NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

REQUEST
FOR
PROPOSALS

# RFP

## Pre-Proposal Conference

April 8, 2008

## Submission Deadline

April 21, 2008

## PIN

8502008RQ0023-30P

## Project

HWDRCW01, Eight Engineering Design and Related Services Requirements Contracts, Citywide

MICHAEL R. BLOOMBERG
**Mayor**

DAVID J. BURNEY, AIA
**Commissioner**

ERIC MACFARLANE, P.E.
**Deputy Commissioner**

# DEPARTMENT OF DESIGN AND CONSTRUCTION

# REQUEST FOR PROPOSALS

## REQUIREMENTS CONTRACTS

## ENGINEERING DESIGN AND RELATED SERVICES

## TABLE OF CONTENTS

PREFACE

I. TIMETABLE

II. SUMMARY OF REQUEST FOR PROPOSALS

III. SCOPE OF WORK AND CONTRACT CONDITIONS

IV. FORMAT AND CONTENT OF THE PROPOSAL

V. PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES

VI. GENERAL INFORMATION TO PROPOSERS

ATTACHMENT 1 - STATEMENT OF UNDERSTANDING
ATTACHMENT 2 - TITLES AND ALL INCLUSIVE HOURLY RATES
ATTACHMENT 3 - IDENTIFICATION OF SUBCONSULTANTS
ATTACHMENT 4 - IDENTIFICATION OF PERSONNEL
ATTACHMENT 5 - CURRENT WORKLOAD DISCLOSURE
ATTACHMENT 6 - ACKNOWLEDGEMENT OF ADDENDA
ATTACHMENT 7 - CONFIRMATION OF VENDEX COMPLIANCE
ATTACHMENT 8 - SUBCONTRACTOR UTILIZATION PLAN / WAIVER APPLICATION
ATTACHMENT 9 - DOING BUSINESS DATA FORM

APPENDIX 1 - CONTRACT DOCUMENT

Printed on paper containing 30% post-consumer material.

## PREFACE

The City of New York is committed to achieving excellence in the design and construction of its capital program, and building on the tradition of innovation in architecture and engineering that has contributed to the City's prestige as a global destination. As part of this effort, the Department of Design and Construction ("DDC") is pleased to announce the following contracting opportunity.

## SECTION I. TIMETABLE

A. RFP Issuance

Pre-Proposal Conference

A pre-proposal conference will be held at 2:00PM on Tuesday, April 8, 2008 at DDC headquarters, 30-30 Thomson Avenue, Long Island City, NY 11101, 3rd Floor TSD Training Room. Attendance at this pre-proposal conference is not mandatory to propose on the contract described in this RFP, however, it is strongly encouraged.

Submission Deadline

The proposer shall deliver, on or before 4:00PM on Monday, April 21, 2008, the Proposal in a clearly marked envelope or package. The Proposal shall consist of THREE separate clearly marked, sealed packages containing the following: (1) the Technical Proposal (1 original and 5 copies), (2) Subcontractor Utilization Plan (1 original), and (3) Doing Business Data Form.

Proposals shall be hand delivered to the contact person at the location listed below. Proposals received after the applicable due date and time prescribed in the RFP are late and will not be accepted except at the discretion of DDC pursuant to the applicable section of the City Procurement Policy Board Rules.

Carlo Di Fava (718) 391-1541
Professional Contracts Section
Department of Design and Construction
30-30 Thomson Avenue, 4th Floor (Entrance on 30th Place)
Long Island City, NY 11101
e-mail: difavac@ddc.nyc.gov

NOTE: Respondents are held responsible for ensuring that the Professional Contract Section receives the RFP response package by the deadline. Respondents are warned not to rely on signed delivery slips from their messenger services. Occasionally packages are delivered to the School Construction Authority located in the same building and the packages are not forwarded to the DDC Professional Contracts Section in a timely manner. Entrance to DDC is on 30th Place, *not* Thomson Avenue despite our Thomson Avenue house number.

B. Inquiries

In the event a proposer desires any explanation regarding the meaning or interpretation of this RFP, such explanation must be requested in writing, no later than one week prior to the submission date prescribed in the RFP. In the event DDC determines that it is necessary to respond to the inquiry in writing or by email, such response will be furnished as an addendum to the RFP to all potential proposers known to have downloaded the RFP. All addenda will be available on DDC's website. All inquiries must be directed ONLY to the contact person listed above.

C. Addenda

Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the addendum to the Technical Proposal. All addenda shall become a part of the requirements for this RFP.

D. RFP Schedule

The following is the estimated timetable for receipt, evaluation, and selection of proposals. This is only an estimate and is provided to assist responding firms in planning.

a. Identify Short List of Eight Firms: Within four weeks of submission deadline.

b. Negotiate "All Inclusive Hourly Rates" with Short Listed Firms: Within two weeks of selection

c. Complete Registration: Approximately three months from date of consultant selection.

## SECTION II. SUMMARY OF THE REQUEST FOR PROPOSALS

A. General

The New York City Department of Design and Construction, Division of Infrastructure intends to have available eight (8) requirements contracts, in order to have engineering design services performed in a timely manner for various infrastructure construction projects.

B. Background and Objectives

Throughout the term of the Contract, as the need arises for services for a specific project, each firm awarded a contract as a result of this RFP will be invited to submit a Proposal for the Project. An evaluation committee will review, evaluate and score all Proposals, based upon technical evaluation criteria set forth in the RFP for the Project. This evaluation and scoring will determine the Consultant's Technical Rating. DDC will attempt to negotiate fair and reasonable fees with the Consultant with the highest Technical Rating. Should negotiations fail with the highest ranked firm, DDC will enter into fee negotiations with the next highest ranked firm. The firm whose proposal is determined to be the most advantageous to DDC will be selected for the project. The Commissioner shall issue a Task Order for the Project to the selected Consultant. The Task Order process is described in Article 4 of the attached Contract.

C. Joint Ventures and Other Consultant Relationships

There is no minimum requirement for the proportion of work to be performed by either of the two joint venture partners. Joint ventures must carry the required insurance, either as policies written specifically for the joint venture entity, or by using their existing single entity policies with endorsements written for the joint venture activity.

DDC does not recognize the corporate configuration wherein one company is "in association with" another. Relationships between two or more firms shall be either as joint venture partners or as prime consultant / subconsultant. In the event that a proposal is received wherein two or more firms are described as being "in association with" each other, DDC will treat the relationship as one of prime consultant / subconsultant(s). The proposal evaluation will be handled accordingly, and if chosen as a winner, the contract documents will show only the prime firm on the signature page, and all other firms relegated to Exhibit A, which lists the subconsultants.

D. Contract Term/Contract Estimate

The term of the contract shall commence as of the date of the written notice to proceed and shall remain in effect for 1095 consecutive calendar days (ccds). At

the Commissioner's sole option, the term of the contract may be (a) extended for 365 ccds, and/or (b) renewed for 365 ccds.

The total value of all Task Orders that may be issued pursuant to the contract shall not exceed $5,000,000 for the base term of the contract and additional $2,000,000 for the renewal term for each contract.

E. Insurance

The consultant and all subconsultants performing services for this contract must provide the types and amounts of insurance specified in Article 11 of the attached contract. The Proposer is advised to carefully review such insurance requirements.

F. Payment Provisions

The terms and conditions regarding payment to the consultant are set forth in Article 7 of the attached contract. The method of payment for the performance of services by the consultant shall be specified by the Commissioner in the Task Order. Payment shall be in accordance with one of the methods set forth in Article 7, or a combination thereof. Whenever feasible, payment for the consultant's services shall be made through fee(s).

## SECTION III. SCOPE OF WORK AND CONTRACT CONDITIONS

A. Scope of Services

The consultant shall provide, to the satisfaction of the Commissioner, all engineering design and relates services necessary and required for the project, in accordance with the task orders pursuant to Article 4 of the attached contract. The services the consultant may be required to provide shall include without limitation the services set forth in Article 6 of the attached contract. The consultant shall provide such services through its own employees and/or through its Subconsultants.

B. Contract Provisions

The services to be provide by the Consultant and all standards of performance applicable to the required work are set forth in the form of contract, attached hereto and incorporated herein as part of this RFP. Any firm awarded a contract as a result of this RFP will be required to sign this form of contract. The proposer is advised to carefully review the contract in its entirety before submitting a proposal

C. Task Order Process

The Commissioner will issue a Task Order to the firm selected for the project. The Task Order process is set forth in Article 4 of the attached contract. The Consultant shall not perform services under the contract until the Commissioner has issued a Task Order in accordance with Article 4.

D. Consultant's Personnel

The terms and conditions regarding the Consultant's obligation to provide personnel for the performance of services for the project are set forth in Article 5 of the attached contract. The Consultant agrees, throughout the term of the Contract, to provide personnel for the performance of all required engineering design and related services for the project in accordance with Task Orders issued by the Commissioner. The Consultant shall provide such personnel through its own employees and/or through its Subconsultants.

E. Participation by Minority Owned and Women Owned Business Enterprises in City Procurement

The contract resulting from this Request for Proposals will be subject to Local Law 129 of 2005, the Minority-Owned and Women-Owned Business Enterprise (M/WBE) program. Please refer to Attachment 8 for information on the M/WBE requirements established for this solicitation and instructions on how to complete the required forms.

If an M/WBE Subcontractor Utilization Plan is required for this proposal, the plan must be submitted in a separate, sealed envelope marked "Subcontractor Utilization Plan" at the same time the technical proposal is submitted. This envelope will be opened only when and if the firm is selected for fee negotiations. Failure to include or properly fill out the Subcontractor Utilization Plan will result in the rejection of the proposal as non-responsive. If a full waiver has been granted, the proposer shall include the signed waiver form in the envelope *in lieu of* a Subcontractor Utilization Plan. If a partial waiver has been granted, the proposer shall include the signed waiver form in the envelope with its Subcontractor Utilization Plan.

**Note: As fully explained in Attachment 8, if you are planning to request a waiver of the Target Subcontracting Percentage, the waiver must be submitted to the Agency at least seven days prior to the proposal due date and time in order to be considered.**

F. Compliance with Local Law 34 of 2007

Pursuant to Local Law 34 of 2007, amending the City's Campaign Finance Law, the City is required to establish a computerized database containing the names of any "person" that has "business dealings with City" as such terms are defined in the Local Law. In order for the City to obtain necessary information to establish the required database, vendors responding to this solicitation should complete the Doing Business Data Form (see Attachment 9) and return it with this proposal. The submission of a Doing Business Data form that is not accurate and complete may result in appropriate sanctions.

## SECTION IV. FORMAT AND CONTENT OF THE PROPOSAL

A. Proposal Subdivision Instructions: Proposers should provide all information required in the format below. The proposal should be typed on both sides of 8½" X 11" paper. The City of New York requests that all proposals be submitted on paper with not less than 30% post-consumer material content, i.e., the minimum recovered fiber content level for reprographic paper recommended by the United States Environmental Protection Agency (for any changes to that standard please consult: http://www.epa.gov/epg/products/printing.htm). Pages should be paginated. The proposal will be evaluated on the basis of its content, not its length. Failure to comply with any of these instructions will not make the proposal non-responsive. Submit proposal in a clearly labeled, sealed package as follows:

1. Technical Proposal (1 original and 5 copies): The Technical Proposal should contain all the information requested in Subsection B below, plus completed forms 254 and 255 for Proposer and its subconsultants. (These forms are available at http://www.nyc.gov/html/ddc/html/otherfrm.html)

B. Technical Proposal (I original and 5 copies): The Technical Proposal shall contain the information described below.

1. Cover Letter: Submit a maximum of three pages, indicating the company name and address, and the name, address and telephone number of the person authorized to represent the firm. ***(Be sure to refer to the proper DDC project number and title).***

2. Experience of Firm & Subconsultants: Submit Attachment 3, identifying by name the proposed subconsultant(s). Submit the following for the proposer and each subconsultant:

   a) Provide an overview of the firm.

   b) Include a thorough description of three (3) projects completed within the last five years, which demonstrate the firm's ability to provide quality engineering services for infrastructure construction projects. Infrastructure construction projects include but are not limited to: streets, roadways, bridges, retaining walls, sewers, water mains, and other structures.

   If the proposer is a joint venture, delineate the Lead Consultant for this contract and the areas of technical responsibilities of each joint venture partner.

3. Technical Approach: Respond to the items listed below. The proposer's response shall be limited to **four (4) pages**.

(a) Describe the proposer's methodology for resolving important technical and administrative issues which may arise in connection with infrastructure construction projects.

(b) Describe the proposer's methodology for tracking and maintaining project's budget and schedule.

(c) Describe the proposer's own technical approach and design procedures to complete each of the tasks listed below. For the purpose of this item, the proposer shall assume that these tasks are in connection with a typical residential street construction project. (These tasks are described in the General Requirements section of the attached contract; however, the proposer's submission should reflect its own approach to accomplishing the tasks.)

- Schematic Geometric Design
- Preliminary Sewer and Street Grade Study
- Street Design
- Sewer & Water Main Design
- Tree Mitigation
- Sustainable Design

4. Personnel: For each title of **KEY** personnel listed in Attachment 4, the proposer shall identify the individuals it will provide, throughout the term of the contract, to perform the required services. The proposer may identify multiple individuals for each title; provided, however, it may only identify those individuals it has the ability to provide.

   For all proposed Personnel, the proposer must submit the individual's resume and any other information detailing his/her number of years of experience, as well as technical and professional qualifications. Any proposed Personnel provided by the Consultant and/or Subconsultant must satisfy the minimum requirements per title set forth in Exhibit D to the attached contract. All personnel performing services for any Project(s) assigned to the Consultant under the contract must be approved in advance by the Commissioner.

5. Firm's Capability: Describe the following: (1) the firm's ability to provide personnel for required engineering services for various projects, (2) the firm's ability to provide sufficient personnel in the event of multiple Task Orders, (3) The firm's current and anticipated workload (using Attachment 5 included in this RFP).

Performance Evaluation(s)

a. Proposers with prior relevant NYC experience

Provide the firm's record of **relevant** design experience for the past ten years with DDC and other City of New York governmental departments, agencies, etc., including the contract number, project name, scope of work, duration, value of the construction project and value of the Proposer's contract. Include the respective City of New York's Agency Final Rating for performance of each contract and calendar date of rating.

b. Proposers without relevant NYC experience

- State for the record that the proposer does not have relevant New York City experience.

- Provide indicators of the quality of the experience described in the proposal, including performance evaluations issued by comparable entities responsible for the development and maintenance of urban infrastructure assets.

6. Statement of Understanding: The Statement of Understanding form included as Attachment 1 of this RFP should be signed by a responsible partner or corporate officer of the proposing firm and submitted with firm's Technical Proposal.

7. Acknowledgement of Addenda: The Acknowledgement of Addenda form (Attachment 6) serves as the proposer's acknowledgement of the receipt of addenda to this RFP that may have been issued by the Agency prior to the proposal due date and time. The proposer should complete this form as instructed on the form.

C. Proposal Package Contents ("Checklist"): The Proposal Package should consist of the following THREE packages:

1. Technical Proposal (1 original and 5 copies):
   Sealed envelope, clearly marked as "Technical Proposal", including

   - Statement of Understanding (Attachment 1)
   - Identification of Subconsultants (Attachment 3)
   - Identification of Personnel (Attachment 4)
   - Current Workload Disclosure (Attachment 5)
   - Acknowledgement of Addenda (Attachment 6)

2. Subcontractor Utilization Plan (1 original): (Attachment 8)
   Sealed envelope clearly marked as "Subcontractor Utilization Plan".

3. Doing Business Data Form (Attachment 9)
   Sealed envelope clearly marked as "Doing Business Data Form" containing a completed Doing Business Data Form.

## SECTION V. PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES

A. Selection Process

This is a Quality Based Selection (QBS) project. DDC will rank proposal by technical merit, and negotiate a fair and reasonable price with the highest ranked firms. A DDC evaluation committee will review, evaluate and score all technical proposals pursuant to the criteria described below. This evaluation will determine each proposer's score. DDC reserves the right to interview proposers and visit their offices for the purpose of clarifying their proposals, after which their initial scores may be re-evaluated. Proposers will be ranked in accordance with their scores, and eight (8) firms with the highest scores will be short-listed.

The eight short-listed proposers will be notified in writing to submit Attachment 2: Titles and All Inclusive Hourly Rates, including all back up material described in the Attachment. The proposer shall submit Attachment 2 in a clearly labeled, sealed package within ten business days of such notice.

DDC will attempt to negotiate fair and reasonable All Inclusive Hourly Rates (applicable to the three year base term of the Contact) with each short listed proposer. If negotiations are successful, the All Inclusive Hourly Rates negotiated with the proposer will be included in that proposer's contract. If negotiations are not successful, DDC will enter into negotiations with the next highest ranked firm(s). The All Inclusive Hourly Rates included in each respective contract will be used to negotiate fees in the event the consultant is selected to provide services for a specific project.

B. Proposal Evaluation Criteria

The proposal evaluation criteria are as follows:

a. Experience of the Firm & Subconsultants: (Weight 20%)

b. Technical Approach: (Weight 30%)

c. Personnel – Qualifications and Experience: (Weight 30%)

d. Firm's Capability: (Weight 20%)

C. Basis of Award

The Department of Design and Construction will award contract(s) to the responsible proposer(s) whose proposal(s) is/are determined to be the highest quality and most advantageous to the City, taking into consideration the overall quality of the proposal as measured against factors or criteria as set forth in the Request for Proposals and successful negotiation of an appropriated fee. Such fee

negotiation shall commence upon written notification and shall conclude not more than thirty days after receipt of the fee proposal.

D. Supplies and Service Report

Upon selection, each successful proposer will be required to submit one original copy of the Department of Business Services Supply and Service Report, a copy of which can be downloaded from http://www.nyc.gov/html/ddc/html/otherfrm.html. Upon written notification, the proposer must submit the Service and Supply Report within ten days of such notification.

G. VENDEX

Upon selection, each successful proposer will be required to submit proof of filing of the appropriate VENDEX Questionnaires. Upon written notification, the proposer must submit a Confirmation of Vendex Compliance to DDC within ten days of official notification. A form for this confirmation is set forth in the RFP.

**The proposer is advised that Vendex Questionnaires and procedures have changed. See www.nyc.gov/vendex to download the new VENDEX.**

**Questionnaires and a Vendor's Guide to VENDEX or contact DDC's VENDEX Unit at 718-391-1845.**

(a) Submission: Vendex Questionnaires (if required) must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007.

(b) Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, proposers may be obligated to complete and submit VENDEX Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after award.

H. Contract Finalization

Upon selection, each successful proposer will be asked to finalize a contract with DDC subject to the conditions specified in the RFP and to the agency's standard contract provisions. The contents of the selected proposal, together with this RFP and any addenda provided during the proposal process, may be incorporated into the final contract to be developed by the agency.

## SECTION VI. GENERAL INFORMATION TO PROPOSERS

A. Non-Binding Acceptance of Proposals: This RFP does not commit the City to award a contract for any services.

B. Incurring Proposal Costs: The City of New York is not liable for any costs incurred in the preparation of a response to this RFP.

C. Confidentiality: The contents of a Proposer's RFP response are not deemed confidential unless the Proposer identifies those portions of its response which it deems confidential, or containing proprietary information, or trade secrets. The Proposer must provide justification as to why such materials, upon request, should not be disclosed by the City. Such information must be easily separable from the non-confidential sections of the proposal.

D. Reserved Rights: All proposal material submitted becomes the property of the City and the City reserves the right, at its sole discretion, to:

1. Reject any and all proposals received in response to this RFP;

2. Award a contract to other than the lowest-fee Proposer;

3. Waive, modify or correct any irregularities in proposals received, after prior notification to the Proposer;

4. Use without limitation any or all of the ideas from submitted proposals;

5. Contract for all or selected parts of the Proposer's proposal, selecting from the services offered without affecting the itemized pricing;

6. Extend the time for submission of all proposals after notification to all prospective Proposers;

7. May conduct discussions with offerers submitting acceptable proposals, award may be made without any discussion;

8. Terminate negotiations with a selected Proposer and select the next most responsive Proposer, or take such other action as deemed appropriate if negotiations fail to result in a signed contract within a reasonable time of the commencement of negotiations as determined by the Commissioner;

9. Postpone or cancel this RFP, in whole or in part, and to reject all proposals.

E. Contractual Requirements

1. Any firm awarded a contract as a result of this RFP will be required to sign the City's standard contract. A copy of the contract is attached for your information. The requirements for performance of this project, as well as insurance, payment terms and all other provisions are contained in the contract.

2. Any information which may have been released either orally or in writing prior to the issuance of the RFP shall be deemed preliminary in nature and bind neither the City nor the Proposer.

3. The City will deal only with the Engineer and the City has no financial obligation to sub-consultants and sub-contractors. However, all sub-consultants and sub-contractors are subject to the City's contracting requirements including Equal Employment Opportunity (Executive Order #50 of 1980 as revised).

4. The prompt Payment provisions set forth in the edition of the Procurement Policy Board Rules in effect at the time of this solicitation shall be applicable to payments made under a contract resulting from this solicitation. The provisions require the payment to contractors of interest payments made after the required payment date except as set forth in the Rules.

   The contractor must submit a proper invoice to receive payment, except where the contract provides that the contractor shall be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

   Determinations of interest due shall be made in accordance with the provisions of the Procurement Policy Board Rules and General Municipal Law 3-a.

5. The New York City Comptroller is charged with the audit of contracts in New York City. Any proposer who believes that there has been unfairness, favoritism or impropriety in the proposal process should inform the Comptroller, Office of Contract Administration, 1 Centre Street, 10th Floor, New York, NY 10007; the telephone number is (212) 669-2323. In addition, the New York City Department of Investigation should be informed of such complaints at its Investigations Division, 80 Maiden Lane, New York, NY 10038; the telephone number is (212) 825-5959.

6. This Request for Proposals and the resulting contract award(s), if any, unless otherwise stated, are subject to all applicable provision of New York State Law, the New York City Administrative Code, New York City Charter and New York City Procurement policy Board (PPB) Rules. A copy of the

PPB Rules may be obtained by accessing the City's website at www.nyc.gov/ppb.

7. Contract award is subject to each of the following applicable conditions and any others that may apply: New York City Fair Share Criteria; New York City MacBride Principles Law; submission by the proposer of the New York City Department of Business Services/Division of Labor Services Employment Report and certification by that office; submission by the proposer of the requisite VENDEX Questionnaires/Certificates of No Charge and review of the information contained therein by the New York City Department of Investigation; all other required oversight approvals; applicable provisions of federal, state and local laws and executive orders requiring affirmative action and equal employment opportunity; and Section 6-108.1 of the New York City Administrative Code relating to Local Based Enterprises program and its implementation rules.

8. Pursuant to New York City's Procurement Policy Board Rules, proposers have the right to appeal agency non-responsiveness determinations and agency non-responsibility determinations and to protest an agency's determination regarding the solicitation or award of a contract.

9. Prices proposed by the proposer shall be irrevocable until contract award, unless the proposal is withdrawn. Proposals may only be withdrawn by submitting a written request to the Agency prior to contract award but after the expiration of 90 days after the opening of proposals. This shall not limit the discretion of the Agency to request proposers to revise proposed prices through the submission of best and final offers and/or the conduct of negotiations.

10. The Agency has determined that the contract(s) to be awarded through this Request for Proposals will not directly result in the displacement of any New York City employee.

_____ _____

ACCO Signature Date

## ATTACHMENT 1

## STATEMENT OF UNDERSTANDING

By signing in the space provided below, the undersigned certifies that the respondent (i) has read and understands the scope and requirements of this project, as described in the RFP and all attachments; (ii) has the capacity to execute this project, (iii) agrees to accept payment in accordance with the requirements of this RFP and the standard design requirement contract, attached hereto, and (iv) will, if its proposal is accepted, enter into the attached Standard Contract with the New York City Department of Design and Construction.

Is the response printed on both sides, on recycled paper containing the minimum percentage of recovered fiber content as requested by the City in the instructions to this solicitation?

□ **Yes** □ **No**

I hereby certify that my firm will carry all types of insurance specified in the contract.

The undersigned further stipulates that the information in this proposal is, to the best of knowledge, true and accurate.

_____
Name of Proposer

By:_____ _____
Signature of Partner or Corporate Officer Date

_____ _____
Print Name Title

_____ _____
Firm EIN #

_____ _____
Address E-Mail Address

# ATTACHMENT 2: TITLES AND ALL INCLUSIVE HOURLY RATES

**Submission:** If requested in writing by DDC, the proposer shall submit Attachment 9, plus the back up material described below, in a clearly marked, sealed envelope. Submission shall be within ten business days of notice by DDC.

**Negotiation:** DDC will attempt to negotiate fair and reasonable All Inclusive Hourly Rates (applicable to the three year base term of the Contact) with each short listed proposer. If negotiations are successful, the All Inclusive Hourly Rates negotiated with the proposer will be included in that proposer's contract. If negotiations are not successful, DDC will enter into negotiations with the next highest ranked firm(s). The All Inclusive Hourly Rates included in each respective contract will be used to negotiate fees in the event the consultant is selected to provide services for a specific project.

**********

The proposer shall submit the following:

(1) Proposed Rates: The proposer shall submit a Proposed All Inclusive Hourly Rate for each title listed on the next page. The All Inclusive Hourly Rates submitted by the proposer shall apply to the first year of the Contract.

(2) Proposed Increase: The proposer shall submit a Proposed Percent Increase per year to the All Inclusive Hourly Rates. Such percent increase shall apply to the second and third years of the Contract.

(3) Back Up Material: The proposer shall submit the back up material described below.

- Salary Information: The proposer shall submit salary information for all individuals it intends to provide for the titles listed on the next page. Such individuals must meet the minimum qualification requirements per title, set forth in Exhibit D to the attached Contract. Such individuals may be employees of the proposer or its subconsultants. Specifically, the proposer shall submit each individual's Actual Direct Salary Rate per Hour, as defined below.

  - An individual's actual annual direct salary shall be the salary amount directly payable to such employee on an annual basis and shall **NOT INCLUDE** any amount for the following costs or payments: (1) all payments for services performed during overtime hours (as defined in the attached contract); (2) all employer payments mandated by law, including without limitation, social security and Medicare taxes, insurance (Worker's Compensation, Employers Liability, Unemployment); (3) all employer contributions, if any, to retirement plans, including without limitation pension and/or deferred compensation plans, and (4) all costs for any and all other fringe and/or supplemental benefits.

  - To compute an individual's actual annual direct salary per hour, the individual's actual annual direct salary, as defined above, shall be divided by 2080.

- Multiplier: The proposer shall submit its latest Audited Multiplier for Overhead, including the date of the audit and the government agency which has accepted or approved the Audited Multiplier for Overhead for payment purposes. If the proposer does not have an Audited Multiplier for Overhead which has been accepted or approved by a government agency, it shall submit Financial Statements detailing Overhead expenses for the two most recent fiscal years. Such Financial Statements must have been audited by an independent auditor licensed to practice as a certified public accountant (CPA). Each such Financial Statement must include the auditor's standard report.

  The proposer shall submit the same Multiplier information for each subconsultant identified in its Technical Proposal.

- Payroll Register: The proposer shall submit its Payroll Register for the past twelve months, as well as the Payroll Register for each subconsultant identified in its Technical Proposal.

# ATTACHMENT 2

Proposed Rates: The proposer shall submit a Proposed All Inclusive Hourly Rate for each title listed below. The All Inclusive Hourly Rates shall apply to the first year of the Contract.

| TITLE | ASCE (A) NICET (N) GRADE | ALL INCLUSIVE HOURLY RATE |
|---|---|---|
| Project Manager | A-VI | |
| Project Engineer | A-IV | |
| Senior Civil Engineer | A-V | |
| Senior Structural Engineer | A-V | |
| Engineer | A-III | |
| Junior Engineer | A-II | |
| Urban Design/Landscape Manager, RLA | | |
| Project / Senior Landscape Architect | | |
| Landscape Architect | | |
| Junior Landscape Architect | | |
| Arborist/ Forester | | |
| Survey Manager, R.L.S. | | |
| Party Chief/Foreman | N-III | |
| Instrument Person | N-II | |
| Rod Person | N-I | |
| Senior Traffic Engineer | A-V | |
| Traffic Engineer | A-III | |
| Junior Traffic Engineer – Technician | A-II | |
| Project Environmental Engineer/Manager | | |
| Senior Environmental Engineer/Planner | | |
| Environmental Engineer | | |
| Junior Environmental Engineer | | |
| Certified Industrial Hygienist | | |
| Industrial Hygienist | | |
| Project Geotechnical Engineer / Manager | A-VI | |
| Senior Geotechnical Engineer | A-V | |
| Geotechnical Engineer | A-III | |
| Project Scientist | | |
| Senior Mechanical Engineer | A-V | |
| Mechanical Engineer | A-III | |
| Senior Electrical Engineer | A-V | |
| Electrical Engineer | A-III | |
| Archeologist/Historian | | |
| Senior Archeologist | | |
| Junior Archeologist | | |
| Senior CAD Operator | N-IV | |
| CAD Operator | N-III | |
| Junior CAD Operator | N-II | |

Proposed Increase: The proposer shall submit a Proposed Percent Increase per year to the All Inclusive Hourly Rates. Such percent increase shall apply to the second and third years of the Contract.

_____%

Back Up Material: In addition to the above, the proposer shall submit the back up material described on the previous page.

**Affirmation:** By signing in the space provided below, the proposer affirms that all back up material provided as part of this Attachment 9 is true and accurate in all respects.

_____
Name of Proposer

By:_____ _____
Signature of Partner or Corporate Officer Date

_____ _____
Print Name Title

_____ _____
Firm EIN #

# ATTACHMENT 3

## FORM FOR IDENTIFICATION OF SUBCONSULTANTS

The Proposer must identify by name the Subconsultants it will provide throughout the term of the Contract for the services set forth below. If the Proposer intends to perform any of the services listed below with its own employees, it shall so indicate by inserting the words "In House".

Topographic Survey Services: _____

Landscape Architectural Design Services/
Urban Design services: _____

Archeological Services: _____

Tree Consulting Services: _____

Traffic Engineering Services: _____

Environmental Engineering Services: _____

Industrial Hygiene Services: _____

Geotechnical Engineering Services: _____

Other Services (Specify): _____

# ATTACHMENT 4

## FORM FOR IDENTIFICATION OF KEY PERSONNEL

For each title listed below, the proposer shall identify the individuals it will provide, throughout the term of the contract, to perform the required services. Such individuals may be employees of the proposer or its subconsultant. The proposer may identify multiple individuals for each title; provided, however, it may only identify those individuals it or its subconsultant(s) has the ability to provide.

For all proposed key Personnel, the proposer must submit the individual's resume and any other information detailing his/her number of years of experience, as well as technical and professional qualifications. Any proposed Personnel provided by the Consultant and/or Subconsultant must satisfy the minimum requirements set forth in Exhibit D to the attached Contract. All personnel performing services for any Task Order assigned to the Consultant under the Contract must be approved in advance by the Commissioner.

**KEY PERSONNEL:**

**TITLE**

Project Manager

Project Engineer

Senior Civil Engineer

Senior Structural Engineer

Senior Traffic Engineer

Senior Geotechnical Engineer

Senior Mechanical Engineer

Senior Electrical Engineer

Project Environmental Engineer/Manager

Senior Environmental Engineer/Planner

Project Manager R.L.A.

Project / Senior Landscape Architect

Arborist / Forester

Survey Manager, R.L.S.

Archeologist / Historian

Senior Archeologist

Certified Industrial Hygienist

**ATTACHMENT 5**

**CURRENT WORKLOAD DISCLOSURE**

The proposer and his/her Subconsultant(s) providing services on this project must complete a separate Current Workload Disclosure form. The values shown *shall not* include: (1) amount owed to Subconsultants and Subcontractors, or, (2) amount owed for rental/purchase of equipment.

PROJECT ID: _____

PROJECT DESCRIPTION

_____

_____

_____

_____

_____

FIRM NAME _____

_____

CONTACT PERSON _____

PHONE ( ) _____

FIRM ADDRESS:

_____

_____

_____

_____

_____

NUMBER OF FIRM'S PERSONNEL

ADMIN. _____ TECH. _____ TOTAL _____

The figures MUST agree with SF255, Number 4

**I- Firm's Total uncompleted Workload with NYCDDC/NYCDOT (From RFP-22)** $ _____

**II-Firm's Total uncompleted Workload with Other City and State Agencies (From RFP-23)** $ _____

**Total Workload** $ _____

CERTIFICATION

*By signing in the space provided below, the proposer certifies that the dollar amounts set forth on this Attachment are true and accurate in all respects.*

_____
Name of Firm

_____ _____
Signature of Partner or Corporate Officer Title

_____ _____
Print Name Date

**CURRENT WORKLOAD WITH NYCDDC/NYCDOT** ***Date:***

FIRM NAME: _____

List **ALL** projects for which the firm currently has contracts with NYCDDC/NYCDOT and those for which the firm has been officially selected. These shall be categorized as indicated below (Design & Construction Support Services and Other).

| Client Name/ Project Name | Contract # | Type of Work | Uncompleted Portion of Work ($000) | Percent complete to date (%) |
|---|---|---|---|---|
| **DESIGN & Construction Support Services:** For Street Reconstruction Projects includes Preliminary Design, Final Design and Total Design | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Design Subtotal | | | $ | |
| **DESIGN & Construction Support Services:** For Bridges and Retaining Walls Projects. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Design Subtotal | | | $ | |
| **OTHER:** Includes Traffic Engineering and Planning Services, Traffic Engineering & Safety, Environmental Engineering, Sub-surface exploration, Utility Engineering, Topographic Survey, Urban Design/Landscape Architecture, Value Engineering and other engineering design services. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| Other Subtotal | | | $ | |
| **I- Firm's Total Workload with NYCDDC/NYCDOT** | | | **$** | |

**CURRENT WORKLOAD WITH OTHER CITY & STATE AGENCIES** ***Date:***

FIRM NAME: _____

List **ALL** projects for which the firm currently has contracts with other above agencies and those for which the firm has been officially selected. These shall be categorized as indicated below (Design & Construction Support Services and Other).

| Client Name/ Project Name | Contract # | Type of Work | Uncompleted Portion of Work ($000) | Percent complete to date (%) |
|---|---|---|---|---|
| **DESIGN & Construction Support Services:** Includes Preliminary Design, Final Design and Total Design | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Design Subtotal | | | $ | |
| **DESIGN & Construction Support Services:** For Bridges and Retaining Walls Projects. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Design Subtotal | | | $ | |
| **OTHER:** Includes Traffic Engineering and Planning Services, Traffic Engineering & Safety, Environmental Engineering, Sub-surface exploration, Utility Engineering, Topographic Survey, Urban Design/Landscape Architecture, Value Engineering and other engineering design services. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Other Subtotal | | | $ | |
| **II- Firm's Total Workload with Other City and State Agencies** | | | **$** | |

# ATTACHMENT 6

## ACKNOWLEDGEMENT OF ADDENDA

| TITLE OF THE REQUEST FOR PROPOSALS: | PIN #: |
|---|---|

Instructions: The proposer is to complete Part I or Part II of this form, whichever is applicable, and sign and date this form. This form serves as the proposer's acknowledgement of the receipt of Addenda to this Request for Proposals (RFP) which may have been issued by the Agency prior to the Proposal Due Date and Time.

___Part I

Listed below are the dates of issue for each Addendum received in connection with this RFP.

Addendum # 1, dated _____
Addendum # 2, dated _____
Addendum # 3, dated _____
Addendum # 4, dated _____
Addendum # 5, dated _____
Addendum # 6, dated _____
Addendum # 7, dated _____
Addendum # 8, dated _____
Addendum # 9, dated _____
Addendum #10, dated _____

___Part II

No Addendum was received in connection with this RFP.

Proposer Name

Proposer's Authorized Representative:

Name: _____

Title: _____

Signature: _____

Date: _____

# ATTACHMENT 7

## CONFIRMATION OF VENDEX COMPLIANCE

The Proposer shall submit this Confirmation of Vendex Compliance

Name of Proposer: _____

Proposer's Address: _____

Proposer's Telephone Number: _____

Proposer's Fax Number: _____

Date of proposal Submission: _____

Project ID: _____

**Vendex Compliance:** To demonstrate compliance with Vendex requirements, the Proposer shall complete either Section (1) or Section (2) below, whichever applies.

(1) **Submission of Questionnaires to MOCS**: By signing in the space provided below, the Proposer certifies that as of the date specified below, the Proposer has submitted Vendex Questionnaires to the Mayor's Office of Contract Services, Attn: VENDEX, 253 Broadway, 9th Floor, New York, New York 10007.

Date of Submission: _____

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

(2) **Submission of Certification of No Change to DDC**: By signing in the space provided below, the Proposer certifies that it has read the instructions in a "Vendor's Guide to Vendex" and that such instructions do not require the Proposer to submit Vendex Questionnaires. The Proposer has completed **TWO ORIGINALS** of the Certification of No Change.

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

**Attachment 8**

# NOTICE TO ALL PROSPECTIVE CONTRACTORS

## PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

## ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added Section 6-129 to the Administrative Code of the City of New York. The local law creates a program for participation by minority-owned and women-owned business enterprises (MBEs and WBEs) in City procurement. As stated in the Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are made pursuant to Local Law 129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

**If this Contract is subject to the Minority-Owned and Women-Owned Business Enterprise ("M/WBE") program created by Local Law 129, the specific requirements of M/WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "Subcontractor Utilization Plan"), and are detailed below.**

**The Contractor must comply with all applicable M/WBE requirements for this Contract.**

Article I, Part A, below, sets forth provisions related to the participation goals for construction and professional services contracts.

Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE program.

### PART A

### PARTICIPATION GOALS FOR CONSTRUCTION AND PROFESSIONAL SERVICES CONTRACTS

1. The **Target Subcontracting Percentage** applicable to this Contract is set forth on Schedule B, Part I to this Contract (see Page 1, line (1)).

The **"Target Subcontracting Percentage"** is the percentage of the total Contract which Agency anticipates that the prime contractor for this Contract would in the normal course of business award to one or more subcontractors for amounts under $1 million for construction and professional services.

A prospective contractor may seek a full or partial pre-award waiver of the **Target Subcontracting Percentage** in accordance with Local Law 129 and Part A, Section 10 below. To apply for the a full or partial waiver of the **Target Subcontracting Percentage**, a prospective contractor must complete Part III (Page 4) of Schedule B, and must submit such request no later than seven (7) days prior to the date and time the bids or proposals are due, in writing to the Agency by e-mail at _____or via facsimile at (___) _____. Bidders/proposers who have submitted requests will receive a response by no later than two (2) calendar days prior to the date bids or proposals are due, provided, however, that if that date would fall on a weekend or holiday, a response will be provided by close-of-business on the business day before such weekend or holiday date.

2. The **Subcontractor Participation Goals** established for this Contract are set forth on Schedule B, Part I to this Contract (see Page 1, line (2) and/or line (3)).

The **Subcontractor Participation Goals** represent a percentage of the total dollar value of all construction and/or professional services subcontracts under this Agreement for amounts under $1 million.

3. If **Subcontractor Participation Goals** have been established for this Contract, Contractor agrees or shall agree as a material term of the Agreement that, with respect to the total amount of the Agreement to be awarded to one or more subcontractors pursuant to subcontracts for amounts under $1 million, Contractor shall be subject to the **Subcontractor Participation Goals**, unless the goals are modified by Agency in accordance with Local Law 129 and Part A, Section 11 below.

4. If **Subcontractor Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, Part II Subcontractor Utilization Plan (see Page 2-3) indicating: (a) the percentage of work it intends to subcontract; (b) the percentage of work it intends to award to subcontractors for amounts under $1 million; (c) in cases where the prospective contractor intends to award subcontracts for amounts under $1 million, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs; and (d) the general time frames in which such work by MBEs and/or WBEs is scheduled to occur. In the event that this Subcontractor Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to award the **Target Subcontracting Percentage**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the **Target Subcontracting Percentage** in accordance with Local Law 129 and Part A, Section 10 below.

**THE BIDDER/PROPOSER MUST FULLY COMPLETE THE SUBCONTRACTOR UTILIZATION PLAN INCLUDED HEREIN (SCHEDULE B, PART II). BIDS/PROPOSALS WHICH DO NOT INCLUDE A COMPLETED SUBCONTRACTOR UTILIZATION PLAN WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE TARGET SUBCONTRACTING PERCENTAGE IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE SUBCONTRACTOR UTILIZATION PLAN (SCHEDULE B, PART II) INDICATES THAT THE BIDDER/PROPOSER DOES NOT INTEND TO AWARD THE TARGET SUBCONTRACTING PERCENTAGE, THE BID/PROPOSAL WILL BE DEEMED TO BE NON-**

**RESPONSIVE, UNLESS THE AGENCY HAS GRANTED A WAIVER OF THE TARGET SUBCONTRACTING PERCENTAGE (SCHEDULE B, PART III).**

5. Where a Subcontractor Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multi-year contracts, such list shall also be submitted every year thereafter. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. M/WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the M/WBE participation goals. Such certification must occur prior to the firms' commencement of work as subcontractors. A list of M/WBE firms may be obtained from the DSBS website at www.nyc.gov/getcertified, by emailing DSBS at MWBE@sbs.nyc.gov, by calling the DSBS certification hotline at (212) 513-6311, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS (as indicated above) in order to seek certification.

7. Where a Subcontractor Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount paid to subcontractors (including subcontractors that are not MBEs or WBEs); the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor pursuant to such plan as well as the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment, the total amount paid to subcontractors (including subcontractors that are not MBEs or WBEs); and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE hired pursuant to such plan, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's Subcontractor Utilization Plan, Agency shall take appropriate action, in accordance with Local Law 129 and Article II below, unless the Contractor has obtained a modification of its Subcontractor Utilization Plan in accordance with Local Law 129 and Part A, Section 11 below.

9. Where a Subcontractor Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds 10 percent of the Agreement, Agency shall establish participation goals for the work to be performed pursuant to the change order.

10. Pre-award waiver of **Target Subcontracting Percentage**. Agency may grant a full or partial waiver of the **Target Subcontracting Percentage** to a bidder or proposer, as applicable, who demonstrates—before submission of the bid or proposal—that it has legitimate business reasons for proposing the level of subcontracting in its Subcontractor Utilization Plan. In making its determination, Agency shall consider factors that shall

include, but not be limited to, whether the bidder or proposer, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts for under one million dollars represented by the **Target Subcontracting Percentage**. In making such determination, Agency may consider whether the Subcontractor Utilization Plan is consistent with past subcontracting practices of the bidder or proposer, as applicable, and whether the bidder or proposer, as applicable, has made good faith efforts to identify portions of the Contract that it intends to subcontract.

11. Modification of Subcontractor Utilization Plan. A Contractor may request a modification of its Subcontractor Utilization Plan (**Subcontractor Participation Goals**) after award of this Contract. The Agency may grant such request if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Subcontractor Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(a) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;

(b) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;

(c) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs and WBEs that their interest in the Contract was solicited;

(d) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the Subcontractor Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;

(e) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;

(f) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts;

(g) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;

(h) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such

recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

12. If **Subcontractor Participation Goals** have been established for this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

## PART B

## MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of a Subcontractor Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See 6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the Subcontractor Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for a Subcontractor Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Administrative Code Section 6-108.1.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and WBEs in contracts.

4. Prospective contractors are encouraged to enter into joint ventures with MBEs and WBEs.

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE requirements set forth herein and the pertinent provisions of Local Law 129 of 2005, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE requirements of this Contract and pertinent provisions of Local Law 129 of 2005, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of M/WBE's to meet the required **Subcontractor Participation Goals**.

## ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any Subcontractor Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements this Section 6-129, including, but not limited any Subcontractor Utilization Plan, Agency may determine that one of the following actions should be taken:

(a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;

(b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;

(c) making a finding that the Contractor is in default of the Contract;

(d) terminating the Contract;

(e) declaring the Contractor to be in breach of Contract;

(f) withholding payment or reimbursement;

(g) determining not to renew the Contract;

(h) assessing actual and consequential damages;

(i) assess liquidated damages or reduction of fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the program established by Section 6-129, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;

(j) exercise rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or

(k) take any other appropriate remedy.

4. Whenever Agency has reason to believe that an MBE or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129), or has violated any provision of Section 6-129, Agency shall notify the commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

5. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

6. The Contractor's record in implementing its Subcontractor Utilization Plan shall be a factor in the evaluation of its performance. Whenever a contracting agency determines that a contractor's compliance with a Subcontractor Utilization Plan has been unsatisfactory, the agency shall, after consultation with the city chief procurement officer, file an advice of caution form for inclusion in VENDEX as caution data.

# ATTACHMENT 8

## M/WBE PROGRAM

## SUBCONTRACTOR UTILIZATION PLAN

**Subcontractor Utilization Plan:** The Subcontractor Utilization Plan for this Contract is set forth on the following pages of this RFP. The Subcontractor Utilization Plan (Part I) indicates whether participation goals have been established for this Contract. If participation goals have been established for this Contract, the proposer must submit a Subcontractor Utilization Plan (Part II) with its Technical Proposal in a sealed envelope clearly marked as "Subcontractor Utilization Plan".

**Requirements Contracts**: As part of the Subcontractor Utilization Plan (Part II), the proposer is required to insert the "Total Bid/Proposal Value". If this RFP involves a Requirements Contract, the proposer shall insert the "Not to Exceed" amount of the contract in the space provided for the "Total Bid/Proposal Value". The "Not to Exceed" amount of the contract is set forth in Exhibit A of the attached Contract.

**Waiver:** The proposer may seek a full or partial pre-award waiver of the Target Subcontracting Percentage in accordance with Article 46 of the Contract (See Part A, Section 10). The proposer's request for a waiver must be submitted at least seven (7) consecutive calendar days prior to the proposal due date. Waiver requests submitted after the deadline will not be considered. The form for requesting a waiver of the Target Subcontracting Percentage is set forth in the Subcontractor Utilization Plan (Part III).

**Rejection of the Proposal**: The proposer must fully complete the Subcontractor Utilization Plan (Part II) set forth on the following pages. Proposals that do not include a completed Subcontractor Utilization Plan (Part II) will be deemed to be non-responsive, unless a full waiver of the Target Subcontracting Percentage is granted (Subcontractor Utilization Plan, Part III). In the event that the proposer's Subcontractor Utilization Plan (Part II) indicates that the proposer does not intend to award the Target Subcontracting Percentage, the proposal will be deemed to be non-responsive, unless the Agency has granted a waiver of the Target Subcontracting Percentage (Subcontractor Utilization Plan, Part III).

Project: Requirements Contracts for Engineering Design Services PIN: 8502008RQ23-30P

Tax ID #: _____

THE CITY OF NEW YORK

**Subcontractor Utilization Plan -Part I: Agency's Target**
This page to be completed by contracting agency

## Contract Overview

**Pin#: 8502008RQ0023-30P** **FMS Project ID#:** HWDRCW01

**Project Title** **Design Requirements Contracts**

**Contracting Agency** **Department of Design and Construction**

**Agency Address** **30-30 Thomson Ave** **City** **Long Island City** **State NY** **Zip Code** **11101**

**Contact Person** **James A. Cerasoli** **Title: Senior MWBE & DBE Liaison & Compliance Analyst**

**Telephone #** **718-391-1549** **Email cerasoli@ddc.nyc.gov**

**Project Description** *(attach additional pages if necessary)*

Eight Engineering Design and Related Services Requirements Contracts, Citywide

**(1)** √ **Target Subcontracting Percentage**
Percentage of total contract dollar value that agency estimates will be awarded to subcontractors in amounts under $1 million for construction and professional services. 5 %

Subcontractor Participation Goals*
*Complete and enter total for each Construction or Professional Services, or both (if applicable)*

| Group | Construction | Professional Services |
|---|---|---|
| Black American | % | 30% |
| Hispanic American | % | 20% |
| Asian American | % | No Goal |
| Caucasian Female | No Goal | 20% |
| **Total Participation Goals** | **(2) %** | **(3) 70 %** |

*Note: For this procurement, individual ethnicity and gender goals are not specified. Bidders/proposers may meet the Total Participation Goal through subcontracts with vendors certified in one or more of the ethnicity or gender categories.

Tax ID #: _____

**Subcontractor Utilization Plan – Part II: Bidder/Proposer Subcontracting Plan**

**This page and the next (Part II herein) are to be completed by the bidder/proposer. NOTE: Bids/proposals which do no include a completed subcontractor utilization plan (Part II herein) will be deemed to be non-responsive, unless a full waive of the target subcontracting percentage is granted (Part III herein).**

## Section I: Prime Contractor Contact Information

Tax ID # _____ FMS Vendor ID # _____

Business Name _____ Contact Person _____

Address _____

Telephone # _____ Email _____

## Section II: General Contract Information

1. Define the industry in which work is to be performed.

   - **Construction** includes all contracts for the construction, rehabilitation, and/or renovation of physical structures. This category does include CM Build as well as other construction related services such as: demolition, asbestos and lead abatement, and painting services, carpentry services, carpet installation and removal, where related to new construction and not maintenance.

   - **Professional Services** are a class of services that typically require the provider to have some specialized field or advanced degree. Services of this type include: legal, management consulting, information technology, accounting, auditing, actuarial, advertising, health services, pure construction management, environmental analysis, scientific testing, architecture and engineering, and traffic studies, and similar services.

   **a. Type of work on Prime Contract** *(Check one):*

   ☐ Construction
   ☐ Professional Services

   **b. Type of work on Subcontract** *(Check all that apply):*

   ☐ Construction ☐ Other
   ☐ Professional Services

2. What is the expected percentage of the total contract dollar value that you expect to award to all subcontracts? _____%

3. Will you award subcontract(s) in amounts below $ 1 million for construction and/or professional services contracts within the first 12 months of the notice to proceed on the contract? ☐ Yes ☐ No

## Section III: Subcontractor Utilization Summary

IMPORTANT: *If you do not anticipate that you will subcontract at the target level the agency has specified, because you will perform more of the work yourself, you must seek a waiver of the Target Subcontracting Percentage by completing p. 4).*

| **Step 1:** Calculate the percentage (of your total bid) that will go towards subcontracts under S1M for construction and/or professional services | **Subcontracts under $1M (4)** (construction/professional services) | | Total Bid/Proposal Value | | Calculated Target Subcontracting Percentage |
|---|---|---|---|---|---|
| | $ _____ | ÷ | $ _____ | x 100 = | _____% |

- **Subcontracts under $1M (construction/professional services):** Enter the value you expect to award to subcontractors in dollars for amounts under S1 million for construction and/or professional services. This value defines the amount that participation goals apply to, and will be entered into the first line of Step 2.
- **Total Bid/Proposal Value:** Provide the dollar amount of the bid/proposal.
- **Calculated Target Subcontracting Percentage:** The percentage of the total contract dollar value that will be awarded to one or more subcontractors for amounts under S1 million for construction and/or professional services. **This percentage must equal or exceed the percentage listed by the agency on page 1, at line (1).**

**! Important: The "Calculated Target Subcontracting Percentage" MUST equal or exceed the Target Subcontracting Percentage listed by the agency on Page 1, Line (1) or the bid/proposal will be deemed non-responsive.**

Tax ID #: _____

## Subcontractor Utilization Plan – Part II: Bidder/Proposer Subcontracting Plan – cont.

**Step 2:**
Calculate value of subcontractor participation goals

| | | Subcontracts under $1M (construction/professional services) | |
|---|---|---|---|
| a. | Copy value from Step 1, line (4) – the total value of all expected subcontracts under $1M for construction and/or professional services | $ _____ | |
| b. | • From line a. above, allocate the dollar value of "Subcontracts under $1M" by Construction and Professional Services.<br>• If all subcontracts under $1M are in one industry, enter '0' for the industry with no subcontracts.<br>• Amounts listed on these lines should add up to the value from line a. | Construction | Professional Services |
| | **Subcontracts under $1M by Industry** | $ _____ | $ _____ |
| c. | • For Construction enter percentage from line (2) from Page 1.<br>• For Professional Services enter percentage from line (3) from Page 1.<br>• **These Percentages must be copied from the Agency Plan, or the bid/proposal will be deemed non-responsive.** | x _____ % | x _____ % |
| d. | Value of Total Participation Goals | $ _____ | $ _____ |

**Step 3:**

✓ **Subcontracts in Amounts Under $1 M Scope of Work – Construction**

*Enter brief description of type(s) of subcontracts in amounts under $1M anticipated, by type of work, not by name of subcontractor*

✓ **Subcontracts in Amounts Under $1 M Scope of Work – Professional Services**

*Enter brief description of type(s) of subcontracts in amounts under $1M anticipated, by type of work, not by name of subcontractor*

## Section IV: Vendor Certification

*I hereby 1) acknowledge my understanding of the M/WBE requirements as set forth herein and the pertinent provisions of Local Law 129 of 2005, and the rules promulgated thereunder; 2) affirm that the information supplied in support of this subcontractor utilization plan is true and correct; 3) agree, if awarded this Contract, to comply with the M/WBE requirements of this Contract and the pertinent provisions of Local Law 129 of 2005, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this contract; and 4) agree, if awarded this contract, to make all reasonable, good faith efforts to attain the Target Subcontracting Percentage as specified by the Agency, and to solicit and obtain the participation of M/WBEs so as to meet the required Subcontractor Participation Goals.*

Signature _____ Date _____

Print Name _____ Title _____

## PART III – REQUEST FOR WAIVER OF TARGET SUBCONTRACTING PERCENTAGE

**Contract Overview**

Tax ID # _____ FMS Vendor ID # _____

Business Name _____

Contact Name _____ Telephone # _____ Email _____

Type of Procurement ☐ Competitive Sealed Bids ☐ Other Bid/Response Due Date _____

| PIN # (for this procurement) | Type of work on Prime Contract *(Check one)*: | Type of work on Subcontract *(Check all that apply)*: | |
|---|---|---|---|
| _____ | ☐ Construction<br>☐ Professional Services | ☐ Construction<br>☐ Professional Services | ☐ Other |

SUBCONTRACTING *as described in bid/solicitation documents* *(Copy this % figure from Subcontactor Utilization Plan, Part I, line 1)*

_____ % of the total contract value anticipated by the agency to be subcontracted for construction/professional services subcontracts valued below $1 million (each)

ACTUAL SUBCONTRACTING *as anticipated by vendor seeking waiver*

_____ % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for construction/ professional services subcontracts valued below $1 million (each)

**Basis for Waiver Request:** *Check appropriate box & explain in detail below (attach additional pages if needed)*

☐ Vendor does not subcontract construction/professional services, and has the capacity and good faith intention to perform all such work itself.

