



Appendix 1.11 Capital Cost Estimate

PREPARED FOR:

NY Metropolitan Transportation Authority

PREPARED BY:

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Note: the costs contained in the following workbooks reflect the total expected capital cost for the project based on conceptual-level design, and include construction costs, fleet procurement and related markups. This cost is subject to change based on further design and engineering efforts.

1 Introduction

This Technical Memorandum is part of the work of Task 14 Planning and Environmental Linkages (PEL) for the Interborough Express Project (IBX) being prepared by AECOM/Infinite Consulting Corp (ICC). The computation of each alternative's capital cost includes unit prices for all major items of work and estimated quantities for those items, including rolling stock and support equipment.

According to the Association for Advancement of Cost Engineering (AACE), cost estimating is the process used to quantify, cost, and price the resources required for the scope of a project. The cost estimate is the most probable cost for a project based upon its scope. The cost estimate is important in that it is the backbone utilized by stakeholders to generate a project budget. A good cost estimate is necessary for the success of a project. The cost estimate is derived by utilizing a variety of means and methods outlined in this report. Eventually the cost estimate will be refined as more detailed specifications are developed.

2 Project Information

2.1 Project Overview

ICC has been employed by AECOM to provide an order of magnitude estimate for the Interborough Express Project. This study is analyzing the feasibility of adding a new 14-mile public transit line from Bay Ridge in Brooklyn, NY, to Jackson Heights in Queens, NY. Three separate modes of transit have been considered: Bus Rapid Transit (BRT), Light Rail Transit (LRT), and Conventional Rail (CR).

2.2 Design Basis

The project's capital cost estimate was developed and refined based on an in-depth review of the scope with the New York City Metropolitan Transportation Authority (NYC MTA) and AECOM design team. Modifications to the capital cost estimate have been made based on the following design changes

- BRT and LRT are no longer on elevated guideways on the Brooklyn side of the project and are now running at-grade with the existing freight tracks for the majority of the corridor, like the CR alternative.
- For all alternatives, the costs required to reconstruct existing bridges that run over the planned guideway have been added. This work involves relocation of the bridge abutment to widen the passageway beneath the bridge. This will allow the construction of two passenger tracks/lanes and two freight tracks. This widening occurs at 47 locations.
- The station count has been adjusted to the following 19 locations traveling from Brooklyn to Queens:
 1. Brooklyn Army Terminal
 2. 4th Avenue
 3. 8th Avenue
 4. New Utrecht Avenue
 5. McDonald Avenue
 6. East 16th Street
 7. Flatbush Avenue

8. Utica Avenue
9. Remsen Avenue
10. Linden Blvd
11. Livonia Avenue
12. Sutter Avenue
13. Atlantic Avenue
14. Wilson Avenue
15. Myrtle Avenue
16. Metropolitan Avenue
17. Eliot Avenue
18. Grand Avenue
19. Roosevelt Avenue

- The construction of all the alternatives will require the construction of guideway in an existing embankment. This is the case when the guideway is below street grade or above street grade. This estimate includes the cost for construction of retaining walls along the edge of the right of way and the required excavation or fill to get to the necessary grade.

Additionally, the estimating team was kept in constant contact with the design team and attended recurring conference calls to review design updates.

2.3 Estimate Classification

The AACE breaks estimates out into 5 classes depending on the level of design. This phase of the IBX project is considered to be in the Study Phase, having a level of project definition between 1% and 15%. As a result, this estimate is considered a Class 4 estimate.

3 Cost Basis

3.1 Estimate Organization

3.1.1 Format Merger

The OOM estimate for the project alternatives will be established using the Federal Transit Administration (FTA) Standard Cost Categories (SCC) to facilitate consistency in the review of the potential costs for various project alternatives. In 2005, FTA implemented the SCC to establish a consistent format for the reporting, estimating, and managing of capital costs for new projects.

To best serve the estimating department at NYC MTA who will be reviewing this submission, ICC has worked to merge the standard NYC MTA estimating template with the FTA SCC. The MTA template has been followed in the detailed estimate backups (**Appendix A**). These have been provided to show what went into the unit prices for each standard FTA item. Using this format will allow the MTA to use a common baseline from which to view the project when compared to similar projects.

3.1.2 FTA Standard Cost Categories

3.1.2.1 Direct Construction Costs

- 10 Guideway & Track Elements
- 20 Station, Stops, Terminals, Intermodal
- 30 Support Facilities: Yards, Shop, Administration Buildings
- 40 Sitework and Special Conditions

- 50 Systems

3.1.2.2 Indirect Cost

- 60 Right of Way, Land, Existing Improvements
- 70 Vehicles
- 80 Professional Services

3.1.3 Estimate Markups

Markups have been modified for this estimate based on conversations that the AECOM/ICC team had with the estimating teams from NYC MTA, Long Island Rail Road (LIRR) and Metro-North Railroad (MNR). The following markups are the agreed-upon markups applicable to this project:

- Section 40 Sitework & Special Conditions
 - General Conditions
 - General Requirements – 15%
 - Engineering Contingency – 15%
 - Contractor Markups
 - Contractor Design Costs – 8%
 - Overhead – 5%
 - Profit – 10%
 - Profit on Subcontractor Work – 2.5%
 - Performance Bond – 1%
- Section 80 Professional Services
 - Engineering – 5%
 - Construction Consultant Management - 4.27%
 - Agency Management
 - During Construction (Admin & Management) – 3.65%
 - Agency Force Account – 7%
 - Third Party Utilities – 1%
- Section 90 Contingency
 - Allowance for Indeterminates – 20%

3.2 Estimating Approach

As mentioned in **Section 2.3**, this estimate is considered a Class 4 estimate. As a result, it will use two separate approaches when developing costs for the project: Bottom-Up and Top-Down.

3.2.1 Bottom-Up Estimating

Where sufficient design detail is provided, the bottom-up approach will be used. Quantity take-offs will be performed to quantify individual work items. Items will then be paired with appropriate unit prices consisting of three parts: Labor, Material, and Equipment. Various items that can be paired together will then be grouped into assemblies. These assemblies will provide unit prices for each major line item of work as required by the FTA standard.

3.2.2 Top-Down Estimating

When sufficient design detail is not provided the top-down approach will be used. Top-down estimating is a parametric approach. Compiled data from similar projects will be utilized to best determine unit costs for various aspects of the projects.

3.3 Estimate / Data Resources

The following data sources were utilized to develop unit prices.

3.3.1 FTA Capital Cost Database 2016 Version

The FTA cost database includes cost data from 46 projects completed across the United States. Projects have been organized into the following categories:

- BRT
 - Aerial
 - At-Grade
 - Underground
- CR
 - At-Grade
- Heavy Rail Transit
 - Aerial
 - At-Grade
 - Underground
- LRT
 - Aerial
 - At-Grade
 - Underground
- Street Trolley
 - At-Grade

All project costs have been broken out into the Standard FTA cost categories (see **Section 3.1.2**). These costs have been provided in two forms:

- Actual unit cost at date of construction
- Adjusted unit cost to a national average in the year 2020.

All unit prices were further adjusted to 2020 dollars for New York City, NY. City cost indexes provided by RS Means were utilized to perform these calculations. Performing these calculations on both forms of unit prices resulted in two separate data sets for NYC 2020 Unit Prices.

Refer to **Appendix B** for more detail.

3.3.2 New York City Transit Cost Data:

Cost data was provided to the estimating team from New York City Transit. This data includes the following pricing databases:

- New York City Department of Design and Construction Pricing Database
- New York State Department of Transportation Pricing Database

This data was used as a reference when developing detailed, “Bottom Up” unit prices.

3.4 Assumptions

The following assumptions were used while developing the estimate.

- Estimate is prepared using third quarter 2020 dollars.
- No overtime or night differential was included unless specifically noted.
- Union labor will be utilized during construction.



- Necessary labor and equipment will be available during construction.
- No major weather events/impacts have been considered.
- All long-lead items can be pre-purchased to meet schedule requirements.
- Estimate is based on the premise that the design will meet all codes, law, ordinances, rules, and regulations in effect at the time that the estimate was prepared.

The Following assumptions were used while developing Top-Down Unit Prices

- FTA Database unit prices were properly tracked during construction and accurately reflect the indicated construction costs.
- No additional markups have been included as they are assumed to be included in the unit price.

3.5 Exclusions

The following items have been excluded from the estimate:

- Installation of 2nd freight track
- Tenant relocation costs
- Third Party commissioning costs
- Hazardous Material Abatement
- Environmental Remediations

4 Work Breakdown Structure

The following Work Breakdown Structure (WBS) is similar to the SCC categories, but sub-elements have been used that will both provide project-specific information and then allow those sub-element estimates to “roll up” to the standard SCC categories. The following WBS will be used to track the direct costs for all Design Options.

Table 1: Work Breakdown Structure

10	GUIDEWAY & TRACK ELEMENTS
10.0100	Guideway: At Grade exclusive right of way
10.0200	Guideway: At Grade semi-exclusive (allows cross-traffic)
10.0300	Guideway: At grade in mixed traffic
10.0400	Guideway Structure/Support: Aerial structure
10.0410	Track Viaducts, Overpasses, Widening of Overpasses
10.0420	Bridge Over Lower Montauk
10.0500	Guideway Structure/Support: Embankment, Retained Cut/Fill
10.0510	Cut w/ Retaining Wall
10.0520	Fill w/ Retaining Wall
10.0600	Guideway Structure/Support: Underground cut & cover
10.0700	Guideway Structure/Support: Underground tunnel
10.0710	Long Tunnel From Cyprus Hill to Elliot Ave
10.0720	Roosevelt Ave Tunnel
10.0900	Track: Direct fixation
10.1000	Track: Embedded

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10.1100	Track: ballasted
10.1110	Track: ballasted (Passenger)
10.1120	Track: ballasted (Freight)
10.1200	Track: Special (switches, turnouts)
10.1210	Turnouts (Passenger)
10.1220	Turnouts (Freight)
20	STATION, STOPS, TERMINALS, INTERMODAL
20.0100	At Grade Station, Stop, Shelter, Mall, Terminal, Platform
20.0110	At Grade - Center Platform (Roosevelt Ave Terminal)
20.0120	At Grade - Side Platform
20.0200	Aerial station, stop, shelter, mall, terminal
20.0210	Aerial - Center Platform
20.0220	Aerial - Side Platforms
20.0300	Underground station, stop, shelter, mall, terminal
20.0310	Underground - Center Platform
20.0320	Underground - Side Platform
20.0400	Elevators, escalators
20.0410	Elevators
20.0420	Escalators
20.0430	Stairs
20.0500	Underground Interconnecting Tunnel
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS
30.0100	Administration Building: Office, sales, storage, revenue
30.0200	Maintenance Facility
30.0300	Yard and Yard Track
30.0400	Yard Switches, Turnouts
30.0500	Parking Lot for Bus Storage
30.0600	Vent Buildings including Finishes
30.0700	Fan Plants
40	SITWORK & SPECIAL CONDITIONS
40.0100	Demolition, Clearing, Earthwork
40.0110	Clearing and Grubbing
40.0120	Road/Track Infrastructure
40.0130	Existing Building / Structure
40.0200	Site Utilities, Utility Relocation
40.0300	Haz. mat'l
40.0400	Environmental mitigation, e.g. wetlands, historic/archeologic, parks
40.0500	Site structures including retaining walls, sound walls
40.0510	Retaining Walls
40.0520	Sound Walls
40.0530	Existing Overpass Widening / Reconstruction

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40.0540	Retrofitting East New York Tunnel
40.0600	Station access and accommodation
40.0700	Automobile, bus, van accessways including roads, parking lots
40.0710	Surface Parking Lot
40.0720	Parking Garage Above Ground
40.0730	Parking Garage below Ground
40.0800	Contractors Indirect Costs
40.0800	Contractor Mark-ups (applied to direct costs from Sections 10-50)
40.0810	Contractor Design Costs
40.0820	General Conditions (Indirect Costs)
40.0830	Contractor Overhead
40.0840	Contractor Profit / Risk
40.0850	Contactor Profit on Subcontracted Work
40.0860	Performance Bond
40.0900	Engineering Contingency (applied to direct costs from Sections 10-50 and Contractor Markups)
50	SYSTEMS
50.0100	Train control and signals
50.0200	Traffic signals and crossing protection
50.0300	Traction power supply: substations
50.0400	Traction power distribution
50.0410	Catenary
50.0420	Third Rail
50.0430	Power Distribution and Connections
50.0500	Communications
50.0510	Station Communications
50.0520	Communication Infrastructure
50.0600	Fare collection system and equipment
50.0610	Central Revenue Counting Systems
50.0620	Revenue Collection - In Station
50.0630	Revenue Collection - On Vehicle
50.0700	Central Control System
60	ROW, LAND, EXISTING IMPROVEMENTS
60.0100	Urban
60.0200	Suburban
70	VEHICLES
70.0100	Light Rail
70.0110	Unknown Articulated
70.0120	Articulated
70.0200	CR Rail
70.0210	Third Rail

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70.0220	Catenary Power
70.0300	Non-Electric
70.0310	Locomotive
70.0320	Passenger Car
70.0400	Bus (Electric Battery Powered)
70.0410	Standard 40 Foot Bus
70.0420	60' Articulated
70.0430	Unspecified
70.0500	Rapid Transit (Third Rail)
70.0600	Non-revenue vehicles
70.0610	Maintenance of Way Vehicles
70.0620	Automobiles
70.0630	Trucks
70.0700	Spare parts/ Components
80	PROFESSIONAL SERVICES
80.0100	Professional Services (applied to sections 10-50)
80.0100	Professional Services (applied to sections 10-50)
80.0110	Consultant Design (Engineering)
80.0120	Construction Consultant Management
80.0130	Agency Management Costs
80.0131	During Construction (Administration and Management)
80.0132	Agency Force Account
80.0133	Third Party Utilities
90	CONTINGENCY
90.0100	Allowance for Indeterminates (AFI)



5 Estimate Summary

Below is the Estimate summary; for more information and breakdown of the project costs please refer to the detailed estimate in **Appendix A**.

Table 2: Estimate Summary

ITEM	DESCRIPTION	QTY.	UNIT	IBX_BRT	IBX_LRT	IBX_CR
				TOTAL COST	TOTAL COST	TOTAL COST
10	GUIDEWAY & TRACK ELEMENTS			\$ 488,789,000	\$ 485,777,000	\$ 827,948,000
20	STATION, STOPS, TERMINALS, INTERMODAL			\$ 115,461,000	\$ 132,035,000	\$ 544,818,000
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS			\$ 56,900,000	\$ 106,763,000	\$ 184,959,000
40	SITWORK & SPECIAL CONDITIONS			\$ 1,767,730,000	\$ 2,065,853,000	\$ 2,592,660,000
50	SYSTEMS			\$ 15,405,000	\$ 427,762,000	\$ 434,973,000
	SUB TOTAL CONSTRUCTION COST			\$ 2,444,285,000	\$ 3,218,190,000	\$ 4,585,358,000
60	ROW, LAND, EXISTING IMPROVEMENTS			\$ 26,600,000	\$ 24,500,000	\$ 34,400,000
70	VEHICLES			\$ 40,750,000	\$ 432,250,000	\$ 485,513,000
	SUB TOTAL INC ACQUISITIONS			\$ 2,511,635,000	\$ 3,674,940,000	\$ 5,105,271,000
80	PROFESSIONAL SERVICES			\$ 511,345,000	\$ 673,245,000	\$ 959,257,000
90	CONTINGENCY			\$ 488,857,000	\$ 643,638,000	\$ 917,072,000
	TOTAL PROJECT COST (2020 Dollars)			\$ 3,511,837,000	\$ 4,991,823,000	\$ 6,981,600,000
Escalation to Q3 2027						
	Calculation 2: Escalating from Q1 2020 to Q1 2022 w/ RSMMeans National Index and then Escalating from Q1 2022 to Q3 2027 with set percentage					
	2020 to 2022: 11.65% 2022 to 2027: 3.5% per year		34.9%	\$ 4,737,672,000	\$ 6,734,259,000	\$ 9,418,584,000
	Less cost of second freight track			\$ (761,668,000)	\$ (761,668,000)	\$ (761,668,000)
	Less vehicle cost			\$ (40,750,000)	\$ (432,250,000)	\$ (485,513,000)
	Total construction cost (Q3 2027)			\$ 3,935,254,000	\$ 5,540,341,000	\$ 8,171,403,000

The base construction cost includes the cost of constructing the project and maintaining existing freight capacity. It does not include the cost of rolling stock nor incremental costs of additional bridge abutment and embankment widening to provide for two tracks between Bay Ridge and Fresh Pond Yard.



Appendix A: Detailed Cost Report

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The Metropolitan Transportation Authority
Construction and Development

Interborough Express
Planning and Environmental Linkages (PEL)
Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options

Cost Estimate

11/1/2022



The Metropolitan Transportation Authority Construction and Development
 Interborough Express
 Planning and Environmental Linkages (PEL)
 Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options
 Cost Estimate

11/1/2022

BASIS OF ESTIMATE

Approach:

This estimate includes three different estimates for the three different potential modes of transportation. Those are Bus Rapid Transit (BRT), Light Rail Transit (LRT), and Conventional Rail (CR). These estimates are an update on previously submitted estimates from February of 2021.

A more extensive Basis of estimate has been provided separately, please refer to that for more of a breakdown on the creation of this estimate.

The following markups have been included under section 40 Sitework and Special Conditions for all projects:

General Conditions	
General Requirements (Submittals, O&M Manuals, Testing, Inspection, Scheduling, Safety, etc.)	15.00%
Engineering Contingency	15.00%
Contractors Markups	
Contractor Design Costs	6.00%
Overhead	5.00%
Profit	10.00%
Profit on Subcontractor Work	2.50%

The following markups have been included under section 80 Professional Services based on the guidelines provided by Professional Services (applied to sections 10-50)

Engineering	5.00%
Construction Consultant Management	4.27%
Agency Management Costs	
During Design	0.00%
During Construction (Administration and Management)	3.65%
Agency Force Account	7.00%

The Metropolitan Transportation Authority Construction and Development

Interborough Express
 Planning and Environmental Linkages (PEL)
 Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options
 Cost Estimate



INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

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SUMMARY

ITEM	DESCRIPTION	QTY.	UNIT	IBX_BRT	IBX_LRT	IBX_CR
				TOTAL COST	TOTAL COST	TOTAL COST
10	GUIDEWAY & TRACK ELEMENTS			\$ 488,789,000	\$ 485,777,000	\$ 827,948,000
20	STATION, STOPS, TERMINALS, INTERMODAL			\$ 115,461,000	\$ 132,035,000	\$ 544,818,000
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS			\$ 56,900,000	\$ 106,763,000	\$ 184,959,000
40	SITWORK & SPECIAL CONDITIONS			\$ 1,767,730,000	\$ 2,065,853,000	\$ 2,592,660,000
50	SYSTEMS			\$ 15,405,000	\$ 427,762,000	\$ 434,973,000
	SUB TOTAL CONSTRUCTION COST			\$ 2,444,285,000	\$ 3,218,190,000	\$ 4,585,358,000
60	ROW, LAND, EXISTING IMPROVEMENTS			\$ 26,600,000	\$ 24,500,000	\$ 34,400,000
70	VEHICLES			\$ 40,750,000	\$ 432,250,000	\$ 485,513,000
	SUB TOTAL INC ACQUISITIONS			\$ 2,511,635,000	\$ 3,674,940,000	\$ 5,105,271,000
80	PROFESSIONAL SERVICES			\$ 511,345,000	\$ 673,245,000	\$ 959,257,000
90	CONTINGENCY			\$ 488,857,000	\$ 643,638,000	\$ 917,072,000
	TOTAL PROJECT COST (2020 Dollars)			\$ 3,511,837,000	\$ 4,991,823,000	\$ 6,981,600,000
Escalation to Q3 2027						
	Calculation 2: Escalating from Q1 2020 to Q1 2022 w/ RSMean National Index and then Escalating from Q1 2022 to Q3 2027 with set percentage					
	2020 to 2022: 11.65% 2022 to 2027: 3.5% per year		34.9%	\$ 4,737,672,000	\$ 6,734,259,000	\$ 9,418,584,000
	Less cost of second freight track			\$ (761,668,000)	\$ (761,668,000)	\$ (761,668,000)
	Less vehicle cost			\$ (40,750,000)	\$ (432,250,000)	\$ (485,513,000)
	Total construction cost (Q3 2027)			\$ 3,935,254,000	\$ 5,540,341,000	\$ 8,171,403,000

The base construction cost includes the cost of constructing the project and maintaining existing freight capacity. It does not include the cost of rolling stock nor incremental costs of additional bridge abutment and embankment widening to provide for two tracks between Bay Ridge and Fresh Pond Yard.

The Metropolitan Transportation Authority Construction and Development
Interborough Express
Planning and Environmental Linkages (PEL)
Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options



INFINITE CONSULTING CORP
ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
CHECKED BY: MADHURA SHAH, 11/1/2022

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IBX_BRT

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
10	GUIDEWAY & TRACK ELEMENTS				
10.0100	Guideway: At Grade exclusive right of way	71,100.00	LF Guideway	\$ 1,324	\$ 94,132,902.92
10.0300	Guideway: At grade in mixed traffic	2,300.00	LF Guideway	\$ 148	\$ 340,300.98
10.0400	Guideway Structure/Support: Aerial structure				
10.0410	Track Viaducts, Overpasses, Widening of Overpasses	2,600.00	LF Guideway	\$ 20,151	\$ 52,391,833.59
10.0420	Bridge Over Lower Montauk	300.00	LF Guideway	\$ 35,388	\$ 10,616,411.31
10.0500	Guideway Structure/Support: Embankment, Retained Cut/Fill				
10.0510	Cut w/ Retaining Wall	36,600.00	LF Guideway	\$ 4,494	\$ 164,494,402.74
10.0520	Fill w/ Retaining Wall	28,100.00	LF Guideway	\$ 4,771	\$ 134,060,974.25
10.1100	Track: ballasted				
10.1120	Track: ballasted (Freight)	58,400.00	Track Feet	\$ 513	\$ 29,983,093.32
10.1200	Track: Special (switches, turnouts)				
10.1220	Turnouts (Freight)	16.00	EA	\$ 173,052	\$ 2,768,838.99
	SUB-TOTAL << GUIDEWAY & TRACK ELEMENTS >>				\$ 488,788,758
20	STATION, STOPS, TERMINALS, INTERMODAL				
20.0100	At Grade Station, Stop, Shelter, Mall, Terminal, Platform				
20.0120	At Grade - Side Platform	19.00	Stations	\$ 285,253	\$ 5,419,803.37
20.0400	Elevators, escalators				\$ -
20.0410	Elevators	34.00	EA	\$ 2,405,995	\$ 81,803,816.53
20.0430	Stairs	34.00	EA	\$ 830,524	\$ 28,237,828.58
	SUB-TOTAL << STATION, STOPS, TERMINALS, INTERMODAL >>				\$ 115,461,448
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS				
30.0200	Maintenance Facility	27.00	Vehicles	\$ 1,067,260	\$ 28,816,030.76
30.0500	Parking Lot for Bus Storage	27.00	Vehicles	\$ 114,226	\$ 3,084,103.08
30.0700	Fan Plants	1.00	EA	\$ 25,000,000	\$ 25,000,000.00
	SUB-TOTAL << SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS >>				\$ 56,900,134
40	SITWORK & SPECIAL CONDITIONS				
40.0100	Demolition, Clearing, Earthwork				
40.0110	Clearing and Grubbing	73,400.00	LF Guideway	\$ 391	\$ 28,725,547.96
40.0200	Site Utilities, Utility Relocation	73,400.00	LF Guideway	\$ 1,006	\$ 73,829,526.67
40.0500	Site structures including retaining walls, sound walls				
40.0530	Existing Overpass Widening / Reconstruction	42.00	EA	\$ 16,669,502	\$ 700,119,101.23
40.0540	Retrofitting East New York Tunnel	1.00	LS	\$ 19,247,347	\$ 19,247,346.54
40.0600	Station access and accommodation	19.00	Stations	\$ 190,446	\$ 3,618,470.67
40.0800	Contractor Mark-ups (applied to direct costs from Sections 10-50)				
40.0810	Contractor Design Costs	8.00%			\$ 120,167,664.07
40.0820	General Conditions (Indirect Costs)	15.00%			\$ 225,314,370.13
40.0830	Contractor Overhead	5.00%			\$ 75,104,790.04
40.0840	Contractor Profit / Risk	10.00%			\$ 150,209,580.09
40.0850	Contractor Profit on Subcontracted Work	2.50%			\$ 37,552,395.02
40.0860	Performance Bond	1.00%			\$ 15,020,958.01
40.0900	Engineering Contingency (applied to direct costs from Sections 10-50 and Contractor Markup)	15.00%			\$ 318,819,833.74
	SUB-TOTAL << SITWORK & SPECIAL CONDITIONS >>				\$ 1,767,729,584
50	SYSTEMS				
50.0400	Traction power distribution				
50.0430	Power Distribution and Connections	19.00	Stations	\$ 175,000	\$ 3,325,000.00
50.0500	Communications				
50.0510	Station Communications	19.00	Stations	\$ 422,075	\$ 8,019,426.45
50.0520	Communication Infrastructure	73,400.00	LF Guideway	\$ 40	\$ 2,936,000.00
50.0600	Fare collection system and equipment				
50.0620	Revenue Collection - In Station	19.00	Stations	\$ 59,213	\$ 1,125,040.95
	SUB-TOTAL << SYSTEMS >>				\$ 15,405,467
60	ROW, LAND, EXISTING IMPROVEMENTS				
60.0100	Urban	1.00	LS	\$ 26,600,000	\$ 26,600,000.00
	SUB-TOTAL << ROW, LAND, EXISTING IMPROVEMENTS >>				\$ 26,600,000
70	VEHICLES				
70.0400	Bus (Electric Battery Powered)				
70.0420	60' Articulated	27.00	Vehicles	\$ 1,500,000	\$ 40,500,000.00
70.0600	Non-revenue vehicles				
70.0610	Maintenance of Way Vehicles	2.00	Vehicles	\$ 25,000	\$ 50,000.00

The Metropolitan Transportation Authority Construction and Development
Interborough Express
Planning and Environmental Linkages (PEL)
Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options



INFINITE CONSULTING CORP
ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

IBX_BRT

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
70.0620	Automobiles	2.00	Vehicles	\$ 35,000	\$ 70,000.00
70.0630	Trucks	2.00	Vehicles	\$ 65,000	\$ 130,000.00
	SUB-TOTAL << VEHICLES >>				\$ 40,750,000
80	PROFESSIONAL SERVICES				
80.0100	Professional Services (applied to sections 10-50)				
80.0110	Consultant Design (Engineering)	5.00%			\$ 122,214,269.60
80.0120	Construction Consultant Management	4.27%			\$ 104,370,986.24
80.0130	Agency Management Costs				
80.0131	During Construction (Administration and Management)	3.65%			\$ 89,216,416.81
80.0132	Agency Force Account	1.00%			\$ 24,442,853.92
80.0133	OCIP	6.00%			\$ 146,657,123.52
80.0134	Third Party Utilities	1.00%			\$ 24,442,853.92
	SUB-TOTAL << PROFESSIONAL SERVICES >>				\$ 511,344,504
90	CONTINGENCY				
90.0100	Allowance for Indeterminates (AFI)	20.00%			\$ 488,857,078.39
	SUB-TOTAL << CONTINGENCY >>				\$ 488,857,078

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The Metropolitan Transportation Authority Construction and Development
 Interborough Express
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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

IBX_LRT

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
10	GUIDEWAY & TRACK ELEMENTS				
10.0300	Guideway: At grade in mixed traffic	2,300.00	LF Guideway	\$ 148	\$ 340,300.98
10.0400	Guideway Structure/Support: Aerial structure				
10.0410	Track Viaducts, Overpasses, Widening of Overpasses	2,600.00	LF Guideway	\$ 20,151	\$ 52,391,833.59
10.0420	Bridge Over Lower Montauk	300.00	LF Guideway	\$ 35,388	\$ 10,616,411.31
10.0500	Guideway Structure/Support: Embankment, Retained Cut/Fill				
10.0510	Cut w/ Retaining Wall	36,600.00	LF Guideway	\$ 4,494	\$ 164,494,402.74
10.0520	Fill w/ Retaining Wall	28,100.00	LF Guideway	\$ 4,771	\$ 134,060,974.25
10.1000	Track: Embedded	13,700.00	Track Feet	\$ 1,032	\$ 14,133,505.06
10.1100	Track: ballasted				
10.1110	Track: ballasted (Passenger)	133,100.00	Track Feet	\$ 513	\$ 68,334,755.49
10.1120	Track: ballasted (Freight)	58,400.00	Track Feet	\$ 513	\$ 29,983,093.32
10.1200	Track: Special (switches, turnouts)				
10.1210	Turnouts (Passenger)	50.00	EA	\$ 173,052	\$ 8,652,621.85
10.1220	Turnouts (Freight)	16.00	EA	\$ 173,052	\$ 2,768,838.99
	SUB-TOTAL << GUIDEWAY & TRACK ELEMENTS >>				\$ 485,776,738
20	STATION, STOPS, TERMINALS, INTERMODAL				
20.0100	At Grade Station, Stop, Shelter, Mall, Terminal, Platform				
20.0110	At Grade - Center Platform (Roosevelt Ave Terminal)	1.00	Stations	\$ 220,033	\$ 220,033.40
20.0120	At Grade - Side Platform	17.00	Stations	\$ 654,830	\$ 11,132,107.89
20.0200	Aerial station, stop, shelter, mall, terminal				\$ -
20.0220	Aerial - Side Platforms	1.00	Stations	\$ 4,168,312	\$ 4,168,312.27
20.0400	Elevators, escalators				\$ -
20.0410	Elevators	36.00	EA	\$ 2,405,995	\$ 86,615,805.74
20.0430	Stairs	36.00	EA	\$ 830,524	\$ 29,898,877.32
	SUB-TOTAL << STATION, STOPS, TERMINALS, INTERMODAL >>				\$ 132,035,137
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS				
30.0100	Administration Building: Office, sales, storage, revenue	1.00	LS	\$ 1,687,617	\$ 1,687,616.64
30.0200	Maintenance Facility	72.00	Vehicles	\$ 1,067,260	\$ 76,842,748.70
30.0300	Yard and Yard Track	3,600.00	Track Feet	\$ 513	\$ 1,848,272.88
30.0400	Yard Switches, Turnouts	8.00	EA	\$ 173,052	\$ 1,384,419.50
30.0700	Fan Plants	1.00	EA	\$ 25,000,000	\$ 25,000,000.00
	SUB-TOTAL << SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS >>				\$ 106,763,058
40	SITWORK & SPECIAL CONDITIONS				
40.0100	Demolition, Clearing, Earthwork				
40.0110	Clearing and Grubbing	73,400.00	LF Guideway	\$ 391	\$ 28,725,547.96
40.0200	Site Utilities, Utility Relocation	73,400.00	LF Guideway	\$ 1,006	\$ 73,829,526.67
40.0500	Site structures including retaining walls, sound walls				
40.0530	Existing Overpass Widening / Reconstruction	42.00	EA	\$ 16,669,502	\$ 700,119,101.23
40.0540	Retrofitting East New York Tunnel	1.00	LS	\$ 19,247,347	\$ 19,247,346.54
40.0600	Station access and accommodation	18.00	Stations	\$ 190,446	\$ 3,428,024.85
40.0800	Contractor Mark-ups (applied to direct costs from Sections 10-50)				
40.0810	Contractor Design Costs	8.00%			\$ 158,214,916.82
40.0820	General Conditions (Indirect Costs)	15.00%			\$ 296,652,969.04
40.0830	Contractor Overhead	5.00%			\$ 98,884,323.01
40.0840	Contractor Profit / Risk	10.00%			\$ 197,768,646.03
40.0850	Contractor Profit on Subcontracted Work	2.50%			\$ 49,442,161.51
40.0860	Performance Bond	1.00%			\$ 19,776,864.60
40.0900	Engineering Contingency (applied to direct costs from Sections 10-50 and Contractor Markups)	15.00%			\$ 419,763,951.20
	SUB-TOTAL << SITWORK & SPECIAL CONDITIONS >>				\$ 2,065,853,379
50	SYSTEMS				
50.0100	Train control and signals	146,800.00	Track Feet	\$ 1,238	\$ 181,738,400.00
50.0200	Traffic signals and crossing protection	19.00	EA	\$ 349,888	\$ 6,647,874.48
50.0300	Traction power supply: substations	15.00	EA	\$ 9,900,000	\$ 148,500,000.00
50.0400	Traction power distribution				
50.0410	Catenary	146,800.00	Track Feet	\$ 358	\$ 52,530,159.52
50.0500	Communications				
50.0510	Station Communications	19.00	Stations	\$ 422,075	\$ 8,019,426.45
50.0520	Communication Infrastructure	73,400.00	LF Guideway	\$ 40	\$ 2,936,000.00
50.0600	Fare collection system and equipment				
50.0620	Revenue Collection - In Station	19.00	Stations	\$ 59,213	\$ 1,125,040.95
50.0700	Central Control System	73,400.00	LF Guideway	\$ 358	\$ 26,265,079.76
	SUB-TOTAL << SYSTEMS >>				\$ 427,761,981

The Metropolitan Transportation Authority Construction and Development
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 Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options



INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

IBX_LRT

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
60	ROW, LAND, EXISTING IMPROVEMENTS				
60.0100	Urban	1.00	LS	\$ 24,500,000	\$ 24,500,000.00
	SUB-TOTAL << ROW, LAND, EXISTING IMPROVEMENTS >>				\$ 24,500,000
70	VEHICLES				
70.0100	Light Rail				
70.0120	Articulated	72.00	Vehicles	\$ 6,000,000	\$ 432,000,000.00
70.0600	Non-revenue vehicles				
70.0610	Maintenance of Way Vehicles	2.00	Vehicles	\$ 25,000	\$ 50,000.00
70.0620	Automobiles	2.00	Vehicles	\$ 35,000	\$ 70,000.00
70.0630	Trucks	2.00	Vehicles	\$ 65,000	\$ 130,000.00
	SUB-TOTAL << VEHICLES >>				\$ 432,250,000
80	PROFESSIONAL SERVICES				
80.0100	Professional Services (applied to sections 10-50)				
80.0110	Consultant Design (Engineering)	5.00%			\$ 160,909,514.63
80.0120	Construction Consultant Management	4.27%			\$ 137,416,725.49
80.0130	Agency Management Costs				
80.0131	During Construction (Administration and Management)	3.65%			\$ 117,463,945.68
80.0132	Agency Force Account	1.00%			\$ 32,181,902.93
80.0133	OCIP	6.00%			\$ 193,091,417.55
80.0134	Third Party Utilities	1.00%			\$ 32,181,902.93
	SUB-TOTAL << PROFESSIONAL SERVICES >>				\$ 673,245,409
90	CONTINGENCY				
90.0100	Allowance for Indeterminates (AFI)	20.00%			\$ 643,638,058.50
	SUB-TOTAL << CONTINGENCY >>				\$ 643,638,059

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ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
10	GUIDEWAY & TRACK ELEMENTS				
10.0400	Guideway Structure/Support: Aerial structure				
10.0410	Track Viaducts, Overpasses, Widening of Overpasses	1,000.00	LF Guideway	\$ 20,151	\$ 20,150,705.23
10.0500	Guideway Structure/Support: Embankment, Retained Cut/Fill				
10.0510	Cut w/ Retaining Wall	35,900.00	LF Guideway	\$ 4,494	\$ 161,348,334.92
10.0520	Fill w/ Retaining Wall	25,900.00	LF Guideway	\$ 4,771	\$ 123,565,097.26
10.0700	Guideway Structure/Support: Underground tunnel				
10.0710	Long Tunnel From Cyprus Hill to Elliot Ave	7,100.00	LF Guideway	\$ 57,199	\$ 406,111,200.00
10.1100	Track: ballasted				
10.1110	Track: ballasted (Passenger)	146,800.00	Track Feet	\$ 513	\$ 75,368,460.60
10.1120	Track: ballasted (Freight)	58,400.00	Track Feet	\$ 513	\$ 29,983,093.32
10.1200	Track: Special (switches, turnouts)				
10.1210	Turnouts (Passenger)	50.00	EA	\$ 173,052	\$ 8,652,621.85
10.1220	Turnouts (Freight)	16.00	EA	\$ 173,052	\$ 2,768,838.99
	SUB-TOTAL << GUIDEWAY & TRACK ELEMENTS >>				\$ 827,948,352
20	STATION, STOPS, TERMINALS, INTERMODAL				
20.0100	At Grade Station, Stop, Shelter, Mall, Terminal, Platform				
20.0110	At Grade - Center Platform (Roosevelt Ave Terminal)	1.00	Stations	\$ 920,231	\$ 920,230.86
20.0120	At Grade - Side Platform	17.00	Stations	\$ 3,507,779	\$ 59,632,245.57
20.0300	Underground station, stop, shelter, mall, terminal				\$ -
20.0320	Underground - Side Platform	1.00	Stations	\$ 366,004,491	\$ 366,004,491.17
20.0400	Elevators, escalators				\$ -
20.0410	Elevators	35.00	EA	\$ 2,405,995	\$ 84,209,811.13
20.0430	Stairs	41.00	EA	\$ 830,524	\$ 34,051,499.17
	SUB-TOTAL << STATION, STOPS, TERMINALS, INTERMODAL >>				\$ 544,818,278
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS				
30.0200	Maintenance Facility	100.00	Vehicles	\$ 1,067,260	\$ 106,726,039.87
30.0300	Yard and Yard Track	3,600.00	Track Feet	\$ 513	\$ 1,848,272.88
30.0400	Yard Switches, Turnouts	8.00	EA	\$ 173,052	\$ 1,384,419.50
30.0700	Fan Plants	3.00	EA	\$ 25,000,000	\$ 75,000,000.00
	SUB-TOTAL << SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS >>				\$ 184,958,732
40	SITWORK & SPECIAL CONDITIONS				
40.0100	Demolition, Clearing, Earthwork				
40.0110	Clearing and Grubbing	73,400.00	LF Guideway	\$ 391	\$ 28,725,547.96
40.0200	Site Utilities, Utility Relocation	73,400.00	LF Guideway	\$ 1,006	\$ 73,829,526.67
40.0500	Site structures including retaining walls, sound walls				
40.0530	Existing Overpass Widening / Reconstruction	42.00	EA	\$ 16,669,502	\$ 700,119,101.23
40.0540	Retrofitting East New York Tunnel	1.00	LS	\$ 19,247,347	\$ 19,247,346.54
40.0600	Station access and accommodation	17.00	Stations	\$ 190,446	\$ 3,237,579.02
40.0800	Contractor Mark-ups (applied to direct costs from Sections 10-50)				
40.0810	Contractor Design Costs	8.00%			\$ 225,428,630.93
40.0820	General Conditions (Indirect Costs)	15.00%			\$ 422,678,683.00
40.0830	Contractor Overhead	5.00%			\$ 140,892,894.33
40.0840	Contractor Profit / Risk	10.00%			\$ 281,785,788.66
40.0850	Contractor Profit on Subcontracted Work	2.50%			\$ 70,446,447.17
40.0860	Performance Bond	1.00%			\$ 28,178,578.87
40.0900	Engineering Contingency (applied to direct costs from Sections 10-50 and Contractor Markups)	15.00%			\$ 598,090,336.44
	SUB-TOTAL << SITWORK & SPECIAL CONDITIONS >>				\$ 2,592,660,461
50	SYSTEMS				
50.0100	Train control and signals	146,800.00	Track Feet	\$ 1,238	\$ 181,738,400.00
50.0300	Traction power supply: substations	15.00	EA	\$ 9,900,000	\$ 148,500,000.00
50.0400	Traction power distribution				
50.0420	Third Rail	146,800.00	Track Feet	\$ 452	\$ 66,389,475.75
50.0500	Communications				
50.0510	Station Communications	19.00	Stations	\$ 422,075	\$ 8,019,426.45
50.0520	Communication Infrastructure	73,400.00	LF Guideway	\$ 40	\$ 2,936,000.00
50.0600	Fare collection system and equipment				
50.0620	Revenue Collection - In Station	19.00	Stations	\$ 59,213	\$ 1,125,040.95
50.0700	Central Control System	73,400.00	LF Guideway	\$ 358	\$ 26,265,079.76
	SUB-TOTAL << SYSTEMS >>				\$ 434,973,423
60	ROW, LAND, EXISTING IMPROVEMENTS				
60.0100	Urban	1.00	LS	\$ 34,400,000	\$ 34,400,000.00

The Metropolitan Transportation Authority Construction and Development
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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

IBX_CR

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	TOTAL COST
SUB-TOTAL << ROW, LAND, EXISTING IMPROVEMENTS >>					\$ 34,400,000
70	VEHICLES				
70.0200	Conventional Rail				
70.0210	Third Rail	100.00	Vehicles	\$ 4,852,632	\$ 485,263,200.00
70.0600	Non-revenue vehicles				
70.0610	Maintenance of Way Vehicles	2.00	Vehicles	\$ 25,000	\$ 50,000.00
70.0620	Automobiles	2.00	Vehicles	\$ 35,000	\$ 70,000.00
70.0630	Trucks	2.00	Vehicles	\$ 65,000	\$ 130,000.00
SUB-TOTAL << VEHICLES >>					\$ 485,513,200
80	PROFESSIONAL SERVICES				
80.0100	Professional Services (applied to sections 10-50)				
80.0110	Consultant Design (Engineering)	5.00%			\$ 229,267,962.30
80.0120	Construction Consultant Management	4.27%			\$ 195,794,839.81
80.0130	Agency Management Costs				
80.0131	During Construction (Administration and Management)	3.65%			\$ 167,365,612.48
80.0132	Agency Force Account	1.00%			\$ 45,853,592.46
80.0133	OCIP	6.00%			\$ 275,121,554.76
80.0134	Third Party Utilities	1.00%			\$ 45,853,592.46
SUB-TOTAL << PROFESSIONAL SERVICES >>					\$ 959,257,154
90	CONTINGENCY				
90.0100	Allowance for Indeterminates (AFI)	20.00%			\$ 917,071,849.21
SUB-TOTAL << CONTINGENCY >>					\$ 917,071,849

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

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ITEM	DESCRIPTION	UNIT	IBX_BRT	IBX_LRT	IBX_CR	IBX_BRT	IBX_LRT	IBX_CR
			QTY.	QTY.	QTY.	UNIT PRICE	UNIT PRICE	UNIT PRICE
10	GUIDEWAY & TRACK ELEMENTS							
10.0100	Guideway: At Grade exclusive right of way	LF Guideway	71,100.00			1,324	1,324	1,324
10.0200	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway				660	660	660
10.0300	Guideway: At grade in mixed traffic	LF Guideway	2,300.00	2,300.00	-	148	148	148
10.0400	Guideway Structure/Support: Aerial structure							
10.0410	Track Viaducts, Overpasses, Widening of Overpasses	LF Guideway	2,600.00	2,600.00	1,000.00	20,151	20,151	20,151
10.0420	Bridge Over Lower Montauk	LF Guideway	300.00	300.00	-	35,388	35,388	35,388
10.0500	Guideway Structure/Support: Embankment, Retained Cut/Fill							
10.0510	Cut w/ Retaining Wall	LF Guideway	36,600.00	36,600.00	35,900.00	4,494	4,494	4,494
10.0520	Fill w/ Retaining Wall	LF Guideway	28,100.00	28,100.00	25,900.00	4,771	4,771	4,771
10.0600	Guideway Structure/Support: Underground cut & cover	LF Guideway				-	-	-
10.0700	Guideway Structure/Support: Underground tunnel							
10.0710	Long Tunnel From Cyprus Hill to Elliot Ave	LF Guideway	-	-	7,100.00	57,199	57,199	57,199
10.0720	Roosevelt Ave Tunnel	LF Guideway				77,400	77,400	77,400
10.0900	Track: Direct fixation	Track Feet				244	244	244
10.1000	Track: Embedded	Track Feet		13,700.00	-	1,032	1,032	1,032
10.1100	Track: ballasted							
10.1110	Track: ballasted (Passenger)	Track Feet		133,100.00	146,800.00	513	513	513
10.1120	Track: ballasted (Freight)	Track Feet	58,400.00	58,400.00	58,400.00	513	513	513
10.1200	Track: Special (switches, turnouts)							
10.1210	Turnouts (Passenger)	EA	-	50.00	50.00	173,052	173,052	173,052
10.1220	Turnouts (Freight)	EA	16.00	16.00	16.00	173,052	173,052	173,052
	SUB-TOTAL << GUIDEWAY & TRACK ELEMENTS >>							
20	STATION, STOPS, TERMINALS, INTERMODAL							
20.0100	At Grade Station, Stop, Shelter, Mall, Terminal, Platform							
20.0110	At Grade - Center Platform (Roosevelt Ave Terminal)	Stations		1.00	1.00	-	220,033	920,231
20.0120	At Grade - Side Platform	Stations	19.00	17.00	17.00	285,253	654,830	3,507,779
20.0200	Aerial station, stop, shelter, mall, terminal							
20.0210	Aerial - Center Platform	Stations				-	-	-
20.0220	Aerial - Side Platforms	Stations	-	1.00	-	2,384,220	4,168,312	6,545,134
20.0300	Underground station, stop, shelter, mall, terminal							
20.0310	Underground - Center Platform	Stations				-	-	-
20.0320	Underground - Side Platform	Stations	-	-	1.00	-	-	366,004,491
20.0400	Elevators, escalators							
20.0410	Elevators	EA	34.00	36.00	35.00	2,405,995	2,405,995	2,405,995
20.0420	Escalators	EA				2,887,380	2,887,380	2,887,380
20.0430	Stairs	EA	34.00	36.00	41.00	830,524	830,524	830,524
20.0500	Underground Interconnecting Tunnel	EA				-	-	-
	SUB-TOTAL << STATION, STOPS, TERMINALS, INTERMODAL >>							
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS							
30.0100	Administration Building: Office, sales, storage, revenue	LS		1.00		1,687,617	1,687,617	1,687,617
30.0200	Maintenance Facility	Vehicles	27.00	72.00	100.00	1,067,260	1,067,260	1,067,260
30.0300	Yard and Yard Track	Track Feet		3,600.00	3,600.00	513	513	513
30.0400	Yard Switches, Turnouts	EA		8.00	8.00	173,052	173,052	173,052
30.0500	Parking Lot for Bus Storage	Vehicles	27.00			114,226	114,226	114,226
30.0600	Vent Buildings including Finishes	EA				-	-	-
30.0700	Fan Plants	EA	1.00	1.00	3.00	25,000,000	25,000,000	25,000,000
	SUB-TOTAL << SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS >>							
40	SITWORK & SPECIAL CONDITIONS							
40.0100	Demolition, Clearing, Earthwork							
40.0110	Clearing and Grubbing	LF Guideway	73,400.00	73,400.00	73,400.00	391	391	391
40.0120	Road/Track Infrastructure	LF Guideway				-	-	-
40.0130	Existing Building / Structure	LF Guideway				-	-	-
40.0200	Site Utilities, Utility Relocation	LF Guideway	73,400.00	73,400.00	73,400.00	1,006	1,006	1,006
40.0300	Haz. mat'l	LS				-	-	-
40.0400	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LS				-	-	-
40.0500	Site structures including retaining walls, sound walls							
40.0510	Retaining Walls	LF Wall				-	-	-
40.0520	Sound Walls	LF Wall				6,966	6,966	6,966
40.0530	Existing Overpass Widening / Reconstruction	EA	42.00	42.00	42.00	16,669,502	16,669,502	16,669,502
40.0540	Retrofitting East New York Tunnel	LS	1.00	1.00	1.00	19,247,347	19,247,347	19,247,347
40.0600	Station access and accommodation	Stations	19.00	18.00	17.00	190,446	190,446	190,446
40.0700	Automobile, bus, van accessways including roads, parking lots							
40.0710	Surface Parking Lot	Spaces				-	-	-
40.0720	Parking Garage Above Ground	Spaces				-	-	-
40.0730	Parking Garage below Ground	Spaces				-	-	-
40.0800	Contractor Mark-ups (applied to direct costs from Sections 10-50)							
40.0810	Contractor Design Costs		8.0%	8.0%	8.0%	-	-	-
40.0820	General Conditions (Indirect Costs)		15.0%	15.0%	15.0%	-	-	-
40.0830	Contractor Overhead		5.0%	5.0%	5.0%	-	-	-
40.0840	Contractor Profit / Risk		10.0%	10.0%	10.0%	-	-	-
40.0850	Contractor Profit on Subcontracted Work		2.5%	2.5%	2.5%	-	-	-
40.0860	Performance Bond		1.0%	1.0%	1.0%	-	-	-
40.0900	Engineering Contingency (applied to direct costs from Sections 10-50 and Contractor Markup)		15.0%	15.0%	15.0%	-	-	-
	SUB-TOTAL << SITWORK & SPECIAL CONDITIONS >>							
50	SYSTEMS							
50.0100	Train control and signals	Track Feet		146,800.00	146,800.00	1,238	1,238	1,238
50.0200	Traffic signals and crossing protection	EA		19.00		349,888	349,888	349,888
50.0300	Traction power supply: substations	EA		15.00	15.00	9,900,000	9,900,000	9,900,000

