9/12/2020	6/5/2020		-99						0	0%
QED1023B	Replacement of Trunk & Dist. WM in Cypress Ave.	Queens	12/17/2018	6/13/2022	12/30/2022		200	0					0	0%
SANDHW12	Reconstruction of Edgmere	Queens	8/6/2018	8/4/2021	9/28/2021		55	50	0				50	91%
SANDR03	Jamaica Bay Greenway-Canarsie Pier	Brooklyn	7/18/2022	6/11/2024	6/30/2023		-347						0	0%
SER002323	Sanitary and Storm Sewers in Morningstar Road	Staten Island	12/30/2018	6/26/2020	6/12/2020		-14						0	0%
						Sum	**3769**						**3808**	**101%**
						Average Delay Days	**209.4**						**211.6**	
						Average Delay Years	**0.6**						**.58**	

Time Extensions Due to Private Utility Interference & Percent of Delay Due to Utility Interference – Section U

Project ID	Project Name	Boro.	Constr. Start Date (NTP)	Original Subst. Compl. Date (NTP)	Actual Constr. Compl. Date (BM)	Projected Constr. Compl. Date (BM)	Total Sched. Delay	Utility Related Time Extensions															Total TE due to Utility Interference in CCD	% Delay due to Utility wrt overall delay
								TE #1 CCD	TE #2 CCD	TE #3 CCD	TE #4 CCD	TE #5 CCD	TE #6 CCD	TE #7 CCD	TE #8 CCD	TE #9 CCD	TE #10 CCD	TE #11 CCD	TE #12 CCD	TE #13 CCD	TE #14 CCD	TE #15 CCD		
QED-991	New water main 33 Ave	QNS	9/1/17	6/26/21	11/23/22		515	365	150														515	100%
HWP15XMTA	Complex Ped. Ramps-Transit Authority	MN & BX	3/20/17	6/17/19	10/26/23		1592	217	324	333	360	240											1474	93%
HWP15XMCL	Simple, Complex & Landmarks Ped. Ramps	MN & BX	3/20/17	9/15/19		12/20/24	1923	248	0	121	142	120	0	0	120	122	84	120	123	0	0	173	1373	71%
SEN002169	Recon of Comb SWR & WM in York Ave	MN	9/8/15	6/3/17		12/31/24	2768	40	154	186	243	256	223	220	204	246	241	212					2225	80%
HWPEDSF5	Multi-Site Pedestrian Safety Improvements	CW	1/4/21	1/3/24		6/1/24	150																0	0%
HWMP2020	Reconstruction of Gansevoort Area	MN	3/9/15	6/5/17	6/30/22		1851	0	148	243	0	0	92	181	137	167	0	1608					2576	100%
HWK1048C	Kent Avenue South	BK	5/21/18	11/16/19	8/29/21		652	122	214	233													569	87%
SE-807	STM & SAN Sewers in 20 Ave B/T126 St & US Bulkhead Stn	QNS	1/2/17	6/29/21		5/30/24	1066	720	0	0													720	68%
HED-569	Installation of Trunk main Bainbridge Ave., ETC.	BX	5/23/16	11/18/18		5/31/24	2021	365	365	602													1332	66%
HWK1048B	Flushing Avenue-Brookyln Waterfront Greenway	BK??	8/10/15	6/4/17	6/2/22		1824	665	60	298	112	192	182	161	1824								3494	100%
HWPEDSF4	Multi-Site Pedestrian Safety	CW	2/5/19	6/3/22		12/27/24	938	189	384														573	61%
SER200245	New STRM SWR&WM Replacement in Acacia Ave, Etc.,	SI	2/12/18	2/12/20	5/31/21		474	0	0	0													0	0%
SEQNS002	Sewer When&Where Contract in SE Queens	QNS	9/28/18	3/26/20	6/23/20		89																0	0%
SEN002157	Replmt of Comb Sewer In E. 26 St B/T 1st Ave. & FDR	MN	10/16/17	10/14/20	6/1/22		595	184	122	0	0	0											306	51%
SEQ002709	Combined Sewer 45th Avenue, Queens	QNS	3/12/18	6/9/19	6/9/19		0																0	0%
SER002326	Storm and Sanitary Sewers Wardwell Ave.	SI	7/10/17	7/9/19	12/11/19		155																0	0%
SEQ200569	Storm Sewers 204 St.	QNS	9/5/17	9/4/18	7/30/19		329	0	0	0													0	0%
BED777	Trunk & Dist. WM Replmt in Leonard Street	BK	11/28/16	11/27/19	9/9/20		287	0	287														287	100%
BED798	Replacement of 72" Trunk WM in Flatbush Ave	BK	1/15/18	7/12/21	3/12/24		974	523	60														583	60%
					Average Delay Days		**958.1**																**843.5**	**33%**
					Average Delay Years		**2.6**																**2.31**	

Cost Impact of Utility Work Related Schedule Delay on Section - U Projects

						Average	$ 199,698	$ 7,662,819	76%	$	**5,826,714**
						Total	$ 3,794,262	$ 145,593,557	76%	$	110,707,572