☐ Vendor subcontracts *some* of this type of work but at *lower* % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract.

☐ Other _____

**References**

*List 3 most recent contracts/subcontracts performed for NYC agencies (if any)*

CONTRACT NO. _____ AGENCY _____ DATE COMPLETED _____

CONTRACT NO. _____ AGENCY _____ DATE COMPLETED _____

CONTRACT NO. _____ AGENCY _____ DATE COMPLETED _____

*List 3 most recent contracts/subcontracts performed for other agencies/entities*
(complete ONLY if vendor has performed fewer than 3 NYC contracts)

TYPE OF WORK _____ AGENCY/ENTITY _____ DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____

TYPE OF WORK _____ AGENCY/ENTITY _____ DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____

TYPE OF WORK _____ AGENCY/ENTITY _____ DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____

**VENDOR CERTIFICATION:** *I hereby affirm that the information supplied in support of this waiver request is true and correct, and that this request is made in good faith.*

Signature: _____ Date: _____

Print Name: _____ Title: _____

***Shaded area below is for agency completion only***

***AGENCY CHIEF CONTACTING OFFICER APPROVAL***

**Signature:** _____ **Date:** _____

***CITY CHIEF PROCUREMENT OFFICER APPROVAL***

**Signature:** _____ **Date:** _____

# ATTACHMENT 9
# DOING BUSINESS DATA FORM

DOING BUSINESS ACCOUNTABILITY PROJECT
**QUESTIONS AND ANSWERS ABOUT THE DOING BUSINESS DATA FORM**
**PROPOSERS AND AWARDEES, SPRING 2008**

**What is the purpose of this *Data Form*?**

To collect accurate, up-to-date identification information about vendors that have business dealings with the City of New York in order to comply with Local Law 34 of 2007 (LL 34), the recently passed campaign finance reform law. LL 34 limits municipal campaign contributions from principal officers, owners and senior managers of City vendors and mandates the creation of a *Doing Business Database* to allow the City to enforce the law. The information requested in this *Data Form* must be provided, regardless of whether the vendor or the people associated with it make or intend to make campaign contributions. No sensitive personal information collected will be disclosed to the public.

**Why have I received this *Data Form*?**

The contract, franchise or concession you are proposing on, or have already been awarded, is considered a business dealing with the City under LL 34. No award will be made unless this *Data Form* is completed. Most types of contracts, franchises and concessions valued at more than $5,000 are considered business dealings. Exceptions include transactions awarded on an emergency basis or by publicly advertised, non-pre-qualified competitive sealed bid. Later in 2008, the types of transactions considered business dealings will be expanded to include grants, economic development agreements, pension fund investments and real property and land use transactions with the City.

**What vendors will be included in the *Doing Business Database*?**

All of the business that a vendor does or proposes to do with the City and other local governmental entities will be added together. Vendors that hold $100,000 or more in contracts for goods or services, or franchises or concessions ($500,000 or more for construction contracts), are considered to be doing business with the City for the purposes of this law and will be included in the *Doing Business Database*. As noted above, later in 2008 other types of transactions will also result in vendor inclusion in the database. Because all of the business that a vendor does or proposes to do with the City will be added together, you must complete the *Data Form* for all covered transactions even if you do not currently do enough business with the City to be listed in the *Database*.

**What individuals will be included in the *Doing Business Database*?**

The principal officers, owners and certain senior managers of vendors listed in the *Doing Business Database* are themselves considered to be doing business with the City and will also be included in the *Database*.

- **Principal Officers** are the Chief Executive Officer (CEO), Chief Financial Officer (CFO) and Chief Operating Officer (COO), or their functional equivalents. See the *Data Form* for examples of titles that apply.
- **Principal Owners** are individuals who own or control 10% of more of the vendor. This includes stockholders, partners and anyone else with an ownership or controlling interest in the vendor.
- **Senior Managers** include anyone who, either by job title or actual duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any contract, franchise or concession with the City. If the vendor holds any City contracts, franchises or concessions, you must list at least one Senior Manger, or your Data Form will be considered incomplete. Later in 2008, senior managers responsible for the additional types of transactions indicated above will also be included in the *Doing Business Database*.

**I provided some of this information on the VENDEX Questionnaire. Why do I have to do it again?**

Although the *Doing Business Data Form* and the VENDEX Questionnaire request some of the same information, they serve entirely different purposes. In addition, the *Data Form* requests information concerning senior managers, which is not part of the VENDEX Questionnaire.



Printed on paper containing 30% post-consumer material

**Will the information on this *Data Form* be available to the public?**

The names and titles of the officers, owners and senior managers reported on the *Data Form* will be made available to the public, as will information about the vendor itself. However, personal identifying information, such as home address, home phone and date of birth, will not be disclosed to the public, and home address and phone number information will not be used for communication purposes.

**No one in my organization plans to contribute to a candidate; do I have to fill out this *Data Form*?**

Yes. All vendors are required to return this *Data Form* with complete and accurate information, regardless of the history or intention of the vendor or its officers, owners or senior managers to make campaign contributions. The *Doing Business Database* must be complete so that the Campaign Finance Board can verify whether future contributions are in compliance with the law.

**I have already completed a *Doing Business Data Form*. Do I have to submit another one?**

Yes. A vendor is required to submit a *Doing Business Data Form* each time it proposes on or enters a transaction considered business dealings with the City. However, the *Data Form* has both a No Change option, which only requires a vendor to report its EIN and sign the last page, and a Change option, which allows a vendor to only fill in applicable information that has changed since the previous completion of the *Data Form*. No vendor should have to fill out the entire *Data Form* more than once.

**How does a person remove him/herself from the *Doing Business Database*?**

Any person who believes that s/he should not be listed may apply for removal from the *Database* by submitting a Request for Removal. Reasons that a person would be removed include his/her no longer being the principal officer, owner or senior manger of the vendor, or the vendor no longer being in business. Vendors may also update their database information by submitting an update form. Both of these forms are available online at nyc.gov/mocs (once there, click MOCS Programs) or by calling 212-788-8104.

**How long will a vendor and its officers, owners and senior managers remain listed on the *Doing Business Database*?**

- **Contract and Concession holders**: generally for the term of the contract or concession, plus one year.
- **Franchise holders**: from the commencement or renewal of the franchise, plus one year.
- **Contract proposers**: for one year from the proposal date or date of public advertisement of the solicitation, whichever is later.
- **Franchise and Concession proposers**: for one year from the proposal submission date.
- **Line item and discretionary appropriations**: from the date of budget adoption until the end of the contract, plus one year.

For information on other types of transactions, contact the Doing Business Accountability Project at 212-788-8104.

**What are the new campaign contribution limits for people doing business with the City?**

Contributions to City Council candidates are limited to $250; to Borough President candidates $320; and to candidates for citywide office $400 – per election cycle. Please contact the NYC Campaign Finance Board for more information at **www.nyccfb.info**, or 212-306-7100.

**The *Data Form* is to be returned to the contracting agency.**

If you have any questions about the *Data Form* please contact the Doing Business Accountability Project at 212-788-8104 or DoingBusiness@cityhall.nyc.gov.

*02/11/07*

**The City of New York**
**Mayor's Office of Contract Services**
**Doing Business Accountability Project**

**For City Agency Use**

**Agency:** _____

**PIN/Contract ID/PO#:** _____

**Spring 2008**

# Doing Business Data Form - Proposers

**Transaction type:** ☐ **Contract** ☐ **Franchise/Concession**

A Doing Business Data Form is to be completed by any vendor that submits a proposal for a contract, franchise or concession (see Q&A sheet for more information). Please either type responses directly into this fillable form or print answers by hand in black ink. For all submissions, please be sure to sign the last page and return the completed Data Form, in a separate envelope, to the contracting agency along with your proposal. **The submission of a Data Form that is not accurate and complete may result in appropriate sanctions.**

This Data Form requires information to be provided on principal officers, owners and senior managers. The name, employer and title of each person identified on the Data Form will be included in a public database of people who do business with the City of New York; no other information reported on this form will be disclosed to the public. **This Data Form is not related to the City's VENDEX requirements.**

## General Instructions for Sections 2, 3, and 4:

**Office Title**: The actual office title held by the officer, owner or manager.
**Employer (if not vendor):** If the individual is not employed by the vendor, list his/her employer's name.

## Certification:

Fill out the certification box on the last page completely and return the completed Data Form, in a separate envelope, to the contracting agency along with your proposal. Please contact the Doing Business Accountability Project at DoingBusiness@cityhall.nyc.gov or 212-788-8104 with any questions. Thank you for your cooperation.

## Section 1: Vendor Information

Vendor Name: _____

Vendor EIN/TIN: _____

**Vendor Filing Status (select one):**

☐ Vendor has never completed a Doing Business Data Form. *Fill out the entire form.*

☐ Change from previous Data Form dated _____. *Fill out only those sections that have changed, and indicate the name of the persons who no longer hold positions with the vendor.*

☐ No Change from previous Data Form dated _____. *Skip to the bottom of the last page.*

Vendor Type: ☐ Corporation (any type) ☐ Partnership (any type) ☐ Sole Proprietor ☐ Joint Venture
☐ Other (specify): _____

Vendor Address: _____

City: _____ State: _____ ZIP: _____

Vendor Phone #: _____ Vendor is a Non-Profit: ☐ Yes ☐ No

Vendor E-mail: _____

## Section 2: Principal Officers

Please fill in the required identification information for each officer listed below. If the vendor has no such officer or its equivalent, please check the "Position does not exist" box. If the vendor is filing a Change Data Form and the person listed is replacing someone who was previously disclosed, please check the "This person replaced" box and fill in the name of the person being replaced so his/her name can be removed from the *Doing Business Database*, and indicate the date that the change became effective.

### Chief Executive Officer (CEO) or equivalent officer

☐ This position does not exist

The highest ranking officer or manager, such as the President, Executive Director, Sole Proprietor or Chairperson of the Board.

First Name: _____ MI: ____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former CEO: _____ on date: _____

### Chief Financial Officer (CFO) or equivalent officer

☐ This position does not exist

The highest ranking financial officer, such as the Treasurer, Comptroller, Financial Director or VP for Finance.

First Name: _____ MI: ____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former CFO: _____ on date: _____

### Chief Operating Officer (COO) or equivalent officer

☐ This position does not exist

The highest ranking operational officer, such as the Chief Planning Officer, Director of Operations or VP for Operations.

First Name: _____ MI: ____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

☐ This person replaced former COO: _____ on date: _____

## Section 3: Principal Owners

Please fill in the required identification information for all individuals who, through stock shares, partnership agreements or other means, **own or control 10% or more of the vendor**. If no individual owners exist, please check the appropriate box below to indicate why and skip to the next page. If the vendor is owned by other companies, those companies do not need to be listed. If an owner was identified on the previous page, fill in his/her name and write "See above." If the vendor is filing a Change Data Form, list any individuals who are no longer owners at the bottom of this page. If more space is needed, attach additional pages labeled "Additional Owners."

**There are no owners listed because (select one):**

☐ The entity is not-for-profit ☐ There are no individual owners ☐ No individual owner holds 10% or more shares in the entity

☐ Other (explain): _____

**Principal Owners (who own or control 10% or more of the vendor):**

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____

Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

**Remove the following previously-reported Principal Owners:**

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

## Section 4: Senior Managers

Please fill in the required identification information for all senior managers who oversee any of the vendor's contracts (if this is a contract proposal) or franchises and concessions (if this is a franchise or concession proposal) with the City. Senior managers include anyone who, either by title or duties, has substantial discretion and high-level oversight regarding the solicitation, letting or administration of any contract, franchise or concession with the City. At least one senior manager must be listed, or the Data Form will be considered incomplete. If a senior manager has been identified on a previous page, fill in his/her name and write "See above." If the vendor is filing a Change Data Form, list any individuals who are no longer senior managers at the bottom of this section. If more space is needed, attach additional pages labeled "Additional Senior Managers."

**Senior Managers:**

First Name: _____ MI: _____ Last: _____

Office Title: _____ Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____ Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

First Name: _____ MI: _____ Last: _____

Office Title: _____ Employer (if not vendor): _____

Birth Date (mm/dd/yy): _____ Home Phone #: _____

Home Address: _____

**Remove the following previously-reported Senior Managers:**

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

Name: _____ Removal Date: _____

### Vendor Certification

**I certify that the information submitted on these four pages and _____ additional pages is accurate and complete. I understand that willful or fraudulent submission of a materially false statement may result in the vendor being found non-responsible and therefore denied future City awards.**

Name: _____

Signature: _____ Date: _____

Vendor Name: _____

Title: _____ Work Phone #: _____

**Return the completed Data Form to the contracting agency along with your proposal.**

For information or assistance, call the Doing Business Accountability Project at 212-788-8104.

Printed on paper containing 30% post-consumer material

**THE CITY OF NEW YORK**

**DEPARTMENT OF DESIGN AND CONSTRUCTION**

**DIVISION OF INFRASTRUCTURE**

**30-30 THOMSON AVENUE**
**LONG ISLAND CITY, NEW YORK, NEW YORK 11101**

# REQUIREMENTS CONTRACT FOR ENGINEERING DESIGN AND RELATED SERVICES

**BOROUGH:** _____

**FMS NUMBER:** _____

**REGISTRATION NUMBER:** _____

**PIN NUMBER:** _____

**CONSULTANT:** _____

_____

_____

**Telephone:** _____
**Facsimile:** _____

**Standard Requirements Contract**
**Engineering Design and Related Services**
**March 2008**

THIS AGREEMENT, made and entered into this _____ day of _____, _____, by and between the City of New York (the "City") acting by and through the Commissioner of the Department of Design and Construction (the "Commissioner") and _____ (the "Consultant"), located at _____.

WITNESSETH:

WHEREAS, the City desires to have engineering design and related services performed on a requirements basis for various infrastructure construction projects, and

WHEREAS, the Consultant has been selected based upon and in consideration of its representation that it can perform the required services set forth herein in a timely and expeditious manner,

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained, the parties hereto agree as follows:

ARTICLE 1 Definitions

1.1 "Agreement" shall mean this Agreement which has been signed by the parties, including (1) the Request for Proposals for the Contract, (2) the Consultant's Proposal for the Contract, (3) the Request for Proposals for the Project, (4) the Consultant's Proposal for the Project, (5) the Specific Requirements for the Project, and (6) the Exhibits set forth below. In the event of any conflict between the Request for Proposals and the Consultant's Proposal, the Request for Proposals shall prevail.

| | |
|---|---|
| Exhibit A | Contract Information |
| Exhibit B | Subconsultants |
| Exhibit C | Titles and All Inclusive Hourly Rates |
| Exhibit D | Minimum Requirements Per Title |
| Exhibit E | M/WBE Subcontractor Utilization Plan |
| Exhibit F | General Requirements for Engineering Design and Related Services |

1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

1.3 "Agency Chief Contracting Officer" ("ACCO") shall mean the person designated by the Commissioner to exercise such powers and duties with respect to procurement as are set forth in the Procurement Policy Board Rules.

1.4 "City" shall mean the City of New York.

1.5 "Commissioner" or "Agency Head" shall mean the Commissioner of the Department of Design and Construction of the City of New York, his/her successors, or duly authorized representative(s).

1.6 "Commissioner's Representative" shall mean the Assistant Commissioner designated by the Commissioner or any successor or alternate representative designated by the Commissioner.

1.7 "Comptroller" shall mean the Comptroller of the City of New York, his/her successors, or duly authorized representatives.

1.8 "Consultant" shall mean the party of the second part hereto, whether a corporation, firm, or individual, or any combination thereof, and its, their, his or her successors, personal representatives, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted in the place of the party of the second part under this Contract.

1.9 "Contract" or "Contract Documents" shall mean the Agreement referred to in paragraph 1.1 of this Article.

1.10 "Department" or "DDC" shall mean the Department of Design and Construction of the City of New York acting by and through the Commissioner thereof, or his/her duly authorized representative.

1.11 "Drawings" shall mean all graphic or written illustrations, descriptions, explanations, directions, requirements and standards of performance applied to the construction work.

1.12 "Government Entity" shall mean the United States, the State and City of New York, and any and every agency, department, court, commission, or other instrumentality or political subdivision of government of any kind whatsoever, now existing or hereafter created.

1.13 "Law(s)" shall mean each and every law, rule, regulation, order or ordinance of any kind whatsoever issued by any Government Entity, in effect from the date of this Agreement through the conclusion or termination hereof, applicable to or affecting the Project and all employees engaged hereunder.

1.14 "Mayor" shall mean the Mayor of the City of New York, his/her successors or duly authorized representatives.

1.15 "Modification" shall mean any written amendment of this Agreement signed by both the Department and the Consultant.

1.16 “Project” shall mean the Project, or portion thereof, for which engineering design and related services are required, as specified by the Commissioner on a Task Order basis. The services the Consultant may be required to provide for the Project are set forth in Article 6.

1.17 "Safety Standards" shall mean all laws, union rules and trade or industry custom or codes of any kind whatsoever, in effect from the date of this Agreement through Final Acceptance of the construction work, pertaining to worker safety and accident prevention applicable to the Project and/or the construction work (including, but not limited to, rules, regulations and standards adopted pursuant to the Occupational Safety and Health Act of 1970, as amended from time to time).

1.18 "Shop Drawing" shall mean any and all drawings, diagrams, layouts, explanations, illustrations, manufacturer's drawings or other written or graphic materials which illustrate any portion of the construction work.

1.19 "Site(s)" shall mean the area(s) upon or in which the construction work for the Project is carried on, and such other areas adjacent thereto as may be designated by the Commissioner.

1.20 "Specifications" shall mean all of the directions, requirements and standards of performance applied to the construction work.

1.21 "Subconsultant" shall mean any person, firm, or corporation, other than employees of the Consultant, who or which contracts with the Consultant or his subconsultants to furnish, or actually furnishes services, labor, or labor and materials, or labor and equipment hereunder. All Subconsultants are subject to the prior written approval of the Commissioner.

1.22 “Treasurer” shall mean the Commissioner of the Department of Finance of the City of New York.

## ARTICLE 2 Compliance with Laws

2.1 Procurement Policy Board Rules: This contract is subject to the Rules of the Procurement Policy Board of the City of New York (“PPB Rules”) in effect at the time of the receipt of proposals for this Contract. In the event of a conflict between the PPB Rules and a provision of this Contract, the PPB Rules shall take precedence.

2.2 The Consultant shall comply with all local, State and Federal laws, rules and regulations applicable to this Agreement and to the services to be performed hereunder.

2.3 The Consultant shall comply with Section 24-216(b) of the Administrative Code of the City of New York and with the New York City Noise Control Code and with all regulations issued pursuant to Section 24-216(b) of the

Administrative Code or the Noise Control Code.

2.4 It is the intent and understanding of the parties to this contract that each and every provision of law required to be inserted in this contract shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is deemed to be inserted herein, and if through mistake or otherwise, any such provision is not inserted in correct form, then this contract shall forthwith upon application of either party be amended by such insertion so as to comply strictly with the law and without prejudice to the rights of either party.

ARTICLE 3 Agreement to Serve

3.1 The City hereby retains the Consultant to perform the services hereinafter described, on the terms and conditions specified herein, and the Consultant agrees to so serve. The Consultant agrees to provide, to the satisfaction of the Commissioner, all engineering design and related services necessary and required for the Project, as set forth in this Contract. The Consultant hereby certifies that it has the necessary experience, expertise, staff and resources to fulfill its obligations under this Contract competently and efficiently.

ARTICLE 4 Task Order Process

4.1 General: The Consultant shall provide, to the satisfaction of the Commissioner, engineering design and related services in accordance with the Task Order process outlined below. The Consultant's services shall be provided with respect to the Project specified in the Task Order. The services the Consultant may be required to provide are set forth in Article 6, or as otherwise specified in the Task Order. The Consultant shall not perform services hereunder until the Commissioner has issued a Task Order.

4.2 Selection Procedure: The selection of the Consultant to perform services for a Project pursuant to this Contract shall be in accordance with the procedure set forth below. This selection procedure shall be conducted prior to issuance of a Task Order.

4.2.1 Request for Proposals for the Project: As the need for services arises, the Commissioner shall issue a Request for Proposals ("RFP") for the Project to the Consultant. The RFP for the Project shall include the following: (1) information concerning the Project for which services are required, (2) areas of design services for which subconsultants (or in-house expertise) will be required, and (3) a description of the Proposal for the Project to be submitted by the Consultant.

4.2.2 Consultant's Proposal: The Consultant shall be required to respond to every solicitation for a Project for which it is solicited. The Consultant may be terminated for cause if it fails to respond without an adequate explanation. The Consultant shall not be entitled to compensation for costs incurred in connection with the preparation of Proposals for specific Projects.

4.2.3 Evaluation: An evaluation committee will review, evaluate and score all Proposals for the Project, based upon the technical evaluation criteria set forth in the RFP for the Project. This evaluation and scoring will determine the Consultant's Technical Rating. DDC will attempt to negotiate fair and reasonable fees with the Consultant with the highest Technical Rating. Such negotiation shall be based on the All Inclusive Hourly Rates set forth in Exhibit C. Should negotiations fail with the highest ranked firm, DDC will enter into fee negotiations with the next highest ranked firm. The firm whose proposal is determined to be the most advantageous to DDC will be selected for the project.

4.2.4 Non-Issuance: The Commissioner reserves the right not to issue a RFP for the Project to the Consultant, if the Commissioner, in his sole opinion, determines that the Consultant may be unable to provide the required services in a satisfactory and timely fashion.

4.3 Method of Payment: The method of payment for the performance of engineering design and related services by the Consultant shall be specified in the Task Order. The methods of payment for the performance of required services are set forth in Article 7. For most Projects, the specified method of payment shall be through Fee(s).

4.4 Issuance of Task Orders by Commissioner: Throughout the term of the Contract, as the need arises for engineering design and related services, the Commissioner shall issue a Task Order to the selected Consultant. The Commissioner may issue separate and/or supplementary Task Orders to the Consultant for the performance of services for different phases or portions of the Project, or for the performance of any portion or component of the services set forth in Article 6.2. Each Task Order issued hereunder shall specify the items set forth below:

4.4.1 Description of the Project for which services are required
4.4.2 Services to be performed by the Consultant
4.4.3 Method of Payment for the performance of services
4.4.4 Requirements for scheduling and/or phasing of the services
4.4.5 Time frame for the completion of services
4.4.6 Overall Not to Exceed amount for the services to be performed. Such overall Not to Exceed Amount shall be broken down into various amounts and/or allowances, depending on the required services and the method(s) of payment specified in the Task Order. Such amounts and/or allowances may include the following: (1) Basic Preliminary Design Fee, (2) Basic Topographic Survey Fee, (3) Basic Final Design Fee, (4) Allowance for Progress Report, (5) Allowance for Time Card Services, (6) Allowance for Artwork, and (7) Allowance for Reimbursable Services.

4.5 Supplementary Task Orders: In the event of any changes to the Task Order, the Commissioner shall issue a Supplementary Task Order to the Consultant. The Consultant shall be bound by the terms and conditions of any such Supplementary Task Order issued by the Commissioner.

4.6 Reallocation of Allowance Amounts: Notwithstanding the specific amount allocated for allowances, as set forth in Task Orders issued hereunder, the Commissioner may, by issuance of a Supplementary Task Order to the Consultant, reallocate such specific allowance amounts; provided, however, a Supplementary Task Order is not required if the change in allowance amounts is due to a distribution of the contingency amount. Such change in allowance amount(s) shall be accompanied by a written directive to the Consultant.

4.7 Conflicts: In the event of any conflict between a Task Order issued hereunder and any provision of this Contract, the Contract shall take precedence; except that with respect to the services to be performed, the provisions of the Task Order shall take precedence over Article 6 of this Contract.

4.8 No Right to Reject a Task Order: In the event the Consultant submits a Proposal for a specific Project and is selected to provide services for the Project, the Consultant shall have no right to reject a Task Order issued for the Project or to decline to perform services pursuant thereto. Accordingly, any rejection of a Task Order by the Consultant, either expressly made or implied by conduct, shall constitute a material breach of this Contract.

4.9 Work by Others: In the event there is a need for engineering design and related services, the Commissioner reserves the right not to issue a Task Order to the Consultant and to have the work performed by another Consultant(s), or by City employees, if the Commissioner, in his sole opinion, determined that the Consultant may be unable to satisfactorily provide the required services in a timely fashion.

## ARTICLE 5 The Consultant's Personnel

5.1 Provision of Personnel: The Consultant agrees, throughout the term of the Contract, to provide personnel for the performance of all required engineering design and related services for the Project in accordance with Task Orders issued by the Commissioner. The Consultant shall provide such personnel through its own employees and/or through its Subconsultants, as set forth in Exhibit B, unless otherwise approved by the Commissioner. The Consultant specifically agrees that its employees, agents and Subconsultants shall possess the experience, knowledge and character necessary to qualify them individually for the particular duties they perform.

5.2 Key Personnel: The Consultant shall be required, as part of its Proposal for the Project, to identify the individuals who will provide services as Key Personnel. The Consultant specifically agrees to assign to the Project for its entire duration, the individuals identified as Key Personnel in its Proposal for the Project, unless otherwise approved by the Commissioner. Failure by the Consultant to provide such Key Personnel shall be grounds for termination for cause in accordance with Article 14.

5.2.1 Titles of Key Personnel are set forth below.

Project Manager
Project Engineer
Senior Civil Engineer
Senior Structural Engineer
Senior Traffic Engineer
Senior Geotechnical Engineer
Senior Mechanical Engineer
Senior Electrical Engineer
Project Environmental Engineer/Manager
Senior Environmental Engineer/Planner
Project Manager R.L.A.
Project / Senior Landscape Architect
Arborist / Forester
Survey Manager, R.L.S.
Archeologist / Historian
Senior Archeologist
Certified Industrial Hygienist

5.2.2 Replacement of Key Personnel: No substitutions for Key Personnel shall be permitted unless approved in advance in writing by the Commissioner. Such approval will only be granted in the case of extenuating circumstances. Any proposed replacement for Key Personnel must possess qualifications substantially similar to those of the Key Personnel being replaced. In addition, at the Commissioner's request at any time, the Consultant shall remove any Key Personnel or other personnel and substitute another employee of the Consultant or Subconsultant reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, in his sole discretion.

5.3 Staffing Requirements for Personnel: Staffing requirements for personnel are set forth in Exhibit C. Such staffing requirements specify the titles of personnel which the Consultant may be required to provide, through its own employees and/or through its Subconsultants. If the Project requires any additional titles of personnel that are not listed in Exhibit C, the RFP for the Project shall specify such additional titles.

5.3.1 Requirements Per Title: Personnel provided by the Consultant and/or its Subconsultants must satisfy the minimum requirements for the title in question set forth in Exhibit D. The Consultant shall provide resumes or other documentation acceptable to the Commissioner to demonstrate that personnel provided hereunder comply with the requirements per title. In exceptional circumstances, the Commissioner, in his/her sole and absolute discretion, may modify the requirements per title.

5.3.2 All Inclusive Hourly Rates: All Inclusive Hourly Rates for titles of personnel are set forth in Exhibit C. Such All Inclusive Hourly Rates shall apply as follows: (1) if the method of payment for the performance of services is through fee(s), the All Inclusive Hourly Rates shall be used as a basis for negotiating fees with the selected consultant, and (2) if the method of payment for the performance of services is on a time card basis, All Inclusive Hourly Rates shall be used to calculate payment to the Consultant in accordance with Article 7. If the Project requires any additional titles of personnel that are not listed in Exhibit C, the RFP for the Project shall specify such additional titles and DDC shall negotiate All Inclusive Hourly Rates for such additional titles with the selected consultant.

5.4 Staffing Plan: A Staffing Plan shall be established for the Project specified in the Task Order. Such Staffing Plan must be approved by the Commissioner prior to commencement of the Consultant’s services. Such Staffing Plan shall include only those personnel necessary for performance of the required services. The contents of the Staffing Plan are set forth below.

5.4.1 Fee Based Services: The Staffing Plan shall include the following, if the method of payment for the performance of services, or any portion thereof, is through Fee(s): Required titles of Key Personnel and specific individual for each title, as identified by the Consultant in its Proposal for the Project.

5.4.2 Time Card Based Services: The Staffing Plan shall include the following, if the method of payment for the performance of services, or any portion thereof, is on a time card basis:

(a) Required titles of Key Personnel and specific individual for each title, as identified by the Consultant in its Proposal for the Project.
(b) Required titles of personnel (other than Key Personnel) and specific individual for each title
(c) All Inclusive Hourly Rates for all required personnel, as set forth in Exhibit C
(d) Total estimated hours for all required personnel
(e) Total estimated amount for all required personnel

5.4.3 Payment Limitations: Payment to the Consultant is subject to the limitations set forth below, if the method of payment for the performance of services, or any portion thereof, is on a time card basis.

(a) Inclusion in Staffing Plan: The Consultant shall not be entitled to payment for any personnel not included in the approved Staffing Plan. The specific individuals identified in the approved Staffing Plan shall be considered Assigned Personnel or Assigned Employees for the purpose of the Consultant's entitlement to payment for services performed by such personnel.
(b) Principal: The Consultant shall not be entitled to payment for a principal's time performing oversight or management duties. This prohibition on payment for a principal's time shall not apply if the following criteria are met: (1) the principal is qualified to perform services in accordance with one of the titles set forth in Exhibit D (other than the title "Principal"), and (2) the principal is included in the approved Staffing Plan for such title.

5.4.4 Proposed Staffing Plan: Within the time frame directed by the Commissioner, the Consultant shall submit a proposed Staffing Plan for the Project. Such proposed Staffing Plan shall include the information set forth above. With respect to the proposed personnel, the Consultant shall submit the individual's resume and any other information detailing his/her number of years of experience, as well as technical and professional qualifications.

5.4.5 Approval of Staffing Plan: The Commissioner shall review the Consultant's proposed Staffing Plan and shall direct revisions to the same if necessary prior to final approval thereof. The Consultant shall revise the proposed Staffing Plan as directed, until the same is approved in writing by the Commissioner.

5.4.6 Revisions to Staffing Plan: The Commissioner may, at any time, direct revisions to the Staffing Plan, including without limitation, increasing or decreasing the specified personnel, based upon the scope of required services for the Project. The Consultant shall increase or decrease the specified personnel, as directed by the Commissioner.

5.5 Subconsultants: The Consultant shall engage such Subconsultants as may be necessary for the performance of all required services for the Project. The Consultant specifically agrees to engage the Subconsultants identified in its Proposal for the Project. Failure by the Consultant to provide the Subconsultants identified in its Proposal for the Project shall be grounds for termination for cause in accordance with Article 14. The Consultant shall be responsible for the performance of services by all its Subconsultants, including maintenance of schedules, correlation of their work and resolution of all differences between them.

5.5.1 Exhibit B: If the services set forth in Exhibit B are required for the Project, as indicated in the RFP for the Project, the Consultant specifically agrees to provide the Subconsultant(s) listed in Exhibit B. Such Subconsultants were identified by the Consultant in its Proposal for the Contract.

5.5.2 Additional Required Subconsultants: On a Project specific basis, the Consultant shall be required to provide subconsultants (or in-house expertise) for areas of design services in addition to or other than areas set forth in Exhibit B. The RFP for the Project shall identify the areas of design services for which subconsultants (or in-house expertise) will be required.

5.5.3 Approval: All Subconsultants are subject to the prior written approval of the Commissioner; provided, however, no provision of this Contract shall be construed as constituting an agreement between the Commissioner and any Subconsultant.

5.5.4 Replacement Subconsultants: No substitution for any Subconsultant shall be permitted unless

approved by the Commissioner. Any proposed replacement Subconsultant must possess qualifications and experience substantially similar to those of the Subconsultant being replaced and is subject to the prior written approval of the Commissioner. In addition, at the Commissioner's request at any time, the Consultant shall remove any Subconsultant and substitute another Subconsultant reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, if, in his sole opinion, he determines that any Subconsultant may be unable to provide the required services in a satisfactory fashion.

5.5.5 Payment: Expenses incurred by the Consultant in connection with furnishing Subconsultants for the performance of required services hereunder are deemed included in the payments by the City to the Consultant, as set forth in Article 7. The Consultant shall pay its Subconsultants the full amount due them from their proportionate share of the requisition, as paid by the City. The Consultant shall make such payment not later than seven (7) calendar days after receipt of payment by the City.

5.5.6 Subcontracts: The Consultant shall inform all Subconsultants engaged for this Project fully and completely of all terms and conditions of this Contract relating either directly or indirectly to the services to be performed. The Consultant shall stipulate in all subcontracts with its Subconsultants that all services performed and materials furnished thereunder shall strictly comply with the requirements of this Contract. If requested by the Commissioner, the Consultant shall furnish copies of subcontracts with its Subconsultants.

5.6 Employees of the Consultant: The Consultant is solely responsible for the work and deportment of all its personnel and its Subconsultants. These are employees of the Consultant or its Subconsultant(s) and not of the City.

## ARTICLE 6 Scope of Services

6.1 General Description of Services: The Consultant shall provide, to the satisfaction of the Commissioner, all engineering design and related services necessary and required for the Project, in accordance with Task Orders issued by the Commissioner. The services the Consultant may be required to provide shall include without limitation the services set forth in this Article 6. The Consultant shall provide such services through its own employees and/or through its Subconsultants.

6.1.1 For each Project for which services are required, the Commissioner shall issue a Task Order. The Task Order shall include a set of Specific Requirements, describing the Project and the services to be performed by the Consultant.

6.1.2 The Commissioner may issue separate and/or supplementary Task Orders to the Consultant for the performance of services for different phases of the Project, or for the performance of any portion or component of the services set forth in this Article 6.

6.2 Types of Services: The engineering design and related services to be provided by the Consultant, either through its own employees or through its Subconsultants, shall include all necessary and usual components and/or services in connection with the services set forth below. Such services are described in the General Requirements.

| | | |
|---|---|---|
| 6.2.1 | Basic Preliminary Design Services | (General Requirements, Section II.3.A) |
| 6.2.2 | Basic Topographic Survey Services | (General Requirements, Section II.3.B) |
| 6.2.3 | Basic Final Design Services | (General Requirements, Section II.3.C) |
| 6.2.4 | Additional Professional Services | (General Requirements, Section II.3.D) |
| 6.2.5 | Scheduling and Progress Reporting | (General Requirements, Section III.I) |

6.3 Submission and Approval of Deliverables: The Consultant shall submit all required deliverables in accordance with the time frames specified in the Task Order. All required deliverables, including cost estimates, are subject to review and written approval by the Commissioner. All design documents are subject to approval by all regulatory agencies whose approval of the design is required, including without limitation, (1) the New York City Departments of Transportation, Environmental Protection, and Parks; (2) the Landmark's Preservation Commission; (3) the Art Commission, and (4) the New York State Departments of Transportation and Environmental Conservation.

6.4 Provisions Regarding Engineering Design and Related Services

6.4.1 Criteria for Services: All required engineering design and related services shall be in accordance with the following: (1) the Specific Requirements for the Project, (2) the Task Order, (3) the criteria set forth in the General Requirements (Section II.4.), and (4) all applicable local, state and federal laws, rules and regulations, including without limitation, AASHTO Standard Specifications for Highway Bridges, the New York City Building Code and the Americans With Disabilities Act.

6.4.2 Engineer of Record: All original drawings shall bear all required stamps of approval, including the seal and signature of the Engineer of Record, and shall be accompanied by all necessary applications, certificates, or permits of all local, state and federal agencies having jurisdiction over the Project.

6.4.3 Tropical Hardwoods: In accordance with Section 165 of the New York State Finance Law, design documents prepared by the Consultant shall not specify the use of tropical hardwoods, as defined in Section 165 of the State Finance Law, except as such use is permitted by the foregoing provision of law.

6.4.4 Artwork: The Consultant shall, if directed by the Commissioner, provide for the inclusion of artwork in the Project in accordance with Chapter 9, Section 224, of the New York City Charter and the rules and regulations promulgated thereunder. All costs for such artwork shall be paid from the Allowance for Artwork, as set forth in the Task Order. For services in connection with the artwork, the Consultant shall be entitled to a fee, as set forth in Article 7. To comply with Section 224 of the Charter, the Consultant shall be responsible for the items set forth below, as directed by the Commissioner.

(a) Consult with and cooperate with a panel established by the Commissioner of the Department of Cultural Affairs. The Consultant shall also prepare all data, documentation, drawings and plans to be presented to and considered by such panel.

(b) Engage an artist and administer and/or manage the services of such artist. For engagement of the artist, the Consultant shall use the standard form of contract approved by the Commissioner. The services of the artist shall be in accordance with the terms and conditions of such contract, including without limitation, requirements for fabrication, models, signage, shipping, insurance, storage, scaffolding, structural work and anchorage.

6.5 Additional Professional Services: The Consultant may be directed by the Commissioner to provide Additional Professional Services for the Project. The Consultant shall provide such Additional Professional Services through its own professional employees or through its Subconsultants, as directed in writing by the Commissioner.

6.5.1 Additional Professional Services shall be professional services which the Commissioner determines are required for the Project and are in addition to or beyond the necessary and usual services in connection with the following services, as described in the General Requirements: (a) Basic Preliminary Design Services, (b) Basic Topographic Survey Services, and (c) Basic Final Design Services. Additional Professional Services shall include, without limitation, the services set forth in the General Requirements, Section II.3.D.

6.5.2 Additional Professional Services shall not include the services set forth in Articles 6.9.1(a) and 6.9.3.

6.5.3 Payment for Additional Professional Services shall be on a time card basis in accordance with Article 7.3, except as otherwise provided in Article 7.

6.5.4 If the Consultant is of the opinion that any service it has been directed to perform constitutes an Additional Professional Service, the Consultant shall notify the Commissioner in writing within five (5) business days of such direction. The Commissioner's determination as to whether or not such service constitutes an Additional Professional Service shall be final, conclusive and binding upon the Consultant.

6.6 Reimbursable Services: The Consultant may be directed by the Commissioner to provide Reimbursable Services for the Project. The Consultant shall provide such Reimbursable Services, if so directed in writing by the Commissioner. The Consultant shall provide such Reimbursable Services through entities approved by the Commissioner, and shall utilize the method of procurement and form of payment directed by the Commissioner. Payment for Reimbursable Services shall be in accordance with Article 7. The Consultant is not entitled to payment for professional services to procure, manage and supervise Reimbursable Services required in connection with Basic Preliminary Design Services, Basic Topographic Survey Services, and /or Basic Final Design Services.

6.6.1 Reimbursable Services shall be such services determined by the Commissioner to be necessary for the Project, and may include, without limitation, the services set forth in the General Requirements, Section II.3.E.

6.7 Non-reimbursable Services: Throughout the Project and regardless of whether specified in any Task Order issued hereunder, the Consultant shall be responsible for providing the non-reimbursable services set forth below. All costs for such services are deemed included in payments to the Consultant as set forth in Article 7 hereof.

6.7.1 The Consultant shall, when requested by the Commissioner, provide overnight delivery of the following Project documents: (1) design documents; (2) all required submittals, including without limitation shop drawings, material samples and catalogue cuts; (3) change orders; (4) documents with respect to payment, and (5) any other critical communications and/or documents.

6.7.2 The Consultant shall provide the items set forth below for all personnel performing services.

(a) transportation, including transportation to the Project site, as well as parking and tolls. Consultants and/or Subconsultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.
(b) all necessary CAD or computer usage time
(c) all necessary office supplies and/or tools
(d) communications equipment and service, including without limitation cellular telephones and beepers, for all personnel assigned to the Project. The telephone and beeper numbers of all personnel assigned to the Project shall be submitted to the Commissioner.
(e) hard hats

6.7.3 The Consultant shall provide professional services to procure, manage and supervise Reimbursable Services required in connection with Basic Preliminary Design Services, Basic Topographic Survey Services, and /or Basic Final Design Services

6.8 Assistance to Commissioner: Should any claim be made or any action brought against the Commissioner or the City of New York relating to the design of the Project, the Consultant shall diligently render to the City without additional compensation any and all assistance which may be requested by the Commissioner.

6.9 Provisions Regarding Changes to the Design Documents

6.9.1 Changes Not Involving Scope:

(a) The Consultant shall revise and correct, without additional compensation therefore, any and all design documents until the same shall be accepted by the Commissioner and by all other agencies whose approval is required by law.
(b) Should any substantial change, other than a change in Project scope, make it necessary for the Consultant to change design documents after approval of the preliminary or final design documents, the Commissioner shall direct such change in writing. Such change shall constitute an Additional Professional Service.

6.9.2 Decrease in Scope: The Commissioner shall have the right to reduce the scope of the services of the Consultant hereunder, at any time and for any reason, upon written notice to the Consultant, specifying the nature and extent of such reduction. In such event, the Consultant shall be paid, in accordance with the payment terms set forth in Article 7, for services already performed prior to receipt of written notification of such reduction in scope, as determined by the Commissioner. Any services performed by the Consultant to revise the design documents as a result of the reduction in the scope of the Project shall constitute an Additional Professional Service.

6.9.3 Changes through Fault of Consultant: In the event that any change is required to the design documents because of defects of design or unworkability of details, or because of any other fault or errors of the Consultant, no additional compensation shall be paid to the Consultant for making such changes.

ARTICLE 7 Payment Terms and Conditions

7.1 General

7.1.1 Total Payments: Total payments for all services performed and all expenses incurred pursuant to this Agreement shall not exceed the amount set forth in Exhibit A.

7.1.2 Method of Payment: The method of payment for the performance of engineering design and related services by the Consultant shall be specified in the Task Order. Payment for required services shall be in accordance with one of the methods set forth below, or a combination thereof. For most Projects, the specified method of payment shall be through Fee(s).

| Type of Service | Form of Payment | Article Reference |
|---|---|---|
| Basic Preliminary Design Services (General Requirements, Section II.3.A) | Basic Preliminary Design Fee, or Time Card | Article 7.2<br>Article 7.3 |
| Basic Topographic Survey Services (General Requirements, Section II.3.B) | Basic Topographic Survey Fee, or Time Card | Article 7.2<br>Article 7.3 |
| Basic Final Design Services (General Requirements, Section II.3.C) | Basic Final Design Fee, or Time Card | Article 7.2<br>Article 7.3 |
| Additional Professional Services (General Requirements, Section II.3.D) | Time Card, or Recalculation of Fee | Article 7.3<br>Article 7.2.8 |
| Artwork (Article 6) | Fee for Artwork | Article 7.5 |
| Scheduling and Progress Reporting (General Requirements, Section III.I) | Monthly Fee | Article 7.2.6 |
| Reimbursable Services (Article 6) (General Requirements, Section II.3.E) | Reimbursement | Article 7.4 |

7.1.3 Task Orders: Task Orders issued hereunder shall specify an overall Not to Exceed amount for the services to be performed. Such overall Not to Exceed Amount shall be broken down into various amounts and/or allowances, depending on the required services and the method(s) of payment specified in the Task Order. Such amounts and/or allowances may include the following: (1) Basic Preliminary Design Fee, (2) Basic Topographic Survey Fee, (3) Basic Final Design Fee, (4) Allowance for Progress Report, (5) Allowance for Time Card Services, (6) Allowance for Artwork, and (7) Allowance for Reimbursable Services. In the event the allowance amounts set forth in the Task Order are not sufficient, as determined by the Commissioner, to cover the cost of required services for which allowance amounts are specified, the Commissioner will increase the amounts of such allowances.

7.1.4 Reallocation of Allowance Amounts: Notwithstanding the specific amounts allocated for allowances, as set forth in Task Orders issued hereunder, the Commissioner may, by issuance of a Supplementary Task Order to the Consultant, reallocate such specific allowance amounts; provided, however, a Supplementary Task Order is not required if the change in allowance amounts is due to a distribution of the contingency amount. Such change in allowance amount(s) shall be accomplished by a written directive to the Consultant.

7.1.5 Guaranteed Minimum: In the event the Consultant is not issued any Task Orders hereunder and the Consultant has, throughout the term of the Contract, submitted reasonable Proposals for specific Projects, the City agrees to pay, and the Consultant agrees to accept, a minimum fee of $2,500. The Consultant further agrees that under such circumstances, it has no action for damages or for loss of profits against the City.

7.1.6 Executory Only: This Agreement shall be deemed executory only to the extent of the moneys appropriated and available for the purpose of the Agreement and no liability or account thereof shall be incurred beyond the amount of such moneys. It is therefore understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available moneys for the

purpose of this Agreement.

7.2 Payment for Services Through Fees

7.2.1 Application: The provisions set forth below shall apply in the event the Task Order specifies that the method of payment for the performance of Basic Services shall be thorough Fee(s). In such case, the Task Order shall specify an Amount for the required Basic Services.

7.2.2 Basic Preliminary Design Fee: For the performance of all required Basic Preliminary Design Services for the Project, as set forth in the General Requirements (Section II.3.A.), the City agrees to pay and the Consultant agrees to accept a total Basic Preliminary Design Fee, the amount of which shall be set forth in the Task Order. The Basic Preliminary Design Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultants in the performance of all required Basic Preliminary Design Services for the Project, as set forth in the General Requirements (Section II.3.A.), including all expenses related to management, overhead and any anticipated profit.

7.2.3 Basic Topographic Survey Fee: For the performance of all required of Basic Topographic Survey Services for the Project, as set forth in the General Requirements (Section IV.II), the City agrees to pay and the Consultant agrees to accept a total Basic Topographic Survey Fee, the amount of which shall be set forth in the Task Order. The Basic Topographic Survey Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultants in the performance of all required Basic Topographic Survey Services for the Project, as set forth in the General Requirements (Section IV.II), including all expenses related to management, overhead and any anticipated profit.

(a) Deliverables: The Basic Topographic Survey Fee shall include all costs and expenses incurred by the Consultant and/or its Subconsultants in preparing ALL deliverables set forth in the General Requirements (Section IV.II), including all cost for field work, office work and research. The required deliverables are as follows: Title Sheet, Legend Sheet(s), Survey Control Maps, Topographical Plans, Clean Base Plans, Utility Plans and Profiles, and Highway Profiles and 3-D drawings. The Basic Topographic Survey Fee shall not include the cost of reproduction. The cost of reproduction is a Reimbursable Service, and payment shall be made from the Allowance for Reimbursable Services.

7.2.4 Basic Final Design Fee: For the performance of all required Basic Final Design Services for the Project, as set forth in the General Requirements (Section II.3.C.), the City agrees to pay and the Consultant agrees to accept a total Basic Final Design Fee, the amount of which shall be set forth in the Task Order. The Basic Final Design Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultants in the performance of all required Basic Final Design Services for the Project, as set forth in the General Requirements (Section II.3.C.), including all expenses related to management, overhead and any anticipated profit.

7.2.5 Payment of Basic Fees: The Basic Preliminary Design Fee, the Basic Topographic Survey Fee and the Basic Final Design Fee shall each be broken down into a schedule of lump sum fees for each required deliverable. Such schedule is subject to prior written approval by the Commissioner. Upon written approval by the Commissioner of each required deliverable, the Consultant shall be paid the lump sum fee for that deliverable, in accordance with the approved schedule. Partial payments of the lump sum fee for any deliverable set forth in the approved schedule may be made to the Consultant on a monthly basis, based upon the Commissioner's determination that the Consultant is progressing the required work for that deliverable in a satisfactory and timely fashion; provided, however, partial payments for the deliverable may not exceed 50% of the lump sum fee for the same, unless the Consultant submits a draft of the deliverable demonstrating satisfactory progress of the work.

7.2.6 Monthly Fee for Progress Report: The Consultant may be required to provide monthly Progress Reports for the Project. If required to do so, the Consultant shall be entitled to payment of a monthly fee for providing the monthly Progress Report. The General Requirements set forth requirements applicable to the monthly Progress Report, as well as the terms and conditions applicable to payment of the monthly fee.

7.2.7 Additional Professional Services: In the event the Commissioner directs the Consultant to perform

Additional Professional Services, payment for such services shall be on a time card basis, as set forth in Article 7.3, except as otherwise provided below.

7.2.8 Increase in Project Scope: In lieu of the method of payment for Additional Professional Services set forth above, in the event of an increase in the scope of the Project, the Commissioner may, at his/her option, issue a Supplementary Task Order to the Consultant, which may include any or all of the following:

(a) Direction to the Consultant to perform the required Basic Preliminary Design Services for a Basic Preliminary Design Fee based on the Fee Schedule, and recalculation of such Fee based on the revised total number of linear feet of roadway included in the Project.
(b) Direction to the Consultant to perform the required Basic Topographic Survey Services for a Basic Topographic Survey Fee based on the Fee Schedule, and recalculation of such Fee based on the revised total number of linear feet of roadway included in the Project.
(c) Direction to the Consultant to perform the required Basic Final Design Services for a Basic Final Design Fee based on the Fee Curve, and recalculation of such Fee based on the revised estimate of the cost of construction for the Project.

7.3 Payment for Services on a Time Card Basis

7.3.1 Application: The provisions set forth below shall apply to the following services: (a) if the Commissioner directs that the method of payment for the performance of services by the Consultant, or any portion thereof, shall be on a time card basis, (b) if the Commissioner directs the Consultant to perform Additional Professional Services, or (c) if the Commissioner directs the Consultant to perform Archeological Services. In such case, the Task Order shall specify an Allowance for Time Card Services. Such allowance is established for payment for those personnel who have been assigned to provide services on a time card basis and are identified in the Staffing Plan approved by the Commissioner (the "Assigned Personnel" or the "Assigned Employee"). The Consultant shall not be entitled to payment for: (1) any Principal(s), and (2) any personnel not included in the approved Staffing Plan.

7.3.2 Maximum Price: The Allowance for Time Card Services shall specify a Not to Exceed amount for each type of services the Consultant is directed to perform on a time card basis. For each type of services, the specified Not to Exceed amount shall constitute the maximum price to be paid to the Consultant for providing that type of services. Such Not to Exceed amount shall be based on the total estimated amount for all required personnel set forth in the Staffing Plan approved by the Commissioner for that type of services. The Consultant shall not be entitled to payment in excess of the Not to Exceed amount specified for the particular type of services, unless the Commissioner, in his/her sole and absolute discretion, determines that exceptional circumstances exist which were not foreseeable by the parties and which were not attributable to any fault on the part of the Consultant.

7.3.3 Staffing Plan: In the event the method of payment for required services, or any portion thereof, is on a time card basis, a Staffing Plan must be established and approved by the Commissioner prior to commencement of the Consultant's services. Such Staffing Plan must specify the items set forth below.

(a) Required Personnel: The personnel specified in the Staffing Plan shall be considered Assigned Employees for the purpose of payment in accordance with this Article.
(b) All Inclusive Hourly Rates: The All Inclusive Hourly Rates for the personnel specified in the Staffing Plan shall be in accordance with Exhibit C. Such All Inclusive Hourly Rates shall apply to all hours during which an Assigned Employee performs services for the Project on a time card basis, including overtime hours. No increase in such rates shall be provided for services performed during overtime hours. Such All Inclusive Hourly Rates shall be deemed to include: (1) all expenses incurred by the Consultant and/or its Subconsultants in the performance of all required services for the Project based upon staffing hours, (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties, (3) all expenses related to overhead, and (4) any anticipated profit.

7.3.4 Amount of Payment: For any week during which an Assigned Employee performs services for the Project on a time card basis, payment to the Consultant for such employee's services for that week shall be calculated as follows: Multiply the amount set forth in subparagraph (a) by the number set forth in subparagraph (b).

(a) All Inclusive Hourly Rate applicable to the Assigned Employee.

(b) Total number of hours set forth on time sheets completed by the Assigned Employee for the week in question during which the Assigned Employee actually performed services for this Project on a time card basis. This total number of hours shall **NOT** include the following: (1) any hours the Assigned Employee spent commuting; (2) any non-billable hours, as defined below; (3) any hours during which the Assigned Employee performed services for this Project covered under Fee(s); (4) any hours during which the Assigned Employee performed services for any other project; (5) any hours the Assigned Employee spent performing services for this Project for which the Consultant is not entitled to compensation, and (6) any overtime hours, unless otherwise authorized in advance, in writing by the Commissioner.