The Metropolitan Transportation Authority Construction and Development
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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

Master

ITEM	DESCRIPTION	UNIT	IBX_BRT	IBX_LRT	IBX_CR	IBX_BRT	IBX_LRT	IBX_CR
			QTY.	QTY.	QTY.	UNIT PRICE	UNIT PRICE	UNIT PRICE
50.0400	Traction power distribution							
50.0410	Catenary	Track Feet		146,800.00		358	358	358
50.0420	Third Rail	Track Feet			146,800.00	452	452	452
50.0430	Power Distribution and Connections	Stations	19.00			175,000	175,000	175,000
50.0500	Communications							
50.0510	Station Communications	Stations	19.00	19.00	19.00	422,075	422,075	422,075
50.0520	Communication Infrastructure	LF Guideway	73,400.00	73,400.00	73,400.00	40	40	40
50.0600	Fare collection system and equipment							
50.0610	Central Revenue Counting Systems	Stations				-	-	-
50.0620	Revenue Collection - In Station	Stations	19.00	19.00	19.00	59,213	59,213	59,213
50.0630	Revenue Collection - On Vehicle	Stations				-	-	-
50.0700	Central Control System	LF Guideway		73,400.00	73,400.00	358	358	358
	SUB-TOTAL << SYSTEMS >>							
60	ROW, LAND, EXISTING IMPROVEMENTS							
60.0100	Urban	LS	1.00	1.00	1.00	26,600,000	24,500,000	34,400,000
60.0200	Suburban	LS						
	SUB-TOTAL << ROW, LAND, EXISTING IMPROVEMENTS >>							
70	VEHICLES							
70.0100	Light Rail							
70.0110	Unknown Articulated	Vehicles	-	-	-	-	-	-
70.0120	Articulated	Vehicles	-	72.00	-	-	6,000,000	-
70.0200	Conventional Rail							
70.0210	Third Rail	Vehicles	-	-	100.00	-	-	4,852,632
70.0220	Catenary Power	Vehicles	-	-	-	-	-	-
70.0300	Non-Electric							
70.0310	Locomotive	Vehicles	-	-	-	-	-	-
70.0320	Passenger Car	Vehicles	-	-	-	-	-	-
70.0400	Bus (Electric Battery Powered)							
70.0410	Standard 40 Foot Bus	Vehicles	-	-	-	-	-	-
70.0420	60' Articulated	Vehicles	27.00	-	-	1,500,000	-	-
70.0430	Unspecified	Vehicles	-	-	-	-	-	-
70.0500	Rapid Transit (Third Rail)	Vehicles	-	-	-	-	-	-
70.0600	Non-revenue vehicles							
70.0610	Maintenance of Way Vehicles	Vehicles	2.00	2.00	2.00	25,000	25,000	25,000
70.0620	Automobiles	Vehicles	2.00	2.00	2.00	35,000	35,000	35,000
70.0630	Trucks	Vehicles	2.00	2.00	2.00	65,000	65,000	65,000
70.0700	Spare parts/ Components	Vehicles	-	-	-	-	-	-
	SUB-TOTAL << VEHICLES >>							
80	PROFESSIONAL SERVICES							
80.0100	Professional Services (applied to sections 10-50)							
80.0110	Consultant Design (Engineering)		5.00%	5.00%	5.00%	-	-	-
80.0120	Construction Consultant Management		4.27%	4.27%	4.27%	-	-	-
80.0130	Agency Management Costs							
80.0131	During Construction (Administration and Management)		3.65%	3.65%	3.65%	-	-	-
80.0132	Agency Force Account		1.00%	1.00%	1.00%	-	-	-
80.0133	OCIP		6.00%	6.00%	6.00%	-	-	-
80.0134	Third Party Utilities		1.00%	1.00%	1.00%	-	-	-
	SUB-TOTAL << PROFESSIONAL SERVICES >>							
90	CONTINGENCY							
90.0100	Allowance for Indeterminates (AFI)		20%	20%	20%	-	-	-
	SUB-TOTAL << CONTINGENCY >>							

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
10	GUIDEWAY & TRACK ELEMENTS												
10.0100	Guideway: At Grade exclusive right of way	1.00	LF Guideway									\$ 1,324	\$ 1,323.95
	Allowance for necessary modifications via FTA Database Scope includes complete buildout of new exclusive ROW guideway including but not limited to, base layers, multi level pavement, curbs, stormwater utilities, protective barriers, etc.	1.00	LF Guideway	\$ 644.00	\$ 644	5.20	5.20	\$ 118.45	\$ 616	\$ 64.00	\$ 64	\$ 1,324	\$ 1,323.95
10.0200	Guideway: At Grade semi-exclusive (allows cross-traffic)	1.00	LF Guideway									\$ 660	\$ 659.98
	Allowance for necessary modifications via FTA Database Scope includes: demolition of existing parapet walls at exiting overpasses, demolition of sidewalk, and modifications to allow cross traffic for guideway at existing overpasses	1.00	LF Guideway	\$ 320.00	\$ 320	2.60	2.60	\$ 118.45	\$ 308	\$ 32.00	\$ 32	\$ 660	\$ 659.98
10.0300	Guideway: At grade in mixed traffic	1.00	LF Guideway									\$ 148	\$ 147.96
	Allowance for necessary modifications via FTA Database Scope includes: demolition of existing parapet walls at exiting overpasses, demolition of sidewalk, and modifications to allow cross traffic for guideway at existing overpasses	1.00	LF Guideway	\$ 64.80	\$ 65	0.65	0.65	\$ 118.45	\$ 77	\$ 6.40	\$ 6	\$ 148	\$ 147.96
10.0410	Track Viaducts, Overpasses, Widening of Overpasses	100.00	LF Guideway									\$ 2,015,071	\$ 20,150.71
	Foundation (assumes 50' spans, drilled or driven piles)	1,200.00	VLF	\$ 75.00	\$ 90,000	0.40	480.00	\$ 126.84	\$ 60,884	\$ 20.00	\$ 24,000	\$ 174,884	\$ 145.74
	Footing	60.00	CY	\$ 500.00	\$ 30,000	8.00	480.00	\$ 126.84	\$ 60,884	\$ 10.00	\$ 600	\$ 91,484	\$ 1,524.73
	Superstructure (1 pier per 50')	60.00	CY	\$ 600.00	\$ 36,000	12.00	720.00	\$ 126.84	\$ 91,326	\$ 10.00	\$ 600	\$ 127,926	\$ 2,132.10
	Concrete Beams & Slab (30' wide)	3,000.00	SF	\$ 70.00	\$ 210,000	2.25	6,750.00	\$ 126.84	\$ 856,180	\$ 20.00	\$ 60,000	\$ 1,126,180	\$ 375.39
	Protective Railing / Guardrail	200.00	LF	\$ 200.00	\$ 40,000	1.00	200.00	\$ 126.84	\$ 25,368	\$ 40.00	\$ 8,000	\$ 73,368	\$ 366.84
	Scuppers	2.00	EA	\$ 3,000.00	\$ 6,000	16.00	32.00	\$ 126.84	\$ 4,059	\$ 40.00	\$ 80	\$ 10,139	\$ 5,069.46
	Storm Water Pipe	40.00	LF	\$ 80.00	\$ 3,200	0.80	32.00	\$ 152.37	\$ 4,876	\$ -	\$ -	\$ 8,076	\$ 201.89
	Misc. Works (25% contingency)	1.00	LS	\$ 103,800.00	\$ 103,800	2,173.50	2,173.50	\$ 126.94	\$ 275,894	\$ 23,320.00	\$ 23,320	\$ 403,014	\$ 403,014.10
10.0420	Bridge Over Lower Montauk	300.00	LF Guideway									\$ 10,616,411	\$ 35,388.04
	Foundation (assumes 50' spans, drilled or driven piles)	2,400.00	VLF	\$ 75.00	\$ 180,000	0.40	960.00	\$ 126.84	\$ 121,768	\$ 20.00	\$ 48,000	\$ 349,768	\$ 145.74
	Abutment	1,481.48	CY	\$ 500.00	\$ 740,741	8.00	11,851.85	\$ 126.84	\$ 1,503,306	\$ 10.00	\$ 14,815	\$ 2,258,862	\$ 1,524.73
	Superstructure (1 pier per 50')	180.00	CY	\$ 600.00	\$ 108,000	12.00	2,160.00	\$ 126.84	\$ 273,978	\$ 10.00	\$ 1,800	\$ 383,778	\$ 2,132.10
	Steel Truss	600.00	Tons	\$ 2,500.00	\$ 1,500,000	25.00	15,000.00	\$ 190.17	\$ 2,852,500	\$ 20.00	\$ 12,000	\$ 4,364,500	\$ 7,274.17
	Protective Railing / Guardrail	600.00	LF	\$ 200.00	\$ 120,000	1.00	600.00	\$ 126.84	\$ 76,105	\$ 40.00	\$ 24,000	\$ 220,105	\$ 366.84
	Scuppers	6.00	EA	\$ 3,000.00	\$ 18,000	16.00	96.00	\$ 126.84	\$ 12,177	\$ 40.00	\$ 240	\$ 30,417	\$ 5,069.46
	Storm Water Pipe	120.00	LF	\$ 80.00	\$ 9,600	0.80	96.00	\$ 152.37	\$ 14,627	\$ -	\$ -	\$ 24,227	\$ 201.89
	Misc. Works (40% contingency)	1.00	LS	\$ 1,070,536.30	\$ 1,070,536	12,305.54	12,305.54	\$ 153.84	\$ 1,893,077	\$ 21,141.93	\$ 21,142	\$ 2,984,755	\$ 2,984,755.29
10.0510	Cut w/ Retaining Wall	35,900.00	LF Guideway									\$ 161,348,335	\$ 4,494.38
	Steel Sheeting Wall (Assumes for every 1' of exposed wall there is 2' of buried wall)	2,644,650.00	SF	\$ 30.00	\$ 79,339,500	0.10	264,465.00	\$ 133.50	\$ 35,306,849	\$ 5.00	\$ 13,223,250	\$ 127,869,599	\$ 48.35
	Retaining Wall Cap	71,800.00	LF	\$ 20.00	\$ 1,436,000	0.38	27,273.93	\$ 131.63	\$ 3,590,000	\$ 2.00	\$ 143,600	\$ 5,169,600	\$ 72.00
	Excavation of Soil	361,315.00	CY	\$ -	\$ -	0.10	36,131.50	\$ 133.50	\$ 4,823,661	\$ 20.00	\$ 7,226,300	\$ 12,049,961	\$ 33.35
	Disposal of Soil Off Site	361,315.00	CY	\$ 45.00	\$ 16,259,175	-	-	\$ -	\$ -	\$ -	\$ -	\$ 16,259,175	\$ 45.00
10.0520	Fill w/ Retaining Wall	26,900.00	LF Guideway									\$ 128,335,950	\$ 4,770.85
	Steel Sheeting Wall (Assumes for every 1' of exposed wall there is 2' of buried wall)	2,028,000.00	SF	\$ 30.00	\$ 60,840,000	0.10	202,800.00	\$ 133.50	\$ 27,074,392	\$ 5.00	\$ 10,140,000	\$ 98,054,392	\$ 48.35
	Retaining Wall Cap	53,800.00	LF	\$ 20.00	\$ 1,076,000	0.38	20,436.45	\$ 131.63	\$ 2,690,000	\$ 2.00	\$ 107,600	\$ 3,873,600	\$ 72.00
	Fill and Compact Soil	250,139.00	CY	\$ -	\$ -	0.10	25,013.90	\$ 133.50	\$ 3,339,429	\$ 20.00	\$ 5,002,780	\$ 8,342,209	\$ 33.35
	Import Soil	361,315.00	CY	\$ 50.00	\$ 18,065,750	-	-	\$ -	\$ -	\$ -	\$ -	\$ 18,065,750	\$ 50.00
10.0600	Guideway Structure/Support: Underground cut & cover	1.00	LF Guideway									\$ -	\$ -
10.0710	Long Tunnel From Cyprus Hill to Elliot Ave	7,100.00	LF Guideway									\$ 406,111,200	\$ 57,198.76
	Launch & Receiving Pit for TBM	1.00	LS	\$ 262,500.00	\$ 262,500	-	-	\$ 450,000.00	\$ 450,000	\$ 37,500.00	\$ 37,500	\$ 750,000	\$ 750,000.00
	TBM Tunneling (assumes individual tube for each track)	14,200.00	LF Tunnel	\$ 6,000.00	\$ 85,200,000	-	-	\$ 9,000.00	\$ 127,800,000	\$ 7,800.00	\$ 110,760,000	\$ 323,760,000	\$ 22,800.00
	Infill tunnel for Track platform	14,200.00	LF Tunnel	\$ 150.00	\$ 2,130,000	-	-	\$ 400.00	\$ 5,680,000	\$ 20.00	\$ 284,000	\$ 8,094,000	\$ 570.00
	Egress Bench & Walkway	14,200.00	LF Tunnel	\$ 50.00	\$ 710,000	-	-	\$ 90.00	\$ 1,278,000	\$ 10.00	\$ 142,000	\$ 2,130,000	\$ 150.00

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Lighting	14,200.00	Track Feet	\$ 150.00	\$ 2,130,000	-	-	\$ 100.00	\$ 1,420,000	\$ 10.00	\$ 142,000	\$ 3,692,000	\$ 260.00
	Misc. Works (20% contingency)	1.00	LS	\$ 18,086,500.00	\$ 18,086,500	-	-	\$ 27,325,600.00	\$ 27,325,600	\$ 22,273,100.00	\$ 22,273,100	\$ 67,685,200	\$ 67,685,200.00
10.0720	Roosevelt Ave Tunnel	3,250.00	LF Guideway									\$ 251,550,000	\$ 77,400.00
	Open Cut Section	1,300.00	LF Tunnel	\$ 7,500.00	\$ 9,750,000	-	-	\$ 16,500.00	\$ 21,450,000	\$ 6,000.00	\$ 7,800,000	\$ 39,000,000	\$ 30,000.00
	Mined Tunnel (tube for each track)	2,400.00	LF Tunnel	\$ 6,250.00	\$ 15,000,000	-	-	\$ 13,750.00	\$ 33,000,000	\$ 5,000.00	\$ 12,000,000	\$ 60,000,000	\$ 25,000.00
	Crossover Cavern	200.00	LF Tunnel	\$ 28,750.00	\$ 5,750,000	-	-	\$ 63,250.00	\$ 12,650,000	\$ 23,000.00	\$ 4,600,000	\$ 23,000,000	\$ 115,000.00
	Station Cavern	550.00	LF Tunnel	\$ 32,500.00	\$ 17,875,000	-	-	\$ 71,500.00	\$ 39,325,000	\$ 26,000.00	\$ 14,300,000	\$ 71,500,000	\$ 130,000.00
	Misc. Works (30% contingency)	1.00	LS	\$ 14,512,500.00	\$ 14,512,500	-	-	\$ 31,927,500.00	\$ 31,927,500	\$ 11,610,000.00	\$ 11,610,000	\$ 58,050,000	\$ 58,050,000.00
10.0900	Track: Direct fixation	1.00	Track Feet									\$ 244	\$ 244.28
	<i>All scope below Rail is included in guideway</i>												
	Track inc ties, boots, adjustment bolts, grinding, welding, restraining rail	1.00	LF	\$ 120.00	\$ 120	0.50	0.50	\$ 148.55	\$ 74	\$ 50.00	\$ 50	\$ 244	\$ 244.28
10.1000	Track: Embedded	1.00	Track Feet									\$ 1,032	\$ 1,031.64
	<i>All scope below embedment slab is included in guideway</i>												
	Concrete Embedment slab	0.40	CY	\$ 600.00	\$ 240	10.00	4.00	\$ 126.84	\$ 507	\$ 100.00	\$ 40	\$ 787	\$ 1,968.41
	Track inc ties, boots, adjustment bolts, grinding, welding, restraining rail	1.00	LF	\$ 120.00	\$ 120	0.50	0.50	\$ 148.55	\$ 74	\$ 50.00	\$ 50	\$ 244	\$ 244.28
10.1110	Track: ballasted (Passenger)	1.00	Track Feet									\$ 513	\$ 513.41
	Ballast	1.20	CY	\$ 100.00	\$ 120	0.50	0.60	\$ 148.55	\$ 89	\$ 50.00	\$ 60	\$ 269	\$ 224.28
	Track inc ties, boots, adjustment bolts, grinding, welding, restraining rail	1.00	LF	\$ 120.00	\$ 120	0.50	0.50	\$ 148.55	\$ 74	\$ 50.00	\$ 50	\$ 244	\$ 244.28
10.1120	Track: ballasted (Freight)	1.00	Track Feet									\$ 513	\$ 513.41
	Ballast	1.20	CY	\$ 100.00	\$ 120	0.50	0.60	\$ 148.55	\$ 89	\$ 50.00	\$ 60	\$ 269	\$ 224.28
	Track inc ties, boots, adjustment bolts, grinding, welding, restraining rail	1.00	LF	\$ 120.00	\$ 120	0.50	0.50	\$ 148.55	\$ 74	\$ 50.00	\$ 50	\$ 244	\$ 244.28
10.1210	Turnouts (Passenger)	1.00	EA									\$ 173,052	\$ 173,052.44
	Turnout	1.00	EA	\$ 125,000.00	\$ 125,000	300.00	300.00	\$ 126.84	\$ 38,052	\$ 10,000.00	\$ 10,000	\$ 173,052	\$ 173,052.44
10.1220	Turnouts (Freight)	1.00	EA									\$ 173,052	\$ 173,052.44
	Turnout	1.00	EA	\$ 125,000.00	\$ 125,000	300.00	300.00	\$ 126.84	\$ 38,052	\$ 10,000.00	\$ 10,000	\$ 173,052	\$ 173,052.44

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
20	STATION, STOPS, TERMINALS, INTERMODAL												
20.0110	At Grade - Center Platform (Roosevelt Ave Terminal)												
	At Grade - Center Platform (Roosevelt Ave Terminal) - BRT	1.00	Stations									\$ -	\$ -
	At Grade - Center Platform (Roosevelt Ave Terminal) - LRT	1.00	Stations									\$ 220,033	\$ 220,033.40
	Excavation & Backfill	267.00	CY	\$ 30.00	\$ 8,010	0.60	160.20	\$ 133.50	\$ 21,387	\$ 10.00	\$ 2,670	\$ 32,067	\$ 120.10
	Center platforms foundation	11.00	CY	\$ 500.00	\$ 5,500	8.00	88.00	\$ 126.84	\$ 11,162	\$ 100.00	\$ 1,100	\$ 17,762	\$ 1,614.73
	Side Platform	1,440.00	SF	\$ 25.00	\$ 36,000	0.10	144.00	\$ 126.84	\$ 18,265	\$ 5.00	\$ 7,200	\$ 61,465	\$ 42.68
	Tactile warning strip	240.00	LF	\$ 65.00	\$ 15,600	0.50	120.00	\$ 118.45	\$ 14,214	\$ 10.00	\$ 2,400	\$ 32,214	\$ 134.23
	Shelters (one per platform)	1.00	EA	\$ 10,000.00	\$ 10,000	40.00	40.00	\$ 118.45	\$ 4,738	\$ 500.00	\$ 500	\$ 15,238	\$ 15,238.08
	Lighting	1,440.00	SF	\$ 5.00	\$ 7,200	0.03	44.07	\$ 163.39	\$ 7,200	\$ 2.00	\$ 2,880	\$ 17,280	\$ 12.00
	Misc. Works (25% contingency)	1.00	LS	\$ 20,577.50	\$ 20,578	149.07	149.07	\$ 129.08	\$ 19,242	\$ 4,187.50	\$ 4,188	\$ 44,007	\$ 44,006.68
	At Grade - Center Platform (Roosevelt Ave Terminal) - CR	1.00	Stations									\$ 920,231	\$ 920,230.86
	Excavation & Backfill	1,200.00	CY	\$ 30.00	\$ 36,000	0.60	720.00	\$ 133.50	\$ 96,122	\$ 10.00	\$ 12,000	\$ 144,122	\$ 120.10
	Center platforms foundation	48.00	CY	\$ 500.00	\$ 24,000	8.00	384.00	\$ 126.84	\$ 48,707	\$ 100.00	\$ 4,800	\$ 77,507	\$ 1,614.73
	Side Platform	6,480.00	SF	\$ 25.00	\$ 162,000	0.10	648.00	\$ 126.84	\$ 82,193	\$ 5.00	\$ 32,400	\$ 276,593	\$ 42.68
	Tactile warning strip	1,080.00	LF	\$ 65.00	\$ 70,200	0.50	540.00	\$ 118.45	\$ 63,964	\$ 10.00	\$ 10,800	\$ 144,964	\$ 134.23
	Shelters (one per platform)	1.00	EA	\$ 10,000.00	\$ 10,000	40.00	40.00	\$ 118.45	\$ 4,738	\$ 500.00	\$ 500	\$ 15,238	\$ 15,238.08
	Lighting	6,480.00	SF	\$ 5.00	\$ 32,400	0.03	198.30	\$ 163.39	\$ 32,400	\$ 2.00	\$ 12,960	\$ 77,760	\$ 12.00
	Misc. Works (25% contingency)	1.00	LS	\$ 83,650.00	\$ 83,650	632.58	632.58	\$ 129.68	\$ 82,031	\$ 18,365.00	\$ 18,365	\$ 184,046	\$ 184,046.17
20.0120	At Grade - Side Platform												
	At Grade - Side Platform - BRT	1.00	Stations									\$ 285,253	\$ 285,252.81
	Excavation & Backfill	356.00	CY	\$ 30.00	\$ 10,680	0.60	213.60	\$ 133.50	\$ 28,516	\$ 10.00	\$ 3,560	\$ 42,756	\$ 120.10
	Side platforms foundation	11.00	CY	\$ 500.00	\$ 5,500	8.00	88.00	\$ 126.84	\$ 11,162	\$ 100.00	\$ 1,100	\$ 17,762	\$ 1,614.73
	Side Platform	1,920.00	SF	\$ 25.00	\$ 48,000	0.10	192.00	\$ 126.84	\$ 24,354	\$ 5.00	\$ 9,600	\$ 81,954	\$ 42.68
	Tactile warning strip	240.00	LF	\$ 65.00	\$ 15,600	0.50	120.00	\$ 118.45	\$ 14,214	\$ 10.00	\$ 2,400	\$ 32,214	\$ 134.23
	Shelters (one per platform)	2.00	EA	\$ 10,000.00	\$ 20,000	40.00	80.00	\$ 118.45	\$ 9,476	\$ 500.00	\$ 1,000	\$ 30,476	\$ 15,238.08
	Lighting	1,920.00	SF	\$ 5.00	\$ 9,600	0.03	58.76	\$ 163.39	\$ 9,600	\$ 2.00	\$ 3,840	\$ 23,040	\$ 12.00
	Misc. Works (25% contingency)	1.00	LS	\$ 27,345.00	\$ 27,345	188.09	188.09	\$ 129.36	\$ 24,331	\$ 5,375.00	\$ 5,375	\$ 57,051	\$ 57,050.56
	At Grade - Side Platform - LRT	1.00	Stations									\$ 654,830	\$ 654,829.88
	Excavation & Backfill	889.00	CY	\$ 30.00	\$ 26,670	0.60	533.40	\$ 133.50	\$ 71,210	\$ 10.00	\$ 8,890	\$ 106,770	\$ 120.10
	Side platforms foundation	27.00	CY	\$ 500.00	\$ 13,500	8.00	216.00	\$ 126.84	\$ 27,398	\$ 100.00	\$ 2,700	\$ 43,598	\$ 1,614.73
	Side Platform	4,800.00	SF	\$ 25.00	\$ 120,000	0.10	480.00	\$ 126.84	\$ 60,884	\$ 5.00	\$ 24,000	\$ 204,884	\$ 42.68
	Tactile warning strip	600.00	LF	\$ 65.00	\$ 39,000	0.50	300.00	\$ 118.45	\$ 35,536	\$ 10.00	\$ 6,000	\$ 80,536	\$ 134.23
	Shelters (one per platform)	2.00	EA	\$ 10,000.00	\$ 20,000	40.00	80.00	\$ 118.45	\$ 9,476	\$ 500.00	\$ 1,000	\$ 30,476	\$ 15,238.08
	Lighting	4,800.00	SF	\$ 5.00	\$ 24,000	0.03	146.89	\$ 163.39	\$ 24,000	\$ 2.00	\$ 9,600	\$ 57,600	\$ 12.00
	Misc. Works (25% contingency)	1.00	LS	\$ 60,792.50	\$ 60,793	439.07	439.07	\$ 130.11	\$ 57,126	\$ 13,047.50	\$ 13,048	\$ 130,966	\$ 130,965.98
	At Grade - Side Platform - CR	1.00	Stations									\$ 3,507,779	\$ 3,507,779.15
	Excavation & Backfill	1,600.00	CY	\$ 30.00	\$ 48,000	0.60	960.00	\$ 133.50	\$ 128,163	\$ 10.00	\$ 16,000	\$ 192,163	\$ 120.10
	Side platforms foundation	48.00	CY	\$ 500.00	\$ 24,000	8.00	384.00	\$ 126.84	\$ 48,707	\$ 100.00	\$ 4,800	\$ 77,507	\$ 1,614.73
	Side Platform	8,640.00	SF	\$ 25.00	\$ 216,000	0.10	864.00	\$ 126.84	\$ 109,591	\$ 5.00	\$ 43,200	\$ 368,791	\$ 42.68
	Tactile warning strip	1,080.00	LF	\$ 65.00	\$ 70,200	0.50	540.00	\$ 118.45	\$ 63,964	\$ 10.00	\$ 10,800	\$ 144,964	\$ 134.23
	Overhead Canopy	8,640.00	SF	\$ 60.00	\$ 518,400	0.10	864.00	\$ 190.17	\$ 164,304	\$ 10.00	\$ 86,400	\$ 769,104	\$ 89.02
	Shelters (every 300')	2.00	EA	\$ 15,000.00	\$ 30,000	60.00	120.00	\$ 118.45	\$ 14,214	\$ 500.00	\$ 1,000	\$ 45,214	\$ 22,607.12
	Platform Snow Melt System	8,640.00	SF	\$ 30.00	\$ 259,200	0.25	2,117.09	\$ 142.84	\$ 302,400	\$ 5.00	\$ 43,200	\$ 604,800	\$ 70.00
	Utility Connections for Snow Melt	1.00	LS	\$ 200,000.00	\$ 200,000	1,925.26	1,925.26	\$ 142.84	\$ 275,000	\$ 25,000.00	\$ 25,000	\$ 500,000	\$ 500,000.00
	Lighting	8,640.00	SF	\$ 5.00	\$ 43,200	0.03	264.40	\$ 163.39	\$ 43,200	\$ 2.00	\$ 17,280	\$ 103,680	\$ 12.00
	Misc. Works (25% contingency)	1.00	LS	\$ 352,250.00	\$ 352,250	2,009.69	2,009.69	\$ 143.00	\$ 287,386	\$ 61,920.00	\$ 61,920	\$ 701,556	\$ 701,555.83
20.0210	Aerial - Center Platform												
	Aerial - Center Platform - BRT	1.00	Stations									\$ -	\$ -
	Aerial - Center Platform - LRT	1.00	Stations									\$ -	\$ -
	Aerial - Center Platform - CR	1.00	Stations									\$ -	\$ -

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
20.0220	Aerial - Side Platforms												
	Aerial - Side Platforms - BRT	1.00	Stations									\$ 2,384,220	\$ 2,384,219.63
	The following line items account for increases to the aerial guideway construction. It is assumed that the aerial guideway will support the aerial station platforms. In order to take on the additional load their foundation will need to be strengthened and increased in size.												
	Excavation & Backfill	356.00	CY	\$ 30.00	\$ 10,680	0.60	213.60	\$ 133.50	\$ 28,516	\$ 10.00	\$ 3,560	\$ 42,756	\$ 120.10
	Side platforms foundation	152.00	CY	\$ 500.00	\$ 76,000	8.00	1,216.00	\$ 126.84	\$ 154,239	\$ 100.00	\$ 15,200	\$ 245,439	\$ 1,614.73
	Superstructure	1,920.00	SF	\$ 40.00	\$ 76,800	1.00	1,920.00	\$ 126.84	\$ 243,536	\$ 20.00	\$ 38,400	\$ 358,736	\$ 186.84
	Side Platform	1,920.00	SF	\$ 25.00	\$ 48,000	0.50	960.00	\$ 126.84	\$ 121,768	\$ 5.00	\$ 9,600	\$ 179,368	\$ 93.42
	Tactile warning strip	240.00	LF	\$ 65.00	\$ 15,600	0.50	120.00	\$ 118.45	\$ 14,214	\$ 10.00	\$ 2,400	\$ 32,214	\$ 134.23
	Shelters (one per platform)	2.00	EA	\$ 10,000.00	\$ 20,000	40.00	80.00	\$ 118.45	\$ 9,476	\$ 500.00	\$ 1,000	\$ 30,476	\$ 15,238.08
	Lighting	1,920.00	SF	\$ 10.00	\$ 19,200	0.06	115.20	\$ 163.39	\$ 18,822	\$ 2.00	\$ 3,840	\$ 41,862	\$ 21.80
	Safety Railing	240.00	LF	\$ 125.00	\$ 30,000	0.50	120.00	\$ 126.84	\$ 15,221	\$ 25.00	\$ 6,000	\$ 51,221	\$ 213.42
	Stairs, railings, & enclosure	4.00	EA	\$ 125,000.00	\$ 500,000	720.00	2,880.00	\$ 126.84	\$ 365,303	\$ 15,000.00	\$ 60,000	\$ 925,303	\$ 231,325.85
	Misc. Works (25% contingency)	1.00	LS	\$ 199,070.00	\$ 199,070	1,906.20	1,906.20	\$ 127.36	\$ 242,774	\$ 35,000.00	\$ 35,000	\$ 476,844	\$ 476,843.93
	Aerial - Side Platforms - LRT	1.00	Stations									\$ 4,168,312	\$ 4,168,312.27
	The following line items account for increases to the aerial guideway construction. It is assumed that the aerial guideway will support the aerial station platforms. In order to take on the additional load their foundation will need to be strengthened and increased in size.												
	Excavation & Backfill	889.00	CY	\$ 30.00	\$ 26,670	0.60	533.40	\$ 133.50	\$ 71,210	\$ 10.00	\$ 8,890	\$ 106,770	\$ 120.10
	Side platforms foundation	380.00	CY	\$ 500.00	\$ 190,000	8.00	3,040.00	\$ 126.84	\$ 385,598	\$ 100.00	\$ 38,000	\$ 613,598	\$ 1,614.73
	Superstructure	4,800.00	SF	\$ 40.00	\$ 192,000	1.00	4,800.00	\$ 126.84	\$ 608,839	\$ 20.00	\$ 96,000	\$ 896,839	\$ 186.84
	Side Platform	4,800.00	SF	\$ 25.00	\$ 120,000	0.50	2,400.00	\$ 126.84	\$ 304,419	\$ 5.00	\$ 24,000	\$ 448,419	\$ 93.42
	Tactile warning strip	600.00	LF	\$ 65.00	\$ 39,000	0.50	300.00	\$ 118.45	\$ 35,536	\$ 10.00	\$ 6,000	\$ 80,536	\$ 134.23
	Shelters (one per platform)	2.00	EA	\$ 10,000.00	\$ 20,000	40.00	80.00	\$ 118.45	\$ 9,476	\$ 500.00	\$ 1,000	\$ 30,476	\$ 15,238.08
	Lighting	4,800.00	SF	\$ 10.00	\$ 48,000	0.06	288.00	\$ 163.39	\$ 47,055	\$ 2.00	\$ 9,600	\$ 104,655	\$ 21.80
	Safety Railing	600.00	LF	\$ 125.00	\$ 75,000	0.50	300.00	\$ 126.84	\$ 38,052	\$ 25.00	\$ 15,000	\$ 128,052	\$ 213.42
	Stairs, railings, & enclosure	4.00	EA	\$ 125,000.00	\$ 500,000	720.00	2,880.00	\$ 126.84	\$ 365,303	\$ 15,000.00	\$ 60,000	\$ 925,303	\$ 231,325.85
	Misc. Works (25% contingency)	1.00	LS	\$ 302,667.50	\$ 302,668	3,655.35	3,655.35	\$ 127.59	\$ 466,372	\$ 64,622.50	\$ 64,623	\$ 833,662	\$ 833,662.45
	Aerial - Side Platforms - CR	1.00	Stations									\$ 6,545,134	\$ 6,545,134.08
	The following line items account for increases to the aerial guideway construction. It is assumed that the aerial guideway will support the aerial station platforms. In order to take on the additional load their foundation will need to be strengthened and increased in size.												
	Excavation & Backfill	1,600.00	CY	\$ 30.00	\$ 48,000	0.60	960.00	\$ 133.50	\$ 128,163	\$ 10.00	\$ 16,000	\$ 192,163	\$ 120.10
	Side platforms foundation	683.00	CY	\$ 500.00	\$ 341,500	8.00	5,464.00	\$ 126.84	\$ 693,062	\$ 100.00	\$ 68,300	\$ 1,102,862	\$ 1,614.73
	Superstructure	8,640.00	SF	\$ 40.00	\$ 345,600	1.00	8,640.00	\$ 126.84	\$ 1,095,910	\$ 20.00	\$ 172,800	\$ 1,614,310	\$ 186.84
	Side Platform	8,640.00	SF	\$ 25.00	\$ 216,000	0.50	4,320.00	\$ 126.84	\$ 547,955	\$ 5.00	\$ 43,200	\$ 807,155	\$ 93.42
	Tactile warning strip	1,080.00	LF	\$ 65.00	\$ 70,200	0.50	540.00	\$ 118.45	\$ 63,964	\$ 10.00	\$ 10,800	\$ 144,964	\$ 134.23
	Shelters (one per platform)	2.00	EA	\$ 10,000.00	\$ 20,000	40.00	80.00	\$ 118.45	\$ 9,476	\$ 500.00	\$ 1,000	\$ 30,476	\$ 15,238.08
	Lighting	8,640.00	SF	\$ 10.00	\$ 86,400	0.06	518.40	\$ 163.39	\$ 84,699	\$ 2.00	\$ 17,280	\$ 188,379	\$ 21.80
	Safety Railing	1,080.00	LF	\$ 125.00	\$ 135,000	0.50	540.00	\$ 126.84	\$ 68,494	\$ 25.00	\$ 27,000	\$ 230,494	\$ 213.42
	Stairs, railings, & enclosure	4.00	EA	\$ 125,000.00	\$ 500,000	720.00	2,880.00	\$ 126.84	\$ 365,303	\$ 15,000.00	\$ 60,000	\$ 925,303	\$ 231,325.85
	Misc. Works (25% contingency)	1.00	LS	\$ 440,675.00	\$ 440,675	5,985.60	5,985.60	\$ 127.68	\$ 764,257	\$ 104,095.00	\$ 104,095	\$ 1,309,027	\$ 1,309,026.82
20.0310	Underground - Center Platform												
	Underground - Center Platform - BRT	1.00	Stations									\$ -	\$ -
	Underground - Center Platform - LRT	1.00	Stations									\$ -	\$ -

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CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Underground - Center Platform - CR	1.00	Stations									\$ -	\$ -
20.0320	Underground - Side Platform												
	Underground - Side Platform - BRT	1.00	Stations									\$ -	\$ -
	Underground - Side Platform - LRT	1.00	Stations									\$ -	\$ -
	Underground - Side Platform - CR	1.00	Stations									\$ 366,004,491	\$ 366,004,491.17
	Budget Cost based on actual construction costs for 2nd Ave Subway 86th St Station Deduction for Scope covered Elsewhere in Estimate	1.00	LS	\$ 431,683,612.78	\$ 431,683,613			\$ -	\$ -	\$ -	\$ -	\$ 431,683,613	\$ 431,683,612.78
	Elevators	(3.00)	EA	\$ 1,650,000.00	\$ (4,950,000)			\$ 640,369.60	\$ (1,921,109)	\$ 115,625.00	\$ (346,875)	\$ (7,217,984)	\$ 2,405,994.60
	Escalators	(9.00)	EA	\$ 2,610,125.00	\$ (23,491,125)			\$ 213,879.83	\$ (1,924,918)	\$ 63,375.00	\$ (570,375)	\$ (25,986,418)	\$ 2,887,379.83
	Stairs	(9.00)	EA	\$ 400,000.00	\$ (3,600,000)			\$ 380,524.37	\$ (3,424,719)	\$ 50,000.00	\$ (450,000)	\$ (7,474,719)	\$ 830,524.37
	Fan Plants	(1.00)	EA	\$ 10,000,000.00	\$ (10,000,000)			\$ 12,500,000.00	\$ (12,500,000)	\$ 2,500,000.00	\$ (2,500,000)	\$ (25,000,000)	\$ 25,000,000.00
20.0410	Elevators	1.00	EA									\$ 2,405,995	\$ 2,405,994.60
	Traction Elevator	1.00	EA	\$ 800,000.00	\$ 800,000	520.00	520.00	\$ 155.71	\$ 80,968	\$ 20,000.00	\$ 20,000	\$ 900,968	\$ 900,967.97
	Elevator Pit	1.00	EA	\$ 12,500.00	\$ 12,500	300.00	300.00	\$ 133.90	\$ 40,171	\$ 5,000.00	\$ 5,000	\$ 57,671	\$ 57,670.99
	Structural Steel	10.00	Tons	\$ 3,500.00	\$ 35,000	35.00	350.00	\$ 183.23	\$ 64,131	\$ 500.00	\$ 5,000	\$ 104,131	\$ 10,413.09
	Glass Enclosure	1,500.00	SF	\$ 225.00	\$ 337,500	1.00	1,500.00	\$ 135.98	\$ 203,977	\$ 20.00	\$ 30,000	\$ 571,477	\$ 380.98
	EMR Room	500.00	SF	\$ 150.00	\$ 75,000	1.25	625.00	\$ 118.45	\$ 74,033	\$ 25.00	\$ 12,500	\$ 161,533	\$ 323.07
	M/E/P/FS	1.00	LS	\$ 60,000.00	\$ 60,000	300.00	300.00	\$ 163.39	\$ 49,016	\$ 20,000.00	\$ 20,000	\$ 129,016	\$ 129,015.85
	Misc. Works (25% contingency)	1.00	LS	\$ 330,000.00	\$ 330,000	898.75	898.75	\$ 142.50	\$ 128,074	\$ 23,125.00	\$ 23,125	\$ 481,199	\$ 481,198.92
20.0420	Escalators	1.00	EA									\$ 2,887,380	\$ 2,887,379.83
	Escalator, 30' rise, 32" wide	1.00	EA	\$ 2,000,000.00	\$ 2,000,000	600.00	600.00	\$ 155.71	\$ 93,425	\$ 25,000.00	\$ 25,000	\$ 2,118,425	\$ 2,118,424.58
	Excavation	20.00	CY	\$ 30.00	\$ 600	0.60	12.00	\$ 133.50	\$ 1,602	\$ 10.00	\$ 200	\$ 2,402	\$ 120.10
	Foundation	5.00	CY	\$ 500.00	\$ 2,500	8.00	40.00	\$ 126.84	\$ 5,074	\$ 100.00	\$ 500	\$ 8,074	\$ 1,614.73
	Structural Support	1.00	LS	\$ 25,000.00	\$ 25,000	120.00	120.00	\$ 183.23	\$ 21,988	\$ 5,000.00	\$ 5,000	\$ 51,988	\$ 51,987.74
	M/E/P/FS	1.00	LS	\$ 60,000.00	\$ 60,000	300.00	300.00	\$ 163.39	\$ 49,016	\$ 20,000.00	\$ 20,000	\$ 129,016	\$ 129,015.85
	Misc. Works (25% contingency)	1.00	LS	\$ 522,025.00	\$ 522,025	268.00	268.00	\$ 159.61	\$ 42,776	\$ 12,675.00	\$ 12,675	\$ 577,476	\$ 577,475.97
20.0430	Stairs	1.00	EA									\$ 830,524	\$ 830,524.37
	Stairs, railings, & enclosure	1.00	EA	\$ 400,000.00	\$ 400,000	3,000.00	3,000.00	\$ 126.84	\$ 380,524	\$ 50,000.00	\$ 50,000	\$ 830,524	\$ 830,524.37
20.0500	Underground Interconnecting Tunnel	1.00	EA									\$ -	\$ -

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
30	SUPPORT FACILITIES: YARDS, SHOP, ADMIN. BLDGS												
30.0100	Administration Building: Office, sales, storage, revenue	1.00	LS									\$ 1,687,617	\$ 1,687,616.64
	Budget developed from FTA Database	2,000.00	GSF	\$ 350.00	\$ 700,000	4.00	8,000.00	\$ 118.45	\$ 947,617	\$ 20.00	\$ 40,000	\$ 1,687,617	\$ 843.81
30.0200	Maintenance Facility												
	At Grade	1.00	Vehicles									\$ 1,067,260	\$ 1,067,260.40
	Budget developed from FTA Database	1.00	per vehicle	\$ 400,000.00	\$ 400,000	5,000.00	5,000.00	\$ 118.45	\$ 592,260	\$ 75,000.00	\$ 75,000	\$ 1,067,260	\$ 1,067,260.40
30.0300	Yard and Yard Track	1.00	Track Feet									\$ 513	\$ 513.41
	Ballast	1.20	CY	\$ 100.00	\$ 120	0.50	0.60	\$ 148.55	\$ 89	\$ 50.00	\$ 60	\$ 269	\$ 224.28
	Track inc ties, boots, adjustment bolts, grinding, welding, restraining rail	1.00	LF	\$ 120.00	\$ 120	0.50	0.50	\$ 148.55	\$ 74	\$ 50.00	\$ 50	\$ 244	\$ 244.28
30.0400	Yard Switches, Turnouts	1.00	EA									\$ 173,052	\$ 173,052.44
	Turnout	1.00	EA	\$ 125,000.00	\$ 125,000	300.00	300.00	\$ 126.84	\$ 38,052	\$ 10,000.00	\$ 10,000	\$ 173,052	\$ 173,052.44
30.0500	Parking Lot for Bus Storage	1.00	Vehicles									\$ 114,226	\$ 114,226.04
	Budget developed from FTA Database	1.00	per vehicle	\$ 50,000.00	\$ 50,000	500.00	500.00	\$ 118.45	\$ 59,226	\$ 5,000.00	\$ 5,000	\$ 114,226	\$ 114,226.04
30.0600	Vent Buildings including Finishes	1.00	EA									\$ -	\$ -
30.0700	Fan Plants	1.00	EA									\$ 25,000,000	\$ 25,000,000.00
	Budget Cost based on actual construction costs for 2nd Ave Subway	1.00	EA	\$ 10,000,000.00	\$ 10,000,000	-	-	\$ 12,500,000.00	\$ 12,500,000	\$ 2,500,000.00	\$ 2,500,000	\$ 25,000,000	\$ 25,000,000.00