Section U Project ID	Project Name	Borough	Construction Start Date (NTP)	Original Substantial Completion Date (NTP)	Actual Construction Completion Date (BM)	Projected Construction Completion Date (BM)	Schedule Delay	Monthly Cost impact of Schedule Delay ($)	Cost Impact of Schedule Delay ($)	Delay attributable to Section U	Cost Impact of Schedule Delay Related to Utilities ($)
QED-991	New Water Main in 33 Ave	Queens	9/1/2017	6/26/2021	11/23/2022		515	$ 207,219	$ 3,557,258	100%	$ 3,557,258
HWP15XMTA	Complex Ped.Ramps - Transit Authority	Manhattan & Bronx	3/20/2017	6/17/2019	10/26/2023		1592	$ 80,878	$ 4,291,901	93%	$ 3,973,782
HWP15XMCL	Simple, Complex & Landmarks Ped. Ramps	Manhattan & Bronx	3/20/2017	9/15/2019		12/20/2024	1923	$ 155,870	$ 9,991,296	71%	$ 7,133,671
SEN002169	Recon of Comb SWR & WM in York Ave	Manhattan	9/8/2015	6/3/2017		12/31/2024	2768	$ 229,964	$ 21,218,003	80%	$ 17,055,656
HWPEDSF5	Multi-Site Pedestrian Safety Improvements at Various Locations	City Wide	1/4/2021	1/3/2024		6/1/2024	150	$ 329,530	$ 1,647,652	0%	$-
HWMP2020	Reconstruction of Gansevoort Area	Manhattan	3/9/2015	6/5/2017	6/30/2022		1851	$ 334,422	$ 20,633,824	100%	$ 20,633,824
HWK1048C	Kent Avenue South	Brooklyn	5/21/2015	11/16/2019	8/21/2021		652	$ 145,715	$ 3,166,883	87%	$ 2,763,737
SE-807	STM & SAN Sewers in 20 Ave B/T126 St & US Bulkhead Stn	Queens	1/2/2017	6/29/2021		10/31/2024	1220	$ 353,291	$ 14,367,176	68%	$ 9,703,908
HED-569	Installation of Trunk Main in Bainbridge Ave., ETC.	Bronx	5/23/2016	11/18/2018		11/15/2024	2189	$ 342,532	$ 24,993,393	66%	$ 16,472,637
HWK1048B	Flushing Avenue - Brookyln Waterfront Greenway	Brooklyn	8/10/2018	6/4/2017	6/2/2022		1824	$ 290,842	$ 17,683,215	100%	$ 17,683,215
HWPEDSF4	Multi-Site Pedestrian Safety	Citywide	2/5/2019	6/3/2022		12/27/2024	938	$ 159,758	$ 4,995,086	61%	$ 3,051,369
SER200245	New STRM SWR& WM Replacement in Acacia Ave, Etc.	Staten Island	2/12/2018	2/12/2020	5/31/2021		474	$ 190,698	$ 3,013,026	0%	$ -
SEQNS002	Sewer When & Where Contract	Queens	9/28/2018	3/26/2020	6/23/2020		89	$ 103,182	$ 306,106	0%	$ -
SEN002157	Replmt of Comb Sewer In E. 26 St B/T 1st AV & FDR	Manhattan	10/16/2017	10/14/2020	6/1/2022		595	$ 194,815	$ 3,863,82	51%	$ 1,987,112
SEQ002709	Combined Sewer in 45th Avenue	Queens	3/12/2018	6/9/2019	6/9/2019		0	$ 62,261	$0	0%	$ -
SER002326	Storm and Sanitary Sewers in Wardwell Avenue	Staten Island	7/10/2017	7/9/2019	12/11/2019		155	$ 42,220	$ 218,138	0%	$ -
SEQ200569	Storm Sewers in 204 Street	Queens	9/5/2017	9/4/2018	7/30/2019		329	$ 141,205	$ 1,548,550	0%	$ -
BED777	Trunk & Dist. WM Replmt in Leonard Street	Brooklyn	11/28/2016	11/27/2019	9/9/2020		287	$ 168,467	$ 1,611,668	100%	$ 1,611,668
BED798	Replacement of 72" Trunk WM in Flatbush Ave	Brooklyn	1/15/2018	7/12/21	3/12/24		974	$ 261,393	$ 8,486,553	60%	$ 5,079,733

QED-991 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	9/1/17
	Original Substantial Completion Date (Per NTP Letter)	6/26/21
	Actual Substantial Completion Date (Per BM)	11/23/22
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	1395 CCDs (47 mos.)
	Schedule Delay	515 CCDs (17 mos.)
	Section U Delay	515 CCDs (17 mos.)
	Actual / Projected Construction Duration	1909 CCDs (64 mos.)

Contractor: C.A.C Industries, Inc
Borough: Queens
Project ID: QED-991
Registration #: 20171413171
PIN: 8502015WM0020C

Contract Amt: $ 62,521,672.41
Reg. Contr Amt: $ 62,521,672.41

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	47	$ 372,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 7,703.13	Month	47	$ 358,195.31
	Field Office (Source: BidScope+)	$ 10,000.00	Month	47	$ 465,000.00
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 116,655.58	Month	47	$ 5,424,484.39
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 64,860.22	Month	47	$ 3,016,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	47	$
					$ 9,635,679.71

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	17	$ 137,333.33
	Maintenance of Traffic (Source: BidScope+)	$ 7,703.13	Month	17	$ 132,236.98
	Field Office (Source: BidScope+)	$ 10,000.00	Month	17	$ 171,666.67
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 116,655.58	Month	17	$ 2,002,587.43
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 64,860.22	Month	17	$ 1,113,433.69
	MTA Force Account ** (Source: CDS)	$	Month	17	$
	SCHEDULE DELAY COST	**$ 207,218.92**			**$ 3,557,258.10**

HWPEDSF4 - Section U Schedule Delay Cost

Contract Data

Construction Start Date (Per NTP Letter)	2/5/19
Original Substantial Completion Date (Per NTP Letter)	6/3/22
Actual Substantial Completion Date (Per BM)	
Projected Substantial Completion Date (Per BM)	12/27/24
Baseline Construction Duration in CCD	1215 CCDs (41 mos.)
Schedule Delay	938 CCDs (31 mos.)
Section U Delay	938 CCDs (31 mos.)
Actual / Projected Construction Duration	2152 CCDs (72 mos.)

Contractor: JLJ IV Enterprises Inc.
Borough: Citywide
Project ID: HWPEDSF4
Registration #: 20181428906
PIN: 8502016HW0043C

Contract Amt: $ 9,948,250.00
Reg. Contr Amt: $ 9,948,250.00

Project Costs During Original Contract Duration

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	41	$ 607,500.00
Maintenance of Traffic (Source: BidScope+)	$	Month	41	$
Field Office (Source: BidScope+)	$ 8,000.00	Month	41	$ 324,000.00
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 95,126.83	Month	41	$ 3,852,636.48
City Personnel - Burden Total Budgeted Cost / Original Duration	$ 28,395.06	Month	41	$ 1,150,000.00
MTA Force Account ** (Source: PIMS)	$ 13,235.65	Month	41	$ 536,043.70
				$ 6,470,180.18

Schedule Delay Cost

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	31	$ 469,000.00
Maintenance of Traffic (Source: BidScope+)	$	Month	31	$
Field Office (Source: BidScope+)	$ 8,000.00	Month	31	$ 250,133.33
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 95,126.83	Month	31	$ 2,974,298.78
City Personnel - Burden Total Budgeted Cost / Original Duration	$ 28,395.06	Month	31	$ 887,818.93
MTA Force Account ** (Source: CDS)	$ 13,235.65	Month	31	$ 413,834.56
SCHEDULE DELAY COST	**$ 159,757.54**			**$ 4,995,085.60**

HWPEDSF5 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per CDS & BM)	1/4/21
	Original Substantial Completion Date (Per CDS & BM)	1/3/24
	Actual Substantial Completion Date (Per BM)	
	Projected Substantial Completion Date (Per BM)	6/1/24
	Baseline Construction Duration in CCD	1095 CCDs (37 mos.)
	Schedule Delay	150 CCDs (5 mos.)
	Section U Delay	150 CCDs (5 mos.)
	Actual / Projected Construction Duration	1244 CCDs (41 mos.)