(c) Non-billable hours shall be defined as any hours set forth on time sheets completed by the Assigned Employee which have been allocated to any category or function other than services performed for this Project. Non-billable hours shall include without limitation: (1) compensated absence time, including without limitation vacation time, sick time, personal time and holidays; (2) performance of administrative tasks, or (3) any other time keeping category consistent with standard accounting practices.

7.3.5 No Payment for Principals: The Consultant shall not be entitled to payment for a principal's time performing oversight or management duties. The Consultant shall be entitled to payment for a principal's time performing actual services for the Project if the following criteria are met: (1) such principal is qualified to perform services for the Project in accordance with one of the titles set forth in Exhibit D, and (2) such principal is included in the approved Staffing Plan for such title.

7.3.6 Overtime: Performance of services during overtime hours requires the prior written authorization of the Commissioner. The Consultant shall not be entitled to any increase in the All Inclusive Hourly Rates set forth in Exhibit C for services performed during overtime hours.

7.3.7 Requisitions: For any week(s) for which the Consultant is requesting payment for services performed by an Assigned Employee on a time card basis, the Consultant shall submit the documentation set forth below.

7.3.8 Increases: The All Inclusive Hourly Rates set forth in Exhibit C shall apply to the three year base term of the Contract. If the base term of the Contract is extended and/or renewed, the City may issue a change order to the Consultant revising the All Inclusive Hourly Rates. If no such change order is issued, the All Inclusive Hourly Rates applicable to the base term shall remain in effect throughout the extension and/or renewal term.

7.4 Payment for Reimbursable Services

7.4.1 In the event the Commissioner directs the Consultant to provide Reimbursable Services, the provisions set forth below shall apply. In such case, the Task Order shall specify an Allowance for Reimbursable Services. Reimbursable Services shall be as defined in Article 6.6. No Reimbursable Services shall be provided by the Consultant, or reimbursed hereunder, unless expressly authorized in a written directive from the Commissioner. For Reimbursable Services in excess of $150, such written authorization must be provided in advance of the expenditure.

7.4.2 With respect to Reimbursable Services, the Consultant shall utilize the method of procurement and form of payment directed by the Commissioner. The Commissioner shall provide written instructions to the Consultant regarding the cost of Reimbursable Services for which the Consultant must solicit competitive bids.

7.4.3 Payment for Reimbursable Services, except for long distance travel as set forth below, shall be the actual and reasonable cost incurred by the Consultant for such services.

7.4.4 Payment for long distance travel, as set forth in Article 6, shall be in accordance with the normal travel allowances of the City of New York for its own employees as provided in Comptroller's "Directive #6, Travel, Meals, Lodging and Miscellaneous Agency Expenses."

7.4.4 The Consultant shall not be entitled to any mark-up with respect to Reimbursable Services.

7.4.5 Requests for payment for Reimbursable Services shall be accompanied by receipted bills or any other

data required by the Commissioner.

7.5 Payment for Artwork

7.5.1 Allowance: In the event the Commissioner directs the Consultant to provide services in connection with Artwork, the provisions set forth below shall apply. In such case, the Task Order shall specify an Allowance for Artwork. Such Allowance is established for payment for services the Consultant is directed to provide, as set forth in Article 6.4.4, for the inclusion of artwork in the Project in accordance with Chapter 9, Section 224, of the New York City Charter. No such services shall be provided by the Consultant, or paid from this allowance, unless expressly authorized in advance in a written directive from the Commissioner.

7.5.2 Amount of Payment: The amount of payment for the services of the artist engaged by the Consultant shall be calculated in accordance with the terms and conditions of the contract between the Consultant and the artist. Such contract is subject to prior written approval by the Commissioner.

7.5.3 Consultant's Fee: For services in connection with the artwork, the Consultant shall be entitled to a fee, as set forth below. Payment of such fee shall be based upon the percentage of completion of all required services in connection with the artwork.

(a) For Projects where the total actual cost of the artwork is $50,000 or less, the fee shall be fifteen (15%) percent of the total actual cost of the artwork.

(b) For Projects where the total actual cost of the artwork is more than $50,000, the fee shall be $7,500, plus ten (10%) percent of the amount by which the total actual cost of the artwork exceeds $50,000.

7.6 Requisitions for Payment

7.6.1 Requisitions for payment may be submitted as the work progresses, but not more often than once a month. Requisitions shall be in the authorized form and shall set forth the services performed by the Consultant and the total amount of partial payment requested. The total amount of partial payment requested shall be broken down into various categories, depending on the required services and the method of payment specified in the Task Order. Such payment categories may include the following: (1) Basic Preliminary Design Fee, (2) Basic Topographic Survey Fee, (3) Basic Final Design Fee, (4) Services on a Time Card Basis, (5) Artwork, and (6) Reimbursable Services. The Consultant shall submit one original and three (3) copies of each requisition for payment.

7.6.2 Requisitions must be accompanied by the documentation set forth below.

(a) Project Progress Report: The Consultant shall submit a current report indicating the percentage of completion of all required services for the Project. The progress report submitted as part of the payment requisition shall not constitute submission of the monthly Progress Report in accordance with the requirements set forth in the General Requirements.

(b) Payment of Basic Fees: For any period for which the Consultant is requesting payment of any portion of the Basic Fees set forth herein (Basic Preliminary Design Fee, Basic Topographic Survey Fee, Basic Final Design Fee and/or the monthly Fee for the Progress Report), the Consultant shall provide one of the statements set forth below.

(1) Statement that the Consultant has received the Commissioner's written approval of the required deliverable.

(2) Statement that the Consultant is progressing the required work for the deliverable in a satisfactory and timely fashion. Partial payments for the deliverable may not exceed 50% of the lump sum fee for the same, unless the Consultant submits a draft of the deliverable demonstrating satisfactory progress of the work.

(c) Payment for Services on a Time Card Basis: For any period for which the Consultant is requesting payment for services on a time card basis, the Consultant shall submit the documentation set forth below:

(1) name and title of the Assigned Employee, as defined above.
(2) Commissioner approval of the Assigned Employee, either approved Staffing Plan or documentation approving the Assigned Employee as a replacement.
(3) All Inclusive Hourly Rate applicable to the Assigned Employee, as set forth above.
(4) number of hours worked each day by the Assigned Employee for the week(s) in question during which the Assigned Employee actually performed services for the Project on a time card basis.
(5) detailed time sheets completed by the Assigned Employee for the week(s) in question. Such detailed time sheets shall reflect all hours of service by the Assigned Employee, including without limitation: (1) actual hours during which the employee performed services for this Project on a time card basis; (2) actual hours during which the employee performed services for this Project covered under Fee(s); (3) actual hours during which the employee performed services for other projects; (4) non-billable hours, as defined in Article 7.3.4 (c) above; (5) actual hours, if any, during which the Assigned Employee spent performing services for this Project, as set forth in Articles 6.9.1(a) and 6.9.3, for which the Consultant is not entitled to compensation, and (5) any overtime hours.

(d) Payment for Artwork: For any period for which the Consultant is requesting payment for artwork, the Consultant shall submit a statement indicating the percentage of completion of all required services by the artist, as well as the total actual cost of the artwork to date.

(e) Payment for Reimbursable Services: For any period for which the Consultant is requesting payment for expenses incurred for Reimbursable Services, the Consultant shall submit: (1) a report describing the Reimbursable Service the Consultant was directed to provide, and (2) receipted bills or any other data required by the Commissioner.

7.6.3 All payments hereunder are contingent upon the Consultant's satisfactory performance of the required services hereunder. The Commissioner is authorized to make deductions for any services performed hereunder which he/she determines to be unsatisfactory.

7.7 Prompt Payment: The prompt payment provisions of the PPB Rules in effect at the time of the solicitation for this Contract shall be applicable to payments made under this Contract. The provisions require the payment to contractors of interest on payments made after the required payment date, except as set forth in the PPB Rules. The Consultant must submit a proper invoice to receive payment. Determination of interest due shall be made in accordance with the PPB Rules and General Municipal Law 13-a. If the Consultant is paid interest, the proportionate share of that interest shall be forwarded by the Consultant to its Subconsultant.

7.8 Final Payment: The acceptance by the Consultant or its assignees of the final payment under this contract, whether by voucher, judgment of any court of competent jurisdiction or any other administrative means, shall constitute and operate as a release to the City from any and all claims of and liability to the Consultant, of which the Consultant was aware or should reasonably have been aware, arising out of the performance of this Agreement based on actions of the City prior to such acceptance of final payment, excepting any disputes that are the subject of pending dispute resolution procedures.

7.9 Electronic Funds Transfer: In accordance with Section 6-107.1 of the New York City Administrative Code, the Consultant agrees to accept payments under this Agreement from the City by electronic funds transfer. An electronic funds transfer is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this Agreement, the Consultant shall designate one financial institution or other authorized payment agent and shall complete the "EFT Vendor Payment Enrollment Form" (available at http://www.nyc.gov/dof) in order to provide the Commissioner of Finance with information necessary for the Consultant to receive electronic funds transfer payments through the designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the Consultant shall constitute full satisfaction by the City for the amount of the payment under this Agreement. The account information supplied by the Consultant to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by law.

7.9.1 The agency head may waive the application of the requirements herein to payments on contracts entered into pursuant to §315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the contracting agency may waive the requirements hereunder for payments in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 8 Time Provisions

8.1 Term of Contract: This Contract shall commence as of the date of the advice of award and shall remain in effect for the period set forth in Exhibit A.

8.2 Extension of Contract: The Commissioner may, for good and sufficient cause, extend the term of this Contract for a cumulative period not to exceed one year from the date of expiration.

8.3 Renewal of Contract: At the Commissioner's sole option, the term of this contract may be renewed for the period and for the increased amount set forth in Exhibit A.

8.4 Continuation of Contract for Payment Purposes Only: In the event (1) the Consultant's services are required with respect to a Project, (2) a Task Order for such Project is issued by the Commissioner and registered by the Comptroller during the term of the Contract, including the last day thereof, and (3) the time frame for completion of such Project extends beyond the term of the Contract, the Contract shall remain in effect FOR PAYMENT PURPOSES ONLY through the time frame for completion of such Project, as set forth in the Task Order or any Supplementary Task Order required to complete the Project.

8.4.1 For the purpose of Article 8.4, the term of the Contract shall mean whichever of the following is the latest and actual final period of the Contract: (1) the term of the Contract set forth in Article 8.1; (2) the extended term of the Contract set forth in Article 8.2, or (3) the renewal term of the Contract set forth in Article 8.3.

ARTICLE 9 Ownership of Documents

9.1 Any and all material, records or documents prepared by or for the Consultant pursuant to this Contract, including, but not limited to, notes, designs, drawings, CAD files, electronic files, tracings, specifications, estimates, reports, schedules, charts, graphs, maps, and/or photographs, shall be the property of the City. During the term of this Contract and at any time within seven years thereafter, the Consultant shall, upon demand, promptly deliver such material, records or documents to the Commissioner, or make such records available to the Commissioner or his authorized representative for review and reproduction at such place as may be designated by the Commissioner. Thereafter, the City may utilize such material, records or documents in whole or in part or in modified form and in such manner or for such purposes or as many times as it may deem advisable without employment of or additional compensation to the Consultant.

9.2 Should such documents prepared under this Contract be re-used by the City for other than the Project originally created, it is understood that the Consultant bears no responsibility whatsoever for such re-use except in those instances where he is re-employed for re-use of the documents.

ARTICLE 10 Patented and Proprietary Items

10.1 The Consultant shall not, without the prior written approval of the Commissioner, specify for the Project, or necessarily imply the required use of any article, product, material, fixture or form of construction, the use of which is covered by a patent, or which is otherwise exclusively controlled by a particular firm or group of firms.

10.2 The Consultant shall be liable to and hereby agrees to defend, indemnify and hold harmless the City against all claims against the City for infringement of any copyright or patent rights of systems, graphs, charts, designs, drawings or specifications furnished by the Consultant in the performance of this Contract.

ARTICLE 11 Insurance

11.1 Required Insurance: From the date the Consultant is first ordered to commence work and throughout the term of this Contract, the Consultant shall effect and maintain, and shall cause each Subconsultant to effect and maintain, the types and amounts of insurance set forth below. The Consultant shall include in all its contracts with Subconsultants a requirement that they effect and maintain the types and amounts of insurance set forth below.

11.1.1 Comprehensive General Liability Insurance: The Consultant shall provide a policy of comprehensive general liability insurance in the minimum amount of $1,000,000 per occurrence (combined single limit for bodily injury and property damage), $2,000,000 aggregate. Such policy shall be in the Consultant's name and shall name the City of New York as an additional insured thereunder. Such policy shall protect the Consultant and the City of New York from claims for property damage and/or bodily injury, including accidental death, which may arise from operations under this Contract, whether such operations are performed by the Consultant or anyone directly or indirectly employed by him/her. The coverage provided must be "occurrence" based; "claims made" coverage will not be accepted. The general liability insurance policy provided shall include the following endorsements:

(a) The City of New York, together with its officials and employees, is an Additional Insured under this policy.
(b) Notice under the Policy to the Additional Insured shall be addressed to the Commissioner of the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York 11101.
(c) Notice of Accident shall be given to the Company by the Insured within one hundred twenty (120) days after notice of such accident has been sent to the Commissioner of the Department of Design and Construction.
(d) Notice of Claim shall be given to the Company within one hundred twenty (120) days after such notice shall be filed with the Comptroller of the City of New York.
(e) Notice of Claim to the Company by the Insured of an accident or claim on the site shall constitute notice by the City to the Company.
(f) Notice of Cancellation of Policy as set forth in Article 11.2.4 below.
(g) The presence of representatives of the City at the Site shall not invalidate this policy.

11.1.2 Professional Liability Insurance: The Consultant shall provide Professional Liability Insurance covering as insured the Consultant in the minimum amount of $1,000,000 per claim, $3,000,000 aggregate. Subconsultants performing professional services shall also provide such coverage in the minimum amount of $1,000,000 per claim, $3,000,000 aggregate. The professional liability insurance policy(s) provided shall include the endorsement set forth in Article 11.2.4 below.

11.1.3 Worker's Compensation Insurance: The Consultant shall provide Worker's Compensation Insurance in accordance with the Laws of the State of New York on behalf of all employees providing services under this Contract.

11.1.4 Employers Liability Insurance: The Consultant shall provide Employers Liability Insurance in the minimum amount of $1,000,000 per occurrence. Such policy shall provide compensation due to bodily injury by accident or disease sustained by any employee of the insured arising out of or in the course of his/her employment by the insured.

11.2 General Requirements for Insurance Policies

11.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-7 or a Standard and Poor's rating of at least AA, unless prior written approval is obtained from the Mayor's Office of Operations.

11.2.2 All required Insurance policies shall be in a form acceptable to the City and shall contain no exclusions or endorsements which are not acceptable to the City.

11.2.3 The omission of any endorsements or clauses required by this Article will be considered cause for rejection of the policy.

11.2.4 All required policies shall be endorsed to provide as follows: "This policy shall not be canceled, terminated, modified or changed by the Insurance Company unless at least thirty (30) Days prior written notice is sent to the Named Insured by Certified Mail and also sent by Registered Mail to both the Commissioner and to Comptroller's Office, attn: Office of Contract Administration, Municipal Building, Room 835, New York, New York 10007."

11.2.5 The Consultant shall be solely responsible for the payment of all premiums for all required policies and all deductibles to which such policies are subject, whether or not the City of New York is an insured under the policy.

11.2.6 In his sole discretion, the Commissioner may, subject to the approval of the Comptroller and the Law Department, accept letters of credit and/or custodial accounts in lieu of required Insurance.

11.3 Proof of Insurance

11.3.1 On or before the commencement of work pursuant to this Contract, the Consultant shall submit, and shall cause each Subconsultant to submit, to the Commissioner two certificates of Insurance for all policies required under this contract, together with originals of all endorsements required hereunder.

11.3.2 Certificates confirming renewals of Insurance shall be submitted not less than thirty (30) days prior to the expiration date of coverage until all operations under this Contract have been completed.

11.3.3 The Consultant shall be responsible for providing continuous insurance coverage as required by this contract and shall be authorized to provide services hereunder only during the effective period of all required coverage.

11.3.4 The Consultant shall promptly notify the Commissioner of any accidents causing bodily injury or property damage arising in the course of operations under this Contract.

11.3.5 Pursuant to Sections 57 and 220 of the New York State Workers' Compensation Law, the Contractor has submitted proof of workers' compensation and disability benefits coverage to the Department.

ARTICLE 12 Indemnification

12.1 If persons or property of the City, or of others sustain loss, damage or injury resulting, either directly or indirectly from the acts, conduct, omissions, negligence, carelessness or lack of good faith of the Consultant or its officers, agents, employees, or any person, firm, company, agent or others engaged by the Consultant hereunder, in their performance of this Agreement, or from his or their failure to comply with any of the provisions of this Contract or of law, the Consultant shall indemnify and hold the City harmless from any and all claims and judgments for damages and from costs and expenses to which the City may be subjected or which it may suffer or incur by reason thereof.

12.2 The Consultant shall indemnify and hold harmless the Commissioner and the City, each officer, agent and employee of the Commissioner and the City, against all claims against any of them for bodily injury or wrongful death or property damage arising out of the negligent performance of services, including professional services, or caused by any error, omission or negligent act of the Consultant or anyone employed by the Consultant, in the performance of this Contract.

12.3 The provisions of this Article shall not be deemed to create any right of action in favor of third parties against the Consultant or the City.

12.4 The rights and remedies of the City provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or by this Contract.

12.5 In the event that any City property is lost or damaged, except for normal wear and tear, then the City shall have the right to withhold further payments hereunder for the purpose of set off, in sufficient sums to cover such loss or damage.

ARTICLE 13 Consultant Independent Contractor

13.1 The relationship of the Consultant to the City shall be that of independent contractor, and not that of an employee of the City. In accordance with such status as independent contractor, the Consultant covenants and agrees that neither it nor its employees or agents will hold themselves out as, nor claim to be, officers or employees of the City, or of any department, agency or unit thereof, by reason hereof, and that they will not, by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the City, including, but not limited to, Worker's Compensation coverage, Unemployment Insurance Benefits, Social Security coverage or employee retirement membership or credit.

13.2 The relationship of the Consultant to the City shall be that of independent contractor, and the Consultant shall have no authority to bind the City in any way with third parties.

13.3 Nothing contained herein shall be deemed to give any third party any claim or right of action against the City or the Consultant beyond such as may otherwise exist without regard to this Contract.

ARTICLE 14 Suspension or Termination of Performance

14.1 Suspension of Performance: The Commissioner may at any time, and for any reason, direct the Consultant to stop work under this Contract for a period of time. Such direction shall be in writing and shall specify the period during which work shall be stopped. The Consultant shall resume work upon the date specified in such direction, or upon such other date as the Commissioner may thereafter specify in writing. The period during which work shall have been stopped shall be deemed added to the time for performance. Stoppage of work under this Article shall not give rise to any claim against the City.

14.2 Termination Without Cause: The Commissioner may at any time, and for any reason, terminate this contract by written notice to the Consultant specifying the termination date, which shall be not less than seven (7) days from the date such notice is given. In the event of such termination, the Consultant shall be paid such amount as shall compensate him for the portion of the work satisfactorily performed prior to the termination date. Such amount shall be fixed by the Commissioner, after consultation with the Consultant, and shall be subject to audit by the Comptroller. Termination under this Section shall not give rise to any claim against the Commissioner or the City for damages or for compensation in addition to that provided hereunder.

14.3 Termination for Cause: In the event that: (1) the Consultant shall not for any reason or through any cause, have completed performance within the time fixed for performance hereunder; or (2) Any representation or warranty made hereunder shall prove to be untrue in any material respect; or (3) grounds for cancellation of the contract shall arise; or (4) the Consultant shall otherwise be in default hereunder; or (5) the Commissioner shall give the Consultant written notice that in his opinion the conduct of the Consultant is such that the interests of the City are likely to be impaired or prejudiced, stating the facts upon which such opinion is based; then the Commissioner may, upon written notice to the Consultant, immediately terminate this contract for cause. Upon such termination, the Consultant shall be entitled to payment of such amount, to be determined by the Commissioner and subject to audit by the Comptroller, as shall fairly compensate him for the work satisfactorily performed to the termination date, provided, however, that (1) no allowance shall be included for termination expenses; and (2) the Commissioner shall deduct from such amount and from any amount due and payable to the Consultant to the termination date, but withheld or not paid, the total amount of additional expenses incurred by the City in order to satisfactorily complete the work required to be performed by the Consultant under this contract including the expense of engaging another architect or engineer for this purpose. If such additional expense shall exceed the amounts otherwise due and payable to the Consultant hereunder, the Consultant shall pay the City the full amount of such excess expense incurred by the City. No amount shall be paid to the Consultant under this Article until the work required to be performed under this contract has been satisfactorily completed by others.

ARTICLE 15 Resolution of Disputes

1. All disputes between the City and the Contractor of the kind delineated in this Article that arise under, or by virtue of, this Contract shall be finally resolved in accordance with the provisions of this article and the PPB Rules. This procedure for resolving disputes of the kind delineated herein shall be the exclusive means of resolving such disputes.

(a) This Article shall not apply to disputes concerning matters dealt with in other sections of the PPB Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

(b) This Article shall apply only to disputes about the scope of work delineated by the Contract, the interpretation of Contract documents, the amount to be paid for extra work or disputed work performed in connection with the Contract, the conformity of the Contractor's work to the Contract, and the acceptability and quality of the Contractor's work; such disputes arise when the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner makes a determination with which the Contractor disagrees.

2. All determinations required by this Article shall be made in writing, clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article shall be deemed a non-determination without prejudice that will allow application to the next level.

3. During such time as any dispute is being presented, heard, and considered pursuant to this Article, the Contract terms shall remain in force and effect and the Contractor shall continue to perform Work as directed by the ACCO or the Engineer. Failure of the Contractor to continue Work as directed shall constitute a waiver by the Contractor of its claim.

4. Presentation of Dispute to Commissioner.

(a) Notice of Dispute and Agency Response. The Contractor shall present its dispute in writing ("Notice of Dispute") to the Commissioner within thirty (30) days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the Contract. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the Contractor relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the Contractor in the dispute was arrived at. Within thirty (30) days after receipt of the detailed written submission comprising the complete Notice of Dispute, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, shall submit to the Commissioner all materials he or she deems pertinent to the dispute. Following initial submissions to the Commissioner, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the Commissioner shall be final. Willful failure of the Contractor to produce any requested material whose relevancy the Contractor has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the Contractor of its claim.

(b) Commissioner Inquiry. The Commissioner shall examine the material and may, in his or her discretion, convene an informal conference with the Contractor, the ACCO, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, to resolve the issue by mutual consent prior to reaching a determination. The Commissioner may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The Commissioner's ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the Commissioner participated therein. The Commissioner may or, at the request of any party to the dispute, shall compel the participation of any other contractor with a contract related to the work of this Contract and that contractor shall be bound by the decision of the Commissioner. Any contractor thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article as the Contractor initiating the dispute.

(c) Commissioner Determination. Within thirty (30) days after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the Commissioner shall make his or her determination and shall deliver or send a copy of such determination to the Contractor, the ACCO and the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, as applicable, together with a statement concerning how the decision may be appealed.

(d) Finality of Commissioner Decision. The Commissioner's decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board ("CDRB") pursuant to this Article. The City may not take a petition to the CDRB. However, should the Contractor take such a petition, the City may seek, and the CDRB may render, a determination less favorable to the Contractor and more favorable to the City than the decision of the Commissioner.

5. Presentation of Dispute to the Comptroller. Before any dispute may be brought by Contractor to the CDRB, the Contractor must first present its claim to the Comptroller for his or her review, investigation, and possible adjustment.

(a) Time, Form, and Content of Notice. Within thirty (30) days of receipt of a decision by the Commissioner, the Contractor shall submit to the Comptroller and to the Commissioner a Notice of Claim regarding its dispute with the Agency. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the Contractor contends the dispute was wrongly decided by the Commissioner; (ii) a copy of the decision of the Commissioner, and (iii) a copy of all materials submitted by the Contractor to the Agency, including the Notice of Dispute. The Contractor may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.

(b) Agency Response. Within thirty (30) days of receipt of the Notice of Claim, the Agency shall make available to the Comptroller a copy of all material submitted by the Agency to the Commissioner in connection with the dispute. The Agency may not present to the Comptroller any material not presented to the Commissioner, except at the request of the Comptroller.

(c) Comptroller Investigation. The Comptroller may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in sections 7-201 and 7-203 of the New York City Administrative Code. In addition, the Comptroller may demand of either party, and such party shall provide, whatever additional material the Comptroller deems pertinent to the claim, including original business records of the Contractor. Willful failure of the Contractor to produce within fifteen (15) days any material requested by the Comptroller shall constitute a waiver by the Contractor of its claim. The Comptroller may also schedule an informal conference to be attended by the Contractor, Agency representatives, and any other personnel desired by the Comptroller.

(d) Opportunity of Comptroller to Compromise or Adjust Claim. The Comptroller shall have forty-five (45) days from his or her receipt of all materials referred to in 5(c) to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the Contractor and the Comptroller, to a maximum of ninety (90) days from the Comptroller's receipt of all the materials. The Contractor may not present its petition to the CDRB until the period for investigation and compromise delineated in this paragraph has expired. In compromising or adjusting any claim hereunder, the Comptroller may not revise or disregard the terms of the contract between the parties.

6. Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

(a) the chief administrative law judge of the Office of Administrative Trials and Hearings ("OATH") or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this section as may be necessary in the execution of the CDRB's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

(b) the City Chief Procurement Officer ("CCPO") or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated, and

(c) a person with appropriate expertise who is not an employee of the City. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH, with appropriate background to act as decision-makers in a dispute. Such individuals may not have a

contract or dispute with the City or be an officer or employee of any company or organization that does, or regularly represent persons, companies, or organizations having disputes with the City.

7. Petition to CDRB. In the event the claim has not been settled or adjusted by the Comptroller within the period provided in this section, the Contractor, within thirty (30) days thereafter, may petition the CDRB to review the Commissioner's determination.

(a) Form and Content of Petition by Contractor. The Contractor shall present its dispute to the CDRB in the form of a Petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the Contractor contends that the dispute was wrongly decided by the Commissioner; (ii) a copy of the written decision of the Commissioner; (iii) copies of all materials submitted by the Contractor to the Agency; (iv) a copy of the written decision of the Comptroller, if any, and (v) copies of all correspondence with, and material submitted by the Contractor to, the Comptroller's Office. The Contractor shall concurrently submit four complete sets of the Petition: one to the Corporation Counsel (Attn: Commercial and Real Estate Litigation Division), and three to the CDRB at OATH's offices, with proof of service on the Corporation Counsel. In addition, the Contractor shall submit a copy of the statement of the substance of the dispute, cited in (i) above, to both the Commissioner and the Comptroller.

(b) Agency Response. Within thirty (30) days of receipt of the Petition by the Corporation Counsel, the Agency shall respond to the statement of the Contractor and make available to the CDRB all material it submitted to the Commissioner and Comptroller. Three complete copies of the Agency response shall be submitted to the CDRB at OATH's offices and one to the Contractor. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon the consent of the parties, for an initial period of up to thirty (30) days.

(c) Further Proceedings. The CDRB shall permit the Contractor to present its case by submission of memoranda, briefs, and oral argument. The CDRB shall also permit the Agency to present its case in response to the Contractor by submission of memoranda, briefs, and oral argument. If requested by the Corporation Counsel, the Comptroller shall provide reasonable assistance in the preparation of the Agency's case. Neither the Contractor nor the Agency may support its case with any documentation or other material that was not considered by the Comptroller, unless requested by the CDRB. The CDRB, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on it own or upon application of a party, any such additional material from any party as it deems fit. The CDRB, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

(d) CDRB Determination. Within forty-five (45) days of the conclusion of all submissions and oral arguments, the CDRB shall render a written decision resolving the dispute. In an unusually complex case, the CDRB may render its decision in a longer period of time, not to exceed ninety (90) days, and shall so advise the parties at the commencement of this period. The CDRB's decision must be consistent with the terms of the Contract. Decisions of the CDRB shall only resolve matters before the CDRB and shall not have precedential effect with respect to matters not before the CDRB.

(e) Notification of CDRB Decision. The CDRB shall send a copy of its decision to the Contractor, the ACCO, the Engineer, the Comptroller, the Corporation Counsel, the Comptroller, the CCPO, and the PPB. A decision in favor of the Contractor shall be subject to the prompt payment provisions of the PPB Rules. The Required Payment Date shall be thirty (30) days after the date the parties are formally notified of the CDRB's decision.

(f) Finality of CDRB Decision. The CDRB's decision shall be final and binding on all parties. Any party may seek review of the CDRB's decision solely in the form of a challenge, filed within four months of the date of the CDRB's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the CDRB's decision was made in violation of lawful procedure, was affected by an error of law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the CDRB in accordance with this Article.

8. Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article shall not affect or impair the ability of the Commissioner or the CDRB to make a binding and final decision pursuant to this Article.

ARTICLE 16 Consultant's Report Information

16.1 A copy of each report submitted by the Consultant to any City official or to any officer, employee, agent or representative of a City department, agency, commission or body or to any corporation, association or entity whose expenses are paid in whole or in part from the City treasury shall be furnished to the Commissioner of the department to which such report was submitted or, if not a City department, then to the chief controlling officer or officers of such other office or entity. A copy of such report shall also be furnished to the Director of the Mayor's Office of Construction for matters related to construction or to the Director of the Mayor's Office of Operations for all other matters.

ARTICLE 17 Contract Changes

17.1 Changes may be made to this contract only as duly authorized by the Agency Chief Contracting Officer or his or her designee. Consultants deviating from the requirements of the Contract without a duly approved change order document, or written contract modification or amendment, do so at their own risk. All such changes, modifications and amendments will become a part of the original contract. Work so ordered must be performed by the Consultant.

17.2 Contract changes will be made only for work necessary to complete the work included in the original scope of the contract, and for non-material changes to the scope of the contract. Changes are not permitted for any material alteration in the scope of work. Contract changes may include any contract revision deemed necessary by the Agency Chief Contracting Officer.

17.3 The Consultant shall be entitled to a price adjustment for extra work performed pursuant to a written change order. If any part of the contract work is necessarily delayed by a change order, the Consultant will be entitled to an extension of time for performance.

17.4 Where the cost of the change order has been negotiated in the absence of established cost history, the costs are subject to verification.

17.5 All payments for change orders are subject to pre-audit by the Engineering Audit Officer and may be post-audited by the Comptroller. If the audits reveal that the Consultant's costs for the change order work were inaccurately stated during negotiations, the agency shall recoup the amount by which the costs were inaccurately stated by proportionately reducing the price of the change order. This remedy is not exclusive and in addition to all other rights and remedies of the City.

ARTICLE 18 Accounting Records

18.1 The Consultant shall maintain complete, detailed and accurate cost and accounting records , in accordance with sound accounting principles, of all expenditures made and all costs, liabilities and obligations incurred under this Contract. During the term of this Contract and at any time within seven years thereafter, the Consultant shall make such records available to the City or its authorized representatives for review and audit at such place or places as may be designated by the Commissioner. In the event the Commissioner authorizes the Consultant to retain the services of Subconsultants for which the Consultant will be entitled to reimbursement hereunder, the Consultant agrees to include in all its contracts with Subconsultants a requirement that they maintain complete, detailed and accurate cost and accounting records as to all their costs relating to the services and materials furnished by them under such contracts and that during the term of this Contract and at any time within seven years thereafter, if required by the Commissioner, they will make such records available to the City or its authorized representatives for review and audit at such places as may be designated by the Commissioner.

18.2 In the event all or any part of such records are not maintained by the Consultant or its Subconsultants, or made available to the City as provided, herein, any item not supported by reason of the insufficiency or unavailability of such records shall at the election of the Commissioner or the Comptroller, be disallowed and, if payment therefor has already been made, the Consultant, upon demand, shall refund to the City the amounts so disallowed. Payments to the

Consultant or approval by the Commissioner of any application for payment submitted by the Consultant, shall in no way affect the Consultant's obligation hereunder or the right of the City to obtain a refund of any payment to the Consultant which is in excess of that to which it was lawfully entitled.

ARTICLE 19 Audit and Examination

19.1 This Contract and all payments hereunder shall be subject to audit and examination by the Engineering Audit Officer of DDC and post-audit by the Comptroller of the City in accordance with Law.

ARTICLE 20 Moneys Withheld

20.1 When the Commissioner shall have reasonable grounds for believing that: (1) the Consultant will be unable to perform this contract fully and satisfactorily within the time fixed for performance; or (2) a meritorious claim exists or will exist against the Consultant or the City arising out of the negligence of the Consultant or the Consultant's breach of any provision of this contract; then the Commissioner or the Comptroller may withhold payment of any amount otherwise due and payable to the Consultant hereunder. Any amount so withheld may be retained by the City for such period as it may deem advisable to protect the City against any loss and may, after written notice to the Consultant, be applied in satisfaction of any claim herein described. This provision is intended solely for the benefit of the City, and no person shall have any right against the Commissioner or claim against the City by reason of the Commissioner's failure or refusal to withhold moneys. No interest shall be payable by the City on any amounts withheld under this provision. This provision is not intended to limit or in any way prejudice any other right of the City.

ARTICLE 21 Assignments

21.1 The Consultant shall not assign, transfer, convey or otherwise dispose of this Contract, or his right to execute it, or his right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the moneys due or to become due under this contract, unless the previous written consent of the Commissioner shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

21.2 Such assignment, transfer, or conveyance shall not be valid until filed in the office of the Department of Design and Construction and of the Treasurer with the written consent of the Commissioner endorsed thereon or attached thereto.

21.3 Failure to obtain the previous written consent of the Commissioner to such an assignment, transfer or conveyance, shall justify, at the option of the Commissioner, the revocation and annulment of this Contract. The City shall thereupon be relieved and discharged from any further liability and obligation to the Consultant, his assignees or transfers, and the Consultant and his assignees shall forfeit and lose all moneys theretofore earned under the Contract, except so much as may be required to pay the Consultant's employees; provided, however, that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the Consultant for the benefit of creditors made pursuant to the statutes of the State of New York.

21.4 The Consultant hereby assigns, sells and transfers to the City of New York all right, title and interest in and to any claims and causes of action arising under the antitrust laws of New York State or of the United States relating to the particular goods or services purchased or procured by the City under this Contract.

21.5 This Contract may be assigned by the City to any corporation, agency or instrumentality having authority to accept such assignment.

ARTICLE 22 Consultant's Performance

22.1 The Consultant shall be liable to the City for all losses, expenses and damage caused by the failure of the Consultant properly to perform its obligations under this Agreement and the Consultant shall not be entitled to any compensation for services or reimbursement for costs or expenses with respect to any such obligations not properly performed by it hereunder.

ARTICLE 23 Claims - Limitation of Action

23.1 No action shall be maintained by the Consultant, his successors or assigns, against the City on any claim based upon or arising out of this Contract unless such action shall be commenced within six (6) months after the date of filing of the voucher for final payment hereunder in the office of the Comptroller, or within six (6) months of the termination or conclusion of this contract, or within six (6) months after the accrual of the cause of action, whichever is earliest.

ARTICLE 24 No Claim Against Officer, Agents or Employees

24.1 The Consultant agrees to not make any claim against any officer, agent or employee of the City for, or on account of, anything done or omitted to be done in connection with this Contract.

24.2 The Consultant shall require each Subconsultant to agree in his contract not to make any claim against the City, its officers, agents or employees, by reason of such contract, or any acts or omissions of the Consultant.

24.3 Nothing in this contract shall be construed to give any person other than the City and the Consultant any legal or equitable right, remedy or claim under this contract; but it shall be held to be for the sole and exclusive benefit of the City and the Consultant.

ARTICLE 25 Notices

25.1 Except as otherwise provided herein, any notice, approval, acceptance, request, bill, demand or statement hereunder from either party to the other shall be in writing and shall be deemed to have been given when either delivered personally or deposited in a U.S. mail box in a postage-prepaid envelope, addressed to the other party. Either party may at any time change such address by delivering or mailing, as aforesaid, to the other party a notice stating the change and the changed address.

ARTICLE 26 Investigations

26.1 The parties to this agreement agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a State of New York (State) or City of New York (City) governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

26.1.1 If any person who has been advised that his or her statement, and any information from such statement, will not be used against him or her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the City, or any public benefit corporation organized under the laws of the State of New York, or;

26.1.2 If any person refuses to testify for a reason other than the assertion of his or her privilege against self incrimination in an investigation, audit or inquiry conducted by a City or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under, any transaction, agreement, lease permit, contract, or license entered into with the City, the State, or any political subdivision thereof or any local development corporation within the City then;

26.1.3 The Commissioner or agency head whose agency is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon no less than five (5) days written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

26.1.4 If any non-governmental party to the hearing requests an adjournment, the commissioner or agency head who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license pending the final determination pursuant to paragraph 26.3 below without the City incurring any penalty or damages for delay or otherwise.

26.2 The penalties which may attach a final determination by the commissioner or agency head may include but shall not exceed:

26.2.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City; and/or

26.2.2 The cancellation or termination of any and all such existing City contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this agreement, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City incurring any penalty or damages on account of such cancellation or termination; moneys lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the City.

26.3 The Commissioner or agency head shall consider and address in reaching his or her determination and in assessing an appropriate penalty the factors in paragraphs 26.3.1 and 26.3.2 below. He or she may also consider, if relevant and appropriate, the criteria established in paragraphs 26.3.3 and 26.3.4 below in addition to any other information which may be relevant and appropriate;

26.3.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

26.3.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including, but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

26.3.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

26.3.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under 26.2 above, provided that the party or entity has given actual notice to the commissioner or agency head upon the acquisition of the interest, or at the hearing called for in 26.1.3 above gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity must present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

26.4 Definitions Used in this Article

26.4.1 The term "license" or "permit" as used herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.

26.4.2 The term "person" as used herein shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

26.4.3 The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives moneys, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.

26.4.4 The term "member" as used herein shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

26.5 In addition to and not withstanding any other provision of this agreement the Commissioner or Agency Head may in his or her sole discretion terminate this agreement upon not less than three (3) days written notice in the event consultant fails to promptly report in writing to the Commissioner of Investigation of the City of New York any

solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or other person, firm corporation or entity for any purpose which may be related to the procurement or obtaining of this agreement by the consultant, or affecting the performance of this contract.

ARTICLE 27 Unlawful Provisions

27.1 If this contract contains any unlawful provisions, not an essential part of the contract and which appear not to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall upon the application of either party be stricken from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

ARTICLE 28 Modification

28.1 This Contract may be modified from time to time in a writing signed by both parties in order to carry out and complete more fully and perfectly the services agreed to be performed under this Contract; provided, however, in no event shall such modification exceed the cost limitation approved by the Office of Management and Budget.

ARTICLE 29 Errors

29.1 If this Contract contains any errors, inconsistencies, ambiguities or discrepancies, including typographical errors, the Consultant shall request a clarification of the same by writing to the Commissioner whose decision shall be binding upon the parties.

ARTICLE 30 Representations, Warranties and Affirmations

30.1 Procurement of Agreement: The Consultant represents and warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage fee, contingent fee or any other compensation. The Consultant further represents and warrants that no payment, gift or thing of value has been made, given or promised to obtain this or any other agreement between the parties. The Consultant makes such representations and warranties to induce the City to enter into this Agreement and the City relies upon such representations and warranties in the execution hereof.

30.1.1 For a breach or violation of such representations or warranties, the Commissioner shall have the right to annul this Agreement without liability, entitling the City to recover all moneys paid hereunder and the Consultant shall not make claim for, or be entitled to recover, any sum or sums due under this Agreement. This remedy, if effected, shall not constitute the sole remedy afforded the City for falsity or breach, nor shall it constitute a waiver of the City's right to claim damages or refuse payment or to take any other action provided for by law or pursuant to this Agreement.

30.2 Conflict of Interest: The Consultant represents and warrants that neither it nor any of its directors, officers, members, partners or employees, has any interest nor shall they acquire any interest, directly or indirectly, which would or may conflict in any manner or degree with the performance or rendering of the services herein provided. The Consultant represents and warrants that in the performance of this Agreement no person having such interest or possible interest shall be employed by it. No elected official or other officer or employee of the City or Department, nor any person whose salary is payable, in whole or in part, from the City Treasury, shall participate in any decision relating to the Agreement which affects his personal interest or the interest of any corporation, partnership or association in which he is, directly or indirectly, interested; nor shall any such person have any interest, direct or indirect, in this Agreement or in the proceeds thereof.

30.3 Fair Practices: The Consultant and each person signing on behalf of the Consultant represents and warrants and certifies, under penalty of perjury, that to the best of its knowledge and belief:

30.3.1 The prices in this contract have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any competition;

30.3.2 Unless otherwise required by law, the prices which have been quoted in this contract and on the proposal submitted by the Consultant have not been knowingly disclosed by the Consultant prior

to the proposal opening, directly or indirectly, to any competitor; and

30.3.3 No attempt has been made or will be made by the Consultant to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

30.3.4 The fact that the Consultant (1) has published price lists, rates, or tariffs covering items being procured, (2) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (3) has sold the same items to other customers at the same prices being bid, does not, in itself, constitute a disclosure within the meaning of the above.

30.4 Affirmations: The Consultant affirms and declares that it is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the Consultant to receive public contracts.

ARTICLE 31 No Discrimination

31.1 As required by New York State Labor Law Section 220 (e), the parties hereto agree as follows:

31.1.1 That in the hiring of employees for performance of work under this contract or any subcontract hereunder neither the Consultant, subcontractor, nor any person acting on behalf of such Consultant or subcontractors shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates;

31.1.2 That neither the Consultant, subcontractor, or any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, creed, color or national origin;

31.1.3 That there may be deducted from the amount payable to the Consultant by the City under this contract a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this contract; and

31.1.4 That this contract may be canceled or terminated by the City and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Section of the contract.

31.1.5 The aforesaid provisions of this section covering every contract for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

31.2 As required by New York City Administrative Code §6-108

31.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a contract with the City or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a contract with the City to refuse to employ or to refuse to continue in any employment any person on account of the race, color, or creed of such person.

31.2.2 It shall be unlawful for any person or any servant, agent, or employee of any person, described in subdivision 31.2.1 above, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color, or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

31.2.3 Disobedience of the foregoing provisions shall be deemed a violation of a material provision of this contract.

31.2.4 Any person, or the employee manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this section shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars or by imprisonment for not more than thirty days, or both.

ARTICLE 32 Equal Employment Opportunity

32.1 This contract is subject to the requirements of Executive Order No. 50 (1980) as revised ("E.O.50") and the Rules and Regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this contract, the Consultant agrees that:

32.1.1 The Consultant will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship status with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment;

32.1.2 When it subcontracts, the Consultant will not engage in any unlawful discrimination in the selection of subcontractors on the basis of the owners', partners' or shareholders' race, color, creed, national origin, sex, age, disability, marital status, sexual orientation or citizenship status;

32.1.3 The Consultant will state in all solicitations or advertisements for employees placed by or on behalf of the Consultant that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship, or that it is an equal employment opportunity employer;

32.1.4 The Consultant will send to each labor organization or representative or workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E. O. 50 and the rules and regulations promulgated thereunder; and

32.1.5 The Consultant will furnish all information and reports including an Employment Report before the award of the contract which are required by E. O. 50, the rules and regulations promulgated thereunder, and orders of the Director of the Office of Labor Services ("DLS"), and will permit access to its books, records and accounts by DLS for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

32.2 The Consultant understands that in the event of its noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of the contract and noncompliance with the E. O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of DLS, the Director of DLS may direct the imposition by the Commissioner of any or all of the following sanctions:

32.2.1 disapproval of the Consultant;
32.2.2 suspension or termination of the contract;
32.2.3 declaring the Consultant in default; or
32.2.4 in lieu of any of the foregoing sanctions, the Director may impose an employment program.

32.3 The Consultant agrees to include the provisions of the foregoing paragraphs in every subcontract or purchase order in excess of $50,000.00 to which it becomes a party, unless exempted by E. O. 50 and the rules and regulations promulgated thereunder, so that such provisions will be binding upon each subcontractor or vendor. The Consultant will take such action with respect to any subcontract or purchase order as may be directed by the Director of DLS as a means of enforcing such provisions including sanctions for noncompliance.

32.4 The Consultant further agrees that it will refrain from entering into any contract or contract modification subject to E. O. 50 and the rules and regulations promulgated thereunder with a subcontractor who is not in compliance with the requirements of E. O. 50 and the rules and regulations promulgated thereunder.

ARTICLE 33 All Prior Written or Oral Agreements Excluded

33.1 The written agreement contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this agreement shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 34 Head Notes and Marginal Notations

34.1 Notations in the margins and headnotes are not part of the contract and are for reference purposes only. They in no way define, limit or describe scope or intent of the article or section of the Agreement nor in any way affect this Agreement.

ARTICLE 35 Dust Hazards

35.1 Should a harmful dust hazard be created in performing the work of this contract, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the State of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard, by the Consultant. Failure to comply with this provision after notice shall make this contract void.

ARTICLE 36 Participation in an International Boycott

36.1 The Consultant agrees that neither the Consultant nor any substantially-owned affiliated company has participated, is participating or shall participate in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce promulgated thereunder.

36.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the Consultant or a substantially-owned affiliated company thereof, participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the Comptroller may, at his option, render forfeit and void this contract.

36.3 The Consultant shall comply in all respect, with the provisions of Section 6-114 of the Administrative Code of the City of New York and the rules and regulations issued by the Comptroller thereunder.

ARTICLE 37 Effective and Binding

37.1 This contract shall neither be binding nor effective unless:

37.1.1 Approved by the Mayor pursuant to the provisions of Executive Order No. 42, dated October 9, 1975 in the event the Executive Order requires such approval; and

37.1.2 Certified by the Mayor (Mayor's Fiscal Committee created pursuant to Executive Order No. 43, dated October 14, 1975) that performance thereof will be in accordance with the City's financial plan; and

37.1.3 Approved by the New York State Financial Control Board (Board) pursuant to the New York State Financial Emergency Act for the City of New York, as amended, (the "Act"), in the event regulations of the Board pursuant to the Act require such approval.

37.1.4 It has been authorized by the Mayor, and the Comptroller shall have endorsed his certificate, that there remains unexpended and unapplied a balance of the appropriation of funds applicable thereto sufficient to pay the estimated expense of carrying out this agreement.

37.2 The requirements of this section of the contract shall be in addition to, and not in lieu of, any approval or authorization otherwise required for this contract to be effective and for the expenditure of City funds.

ARTICLE 38 Choice of Law, Consent to Jurisdiction and Venue

38.1 This Contract shall be deemed to be executed in the City of New York, regardless of the domicile of the Consultant, and shall be governed by and construed in accordance with the laws of the State of New York.

38.2 The parties agree that any and all claims asserted by or against the City arising under this Contract or related thereto shall be heard and determined either in the courts of the United States located in New York City ("Federal

Courts") or in the courts of the State of New York ("New York State Courts") located in the City and County of New York. To effect this agreement and intent, the Consultant agrees:

38.2.1 If the City initiates any action against the Consultant in Federal Court or in New York State Court, service or process may be made on the Consultant, either in person, wherever such Consultant may be found, or by registered mail addressed to the Consultant at its address as set forth in this Contract, or to such other address as the Consultant may provide to the City in writing; and

38.2.2 With respect to any action between the City and the Consultant in New York State Court, the Consultant hereby expressly waives and relinquishes any rights it might otherwise have (1) to move to dismiss on grounds of forum non conveniens, (2) to remove to Federal Court; and (3) to move for a change of venue to a New York State Court outside New York County.

38.2.3 With respect to any action between the City and the Consultant in Federal Court located in New York City, the Consultant expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a United States Court outside the City of New York.

38.2.4 If the Consultant commences any action against the City in a court located other than in the City and State or New York, upon request of the City, the Consultant shall either consent to a transfer of the action to a court of competent jurisdiction located in the City and State of New York, or if the court where the action is initially brought will not or cannot transfer the action, the Consultant shall consent to dismiss such action without prejudice and may thereafter reinstitute the action in a court of competent jurisdiction in New York City.

38.3 If any provision(s) of this Article is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 39 Waiver

39.1 Waiver by the City of a breach of any provision of this Contract shall not be deemed to be a waiver of any other subsequent breach and shall not be construed to be a modification of the terms of the Contract unless and until the same be agreed to in writing by the Commissioner.

ARTICLE 40 All Defenses Reserved

40.1 Each and every defense, right and remedy that the City has under this Contract is not exclusive and it is in addition to and concurrent with all other defenses, right and remedies which the City has under this Contract and which the City otherwise has, will have, or may have under law, equity, or otherwise.

ARTICLE 41 MacBride Principles Provisions

41.1 Notice to all Prospective Contractors: Local Law No. 34 of 1991 became effective on September 10, 1991 and added section 6-115.1 to the Administrative Code of the City of New York. The local law provides for certain restrictions on City contracts to express the opposition of the people of the City of New York to employment discrimination practices in Northern Ireland and to encourage companies doing business in Northern Ireland to promote freedom of work place opportunity.

41.2 Pursuant to Section 6-115.1, prospective contractors for contracts to provide goods or services involving an expenditure of an amount greater than ten thousand dollars, or for construction involving an amount greater than fifteen thousand dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their contract, that any business operations in Northern Ireland conducted by the contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

41.3 Prospective contractors are not required to agree to these conditions. However, in the case of contracts let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five

percent of the lowest responsible bid for a contract to supply goods, services or construction of comparable quality, the contracting entity shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable law and rules, that it is in the best interest of the city that the contract be awarded to other than the lowest responsible bidder pursuant to Section 313(b)(2) of the City Charter.

41.4 In the case of contracts let by other than competitive sealed bidding, if a prospective contractor does not agree to these conditions, no agency, elected official or the Council shall award the contract to that bidder unless the entity seeking to use the goods, services or construction certifies in writing that the contract is necessary for the entity to perform its functions and there is no other responsible contractor who will supply goods, services or construction of comparable quality at a comparable price.

41.5 In accordance with section 6-115.1 of the Administrative Code of the City of New York, the contractor stipulates that such contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor either (a) have no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

41.6 For purposes of this section, the following terms shall have the following meanings: "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work place opportunity which require employers doing business in Northern Ireland to:

41.6.1 increase the representation of individuals from under represented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
41.6.2 take steps to promote adequate security for the protection of employees from under represented religious groups both at the work place and while traveling to and from work;
41.6.3 ban provocative religious or political emblems from the work place;
41.6.4 publicly advertise all job openings and make special recruitment efforts to attract applicants from under represented religious groups;
41.6.5 establish layoff, recall and termination procedures which do not in practice favor a particular religious group;
41.6.6 abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
41.6.7 develop training programs that will prepare substantial numbers of current employees from underrepresented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from underrepresented religious groups;
41.6.8 establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement; and
41.6.9 appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

41.7 The contractor agrees that the covenants and representations in Paragraph 41.5 above are material conditions to this contract. In the event the contracting entity receives information that the contractor who made the stipulation required by this section is in violation thereof, the contracting entity shall review such information and give the contractor an opportunity to respond. If the contracting entity finds that a violation has occurred, the entity shall have the right to declare the contractor in default and/or terminate this contract for cause and procure the supplies, services or work from another source in any manner the entity deems proper. In the event of such termination, the contractor shall pay to the entity, or the entity in its sole discretion may withhold from any amounts otherwise payable to the contractor, the difference between the contract price for the uncompleted portion of this contract and the cost to the contracting entity of completing performance of this contract either itself or by engaging another contractor or contractors. In the case of a requirement contract, the contractor shall be liable for such difference in price for the entire amount of supplies required by the contracting entity for the uncompleted term of its contract. In the case of a construction contract, the contracting entity shall also have the right to hold the contractor in partial or total default in accordance with the default provisions of this contract, and/or may seek debarment or suspension of the contractor. The rights and remedies of the entity hereunder shall be in addition to, and not in lieu of, any rights and remedies the entity has pursuant to this contract or by operation of law.

ARTICLE 42 Vendex Questionnaires

42.1 Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, the Consultant may be obligated to complete and submit Vendex Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal or the Consultant, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after its award.

42.2 Submission: Vendex Questionnaires must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007. In addition, the Consultant must submit a Confirmation of Vendex Compliance to the Department.

42.3 Obtaining Forms: Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The Consultant may also obtain Vendex forms and instructions by contacting the ACCO or the contact person for this contract.

ARTICLE 43 Ultra Low Sulfur Diesel Fuel

Ultra Low Sulfur Diesel Fuel: In accordance with the provision of Section 24-163.3 of the New York City Administrative Code, the Contractor specifically agrees as follows:

I. Definitions: For the purpose of this Article, the following definitions apply:

A. "Contractor" means any person or entity that enters into a Public Works Contract with a City agency, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

B. "Lower Manhattan" means the area of New York County consisting of the area to the south of and within Fourteenth Street.

C. "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

D. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

E. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

F. "Public Works Contract" means a contract with a City agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a City agency for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a City agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

G. “Ultra Low Sulfur Diesel Fuel” means diesel fuel that has a sulfur content of no more than fifteen parts per million.

II. Ultra Low Sulfur Diesel Fuel

A. All Contractors shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this contract.

B. Notwithstanding the requirements of paragraph A, Contractors may use diesel fuel that has a sulfur content of no more than thirty parts per million to fulfill the requirements of this Part II, where the Commissioner of the New York City Department of Environmental Protection (“DEP Commissioner”) has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of City agencies and Contractors. Any determination made pursuant to this subdivision shall expire after six months unless renewed.