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				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
40	SITWORK & SPECIAL CONDITIONS												
40.0110	Clearing and Grubbing	1.00	LF Guideway									\$ 391	\$ 391.36
	Clearing and Grubbing	60.00	SF	\$ -	\$ -	0.01	0.60	\$ 118.45	\$ 71	\$ 0.20	\$ 12	\$ 83	\$ 1.38
	Removal of Misc. debris	60.00	SF	\$ -	\$ -	0.04	2.40	\$ 118.45	\$ 284	\$ 0.40	\$ 24	\$ 308	\$ 5.14
40.0120	Road/Track Infrastructure	1.00	LF Guideway									\$ -	\$ -
40.0130	Existing Building / Structure	1.00	LF Guideway									\$ -	\$ -
40.0200	Site Utilities, Utility Relocation	1,000.00	LF Guideway									\$ 1,005,852	\$ 1,005.85
	<i>Assumes the following Utilities will need to be relocated every 100 LF of Guideway - Allowance</i>												
	Electrical facilities / ductbanks												
	Medium Voltage Ductbank	100.00	Linear Foot	\$ 495.00	\$ 49,500	3.48	348.44	\$ 163.39	\$ 56,931	\$ 50.00	\$ 5,000	\$ 111,431	\$ 1,114.31
	Low Voltage Ductbank	100.00	Linear Foot	\$ 979.00	\$ 97,900	8.11	811.35	\$ 163.39	\$ 132,564	\$ 100.00	\$ 10,000	\$ 240,464	\$ 2,404.64
	Misc. Works (25% contingency)	1.00	LS	\$ 36,850.00	\$ 36,850	289.95	289.95	\$ 163.39	\$ 47,374	\$ 3,750.00	\$ 3,750	\$ 87,974	\$ 87,973.76
	Water, Sewer and Pipelines												
	Excavation& Backfill (100' x 5' x 10')	186.00	CY	\$ 30.00	\$ 5,580	0.30	55.80	\$ 133.50	\$ 7,449	\$ 10.00	\$ 1,860	\$ 14,889	\$ 80.05
	Crushed Stone	38.00	CY	\$ 35.00	\$ 1,330	0.30	11.40	\$ 133.50	\$ 1,522	\$ 10.00	\$ 380	\$ 3,232	\$ 85.05
	Water or Sewer Line	100.00	LF	\$ 300.00	\$ 30,000	2.50	250.00	\$ 133.50	\$ 33,376	\$ 10.00	\$ 1,000	\$ 64,376	\$ 643.76
	Misc. Works (25% contingency)	1.00	LS	\$ 9,227.50	\$ 9,228	79.30	79.30	\$ 133.50	\$ 10,587	\$ 810.00	\$ 810	\$ 20,624	\$ 20,624.28
	Buckeye Pipeline												
	Construction of new pipeline for full length (14 miles of two pipes)												
	8" Diameter Petroleum Pipes	2,000.00	LF	\$ 125.00	\$ 250,000	0.60	1,200.00	\$ 152.37	\$ 182,840	\$ 10.00	\$ 20,000	\$ 452,840	\$ 226.42
	Fiber Optic facilities												
	Fiber Optic and Telephone Communications to Stations	100.00	Linear Foot	\$ 42.50	\$ 4,250	0.20	20.00	\$ 163.39	\$ 3,268	\$ 5.00	\$ 500	\$ 8,018	\$ 80.18
	Misc. Works (25% contingency)	1.00	LS	\$ 1,062.50	\$ 1,063	5.00	5.00	\$ 163.39	\$ 817	\$ 125.00	\$ 125	\$ 2,004	\$ 2,004.43
40.0300	Haz. mat'l	1.00	LS									\$ -	\$ -
40.0400	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	1.00	LS									\$ -	\$ -
40.0510	Retaining Walls	1.00	LF Wall									\$ -	\$ -
40.0520	Sound Walls	1.00	LF Wall									\$ 6,966	\$ 6,966.30
	Precast Concrete Sound Wall	1.00	LF	\$ 4,000.00	\$ 4,000	25.00	25.00	\$ 118.45	\$ 2,961	\$ 5.00	\$ 5	\$ 6,966	\$ 6,966.30
40.0530	Existing Overpass Widening / Reconstruction	42.00	EA									\$ 700,119,101	\$ 16,669,502.41
No 4	NYCT R Line and OHBR - Replace Overhead Bridge for road and NYCT	1.00	EA									\$ 58,280,577	\$ 58,280,576.56
	Overhead Bridge												
	Overbuild Width	110.00	LF										
	Bridge Length	150.00	LF										
	Demolition of existing structure	16,500.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 330,000	\$ 10.00	\$ 165,000	\$ 495,000	\$ 30.00
	Demolition of existing abutments	3,300.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 165,000	\$ 10.00	\$ 33,000	\$ 198,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	3,300.00	SF	\$ 350.00	\$ 1,155,000	-	-	\$ 350.00	\$ 1,155,000	\$ 50.00	\$ 165,000	\$ 2,475,000	\$ 750.00
	Bridge Superstructure	16,500.00	SF	\$ 80.00	\$ 1,320,000	-	-	\$ 100.00	\$ 1,650,000	\$ 20.00	\$ 330,000	\$ 3,300,000	\$ 200.00
	Bridge Deck	16,500.00	SF	\$ 20.00	\$ 330,000	-	-	\$ 35.00	\$ 577,500	\$ 5.00	\$ 82,500	\$ 990,000	\$ 60.00
	Finished Pavement	16,500.00	SF	\$ 8.00	\$ 132,000	-	-	\$ 12.00	\$ 198,000	\$ 5.00	\$ 82,500	\$ 412,500	\$ 25.00
	Concrete Sidewalk	3,000.00	SF	\$ 8.00	\$ 24,000	-	-	\$ 12.00	\$ 36,000	\$ 5.00	\$ 15,000	\$ 75,000	\$ 25.00
	Steel Faced Curb	300.00	LF	\$ 125.00	\$ 37,500	-	-	\$ 70.00	\$ 21,000	\$ 5.00	\$ 1,500	\$ 60,000	\$ 200.00
	Parapet / Fence / Railings	300.00	LF	\$ 250.00	\$ 75,000	-	-	\$ 250.00	\$ 75,000	\$ 10.00	\$ 3,000	\$ 153,000	\$ 510.00
	Allowance for Utility relocation / support	150.00	LF	\$ 500.00	\$ 75,000	-	-	\$ 500.00	\$ 75,000	\$ 20.00	\$ 3,000	\$ 153,000	\$ 1,020.00

The Metropolitan Transportation Authority Construction and Development
 Interborough Express
 Planning and Environmental Linkages (PEL)
 Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options



INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

40

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Allowance for Storm Water Considerations	150.00	LF	\$ 200.00	\$ 30,000	-	-	\$ 300.00	\$ 45,000	\$ -	\$ -	\$ 75,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain use of NYCT R Line (200%)	1.00	LS	\$ 6,897,000.00	\$ 6,897,000	-	-	\$ 9,130,508.15	\$ 9,130,508	\$ 1,905,000.00	\$ 1,905,000	\$ 17,932,508	\$ 17,932,508.15
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,566,825.00	\$ 1,566,825	-	-	\$ 2,189,364.33	\$ 2,189,364	\$ 428,625.00	\$ 428,625	\$ 4,184,814	\$ 4,184,814.33
	NYCT R Line Bridge												
	Overbuild Width	110.00	LF										
	Bridge Length	150.00	LF										
	Demolition of existing structure	16,500.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 330,000	\$ 10.00	\$ 165,000	\$ 495,000	\$ 30.00
	New Abutments & Bearings	3,300.00	SF	\$ 350.00	\$ 1,155,000	-	-	\$ 350.00	\$ 1,155,000	\$ 50.00	\$ 165,000	\$ 2,475,000	\$ 750.00
	Bridge Superstructure	16,500.00	SF	\$ 80.00	\$ 1,320,000	-	-	\$ 100.00	\$ 1,650,000	\$ 20.00	\$ 330,000	\$ 3,300,000	\$ 200.00
	Bridge Deck	16,500.00	SF	\$ 20.00	\$ 330,000	-	-	\$ 35.00	\$ 577,500	\$ 5.00	\$ 82,500	\$ 990,000	\$ 60.00
	Misc. Add Ons												
	Phasing to maintain use of NYCT R Line (200%)	1.00	LS	\$ 5,610,000.00	\$ 5,610,000	-	-	\$ 7,425,000.00	\$ 7,425,000	\$ 1,485,000.00	\$ 1,485,000	\$ 14,520,000	\$ 14,520,000.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,277,250.00	\$ 1,277,250	-	-	\$ 1,805,625.00	\$ 1,805,625	\$ 334,125.00	\$ 334,125	\$ 3,417,000	\$ 3,417,000.00
No 8	N Train 8th Ave - Replace Overhead Bridge for road and NYCT Tunnel Out Under existing N Train	1.00	EA									\$ 94,751,375	\$ 94,751,375.00
	Length of Tunnel	450.00	LF										
	Width of Tunnel	60.00	LF										
	Tunnel out behind existing wall	450.00	LF	\$ 45,000.00	\$ 20,250,000	-	-	\$ 65,000.00	\$ 29,250,000	\$ 15,000.00	\$ 6,750,000	\$ 56,250,000	\$ 125,000.00
	Modification of existing retaining Wall	450.00	LF	\$ 2,000.00	\$ 900,000	-	-	\$ 3,000.00	\$ 1,350,000	\$ 250.00	\$ 112,500	\$ 2,362,500	\$ 5,250.00
	Misc. Add Ons												
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 3,187,500.00	\$ 3,187,500	-	-	\$ 4,725,000.00	\$ 4,725,000	\$ 1,029,375.00	\$ 1,029,375	\$ 8,941,875	\$ 8,941,875.00
	NYCT R Line Bridge												
	Overbuild Width	110.00	LF										
	Bridge Length	150.00	LF										
	Demolition of existing structure	16,500.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 330,000	\$ 10.00	\$ 165,000	\$ 495,000	\$ 30.00
	New Abutments & Bearings	3,300.00	SF	\$ 350.00	\$ 1,155,000	-	-	\$ 350.00	\$ 1,155,000	\$ 50.00	\$ 165,000	\$ 2,475,000	\$ 750.00
	Bridge Superstructure	16,500.00	SF	\$ 80.00	\$ 1,320,000	-	-	\$ 100.00	\$ 1,650,000	\$ 20.00	\$ 330,000	\$ 3,300,000	\$ 200.00
	Bridge Deck	16,500.00	SF	\$ 20.00	\$ 330,000	-	-	\$ 35.00	\$ 577,500	\$ 5.00	\$ 82,500	\$ 990,000	\$ 60.00
	Misc. Add Ons												
	Phasing to maintain use of NYCT R Line (200%)	1.00	LS	\$ 5,610,000.00	\$ 5,610,000	-	-	\$ 7,425,000.00	\$ 7,425,000	\$ 1,485,000.00	\$ 1,485,000	\$ 14,520,000	\$ 14,520,000.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,277,250.00	\$ 1,277,250	-	-	\$ 1,805,625.00	\$ 1,805,625	\$ 334,125.00	\$ 334,125	\$ 3,417,000	\$ 3,417,000.00
No 9	8th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 10,519,250	\$ 10,519,250.03
	Bridge width	75.00	LF										
	Bridge Length	173.00	LF										
	Demolition of existing structure	12,975.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 259,500	\$ 10.00	\$ 129,750	\$ 389,250	\$ 30.00
	Demolition of existing abutments	2,250.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 112,500	\$ 10.00	\$ 22,500	\$ 135,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,250.00	SF	\$ 350.00	\$ 787,500	-	-	\$ 350.00	\$ 787,500	\$ 50.00	\$ 112,500	\$ 1,687,500	\$ 750.00
	Bridge Superstructure	12,975.00	SF	\$ 80.00	\$ 1,038,000	-	-	\$ 100.00	\$ 1,297,500	\$ 20.00	\$ 259,500	\$ 2,595,000	\$ 200.00
	Bridge Deck	12,975.00	SF	\$ 20.00	\$ 259,500	-	-	\$ 35.00	\$ 454,125	\$ 5.00	\$ 64,875	\$ 778,500	\$ 60.00
	Finished Pavement	12,975.00	SF	\$ 8.00	\$ 103,800	-	-	\$ 12.00	\$ 155,700	\$ 5.00	\$ 64,875	\$ 324,375	\$ 25.00
	Concrete Sidewalk	3,460.00	SF	\$ 8.00	\$ 27,680	-	-	\$ 12.00	\$ 41,520	\$ 5.00	\$ 17,300	\$ 86,500	\$ 25.00
	Steel Faced Curb	346.00	LF	\$ 125.00	\$ 43,250	-	-	\$ 70.00	\$ 24,220	\$ 5.00	\$ 1,730	\$ 69,200	\$ 200.00
	Parapet / Fence / Railings	346.00	LF	\$ 250.00	\$ 86,500	-	-	\$ 250.00	\$ 86,500	\$ 10.00	\$ 3,460	\$ 176,460	\$ 510.00
	Allowance for Utility relocation / support	173.00	LF	\$ 500.00	\$ 86,500	-	-	\$ 500.00	\$ 86,500	\$ 20.00	\$ 3,460	\$ 176,460	\$ 1,020.00
	Allowance for Storm Water Considerations	173.00	LF	\$ 200.00	\$ 34,600	-	-	\$ 300.00	\$ 51,900	\$ -	\$ -	\$ 86,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 410,599.50	\$ 410,600	-	-	\$ 539,282.86	\$ 539,283	\$ 112,792.50	\$ 112,793	\$ 1,062,675	\$ 1,062,674.86
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 487,189.43	\$ 487,189	-	-	\$ 755,175.29	\$ 755,175	\$ 129,711.38	\$ 129,711	\$ 1,372,076	\$ 1,372,076.09
No 12	13th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 12,293,853	\$ 12,293,853.26
	Bridge width	82.00	LF										
	Bridge Length	200.00	LF										
	Demolition of existing structure	16,400.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 328,000	\$ 10.00	\$ 164,000	\$ 492,000	\$ 30.00

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Demolition of existing abutments	2,460.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 123,000	\$ 10.00	\$ 24,600	\$ 147,600	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,460.00	SF	\$ 350.00	\$ 861,000	-	-	\$ 350.00	\$ 861,000	\$ 50.00	\$ 123,000	\$ 1,845,000	\$ 750.00
	Bridge Superstructure	16,400.00	SF	\$ 80.00	\$ 1,312,000	-	-	\$ 100.00	\$ 1,640,000	\$ 20.00	\$ 328,000	\$ 3,280,000	\$ 200.00
	Bridge Deck	16,400.00	SF	\$ 20.00	\$ 328,000	-	-	\$ 35.00	\$ 574,000	\$ 5.00	\$ 82,000	\$ 984,000	\$ 60.00
	Finished Pavement	16,400.00	SF	\$ 8.00	\$ 131,200	-	-	\$ 12.00	\$ 196,800	\$ 5.00	\$ 82,000	\$ 410,000	\$ 25.00
	Concrete Sidewalk	4,000.00	SF	\$ 8.00	\$ 32,000	-	-	\$ 12.00	\$ 48,000	\$ 5.00	\$ 20,000	\$ 100,000	\$ 25.00
	Steel Faced Curb	400.00	LF	\$ 125.00	\$ 50,000	-	-	\$ 70.00	\$ 28,000	\$ 5.00	\$ 2,000	\$ 80,000	\$ 200.00
	Parapet / Fence / Railings	400.00	LF	\$ 250.00	\$ 100,000	-	-	\$ 250.00	\$ 100,000	\$ 10.00	\$ 4,000	\$ 204,000	\$ 510.00
	Allowance for Utility relocation / support	200.00	LF	\$ 500.00	\$ 100,000	-	-	\$ 500.00	\$ 100,000	\$ 20.00	\$ 4,000	\$ 204,000	\$ 1,020.00
	Allowance for Storm Water Considerations	200.00	LF	\$ 200.00	\$ 40,000	-	-	\$ 300.00	\$ 60,000	\$ -	\$ -	\$ 100,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 483,630.00	\$ 483,630	-	-	\$ 644,483.11	\$ 644,483	\$ 135,840.00	\$ 135,840	\$ 1,263,953	\$ 1,263,953.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 571,174.50	\$ 571,175	-	-	\$ 876,155.58	\$ 876,156	\$ 156,216.00	\$ 156,216	\$ 1,603,546	\$ 1,603,546.08
No 14	New Utrecht Ave NYCT 62nd St Station - Replace Overhead Bridge inc piers and abutments, maintain and protect NYCT bridge overhead	1.00	EA									\$ 44,306,860	\$ 44,306,860.37
	Bridge width	65.00	LF										
	Bridge Length	128.00	LF										
	Demolition of existing structure	8,320.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 166,400	\$ 10.00	\$ 83,200	\$ 249,600	\$ 30.00
	Demolition of existing abutments	1,950.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 97,500	\$ 10.00	\$ 19,500	\$ 117,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,950.00	SF	\$ 350.00	\$ 682,500	-	-	\$ 350.00	\$ 682,500	\$ 50.00	\$ 97,500	\$ 1,462,500	\$ 750.00
	Bridge Superstructure	8,320.00	SF	\$ 80.00	\$ 665,600	-	-	\$ 100.00	\$ 832,000	\$ 20.00	\$ 166,400	\$ 1,664,000	\$ 200.00
	Bridge Deck	8,320.00	SF	\$ 20.00	\$ 166,400	-	-	\$ 35.00	\$ 291,200	\$ 5.00	\$ 41,600	\$ 499,200	\$ 60.00
	Finished Pavement	8,320.00	SF	\$ 8.00	\$ 66,560	-	-	\$ 12.00	\$ 99,840	\$ 5.00	\$ 41,600	\$ 208,000	\$ 25.00
	Concrete Sidewalk	2,560.00	SF	\$ 8.00	\$ 20,480	-	-	\$ 12.00	\$ 30,720	\$ 5.00	\$ 12,800	\$ 64,000	\$ 25.00
	Steel Faced Curb	256.00	LF	\$ 125.00	\$ 32,000	-	-	\$ 70.00	\$ 17,920	\$ 5.00	\$ 1,280	\$ 51,200	\$ 200.00
	Parapet / Fence / Railings	256.00	LF	\$ 250.00	\$ 64,000	-	-	\$ 250.00	\$ 64,000	\$ 10.00	\$ 2,560	\$ 130,560	\$ 510.00
	Allowance for Utility relocation / support	128.00	LF	\$ 500.00	\$ 64,000	-	-	\$ 500.00	\$ 64,000	\$ 20.00	\$ 2,560	\$ 130,560	\$ 1,020.00
	Allowance for Storm Water Considerations	128.00	LF	\$ 200.00	\$ 25,600	-	-	\$ 300.00	\$ 38,400	\$ -	\$ -	\$ 64,000	\$ 500.00
	Misc. Add Ons												
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 323,571.00	\$ 323,571	-	-	\$ 528,335.11	\$ 528,335	\$ 81,150.00	\$ 81,150	\$ 933,056	\$ 933,056.11
	Temp Support of Existing NYCT Bridge	1.00	LS	\$ 5,000,000.00	\$ 5,000,000	-	-	\$ 9,000,000.00	\$ 9,000,000	\$ 1,000,000.00	\$ 1,000,000	\$ 15,000,000	\$ 15,000,000.00
	Phasing to maintain partial use of NYCT Station and Track (100%)	1.00	LS	\$ 7,480,711.00	\$ 7,480,711	-	-	\$ 13,050,569.19	\$ 13,050,569	\$ 1,622,150.00	\$ 1,622,150	\$ 22,153,430	\$ 22,153,430.19
No 15	15th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,991,356	\$ 6,991,355.64
	Bridge width	67.00	LF										
	Bridge Length	90.00	LF										
	Demolition of existing structure	6,030.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 120,600	\$ 10.00	\$ 60,300	\$ 180,900	\$ 30.00
	Demolition of existing abutments	2,010.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 100,500	\$ 10.00	\$ 20,100	\$ 120,600	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,010.00	SF	\$ 350.00	\$ 703,500	-	-	\$ 350.00	\$ 703,500	\$ 50.00	\$ 100,500	\$ 1,507,500	\$ 750.00
	Bridge Superstructure	6,030.00	SF	\$ 80.00	\$ 482,400	-	-	\$ 100.00	\$ 603,000	\$ 20.00	\$ 120,600	\$ 1,206,000	\$ 200.00
	Bridge Deck	6,030.00	SF	\$ 20.00	\$ 120,600	-	-	\$ 35.00	\$ 211,050	\$ 5.00	\$ 30,150	\$ 361,800	\$ 60.00
	Finished Pavement	6,030.00	SF	\$ 8.00	\$ 48,240	-	-	\$ 12.00	\$ 72,360	\$ 5.00	\$ 30,150	\$ 150,750	\$ 25.00
	Concrete Sidewalk	1,800.00	SF	\$ 8.00	\$ 14,400	-	-	\$ 12.00	\$ 21,600	\$ 5.00	\$ 9,000	\$ 45,000	\$ 25.00
	Steel Faced Curb	180.00	LF	\$ 125.00	\$ 22,500	-	-	\$ 70.00	\$ 12,600	\$ 5.00	\$ 900	\$ 36,000	\$ 200.00
	Parapet / Fence / Railings	180.00	LF	\$ 250.00	\$ 45,000	-	-	\$ 250.00	\$ 45,000	\$ 10.00	\$ 1,800	\$ 91,800	\$ 510.00
	Allowance for Utility relocation / support	90.00	LF	\$ 500.00	\$ 45,000	-	-	\$ 500.00	\$ 45,000	\$ 20.00	\$ 1,800	\$ 91,800	\$ 1,020.00
	Allowance for Storm Water Considerations	90.00	LF	\$ 200.00	\$ 18,000	-	-	\$ 300.00	\$ 27,000	\$ -	\$ -	\$ 45,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 265,446.00	\$ 265,446	-	-	\$ 329,994.61	\$ 329,995	\$ 67,095.00	\$ 67,095	\$ 662,536	\$ 662,535.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 320,262.90	\$ 320,263	-	-	\$ 514,493.80	\$ 514,494	\$ 77,159.25	\$ 77,159	\$ 911,916	\$ 911,915.95
No 16	16th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 10,020,013	\$ 10,020,012.89
	Bridge width	127.00	LF										

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	<i>Bridge Length</i>	70.00	LF										
	Demolition of existing structure	8,890.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 177,800	\$ 10.00	\$ 88,900	\$ 266,700	\$ 30.00
	Demolition of existing abutments	3,810.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 190,500	\$ 10.00	\$ 38,100	\$ 228,600	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	3,810.00	SF	\$ 350.00	\$ 1,333,500	-	-	\$ 350.00	\$ 1,333,500	\$ 50.00	\$ 190,500	\$ 2,857,500	\$ 750.00
	Bridge Superstructure	8,890.00	SF	\$ 80.00	\$ 711,200	-	-	\$ 100.00	\$ 889,000	\$ 20.00	\$ 177,800	\$ 1,778,000	\$ 200.00
	Bridge Deck	8,890.00	SF	\$ 20.00	\$ 177,800	-	-	\$ 35.00	\$ 311,150	\$ 5.00	\$ 44,450	\$ 533,400	\$ 60.00
	Finished Pavement	8,890.00	SF	\$ 8.00	\$ 71,120	-	-	\$ 12.00	\$ 106,680	\$ 5.00	\$ 44,450	\$ 222,250	\$ 25.00
	Concrete Sidewalk	1,400.00	SF	\$ 8.00	\$ 11,200	-	-	\$ 12.00	\$ 16,800	\$ 5.00	\$ 7,000	\$ 35,000	\$ 25.00
	Steel Faced Curb	140.00	LF	\$ 125.00	\$ 17,500	-	-	\$ 70.00	\$ 9,800	\$ 5.00	\$ 700	\$ 28,000	\$ 200.00
	Parapet / Fence / Railings	140.00	LF	\$ 250.00	\$ 35,000	-	-	\$ 250.00	\$ 35,000	\$ 10.00	\$ 1,400	\$ 71,400	\$ 510.00
	Allowance for Utility relocation / support	70.00	LF	\$ 500.00	\$ 35,000	-	-	\$ 500.00	\$ 35,000	\$ 20.00	\$ 1,400	\$ 71,400	\$ 1,020.00
	Allowance for Storm Water Considerations	70.00	LF	\$ 200.00	\$ 14,000	-	-	\$ 300.00	\$ 21,000	\$ -	\$ -	\$ 35,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 401,448.00	\$ 401,448	-	-	\$ 504,597.61	\$ 504,598	\$ 100,005.00	\$ 100,005	\$ 1,006,051	\$ 1,006,050.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 476,665.20	\$ 476,665	-	-	\$ 715,287.25	\$ 715,287	\$ 115,005.75	\$ 115,006	\$ 1,306,958	\$ 1,306,958.20
No 17	59th St/ 16th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 28,627,546	\$ 28,627,545.91
	<i>Bridge width</i>	147.00	LF										
	<i>Bridge Length</i>	72.00	LF										
	Demolition of existing structure	10,584.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 211,680	\$ 10.00	\$ 105,840	\$ 317,520	\$ 30.00
	Demolition of existing abutments	4,410.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 220,500	\$ 10.00	\$ 44,100	\$ 264,600	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	4,410.00	SF	\$ 350.00	\$ 1,543,500	-	-	\$ 350.00	\$ 1,543,500	\$ 50.00	\$ 220,500	\$ 3,307,500	\$ 750.00
	Bridge Superstructure	10,584.00	SF	\$ 80.00	\$ 846,720	-	-	\$ 100.00	\$ 1,058,400	\$ 20.00	\$ 211,680	\$ 2,116,800	\$ 200.00
	Bridge Deck	10,584.00	SF	\$ 20.00	\$ 211,680	-	-	\$ 35.00	\$ 370,440	\$ 5.00	\$ 52,920	\$ 635,040	\$ 60.00
	Finished Pavement	10,584.00	SF	\$ 8.00	\$ 84,672	-	-	\$ 12.00	\$ 127,008	\$ 5.00	\$ 52,920	\$ 264,600	\$ 25.00
	Concrete Sidewalk	1,440.00	SF	\$ 8.00	\$ 11,520	-	-	\$ 12.00	\$ 17,280	\$ 5.00	\$ 7,200	\$ 36,000	\$ 25.00
	Steel Faced Curb	144.00	LF	\$ 125.00	\$ 18,000	-	-	\$ 70.00	\$ 10,080	\$ 5.00	\$ 720	\$ 28,800	\$ 200.00
	Parapet / Fence / Railings	144.00	LF	\$ 250.00	\$ 36,000	-	-	\$ 250.00	\$ 36,000	\$ 10.00	\$ 1,440	\$ 73,440	\$ 510.00
	Allowance for Utility relocation / support	72.00	LF	\$ 500.00	\$ 36,000	-	-	\$ 500.00	\$ 36,000	\$ 20.00	\$ 1,440	\$ 73,440	\$ 1,020.00
	Allowance for Storm Water Considerations	72.00	LF	\$ 200.00	\$ 14,400	-	-	\$ 300.00	\$ 21,600	\$ -	\$ -	\$ 36,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 460,873.80	\$ 460,874	-	-	\$ 583,536.31	\$ 583,536	\$ 115,614.00	\$ 115,614	\$ 1,160,024	\$ 1,160,024.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Add work for Buckeye Utility Relocation	1.00	ALW	\$ 5,000,000.00	\$ 5,000,000	-	-	\$ 10,000,000.00	\$ 10,000,000	\$ -	\$ -	\$ 15,000,000	\$ 15,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,295,004.87	\$ 1,295,005	-	-	\$ 2,306,066.76	\$ 2,306,067	\$ 132,956.10	\$ 132,956	\$ 3,734,028	\$ 3,734,027.73
No 18	17th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 9,955,865	\$ 9,955,865.03
	<i>Bridge width</i>	95.00	LF										
	<i>Bridge Length</i>	113.00	LF										
	Demolition of existing structure	10,735.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 214,700	\$ 10.00	\$ 107,350	\$ 322,050	\$ 30.00
	Demolition of existing abutments	2,850.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 142,500	\$ 10.00	\$ 28,500	\$ 171,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,850.00	SF	\$ 350.00	\$ 997,500	-	-	\$ 350.00	\$ 997,500	\$ 50.00	\$ 142,500	\$ 2,137,500	\$ 750.00
	Bridge Superstructure	10,735.00	SF	\$ 80.00	\$ 858,800	-	-	\$ 100.00	\$ 1,073,500	\$ 20.00	\$ 214,700	\$ 2,147,000	\$ 200.00
	Bridge Deck	10,735.00	SF	\$ 20.00	\$ 214,700	-	-	\$ 35.00	\$ 375,725	\$ 5.00	\$ 53,675	\$ 644,100	\$ 60.00
	Finished Pavement	10,735.00	SF	\$ 8.00	\$ 85,880	-	-	\$ 12.00	\$ 128,820	\$ 5.00	\$ 53,675	\$ 268,375	\$ 25.00
	Concrete Sidewalk	2,260.00	SF	\$ 8.00	\$ 18,080	-	-	\$ 12.00	\$ 27,120	\$ 5.00	\$ 11,300	\$ 56,500	\$ 25.00
	Steel Faced Curb	226.00	LF	\$ 125.00	\$ 28,250	-	-	\$ 70.00	\$ 15,820	\$ 5.00	\$ 1,130	\$ 45,200	\$ 200.00
	Parapet / Fence / Railings	226.00	LF	\$ 250.00	\$ 56,500	-	-	\$ 250.00	\$ 56,500	\$ 10.00	\$ 2,260	\$ 115,260	\$ 510.00
	Allowance for Utility relocation / support	113.00	LF	\$ 500.00	\$ 56,500	-	-	\$ 500.00	\$ 56,500	\$ 20.00	\$ 2,260	\$ 115,260	\$ 1,020.00
	Allowance for Storm Water Considerations	113.00	LF	\$ 200.00	\$ 22,600	-	-	\$ 300.00	\$ 33,900	\$ -	\$ -	\$ 56,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 391,321.50	\$ 391,322	-	-	\$ 504,050.86	\$ 504,051	\$ 103,402.50	\$ 103,403	\$ 998,775	\$ 998,774.86
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 465,019.73	\$ 465,020	-	-	\$ 714,658.49	\$ 714,658	\$ 118,912.88	\$ 118,913	\$ 1,298,591	\$ 1,298,591.09
No 19	18th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 17,849,610	\$ 17,849,609.64
	<i>Bridge width</i>	246.00	LF										

The Metropolitan Transportation Authority Construction and Development
 Interborough Express
 Planning and Environmental Linkages (PEL)
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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	<i>Bridge Length</i>	75.00	LF										
	Demolition of existing structure	18,450.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 369,000	\$ 10.00	\$ 184,500	\$ 553,500	\$ 30.00
	Demolition of existing abutments	7,380.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 369,000	\$ 10.00	\$ 73,800	\$ 442,800	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	7,380.00	SF	\$ 350.00	\$ 2,583,000	-	-	\$ 350.00	\$ 2,583,000	\$ 50.00	\$ 369,000	\$ 5,535,000	\$ 750.00
	Bridge Superstructure	18,450.00	SF	\$ 80.00	\$ 1,476,000	-	-	\$ 100.00	\$ 1,845,000	\$ 20.00	\$ 369,000	\$ 3,690,000	\$ 200.00
	Bridge Deck	18,450.00	SF	\$ 20.00	\$ 369,000	-	-	\$ 35.00	\$ 645,750	\$ 5.00	\$ 92,250	\$ 1,107,000	\$ 60.00
	Finished Pavement	18,450.00	SF	\$ 8.00	\$ 147,600	-	-	\$ 12.00	\$ 221,400	\$ 5.00	\$ 92,250	\$ 461,250	\$ 25.00
	Concrete Sidewalk	1,500.00	SF	\$ 8.00	\$ 12,000	-	-	\$ 12.00	\$ 18,000	\$ 5.00	\$ 7,500	\$ 37,500	\$ 25.00
	Steel Faced Curb	150.00	LF	\$ 125.00	\$ 18,750	-	-	\$ 70.00	\$ 10,500	\$ 5.00	\$ 750	\$ 30,000	\$ 200.00
	Parapet / Fence / Railings	150.00	LF	\$ 250.00	\$ 37,500	-	-	\$ 250.00	\$ 37,500	\$ 10.00	\$ 1,500	\$ 76,500	\$ 510.00
	Allowance for Utility relocation / support	75.00	LF	\$ 500.00	\$ 37,500	-	-	\$ 500.00	\$ 37,500	\$ 20.00	\$ 1,500	\$ 76,500	\$ 1,020.00
	Allowance for Storm Water Considerations	75.00	LF	\$ 200.00	\$ 15,000	-	-	\$ 300.00	\$ 22,500	\$ -	\$ -	\$ 37,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 744,952.50	\$ 744,953	-	-	\$ 959,535.61	\$ 959,536	\$ 189,607.50	\$ 189,608	\$ 1,894,096	\$ 1,894,095.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 871,695.38	\$ 871,695	-	-	\$ 1,238,465.95	\$ 1,238,466	\$ 218,048.63	\$ 218,049	\$ 2,328,210	\$ 2,328,209.95
No 20	52nd St - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,546,766	\$ 7,546,765.96
	<i>Bridge width</i>	72.00	LF										
	<i>Bridge Length</i>	96.00	LF										
	Demolition of existing structure	6,912.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 138,240	\$ 10.00	\$ 69,120	\$ 207,360	\$ 30.00
	Demolition of existing abutments	2,160.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 108,000	\$ 10.00	\$ 21,600	\$ 129,600	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,160.00	SF	\$ 350.00	\$ 756,000	-	-	\$ 350.00	\$ 756,000	\$ 50.00	\$ 108,000	\$ 1,620,000	\$ 750.00
	Bridge Superstructure	6,912.00	SF	\$ 80.00	\$ 552,960	-	-	\$ 100.00	\$ 691,200	\$ 20.00	\$ 138,240	\$ 1,382,400	\$ 200.00
	Bridge Deck	6,912.00	SF	\$ 20.00	\$ 138,240	-	-	\$ 35.00	\$ 241,920	\$ 5.00	\$ 34,560	\$ 414,720	\$ 60.00
	Finished Pavement	6,912.00	SF	\$ 8.00	\$ 55,296	-	-	\$ 12.00	\$ 82,944	\$ 5.00	\$ 34,560	\$ 172,800	\$ 25.00
	Concrete Sidewalk	1,920.00	SF	\$ 8.00	\$ 15,360	-	-	\$ 12.00	\$ 23,040	\$ 5.00	\$ 9,600	\$ 48,000	\$ 25.00
	Steel Faced Curb	192.00	LF	\$ 125.00	\$ 24,000	-	-	\$ 70.00	\$ 13,440	\$ 5.00	\$ 960	\$ 38,400	\$ 200.00
	Parapet / Fence / Railings	192.00	LF	\$ 250.00	\$ 48,000	-	-	\$ 250.00	\$ 48,000	\$ 10.00	\$ 1,920	\$ 97,920	\$ 510.00
	Allowance for Utility relocation / support	96.00	LF	\$ 500.00	\$ 48,000	-	-	\$ 500.00	\$ 48,000	\$ 20.00	\$ 1,920	\$ 97,920	\$ 1,020.00
	Allowance for Storm Water Considerations	96.00	LF	\$ 200.00	\$ 19,200	-	-	\$ 300.00	\$ 28,800	\$ -	\$ -	\$ 48,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 289,058.40	\$ 289,058	-	-	\$ 362,600.71	\$ 362,601	\$ 73,872.00	\$ 73,872	\$ 725,531	\$ 725,531.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 347,417.16	\$ 347,417	-	-	\$ 551,990.82	\$ 551,991	\$ 84,952.80	\$ 84,953	\$ 984,361	\$ 984,360.78
No 21	50th St - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,440,510	\$ 7,440,509.70
	<i>Bridge width</i>	71.00	LF										
	<i>Bridge Length</i>	95.00	LF										
	Demolition of existing structure	6,745.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 134,900	\$ 10.00	\$ 67,450	\$ 202,350	\$ 30.00
	Demolition of existing abutments	2,130.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 106,500	\$ 10.00	\$ 21,300	\$ 127,800	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,130.00	SF	\$ 350.00	\$ 745,500	-	-	\$ 350.00	\$ 745,500	\$ 50.00	\$ 106,500	\$ 1,597,500	\$ 750.00
	Bridge Superstructure	6,745.00	SF	\$ 80.00	\$ 539,600	-	-	\$ 100.00	\$ 674,500	\$ 20.00	\$ 134,900	\$ 1,349,000	\$ 200.00
	Bridge Deck	6,745.00	SF	\$ 20.00	\$ 134,900	-	-	\$ 35.00	\$ 236,075	\$ 5.00	\$ 33,725	\$ 404,700	\$ 60.00
	Finished Pavement	6,745.00	SF	\$ 8.00	\$ 53,960	-	-	\$ 12.00	\$ 80,940	\$ 5.00	\$ 33,725	\$ 168,625	\$ 25.00
	Concrete Sidewalk	1,900.00	SF	\$ 8.00	\$ 15,200	-	-	\$ 12.00	\$ 22,800	\$ 5.00	\$ 9,500	\$ 47,500	\$ 25.00
	Steel Faced Curb	190.00	LF	\$ 125.00	\$ 23,750	-	-	\$ 70.00	\$ 13,300	\$ 5.00	\$ 950	\$ 38,000	\$ 200.00
	Parapet / Fence / Railings	190.00	LF	\$ 250.00	\$ 47,500	-	-	\$ 250.00	\$ 47,500	\$ 10.00	\$ 1,900	\$ 96,900	\$ 510.00
	Allowance for Utility relocation / support	95.00	LF	\$ 500.00	\$ 47,500	-	-	\$ 500.00	\$ 47,500	\$ 20.00	\$ 1,900	\$ 96,900	\$ 1,020.00
	Allowance for Storm Water Considerations	95.00	LF	\$ 200.00	\$ 19,000	-	-	\$ 300.00	\$ 28,500	\$ -	\$ -	\$ 47,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 284,536.50	\$ 284,537	-	-	\$ 356,365.36	\$ 356,365	\$ 72,577.50	\$ 72,578	\$ 713,479	\$ 713,479.36
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 342,216.98	\$ 342,217	-	-	\$ 544,820.17	\$ 544,820	\$ 83,464.13	\$ 83,464	\$ 970,501	\$ 970,501.27
No 22	McDonald Ave - Replace Overhead Bridge inc piers and abutments, maintain and protect NYCT bridge overhead	1.00	EA									\$ 42,692,743	\$ 42,692,743.37
	<i>Bridge width</i>	85.00	LF										
	<i>Bridge Length</i>	62.00	LF										

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Demolition of existing structure	5,270.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 105,400	\$ 10.00	\$ 52,700	\$ 158,100	\$ 30.00
	Demolition of existing abutments	2,550.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 127,500	\$ 10.00	\$ 25,500	\$ 153,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,550.00	SF	\$ 350.00	\$ 892,500	-	-	\$ 350.00	\$ 892,500	\$ 50.00	\$ 127,500	\$ 1,912,500	\$ 750.00
	Bridge Superstructure	5,270.00	SF	\$ 80.00	\$ 421,600	-	-	\$ 100.00	\$ 527,000	\$ 20.00	\$ 105,400	\$ 1,054,000	\$ 200.00
	Bridge Deck	5,270.00	SF	\$ 20.00	\$ 105,400	-	-	\$ 35.00	\$ 184,450	\$ 5.00	\$ 26,350	\$ 316,200	\$ 60.00
	Finished Pavement	5,270.00	SF	\$ 8.00	\$ 42,160	-	-	\$ 12.00	\$ 63,240	\$ 5.00	\$ 26,350	\$ 131,750	\$ 25.00
	Concrete Sidewalk	1,240.00	SF	\$ 8.00	\$ 9,920	-	-	\$ 12.00	\$ 14,880	\$ 5.00	\$ 6,200	\$ 31,000	\$ 25.00
	Steel Faced Curb	124.00	LF	\$ 125.00	\$ 15,500	-	-	\$ 70.00	\$ 8,680	\$ 5.00	\$ 620	\$ 24,800	\$ 200.00
	Parapet / Fence / Railings	124.00	LF	\$ 250.00	\$ 31,000	-	-	\$ 250.00	\$ 31,000	\$ 10.00	\$ 1,240	\$ 63,240	\$ 510.00
	Allowance for Utility relocation / support	62.00	LF	\$ 500.00	\$ 31,000	-	-	\$ 500.00	\$ 31,000	\$ 20.00	\$ 1,240	\$ 63,240	\$ 1,020.00
	Allowance for Storm Water Considerations	62.00	LF	\$ 200.00	\$ 12,400	-	-	\$ 300.00	\$ 18,600	\$ -	\$ -	\$ 31,000	\$ 500.00
	Misc. Add Ons												
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 289,722.00	\$ 289,722	-	-	\$ 471,300.61	\$ 471,301	\$ 66,765.00	\$ 66,765	\$ 827,788	\$ 827,787.61
	Temp Support of Existing NYCT Bridge	1.00	LS	\$ 5,000,000.00	\$ 5,000,000	-	-	\$ 9,000,000.00	\$ 9,000,000	\$ 1,000,000.00	\$ 1,000,000	\$ 15,000,000	\$ 15,000,000.00
	Phasing to maintain partial use of NYCT Station and Track (100%)	1.00	LS	\$ 7,221,202.00	\$ 7,221,202	-	-	\$ 12,613,304.69	\$ 12,613,305	\$ 1,511,865.00	\$ 1,511,865	\$ 21,346,372	\$ 21,346,371.69
No 23	E 3rd St - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 5,782,273	\$ 5,782,273.24
	Bridge width	50.00	LF										
	Bridge Length	89.00	LF										
	Demolition of existing structure	4,450.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 89,000	\$ 10.00	\$ 44,500	\$ 133,500	\$ 30.00
	Demolition of existing abutments	1,500.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 75,000	\$ 10.00	\$ 15,000	\$ 90,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,500.00	SF	\$ 350.00	\$ 525,000	-	-	\$ 350.00	\$ 525,000	\$ 50.00	\$ 75,000	\$ 1,125,000	\$ 750.00
	Bridge Superstructure	4,450.00	SF	\$ 80.00	\$ 356,000	-	-	\$ 100.00	\$ 445,000	\$ 20.00	\$ 89,000	\$ 890,000	\$ 200.00
	Bridge Deck	4,450.00	SF	\$ 20.00	\$ 89,000	-	-	\$ 35.00	\$ 155,750	\$ 5.00	\$ 22,250	\$ 267,000	\$ 60.00
	Finished Pavement	4,450.00	SF	\$ 8.00	\$ 35,600	-	-	\$ 12.00	\$ 53,400	\$ 5.00	\$ 22,250	\$ 111,250	\$ 25.00
	Concrete Sidewalk	1,780.00	SF	\$ 8.00	\$ 14,240	-	-	\$ 12.00	\$ 21,360	\$ 5.00	\$ 8,900	\$ 44,500	\$ 25.00
	Steel Faced Curb	178.00	LF	\$ 125.00	\$ 22,250	-	-	\$ 70.00	\$ 12,460	\$ 5.00	\$ 890	\$ 35,600	\$ 200.00
	Parapet / Fence / Railings	178.00	LF	\$ 250.00	\$ 44,500	-	-	\$ 250.00	\$ 44,500	\$ 10.00	\$ 1,780	\$ 90,780	\$ 510.00
	Allowance for Utility relocation / support	89.00	LF	\$ 500.00	\$ 44,500	-	-	\$ 500.00	\$ 44,500	\$ 20.00	\$ 1,780	\$ 90,780	\$ 1,020.00
	Allowance for Storm Water Considerations	89.00	LF	\$ 200.00	\$ 17,800	-	-	\$ 300.00	\$ 26,700	\$ -	\$ -	\$ 44,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 212,833.50	\$ 212,834	-	-	\$ 259,563.61	\$ 259,564	\$ 53,002.50	\$ 53,003	\$ 525,400	\$ 525,399.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 259,758.53	\$ 259,759	-	-	\$ 433,498.15	\$ 433,498	\$ 60,952.88	\$ 60,953	\$ 754,210	\$ 754,209.55
No 24	Ocean Parkway - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 19,321,163	\$ 19,321,162.99
	Bridge width	210.00	LF										
	Bridge Length	93.00	LF										
	Demolition of existing structure	19,530.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 390,600	\$ 10.00	\$ 195,300	\$ 585,900	\$ 30.00
	Demolition of existing abutments	6,300.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 315,000	\$ 10.00	\$ 63,000	\$ 378,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	6,300.00	SF	\$ 350.00	\$ 2,205,000	-	-	\$ 350.00	\$ 2,205,000	\$ 50.00	\$ 315,000	\$ 4,725,000	\$ 750.00
	Bridge Superstructure	19,530.00	SF	\$ 80.00	\$ 1,562,400	-	-	\$ 100.00	\$ 1,953,000	\$ 20.00	\$ 390,600	\$ 3,906,000	\$ 200.00
	Bridge Deck	19,530.00	SF	\$ 20.00	\$ 390,600	-	-	\$ 35.00	\$ 683,550	\$ 5.00	\$ 97,650	\$ 1,171,800	\$ 60.00
	Finished Pavement	19,530.00	SF	\$ 8.00	\$ 156,240	-	-	\$ 12.00	\$ 234,360	\$ 5.00	\$ 97,650	\$ 488,250	\$ 25.00
	Concrete Sidewalk	1,860.00	SF	\$ 8.00	\$ 14,880	-	-	\$ 12.00	\$ 22,320	\$ 5.00	\$ 9,300	\$ 46,500	\$ 25.00
	Steel Faced Curb	186.00	LF	\$ 125.00	\$ 23,250	-	-	\$ 70.00	\$ 13,020	\$ 5.00	\$ 930	\$ 37,200	\$ 200.00
	Parapet / Fence / Railings	186.00	LF	\$ 250.00	\$ 46,500	-	-	\$ 250.00	\$ 46,500	\$ 10.00	\$ 1,860	\$ 94,860	\$ 510.00
	Allowance for Utility relocation / support	93.00	LF	\$ 500.00	\$ 46,500	-	-	\$ 500.00	\$ 46,500	\$ 20.00	\$ 1,860	\$ 94,860	\$ 1,020.00
	Allowance for Storm Water Considerations	93.00	LF	\$ 200.00	\$ 18,600	-	-	\$ 300.00	\$ 27,900	\$ -	\$ -	\$ 46,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (30%)	1.00	LS	\$ 1,420,191.00	\$ 1,420,191	-	-	\$ 1,852,651.22	\$ 1,852,651	\$ 373,545.00	\$ 373,545	\$ 3,646,387	\$ 3,646,387.22
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 938,124.15	\$ 938,124	-	-	\$ 1,339,223.29	\$ 1,339,223	\$ 242,804.25	\$ 242,804	\$ 2,520,152	\$ 2,520,151.69
No 25	Coney Island Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 8,190,857	\$ 8,190,856.53