Contractor: JLJ IV Enterprises Inc.
Borough: Citywide
Project ID: HWPEDSF4
Registration #: 20201402806
PIN: 8502017HW0056C

Contract Amt: $ 15,854,595.00
Reg. Contr Amt: $ 15,647,969.05

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	37	$ 547,500.00
	Maintenance of Traffic (Source: BidScope+)	$ 20,571.43	Month	37	$ 750,857.20
	Field Office (Source: BidScope+)	$ 8,263.00	Month	37	$ 301,599.50
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 123,980.95	Month	37	$ 4,525,304.61
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 66,575.34	Month	37	$ 2,430,000.00
	MTA Force Account ** (Source: CDS & BM)	$ 95,139.67	Month	37	$ 3,472,598.06
					$ 12,027,859.37

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	5	$ 75,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 20,571.43	Month	5	$ 102,857.15
	Field Office (Source: BidScope+)	$ 8,263.00	Month	5	$ 41,315.00
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 123,980.95	Month	5	$ 619,904.74
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 66,575.34	Month	5	$ 332,876.71
	MTA Force Account ** (Source: CDS & BM)	$ 95,139.67	Month	5	$ 475,698.36
	SCHEDULE DELAY COST	**$ 329,530.39**			**$ 1,647,651.97**

HWP15XMTA - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	3/20/17
	Original Substantial Completion Date (Per NTP Letter)	6/17/19
	Actual Substantial Completion Date (Per BM)	10/26/23
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	820 CCDs (27 mos.)
	Schedule Delay	1592 CCDs (53 mos.)
	Section U Delay	1592 CCDs (53 mos.)
	Actual / Projected Construction Duration	2411 CCDs (80 mos.)

Contractor: C.A.C Industries, Inc.
Borough: Manhattan & The Bronx
Project ID: HWP15XMTA
Registration #: 20161429341
PIN: 8502016HW0031C

Contract Amt: $ 7,431,926.04
Reg. Contr Amt: $ 7,431,926.04

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	27	$ 218,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 1,500.00	Month	27	$ 41,000.00
	Field Office (Source: BidScope+)	$ 8,500.00	Month	27	$ 232,333.33
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$	Month	27	$
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 57,621.95	Month	27	$ 1,575,000.00
	MTA Force Account ** (Source: PIMS)	$ 5,255.57	Month	27	$ 143,652.28
					$ 2,210,652.28

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	53	$ 424,533.33
	Maintenance of Traffic (Source: BidScope+)	$ 1,500.00	Month	53	$ 79,600.00
	Field Office (Source: BidScope+)	$ 8,500.00	Month	53	$ 451,066.67
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$	Month	53	$
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 57,621.95	Month	53	$ 3,057,804.88
	MTA Force Account ** (Source: PIMS)	$ 5,255.57	Month	53	$ 278,895.64
	SCHEDULE DELAY COST	**$ 80,877.52**			**$ 4,291,900.52**

HWP15XMCL - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	3/20/17
	Original Substantial Completion Date (Per NTP Letter)	9/15/19
	Actual Substantial Completion Date (Per BM)	
	Projected Substantial Completion Date (Per BM)	12/20/24
	Baseline Construction Duration in CCD	910 CCDs (30 mos.)
	Schedule Delay	1923 CCDs (64 mos.)
	Section U Delay	1923 CCDs (64 mos.)
	Actual / Projected Construction Duration	2832 CCDs (94 mos.)

Contractor: P & T II Contracting Corp.
Borough: Manhattan & The Bronx
Project ID: HWP15XMCL
Registration #: 20171412362
PIN: 8502016HW0030C

Contract Amt: $ 5,248,065.94
Reg. Contr Amt: $ 5,248,065.94

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	30	$ 242,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 3,055.56	Month	30	$ 92,685.32
	Field Office (Source: BidScope+)	$ 10,000.00	Month	30	$ 303,333.33
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 60,111.60	Month	30	$ 1,823,385.28
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 74,703.30	Month	30	$ 2,266,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	30	$
					$ 4,728,070.60

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	64	$ 512,800.00
	Maintenance of Traffic (Source: BidScope+)	$ 3,055.56	Month	64	$ 195,861.40
	Field Office (Source: BidScope+)	$ 10,000.00	Month	64	$ 641,000.00
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 60,111.60	Month	64	$ 3,853,153.73
	City Personnel - Burden Total Budgeted Cost / Original Duration	$ 74,703.30	Month	64	$ 4,788,481.32
	MTA Force Account ** (Source: PIMS)	$	Month	64	$
	SCHEDULE DELAY COST	**$ 155,870.46**			**$ 9,991,296.45**

HWMP2020 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per CDs, BM & Time Extension #11 Letter)	3/9/15
	Original Substantial Completion Date (Per Extension #11 Letter - BM)	6/5/17
	Actual Substantial Completion Date (Per BM)	6/30/22
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	820 CCDs (27 mos.)
	Schedule Delay	1851 CCDs (62 mos.)
	Section U Delay	1851 CCDs (62 mos.)
	Actual / Projected Construction Duration	2670 CCDs (89 mos.)

Contractor: Triumph Construction Corp.
Borough: Manhattan
Project ID: HWMP2020
Registration #: 20151411071
PIN: 8502014HW0009C

Contract Amt: $ 17,196,088.29
Reg. Contr Amt: $ 17,170,162.50

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	27	$ 410,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 27,733.33	Month	27	$ 758,044.35
	Field Office (Source: BidScope+)	$ 15,000.00	Month	27	$ 410,000.00
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 230,407.97	Month	27	$ 6,297,817.85
	City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 46,280.49	Month	27	$ 1,265,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	27	$
					$ 9,140,862.20

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 15,000.00	Month	62	$ 925,500.00
	Maintenance of Traffic (Source: BidScope+)	$ 27,733.33	Month	62	$ 1,711,146.46
	Field Office (Source: BidScope+)	$ 15,000.00	Month	62	$ 925,500.00
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 230,407.97	Month	62	$ 14,216,171.75
	City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 46,280.49	Month	62	$ 2,855,506.10
	MTA Force Account ** (Source: PIMS)	$	Month	62	$
	SCHEDULE DELAY COST	**$ 334,421.79**			**$ 20,633,824.31**

HWK1048C - Section U Schedule Delay Cost

Contract Data

Construction Start Date (Per NTP Letter)	5/21/18
Original Substantial Completion Date (Per NTP Letter)	11/16/19
Actual Substantial Completion Date (Per BM)	8/29/21
Projected Substantial Completion Date (Per BM)	
Baseline Construction Duration in CCD	545 CCDs (18 mos.)
Schedule Delay	652 CCDs (22 mos.)
Section U Delay	652 CCDs (22 mos.)
Actual / Projected Construction Duration	1196 CCDs (40 mos.)