C. Contractors shall not be required to comply with this Part II where the agency letting this contract makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such Contractor in its fulfillment of the requirements of this contract, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Part II shall be in full force and effect unless the agency renews the finding in writing and such renewal is approved by the DEP Commissioner.

D. Contractors may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.nyc.gov/dep or by contacting the Department issuing this solicitation.

E. The requirements of this Part II do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

F. The requirements of this Part II do not apply to Public Works Contracts entered into or renewed prior to June 19, 2004.

III. BEST AVAILABLE TECHNOLOGY

A. All Contractors shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this contract. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, Contractors shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The Contractor shall fully document all steps in the best available technology selection process and shall furnish such documentation to the Department or the DEP Commissioner upon request. The Contractor shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

B. No Contractor shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Part III within three years of having first utilized such technology for such vehicle.

C. This Part III shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty calendar days.

D. The Contractor shall not be required to comply with this Part III with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

1. Where the agency makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by those paragraphs is unavailable

for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

2. Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.
3. In determining which technology to use for the purposes of subsections (D)(1) and (D)(2) above, Contractor shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.
4. Contractors shall submit requests for a finding or a waiver pursuant to this subsection (D) in writing to the DEP Commissioner, with a copy to the ACCO of the Department issuing the solicitation. Any finding or waiver made or issued pursuant to subsections (D)(1) and (D)(2) above shall expire after one hundred eighty days, at which time the requirements of subsection A shall be in full force and effect unless the agency renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

E. The requirements of this Part III do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

IV. Section 24-163 of the Administrative Code. Contractors shall comply with Section 24-163 of the New York City Administrative Code related to the idling of the engines of motor vehicles while parking.

V. COMPLIANCE

A. Contractor's compliance with these provisions may be independently monitored. If it is determined that the Contractor has failed to comply with any provision of this rider, any costs associated with any independent monitoring incurred by the City shall be reimbursed by the Contractor.

B. Any Contractor who violates any provision of this Article, except as provided in subsection (C) below, shall be liable for a civil penalty between the amounts of one thousand and ten thousand dollars, in addition to twice the amount of money saved by such Contractor for failure to comply with this Article.

C. No Contractor shall make a false claim with respect to the provisions of this Article to a City agency. Where a Contractor has been found to have done so, such Contractor shall be liable for a civil penalty of twenty thousand dollars, in addition to twice the amount of money saved by such Contractor in association with having made such false claim.

VI. REPORTING

A. For all Public Works Contracts covered by this Article, the Contractor shall report to the Department the following information:

1. The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;
2. The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;
3. The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;
4. The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Part III, including a breakdown by vehicle model and the type of technology used for each such vehicle;
5. The locations where such Nonroad Vehicles were used; and
6. Where a determination is in effect pursuant to Part II.B or II.C, detailed information concerning the Contractor's efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million.

B. The Contractor shall submit the information required by Paragraph A at the completion of work under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover work performed the preceding fiscal year (July 1- June 30).

ARTICLE 44 Ultra Low Sulfur Diesel Fuel – Coordinated Construction Act for Lower Manhattan

In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

I. DEFINITIONS: For purposes of this Article, the following definitions apply:

A. "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson river as it exists now or may be extended would intersect with the southerly line of West Houston street in the borough of Manhattan extended, thence easterly along the southerly side of West Houston street to the southerly side of Houston street, thence easterly along the southerly side of Houston street to the southerly side of East Houston street, thence northeasterly along the southerly side of East Houston street to the point where it would intersect with the United States pierhead line in the East river as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

B. "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City of New York known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

C. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

D. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

E. "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

II. REQUIREMENTS: Contractors and subcontractors are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine horsepower (HP) rating of 50 HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

ARTICLE 45 Participation by Minority-Owned and Women-Owned Business Enterprises in City Procurement

NOTICE TO ALL PROSPECTIVE CONTRACTORS

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added Section 6-129 to the Administrative Code of the City of New York. The local law creates a program for participation by minority-owned and women-owned business enterprises (MBEs and WBEs) in City procurement. As stated in the Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions

contained herein are made pursuant to Local Law 129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the Minority-Owned and Women-Owned Business Enterprise ("M/WBE") program created by Local Law 129, the specific requirements of M/WBE participation for this Contract are set forth in the Subcontractor Utilization Plan, and are detailed below.

The Contractor must comply with all applicable M/WBE requirements for this Contract.

Article I, Part A, below, sets forth provisions related to the participation goals for construction and professional services contracts.

Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE program.

PART A: PARTICIPATION GOALS FOR CONSTRUCTION AND PROFESSIONAL SERVICES CONTRACTS

1. The Target Subcontracting Percentage applicable to this Contract is set forth in the Subcontractor Utilization Plan (Part I) included in this Contract [see First Page, line (1)]. (The Subcontractor Utilization Plan is included in the Request for Proposals.)

The "Target Subcontracting Percentage" is the percentage of the total Contract which Agency anticipates that the prime contractor for this Contract would in the normal course of business award to one or more subcontractors for amounts under $1 million for construction and professional services.

A prospective contractor may seek a full or partial pre-award waiver of the Target Subcontracting Percentage in accordance with Local Law 129 and Part A, Section 10 below. To apply for the a full or partial waiver of the Target Subcontracting Percentage, a prospective contractor must complete the Subcontractor Utilization Plan (Part III), and must submit such request no later than seven (7) days prior to the date and time the bids or proposals are due, in writing to the Agency by e-mail at poped@ddc.nyc.gov or via facsimile at (718) 391-1885. Bidders/proposers who have submitted requests will receive a response by no later than two (2) calendar days prior to the date bids or proposals are due, provided, however, that if that date would fall on a weekend or holiday, a response will be provided by close-of-business on the business day before such weekend or holiday date.

2. The Subcontractor Participation Goals established for this Contract are set forth in the Subcontractor Utilization Plan (Part I) included in this Contract [see First Page, line (2) and/or line (3)].

The Subcontractor Participation Goals represent a percentage of the total dollar value of all construction and/or professional services subcontracts under this Agreement for amounts under $1 million.

3. If Subcontractor Participation Goals have been established for this Contract, Contractor agrees or shall agree as a material term of the Agreement that, with respect to the total amount of the Agreement to be awarded to one or more subcontractors pursuant to subcontracts for amounts under $1 million, Contractor shall be subject to the Subcontractor Participation Goals, unless the goals are modified by Agency in accordance with Local Law 129 and Part A, Section 11 below.

4. If Subcontractor Participation Goals have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Subcontractor Utilization Plan (Part II) (see Second and Third Pages) indicating: (a) the percentage of work it intends to subcontract; (b) the percentage of work it intends to award to subcontractors for amounts under $1 million; (c) in cases where the prospective contractor intends to award subcontracts for amounts under $1 million, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs; and (d) the general time frames in which such work by MBEs and/or WBEs is scheduled to occur. In the event that this Subcontractor Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to award the Target Subcontracting Percentage, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Target Subcontracting Percentage in accordance with Local Law 129 and Part A, Section 10 below.

**THE BIDDER/PROPOSER MUST FULLY COMPLETE THE SUBCONTRACTOR UTILIZATION PLAN (PART II) INCLUDED IN THE RFP. BIDS/PROPOSALS WHICH DO NOT INCLUDE A COMPLETED SUBCONTRACTOR UTILIZATION PLAN (PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE TARGET SUBCONTRCTING PERCENTAGE IS GRANTED (SUBCONTRACTOR UTILIZATION PLAN, PART III). IN THE EVENT THAT THE SUBCONTRACTOR UTILIZATION PLAN INDICATES THAT THE BIDDER/PROPOSER DOES NOT INTEND TO AWARD THE TARGET SUBCONTRACTING PERCENTAGE, THE BID/PROPOSAL WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS THE AGENCY HAS GRANTED A WAIVER OF THE TARGET SUBCONTRACTING PERCENTAGE (SUBCONTRACTOR UTILIZATION PLAN, PART III).**

5. Where a Subcontractor Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multi-year contracts, such list shall also be submitted every year thereafter. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. M/WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the M/WBE participation goals. Such certification must occur prior to the firms' commencement of work as subcontractors. A list of M/WBE firms may be obtained from the DSBS website at www.nyc.gov/getcertified, by emailing DSBS at MWBE@sbs.nyc.gov, by calling the DSBS certification hotline at (212) 513-6311, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS (as indicated above) in order to seek certification.

7. Where a Subcontractor Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount paid to subcontractors (including subcontractors that are not MBEs or WBEs); the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor pursuant to such plan as well as the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment, the total amount paid to subcontractors (including subcontractors that are not MBEs or WBEs); and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE hired pursuant to such plan, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's Subcontractor Utilization Plan, Agency shall take appropriate action, in accordance with Local Law 129 and Article II below, unless the Contractor has obtained a modification of its Subcontractor Utilization Plan in accordance with Local Law 129 and Part A, Section 11 below.

9. Where a Subcontractor Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds 10 percent of the Agreement, Agency shall establish participation goals for the work to be performed pursuant to the change order.

10. Pre-award waiver of Target Subcontracting Percentage. Agency may grant a full or partial waiver of the Target Subcontracting Percentage to a bidder or proposer, as applicable, who demonstrates—before submission of the bid or proposal—that it has legitimate business reasons for proposing the level of subcontracting in its Subcontractor Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder or proposer, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts for under one million dollars represented by the Target Subcontracting Percentage. In making such determination, Agency may consider whether the Subcontractor Utilization Plan is consistent with past subcontracting practices of the bidder or proposer, as applicable, and whether the bidder or proposer, as applicable, has made good faith efforts to identify portions of the Contract that it intends to subcontract.

11. Modification of Subcontractor Utilization Plan. A Contractor may request a modification of its Subcontractor Utilization Plan (Subcontractor Participation Goals) after award of this Contract. The Agency may grant such request if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the Subcontractor Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(a) The Contractor advertised opportunities to participate in the contract, where appropriate, in general circulation

media, trade and professional association publications and small business media, and publications of minority and women's business organizations;

(b) The Contractor provided notice of specific opportunities to participate in the contract, in a timely manner, to minority and women's business organizations;

(c) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs and WBE's that their interest in the contract was solicited;

(d) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the contractor utilization plan, and for which the Contractor claims an inability to retain MBE's or WBE's;

(e) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;

(f) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts;

(g) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;

(h) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBE's.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

12. If Subcontractor Participation Goals have been established for this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of a Subcontractor Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See 6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the Subcontractor Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for a Subcontractor Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Administrative Code Section 6-108.1.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and WBEs in contracts.

4. Prospective contractors are encouraged to enter into joint ventures with MBEs and WBEs.

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE requirements set forth herein and the pertinent provisions of Local Law 129 of 2005, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE requirements of this Contract and pertinent provisions of Local Law 129 of 2005, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of M/WBE's to meet the required Subcontractor Participation Goals.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any Subcontractor Utilization Plan, Agency shall send a written notice to the

Contractor describing the alleged noncompliance and offering an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements this Section 6-129, including, but not limited any Subcontractor Utilization Plan, Agency may determine that one of the following actions should be taken:

(a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
(b) revoking the contractor's pre-qualification to bid or make proposals for future contracts;
(c) making a finding that the contractor is in default of the contract;
(d) terminating the contract;
(e) declaring the contractor to be in breach of contract;
(f) withholding payment or reimbursement;
(g) determining not to renew the contract;
(h) assessing actual and consequential damages;
(i) assess liquidated damages or reduction of fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the program established by Section 6-129, or in meeting the purposes of the contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the contract;
(j) exercise rights under the contract to procure goods, services or construction from another contractor and charge the cost of such contract to the contractor that has been found to be in noncompliance; or
(k) take any other appropriate remedy.

4. Whenever Agency has reason to believe that an MBE or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129), or has violated any provision of Section 6-129, Agency shall notify the commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

5. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

6. The Contractor's record in implementing its Subcontractor Utilization Plan shall be a factor in the evaluation of its performance. Whenever a contracting agency determines that a contractor's compliance with a Subcontractor Utilization Plan has been unsatisfactory, the agency shall, after consultation with the city chief procurement officer, file an advice of caution form for inclusion in VENDEX as caution data.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in triplicate, the day and year first above written, one copy to remain with the Commissioner, one copy to be filed with the Comptroller of the City of New York and one copy to be delivered to the Engineer.

THE CITY OF NEW YORK

By: _____
Deputy Commissioner

CONSULTANT:

By: _____

Print Name: _____

Title: _____

EIN: _____

Approved as to Form and Certified
as to Legal Authority

_____
Acting Corporation Counsel

Date: _____

ACKNOWLEDGMENT BY CORPORATION

State of _____ County of _____ ss:

On this ____ day of _____, _____ before me personally came _____, who being by me duly sworn, did depose and say that he/she resides in the City of _____ that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

_____

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of _____ County of _____ ss:

On this ____ day of _____, _____ before me personally came _____, to me known and known to me to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

_____

Notary Public or Commissioner of Deeds

## EXHIBIT A

## CONTRACT INFORMATION

- Division: Division of Infrastructure
- Type of Projects: Various Infrastructure Projects
- Total Amount: Not to Exceed: $5,000,000
- Contract Time Frame
  - Contract Term: 1095 consecutive calendar days ("ccds")
  - Extension of Contract Term: 365 consecutive calendar days
  - Renewal of Contract Term: 365 consecutive calendar days
  - Renewal Amount: Not to Exceed $2,000,000

**********

## EXHIBIT B: SUB-CONSULTANTS

Topographic Survey Services: _____

Landscape Architectural Design Services /
Urban Design Services: _____

Archeological Services: _____

Tree Consulting Services: _____

Traffic Engineering Services: _____

Environmental Engineering Services: _____

Industrial Engineering Services: _____

Geotechnical Engineering Services: _____

Other Services (Specify): _____

**Note: After selection of the Consultant, Exhibit B shall be revised to include Sub-consultants (or in-house expertise) identified by the Consultant in its Proposal.**

## EXHIBIT C

## TITLES AND ALL INCLUSIVE HOURLY RATES

Titles: Staffing requirements are set forth below. Such staffing requirements specify the titles of personnel which the Consultant may be required to provide, through its own employees and/or through its Subconsultants.

All Inclusive Hourly Rates: All Inclusive Hourly Rates per title are set forth below. Such All Inclusive Hourly Rates shall apply as follows: (1) if the method of payment for the performance of services is through fee(s), the All Inclusive Hourly Rates shall be used as a basis for negotiating fees with the selected consultant, and (2) if the method of payment for the performance of services is on a time card basis, All Inclusive Hourly Rates shall be used to calculate payment to the Consultant in accordance with Article 7. If the Project requires any additional titles of personnel that are not listed in Exhibit C, the RFP for the Project shall specify such additional titles and DDC shall negotiate All Inclusive Hourly Rates for such additional titles with the selected consultant.

The All Inclusive Hourly Rates per title set forth below shall apply to the three year base term of the Contract. If the term of the Contract is extended and/or renewed, the City may issue a change order to the Consultant revising the All Inclusive Hourly Rates. If no such change order is issued, the All Inclusive Hourly Rates applicable to the base term shall remain in effect throughout the extension and/or renewal term.

Contract Provisions: Article 7 sets forth the terms and conditions applicable to payment of All Inclusive Hourly Rates for services on a time card basis.

| TITLE | ASCE (A) NICET (N) GRADE | ALL INCLUSIVE HOURLY RATE |
|---|---|---|
| Project Manager | A-VI . | |
| Project Engineer | A-IV . | |
| Senior Civil Engineer | A-V | |
| Senior Structural Engineer | A-V | |
| Engineer | A-III | |
| Junior Engineer | A-II | |
| Urban Design/Landscape Manager, RLA | | |
| Project / Senior Landscape Architect | | |
| Landscape Architect | | |
| Junior Landscape Architect | | |
| Arborist/ Forester | | |
| Survey Manager, R.L.S. | | |
| Party Chief/Foreman | N-III | |
| Instrument Person | N-II | |
| Rod Person | N-I | |
| Senior Traffic Engineer | A-V | |
| Traffic Engineer | A-III | |
| Junior Traffic Engineer – Technician | A-II | |
| Project Environmental Engineer/Manager | | |
| Senior Environmental Engineer/Planner | | |
| Environmental Engineer | | |
| Junior Environmental Engineer | | |
| Certified Industrial Hygienist | | |
| Industrial Hygienist | | |
| Project Geotechnical Engineer / Manager | A-VI | |

| | | |
|---|---|---|
| Senior Geotechnical Engineer | A-V | |
| Geotechnical Engineer | A-III | |
| Project Scientist | | |
| Senior Mechanical Engineer | A-V | |
| Mechanical Engineer | A-III | |
| Senior Electrical Engineer | A-V | |
| Electrical Engineer | A-III | |
| Archeologist/Historian | | |
| Senior Archeologist | | |
| Junior Archeologist | | |
| Senior CAD Operator | N-IV | |
| CAD Operator | N-III | |
| Junior CAD Operator | N-II | |

**EXHIBIT D**

**MINIMUM REQUIREMENTS PER TITLE**

| SERVICES AND JOB TITLES | ASCE (A)<br>NICET (N)<br>GRADE<br>See Notes 1 & 2 | Qualifications /<br>Number of Years of Experience |
|---|---|---|
| Project Manager | A-VI | Professional License / 10 years |
| Project Engineer | A-IV | Professional License / 7 years |
| Senior Civil Engineer | A-V | Professional License / 7 years |
| Senior Structural Engineer | A-V | Professional License / 7 years |
| Engineer | A-III | |
| Junior Engineer | A-II | |
| Urban Design/Landscape Manager, RLA | | Professional License / 10 years |
| Project / Senior Landscape Architect | | 7 years |
| Landscape Architect | | 4 years |
| Junior Landscape Architect | | 3 years |
| Arborist/ Forester | | See Note 5 |
| Survey Manager, R.L.S. | | Professional License |
| Party Chief/Foreman | N-III | |
| Instrument Person | N-II | |
| Rod Person | N-I | |
| Senior Traffic Engineer | A-V | Professional License / 7 years |
| Traffic Engineer | A-III | |
| Junior Traffic Engineer – Technician | A-II | 2 years |
| Project Environmental Engineer/Manager | | Professional License / 10 years |
| Senior Environmental Engineer/Planner | | Professional License / 7 years |
| Environmental Engineer | | |
| Junior Environmental Engineer | | 2 years |
| Certified Industrial Hygienist | | Professional License / 7 years, See Note 6 |
| Industrial Hygienist | | 4 years |
| Project Geotechnical Engineer / Manager | A-VI | Professional License / 10 years |
| Senior Geotechnical Engineer | A-V | Professional License / 7 years |
| Geotechnical Engineer | A-III | |
| Project Scientist | | See Note 6 |
| Senior Mechanical Engineer | A-V | Professional License / 7 years |
| Mechanical Engineer | A-III | |
| Senior Electrical Engineer | A-V | Professional License / 7 years |
| Electrical Engineer | A-III | |
| Archeologist/Historian | | See Note 4 |
| Senior Archeologist | | See Note 4 |
| Junior Archeologist | | 3 years |
| Senior CAD Operator | N-IV | 7 years |
| CAD Operator | N-III | 5 years |
| Junior CAD Operator | N-II | 2 years |

Notes:

(1) The minimum requirements for the specified titles shall be the requirements established for the various grade levels by the American Society of Civil Engineers (ASCE). The applicable requirements for the title in question shall be the most current requirements promulgated by the ASCE for that title as of the date on which the Consultant submitted its Proposal for the Contract.

(2) The minimum requirements for the specified titles shall be the requirements established for the various grade levels by the National Institute For Certification In Engineering Technologies (NICET). The applicable requirements for the title in question shall be the most current requirements promulgated by the NICET for that title as of the date on which the Consultant submitted its Proposal for the Contract.

(3) If a title requires a professional license, such license must be issued by the State of New York.

(4) The minimum requirements for the specified titles in Archeology shall be the requirements established by the National Park Service (NPS), as set forth below.

A graduate degree in archeology, anthropology, or closely related field plus:

(a) At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management;
(b) At least four months of supervised field and analytical experience in general North American archeology; and,
(c) Demonstrated ability to carry research to completion.

In addition to these minimum qualifications, the professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period (36 CFR Part 1: Appendix A).

(5) The minimum requirements for the specified title of Arborist/Forester shall be the requirements established by the New York City Department of Parks and Recreation, as set forth below.

(a) Associate degree in forestry, arboriculture, horticulture, or related plant science field, and five years of full-time professional experience in landscape design and the field supervision of techniques to mitigate damage to existing trees from the negative impacts of construction; or

(b) B.S. in forestry, arboriculture, horticulture, or related plant science field, and three years of full-time professional experience in landscape design and the field supervision of techniques to mitigate damage to existing trees from the negative impacts of construction; or

(c) M.S. in forestry, arboriculture, horticulture, or related plant science field, and one year of full-time professional experience in landscape design and the field supervision of techniques to mitigate damage to existing trees from the negative impacts of construction; or

(d) Arborist certification from the N.Y.S. Arborists/International Society of Arboriculture Chapter, Inc., and three years of full-time professional experience in landscape design and the field supervision of techniques to mitigate damage to existing trees from the negative impacts of construction; or

(e) Other state arborist certification recognized by the International Society of Arboriculture or the National Arborist Association, and three years of full-time professional experience in landscape design and the field supervision of techniques to mitigate damage to existing trees from the negative impacts of construction.

(6) The minimum requirements for the specified Environmental Job Titles shall be the requirements set forth below:

(a) **Certified Industrial Hygienist (CIH**) - shall possess a CIH license granted by the American Board of Industrial Hygiene (ABIH) for at least five (5) years. An advanced degree (M.S., M.E., and PhD) in science or engineering is preferred. This individual will demonstrate at least fifteen (15) years of experience in this field of expertise with not less than 5 years practical experience in the environmental engineering / science fields.

**Duties:** The CIH will act as the lead and provide expert opinion on matters of industrial hygiene, site safety, and environmental compliance. This individual will review and interpret data, author environmental reports and site specific health and safety plans; and shall be responsible for all aspects, including execution and monitoring, of the health and safety program.

(b) **Project Scientist** – shall posses at a minimum a Bachelor's degree from an accredited university in the respective field of study and have six (6) years of practical experience in construction and/or design of building/infrastructure systems, building codes, fire/life–safety issues, and other topics related to general project design and development. Postgraduate education may supplement up to two (2) years of work experience. The individual will be required to demonstrate proficiency in understanding drawings, specifications, standards, codes regulations, etc. as they pertain to general construction practices and the environmental fields.

**Duties:** The Project Scientist will participate in a project from a hydro/geotechnical perspective, and will be called upon to provide expertise in, fire detection/suppression, life-safety and all other systems that are impacted by the environmental project. Also included are responsibilities for environmental report writing controlled inspections and most other activities that their education and background would dictate.

(7) No Payment for Principal: The Consultant shall not be entitled to payment for a principal's time performing oversight or management duties. This prohibition on payment for a principal's time shall not apply if the following criteria are met: (1) the principal is qualified to perform services in accordance with one of the titles set forth in Exhibit D (other than the title "Principal"), and (2) the principal is included in the approved Staffing Plan for such title.

## EXHIBIT E

## M/WBE SUBCONTRACTOR UTILIZATION PLAN

**M/WBE SUBCONTRACTOR UTILIZATION PLAN:** The Consultant's M/WBE Subcontractor Utilization Plan is set forth on the following pages. Such M/WBE Subcontractor Utilization Plan was submitted by the Consultant as part of its proposal for the Contract.

# EXHIBIT F

## CITY OF NEW YORK
## DEPARTMENT OF DESIGN AND CONSTRUCTION
## DIVISION OF INFRASTRUCTURE

# GENERAL REQUIREMENTS

## FOR

# ENGINEERING DESIGN AND RELATED SERVICES

## IN CONNECTION WITH

# HIGHWAY, SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC SIGNAL WORK

## AND OTHER WORK INCIDENTAL THERETO

**GENERAL REQUIREMENTS FOR DESIGN SERVICES ..... 3**

I. DEFINITIONS ..... 3
II. GENERAL DESCRIPTION OF SERVICES ..... 3
III. DESIGN STANDARDS AND PROCEDURES ..... 11

**III.I SCHEDULING AND PROGRESS REPORTING ..... 18**

IV. DESIGN TASKS ..... 22
*IV.I PROJECT DEVELOPMENT/IDENTIFICATION ..... 22*
*IV.II TOPOGRAPHIC SURVEY ..... 25*
*IV.III TRAFFIC STUDY PROGRAM ..... 42*
*IV.IV HARDWARE AND BASIN CONDITION INVENTORY ..... 45*
*IV.V SUBSURFACE EXPLORATION PROGRAM ..... 47*
*IV.VI VAULT PROGRAMS ..... 49*
*IV.VII RAILROAD AND ABANDONED TROLLEY FACILITIES RESEARCH ..... 59*
*IV.VIII ROADWAY PAVEMENT DESIGN ..... 60*
*IV.IX EMBANKMENT PROTECTION STUDY ..... 62*
*IV.X SCHEMATIC GEOMETRIC DESIGN ..... 64*
*IV.XI ACQUISITION STUDY AND MAPPING ..... 67*
*IV.XII QUANTITY AND COST ESTIMATING ..... 71*
*IV.XIII SEWER DATA SURVEY, AREA DRAINAGE AND GRADE STUDY, DRAINAGE PLAN ..... 74*
*IV.XIV HAZARDOUS WASTE AND SITE CONTAMINATION ..... 81*
*IV.XV STREET DESIGN INCLUDING STUDY AND DESIGN OF STREET GRADES, STUDY AND DESIGN OF STREET DRAINAGE, AND PERMANENT STREET SIGNS ..... 84*
*IV.XVI TREE INVENTORY, TREE IMPACT MITIGATION AND TREE PLANTING PROGRAM ..... 94*
*IV.XVII SEEPAGE BASIN AND/OR HIGHWAY DRAIN DESIGN ..... 98*
*IV.XVIII SEWER DESIGN ..... 102*
*IV.XIX WATER MAIN DESIGN ..... 104*
*IV.XX STREET LIGHTING SYSTEM DESIGN ..... 106*
*IV.XXI TRAFFIC SIGNALS SYSTEM DESIGN ..... 108*
*IV.XXII FINAL DESIGN OF RETAINING WALLS AND BULKHEADS ..... 110*
*IV.XXIII CONSTRUCTION STAGING AND MAINTENANCE AND PROTECTION OF TRAFFIC ..... 112*
*IV.XXIV PREPARATION OF SPECIFICATIONS ..... 115*
*IV.XXV REVIEW AND ANALYSIS OF BIDS ..... 117*
*IV.XXVI ELECTRONIC ARCHIVING AND INDEXING ..... 119*
*IV.XXVII SIDEWALK CELLAR DOORS CONDITION INVENTORY ..... 122*
*IV.XXVIII BUILDINGS RESEARCH ..... 123*
*IV.XXIX CONSTRUCTION CONTRACT DURATION/SCHEDULING STUDY ..... 124*
*IV.XXX LANDSCAPE/URBAN DESIGN AND CONSTRUCTION SUPPORT SERVICES ..... 126*
*IV.XXXI DESIGN OF MODIFICATIONS TO SUBWAY VENTILATORS ..... 132*
*IV.XXXII ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) ..... 136*
*IV.XXXIII UNIFORM LAND USE REVIEW PROCEDURE (ULURP) ..... 142*
*IV.XXXIV CLEANING, TELEVISION INSPECTION AND VIDEO TAPE RECORDING OF SEWERS ..... 145*
*IV.XXXV DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDIES ..... 150*
*IV.XXXVI FINAL DESIGN OF STEP STREET ..... 153*
V. CERTIFICATION OF COMPLETENESS ..... 156

GENERAL REQUIREMENTS FOR DESIGN SERVICES

The General Requirements set forth the basic requirements to be met in the performance of various design services.

## *I. DEFINITIONS*

(i) The words "Preliminary Design" where used herein are understood to mean the collection of data; identification, study and resolution of design issues; and the development of approved Schematic Geometric Designs.

(ii) The words "Basic Preliminary Design Services" where used herein refer to the specific services identified in Section II.3.A of these General Requirements.

(iii) The words "Preliminary Design Services" where used herein include Basic Preliminary Design Services and other design services that are needed to fully develop the Preliminary Design for a project including the preparation of a fully coordinated set of technical supplements, results and recommendations of studies, and schematic geometric designs.

(iv) The words "Basic Topographic Survey Services" where used herein refer to the specific services identified in Section IV.II of these General Requirements.

(v) The words "Final Design" where used herein are understood to mean development of detailed designs for street, sewer and water main work; the detailed design of all appropriate street elements and appurtenances; and the preparation of fully coordinated construction Contract Documents that are ready for bidding.

(vi) The words "Basic Final Design Services" where used herein refer to the specific services identified in Section II.3.B of these General Requirements.

(vii) The words "Final Design Services" where used herein include Basic Final Design Services and other design services that are needed to fully develop the Final Design for a project.

## *II. GENERAL DESCRIPTION OF SERVICES*

**1. SERVICES ON A TASK ORDER BASIS:** The Consultant shall be required to provide engineering design and related services for various infrastructure projects for the Department of Design and Construction on an as needed basis. Throughout the term of the Contract, as the need arises for engineering design and related services with respect to a specific Project, the Commissioner shall issue a Task Order to the Consultant. The Consultant shall provide services in accordance with the Task Order for the Project

specified therein. Article 4 of this Contract sets forth the Task Order Process, including the items which must be specified in each respective Task Order. The Consultant shall not perform services pursuant to this Contract until the Commissioner has issued a Task Order in accordance with Article 4. The engineering design and related services the Consultant may be required to provide for the Project specified in the Task Order shall include without limitation the services set forth in Article 6 of the Contract

**2. PAYMENT FOR SERVICES:** The terms and conditions regarding payment to the Consultant are set forth in Article 7 of the Contract. As indicated therein, the method of payment for the performance of services by the Consultant shall be as directed in writing by the Commissioner in the Task Order. Payment for the required services shall be in accordance with one of the methods set forth below, or a combination thereof. Whenever feasible, the Commissioner shall direct that payment for the Consultant's services shall be made through fee(s).

A. Basic Preliminary Design Services: Payment for Basic Preliminary Design Services, as specified in Section 3(A) below, shall be either: (1) through a Basic Preliminary Design Fee based upon the Fee Schedule, as set forth in Article 7.2.2 of the Contract, or (2) based upon staffing hours (time card) as set forth in Article 7.3 of the Contract.

B. Basic Topographic Survey Services: Payment for Basic Topographic Survey Services, as specified in section IV.II shall be either: (1) through a Basic Topographic Survey Fee based upon the Fee Schedule, as set forth in Article 7.2.3 of the Contract, or (2) based upon staffing hours (time card) as set forth in Article 7.3 of the Contract.

C. Basic Final Design Services: Payment for Basic Final Design Services, as specified in Section 3(C) below, shall be either: (1) through a Basic Final Design Fee based upon the Fee Curve, as set forth in Article 7.2.4 of the Contract, or (2) based upon staffing hours (time card) as set forth in Article 7.3 of the Contract.

D. Additional Services: Payment for Additional Services, as set forth in Section 3(D) below, shall be based upon staffing hours (time card) as set forth in Article 7.3 of the Contract.

E. Scheduling and Progress Reporting: Payment for Services for submission of Progress Reports, as set forth in Section 3(F) below, shall be based upon monthly basis as set forth in Article 7.2.6 of the Contract and Section III.I herein.

**3. TYPES OF SERVICES:** In addition to preparation of design using conventional approach for various tasks such as site assessment,

streetscape, pavement, utilities, storm water assessment, landscape, construction practice, etc. as provided in the specific requirements, when the consultant and/or DDC identify the possibilities of the use of sustainable design(s) as described in the DDC High Performance Infrastructure Guidelines, the Consultant shall submit the sustainable design alternatives along with conventional design, as required by the Commissioner.

The types of engineering design and related services the Consultant may be required to provide are set forth below.

A. Basic Preliminary Design Services: The services included in Basic Preliminary Design Services are set forth below. These services are described in detail in subsequent sections of the General Requirements. When the Consultant and/or DDC identify that the Project has a potential for use of the sustainable designs, the Consultant shall incorporate these designs during development of the Schematic Geometric Design alternatives and Roadway Pavement Design. The Consultant shall analyze the environmental, social and economic benefits of each alternative and include the results of their studies and their recommendations in a report. The Consultant shall include the approved design alternative in the PDI report. All costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of all required Basic Preliminary Design Services for the Project, including all expenses related to management, overhead and any anticipated profit, are deemed included in the Basic Preliminary Design Fee, as set forth in Article 7.2.2 of the Contract.

(a) Project Development / Identification
(b) Traffic Study Program (excluding the taking of traffic counts)
(c) Hardware and Basin Condition Inventory
(d) Subsurface Exploration Program (excluding the taking of borings, cores and test pits)
(e) Railroad and Abandoned Trolley Facilities Research (excluding the taking of test pits)
(f) Roadway Pavement Design
(g) Schematic Geometric Design
(h) Acquisition Study
(i) Preliminary Estimate of Construction Cost
(j) Services set forth in Section II.5.

B. Basic Topographic Survey Services: The Services Included in Basic Topographic Services are described in detail in section IV.II of the General Requirements. All costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of all required Basic Topographic Survey Services for the project, including all expenses related to management, overhead and any anticipated profit, are deemed included in the Basic Topographic Survey Fee, as set forth in Article 7.2.3 of the Contract.

C. Basic Final Design Services: The services included in Basic Final Design Services are set forth below. These services are described in detail in subsequent sections of the General

Requirements. In addition to the sustainable design(s) approved by the Commissioner during the Schematic Geometric Design, when a Consultant and/or DDC identify any other street elements to have a potential for use of the sustainable design, the Consultant shall follow High Performance Infrastructure-Best Management Practices (BMP) based on the core principles of sustainable design during development of the Final Design. The Consultant shall analyze the environmental, social and economic benefits of each alternative and include the results of their studies and their recommendations in a report. The Consultant shall incorporate the approved design into the Final Design Documents. All costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of all required Basic Final Design Services for the Project, including all expenses related to management, overhead and any anticipated profit, are deemed included in the Basic Final Design Fee, as set forth in Article 7.2.4 of the Contract. The Commissioner has the right to delete any of the items (a) thru (l) at his own discretion.

(a) Street Design, including Study and Design of Street Grades, Study and Design of Street Drainage, Pavement marking and Permanent Street Signs
(b) Tree Inventory and Tree Impact Mitigation and Tree Planting Program
(c) Sewer Design (excluding subsurface exploration)
(d) Water Main Design (excluding subsurface exploration)
(e) Street Lighting System Design
(f) Traffic Signal System Design
(g) Construction Staging and Maintenance and Protection of Traffic
(h) Final Estimate of Construction Cost
(i) Preparation of Specifications
(j) Review and Analysis of Bids
(k) Electronic Archiving and Indexing of Project Records
(l) Services set forth in Section II.5.

D. Additional Professional Services: Additional Professional Services shall be professional services which the Commissioner determines are required for the Project and are in addition to or beyond the necessary and usual services in connection with Basic Preliminary Design Services, as set forth in Section 3 A above, and Basic Topographic Survey Services, as set forth in section 3B above, and Basic Final Design Services, as set forth in Section 3C above. When a Consultant and/or DDC identify any street element to have a potential for use of the sustainable design in design of the tasks listed below, the Consultant shall follow High Performance Infrastructure-Best Management Practices (BMP) based on the core principles of sustainable design during performance of the Additional Professional Services. The Consultant shall analyze the environmental, social and economic benefits of each alternative and include the results of their studies and recommendations in a report. The Consultant shall incorporate the approved design into the Final Design Documents. All costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of all required Additional Professional Services for the Project,

including all expenses related to management, overhead and any anticipated profit, are deemed included in the Staffing hours (time card) as set forth in Article 7.3 of the Contract.

Additional Professional Services shall include, without limitation, the services set forth below.

(a) Traffic Counting Program
(b) Area Drainage and Grade Study
(c) Seepage Basin and Highway Drains Design
(d) Roadway Embankment Protection Study
(e) Design of Retaining Walls and/or Bulkheads
(f) Sidewalk Cellar Doors Conditions Inventory
(g) Levels I through V Vault Program
(h) Landscape Architecture and/or Urban Design
(i) Preparation of Acquisition and Damage Maps
(j) Archeological Study
(k) Buildings Research
(l) Preliminary Hazardous Waste And Site Contamination Investigation
(m) Environmental Assessment Statement (EAS)
(n) Uniform Land Use Review Procedure (ULURP)
(o) Drainage Plan Grade Impacts and Grade Impacts Mitigation Study (Sewer and Street Grade Study)
(p) Design of Step Streets
(q) Construction Contract Duration / Scheduling Study
(r) Design of Modification of Subway Ventilators
(s) Consulting services, including without limitation, research and development, studies, reviews, surveys, preparation of various manuals or other consulting services to facilitate the Department’s capital program
(t) Changes to the design, as set forth in Articles 6.9.1 (b) and 6.9.2 of the Contract
(u) Professional services to procure, manage and supervise Reimbursable Services required in connection with Additional Professional Services
(v) Any other professional services determined by the Commissioner to be necessary for the Project.

E. Reimbursable Services: The Consultant may be directed by the Commissioner to provide Reimbursable Services for the Project, as set forth below. The Consultant shall provide such Reimbursable Services, if so directed in writing by the Commissioner. The Consultant shall provide such Reimbursable Services through entities approved by the Commissioner, and shall utilize the method of procurement and form of payment directed by the Commissioner. Payment for Reimbursable Services shall be in accordance with Article 7.4. The Consultant is not entitled to payment for professional services to procure, manage and supervise Reimbursable Services required in connection with Basic Preliminary Design Services, Basic Topographic Survey Services, and /or Basic Final Design Services.

Reimbursable Services shall be such services determined by the Commissioner to be necessary for the Project, and may include, without limitation, the services set forth below.

(a) Subcontractor services for borings, excavation of test pits, cleaning and television inspection and video tape recording of sewers, and phase I testing and specifications for hazardous waste
(b) Laboratory services for soil classification or other necessary testing or analysis
(c) Printing of design documents, except for printing performed in the Consultant's office
(d) Long distance travel. In the event the Consultant is directed in advance in writing by the Commissioner to provide services which require long distance travel, the Consultant shall be reimbursed for expenses incurred in connection with such long distance travel. Long distance travel shall mean travel which is in excess of 75 miles from whichever of the following is closer to the destination: (1) Columbus Circle, or (2) the Consultant's home office. Consultants and/or Subconsultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.
(e) Filing fees and related application fees for New York City agencies
(f) Fees for street opening permits
(g) Arboricultural services. Arboricultural services shall be in accordance with standards and requirements of the New York City Department of Parks and Recreation ("DPR") for tree planting, protection and preservation. The Commissioner reserves the right to direct that method of payment for Arboricultural Services shall be on a Time Card basis in accordance with the All Inclusive Hourly Rates set forth in Exhibit C.
(h) Bulk postage for Mass Mailings No.1 and No.2, Encroachment Notices, Cut and Fill Consent Notices, and requests for permission to enter private property, including certified mail with return receipts.
(i) Any other services, determined by the Commissioner to be necessary for the Project

F. SCHEDULING AND PROGRESS REPORTING: The Consultant shall prepare and submit monthly Progress Reports for the Project as directed by the Commissioner and as set forth in Section III.I herein. The Consultant shall provide such Services, if so directed in writing by the Commissioner and payment shall be in accordance with Article 7.2.6.

G. Services Included in Basic Design Services: As part of all Basic Preliminary Design Services and Basic Final Design

Services set forth in Sections A and C above, the Consultant shall be responsible for the items set forth below.

(a) Inspection: The Consultant shall inspect the site for the Project and become familiar with the general and specific nature of the Project and the surrounding area.

(b) Review of Records: The Consultant shall review and become familiar with records provided by the City regarding the Project. The Consultant shall integrate the contents of such records into the findings of the design program as required.

(c) Research: The Consultant shall research the records of local public libraries, historical societies, government agencies and private utilities to obtain information regarding existing surface and subsurface conditions and/or facilities that may impact on the final design proposal.

**4. CRITERIA FOR SERVICES:** The Consultant shall perform all required engineering design and related services in accordance with the following: (1) the Specific Requirements for the Project issued by the Commissioner, (2) the criteria set forth below, and (3) all applicable local, state and federal laws, rules and regulations, including without limitation, the New York City Building Code and the Americans with Disabilities Act. DDC shall provide the design standards set forth below to the Consultant or shall advise the Consultant where such standards may be obtained. The Consultant shall review, study and become familiar with the standards set forth below.

A. New York City Department of Transportation Standard Details of Construction for Highway Work
B. New York City Department of Environmental Protection Sewer Design Standards
C. New York City Department of Environmental Protection Water Main Design Standards
D. New York City Department of Design and Construction, Infrastructure Division, Design Guidelines and Directives
E. Additional Provisions Applicable to Design

(a) Separate Drawings: The Consultant shall prepare separate contract drawings for demolition, excavation, foundation, sewer lines and water mains (when warranted), structural work, street lighting work, and traffic signal work.

(b) Coordination and Development: All contract drawings and specifications shall be properly coordinated so as to preclude the necessity for changes, adjustments or extra work orders during construction. All contract drawings

and specifications shall be developed with construction details sufficiently shown and with figure dimensions given and specifications adequately stated so as to enable prospective bidders and contractors to make accurate and reliable estimates of the quantities, quality and character of the several kinds of labor and materials required to construct and complete the Project in a first class workmanlike manner and to accomplish adequately the purposes and uses intended for the Project.

(c) Equipment or Materials: Any equipment or materials included in the contract drawings and specifications shall become a fixed part of the Project and shall be essential to render the Project fit for its intended use.

**5. FINAL CONTRACT DOCUMENTS**

Upon completion of the services required for each project, the Consultant shall hand-deliver to the Commissioner the following as applicable:

(a) All material originally transmitted to the Consultant at the inception of the project;
(b) The complete set of original signed Contract Documents;
(c) The complete set of original contract specifications;
(d) The complete set of Addenda;
(e) The original work sheets for the Consultant's quantity take-offs and cost estimates- both preliminary and final;
(f) The original Scope packet;
(g) Any permits that were needed;
(h) The original project files complete with all documentation;
(i) A complete computerized files index, and one hard copy thereof, cross indexed by subject, activity, Agency and/or jurisdiction and/or persons name;
(j) All computer files including CAD files and scanned documents.
(k) All records, logs, computations, photographs, etc., compiled in connection with Borings, Soils Testing, Test Pits, etc.
(l) All contract records material shall be packaged and delivered to the City in temporary, uniform sized, matching, heavy duty flat file/roll file/letter file type cardboard shipping/transfer carton(s). Typed labels shall provide information on contents and number of cartons in the set.

**6. PAYMENT**

The cost of all General Services required herein, including all sub consultants' fees, shall be included in the Consultant's "Design Fee" and is the Consultant's responsibility, unless otherwise stipulated in the Contract.

## *III.* DESIGN STANDARDS AND PROCEDURES

A. All information and data, which are part of the Commissioner's records, are available to the Consultant for the proper prosecution of this contract. This may be supplemented by information obtained from other agencies and sources. Before beginning the work to be done for each project, the Consultant shall make an examination of the site designated for the project, note all conditions and implications of same and make all necessary surveys pertaining to the project.

B. The Consultant shall perform design services and prepare the Contract Documents with reference to, and in conformity with, such information and data as to existing and legal lines, legal grades, approved drainage plans, sewers, subsurface structures, conditions and facilities, etc., as may be furnished to him by the Commissioner and other agencies, supplemented by information obtained from utility companies and others, and a personal examination, inspection and survey of the site by the Consultant. The Consultant shall obtain any such necessary additional information and data not furnished to him as aforesaid and shall design and plan the work with reference thereto and in complete conformity therewith.

C. The Consultant shall conform to the procedural standards as described hereinafter, and all design standards as identified in the latest edition of New York City Department of Design and Construction, Infrastructure Design Guidelines and Directives. The Consultant shall conform to instructions and/or directions promulgated at project strategy meetings, and/or conform to general and customary Agency practices, or as otherwise directed by the Commissioner.

The reporting, design and specifications of the project shall be in accordance with such standards of reporting, design and construction as the Commissioner may furnish. In the event that the Consultant recommends a patented article, he shall notify the Commissioner in writing of such designated article.

D. The Consultant shall be accountable to initiate actions deemed normal and customary by a prudent and responsible consultant; including incremental submissions and/or review(s) of the proposed designs to client agencies and interested parties, and coordination meetings that are needed to expeditiously resolve questions and concerns necessary to obtain required acceptance, concurrence and/or approvals, and to meet the project milestones on schedule.

E. The Consultant shall perform all appurtenant designs/analyses/ surveys/investigations that are necessary to develop completely integrated/coordinated designs.

F. The Consultant shall make all required submissions formally, timely and in writing, with a copy of all transmittals being sent to the Department of Design and Construction. Submissions shall be either hand delivered, delivered by messenger, overnight mail and/or other express delivery, facsimile transmittal, or electronic mail.

G. The Consultant shall perform the tasks that are included in the General Requirements and the Specific Requirements for each project in accordance with an incremental approach.

H. The Consultant shall complete the tasks that are included in the General Requirements and the Specific Requirements for each project for acceptance, concurrence, and/or approval, in accordance with the standards of the agencies/parties having jurisdictional responsibilities for said tasks and, further, conditioned upon acceptance by the Department.

I. All tasks shall be fully coordinated and fully integrated into the contract documents.

J. The Consultant shall develop/produce the Contract Documents, or portions thereof, for mass mailing(s) and/or incremental submissions to affected public, private and City agencies - as required, evaluate review comments and incorporate them into the contract documents - where appropriate. The Consultant shall provide sufficient numbers of bound, collated copies of documents, including reports, estimates, design packets, plans, as required, for the normal and reasonable progression of the Contract work.

K. The Consultant shall make all submissions in accordance with the approved work plan and schedule.

L. The Consultant shall thoroughly check <u>all</u> submissions for accuracy, completeness, and appropriateness prior to submission.

M. PERFORMANCE EVALUATION

The Consultant, including all sub-consultants, is hereby placed on notice that the City shall be preparing and filing performance evaluation reports - which will include an assessment of the Consultant's and each sub consultant’s performance and will be specifically based on the quality and accuracy of submissions; completeness and thoroughness of submissions; promptness and timeliness of project submissions; and promptness and timeliness of meeting scheduled milestones.

N. DRAFTING REQUIREMENTS

1. All drafting, contract drawings and non contract drawings, including but not limited to sketches, design study drawings, working drawings, cross sections, profiles, and supplementary profiles, shall be prepared on a computer aided drafting and design (CAD) system.

2. The Consultant shall submit a sample(s) of drawing file(s) to the Commissioner at the initial drawings preparation stage and request that a translation test be run to determine compatibility with the Department's CAD system. The computerized drawing files shall be 100% compatible with the Department's CAD system and shall be 100% translatable. It shall be the Consultants/Surveyors responsibility to provide and insure compatibility with the Departments CAD system.

3. The Consultant shall, as directed by the Commissioner or as stipulated in the Specific Requirements for each project, prepare surveys, plans, specifications and estimates in either the British System of Measurement or the Metric System of Measurement.

4. The Consultant shall conform to currently applicable Departmental Standards in the plotting and drafting of all work, required under this contract. In general, this shall include, but not be limited to the following:

(a) All plotting shall be in ink, monochrome or color as directed.

(b) Drawing sheets will generally be F Size (28" x 40"). However the size of drawing sheets shall be customized to suit the needs of the specific project, and the size to be used for the project shall be determined by the Commissioner in consultation with Consultant.

(c) Plans and profiles shall generally be drawn to the following scales:

For English Measurements:

(i) Plans are to be drawn to a scale of 1" = 30' horizontally

(ii) Roadway profiles are to be drawn to a scale of 1" = 2' vertically and 1" = 30' horizontally

(iii) Sewer profiles are to be drawn to a scale of 1" = 5' vertically and 1" = 30' horizontally

For Metric Measurements:

(i) Plans are to be drawn to a scale of 1:300 horizontally

(ii) Roadway profiles are to be drawn to a scale of 1:30 vertically and 1:300 horizontally.

However, the scales shall be customized to meet the specific needs of each project, and shall be determined by the Commissioner in consultation with the Consultant.

(d) Final Contract Drawings shall be printed on double matte 4 mil mylar.

(e) All drawings shall utilize standard Departmental format(s), symbols, line styles, text fonts, font size, and layering conventions, or shall be customized as required by and subject to approval by the Commissioner.

(f) All printing and line work shall conform to current Departmental standards.

(g) All final contract drawings shall be in ink, on Hurculene or Mylar, or approved equal.

O. DESIGN COORDINATION

1. OTHER AGENCIES AND JURISDICTIONS

(a) The Consultant shall provide full coordination with all relevant individuals, agencies, utilities, and jurisdictions that have an interest in the project or are impacted by the project or its design, and shall execute the studies and designs required under the tasks included in the Specific Requirements in full coordination with all such entities.

(b) The Consultant shall provide such surveys, plots, prints, copies of the preliminary design documents, technical supplements, final design plans and contract documents, etc., as may be needed at conferences with the Commissioner and the representatives of other agencies relative to the project, and shall attend such conferences as required by the Commissioner.

The said surveys, profiles, reports, contract documents, etc., shall be approved or rejected by the Commissioner or modified by the Consultant as directed by the Commissioner.

(c) The Consultant shall take cognizance of other agencies' projects under design or construction within the vicinity of any project for which it is providing services, and shall coordinate the design proposals with the design(s) for such other project(s), in accordance with information obtained during coordination of the Design Program.

2. MEETINGS

(a) The Consultant shall expeditiously meet with the parties involved in issue(s) arising from or impacting on a project, to precisely and specifically identify the issue(s), to document prior actions, to obtain data and information, to identify alternatives, to record findings, and shall function as Chairperson in arranging for and conducting meetings and conferences as required.

(b) The Consultant shall generally perform all coordination with the various affected jurisdictions through personal contact.

Coordination limited solely to telephone contact shall be considered inadequate for the purposes of this Contract.

(c) It shall also be understood that for the purposes of this contract, written communication alone shall be deemed an incomplete and inadequate strategy for "proper" coordination and problem resolution.

(d) The Consultant shall be responsible for the initiation of all actions regarding responses to requests to the Department and to other agencies/jurisdictions/individuals, for the initiation of incremental reviews, approvals and comments relative to the proposed design(s) or issue(s), including follow-up strategies, as required, and for the expeditious resolution of design questions, issues and concerns, with a view toward meeting the contractual and/or project milestone schedule.

(e) The Consultant shall be accountable to prepare specific and accurate draft and final minutes for meetings and conferences required in the timely performance of contractual work. The draft minutes shall be prepared and circulated among the interested parties within two (2) business days of the meeting. Upon receiving comments on the draft minutes by the interested parties, the Consultant shall revise the minutes, where appropriate, and shall coordinate the approval and distribution of final minutes.

3. CORRESPONDENCE

a) The Consultant shall be accountable to initiate, prepare, and distribute any correspondence necessary in connection with the timely performance of contractual work, respond to inquiries and/or answer questions.

b) The Consultant shall prepare and mail either directly or under signature of the Commissioner, all correspondence required for a successful and timely completion of contractual work. Each letter shall be "customized" to reflect the specifics of the correspondence's purpose and function, and shall be "specific" to the inquiry and/or request being made. Responses shall also be customized with specificity regarding the incoming question and/or inquiry, shall be logically organized, professionally written, and shall be complete and thorough.

4. INCREMENTAL AND FINAL REVIEWS

a) The Consultant shall be responsible for the initiation of all actions, including the reiteration of submissions needed to expedite and advance the development, approval and acceptance of the designs and contract documents in conformity with the project objectives.

b) As requested by the Department, the Consultant shall provide copies of appropriate correspondence and prints of drawings as may be required to keep various Agency(s) informed regarding the details/progress/status of the project.

c) The Consultant shall, in accordance with the Mass Mailings No. 1 and No. 2 required in the Street Design Task, and as otherwise deemed appropriate by the Commissioner, submit copies of Schematic Design Drawings, the Preliminary Contract Drawings and Pre-Final Contract Documents to the Department and to other City, public and private agencies, utilities and other parties which, based on project components and site conditions in the judgment of the Consultant jointly with the Commissioner, may have an interest in the project area.

d) The Consultant shall review, evaluate and incorporate comments received, as follows:

i) Where comments pertain to design being performed under the jurisdictional responsibility of other agencies, the Consultant shall make requested changes to the satisfaction of said agencies as long as those requests remain technically and policy wide reasonable.

ii) Where comments pertain to requested changes in street design or additional appurtenant work, the Consultant shall evaluate requested changes and additional appurtenant work and, upon receipt of approval by the Commissioner, shall incorporate and integrate all appropriate changes into the composite Pre-Final Contract Documents.

iii) Wherever, in his/her judgment, compliance with an agency requirement is not being recommended or pursued the Consultant shall advise the Commissioner. Where comments are deemed to be not feasible or practical, or where they are deemed to be incompatible with the design, the Consultant shall, as directed by the Commissioner, meet with the affected agencies to discuss/develop alternate solutions.

iv) Where comments pertain to requests by various interested agencies to have their completed, furnished designs incorporated into the composite Contract Documents, the Consultant shall evaluate such requests and review submitted design documents (including plans, specifications and Consultant's estimates). Upon concurrence by the Commissioner, the Consultant shall coordinate the incorporation and integration of appropriate design documents into the composite Pre-Final Contract Documents, and shall make appropriate street design changes and/or adjustments as required.

v) Where certain design issues or comments remain unresolved, the Consultant shall arrange a meeting with the Commissioner and with the affected agencies to discuss acceptable solutions/alternatives.

vi) The Consultant, where directed by the Commissioner, shall present his designs to the Community Planning Boards.