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Bridge width	95.00	LF										
	Bridge Length	73.00	LF										
	Demolition of existing structure	6,935.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 138,700	\$ 10.00	\$ 69,350	\$ 208,050	\$ 30.00
	Demolition of existing abutments	2,850.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 142,500	\$ 10.00	\$ 28,500	\$ 171,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLV	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,850.00	SF	\$ 350.00	\$ 997,500	-	-	\$ 350.00	\$ 997,500	\$ 50.00	\$ 142,500	\$ 2,137,500	\$ 750.00
	Bridge Superstructure	6,935.00	SF	\$ 80.00	\$ 554,800	-	-	\$ 100.00	\$ 693,500	\$ 20.00	\$ 138,700	\$ 1,387,000	\$ 200.00
	Bridge Deck	6,935.00	SF	\$ 20.00	\$ 138,700	-	-	\$ 35.00	\$ 242,725	\$ 5.00	\$ 34,675	\$ 416,100	\$ 60.00
	Finished Pavement	6,935.00	SF	\$ 8.00	\$ 55,480	-	-	\$ 12.00	\$ 83,220	\$ 5.00	\$ 34,675	\$ 173,375	\$ 25.00
	Concrete Sidewalk	1,460.00	SF	\$ 8.00	\$ 11,680	-	-	\$ 12.00	\$ 17,520	\$ 5.00	\$ 7,300	\$ 36,500	\$ 25.00
	Steel Faced Curb	146.00	LF	\$ 125.00	\$ 18,250	-	-	\$ 70.00	\$ 10,220	\$ 5.00	\$ 730	\$ 29,200	\$ 200.00
	Parapet / Fence / Railings	146.00	LF	\$ 250.00	\$ 36,500	-	-	\$ 250.00	\$ 36,500	\$ 10.00	\$ 1,460	\$ 74,460	\$ 510.00
	Allowance for Utility relocation / support	73.00	LF	\$ 500.00	\$ 36,500	-	-	\$ 500.00	\$ 36,500	\$ 20.00	\$ 1,460	\$ 74,460	\$ 1,020.00
	Allowance for Storm Water Considerations	73.00	LF	\$ 200.00	\$ 14,600	-	-	\$ 300.00	\$ 21,900	\$ -	\$ -	\$ 36,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 320,101.50	\$ 320,102	-	-	\$ 398,780.86	\$ 398,781	\$ 79,702.50	\$ 79,703	\$ 798,585	\$ 798,584.86
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 383,116.73	\$ 383,117	-	-	\$ 593,597.99	\$ 593,598	\$ 91,657.88	\$ 91,658	\$ 1,068,373	\$ 1,068,372.59
No 26	E 14th St - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 5,756,894	\$ 5,756,894.46
	Bridge width	50.00	LF										
	Bridge Length	88.00	LF										
	Demolition of existing structure	4,400.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 88,000	\$ 10.00	\$ 44,000	\$ 132,000	\$ 30.00
	Demolition of existing abutments	1,500.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 75,000	\$ 10.00	\$ 15,000	\$ 90,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLV	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,500.00	SF	\$ 350.00	\$ 525,000	-	-	\$ 350.00	\$ 525,000	\$ 50.00	\$ 75,000	\$ 1,125,000	\$ 750.00
	Bridge Superstructure	4,400.00	SF	\$ 80.00	\$ 352,000	-	-	\$ 100.00	\$ 440,000	\$ 20.00	\$ 88,000	\$ 880,000	\$ 200.00
	Bridge Deck	4,400.00	SF	\$ 20.00	\$ 88,000	-	-	\$ 35.00	\$ 154,000	\$ 5.00	\$ 22,000	\$ 264,000	\$ 60.00
	Finished Pavement	4,400.00	SF	\$ 8.00	\$ 35,200	-	-	\$ 12.00	\$ 52,800	\$ 5.00	\$ 22,000	\$ 110,000	\$ 25.00
	Concrete Sidewalk	1,760.00	SF	\$ 8.00	\$ 14,080	-	-	\$ 12.00	\$ 21,120	\$ 5.00	\$ 8,800	\$ 44,000	\$ 25.00
	Steel Faced Curb	176.00	LF	\$ 125.00	\$ 22,000	-	-	\$ 70.00	\$ 12,320	\$ 5.00	\$ 880	\$ 35,200	\$ 200.00
	Parapet / Fence / Railings	176.00	LF	\$ 250.00	\$ 44,000	-	-	\$ 250.00	\$ 44,000	\$ 10.00	\$ 1,760	\$ 89,760	\$ 510.00
	Allowance for Utility relocation / support	88.00	LF	\$ 500.00	\$ 44,000	-	-	\$ 500.00	\$ 44,000	\$ 20.00	\$ 1,760	\$ 89,760	\$ 1,020.00
	Allowance for Storm Water Considerations	88.00	LF	\$ 200.00	\$ 17,600	-	-	\$ 300.00	\$ 26,400	\$ -	\$ -	\$ 44,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 211,782.00	\$ 211,782	-	-	\$ 258,059.11	\$ 258,059	\$ 52,680.00	\$ 52,680	\$ 522,521	\$ 522,521.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 258,549.30	\$ 258,549	-	-	\$ 431,767.98	\$ 431,768	\$ 60,582.00	\$ 60,582	\$ 750,899	\$ 750,899.28
No 27	E 15th St - Replace Overhead Pedestrian Bridge inc piers and abutments	1.00	EA									\$ 3,370,615	\$ 3,370,615.14
	Bridge width	15.00	LF										
	Bridge Length	90.00	LF										
	Demolition of existing structure	1,350.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 27,000	\$ 10.00	\$ 13,500	\$ 40,500	\$ 30.00
	Demolition of existing abutments	450.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 22,500	\$ 10.00	\$ 4,500	\$ 27,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLV	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	450.00	SF	\$ 350.00	\$ 157,500	-	-	\$ 350.00	\$ 157,500	\$ 50.00	\$ 22,500	\$ 337,500	\$ 750.00
	Bridge Superstructure	1,350.00	SF	\$ 80.00	\$ 108,000	-	-	\$ 100.00	\$ 135,000	\$ 20.00	\$ 27,000	\$ 270,000	\$ 200.00
	Bridge Deck	1,350.00	SF	\$ 20.00	\$ 27,000	-	-	\$ 35.00	\$ 47,250	\$ 5.00	\$ 6,750	\$ 81,000	\$ 60.00
	Finished Pavement	1,350.00	SF	\$ 8.00	\$ 10,800	-	-	\$ 12.00	\$ 16,200	\$ 5.00	\$ 6,750	\$ 33,750	\$ 25.00
	Concrete Sidewalk	1,800.00	SF	\$ 8.00	\$ 14,400	-	-	\$ 12.00	\$ 21,600	\$ 5.00	\$ 9,000	\$ 45,000	\$ 25.00
	Steel Faced Curb	180.00	LF	\$ 125.00	\$ 22,500	-	-	\$ 70.00	\$ 12,600	\$ 5.00	\$ 900	\$ 36,000	\$ 200.00
	Parapet / Fence / Railings	180.00	LF	\$ 250.00	\$ 45,000	-	-	\$ 250.00	\$ 45,000	\$ 10.00	\$ 1,800	\$ 91,800	\$ 510.00
	Allowance for Utility relocation / support	90.00	LF	\$ 500.00	\$ 45,000	-	-	\$ 500.00	\$ 45,000	\$ 20.00	\$ 1,800	\$ 91,800	\$ 1,020.00
	Allowance for Storm Water Considerations	90.00	LF	\$ 200.00	\$ 18,000	-	-	\$ 300.00	\$ 27,000	\$ -	\$ -	\$ 45,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 107,730.00	\$ 107,730	-	-	\$ 119,160.61	\$ 119,161	\$ 24,975.00	\$ 24,975	\$ 251,866	\$ 251,865.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 138,889.50	\$ 138,890	-	-	\$ 272,034.70	\$ 272,035	\$ 28,721.25	\$ 28,721	\$ 439,645	\$ 439,645.45
No 28	NYCT B/Q Lines - Replace Overhead Bridge inc piers and abutments, maintain and protect NYCT bridge overhead	1.00	EA									\$ 43,525,688	\$ 43,525,688.37

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Bridge width	70.00	LF										
	Bridge Length	102.00	LF										
	Demolition of existing structure	7,140.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 142,800	\$ 10.00	\$ 71,400	\$ 214,200	\$ 30.00
	Demolition of existing abutments	2,100.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 105,000	\$ 10.00	\$ 21,000	\$ 126,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,100.00	SF	\$ 350.00	\$ 735,000	-	-	\$ 350.00	\$ 735,000	\$ 50.00	\$ 105,000	\$ 1,575,000	\$ 750.00
	Bridge Superstructure	7,140.00	SF	\$ 80.00	\$ 571,200	-	-	\$ 100.00	\$ 714,000	\$ 20.00	\$ 142,800	\$ 1,428,000	\$ 200.00
	Bridge Deck	7,140.00	SF	\$ 20.00	\$ 142,800	-	-	\$ 35.00	\$ 249,900	\$ 5.00	\$ 35,700	\$ 428,400	\$ 60.00
	Finished Pavement	7,140.00	SF	\$ 8.00	\$ 57,120	-	-	\$ 12.00	\$ 85,680	\$ 5.00	\$ 35,700	\$ 178,500	\$ 25.00
	Concrete Sidewalk	2,040.00	SF	\$ 8.00	\$ 16,320	-	-	\$ 12.00	\$ 24,480	\$ 5.00	\$ 10,200	\$ 51,000	\$ 25.00
	Steel Faced Curb	204.00	LF	\$ 125.00	\$ 25,500	-	-	\$ 70.00	\$ 14,280	\$ 5.00	\$ 1,020	\$ 40,800	\$ 200.00
	Parapet / Fence / Railings	204.00	LF	\$ 250.00	\$ 51,000	-	-	\$ 250.00	\$ 51,000	\$ 10.00	\$ 2,040	\$ 104,040	\$ 510.00
	Allowance for Utility relocation / support	102.00	LF	\$ 500.00	\$ 51,000	-	-	\$ 500.00	\$ 51,000	\$ 20.00	\$ 2,040	\$ 104,040	\$ 1,020.00
	Allowance for Storm Water Considerations	102.00	LF	\$ 200.00	\$ 20,400	-	-	\$ 300.00	\$ 30,600	\$ -	\$ -	\$ 51,000	\$ 500.00
	Misc. Add Ons												
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 306,051.00	\$ 306,051	-	-	\$ 501,224.11	\$ 501,224	\$ 74,835.00	\$ 74,835	\$ 882,110	\$ 882,110.11
	Temp Support of Existing NYCT Bridge	1.00	LS	\$ 5,000,000.00	\$ 5,000,000	-	-	\$ 9,000,000.00	\$ 9,000,000	\$ 1,000,000.00	\$ 1,000,000	\$ 15,000,000	\$ 15,000,000.00
	Phasing to maintain partial use of NYCT Station and Track (100%)	1.00	LS	\$ 7,346,391.00	\$ 7,346,391	-	-	\$ 12,842,718.19	\$ 12,842,718	\$ 1,573,735.00	\$ 1,573,735	\$ 21,762,844	\$ 21,762,844.19
No 29	Ocean Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 9,643,894	\$ 9,643,893.89
	Bridge width	90.00	LF										
	Bridge Length	115.00	LF										
	Demolition of existing structure	10,350.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 207,000	\$ 10.00	\$ 103,500	\$ 310,500	\$ 30.00
	Demolition of existing abutments	2,700.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 135,000	\$ 10.00	\$ 27,000	\$ 162,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,700.00	SF	\$ 350.00	\$ 945,000	-	-	\$ 350.00	\$ 945,000	\$ 50.00	\$ 135,000	\$ 2,025,000	\$ 750.00
	Bridge Superstructure	10,350.00	SF	\$ 80.00	\$ 828,000	-	-	\$ 100.00	\$ 1,035,000	\$ 20.00	\$ 207,000	\$ 2,070,000	\$ 200.00
	Bridge Deck	10,350.00	SF	\$ 20.00	\$ 207,000	-	-	\$ 35.00	\$ 362,250	\$ 5.00	\$ 51,750	\$ 621,000	\$ 60.00
	Finished Pavement	10,350.00	SF	\$ 8.00	\$ 82,800	-	-	\$ 12.00	\$ 124,200	\$ 5.00	\$ 51,750	\$ 258,750	\$ 25.00
	Concrete Sidewalk	2,300.00	SF	\$ 8.00	\$ 18,400	-	-	\$ 12.00	\$ 27,600	\$ 5.00	\$ 11,500	\$ 57,500	\$ 25.00
	Steel Faced Curb	230.00	LF	\$ 125.00	\$ 28,750	-	-	\$ 70.00	\$ 16,100	\$ 5.00	\$ 1,150	\$ 46,000	\$ 200.00
	Parapet / Fence / Railings	230.00	LF	\$ 250.00	\$ 57,500	-	-	\$ 250.00	\$ 57,500	\$ 10.00	\$ 2,300	\$ 117,300	\$ 510.00
	Allowance for Utility relocation / support	115.00	LF	\$ 500.00	\$ 57,500	-	-	\$ 500.00	\$ 57,500	\$ 20.00	\$ 2,300	\$ 117,300	\$ 1,020.00
	Allowance for Storm Water Considerations	115.00	LF	\$ 200.00	\$ 23,000	-	-	\$ 300.00	\$ 34,500	\$ -	\$ -	\$ 57,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 377,692.50	\$ 377,693	-	-	\$ 485,910.61	\$ 485,911	\$ 99,787.50	\$ 99,788	\$ 963,391	\$ 963,390.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 449,346.38	\$ 449,346	-	-	\$ 693,797.20	\$ 693,797	\$ 114,755.63	\$ 114,756	\$ 1,257,899	\$ 1,257,899.20
No 30	Bedford Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,874,455	\$ 7,874,455.01
	Bridge width	70.00	LF										
	Bridge Length	110.00	LF										
	Demolition of existing structure	7,700.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 154,000	\$ 10.00	\$ 77,000	\$ 231,000	\$ 30.00
	Demolition of existing abutments	2,100.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 105,000	\$ 10.00	\$ 21,000	\$ 126,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,100.00	SF	\$ 350.00	\$ 735,000	-	-	\$ 350.00	\$ 735,000	\$ 50.00	\$ 105,000	\$ 1,575,000	\$ 750.00
	Bridge Superstructure	7,700.00	SF	\$ 80.00	\$ 616,000	-	-	\$ 100.00	\$ 770,000	\$ 20.00	\$ 154,000	\$ 1,540,000	\$ 200.00
	Bridge Deck	7,700.00	SF	\$ 20.00	\$ 154,000	-	-	\$ 35.00	\$ 269,500	\$ 5.00	\$ 38,500	\$ 462,000	\$ 60.00
	Finished Pavement	7,700.00	SF	\$ 8.00	\$ 61,600	-	-	\$ 12.00	\$ 92,400	\$ 5.00	\$ 38,500	\$ 192,500	\$ 25.00
	Concrete Sidewalk	2,200.00	SF	\$ 8.00	\$ 17,600	-	-	\$ 12.00	\$ 26,400	\$ 5.00	\$ 11,000	\$ 55,000	\$ 25.00
	Steel Faced Curb	220.00	LF	\$ 125.00	\$ 27,500	-	-	\$ 70.00	\$ 15,400	\$ 5.00	\$ 1,100	\$ 44,000	\$ 200.00
	Parapet / Fence / Railings	220.00	LF	\$ 250.00	\$ 55,000	-	-	\$ 250.00	\$ 55,000	\$ 10.00	\$ 2,200	\$ 112,200	\$ 510.00
	Allowance for Utility relocation / support	110.00	LF	\$ 500.00	\$ 55,000	-	-	\$ 500.00	\$ 55,000	\$ 20.00	\$ 2,200	\$ 112,200	\$ 1,020.00
	Allowance for Storm Water Considerations	110.00	LF	\$ 200.00	\$ 22,000	-	-	\$ 300.00	\$ 33,000	\$ -	\$ -	\$ 55,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 302,055.00	\$ 302,055	-	-	\$ 382,268.11	\$ 382,268	\$ 78,375.00	\$ 78,375	\$ 762,698	\$ 762,698.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 362,363.25	\$ 362,363	-	-	\$ 574,608.33	\$ 574,608	\$ 90,131.25	\$ 90,131	\$ 1,027,103	\$ 1,027,102.83

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 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
No 31A	Nostrand Ave - Replace Overhead Pedestrian Bridge inc piers and abutments	1.00	EA									\$ 7,942,498	\$ 7,942,497.64
	Bridge width	78.00	LF										
	Bridge Length	95.00	LF										
	Demolition of existing structure	7,410.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 148,200	\$ 10.00	\$ 74,100	\$ 222,300	\$ 30.00
	Demolition of existing abutments	2,340.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 117,000	\$ 10.00	\$ 23,400	\$ 140,400	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,340.00	SF	\$ 350.00	\$ 819,000	-	-	\$ 350.00	\$ 819,000	\$ 50.00	\$ 117,000	\$ 1,755,000	\$ 750.00
	Bridge Superstructure	7,410.00	SF	\$ 80.00	\$ 592,800	-	-	\$ 100.00	\$ 741,000	\$ 20.00	\$ 148,200	\$ 1,482,000	\$ 200.00
	Bridge Deck	7,410.00	SF	\$ 20.00	\$ 148,200	-	-	\$ 35.00	\$ 259,350	\$ 5.00	\$ 37,050	\$ 444,600	\$ 60.00
	Finished Pavement	7,410.00	SF	\$ 8.00	\$ 59,280	-	-	\$ 12.00	\$ 88,920	\$ 5.00	\$ 37,050	\$ 185,250	\$ 25.00
	Concrete Sidewalk	1,900.00	SF	\$ 8.00	\$ 15,200	-	-	\$ 12.00	\$ 22,800	\$ 5.00	\$ 9,500	\$ 47,500	\$ 25.00
	Steel Faced Curb	190.00	LF	\$ 125.00	\$ 23,750	-	-	\$ 70.00	\$ 13,300	\$ 5.00	\$ 950	\$ 38,000	\$ 200.00
	Parapet / Fence / Railings	190.00	LF	\$ 250.00	\$ 47,500	-	-	\$ 250.00	\$ 47,500	\$ 10.00	\$ 1,900	\$ 96,900	\$ 510.00
	Allowance for Utility relocation / support	95.00	LF	\$ 500.00	\$ 47,500	-	-	\$ 500.00	\$ 47,500	\$ 20.00	\$ 1,900	\$ 96,900	\$ 1,020.00
	Allowance for Storm Water Considerations	95.00	LF	\$ 200.00	\$ 19,000	-	-	\$ 300.00	\$ 28,500	\$ -	\$ -	\$ 47,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 306,334.50	\$ 306,335	-	-	\$ 385,623.61	\$ 385,624	\$ 78,457.50	\$ 78,458	\$ 770,416	\$ 770,415.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 367,284.68	\$ 367,285	-	-	\$ 578,467.15	\$ 578,467	\$ 90,226.13	\$ 90,226	\$ 1,035,978	\$ 1,035,977.95
No 31B	Overbuild between Nostrand and Flatbush - Replace Overhead Pedestrian Bridge inc piers and abutments	1.00	EA									\$ 33,759,020	\$ 33,759,020.14
	Bridge width	438.00	LF										
	Bridge Length	95.00	LF										
	Demolition of existing structure	41,610.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 832,200	\$ 10.00	\$ 416,100	\$ 1,248,300	\$ 30.00
	Demolition of existing abutments	13,140.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 657,000	\$ 10.00	\$ 131,400	\$ 788,400	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	13,140.00	SF	\$ 350.00	\$ 4,599,000	-	-	\$ 350.00	\$ 4,599,000	\$ 50.00	\$ 657,000	\$ 9,855,000	\$ 750.00
	Bridge Superstructure	41,610.00	SF	\$ 80.00	\$ 3,328,800	-	-	\$ 100.00	\$ 4,161,000	\$ 20.00	\$ 832,200	\$ 8,322,000	\$ 200.00
	Bridge Deck	41,610.00	SF	\$ 20.00	\$ 832,200	-	-	\$ 35.00	\$ 1,456,350	\$ 5.00	\$ 208,050	\$ 2,496,600	\$ 60.00
	Finished Pavement	41,610.00	SF	\$ 8.00	\$ 332,880	-	-	\$ 12.00	\$ 499,320	\$ 5.00	\$ 208,050	\$ 1,040,250	\$ 25.00
	Concrete Sidewalk	1,900.00	SF	\$ 8.00	\$ 15,200	-	-	\$ 12.00	\$ 22,800	\$ 5.00	\$ 9,500	\$ 47,500	\$ 25.00
	Steel Faced Curb	190.00	LF	\$ 125.00	\$ 23,750	-	-	\$ 70.00	\$ 13,300	\$ 5.00	\$ 950	\$ 38,000	\$ 200.00
	Parapet / Fence / Railings	190.00	LF	\$ 250.00	\$ 47,500	-	-	\$ 250.00	\$ 47,500	\$ 10.00	\$ 1,900	\$ 96,900	\$ 510.00
	Allowance for Utility relocation / support	95.00	LF	\$ 500.00	\$ 47,500	-	-	\$ 500.00	\$ 47,500	\$ 20.00	\$ 1,900	\$ 96,900	\$ 1,020.00
	Allowance for Storm Water Considerations	95.00	LF	\$ 200.00	\$ 19,000	-	-	\$ 300.00	\$ 28,500	\$ -	\$ -	\$ 47,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 1,427,374.50	\$ 1,427,375	-	-	\$ 1,890,333.61	\$ 1,890,334	\$ 380,857.50	\$ 380,858	\$ 3,698,566	\$ 3,698,565.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,656,480.68	\$ 1,656,481	-	-	\$ 2,308,883.65	\$ 2,308,884	\$ 437,986.13	\$ 437,986	\$ 4,403,350	\$ 4,403,350.45
No 31C	Flatbush Ave - Replace Overhead Pedestrian Bridge inc piers and abutments	1.00	EA									\$ 11,312,988	\$ 11,312,988.08
	Bridge width	125.00	LF										
	Bridge Length	95.00	LF										
	Demolition of existing structure	11,875.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 237,500	\$ 10.00	\$ 118,750	\$ 356,250	\$ 30.00
	Demolition of existing abutments	3,750.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 187,500	\$ 10.00	\$ 37,500	\$ 225,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	3,750.00	SF	\$ 350.00	\$ 1,312,500	-	-	\$ 350.00	\$ 1,312,500	\$ 50.00	\$ 187,500	\$ 2,812,500	\$ 750.00
	Bridge Superstructure	11,875.00	SF	\$ 80.00	\$ 950,000	-	-	\$ 100.00	\$ 1,187,500	\$ 20.00	\$ 237,500	\$ 2,375,000	\$ 200.00
	Bridge Deck	11,875.00	SF	\$ 20.00	\$ 237,500	-	-	\$ 35.00	\$ 415,625	\$ 5.00	\$ 59,375	\$ 712,500	\$ 60.00
	Finished Pavement	11,875.00	SF	\$ 8.00	\$ 95,000	-	-	\$ 12.00	\$ 142,500	\$ 5.00	\$ 59,375	\$ 296,875	\$ 25.00
	Concrete Sidewalk	1,900.00	SF	\$ 8.00	\$ 15,200	-	-	\$ 12.00	\$ 22,800	\$ 5.00	\$ 9,500	\$ 47,500	\$ 25.00
	Steel Faced Curb	190.00	LF	\$ 125.00	\$ 23,750	-	-	\$ 70.00	\$ 13,300	\$ 5.00	\$ 950	\$ 38,000	\$ 200.00
	Parapet / Fence / Railings	190.00	LF	\$ 250.00	\$ 47,500	-	-	\$ 250.00	\$ 47,500	\$ 10.00	\$ 1,900	\$ 96,900	\$ 510.00
	Allowance for Utility relocation / support	95.00	LF	\$ 500.00	\$ 47,500	-	-	\$ 500.00	\$ 47,500	\$ 20.00	\$ 1,900	\$ 96,900	\$ 1,020.00
	Allowance for Storm Water Considerations	95.00	LF	\$ 200.00	\$ 19,000	-	-	\$ 300.00	\$ 28,500	\$ -	\$ -	\$ 47,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 452,692.50	\$ 452,693	-	-	\$ 582,071.86	\$ 582,072	\$ 117,937.50	\$ 117,938	\$ 1,152,702	\$ 1,152,701.86
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 535,596.38	\$ 535,596	-	-	\$ 804,382.64	\$ 804,383	\$ 135,628.13	\$ 135,628	\$ 1,475,607	\$ 1,475,607.14

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INFINITE CONSULTING CORP
ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
No 31D	Parking Overbuild East of Flatbush - Replace Overhead Pedestrian Bridge inc piers and abutments	1.00	EA									\$ 4,642,273	\$ 4,642,272.85
	Bridge width	395.00	LF										
	Bridge Length	95.00	LF										
	Relocation of existing columns to widen guideway	66.00	EA	\$ 10,000.00	\$ 660,000	-	-	\$ 30,000.00	\$ 1,980,000	\$ 10.00	\$ 660	\$ 2,640,660	\$ 40,010.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 99,000.00	\$ 99,000	-	-	\$ 297,000.00	\$ 297,000	\$ 99.00	\$ 99	\$ 396,099	\$ 396,099.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 128,850.00	\$ 128,850	-	-	\$ 476,550.00	\$ 476,550	\$ 113.85	\$ 114	\$ 605,514	\$ 605,513.85
No 32	Brooklyn Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,842,343	\$ 6,842,342.95
	Bridge width	55.00	LF										
	Bridge Length	115.00	LF										
	Demolition of existing structure	6,325.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 126,500	\$ 10.00	\$ 63,250	\$ 189,750	\$ 30.00
	Demolition of existing abutments	1,650.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 82,500	\$ 10.00	\$ 16,500	\$ 99,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,650.00	SF	\$ 350.00	\$ 577,500	-	-	\$ 350.00	\$ 577,500	\$ 50.00	\$ 82,500	\$ 1,237,500	\$ 750.00
	Bridge Superstructure	6,325.00	SF	\$ 80.00	\$ 506,000	-	-	\$ 100.00	\$ 632,500	\$ 20.00	\$ 126,500	\$ 1,265,000	\$ 200.00
	Bridge Deck	6,325.00	SF	\$ 20.00	\$ 126,500	-	-	\$ 35.00	\$ 221,375	\$ 5.00	\$ 31,625	\$ 379,500	\$ 60.00
	Finished Pavement	6,325.00	SF	\$ 8.00	\$ 50,600	-	-	\$ 12.00	\$ 75,900	\$ 5.00	\$ 31,625	\$ 158,125	\$ 25.00
	Concrete Sidewalk	2,300.00	SF	\$ 8.00	\$ 18,400	-	-	\$ 12.00	\$ 27,600	\$ 5.00	\$ 11,500	\$ 57,500	\$ 25.00
	Steel Faced Curb	230.00	LF	\$ 125.00	\$ 28,750	-	-	\$ 70.00	\$ 16,100	\$ 5.00	\$ 1,150	\$ 46,000	\$ 200.00
	Parapet / Fence / Railings	230.00	LF	\$ 250.00	\$ 57,500	-	-	\$ 250.00	\$ 57,500	\$ 10.00	\$ 2,300	\$ 117,300	\$ 510.00
	Allowance for Utility relocation / support	115.00	LF	\$ 500.00	\$ 57,500	-	-	\$ 500.00	\$ 57,500	\$ 20.00	\$ 2,300	\$ 117,300	\$ 1,020.00
	Allowance for Storm Water Considerations	115.00	LF	\$ 200.00	\$ 23,000	-	-	\$ 300.00	\$ 34,500	\$ -	\$ -	\$ 57,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 257,362.50	\$ 257,363	-	-	\$ 322,084.36	\$ 322,084	\$ 66,187.50	\$ 66,188	\$ 645,634	\$ 645,634.36
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 310,966.88	\$ 310,967	-	-	\$ 505,397.02	\$ 505,397	\$ 76,115.63	\$ 76,116	\$ 892,480	\$ 892,479.52
No 33	Albany Ave & H Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 19,717,866	\$ 19,717,865.71
	Bridge width (Average due to varying abutments)	300.00	LF										
	Bridge Length	63.00	LF										
	Demolition of existing structure	18,900.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 378,000	\$ 10.00	\$ 189,000	\$ 567,000	\$ 30.00
	Demolition of existing abutments	9,000.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 450,000	\$ 10.00	\$ 90,000	\$ 540,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	9,000.00	SF	\$ 350.00	\$ 3,150,000	-	-	\$ 350.00	\$ 3,150,000	\$ 50.00	\$ 450,000	\$ 6,750,000	\$ 750.00
	Bridge Superstructure	18,900.00	SF	\$ 80.00	\$ 1,512,000	-	-	\$ 100.00	\$ 1,890,000	\$ 20.00	\$ 378,000	\$ 3,780,000	\$ 200.00
	Bridge Deck	18,900.00	SF	\$ 20.00	\$ 378,000	-	-	\$ 35.00	\$ 661,500	\$ 5.00	\$ 94,500	\$ 1,134,000	\$ 60.00
	Finished Pavement	18,900.00	SF	\$ 8.00	\$ 151,200	-	-	\$ 12.00	\$ 226,800	\$ 5.00	\$ 94,500	\$ 472,500	\$ 25.00
	Concrete Sidewalk	1,260.00	SF	\$ 8.00	\$ 10,080	-	-	\$ 12.00	\$ 15,120	\$ 5.00	\$ 6,300	\$ 31,500	\$ 25.00
	Steel Faced Curb	126.00	LF	\$ 125.00	\$ 15,750	-	-	\$ 70.00	\$ 8,820	\$ 5.00	\$ 630	\$ 25,200	\$ 200.00
	Parapet / Fence / Railings	126.00	LF	\$ 250.00	\$ 31,500	-	-	\$ 250.00	\$ 31,500	\$ 10.00	\$ 1,260	\$ 64,260	\$ 510.00
	Allowance for Utility relocation / support	63.00	LF	\$ 500.00	\$ 31,500	-	-	\$ 500.00	\$ 31,500	\$ 20.00	\$ 1,260	\$ 64,260	\$ 1,020.00
	Allowance for Storm Water Considerations	63.00	LF	\$ 200.00	\$ 12,600	-	-	\$ 300.00	\$ 18,900	\$ -	\$ -	\$ 31,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 834,394.50	\$ 834,395	-	-	\$ 1,064,984.11	\$ 1,064,984	\$ 206,617.50	\$ 206,618	\$ 2,105,996	\$ 2,105,996.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 974,553.68	\$ 974,554	-	-	\$ 1,359,731.73	\$ 1,359,732	\$ 237,610.13	\$ 237,610	\$ 2,571,896	\$ 2,571,895.53
No 34	NYCT Yard Lead adjacent to L-Train - Modification to South Pier	1.00	EA									\$ 24,955,000	\$ 24,955,000.00
	Reconstruction of South Pier to allow for 4 tracks to pass through	1.00	LS	\$ 8,000,000.00	\$ 8,000,000	-	-	\$ 9,000,000.00	\$ 9,000,000	\$ 1,000,000.00	\$ 1,000,000	\$ 18,000,000	\$ 18,000,000.00
	Misc. Add Ons												
	Phasing to maintain partial use of Track (15%)	1.00	LS	\$ 1,200,000.00	\$ 1,200,000	-	-	\$ 1,350,000.00	\$ 1,350,000	\$ 150,000.00	\$ 150,000	\$ 2,700,000	\$ 2,700,000.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 1,395,000.00	\$ 1,395,000	-	-	\$ 1,687,500.00	\$ 1,687,500	\$ 172,500.00	\$ 172,500	\$ 3,255,000	\$ 3,255,000.00
No 35	NYCT 3 Line - Modification to South Piers	1.00	EA									\$ 40,825,000	\$ 40,825,000.00

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Reconstruction of South Pier to allow for 4 tracks to pass through	1.00	LS	\$ 12,000,000.00	\$ 12,000,000	-	-	\$ 15,000,000.00	\$ 15,000,000	\$ 3,000,000.00	\$ 3,000,000	\$ 30,000,000	\$ 30,000,000.00
	Misc. Add Ons												
	Phasing to maintain partial use of Track (15%)	1.00	LS	\$ 1,800,000.00	\$ 1,800,000	-	-	\$ 2,250,000.00	\$ 2,250,000	\$ 450,000.00	\$ 450,000	\$ 4,500,000	\$ 4,500,000.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 2,085,000.00	\$ 2,085,000	-	-	\$ 2,722,500.00	\$ 2,722,500	\$ 517,500.00	\$ 517,500	\$ 5,325,000	\$ 5,325,000.00
No 36	Blake Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,946,979	\$ 6,946,979.15
	Bridge width (Average due to varying abutments)	65.00	LF										
	Bridge Length	93.00	LF										
	Demolition of existing structure	6,045.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 120,900	\$ 10.00	\$ 60,450	\$ 181,350	\$ 30.00
	Demolition of existing abutments	1,950.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 97,500	\$ 10.00	\$ 19,500	\$ 117,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,950.00	SF	\$ 350.00	\$ 682,500	-	-	\$ 350.00	\$ 682,500	\$ 50.00	\$ 97,500	\$ 1,462,500	\$ 750.00
	Bridge Superstructure	6,045.00	SF	\$ 80.00	\$ 483,600	-	-	\$ 100.00	\$ 604,500	\$ 20.00	\$ 120,900	\$ 1,209,000	\$ 200.00
	Bridge Deck	6,045.00	SF	\$ 20.00	\$ 120,900	-	-	\$ 35.00	\$ 211,575	\$ 5.00	\$ 30,225	\$ 362,700	\$ 60.00
	Finished Pavement	6,045.00	SF	\$ 8.00	\$ 48,360	-	-	\$ 12.00	\$ 72,540	\$ 5.00	\$ 30,225	\$ 151,125	\$ 25.00
	Concrete Sidewalk	1,860.00	SF	\$ 8.00	\$ 14,880	-	-	\$ 12.00	\$ 22,320	\$ 5.00	\$ 9,300	\$ 46,500	\$ 25.00
	Steel Faced Curb	186.00	LF	\$ 125.00	\$ 23,250	-	-	\$ 70.00	\$ 13,020	\$ 5.00	\$ 930	\$ 37,200	\$ 200.00
	Parapet / Fence / Railings	186.00	LF	\$ 250.00	\$ 46,500	-	-	\$ 250.00	\$ 46,500	\$ 10.00	\$ 1,860	\$ 94,860	\$ 510.00
	Allowance for Utility relocation / support	93.00	LF	\$ 500.00	\$ 46,500	-	-	\$ 500.00	\$ 46,500	\$ 20.00	\$ 1,860	\$ 94,860	\$ 1,020.00
	Allowance for Storm Water Considerations	93.00	LF	\$ 200.00	\$ 18,600	-	-	\$ 300.00	\$ 27,900	\$ -	\$ -	\$ 46,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 263,263.50	\$ 263,264	-	-	\$ 327,526.36	\$ 327,526	\$ 66,712.50	\$ 66,713	\$ 657,502	\$ 657,502.36
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 317,753.03	\$ 317,753	-	-	\$ 511,655.32	\$ 511,655	\$ 76,719.38	\$ 76,719	\$ 906,128	\$ 906,127.72
No 37	Sutter Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,404,893	\$ 6,404,893.01
	Bridge width (Average due to varying abutments)	63.00	LF										
	Bridge Length	80.00	LF										
	Demolition of existing structure	5,040.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 100,800	\$ 10.00	\$ 50,400	\$ 151,200	\$ 30.00
	Demolition of existing abutments	1,890.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 94,500	\$ 10.00	\$ 18,900	\$ 113,400	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,890.00	SF	\$ 350.00	\$ 661,500	-	-	\$ 350.00	\$ 661,500	\$ 50.00	\$ 94,500	\$ 1,417,500	\$ 750.00
	Bridge Superstructure	5,040.00	SF	\$ 80.00	\$ 403,200	-	-	\$ 100.00	\$ 504,000	\$ 20.00	\$ 100,800	\$ 1,008,000	\$ 200.00
	Bridge Deck	5,040.00	SF	\$ 20.00	\$ 100,800	-	-	\$ 35.00	\$ 176,400	\$ 5.00	\$ 25,200	\$ 302,400	\$ 60.00
	Finished Pavement	5,040.00	SF	\$ 8.00	\$ 40,320	-	-	\$ 12.00	\$ 60,480	\$ 5.00	\$ 25,200	\$ 126,000	\$ 25.00
	Concrete Sidewalk	1,600.00	SF	\$ 8.00	\$ 12,800	-	-	\$ 12.00	\$ 19,200	\$ 5.00	\$ 8,000	\$ 40,000	\$ 25.00
	Steel Faced Curb	160.00	LF	\$ 125.00	\$ 20,000	-	-	\$ 70.00	\$ 11,200	\$ 5.00	\$ 800	\$ 32,000	\$ 200.00
	Parapet / Fence / Railings	160.00	LF	\$ 250.00	\$ 40,000	-	-	\$ 250.00	\$ 40,000	\$ 10.00	\$ 1,600	\$ 81,600	\$ 510.00
	Allowance for Utility relocation / support	80.00	LF	\$ 500.00	\$ 40,000	-	-	\$ 500.00	\$ 40,000	\$ 20.00	\$ 1,600	\$ 81,600	\$ 1,020.00
	Allowance for Storm Water Considerations	80.00	LF	\$ 200.00	\$ 16,000	-	-	\$ 300.00	\$ 24,000	\$ -	\$ -	\$ 40,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 240,693.00	\$ 240,693	-	-	\$ 295,475.11	\$ 295,475	\$ 59,850.00	\$ 59,850	\$ 596,018	\$ 596,018.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 291,796.95	\$ 291,797	-	-	\$ 474,796.38	\$ 474,796	\$ 68,827.50	\$ 68,828	\$ 835,421	\$ 835,420.83
No 38	Pitkin Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,709,928	\$ 6,709,927.64
	Bridge width (Average due to varying abutments)	73.00	LF										
	Bridge Length	70.00	LF										
	Demolition of existing structure	5,110.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 102,200	\$ 10.00	\$ 51,100	\$ 153,300	\$ 30.00
	Demolition of existing abutments	2,190.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 109,500	\$ 10.00	\$ 21,900	\$ 131,400	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,190.00	SF	\$ 350.00	\$ 766,500	-	-	\$ 350.00	\$ 766,500	\$ 50.00	\$ 109,500	\$ 1,642,500	\$ 750.00
	Bridge Superstructure	5,110.00	SF	\$ 80.00	\$ 408,800	-	-	\$ 100.00	\$ 511,000	\$ 20.00	\$ 102,200	\$ 1,022,000	\$ 200.00
	Bridge Deck	5,110.00	SF	\$ 20.00	\$ 102,200	-	-	\$ 35.00	\$ 178,850	\$ 5.00	\$ 25,550	\$ 306,600	\$ 60.00
	Finished Pavement	5,110.00	SF	\$ 8.00	\$ 40,880	-	-	\$ 12.00	\$ 61,320	\$ 5.00	\$ 25,550	\$ 127,750	\$ 25.00
	Concrete Sidewalk	1,400.00	SF	\$ 8.00	\$ 11,200	-	-	\$ 12.00	\$ 16,800	\$ 5.00	\$ 7,000	\$ 35,000	\$ 25.00
	Steel Faced Curb	140.00	LF	\$ 125.00	\$ 17,500	-	-	\$ 70.00	\$ 9,800	\$ 5.00	\$ 700	\$ 28,000	\$ 200.00
	Parapet / Fence / Railings	140.00	LF	\$ 250.00	\$ 35,000	-	-	\$ 250.00	\$ 35,000	\$ 10.00	\$ 1,400	\$ 71,400	\$ 510.00
	Allowance for Utility relocation / support	70.00	LF	\$ 500.00	\$ 35,000	-	-	\$ 500.00	\$ 35,000	\$ 20.00	\$ 1,400	\$ 71,400	\$ 1,020.00
	Allowance for Storm Water Considerations	70.00	LF	\$ 200.00	\$ 14,000	-	-	\$ 300.00	\$ 21,000	\$ -	\$ -	\$ 35,000	\$ 500.00

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 255,162.00	\$ 255,162	-	-	\$ 312,708.61	\$ 312,709	\$ 62,745.00	\$ 62,745	\$ 630,616	\$ 630,615.61
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 308,436.30	\$ 308,436	-	-	\$ 494,614.90	\$ 494,615	\$ 72,156.75	\$ 72,157	\$ 875,208	\$ 875,207.95
No 40	Liberty Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,293,109	\$ 6,293,108.70
	<i>Bridge width (Average due to varying abutments)</i>	55.00	LF										
	<i>Bridge Length</i>	95.00	LF										
	Demolition of existing structure	5,225.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 104,500	\$ 10.00	\$ 52,250	\$ 156,750	\$ 30.00
	Demolition of existing abutments	1,650.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 82,500	\$ 10.00	\$ 16,500	\$ 99,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,650.00	SF	\$ 350.00	\$ 577,500	-	-	\$ 350.00	\$ 577,500	\$ 50.00	\$ 82,500	\$ 1,237,500	\$ 750.00
	Bridge Superstructure	5,225.00	SF	\$ 80.00	\$ 418,000	-	-	\$ 100.00	\$ 522,500	\$ 20.00	\$ 104,500	\$ 1,045,000	\$ 200.00
	Bridge Deck	5,225.00	SF	\$ 20.00	\$ 104,500	-	-	\$ 35.00	\$ 182,875	\$ 5.00	\$ 26,125	\$ 313,500	\$ 60.00
	Finished Pavement	5,225.00	SF	\$ 8.00	\$ 41,800	-	-	\$ 12.00	\$ 62,700	\$ 5.00	\$ 26,125	\$ 130,625	\$ 25.00
	Concrete Sidewalk	1,900.00	SF	\$ 8.00	\$ 15,200	-	-	\$ 12.00	\$ 22,800	\$ 5.00	\$ 9,500	\$ 47,500	\$ 25.00
	Steel Faced Curb	190.00	LF	\$ 125.00	\$ 23,750	-	-	\$ 70.00	\$ 13,300	\$ 5.00	\$ 950	\$ 38,000	\$ 200.00
	Parapet / Fence / Railings	190.00	LF	\$ 250.00	\$ 47,500	-	-	\$ 250.00	\$ 47,500	\$ 10.00	\$ 1,900	\$ 96,900	\$ 510.00
	Allowance for Utility relocation / support	95.00	LF	\$ 500.00	\$ 47,500	-	-	\$ 500.00	\$ 47,500	\$ 20.00	\$ 1,900	\$ 96,900	\$ 1,020.00
	Allowance for Storm Water Considerations	95.00	LF	\$ 200.00	\$ 19,000	-	-	\$ 300.00	\$ 28,500	\$ -	\$ -	\$ 47,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 234,712.50	\$ 234,713	-	-	\$ 289,489.36	\$ 289,489	\$ 59,137.50	\$ 59,138	\$ 583,339	\$ 583,339.36
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 284,919.38	\$ 284,919	-	-	\$ 467,912.77	\$ 467,913	\$ 68,008.13	\$ 68,008	\$ 820,840	\$ 820,840.27
No Q14	Eliot Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 10,959,583	\$ 10,959,583.01
	<i>Bridge width</i>	99.00	LF										
	<i>Bridge Length</i>	128.00	LF										
	Demolition of existing structure	12,672.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 253,440	\$ 10.00	\$ 126,720	\$ 380,160	\$ 30.00
	Demolition of existing abutments	2,970.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 148,500	\$ 10.00	\$ 29,700	\$ 178,200	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,970.00	SF	\$ 350.00	\$ 1,039,500	-	-	\$ 350.00	\$ 1,039,500	\$ 50.00	\$ 148,500	\$ 2,227,500	\$ 750.00
	Bridge Superstructure	12,672.00	SF	\$ 80.00	\$ 1,013,760	-	-	\$ 100.00	\$ 1,267,200	\$ 20.00	\$ 253,440	\$ 2,534,400	\$ 200.00
	Bridge Deck	12,672.00	SF	\$ 20.00	\$ 253,440	-	-	\$ 35.00	\$ 443,520	\$ 5.00	\$ 63,360	\$ 760,320	\$ 60.00
	Finished Pavement	12,672.00	SF	\$ 8.00	\$ 101,376	-	-	\$ 12.00	\$ 152,064	\$ 5.00	\$ 63,360	\$ 316,800	\$ 25.00
	Concrete Sidewalk	2,560.00	SF	\$ 8.00	\$ 20,480	-	-	\$ 12.00	\$ 30,720	\$ 5.00	\$ 12,800	\$ 64,000	\$ 25.00
	Steel Faced Curb	256.00	LF	\$ 125.00	\$ 32,000	-	-	\$ 70.00	\$ 17,920	\$ 5.00	\$ 1,280	\$ 51,200	\$ 200.00
	Parapet / Fence / Railings	256.00	LF	\$ 250.00	\$ 64,000	-	-	\$ 250.00	\$ 64,000	\$ 10.00	\$ 2,560	\$ 130,560	\$ 510.00
	Allowance for Utility relocation / support	128.00	LF	\$ 500.00	\$ 64,000	-	-	\$ 500.00	\$ 64,000	\$ 20.00	\$ 2,560	\$ 130,560	\$ 1,020.00
	Allowance for Storm Water Considerations	128.00	LF	\$ 200.00	\$ 25,600	-	-	\$ 300.00	\$ 38,400	\$ -	\$ -	\$ 64,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 432,623.40	\$ 432,623	-	-	\$ 563,552.71	\$ 563,553	\$ 116,442.00	\$ 116,442	\$ 1,112,618	\$ 1,112,618.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 512,516.91	\$ 512,517	-	-	\$ 783,085.62	\$ 783,086	\$ 133,908.30	\$ 133,908	\$ 1,429,511	\$ 1,429,510.83
No. Q15	Caldwell Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,844,889	\$ 6,844,888.76
	<i>Overbuild Width</i>	64.00	LF										
	<i>Bridge Length</i>	92.00	LF										
	Demolition of existing structure	5,888.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 117,760	\$ 10.00	\$ 58,880	\$ 176,640	\$ 30.00
	Demolition of existing abutments	1,920.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 96,000	\$ 10.00	\$ 19,200	\$ 115,200	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,920.00	SF	\$ 350.00	\$ 672,000	-	-	\$ 350.00	\$ 672,000	\$ 50.00	\$ 96,000	\$ 1,440,000	\$ 750.00
	Bridge Superstructure	5,888.00	SF	\$ 80.00	\$ 471,040	-	-	\$ 100.00	\$ 588,800	\$ 20.00	\$ 117,760	\$ 1,177,600	\$ 200.00
	Bridge Deck	5,888.00	SF	\$ 20.00	\$ 117,760	-	-	\$ 35.00	\$ 206,080	\$ 5.00	\$ 29,440	\$ 353,280	\$ 60.00
	Finished Pavement	5,888.00	SF	\$ 8.00	\$ 47,104	-	-	\$ 12.00	\$ 70,656	\$ 5.00	\$ 29,440	\$ 147,200	\$ 25.00
	Concrete Sidewalk	1,840.00	SF	\$ 8.00	\$ 14,720	-	-	\$ 12.00	\$ 22,080	\$ 5.00	\$ 9,200	\$ 46,000	\$ 25.00
	Steel Faced Curb	184.00	LF	\$ 125.00	\$ 23,000	-	-	\$ 70.00	\$ 12,880	\$ 5.00	\$ 920	\$ 36,800	\$ 200.00
	Parapet / Fence / Railings	184.00	LF	\$ 250.00	\$ 46,000	-	-	\$ 250.00	\$ 46,000	\$ 10.00	\$ 1,840	\$ 93,840	\$ 510.00
	Allowance for Utility relocation / support	92.00	LF	\$ 500.00	\$ 46,000	-	-	\$ 500.00	\$ 46,000	\$ 20.00	\$ 1,840	\$ 93,840	\$ 1,020.00
	Allowance for Storm Water Considerations	92.00	LF	\$ 200.00	\$ 18,400	-	-	\$ 300.00	\$ 27,600	\$ -	\$ -	\$ 46,000	\$ 500.00