Contractor: Perfetto Contracting Co. Inc.
Borough: Brooklyn
Project ID: HWK1048C
Registration #: 20181420447
PIN: 8502016HW0065C

Contract Amt: $ 14,286,269.00
Reg. Contr Amt: $ 14,286,269.00

Project Costs During Original Contract Duration

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 20,000.00	Month	18	$ 363,333.33
Maintenance of Traffic (Source: BidScope+)	$ 5,000.00	Month	18	$ 90,833.33
Field Office (Source: BidScope+)	$ 12,078.00	Month	18	$ 219,417.00
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 72,031.99	Month	18	$ 1,308,581.15
City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 36,605.50	Month	18	$ 665,000.00
MTA Force Account ** (Source: PIMS)	$	Month	18	$
				$ 2,647,164.81

Schedule Delay Cost

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 20,000.00	Month	22	$ 434,666.67
Maintenance of Traffic (Source: BidScope+)	$ 5,000.00	Month	22	$ 108,666.67
Field Office (Source: BidScope+)	$ 12,078.00	Month	22	$ 262,495.20
REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 72,031.99	Month	22	$ 1,565,495.24
City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 36,605.50	Month	22	$ 795,559.63
MTA Force Account ** (Source: PIMS)	$	Month	22	$
SCHEDULE DELAY COST	**$ 145,715.49**			**$ 3,166,833.41**

SE-807 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	1/2/17
	Original Substantial Completion Date (Per NTP Letter)	6/29/21
	Actual Substantial Completion Date (Per BM)	
	Projected Substantial Completion Date (Per BM)	10/31/24
	Baseline Construction Duration in CCD	1640 CCDs (55 mos.)
	Schedule Delay	1220 CCDs (41 mos.)
	Section U Delay	1220 CCDs (41 mos.)
	Actual / Projected Construction Duration	2859 CCDs (95 mos.)

Contractor: EIC Associates Inc.
Borough: Queens
Project ID: SE-807
Registration #: 20171403887
PIN: 8502015SE0042C

Contract Amt: $ 108,810,695.20
Reg. Contr Amt: $ 108,810,695.20

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 12,000.00	Month	55	$ 656,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 4,160.00	Month	55	$ 227,413.33
	Field Office (Source: BidScope+)	$ 30,000.00	Month	55	$ 1,640,000.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 240,234.86	Month	55	$ 13,132,839.15
	City Personnel - Burden (Engineer in Charge) Total Budgeted Cost / Original Duration	$ 66,896.34	Month	55	$ 3,657,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	55	$
					$ 19,313,252.49

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 12,000.00	Month	41	$ 488,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 4,160.00	Month	41	$ 169,173.33
	Field Office (Source: BidScope+)	$ 30,000.00	Month	41	$ 1,220,000.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 240,230.86	Month	41	$ 9,769,551.08
	City Personnel - Burden (Engineer in Charge)** Total Budgeted Cost / Original Duration	$ 66,896.34	Month	41	$ 2,720,451.22
	MTA Force Account ** (Source: PIMS)	$	Month	41	$
	SCHEDULE DELAY COST	**$ 353,291.20**			**$ 14,367,175.63**

HED-569 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	5/23/16
	Original Substantial Completion Date (Per NTP Letter)	11/18/18
	Actual Substantial Completion Date (Per BM)	
	Projected Substantial Completion Date (Per BM)	11/15/24
	Baseline Construction Duration in CCD	910 CCDs (30 mos.)
	Schedule Delay	2189 CCDs (73 mos.)
	Section U Delay	2189 CCDs (73 mos.)
	Actual / Projected Construction Duration	3098 CCDs (103 mos.)

Contractor: EIC Associates Inc.
Borough: The Bronx
Project ID: HED-569
Registration #: 20161414557
PIN: 8502015WM0018C

Contract Amt: $ 39,402,792.00
Reg. Contr Amt: $ 39,262,417.00

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	30	$ 242,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 875.00	Month	30	$ 26,541.67
	Field Office (Source: BidScope+)	$ 10,000.00	Month	30	$ 303,333.33
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 123,687.86	Month	30	$ 3,751,865.23
	City Personnel - Burden (Engineer in Charge) Total Budgeted Cost / Original Duration	$ 198,956.04	Month	30	$ 6,035,000.00
	MTA Force Account ** (Source: PIMS)	$ 1,012.75	Month	30	$ 30,719.98
					$ 10,390,126.88

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	73	$ 583,733.33
	Maintenance of Traffic (Source: BidScope+)	$ 875.00	Month	73	$ 63,845.83
	Field Office (Source: BidScope+)	$ 10,000.00	Month	73	$ 729,666.67
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 123,687.86	Month	73	$ 9,025,091.20
	City Personnel - Burden (Engineer in Charge)** Total Budgeted Cost / Original Duration	$ 198,956.04	Month	73	$ 14,517,159.34
	MTA Force Account ** (Source: PIMS)	$ 1,012.75	Month	73	$ 73,896.75
	SCHEDULE DELAY COST	**$ 342,531.66**			**$ 24,993,393.12**

HWK1048B - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	8/10/15
	Original Substantial Completion Date (Per NTP Letter)	6/4/17
	Actual Substantial Completion Date (Per BM)	6/2/22
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	665 CCDs (22 mos.)
	Schedule Delay	1824 CCDs (61 mos.)
	Section U Delay	1824 CCDs (61 mos.)
	Actual / Projected Construction Duration	2488 CCDs (83 mos.)