5. SUBMISSION OF FINAL RECORDS

The Consultant shall file all required records and documents, not previously submitted, with the Commissioner within sixty (60) days of acceptance of the Preliminary Design and Investigation (PDI) Report by the Commissioner, or within sixty (60) days of the opening of bids for the construction contract or within sixty (60) days of the issue of notice by the Commissioner to the Consultant to cease work under this agreement.

6. PAYMENT

Cost of complying with the Design Standards and Procedures that are required herein shall be included in the Consultant's "Design Fee" unless otherwise stipulated in the Contract.

## III.I SCHEDULING AND PROGRESS REPORTING

(a) Upon written notice to proceed, all work required for the project specified in the Task Order shall be completed within the time schedule set forth in the Specific Requirements, unless the Commissioner, for good cause shown by the Consultant, extends the time of completion.

(b) The Consultant shall be required to submit a Progress Report in accordance with the requirements of this section. Such Progress Report shall consist of the following two components: a Bar Chart Schedule, and a Detailed Analysis of project's progress, as described in paragraph (e) below.

(1) For projects having a duration of six (6) months or less, the Commissioner may, in his/her discretion, suspend the requirement for the monthly Progress Report.

(2) For projects having a duration of longer than six (6) months, the Consultant shall be required to submit a monthly Progress Report; however, the Commissioner may, in his/her discretion, suspend the requirement for the monthly Progress Report.

(3) Suspension of the requirement for the monthly Progress Report may be for a specific month(s), or may be for the entire duration of the Task Order. Written notification of such suspension will be provided to the Consultant. In the event of such suspension, the Consultant shall not be entitled to payment of the Monthly Fee for the Progress Report.

(c) Upon receipt of notice to proceed with work required for each project, the Consultant shall prepare and submit to the Commissioner, within 10 working days of the date of such notice, a Bar Chart Schedule for the services required in connection with the project, for approval by DDC. The Consultant shall not be entitled to any payment for the initial Bar Chart Schedule described in this paragraph. The Bar Chart Schedule shall be prepared using Microsoft Project 2003 and shall be printed on 8 1/2″ x 11″ to 11″ x 17″ (fold-over) size paper. The Bar Chart Schedule shall indicate execution of all tasks as applicable, and shall include but not be limited to the following:

(1) Contract number and date, project name, names of Engineer-In-Charge and project Engineer, border, monthly calendar and weekly calendar;

(2) Dates for completion of required services;

(3) The tasks, sub-tasks and milestones to be undertaken or achieved in connection with the project including where applicable Preliminary Design, Mass Mailings, Pre-Final and Final Contract Documents;

(4) The interrelationship and dependency of the various activities required under the tasks included in the Specific Requirements of the Work Order;

(5) The time needed to complete or achieve the various tasks, sub-tasks and milestones;

(6) Dates for completion/submission of any agency work by others, such as television sewer inspection program;

(7) The date for submission of the packages of Bid-Ready Contract Documents where applicable;

(8) The project's critical path;

(9) The dates for Consultant's performance evaluation which shall be prepared on a six (6) months basis (from the notice to proceed date) for the entire specified duration of the project.

(d) For the purpose of progress reporting, the date of the Notice To Proceed on any project shall be considered the monthly "Anniversary Date" for that project.

(e) Progress Report: No later than two (2) working days following the monthly "Anniversary Date", the Consultant shall submit a Progress Report, consisting of the two components set forth below.

(1) Bar Chart Schedule: The Consultant shall revise and update the Bar Chart Schedule to indicate (1) the actual start and completion dates of all tasks that have been completed, and (2) the projected start and completion date of all remaining tasks that are to be performed for the Project. The revised/updated Bar Chart Schedule shall reflect the project's current status at the end of the reporting period and shall include actual dates (year and month), as well as columns showing the cumulative percentage (%) completion of each task.

(2) Detailed Analysis: The Consultant shall prepare and submit to the Commissioner a Detailed Analysis of the project's progress. Such Detailed Analysis shall include, but not be limited to, the following: actual time used for each activity in the schedule; changes in targeted completion dates for the various activities in the schedule; the reasons for any delays in the targeted completion dates; the need and justification for any extensions of time; a narrative description of the work performed during the reporting period,

including dates, facts, and breakdown by contract elements. In the absence of progress in the reporting period with respect to individual tasks, the Consultant shall refer to the previous progress report during which work was last performed on those tasks. The report shall also include a narrative description of the overall project schedule, project budget, work anticipated for the next reporting period and the needs from DDC necessary to move the project forward. In addition the Consultant shall affix to the report a "Project Report Summary" table that includes the following columns/information:

(1) Task
(2) Description
(3) % Completion
(4) Scheduled Completion Date
(5) Projected Completion date
(6) Variance (weeks), (-) ahead (+) behind

(f) There shall be a monthly meeting with the Commissioner at which time the Consultant shall discuss: the actual progress of the project(s); the outstanding issues; and the necessary revisions to the project schedule. Based on the meeting discussions, and in accordance with directions provided by the Commissioner, the Consultant shall revise and resubmit the updated Bar Chart Schedule for the project. The Consultant shall not be entitled to any payment for the Bar Chart Schedule described in this paragraph.

(g) No later than two (2) working days following the monthly "Anniversary Date", the Consultant shall be required to submit to the Commissioner (via hand delivery or express mail) a revised/updated Progress Report. The Consultant shall continue to submit a monthly Progress Report until the final completion of the project, unless directed otherwise by the Commissioner.

(h) Monthly Fee for the Progress Report: For preparation and submission of the monthly Progress Report, in accordance with the requirements set forth herein, the Consultant shall be paid a monthly fee in the amount of $1000.00. The Monthly Fee for the Progress Report is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultants in connection with preparation of the monthly Progress Report, including all expenses related to management, overhead and any anticipated profit. Payment of the Monthly Fee for the Progress Report is subject to the conditions set forth below.

(1) The Progress Report must be complete and approved in writing by DDC.

(2) The Consultant must submit the Progress Report within the stipulated time frame, i.e., within two working days after the monthly "Anniversary Date". The Consultant shall not be entitled to payment of the Monthly Fee for the Progress Report for any Progress Report that is not submitted within the stipulated time frame, except as otherwise provided below.

(3) The Commissioner may, in his/her discretion, provide written authorization to the Consultant to submit the monthly Progress Report after the stipulated time frame has expired. In the event of such written authorization, the Consultant shall be entitled to payment of the Monthly Fee upon submission of an acceptable Progress Report.

(4) As part of its requisition for payment, the Consultant is required to submit a Project progress report. Such report submitted as part of the payment requisition, shall not constitute submission of the monthly Progress Report in accordance with the requirements of this section.

(5) If the Commissioner has provided written notification to the Consultant suspending the requirement for the Progress Report, the Consultant shall not be entitled to payment of the Monthly Fee for the Progress Report.

# *IV.* DESIGN TASKS

## IV.I PROJECT DEVELOPMENT/IDENTIFICATION

Under this task, the Consultant shall assemble and review all record data for the project; conduct formal interviews with all governmental and non-governmental personnel, as directed by the Commissioner and as required for the efficient and thorough completion of the project, in order to ascertain all existing concerns, issues problems and programs directly related to the project area; fully coordinate all activities under this project with all Federal/State/City Agencies, public and private utilities, and organized groups which, in the opinion of the Commissioner and/or the Consultant, are necessary for the development of a fully coordinated design; and fully coordinate the work with various interested agencies as directed by the Commissioner. This shall include, but not be limited to, the following services:

A. The Consultant shall inspect the Project site and become familiar with the general and specific nature of the Project and surrounding area. The Consultant shall make a complete photographic record of the project area in order to illustrate the general nature/character of the neighborhood, as well as to illustrate the typical conditions and specific problems/issues/impacts of the proposed program and facilities. The photographs shall be either color or black and white, shall be presented in a three inch (3”) by five inch (5”) format, and shall be suitably indexed, bound and annotated in accordance with the directions of the Commissioner. The photographs shall be made part of the Technical Supplement Documentation required herein.

B. The Consultant shall assemble and review all available reports, designs, surveys, geological and boring data, maps, plans, documents, maintenance records, alignment maps, as-built drawings and construction photographs relative to the project, from, but not limited to the New York State Department of Transportation, Department of Environmental Protection, New York City Transit Authority, New York City Art Commission, New York City Department of City Planning, New York City Department of Parks and Recreation, Borough President’s Office, New York City Police Department, Libraries, Historical Societies, and from other Federal/State/City/organized groups as may be directed by the Commissioner, or otherwise required for the purposes of fully coordinating the proposed street improvement program.

C. The Consultant shall obtain, and become familiar with, all applicable Departmental Design Directives, Standard Details of Construction, Administrative Procedural Bulletins and guidelines for the prosecution of the work/services under the various elements of the project, including all applicable New York State Department of Transportation guidelines where the project is State or Federally funded.

D. The Consultant shall interview all Department of Transportation maintenance and engineering personnel, as appropriate, to determine the location and extent of all problems and issues in the project area and immediate vicinity, where they affect the project.

E. The Consultant shall interview Department of Environmental Protection personnel, as appropriate, to determine the extent and location of all drainage, sewer and water supply problems/issues and proposed improvement programs by the City and/or Consultant, including catch basin rehabilitation, related to the project area and immediate vicinity, where they affect the project. The Consultant shall also coordinate with the Department of Environmental Protection relative to sewer cleaning and television inspection reports for any existing project sewers.

The Consultant shall review the results of sewer cleaning, sewer television inspection and manual sewer inspection programs performed under other contracts or by the Department of Environmental Protection personnel as they relate to this Project; coordinate the results and recommendations from said programs with this Project, and integrate and incorporate any required sewer work into the contract documents.

F. The Consultant shall interview Department of City Planning personnel, as appropriate, to determine the extent and location of all proposed development/improvement projects in the vicinity of the project area to ascertain the impact that these improvements will have on the project.

G. The Consultant shall interview the District Manager(s), Planning Board(s) personnel and additional interested parties, as deemed appropriate by the Commissioner, to determine their concerns regarding the project street(s).

H. The Consultant shall research and study the following in order to ascertain their impact on the proposed project: zoning, existing land use, traffic generators, traffic operations, legal grades, right-of-way ownership, horizontal alignment, vertical alignment, accident records, maintenance of traffic, revitalization/ construction, and the functional relationship of the site to the Borough/City.

I. The Consultant shall analyze the expressed needs and concerns of the parties contacted, and shall address those needs/concerns that are pertinent to the project. The Consultant shall be accountable to develop and pursue a recommended course of action and/or strategy to resolve those issues which are pertinent to the project in a timely manner and in accordance with the Contract time of completion stipulations.

J. The Consultant shall fully coordinate the identification of all current and future planning, design, and construction projects by the City such as Water Main projects, Park projects, Street Lighting projects, Fire and Police Communications projects, Traffic

Signalization projects, etc. The Consultant shall recommend programming alternatives and staging, as required.

K. The Consultant shall fully coordinate the identification of all current and future planning, design, and construction projects of a significant nature by parties other than the City (private utilities, authorities, government and non-government agencies, abutting property owners, etc.), and shall recommend programming alternatives and staging, as required.

L. The Consultant shall coordinate the proposed program with the Local Community Board(s), the Borough President's Office, the Department of City Planning, the Department of Parks and Recreation, the Department of Environmental Protection, the New York City Art Commission, the New York State Department of Transportation, and other parties as may be designated by the Commissioner or as required for the efficient completion of the specific project, and shall identify and resolve all requirements, conditions and issues as presented by said parties. In addition, the Consultant shall hold a public meeting, to discuss/present the impacts/elements of the proposed reconstruction program.

M. The Consultant shall coordinate the proposed program with all public and private utilities and prepare a Preliminary Utility Impact Assessment report concerning the impact that the proposed improvement program will have on existing/proposed utility facilities.

N. The Consultant shall prepare and submit a Preliminary Design Report concerning, the Project. The report shall document all issues and concerns identified; existing substandard features and the measures proposed to address the issues and substandard features identified; alternative schematic designs considered and design recommendations that have been accepted by the Commissioner, including Sustainable Design alternatives, if any, as described in Section II.3 and IV.X 2.e of Exhibit F: General Requirements.

O. The Consultant shall prepare a Technical Supplement to the Design Report. The Technical Supplement shall contain all applicable records/deliverables of the Preliminary Design Program. The sections of the Technical Supplement shall include, but not be limited to, the following: pavement design(s); tree inventory; topographic survey documentation; utility survey documentation; traffic study; subsurface exploration data; alternative schematic design treatment(s); correspondence and other documentation, as required.

## IV.II TOPOGRAPHIC SURVEY

Under this task the Consultant shall execute a Topographic survey and produce a Composite Utility Plan in conjunction with the Project.

### A. LIMITS

1. The location and limits of the Topographic Survey are described in the Specific Requirements for each project.

2. The limits of the Topographic Survey(s) shall extend into intermediate intersections a distance of 50 feet, measured along the center line of the respective street from the building line projection, and 50 feet beyond the perimeter of all islands and gores. Additionally, the topographic survey shall include terminal intersections and extend 50 feet beyond into each intersection leg.

3. The surveyor shall locate property possession lines within the limits of the Topographic Survey.

### B. GENERAL

1. The Consultant shall submit, for approval, the names and experience portfolios of all persons and Sub Consultants proposed for use concerning Topographic and Utility Survey(s) before start of work.

2. The Survey work shall include the field and office work, including drafting, required to make topographical and base line surveys, prepare Plan and Profile drawings and base line maps.

3. In preparing the Plan and Profile drawings, the Consultant shall take cognizance of the basic minimum requirements set forth herein, together with such other requirements as may be necessary for the complete fulfillment of this contract for the purpose for which it is intended.

4. All survey work shall be in the English System (U.S. Survey Foot).

5. All right-of-way (ROW) data, including baseline (centerline of ROW), baseline ties to survey control traverse, location of possession lines and location of property lines shall be prepared by a New York State licensed Land Surveyor. All topographic and utility data shall be prepared by or under the direct supervision of a licensed Land Surveyor. The Composite Utility Plan shall be prepared by a New York State licensed professional engineer.

6. The Datum Plane shall be “as in use” by the respective Borough President’s Office unless otherwise directed by the Commissioner.

7. Aerial Photogrammetry may be utilized for the preparation of survey plans as outlined in Section E. However, the Consultant will be required to conduct a detailed Topographical and Utility Survey by using standard electronic/ manual methods to produce utility/composite plans as per the contract specifications.

8. All elements of the Topographic Survey(s) shall be referenced by station and offset to a Center Line Baseline for the Mapped Street which shall be established/coordinated/tied into the coordinated survey traverse, in accordance with the current Departmental Standards

9. A stationed R.O.W. centerline baseline shall be provided and tied to the possession and/or R.O.W. lines.

10 All survey work procedures, minimum accuracy, and error of closure standards for traverses and/or Bench Runs shall conform to specifications required herein.

## C. INFORMATION TO BE OBTAINED AND SHOWN

The complete topographical surveys are to be referenced by station offsets to the borough monument lines, or to base lines established from said borough monument lines or to established building lines in mapped streets, with all elevations referenced to established borough bench marks or to bench marks set from said borough bench marks. Where no physical monument system exists the Consultant shall research the survey record diagrams of local properties to identify fixed points on ground that have known dimensional ties to the legal Block and Lot lines that abut the project limits. Where no City coordinate system exists, the Consultant must perform the work in the required NY State Plane Coordinate system. Upon written authorization from the Commissioner, the Consultant may use an independent coordinate system.

The Topographic Survey(s) shall identify and locate all legal dimensions, property boundaries, and physical features within the contract limits that are needed to produce a comprehensive design, including, but not limited to, the following information:

*1. Streets, Pavements and Curbs*

a. Established R.O.W. width and legal grade of streets and easements. The established R.O.W. width shall be based on

the lines as shown on the Final Maps for each respective borough's Topographical Bureau Final Map, or if the street has been revised, shall be based on the lines as shown on the Alteration Map for the same section of roadway.

b. Location and widths of existing streets, roadways, sidewalks and grass areas; and edge of pavements.
c. Block dimensions. If dimension can not be obtained from the Final City Map, block dimensions can be obtained from other sources such as Tax maps, private surveys etc.
d. Block interior corner angles.
e. Location and type of material of curbs, drop curbs, driveways, sidewalks, headers, edges of pavement and changes in types of pavements.
f. Elevations of the street surface (to nearest hundredth of a foot) at fifty (50) foot intervals including P.C.'s, P.T.'s, midpoint of corner curbs, and changes in grade that are six (6) inches or greater, taken at the center line of road, top and bottom of curbs or edge of pavement, back of walk, and right of way line.

2. *Properties, Buildings, Walls, Overhead Structures*

a. Location and frontage size of the existing buildings abutting the street, identified by house number, type of building (frame, brick, etc. as well as use such as school, gas station, commercial, residential etc.), and number of stories, entranceways, together with elevation of first floor, garage entrance and elevation of basement and/or cellar doors.
b. Lot and block numbers for each building.
c. Location and identification of all abutting tax lots by Lot and Block Numbers (including those encroaching into the mapped right-of-way).
d. Location of all street encroachments including but not limited to hedges, fences (including height, type of material), steps, stoops, cellar doors, gratings, and connecting manhole located outside of project limits.
e. Locations, height, width, and type of material of retaining walls.
f. Location and elevations giving clearance of the undersides of overpasses, ramps and bridges and all columns and abutments for all grade separating structures.

3. *Surface drainage structures and sewers*

a. Location of all surface drainage elements including, but not limited to swales/ditches, brooks/creeks, streams/channels, watercourses, retention area, headwalls, swamp areas, and other drainage structures or appurtenances.

b. Location of all types of sewers, manholes, catch basins, inlets and their connections to the sewers. Also, location of the nearest connected sewer manhole (which may fall outside of the project limits).
c. Rim (center of the cover) and invert elevations of the manholes and inverts of existing sewers and their direction of flow. Size and type of sewers, size of manhole covers, location of forced mains, and pumping stations.

4. *Utilities and Subsurface Facilities*

a. Location, identification and size of all utility manholes, vaults, transformer chambers, valve boxes and gratings.
b. Location of water mains, electrical conduits, gas mains, telephone conduits, traffic signal conduit systems, street lighting conduit and feed systems, fire alarm systems, steam lines, and fuel oil lines.
c. Location and size of subways and tunnels, subway entrances, emergency exits, stairs, ventilation gratings, fan chambers, any other Transit Authority structure, and visible railroad and/or trolley tracks.
d. The Consultant shall research all available records of public and private utilities to obtain information regarding the type size and location of existing utility facilities that exist within the project limits defined herein.
e. The Consultant shall reconcile discrepancies in the location and identification of subsurface elements between the topographic survey and utility records.

5. *Surface Features and Overhead Utilities*

Location of all physical topographical features, including but not limited to, hydrants, bollards, lampposts, telephone and electric poles, including guys, identification as may be shown on pole, fire alarm boxes, mail boxes, traffic stanchions location, and clearance of wire crossing over roadways.

6. *Trees and other Surface Conditions*

a. Location and caliper of trees. The caliper shall be measured in 2″ increments at a location of two feet above the base of the tree.
b. Location of rock outcrops, ditches, brooks creeks, streams, swamp areas, wooded areas, etc.

7. *Shore Lines and Soundings*

a. Location, limits and description of existing shorelines and bulkhead lines, pierhead lines, designated wetlands, easements, Land grants and Land grant easements.

b. Soundings shall be shown for a minimum distance of 100 feet beyond the existing shoreline or bulkhead for a width of 75 feet on each side of the centerline of the street. The soundings shall be shown on a grid system at 25-foot intervals.

*8.* Intersections

a. Elevations of the street surface (to nearest hundredth of a foot) at P.C.'s, Midpoint, P.T.’s and/or change in grade, six (6) inches or greater, taken at the centerline of road, top and bottom of curbs and at house lines.

*b.* Topographic information as described in this section above shall be obtained at intersections into the lateral streets for a distance of 50 feet from the R.O.W. lines on each side of the route of the limits of the project, unless otherwise directed.

*9.* Additional Requirements for Highway Projects

a. The precise location of property and “possession” lines, where different from property lines – which shall be tied to the roadway centerline baseline and the survey traverse. Possession lines and/or property line shall be identified by a deed search for each property listed.

b. Identification of all types of right-of-way and mapped streets, including “paper” streets, tax map streets, utility easements and private streets by name/location.

c. Identification of plazas, malls and public areas.

d. Location of corner curb, pedestrian ramps, distinctive/special sidewalk areas, bus pads, traffic islands and traffic channelization and vaults.

e. Location of sidewalk hardware such as coal chutes, oil fills, cellar doors, under sidewalk drains, sidewalk elevators, building sidewalk ventilation gratings, traffic signals, traffic signal poles, parking signs, parking meters, traffic control boxes, traffic controllers, traffic loop detectors, police call boxes, traffic stanchions, structural columns, artwork (all types), newsstand kiosks, sidewalk retail areas, areaways, railroad gates, trackage and cellar windows at grade.

f. Direction of traffic (flow line of traffic), and the location and type of lane and crosswalk markings, including school cross markings.

g. Horizontal locations shall be taken to the nearest tenth (1/10) of a foot.

h. Vertical locations (elevations) shall be taken to the nearest hundredth (1/100) of a foot (or as specified by the Commissioner) longitudinally at fifty foot (50) stations.

i. Full right-of-way, cross-sections stationed along the centerline baseline shall be taken at 50 feet stationing, centerline of intersecting streets, building lines at each

intersection, property lines at each intersection, curbline(s) at each intersection, all breaks in grade. Stationing elevations shall be taken at the building line(s), fence lines, encroachment lines, top and bottom of curbs (including malls), ¼ points of all roadways widths, center line of street, front and back edges of ribbon sidewalks, possession lines, and widening lines(s) where applicable.

j. Spot elevations shall be taken at all street/sidewalk surface hardware locations. If utility is other than a manhole or small valve, elevation on all corners shall be taken. In addition, steps (top & bottom of first riser), platforms, all building entrances, all lot lines (at property line/fence line), first floors, garage floors, back of sidewalk at all pedestrian and vehicular entranceways, ground elevations at all pedestrian and vehicular building entrances and/or building line, traffic islands, top of curb at both ends of drop curbs, top and bottom of curb at centerline of all drop curbs, driveways at all garage entrances, parking aprons, intersections (as required), corners [within crosswalk sidewalk quadrant(s)], all sewer rims (center of the cover) and inverts, Transit Authority (TA) ventilator structures (all corners), TA emergency exits (all corners), and as otherwise required for design.

k. The Consultant shall obtain additional spot elevations as follows: the curbside of tree base at the centerline of all existing trees and significant shrubs within the sidewalk areas, roadway areas and/or within right-of-way, top and bottom of curb in front of all trees, average root zone elevations nearest curb, top of sidewalk at front edge and at back edge, fence line and/or building line.

l. Clearance on all overhead structures that are less than 16 feet from the roadway, including the underside of each bridge/overpass stringer at each lane - including entrance and exit portal locations.

## D. MINIMUM REQUIREMENTS FOR SURVEYS

For all survey work procedures, minimum accuracy, and error of closure standards for traverses and/or Bench Runs shall conform to specifications required herein.

### 1. Vertical Control

Benchmarks – One permanent benchmark must be set at each extremity of the job in places where they will not be disturbed by construction. For projects over 1000 feet long, permanent benchmarks shall be set at the extremities and a minimum of 700 feet apart and a maximum of 800 feet apart. Typical benchmarks on permanent objects include: steps, settlement cuts on brick buildings etc. or by setting copper

plugs in concrete posts if other appropriate fixed points are not available. Benchmarks shall be referenced to the appropriate datum for the borough in which the work is being done. The required method of obtaining elevations is differential leveling. The accumulative error in benchmark elevations shall not exceed 0.002 feet per set-up. A minimum of two (2) Borough President Bench marks must be tied to and verified for each project. When Benchmarks exceed maximum accumulative error, other benchmarks must be reconnoitered and measured until found benchmarks meet accumulative error specifications. All benchmarks must be accompanied by a sketch and accurate description so as to be easily recoverable. All turning points shall be accurately described. If electronic differential leveling is to be used, the Consultant shall provide a sample printout for approval before proceeding with work. Using other methods to obtain elevations such as Trigonometric, Reciprocal leveling and or methods using GPS equipment is allowable, but must be pre-approved in writing by the Commissioner before work commences.

**2. Horizontal Control**

The complete surveys are to be referenced from established baselines/traverse, or tied to borough monument lines. Where no physical monument system exists, the Consultant shall research the survey record diagrams of local properties to identify fixed points on ground that have known dimensional ties to the legal Block and Lot lines that abut the project limits. Where no City coordinate system exists, the Consultant must perform the work in the required NY State Plane Coordinate system. Upon written authorization from the Commissioner, the Consultant may use an independent coordinate system.

The baseline shall include a minimum of one permanent mark at the beginning, ending and angle base line points including one point at each street intersection. All marks shall be permanent such as; cuts in concrete, Monuments as required in undeveloped areas (Section F), pre-existing borough monuments, masonry nails, re-bar or pipes with survey cap in grass area etc. All permanent marks (baseline/traverse control) shall be witnessed to three permanent structures in three separate quadrants, and measured to the nearest one hundredth of a foot (0.01’). The allowable minimum error (precision of closure) in the base line/traverse closure after angular adjustment shall be 1 in 20,000. Measurement methods, other than electronic Total Station, such as using GPS equipment is allowable, but must be pre-approved in writing by the Commissioner before work commences.

**E. MINIMUM REQUIREMENTS FOR SURVEYS USING PHOTOGRAMMETRY:**

1. If aerial survey methods are to be used, they must meet or exceed ASPRS Class 1 map accuracy standards for 1″=30′ mapping (American Society for Photogrammetry and Remote Sensing).

2. When using aerial photography for the survey, consultant must supply the Commissioner with the electronic photo used for the project in either color and/or black and white photo. If digital photo, it can be delivered in a translatable file JPEG, BMP etc. In addition the Consultant deliver the electronic file of the planimetric information which was based on the photo (translatable to AutoCAD format).

3. **Vertical Control** ***(No vertical control may be set using aerial GPS methods)***

   Benchmarks – One permanent benchmark must be set at each extremity of the job in places where they will not be disturbed by construction. For projects over 1000 feet long, permanent benchmarks shall be set at the extremities and a minimum of 700 feet apart and a maximum of 800 feet apart. Typical Benchmarks on permanent objects includes: steps, settlement cuts on brick buildings etc. or by setting copper plugs in concrete posts if other appropriate fixed points are not available. Benchmarks shall be referenced to the appropriate datum for the borough in which the work is being done. The required method of obtaining elevations is differential leveling. The accumulative error in benchmark elevations shall not exceed 0.002 feet per set-up. A minimum of two (2) Borough President Bench marks must be tied to and verified for each project. When benchmarks exceed maximum accumulative error, other benchmarks must be reconnoitered and measured until found benchmarks meet accumulative error specifications. All set benchmarks must be accompanied by a sketch and accurate description so as to be easily recoverable. All turning points shall be accurately described. If electronic differential leveling is to be used, the Consultant shall provide a sample printout for approval before proceeding with work. Using other methods to obtain elevations such as Trigonometric, Reciprocal leveling and or methods using GPS equipment is allowable, but must be pre- approved in writing by the Commissioner before work commences.

4. **Horizontal Control**

   A traverse shall be established to tie in all aerial controls. All traverse points shall be permanent marks such as; cuts in concrete, Monuments as required in undeveloped areas, pre-existing borough monuments, masonry nails, re-bar or pipes with survey cap in grass area etc. All permanent marks (baseline/traverse control) shall be witnessed to three permanent structures in three separate quadrants, and measured

to the nearest one hundredth of a foot (0.01'). The allowable minimum error (precision of closure) in the traverse after angular adjustment shall be 1 in 50,000. Measurement methods, other than electronic Total Station, such as using GPS equipment is allowable, but must be pre-approved in writing by the Commissioner before work commences.

## F. REQUIREMENTS FOR UNDEVELOPED AREAS

1. In undeveloped areas such as park areas, all topographic information shall be obtained within the width of the Right of Way as shown on the Final City Map of the proposed project or where no map exists, information shall be shown within a width of 50 feet on each side of the Centerline of the proposed project.

2. Where the work is in an undeveloped area, the survey work shall include the establishment of a baseline and benchmarks according to the following requirements:

   a. The baseline shall be established with concrete monuments at beginning, ending and angle base line points and shall not be spaced more than 780 feet apart. Monuments are to be established by making cut marks on fixed object (curbs, sidewalks, etc.) where possible. Where fixed objects are unavailable, concrete monuments are to be set as described in (B) below. The allowable minimum error (precision of closure) in the baseline/traverse after angular adjustment shall be 1 in 20,000.

   b. Concrete Monuments - Monuments shall be of concrete, 4"x4", 4 feet in depth, flush with natural ground.

   c. Monuments shall be located so that they will not be disturbed during construction of the Capital Project. A copper plug shall be set in the top of the concrete cylinder portion of the monument or may be substituted for another type of marking as pre-approved by the Commissioner.

   d. Horizontal and Vertical Control specifications must be met as described in section D and E.

   e. Sufficient fixed witness points shall be set for each base line monument far enough away so that construction operations will not disturb them.

   f. Cross-sections stationed along the centerline baseline shall be taken at 50 feet stationing, centerline of intersecting streets, R.O.W. lines at each intersection, curb line(s) at each intersection, all breaks in grade. Stationing elevations shall be taken at the building

line(s), fence lines, encroachment lines, top and bottom of curbs or edge of pavement (including malls), ¼ points of all roadways widths, center line of street, front and back edges of ribbon sidewalks, possession lines, and widening lines(s) where applicable.

**G. BASELINE MAP FOR UNDEVELOPED AREAS:**

1. Where the work is in an underdeveloped area, a map showing the base line shall be prepared. The map shall show the base line with all cuts and witnesses for each base line monument. If necessary, enlarged details shall be drawn to show the witnesses. Borough President monuments shall be shown with their coordinate. Distances between cuts, base line angle and coordination of angle points on the base line shall be included. The map shall give descriptions of the benchmarks and their elevations with respect to the borough datum plane.

2. The map shall be at 1″=30′ scale, on 28″x40″ size drawing, properly titled with a reference to the proper datum plane, scale and date included

**H. RECORD MAINTENANCE**

1. The Consultant shall keep all field notes and office computations in a neat and orderly manner, and clearly indexed. These field notes and computations shall be open for inspection and checking during the course of the work and shall be available for review thereafter. The Consultant shall, at all times, cooperate with the Commissioner for such checking of field work as may be necessary.

2. The Consultant is required to keep copies of ***all*** submitted documentation for a minimum of six years after contract is fulfilled for the Department to access upon request. During the contract period, upon request, the Consultant shall provide the Commissioner/representative with legible copies of all field notes on standard loose leaf field book that contain standard survey formats. Notes on the drawings shall refer to field book number and respective pages.

**I. PREPARATION AND SUBMISSION OF DRAWING**

1. The Consultant shall prepare drawings for the specified locations of the proposed Capital Project by means of Computer Aided Design and Drafting System (CADD).

2. All surveys in this contract shall be plotted on a CADD system and the computerized drawings shall be submitted in AutoCAD 2004 or latest edition “DWG” format. Data files shall be submitted in ASCII format. Drawings shall be layered in

accordance with current Department requirements. Use of x-refs are prohibited.

3. All drawings shall conform to the Department standards, which include object naming conventions and integrity, special line style, symbology, character styles, layering conventions, file names and drawings codes.

4. All electronic media shall be sent on CD-ROM.

5. All media shall be clearly labeled and a listing shall be provided along with the media to verify contents of media.

6. The Commissioner will provide samples of linestyles, character styles, symbology, object names and allowable layers.

7. The Consultant shall also supply the following information:

   a. A key plan on the cover sheet with areas delineated and numbered corresponding to the areas and sheet number of the Survey with the legend, shall be shown. For projects of 4,000 linear feet or more, the key plan shall be prepared by the Consultant. The layout and sheet numbering of the project area will be reviewed by the Commissioner for sufficiency of design purposes before submission of preliminary survey drawings. Layout must be approved in writing by the Commissioner before submittal of preliminary survey drawings.
   b. All maps, records and documents used in the preparation of the completed survey, including all available records of public and private utilities within the project limits.
   c. The Consultant shall submit to the Commissioner all original survey field notes.

8. The Utility Profile shall be plotted under the corresponding Plan view.

9. Where the work requires only one sheet, the sheet shall be arranged so that sufficient space is available for notes legend, and key plan.

10. The Plan and Profile drawings shall show a match line to tie together areas depicted on different sheets.

11. Where more than one sheet is required, the sheets shall be numbered consecutively.

12. All individual locations shall show the North Meridian oriented to top of drawing or to right margin of the drawing.

## J. CLEAN BASE PLANS

1. The Consultant shall prepare Clean Base Plans - which shall be graphic representation of the project that is suitable for use as a base plan set for the development of Schematic, Preliminary, and/or Final Contract Documents. Graphic elements that shall be shown include mapped right-of-way lines (including lengths, block interior angles and ROW widths, Legal Grades), property lines, possession lines, lot lines, Block and Lot numbers, house number, buildings (including number of stories, type and usage), ancillary development, street/sidewalk hardware (manhole covers, poles, etc), existing curblines and edges of pavement, bulkhead and pier head lines, limits of wetlands, easements, trees, theoretical centerline baseline with stationing, and north arrow.

2. Text elements shall be limited to street names, stationing, and other "NECESSARY" items. Generally, elements to be excluded include, but are not limited to: elevations, lane lines, redundant text, "condition" text. There shall be no labeling of walks, grass, etc. The Consultant shall submit a "one-sheeter" sample for approval prior to the development of the Topographic Program. No elevations will be shown on this plan. The base map shall be plotted on a separate 28"x40" (F) size with a horizontal scale of 1"=30'.

## K. TOPOGRAPHICAL PLAN

1. The Topographical Plan(s) shall be plotted by superimposing the Topographic Survey data on to the Clean Base Plan.

2. Inverts and Rim (center of the cover) elevation shall be shown for sewers and catch basins. All street surface elevations as described in section C.1 "f" shall be shown. Elevations shall be shown on City owned "irons" only (not on private utilities). Legal grades shall be shown. Separate spot elevation drawings shall be produced where a full data plotting would produce a "crowded" presentation - as directed by the City.

3. Topographical Plan(s) limits shall be coincident with the topographic survey limits and as herein defined - including the nearest connected manhole outside the project limits.

4. The Topographical Plan(s) shall be of 28"x40" (F) size, and the scale of the drawings shall be 1"=30'. The scale shall be shown below the Plan view.

## L. UTILITY PLAN AND PROFILE

1. The Utility Plan(s) shall be plotted by superimposing the Utility data on the Base Plans excluding all shown elevations in the Plan view (except for Legal Grades, which must be shown both in Plan and Profile view).

2. The Utility Profile(s) generally shall include cross sections of all sewer manholes, and all sewer pipes which are shown on the utility plan (excluding those on side streets). In addition, rim and invert elevations for all shown manholes, and invert elevations, sewer type, size, and pipe material for all shown sewer pipes must be indicated. Legal grade and roadway center line profiles must also be shown on the utility profile. .

3. Sewer and Water utilities shall be identified by approved line type with the following information identified: type of utility, size, configuration, etc.

4. Existing and/or “From Record” Sewer and Water utility lines shall be indicated and plotted to scale with approved line types.

5. Inverts and Rim elevation shall be shown for sewers in Profile view only.

6 Profile(s) limits shall be coincident with the topographic survey limits and as herein defined.

7. The Profile shall be plotted under the corresponding Plan view on a sheet of 28”x40” (F) size, and the scale of the drawings shall be 1”=30’ Horizontal and 1”=5’ Vertical. The scale shall be shown below the Profile view on the drawing.

8. The drawings shall contain a statement of the datum planes for elevations.

9. R.O.W. centerline baseline stationing shall be shown in the Plan view.

10. Labeling of physical features is required on this plan.

11. Legal Grades shall be shown on both Plan and Profile view.

12. Water Main profile shall be shown when existing water mains are greater or equal to 24” in size.

## M. HIGHWAY PROFILE DRAWINGS

The Consultant shall prepare separate profile drawings satisfying the following parameters:

1. The plotting of highway profiles shall include drawing to scales to be determined by the Commissioner, which shall generally include:

   a. A horizontal scale, which is to be consistent with the horizontal scale selected for the Topographic Survey. (Current generally adopted scale is 1″=30′)
   b. A vertical scale which shall be customized to reflect the specific site and which shall require pre approval by the Commissioner. Datum planes shall be customized for each profile. (Current generally adopted scale is 1″=2′)

2. Match lines shall coincide with those utilized for the plotted topographic survey(s). In addition, profiles shall be extended beyond match lines in either direction, as required, to include the adjacent intersection.

3. Legends and labels shall be drafted on each sheet along the length of the profile to ensure its clarity.

4. Two or more sets of profiles will be required for each street: either the Northerly and Southerly or Easterly and Westerly.

5. The following profile lines shall be plotted for each profile set: Center Line of existing roadway, Top of Curb, Bottom of Curb, Encroachment Line/Back of Sidewalk Line, Building Line, Property Line, Possession Line/Widening Line, and Legal Grade, unless otherwise approved by the Commissioner.

6. Each profile set shall contain numerical elevation values plotted and drafted for each profile line for <u>all</u> captured cross-sections, points, spot elevation and, shall include the location and size of fronts of buildings, abutting the street, identified by house number together with full length plotting of first floor elevations, doorways, entranceways, garage floors, loading docks and bays, and overhead structures.

7. All profiles shall be plotted on screened grid, clearly labeled and stationed with numerical axis values shown. Legend of line types shall be shown on each profile sheet.

## N. SURVEY CONTROL MAP

1. A 1″=50′ scale plot (or scale suitable to DDC) of the traverse showing angles and/or bearings, elevations of points, point number and coordinates of points, distances of the traverse lines, and nearest street names, along with the designation and type of points, shall be shown.

2. Witness ties to Horizontal Control shall be plotted separately at a smaller scale.
3. The above plan shall be submitted along with the field notes when submitting the preliminary drawings.

**O. 3-D FORMAT**

In order to ensure that the electronic CADD files submitted are deemed usable by DDC's design group and/or DDC's consultants, the CADD files must contain 3-D intelligence for all major drawing elements so that a 3-D surface model can be created.

Following is a list of some of the major drawing features which may be encountered during plan preparation that must contain 3-D intelligence and how they are to be depicted in the electronic CADD file submittals:

1. All curb lines (top & bottom), edge of pavement lines (concrete, asphalt, stone, etc.), edge of sidewalk lines and roadway centerlines shall be created as a 3-D polyline/breakline.
2. All Utility and Highway profiles must be in 3-D intelligence and submitted in a format which is usable with any 3-D design package delivered in Autodesk DWG format.
3. All major grade changes depicted in within the drawing file shall be created using 3-D polylines/breaklines. Examples of major break changes may include sloping embankments, driveways, building steps and entrances, constructed walls, on-site drainage swales, overhead railway structures, bridge abutments, etc.
4. All standard DDC symbols utilized in the creation of the working drawing shall be inserted at the field located elevation and remain as an intelligent block (do not explode the inserted blocks into separate entities).
5. All 3-D polylines/breaklines created within the electronic CADD file must be one continuous line segment.
6. When requested, all contour information depicted within the supplied CADD file must retain its original 3-D intelligence and be usable with any 3-D design package delivered in Autodesk DWG format.

**P. DOCUMENTS TO BE DELIVERED**

The following survey materials shall be delivered to the Commissioner on completion of survey:

1. All computations (Raw data files and all electronic files supporting the survey including 3-D files) and all original

field notes - shall be permanently bound, sharp, clear, crisp, clean and “fixed”, dated, suitably indexed and in a format as approved by the Commissioner, signed and sealed with original seal and signature by a New York State Licensed Land Surveyor.

2. All computations (Raw data files and all electronic files supporting the survey) shall be submitted on CD ROM.

3. All original notes and all utility drawings, plans and plates, including but not limited to the following:

   a. All As-Built Sewer Information, including As-Built ` structural details of chambers.
   b. All utility plates (electric, telephone, gas and fire, cable, etc. from affected utility).
   c. All NYC Transit Authority Information (including Conrail, Amtrak, Metro-North and LIRR), including electric ducts and structures as available from Transit Authority within 25’ beyond the project limits.
   d. All Water Main Information, including schematic distribution plans [DDM(s)], tap cards, and Field cards from DEP.
   e. Section and Final Maps obtained from Borough President’s Topographical Section.
   f. All relative information from NY State DOT Highways (as-built drawings etc).
   g. Tax maps, Alteration maps, monument worksheets, Final Sections etc.

4. Where the Consultant employs electronic surveying methods he/she shall provide a description of computer programs employed, the equipment used in connection with the survey, the CADD drawing and survey data files, and the survey computations - all in a format and medium to be pre-approved by the Commissioner.

5. The Consultant shall identify and provide the Commissioner with original working copies of all survey data source/reference material.

6. When using aerial photography for the survey, consultant must supply DDC with the actual photo of the color and/or black and white photo. If digital photo, it can be delivered in a translatable file JPEG, BMP etc. In addition the Consultant shall deliver the electronic file of the planimetric information which was based on the photo (translatable to AutoCAD format).

**Q. PRELIMINARY SUBMITTAL**

Four (4) sets of preliminary black and white prints of the legend sheet, Clean Base Map, Topographical Plan, Utility Plan and Profile, Highway Profiles, and Survey Control drawings including all traverse/baseline (and undeveloped area baseline, if applicable) drawings (Stamped Preliminary in RED), shall be submitted to the Commissioner for approval. Included with the preliminary drawings all deliverables, as described in section "P", shall be submitted along with dated transmittal letter. The transmittal shall be referenced to all job naming conventions such as: Project Capis ID. number, Project name, Contract Capis ID. number, and Contract Borough.

A sample color print of a drawing, selected by The Commissioner, in 3-D format shall be included in the Preliminary submittal.

**R. FINAL SUBMITTAL**

Upon acceptance of the preliminary Clean Base Map, Topographical Plan, Utility Plan and Profile, Highway Profiles, and Survey Control drawings, the Consultant shall hand deliver to Commissioner, the following:

1. A complete set of the plotted legend sheet, Clean Base Map, Topographical Plan, Utility Plan and Profile, Highway Profiles, and Survey Control drawings including all traverse/baseline (and undeveloped area baseline, if applicable) drawings, in ink, on reproducible drafting film (mylar, 4 mil) with original signature and seal of approved New York State Licensed Land Surveyor.

2. Two (2) sets of paper prints of the plotted Clean Base Map, Topographical Plan, Utility Plan and Profile, Highway Profiles, and Survey Control drawings including all traverse/baseline (and undeveloped area baseline, if applicable) drawings with original signature and seal of approved New York State Licensed Land Surveyor.

3. All electronic data and drawing files for the Final drawings and the survey Control Traverse, Topographic Survey in the required formats (AutoCAD 2004 or latest edition, ASCII and 3-D).

## IV.III TRAFFIC STUDY PROGRAM

1. Under this task the Consultant shall incorporate the traffic data and traffic analyses requirements of all other tasks included in the Specific Requirements of this Contract and develop a Traffic Study Program to supplement any available traffic data and traffic analyses as necessary. The Consultant shall:

a) Review any available traffic counts, any traffic analyses performed previously, any available accident data and analyses, and determine the adequacy of and need to update such data and analyses to meet the requirements of this Design program.

b) Identify the number of additional twenty-four (24) hour traffic counts and/or peak hour manual turning movement/vehicle classification counts needed and the locations at which such counts are to be taken. Twenty-four (24) hour Automatic Traffic Recorder count shall be taken for typical continuous seven days or as directed by the Commissioner.

c) Identify the additional research and analysis of accident data that is needed to provide for the proper completion of the other Tasks included in the Specific Requirements of this Contract.

d) Provide for turning counts at all signalized intersections and at unsignalized intersections that exhibit operational and safety problems.

e) Indicate all existing lane delineations and study and revise the existing markings as required at locations within the project limits, including all terminal intersections.

2. The Consultant shall submit the proposed Traffic Study Program to the Commissioner for review and approval.

3. The Consultant shall submit, for approval, the names and experience portfolios of all persons and subcontractors proposed for use in connection with the obtaining of traffic counts prior to start of work.

4. Upon approval of the proposed Traffic Study Program, by the Commissioner, the Consultant shall perform the required twenty-four (24) hour (or otherwise approved duration) mechanical counts and/or manual counts to determine traffic volumes, to provide data for level of service analyses, signal warrant studies, pavement design(s), and to determine the percentage of truck volumes as necessary. The Consultant shall manually count the traffic characteristics as they pertain to percentage of trucks.

5. The Consultant shall research the accident records of the New York City Police Department and the New York State Department of Transportation to obtain the latest available (three year period) accident data for vehicular and pedestrian accidents at all intersections and mid-blocks within project limits including all terminal intersections and contiguous to the project limits where

needed. In addition, the consultant shall identify all intersections (signalized and unsignalized) within the project limits including all terminal intersections with five or more pedestrian accidents occurring within any of the three study year and make recommendations for appropriate mitigations.

6. The Consultant shall contact the respective Borough Traffic Engineer for records of all outstanding traffic related complaints submitted by the Community Board(s) having jurisdiction over the project area, for consideration and mitigation. Copies of all correspondence for such inquiries shall be sent to the NY City DOT Assistant Commissioner, Division of Signals and Markings.

7. The Consultant shall contact the Department of City Planning for information about any present and future development projects located within or at the close proximity of the project limits that can have potential impact on traffic throughout the project area.

8. The Consultant shall consider the traffic generators, land use, zoning, bus routes, etc. that can impact the present and future traffic operations, and incorporate information with appropriate maps in the report.

9. The Consultant shall visit the site and familiarize himself/herself with the site conditions, analyze the latest available accident data to determine accident patterns and probable contributing factors, and shall identify all substandard conditions contributing to the accidents, and propose appropriate mitigation measures.

10. The Consultant shall prepare signal warrant studies for unsignalized intersections that exhibit operational and safety problems in accordance with the approved Traffic Study Program.

11. The Consultant shall perform existing and future level of service analyses for all signalized intersections as well as all unsignalized intersections that warrant signals, including those at terminal intersections and those with high accident rates. Accordingly, the Consultant shall recommend appropriate mitigation measures as required.

12. The Consultant shall determine the future level of service based on the Consultant’s projection of traffic volumes over the next twenty years from the Estimated Time of Construction Completion (ETC+20) and on any new lane(s) configuration proposed under the Schematic Geometric Design Task of the Specific Requirements of this Contract. Future level of service analysis shall be performed for no-build condition and the build condition. The growth rate used in determining the projected traffic volumes shall be subject to approval by the Commissioner.

13. The Consultant shall submit his findings and recommendations from the various studies performed under this task in a Traffic Study letter report to the Commissioner and shall revise the report in accordance with comments provided by the Commissioner.

14. Upon acceptance of the Traffic Study report by the Commissioner the Consultant shall incorporate the results and recommendations of the traffic study into the other tasks included in the Specific Requirements for the Project.

## IV.IV HARDWARE AND BASIN CONDITION INVENTORY

1. Under this task The Consultant shall prepare hardware condition inventory of all existing City-owned (includes public authorities) manholes, catch basins/inlets, valve boxes, seepage basins, etc., and all related hardware (including frames, adjustment rings, and covers) indicated on the topographic survey for the project area.

2. The Consultant shall visit the site and verify the existence of all City owned hardware (including public authorities)shown on the topographic survey for the project area, reconcile any City-owned hardware discrepancies, and show on the topographic survey all hardware discrepancies found. In addition, the consultant shall perform a visual inspection of the interior/exterior of all existing City-owned hardware, as indicated above and shall:

i) Identify the Size of manhole covers (not including the frame), condition of manhole covers and frames, material (brick/concrete/other) and condition of manhole structures;

ii) Identify the size and type of basins/inlets, with or without curb piece, condition of frame, grating & curb piece, material and condition of basin structures, determine if catch basin has a hood over the connecting pipe;

iii) Identify the Owner/Agency responsible for a particular piece of hardware;

iv) Make reasonable attempts to sufficiently clean catch basins/inlets, manholes and seepage basins within the project limits where debris interfere with the inspection, and if not feasible, determine the need for cleaning of the structure;

v) Identify each manhole, catch basin/inlet, valve box, seepage basin. inspected, by station and offset. If the plans with baseline stations are not available, all existing City-owned hardware as indicated above shall be located and referenced to the existing permanent objects/structures, and be identified on the plans;

3. The Consultant shall use the following criteria, when evaluating the condition of the hardware:

| ABBREVIATION | CONDITION | DEFINITION |
|---|---|---|
| G | Good | Hardware is complete, all markings are clearly visible, sharp and appear new/fresh. |
| F | Fair | Hardware may have been chipped, etc. but this does not interfere with its functioning, markings are clearly visible/readable, no rocking, parts fit tightly together. |
| P | Poor | Rocking covers, misfitting covers, markings have substantially disappeared, worn frames. |
| B | Broken | Frame or cover broken, any visible parts are cracked, etc. which affect functioning. |

4. The Consultant shall prepare and submit the hardware inventory incorporating all information indicated above, in tabular format. The Consultant shall also submit with the inventory table, an appropriately reduced scaled drawings of the project area that clearly indicate all identified manholes, catch basins/inlets, valve boxes, seepage basins, etc. reflected on the inventory table.

5. The Consultant shall perform the visual inspection of the existing manholes, catch basins/inlets, valve boxes, seepage basins. as an independent task. If the Consultant for his/her own convenience elects to perform the said inspection in conjunction with another assign task in the project, he/she shall be required to obtain approval from the Commissioner for doing so, prior to performing the inspection.

## IV.V SUBSURFACE EXPLORATION PROGRAM

A. Under this task the Consultant shall provide for the preparation of a Subsurface Exploration Program in conjunction with the Project. The Consultant shall perform soil borings, test pits and test strips, retrieve soil samples, analyze and classify soils, make subsurface investigations and perform geological research to provide soils data that is needed to complete the work required under all tasks that are included in the Specific Requirements for the Project.

B. The Consultant shall develop and prepare a subsurface exploration program indicating boring, test pit and test strip locations proposed. This subsurface exploration program shall be coordinated with any subsurface data provided by the City, and with any sub-surface data available from various public/private utilities, and shall incorporate all the boring, test pit and test strip locations developed for all tasks included in the Specific Requirements of the Design program. The proposed Subsurface Exploration Program shall be submitted to the Commissioner for review and approval.

C. The Consultant, complying with applicable City/State/Federal regulations, shall retain the services of a qualified boring contractor to obtain the required borings and two (2) inch split spoon soil samples, and shall provide supervision of said boring work. The Consultant shall provide for payment of required street opening permits. The boring subcontractor shall be required to provide a plumber’s bond in accordance with current Department of Transportation requirements.

D. The Consultant, complying with applicable City/State/Federal regulations, shall retain the services of a sub-contractor to excavate required test pits, and shall provide supervision of said test pit work. The Consultant shall provide for payment of required street opening permits. The test pit sub-contractor shall be required to provide a plumber’s bond in accordance with current Departmental requirements. The Consultant shall note and record the conditions of structures and facilities exposed by the test pits by taking measurements, making sketches and taking photographs.

E. The Consultant, complying with applicable City/State/Federal regulations, shall retain the services of a qualified soils laboratory to classify the soil by sieve analysis in accordance with the Unified Soil Classification System, to perform permeability tests as needed along the thirty (30) foot deep borings, and to ascertain the elevation of the existing groundwater table.

F. The Consultant shall make a visual and olfactory examination of the soil samples retrieved from the borings to determine the existence of noxious odors or other indicators of the presence of material that may be classified as hazardous.

G. Data obtained from the boring program shall be recorded in a format approved by the City and shall indicate soils information obtained and layer thicknesses encountered.

H. A photographic record of the soil samples retrieved shall be made for each boring.

I. Soil samples shall become the property of the Consultant and shall be stored in a secure location until all construction work has been completed and all related claims settled. The Consultant shall be responsible for the disposal of the soil samples. Storage and disposal of soil samples shall be in accordance with all applicable laws, rules and regulations.

J. Subsequent to review and acceptance by the Commissioner of the data obtained, the Consultant shall coordinate/incorporate the results of the subsurface exploration program into the relevant tasks that are included in the Specific Requirements for the Project.

## IV.VI VAULT PROGRAMS

A. The Consultant shall execute Level I thru Level V Vault Programs in conjunction with the project. These program levels are identified as follows:

***(Levels I and II - applicable to Preliminary Design Phase, if needed)***

Level I Program - Research and Inspection
Level II Program - Survey and Presentation

***(Levels III THRU V - applicable to Final Design Phase, if needed)***

Level III Program - In-Depth Vault Exploration
Level IV Program - Recommendations and Identification of Vault Treatment Alternatives
Level V Program - Preliminary and Final Vault Design

B. A vault, whether active, inactive or abandoned shall be defined, for the purposes of this task, as any space or enclosure below the sidewalk and/or roadway areas that is either directly or indirectly connected, at any time in the building's history, to the contiguous building structure. Areaways shall not be considered as Vaults.