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 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 258,903.60	\$ 258,904	-	-	\$ 321,541.51	\$ 321,542	\$ 65,478.00	\$ 65,478	\$ 645,923	\$ 645,923.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 312,739.14	\$ 312,739	-	-	\$ 504,772.74	\$ 504,773	\$ 75,299.70	\$ 75,300	\$ 892,812	\$ 892,811.58
No. Q19	57th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,929,496	\$ 6,929,495.70
	Overbuild Width	59.00	LF										
	Bridge Length	107.00	LF										
	Demolition of existing structure	6,313.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 126,260	\$ 10.00	\$ 63,130	\$ 189,390	\$ 30.00
	Demolition of existing abutments	1,770.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 88,500	\$ 10.00	\$ 17,700	\$ 106,200	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,770.00	SF	\$ 350.00	\$ 619,500	-	-	\$ 350.00	\$ 619,500	\$ 50.00	\$ 88,500	\$ 1,327,500	\$ 750.00
	Bridge Superstructure	6,313.00	SF	\$ 80.00	\$ 505,040	-	-	\$ 100.00	\$ 631,300	\$ 20.00	\$ 126,260	\$ 1,262,600	\$ 200.00
	Bridge Deck	6,313.00	SF	\$ 20.00	\$ 126,260	-	-	\$ 35.00	\$ 220,955	\$ 5.00	\$ 31,565	\$ 378,780	\$ 60.00
	Finished Pavement	6,313.00	SF	\$ 8.00	\$ 50,504	-	-	\$ 12.00	\$ 75,756	\$ 5.00	\$ 15,782	\$ 157,825	\$ 25.00
	Concrete Sidewalk	2,140.00	SF	\$ 8.00	\$ 17,120	-	-	\$ 12.00	\$ 25,680	\$ 5.00	\$ 10,700	\$ 53,500	\$ 25.00
	Steel Faced Curb	214.00	LF	\$ 125.00	\$ 26,750	-	-	\$ 70.00	\$ 14,980	\$ 5.00	\$ 1,070	\$ 42,800	\$ 200.00
	Parapet / Fence / Railings	214.00	LF	\$ 250.00	\$ 53,500	-	-	\$ 250.00	\$ 53,500	\$ 10.00	\$ 2,140	\$ 109,140	\$ 510.00
	Allowance for Utility relocation / support	107.00	LF	\$ 500.00	\$ 53,500	-	-	\$ 500.00	\$ 53,500	\$ 20.00	\$ 2,140	\$ 109,140	\$ 1,020.00
	Allowance for Storm Water Considerations	107.00	LF	\$ 200.00	\$ 21,400	-	-	\$ 300.00	\$ 32,100	\$ -	\$ -	\$ 53,500	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 261,536.10	\$ 261,536	-	-	\$ 326,967.76	\$ 326,968	\$ 67,015.50	\$ 67,016	\$ 655,519	\$ 655,519.36
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 315,766.52	\$ 315,767	-	-	\$ 511,012.93	\$ 511,013	\$ 77,067.83	\$ 77,068	\$ 903,847	\$ 903,847.27
No. Q20	Grand Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,845,096	\$ 7,845,095.51
	Overbuild Width	85.00	LF										
	Bridge Length	80.00	LF										
	Demolition of existing structure	6,800.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 136,000	\$ 10.00	\$ 68,000	\$ 204,000	\$ 30.00
	Demolition of existing abutments	2,550.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 127,500	\$ 10.00	\$ 25,500	\$ 153,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,550.00	SF	\$ 350.00	\$ 892,500	-	-	\$ 350.00	\$ 892,500	\$ 50.00	\$ 127,500	\$ 1,912,500	\$ 750.00
	Bridge Superstructure	6,800.00	SF	\$ 80.00	\$ 544,000	-	-	\$ 100.00	\$ 680,000	\$ 20.00	\$ 136,000	\$ 1,360,000	\$ 200.00
	Bridge Deck	6,800.00	SF	\$ 20.00	\$ 136,000	-	-	\$ 35.00	\$ 238,000	\$ 5.00	\$ 34,000	\$ 408,000	\$ 60.00
	Finished Pavement	6,800.00	SF	\$ 8.00	\$ 54,400	-	-	\$ 12.00	\$ 81,600	\$ 5.00	\$ 34,000	\$ 170,000	\$ 25.00
	Concrete Sidewalk	1,600.00	SF	\$ 8.00	\$ 12,800	-	-	\$ 12.00	\$ 19,200	\$ 5.00	\$ 8,000	\$ 40,000	\$ 25.00
	Steel Faced Curb	160.00	LF	\$ 125.00	\$ 20,000	-	-	\$ 70.00	\$ 11,200	\$ 5.00	\$ 800	\$ 32,000	\$ 200.00
	Parapet / Fence / Railings	160.00	LF	\$ 250.00	\$ 40,000	-	-	\$ 250.00	\$ 40,000	\$ 10.00	\$ 1,600	\$ 81,600	\$ 510.00
	Allowance for Utility relocation / support	80.00	LF	\$ 500.00	\$ 40,000	-	-	\$ 500.00	\$ 40,000	\$ 20.00	\$ 1,600	\$ 81,600	\$ 1,020.00
	Allowance for Storm Water Considerations	80.00	LF	\$ 200.00	\$ 16,000	-	-	\$ 300.00	\$ 24,000	\$ -	\$ -	\$ 40,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 303,855.00	\$ 303,855	-	-	\$ 379,163.11	\$ 379,163	\$ 76,350.00	\$ 76,350	\$ 759,368	\$ 759,368.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 364,433.25	\$ 364,433	-	-	\$ 571,037.58	\$ 571,038	\$ 87,802.50	\$ 87,803	\$ 1,023,273	\$ 1,023,273.33
No. Q24	45th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,255,922	\$ 7,255,921.76
	Overbuild Width	76.00	LF										
	Bridge Length	80.00	LF										
	Demolition of existing structure	6,080.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 121,600	\$ 10.00	\$ 60,800	\$ 182,400	\$ 30.00
	Demolition of existing abutments	2,280.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 114,000	\$ 10.00	\$ 22,800	\$ 136,800	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,280.00	SF	\$ 350.00	\$ 798,000	-	-	\$ 350.00	\$ 798,000	\$ 50.00	\$ 114,000	\$ 1,710,000	\$ 750.00
	Bridge Superstructure	6,080.00	SF	\$ 80.00	\$ 486,400	-	-	\$ 100.00	\$ 608,000	\$ 20.00	\$ 121,600	\$ 1,216,000	\$ 200.00
	Bridge Deck	6,080.00	SF	\$ 20.00	\$ 121,600	-	-	\$ 35.00	\$ 212,800	\$ 5.00	\$ 30,400	\$ 364,800	\$ 60.00
	Finished Pavement	6,080.00	SF	\$ 8.00	\$ 48,640	-	-	\$ 12.00	\$ 72,960	\$ 5.00	\$ 30,400	\$ 152,000	\$ 25.00
	Concrete Sidewalk	1,600.00	SF	\$ 8.00	\$ 12,800	-	-	\$ 12.00	\$ 19,200	\$ 5.00	\$ 8,000	\$ 40,000	\$ 25.00
	Steel Faced Curb	160.00	LF	\$ 125.00	\$ 20,000	-	-	\$ 70.00	\$ 11,200	\$ 5.00	\$ 800	\$ 32,000	\$ 200.00
	Parapet / Fence / Railings	160.00	LF	\$ 250.00	\$ 40,000	-	-	\$ 250.00	\$ 40,000	\$ 10.00	\$ 1,600	\$ 81,600	\$ 510.00
	Allowance for Utility relocation / support	80.00	LF	\$ 500.00	\$ 40,000	-	-	\$ 500.00	\$ 40,000	\$ 20.00	\$ 1,600	\$ 81,600	\$ 1,020.00
	Allowance for Storm Water Considerations	80.00	LF	\$ 200.00	\$ 16,000	-	-	\$ 300.00	\$ 24,000	\$ -	\$ -	\$ 40,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 278,016.00	\$ 278,016	-	-	\$ 344,927.11	\$ 344,927	\$ 69,600.00	\$ 69,600	\$ 692,543	\$ 692,543.11

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 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 334,718.40	\$ 334,718	-	-	\$ 531,666.18	\$ 531,666	\$ 80,040.00	\$ 80,040	\$ 946,425	\$ 946,424.58
No. Q25	44th Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,799,395	\$ 6,799,394.76
	Overbuild Width	60.00	LF										
	Bridge Length	100.00	LF										
	Demolition of existing structure	6,000.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 120,000	\$ 10.00	\$ 60,000	\$ 180,000	\$ 30.00
	Demolition of existing abutments	1,800.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 90,000	\$ 10.00	\$ 18,000	\$ 108,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,800.00	SF	\$ 350.00	\$ 630,000	-	-	\$ 350.00	\$ 630,000	\$ 50.00	\$ 90,000	\$ 1,350,000	\$ 750.00
	Bridge Superstructure	6,000.00	SF	\$ 80.00	\$ 480,000	-	-	\$ 100.00	\$ 600,000	\$ 20.00	\$ 120,000	\$ 1,200,000	\$ 200.00
	Bridge Deck	6,000.00	SF	\$ 20.00	\$ 120,000	-	-	\$ 35.00	\$ 210,000	\$ 5.00	\$ 30,000	\$ 360,000	\$ 60.00
	Finished Pavement	6,000.00	SF	\$ 8.00	\$ 48,000	-	-	\$ 12.00	\$ 72,000	\$ 5.00	\$ 30,000	\$ 150,000	\$ 25.00
	Concrete Sidewalk	2,000.00	SF	\$ 8.00	\$ 16,000	-	-	\$ 12.00	\$ 24,000	\$ 5.00	\$ 10,000	\$ 50,000	\$ 25.00
	Steel Faced Curb	200.00	LF	\$ 125.00	\$ 25,000	-	-	\$ 70.00	\$ 14,000	\$ 5.00	\$ 1,000	\$ 40,000	\$ 200.00
	Parapet / Fence / Railings	200.00	LF	\$ 250.00	\$ 50,000	-	-	\$ 250.00	\$ 50,000	\$ 10.00	\$ 2,000	\$ 102,000	\$ 510.00
	Allowance for Utility relocation / support	100.00	LF	\$ 500.00	\$ 50,000	-	-	\$ 500.00	\$ 50,000	\$ 20.00	\$ 2,000	\$ 102,000	\$ 1,020.00
	Allowance for Storm Water Considerations	100.00	LF	\$ 200.00	\$ 20,000	-	-	\$ 300.00	\$ 30,000	\$ -	\$ -	\$ 50,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 256,350.00	\$ 256,350	-	-	\$ 319,163.11	\$ 319,163	\$ 65,250.00	\$ 65,250	\$ 640,763	\$ 640,763.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 309,802.50	\$ 309,803	-	-	\$ 502,037.58	\$ 502,038	\$ 75,037.50	\$ 75,038	\$ 886,878	\$ 886,877.58
No. Q26	43rd Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 6,799,395	\$ 6,799,394.76
	Overbuild Width	60.00	LF										
	Bridge Length	100.00	LF										
	Demolition of existing structure	6,000.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 120,000	\$ 10.00	\$ 60,000	\$ 180,000	\$ 30.00
	Demolition of existing abutments	1,800.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 90,000	\$ 10.00	\$ 18,000	\$ 108,000	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	1,800.00	SF	\$ 350.00	\$ 630,000	-	-	\$ 350.00	\$ 630,000	\$ 50.00	\$ 90,000	\$ 1,350,000	\$ 750.00
	Bridge Superstructure	6,000.00	SF	\$ 80.00	\$ 480,000	-	-	\$ 100.00	\$ 600,000	\$ 20.00	\$ 120,000	\$ 1,200,000	\$ 200.00
	Bridge Deck	6,000.00	SF	\$ 20.00	\$ 120,000	-	-	\$ 35.00	\$ 210,000	\$ 5.00	\$ 30,000	\$ 360,000	\$ 60.00
	Finished Pavement	6,000.00	SF	\$ 8.00	\$ 48,000	-	-	\$ 12.00	\$ 72,000	\$ 5.00	\$ 30,000	\$ 150,000	\$ 25.00
	Concrete Sidewalk	2,000.00	SF	\$ 8.00	\$ 16,000	-	-	\$ 12.00	\$ 24,000	\$ 5.00	\$ 10,000	\$ 50,000	\$ 25.00
	Steel Faced Curb	200.00	LF	\$ 125.00	\$ 25,000	-	-	\$ 70.00	\$ 14,000	\$ 5.00	\$ 1,000	\$ 40,000	\$ 200.00
	Parapet / Fence / Railings	200.00	LF	\$ 250.00	\$ 50,000	-	-	\$ 250.00	\$ 50,000	\$ 10.00	\$ 2,000	\$ 102,000	\$ 510.00
	Allowance for Utility relocation / support	100.00	LF	\$ 500.00	\$ 50,000	-	-	\$ 500.00	\$ 50,000	\$ 20.00	\$ 2,000	\$ 102,000	\$ 1,020.00
	Allowance for Storm Water Considerations	100.00	LF	\$ 200.00	\$ 20,000	-	-	\$ 300.00	\$ 30,000	\$ -	\$ -	\$ 50,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 256,350.00	\$ 256,350	-	-	\$ 319,163.11	\$ 319,163	\$ 65,250.00	\$ 65,250	\$ 640,763	\$ 640,763.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 309,802.50	\$ 309,803	-	-	\$ 502,037.58	\$ 502,038	\$ 75,037.50	\$ 75,038	\$ 886,878	\$ 886,877.58
No. Q27	Woodside Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,611,145	\$ 7,611,145.26
	Overbuild Width	71.00	LF										
	Bridge Length	100.00	LF										
	Demolition of existing structure	7,100.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 142,000	\$ 10.00	\$ 71,000	\$ 213,000	\$ 30.00
	Demolition of existing abutments	2,130.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 106,500	\$ 10.00	\$ 21,300	\$ 127,800	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,130.00	SF	\$ 350.00	\$ 745,500	-	-	\$ 350.00	\$ 745,500	\$ 50.00	\$ 106,500	\$ 1,597,500	\$ 750.00
	Bridge Superstructure	7,100.00	SF	\$ 80.00	\$ 568,000	-	-	\$ 100.00	\$ 710,000	\$ 20.00	\$ 142,000	\$ 1,420,000	\$ 200.00
	Bridge Deck	7,100.00	SF	\$ 20.00	\$ 142,000	-	-	\$ 35.00	\$ 248,500	\$ 5.00	\$ 35,500	\$ 426,000	\$ 60.00
	Finished Pavement	7,100.00	SF	\$ 8.00	\$ 56,800	-	-	\$ 12.00	\$ 85,200	\$ 5.00	\$ 35,500	\$ 177,500	\$ 25.00
	Concrete Sidewalk	2,000.00	SF	\$ 8.00	\$ 16,000	-	-	\$ 12.00	\$ 24,000	\$ 5.00	\$ 10,000	\$ 50,000	\$ 25.00
	Steel Faced Curb	200.00	LF	\$ 125.00	\$ 25,000	-	-	\$ 70.00	\$ 14,000	\$ 5.00	\$ 1,000	\$ 40,000	\$ 200.00
	Parapet / Fence / Railings	200.00	LF	\$ 250.00	\$ 50,000	-	-	\$ 250.00	\$ 50,000	\$ 10.00	\$ 2,000	\$ 102,000	\$ 510.00
	Allowance for Utility relocation / support	100.00	LF	\$ 500.00	\$ 50,000	-	-	\$ 500.00	\$ 50,000	\$ 20.00	\$ 2,000	\$ 102,000	\$ 1,020.00
	Allowance for Storm Water Considerations	100.00	LF	\$ 200.00	\$ 20,000	-	-	\$ 300.00	\$ 30,000	\$ -	\$ -	\$ 50,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 291,495.00	\$ 291,495	-	-	\$ 366,518.11	\$ 366,518	\$ 74,820.00	\$ 74,820	\$ 732,833	\$ 732,833.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00

The Metropolitan Transportation Authority Construction and Development
 Interborough Express
 Planning and Environmental Linkages (PEL)
 Bus Rapid Transit, Light Rail Transit, & Conventional Rail Options



INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

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ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 350,219.25	\$ 350,219	-	-	\$ 556,495.83	\$ 556,496	\$ 86,043.00	\$ 86,043	\$ 992,758	\$ 992,758.08
No. Q28	41st Ave - Replace Overhead Bridge inc piers and abutments	1.00	EA									\$ 7,980,123	\$ 7,980,122.76
	Overbuild Width	76.00	LF										
	Bridge Length	100.00	LF										
	Demolition of existing structure	7,600.00	SF	\$ -	\$ -	-	-	\$ 20.00	\$ 152,000	\$ 10.00	\$ 76,000	\$ 228,000	\$ 30.00
	Demolition of existing abutments	2,280.00	SF	\$ -	\$ -	-	-	\$ 50.00	\$ 114,000	\$ 10.00	\$ 22,800	\$ 136,800	\$ 60.00
	Foundation (assumes 30 drilled or driven piles, 60' Deep)	3,600.00	VLF	\$ 75.00	\$ 270,000	-	-	\$ 66.04	\$ 237,754	\$ 20.00	\$ 72,000	\$ 579,754	\$ 161.04
	New Abutments & Bearings	2,280.00	SF	\$ 350.00	\$ 798,000	-	-	\$ 350.00	\$ 798,000	\$ 50.00	\$ 114,000	\$ 1,710,000	\$ 750.00
	Bridge Superstructure	7,600.00	SF	\$ 80.00	\$ 608,000	-	-	\$ 100.00	\$ 760,000	\$ 20.00	\$ 152,000	\$ 1,520,000	\$ 200.00
	Bridge Deck	7,600.00	SF	\$ 20.00	\$ 152,000	-	-	\$ 35.00	\$ 266,000	\$ 5.00	\$ 38,000	\$ 456,000	\$ 60.00
	Finished Pavement	7,600.00	SF	\$ 8.00	\$ 60,800	-	-	\$ 12.00	\$ 91,200	\$ 5.00	\$ 38,000	\$ 190,000	\$ 25.00
	Concrete Sidewalk	2,000.00	SF	\$ 8.00	\$ 16,000	-	-	\$ 12.00	\$ 24,000	\$ 5.00	\$ 10,000	\$ 50,000	\$ 25.00
	Steel Faced Curb	200.00	LF	\$ 125.00	\$ 25,000	-	-	\$ 70.00	\$ 14,000	\$ 5.00	\$ 1,000	\$ 40,000	\$ 200.00
	Parapet / Fence / Railings	200.00	LF	\$ 250.00	\$ 50,000	-	-	\$ 250.00	\$ 50,000	\$ 10.00	\$ 2,000	\$ 102,000	\$ 510.00
	Allowance for Utility relocation / support	100.00	LF	\$ 500.00	\$ 50,000	-	-	\$ 500.00	\$ 50,000	\$ 20.00	\$ 2,000	\$ 102,000	\$ 1,020.00
	Allowance for Storm Water Considerations	100.00	LF	\$ 200.00	\$ 20,000	-	-	\$ 300.00	\$ 30,000	\$ -	\$ -	\$ 50,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 307,470.00	\$ 307,470	-	-	\$ 388,043.11	\$ 388,043	\$ 79,170.00	\$ 79,170	\$ 774,683	\$ 774,683.11
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 368,590.50	\$ 368,591	-	-	\$ 581,249.58	\$ 581,250	\$ 91,045.50	\$ 91,046	\$ 1,040,886	\$ 1,040,885.58
40.0540	Retrofitting East New York Tunnel	1.00	LS									\$ 19,247,347	\$ 19,247,346.54
	Tunnel Length	3,500.00	LF										
	Number of Tubes	3.00	EA										
	Wall Height	12.00	LF										
	Arch Height	6.00	LF										
	Tube Width	14.00	LF										
	Spall & Crack repairs to tunnel surface (assumes 10% surface area will require repair)												
	Sidewalls	25,200.00	SF	\$ 15.00	\$ 378,000	-	-	\$ 80.00	\$ 2,016,000	\$ 5.00	\$ 126,000	\$ 2,520,000	\$ 100.00
	Arch	21,504.71	SF	\$ 15.00	\$ 322,571	-	-	\$ 105.00	\$ 2,257,995	\$ 5.00	\$ 107,524	\$ 2,688,089	\$ 125.00
	Emergency Walkway in tunnels, 30"w, 10" h	105,000.00	SF	\$ 20.00	\$ 2,100,000	-	-	\$ 35.00	\$ 3,675,000	\$ 5.00	\$ 525,000	\$ 6,300,000	\$ 60.00
	Emergency Standpipe for Fire fighting	10,500.00	LF	\$ 160.00	\$ 1,680,000	-	-	\$ 200.00	\$ 2,100,000	\$ -	\$ -	\$ 3,780,000	\$ 360.00
	Emergency Comms in Tunnel											Inc w/ Section 50	
	Installation of Sliding Fire doors at existing openings between each of the three tunnels (Assumed every 50')	140.00	EA	\$ 10,000.00	\$ 1,400,000	-	-	\$ 10,000.00	\$ 1,400,000	\$ -	\$ -	\$ 2,800,000	\$ 20,000.00
	New tracks in each tunnel											Inc w/ Section 10	
	Allowance for Storm Water Considerations	14.00	LF	\$ 200.00	\$ 2,800	-	-	\$ 300.00	\$ 4,200	\$ -	\$ -	\$ 7,000	\$ 500.00
	Misc. Add Ons												
	Phasing to maintain partial use of Roadway (15%)	1.00	LS	\$ 420.00	\$ 420	-	-	\$ 630.00	\$ 630	\$ -	\$ -	\$ 1,050	\$ 1,050.00
	Maintenance and Protection of Existing Freight Track	1.00	LS	\$ 100,000.00	\$ 100,000	-	-	\$ 900,000.00	\$ 900,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000.00
	Delays Due to Freight Train being active (20%)	1.00	LS	\$ 15,483.00	\$ 15,483	-	-	\$ 135,724.50	\$ 135,725	\$ -	\$ -	\$ 151,208	\$ 151,207.50
40.0600	Station access and accommodation	1.00	Stations									\$ 190,446	\$ 190,445.82
	Concrete Sidewalk	1,000.00	SF	\$ 6.00	\$ 6,000	0.08	80.00	\$ 118.45	\$ 9,476	\$ 3.00	\$ 3,000	\$ 18,476	\$ 18.48
	Concrete Curb	800.00	LF	\$ 10.00	\$ 8,000	0.17	135.08	\$ 118.45	\$ 16,000	\$ 3.00	\$ 2,400	\$ 26,400	\$ 33.00
	Landscaping	2,500.00	SF	\$ 5.00	\$ 12,500	0.06	150.00	\$ 118.45	\$ 17,768	\$ 3.00	\$ 7,500	\$ 37,768	\$ 15.11
	Lighting	400.00	LF	\$ 15.00	\$ 6,000	0.30	120.00	\$ 163.39	\$ 19,606	\$ 5.00	\$ 2,000	\$ 27,606	\$ 69.02
	Furnishings	1.00	LS	\$ 20,000.00	\$ 20,000	120.00	120.00	\$ 163.39	\$ 19,606	\$ 2,500.00	\$ 2,500	\$ 42,106	\$ 42,106.34
	Misc. Works (25% contingency)	1.00	LS	\$ 13,125.00	\$ 13,125	151.27	151.27	\$ 136.27	\$ 20,614	\$ 4,350.00	\$ 4,350	\$ 38,089	\$ 38,089.16
40.0710	Surface Parking Lot	1.00	Spaces									\$ -	\$ -
40.0720	Parking Garage Above Ground	1.00	Spaces									\$ -	\$ -
40.0730	Parking Garage below Ground	1.00	Spaces									\$ -	\$ -

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INFINITE CONSULTING CORP
 ESTIMATOR: TRAVIS WILLIAMS, 11/1/2022
 CHECKED BY: MADHURA SHAH, 11/1/2022

CONFIDENTIAL

50

ITEM	DESCRIPTION	QTY.	UNIT	MATERIAL COST		LABOR MAN HOUR		LABOR COST		EQUIPMENT RENTAL		TOTAL COST	UNIT COST
				UNIT	TOTAL	HRS/UNIT	TOTAL HRS	RATE/HR	TOTAL	UNIT	TOTAL		
50	SYSTEMS												
50.0100	Train control and signals	1.00	Track Feet									\$ 1,238	\$ 1,238.00
	Train Control - Wayside	1.00	Track Feet	\$ 242.90	\$ 243	2.55	2.55	\$ 163.39	\$ 416	\$ 34.70	\$ 35	\$ 694	\$ 694.00
	Train Control - On Board Systems	1.00	Track Feet	\$ 113.75	\$ 114	1.19	1.19	\$ 163.39	\$ 195	\$ 16.25	\$ 16	\$ 325	\$ 325.00
	Train Control - Centralized Systems	1.00	Track Feet	\$ 76.65	\$ 77	0.80	0.80	\$ 163.39	\$ 131	\$ 10.95	\$ 11	\$ 219	\$ 219.00
50.0200	Traffic signals and crossing protection	1.00	EA									\$ 349,888	\$ 349,888.13
	Pedestrian Barrier Arm, inc foundation	2.00	EA	\$ 5,250.00	\$ 10,500	66.18	132.36	\$ 123.34	\$ 16,326	\$ 429.62	\$ 859	\$ 27,685	\$ 13,842.39
	Vehicular Barrier Arm, inc foundation	2.00	EA	\$ 10,500.00	\$ 21,000	148.91	297.82	\$ 123.34	\$ 36,732	\$ 966.64	\$ 1,933	\$ 59,666	\$ 29,832.88
	Traffic Signal, inc foundation, pole, cabinet, controller, etc.	1.00	EA	\$ 17,500.00	\$ 17,500	184.57	184.57	\$ 167.54	\$ 30,922	\$ 1,627.48	\$ 1,627	\$ 50,050	\$ 50,049.66
	Pedestrian Signals	4.00	EA	\$ 875.00	\$ 3,500	12.30	49.22	\$ 167.54	\$ 8,246	\$ 108.50	\$ 434	\$ 12,180	\$ 3,044.98
	Conduit & Wire	1.00	LS	\$ 7,500.00	\$ 7,500	255.32	255.32	\$ 167.54	\$ 42,776	\$ 432.08	\$ 432	\$ 50,708	\$ 50,707.76
	Chopping and repairing sidewalks, curbs, asphalt, etc.	1.00	ALW	\$ 4,000.00	\$ 4,000	104.66	104.66	\$ 136.63	\$ 14,299	\$ 1,588.83	\$ 1,589	\$ 19,888	\$ 19,888.32
	Maintenance and Protection of Traffic	1.00	ALW	\$ -	\$ -	160.00	160.00	\$ 123.34	\$ 19,734	\$ -	\$ -	\$ 19,734	\$ 19,734.32
	State of Good Repair at Each Crossing	1.00	ALW	\$ 40,000.00	\$ 40,000	-	-	\$ 123.34	\$ -	\$ -	\$ -	\$ 40,000	\$ 40,000.00
	Misc. Works (25% contingency)	1.00	LS	\$ 26,000.00	\$ 26,000	295.99	295.99	\$ 142.77	\$ 42,259	\$ 1,718.73	\$ 1,719	\$ 69,978	\$ 69,977.63
50.0300	Traction power supply: substations	1.00	EA									\$ 9,900,000	\$ 9,900,000.00
	Budget Developed from similar past projects. Assumed to be an above ground sub station	1.00	EA	\$ 5,400,000.00	\$ 5,400,000	26,593.03	26,593.03	\$ 118.45	\$ 3,150,000	\$ 450,000.00	\$ 450,000	\$ 9,000,000	\$ 9,000,000.00
	Misc. Works (10% contingency)	1.00	LS	\$ 540,000.00	\$ 540,000	2,659.30	2,659.30	\$ 118.45	\$ 315,000	\$ 45,000.00	\$ 45,000	\$ 900,000	\$ 900,000.00
50.0410	Catenary	1.00	Track Feet									\$ 358	\$ 357.83
	Catenary	1.00	Track Feet	\$ 225.00	\$ 225	0.66	0.66	\$ 163.39	\$ 108	\$ 25.00	\$ 25	\$ 358	\$ 357.83
50.0420	Third Rail	1.00	Track Feet									\$ 452	\$ 452.24
	Third Rail	1.00	Track Feet	\$ 285.00	\$ 285	0.84	0.84	\$ 163.39	\$ 137	\$ 30.00	\$ 30	\$ 452	\$ 452.24
50.0430	Power Distribution and Connections	1.00	Stations									\$ 175,000	\$ 175,000.00
	Battery Charging Stands/Yard	1.00	EA	\$ 105,000.00	\$ 105,000	374.88	374.88	\$ 163.39	\$ 61,250	\$ 8,750.00	\$ 8,750	\$ 175,000	\$ 175,000.00
50.0510	Station Communications	1.00	Stations									\$ 422,075	\$ 422,075.08
	Pathfinder signage	1.00	Per Station	\$ 25,000.00	\$ 25,000	120.00	120.00	\$ 163.39	\$ 19,606	\$ 2,000.00	\$ 2,000	\$ 46,606	\$ 46,606.34
	PIDS (passenger information display system)	1.00	Per Station	\$ 180,000.00	\$ 180,000	550.00	550.00	\$ 163.39	\$ 89,862	\$ 25,000.00	\$ 25,000	\$ 294,862	\$ 294,862.40
	Public Address System	1.00	Per Station	\$ 17,500.00	\$ 17,500	183.61	183.61	\$ 163.39	\$ 30,000	\$ 2,500.00	\$ 2,500	\$ 50,000	\$ 50,000.00
	Monitoring and Security	1.00	Per Station	\$ 10,000.00	\$ 10,000	120.00	120.00	\$ 163.39	\$ 19,606	\$ 1,000.00	\$ 1,000	\$ 30,606	\$ 30,606.34
50.0520	Communication Infrastructure	1.00	LF Guideway									\$ 40	\$ 40.00
	Telephone and Fiber Optic Systems	1.00	LF Guideway	\$ 14.00	\$ 14	0.15	0.15	\$ 163.39	\$ 24	\$ 2.00	\$ 2	\$ 40	\$ 40.00
				\$ -	\$ -	-	-	\$ 118.45	\$ -	\$ -	\$ -	\$ -	#DIV/0!
50.0610	Central Revenue Counting Systems	1.00	Stations									\$ -	\$ -
50.0620	Revenue Collection - In Station	1.00	Stations									\$ 59,213	\$ 59,212.68
	Platform-based fare control	1.00	Per Station	\$ 20,000.00	\$ 20,000	240.00	240.00	\$ 163.39	\$ 39,213	\$ -	\$ -	\$ 59,213	\$ 59,212.68
50.0630	Revenue Collection - On Vehicle	1.00	Stations									\$ -	\$ -
50.0700	Central Control System	1.00	LF Guideway									\$ 358	\$ 357.83
	SCADA Modifications	1.00	LF Guideway	\$ 225.00	\$ 225	0.66	0.66	\$ 163.39	\$ 108	\$ 25.00	\$ 25	\$ 358	\$ 357.83

**NEW YORK CITY TRANSIT
WAGE RATES FOR CAPITAL PROJECTS (NON-OCIP)**

PERIOD : 7/1/20 THROUGH 06/30/21

OCIP or NON-OCIP
OCIP

CRAFT NO.	CRAFT NAME	ABB.	CAPITAL BASE RATE	Capital OCIP	Capital NON-OCIP
1	Asbestos Handler	Asb	\$75.31	\$ 75.31	\$ 94.77
2	Boiler Maker	Boi	\$142.09	\$ 142.09	\$ 147.69
3	Bricklayer	Bri	\$122.77	\$ 122.77	\$ 138.68
4	Carpenter	Car	\$147.27	\$ 147.27	\$ 157.92
5	Cement & Concrete Worker	Con	\$100.49	\$ 100.49	\$ 114.42
6	Cement Mason	Cem	\$116.42	\$ 116.42	\$ 124.37
7	Dock Builder - Pile Driver	Doc	\$145.97	\$ 145.97	\$ 152.34
8	Teamster	Tea	\$116.66	\$ 116.66	\$ 122.38
9	Electrician	Ele	\$163.39	\$ 163.39	\$ 167.54
10	Elevator Constructor	Elev	\$155.71	\$ 155.71	\$ 160.05
10A	Elevator Constructor (Elevator Service / Modernization)	Elevm	\$133.18	\$ 133.18	\$ 136.98
11	Engineers - Heavy Construction OE - I, Cherry Pickers	Che	\$148.55	\$ 148.55	\$ 154.74
12	Engineers - Heavy Construction OE - II, Backhoe	Bac	\$145.78	\$ 145.78	\$ 149.91
13	Engineers - Heavy Construction Oilers - I	Oil	\$132.06	\$ 132.06	\$ 138.24
14	Operating Engineers XIII Concrete Pumps	Pum	\$148.47	\$ 148.47	\$ 160.34
15	Operating Engineers XV Welding Machines	Wel	\$114.00	\$ 114.00	\$ 120.52
16	Operating Engineers - Paver II	Pav	\$148.00	\$ 148.00	\$ 157.37
17	Floor Covering - Vinyl Tile	Vin	\$131.47	\$ 131.47	\$ 141.67
18	Glazier	Gla	\$124.84	\$ 124.84	\$ 130.22
19	Heat & Frost Insulation	Hea	\$137.50	\$ 137.50	\$ 143.33
20	Iron Worker - Ornamental	Iron	\$144.36	\$ 144.36	\$ 156.12
21	Iron Worker - Structural	Iro	\$190.17	\$ 190.17	\$ 206.09
22	Laborer	Lab	\$118.45	\$ 118.45	\$ 123.34
23	Marble Setter	Mar	\$131.99	\$ 131.99	\$ 139.30
24	Mason Tender	Masa	\$94.05	\$ 94.05	\$ 107.86
25	Metallic Lather	Met	\$132.52	\$ 132.52	\$ 139.05
26	Millwright	Mil	\$149.31	\$ 149.31	\$ 152.72
27	Mosaic & Terrazzo Mechanic	Mos	\$124.30	\$ 124.30	\$ 131.43
28	Painter - Structural Steel (Brush, Roller)	Pais	\$129.45	\$ 129.45	\$ 153.61
28A	Painter - Structural Steel (Power Tool)	Paisb	\$137.72	\$ 137.72	\$ 161.88
29	Painter (Basic)	Pai	\$104.36	\$ 104.36	\$ 112.04
30	Plasterer	Pla	\$98.67	\$ 98.67	\$ 108.80
31	Plumber	Plu	\$152.37	\$ 152.37	\$ 158.10
31A	Plumber (Mechanical Equipment and Service)	Plus	\$88.91	\$ 88.91	\$ 93.93
32	Pointer, Waterproofing, Caulker, Sandblaster	Poi	\$109.22	\$ 109.22	\$ 115.40
33	Roofer	Roo	\$106.12	\$ 106.12	\$ 112.53
34	Sheet Metal Worker	She	\$142.84	\$ 142.84	\$ 147.95
35	Steamfitter (II)	Ste	\$161.04	\$ 161.04	\$ 165.77
36	Stone Mason - Setter	Sto	\$137.09	\$ 137.09	\$ 144.40
37	Taper - Drywall Taper	Tap	\$104.53	\$ 104.53	\$ 111.76
38	Tile Layer - Setter	Til	\$125.47	\$ 125.47	\$ 132.53
39	Timberperson	Tim	\$143.27	\$ 143.27	\$ 148.41



Appendix B: FTA Cost Database

DRAFT

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 5,484	2000	106	208	307	\$ 15,869	239	307	\$ 20,905
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	10.044	Unspecified	LF Guideway	\$ 879	2000	106	208	307	\$ 2,543	239	307	\$ 3,349
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	10.071	Bored Earth Open	LF Guideway	\$ 9,276	2000	106	208	307	\$ 26,840	239	307	\$ 35,359
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 335	2000	106	208	307	\$ 968	239	307	\$ 1,276
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 30,596,813	2000	106	208	307	\$ 88,531,777	239	307	\$ 116,628,706
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 19,195,409	2000	106	208	307	\$ 55,541,853	239	307	\$ 73,168,919
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	20.060	Automobile parking multi story structure	Spaces	\$ 8,619	2000	106	208	307	\$ 24,938	239	307	\$ 32,853
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	20.071	Elevators, escalators	Number	\$ 538,298	2000	106	208	307	\$ 1,557,563	239	307	\$ 2,051,881
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	20.072	Escalators	Number	\$ 346,475	2000	106	208	307	\$ 1,002,524	239	307	\$ 1,320,692
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 234	2000	106	208	307	\$ 677	239	307	\$ 911
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 32	2000	106	208	307	\$ 91	239	307	\$ 117
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	40.071	Surface Parking Lot	Spaces	\$ 2,651	2000	106	208	307	\$ 7,671	239	307	\$ 10,105
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	40.072	Auto Access	Spaces	\$ 7,521,854	2000	106	208	307	\$ 21,764,460	239	307	\$ 28,671,746
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	40.081	Roadway Changes	LF Guideway	\$ 514	2000	106	208	307	\$ 1,487	239	307	\$ 2,003
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 319	2000	106	208	307	\$ 923	239	307	\$ 1,218
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 306	2000	106	208	307	\$ 886	239	307	\$ 1,167
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 213	2000	106	208	307	\$ 616	239	307	\$ 814
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 955,927	2000	106	208	307	\$ 2,765,972	239	307	\$ 3,643,794
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	60.011	Full Takes	LF Guideway	\$ 2,729	2000	106	208	307	\$ 7,896	239	307	\$ 10,730
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	70.022	Large Scale	Vehicles	\$ 2,266,071	2000	106	208	307	\$ 6,556,869	239	307	\$ 8,825,409
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	2000	106	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	2000	106	208	307	\$ 0	239	307	\$ 1
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2000	106	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - Line Dunwoody Extension	Heavy Rail Transit	Underground	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2000	106	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 1,570	1987	74	208	307	\$ 6,484	239	307	\$ 8,025
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.041	Bridges	LF Guideway	\$ 5,932	1987	74	208	307	\$ 24,497	239	307	\$ 30,321
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.042	Viaduct	LF Guideway	\$ 4,009	1987	74	208	307	\$ 16,556	239	307	\$ 20,492
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.062	Cut & Cover Guideway Hard Soils	LF Guideway	\$ 1,695	1987	74	208	307	\$ 7,000	239	307	\$ 13,143
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.071	Bored Earth Open	LF Guideway	\$ 6,129	1987	74	208	307	\$ 25,311	239	307	\$ 47,534
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.075	Rock & Drill Blast	LF Guideway	\$ 14,000	1987	74	208	307	\$ 57,815	239	307	\$ 108,577
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 175	1987	74	208	307	\$ 722	239	307	\$ 956
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 139	1987	74	208	307	\$ 574	239	307	\$ 711
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 16,847,422	1987	74	208	307	\$ 69,574,368	239	307	\$ 86,113,343
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 18,261,975	1987	74	208	307	\$ 75,416,013	239	307	\$ 93,343,643
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	20.031	Cut and Cover	Stations	\$ 18,843,016	1987	74	208	307	\$ 77,815,522	239	307	\$ 146,136,657
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	20.080	Passenger Overpass	Number	\$ 431,720	1987	74	208	307	\$ 1,782,863	239	307	\$ 2,360,070
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 61,231	1987	74	208	307	\$ 252,862	239	307	\$ 334,727
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 133,321	1987	74	208	307	\$ 550,570	239	307	\$ 664,774
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 18,257	1987	74	208	307	\$ 75,397	239	307	\$ 91,036
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 16	1987	74	208	307	\$ 67	239	307	\$ 81
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 1	1987	74	208	307	\$ 4	239	307	\$ 5
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 211	1987	74	208	307	\$ 871	239	307	\$ 1,153
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 1	1987	74	208	307	\$ 4	239	307	\$ 7
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 105	1987	74	208	307	\$ 434	239	307	\$ 575
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	40.083	Mobilization	LF Guideway	\$ 365	1987	74	208	307	\$ 1,507	239	307	\$ 1,995
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 208	1987	74	208	307	\$ 859	239	307	\$ 1,134
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 112	1987	74	208	307	\$ 461	239	307	\$ 610
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 25	1987	74	208	307	\$ 103	239	307	\$ 138
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 69	1987	74	208	307	\$ 285	239	307	\$ 377
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 457,161	1987	74	208	307	\$ 1,887,926	239	307	\$ 2,499,146
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 43	1987	74	208	307	\$ 179	239	307	\$ 216
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 610	1987	74	208	307	\$ 2,519	239	307	\$ 3,309
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 47	1987	74	208	307	\$ 194	239	307	\$ 257
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 2	1987	74	208	307	\$ 8	239	307	\$ 9
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	70.022	Large Scale	Vehicles	\$ 1,176,403	1987	74	208	307	\$ 4,858,161	239	307	\$ 6,929,597
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	70.061	Maintenance of Way Vehicles	Vehicles	\$ 13,180	1987	74	208	307	\$ 54,429	239	307	\$ 72,049
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	70.063	Trucks	Vehicles	\$ 275	1987	74	208	307	\$ 1,136	239	307	\$ 1,502
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	1987	74	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	1987	74	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1987	74	208	307	\$ 0	239	307	\$ 0
Atlanta MARTA - North South Line	Heavy Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	1987	74	208	307	\$ 0	239	307	\$ 0
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 667	1983	65	219	307	\$ 3,146	239	307	\$ 3,816
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.041	Bridges	LF Guideway	\$ 4,895	1983	65	219	307	\$ 23,098	239	307	\$ 28,018
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.042	Viaduct	LF Guideway	\$ 1,581	1983	65	219	307	\$ 7,460	239	307	\$ 9,051
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.061	Cut & Cover Guideway Soft Soils	LF Guideway	\$ 1,100	1983	65	219	307	\$ 5,191	239	307	\$ 6,297
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.072	Bored Earth Close	LF Guideway	\$ 4,469	1983	65	219	307	\$ 21,088	239	307	\$ 25,582
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.073	Bored Earth Mixed Shield	LF Guideway	\$ 5,500	1983	65	219	307	\$ 25,953	239	307	\$ 31,484
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.075	Rock & Drill Blast	LF Guideway	\$ 6,212	1983	65	219	307	\$ 29,313	239	307	\$ 35,558
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 130	1983	65	219	307	\$ 614	239	307	\$ 744
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	10.110	Track: ballasted	Track Feet	\$ 382	1983	65	219	307	\$ 1,803	239	307	\$ 2,188
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 7,696,052	1983	65	219	307	\$ 36,315,524	239	307	\$ 44,055,183
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 10,518,905	1983	65	219	307	\$ 49,635,781	239	307	\$ 60,214,289
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 33,602,453	1983	65	219	307	\$ 158,560,607	239	307	\$ 192,353,461
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	20.100	Signage and Graphics	Stations	\$ 181,030	1983	65	219	307	\$ 854,232	239	307	\$ 1,036,288
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	30.020	Light Maintenance Facility	Vehicles	\$ 116,672	1983	65	219	307	\$ 550,542	239	307	\$ 667,875
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	30.030	Heavy Maintenance Facility	Vehicles	\$ 18,289	1983</							