Contractor: JLJ IV Enterprises Inc.
Borough: Brooklyn
Project ID: HWK1048B
Registration #: 20151428002
PIN: 8502015HW0027C

Contract Amt: $ 6,641,909.89
Reg. Contr Amt: $ 6,651,909.89

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 25,000.00	Month	22	$ 554,166.67
	Maintenance of Traffic (Source: BidScope+)	$ 10,843.75	Month	22	$ 240,369.79
	Field Office (Source: BidScope+)	$ 10,000.00	Month	22	$ 221,666.67
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 42,750.48	Month	22	$ 947,635.65
	City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 193,443.61	Month	22	$ 4,288,000.00
	MTA Force Account ** (Source: PIMS)	$ 8,804.50	Month	22	$ 195,166.52
					$ 6,447,005.30

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 25,000.00	Month	61	$ 1,520,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 10,843.75	Month	61	$ 659,300.00
	Field Office (Source: BidScope+)	$ 10,000.00	Month	61	$ 608,000.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 42,750.48	Month	61	$ 2,599,229.22
	City Personnel - Burden (Engineer in Charge)** Total Budgeted Cost / Original Duration	$ 193,443.61	Month	61	$ 11,761,371.43
	MTA Force Account ** (Source: PIMS)	$ 8,804.50	Month	61	$ 535,313.90
	SCHEDULE DELAY COST	**$ 290,842.34**			**$ 17,683,214.54**

SER200245 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per CDS & BM)	2/12/18
	Original Substantial Completion Date *	2/12/20
	Actual Substantial Completion Date (Per BM)	5/31/21
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	730 CCDs (24 mos.)
	Schedule Delay	474 CCDs (16 mos.)
	Section U Delay	474 CCDs (16 mos.)
	Actual / Projected Construction Duration	1204 CCDs (40 mos.)

Contractor: JRCruz Corp.
Borough: Staten Island
Project ID: SER200245
Registration #: 20181409168
PIN: 8502014SE0049C

Contract Amt: $ 24,898,894.54
Reg. Contr Amt: $ 24,892,894.55

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	24	$ 194,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 525.00	Month	24	$ 12,775.00
	Field Office (Source: BidScope+)	$ 9,500.00	Month	24	$ 231,166.67
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 106,056.41	Month	24	$ 2,580,705.92
	City Personnel - Burden (Engineer-in-Charge) Total Budgeted Cost / Original Duration	$ 66,616.44	Month	24	$ 1,621,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	24	$
					$ 4,640,314.25

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	16	$ 126,400.00
	Maintenance of Traffic (Source: BidScope+)	$ 525.00	Month	16	$ 8,295.00
	Field Office (Source: BidScope+)	$ 9,500.00	Month	16	$ 150,100.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 106,056.41	Month	16	$ 1,675,691.24
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 66,616.44	Month	16	$ 1,052,539.73
	MTA Force Account ** (Source: PIMS)	$	Month	16	$
	SCHEDULE DELAY COST	**$ 190,697.85**			**$ 3,013,025.97**

SEQNS002 - Section U Schedule Delay Cost

Contract Data

Construction Start Date (Per CDS & BM)	9/28/18
Original Substantial Completion Date *	3/26/20
Actual Substantial Completion Date (Per BM)	6/23/20
Projected Substantial Completion Date (Per BM)	
Baseline Construction Duration in CCD	545 CCDs (18 mos.)
Schedule Delay	89 CCDs (3 mos.)
Section U Delay	89 CCDs (3 mos.)
Actual / Projected Construction Duration	634 CCDs (21 mos.)

Contractor: Maspeth Supply Co, LLC
Borough: Queens
Project ID: SEQNS002
Registration #: 20181428711
PIN: 8502018SE0013C

Contract Amt: $ 7,359,668.99
Reg. Contr Amt: $ 7,359,668.99

Project Costs During Original Contract Duration

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 9,000.00	Month	18	$ 163,500.00
Maintenance of Traffic (Source: BidScope+)	$ 20,625.00	Month	18	$ 374,687.50
Field Office (Source: BidScope+)	$ 2,300.00	Month	18	$ 41,783.33
REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 62,394.30	Month	18	$ 1,133,496.43
City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 8,862.39	Month	18	$ 161,000.00
MTA Force Account ** (Source: PIMS)	$	Month	18	$
				$ 1,874,467.27

Schedule Delay Cost

Item	Unit Cost	Unit	Payable Quantity	Total Cost
Maintenance of Site (Source: BidScope+)	$ 9,000.00	Month	3	$ 26,700.00
Maintenance of Traffic (Source: BidScope+)	$ 20,625.00	Month	3	$ 61,187.50
Field Office (Source: BidScope+)	$ 2,300.00	Month	3	$ 6,823.33
REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 62,394.30	Month	3	$ 185,103.09
City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 8,862.39	Month	3	$ 26,291.74
MTA Force Account ** (Source: PIMS)	$	Month	3	$
SCHEDULE DELAY COST	**$ 103,181.68**			**$ 306,105.66**

SEN002157 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	10/16/17
	Original Substantial Completion Date (Per NTP Letter)	10/14/20
	Actual Substantial Completion Date (Per BM)	6/1/22
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	1095 CCDs (37 mos.)
	Schedule Delay	595 CCDs (20 mos.)
	Section U Delay	595 CCDs (20 mos.)
	Actual / Projected Construction Duration	1689 CCDs (56 mos.)

Contractor: MFM Contracting Corp.
Borough: Manhattan
Project ID: SEN002157
Registration #: 20171425759
PIN: 8502016SE0024C

Contract Amt: $ 13,224,953.13
Reg. Contr Amt: $ 13,224,953.13

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	37	$ 292,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 2,601.19	Month	37	$ 94,943.44
	Field Office (Source: BidScope+)	$ 16,395.00	Month	37	$ 598,417.50
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 66,914.60	Month	37	$ 2,442,382.99
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 100,904.11	Month	37	$ 3,683,000.00
	MTA Force Account ** (Source: PIMS)	$	Month	37	$
					$ 7,110,743.93

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	20	$ 158,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 2,601.19	Month	20	$ 51,590.27
	Field Office (Source: BidScope+)	$ 16,395.00	Month	20	$ 325,167.50
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 66,914.60	Month	20	$ 1,327,139.62
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 100,904.11	Month	20	$ 2,001,264.84
	MTA Force Account ** (Source: PIMS)	$	Month	20	$
	SCHEDULE DELAY COST	**$ 194,814.90**			**$ 3,863,828.89**

SEQ002709 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	3/12/18
	Original Substantial Completion Date (Per NTP Letter)	6/9/19
	Actual Substantial Completion Date (Per BM)	6/9/19
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	455 CCDs (15 mos.)
	Schedule Delay	0 CCDs (0 mos.)
	Section U Delay	0 CCDs (0 mos.)
	Actual / Projected Construction Duration	454 CCDs (15 mos.)