1. Each "store vault" which may have been generated, at any time in the building's history, from the sub-division of a building vault shall be considered as one vault.

2. Sub-cellar/sub-basement vaults shall be considered as separate individual vaults.

3. Underground vaults, chambers or enclosures owned and operated by private utilities shall NOT be considered a vault except as herein stipulated.

C. To determine, precisely, the existence and nature of building vaults the Consultant shall develop a program to research, inspect and reinspect, as necessary, all properties and/or buildings along the project streets that have or may have vaults constructed within the limits of the adjacent right of way. The Consultant shall identify all properties on which buildings are constructed up to and abutting the right of way line by Lot and Block Numbers, and by street addresses, and shall prepare a list of all such properties for inclusion in the proposed Levels I and II Vault Program. Subject to approval by the Commissioner buildings that are set back from the right of way line may be omitted from the program.

D. To assist the Consultant in completing the full requirements of the Level I Program, the Department will provide the Consultant with any available preliminary vault study information prepared in conjunction with this project, including all available notes, reports, information, measurements, etc., compiled in conjunction with said studies. The Consultant shall review the

data contained in preliminary vault studies to ascertain the type and level of work required, and shall proceed with the verification and completion of any additional Level I and Level II requirements of this task, as stipulated herein. Any such preliminary vault study information provided to the Consultant is not intended to substitute for the requirements of the vault program.

E. The scope of work for the Level I thru Level V Vault Program shall include the performance of the following services:

1. Level I Program - Research and Inspection. The Consultant shall ascertain the existence of active, inactive or abandoned below-surface vault spaces for all properties listed in the program and shall make inspections and/or take measurements as herein stipulated.

   a) The Consultant shall make every reasonable effort to research all available sources for existing vault records. Particular attention shall be given to, but not be limited to, the following sources: The New York City Buildings Department, The New York City Department of Transportation's Bureau of Highway Operations (Maintenance Permit Section), building owners and/or management agents, tenants, and the New York City Department of Finance.

   b) The Consultant shall perform visual field inspection of the sidewalk condition(s) and sidewalk features fronting each building face and/or vacant parcel for the purpose of making an "engineering judgment" regarding the existence of below-surface vault spaces.

   c) The Consultant shall enter and/or inspect the interior of all buildings/structures that are listed for the vault program, as required, for the purpose of determining the existence of cellar/basement entrances thereto.

   d) The Consultant shall enter and visually inspect all accessible basements, cellar and subcellar spaces within all contiguous buildings/properties/structures for the purpose of ascertaining the existence of active, inactive and suspected and/or abandoned building vault spaces, including Transit Authority facilities where applicable.

   e) The Consultant shall be solely responsible for obtaining permission from owners and/or tenants for entry into building cellar/basement areas or other areas of the site, as required, to perform the necessary inspections and/or measurements required in this and subsequent phases.

f) Since access to cellar/basement areas will require multiple attempts, the Consultant shall be solely responsible for developing optimum schedules for access in performing the inspections and/or measurements required in this and/or subsequent phases.

g) Based on the judgment of the Consultant, where an introductory letter could assist him/her in the performance of the vault program, the Consultant shall prepare, duplicate, mail and/or hand-deliver the introductory letters in accordance with a plan developed by the Consultant and approved by the Department.

h) The name(s) and address(es) of the current owner of record of each vault shall be obtained by the Consultant.

i) It shall be the responsibility of the Consultant to make translations of letters/notices where the Consultant deems it appropriate or where otherwise directed by the Department.

j) The Consultant shall develop, subject to the approval of the Department, a vault numbering index/identification system suitable for the requirements of the Level I Program and all subsequent levels of the vault program. Consideration will be given to the use of house numbers.

k) The Consultant shall prepare letters to the Department of Finance to ascertain if vault license fees have been paid for vaulted private properties.

l) The Consultant shall present the data collected to the Department in an approved format.

2. <u>Level II Program</u> - <u>Survey and Presentation</u>

a) The Consultant shall identify and measure <u>all</u> geometric features within and contiguous to the vault space in sufficient detail and accuracy to define the space and satisfy the requirements for providing all analyses, recommendations, and designs in all subsequent levels of the Vault Program. This shall include, but not be limited to, interior space dimensions (length, width, height), floor area dimensions, alcove dimensions, entrance/exit opening dimensions, access opening dimensions, stairways, foundations, building foundation wall (estimated), and location of cellar door/areaway access opening. The Consultant shall also provide the offset distances from face of the vault to the face of the curb line in front of the vault.

b) The consultant shall provide a general description of the vault's structural system (i.e. the make up of the roof system and the walls)and it's condition.

c) The Consultant shall study and determine the depth of the cover over the vault's roof, measured from surface of the sidewalk to top of the roof structure. The consultant shall determine the depth of the cover using non-destructive methods (i.e. surveying, etc.), and if utilizing such methods shall not be possible, the consultant shall then use other methods (i.e. probing, etc.) as approved by the Commissioner, to determine the depth of the cover. If any portions of the roof cover and/or the roof structure are disturbed due to Consultant's operations, the Consultant shall be required to restore the disturbed sections to their original conditions, as necessary. If the initial measurements indicate that the depth of the roof cover is more than two (2) feet, the consultant shall only be required to provide the approximate depth of the cover, and if the initial measurements indicate that the depth of the roof cover is less than two (2) feet, the consultant shall be required to provide the exact depth of the cover.

d) The Consultant shall identify all features, and possible sealed off and inaccessible areas or vaults that require additional in-depth exploration.

e) The Consultant shall reconcile or refute data obtained from records research and shall notify the Commissioner of all records research data which cannot reasonably be reconciled.

f) The Consultant shall prepare all vault program notes on heavy-duty 8 1/2" x 11 1/2" waterproof paper stock, compiled in a loose-leaf format or as otherwise approved. All lines, text, sketches and symbols shall be clear, crisp, and suitable for reproduction and electronic storage. All sheets shall be numbered, cross-referenced to the approved index system, dated and signed. Original survey notes, sketches, data, etc., filed in loose-leaf format, shall become the property of the Department. The Consultant shall provide working copies, review copies and analysis presentation copies as requested by the Department.

g) Inspections and notes shall be consecutive and complete: that is, where no vault space is pre-existing, a certification shall be provided as part of the survey notes which shall include a visual description of the cellar/basement external foundation wall, with the statement "No Vault".

h) The Consultant shall coordinate with the property owner to assist the property owner in taking actions to expose possibly sealed-off vaults, including debris removal, for reasonable access by the Consultant.

i) The Consultant shall maintain a meeting and coordination log for each property in a format approved by the Department, which shall include minutes of meetings, etc.

j) The Consultant shall provide a suitable number of good quality color photographs to adequately describe each vault space, including any special features, utilities and/or services.

(i) The photographs shall be in color, 3" x 5", mounted in an 8 1/2" x 11 1/2" loose-leaf format.

(ii) The photographs shall be referenced in accordance with the index system established for the Vault Program and shall be shown in plan with photo angles and directions.

(iii) The original photographs in loose-leaf format shall be provided to, and shall become the property of, the Department (each house number shall be on a separate page or set of pages).

k) The Consultant shall present the data to the Department in an approved format, which shall include the plotting of the vaults and incorporating all vault data herein obtained into the contract drawings for the project.

3. Level III Program - In-Depth Vault Exploration

a) The Consultant shall develop, request proposals for, execute and supervise an In-Depth Vault Exploration Program, which may consist of, but not be limited to, test pits, core borings, concrete testing, line and grade survey in the sidewalk areas, and soil bearing capacity tests inside the vaults that are to be reconstructed. This work shall include complete restoration in conjunction with test pits, drilled holes, removed walls, etc.

b) The exploration program shall generally:

(i) Verify the existence and extent of inaccessible spaces.

(ii) Provide soil bearing capacities for Buildings Department filings, where required.

(iii) Locate vault envelopes relative to the survey baselines(s) and elevation datum.

c) The Consultant may be required to include one or more of the following items in the program for in-depth vault exploration:

(i) Metal Detection;

(ii) Sidewalk Test Pits (Vaults) - 2' x 3' x 3' deep.

(iii) 1/2" diameter Drilled Pilot Holes for Vaults, variable depth.

(iv) Soil Bearing Capacity Tests Inside Vaults (for foundation design).

(v) Interior Vault Closure Wall Removal - miscellaneous materials (non-structural).

d) The Consultant shall submit a proposed exploration program, including the approximate location of each proposed item of work to the Department for review and approval.

e) Upon receiving approval, the Consultant shall prepare a location plan for all proposed exploration work and also prepare estimates of quantities, specifications and descriptions of work in sufficient detail to fully describe the work.

f) The Consultant shall identify and measure all visible structural elements of the vault space, including, but not limited to, bearing walls (material/thickness), columns (size), footings, beams (size/material), girders, roof slab material and structural system (visual inspection only).

g) The Consultant shall identify, locate and measure all services and utilities within and contiguous to the vault space including, but not limited to, electric service panels (size of panel box, number of circuits, service ampere ratings, house distribution panel boxes), natural gas service (entry, meter, shutoff), water service (entry, meter, shutoff, electric ground, pipe size), house trap location, house trap vent location and size, ventilation system, air conditioning system, heating system elements, telephone lines, sprinkler systems, alarm systems, lighting systems.

h) The Consultant shall provide a Certified Asbestos Investigator (CAI) to perform inspections and make an assessment of the possibility that asbestos installation(s) exist within the vault(s). All such installations identified shall be photographed and

measured, and the results incorporated into a Preliminary Asbestos Inspection Report that shall be prepared by the CAI. The report shall identify and describe the location(s) and extent of possible asbestos installation(s). The photographs and measurements taken shall be included in a technical supplement to the Preliminary Asbestos Inspection Report.

Sampling and testing for asbestos, shall be performed, if needed.

i) The exploration program shall also include sampling and testing for asbestos by a Certified Asbestos Investigator (CAI) in vaults. The Consultant shall provide a CAI for asbestos identification, sampling and testing; and for preparing/filing Buildings Department and New York City Department of Environmental Protection asbestos forms.

j) The Consultant shall identify all decorative and miscellaneous elements of the vault space and contiguous areas including, but not limited to, floor coverings, ceiling and wall treatments/materials, built-in furniture, closure doors (type/material).

k) The Consultant shall prepare complete architectural plans, sections, and elevations, for each vault identified, complete with framing plans, plumbing and wiring location diagrams, and dimensions to adequately present the survey data. Drawings shall be in contract document format and contract document drafting quality to a scale and sheet size as approved by the Department, and shall be fully referenced to the approved index system. Each house number shall be formatted on a separate sheet. Architectural plans shall be used for submission to the Buildings Department, for preparation of vault rehabilitation contract documents and/or other purposes as deemed appropriate by the Consultant, and shall incorporate all data obtained during the Level I Program for research and inspection.

l) The Consultant shall fully develop and coordinate special conditions, provisions and requirements, including but not limited to maintenance of pedestrian and vehicular traffic, maintenance of frontage access, working hours and work schedules for the proposed in-depth vault exploration work.

m) The Consultant shall prepare an estimate of cost for the proposed work with unit prices based on information available from the City, other sources, and/or labor material analyses, as required.

n) The Consultant shall submit the original of all non-standard specifications, all special provisions and itemized cost estimate in a format as directed by the City. The originals shall be suitable for reproduction and binding as required.

o) The Consultant shall provide the services of a survey party to adequately check contractor's work on the in-depth exploration.

p) Consultant shall provide resident services to observe and set-up test procedures, record data and perform other specialized services as required to adequately complete the in-depth exploration program.

q) The Consultant shall present all data, results and information in a report format.

r) The Consultant may combine the in-depth vault exploration work with any Subsurface Exploration Program required under separate tasks that are included in the Specific Requirements of this Contract, upon written approval by the City.

s) The Consultant shall evaluate the results of the in-depth exploration program to verify the appropriateness/adequacy of the data obtained for the purposes of successfully completing the vault program.

t) All required Department of Transportation street opening permits in conjunction with the exploration program shall be paid by the Consultant, with reimbursement as an out-of-pocket expense. All insurance requirements shall be maintained in full force.

4. <u>Level IV Program</u> - <u>Recommendations and Identification of Vault Treatment Alternatives.</u>

a) The Consultant shall review and analyze all available vault data obtained in connection with the vault program, and shall synthesize the data with a view to developing recommendations and/or alternatives in connection with the disposition of each vault. The Consultant shall become familiar with the proposed sidewalk surfacing treatment of the street improvement project, and shall integrate the treatment with the vault program.

b) The Consultant shall evaluate the following vault disposition alternatives:
   (i) Maintaining the vault space and roof/sidewalk slab as is.

(ii) Providing a new roof slab/sidewalk over the vault space to the required design elevation, while maintaining all services and utilities in place.

(iii) Abandonment of the vault space, which shall include the relocation of services and utilities within the vault, the bulkheading of all vault openings/entrances, and the partial demolition and filling in of the vault space.

(iv) Abandonment of the vault space, which shall include the bulkheading of all vault openings/entrances, the partial demolition and filling in of the vault space, and the relocation of services and utilities within the vault space by the owner.

Full consideration and study shall be given to, but not be limited to, the requirements of the adopted surface treatment and the setting and selection of sidewalk design grades.

c) The Consultant shall submit all recommendations and findings in a "separate report" format for each house number. Suitable summary tables and graphics shall be provided as directed by the Department. These recommendations shall be presented at design meetings.

d) The Consultant shall prepare a unit price estimate, based on assumptions relative to the design of each recommended vault disposition, and for one alternative.

e) The Consultant shall meet with each New York City-located property owner to discuss/explain the findings and to coordinate the work by the owners, with particular attention to utility service relocations and opening/door entrance closures by the owner, and other special circumstances regarding the vault usage and/or disposition. Property owners located outside the City shall be contacted by certified mail, with return receipts.

5. Level V Program - Preliminary/Final Vault Design

Upon being directed by the Department, the Consultant shall prepare fully developed and fully coordinated contract documents for disposition of selected vault(s), which shall be incorporated into the street reconstruction project. The work shall include, but not be limited to:

a) Preparation and development of Preliminary Plans for each selected vault in accordance with the respective vault disposition alternative report as approved by the Commissioner, with a sufficient level of detail to precisely describe the proposed vault work.

b) The Consultant shall develop a preliminary Consultant's Estimate, for all vault disposition work, based on a quantity take-off of unit items, in accordance with the general practice of the Department. Where Departmental unit prices are not available, the Consultant shall develop unit prices based on time and material analysis and/or comparable prices, as approved by the Department.

c) The Consultant shall provide the services of design consultants for the Vault Program for the following specialties: architectural/structural, HVAC, mechanical, electrical, and asbestos abatement.

d) Preparation of Final Plans, Specifications and Consultant's Estimate for the Vault Program, subject to the approval of the Commissioner.

e) Incorporation and integration of the Vault Program work into the composite street reconstruction contract documents.

f) Filing with, and obtaining approval from, the New York City Buildings Department for proposed work in connection with the building vaults, including payment of all filing fees, as required.

g) Coordinating with property owners and/or their authorized agents in the obtaining of property owner approvals and the execution of vault entry construction agreements, including all required preparation and registered mailings, with return receipts. An agreement shall be required for alteration of each vault.

h) All vault data, survey notes, photographs, minutes of meetings with owners/tenants, estimates, treatment alternatives, Buildings Department documents shall be indexed by house number and cross-referenced to Lot and Block number, and shall be formatted/maintained in a Technical Supplement format for <u>each</u> house number.

i) The Consultant shall be solely accountable to initiate all actions relative to owner coordination, the obtaining of data and information, owner/tenant consultations, incremental reviews of proposed designs by the Department, <u>including all coordination meetings</u>, as required to complete the vault program.

## IV.VII RAILROAD AND ABANDONED TROLLEY FACILITIES RESEARCH

1. The Consultant shall research available records regarding abandoned railroad facilities and trolley trackage within the project limits. The Consultant shall search the following record sources: The New York City Public Library Reference Desk, N.Y.C. Transit Authority, Private Utilities, Historical Societies, Trolley Museums.

2. The Consultant shall prepare an inspection/research form for each source, listing documents searched, date, time and results; individual forms shall be packaged into a technical supplement format.

3. The Consultant shall select and coordinate the location for test pits to ascertain the existence, nature, extent and location of abandoned railroad facilities and trolley trackage.

4. The Consultant shall combine the test pit program with any additional Subsurface Exploration Program required under separate tasks included in the Specific Requirements for the Project.

5. The Consultant shall provide field verification and field observation during test pit operations to ensure that all relevant available data is recorded at each test pit location.

6. The Consultant shall document each test pit in a format to be approved by the City.

7. The Consultant shall incorporate any abandoned railroad/trolley system data into the contract documents.

8. The Consultant shall design and incorporate any necessary abandoned railroad/trolley track work into the contract documents and fully coordinate the plans, specifications and estimates.

## IV.VIII ROADWAY PAVEMENT DESIGN

1. Under this task the Consultant shall prepare roadway pavement design(s) to be performed in conjunction with the project.

2. The Consultant shall group the street locations and perform separate pavement designs for each group based on soil conditions and traffic volumes. As many as three (3) separate pavement designs may be required.

3. The Consultant, utilizing the traffic count data obtained under the Traffic Study Task included in the Specific Requirements for the Project, shall determine the appropriate traffic parameters to be used in conjunction with the AASHTO Pavement Design Guide. The Consultant shall integrate/evaluate the results of the mechanical traffic counts and/or manual turning counts provided, and any additional counts obtained under any other design/study element of this Total Design program with data obtained from the Department's Bureau of Traffic, where applicable, as well as from other sources.

4. The Consultant, utilizing any soils data provided by the City, soils data obtained under the Soils Investigation Program provided for in this Contract and taking into consideration the fill requirements for reconstructing the roadways to the proposed grades, shall determine the appropriate soil parameters to be used in conjunction with the AASHTO Pavement Design Guide, as specified herein. The Consultant shall review the soils data provided and any additional soils information obtained under any other task in this Design program as well as from other sources, as available.

5. The Consultant shall develop alternative pavement designs in accordance with the "AASHTO Interim Guide for Design of Pavement Structures, 1972" as currently amended by applicable Departmental Design Directives.

6. The Consultant, using the selected "best fit" soils and traffic count parameters as developed above, shall develop alternative designs for a rigid pavement, a flexible pavement, and a composite pavement for the listed streets and street segments. The design recommendations shall include, but not be limited to, pavement composition, pavement thickness and subgrade treatment.

7. The Consultant shall prepare a Pavement Design Letter Report containing a summary of all tests, classifications and analyses performed in conjunction with the pavement design. This report shall include, but not be limited to, such information as: existing pavement thickness, blow counts, boring logs, soil strata, soil classification, geological research data, traffic volumes, truck percentages, soil parameters, traffic parameters, design assumptions, alternate pavement designs for representative street groups/segments (based upon traffic and soil characteristics), and the design recommendations.

8. The letter report shall be submitted to the Commissioner for review and approval, the Consultant shall incorporate the approved pavement(s) into the Final Design Contract Documents.

## IV.IX EMBANKMENT PROTECTION STUDY

1. Under this task, the Consultant shall develop schematic designs, for roadway protection along areas of fill and cut, to be incorporated into the proposed street improvement project. The scope of this task shall include review of the topographic and utility surveys, obtaining soil borings and analysis of soils, analysis of drainage facilities, development of schematic design(s) for roadway embankment protection and preparation of an Embankment Protection Letter Report.

2. The Consultant shall review the topographic and utility surveys with respect to existing elevations and drainage facilities, and shall reconcile these conditions with the proposed elevations and drainage facilities as developed under other tasks in the Specific Requirements for the Project.

3. The Consultant shall develop provisions to retain and protect existing or proposed roadway embankment in areas of fill and cut along various sections of roadway. The Consultant shall study various alternatives including, but not limited to, provision of sloped embankments and/or retaining structures at fill and cut locations, and shall identify and study the impact of each alternative on adjacent property and the measures needed to mitigate such impacts.

4. The Consultant shall present the proposed alternative treatments to the Commissioner in a strategy session and shall modify his proposals as directed by the Commissioner.

5. The Consultant shall prepare preliminary cost estimates for the construction of each alternative and shall identify, justify and recommend a specific alternative for each location based on an assessment of the impacts of various alternatives on adjacent property and the estimated cost of each alternative including the cost of impact mitigation measures.

6. The Consultant shall determine the soil data needed to design the embankment retaining structures and shall conduct classification, permeability and triaxial shear tests on the soil samples. These borings and tests shall be obtained and conducted under the Soils Investigation Program included in the Specific Requirements for the Project.

7. The Consultant, upon review of all existing and proposed conditions, including an analysis of soil samples, shall develop schematic designs for proposed embankment protection. These schematic designs shall indicate the limits of side slopes; the length, height and location of proposed retaining structures, including footings; drainage and access/egress provisions for private properties; and shall include proposed cross-sections showing new guardrails, fences, slope protection, etc., and indicating the relationships between existing and proposed conditions, including the locations of side slopes and the proposed retaining structures with respect to adjacent private property.

8. The Consultant shall prepare and submit to the Commissioner an Embankment Protection Letter Report, containing the schematic design recommendations, together with all supplemental sketches, maps, analyses, etc., that may be needed in the presentation of the Embankment Protection Study, including estimated construction costs.

9. The report shall also discuss any adverse problems that construction of embankment protection may have upon the project or upon adjacent property owners.

10. Upon review and acceptance of the Embankment Protection Letter Report by the Commissioner, all recommendations thus approved shall be incorporated into the schematic design for the project.

11. The Consultant shall prepare a technical supplement containing all recommendations of the Embankment Protection Letter Report, including copies of all sketches, maps, analyses, minutes of meetings, correspondence, etc., generated in conjunction with the Embankment Protection Study. This supplement shall be incorporated as an Appendix to the Design Report.

## IV.X SCHEMATIC GEOMETRIC DESIGN

1. Under this task the Consultant shall prepare Schematic Geometric Design alternatives for the project street(s). The Schematic Geometric Designs shall indicate the proposed geometry of the roadway(s) including roadway widths, traffic lane(s), bike lane(s), bus lane(s), parking lane(s) and sidewalk width(s), pedestrian mall areas, mathematized alignment data that is sufficient to define alignment and layout in field, and pedestrian crosswalk locations. The Schematic Geometric Designs shall include the preliminary design of street grades and street drainage. The Schematic Geometric Designs shall indicate all necessary provisions for the channelization of traffic including all necessary pavement markings for vehicular lanes delineation and lane widths, pedestrian crossings and channelization and shall be developed within the limits of the mapped right-of-way. The Schematic Geometric Design Alternatives shall include alternate roadway and sidewalk widths, to accommodate traffic in the project street(s), and shall indicate any distinctive roadway and sidewalk treatments proposed including, but not limited to special pavements, lighting, bollards, benches and landscaping.

The consultant shall make a complete photographic record of the project area in order to illustrate the general nature/character of the neighborhood, as well as to illustrate the typical conditions and specific problems/issues/impacts of the proposed program and facilities. The photographs shall be either color or black and white, shall be presented in a three inch (3”) by five inch (5”) format, and shall be suitably indexed, bound and annotated in accordance with the directions of DDC. Photo log is not required if it is prepared under “Project Development/Identification” TASK IV.I-SECTION IV.

Prior to commencement of schematic geometric design, in order to illustrate the impact of the proposed geometrics on surrounding properties, street elements, encroachments, etc., the consultant shall visit the site and photograph project streets in a manner approved by DDC. The consultant shall prepare and submit to DDC a copy of the photo-log prior to start of schematic design.

2. In preparing the Schematic Geometric Design alternatives the Consultant shall:

a) Study the traffic data that is available and/or collected under this Design program, including traffic counts, accident data and level of service analyses for vehicles and pedestrians, and shall develop the design alternatives to mitigate and or eliminate any adverse safety, operational or substandard conditions which can be identified from the data analysis.

b) Coordinate the proposed schematic geometric design alternatives to meet the geometry and proposed geometric configuration of intersecting streets.

c) Design preliminary grades and street drainage; including preliminary top of curb elevations, preliminary roadway and sidewalk cross slopes, preliminary catch basin locations, and basin connections. Assess the impact of proposed preliminary design grades on private property, street drainage, subway structures; and modify and adjust the preliminary design grades to minimize adverse impacts identified.

d) Analyze the proposed schematic geometric designs and any other schematic geometric designs proposed by the City for the project streets with respect to their impact on existing trees, existing property, landscaping, access/egress of existing development, aesthetic treatments, acquisition needs, other City Agency's facilities and private utility facilities. The Consultant shall give special attention to the impact of proposed grades on adjacent property including, but not limited to, the drainage of such properties.

e) When a Consultant and/or DDC identify that the Project has a potential for use of the sustainable designs, as described in Section II.3 of Exhibit F: General Requirements, the Consultant shall incorporate sustainable designs during development of the Schematic Geometric Design alternatives. The Consultant shall analyze the environmental, social and economic benefits of each alternative. The Consultant shall include the results of their studies, their recommendations and the approved Sustainable Design alternative in the PDI report.

f) Prepare, graphically, an impact assessment plan (using a color-coded approved format) showing Right-of-Way and Possession Lines, and items requiring removal for each alternative under consideration.

g) Prepare an impact assessment report summarizing and quantifying the above impacts using a combination text and graphic format (full size continuous plan sheets employing multi-color display of impact types superimposed over screened clean Base Plan), and including cross sections, proposed and Legal Grades, and other details as needed to clarify design impacts/issues/concerns that have been identified.

h) Identify any requirement to perform an Environmental Assessment in accordance with applicable New York City and or New York State Environmental laws and regulations (CEQR, SEQRA) that may result from the proposed design.

i) Make every reasonable effort to mitigate all negative impacts, and make recommendations to the Commissioner on the selection of a specific schematic geometric design alternative.

j) Submit hard copy of the Schematic Geometric Design alternatives for review and present the alternative schemes to

the Commissioner, including the impact assessment for each abutting property.

k) Present the schematic geometric design, selected by the Commissioner, to the Bureau of Traffic for review and approval, and incorporate review comments received from the Bureau of Traffic as directed by the Commissioner. Submit the approved schematic geometric plans to the office of School Safety Program, incorporate their comments as directed by The Commissioner; and obtain their concurrence.

l) Submit the schematic geometric design, selected by the Commissioner, to the private utility companies that own and operate facilities within the project and request their preliminary assessment of the impact that the proposed schematic geometric design will have on their utilities and the measures that they proposed to mitigate the identified impacts.

m) Upon acceptance of the final Schematic Geometric Design and mitigation package by the Commissioner and upon receipt of written notice to proceed from the Commissioner, the Consultant shall present jointly with the Commissioner, the recommended schematic geometric design and impact mitigation proposals to the affected Community Planning Board(s) at a formal public meeting/hearing. The presentation shall include display boards and or projections that are sufficiently detailed to clarify the work and design proposals.

n) Modify the Schematic Design and impact mitigation proposals, based on comments received from the Community Board and private utility companies as directed by the Commissioner.

o) Upon receipt of written notice to proceed from the Commissioner commence other work in conjunction with the Final Design program.

## IV.XI ACQUISITION STUDY AND MAPPING

A. Under this task the Consultant shall provide for the preparation of an Acquisition Study and for the preparation of Acquisition and Damage Maps in connection with the acquisition of property, to be performed in conjunction with the Project.

B. The scope of work for the Acquisition Study shall include review of all design recommendations indicated in the modified Preliminary Design Report; collection of all pertinent tax payment and ownership data; (identification of properties that must be acquired by the City), investigation of the possibility of acquiring properties through Corporation Counsel Opinions (CCOs), obviating the need for formal acquisition procedures; preparation of an Acquisition Study Report; obtaining CCOs, where practicable; and attending all conferences, meetings and hearings, as required, to provide necessary engineering expertise to secure approvals.

C. The scope of work for Mapping shall include obtaining additional topographic survey data, and preparation of Acquisition and Damage Maps. No work shall begin on the preparation of Acquisition and Damage Maps pending approval and written authorization from the Commissioner.

D. ACQUISITION STUDY

1. The Acquisition Study shall analyze the problems involved in the acquisition of properties. It shall ascertain which properties are required for the proper construction of a roadway and whether these properties can be acquired through the use of CCOs. In addition, it shall deal with the impact of possible delays in obtaining acquisitions on the construction program.

2. The Consultant shall conduct surveys and studies and assemble data, including but not limited to the following:

(a) The probable cost of the acquisitions (in dollars).

(b) Any unusual problems, identified, that may be encountered in the acquisition of individual properties.

(c) The probable length of time involved in the actual acquisitions.

3. The Acquisition Study Report shall include the study and analysis of the data assembled, including all recommendations of the modified Preliminary Design Report.

4. The Report shall recommend which locations shall be handled by CCO, which through regular acquisition mapping procedures, and the limits of the areas that should be acquired to allow for construction to be undertaken in accordance with the designs developed under this contract.

5. The Report shall include all sketches, maps, etc., that may be necessary in the presentation of the proposed mapping and subsequent acquisitions.

6. The Report shall include a program, complete with a time schedule, to obtain necessary surveys and data, and to prepare Acquisition and Damage Maps.

7. Identify any requirement to perform an Environmental Assessment in accordance with applicable New York City and/or New York State Environmental laws and regulations (CEQR, SEQRA) that may result from the proposed design.

8. Upon completion of the Acquisition Study, the Consultant shall prepare and deliver his findings and recommendations to the Commissioner in letter-report format.

9. Upon review and acceptance by the Commissioner of the Acquisition Study Report, including approval of the recommendations contained therein, the Consultant shall prepare the necessary documents and back-up material to enable the Commissioner to request the required Corporation Counsel Opinions.

10. The Consultant shall assist the City with his engineering expertise in obtaining the CCOs as well as acquisition by Eminent Domain Procedural Laws. He shall attend necessary conferences and meetings, upon the request of the Commissioner, to present all necessary engineering data, and prepare additional backup material, as required.

E. MAPPING.

Upon approval of proposed acquisition by the Commissioner, the Consultant shall:

1. Establish liaison with the Office of Land Use Coordination of the Department of Transportation.

2. The Office of Land Use Coordination will direct the Consultant to the Office of the Borough President, and to any other involved agency for instructions as to the technique and format of the proposed mapping.

3. The Consultant shall assemble all plotted surveys, profiles and other existing engineering data.

4. The Consultant shall obtain any additional survey information that is necessary.

5. The Consultant shall research and review available reports, designs and documents prepared by the City or other jurisdictions relative to the site or area.

6. The Consultant shall research and review all existing street mapping and legal grade systems relative to the site or area.

7. The Consultant shall prepare the maps in accordance with the instructions of the Office of the Borough President and any other involved City agency, and shall coordinate his work as it progresses.

8. The Consultant shall modify the maps as required by the Borough President until final approvals are obtained.

9 Originals of plans and maps shall be delivered to the required City agency, upon the instructions of the Commissioner.

F. ACQUISITION. The Consultant shall assist the City with his engineering expertise during the Acquisition procedure. This shall include, but not be limited to, the following:

1. Participation in all conferences and meetings on the acquisition, upon request of the Commissioner.

2. Attend public hearings, upon request of the Commissioner, to present the engineering background necessary.

3. Prepare reports, documentation, drawings or back-up material necessary to advance the proceedings.

G. Use of Existing Topographic Survey

1. The Consultant shall make use of the information gathered and plotted under the Topographic Survey Task included in the Specific Requirements of this contract.

H. ADDITIONAL SURVEY

1. In the event that additional survey information is needed in conjunction with the Acquisition, additional survey shall be performed, and the results plotted on the previously plotted Topographic Survey. All additional plotting shall be performed in conformity with original survey plotting.

2. The Additional Topographic Survey shall obtain all property lines, lot lines, curb lines, structures, encroachments, and other data necessary to complete the property Acquisition and Damage Maps. A licensed land surveyor, who is familiar with the particular acquisition requirements of the county in which the work is being performed, shall certify the additional survey.

I. DELIVERABLES. Upon completion of the Acquisition Study, and the Acquisition and Damage Maps, the Consultant shall hand-deliver to the Commissioner the following:

1. One complete set of every Acquisition and Damage Map, in ink, on reproducible drafting film (or other reproducible material as specified by the Office of the Borough President). The license and seal of a licensed land surveyor shall be affixed to the Acquisition and Damage Maps.

2. Five (5) sets of prints of every Acquisition and Damage Map.

3. All notes, studies, designs, analyses, drawings, calculations, data, etc., used in the preparation of the Acquisition Study and Mapping Task.

4. Copies of all correspondence to and from all agencies (City, State, Federal), Utilities, Community Planning Boards, and all others having jurisdiction or interest in the project or area.

5. Original survey notes and plotted survey tracings.

J. All original Topographic Survey information shall be dated, signed and certified to by a licensed surveyor. The License Seal of the surveyor and/or Registered Professional Engineer shall be shown on all plans, tracings and tabulation sheets.

K. All of the above material shall become the property of the Commissioner.

L. The acceptance and/or approval by the Commissioner of any part of the work as herein described shall not relieve the Engineer of responsibility for the completeness and/or accuracy of the Acquisition Study and Mapping prepared under this contract.

M. Upon review and acceptance by the Commissioner of the Acquisition Study Report, and upon the approval of recommendations contained therein, the Consultant shall incorporate the design requirements necessary to implement said recommendations into the Construction Contract Documents for the Project.

## IV.XII QUANTITY AND COST ESTIMATING

1. Under this task the Consultant, utilizing the Schematic Geometric Design Drawings, and the Preliminary and Final Contract Drawings, shall prepare detailed Estimates of Quantities and costs for all pay items of work that are required under the ensuing construction contract at various stages of this design program. The Estimate of Quantities and costs shall be used as the basis for the detailed Consultant's Estimate for the project.

The Consultant shall prepare and submit an updated estimate of quantities and costs at the following stages of the project:

a) For Preliminary Design projects:

At the completion of Preliminary Design.

b) For Total Design Projects:

1. Phase 1: at the completion of Preliminary Design;
2. Phase 2: at Mass Mailing No. 1 (approximately 40% design completion);
3. Phase 3: at Mass Mailing No. 2 (approximately 75% design completion);
4. Phase 4: At 100% design completion for use in bid documents.

c) for Final Design Projects:

1. Phase 1: at Mass Mailing No. 1 (approximately 40% design completion);
2. Phase 2: at Mass Mailing No. 2 (approximately 75% design completion);
3. Phase 3: At 100% design completion for use in bid documents.

The Consultant shall revise and resubmit the estimate of quantities and costs in accordance with comments from DDC.

Where special materials and amenities are proposed the Consultant shall prepare a cost comparison of the standard materials versus the special materials and amenities proposed.

2. The Consultant shall prepare the detailed Consultant's Estimate in accordance with currently applicable Departmental standards and procedures.

3. The Consultant's Estimate of Quantities and Cost shall be prepared and documented on computation sheets which shall indicate:

a) The estimator and checker’s name (printed);
b) The estimator and checker’s signature or initials;
c) Date that the estimate is prepared;
d) The Project ID. and street name;
e) Item number and description;

f) The specific station(s) and/or location or limits of the item;
g) Individual item summary sheets;
h) The measurements (including units) and/or counts, and computations;
i) List of all assumptions;
j) Completely identify all/any reference source material in accordance with standard bibliographical format;
k) Show all unit price adjustment factors.

4. Quantity take-off by CAD shall require preapproval from the Commissioner for methodology, programming and documentation.

5. Pay items and quantities for all Contract work shall specifically reflect the scope of work as defined in the contract documents.

6. Pay items and quantities for maintenance and protection of traffic work shall accurately reflect operations, staging, sequencing, working hours, weekend work, and conditions stipulated on the contract plans and in the specifications.

7. The Consultant shall provide a breakdown of the quantities and costs for the various items of work that are to be charged to each City agency's budget code(s) and to each private utility. Where participation by the State, Federal government and/or private parties is anticipated, a breakdown of costs chargeable to each is to be provided.

8. The Consultant shall prepare summary tables for all contract items - including quantities, unit prices, extensions and individual charges which shall be in sufficient detail to enable a reasonable projection of the project cost. The Consultant shall input this data into the Department's computerized scope/estimate program.

9. The level of accuracy for the estimate of quantities shall be rounded to appropriate whole multiples.

10. The Consultant shall prepare a composite Scope packet, in accordance with currently applicable Departmental standards and procedures.

11. The Consultant shall revise and update the Consultant's Estimate of Quantities and costs and to account for all revisions to the contract drawings and specifications required during the review and/or bidding process.

12. The Consultant shall coordinate and incorporate estimates of quantities and cost for private utility work that is to be included in this contract. Estimates of quantities and unit prices for private utility work will be provided by the respective utility companies. Estimates of quantities and unit prices for Gas Cost Sharing Work will be provided by the Department.

13. Payment:

Payment for this task shall be made at the completion of the various phases indicated below, contingent upon the Consultant's satisfactory completion of each phase, and submission of cost estimate, including all necessary back up documentation. The amount of payment for each phase shall be limited to the specified percentage of the total fee for "Quantity and Cost Estimating", as indicated below:

(A) Total Design:

a) Phase 1: at the completion of Preliminary Design, payment shall be equal to 25% of total fee for "Quantity and Cost Estimating";
b) Phase 2: at Mass Mailing No. 1, payment shall be equal to 25% of total fee for "Quantity and Cost Estimating";
c) Phase 3: at Mass Mailing No. 2, payment shall be equal to 25% of total fee for "Quantity and Cost Estimating";
d) Phase 4: at 100% design completion, payment shall be equal to 25% of total fee for "Quantity and Cost Estimating".

(B) Final Design:

a) Phase 1: at Mass Mailing No. 1, payment shall be equal to 30% of total fee for "Quantity and Cost Estimating";
b) Phase 2: at Mass Mailing No. 2, payment shall be equal to 30% of total fee for "Quantity and Cost Estimating";
c) Phase 3: at 100% design completion, payment shall be equal to 40% of total fee for "Quantity and Cost Estimating".

If the Consultant fails to prepare and submit to the Commissioner the cost estimate for any of the above mentioned phases, or delays submission of the cost estimate without any justifiable reasons, an amount equal to the percentage shown for each phase will be permanently forfeited from the payments for non-compliance, and the total contract amount will be reduced by that amount, accordingly.

## IV.XIII SEWER DATA SURVEY, AREA DRAINAGE AND GRADE STUDY, DRAINAGE PLAN

A. Under this task, the Consultant shall:

1. Survey and plot all sewer data within the project limits as defined herein.

2. Perform a thorough review and study of all adopted and proposed drainage plans, sewers, easements, existing and legal street grades and mapped street systems within the project limits, and recommend all necessary changes thereto or, develop a new Drainage Plan for the Project in conjunction with a fully coordinated street, storm and sanitary sewers, or combined sewers improvement project.

B. SEWER DATA SURVEY

1. The Consultant shall research all available maps, plans, records, etc., and where as built data is missing, take appropriate field measurements/elevations of existing sanitary, combined or storm water sewers within the limits of the project, including interceptor sewers.

2. This records search and survey shall determine the locations, elevations and sizes of all existing sewers and appurtenances, outfalls, manholes, catch basins and drains.

3. The information to be obtained by the Consultant shall include, but not be limited to, the following:

a) Distance from existing sewers' centerlines to an existing building line;

b) Distance of manholes from the building line in the nearest intersecting street;

c) Existing ground surface elevations and legal grades;

d) Invert elevations of the existing sewers;

e) Internal sizes of the existing sewers;

f) Type of material used, i.e., concrete, brick, vitrified clays in existing sewer construction;

g) Invert elevations of all existing house traps;

h) Location of all mapped sewer easements.

4. The following criteria shall be observed:

a) All measurements and elevations shall be taken at or to an existing manhole.

b) All distance and internal sizes of the sewers shall be measured to the nearest one-tenth of a foot.

c) All elevations shall be measured to the nearest one-hundredth of a foot, using the respective Borough Sewer Datum.

5. The Consultant shall plot the results of the Sewer Data Survey including the boundaries of all Drainage Areas located both within and contiguous to the project area, as determined by the water shed limits of all previously completed drainage plans, existing sewers and ridge lines as may be available.

6. The plotted Sewer Data Survey shall also show the locations of all mapped sewer easements with respect to mapped street lines, and shall locate and identify all structures and other major features encroaching upon the sewer easements.

7. The Consultant shall indicate, on the plotted Sewer Data Survey drawings, all locations at which field data were obtained.

8. The Consultant shall review all data thus obtained, and shall coordinate this data with the Topographic Survey and the Utility Survey.

9. The Consultant shall reconcile all discrepancies in the location and identification of all sewer elements.

10. The Consultant shall submit, to the Department, original survey notes and survey computations together with all sewer drawings, plans and plates, which shall become the property of the City.

11. The Consultant shall plot the Sewer Data Survey in accordance with the current Departmental Drafting Standards and requirements for Topographic and Utility Surveys.

12. The Consultant shall prepare a technical supplement on the Sewer Data Survey and shall incorporate this supplement as an Appendix to the Preliminary Design Report. The supplement shall include, but not be limited to, the following factors that may impact upon future sewer construction and/or drainage of the project area:

a) General description of all sewers located within the project area;

b) Maps of all existing drainage plans;

c) Maps of existing sewer easements;

d) Maps/sketches of all proposed sewer projects;

e) A discussion of all topographic feature;

f) Proposed mapping or demappings;

g) Outfall locations;

h) Encroachments upon sewer easements, etc.

C. DRAINAGE AND GRADE STUDY, AND DRAINAGE PLAN

1. This study shall provide for:

a) The retention of as many of the existing grades and as many of the existing street systems as possible, provided the procedures, concepts and criteria used in the design of these grades and street systems are in accordance with the design parameters of the Department, and of the Bureau of Sewers.

b) The retention of as much of the existing sanitary and storm water sewer systems(s) as possible, provided the sewers meet the present design criteria of the Bureau of Sewers. The Consultant must consider the age, condition and capacity of the existing sewer system in preparing the proposed drainage plans(s). In order to evaluate all the factors relating to this decision, the Consultant will be required to consult with the various Divisions of the Department of Environmental Protection that may have knowledge of the conditions affecting the sewers.

2. In evaluating the feasibility of revising existing drainage plan(s), the Consultant shall endeavor to accommodate the recommended changes within the mapped street widths and easements, and legal grade lines of the streets. In instances where such accommodation proves impractical, the Consultant shall judiciously modify street design proposals to enable the Consultant to produce a workable drainage plan.

3. Prior to commencing the design of the proposed drainage plan, the Consultant shall consult with the Drainage Section of the Department of Environmental Protection on the retention of the existing sewer and the proposing of sewers that slope contrary to the slope of the street, as determined from the final mapped grade.

4. The Consultant is advised that there may be other projects under current or future contracts between other consultants and the Department that should be considered in the design of this project.

5. When designing the sanitary and storm water sewers for this project, the tributary flow from adjacent areas, outside the limits of this project, must be included.

6. Previously completed drainage plans that affect the project area must also be considered.

7. With respect to sanitary sewer schemes, the Consultant shall be required to utilize all existing area interceptor sewers for sanitary sewer drainage.

8. The Design of all Sanitary and Storm Water Sewers shown on the proposed drainage plans shall:

a) Be based upon approved adopted final maps where available, and/or proposed grades and street systems, or upon otherwise available topographic maps of the area and corresponding final and/or proposed grades.

b) Be related to the prevailing zoning regulations, land occupancy and estimated future population with due allowance for practical ultimate need when the areas are fully built up.

c) Be related to the probable extent of pervious and impervious surface cover when the areas are fully developed. Underdeveloped residential, industrial, or commercial areas, parks, Government reservations, and institutional land shall be treated on an area basis only.

d) Be in conformity with current practices, requirements and design criteria of the Bureau of Water and Sewer Operations.

e) Include the streets, parkways and expressways, within the project area, shown on either adopted final maps, or on pending final maps, or on other maps as available for each of the sections.

f) Consider sewer(s) crossing existing or proposed expressways, parkways, subways (whether underground or elevated), railroads, subsurface utilities, etc.; and design the sewers in coordination with the appropriate City Departments, State, Federal, or public and private agencies having jurisdiction over these facilities.

g) Certain drainage studies related to sanitary and storm water sewers that were prepared by the Bureau of Sewers, over the years, may include, in part, drainage data for sections included in this study. In connection with the final design of drainage plans to be prepared under this study, it is intended to utilize the available data to their maximum

usefulness and the City will make them available for the purpose.

h) Where existing drainage plans are available for all or sections of the Project Area they shall be reviewed to determine whether they satisfy current design criteria. If the existing drainage plans satisfy current deign criteria they shall be incorporated in the final drainage plans for this project. If the existing drainage plans do not satisfy current design criteria, new sewers shall be designed and incorporated in the final drainage plans for this project.

i) In connection with the preparation or review of drainage plans, the Consultant shall obtain all available preliminary studies, drawings, sketches, field data, office computations, memoranda, and any other pertinent data from the Bureau of Sewers.

j) All existing and proposed sanitary and storm water sewers shall be shown in worksheet form on plans and profiles. These plans and profiles shall show:

(i) In Plan

Both building lines of sewered street and street crossings, block lengths, all street widths, final or proposed grades, single line for sanitary and storm water sewers and for all major utilities approximately located in sewered street, all sewer sizes and lengths.

(ii) In Profile

A separate line for each curb where they are not coincident, inside top and bottom lines of sanitary and storm water sewers, inside top elevations of sewers at all changes of size and grade, sewer crossings with inside top elevations and clearances at point of crossing, all major utility crossings, sizes, slopes and velocities of sewers.

(iii) These plans and profiles shall be drawn to a horizontal scale of 1 inch equals 50 feet and a vertical scale of 1 inch equals 4 feet. These profiles shall be drawn in grid form.

k) The Consultant shall design a Drainage Plan in the currently required Bureau of Sewers format, and shall submit the Drainage Plan to the Bureau of Sewers for review and approval. The submission shall include relevant sewer and topographic data, and computations required by the Bureau of Sewers.

l) The Consultant shall revise the Drainage Plan in accordance with any comments received from the Bureau of Sewers and shall reiterate the submission until approval of the Drainage Plan is obtained from the Bureau of Sewers. The signature of the Authorized Department of Environmental Protection personnel on the Drainage Plan shall indicate its approval.

m) The Consultant shall prepare a technical supplement to the Drainage and Grade Study and shall incorporate this supplement as an Appendix to the Preliminary Design Report. This supplement shall include all maps, drawings, sketches, notes, calculations, proposed grades and street systems, proposed drainage plans, and all other information necessary for the presentation of a properly drained and graded street improvement project.

9. In evaluating the feasibility of retaining existing grades and street systems, the Consultant shall perform the following work:

a) Conduct a profile study of all existing street grades, and compare with adopted and proposed legal grades and with existing and proposed sewer profiles.

b) Conduct a general review of the Topographic Survey, noting the elevations of all first-floors and entrance ways (including garage and cellar doors, cellar windows, ventilation gratings, steps, loading docks, etc.) with respect to legal grades.

c) Conduct a general review of the mapped street systems, noting overall existing right-of-way widths, clearances between rights-of-way and building structures, and potential future encroachments and/or demolition with respect to right-of-way widening.

d) Study the present street system with respect to usage by passenger and commercial vehicles.

10. Upon review of all existing grades and street systems, the Consultant shall determine the impact that the raising and/or lowering of all streets to legal grade and/or the widening of rights-of-way will have upon the abutting properties and structures.

11. Upon evaluation of all data thus obtained, the Consultant shall determine, on the basis of feasibility, economic impact and preservation of the character of the neighborhood, those areas

where retention of existing grades and street systems is both necessary and desirable.

12. The Consultant shall then design new proposed legal grades as necessary.

13. The design of all proposed legal grades shall be performed in accordance with procedures, concepts and criteria as required by the Department.

## IV.XIV HAZARDOUS WASTE AND SITE CONTAMINATION

Under this task the Consultant shall conduct site investigations within the project limits to determine the extent and degree of any contamination that may exist, and develop procedures for any site remediation needed.

1. PRELIMINARY HAZARDOUS WASTE AND SITE CONTAMINATION INVESTIGATION

Using the following procedures the Consultant shall assess the site for potential involvement with hazardous waste:

a) The Consultant shall conduct an inspection of the site to determine existence of the following warning signs:

(i) Noxious odors emanating from the soil or water;
(ii) Discolored soil, water or foundations;
(iii) Leaking pipes, transformers, tanks, and barrels;
(iv) Dead vegetation or lack of vegetation.

b) The Consultant shall conduct Past Land Use Research of the area within and abutting the project limits to identify potential polluters and any indication of the likelihood of existing unknown contaminants. This should include but not be limited to the research of local assessor's records, City building permit records, title abstracts, long time area residents, local maps that are available for review at public libraries, United States Geological Survey records, available boring logs, Department of Conservation Right-to-Know survey results, historical societies' records, shipping and receiving documents, invoice records, detailed plant and site layout drawings, former employees, Department of Health and Department of Environmental Conservation employees.

Specific uses and activities of concern include, but are not limited to, chemical plants and refineries, auto body/repair shops, coal gasification plants, dry cleaning plants, electronics manufacturing, foundries, electro-plating operations, gasoline service stations, junk/scrap yards, metal and machine fabrication, municipal landfills, industrial landfills, paint shops, machine shops, printing shops, sludge management areas, transportation related chemical or petroleum spills, and rod and gun clubs.

c) The Consultant shall review the Department of Environmental Conservation's underground storage tank records and the results of leakage tests performed on such tanks.

d) The Consultant shall consult with the Health and Fire Departments to obtain information regarding known hazardous waste problems in the area.

e) The Consultant shall review the results of the Subsurface Exploration Program to determine if any of the above mentioned warning signs were identified.

2. PRELIMINARY HAZARDOUS WASTE AND SITE CONTAMINATION ASSESSMENT

The Consultant shall assess the results of the Preliminary Investigation and shall prepare and submit a report of the findings of the Preliminary Investigation and Assessment to the Commissioner. The report shall clearly state whether or not there is any indication that hazardous waste would be encountered by project activities, and shall advise the Commissioner on the need for conducting a Phase I Testing Program as specified below.

3. PHASE I TESTING

This may include air, soil and/or water sampling at the site. This testing may also include subsurface soil and/or water. The sampling shall determine what pollutants are present at the site and their concentrations. Testing of the samples shall be performed by a laboratory that is technically qualified to perform such work and listed, as such, by the DEC.

a) Where directed by the Assistant Commissioner Infrastructure Design the Consultant shall engage the services of a firm, that has been listed by the Department of Environmental Conservation (DEC) as being qualified to perform such work, to develop the scope of work for a Phase I Testing Program for the project site.

b) The Consultant shall develop the testing program in conformity with the requirements of any regulatory agency that has jurisdiction over such operations and shall submit his/her proposals to and meet with representatives of such agencies, as necessary, to ensure compliance with their requirements.

c) The Consultant shall submit the proposed scope of work for Phase I Testing and a proposal for conducting the testing program to the Commissioner for approval.

d) Upon approval of the Phase I Testing program by the Commissioner, the Consultant shall, using the services of the DEC listed firm and accepted laboratory, conduct the approved testing program.

e) The results of the testing shall be presented in a report to the Commissioner. The report shall detail the procedures employed during the field investigation and the field observations made; shall evaluate the technical data obtained; and indicate the nature, concentration and location of any contamination detected and the possible sources of such contamination. The report shall indicate, specifically, one of the following:

i) A finding of no contamination;

ii) A finding of minor contamination which poses no significant threat to health or the environment;

iii) A finding of potential significant threat to health or the Environment.

f) The report shall indicate the need for site remediation and for additional testing; the extent of remediation needed; and shall present and discuss procedures and methods that should be used to accomplish such remediation.

4. SPECIFICATIONS FOR SITE REMEDIATION

Where directed by the Commissioner, the Consultant, using the services of the DEC listed firm, shall develop and provide the Commissioner with specifications for site remediation work that are to be included in the proposed construction contract. The specifications shall include procedures for removing, storing, monitoring, testing, and disposal of contaminated materials; and for protecting workers and the public from contamination during construction operations.

## IV.XV STREET DESIGN INCLUDING STUDY AND DESIGN OF STREET GRADES, STUDY AND DESIGN OF STREET DRAINAGE, AND PERMANENT STREET SIGNS

1. Under this task the Consultant shall study and design street components and appurtenances; incorporate the various design elements developed under the other tasks included in the Specific Requirements of this Contract; prepare Preliminary, Pre-Final and Final Contract Documents incorporating other agencies design work, including the obtaining of comments/approvals for submissions that are complete with specifications, estimates and other ancillary items; and that are ready for bidding.

2. This Street Design Task is the basic design element of the Final Design Program that is to be executed under this Contract. Under the Street Design Task the Consultant shall coordinate the technical details of all the tasks included in the Specific Requirements, including (a) Study and Design of Street Grades, (b) Study and Design of Street Drainage and (c) Permanent Street Signs into the street design, and consolidate them into one unified, Bid-Ready Contract Document. The Consultant shall not proceed with work on any Final Design Task without prior written approval from the Commissioner.