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 82	1983	65	219	307	\$ 385	239	307	\$ 467
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 67	1983	65	219	307	\$ 316	239	307	\$ 383
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 14	1983	65	219	307	\$ 66	239	307	\$ 80
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 824,437	1983	65	219	307	\$ 3,890,288	239	307	\$ 4,719,397
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 136	1983	65	219	307	\$ 642	239	307	\$ 780
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	60.025	Unspecified	LF Guideway	\$ 99	1983	65	219	307	\$ 467	239	307	\$ 566
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 1	1983	65	219	307	\$ 5	239	307	\$ 3
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	70.022	Large Scale	Vehicles	\$ 763,528	1983	65	219	307	\$ 3,602,876	239	307	\$ 4,370,729
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	70.061	Maintenance of Way Vehicles	Vehicles	\$ 5,861	1983	65	219	307	\$ 27,656	239	307	\$ 33,551
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	70.063	Trucks	Vehicles	\$ 1,393	1983	65	219	307	\$ 6,573	239	307	\$ 7,975
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	1983	65	219	307	\$ 0	239	307	\$ 0
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	1983	65	219	307	\$ 0	239	307	\$ 1
Baltimore MDMTA - Metro Sections A and B	Heavy Rail Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1983	65	219	307	\$ 0	239	307	\$ 1
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	10.064	Cut & Cover Guideway Vent Hard Soils	LF Guideway	\$ 16,565	1987	100	265	307	\$ 50,834	239	307	\$ 71,272
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 9,333	1987	100	265	307	\$ 28,641	239	307	\$ 40,156
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 153	1987	100	265	307	\$ 470	239	307	\$ 659
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 18,031,843	1987	100	265	307	\$ 55,335,624	239	307	\$ 77,581,356
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	20.031	Cut and Cover	Stations	\$ 16,966,498	1987	100	265	307	\$ 52,066,322	239	307	\$ 72,997,749
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	20.100	Signage and Graphics	Stations	\$ 1,105	1987	100	265	307	\$ 3,391	239	307	\$ 4,754
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 396	1987	100	265	307	\$ 1,214	239	307	\$ 1,703
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 2,837	1987	100	265	307	\$ 8,706	239	307	\$ 12,207
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 94	1987	100	265	307	\$ 288	239	307	\$ 403
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 127	1987	100	265	307	\$ 391	239	307	\$ 548
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 666	1987	100	265	307	\$ 2,042	239	307	\$ 2,863
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	40.083	Mobilization	LF Guideway	\$ 57	1987	100	265	307	\$ 175	239	307	\$ 244
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 590	1987	100	265	307	\$ 1,811	239	307	\$ 2,538
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 8	1987	100	265	307	\$ 24	239	307	\$ 33
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	50.042	Third Rail	Track Feet	\$ 368	1987	100	265	307	\$ 1,129	239	307	\$ 1,583
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 11	1987	100	265	307	\$ 34	239	307	\$ 49
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 279,480	1987	100	265	307	\$ 857,661	239	307	\$ 1,202,454
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.011	Full Takes	LF Guideway	\$ 678	1987	100	265	307	\$ 2,081	239	307	\$ 2,918
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.015	Donated Value	LF Guideway	\$ 2	1987	100	265	307	\$ 6	239	307	\$ 7
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 94	1987	100	265	307	\$ 288	239	307	\$ 406
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.031	Property Management	LF Guideway	\$ 1	1987	100	265	307	\$ 3	239	307	\$ 6
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.032	Agency	LF Guideway	\$ 14	1987	100	265	307	\$ 43	239	307	\$ 61
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 30	1987	100	265	307	\$ 92	239	307	\$ 129
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	60.040	Other Real Estate Costs	LF Guideway	\$ 252	1987	100	265	307	\$ 774	239	307	\$ 1,085
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	70.022	Large Scale	Vehicles	\$ 635,850	1987	100	265	307	\$ 1,951,279	239	307	\$ 4,101,028
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	70.061	Maintenance of Way Vehicles	Vehicles	\$ 9,358	1987	100	265	307	\$ 28,718	239	307	\$ 40,261
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	70.063	Trucks	Vehicles	\$ 100	1987	100	265	307	\$ 307	239	307	\$ 429
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	1987	100	265	307	\$ 0	239	307	\$ 0
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	1987	100	265	307	\$ 0	239	307	\$ 0
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1987	100	265	307	\$ 0	239	307	\$ 0
Boston MBTA - Orange Line	Heavy Rail Transit	Aerial	80.090	Other	Hard Costs	\$ 0	1987	100	265	307	\$ 0	239	307	\$ 0
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	10.065	Unspecified	LF Guideway	\$ 27,134	2004	154	265	307	\$ 54,057	239	307	\$ 74,842
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	10.078	Unspecified	LF Guideway	\$ 52,221	2004	154	265	307	\$ 104,035	239	307	\$ 144,039
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	20.034	Unspecified	Stations	\$ 26,587,615	2004	154	265	307	\$ 52,968,188	239	307	\$ 73,335,403
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	20.073	Unspecified	Number	\$ 153,846	2004	154	265	307	\$ 306,944	239	307	\$ 424,347
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	30.030	Heavy Maintenance Facility	Vehicles	\$ 1,837,568	2004	154	265	307	\$ 3,660,827	239	307	\$ 5,068,480
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 2,360	2004	154	265	307	\$ 4,703	239	307	\$ 6,511
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.029	Unspecified	LF Guideway	\$ 1,917	2004	154	265	307	\$ 3,819	239	307	\$ 5,287
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.034	Unspecified	LF Guideway	\$ 4,483	2004	154	265	307	\$ 8,931	239	307	\$ 12,367
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.071	Surface Parking Lot	Spaces	\$ 7,762	2004	154	265	307	\$ 15,463	239	307	\$ 21,409
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.072	Auto Access	Spaces	\$ 7,762	2004	154	265	307	\$ 15,463	239	307	\$ 21,409
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.073	Bus Access	Spaces	\$ 7,762	2004	154	265	307	\$ 15,463	239	307	\$ 21,409
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.074	Bus Parking and Berthing	Spaces	\$ 7,762	2004	154	265	307	\$ 15,463	239	307	\$ 21,409
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	40.075	Unspecified	Spaces	\$ 7,762	2004	154	265	307	\$ 15,463	239	307	\$ 21,409
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.014	Unspecified	Track Feet	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.020	Traffic signals and crossing protection	Track Feet	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.044	Unspecified	Track Feet	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.053	Unspecified	Track Feet	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.064	Unspecified	Stations	\$ 1,944,650	2004	154	265	307	\$ 3,874,157	239	307	\$ 5,363,841
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	50.070	Central Control System	LF Guideway	\$ 1,105	2004	154	265	307	\$ 2,201	239	307	\$ 3,048
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	60.016	Unspecified	LF Guideway	\$ 2,760	2004	154	265	307	\$ 5,499	239	307	\$ 7,612
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	60.025	Unspecified	LF Guideway	\$ 250	2004	154	265	307	\$ 498	239	307	\$ 691
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	70.044	Unspecified	Vehicles	\$ 1,675,693	2004	154	265	307	\$ 3,338,337	239	307	\$ 4,621,988
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	70.070	Spare parts/ Rotable Components	Vehicles	\$ 79,355	2004	154	265	307	\$ 158,091	239	307	\$ 218,880
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	2004	154	265	307	\$ 0	239	307	\$ 1
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2004	154	265	307	\$ 0	239	307	\$ 0
Boston MBTA - South Boston Piers - Busway	Bus Rapid Transit	Underground	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	2004	154	265	307	\$ 0	239	307	\$ 0
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 1,376	2005	164	281	307	\$ 2,569	239	307	\$ 3,743
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 3,534	2005	164	281	307	\$ 6,599	239	307	\$ 9,616
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 364	2005	164	281	307	\$ 679	239	307	\$ 989
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 2,080	2005	164	281	307	\$ 3,884	239	307	\$ 5,659
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 7,072,835	2005	164	281	307	\$ 13,207,788	239	307	\$ 19,244,036
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 10,631,083	2005	164						

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	30.050	Yard and Yard Track	Track Feet	\$ 204	2005	164	281	307	\$ 381	239	307	\$ 555
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 719	2005	164	281	307	\$ 1,343	239	307	\$ 1,957
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 243	2005	164	281	307	\$ 454	239	307	\$ 660
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.031	HazMat Abatement	LF Guideway	\$ 7	2005	164	281	307	\$ 13	239	307	\$ 19
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 75	2005	164	281	307	\$ 140	239	307	\$ 204
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 34	2005	164	281	307	\$ 64	239	307	\$ 93
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.073	Bus Access	Spaces	\$ 700,000	2005	164	281	307	\$ 1,307,178	239	307	\$ 1,904,586
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.081	Roadway Changes	LF Guideway	\$ 41	2005	164	281	307	\$ 77	239	307	\$ 111
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.082	Third-Party Work	LF Guideway	\$ 7	2005	164	281	307	\$ 13	239	307	\$ 19
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.083	Mobilization	LF Guideway	\$ 510	2005	164	281	307	\$ 952	239	307	\$ 1,388
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	40.084	Maintenance of Traffic	LF Guideway	\$ 17	2005	164	281	307	\$ 32	239	307	\$ 46
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 599	2005	164	281	307	\$ 1,119	239	307	\$ 1,590
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.020	Traffic signals and crossing protection	Track Feet	\$ 800	2005	164	281	307	\$ 1,494	239	307	\$ 2,177
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 179	2005	164	281	307	\$ 333	239	307	\$ 486
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.042	Third Rail	Track Feet	\$ 34	2005	164	281	307	\$ 63	239	307	\$ 93
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.053	Unspecified	Track Feet	\$ 162	2005	164	281	307	\$ 303	239	307	\$ 440
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 194,444	2005	164	281	307	\$ 363,104	239	307	\$ 529,052
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 45	2005	164	281	307	\$ 84	239	307	\$ 122
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 13	2005	164	281	307	\$ 24	239	307	\$ 35
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	60.032	Agency	LF Guideway	\$ 10	2005	164	281	307	\$ 19	239	307	\$ 28
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	2005	164	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	2005	164	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2005	164	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Blue Line Douglas	Bus Rapid Transit	Aerial	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2005	164	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 4,428	2009	209	281	307	\$ 6,504	239	307	\$ 9,571
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 2,515,575	2009	209	281	307	\$ 3,695,126	239	307	\$ 5,437,551
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 19,453,619	2009	209	281	307	\$ 28,575,411	239	307	\$ 42,050,055
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	20.071	Elevators, escalators	Number	\$ 193,618	2009	209	281	307	\$ 284,405	239	307	\$ 418,516
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	20.072	Escalators	Number	\$ 249,550	2009	209	281	307	\$ 366,564	239	307	\$ 515,852
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	20.100	Signage and Graphics	Stations	\$ 138,422	2009	209	281	307	\$ 203,328	239	307	\$ 299,207
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 7,566	2009	209	281	307	\$ 11,114	239	307	\$ 16,355
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 3,302	2009	209	281	307	\$ 4,850	239	307	\$ 7,626
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	40.031	HazMat Abatement	LF Guideway	\$ 29	2009	209	281	307	\$ 43	239	307	\$ 63
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 1,354	2009	209	281	307	\$ 1,989	239	307	\$ 2,927
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 146	2009	209	281	307	\$ 214	239	307	\$ 315
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 4,640	2009	209	281	307	\$ 6,816	239	307	\$ 10,718
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 2,926	2009	209	281	307	\$ 4,299	239	307	\$ 6,760
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	50.042	Third Rail	Track Feet	\$ 4,305	2009	209	281	307	\$ 6,324	239	307	\$ 9,943
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 2,721	2009	209	281	307	\$ 3,997	239	307	\$ 6,286
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 380,394	2009	209	281	307	\$ 558,761	239	307	\$ 822,242
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 22,908	2009	209	281	307	\$ 33,650	239	307	\$ 55,824
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 6,717	2009	209	281	307	\$ 9,867	239	307	\$ 16,367
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	60.040	Other Real Estate Costs	LF Guideway	\$ 500	2009	209	281	307	\$ 734	239	307	\$ 1,218
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	2009	209	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	2009	209	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2009	209	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2009	209	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Brown Line Ravenswood	Heavy Rail Transit	Aerial	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	2009	209	281	307	\$ 0	239	307	\$ 0
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 410	1984	78	281	307	\$ 1,602	239	307	\$ 2,049
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	10.041	Bridges	LF Guideway	\$ 3,033	1984	78	281	307	\$ 11,865	239	307	\$ 16,885
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	10.061	Cut & Cover Guideway Soft Soils	LF Guideway	\$ 8,081	1984	78	281	307	\$ 31,611	239	307	\$ 40,425
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 298	1984	78	281	307	\$ 1,165	239	307	\$ 1,490
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 129	1984	78	281	307	\$ 506	239	307	\$ 647
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 11,113,225	1984	78	281	307	\$ 43,472,989	239	307	\$ 55,593,403
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	20.031	Cut and Cover	Stations	\$ 30,181,813	1984	78	281	307	\$ 118,065,961	239	307	\$ 150,983,144
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 120,960	1984	78	281	307	\$ 473,174	239	307	\$ 605,097
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	30.011	Administrative Building	LF Guideway	\$ 1	1984	78	281	307	\$ 4	239	307	\$ 3
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 194,841	1984	78	281	307	\$ 762,183	239	307	\$ 974,682
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 29,474	1984	78	281	307	\$ 115,295	239	307	\$ 147,440
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 13	1984	78	281	307	\$ 51	239	307	\$ 65
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 11	1984	78	281	307	\$ 43	239	307	\$ 55
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	40.071	Surface Parking Lot	Spaces	\$ 2,688	1984	78	281	307	\$ 10,515	239	307	\$ 13,447
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 200	1984	78	281	307	\$ 782	239	307	\$ 1,002
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 87	1984	78	281	307	\$ 342	239	307	\$ 437
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	50.042	Third Rail	Track Feet	\$ 73	1984	78	281	307	\$ 286	239	307	\$ 363
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 66	1984	78	281	307	\$ 258	239	307	\$ 329
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 241,274	1984	78	281	307	\$ 943,822	239	307	\$ 1,206,963
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	1984	78	281	307	\$ 0	239	307	\$ 0
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	1984	78	281	307	\$ 0	239	307	\$ 0
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1984	78	281	307	\$ 0	239	307	\$ 0
Chicago CTA - O'Hare Blue Line Extension	Heavy Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	1984	78	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 3,547	1993	108	281	307	\$ 10,094	239	307	\$ 13,172
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	10.050	Guideway: Built up fill	LF Guideway	\$ 521	1993	108	281	307	\$ 1,484	239	307	\$ 1,936
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 160	1993	108	281	307	\$ 455	239	307	\$ 594
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 10,459,794	1993	108	281	307	\$ 29,766,005	239	307	\$ 38,841,197
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 17,077,499	1993	108	281	307	\$ 48,598,370	239	307	\$ 63,415,257
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	20.080	Passenger Overpass	Number	\$ 11,000,000	1993	108	281	307	\$ 31,303,300	239		

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index	Index	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 33	95	1993	108	281	307	\$ 94	239	307	\$ 122
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	40.071	Surface Parking Lot	Spaces	\$ 3,622	\$ 10,475	1993	108	281	307	\$ 10,307	239	307	\$ 13,450
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	40.083	Mobilization	LF Guideway	\$ 420	\$ 1,214	1993	108	281	307	\$ 1,195	239	307	\$ 1,558
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 228	\$ 659	1993	108	281	307	\$ 649	239	307	\$ 846
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 137	\$ 397	1993	108	281	307	\$ 390	239	307	\$ 510
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	50.042	Third Rail	Track Feet	\$ 138	\$ 400	1993	108	281	307	\$ 393	239	307	\$ 514
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 47	\$ 135	1993	108	281	307	\$ 134	239	307	\$ 173
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 489,382	\$ 1,415,334	1993	108	281	307	\$ 1,392,661	239	307	\$ 1,817,263
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 371	\$ 1,074	1993	108	281	307	\$ 1,056	239	307	\$ 1,379
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 19	\$ 55	1993	108	281	307	\$ 54	239	307	\$ 70
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	60.040	Other Real Estate Costs	LF Guideway	\$ 14	\$ 42	1993	108	281	307	\$ 41	239	307	\$ 54
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	70.021	Small Scale	Vehicles	\$ 811,000	\$ 2,401,506	1993	108	281	307	\$ 2,307,907	239	307	\$ 3,083,489
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	1993	108	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	\$ 0	1993	108	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	1993	108	281	307	\$ 0	239	307	\$ 0
Chicago CTA - Southwest Orange Line	Heavy Rail Transit	Aerial	80.090	Other	Hard Costs	\$ 0	\$ 0	1993	108	281	307	\$ 0	239	307	\$ 0
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 1,772	\$ 3,140	2008	171	225	307	\$ 3,188	239	307	\$ 4,032
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 380	\$ 674	2008	171	225	307	\$ 684	239	307	\$ 865
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 221,236	\$ 392,172	2008	171	225	307	\$ 398,121	239	307	\$ 503,541
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 3,933	\$ 6,971	2008	171	225	307	\$ 7,077	239	307	\$ 8,951
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 88,571	\$ 171,027	2008	171	225	307	\$ 159,387	239	307	\$ 219,595
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 177	\$ 328	2008	171	225	307	\$ 319	239	307	\$ 421
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 472	\$ 836	2008	171	225	307	\$ 849	239	307	\$ 1,074
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 116	\$ 206	2008	171	225	307	\$ 209	239	307	\$ 264
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 65	\$ 116	2008	171	225	307	\$ 117	239	307	\$ 149
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 13	\$ 22	2008	171	225	307	\$ 23	239	307	\$ 28
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 229	\$ 442	2008	171	225	307	\$ 412	239	307	\$ 568
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 4	\$ 7	2008	171	225	307	\$ 7	239	307	\$ 10
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	60.035	Unspecified	LF Guideway	\$ 64	\$ 123	2008	171	225	307	\$ 115	239	307	\$ 158
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	60.040	Other Real Estate Costs	LF Guideway	\$ 39	\$ 75	2008	171	225	307	\$ 70	239	307	\$ 97
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	70.044	Unspecified	Vehicles	\$ 888,000	\$ 1,574,104	2008	171	225	307	\$ 1,597,984	239	307	\$ 2,021,121
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	70.050	Other Vehicles	Vehicles	\$ 1,870,000	\$ 3,610,874	2008	171	225	307	\$ 3,365,123	239	307	\$ 4,636,296
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 570,000	\$ 1,010,405	2008	171	225	307	\$ 1,025,733	239	307	\$ 1,297,341
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2008	171	225	307	\$ 0	239	307	\$ 0
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2008	171	225	307	\$ 0	239	307	\$ 0
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2008	171	225	307	\$ 0	239	307	\$ 0
Cleveland - Euclid Ave BRT	Bus Rapid Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2008	171	225	307	\$ 0	239	307	\$ 0
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 561	\$ 1,586	2000	112	212	307	\$ 1,541	239	307	\$ 2,036
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 1,713	\$ 4,841	2000	112	212	307	\$ 4,704	239	307	\$ 6,216
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.050	Guideway: Built up fill	LF Guideway	\$ 828	\$ 2,340	2000	112	212	307	\$ 2,273	239	307	\$ 3,005
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 2,602	\$ 7,355	2000	112	212	307	\$ 7,145	239	307	\$ 9,444
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 225	\$ 635	2000	112	212	307	\$ 617	239	307	\$ 816
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 96	\$ 271	2000	112	212	307	\$ 263	239	307	\$ 347
Denver - Southwest Corridor	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 6	\$ 18	2000	112	212	307	\$ 18	239	307	\$ 24
Denver - Southwest Corridor	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 3,800,000	\$ 10,741,686	2000	112	212	307	\$ 10,434,705	239	307	\$ 13,792,127
Denver - Southwest Corridor	Light Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 4	\$ 12	2000	112	212	307	\$ 12	239	307	\$ 16
Denver - Southwest Corridor	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 4	\$ 13	2000	112	212	307	\$ 11	239	307	\$ 16
Denver - Southwest Corridor	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 4	\$ 13	2000	112	212	307	\$ 11	239	307	\$ 16
Denver - Southwest Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 4	\$ 13	2000	112	212	307	\$ 11	239	307	\$ 16
Denver - Southwest Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 4	\$ 13	2000	112	212	307	\$ 11	239	307	\$ 16
Denver - Southwest Corridor	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 13	\$ 38	2000	112	212	307	\$ 37	239	307	\$ 49
Denver - Southwest Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 40	\$ 113	2000	112	212	307	\$ 110	239	307	\$ 145
Denver - Southwest Corridor	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 34	\$ 97	2000	112	212	307	\$ 94	239	307	\$ 125
Denver - Southwest Corridor	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 42	\$ 120	2000	112	212	307	\$ 115	239	307	\$ 154
Denver - Southwest Corridor	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 160,000	\$ 452,282	2000	112	212	307	\$ 439,356	239	307	\$ 580,721
Denver - Southwest Corridor	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 192	\$ 544	2000	112	212	307	\$ 527	239	307	\$ 698
Denver - Southwest Corridor	Light Rail Transit	At-Grade	60.040	Other Real Estate Costs	LF Guideway	\$ 671	\$ 1,898	2000	112	212	307	\$ 1,843	239	307	\$ 2,437
Denver - Southwest Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 1,816,667	\$ 5,135,280	2000	112	212	307	\$ 4,988,522	239	307	\$ 6,593,605
Denver - Southwest Corridor	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 1	2000	112	212	307	\$ 1	239	307	\$ 1
Denver - Southwest Corridor	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2000	112	212	307	\$ 0	239	307	\$ 1
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 4,485	\$ 7,032	2009	197	263	307	\$ 7,003	239	307	\$ 9,029
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 5,804	\$ 9,100	2009	197	263	307	\$ 9,063	239	307	\$ 11,685
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	10.078	Unspecified	LF Guideway	\$ 26,119	\$ 40,954	2009	197	263	307	\$ 40,786	239	307	\$ 52,585
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 411	\$ 645	2009	197	263	307	\$ 642	239	307	\$ 828
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 3,182,978	\$ 4,990,975	2009	197	263	307	\$ 4,970,368	239	307	\$ 6,408,320
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	20.034	Unspecified	Stations	\$ 39,109,255	\$ 61,324,109	2009	197	263	307	\$ 61,070,912	239	307	\$ 78,739,027
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 132,693	\$ 208,065	2009	197	263	307	\$ 207,206	239	307	\$ 267,152
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 123,096	\$ 193,018	2009	197	263	307	\$ 192,221	239	307	\$ 247,831
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 47	\$ 74	2009	197	263	307	\$ 74	239	307	\$ 95
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 2,336	\$ 3,663	2009	197	263	307	\$ 3,648	239	307	\$ 4,703
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 408	\$ 640	2009	197	263	307	\$ 638	239	307	\$ 822
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 36	\$ 56	2009	197	263	307	\$ 56	239	307	\$ 72
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	40.07												

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 2,239,032	\$ 3,510,848	2009	197	263	307	\$ 3,496,352	239	307	\$ 4,507,865
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - East Side Extension	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2009	197	263	307	\$ 0	239	307	\$ 0
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 420	\$ 1,349	1990	108	263	307	\$ 1,199	239	307	\$ 1,732
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 735	\$ 2,360	1990	108	263	307	\$ 2,098	239	307	\$ 3,030
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 2,889	\$ 9,281	1990	108	263	307	\$ 8,250	239	307	\$ 11,917
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.050	Guideway: Built up fill	LF Guideway	\$ 687	\$ 2,207	1990	108	263	307	\$ 1,962	239	307	\$ 2,834
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.065	Unspecified	LF Guideway	\$ 6,568	\$ 21,101	1990	108	263	307	\$ 18,757	239	307	\$ 27,094
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 4,457	\$ 14,318	1990	108	263	307	\$ 12,727	239	307	\$ 18,384
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 189	\$ 608	1990	108	263	307	\$ 540	239	307	\$ 781
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 131	\$ 421	1990	108	263	307	\$ 374	239	307	\$ 541
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 71	\$ 228	1990	108	263	307	\$ 203	239	307	\$ 293
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 55	\$ 178	1990	108	263	307	\$ 158	239	307	\$ 229
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,051,819	\$ 3,379,393	1990	108	263	307	\$ 3,003,799	239	307	\$ 4,339,078
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 2,928,894	\$ 9,410,253	1990	108	263	307	\$ 8,364,376	239	307	\$ 12,082,592
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	20.034	Unspecified	Stations	\$ 27,684,300	\$ 88,946,978	1990	108	263	307	\$ 79,061,210	239	307	\$ 114,206,283
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	20.080	Passenger Overpass	Number	\$ 999,611	\$ 3,211,653	1990	108	263	307	\$ 2,854,703	239	307	\$ 4,123,704
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	30.012	Central Control Facility	LF Guideway	\$ 94	\$ 301	1990	108	263	307	\$ 268	239	307	\$ 387
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 597,978	\$ 1,921,246	1990	108	263	307	\$ 1,707,714	239	307	\$ 2,466,845
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 6	\$ 20	1990	108	263	307	\$ 18	239	307	\$ 25
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 8	\$ 28	1990	108	263	307	\$ 23	239	307	\$ 36
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 5	\$ 19	1990	108	263	307	\$ 14	239	307	\$ 24
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 5	\$ 19	1990	108	263	307	\$ 14	239	307	\$ 24
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 251	\$ 878	1990	108	263	307	\$ 717	239	307	\$ 1,127
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.024	Urban Replacement Betterment Private Utilities	LF Guideway	\$ 251	\$ 878	1990	108	263	307	\$ 717	239	307	\$ 1,127
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 5	\$ 19	1990	108	263	307	\$ 14	239	307	\$ 24
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 5	\$ 19	1990	108	263	307	\$ 14	239	307	\$ 24
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.027	Suburban Replacement Betterment Public Utilities	LF Guideway	\$ 251	\$ 878	1990	108	263	307	\$ 717	239	307	\$ 1,127
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.028	Suburban Replacement Betterment Private Utilities	LF Guideway	\$ 251	\$ 878	1990	108	263	307	\$ 717	239	307	\$ 1,127
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 142	\$ 498	1990	108	263	307	\$ 406	239	307	\$ 639
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.071	Surface Parking Lot	Spaces	\$ 8,079	\$ 25,956	1990	108	263	307	\$ 23,072	239	307	\$ 33,326
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 101	\$ 354	1990	108	263	307	\$ 288	239	307	\$ 455
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 116	\$ 373	1990	108	263	307	\$ 331	239	307	\$ 479
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 55	\$ 175	1990	108	263	307	\$ 156	239	307	\$ 225
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 88	\$ 284	1990	108	263	307	\$ 252	239	307	\$ 364
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 119	\$ 382	1990	108	263	307	\$ 340	239	307	\$ 491
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 80	\$ 257	1990	108	263	307	\$ 228	239	307	\$ 330
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.061	Central Revenue Counting Systems	Stations	\$ 80,238	\$ 257,796	1990	108	263	307	\$ 229,145	239	307	\$ 331,005
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 192,696	\$ 619,113	1990	108	263	307	\$ 550,304	239	307	\$ 794,930
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 465	\$ 1,493	1990	108	263	307	\$ 1,328	239	307	\$ 1,917
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 1	\$ 4	1990	108	263	307	\$ 3	239	307	\$ 5
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	60.031	Property Management	LF Guideway	\$ 19	\$ 60	1990	108	263	307	\$ 54	239	307	\$ 78
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 19	\$ 61	1990	108	263	307	\$ 54	239	307	\$ 78
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 1,446,965	\$ 4,648,960	1990	108	263	307	\$ 4,132,263	239	307	\$ 5,969,179
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	70.061	Maintenance of Way Vehicles	Vehicles	\$ 27,093	\$ 87,046	1990	108	263	307	\$ 77,373	239	307	\$ 111,765
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	70.062	Automobiles	Vehicles	\$ 3,148	\$ 10,115	1990	108	263	307	\$ 8,990	239	307	\$ 12,987
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	70.063	Trucks	Vehicles	\$ 3,148	\$ 10,115	1990	108	263	307	\$ 8,990	239	307	\$ 12,987
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	1990	108	263	307	\$ 0	239	307	\$ 1
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 1	1990	108	263	307	\$ 0	239	307	\$ 1
Los Angeles - Long Beach Blue Line	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	1990	108	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 6,107	\$ 19,151	1993	116	263	307	\$ 16,226	239	307	\$ 24,590
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	10.078	Unspecified	LF Guideway	\$ 10,423	\$ 32,688	1993	116	263	307	\$ 27,695	239	307	\$ 41,971
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 10,000	\$ 31,362	1993	116	263	307	\$ 26,571	239	307	\$ 40,268
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 486	\$ 1,524	1993	116	263	307	\$ 1,291	239	307	\$ 1,957
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 66,864,600	\$ 209,697,842	1993	116	263	307	\$ 177,665,157	239	307	\$ 269,248,171
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	30.020	Light Maintenance Facility	Vehicles	\$ 1,167,433	\$ 3,661,254	1993	116	263	307	\$ 3,101,974	239	307	\$ 4,700,982
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	30.030	Heavy Maintenance Facility	Vehicles	\$ 121,667	\$ 381,566	1993	116	263	307	\$ 323,279	239	307	\$ 489,923
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	30.050	Yard and Yard Track	Track Feet	\$ 504	\$ 1,581	1993	116	263	307	\$ 1,340	239	307	\$ 2,031
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 23	\$ 73	1993	116	263	307	\$ 62	239	307	\$ 94
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 458	\$ 1,435	1993	116	263	307	\$ 1,217	239	307	\$ 1,843
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 285	\$ 892	1993	116	263	307	\$ 757	239	307	\$ 1,146
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 326	\$ 1,023	1993	116	263	307	\$ 867	239	307	\$ 1,314
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 398	\$ 1,248	1993	116	263	307	\$ 1,058	239	307	\$ 1,602
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 437	\$ 1,370	1993	116	263	307	\$ 1,161	239	307	\$ 1,759
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 1,526	\$ 4,785	1993	116	263	307	\$ 4,055	239	307	\$ 6,144
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 321,600	\$ 1,008,588	1993	116	263	307	\$ 854,520	239	307	\$ 1,295,008
Los Angeles - Red Line Segment 1	Heavy Rail Transit	Underground	60.011	Full Takes	LF Guideway	\$ 6,903	\$ 21,648	1993	116	263	307	\$ 18,342	239	307	\$ 27,795</

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 347	1999	129	263	307	\$ 827	239	307	\$ 1,232
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 72,521,312	1999	129	263	307	\$ 172,991,785	239	307	\$ 257,621,021
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	20.071	Elevators, escalators	Number	\$ 2,500,000	1999	129	263	307	\$ 5,963,481	239	307	\$ 8,880,873
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	20.072	Escalators	Number	\$ 1,668,844	1999	129	263	307	\$ 3,980,848	239	307	\$ 5,928,316
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	20.100	Signage and Graphics	Stations	\$ 500,000	1999	129	263	307	\$ 1,192,696	239	307	\$ 1,776,175
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	30.020	Light Maintenance Facility	Vehicles	\$ 66,767	1999	129	263	307	\$ 159,265	239	307	\$ 237,179
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 13	1999	129	263	307	\$ 31	239	307	\$ 48
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	40.032	Contaminated Soil Removal	LF Guideway	\$ 777	1999	129	263	307	\$ 1,853	239	307	\$ 2,760
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	40.082	Third-Party Work	LF Guideway	\$ 928	1999	129	263	307	\$ 2,214	239	307	\$ 3,296
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 480	1999	129	263	307	\$ 1,145	239	307	\$ 1,705
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 168	1999	129	263	307	\$ 402	239	307	\$ 598
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 50	1999	129	263	307	\$ 119	239	307	\$ 177
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.043	Power Distribution and Connections	Track Feet	\$ 29	1999	129	263	307	\$ 69	239	307	\$ 104
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 349	1999	129	263	307	\$ 833	239	307	\$ 1,240
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 516,188	1999	129	263	307	\$ 1,231,311	239	307	\$ 1,833,679
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 2,502	1999	129	263	307	\$ 5,968	239	307	\$ 8,889
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	60.025	Unspecified	LF Guideway	\$ 23	1999	129	263	307	\$ 55	239	307	\$ 83
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 8	1999	129	263	307	\$ 19	239	307	\$ 29
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	70.022	Large Scale	Vehicles	\$ 1,923,000	1999	129	263	307	\$ 4,587,110	239	307	\$ 6,831,167
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	1999	129	263	307	\$ 0	239	307	\$ 1
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	1999	129	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1999	129	263	307	\$ 0	239	307	\$ 1
Los Angeles - Red Line Segment 2A and 2B	Heavy Rail Transit	Underground	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	1999	129	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	10.071	Bored Earth Open	LF Guideway	\$ 8,177	2000	130	263	307	\$ 19,325	239	307	\$ 26,346
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 419	2000	130	263	307	\$ 990	239	307	\$ 1,350
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	10.140	Special Structures	LF Guideway	\$ 813	2000	130	263	307	\$ 1,922	239	307	\$ 2,620
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 85,181,670	2000	130	263	307	\$ 201,314,647	239	307	\$ 274,464,998
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	20.072	Escalators	Number	\$ 1,277,833	2000	130	263	307	\$ 3,019,975	239	307	\$ 4,117,323
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	20.100	Signage and Graphics	Stations	\$ 1,040,708	2000	130	263	307	\$ 2,459,565	239	307	\$ 3,353,280
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	30.020	Light Maintenance Facility	Vehicles	\$ 1,063	2000	130	263	307	\$ 2,512	239	307	\$ 3,424
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 1,011	2000	130	263	307	\$ 2,389	239	307	\$ 3,257
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 137	2000	130	263	307	\$ 324	239	307	\$ 442
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 234	2000	130	263	307	\$ 553	239	307	\$ 754
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 162	2000	130	263	307	\$ 384	239	307	\$ 523
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 63	2000	130	263	307	\$ 149	239	307	\$ 204
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.043	Power Distribution and Connections	Track Feet	\$ 16	2000	130	263	307	\$ 38	239	307	\$ 51
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 254	2000	130	263	307	\$ 600	239	307	\$ 820
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 280,527	2000	130	263	307	\$ 662,985	239	307	\$ 903,891
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	50.070	Central Control System	LF Guideway	\$ 268	2000	130	263	307	\$ 633	239	307	\$ 863
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 2,200	2000	130	263	307	\$ 5,199	239	307	\$ 7,090
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	60.025	Unspecified	LF Guideway	\$ 124	2000	130	263	307	\$ 293	239	307	\$ 390
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 28	2000	130	263	307	\$ 66	239	307	\$ 91
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	70.022	Large Scale	Vehicles	\$ 2,007,500	2000	130	263	307	\$ 4,744,438	239	307	\$ 6,468,393
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	2000	130	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	2000	130	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2000	130	263	307	\$ 0	239	307	\$ 1
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2000	130	263	307	\$ 0	239	307	\$ 0
Los Angeles - Red Line Segment 3	Heavy Rail Transit	Underground	80.090	Other	Hard Costs	\$ 0	2000	130	263	307	\$ 0	239	307	\$ 0
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 408	1985	78	196	307	\$ 1,600	239	307	\$ 2,409
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 1,502	1985	78	196	307	\$ 5,889	239	307	\$ 8,867
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 248	1985	78	196	307	\$ 971	239	307	\$ 1,462
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 242	1985	78	196	307	\$ 947	239	307	\$ 1,426
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 8,958,523	1985	78	196	307	\$ 35,124,733	239	307	\$ 52,888,206
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	20.060	Automobile parking multi story structure	Spaces	\$ 4,968	1985	78	196	307	\$ 19,479	239	307	\$ 29,329
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	20.100	Signage and Graphics	Stations	\$ 114,313	1985	78	196	307	\$ 448,201	239	307	\$ 674,867
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	30.011	Administrative Building	LF Guideway	\$ 6	1985	78	196	307	\$ 24	239	307	\$ 35
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	30.020	Light Maintenance Facility	Vehicles	\$ 160,165	1985	78	196	307	\$ 627,976	239	307	\$ 945,559
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	30.030	Heavy Maintenance Facility	Vehicles	\$ 17,978	1985	78	196	307	\$ 70,489	239	307	\$ 106,138
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	30.050	Yard and Yard Track	Track Feet	\$ 65	1985	78	196	307	\$ 253	239	307	\$ 382
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 6	1985	78	196	307	\$ 25	239	307	\$ 37
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 138	1985	78	196	307	\$ 541	239	307	\$ 817
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 36	1985	78	196	307	\$ 141	239	307	\$ 211
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 1	1985	78	196	307	\$ 5	239	307	\$ 8
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 2	1985	78	196	307	\$ 9	239	307	\$ 13
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.071	Surface Parking Lot	Spaces	\$ 2,925	1985	78	196	307	\$ 11,468	239	307	\$ 17,268
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.081	Roadway Changes	LF Guideway	\$ 5	1985	78	196	307	\$ 20	239	307	\$ 30
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	40.083	Mobilization	LF Guideway	\$ 191	1985	78	196	307	\$ 749	239	307	\$ 1,126
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 172	1985	78	196	307	\$ 674	239	307	\$ 1,018
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 125	1985	78	196	307	\$ 491	239	307	\$ 739
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.042	Third Rail	Track Feet	\$ 55	1985	78	196	307	\$ 216	239	307	\$ 325
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 77	1985	78	196	307	\$ 302	239	307	\$ 455
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 358,383	1985	78	196	307	\$ 1,405,154	239	307	\$ 2,115,774
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	50.070	Central Control System	LF Guideway	\$ 27	1985	78	196	307	\$ 105	239	307	\$ 158
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 919	1985	78	196	307	\$ 3,603	239	307	\$ 5,426
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 50	1985	78	196	307	\$ 196	239	307	\$ 294
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	60.032	Agency	LF Guideway	\$ 68	1985	78	196	307	\$ 267	239	307	\$ 402
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 48	1985	78	196	307	\$ 188			

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY	
															Factor
Miami Dade - Metrorail	Heavy Rail Transit	Aerial	80.090	Other	Hard Costs	\$ 0	\$ 0	1985	78	196	307	\$ 0	239	307	\$ 0
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 2,651	\$ 5,821	2004	150	249	307	\$ 5,422	239	307	\$ 7,474
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	10.065	Unspecified	LF Guideway	\$ 6,926	\$ 15,208	2004	150	249	307	\$ 14,166	239	307	\$ 19,526
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 209	\$ 460	2004	150	249	307	\$ 428	239	307	\$ 590
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 437	\$ 960	2004	150	249	307	\$ 894	239	307	\$ 1,232
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 437	\$ 960	2004	150	249	307	\$ 894	239	307	\$ 1,232
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,297,612	\$ 2,849,079	2004	150	249	307	\$ 2,654,010	239	307	\$ 3,658,165
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	20.034	Unspecified	Stations	\$ 18,677,389	\$ 41,008,680	2004	150	249	307	\$ 38,200,922	239	307	\$ 52,654,391
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	20.080	Passenger Overpass	Number	\$ 979,584	\$ 2,150,806	2004	150	249	307	\$ 2,003,546	239	307	\$ 2,761,596
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 117,647	\$ 258,310	2004	150	249	307	\$ 240,624	239	307	\$ 331,665
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 1,283,041	\$ 2,817,086	2004	150	249	307	\$ 2,624,208	239	307	\$ 3,617,087
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 54	\$ 118	2004	150	249	307	\$ 110	239	307	\$ 151
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 46	\$ 101	2004	150	249	307	\$ 94	239	307	\$ 129
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 46	\$ 101	2004	150	249	307	\$ 94	239	307	\$ 129
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 46	\$ 101	2004	150	249	307	\$ 94	239	307	\$ 129
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 46	\$ 101	2004	150	249	307	\$ 94	239	307	\$ 129
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	40.071	Surface Parking Lot	Spaces	\$ 3,302	\$ 7,250	2004	150	249	307	\$ 6,754	239	307	\$ 9,309
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 244	\$ 536	2004	150	249	307	\$ 499	239	307	\$ 689
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 168	\$ 368	2004	150	249	307	\$ 343	239	307	\$ 472
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 226	\$ 497	2004	150	249	307	\$ 462	239	307	\$ 638
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 179	\$ 394	2004	150	249	307	\$ 366	239	307	\$ 506
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 210,471	\$ 462,116	2004	150	249	307	\$ 430,477	239	307	\$ 593,348
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 2	\$ 5	2004	150	249	307	\$ 5	239	307	\$ 7
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 800	\$ 1,757	2004	150	249	307	\$ 1,636	239	307	\$ 2,257
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 2,873,500	\$ 6,309,150	2004	150	249	307	\$ 5,877,179	239	307	\$ 8,100,832
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2004	150	249	307	\$ 0	239	307	\$ 0
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2004	150	249	307	\$ 0	239	307	\$ 0
Minneapolis - Hiawatha Corridor	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2004	150	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 2,512	\$ 4,381	2009	203	249	307	\$ 3,797	239	307	\$ 5,625
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 621	\$ 1,083	2009	203	249	307	\$ 938	239	307	\$ 1,390
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 436	\$ 761	2009	203	249	307	\$ 660	239	307	\$ 977
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 145	\$ 253	2009	203	249	307	\$ 219	239	307	\$ 325
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 31	\$ 54	2009	203	249	307	\$ 47	239	307	\$ 69
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,574,210	\$ 2,745,907	2009	203	249	307	\$ 2,379,529	239	307	\$ 3,525,694
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 2,591,447	\$ 4,520,282	2009	203	249	307	\$ 3,917,155	239	307	\$ 5,803,958
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	20.073	Unspecified	Number	\$ 39,781	\$ 69,390	2009	203	249	307	\$ 60,132	239	307	\$ 89,096
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 680,961	\$ 1,187,806	2009	203	249	307	\$ 1,029,321	239	307	\$ 1,525,121
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 1,184	\$ 2,065	2009	203	249	307	\$ 1,790	239	307	\$ 2,652
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 1,275	\$ 2,224	2009	203	249	307	\$ 1,927	239	307	\$ 2,855
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 3,451	\$ 6,020	2009	203	249	307	\$ 5,216	239	307	\$ 7,729
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 480	\$ 838	2009	203	249	307	\$ 726	239	307	\$ 1,076
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 1,341	\$ 2,339	2009	203	249	307	\$ 2,027	239	307	\$ 3,004
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 808	\$ 1,410	2009	203	249	307	\$ 1,221	239	307	\$ 1,810
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 1,494	\$ 2,606	2009	203	249	307	\$ 2,258	239	307	\$ 3,346
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 132	\$ 229	2009	203	249	307	\$ 200	239	307	\$ 295
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 26	\$ 46	2009	203	249	307	\$ 39	239	307	\$ 59
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 9	\$ 15	2009	203	249	307	\$ 13	239	307	\$ 20
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.044	Unspecified	Track Feet	\$ 25	\$ 43	2009	203	249	307	\$ 38	239	307	\$ 55
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 49	\$ 86	2009	203	249	307	\$ 74	239	307	\$ 110
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.064	Unspecified	Stations	\$ 413,011	\$ 720,419	2009	203	249	307	\$ 624,295	239	307	\$ 925,004
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 1
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 519	\$ 905	2009	203	249	307	\$ 785	239	307	\$ 1,161
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 3,150,000	\$ 5,494,570	2009	203	249	307	\$ 4,761,448	239	307	\$ 7,054,927
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	70.035	Unspecified	Vehicles	\$ 2,515,568	\$ 4,387,926	2009	203	249	307	\$ 3,802,459	239	307	\$ 5,634,016
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 38,370	\$ 66,930	2009	203	249	307	\$ 57,999	239	307	\$ 85,937
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.081	Training/Start-up	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.082	Safety Certification	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.083	Off-Site Vehicle Testing, Test Runs	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.084	Commissioning	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
Minneapolis - Northstar Commuter Line	Commuter Rail Transit	At-Grade	80.085	Unspecified	Hard Costs	\$ 0	\$ 0	2009	203	249	307	\$ 0	239	307	\$ 0
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 647	\$ 1,452	2003	143	264	307	\$ 1,390	239	307	\$ 1,864
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 1,176	\$ 2,636	2003	143	264	307	\$ 2,524	239	307	\$ 3,384
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 210	\$ 470	2003	143	264	307	\$ 450	239	307	\$ 604
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 98	\$ 221	2003	143	264	307	\$ 211	239	307	\$ 283
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	10.140	Special Structures	LF Guideway	\$ 382	\$ 856	2003	143	264	307	\$ 820	239	307	\$ 1,099