Contractor: Maspeth Supply Co., LLC
Borough: Queens
Project ID: SEQ002709
Registration #: 20171424798
PIN: 8502017SE0001C

Contract Amt: $ 1,460,333.94
Reg. Contr Amt: $ 1,460,333.94

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	15	$ 121,333.33
	Maintenance of Traffic (Source: BidScope+)	$ 1,111.11	Month	15	$ 16,851.84
	Field Office (Source: BidScope+)	$ 1,500.00	Month	15	$ 22,750.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 34,573.12	Month	15	$ 524,359.02
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 17,076.92	Month	15	$ 259,000.00
	MTA Force Account ** (Source: PIMS)	$ –	Month	15	$ –
					$ 944,294.19

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	0	$ –
	Maintenance of Traffic (Source: BidScope+)	$ 1,111.11	Month	0	$ –
	Field Office (Source: BidScope+)	$ 1,500.00	Month	0	$ –
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 34,573.12	Month	0	$ –
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 17,076.92	Month	20	$ –
	MTA Force Account ** (Source: PIMS)	$ –	Month	20	$ –
	SCHEDULE DELAY COST	**$ 62,261.16**			**$ .10**

SER002326 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	7/10/17
	Original Substantial Completion Date (Per NTP Letter)	7/9/19
	Actual Substantial Completion Date (Per BM)	12/11/19
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	730 CCDs (24 mos.)
	Schedule Delay	155 CCDs (5 mos.)
	Section U Delay	155 CCDs (5 mos.)
	Actual / Projected Construction Duration	884 CCDs (29 mos.)

Contractor: E.E. Cruz & Company, Inc.
Borough: Staten Island
Project ID: SER002326
Registration #: 20171424586
PIN: 8502016SE0025C

Contract Amt: $ 14,669,487.00
Reg. Contr Amt: $ 14,669,487.00

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	24	$ 194,666.67
	Maintenance of Traffic (Source: BidScope+)	$ 2,583.33	Month	24	$ 62,861.03
	Field Office (Source: BidScope+)	$ 5,500.00	Month	24	$ 133,833.33
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ –	Month	24	$ –
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 26,136.99	Month	24	$ 636,000.00
	MTA Force Account ** (Source: PIMS)	$ –	Month	24	$ –
					$ 1,027,361.03

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	5	$ 41,333.33
	Maintenance of Traffic (Source: BidScope+)	$ 2,583.33	Month	5	$ 13,347.21
	Field Office (Source: BidScope+)	$ 5,500.00	Month	5	$ 28,416.67
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ –	Month	5	$ –
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 26,136.99	Month	5	$ 135,041.10
	MTA Force Account ** (Source: PIMS)	$ –	Month	5	$ –
	SCHEDULE DELAY COST	**$ 42,220.32**			**$ 218,138.30**

SEQ200569 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	9/5/17
	Original Substantial Completion Date (Per NTP Letter)	9/4/18
	Actual Substantial Completion Date (Per BM)	7/30/19
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	365 CCDs (12 mos.)
	Schedule Delay	329 CCDs (11 mos.)
	Section U Delay	329 CCDs (11 mos.)
	Actual / Projected Construction Duration	693 CCDs (23 mos.)

Contractor: Maspeth Supply Co., LLC
Borough: Queens
Project ID: SEQ200569
Registration #: 20171418451
PIN: 8502016SE0035C

Contract Amt: $ 2,870,546.79
Reg. Contr Amt: $ 2,867,046.29

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	12	$ 97,333.33
	Maintenance of Traffic (Source: BidScope+)	$ 2,283.67	Month	12	$ 27,784.65
	Field Office (Source: BidScope+)	$ 2,500.00	Month	12	$ 30,416.67
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 36,918.74	Month	12	$ 449,178.03
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 84,328.77	Month	12	$ 1,026,000.00
	MTA Force Account ** (Source: CDS)	$ 7,173.98	Month	12	$ 87,283.39
					$ 1,717,996.07

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 8,000.00	Month	11	$ 87,733.33
	Maintenance of Traffic (Source: BidScope+)	$ 2,283.67	Month	11	$ 25,044.25
	Field Office (Source: BidScope+)	$ 2,500.00	Month	11	$ 27,416.67
	REI Costs Until Original Project Completion Date ** (Source: PDMS)	$ 36,918.74	Month	11	$ 404,875.54
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 84,328.77	Month	11	$ 924,805.48
	MTA Force Account ** (Source: CDS)	$ 7,173.98	Month	11	$ 78,674.62
	SCHEDULE DELAY COST	**$ 141,205.16**			**$ 1,548,549.88**

BED-777 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	11/28/16
	Original Substantial Completion Date (Per NTP Letter)	11/27/19
	Actual Substantial Completion Date (Per BM)	9/9/20
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	1095 (37 mos.)
	Schedule Delay	287 (10 mos.)
	Section U Delay	287 (10 mos.)
	Actual / Projected Construction Duration	1381 (46 mos.)

Contractor: Tully Construction Co., Inc.
Borough: Brooklyn
Project ID: BED-777
Registration #: 20161423898
PIN: 8502015WM0014C

Contract Amt: $ 35,747,022.90
Reg. Contr Amt: $ 35,747,022.90

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 5,000.00	Month	37	$ 182,500.00
	Maintenance of Traffic (Source: BidScope+)	$ 3,988.10	Month	37	$ 145,565.65
	Field Office (Source: BidScope+)	$ 10,000.00	Month	37	$ 365,000.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 121,306.26	Month	37	$ 4,427,678.63
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 24,465.75	Month	37	$ 893,000.00
	MTA Force Account ** (Source: PIMS)	$ 3,706.97	Month	37	$ 135,304.45
					$ 6,149,048.74

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 5,000.00	Month	10	$ 47,833.33
	Maintenance of Traffic (Source: BidScope+)	$ 3,988.10	Month	10	$ 38,152.82
	Field Office (Source: BidScope+)	$ 10,000.00	Month	10	$ 95,666.67
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 121,306.26	Month	10	$ 1,160,496.59
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 24,465.75	Month	10	$ 234,055.71
	MTA Force Account ** (Source: PIMS)	$ 3,706.97	Month	10	$ 35,463.36
	SCHEDULE DELAY COST	**$ 168,467.09**			**$ 1,611,668.48**

BED798 - Section U Schedule Delay Cost

Contract Data		
	Construction Start Date (Per NTP Letter)	1/15/18
	Original Substantial Completion Date (Per NTP Letter)	7/12/21
	Actual Substantial Completion Date (Per BM)	3/12/24
	Projected Substantial Completion Date (Per BM)	
	Baseline Construction Duration in CCD	1275 (43 mos.)
	Schedule Delay	974 (32 mos.)
	Section U Delay	974 (32 mos.)
	Actual / Projected Construction Duration	2248 (75 mos.)