3. In studying and designing the street elements, appurtenances and other appropriate elements of this project the Consultant shall:

a) Be responsible for expediting and advancing the development, approval and acceptance of the final schematic design in conformity with the project objectives.

b) In addition to the programmed Mass Mailings No.1 and No.2 required herein, be accountable to initiate actions for incremental review(s) of the proposed designs by various agencies and interested parties, including follow-up meetings to obtain expeditious resolution of questions and concerns as needed to permit approvals and to meet the approved contract time schedule.

c) Design the street(s) and execute the associated tasks including the preparation of Preliminary and Final Contract Documents generally in accordance with the approved Schematic Geometric Design and, where applicable, the approved Schematic Landscape/Urban Design for the Project as developed in accordance with these Specific Requirements.

4. In preparing the Preliminary Contract Documents the Consultant shall:

a) Develop the Preliminary Contract Documents for the project street(s) and associated tasks, in accordance with the requirements

of this and the other tasks included in the Specific Requirements of this Contract.

b) Develop the Preliminary Contract Drawings by superimposing the approved schematic geometric design on the "Clean Base Map", unless otherwise specified by the Commissioner. In general, the Preliminary Contract Drawings shall be in sufficient detail, especially the proposed roadway geometrics, to allow the interested parties to visualize the intended Final Design concepts.

c) Incorporate the plotted Utility Survey and plotted profiles into the Preliminary Contract Drawings as directed by the Commissioner, and utilize the information available from these documents to check design assumptions and potential interference with utility facilities, substructures and abutting properties.

d) Prepare the Preliminary Contract Drawings to generally comply with the following requirements and as otherwise directed by the Commissioner:

i) The drawings shall show the locations of existing physical features, both surface and subsurface, which may affect the proposed work.

ii) The drawings shall show the horizontal locations and vertical locations of all work proposed under this project. Horizontal locations shall be established by station and offset. Horizontal and vertical locations shall be within the limits of accuracy established in the plotted Topographic Survey developed during the Preliminary Design Stage and herein modified and updated, and shall be tied to the project baseline.

iii) The drawings shall show essential information, which shall include, but not be limited to existing elevations, proposed design elevations, street drainage proposals developed under Subsections (a) Study and Design of Street Grades, and (b) Study and Design of Street Drainage, block and lot numbers, street addresses, sections, details, notes, sketches, and any other information needed to fully define the proposed design, in accordance with currently applicable Departmental Standards.

e) In addition to the sustainable design(s) approved by the Commissioner during the Schematic Geometric Design, when a Consultant and/or DDC identify any other street elements to have a potential for use of the sustainable design, as described in Section II.3 of Exhibit F: General Requirements, the Consultant shall follow High Performance Infrastructure-Best Management Practices (BMP) based on the core principles of sustainable design during development of the Final Design. The Consultant shall

analyze the environmental, social and economic benefits of each alternative and present the results of their studies and their recommendations in a report format to the Commissioner. The Consultant shall incorporate the approved design into the Final Design Documents.

f) Consolidate the Preliminary Contract Drawings and transmit them for information and review by all relevant City agencies, utilities and jurisdictions in accordance with the Department's Mass Mailing No. 1 requirements.

5. In preparing the Pre-Final Contract Documents the Consultant shall:

a) Develop the Pre-Final Contract Documents for the project street(s) and associated tasks, in accordance with the requirements of this and the other tasks included in the Specific Requirements.

b) Develop/design project curbs in conjunction with usage and depth of pavement, including type, locations and appropriate details.

c) Develop/design/coordinate and locate pedestrian ramps after an analysis of potential interference caused by existing/proposed facilities in the area. The specific location, configuration and grading of pedestrian ramps, contiguous sidewalks and gutter flow at apex of corners shall be designed and coordinated with the conditions and hardware within the corner quadrant including but not limited to traffic signals, catch basins, manholes, grates, lampposts, etc.

d) Reconcile existing driveway locations with building or property activity requiring a driveway access. The Consultant shall design driveway location(s) in accordance with current Department of Transportation procedures regarding replacement driveways.

e) Prepare customized letters, for City signature, to property owners where existing driveway is not being replaced or where it is proposed to reconfigure existing driveway.

f) Develop/design adjustments to City-owned castings including details necessary for special casting adjustments.

g) Develop/design non-structural adjustments to existing Transit Authority subway ventilators and emergency exits, including replacement and adjustment of frames, gratings and doors to proposed grades, and modification of ventilators to conform with aesthetic treatments proposed for curbs and sidewalks.

h) Coordinate the preparation of a Transit Authority Force Account Agreement to allow the City to reimburse the Transit Authority for the cost of providing inspectors at the site during test pits excavation, and for access to Transit Authority ventilators for possible field inspection. The Consultant shall provide separately for Transit Authority insurance required to cover inspection of Transit Authority facilities and excavation of test pits in the vicinity of such facilities.

i) Design and define the limits of pavement construction/ restoration for all streets affected by the proposed work.

j) Develop/design pavement markings for lane delineation, pedestrian crossings, channelization and for additional traffic controls as needed.

k) Include provisions for removing/relocation/resetting of Fire Department facilities, parking meters and the Bureau of Water Supply hydrant facilities that are affected by the proposed street design and integrate the designs into the contract documents.

l) Review the results of sewer cleaning, sewer television inspection and manual sewer inspection programs performed under other contracts or by the Department of Environmental Protection personnel as they relate to this Project; coordinate the results and recommendations from said programs with this Project, and integrate and incorporate required sewer work into the contract documents.

m) Prepare, where necessary, working drawings/cross-sections/supplementary profiles conforming to currently applicable Departmental Standards.

n) Incorporate preliminary maintenance of traffic alternatives for the various construction stages of the project. The preliminary maintenance of traffic alternatives, as developed by the Consultant, shall be reviewed/coordinated with the Commissioner, the Department of Transportation’s Office of Construction Mitigation and Coordination and affected interested parties in accordance with the requirements of the Construction Staging and Maintenance and Protection of Traffic Task included in the Specific Requirements.

o) Incorporate the Preliminary Consultant's Estimate and Scope package prepared under the Quantity and Cost Estimating Task included in the Specific Requirements of this Contract.

p) Update the title sheet for the contract drawings and the legend/note/reference sheets.

6. In addition to incremental packets, the Consultant shall combine the Pre-Final Street Design contract drawings, the drawings for other tasks, the updated title sheet and the legend/note/reference sheets into one composite package of Pre-Final Contract Documents.

7. The Consultant shall transmit the composite Pre-Final Contract Documents to all relevant City agencies, utilities and jurisdictions for information and review in accordance with the Department's Mass Mailing No. 2 requirements.

8. The Consultant shall submit to the Department, copies of the composite contract documents and composite scope packet for a final technical and construction review.

9. The Consultant shall schedule and conduct a joint utilities Alignment Meeting to identify and provide for the mitigation of design impacts on utility facilities.

10. Upon completion of the final technical and construction reviews, the Consultant shall prepare composite Final Contract Documents.

11. In preparing the Final Contract Documents the Consultant shall:

a) Finalize the coordination, resolution and incorporation, as appropriate, of all review comments on the composite Pre-final Contract Documents, except that comments on other agency designs shall be addressed by the design agency; but shall, however, be coordinated by the Consultant.

b) Modify and correct, as appropriate, the detailed Pre-Final Contract Documents in accordance with the comments received from the interested reviewing parties. The Contract Drawings shall be incrementally resubmitted, as necessary, to the interested parties for review, comments and/or approval. This process shall be reiterated until such time as required approvals are obtained. Comments received on "other agency" designs shall be forwarded to the design agency for resolution or modification of its contract documents.

c) Upon receipt of approvals for the detailed Pre-Final Contract Document Package, including the maintenance of traffic schemes, consolidate the Contract Drawings into a single, unified document. The Contract Drawings shall include, but not be limited to such items as title sheets, tables of contents, table of quantities, survey control sheets, sections, details, plans, profiles and other items deemed necessary for the proper completion of the Contract Drawings. In general, this consolidated set of Contract Drawings

shall represent, as near as practicable, the final design for the project.

12. The Consultant shall prepare and distribute all notices that are required, prior to the advertising for bids for construction in accordance with currently applicable Departmental Standards and Procedures.

13. The Consultant shall apply for and obtain permits and approvals required in connection with the ensuing construction contract, as directed by the Commissioner.

14. All drawings, before being submitted to the Commissioner for final acceptance, shall bear the stamps of approval and be accompanied by all necessary applications, certificates, or permits of all City, State or Federal Agencies having jurisdiction over any phase of the work.

15. Upon completion of the detailed consolidated Contract Documents, including the incorporation of changes as required in conjunction with the final technical review, the Consultant shall submit the composite Contract Document package to the Commissioner for review and approval. This submission shall include, but not be limited to the following:

a) The original of the title sheet, signed by the Consultant, prepared in a format as approved by the Commissioner.

b) A set of paper prints of the Contract Drawings.

c) A copy of the Project Fact Sheet prepared in the currently required Departmental format.

16. The signature of the Commissioner on the title sheet of the Contract Drawings shall constitute approval of the Design.

17. Upon approval of the Contract Documents, the Consultant shall prepare and submit to the Commissioner, the complete Bid-Ready package of the Contract Documents. This package shall include the appropriate number of copies, as outlined in Section II.5 of these Specific Requirements, of the following: complete, bound, signed Contract Drawings; complete, unbound Contract Specifications, Addenda and Bid Schedule Sheets; Composite Scope Packet; and approvals and permits required for the prosecution of the ensuing construction contract; all as required under the various tasks included in the Specific Requirements of this Contract.

18. The Consultant shall make no substantial changes to the Final Contract Documents, as approved by the Commissioner, unless specifically ordered to do so by the Commissioner.

### (a) Study and Design of Street Grades

Under this subsection the Consultant shall study the existing grades and design proposed grades for the project's roadway(s), sidewalks, and intersection(s) including intersecting roadway(s) and sidewalks in accordance with the design criteria provided by the Commissioner or recommended by the Consultant and accepted by the Commissioner. The Consultant shall:

a) Where the topographic survey is to be provided under this Contract:

(i) Coordinate with the Surveyor, as appropriate, the integration of project topographic survey work with project grade design work in accordance with the project design needs and approved project schedule;

(ii) Be solely responsible to coordinate, with the surveyor, the quantity and/or location of spot elevations and profiles to be produced, and shall "customize" the data gathering to "specifically" satisfy the design requirements for all grade design;

b) Utilize existing topographic data to the extent necessary for the proper completion of this task;

c) Analyze in detail and design "best fit" project grades for top of curb, back of sidewalk, building line, fence line, or other grade control points or profiles with a view to minimizing negative impacts on adjacent development, adjacent properties (driveways, walkways, loading docks, parking areas, building entrances, steps, underground structures and/or infrastructure, plant life - including trees), while providing for adequate roadway and property drainage, adequate sidewalk cross slopes and the design of measures needed to mitigate such impacts.

d) Develop/design project sidewalk cross slopes upon completion of a review of the project profiles in compliance with the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) - specifically providing, where feasible, a continuous path having a 2% maximum cross slope with ramps having a maximum longitudinal slope of 5%, to the maximum extent possible in the design of curb and sidewalk grades;

e) Provide both graphic exhibit(s) and text to justify all "site infeasibilities". Prepare a final Americans with Disabilities Act Accessibility Guidelines "site infeasibility" justification report for all properties/locations that will have non-conforming sidewalks, in a format determined by the City. The report shall document in tabular, graphic and/or other preapproved format the

location, nature, extent and justification for all locations at which, in the judgment of the Consultant, it is infeasible to comply with the 2% maximum sidewalk cross slope and 5% maximum longitudinal ramp slope requirement(s) of the Americans with Disabilities Act Accessibility Guidelines;

f) In conjunction with the mitigation of adverse property and street impacts (including substandard longitudinal gutter grades, street trees, shrubs, fences, walls, sidewalk removals, addition of entrance steps and access/egress solutions) the Consultant shall develop the "best technically feasible fit" top of curb for each block face and each individual property and intersecting street, through the performance of a detailed grade analysis and design, which shall consist of an intensified study and a reiterative design process for proposed grades on curb and sidewalk, and integrating into the detailed design process all of the factors listed above which will affect the desired solution;

g) Perform topographic surveys to obtain additional survey data including spot elevations to "fully support" the detailed grade design and reiterative grade design process where needed;

h) Locate and plot customized profiles, which shall require pre-approval by the City, for the purpose of executing the detailed analysis and design of project grades. Locate and plot customized cross sections, which shall require approval by the City, for the purpose of executing the detailed analysis and design of project grades;

i) Develop/design roadway crowns and/or cross slopes within the framework of Departmental or other approved standards and the existing crowns and cross slopes for streets abutting and/or intersecting the project limits;

j) Design sidewalk pavement grades at and into all intersections and terminal streets to meet the existing conditions and/or the proposed design in each intersecting street. The application and/or use of transition areas to satisfy this design requirement shall, for the purposes of this program, not be considered an adequate level of study and or design;

k) Reiterate the foregoing grade study and design requirements, until a "best fit" grade design is achieved, including, but not limited to: the plotting and study of additional profiles; plotting and study of additional cross sections, the securing and study of additional topographic data as described above, and as needed to meet/comply with the specific site constraints and specific site issues including, but not limited to, street/roadway drainage, required cover for storm sewers, drainage of private properties, and the Americans with Disabilities Act Accessibility Guidelines;

l) Incorporate and integrate the proposed design grades into the composite Contract Drawings and with other affected project components;

m) Prepare a "grade change exhibit" for the entire project site, in the standard format prescribed by the Department in consultation with the Topographical Bureau of the respective Borough President's Office, identifying all locations where the proposed design grades vary from the existing Legal Grades.

**(b) Study and Design of Street Drainage**

1. Under this subsection the Consultant shall study the site and tributary storm water flow patterns and/or their routings; study the proposed street grades developed under the preceding Subsection (a) Study and Design of Street Grades as described above; design the locations of proposed catch basins; design the locations of catch basin chute connections to existing or proposed storm or combined sewers; and provide adequately for drainage of all streets that are included in this project.

2. In studying the existing street drainage facilities, researching storm water run-off and designing new drainage facilities the Consultant shall:

a) Utilize the topographic data provided to the extent necessary and applicable for the proper completion of this task;

b) Conduct a "rainy day survey" to observe all gutter flow routings, all ponding and flooding locations, and all inoperative catch basins and inlets;

c) Design the locations of catch basins and the routing of chute connections into appropriate storm or combined sewers;

d) In coordination with the Study and Design of Street Grades Task, analyze and design alternate sidewalk and street drainage schemes including, but not limited to, the adjustment of transverse sidewalk slopes and provision of longitudinal troughs.

e) Design all non-standard sewer appurtenances;

f) Design, coordinate and incorporate into the contract documents the conversion of existing manholes with 24 inch diameter frame and covers to manholes with 27 inch diameter frame and covers, and all other catch basins, manholes, basin connections, and non standard drainage appurtenances;

g) Provide a constructibility review and reiterate all drainage design elements with regards to the mitigation of impacts with City owned facilities in accordance with pre-engineered methodology;

h) Present the street drainage plans to private utility companies for private utility impact assessment.

## (c) Permanent Street Signs

1. Under this subsection the Consultant shall inspect and inventory the existing street signs, research and review the "street sign work order" records of the Bureau of Traffic Operations, make recommendations for modifications to the existing street signs and for new street signs, as appropriate.

2. The Consultant shall take into consideration all existing traffic regulatory signs, traffic warning signs, street name signs, including Landmark District special signs, parking regulation signs, and information signs, in executing the work required under this task.

3. The Consultant shall inventory all permanent street signs as defined above.

4. The Consultant shall design street signage required for the project street(s) in compliance with the latest standards of the Bureau of Traffic Operations, and/or the New York State Manual of Uniform Traffic Control Devices, where applicable, as determined by the Commissioner in consultation with the Consultant.

5. The Consultant shall present his/her proposals, for new street signage, to the Bureau of Traffic Operations for review and approval.

6. The Consultant shall prepare a list of all street signs required for this project in tabular format. The list shall indicate the text and size of each sign required, and the Consultant's estimated quantity for each sign.

7. The Consultant shall include a tabulation of all required street signs on the contract drawings being developed for this project in accordance with current Departmental requirements.

8. The Consultant shall prepare a list, including the quantities, of all street signs and street sign posts to be removed and installed during construction, in accordance with current Departmental policy, and shall include the items of work and their respective quantities in the construction bid documents.

## IV.XVI TREE INVENTORY, TREE IMPACT MITIGATION AND TREE PLANTING PROGRAM

1. Under this task the Consultant shall prepare a Tree Inventory, incorporate tree impact mitigation analysis into the design of street grades, prepare a Tree Impact Mitigation Plan for incorporation into the contract documents and design/develop a tree planting program for the project in accordance with current Departmental practice.

2. The Consultant shall engage the services of a Forester/Arborist/Tree Consultant, who shall be approved by the City, in conjunction with the work required herein.

### a) Tree Inventory and Tree Impact Mitigation

1. The Consultant shall prepare a Tree Inventory in accordance with current Departmental requirements as generally outlined below. Where it is available, the Consultant will be permitted to "fully update" any tree inventory previously prepared by the City or its consultants. However, the deliverables required under this task shall be in full conformity with the current Departmental requirements. The Tree Inventory shall be prepared in a Technical Supplement Report format and shall include, but not be limited to:

a) A Key Plan identifying the stationing of each tree and/or planting;
b) An approved index numbering system;
c) Cut/fill magnitude at each location resulting from proposed design grades;
d) Specie of trees;
e) Diameter of trees;
f) Tree Condition - (healthy, diseased or dead).

2. The Consultant shall prepare a tree and plant life photo log of all trees and plant life located within the project area. The Tree Photo log shall be prepared in a Technical Supplement format and shall include, but not limited to:

a) The photo log shall show the base of each tree with its exposed root system, with particular emphasis on the extent to which the root system has grown within and/or heaved the existing curb and/or sidewalk. Photos shall be taken from an angle and distance which also show the trunk and crown or portions thereof of each tree (samples shall be submitted for approval prior to filming photo log).
b) Photos shall be in color;
c) Photos shall be 3 1/2" x 5" in size;
d) Photos shall be mounted in transparent jackets and shall be bound in hard cover binder;

e) Each photo shall indicate the tree index number, and proposed cut/fill data;
f) Date of photo;
g) Original photo log and one color copy shall be required.

3. The Consultant shall plot all tree and major shrub locations on "working" or other profiles by stationing, and the profiles at these locations shall show spot elevations at the curb, at the root zone and at the front of sidewalk (at back of tree). The Consultant shall coordinate and integrate the plotting of these profiles with the plotting of profiles produced under other tasks of this Final Design program.

4. The Consultant shall study and analyze the proposed schematic geometric design, the proposed design grades, the Tree Inventory, and the Tree Photo Log for the purpose of identifying locations where the proposed work has a potentially negative impact on existing trees. The Consultant shall identify construction impacts from all stages of the proposed work and design a tree impact mitigation program for each tree within the right-of-way.

5. The Consultant shall make every technically defensible, and reasonable effort to preserve the existing trees from construction trauma and minimize potential tree loss and/or tree damage by:

a) The use of available techniques and standard mitigation strategies provided by the City and/or by developing and detailing special designs - as required;
b) Developing and proposing vertical and horizontal geometric roadway and/or sidewalk modifications;
c) Reiterating the design in accordance with design requirements included elsewhere in this agreement.

6. The Consultant shall incorporate the standard mitigation measures, and the standard details and special designs, that are used to mitigate tree impacts, into the Composite Contract Documents.

7. The Consultant shall take-off an estimate of quantities for the work required to implement the tree impact mitigation proposals.

8. The Consultant, in conjunction with his Forester/Arborist/Tree Consultant, shall meet with representative(s) of the Department of Parks and Recreation to make a joint reconnaissance of the project site, and to present the proposed design, the findings of the tree impact study and the tree impact mitigation measures proposed and incorporate their concerns, where accepted by the DOT, into the composite contract documents.

9. The Consultant shall prepare, graphically, an impact assessment plan exhibit (using an approved color coded format) showing items requiring removal as a result of the design proposals under consideration. The exhibit shall indicate the right-of-way and possession lines. In addition, the Consultant shall provide a summary inventory of trees requiring removal.

10. Where the Department's standard tree impact mitigation procedures are inadequate or inappropriate, the Consultant shall prepare site specific construction protocol to protect all trees.

**b) Tree Planting Program**

A. The Consultant shall through its subconsultant Forester/Tree Consultant/Arborist design/develop a tree planting program for the project in accordance with current Departmental practice.

B. The Consultant, in consultation with the Forester/Arborist/ Tree Consultant shall:

a) Inspect the site, Design Plans, Topographic Plans and Utility Plans for the purpose of identifying locations where new trees can be planted and identifying and listing all dead and diseased trees that must be removed;

b) Compute the quantity of required replacement trees using equal caliper rule. The consultant shall also compute the quantity of the required tree replacement using Basal formula/criteria and prepare comparison table for both methods, as directed by the commissioner.

c) Prepare a schematic tree planting plan superimposed on a modified set of Highway Design Plans (modified to indicate the locations of lampposts, traffic signals, hydrants and catch basins) to show the proposed location size and specie of each new tree that is to be planted and each existing tree that is to be removed;

d) Select the proposed locations for new trees in accordance with current Departmental guidelines for clearance to various utility facilities. Furthermore, in selecting the locations of the new trees the Consultant shall avoid interference with the existing underground City and private utilities.

e) The consultant shall study the site conditions and all available subsurface information/data, determine the need for special borings and develop the location plans, and take the borings (under Subsurface Exploration Program) specifically intended to analyze and determine the suitability of existing subsurface materials for planting purposes as approved and directed by the Commissioner. The consultant shall, recommend appropriate mitigation measures for soil quality improvements, when required.

f) Design the size and paving treatment for all tree pits within the project limits;

g) Present the proposed tree planting and tree removal plan to the Department of Transportation (DOT) for approval;

h) Upon receipt of concurrence from the Commissioner and in conjunction with the Forester/Arborist/Tree Consultant, meet with representative(s) of the Department of Parks and Recreation (DPR) to present the proposed tree planting/tree removal program, obtain their concurrence and/or concerns, and modify the tree planting/tree removal proposals until DPR's approval is obtained.

i) Incorporate the approved tree planting/tree removal plan into the Composite Contract Documents.

## IV.XVII SEEPAGE BASIN AND/OR HIGHWAY DRAIN DESIGN

A. Under this task the Consultant shall provide for the preparation of Seepage Basin and/or Highway Drain Design(s) to be performed in conjunction with the Project. This work shall include the collection of sewer data, the development of boring locations, the study of soils analyses and soils classification results, the determination of storm water flow rates, the preparation of Seepage Basin and/or Highway Drain Design Letter Report, and the preparation of Seepage Basin and/or Highway Drain Design, including manholes, basin connections and other appurtenances necessary for the proper functioning of the seepage basin and/or highway drain system(s).

B. The scope of work for the Seepage Basin and/or Highway Drain Design includes performance of the following services:

a) The Consultant shall research and check available records of the Department of Environmental Protection (DEP) Bureau of Sewers to obtain pertinent information needed in the preparation of Seepage Basin and/or Highway Drain Design. The records to be researched and checked shall include, but not be limited to, the following:

1) As-built sewer plans;

2) Borough sewer maintenance records;

3) Drainage Plans

4) Proposed sewer construction and schedules;

5) Previous seepage basin construction;

b) The Consultant shall research and check available records of other City agencies and public utilities, including:

1) The plotted utility survey as furnished for the Final Design of the Project.

2) The records of various utilities regarding water mains, gas mains, electrical ducts, steam mains, and telephone and fire alarm systems.

c) The Consultant shall research available boring logs and soils analysis and classification results.

d) The Consultant shall coordinate the development of Seepage Basin and/or Highway Drain Design proposals with the Bureau of Sewers, and shall identify those locations requiring seepage basins and/or highway drains. The following are some of the factors that should be considered:

1) Need for drainage facilities based upon present drainage patterns and flows (present grades maintained);

2) Need for drainage facilities based upon future drainage patterns and flows (construction to legal grade, or to intermediate grades as determined in this Final Design Program);

3) Lack of existing storm sewer or combined sewer facilities at the site(s);

4) Possible future sewer construction at the site(s);

5) Highway drain(s) discharge provisions;

6) Where feasible, highway drains shall be proposed in preference to seepage basins.

e) The Consultant shall visit the site and shall conduct a visual inspection to confirm and/or correlate the information obtained from his research of available records with actual field conditions. Discrepancies shall be noted and reconciled, wherever possible, prior to the commencement of Seepage Basin and/or Highway Drain design.

f) The Consultant shall study the area contiguous to the project and shall:

1) Define and measure the tributary drainage areas;

2) Develop storm water run-off factors based on actual field conditions; and

3) Calculate design run-off and hydraulic flow rates for each proposed seepage basin and/or highway drain using the appropriate New York City Department of Environmental Protection design criteria;

g) The Consultant shall develop a soil boring locations plan to supplement the available soil data, as needed to complete the design of each proposed seepage basin, and shall incorporate said locations into the Subsurface Exploration Program provided for in this Contract;

h) The Consultant shall coordinate the design proposals with private utilities and the Department of Environmental Protection to identify and mitigate utility interference issues relative to proposed borings, seepage basin and highway drain locations, and shall incorporate approved utility accommodation work into the contract documents;

i) The Consultant shall review the soil samples and the results of the soils analysis, soil classification and permeability tests as obtained under the Subsurface Exploration Program, and shall determine the capacity of the soils to drain storm water at each proposed seepage basin location. The Consultant’s review shall include:

1) All diaries, logs, test results, boring location plans, etc.;

2) The soil samples and soil classification and analysis results;

3) The results of soil permeability tests.

j) The Consultant shall design the proposed seepage basin and/or highway drains system to accommodate the design storm water run-off including the depth and diameter of the seepage basins to be installed at each location; and/or the invert elevations, sizes and drain pipe material to be used, along with all manholes, and drain pipe support and protection required.

k) The Consultant shall assemble information, tests and analyses obtained, and shall prepare a Seepage Basin Design and/or Highway Drain Letter Report containing the compilation and analysis of data obtained, recommended locations for seepage basins and/or highway drains, including approximate street grade elevations (based upon a coordinated review of grades in conjunction with all other street design tasks included in the Specific Requirements of this Contract), basin depths, types of seepage basins, approximate seepage basin array(s), and proposed construction.

l) The Consultant shall submit a draft of the Seepage Basin and/or Highway Drain Design letter report to the Commissioner for review and approval, and shall make revisions as the Commissioner may require.

m) Upon approval of the draft report by the Commissioner, the Consultant shall hand-deliver to the Commissioner three (3) copies of the Seepage Basin and/or Highway Drain Design letter report, and original notes, sketches, calculations, etc., used in the preparation of the Report.

n) The Consultant shall prepare Preliminary Seepage Basin and/or Highway Drains, Catch Basin and Basin Connection Construction Contract Documents including plans, specifications and Consultant's Estimate in accordance with the approved letter report, and shall submit the preliminary plans to the Commissioner, relevant City agencies, and to the utility companies for review comments and utility impact assessment and mitigation.

o) The Consultant shall modify locations as required and incorporate appropriate comments into the Seepage Basin and/or Highway Drains design, and shall prepare Final Seepage Basin and/or Highway Drains Construction Contract Documents, including plans, specifications, Consultant's estimate, etc., for incorporation into the Contract Documents of the Project in accordance with the Street Design Element contained in the Specific Requirements of this Contract.

p) The Consultant shall prepare Final Seepage Basin and/or Highway Drains Construction Contract Documents, and incorporate the Seepage Basin and/or Highway Drains Construction Contract Documents into the Final Consolidated Contract Documents for the Project.

## IV.XVIII SEWER DESIGN

A. Under this task the Consultant shall provide for the preparation of Sewer Design to be performed in conjunction with the project. This work shall include the rehabilitation, relocation, or replacement of existing sewers and/or the installation of new sewers, including the design of necessary appurtenances, all in accordance with a prescribed Drainage Plan.

B. The scope of work for Sewer Design shall include performance of the following services:

1. Preparation of a Preliminary Sewer Design which shall include:

a) Plotting of existing and proposed sewers, and sewer rehabilitation work on Utility Plans for the project streets in standard Departmental format.

b) Plotting of profiles for existing and proposed sewers in standard Departmental format.

c) Designing and locating all necessary chambers, manholes and other appurtenances.

d) Researching and reviewing all available soil data for the project area, identifying soils exploration requirements to provide additional data that is needed to complete the design, and incorporating the soils exploration requirements into the Subsurface Exploration Program provided for in this Contract.

e) Designing all bedding, encasement and piles for the support and protection of sewers and sewer appurtenances in accordance with the latest standards of the Department.

2. Submission of the Preliminary Sewer Design to the Commissioner for review and comments, and incorporation of the Commissioner's comments on the Preliminary Design before incorporating the design into the Preliminary Contract Documents under the Street Design Task.

3. Preparation of Final Sewer Design and obtaining approval from the Commissioner prior to incorporating the Final Sewer Design into the Final Contract Documents in accordance with the Street Design Task.

C. Development of Contract Documents

1. In preparing the Contract Drawings and any addenda to the standard Sewer Specifications that are needed, the Consultant shall take cognizance of the basic minimum requirements set forth herein, together with such other requirements as may be proper for the complete fulfillment of this contract for the

purpose for which the project is to be used. The proposed construction is to be designed generally in accordance with the requirements of any other agency having jurisdiction as the design progresses.

2. The Consultant shall review all boring and soil data obtained in other sections of this program with a view to identifying unacceptable fill material for purpose of preparing estimates of quantities that are to be included in the contract documents.

D. Surveys

In preparing Sewer Design, the Consultant shall utilize information as obtained in the Topographic and Utility Surveys for the Project, and test pit and/or boring information as may be provided by the various public/private utilities, and soils information obtained under the Soils Exploration Program provided for under this Contract. The Consultant shall supplement this information with field trips, additional surveys and searches for information as may be required.

E. Sewer Design

In connection with Sewer Design, the Consultant shall provide the following services:

1. Prepare preliminary and final designs superimposed over the composite utility plan, addenda to Standard Sewer Specifications, estimates of cost, including utility charges and Gas Cost Sharing reimbursements (if any), and such pertinent engineering data as may be required. The design drawings shall be in accordance with current Departmental standards and guidelines, and shall show, to the satisfaction of the Commissioner, all necessary sewer design details.

2. Present the Sewer Design Plans to private utility companies for private utility impact assessment and alignment coordination.

3. During design, confer and meet with representatives of the Commissioner in order to coordinate requirements for the design of the proposed project. In addition, the Consultant shall confer with, and where and when necessary, meet with other City, State or Federal Agencies and private utilities having jurisdiction in order to integrate any of their requirements or contemplated work into this project.

## IV.XIX WATER MAIN DESIGN

A. Under this task the Consultant shall provide for the preparation of Water Main Design to be performed in conjunction with the project. This design work shall include the rehabilitation, replacement or relocation of existing Water Mains and/or the installation of new Water Mains, including the design of other appurtenances, in accordance with a pre-engineered lane selection methodology.

B. The scope of work for the Water Main Design shall include the performance of the following services:

a) Preparation of a Schematic Water Main Design, the submission of said design to the Commissioner for review and comment, and obtaining approval of the Schematic Design from the Commissioner.

b) Coordinating and meeting with affected public/private utilities with regard to lane selection and/or interference mitigation in accordance with pre-engineering methodology.

c) Coordinating with Keyspan Energy/Consolidated Edison regarding New York State enabling legislation relative to City reimbursement for interference mitigation, including review of the gas cost-sharing analysis prepared by Keyspan Energy/Consolidated Edison, and incorporation of Keyspan Energy/Consolidated Edison items of work in the Contract Documents.

d) Preparing Preliminary Water Main Design and obtaining approvals from the Commissioner prior to incorporating the design into the Preliminary Contract Documents under the Street Design Task.

e) Preparing Final Water Main Design and obtaining approvals from the Commissioner prior to incorporating the Final Water Main Design into the Final Contract Documents under the Street Design Task.

C. Development of Contract Documents

a) In preparing the Contract Drawings and addenda to the Standard Water Main Specifications, the Consultant shall take cognizance of the basic minimum requirements set forth herein, together with such other requirements as may be necessary and proper for the complete fulfillment of this contract for the purpose for which the project is to be used. The proposed water mains are to be designed, generally, in accordance with the requirements of any other agencies having jurisdiction as the design progresses.

b) The Consultant shall review all boring and soil data obtained under other tasks in this design program with a view to identifying unacceptable fill material for purpose of preparing estimates of quantities that are to be included in the contract documents.

D. Surveys

In preparing Water Main Design, the Consultant shall utilize information as contained in the plotted Topographic and Utility Surveys for the Project, and test pit and/or boring information as may be provided by the various public/private utilities. The Consultant shall supplement this information with field trips, additional surveys and searches for information as may be required.

E. Water Main Design

In connection with Water Main Design, the Consultant shall provide the following services:

a) Prepare preliminary and final designs superimposed over the composite utility plan, addenda to Standard Water Main Specifications, estimates of cost, incorporating utility charges and Keyspan Energy/Consolidated Edison reimbursements (if any), and such pertinent engineering data as may be required. The design shall be in accordance with current Departmental standards and guidelines, and shall show, to the satisfaction of the Commissioner, all necessary water main design details including, but not limited to, valves, valve chambers, and fire hydrants.

b) Present the Water Main Design plans to private utility companies for private utility impact assessment and alignment coordination.

c) During design, confer and meet with representatives of the Commissioner in order to coordinate requirements for the design of the proposed project. In addition, the Consultant shall confer with and, where and when necessary, meet with other City, State or Federal Agencies and private utilities having jurisdiction in order to integrate any of their requirements or contemplated work into this project.

## IV.XX STREET LIGHTING SYSTEM DESIGN

1. Under this task the Consultant shall design a lighting system and electrical appurtenances in connection with the illumination of streets, avenues and public spaces within the project and shall prepare cost estimates for the proposed work. The design will include provisions for removal and relocation of existing street lighting facilities and installation of new lighting facilities.

2. Unless otherwise approved by the Department of Transportation, Bureau of Traffic, Division of Signals and Street Lighting, the level of illumination required is a maintained average of one (1) foot candle, a maintenance factor of 0.58 and a uniformity ratio of 6 to 1 (average to minimum) for Local Roads. For Expressways, Major Roads, and Collector Roads, the illumination level shall be 1.5 to 2 foot candles with a uniformity ratio of 3 to 1 (average to minimum).

3. The design shall conform with the latest standards and specifications of the Department of Transportation, Bureau of Traffic, Division of Signals and Street Lighting; the Illuminating Engineering Society of North America (IESNA); the American Association of State Highway Officials; and the National Electrical Code (NEC).

Should any conflict occur between these specifications, standards and codes, the Division of Signals and Street Lighting shall make the final decision on the requirement.

4. The Consultant shall prepare preliminary drawings, showing the location and details of all equipment to be installed in connection with the proposed Street Lighting design, the electrical connections and electrical services, and shall submit the preliminary drawings to the Department of Transportation, Bureau of Traffic, Division of Signals and Street Lighting for review and comments.

5. Drawings prepared and symbols used shall be in standard Bureau of Traffic, Division of Signals and Street Lighting format.

6. The submission of preliminary drawings to the Division of Signals and Street Lighting shall include:

a) The Consultant’s photometric calculations for the proposed design which shall be performed using CALA, ALADIN, AGI or other software programs which shall be subject to pre-approval by the Division of Signals and Street Lighting;

b) Parameters used in the calculation, including roadway and sidewalk widths, mounting height, luminaire position (overhang, setback, spacing), wattage and luminaire classification.

7. The Consultant shall address the review comments and incorporate the requirements of the Division of Signals and Street Lighting in the proposed design.

8. The Consultant shall prepare preliminary estimates of quantities and cost for the proposed Street Lighting work based on the revised preliminary drawings. The estimates shall be in standard Division of Signals and Street Lighting format. The Consultant shall incorporate the preliminary estimate of quantities and cost into the Consultant's Estimate for Mass Mailing No. 2 as provided for in the Quantity and Cost Estimating Task included in the Specific Requirements of this Contract

9. The Consultant shall prepare and submit final drawings, for the proposed Street Lighting design, to the Division of Signals and Street Lighting for review and approval.

10. The final drawings shall include the proposed electrical distribution system and shall be submitted with an analysis of the voltage drop for the proposed City distribution system including voltage drop calculations.

11. The Consultant shall prepare and submit to the Division of Signals and Street Lighting, for review and approval, pre-final estimates of quantities and cost for the proposed Street Lighting Work.

12 The Consultant shall revise the final drawings and estimates to incorporate comments received from the Division of Signals and Street Lighting.

13. Upon receipt of final approval of the drawings and estimates for proposed Street Lighting work from the Division of Signals and Street Lighting, the Consultant shall incorporate the final Street Lighting plans and estimates into the Contract Documents as provided for in the Street Design Task included in the Specific Requirements of this Contract. The Consultant shall submit to the Division of Signals and Street Lighting, for record purpose, the following:

a) A set of final drawings on mylar for the Street Lighting Work;

b) A copy of the final estimate for Street Lighting Work;

c) The photometric calculations using maintenance factors of 1 and 0.58.

## IV.XXI TRAFFIC SIGNALS SYSTEM DESIGN

1. Under this task the Consultant shall design traffic signals and appurtenances in connection with traffic controls required for streets within the project and shall prepare cost estimates for the proposed Traffic Signal Work. The design will include provisions for modification, removal and relocation of existing traffic signal facilities and installation of new traffic signal facilities.

2. The design shall conform with the latest standards and specifications of the Department of Transportation, Bureau of Traffic, Division of Signal Controls.

3. The Consultant shall design the locations of traffic signal poles in coordination with the schematic geometric design developed for the project including, but not limited to, traffic lane(s) configuration, pedestrian crosswalks, traffic flow direction, mall and roadway widths, and pedestrian ramp locations.

4. The Consultant shall review available subsurface data and inspect existing buildings in the vicinity of proposed Traffic signal poles to identify possible impacts with proposed traffic signal pole foundations.

5. The Consultant shall prepare preliminary drawings, showing the location and details of all traffic signal poles, mast arms, signal heads, cables, conduits, traffic controllers, and loop detectors and/sensors that are to be removed, relocated, modified, or installed in connection with the proposed Traffic Signals design and shall submit the preliminary drawings to the Department of Transportation, Bureau of Traffic, Division of Signal Controls for review and comments.

6. Drawings prepared and symbols used shall be in standard Bureau of Traffic, Division of Signal Control’s format.

7. The Consultant shall address the review comments and incorporate the requirements of the Division of Signal Control into the proposed design.

8. The Consultant shall prepare preliminary estimates of quantities and cost for the proposed Traffic Signal Work based on the revised preliminary drawings. The estimates shall be in standard Division of Signal Control format. The Consultant shall incorporate the preliminary estimate of quantities and cost into the Consultant’s Estimate for Mass Mailing No. 2 as provided for in the Quantity and Cost Estimating Task included in the Specific Requirements of this Contract.

9. The Consultant shall prepare and submit pre-final drawings, for the proposed Traffic Signals, to the Division of Signal Control for review and approval.

10. The Consultant shall prepare and submit to the Division of Signal Control, for review and approval, pre-final estimates of quantities and cost for the proposed Traffic Signal Work.

11. The Consultant shall revise the pre-final drawings and estimates to incorporate comments received from the Division of Signal Control.

12. Upon receipt of approval of the drawings and estimates for proposed Traffic Signal Work from the Division of Signal Control, the Contractor shall incorporate the final Traffic Signal plans and estimates into the Contract Documents as provided for in the Street Design Task included in the Specific Requirements for the Project.

## IV.XXII FINAL DESIGN OF RETAINING WALLS AND BULKHEADS

1. Under this task the Consultant shall develop Final Design(s) for retaining walls and bulkheads including but not limited to waterfront structures.

2. PRELIMINARY CONSTRUCTION CONTRACT DRAWINGS

a) The Consultant shall study the findings and recommendations of any embankment protection study that was previously conducted for the project.

b) The Consultant shall determine the nature and extent of subsurface exploration that is needed to update and supplement previous studies and to complete the final design. The Consultant shall incorporate the subsurface exploration requirements in the scope of work to be performed under the Subsurface Exploration Task included in the Specific Requirements of the Contract.

c) The Consultant shall study the results of the subsurface exploration program performed and the design details being developed for reconstruction of adjacent street.

d) The Consultant shall design and prepare preliminary construction contract drawings for the retaining wall/bulkhead. The drawings shall be sufficiently detailed to clearly show the location, limits and structural composition of retaining wall/bulkhead to be reconstructed; the extent of structural replacement and repairs needed; and any aesthetic repairs and/or treatments proposed.

e) The Consultant shall prepare updated preliminary cost estimates for the proposed retaining wall/bulkhead.

f) The Consultant shall include the preliminary construction contract drawings in the programmed Mass Mailing No.1 that is required under the Street Design Task.

g) The Consultant shall modify the preliminary construction contract drawings to incorporate comments received in response to Mass Mailing No. 1, as approved by the Commissioner.

3. FINAL CONSTRUCTION CONTRACT DOCUMENTS

a) The Consultant shall develop detailed construction contract drawings for the retaining wall/bulkhead.

b) The Consultant shall coordinate the Final Design details with the design details being developed for reconstruction of the adjacent street.

c) The Consultant shall prepare all submissions to City, State and Federal Agencies to obtain required approvals and permits. Such submissions shall include as required, but shall not be

limited to, drawings, specifications, estimates, design criteria and computations.

d) Consultant shall determine and advise the Commissioner of the need for temporary easements on private property to facilitate construction and shall, as directed by the Commissioner, prepare appropriate documentation and serve notices on property owners, and meet with property owners and other parties as needed to obtain such easements.

e) The Consultant shall prepare detailed cost estimates and specifications for the proposed work.

f) The Consultant shall develop Pre-final Contract Documents for reconstruction/construction of the retaining wall/bulkhead, including drawings, specifications and estimates.

g) The Consultant shall submit the Pre-final Design contract documents to the Commissioner for review and approval, and shall incorporate the approved drawings in the programmed Mass Mailing No. 2.

h) The Consultant shall modify the Pre-final construction contract documents to incorporate comments received in response to Mass Mailing No. 2, as approved by the Commissioner.

## IV.XXIII CONSTRUCTION STAGING AND MAINTENANCE AND PROTECTION OF TRAFFIC

1. Under this task the Consultant shall analyze, develop, design, and fully integrate into the Composite Contract Documents, a specific and detailed plan for the maintenance and protection of traffic during the execution of construction work on the project and for the staging of all proposed construction contract work which shall, hereinafter, be referred to as the Maintenance and Protection of Traffic (MPT) Plan.

2. MPT, for the purposes of this contract shall refer to, include and address all pedestrian traffic within and crossing the site, all modes of vehicular traffic within and crossing the site, and access and egress for all properties fronting and/or affected by the proposed construction work.

3. At the appropriate stage in the development of the Composite Contract Documents and/or as accepted in the design work schedule or as otherwise directed by the Commissioner, the Consultant shall initiate the MPT planning activity.

4. The Consultant shall develop a "Specific MPT Plan", which shall be specific to the site and specific to the site properties. The plan shall provide, where appropriate, for construction work to be advanced concurrently in subsections of the project to allow for accelerated completion of the work.

5. The Consultant shall examine various MPT strategies for portions and/or all of the project street(s) including but not limited to proposals for street closures, full or partial detour(s), one-way street conversions or other appropriate MPT staging techniques.

6. The Consultant shall familiarize him/herself regarding the operation, activity and intensity of traffic within the project site on a block by block and zone of influence basis, and shall identify, analyze, study and address and/or mitigate issues including, but not limited to, the following: main line traffic volumes; intersecting street(s) traffic volumes; turning movements; vehicular classifications {cars, trucks, buses, railroad(s)}, curbside activity (loading and unloading); parking requirements; planned special events (parades, street fair(s), marathon); special traffic generators (hospitals, police stations, large parking garages or areas); public or private institutional properties; manufacturing/warehousing facilities, supermarkets, fire stations, government buildings, parks, schools, subway stations; intense traffic generators (all types of commercial, manufacturing, warehousing establishments); other current or planned construction projects within the zone of influence; and all sources of pedestrian activity.

7. The Consultant shall develop the MPT plan generally in three stages - as follows:

A. STAGE 1 - CONCEPTUAL MPT PLAN. In this stage the Consultant shall:

a) Conceptualize the overall MPT strategy and, more specifically, conceptualize subdividing the project for concurrent staging of the work where applicable, and the staging of each category of the proposed construction work (such as sewer lining, sewer reconstruction, catch basin/inlet installation and basin/inlet connections, water mains - 12, 20, 36, 48 inch, installation of hydrants, curb construction, sidewalk construction, roadway base construction, and laying roadway wearing course);

b) Meet with and present his/her conceptual scheme to the Commissioner including presentation of the rationale for pursuing the selected MPT strategy based on the information, analysis and issues identified above. The presentation shall include graphics, which shall be suitable and adequate to demonstrate/represent the conceptual scheme(s);

c) Upon receipt of general concurrence from the Commissioner or direction to pursue additional alternative(s) the Consultant shall proceed with Stage II of the MPT development.

B. STAGE II - PRELIMINARY MPT DEVELOPMENT. In this stage the Consultant shall:

a) Respond to the questions and concerns raised during the Conceptual MPT planning strategy session and develop the MPT proposals to a preliminary level of detail for each stage of construction work (such as but not limited to sewer lining, sewer reconstruction, catch basin/inlet installation and basin/inlet connections, water mains - 12, 20, 36, 48 inch, installation of hydrants, curb construction, sidewalk construction, roadway base construction, and laying roadway wearing course);

b) Develop and provide graphics and notes to specifically describe the proposed MPT plans for each category of construction work. For this presentation the Consultant may be permitted to use 8 1/2 by 11 or 8 1/2 by 14 inch sheet sizes, as an alternative to the standard contract drawing sheet size, with hand drawn sketches provided that the graphics are of a professional quality and acceptable to the City;

c) The Consultant shall meet with and present the Preliminary MPT Plan to the Commissioner;

d) Upon receipt of general concurrence from the Commissioner or direction to pursue additional alternatives and/or expand the specificity of the MPT proposal, the Consultant shall request a review of the proposed MPT scheme by the Department of Transportation’s Office of Construction Mitigation and Coordination.

C. STAGE III - FINAL MPT DEVELOPMENT. In this stage the Consultant shall:

a) Develop and prepare final MPT plans and fully incorporate the final MPT plans into the composite final contract documents;

b) The Consultant shall fully integrate and incorporate any comments and/or stipulations received from the Department of Transportation's Office of Construction Mitigation and Coordination into the Composite Final Contract Documents.

## IV.XXIV PREPARATION OF SPECIFICATIONS

Under this task, the Consultant shall prepare and print complete sets of Specifications for the ensuing construction contract. The specifications, which shall include boiler plate, required Addenda and Bid Schedule Sheets, shall be prepared within the framework of the following parameters:

1. Standard Specifications of the Department and of the agencies having jurisdiction over various elements of the project shall be used as directed by the Commissioner.

2. Addenda shall contain either modifications to standard items or complete descriptions for new items of work. In addition, addenda may contain special provisions for conducting the work, including but not limited to time of construction, maintenance of traffic stipulations, insurance requirements, State/Federal requirements, and incorporation of additional provisions for both private and City-Owned Utility work.

3. The Specifications shall conform to the appropriate Standard Specifications for the various items of work involved; excepting where there is no standard specification for a proposed bid item or item of work, the Consultant shall prepare the necessary special specification, as an Addendum to the Standard Specifications, and shall submit such special specification to the Commissioner for review and approval.

Where required by the Commissioner, the Consultant shall prepare a justification for New York State Department of Transportation (NYSDOT) review - specifically outlining the technical circumstances requiring a new specification write-up and shall be responsible for obtaining NYSDOT approval of new specifications.

4. Bid Schedule sheets will be provided to the Consultant by the Commissioner for incorporation into the Specifications. The Bid Schedule sheets will contain contract bid items listed by item number and description, presented in standard Departmental format, and will be produced in accordance with the detailed Consultant's Estimate and Scope packet produced and provided by the Consultant under other tasks included in the Specific Requirement of this Contract.

5. The Consultant shall provide Supplemental Data in standard Departmental format for the Bid Schedule, as needed, and shall verify the Bid Schedule, produced by the Commissioner, for correctness.

6. When directed by the Commissioner, collated and bound copies of the complete Specifications, Addenda and Bid Schedule Sheets shall be furnished by the Consultant for technical and construction reviews in accordance with the approved project schedule.

7. When directed by the Commissioner, the Consultant shall prepare a draft specification in accordance with the approved project schedule.

8. The Consultant shall print, inspect, and deliver to the Department the required number of collated, unbound, sets of the completed Specifications for advertisement as outlined in Section III.2.D of these Specific Requirements.

9. During advertisement, the Consultant shall answer all questions submitted by prospective bidders and, when and as required, expeditiously prepare, notify and distribute addenda to prospective bidders.

10. The Consultant shall continuously maintain, update and submit to the Commissioner "on demand" (at any time during the public advertisement period) a complete bidders' inquiry and disposition report (IDR) which shall, at a minimum, identify each question exactly as phrased by the prospective bidder's inquiry (questions with multiple issues or sub-questions shall be subdivided and listed as separate questions - suitably numbered in the IDR, the date inquiry was received and the date of the Consultant's response, method of delivery (fax, certified letter, telephone, other), name of proposed bidder, disposition (must be specific and complete) and date of close out. The format of the IDR shall be as approved by the City.

## IV.XXV REVIEW AND ANALYSIS OF BIDS

1. Under this task the Consultant shall evaluate and analyze the unit bid prices submitted for the work included in the proposed construction contract for this project, compare the bids received from the various bidders, and submit a letter report of his/her findings to the Commissioner to assist the Commissioner in deciding to award a contract for the proposed work.

2. The Commissioner will provide the Consultant with a tabulation of the Consultant's estimate of quantities and prices for the various items of work along with the prices submitted by each bidder and their extended amounts. Also provided by the Commissioner will be a Bid Analysis Report containing a tabulation of all the unit prices submitted by the apparent low bidder that exceed the Consultant's estimated price by more than fifteen (15) percent, and a tabulation of all the bid items with the percentage deviation of the low bidder's price for each from the Consultant's estimated price.

3. The Consultant shall study, analyze and compare the prices submitted by each of the three lowest bidders and of other bidders where required by the Commissioner. The Consultant shall, based on the Consultant's experience and judgment, attempt to identify the possibility for unbalanced bids (including "penny bids" and "front loading") and any indications of collusion in the pricing of bids.

4. Where the unit price bid for any item of work exceeds the Consultant's estimated unit price by more than fifteen (15) percent, the Consultant shall study the item's payment provisions and appropriate design details, and recheck the estimated quantity for each such item, restudy the contract documents and identify and quantify any possible overrun or underrun in the estimated quantity for each such item, and the impact of such overrun or underrun on the bids received and on the ranking of bidders.

5. The Consultant shall identify all items of work (including items of work not identified in the Commissioner's Bid Analysis Report) submitted by each of the lowest three bidders, and of other bidders where required by the Commissioner, that appears, in the judgment of the Consultant, to be lower or higher than it is reasonable to anticipate.

6. The Consultant shall compare the pricing of items in the bids received and shall identify any bids in which items of work have been priced in a manner that indicates possible collusion by bidders in the preparation of bids.

7. The Consultant shall identify any bids received and the relevant items of work in such bids where it appears that any bidder unbalanced items of work, that are to be performed during the early stages of construction (referred to as "front loading").

8. The Consultant shall report his/her "initial findings" to the Commissioner by telephone or facsimile transmittal within two

working days of the tabulation of bids being made available by the Commissioner.

9. The Consultant shall prepare and submit to the Commissioner a written statement of his/her findings within four working days of the tabulation of bids being made available by the Commissioner.

10. The Consultant shall not have any direct or indirect contact with any bidder regarding the bids received. Any such contact requested or found necessary shall be referred to the appropriate Department personnel for action.

## IV.XXVI ELECTRONIC ARCHIVING AND INDEXING

1. INTENT. It is the intent of this task to provide for assembling, indexing and electronic archiving of project records and documentation.

2. RECORDS KEEPING. Records shall be kept complete in a central project file which the Consultant shall maintain. This file shall contain letters, reports, field notes, sketches, computations, telephone messages, diaries, surveys, marked-up drawings, worksheets, data, research records, computer printouts, payments, problem reports, applications, renderings, permits, etc. Additionally, the central project file shall be kept in a format in accordance with currently applicable Departmental Standards and Procedures, which in general shall mean a format which shall facilitate retrieval of information, and customized indexing of the required records.

3. ELECTRONIC ARCHIVING:

a) For Preliminary Design and Investigation projects the Consultant shall assemble, index, prepare and submit:

1. PDF files of executed Contract/Task Order(s)
2. PDF files of the PDI Report
3. PDF files of all technical supplements
4. PDF files of important documents (CPIs, sign off letters, etc.)
5. PDF files of all payment requisitions
6. Digital files of all photos
7. Digital files (AutoCAD 2004 or latest edition) of the approved schematic Geometric Design and Pavement Marking plans
8. Digital (AutoCAD 2004 or latest edition) files of the final survey

b) For Final Design projects the Consultant shall assemble, index, prepare and submit:

1. PDF files of executed Contract/Task Order(s)
2. PDF files of other important documents (CPIs, sign off letters, etc.)
3. PDF files of all payment requisitions
4. PDF files of conformed (all addenda incorporated) bid documents (i.e. Plans, Specifications, and Estimate)
5. PDF files of the Design Report (for Federally funded projects)
6. Digital files of all photos

7. Digital files (AutoCAD 2004 or latest edition) of all final plans

c) For Total Design projects the Consultant shall assemble, index, prepare and submit all applicable items listed under (a) and (b) above.