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost	
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	40.028	Suburban Replacement Betterment Private Utilities	LF Guideway	\$ 21 \$ 47	2003	143	264	307	\$ 45	239	307	\$ 60
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 18 \$ 41	2003	143	264	307	\$ 39	239	307	\$ 52
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 26 \$ 58	2003	143	264	307	\$ 56	239	307	\$ 74
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	40.071	Surface Parking Lot	Spaces	\$ 4,926 \$ 11,044	2003	143	264	307	\$ 10,575	239	307	\$ 14,181
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 73 \$ 163	2003	143	264	307	\$ 157	239	307	\$ 210
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 93 \$ 207	2003	143	264	307	\$ 200	239	307	\$ 266
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 33 \$ 74	2003	143	264	307	\$ 71	239	307	\$ 95
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 25 \$ 56	2003	143	264	307	\$ 54	239	307	\$ 71
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 231,815 \$ 519,780	2003	143	264	307	\$ 497,673	239	307	\$ 667,388
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 570 \$ 1,278	2003	143	264	307	\$ 1,224	239	307	\$ 1,641
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 3,697,183 \$ 8,289,892	2003	143	264	307	\$ 7,937,309	239	307	\$ 10,644,068
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0 \$ 0	2003	143	264	307	\$ 0	239	307	\$ 0
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0 \$ 0	2003	143	264	307	\$ 0	239	307	\$ 0
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0 \$ 0	2003	143	264	307	\$ 0	239	307	\$ 0
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0 \$ 0	2003	143	264	307	\$ 0	239	307	\$ 0
New Jersey - Southern NJ Light Rail Transit System	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0 \$ 0	2003	143	264	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 1,847 \$ 4,611	2004	115	204	307	\$ 4,918	239	307	\$ 5,920
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 99 \$ 246	2004	115	204	307	\$ 263	239	307	\$ 316
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 751 \$ 1,876	2004	115	204	307	\$ 2,001	239	307	\$ 2,408
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	40.029	Unspecified	LF Guideway	\$ 7 \$ 17	2004	115	204	307	\$ 19	239	307	\$ 22
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 0 \$ 0	2004	115	204	307	\$ 1	239	307	\$ 1
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.044	Unspecified	Track Feet	\$ 75 \$ 188	2004	115	204	307	\$ 200	239	307	\$ 241
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.053	Unspecified	Track Feet	\$ 3 \$ 9	2004	115	204	307	\$ 8	239	307	\$ 11
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.061	Central Revenue Counting Systems	Stations	\$ 918,794 \$ 2,293,669	2004	115	204	307	\$ 2,446,399	239	307	\$ 2,945,028
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 918,794 \$ 2,293,669	2004	115	204	307	\$ 2,446,399	239	307	\$ 2,945,028
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.063	Revenue Collection - On Vehicle	Stations	\$ 918,794 \$ 2,293,669	2004	115	204	307	\$ 2,446,399	239	307	\$ 2,945,028
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	50.064	Unspecified	Stations	\$ 918,794 \$ 2,293,669	2004	115	204	307	\$ 2,446,399	239	307	\$ 2,945,028
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	70.050	Other Vehicles	Vehicles	\$ 1,161,808 \$ 2,900,326	2004	115	204	307	\$ 3,093,452	239	307	\$ 3,723,965
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	80.020	Final Design	Hard Costs	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
New Orleans - Canal Street Trolley	Street Trolley Line	At-Grade	80.090	Other	Hard Costs	\$ 0 \$ 0	2004	115	204	307	\$ 0	239	307	\$ 0
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 8,590 \$ 22,342	2005	166	267	307	\$ 15,848	239	307	\$ 28,687
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 309 \$ 802	2005	166	267	307	\$ 569	239	307	\$ 1,030
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 13,804,059 \$ 29,962,830	2005	166	267	307	\$ 25,467,826	239	307	\$ 38,471,722
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	30.050	Yard and Yard Track	Track Feet	\$ 229 \$ 482	2005	166	267	307	\$ 422	239	307	\$ 619
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 16 \$ 38	2005	166	267	307	\$ 29	239	307	\$ 48
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 81 \$ 167	2005	166	267	307	\$ 149	239	307	\$ 215
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 71 \$ 154	2005	166	267	307	\$ 131	239	307	\$ 197
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 215 \$ 560	2005	166	267	307	\$ 397	239	307	\$ 719
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 24 \$ 55	2005	166	267	307	\$ 44	239	307	\$ 70
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	70.022	Large Scale	Vehicles	\$ 1,344,543 \$ 2,918,439	2005	166	267	307	\$ 2,480,617	239	307	\$ 3,747,221
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	70.061	Maintenance of Way Vehicles	Vehicles	\$ 35,741 \$ 77,578	2005	166	267	307	\$ 65,940	239	307	\$ 99,609
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0 \$ 0	2005	166	267	307	\$ 0	239	307	\$ 0
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0 \$ 0	2005	166	267	307	\$ 0	239	307	\$ 0
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	80.040	Construction Administration & Managem	Hard Costs	\$ 0 \$ 0	2005	166	267	307	\$ 0	239	307	\$ 0
Philadelphia SEPTA - Frankford Rehabilitation	Heavy Rail Transit	Aerial	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0 \$ 0	2005	166	267	307	\$ 0	239	307	\$ 0
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 69 \$ 138	2008	152	207	307	\$ 140	239	307	\$ 177
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 15,404 \$ 30,647	2008	152	207	307	\$ 31,071	239	307	\$ 39,350
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 445 \$ 885	2008	152	207	307	\$ 897	239	307	\$ 1,136
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 550 \$ 1,094	2008	152	207	307	\$ 1,109	239	307	\$ 1,405
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 187 \$ 371	2008	152	207	307	\$ 376	239	307	\$ 477
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 48 \$ 96	2008	152	207	307	\$ 97	239	307	\$ 123
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,867,235 \$ 3,714,854	2008	152	207	307	\$ 3,766,368	239	307	\$ 4,769,804
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	20.040	Major Stations, landings, terminals: Intermodal, ferry	Stations	\$ 900,000 \$ 1,790,545	2008	152	207	307	\$ 1,815,375	239	307	\$ 2,299,027
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	30.014	Unspecified	LF Guideway	\$ 4 \$ 8	2008	152	207	307	\$ 8	239	307	\$ 11
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 654,250 \$ 1,301,627	2008	152	207	307	\$ 1,319,676	239	307	\$ 1,671,265
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 11 \$ 23	2008	152	207	307	\$ 23	239	307	\$ 29
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 314 \$ 624	2008	152	207	307	\$ 633	239	307	\$ 802
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 811 \$ 1,613	2008	152	207	307	\$ 1,636	239	307	\$ 2,071
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 30 \$ 59	2008	152	207	307	\$ 61	239	307	\$ 76
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 16 \$ 31	2008	152	207	307	\$ 32	239	307	\$ 40
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 189 \$ 376	2008	152	207	307	\$ 381	239	307	\$ 483
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 267 \$ 532	2008	152	207	307	\$ 539	239	307	\$ 683
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 17,012 \$ 33,846	2008	152	207	307	\$ 34,315	239	307	\$ 43,457
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 772 \$ 1,535	2008	152	207	307	\$ 1,557	239	307	\$ 1,971
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 92 \$ 184	2008	152	207	307	\$ 186	239	307	\$ 236
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 163 \$ 324	2008	152	207	307	\$ 329	239	307	\$ 416
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 116 \$ 230	2008	152	207	307	\$ 233	239	307	\$ 295
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	50.044	Unspecified	Track Feet	\$ 159 \$ 316	2008	152	207	307	\$ 321	239	307	\$ 405
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 108 \$ 214	2008	152	207	307	\$ 218	239	307	\$ 275
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 1,250 \$ 2,487	2008	152	207	307	\$ 2,521	239	307	\$ 3,193
Phoenix - Central Phoenix/East Valley	Light Rail Transit	At-Grade	60.025	Unspecified										

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 3,972	\$ 7,133	2000	121	239	307	\$ 10,086	239	307	\$ 9,159
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	10.050	Guideway: Built up fill	LF Guideway	\$ 2,935	\$ 5,270	2000	121	239	307	\$ 7,452	239	307	\$ 6,767
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	10.078	Unspecified	LF Guideway	\$ 7,043	\$ 12,649	2000	121	239	307	\$ 17,884	239	307	\$ 16,242
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 620,430	\$ 1,114,285	2000	121	239	307	\$ 1,575,451	239	307	\$ 1,430,721
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 29	\$ 63	2000	121	239	307	\$ 89	239	307	\$ 81
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 35	\$ 52	2000	121	239	307	\$ 74	239	307	\$ 67
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 830	\$ 1,491	2000	121	239	307	\$ 2,108	239	307	\$ 1,915
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	40.075	Unspecified	Spaces	\$ 12,907	\$ 23,182	2000	121	239	307	\$ 32,775	239	307	\$ 29,765
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 1,137	\$ 2,042	2000	121	239	307	\$ 2,887	239	307	\$ 2,622
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2000	121	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	80.034	Unspecified	Hard Costs	\$ 1	\$ 1	2000	121	239	307	\$ 3	239	307	\$ 1
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	\$ 0	2000	121	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2000	121	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Airport Busway	Bus Rapid Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2000	121	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 535	\$ 2,051	1987	85	239	307	\$ 1,922	239	307	\$ 2,634
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 858	\$ 3,293	1987	85	239	307	\$ 3,086	239	307	\$ 4,228
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 981	\$ 3,763	1987	85	239	307	\$ 3,527	239	307	\$ 4,831
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.065	Unspecified	LF Guideway	\$ 13,548	\$ 51,983	1987	85	239	307	\$ 48,714	239	307	\$ 66,745
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 514	\$ 1,986	1987	85	239	307	\$ 1,848	239	307	\$ 2,551
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 215	\$ 824	1987	85	239	307	\$ 772	239	307	\$ 1,058
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 55	\$ 211	1987	85	239	307	\$ 198	239	307	\$ 271
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 37	\$ 141	1987	85	239	307	\$ 133	239	307	\$ 182
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,748,205	\$ 6,707,814	1987	85	239	307	\$ 6,286,003	239	307	\$ 8,612,709
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	20.034	Unspecified	Stations	\$ 6,182,978	\$ 23,723,910	1987	85	239	307	\$ 22,232,071	239	307	\$ 30,461,064
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 583,466	\$ 2,238,744	1987	85	239	307	\$ 2,097,964	239	307	\$ 2,874,506
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 61	\$ 221	1987	85	239	307	\$ 220	239	307	\$ 284
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 9	\$ 36	1987	85	239	307	\$ 33	239	307	\$ 46
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 12	\$ 47	1987	85	239	307	\$ 43	239	307	\$ 61
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 12	\$ 47	1987	85	239	307	\$ 43	239	307	\$ 61
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 15	\$ 58	1987	85	239	307	\$ 54	239	307	\$ 75
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.024	Urban Replacement Betterment Private Utilities	LF Guideway	\$ 15	\$ 58	1987	85	239	307	\$ 54	239	307	\$ 75
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 12	\$ 47	1987	85	239	307	\$ 43	239	307	\$ 61
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 12	\$ 47	1987	85	239	307	\$ 43	239	307	\$ 61
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.027	Suburban Replacement Betterment Public Utilities	LF Guideway	\$ 15	\$ 58	1987	85	239	307	\$ 54	239	307	\$ 75
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.028	Suburban Replacement Betterment Private Utilities	LF Guideway	\$ 15	\$ 58	1987	85	239	307	\$ 54	239	307	\$ 75
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 4	\$ 15	1987	85	239	307	\$ 14	239	307	\$ 19
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 139	\$ 535	1987	85	239	307	\$ 500	239	307	\$ 687
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 73	\$ 283	1987	85	239	307	\$ 263	239	307	\$ 363
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 91	\$ 353	1987	85	239	307	\$ 327	239	307	\$ 453
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 54	\$ 208	1987	85	239	307	\$ 194	239	307	\$ 268
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.061	Central Revenue Counting Systems	Stations	\$ 88,888	\$ 343,558	1987	85	239	307	\$ 319,614	239	307	\$ 441,122
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 1	\$ 4	1987	85	239	307	\$ 4	239	307	\$ 5
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 262	\$ 1,034	1987	85	239	307	\$ 942	239	307	\$ 1,328
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 1,043,626	\$ 4,004,364	1987	85	239	307	\$ 3,752,555	239	307	\$ 5,141,530
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 1	1987	85	239	307	\$ 1	239	307	\$ 2
Pittsburgh - Light Rail Stage I	Light Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	\$ 0	1987	85	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 1,349	\$ 3,323	2004	133	239	307	\$ 3,113	239	307	\$ 4,267
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 496	\$ 1,222	2004	133	239	307	\$ 1,145	239	307	\$ 1,570
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.044	Unspecified	LF Guideway	\$ 5,488	\$ 13,515	2004	133	239	307	\$ 12,658	239	307	\$ 17,354
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.050	Guideway: Built up fill	LF Guideway	\$ 3,404	\$ 8,382	2004	133	239	307	\$ 7,851	239	307	\$ 10,762
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 2,939	\$ 7,238	2004	133	239	307	\$ 6,779	239	307	\$ 9,293
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 403	\$ 992	2004	133	239	307	\$ 929	239	307	\$ 1,274
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.100	Track: Embedded	Track Feet	\$ 164	\$ 404	2004	133	239	307	\$ 379	239	307	\$ 519
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 163	\$ 400	2004	133	239	307	\$ 375	239	307	\$ 514
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 65	\$ 160	2004	133	239	307	\$ 150	239	307	\$ 206
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,340,089	\$ 3,300,075	2004	133	239	307	\$ 3,090,965	239	307	\$ 4,237,235
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	20.060	Automobile parking multi story structure	Spaces	\$ 14,922	\$ 32,911	2004	133	239	307	\$ 34,418	239	307	\$ 42,257
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	20.080	Passenger Overpass	Number	\$ 95,000	\$ 233,945	2004	133	239	307	\$ 219,121	239	307	\$ 300,381
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	20.100	Signage and Graphics	Stations	\$ 33,380	\$ 82,201	2004	133	239	307	\$ 76,992	239	307	\$ 105,544
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	30.011	Administrative Building	LF Guideway	\$ 71	\$ 187	2004	133	239	307	\$ 164	239	307	\$ 240
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	30.012	Central Control Facility	LF Guideway	\$ 465	\$ 1,116	2004	133	239	307	\$ 1,073	239	307	\$ 1,433
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 63	\$ 166	2004	133	239	307	\$ 146	239	307	\$ 213
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 13	\$ 33	2004	133	239	307	\$ 31	239	307	\$ 43
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 33	\$ 82	2004	133	239	307	\$ 76	239	307	\$ 106
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 33	\$ 82	2004	133	239	307	\$ 76	239	307	\$ 106
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 2	\$ 5	2004	133	239	307	\$ 5	239	307	\$ 6
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.024	Urban Replacement Betterment Private Utilities	LF Guideway	\$ 2	\$ 5	2004	133	239	307	\$ 5	239	307	\$ 6
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 33	\$ 82	2004	133	239	307	\$ 76	239	307	\$ 106
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 33	\$ 82	2004	133	239	307	\$ 76	239	307	\$ 106
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.027	Suburban Replacement Betterment Public Utilities	LF Guideway	\$ 2	\$ 5	2004	133	239	307	\$ 5	239	307	\$ 6
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.028	Suburban Replacement Betterment Private Utilities	LF Guideway	\$ 2	\$ 5	2004	133	239	307	\$ 5	239	307	\$ 6
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 31	\$ 76	2004	133	239	307	\$ 71	239	307	\$ 97
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	40.071	Surface Parking Lot	Spaces	\$ 7,1									

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	60.025	Unspecified	LF Guideway	\$ 8	19	2004	133	239	307	\$ 18	239	307	\$ 25
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	60.040	Other Real Estate Costs	LF Guideway	\$ 1	1	2004	133	239	307	\$ 1	239	307	\$ 2
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	70.013	Unspecified	Vehicles	\$ 2,435,836	\$ 5,372,296	2004	133	239	307	\$ 5,618,344	239	307	\$ 6,897,929
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	70.061	Maintenance of Way Vehicles	Vehicles	\$ 7,041	\$ 17,338	2004	133	239	307	\$ 16,240	239	307	\$ 22,261
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2004	133	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2004	133	239	307	\$ 0	239	307	\$ 1
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2004	133	239	307	\$ 0	239	307	\$ 0
Pittsburgh - Light Rail Stage II	Light Rail Transit	Aerial	80.090	Other	Hard Costs	\$ 0	\$ 0	2004	133	239	307	\$ 0	239	307	\$ 0
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.044	Unspecified	LF Guideway	\$ 8,955	\$ 13,396	2012	197	239	307	\$ 13,969	239	307	\$ 17,201
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.065	Unspecified	LF Guideway	\$ 51,137	\$ 76,504	2012	197	239	307	\$ 79,772	239	307	\$ 98,229
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.078	Unspecified	LF Guideway	\$ 27,180	\$ 40,662	2012	197	239	307	\$ 42,400	239	307	\$ 52,210
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 30,177	\$ 45,146	2012	197	239	307	\$ 47,075	239	307	\$ 57,966
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 764	\$ 1,142	2012	197	239	307	\$ 1,191	239	307	\$ 1,467
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 301	\$ 451	2012	197	239	307	\$ 470	239	307	\$ 579
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 7,417,000	\$ 11,096,158	2012	197	239	307	\$ 11,570,218	239	307	\$ 14,247,263
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 52,270,500	\$ 78,198,966	2012	197	239	307	\$ 81,539,855	239	307	\$ 100,406,033
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.032	Bored Earth Soft Soils	Stations	\$ 52,270,500	\$ 78,198,966	2012	197	239	307	\$ 81,539,855	239	307	\$ 100,406,033
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.033	Bored Rock Hard Soils	Stations	\$ 52,270,500	\$ 78,198,966	2012	197	239	307	\$ 81,539,855	239	307	\$ 100,406,033
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.034	Unspecified	Stations	\$ 52,270,500	\$ 78,198,966	2012	197	239	307	\$ 81,539,855	239	307	\$ 100,406,033
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	20.073	Unspecified	Number	\$ 541,563	\$ 810,201	2012	197	239	307	\$ 844,816	239	307	\$ 1,040,284
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 881	\$ 1,318	2012	197	239	307	\$ 1,374	239	307	\$ 1,692
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.029	Unspecified	LF Guideway	\$ 3,770	\$ 5,640	2012	197	239	307	\$ 5,881	239	307	\$ 7,241
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.034	Unspecified	LF Guideway	\$ 361	\$ 541	2012	197	239	307	\$ 563	239	307	\$ 694
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 92	\$ 137	2012	197	239	307	\$ 143	239	307	\$ 176
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 130	\$ 194	2012	197	239	307	\$ 203	239	307	\$ 250
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.075	Unspecified	Spaces	\$ 7,747	\$ 11,590	2012	197	239	307	\$ 12,085	239	307	\$ 14,882
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	40.086	Unspecified	LF Guideway	\$ 4,583	\$ 6,857	2012	197	239	307	\$ 7,149	239	307	\$ 8,804
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.014	Unspecified	Track Feet	\$ 1,231	\$ 1,841	2012	197	239	307	\$ 1,920	239	307	\$ 2,364
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 797	\$ 1,192	2012	197	239	307	\$ 1,243	239	307	\$ 1,531
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.044	Unspecified	Track Feet	\$ 332	\$ 497	2012	197	239	307	\$ 518	239	307	\$ 638
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.051	Wired	Track Feet	\$ 858	\$ 1,284	2012	197	239	307	\$ 1,339	239	307	\$ 1,648
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.052	Radio Based	Track Feet	\$ 858	\$ 1,284	2012	197	239	307	\$ 1,339	239	307	\$ 1,648
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 858	\$ 1,284	2012	197	239	307	\$ 1,339	239	307	\$ 1,648
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.064	Unspecified	Stations	\$ 2,333	\$ 3,491	2012	197	239	307	\$ 3,639	239	307	\$ 4,482
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	50.070	Central Control System	LF Guideway	\$ 219	\$ 328	2012	197	239	307	\$ 342	239	307	\$ 421
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 1,371	\$ 2,051	2012	197	239	307	\$ 2,139	239	307	\$ 2,634
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	60.025	Unspecified	LF Guideway	\$ 116	\$ 174	2012	197	239	307	\$ 181	239	307	\$ 223
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2012	197	239	307	\$ 0	239	307	\$ 0
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2012	197	239	307	\$ 0	239	307	\$ 0
Pittsburgh - North Shore LRT Connector	Light Rail Transit	Underground	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ 0	2012	197	239	307	\$ 0	239	307	\$ 0
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 2,370	\$ 5,604	2004	138	234	307	\$ 5,281	239	307	\$ 7,196
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 2,370	\$ 5,604	2004	138	234	307	\$ 5,281	239	307	\$ 7,196
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 2,370	\$ 5,604	2004	138	234	307	\$ 5,281	239	307	\$ 7,196
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 7,749	\$ 18,321	2004	138	234	307	\$ 17,264	239	307	\$ 23,524
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 453	\$ 1,071	2004	138	234	307	\$ 1,009	239	307	\$ 1,375
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 522	\$ 1,233	2004	138	234	307	\$ 1,162	239	307	\$ 1,584
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 246	\$ 582	2004	138	234	307	\$ 549	239	307	\$ 748
Portland - Interstate MAX	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 76	\$ 179	2004	138	234	307	\$ 168	239	307	\$ 229
Portland - Interstate MAX	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 822,800	\$ 1,945,398	2004	138	234	307	\$ 1,833,089	239	307	\$ 2,497,855
Portland - Interstate MAX	Light Rail Transit	At-Grade	20.050	Joint development	Stations	\$ 28,200	\$ 66,675	2004	138	234	307	\$ 62,826	239	307	\$ 85,610
Portland - Interstate MAX	Light Rail Transit	At-Grade	20.060	Automobile parking multi story structure	Spaces	\$ 2,927	\$ 6,920	2004	138	234	307	\$ 6,520	239	307	\$ 8,885
Portland - Interstate MAX	Light Rail Transit	At-Grade	20.080	Passenger Overpass	Number	\$ 1,424,000	\$ 3,366,853	2004	138	234	307	\$ 3,172,482	239	307	\$ 4,322,977
Portland - Interstate MAX	Light Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 596,083	\$ 1,409,357	2004	138	234	307	\$ 1,327,994	239	307	\$ 1,809,589
Portland - Interstate MAX	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 120	\$ 292	2004	138	234	307	\$ 267	239	307	\$ 375
Portland - Interstate MAX	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 72	\$ 176	2004	138	234	307	\$ 160	239	307	\$ 226
Portland - Interstate MAX	Light Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 954	\$ 2,256	2004	138	234	307	\$ 2,125	239	307	\$ 2,897
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 224	\$ 518	2004	138	234	307	\$ 499	239	307	\$ 664
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 0	\$ 1	2004	138	234	307	\$ 1	239	307	\$ 1
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 164	\$ 387	2004	138	234	307	\$ 365	239	307	\$ 497
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 119	\$ 274	2004	138	234	307	\$ 265	239	307	\$ 352
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 154,300	\$ 355,701	2004	138	234	307	\$ 343,760	239	307	\$ 456,713
Portland - Interstate MAX	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 125	\$ 287	2004	138	234	307	\$ 278	239	307	\$ 369
Portland - Interstate MAX	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 261	\$ 601	2004	138	234	307	\$ 581	239	307	\$ 771
Portland - Interstate MAX	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 16	\$ 37	2004	138	234	307	\$ 36	239	307	\$ 47
Portland - Interstate MAX	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 3,013,833	\$ 6,947,651	2004	138	234	307	\$ 6,714,417	239	307	\$ 8,920,656
Portland - Interstate MAX	Light Rail Transit	At-Grade	70.064	Unspecified	Vehicles	\$ 11,917	\$ 27,471	2004	138	234	307	\$ 26,549	239	307	\$ 35,272
Portland - Interstate MAX	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2004	138	234	307	\$ 0	239	307	\$ 0
Portland - Interstate MAX	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2004	138	234	307	\$ 0	239	307	\$ 0
Portland - Interstate MAX	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2004	138	234	307	\$ 0	239	307	\$ 0
Portland - Interstate MAX	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ 0	2004	138	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 615	\$ 2,282	1986	92	234	307	\$ 2,053	239	307	\$ 2,930
Portland - MAX Segment I	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 940	\$ 3,490								

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops Date - City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Portland - MAX Segment I	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 751	1986	92	234	307	\$ 2,507	239	307	\$ 3,580
Portland - MAX Segment I	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 39	1986	92	234	307	\$ 130	239	307	\$ 188
Portland - MAX Segment I	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 4	1986	92	234	307	\$ 12	239	307	\$ 18
Portland - MAX Segment I	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 67	1986	92	234	307	\$ 222	239	307	\$ 317
Portland - MAX Segment I	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 2	1986	92	234	307	\$ 7	239	307	\$ 12
Portland - MAX Segment I	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 19	1986	92	234	307	\$ 63	239	307	\$ 90
Portland - MAX Segment I	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 150	1986	92	234	307	\$ 501	239	307	\$ 717
Portland - MAX Segment I	Light Rail Transit	At-Grade	70.011	Static	Vehicles	\$ 975,615	1986	92	234	307	\$ 3,257,001	239	307	\$ 5,445,429
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - MAX Segment I	Light Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	1986	92	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 247	2009	184	234	307	\$ 413	239	307	\$ 596
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 249	2009	184	234	307	\$ 416	239	307	\$ 599
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 5,314	2009	184	234	307	\$ 8,886	239	307	\$ 12,816
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.050	Guideway: Built up fill	LF Guideway	\$ 2,933	2009	184	234	307	\$ 4,904	239	307	\$ 7,074
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.078	Unspecified	LF Guideway	\$ 23,789	2009	184	234	307	\$ 39,778	239	307	\$ 57,374
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 36,794	2009	184	234	307	\$ 61,524	239	307	\$ 88,739
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 1,262	2009	184	234	307	\$ 2,110	239	307	\$ 3,044
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 451	2009	184	234	307	\$ 754	239	307	\$ 1,088
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 132	2009	184	234	307	\$ 221	239	307	\$ 318
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 0	2009	184	234	307	\$ 1	239	307	\$ 1
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	10.130	Track: Vibration & Noise Dampening	Track Feet	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 724,216	2009	184	234	307	\$ 1,210,972	239	307	\$ 1,670,346
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	20.060	Automobile parking multi story structure	Spaces	\$ 22,064	2009	184	234	307	\$ 36,894	239	307	\$ 50,890
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	30.014	Unspecified	LF Guideway	\$ 2	2009	184	234	307	\$ 3	239	307	\$ 5
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 1,505	2009	184	234	307	\$ 2,517	239	307	\$ 3,472
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 287,366	2009	184	234	307	\$ 480,508	239	307	\$ 662,785
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 3	2009	184	234	307	\$ 5	239	307	\$ 7
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 860	2009	184	234	307	\$ 1,438	239	307	\$ 1,983
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 233	2009	184	234	307	\$ 390	239	307	\$ 563
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 709	2009	184	234	307	\$ 1,186	239	307	\$ 1,710
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 19	2009	184	234	307	\$ 32	239	307	\$ 46
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 8	2009	184	234	307	\$ 14	239	307	\$ 20
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 180	2009	184	234	307	\$ 301	239	307	\$ 434
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 384	2009	184	234	307	\$ 642	239	307	\$ 926
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 9,521	2009	184	234	307	\$ 15,920	239	307	\$ 22,962
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 2,108	2009	184	234	307	\$ 3,525	239	307	\$ 5,085
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 260	2009	184	234	307	\$ 435	239	307	\$ 601
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 114	2009	184	234	307	\$ 190	239	307	\$ 262
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 72	2009	184	234	307	\$ 120	239	307	\$ 165
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.044	Unspecified	Track Feet	\$ 220	2009	184	234	307	\$ 368	239	307	\$ 508
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 148	2009	184	234	307	\$ 247	239	307	\$ 342
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.064	Unspecified	Stations	\$ 97,387	2009	184	234	307	\$ 162,842	239	307	\$ 224,615
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 3	2009	184	234	307	\$ 5	239	307	\$ 7
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 426	2009	184	234	307	\$ 712	239	307	\$ 1,028
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 46	2009	184	234	307	\$ 77	239	307	\$ 111
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 3,668,183	2009	184	234	307	\$ 6,133,618	239	307	\$ 8,460,365
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 74,283	2009	184	234	307	\$ 124,210	239	307	\$ 171,329
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - South Corridor/Portland Mall	Light Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 1,839	1998	122	234	307	\$ 4,619	239	307	\$ 6,519
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 7,231	1998	122	234	307	\$ 18,165	239	307	\$ 25,635
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.061	Cut & Cover Guideway Soft Soils	LF Guideway	\$ 4,474	1998	122	234	307	\$ 11,240	239	307	\$ 15,861
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.078	Unspecified	LF Guideway	\$ 11,656	1998	122	234	307	\$ 29,283	239	307	\$ 41,327
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 137	1998	122	234	307	\$ 344	239	307	\$ 486
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 3	1998	122	234	307	\$ 7	239	307	\$ 10
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 880,842	1998	122	234	307	\$ 2,212,918	239	307	\$ 3,122,971
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	20.034	Unspecified	Stations	\$ 44,796,000	1998	122	234	307	\$ 112,539,869	239	307	\$ 158,821,438
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	20.060	Automobile parking multi story structure	Spaces	\$ 11,344	1998	122	234	307	\$ 28,500	239	307	\$ 40,221
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 542,778	1998	122	234	307	\$ 1,363,607	239	307	\$ 1,924,385
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 142	1998	122	234	307	\$ 357	239	307	\$ 504
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.032	Contaminated Soil Removal	LF Guideway	\$ 39	1998	122	234	307	\$ 98	239	307	\$ 138
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.052	Concrete Walls	LF Guideway	\$ 11	1998	122	234	307	\$ 28	239	307	\$ 39
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 31	1998	122	234	307	\$ 78	239	307	\$ 110
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.072	Auto Access	Spaces	\$ 2,737	1998	122	234	307	\$ 6,876	239	307	\$ 9,705
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 132	1998	122	234	307	\$ 332	239	307	\$ 467
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 137	1998	122	234	307	\$ 344	239	307	\$ 485
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 31	1998	122	234	307	\$ 79	239	307	\$ 111
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 140	1998	122	234	307	\$ 352	239	307	\$ 495
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 76	1998	122	234	307	\$ 191	239	307	\$ 269
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 252,750	1998	122	234	307	\$ 634,977	239	307	\$ 896,109
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	50.											

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue Ops City Index	2020 City Index	Adjusted 2020 NY Cost	Unit Cost Adjusted to 2020 NY	2020 National Average	Adjusted 2020 NY Cost	Nat'l Avg Adjusted to 2020 NY
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	1998	122	234	307	\$ 0	239	307	\$ 1
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	1998	122	234	307	\$ 0	239	307	\$ 0
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	1998	122	234	307	\$ 0	239	307	\$ 0
Portland - Westside/Hillsboro MAX	Light Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	1998	122	234	307	\$ 0	239	307	\$ 0
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 10	2009	184	234	307	\$ 16	239	307	\$ 22
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 2,539	2009	184	234	307	\$ 4,246	239	307	\$ 5,857
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.065	Unspecified	LF Guideway	\$ 84	2009	184	234	307	\$ 140	239	307	\$ 194
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 13,252	2009	184	234	307	\$ 22,160	239	307	\$ 30,566
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 65	2009	184	234	307	\$ 109	239	307	\$ 151
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 4	2009	184	234	307	\$ 7	239	307	\$ 10
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 336,200	2009	184	234	307	\$ 562,164	239	307	\$ 744,361
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 1,302,000	2009	184	234	307	\$ 2,177,092	239	307	\$ 3,002,957
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 36	2009	184	234	307	\$ 60	239	307	\$ 87
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 11	2009	184	234	307	\$ 18	239	307	\$ 26
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 1	2009	184	234	307	\$ 2	239	307	\$ 2
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 2	2009	184	234	307	\$ 3	239	307	\$ 4
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 122	2009	184	234	307	\$ 204	239	307	\$ 293
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 29	2009	184	234	307	\$ 48	239	307	\$ 69
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 4,369	2009	184	234	307	\$ 7,305	239	307	\$ 10,076
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 166	2009	184	234	307	\$ 278	239	307	\$ 399
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 230	2009	184	234	307	\$ 385	239	307	\$ 530
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 60	2009	184	234	307	\$ 100	239	307	\$ 138
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 19	2009	184	234	307	\$ 32	239	307	\$ 43
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 49	2009	184	234	307	\$ 82	239	307	\$ 113
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 4	2009	184	234	307	\$ 7	239	307	\$ 10
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	70.035	Unspecified	Vehicles	\$ 4,373,250	2009	184	234	307	\$ 7,312,569	239	307	\$ 10,086,544
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Portland - Wilsonville to Beaverton	Commuter Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	2009	184	234	307	\$ 0	239	307	\$ 0
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 619	2005	161	269	307	\$ 1,179	239	307	\$ 1,769
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 578	2005	161	269	307	\$ 1,101	239	307	\$ 1,651
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 3,964	2005	161	269	307	\$ 7,554	239	307	\$ 11,330
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 281	2005	161	269	307	\$ 535	239	307	\$ 802
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 306	2005	161	269	307	\$ 583	239	307	\$ 874
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 149	2005	161	269	307	\$ 284	239	307	\$ 426
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 27	2005	161	269	307	\$ 51	239	307	\$ 77
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,990,838	2005	161	269	307	\$ 3,793,837	239	307	\$ 5,689,568
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	20.100	Signage and Graphics	Stations	\$ 84,444	2005	161	269	307	\$ 160,921	239	307	\$ 241,330
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 595,876	2005	161	269	307	\$ 1,135,529	239	307	\$ 1,525,179
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 1	2005	161	269	307	\$ 1	239	307	\$ 1
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 60	2005	161	269	307	\$ 114	239	307	\$ 172
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 57	2005	161	269	307	\$ 109	239	307	\$ 163
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 28	2005	161	269	307	\$ 53	239	307	\$ 79
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 28	2005	161	269	307	\$ 53	239	307	\$ 79
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 61	2005	161	269	307	\$ 117	239	307	\$ 175
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 15	2005	161	269	307	\$ 29	239	307	\$ 38
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.082	Third-Party Work	LF Guideway	\$ 4	2005	161	269	307	\$ 8	239	307	\$ 10
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	40.083	Mobilization	LF Guideway	\$ 11	2005	161	269	307	\$ 21	239	307	\$ 33
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 290	2005	161	269	307	\$ 553	239	307	\$ 830
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.012	Train Control - On Board Systems	Track Feet	\$ 2	2005	161	269	307	\$ 4	239	307	\$ 7
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 56	2005	161	269	307	\$ 106	239	307	\$ 160
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 286	2005	161	269	307	\$ 545	239	307	\$ 816
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 10	2005	161	269	307	\$ 19	239	307	\$ 28
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 125,156	2005	161	269	307	\$ 238,503	239	307	\$ 348,738
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 99	2005	161	269	307	\$ 189	239	307	\$ 282
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 8	2005	161	269	307	\$ 15	239	307	\$ 23
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	60.032	Agency	LF Guideway	\$ 3	2005	161	269	307	\$ 6	239	307	\$ 10
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 12	2005	161	269	307	\$ 23	239	307	\$ 34
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 2,549,092	2005	161	269	307	\$ 4,857,674	239	307	\$ 7,284,990
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	2005	161	269	307	\$ 0	239	307	\$ 0
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	2005	161	269	307	\$ 0	239	307	\$ 0
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	2005	161	269	307	\$ 0	239	307	\$ 0
Sacramento - Folsom Corridor	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	2005	161	269	307	\$ 0	239	307	\$ 0
Sacramento - South Corridor	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 920	2003	145	269	307	\$ 1,949	239	307	\$ 2,629
Sacramento - South Corridor	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 7,340	2003	145	269	307	\$ 15,551	239	307	\$ 20,977
Sacramento - South Corridor	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 520	2003	145	269	307	\$ 1,101	239	307	\$ 1,485
Sacramento - South Corridor	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 195	2003	145	269	307	\$ 412	239	307	\$ 556
Sacramento - South Corridor	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 12	2003	145	269	307	\$ 26	239	307	\$ 35
Sacramento - South Corridor	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 3,742,420	2003	145	269	307	\$ 7,929,074	239	307	\$ 10,695,372
Sacramento - South Corridor	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 9	2003	145	269	307	\$ 19	239	307	\$ 25
Sacramento - South Corridor	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 57	2003	145	269	307	\$ 121	239	307	\$ 163
Sacramento - South Corridor	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 57	2003	145	269	307	\$ 121	239	307	\$ 163
Sacramento - South Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 57	2003	145	269	307	\$ 121	239	307	\$ 163
Sacramento - South Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 57	2003	145	269	307	\$ 121	239	307	\$ 163
Sacramento - South Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 198	2003	145	269	307	\$ 420	239	307	\$ 566
Sacramento - South Corridor	Light Rail Transit													

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average Cost	2020 NY Cost		
Sacramento - South Corridor	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 579	\$ 1,289	2003	145	269	307	\$ 1,227	239	307	\$ 1,655
Sacramento - South Corridor	Light Rail Transit	At-Grade	60.032	Agency	LF Guideway	\$ 8	\$ 18	2003	145	269	307	\$ 17	239	307	\$ 23
Sacramento - South Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 2,537,853	\$ 5,648,733	2003	145	269	307	\$ 5,376,956	239	307	\$ 7,252,869
Sacramento - South Corridor	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2003	145	269	307	\$ 0	239	307	\$ 0
Sacramento - South Corridor	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2003	145	269	307	\$ 0	239	307	\$ 0
Sacramento - South Corridor	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2003	145	269	307	\$ 0	239	307	\$ 0
Sacramento - Stage I	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 308	\$ 1,069	1987	97	269	307	\$ 973	239	307	\$ 1,372
Sacramento - Stage I	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 349	\$ 1,211	1987	97	269	307	\$ 1,101	239	307	\$ 1,555
Sacramento - Stage I	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 25	\$ 86	1987	97	269	307	\$ 78	239	307	\$ 110
Sacramento - Stage I	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 69	\$ 241	1987	97	269	307	\$ 219	239	307	\$ 309
Sacramento - Stage I	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 11	\$ 38	1987	97	269	307	\$ 35	239	307	\$ 49
Sacramento - Stage I	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 366,786	\$ 1,272,025	1987	97	269	307	\$ 1,157,517	239	307	\$ 1,633,256
Sacramento - Stage I	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 110,528	\$ 383,314	1987	97	269	307	\$ 348,808	239	307	\$ 492,168
Sacramento - Stage I	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 3	\$ 10	1987	97	269	307	\$ 9	239	307	\$ 13
Sacramento - Stage I	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 11	\$ 38	1987	97	269	307	\$ 35	239	307	\$ 48
Sacramento - Stage I	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 11	\$ 38	1987	97	269	307	\$ 35	239	307	\$ 48
Sacramento - Stage I	Light Rail Transit	At-Grade	40.023	Urban Replacement Betterment Public Utilities	LF Guideway	\$ 1	\$ 4	1987	97	269	307	\$ 3	239	307	\$ 5
Sacramento - Stage I	Light Rail Transit	At-Grade	40.024	Urban Replacement Betterment Private Utilities	LF Guideway	\$ 1	\$ 4	1987	97	269	307	\$ 3	239	307	\$ 5
Sacramento - Stage I	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 11	\$ 38	1987	97	269	307	\$ 35	239	307	\$ 48
Sacramento - Stage I	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 11	\$ 38	1987	97	269	307	\$ 35	239	307	\$ 48
Sacramento - Stage I	Light Rail Transit	At-Grade	40.027	Suburban Replacement Betterment Public Utilities	LF Guideway	\$ 1	\$ 4	1987	97	269	307	\$ 3	239	307	\$ 5
Sacramento - Stage I	Light Rail Transit	At-Grade	40.028	Suburban Replacement Betterment Private Utilities	LF Guideway	\$ 1	\$ 4	1987	97	269	307	\$ 3	239	307	\$ 5
Sacramento - Stage I	Light Rail Transit	At-Grade	40.081	Roadway Changes	LF Guideway	\$ 58	\$ 201	1987	97	269	307	\$ 183	239	307	\$ 258
Sacramento - Stage I	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 45	\$ 155	1987	97	269	307	\$ 142	239	307	\$ 199
Sacramento - Stage I	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 9	\$ 30	1987	97	269	307	\$ 27	239	307	\$ 38
Sacramento - Stage I	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 31	\$ 109	1987	97	269	307	\$ 99	239	307	\$ 140
Sacramento - Stage I	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 34	\$ 116	1987	97	269	307	\$ 107	239	307	\$ 149
Sacramento - Stage I	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 1	\$ 4	1987	97	269	307	\$ 3	239	307	\$ 6
Sacramento - Stage I	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 35,214	\$ 122,124	1987	97	269	307	\$ 111,130	239	307	\$ 156,805
Sacramento - Stage I	Light Rail Transit	At-Grade	50.063	Revenue Collection - On Vehicle	Stations	\$ 1,833	\$ 6,358	1987	97	269	307	\$ 5,785	239	307	\$ 8,164
Sacramento - Stage I	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 148	\$ 515	1987	97	269	307	\$ 467	239	307	\$ 661
Sacramento - Stage I	Light Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 7	\$ 24	1987	97	269	307	\$ 22	239	307	\$ 31
Sacramento - Stage I	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 961,111	\$ 3,333,164	1987	97	269	307	\$ 3,033,111	239	307	\$ 4,279,722
Sacramento - Stage I	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	1987	97	269	307	\$ 0	239	307	\$ 0
Sacramento - Stage I	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	1987	97	269	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 79	\$ 140	2011	162	212	307	\$ 150	239	307	\$ 180
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 12,854	\$ 22,681	2011	162	212	307	\$ 24,389	239	307	\$ 29,122
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 204	\$ 359	2011	162	212	307	\$ 386	239	307	\$ 461
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 52	\$ 92	2011	162	212	307	\$ 99	239	307	\$ 118
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	10.130	Track: Vibration & Noise Dampening	Track Feet	\$ 156	\$ 275	2011	162	212	307	\$ 296	239	307	\$ 353
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,349,522	\$ 2,381,212	2011	162	212	307	\$ 2,560,589	239	307	\$ 3,057,433
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	30.020	Light Maintenance Facility	Vehicles	\$ 20,131	\$ 35,521	2011	162	212	307	\$ 38,197	239	307	\$ 45,608
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 240,687	\$ 424,688	2011	162	212	307	\$ 456,680	239	307	\$ 545,292
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	30.050	Yard and Yard Track	Track Feet	\$ 627	\$ 1,106	2011	162	212	307	\$ 1,189	239	307	\$ 1,420
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 13	\$ 24	2011	162	212	307	\$ 26	239	307	\$ 31
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 180	\$ 318	2011	162	212	307	\$ 342	239	307	\$ 408
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 12	\$ 22	2011	162	212	307	\$ 23	239	307	\$ 28
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 1	\$ 2	2011	162	212	307	\$ 2	239	307	\$ 3
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 191	\$ 337	2011	162	212	307	\$ 362	239	307	\$ 433
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 28	\$ 49	2011	162	212	307	\$ 52	239	307	\$ 62
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.071	Surface Parking Lot	Spaces	\$ 11,493	\$ 20,279	2011	162	212	307	\$ 21,807	239	307	\$ 26,038
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.072	Auto Access	Spaces	\$ 11,493	\$ 20,279	2011	162	212	307	\$ 21,807	239	307	\$ 26,038
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.073	Bus Access	Spaces	\$ 11,493	\$ 20,279	2011	162	212	307	\$ 21,807	239	307	\$ 26,038
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.074	Bus Parking and Berthing	Spaces	\$ 11,493	\$ 20,279	2011	162	212	307	\$ 21,807	239	307	\$ 26,038
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 11,493	\$ 20,279	2011	162	212	307	\$ 21,807	239	307	\$ 26,038
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 1,201	\$ 2,119	2011	162	212	307	\$ 2,279	239	307	\$ 2,721
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 199	\$ 351	2011	162	212	307	\$ 378	239	307	\$ 451
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 61	\$ 108	2011	162	212	307	\$ 116	239	307	\$ 139
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 129	\$ 228	2011	162	212	307	\$ 245	239	307	\$ 292
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.044	Unspecified	Track Feet	\$ 169	\$ 298	2011	162	212	307	\$ 321	239	307	\$ 382
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 61	\$ 107	2011	162	212	307	\$ 116	239	307	\$ 138
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.064	Unspecified	Stations	\$ 201,391	\$ 355,352	2011	162	212	307	\$ 382,120	239	307	\$ 456,265
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 23	\$ 40	2011	162	212	307	\$ 44	239	307	\$ 52
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 990	\$ 1,746	2011	162	212	307	\$ 1,878	239	307	\$ 2,242
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 3,605,141	\$ 6,361,220	2011	162	212	307	\$ 6,840,410	239	307	\$ 8,167,689
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 218,597	\$ 385,711	2011	162	212	307	\$ 414,767	239	307	\$ 495,246
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.070	Surveys, Testing, Investigation, Inspection	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Mid Jordan LRT	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2011	162	212	307	\$ 0	239		