Contractor: Triumph Construction Corp
Borough: Brooklyn
Project ID: BED798
Registration #: 20171427500
PIN: 8502017WM0008C

Contract Amt: $ 37,432,647.57
Reg. Contr Amt: $ 37,432,647.57

Project Costs During Original Contract Duration	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 20,000.00	Month	43	$ 850,000.00
	Maintenance of Traffic (Source: BidScope+)	$ 15,791.67	Month	43	$ 671,145.98
	Field Office (Source: BidScope+)	$ 20,000.00	Month	43	$ 850,000.00
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 127,633.98	Month	43	$ 5,424,444.29
	City Personnel - Burden (Engineer-in-Charge) ** Total Budgeted Cost / Original Duration	$ 75,788.24	Month	43	$ 3,221,000.00
	MTA Force Account ** (Source: PIMS)	$ 2,178.91	Month	43	$ 92,603.73
					$ 11,109,194.00

Schedule Delay Cost	Item	Unit Cost	Unit	Payable Quantity	Total Cost
	Maintenance of Site (Source: BidScope+)	$ 20,000.00	Month	32	$ 649,333.33
	Maintenance of Traffic (Source: BidScope+)	$ 15,791.67	Month	32	$ 512,702.89
	Field Office (Source: BidScope+)	$ 20,000.00	Month	32	$ 649,333.33
	REI Costs Until Original Project Completion Date ** (Source: BM Contract Module)	$ 127,633.98	Month	32	$ 4,143,849.99
	City Personnel - Burden (Engineer-in-Charge)** Total Budgeted Cost / Original Duration	$ 75,788.24	Month	32	$ 2,460,591.37
	MTA Force Account ** (Source: PIMS)	$ 2,178.91	Month	32	$ 70,741.99
	SCHEDULE DELAY COST	**$ 261,392.80**			**$ 8,486,552.90**

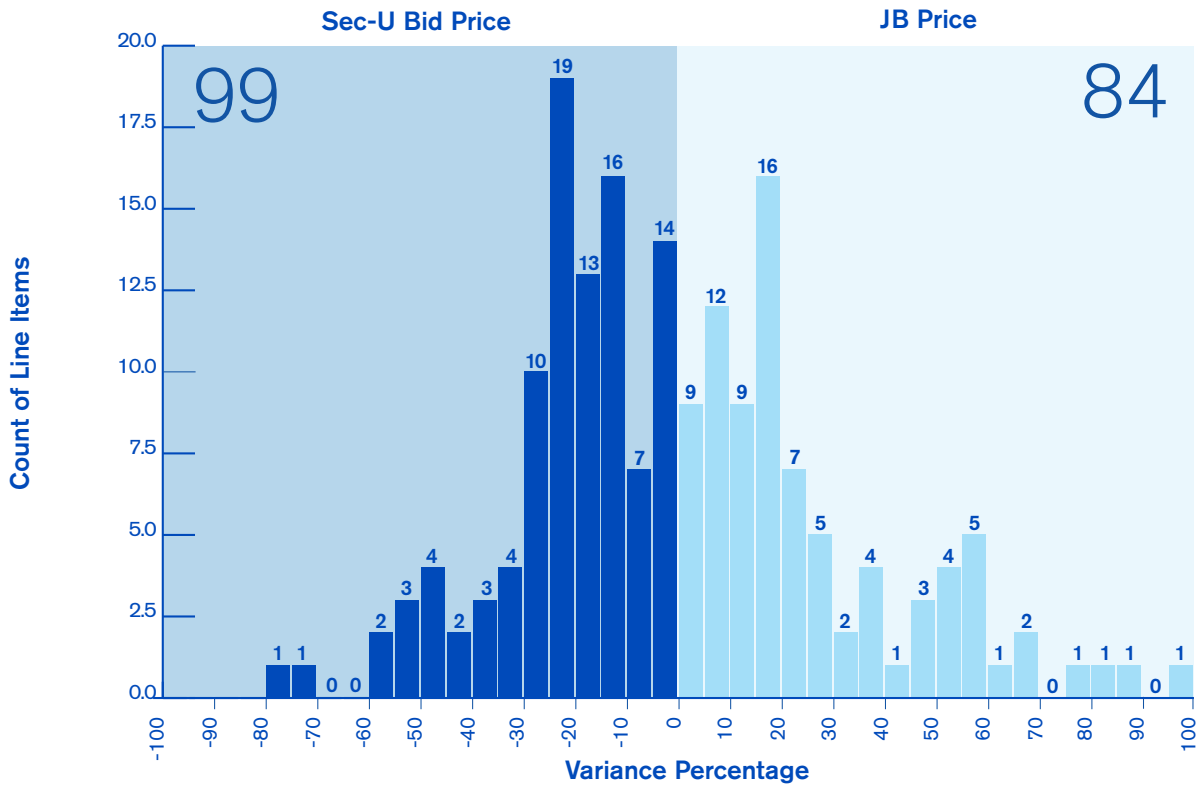
Estimate of Revenue from Private Utlities Based on Cost Sharing Agreement for Project Overhead - Joint Bid