4. ELECTRONIC DOCUMENT STORAGE. The Consultant shall record all required PDF files on CDs. All files shall be custom indexed and stored in such manner to allow for electronic search/retrieval and printing.

a) Scanning

(i) To insure maximum clarity all documents shall be scanned to a minimum of 400 dpi.

(ii) All documentation shall be scanned to PDF image.

(iii) All drawings shall be scanned to a positive image, regardless of the original polarity.

(iv) All supporting text documents shall be scanned into separate folders titled by the type of document or file name.

(v) All documents within each folder shall be scanned as a multi-page PDF image (i.e.: Letters, Reports, Minutes, Work Sheets, etc.).

b) Indexing and Retrieval

(i) The Consultant shall customize the index of stored documents to allow for electronic search/retrieval.

(ii) The stored documents shall be retrievable and printable from any PC that is operating with Microsoft Windows 2000 Professional or Windows NT, Microsoft Office 2000 Professional, AutoCAD 2004 or latest edition, and has a CD-ROM drive. No additional software or licenses shall be needed.

(iii) As Built Drawings

All As Built drawings shall be scanned to a separate folder, titled As Builts.

All drawings shall be titled by drawing name.

All drawings shall be retrievable by:

Project ID.
Contract name
Drawing number
Drawing name

(iv) Shop Drawings

All Shop drawings shall be scanned to a separate folder, titled Shops.

All drawings shall be titled by drawing name.

All drawings shall be retrievable by:
Project ID.
Contract name
Vender name
Drawing number
Drawing name

(v) The construction contract shall be custom indexed and its text shall be retrievable by division numbers and/or titles (Standard Construction Contract, “Information for Bidders” Notices, Addenda, General Conditions, General Provisions, General Requirements, Bid Booklet and Miscellaneous sections; all as applicable), numbers and/or titles of Sections and Subsections in each division, and the contract work item numbers.

(vi) It shall be possible to print the documents from each CD in normal full size pages/sheets or in detailed zoomed view for sections of drawing sheets, on a standard type printer or plotter.

c) Compact Discs (CDs)

(i) Five (5) copies of the original CDs shall be required.

d) The Consultant shall provide a printed Document Index, and the electronic file of the same, including an abstract of the document content for the central project file.

## IV.XXVII SIDEWALK CELLAR DOORS CONDITION INVENTORY

A. Under this task element the Consultant shall conduct a survey and prepare a condition inventory of all cellar doors within the limits of this project.

B. The Consultant shall establish and define criteria for, and prepare a rating scale for the condition of cellar doors.

C. The Consultant shall visit the site and make a visual inspection of every existing cellar door that is located within the limits of the mapped right-of-way(s). The Consultant shall note the condition of each cellar door inspected, and shall measure and record the dimensions of each cellar door.

D. The Consultant shall take a photograph of each cellar door. The photographs shall be in color and prints shall be 3 1/2 inches by 5 1/2 inches in size. The Consultant shall insert each print into a plastic shield mounted in a ring binder to produce a photo log. All prints shall be appropriately marked/numbered for easy identification/correlation and an index of all the photographs shall be prepared and inserted in the photo log. The index shall identify the cellar door(s) in each photograph by location, including Block and Lot number, street name and house number. The original photo log and one color copy shall be provided to the Commissioner.

E. The Consultant shall prepare a tabulated summary of the condition inventory, by station, for all cellar doors. The inventory shall include a tabulation and sequential listing of all cellar doors, the identification of each cellar door by the marking/number used in the photo log and the size, rated condition and location of each cellar door.

F. The Consultant shall verify that all cellar doors are incorporated in the topographic survey.

## IV.XXVIII BUILDINGS RESEARCH

1. Under this task the Consultant shall research the records of all existing buildings for properties abutting the project streets, ascertain the nature of their construction and whether or not grade waivers were issued by the City for the construction of each building, to allow the City to determine liability for damage to property that may result from construction and construction operations that are to be performed in connection with this project.

2. The Consultant shall research the records of the respective County Clerks' Office to locate the original Certificates of Occupancy for each building and to determine whether or not a waiver of grade was issued for each property at the time each building was erected thereon.

3. The Consultant shall research the records of the New York City Department of Buildings to ascertain the nature of the foundations provided for each building.

4. The Consultant shall research the records of the Topographic Bureau of the respective Borough Presidents' Office to supplement the data obtained from the records of the County Clerks' Offices and the Department of Buildings. The Consultant shall obtain the dates on which the original legal grades were established as well as any subsequent changes/remapping of lines and grades.

5. The Consultant shall obtain copies and dates of all relevant records located, and shall record the source and file location of each item of record obtained.

6. The Consultant shall report on the results of the research conducted on the buildings. The report shall be prepared in tabular format with a graphical summary complete with legend, and shall be submitted to the Commissioner for approval. The report shall indicate:

(a) The City Block and Lot Number of each property in ascending order.
(b) The type and usage of each building that exists on each lot.
(c) The nature of construction of each building and its foundation.
(d) Buildings for which waivers of grade were issued at the time of construction.

7. The Consultant shall prepare an index for and shall include all records obtained, under this task, in Technical Supplement to the Design Report produced under the Project Development/Identification Task included in the Specific Requirements for the Project.

## IV.XXIX CONSTRUCTION CONTRACT DURATION/SCHEDULING STUDY

1. Under this task the Consultant shall develop and study alternate construction staging proposals and corresponding schedules for each staging proposal, and analyze the general impact of each proposal on the community and on traffic and traffic operations, for the purpose of assessing the optimum time to be allowed for the proposed construction contract duration and finalize the development of the Maintenance and Protection of Traffic Plans in accordance with an approved staging proposal.

2. The Consultant shall study the design proposals, as-available contract documents, review relevant design/study support data and perform additional reconnaissance, as necessary, to familiarize itself with the project site and area.

3. The Consultant shall identify all significant work activities and develop productivity rates, for the various elements of construction activities identified, for use in this construction staging/time study analysis.

4. The Consultant shall prepare/develop a "baseline" construction staging plan. The Consultant shall take cognizance of the impact of the staging plan on contract duration, the community and on traffic circulation and operations, and identify possible mitigation measures.

5. The Consultant shall develop time/productivity curves for the proposed construction staging and for each construction contract activity included in the contract - including, but not limited to, sewer lining/sewer construction, catch basin installation, basin connections, water mains (12, 20, 36, 48 inch or metric equivalents and other sizes), curb and sidewalk work, roadway base, roadway pavement, tree planting, street lighting, traffic signal, and any other work proposed.

6. The Consultant shall present its preliminary construction staging and scheduling analysis to the Commissioner at a meeting. The presentation shall include the use of professional quality overheads and/or graphic display boards as exhibits, supplemented with handouts and other presentation material.

7. Upon general concurrence from the Commissioner or direction to pursue different and/or additional construction staging strategies the Consultant shall develop two accelerated construction staging alternatives and their corresponding schedules. The Consultant shall take cognizance of the impact of the accelerated work/staging plans on the community and on traffic circulation and operations, and identify possible mitigation measures.

8. The Consultant shall present its fully developed construction staging and duration analyses to the Commissioner at a meeting. The presentation shall include the use of professional quality overheads and/or graphic display boards as exhibits, supplemented with handouts and other presentation material.

9. The Consultant shall incorporate the construction staging and scheduling alternative, accepted by the Commissioner, into the Composite Contract Documents' Maintenance and Protection of Traffic Plans.

## IV.XXX LANDSCAPE/URBAN DESIGN AND CONSTRUCTION SUPPORT SERVICES

1. Under this task the Consultant shall provide for the preparation of a Landscape/urban design to be performed in conjunction with the Project. This work shall include the development of a comprehensive landscape/urban design including the provision of pedestrian amenities; checking and approval of shop drawings and materials relating to landscaping work; and site inspections during construction to ensure that landscaping/urban design work is completed in conformity with the standards specified. The consultant shall study the site conditions and all available subsurface information/data, determine the need for special borings and develop the location plans, and take the borings (under Subsurface Exploration Program) specifically intended to analyze and determine the suitability of existing subsurface materials for planting purposes as approved and directed by the Commissioner. The consultant shall, recommend appropriate mitigation measures for soil quality improvements, when required.

2. The scope of work for the landscape/urban design shall include performance of the following services:

When a Consultant and/or DDC identify landscape/urban design elements to have a potential for use of the sustainable design, the Consultant shall follow High Performance Infrastructure-Best Management Practices (BMP) based on the core principles of sustainable design during development of Preliminary Design and Final Design. The Consultant shall analyze the environmental, social and economic benefits of each alternative and include the results of their studies and their recommendations in a report. The Consultant shall incorporate the approved design into the Preliminary and Final Design Documents.

(a) The preparation of a Schematic Landscape/Urban Design coordinated with the Schematic Geometric Street Design elements developed for the project; the submission of said design to other Agencies designated by the Commissioner, and to the Art Commission for review and comment; and obtaining approval and or acceptance of the Schematic Landscape/Urban Design from the Commissioner.

(b) The preparation of final construction contract documents for Landscaping/Urban Design work which shall be advanced in two phases as follows:

(i) The preparation of a Preliminary Landscape/Urban Design in cooperation with the Department and the Art Commission; and obtaining approvals from the Department and from said Agency prior to incorporation of the Preliminary Landscape/Urban Design into the Preliminary Contract Documents under the Street Design Task.

(ii) The preparation of a Final Landscape/Urban Design in cooperation with the Department and other agencies designated by the Commissioner and the Art Commission; and obtaining approvals from the Department and from said Agency prior to incorporation of the Final Landscape/urban design into the Final Contract Documents under the Street Design Task.

3. SCHEMATIC LANDSCAPE/URBAN DESIGN

The Consultant's Landscape Architect/Urban Designer shall study all data obtained and designs developed under the other tasks included in the Specific Requirements for the Project, and develop a functional Schematic Landscape/Urban Design for the project. This shall include, but not be limited to, the following:

(a) The Consultant and Landscape Architect/Urban Designer shall review the topographic and utility surveys, the Preliminary Design/Investigation Report for the project, maintenance records, boring and test pit results, and all technical supplements prepared in connection with the program.

(b) The Landscape Architect/Urban Designer shall prepare a report compiling all relevant base data for the landscape of the project and other locations within the project limits including a complete photographic record of the project area in order to illustrate the general character of the environs, as well as to illustrate the typical conditions and specified problems/issues/impacts of the proposed project. All graphics shall be reduced and included in a 8.5″ x 11″ report. The photographic record shall be 3″ x 5″ format, and shall be suitably indexed, bound, annotated and submitted with the final contract documents.

(c) The Landscape Architect/Urban Designer, in coordination with the Consultant, shall develop conceptual designs for the landscaping/urban design

(d) The Schematic Landscape/Urban design for the above themes shall be bounded by the following elements:

(i) Proposed geometric curb alignment as developed under the Schematic Design Task.

(ii) Existing and proposed substructures and utilities within the area of the project site.

(e) The conceptual design shall respond to, but not be limited to, the following urban design criteria:

(i) Encourage appropriate use and discourage inappropriate use of public spaces.

(ii) Create an opportunity for public art.

(iii) Plans for future development of the abutting properties in accordance with existing zoning regulation.

(f) Pedestrian landscape treatment may include, but not be limited to, the following:

(i) Sidewalks and pavements consisting of special materials such as granite, hexagonal asphalt block pavers, bluestone and stone screenings.

(ii) Granite curbing.

(iii) Tree Planting.

(iv) Special tree pits.

(v) Special street lighting and low-level pedestrian lighting that will be subject to approval by the Department of Transportation. Street lighting must conform to the Department of Transportation standards. Proposed designs shall be coordinated with the Department of Transportation's Bureau of Traffic Operations, Division of Signals and Street Lighting.

(vi) New traffic signals/poles that will be subject to approval by the Department of Transportation. Traffic signals must conform to the Department of Transportation standards. Proposed designs shall be coordinated with the Department of Transportation's Bureau of Traffic Operations, Division of Signals and Street Lighting.

(vii) Relocation of utilities, as required.

(viii) Consideration of the use of the Department of Parks and Recreation's standard benches.

(g) The Landscape Architect/Urban Designer shall develop/recommend not more than two alternate landscape treatments for the project. These landscape treatments shall correspond to the schematic geometric treatments as developed in cooperation with the Consultant, and shall include, but not be limited to, such items as curb and sidewalk treatments; tree planting; pedestrian amenities; street and pedestrian lighting; street furniture; signage; and traffic signal systems.

(h) The Landscape Architect/Urban Designer shall identify and quantify all impacts for each alternative.

(i) The Landscape Architect/Urban Designer shall present each of the proposed Landscape treatment alternatives in schematic plan view(s) using a “modified” clean base format. The modified clean base plans shall be reformatted/matched to present linear continuity for individual thoroughfares/segments/routes. Suitable key location figures and/or key windows shall be employed, and cross-sections shall be required where appropriate. All elements of the schematic landscape/urban design presentation plans, including sheet size, scale, sheet coverage and indexing, shall be subject to the approval of the Commissioner.

(j) The Landscape Architect/Urban Designer shall submit, the proposed schematic landscape/urban design(s) to the Commissioner, for review. Upon approval, the Landscape Architect/Urban Designer shall present the recommended schematic design to other Agencies designated by the Commissioner, and the Art Commission for their review and comments; and to various other interested parties, as directed by the Commissioner, for their comment(s).

(k) The Landscape Architect/Urban Designer shall evaluate all comments received and shall analyze each concern. Upon consultation with the Department’s Infrastructure Design Division the Landscape Architect/Urban Designer shall prepare a letter report to the Department summarizing all comments and concerns, and making all necessary recommendations.

(l) The Landscape Architect/Urban Designer shall be required to either modify the original schematic design or prepare one additional alternative schematic design responding to identified concerns where, in the judgment of the Landscape Architect/Urban Designer and the Commissioner, the adjustments/modifications are in the best interests of the City of New York, are technically defensible and represent acceptable architectural practice.

(m) The Landscape Architect/Urban Designer shall submit the proposed Schematic Landscape/Urban Design to the Commissioner for review. Upon acceptance by the Commissioner, the Landscape Architect/Urban Designer shall present the recommended schematic design to other agencies designated by the Commissioner, and to the affected Community Planning Board(s), and the Art Commission at formal public meetings/hearings, and shall incorporate the schematic design into a Schematic Landscape/urban design Technical Supplement.

(n) Upon acceptance of the final Schematic Landscape/urban design by the Department and upon receipt of written notice to proceed by the Commissioner, the Landscape Architect/Urban Designer shall commence work in conjunction with the Final Design Services of the Project.

4. FINAL LANDSCAPE/URBAN DESIGN

(a) The Landscape Architect/Urban Designer shall provide the following services:

(i) Prepare preliminary and final contract drawings, addenda to Standard Department and Department of Parks Specifications, estimates of cost, and such pertinent architectural data as may be required. The drawings shall be in accordance with the standards of the Department, and shall show, to the satisfaction of the Commissioner, all necessary Landscape/Urban Design details.

Contract documents shall include but not be limited to the following list of separate contract drawings:

Topographic Survey
Removals Plan
Layout Plan
Site Plan
Grading and Utilities Plan
Planting Plan
Sections and Elevations
Details

(ii) During design, confer and meet with the Commissioner in order to coordinate requirements for the design of the proposed project. In addition, the Landscape Architect/Urban Designer shall confer with, and where and when necessary, meet with other City, State or Federal Agencies and private utilities having jurisdiction in order to integrate any of their contemplated work into this project.

Complete sets of prints of the plans, specifications and cost estimates shall be submitted for Preliminary, Final and Compliance Review.

(b) Contract drawings shall be developed for the following landscape items:

(i) Removals and Excavation
(ii) Pavements and Curbs
(iii) Fencing
(iv) Site Furniture
(v) Miscellaneous Construction
(vi) Planting
(vii) Drainage and Water Supply

(viii) Lighting
(ix) Monuments and Art Work

(c) In preparing the Contract Drawings and addenda to the Standard Specification of the Department, the Landscape Architect/Urban Designer shall take cognizance of the basic minimum requirements set forth herein, together with such other requirements as may be stipulated and proper for the complete fulfillment of this contract for the purposes for which the projects is to be used. The proposed construction is to be designed generally in accordance with these Specific Requirements of the contract, subject to such further requirements of the Department, the Art Commission, and any other agencies having jurisdiction as the design progresses.

(d) In preparing the Final Landscape/Urban Design, the Landscape Architect/Urban Designer shall utilize all information as contained in the plotted topographic and Utility Surveys for the Project. The Architect shall supplement this information with field trips and additional searches for information as may be required, including obtaining supplemental surveys.

5. INCREMENTAL REVIEWS The Landscape Architect/Urban Designer shall be accountable to initiate all actions for incremental review of proposed designs by the Department, other Agencies designated by the Commissioner and the Art Commission, including all follow-up meetings, as required, to expeditiously resolve all questions and concerns necessary to develop designs, to obtain the approval of said agencies, and to advance the project to completion.

6. CONSTRUCTION SUPPORT SERVICES During the construction stages of the project the Landscape Architect/Urban Designer will be required to inspect and approve shop drawings, material samples and the landscaping work being performed by the contractor to ensure that the landscaping materials and the finished work meets the quality and standards specified.

The Landscape Architect/Urban Designer will be required to visit the site at various stages of the landscaping work to inspect the landscaping being performed, and shall provide such instructions and guidance to the Contractor as is necessary and appropriate to ensure that the required quality of the landscaping work is achieved.

The Commissioner will transmit the necessary shop drawings to the Landscape Architect/Urban Designer for review and approval and will, in consultation with the Landscape Architect/Urban Designer, advise the Landscape Architect/Urban Designer of the need and schedule for inspecting various phases of the landscaping work as the work progresses.

## IV.XXXI DESIGN OF MODIFICATIONS TO SUBWAY VENTILATORS

1. Under this task the Consultant shall research and study the details of existing subway structures and facilities, develop preliminary and final designs, preliminary and final cost estimates, and specifications for modification of subway ventilators as needed to implement street reconstruction proposals.

2. PRELIMINARY DESIGN

(a) The Consultant shall utilize any topographic and utility data provided to the extent necessary for the proper completion of this task.

(b) The consultant shall supplement any survey and utility data provided by conducting additional research of Transit Authority, and public and private utilities' records; and by conducting additional field surveys to ensure that there is adequate and accurate data to identify possible design alternatives and to fully develop the design details.

(c) The Consultant shall develop and provide the Commissioner with an estimate of the number of days and locations at which it intends to have personnel conducting surveys within the subway structure. The Consultant shall coordinate, with the Department, the development of a Transit Authority Force Account to allow the City to reimburse the Transit Authority for the cost of its personnel assigned to facilitate the Consultant's field surveys of the subway structure and its facilities.

(d) The Consultant shall identify design alternatives for modifying the subway ventilator(s) to allow for implementation of the street reconstruction proposals. Proposed modifications may include, but not be limited to, relocation of ventilators, and modification of the subway structure and facilities.

(e) The Consultant shall develop design alternatives in full coordination with the Transit Authority. All modifications to the subway structure and Transit Authority facilities are to be designed in accordance with design criteria stipulated by the Transit Authority, or recommended by the Consultant and accepted by the Transit Authority. Design details shall conform to the Transit Authority's standards.

(f) The Consultant shall prepare preliminary drawings for the design alternatives identified. The preliminary drawings shall include plans, profiles and cross sections drawn to scale; shall indicate overall dimensions of existing structural elements that are to be modified and of the new construction proposed including hardware and equipment that must be removed and/or installed.

(g) The Consultant shall make a preliminary assessment of the impact that each design alternative will have on existing sewers, water mains, and all other City owned facilities, identify and recommend measures that can be implemented to mitigate those impacts, and prepare preliminary drawings for the mitigation measures recommended.

(h) The Consultant shall submit the preliminary drawings for the design alternatives, including details of proposed City owned utilities impact mitigation measures, to all private utility companies that own and operate facilities within the project limits. The Consultant shall ask each utility company to make a preliminary assessment of the impact of each design alternative on its facilities and to identify private utilities impact mitigation proposals for each alternative.

(i) The Consultant shall develop preliminary estimates of the cost of implementing each design alternative considered including the cost of measures proposed to mitigate City owned utility impacts.

(j) The consultant shall identify, on the Preliminary Drawings, the existing utilities that may be impacted and shall submit the preliminary drawings and preliminary cost estimates for the design alternatives to the Commissioner along with recommendations, including justification, for selection of a preferred alternative(s). The Consultant shall meet with the Commissioner and present the design alternatives, recommendations and justifications.

(k) The Consultant shall incorporate comments received from the Commissioner on the preliminary design alternatives and shall revise the preliminary drawings accordingly.

(l) Upon acceptance of a preferred design alternative(s) by the Commissioner the Consultant shall submit the preferred alternative to the Transit Authority for approval/acceptance and shall meet with the Transit Authority’s representatives, if required, to present the proposed design. The presentation shall include, if appropriate, discussion of other design alternatives considered and justification for selection of the preferred design.

(m) The Consultant shall advise the Commissioner of all design requirements imposed by the Transit Authority. Where approved by the Commissioner, the Consultant shall incorporate such requirements in the proposed design(s), resubmit the proposed design to the Transit Authority, and obtain the Transit Authority’s written approval/ acceptance of the proposed design.

(n) The Consultant shall not commence any work on the Final Design for modification of subway ventilator(s) without written authorization from the Commissioner to proceed with such work.

3. FINAL DESIGN

(a) Upon receipt of written instructions from the Commissioner to proceed with work on the final design, for modification of subway ventilators, the Consultant shall proceed to design, and develop details and construction contract drawings, specifications and final cost estimates for the approved/accepted design alternative(s).

(b) The contract drawings shall show all dimensions and indicate all materials, including requirements for hardware and equipment, that are needed to modify the existing ventilator(s), and include details for demolition of and/or sealing the existing ventilator(s) where necessary and for construction of the new ventilator(s).

(c) The Consultant shall develop final design details for the mitigation of City owned utility impacts and shall include the design details in the construction contract drawings that are being developed.

(d) The Consultant shall submit the construction contract drawings to the Transit Authority for review and comments and shall include the construction contract drawings in the programmed Mass Mailing No. 1 required under the Street Design Task included in these Specific Requirements.

(e) The Consultant’s submission of construction contract drawings to the Transit Authority shall include the consultant’s design computations where required by the Transit Authority.

(f) The Consultant shall meet with private utility representatives to coordinate the design and implementation of measures needed to mitigate private utility impacts.

(g) The Consultant shall revise the construction drawings to incorporate comments received from the Transit Authority and in responses to Mass Mailing No. 1 submissions, as approved by the Commissioner.

(h) The consultant shall prepare detailed specifications for all work needed to modify the subway ventilator(s).

(i) The Consultant shall prepare itemized cost estimates for constructing the proposed modifications to ventilator(s) and shall include the detailed cost estimate in the Consultants Estimate for this project.

(j) The Consultant shall submit the revised construction contract drawings and specifications for the proposed work to the Transit Authority for review and approval. The Consultant shall include

the construction contract drawings, for modification of ventilators, in the programmed Mass Mailing No. 2 required under the Street Design Task that is included in these Specific Requirements.

(k) Upon receipt of written approval of the contract drawings and specifications, for proposed subway ventilator modifications, from the Transit Authority, the Consultant shall incorporate the subway ventilator modification drawings, specifications, and cost estimates in the construction contract documents for this project.

## IV.XXXII ENVIRONMENTAL ASSESSMENT STATEMENT (EAS)

Under this task, the consultant shall collect all pertinent data and prepare an Environmental Assessment Statement (EAS) for the proposed project work as described in this section. The Consultant shall assess the potential impacts of the proposed project construction to satisfy the environmental review requirements of The City Environmental Quality Review process (CEQR) and the New York State Environmental Quality Review Act (SEQRA) in order to implement this project. The scope of the EAS shall meet the requirements for all tasks (i.e. ULURP, Acquisition, Adding or Removing Traffic Lanes, Etc.) that require Environmental Assessments in the specific requirements for the project.

The Consultant shall conduct a detailed study of the impact of the proposed street improvement project as specified here below in accordance with the City Environmental Quality Review (CEQR) process as set forth in Executive Order 91 of 1977 and its amendments. The Consultant shall use the methodologies and environmental impact thresholds detailed in the CEQR Technical Manual and its appendices dated 2001. Upon completion of the Environmental review the Consultant shall duly fill out the attached CEQR Environmental Assessment Statement.

If any of the proposed action triggers review by New York State Department of Environmental Conservation, the Consultant shall conduct additional assessment in accordance with State Environmental Quality Review Act (SEQRA) as set forth in 6NYCRR Part 617. For the SEQRA process the following current blank forms from New York State Department of Environmental Conservation should be used which are downloadable from New York State website:

i. Joint Application for Permit
ii. Full Environmental Assessment Form
iii. Negative Declaration Form
iv. Positive Declaration Form
v. Structural Archeological Assessment Form

The EAS shall include, but not be limited to the following. For definitions, assessment methods, determining impact significance etc, the consultant shall refer to appropriate chapters indicated below in the CEQR technical manual:

1. **Land use, zoning, and public policy (Refer to Chapter 3A of CEQR technical Manual)**

   The Consultant shall examine the potential impact of the proposed plan in terms of land use and zoning the project area.

2. **Socioeconomic conditions (Refer to Chapter 3B of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon fiscal and economic issues, water and sewer rates, employment, wages and salaries, economic activity, tax revenues, and NYC capital and operational budget expenditures.

3. **Community facilities and services (Refer to Chapter 3C of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon community facilities and services in the project area.

4. **Open Space (Refer to Chapter 3D of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon open space and recreational resources in the project area.

5. **Historic resources (Refer to Chapter 3F of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon cultural resources in the project area, including archaeological and historic resources.

6. **Urban design / visual resources (Refer to Chapter 3G of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon urban design and visual resources in the project area.

7. **Neighborhood character (Refer to Chapter 3H of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan upon neighborhood character in the project area.

8. **Natural resources (Refer to Chapter 3I of CEQR technical Manual)**

   The Consultant shall examine the potential impacts of the proposed plan on natural resources including wetlands and upland areas. This effort shall include detailed tree inventory report for the project area and an assessment of tree loss as an environmental impact.

   The Consultant shall examine the potential impacts of the proposed plan on existing natural habitats and wildlife within all the wooded areas surrounding the project site.

The Consultant shall identify any permits or other regulatory approvals, which may be required to facilitate the proposed plan, contact the respective agencies, and secure information on the applications and supporting materials. These permits may include the following:

- Wetland Permits (NYSDEC), and Army Corps of Engineers.
- Authorizations and other approvals under the City Planning Commission.

**9. Hazardous materials (Refer to Chapter 3J of CEQR technical Manual)**

The Consultant shall incorporate the results of the "Preliminary Investigation and Assessment of Site Contamination" with regard to Hazardous Waste within the Project Streets. For those locations, the Consultant shall conduct a Phase I analysis. The Phase I analysis will be based on historical and current land use patterns along with site surveys. Once locations are identified where hazardous materials may be an issue, the Consultant shall propose a site-sampling program in order to characterize the potential for significant impact. The Consultant shall propose a sampling program for the hazardous materials sampling along with the development of a conceptual mediation approach.

**10. Waterfront revitalization program (Refer to Chapter 3K of CEQR technical Manual)**

The Consultant shall verify if the project limits are situated within the designated boundaries of New York City's Coastal Zone. If this is the case, the consultant shall examine the potential impacts of the proposed action for their consistency with the City's Local Waterfront Revitalization Program (LWRP). The WRP consistency assessment form, which is included in the CEQR manual, shall be utilized for this purpose. For a detailed explanation of the Waterfront Revitalization Program and its policies, the consultant shall obtain the City Planning's publication of the *New York City Waterfront Revitalization Program.*

**11. Infrastructure (Refer to Chapter 3L of CEQR technical Manual)**

a) The Consultant shall assess the potential environmental impact of the proposed infrastructure improvement including the installation of new sanitary and storm sewers and the reconstruction of the Project Streets, on the existing infrastructure facilities such as the water supply system, sewage treatment and storm water systems.

b) The Consultant shall examine the potential impacts of the proposed plan upon public and private utilities in the Project Streets.

c) The Consultant shall assess the potential environmental impacts of any growth-inducing aspects of the proposed plan including, but not limited to, the construction of new storm water and sanitary sewer system, street reconstruction and the impact of change in grade if any. The Engineer shall estimate the additional demand flow created by the proposal based on current formulas provided by the Department.

d) The Consultant shall examine the potential impacts on City Water Pollution Control Plants (WPCPs) from additional sanitary flow collected by the sanitary system proposed as part of the project. In accordance with State Pollution Discharge elimination Permits and applicable water quality standards, the potential effects of the greater sanitary flow on water quality of receiving bodies should be analyzed.

**12. Solid Waste and sanitation services (Refer to Chapter 3M of CEQR technical Manual)**

The Consultant shall examine the potential impacts of the proposed plan upon solid waste generation and sanitation services.

**13. Traffic and Parking (Refer to Chapter 3O of CEQR technical Manual)**

Traffic Study:

i. The consultant shall examine the potential impacts of the current vehicular and pedestrian traffic and the projected increase in traffic for the next 20 years. The results of the traffic study done for this project under the PDI program should be utilized for these purposes. The Consultant shall develop a computer traffic model for the proposed roadway along the project streets using the current industry software as approved by the Department.

ii. The Consultant shall conduct turning lane analysis for the projected traffic because of widening of the project streets if any.

iii. The Consultant shall study accident data and make a comparative analysis of the existing conditions with regard to vertical and horizontal sight distance and the proposed vertical and horizontal sight distance at the critical intersections and along the project streets in accordance with the current AASHTO standards.

iv. In conducting the detailed traffic study of the project area as detailed in General Requirements, the Consultant shall investigate the current traffic data, the projected traffic increase (20 year design), the type of traffic and substantiate the proposed lane widths, proposed schematic design and the proposed geometric layout of project streets in accordance with AASHTO standards. The Consultant shall pay particular attention to the list of projects proposed by the Department of Transportation in their 10 year Capital Commitment Plan, that are within the vicinity of the project.

v. Parking conditions: The consultant shall examine the potential impact of the proposed action on parking resources in the area.

**14. Transit and pedestrians (Refer to Chapter 3P of CEQR technical Manual)**

The consultant shall examine the potential impacts of the proposed action on public transportation facilities and services and on pedestrian flows.

**15. Air Quality (Refer to Chapter 3Q of CEQR technical Manual)**

The Consultant shall assess the potential transportation and air quality impacts of the de-mapping of mapped but un-built streets and creation of a new street layout. The Consultant shall assess the potential air quality impact of the projected increase in traffic counts for the Project Streets and in its vicinity, giving due consideration to the future growth in the project area. In assessing the air quality impact, the Consultant shall take into consideration the affect of the proposed roadway reconstruction, sewer and water main installation. This should include an analysis on the duration of road closure that would take place during the sewer, water main and street construction work.

**16. Noise (Refer to Chapter 3R of CEQR technical Manual)**

The Consultant shall assess the potential noise level generated because of the increase in traffic counts for the Project Streets and its vicinity.

**17. Construction impacts (Refer to Chapter 3S of CEQR technical Manual)**

The Consultant shall assess the potential for construction related impacts, including potential impacts to water quality. A description of the construction process for all aspects of the proposed plan should be provided in the EAS along with general mitigation.

## 18. Public Health (Refer to Chapter 3T of CEQR technical Manual)

The consultant shall assess the potential impacts of the proposed action on public health of the community or certain group of individuals in the project site.

## General:

Upon completion of the Environmental Assessment Study, the Consultant shall publish a detailed report and the results of this Study, in a format, which is acceptable to the Department.

## IV.XXXIII UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

Under this task the Consultant shall provide the following services that are necessary for a complete ULURP action process:

A. ULURP Application

In preparing the ULURP application package, the Consultant shall obtain and become familiar with the following booklets/documents available through the NYC Department of City Planning:

1. *Department of City Planning Land Use Review Application Package*
2. *Uniform Land Use Review Procedure (ULURP)*
3. *Information for Applicants for Alterations in the City Map*

1. The Consultant shall arrange a pre-application meeting with New York City Department of City Planning, Technical Review Unit (NYCDCP-TRU) prior to the preparation of the ULURP applications. NYCDCP-TRU will provide guidelines and requirements for preparation of the application, related drawings, and attachments.

2. The Consultant shall provide a survey in accordance with New York City Department of City Planning (NYCDCP) standards. In preparing the Maps for the ULURP Application, the Consultant shall utilize, where applicable, all information as contained in the plotted Topographic and Utility Surveys. The Consultant shall supplement this information with field trips, additional surveys and searches for information as may be required.

3. The Consultant shall prepare maps (Land Use Map/Application Drawings and Preliminary Alteration Maps) suitable for submission to the NYCDCP for Pre-application review. The drawings will be prepared in accordance with the standards/instructions of the Department of City Planning, and the Topographical Bureau of the Office of the Borough President of Queens/Manhattan/Brooklyn/Staten Island/Bronx (as applicable).

4. The Consultant shall modify the drawings as required until approval (sign-off) is obtained from NYCDCP.

5. Upon review and approval (sign-off) by NYCDCP of the draft ULURP Application, the Consultant shall assemble and transmit to NYCDDC for review a single ULURP Application package, including application form for signature, and all required

attachments. Upon receipt of the signed application from NYCDDC, the Consultant shall be required to duplicate the signed application form to be collated with the required attachments, and submit to NYCDCP.

6. The Consultant shall file the required number of copies of the application and attachments with the Central Intake Unit of NYCDCP (NYCDCP will determine the number of application packages to be filed).

7. Documents to be delivered:

   a) Upon being stamped "received" and assigned a ULURP number by NYCDCP, the Consultant shall immediately transmit to NYCDDC one (1) complete copy of the ULURP application package.

   b) On issuance by NYCDCP of the Precertification Report, the Consultant shall immediately transmit two (2) copies of that Report, with findings, to NYCDDC.

B. City Environmental Quality Review (CEQR)

The Consultant shall identify any requirement to perform an Environmental Assessment in accordance with applicable New York City and/or New York State Environmental laws and regulations (CEQR, SEQRA) that may result from the ULURP procedures required under this task.

C. Incremental Review

The Consultant shall initiate all actions for incremental review, of proposed Mapping, by the Office of Borough President of Queens/Manhattan/Brooklyn/Staten Island/Bronx (as applicable), and other involved City/Public Agencies including all follow-up meetings, as required, to expeditiously resolve all questions and concerns necessary to obtain all required approvals. The Consultant is required to:

- Participate in all conferences, meetings, and public hearings on the mapping, to present the necessary engineering background/expertise.
- The Consultant shall notify NYCDDC of the date, time, and location of the interagency conferences/meetings/hearings. NYCDDC will attend the conferences, etc. to monitor task for tracking purposes.
- Notify, by certified mail, return receipt requested, all property owners and mortgagors of each property abutting or underlying the map change; respond to any inquiries from said property owners or mortgagors; and account for

all return receipts, returned notification letters, and written responses.

- Prepare reports, documentations, drawings or backup material necessary to advance the proceedings.

D. Final Deliverables

Upon completion of ULURP (Adoption of Maps), the Consultant shall hand-deliver to the NYCDDC the following:

1. One (1) complete set of every Map, in ink, on reproducible drafting film or other reproducible material as specified by the Topographical Bureau of the Office of the Borough President of Queens/Manhattan/Brooklyn/Staten Island/Bronx (as applicable) and a corresponding 35 sets of prints of every map for distribution to other agencies.

2. All notes, studies, designs, analysis, drawings, calculations, data, etc. used in the preparation of Maps, including a listing, in table form, showing Block and Lot numbers for each property abutting or underlying the map change; address of each property; name and address of each property owner, and name and address of the mortgagor (as applicable) for each lot, as obtained from a review of Department of Finance records.

3. Copies of all correspondence to and from all agencies (City, State, Federal), Utilities, Community Planning Boards, and all others having jurisdiction or interest in the project area.

4. Originals, and a single set of copies of all return receipts, returned letters, and written responses to/from all property owners and mortgagors of each property abutting or underlying the map change.

5. Original survey notes and plotted survey tracings. All original topographical survey information shall be dated, signed and certified by a licensed Surveyor. The license seal of the surveyor and/or Registered Professional Engineer shall be shown on all plans, tracings, and tabulation sheets.

6. The materials required under paragraphs D2 thru D5 above shall be presented in book form, and arranged in a series of sections indexed to identify the required materials. All materials shall be packaged and delivered to NYCDDC in temporary file type cartons.

## IV.XXXIV CLEANING, TELEVISION INSPECTION AND VIDEO TAPE RECORDING OF SEWERS

1. Under this task the consultant is required to perform the following activities:

(a) Conduct a closed circuit television inspection and video tape recording of sewers which vary from eight (8) inches to forty-eight inches in their least inside dimension, and that are within or contiguous to the project limits. The sewers may vary in material of construction (e.g. clay cement, brick or concrete).

(b) Where deposits within the sewers prevent proper inspection and video taping of the sewers, manholes and appurtenances, the Consultant shall provide all labor, equipment and material required for the removal and disposal, in an approved manner, of all such deposits. Such deposits shall include debris, sediment, silt, refuse, timber, roots, and materials of all kinds which can be removed by conventional non-excavation type pipe cleaning equipment operating within the existing sewers and appurtenances. The cleaning operation shall include all shoveling, handling, picking, raking, loading, and placing in trucks, transporting to approved dumping places and there unloading, discharging and disposing of same according to the requirements of all agencies having jurisdiction.

Video tape recordings that do not clearly indicate the condition of sewers and appurtenances due to inadequate cleaning of the sewers and appurtenances, or due to improper lighting and focus of cameras, or due to the inadequacy, improper performance or operation of the equipment will not be accepted by the Commissioner.

2. The consultant shall engage the services of a subcontractor to perform the cleaning and inspection of sewers required under this task. The subcontractor shall employ an experienced supervisor who has a minimum of three (3) years experience in the field of pipeline inspection to supervise the entire inspection operation required under this task.

3. The Consultant shall execute all the requirements of this task in a manner approved by the Commissioner. All labor, experienced supervision, technicians, mobile television studios, electronic equipment, television and Polaroid cameras, materials and equipment required and needed to perform the work of this section shall be subject to the approval of the Commissioner.

4. The Consultant shall give the Commissioner five (5) days notice of his intention to commence the work required under this section.

5. It shall be the Consultant's responsibility to obtain any and all permits needed to do the work required under this task which shall include, but not be limited to, any permits required by the Department of Transportation (Bureau of Traffic Operations), Police Department, Fire Department and the Transit Authority.

6. The Consultant shall notify the Transit Authority, Department of Transportation (Bureau of Traffic Operations), Police Department and Fire Department twenty–four (24) hours prior to the start of the work, in a manner satisfactory to the Engineer, so that proper arrangements can be implemented for maintaining traffic during the course of the work.

7. TELEVISION INSPECTION AND VIDEOTAPE RECORDING

(a) Operation and movement of the video camera shall be remotely controlled from above the ground and from a mobile television studio, by a skilled technician.

(b) The technician shall have the capability to adjust the brilliance of the built-in lighting system and be able to change the focus of the television camera by remote control. The television camera shall be positioned as near as possible to the spring line of the sewer.

(c) The television camera shall be a radial eye camera. The lens of the camera shall be able to rotate three hundred sixty (360) degrees, and pan and tilt in any direction, left, right, up and down. Open joints, cracks, infiltration and spurs shall be viewed directly.

(d) The television camera shall be attached to a rod, cable, or other device that shall be metered to indicate the exact location of the camera, within the sewer, at all times. Where accessibility to a sewer is limited, and where permitted by the Consultant, a self-propelled camera may be used.

(e) An intercom system shall be used to coordinate the movement of the television camera at all times.

(f) Prior to television inspection, water shall be introduced to the upstream manhole to aid in identifying sags in the sewer.

(g) The view seen by the television camera shall be transmitted to a monitor of not less than fourteen (14) inches in width. The monitor shall be located inside the mobile television studio.

(h) The mobile television studio shall be large enough to accommodate up to four (4) persons comfortably seated for the purpose of viewing the monitor while the inspection is in progress.

The Consultant's representative shall have access to view the television screen at all times.

(i) The equipment in the mobile television studio shall provide for simultaneous recording of each camera view on two separate videotapes.

(j) Two simultaneous video tape recordings of each view shall be made on standard format VHS tape cassettes and shall be recorded at the maximum speed at which the recorder can operate. The video recorder(s) shall permit the recording of both sound and video information. The recording unit(s) shall have the capability of recording both in color or black and white. The black and white mode shall be used for recording unless the Consultant can demonstrate that an equal or superior color recording can be made.

(k) Each videocassette shall have a label affixed with the following information:

Project ID.:
Consultant's Job No.:
Project Location:
Date Inspection Commenced:
Date Inspection Completed:
Name of Consultant:

(l) The Consultant shall require the subcontractor to provide all electricity needed for all operations, at its own cost and expense.

(m) The Consultant shall prepare a drawing, herein referred to as the "route sheet", that shows all sewer manholes and sewers within and contiguous to the project site in plan view. The manholes shall be numbered consecutively on the route sheet.

(n) As the television inspection proceeds, the supervisor shall observe and record the location and description of all defects that are found in the sewers and appurtenances. The locations of defects shall be correlated with the route sheet and shall include the distances from the centerline of an adjacent manhole to both the starting point and end of each defect. The record of defects (Sewer Defects Log) shall be prepared in standard Departmental format.

(o) The Consultant shall study the Sewer Defects Log and the video taped records and shall indicate, on the Sewer Defects Log, its recommended treatment for each defect. Such recommendation may include, but not be limited to, sewer replacement or rehabilitation by Department of Environmental Protection approved methods.

8. SEWER CLEANING

(a) All equipment and procedures for cleaning and removing deposits from the sewers shall be in accordance with current industry standards and shall be subject to approval by the Commissioner.

(b) Cleaning Manholes: The consultant shall provide all labor, equipment and materials required to clean the manholes which are clogged with materials and which require excavation type equipment to be used. The manholes that are to be cleaned shall be identified and approved by the Consultant prior to cleaning.

(c) Under no condition shall deposits that are removed from the sewer and appurtenances be placed on the adjacent ground surface pending disposal, but shall be placed in trucks or suitable container pending removal from the site. All deposits removed from the sewer during a workday shall be removed from the site by the end of that day. All trucks and containers shall be watertight if used to transport removed deposits over City streets.

(d) When a sewer condition or an obstruction, which cannot be relieved by the normal operation of the equipment, is encountered, the Consultant shall report such conditions to the Commissioner by telephone as soon as possible. In addition, the Consultant shall report such conditions as may occur on the reports required herein, including all pertinent information relating to the condition encountered.

(e) All material removed from the sewers under this task shall be disposed of in sanitary landfill operated by the Department of Sanitation, located in the borough of Staten Island, City of New York.

(f) The subcontractor shall submit to the Consultant the individual dump tickets or receipts issued by the operator of the approved dumpsite within forty-eight (48) hours of the removal of each load from the site. Failure to submit dump tickets or receipts within the specified time will affect the Consultants payment for this work.

9. REPORTS.

(a) Daily Reports. The subcontractor shall prepare and submit daily, to the Consultant, a written report of the work performed the previous day. The daily reports shall be prepared by the subcontractor’s experienced supervisor and shall bear his signature. Each report shall contain the following information:

(i) The type of material and major equipment being used by the subcontractor and the total number or employees of each category that work on the particular day;
(ii) Location and linear feet of sewers cleaned;
(iii) Location and linear feet of sewers televised;
(iv) Number of trips/loads/cubic yards to disposal site along with the dump tickets/receipts.
(v) Copy of the Sewer Defects Log

The experienced supervisor shall sign the daily report.

(b) Final Report

(i) Within ten (10) days of completion of the television inspection, the Consultant shall prepare and furnish the Commissioner with one original and one copy of a complete bound report of the television inspection and its results.

(ii) The report and copy thereof shall each include but not be limited to a log of the sections of sewers televised, the route sheet indicating schematically the locations and sections of sewers inspected and the sequence of the video tape recording with specific details as to service connections, water infiltration from the joints, the Sewer Defects Log indicating cracks and other defects observed in the sewers, other matters of interest noted during the inspection, and the video tape recordings.

(iii) The video tape recordings taken during the inspection shall be referenced as to their exact location on the route sheet and shall be submitted to the Commissioner with the report.

(iv) The Consultant shall sign the report certifying the recommendations made, the location and quantities of sewers cleaned, and the quantity of debris removed from sewers and appurtenances that were delivered to dump sites.

## IV.XXXV DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDIES

Under these tasks the Consultant shall identify and study the impact that proposed sewers will have on existing and proposed street grades, and on adjacent properties if the proposed sewers are built in accordance with the Drainage Plan provided; and shall identify modifications to the drainage plan that may be implemented and/or may be studied in an effort to mitigate the street and property impacts identified.

1. In studying the impact of proposed sewers on street grades and adjacent properties the Consultant shall perform a Preliminary Sewer and Street Grades Study for the project. Under this study the Consultant shall examine and compare existing street elevations with the proposed sewer elevations provided on the Drainage Plan to determine the adequacy of cover above the proposed sewers, and shall identify and present to the Commissioner the locations at which the street grades would have to be adjusted to accommodate proposed sewers as shown on the Drainage Plan.

The Consultant shall follow the following criteria for depth of sewer covers:

a) The cover for sewers is defined as the distance between the ground surface and the outer top of the pipe.

   For storm sewers, the minimum cover shall be 4’-0”.

b) For sanitary and combined sewers, the minimum cover shall be 10’-0”.

c) Where the cover for the sewers has to be reduced or is not adequate, an absolute minimum of 2.0 feet and 8.5 feet has been defined for storm sewers and sanitary/combined sewers respectively. When there is less than 4 feet cover or the maximum limit of cover as shown on DEP Sewer Design Standards is exceeded, the sewer pipe must be encased in 6” concrete.

   For example:
   i) if the cover is more than 20 feet for 10” ESVP pipe, and
   ii) if the cover is more than 18’, 16’ and 15’ for 12”, 15” and 18” sewers respectively, the sewers shall be encased in concrete

2. The consultant shall perform a Study to clarify sewer and street grade impacts at locations identified in Subsection 1 above. The consultant shall:

a) Plot and superimpose working profiles of proposed sewers on profiles of the respective street segments including, as necessary, first floor, entrance, and cellar door, driveway, etc. elevations of adjacent buildings.

b) Develop and superimpose preliminary design street grade profiles that provide adequate cover for the proposed sewers.

c) Compare and assess the impact of proposed preliminary design grades on private property, and existing City owned facilities including, but not limited to, buildings, fences, encroachments, driveways, etc.

d) Utilize available topographic data to the extent needed to assess and study any impacts that may result from adjustments proposed to the street grades, and conduct additional topographic surveys as needed to complete this study.

e) The Consultant shall identify feasible mitigation measures that meet the New York City Department of Environmental Protection's design criteria and can be implemented to minimize negative impacts on street grades and adjacent properties. Such mitigation measures may include, but not be limited to:

(i) Adjustment of proposed sewer elevations and longitudinal slopes
(ii) Adjustment to cross sections (size/shape) for proposed sewers to minimize sewer impacts on street grades

f) The Consultant shall identify alternative measures, to mitigate the impact of new sewers on existing properties, which would require further detailed study. Such measures may include, but not be limited to:

(i) Rerouting the direction of sewer flows indicated on the drainage Plan
(ii) Revising the location of sewer outfalls and/or adding additional outfalls
(iii) Revising the location of discharge points for proposed sewers to existing sewers

3. The consultant shall prepare and submit a DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDY REPORT to the Commissioner. The report shall:

(a) Identify the impacts, if any, of proposed sewers on street grades and adjacent properties and City owned facilities.

(b) Recommend feasible modifications to proposed sewer elevations, grades and sewer cross sections (size/shape) that may be implemented to mitigate street grade and property impacts.

(c) If necessary, identify alternative mitigation measures that may be studied to determine their feasibility.

(d) Include cross sections, photographs, and other graphic details as needed to show impacts/issues/concerns that have been identified.

(e) Identify private properties that will be adversely impacted by the proposed sewers and the nature of such impacts.

4. The Commissioner will review and, in consultation with the New York City Department of Environmental Protection, if necessary, comment on the DRAFT DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDY REPORT, and may require the consultant to make such revisions, provide additional information, and make further studies, and to revise the report accordingly.

5. The consultant shall conduct further studies and make revisions to the DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDY REPORT as directed by the Commissioner and shall submit the FINAL DRAINAGE PLAN GRADE IMPACTS AND GRADE IMPACTS MITIGATION STUDY REPORT to the Commissioner for acceptance.

## IV.XXXVI FINAL DESIGN OF STEP STREET

Under this task the Consultant shall develop Final Design(s) for step street.

The design of the step street structure must be done in three phases as follow:

### a) Conceptual Design

1) The Consultant shall inspect the site and become familiar with the general and specific nature of the Project and the surrounding area. The consultant shall prepare a photographic record, including all adjacent roadways and properties, review the topographic survey, study the elevations and grades, prepare a site plan, and document the existing conditions.

2) The Consultant shall prepare two or more alternative Schematic Designs (as directed by the Commissioner) for the step street and present along with impact assessment and an approximate cost estimate of each alternative to the Commissioner for review and approval. The conceptual design shall include site plan, typical cross section, geometric design including stair layouts, landscape design, street lighting, special treatment details along with material descriptions. A 3D rendering for each proposed alternative must also be submitted for review and approval.

3) The consultant shall present the “DDC approved” conceptual design(s) to the Art Commission, DOT Geometrics/Bridges, Parks Department, Community Board, and other City, State, and Federal agencies as needed and as directed by the Commissioner, for their review and approval.

4) Upon approval of the selected conceptual design by the Art Commission, DOT Geometrics/Bridges, Parks Department, Community Board, and other City, State, and Federal agencies as required, and as directed by the Commissioner, the consultant shall proceed with the Preliminary Design phase.

### b) Preliminary Design

In conjunction with the preliminary design of the step street, the Consultant shall:

1) Gather and study all available information and records from all City agencies or private utilities who have interest in the existing or the proposed step street structure.

2) Collect and study all available record drawings pertaining to the existing step street structure or to the area where the new step street structure is to be installed at, and update site information, as necessary.

3) Study all available subsurface data, and develop and prepare a subsurface exploration program and take borings (under Subsurface Exploration Program) if required, indicating the locations and the specific requirements for borings, test pits and test strips, as needed.

4) Study the results of the subsurface investigation (i.e. borings, test pits, etc.) and utilize the data in designing a suitable foundation for the step street structure.

5) Design and prepare preliminary construction contract drawings for step street. The drawings shall be sufficiently detailed to clearly show the location, limits, and structural composition of the step street that is to be constructed. The drawings shall also indicate the extent of structural replacement/repairs as well as any aesthetic treatments and repairs for the step street that is to be reconstructed.

6) Include the preliminary construction contract drawings in the programmed Mass Mailing No.1 that is required under the Street Design Task and present the preliminary design drawings to DOT Geometrics/Bridges, Parks Department, Community Board, private utility companies, and other City, State and Federal agencies as needed and as directed by the Commissioner, for their review and comments.

7) Modify the preliminary construction contract drawings to incorporate comments received in response to Mass Mailing No. 1, as directed and approved by the Commissioner.

8) Prepare updated preliminary cost estimate for the proposed step street.

**c) <u>Final Design</u>**

1) The Consultant shall develop detailed construction contract documents for construction/reconstruction of the step street, including but not limited to detailed drawings (plan, elevation and section views, as well as any proposed landscaping work), specifications and estimate.

2) The Consultant shall coordinate the Final Design details of the step street with the design details being developed for reconstruction of the adjacent connecting streets.

3) The Consultant shall submit the pre-final Design contract documents to the Commissioner for review and approval, and shall incorporate the pre-final design documents in the programmed Mass Mailing No. 2 that is required under Street Design task and submit the documents to the Art Commission, DOT Geometrics/Bridges, Parks Department, Community Board, Private utility companies, and other City, State and Federal agencies and obtain required approvals and permits, as required. Such submissions shall include but shall not be limited to drawings, specifications, estimates, design criteria and computations, as needed.

4) The Consultant shall modify the Pre-final construction contract documents to incorporate comments received in response to Mass Mailing No. 2 as approved by the Commissioner, and finalize the contract documents.

5) Upon finalizing the construction drawings, The Consultant shall prepare detailed cost estimate and specifications for the approved proposed work.

6) The consultant shall prepare and present the finalized drawings for the step street to the Art commission for approval.

7) Consultant shall determine and advise the Commissioner of the need for temporary easements on private property to facilitate construction of the step street and shall, as directed by the Commissioner, prepare appropriate documentation and serve notices on property owners, and meet with property owners and other parties as needed to obtain such easements.

## *V.* CERTIFICATION OF COMPLETENESS

The Consultant's final submission shall include certification that the completed work meets the requirements of the design contract and all applicable regulatory agencies. The certification shall be in the form of a letter attached to the submission.

(NO TEXT ON THIS PAGE)