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 9	27	1999	105	212	307	\$ 26	239	307	\$ 35
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 24	76	1999	105	212	307	\$ 71	239	307	\$ 97
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 16	50	1999	105	212	307	\$ 47	239	307	\$ 64
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 80	247	1999	105	212	307	\$ 235	239	307	\$ 317
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 1	3	1999	105	212	307	\$ 3	239	307	\$ 4
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 31	97	1999	105	212	307	\$ 92	239	307	\$ 125
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 60	187	1999	105	212	307	\$ 176	239	307	\$ 240
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 5	16	1999	105	212	307	\$ 15	239	307	\$ 21
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 180,864	559,845	1999	105	212	307	\$ 531,342	239	307	\$ 718,830
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	60.011	Full Takes	LF Guideway	\$ 202	626	1999	105	212	307	\$ 593	239	307	\$ 803
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	60.014	Other Rights	LF Guideway	\$ 234	723	1999	105	212	307	\$ 687	239	307	\$ 928
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 1	3	1999	105	212	307	\$ 3	239	307	\$ 4
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 2,600,002	8,048,030	1999	105	212	307	\$ 7,638,283	239	307	\$ 10,333,522
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 19,581	60,612	1999	105	212	307	\$ 57,526	239	307	\$ 77,825
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	0	1999	105	212	307	\$ 0	239	307	\$ 0
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	0	1999	105	212	307	\$ 0	239	307	\$ 0
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	0	1999	105	212	307	\$ 0	239	307	\$ 0
Salt Lake City - North South Corridor	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	0	1999	105	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 145	292	2008	150	212	307	\$ 297	239	307	\$ 375
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	10.030	Guideway: At grade in mixed traffic	LF Guideway	\$ 25	50	2008	150	212	307	\$ 51	239	307	\$ 64
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	10.044	Unspecified	LF Guideway	\$ 10,998	22,205	2008	150	212	307	\$ 22,554	239	307	\$ 28,510
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 203	410	2008	150	212	307	\$ 417	239	307	\$ 527
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 4	9	2008	150	212	307	\$ 9	239	307	\$ 12
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 2,591,205	5,231,518	2008	150	212	307	\$ 5,313,961	239	307	\$ 6,717,173
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 141,007	284,686	2008	150	212	307	\$ 289,172	239	307	\$ 365,531
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 16	32	2008	150	212	307	\$ 32	239	307	\$ 41
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.029	Unspecified	LF Guideway	\$ 119	241	2008	150	212	307	\$ 244	239	307	\$ 309
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.034	Unspecified	LF Guideway	\$ 1	2	2008	150	212	307	\$ 2	239	307	\$ 3
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 11	23	2008	150	212	307	\$ 24	239	307	\$ 30
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.054	Unspecified	LF Guideway	\$ 40	80	2008	150	212	307	\$ 82	239	307	\$ 103
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 12	23	2008	150	212	307	\$ 24	239	307	\$ 30
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.075	Unspecified	Spaces	\$ 3,435	6,935	2008	150	212	307	\$ 7,044	239	307	\$ 8,904
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	40.086	Unspecified	LF Guideway	\$ 289	583	2008	150	212	307	\$ 593	239	307	\$ 749
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	50.014	Unspecified	Track Feet	\$ 89	180	2008	150	212	307	\$ 183	239	307	\$ 231
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 24	49	2008	150	212	307	\$ 50	239	307	\$ 63
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 1	2	2008	150	212	307	\$ 2	239	307	\$ 3
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	50.064	Unspecified	Stations	\$ 134,512	271,574	2008	150	212	307	\$ 275,853	239	307	\$ 348,696
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 253	511	2008	150	212	307	\$ 519	239	307	\$ 656
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	70.031	Locomotive	Vehicles	\$ 2,656,891	5,364,136	2008	150	212	307	\$ 5,448,668	239	307	\$ 6,887,452
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	70.032	Passenger Car	Vehicles	\$ 1,206,030	2,434,917	2008	150	212	307	\$ 2,473,288	239	307	\$ 3,126,388
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	70.070	Spare parts/ Rotable Components	Vehicles	\$ 27,113	54,740	2008	150	212	307	\$ 55,602	239	307	\$ 70,285
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	0	2008	150	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	0	2008	150	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	0	2008	150	212	307	\$ 0	239	307	\$ 0
Salt Lake City - Weber Co. Commuter Rail	Commuter Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	0	2008	150	212	307	\$ 0	239	307	\$ 0
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 3,212	7,221	2005	154	256	307	\$ 6,411	239	307	\$ 9,272
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.050	Guideway: Built up fill	LF Guideway	\$ 3,533	7,943	2005	154	256	307	\$ 7,052	239	307	\$ 10,199
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.065	Unspecified	LF Guideway	\$ 12,903	29,011	2005	154	256	307	\$ 25,756	239	307	\$ 37,249
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 3,714	8,350	2005	154	256	307	\$ 7,413	239	307	\$ 10,721
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 217	488	2005	154	256	307	\$ 434	239	307	\$ 627
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 472	1,062	2005	154	256	307	\$ 943	239	307	\$ 1,364
San Diego - Mission Valley East	Light Rail Transit	Aerial	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 270	606	2005	154	256	307	\$ 538	239	307	\$ 778
San Diego - Mission Valley East	Light Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 4,973,257	11,181,812	2005	154	256	307	\$ 9,927,113	239	307	\$ 14,357,241
San Diego - Mission Valley East	Light Rail Transit	Aerial	20.032	Bored Earth Soft Soils	Stations	\$ 52,240,030	117,455,856	2005	154	256	307	\$ 104,276,263	239	307	\$ 150,811,157
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 67	151	2005	154	256	307	\$ 134	239	307	\$ 194
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.029	Unspecified	LF Guideway	\$ 553	1,243	2005	154	256	307	\$ 1,104	239	307	\$ 1,596
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 37	83	2005	154	256	307	\$ 74	239	307	\$ 107
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.081	Roadway Changes	LF Guideway	\$ 123	277	2005	154	256	307	\$ 246	239	307	\$ 356
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.083	Mobilization	LF Guideway	\$ 868	1,951	2005	154	256	307	\$ 1,733	239	307	\$ 2,504
San Diego - Mission Valley East	Light Rail Transit	Aerial	40.084	Maintenance of Traffic	LF Guideway	\$ 139	312	2005	154	256	307	\$ 277	239	307	\$ 401
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 198	445	2005	154	256	307	\$ 395	239	307	\$ 571
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.013	Train Control - Centralized Systems	Track Feet	\$ 76	170	2005	154	256	307	\$ 152	239	307	\$ 219
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.020	Traffic signals and crossing protection	Track Feet	\$ 0	1	2005	154	256	307	\$ 1	239	307	\$ 1
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 84	190	2005	154	256	307	\$ 169	239	307	\$ 244
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.041	Catenary	Track Feet	\$ 117	263	2005	154	256	307	\$ 234	239	307	\$ 338
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 33	73	2005	154	256	307	\$ 66	239	307	\$ 94
San Diego - Mission Valley East	Light Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 306,518	689,172	2005	154	256	307	\$ 611,840	239	307	\$ 884,884
San Diego - Mission Valley East	Light Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 1,165	2,619	2005	154	256	307	\$ 2,325	239	307	\$ 3,362
San Diego - Mission Valley East	Light Rail Transit	Aerial	70.013	Unspecified	Vehicles	\$ 3,360,093	7,554,793	2005	154	256	307	\$ 6,707,078	239	307	\$ 9,700,215
San Diego - Mission Valley East	Light Rail Transit	Aerial	70.064	Unspecified	Vehicles	\$ 205,234	461,446	2005	154	256	307	\$ 409,667	239	307	\$ 592,488
San Diego - Mission Valley East	Light Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	0	2005	154	256	307	\$ 0	239	307	\$ 0
San Diego - Mission Valley East	Light Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	0	2005	154	256	307	\$ 0	239	307	\$ 0
San Diego - Mission Valley East	Light Rail Transit	Aerial	80.04												

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index	Index	2020 NY	Adjusted to 2020 NY	National Average	2020 NY		
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	20.100	Signage and Graphics	Stations	\$ 243,029	\$ 467,477	2003	162	304	307	\$ 460,271	239	307	\$ 600,231
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	30.030	Heavy Maintenance Facility	Vehicles	\$ 464,540	\$ 893,560	2003	162	304	307	\$ 879,788	239	307	\$ 1,147,315
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 258	\$ 497	2003	162	304	307	\$ 489	239	307	\$ 638
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 600	\$ 1,153	2003	162	304	307	\$ 1,136	239	307	\$ 1,481
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.013	Train Control - Centralized Systems	Track Feet	\$ 113	\$ 218	2003	162	304	307	\$ 214	239	307	\$ 280
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 208	\$ 400	2003	162	304	307	\$ 394	239	307	\$ 513
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.043	Power Distribution and Connections	Track Feet	\$ 106	\$ 205	2003	162	304	307	\$ 201	239	307	\$ 263
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 405	\$ 779	2003	162	304	307	\$ 767	239	307	\$ 1,001
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 145	\$ 279	2003	162	304	307	\$ 275	239	307	\$ 358
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	50.070	Central Control System	LF Guideway	\$ 67	\$ 129	2003	162	304	307	\$ 127	239	307	\$ 166
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	60.011	Full Takes	LF Guideway	\$ 3,368	\$ 6,478	2003	162	304	307	\$ 6,379	239	307	\$ 8,318
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 139	\$ 267	2003	162	304	307	\$ 263	239	307	\$ 343
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	60.034	Legal Services	LF Guideway	\$ 255	\$ 491	2003	162	304	307	\$ 483	239	307	\$ 631
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	60.040	Other Real Estate Costs	LF Guideway	\$ 1,231	\$ 2,367	2003	162	304	307	\$ 2,331	239	307	\$ 3,039
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2003	162	304	307	\$ 0	239	307	\$ 0
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2003	162	304	307	\$ 0	239	307	\$ 0
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2003	162	304	307	\$ 0	239	307	\$ 0
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ 0	2003	162	304	307	\$ 0	239	307	\$ 0
San Francisco BART - SFO Extension	Heavy Rail Transit	Underground	80.090	Other	Hard Costs	\$ 0	\$ 0	2003	162	304	307	\$ 0	239	307	\$ 0
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 540	\$ 1,645	1987	112	304	307	\$ 1,473	239	307	\$ 2,112
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	10.100	Track: Embedded	Track Feet	\$ 94	\$ 285	1987	112	304	307	\$ 256	239	307	\$ 366
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 84	\$ 255	1987	112	304	307	\$ 228	239	307	\$ 327
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 10	\$ 30	1987	112	304	307	\$ 27	239	307	\$ 38
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	10.140	Special Structures	LF Guideway	\$ 66	\$ 203	1987	112	304	307	\$ 181	239	307	\$ 260
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 223,364	\$ 648,415	1987	112	304	307	\$ 609,860	239	307	\$ 832,552
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 403,823	\$ 1,307,105	1987	112	304	307	\$ 1,102,575	239	307	\$ 1,678,299
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 13	\$ 43	1987	112	304	307	\$ 37	239	307	\$ 56
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 6	\$ 20	1987	112	304	307	\$ 17	239	307	\$ 25
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.021	Urban Replacement In-Kind Public Utilities	LF Guideway	\$ 18	\$ 56	1987	112	304	307	\$ 49	239	307	\$ 72
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.022	Urban Replacement In-Kind Private Utilities	LF Guideway	\$ 18	\$ 56	1987	112	304	307	\$ 49	239	307	\$ 72
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 18	\$ 56	1987	112	304	307	\$ 49	239	307	\$ 72
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway	\$ 18	\$ 56	1987	112	304	307	\$ 49	239	307	\$ 72
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 26	\$ 83	1987	112	304	307	\$ 71	239	307	\$ 107
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.083	Mobilization	LF Guideway	\$ 85	\$ 270	1987	112	304	307	\$ 232	239	307	\$ 347
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	40.084	Maintenance of Traffic	LF Guideway	\$ 6	\$ 19	1987	112	304	307	\$ 16	239	307	\$ 25
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.011	Train Control - Wayside	Track Feet	\$ 43	\$ 121	1987	112	304	307	\$ 117	239	307	\$ 155
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.020	Traffic signals and crossing protection	Track Feet	\$ 1	\$ 3	1987	112	304	307	\$ 3	239	307	\$ 4
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 47	\$ 133	1987	112	304	307	\$ 128	239	307	\$ 170
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 67	\$ 190	1987	112	304	307	\$ 183	239	307	\$ 243
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 18	\$ 51	1987	112	304	307	\$ 49	239	307	\$ 65
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.061	Central Revenue Counting Systems	Stations	\$ 13,157	\$ 37,304	1987	112	304	307	\$ 35,923	239	307	\$ 47,898
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 183,436	\$ 520,084	1987	112	304	307	\$ 500,844	239	307	\$ 667,779
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	50.070	Central Control System	LF Guideway	\$ 1	\$ 2	1987	112	304	307	\$ 2	239	307	\$ 3
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 624	\$ 2,020	1987	112	304	307	\$ 1,704	239	307	\$ 2,593
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 6	\$ 21	1987	112	304	307	\$ 16	239	307	\$ 26
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	60.031	Property Management	LF Guideway	\$ 11	\$ 36	1987	112	304	307	\$ 30	239	307	\$ 47
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	60.032	Agency	LF Guideway	\$ 11	\$ 36	1987	112	304	307	\$ 30	239	307	\$ 47
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 11	\$ 36	1987	112	304	307	\$ 30	239	307	\$ 47
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	70.013	Unspecified	Vehicles	\$ 1,112,220	\$ 3,707,800	1987	112	304	307	\$ 3,036,744	239	307	\$ 4,760,747
Santa Clara VTA - North Corridor	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 1	1987	112	304	307	\$ 1	239	307	\$ 2
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway	\$ 2,623	\$ 5,963	2001	152	304	307	\$ 5,304	239	307	\$ 7,656
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 4,000	\$ 9,094	2001	152	304	307	\$ 8,090	239	307	\$ 11,676
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	10.090	Track: Direct fixation	Track Feet	\$ 75	\$ 171	2001	152	304	307	\$ 152	239	307	\$ 219
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 15	\$ 35	2001	152	304	307	\$ 31	239	307	\$ 45
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 889,146	\$ 2,021,462	2001	152	304	307	\$ 1,798,207	239	307	\$ 2,595,520
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 230	\$ 524	2001	152	304	307	\$ 465	239	307	\$ 672
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	40.082	Third-Party Work	LF Guideway	\$ 108	\$ 245	2001	152	304	307	\$ 218	239	307	\$ 314
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	50.030	Traction power supply: substations	Track Feet	\$ 121	\$ 276	2001	152	304	307	\$ 246	239	307	\$ 354
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	50.044	Unspecified	Track Feet	\$ 121	\$ 276	2001	152	304	307	\$ 245	239	307	\$ 354
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 80	\$ 182	2001	152	304	307	\$ 162	239	307	\$ 234
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	50.064	Unspecified	Stations	\$ 37,299	\$ 84,799	2001	152	304	307	\$ 75,433	239	307	\$ 108,880
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 873	\$ 1,985	2001	152	304	307	\$ 1,766	239	307	\$ 2,549
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 32	\$ 73	2001	152	304	307	\$ 65	239	307	\$ 94
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	60.035	Unspecified	LF Guideway	\$ 32	\$ 73	2001	152	304	307	\$ 65	239	307	\$ 94
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	70.012	Articulated	Vehicles	\$ 2,941,858	\$ 5,958,648	2001	152	304	307	\$ 5,949,607	239	307	\$ 7,650,794
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2001	152	304	307	\$ 0	239	307	\$ 0
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 1	2001	152	304	307	\$ 1	239	307	\$ 1
Santa Clara VTA - Tasman West	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2001	152	304	307	\$ 0	239	307	\$ 1
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 1,078	\$ 2,774	2001	126	238	307	\$ 2,638	239	307	\$ 3,562
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	10.110	Track: ballasted	Track Feet	\$ 134	\$ 345	2001	126	238	307	\$ 328	239	307	\$ 444
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 1,262,345	\$ 3,247,401	2001	126	238	307	\$ 3,087,967	239	307	\$ 4,169,603
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	30.030	Heavy Maintenance Facility	Vehicles	\$ 519,402	\$ 1,336,170	2001	126	238	307	\$ 1,270,570	239	307	\$ 1,715,618

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Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	50.041	Catenary	Track Feet	\$ 49	\$ 126	2001	126	238	307	\$ 120	239	307	\$ 161
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	50.053	Unspecified	Track Feet	\$ 52	\$ 134	2001	126	238	307	\$ 127	239	307	\$ 172
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	50.062	Revenue Collection - In Station	Stations	\$ 69,429	\$ 178,606	2001	126	238	307	\$ 169,838	239	307	\$ 229,327
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	60.016	Unspecified	LF Guideway	\$ 180	\$ 464	2001	126	238	307	\$ 440	239	307	\$ 595
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	60.025	Unspecified	LF Guideway	\$ 24	\$ 62	2001	126	238	307	\$ 59	239	307	\$ 80
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	60.033	Contractor R/W Services (Title/Appraisal, etc)	LF Guideway	\$ 16	\$ 41	2001	126	238	307	\$ 39	239	307	\$ 53
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	70.012	Articulated	Vehicles	\$ 2,525,649	\$ 6,497,270	2001	126	238	307	\$ 6,178,281	239	307	\$ 8,342,375
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	70.061	Maintenance of Way Vehicles	Vehicles	\$ 61,627	\$ 158,536	2001	126	238	307	\$ 150,753	239	307	\$ 203,558
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2001	126	238	307	\$ 0	239	307	\$ 0
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2001	126	238	307	\$ 0	239	307	\$ 0
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2001	126	238	307	\$ 0	239	307	\$ 0
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	80.060	Legal; Permits; Review Fees by other agencies, cities, etc.	Hard Costs	\$ 0	\$ -	2001	126	238	307	\$ 0	239	307	\$ -
St. Louis - St. Clair County Extension	Light Rail Transit	At-Grade	80.090	Other	Hard Costs	\$ 0	\$ 0	2001	126	238	307	\$ 0	239	307	\$ 0
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.042	Viaduct	LF Guideway	\$ 7,155	\$ 20,022	2001	111	220	307	\$ 19,825	239	307	\$ 25,708
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.050	Guideway: Built up fill	LF Guideway	\$ 1,058	\$ 2,962	2001	111	220	307	\$ 2,933	239	307	\$ 3,803
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.064	Cut & Cover Guideway Vent Hard Soils	LF Guideway	\$ 6,675	\$ 18,680	2001	111	220	307	\$ 18,495	239	307	\$ 23,985
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.073	Bored Earth Mixed Shield	LF Guideway	\$ 12,525	\$ 35,049	2001	111	220	307	\$ 34,704	239	307	\$ 45,002
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.080	Guideway: Retained cut or fill	LF Guideway	\$ 2,941	\$ 8,231	2001	111	220	307	\$ 8,150	239	307	\$ 10,568
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.090	Track: Direct fixation	Track Feet	\$ 276	\$ 773	2001	111	220	307	\$ 765	239	307	\$ 992
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	10.110	Track: ballasted	Track Feet	\$ 201	\$ 551	2001	111	220	307	\$ 557	239	307	\$ 708
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 15,494,206	\$ 40,453,413	2001	111	220	307	\$ 42,930,697	239	307	\$ 51,941,438
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 13,886,563	\$ 36,256,060	2001	111	220	307	\$ 38,476,307	239	307	\$ 46,552,114
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.031	Cut and Cover	Stations	\$ 23,736,977	\$ 61,974,247	2001	111	220	307	\$ 65,769,422	239	307	\$ 79,573,792
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.060	Automobile parking multi story structure	Spaces	\$ 16,822	\$ 43,921	2001	111	220	307	\$ 46,611	239	307	\$ 56,394
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.071	Elevators, escalators	Number	\$ 229,029	\$ 597,966	2001	111	220	307	\$ 634,584	239	307	\$ 767,777
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.072	Escalators	Number	\$ 310,919	\$ 811,771	2001	111	220	307	\$ 861,481	239	307	\$ 1,042,299
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	20.100	Signage and Graphics	Stations	\$ 1,091,794	\$ 2,850,535	2001	111	220	307	\$ 3,025,096	239	307	\$ 3,660,035
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	30.020	Light Maintenance Facility	Vehicles	\$ 109,582	\$ 286,105	2001	111	220	307	\$ 303,625	239	307	\$ 367,353
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	30.030	Heavy Maintenance Facility	Vehicles	\$ 217,831	\$ 568,730	2001	111	220	307	\$ 603,558	239	307	\$ 730,239
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	30.040	Storage or Maintenance of Way Building	LF Guideway	\$ 1,544	\$ 4,031	2001	111	220	307	\$ 4,278	239	307	\$ 5,176
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 161	\$ 452	2001	111	220	307	\$ 446	239	307	\$ 580
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 208	\$ 582	2001	111	220	307	\$ 576	239	307	\$ 747
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 65	\$ 169	2001	111	220	307	\$ 179	239	307	\$ 217
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.071	Surface Parking Lot	Spaces	\$ 5,035	\$ 13,146	2001	111	220	307	\$ 13,951	239	307	\$ 16,879
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.073	Bus Access	Spaces	\$ 501,800	\$ 1,310,136	2001	111	220	307	\$ 1,390,366	239	307	\$ 1,682,191
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	40.086	Unspecified	LF Guideway	\$ 69	\$ 192	2001	111	220	307	\$ 191	239	307	\$ 247
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	50.011	Train Control - Wayside	Track Feet	\$ 264	\$ 709	2001	111	220	307	\$ 731	239	307	\$ 910
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	50.030	Traction power supply: substations	Track Feet	\$ 189	\$ 508	2001	111	220	307	\$ 525	239	307	\$ 653
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	50.042	Third Rail	Track Feet	\$ 111	\$ 297	2001	111	220	307	\$ 308	239	307	\$ 382
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	50.053	Unspecified	Track Feet	\$ 124	\$ 333	2001	111	220	307	\$ 344	239	307	\$ 428
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	50.062	Revenue Collection - In Station	Stations	\$ 119	\$ 319	2001	111	220	307	\$ 330	239	307	\$ 410
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	60.016	Unspecified	LF Guideway	\$ 951	\$ 2,661	2001	111	220	307	\$ 2,635	239	307	\$ 3,417
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	2001	111	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	80.020	Final Design	Hard Costs	\$ 0	\$ 0	2001	111	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	2001	111	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Anacostia Outer (F)	Heavy Rail Transit	Aerial	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	2001	111	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	10.064	Cut & Cover Guideway Vent Hard Soils	LF Guideway	\$ 9,951	\$ 28,504	1998	104	220	307	\$ 29,346	239	307	\$ 36,599
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	10.076	Rock Boring Machine	LF Guideway	\$ 8,059	\$ 23,083	1998	104	220	307	\$ 23,767	239	307	\$ 29,638
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	10.090	Track: Direct fixation	Track Feet	\$ 224	\$ 642	1998	104	220	307	\$ 661	239	307	\$ 824
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	10.120	Track: Special (switched, turnouts)	Track Feet	\$ 87	\$ 250	1998	104	220	307	\$ 258	239	307	\$ 321
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	20.031	Cut and Cover	Stations	\$ 34,459,823	\$ 98,706,009	1998	104	220	307	\$ 101,625,030	239	307	\$ 126,736,699
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	20.071	Elevators, escalators	Number	\$ 189,810	\$ 543,688	1998	104	220	307	\$ 559,766	239	307	\$ 698,085
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	20.072	Escalators	Number	\$ 315,434	\$ 903,523	1998	104	220	307	\$ 930,242	239	307	\$ 1,160,106
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	20.100	Signage and Graphics	Stations	\$ 548,941	\$ 1,572,375	1998	104	220	307	\$ 1,618,875	239	307	\$ 2,018,901
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	30.030	Heavy Maintenance Facility	Vehicles	\$ 45,484	\$ 130,283	1998	104	220	307	\$ 134,136	239	307	\$ 167,282
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	30.050	Yard and Yard Track	Track Feet	\$ 1,311	\$ 3,755	1998	104	220	307	\$ 3,866	239	307	\$ 4,821
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 167	\$ 478	1998	104	220	307	\$ 492	239	307	\$ 614
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway	\$ 183	\$ 525	1998	104	220	307	\$ 540	239	307	\$ 674
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 119	\$ 341	1998	104	220	307	\$ 351	239	307	\$ 438
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	40.071	Surface Parking Lot	Spaces	\$ 12,138	\$ 34,768	1998	104	220	307	\$ 35,796	239	307	\$ 44,641
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	40.086	Unspecified	LF Guideway	\$ 107	\$ 307	1998	104	220	307	\$ 316	239	307	\$ 394
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 334	\$ 956	1998	104	220	307	\$ 985	239	307	\$ 1,228
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 314	\$ 900	1998	104	220	307	\$ 927	239	307	\$ 1,156
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 103	\$ 295	1998	104	220	307	\$ 304	239	307	\$ 379
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 62	\$ 176	1998	104	220	307	\$ 183	239	307	\$ 226
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 114	\$ 326	1998	104	220	307	\$ 336	239	307	\$ 419
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 170	\$ 486	1998	104	220	307	\$ 501	239	307	\$ 623
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	1998	104	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	\$ 0	1998	104	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Glenmont Outer (B)	Heavy Rail Transit	Underground	80.040	Construction Administration & Managem	Hard Costs	\$ 0	\$ 0	1998							

FTA Database Detailed

Project Name	Project Category	Sub Category	Parent Category	Unit	Unit Cost	Nat'l Avg Cost 2020 (4.93% rate)	Parent Revenue Ops Date	Revenue	2020 City	Adjusted	Unit Cost	2020	Adjusted	Nat'l Avg Adjusted to 2020 NY	
								Ops Date - City Index Factor	Index Factor	2020 NY Cost	Adjusted to 2020 NY	National Average	2020 NY Cost		
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	40.071	Surface Parking Lot	Spaces	\$ 15,926	\$ 44,566	1999	106	220	307	\$ 46,082	239	307	\$ 57,221
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	40.086	Unspecified	LF Guideway	\$ 249	\$ 697	1999	106	220	307	\$ 720	239	307	\$ 896
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	50.011	Train Control - Wayside	Track Feet	\$ 220	\$ 603	1999	106	220	307	\$ 637	239	307	\$ 774
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	50.030	Traction power supply: substations	Track Feet	\$ 130	\$ 356	1999	106	220	307	\$ 376	239	307	\$ 458
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	50.042	Third Rail	Track Feet	\$ 152	\$ 418	1999	106	220	307	\$ 440	239	307	\$ 536
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	50.053	Unspecified	Track Feet	\$ 102	\$ 279	1999	106	220	307	\$ 295	239	307	\$ 358
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	50.062	Revenue Collection - In Station	Stations	\$ 146	\$ 402	1999	106	220	307	\$ 422	239	307	\$ 516
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	60.016	Unspecified	LF Guideway	\$ 1,268	\$ 3,633	1999	106	220	307	\$ 3,669	239	307	\$ 4,665
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	80.010	Preliminary Engineering	Hard Costs	\$ 0	\$ 0	1999	106	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	80.020	Final Design	Hard Costs	\$ 0	\$ 0	1999	106	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	80.040	Construction Administration & Manageme	Hard Costs	\$ 0	\$ 0	1999	106	220	307	\$ 0	239	307	\$ 0
Washington, D.C. - Greenbelt Mid (E)	Heavy Rail Transit	Underground	80.050	Professional Liability and other Non-Construction Insurance	Hard Costs	\$ 0	\$ 0	1999	106	220	307	\$ 0	239	307	\$ 0

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FTA Summary Adjusted - NYC 2020

Parent Category	Parent Unit	Unit Cost Adjusted to 2020 NY							Nat'l Avg Adjusted to 2020 NY						
		Bus Rapid TransitAerial	Bus Rapid TransitAt-Grade	Bus Rapid TransitUnderground	Commuter Rail TransitAt-Grade	Light Rail TransitAerial	Light Rail TransitAt-Grade	Light Rail TransitUnderground	Bus Rapid TransitAerial	Bus Rapid TransitAt-Grade	Bus Rapid TransitUnderground	Commuter Rail TransitAt-Grade	Light Rail TransitAerial	Light Rail TransitAt-Grade	Light Rail TransitUnderground
10.000	Guideway & Track Elements														
10.010	Guideway: At Grade exclusive right of way	LF Guideway	\$ 2,569	\$ 6,573		\$ 157	\$ 3,113	\$ 2,160		\$ 3,743	\$ 5,969		\$ 199	\$ 4,267	\$ 2,982
10.020	Guideway: At Grade semi-exclusive (allows cross-traffic)	LF Guideway		\$ 3,188		\$ 4,246		\$ 2,639			\$ 4,032		\$ 5,857		\$ 3,712
10.030	Guideway: At grade in mixed traffic	LF Guideway		\$ 684		\$ 51	\$ 1,145	\$ 5,334			\$ 865		\$ 64	\$ 1,570	\$ 7,358
10.040	Guideway: Aerial structure														
10.041	Bridges	LF Guideway						\$ 56,359							\$ 76,246
10.042	Viaduct	LF Guideway	\$ 6,599				\$ 6,411		\$ 9,616					\$ 9,272	
10.043	Other Structures	LF Guideway													
10.044	Unspecified	LF Guideway		\$ 10,086		\$ 13,176	\$ 12,658	\$ 11,609	\$ 13,969		\$ 9,159		\$ 17,068	\$ 17,354	\$ 15,390
10.050	Guideway: Built up fill	LF Guideway		\$ 7,452			\$ 7,451	\$ 2,955			\$ 6,767			\$ 10,481	\$ 4,207
10.060	Guideway: Underground cut & cover														
10.061	Cut & Cover Guideway Soft Soils	LF Guideway						\$ 11,240							\$ 15,861
10.062	Cut & Cover Guideway Hard Soils	LF Guideway													
10.063	Cut & Cover Guideway Vent Soft Soils	LF Guideway													
10.064	Cut & Cover Guideway Vent Hard Soils	LF Guideway													
10.065	Unspecified	LF Guideway			\$ 54,057	\$ 140	\$ 25,756	\$ 27,212	\$ 79,772			\$ 74,842	\$ 194	\$ 37,249	\$ 37,788
10.070	Guideway Underground tunnel														\$ 98,229
10.071	Bored Earth Open	LF Guideway													
10.072	Bored Earth Close	LF Guideway													
10.073	Bored Earth Mixed Shield	LF Guideway													
10.074	Bored Earth Mixes Shield SEM	LF Guideway													
10.075	Rock & Drill Blast	LF Guideway													
10.076	Rock Boring Machine	LF Guideway													
10.077	Sunken Tunnel	LF Guideway													
10.078	Unspecified	LF Guideway		\$ 17,884	\$ 104,035			\$ 36,616	\$ 42,400		\$ 16,242	\$ 144,039		\$ 50,428	\$ 52,210
10.080	Guideway: Retained cut or fill	LF Guideway					\$ 7,096	\$ 17,751	\$ 47,075					\$ 10,007	\$ 25,408
10.090	Track: Direct fixation	Track Feet	\$ 679			\$ 938	\$ 682	\$ 740	\$ 1,191	\$ 989		\$ 1,390	\$ 951	\$ 1,020	\$ 1,467
10.100	Track: Embedded	Track Feet				\$ 11,410	\$ 379	\$ 664				\$ 15,772	\$ 519	\$ 920	
10.110	Track: ballasted	Track Feet	\$ 3,884			\$ 248	\$ 659	\$ 324		\$ 5,659		\$ 334	\$ 939	\$ 444	
10.120	Track: Special (switched, turnouts)	Track Feet				\$ 21	\$ 344	\$ 59	\$ 470			\$ 30	\$ 492	\$ 81	\$ 579
10.130	Track: Vibration & Noise Dampening	Track Feet						\$ 148						\$ 177	
10.140	Special Structures	LF Guideway						\$ 501						\$ 680	
20.000	Stations, Stops, Terminals, Intermodels														
20.010	At Grade Station, Stop, Shelter, Mall, Terminal, Platform	Stations	\$ 13,207,788	\$ 986,786		\$ 2,751,885	\$ 3,090,965	\$ 3,402,404		\$ 19,244,036	\$ 967,131		\$ 3,662,409	\$ 4,237,235	\$ 4,606,063
20.020	Aerial station, stop, shelter, mall, terminal	Stations	\$ 19,852,448			\$ 3,917,155	\$ 9,927,113	\$ 8,364,376	\$ 11,570,218	\$ 28,925,450		\$ 5,803,958	\$ 14,357,241	\$ 12,082,592	\$ 14,247,263
20.030	Underground station, stop, shelter, mall, terminal														
20.031	Cut and Cover	Stations						\$ 81,539,855							\$ 100,406,033
20.032	Bored Earth Soft Soils	Stations					\$ 104,276,263	\$ 81,539,855				\$ 150,811,157			\$ 100,406,033
20.033	Bored Rock Hard Soils	Stations						\$ 81,539,855							\$ 100,406,033
20.034	Unspecified	Stations		\$ 52,968,188				\$ 62,620,997	\$ 81,539,855		\$ 73,335,403			\$ 86,976,441	\$ 100,406,033
20.040	Major Stations, landings, terminals: Intermodal, ferry	Stations						\$ 1,815,375						\$ 2,299,027	
20.050	Joint development	Stations						\$ 62,826						\$ 85,610	
20.060	Automobile parking multi story structure	Spaces				\$ 34,418	\$ 23,971					\$ 42,257	\$ 33,332		
20.070	Elevators, escalators														
20.071	Elevators, escalators	Number	\$ 435,725							\$ 634,862					
20.072	Escalators	Number	\$ 466,849							\$ 680,209					
20.073	Unspecified	Number		\$ 306,494	\$ 60,132				\$ 844,816			\$ 424,347	\$ 89,096		\$ 1,040,284
20.080	Passenger Overpass	Number					\$ 219,121	\$ 2,171,380						\$ 300,381	\$ 3,021,590
20.090	Underground Interconnecting Tunnel														
20.091	Cut and Cover	Number													
20.092	Bored Earth Soft Soils	Number													
20.093	Bored Rock Hard Soils	Number													
20.094	Unspecified	Number													
20.100	Signage and Graphics	Stations	\$ 426,082	\$ 7,077			\$ 76,992	\$ 202,917		\$ 620,810	\$ 8,951		\$ 105,544	\$ 280,049	
30.000	Support Facilities: Yards, Shops, Admin. Bldgs														
30.010	Administration Building: Office, sales, storage, revenue														
30.011	Administrative Building	LF Guideway	\$ 153				\$ 164			\$ 217			\$ 240		
30.012	Central Control Facility	LF Guideway					\$ 1,073	\$ 195					\$ 1,433	\$ 276	
30.013	Central Revenue Counting Facility	LF Guideway													
30.014	Unspecified	LF Guideway						\$ 6						\$ 8	
30.020	Light Maintenance Facility	Vehicles	\$ 964,043	\$ 159,387		\$ 1,603,206		\$ 390,232		\$ 1,404,632	\$ 219,595		\$ 2,264,039	\$ 526,625	
30.030	Heavy Maintenance Facility	Vehicles		\$ 3,660,827	\$ 289,172			\$ 1,612,782			\$ 5,068,480	\$ 365,531		\$ 2,214,345	
30.040	Storage or Maintenance of Way Building	LF Guideway					\$ 146	\$ 68					\$ 213	\$ 92	
30.050	Yard and Yard Track	Track Feet	\$ 381			\$ 1,790		\$ 665		\$ 555		\$ 2,652	\$ 862		

FTA Summary Adjusted - NYC 2020

Parent Category	Parent Unit	Unit Cost Adjusted to 2020 NY							Nat'l Avg Adjusted to 2020 NY							
		Bus Rapid	Bus Rapid	Bus Rapid	Commuter Rail	Light Rail	Light Rail	Light Rail	Bus Rapid	Bus Rapid	Bus Rapid	Commuter Rail	Light Rail	Light Rail	Light Rail	
		TransitAerial	TransitAt-Grade	TransitUnderground	TransitAt-Grade	TransitAerial	TransitAt-Grade	TransitUnderground	TransitAerial	TransitAt-Grade	TransitUnderground	TransitAt-Grade	TransitAerial	TransitAt-Grade	TransitUnderground	
40.000	Sitework & Special Conditions															
40.010	Demolition, Clearing, Earthwork	LF Guideway	\$ 1,343	\$ 89	\$ 4,703	\$ 673	\$ 83	\$ 113	\$ 1,374	\$ 1,957	\$ 81	\$ 6,511	\$ 994	\$ 118	\$ 152	\$ 1,692
40.020	Site Utilities, Utility Relocation	LF Guideway	\$ 454				\$ 76	\$ 55	\$ 660				\$ 106	\$ 77		
40.021	Urban Replacement In-Kind Public Utilities	LF Guideway					\$ 76	\$ 56					\$ 106	\$ 79		
40.022	Urban Replacement In-Kind Private Utilities	LF Guideway					\$ 5	\$ 205					\$ 6	\$ 317		
40.023	Urban Replacement Betterment Public Utilities	LF Guideway					\$ 5	\$ 205					\$ 6	\$ 317		
40.024	Urban Replacement Betterment Private Utilities	LF Guideway					\$ 76	\$ 85					\$ 106	\$ 120		
40.025	Suburban Replacement In-Kind Public Utilities	LF Guideway					\$ 76	\$ 54					\$ 106	\$ 76		
40.026	Suburban Replacement In-Kind Private Utilities	LF Guideway					\$ 5	\$ 205					\$ 6	\$ 317		
40.027	Suburban Replacement Betterment Public Utilities	LF Guideway					\$ 5	\$ 205					\$ 6	\$ 317		
40.028	Suburban Replacement Betterment Private Utilities	LF Guideway					\$ 5	\$ 205					\$ 6	\$ 317		
40.029	Unspecified	LF Guideway		\$ 319	\$ 3,819	\$ 1,826	\$ 1,104	\$ 1,433	\$ 5,881		\$ 421	\$ 5,287	\$ 2,688	\$ 1,596	\$ 1,879	\$ 7,241
40.030	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	LF Guideway	\$ 13						\$ 19							
40.031	HazMat Abatement	LF Guideway						\$ 98						\$ 138		
40.032	Contaminated Soil Removal	LF Guideway														
40.033	Ground Water Treatment	LF Guideway														
40.034	Unspecified	LF Guideway		\$ 74	\$ 8,931	\$ 243		\$ 42	\$ 563		\$ 67	\$ 12,367	\$ 360	\$ 56	\$ 694	
40.040	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	LF Guideway	\$ 140			\$ 13	\$ 74	\$ 100	\$ 143	\$ 204			\$ 17	\$ 107	\$ 176	
40.050	Site structures including retaining walls, sound walls	LF Guideway														
40.051	Mechanically Stabilized Earth Walls	LF Guideway												\$ 39		
40.052	Concrete Walls	LF Guideway						\$ 28								
40.053	Other Walls	LF Guideway														
40.054	Unspecified	LF Guideway		\$ 2,108		\$ 143		\$ 275			\$ 1,915		\$ 198	\$ 356		
40.060	Pedestrian / bike access and accommodation, landscaping	LF Guideway	\$ 64	\$ 849		\$ 700	\$ 71	\$ 258	\$ 203	\$ 93	\$ 1,074		\$ 1,034	\$ 97	\$ 250	
40.070	Automobile, bus, van accessways including roads, parking lots	Spaces			\$ 15,463		\$ 16,512	\$ 13,777				\$ 21,409		\$ 22,637	\$ 18,463	
40.071	Surface Parking Lot	Spaces			\$ 15,463		\$ 14,342	\$ 21,409				\$ 21,409		\$ 17,872	\$ 17,872	
40.072	Auto Access	Spaces	\$ 1,307,178		\$ 15,463		\$ 21,807	\$ 21,807	\$ 1,904,586			\$ 21,409		\$ 26,038	\$ 26,038	
40.073	Bus Access	Spaces			\$ 15,463		\$ 21,807	\$ 21,807				\$ 21,409		\$ 26,038	\$ 26,038	
40.074	Bus Parking and Berthing	Spaces			\$ 15,463		\$ 21,807	\$ 21,807				\$ 21,409		\$ 26,038	\$ 26,038	
40.075	Unspecified	Spaces		\$ 32,775	\$ 15,463	\$ 5,190	\$ 18,407	\$ 12,085		\$ 29,765	\$ 21,409	\$ 6,930		\$ 23,626	\$ 14,882	
40.080	Temporary Facilities and other indirect costs during construction	LF Guideway														
40.081	Roadway Changes	LF Guideway	\$ 77				\$ 612	\$ 522	\$ 111				\$ 848	\$ 748		
40.082	Third-Party Work	LF Guideway	\$ 13					\$ 113	\$ 19					\$ 162		
40.083	Mobilization	LF Guideway	\$ 952				\$ 1,733	\$ 127	\$ 1,388				\$ 2,504	\$ 190		
40.084	Maintenance of Traffic	LF Guideway	\$ 32				\$ 277	\$ 16	\$ 46				\$ 401	\$ 25		
40.085	Unallocated Indirect Costs	LF Guideway														
40.086	Unspecified	LF Guideway				\$ 1,043		\$ 2,372	\$ 7,149			\$ 1,498		\$ 3,168	\$ 8,804	
50.000	Systems															
50.010	Train control and signals	Track Feet	\$ 1,119				\$ 503	\$ 307	\$ 1,590				\$ 694	\$ 427		
50.011	Train Control - Wayside	Track Feet					\$ 244	\$ 4					\$ 325	\$ 7		
50.012	Train Control - On Board Systems	Track Feet					\$ 152						\$ 219			
50.013	Train Control - Centralized Systems	Track Feet			\$ 2,201	\$ 256		\$ 405	\$ 1,920			\$ 3,048	\$ 352	\$ 522	\$ 2,364	
50.014	Unspecified	Track Feet			\$ 2,201	\$ 63	\$ 17	\$ 124	\$ 2,177	\$ 264	\$ 3,048	\$ 87	\$ 23	\$ 163		
50.020	Traffic signals and crossing protection	Track Feet	\$ 333	\$ 209	\$ 2,201	\$ 13	\$ 344	\$ 173	\$ 1,243	\$ 486		\$ 3,048	\$ 20	\$ 469	\$ 1,531	
50.030	Traction power supply: substations	Track Feet														
50.040	Traction power distribution: catenary and third rail	Track Feet					\$ 301	\$ 266					\$ 416	\$ 372		
50.041	Catenary	Track Feet							\$ 93							
50.042	Third Rail	Track Feet	\$ 63													
50.043	Power Distribution and Connections	Track Feet					\$ 42	\$ 51					\$ 55	\$ 69		
50.044	Unspecified	Track Feet			\$ 2,201	\$ 38		\$ 310	\$ 518		\$ 3,048	\$ 55		\$ 406	\$ 638	
50.050	Communications	Track Feet														
50.051	Wired	Track Feet						\$ 1,339							\$ 1,648	
50.052	Radio Based	Track Feet						\$ 1,339							\$ 1,648	
50.053	Unspecified	Track Feet	\$ 303	\$ 117	\$ 2,201	\$ 36	\$ 136	\$ 172	\$ 1,339	\$ 440	\$ 149	\$ 3,048	\$ 52	\$ 184	\$ 1,648	
50.060	Fare collection system and equipment	Stations						\$ 194,894						\$ 273,342		
50.061	Central Revenue Counting Systems	Stations	\$ 363,104				\$ 611,840	\$ 366,617	\$ 529,052				\$ 884,884	\$ 502,205		
50.062	Revenue Collection - In Station	Stations						\$ 5,785						\$ 8,164		
50.063	Revenue Collection - On Vehicle	Stations			\$ 3,874,157	\$ 450,074		\$ 254,392	\$ 3,639			\$ 5,363,841	\$ 636,850	\$ 325,459	\$ 4,482	
50.064	Unspecified	Stations			\$ 2,201	\$ 0		\$ 50	\$ 342		\$ 28	\$ 3,048	\$ 1	\$ 66	\$ 421	
50.070	Central Control System	LF Guideway		\$ 23	\$ 2,201	\$ 0										

FTA Summary Adjusted - NYC 2020

Parent Category	Parent Unit	Unit Cost Adjusted to 2020 NY							Nat'l Avg Adjusted to 2020 NY						
		Bus Rapid	Bus Rapid	Bus Rapid	Commuter Rail	Light Rail	Light Rail	Light Rail	Bus Rapid	Bus Rapid	Bus Rapid	Commuter Rail	Light Rail	Light Rail	Light Rail
		TransitAerial	TransitAt-Grade	TransitUnderground	TransitAt-Grade	TransitAerial	TransitAt-Grade	TransitUnderground	TransitAerial	TransitAt-Grade	TransitUnderground	TransitAt-Grade	TransitAerial	TransitAt-Grade	TransitUnderground
60.000	Row, Land, Existing Improvements														
60.010	Purchase or lease of real estate														
60.011	Full Takes							\$ 593						\$ 803	
60.012	Part Takes														
60.013	Easement Acquisitions														
60.014	Other Rights							\$ 687						\$ 928	
60.015	Donated Value							\$ 1,826						\$ 2,578	
60.016	Unspecified	\$ 84	\$ 1,650	\$ 5,499	\$ 462	\$ 1,271	\$ 1,075	\$ 2,139	\$ 122	\$ 1,595	\$ 7,612	\$ 644	\$ 1,830	\$ 1,467	\$ 2,634
60.020	Relocation of existing households and businesses														
60.021	Residential (Owners)														
60.022	Residential (Tenants)														
60.023	Business (Owners and Tenants)														
60.024	Others (Personal Property Moves)														
60.025	Unspecified	\$ 24	\$ 7	\$ 498	\$ 7	\$ 18	\$ 110	\$ 181	\$ 35	\$ 10	\$ 691	\$ 10	\$ 25	\$ 145	\$ 223
60.030	Services														
60.031	Property Management							\$ 42						\$ 62	
60.032	Agency	\$ 19						\$ 18	\$ 28					\$ 27	
60.033	Contractor R/W Services (Title/Appraisal, etc)							\$ 34						\$ 48	
60.034	Legal Services														
60.035	Unspecified		\$ 115					\$ 65		\$ 158				\$ 94	
60.040	Other Real Estate Costs		\$ 70				\$ 1	\$ 1,217		\$ 97			\$ 2	\$ 1,600	
70.000	Vehicles														
70.010	Light Rail														
70.011	Static							\$ 3,257,001						\$ 5,445,429	
70.012	Articulated							\$ 6,063,944						\$ 7,996,585	
70.013	Unspecified				\$ 4,761,448	\$ 6,162,711	\$ 5,398,655				\$ 7,054,927	\$ 8,299,072	\$ 7,341,501		
70.020	Light Rail														
70.021	Small Scale														
70.022	Large Scale														
70.023	Unspecified														
70.030	Light Rail														
70.031	Locomotive				\$ 5,448,668							\$ 6,887,452			
70.032	Passenger Car				\$ 2,473,288							\$ 3,126,388			
70.033	Bi-Level Passenger Car														
70.034	Self-Propelled Passenger Car														
70.035	Unspecified				\$ 5,557,514							\$ 7,860,280			
70.040	Bus														
70.041	Small Bus														
70.042	Standard 40 Foot Bus														
70.043	Articulated Bus														
70.044	Unspecified		\$ 1,597,984	\$ 3,338,337					\$ 2,021,121	\$ 4,621,988					
70.050	Other Vehicles		\$ 3,365,123						\$ 4,636,296						
70.060	Non-revenue vehicles														
70.061	Maintenance of Way Vehicles					\$ 16,240	\$ 114,063					\$ 22,261	\$ 157,661		
70.062	Automobiles						\$ 19,498						\$ 27,668		
70.063	Trucks						\$ 8,990						\$ 12,987		
70.064	Unspecified					\$ 409,667	\$ 26,549					\$ 592,488	\$ 35,272		
70.070	Spare parts/ Rotable Components		\$ 1,025,733	\$ 158,091	\$ 56,801		\$ 198,834		\$ 1,297,341	\$ 218,880	\$ 78,111		\$ 248,133		
80.000	Professional Services														
80.010	Preliminary Engineering	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
80.020	Final Design	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0
80.030	Project Management for Design and Construction														
80.031	Agency Project Management														
80.032	Project Management Oversight Support														
80.033	Agency Force Account														
80.034	Unspecified		\$ 3							\$ 1					
80.040	Construction Administration & Managem	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
80.050	Professional Liability and other Non-Construction Insurance	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
80.060	Legal; Permits; Review Fees by other agencies, cities, etc.			\$ 0	\$ 0	\$ 0	\$ 0	\$ 0		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
80.070	Surveys, Testing, Investigation, Inspection				\$ 0	\$ 0	\$ 0	\$ 0			\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
80.080	Start up														
80.081	Training/Start-up				\$ 0							\$ 0			
80.082	Safety Certification				\$ 0							\$ 0			
80.083	Off-Site Vehicle Testing, Test Runs				\$ 0							\$ 0			
80.084	Commissioning				\$ 0							\$ 0			
80.085	Unspecified				\$ 0							\$ 0			
80.090	Other		\$ 0		\$ 0	\$ 0	\$ 0	\$ 0		\$ 0		\$ 0	\$ 0	\$ 0	\$ 0