	Total	$ 586,374,753	$ 62,232,489	$ 20,975,458	$ 4,004,394	$ 87,212,341	14.9%	20%	3.0%	$ 17,442,468
	Average Per Project	$ 34,492,633	$ 3,660,735	$ 1,747,955	$ 333,700	$ 5,130,138	14.9%	20%	3.0%	$ **1,026,028**
JB Projects	**Project Description**	**Current Registered Amount**	**Billed to ConED**	**Billed to Verizon**	**Billed to ATT, TWC**	**Total**	**Utility Share of Cons Cost**	**REI + Indirect Construction Cost/ CONS Cost**	**Utility Revenue CONS Cost**	**Utility Revenue**
HWXP136C	Reconstruction of Grand Concourse svc. roads incl. resurfacing and median widening	$ 64,796,618	$ 321,001	$ 637,811	$ -	$ 958,812	1.5%	20%	0.3%	$ 191,762.40
HWXS511	Reconstruction of West Tremont Ave. step street	$ 5,672,564	$ 839,728	$ 90,237	$ -	$ 929,965	16.4%	20%	3.3%	$ 185,993.00
SANDR02	Far Rockaway urban design and streetscape reconstruction	$ 118,582,130	$ -	$ 1,974,228	$ -	$ 1,974,228	1.7%	20%	0.3%	$ 394,845.60
SE810	Sewer and water main installation in Flushing	$ 85,814,111	$ 3,940,184	$ 1,909,523	$ 139,004	$ 5,988,711	7.0%	20%	1.4%	$ 1,197,742.20
SEK20067	Storm sewer and water main installation in Gowanus - 3rd Avenue and side streets	$ 30,338,364	$ 4,540,080	$ 1,864,844	$ 130,210	$ 6,535,134	21.5%	20%	4.3%	$ 1,307,026.80
SEQ200529	Storm sewer construction and green infrastructure upgrades in Rosedale	$ 11,099,000	$ 129,926	$ 107,050	$ -	$ 236,976	2.1%	20%	0.4%	$ 47,395.20
SEQ200531	Construction of Storm and sanitary sewer extensions and water mains in Bellerose	$ 8,198,409	$ 43,495	$ 24,141	$ -	$ 67,636	0.8%	20%	0.2%	$ 13,527.20
SER200151	New storm and sanitary sewer extension and water main replacement in Bay Terrace, SI	$ 8,619,007	$ 118,485	$ 68,574	$ 31,613	$ 218,672	2.5%	20%	0.5%	$ 43,734.40
SER200202	Extension and upgrades to storm and sanitary sewers and water mains in Annadale and Great Kills, SI	$ 25,450,457	$ 364,137	$ -	$ -	$ 364,137	1.4%	20%	0.3%	$ 72,827.40
HWMWTCA7E	Reconstruction of Worth St. including roadway and sewer work in lower Manhattan	$ 105,390,557	$ 36,092,758	$ 12,377,386	$ 3,703,567	$ 52,173,711	49.5%	20%	9.9%	$ 10,434,742.20
HWMWTCA7F	Reconstruction of Warren St. and John St. in lower Manhattan	$ 27,033,203	$ 12,677,601	$ 1,921,664	$ -	$ 14,599,265	54.0%	20%	10.8%	$ 2,919,853.00
BEDA001	Water main and sewer rehab/replacement in various Brooklyn neighborhoods	$ 12,016,467	$ -	$ -	$ -	$ -	0.0%	20%	0.0%	$ -
HWQ1184A	Roadway resurfacing and bulkhead reconstruction on James Court in Hamilton Beach	$ 1,346,361	$ $450	$	$	$ 450	0.0%	20%	0.0%	$ 90.00
QED1023B	Distribution water main and trunk replacement in Cypress Ave. and Troutman & Himrod Sts. in Ridgewood	$ 46,131,950	$ 3,050,488	$	$	$ 3,050,488	6.6%	20%	1.3%	$ 610,097.56
SANDHW12	Reconstruction of Rockaway Beach Blvd. and installation of storm and sanitary sewers in Edgemere	$ 25,944,673	$ -	$	$	$ -	0.0%	20%	0.0%	$ -
SANDR03	Construction of 2-way bicycle path connecting Shore Pkwy. and Jamaica Bay Greenway	$ 3,356,710	$ -	$	$	$ -	0.0%	20%	0.0%	$ -
SER002323	Water main and storm/sanitary sewer construction in Staten Island's North Shore neighborhoods	$ 6,584,173	$ 114,156	$	$	$ 114,156	1.7%	20%	0.3%	$ 22,831.27

Unit Cost Analysis

Correlation Between Unit Price of DDC Work Items and Contract Type

183	62	171	-2%	99	84
# of Line Items	# of JB Projects	# of Sec U Projects	Variance % PSO	# of Line Items Sec U is Higher	# of Line Items JB is Higher



M/WBE Compliance

		Contract Count	Sum of Contract Awards	Amount Paid to M/WBEs	% PAID to M/WBEs
Joint Bidding		**13**	**$ 365,658,867**	**$ 50,051,706**	**14%**
COMPLIANT/ EXCEEDED GOAL		8	$ 144,713,085	$ 38,827,752	27%
	Halcyon Construction Corp.	1	$ 46,131,950	$ 5,654,197	12%
	Laws Construction Corp.	1	$ 30,338,364	$ 3,082,845	10%
	ADC Construction LLC	1	$ 12,016,467	$ 844,823	7%
	Huicatao Corp*	1	$ 25,450,457	$ 25,015,263	98%
	Inter Contracting Corp.	1	$ 11,180,465	$ 1,784,872	16%
	Inter Laperuta JV	1	$ 8,250,255	$ 1,286,696	16%
	Laws Construction Corp.	2	$ 11,345,129	$ 1,159,057	10%
NONCOMPLIANT		5	$ 220,945,782	$ 11,223,954	5%
	DiFazio Ind LLC	1	$ 8,619,007	$ 0	0%
	J Anthony Enterprises Inc.	1	$ 1,346,361	$ 86,875	6%
	P&T II Contracting Corp.	1	$ 85,814,111	$ 6,052,641	7%
	Perfetto Enterprises Company Inc.	1	$ 6,584,173	$ 426,611	6%
	Restani Construction Corp.	1	$ 118,582,130	$ 4,657,828	4%
Section U		**16**	**$ 445,589,634**	**$ 41,940,287**	**9%**
COMPLIANT/ EXCEEDED GOAL		8	$ 292,911,923	$ 36,753,319	13%
	Maspeth Supply Co LLC	2	$ 4,183,893	$ 267,376	6%
	CAC Industries Inc.	2	$ 87,429,895	$ 8,705,270	10%
	EIC Associates Inc.	2	$ 170,117,674	$ 23,062,849	14%
	JR Cruz Corp.	1	$ 24,951,543	$ 4,022,718	16%
	Maspeth Supply Co. LLC	1	$ 6,228,918	$ 695,106	11%
NONCOMPLIANT		8	$ 152,677,710	$ 5,186,969	3%
	DiFazio Ind LLC	1	$ 12,661,985	$ 3,325	0%
	E.E. Cruz & Company Inc.	1	$ 16,689,389	$ 0	0%
	JLJ IV Enterprises Inc.	2	$ 25,923,760	$ 1,390,061	5%
	MFM Contracting Corp.	1	$ 13,539,036	$ 194,610	1%
	P&T II Contracting Corp.	1	$ 5,306,159	$ 0	0%
	Triumph Construction Corp.	1	$ 42,270,061	$ 2,124,441	5%
	Tully Construction Co. Inc.	1	$ 36,287,320	$ 1,474,532	4%
GRAND TOTAL		**29**	**$ 811,248,500**	**$ 91,991,994**	**11%**

*Indicates contractor is a City-certified M/WBE